POSITIONING THE SOUTH AFRICAN RESERVE BANK'S PAYMENTS ECOSYSTEM MODERNISATION PROGRAMME: A STRATEGIC SHIFT TO A HIGHER EQUILIBRIUM

South African Reserve Bank

Acknowledgements

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Foreword by Governor

In our SARB 2030 Strategy, we outlined three priorities that will guide us into the future, one of which is modernising South Africa's national payment system. The Payments Ecosystem Modernisation (PEM) Programme is the tangible expression of this priority – a bold step towards transforming how money moves within our economy.

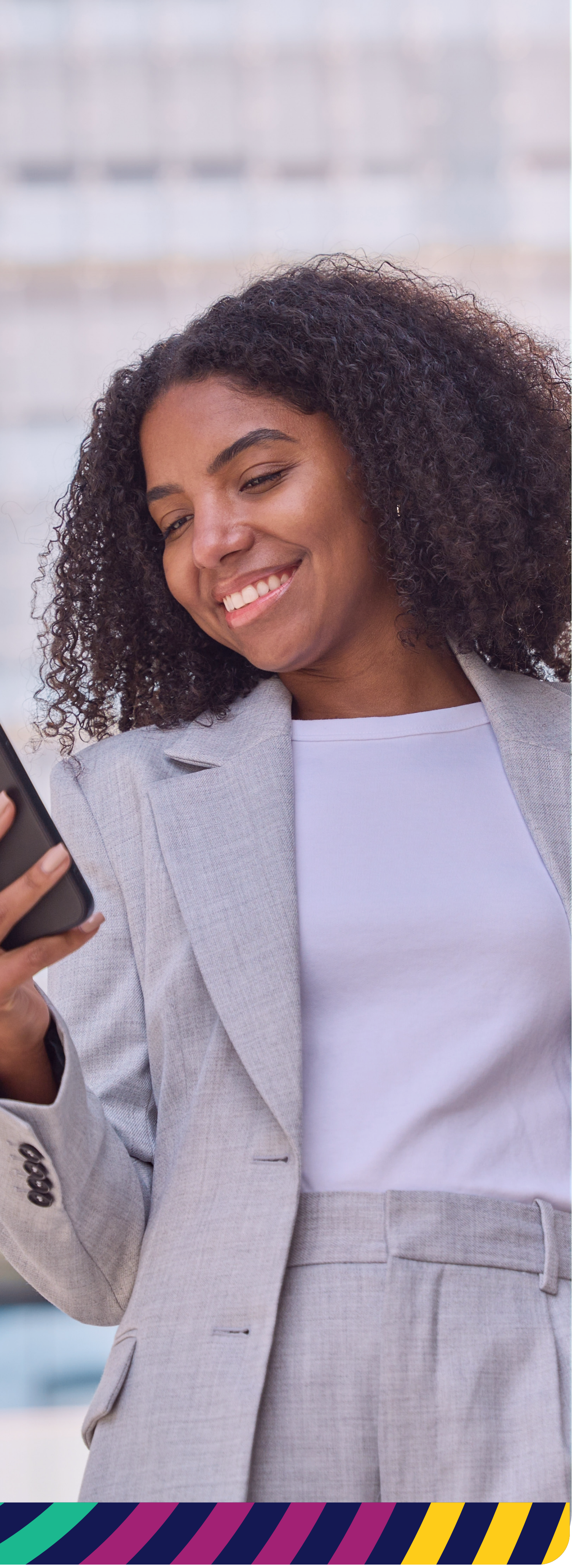
This modernisation is not just about updating systems or technology. For me, it is about building a payments infrastructure that truly serves the people of South Africa. It is about ensuring that every person – no matter their financial situation, location or familiarity with digital tools – has access to payment options that are affordable, fast, safe and dependable. It is about fostering innovation and creating a financial system that is fair for everyone, not just a select few.

I am inspired by what is happening globally as central banks take centre-stage in shaping the future of payments. It is evident that digital transformation should not be a privilege reserved for a few – it must be inclusive and accessible to all. South Africa must rise to this challenge, and I firmly believe it can be done.

Through the PEM Programme, we are working towards a payment system that achieves a new balance – one where competition thrives, a national payments utility is developed, and cash is no longer the only option for many. It is an ambitious vision, I admit, but one that is necessary for the kind of progress we want to achieve.

This is not a journey the SARB can undertake alone, and I feel strongly about the need for collaboration. It will require genuine collaboration across government, private sector players, banks, non-banks, established companies and emerging innovators. My hope and expectations are that each stakeholder in the payments ecosystem will embrace this mission wholeheartedly and work together to create a system that is not only efficient but also equitable and impactful.

This is our opportunity to shape the future of payments in South Africa – not just as an institution, but as a community of people who care deeply about making a difference. Let us approach it with determination, unity and a sense of urgency. Together, we can build something truly transformative.



Executive summary

Historically, South Africa has been a payments pioneer, but progress has slowed lately, compared to other emerging markets. While innovations such as early debit orders (EDO) and real-time clearing (RTC) were considered cutting edge in the field of digital payments, recent initiatives such as PayShap have achieved only limited industry adoption. In contrast, peer countries such as Brazil have gained widespread adoption of digital low-cost, fast payment systems.

The Payments Ecosystem Modernisation (PEM) Programme is a significant shift in the South African Reserve Bank's (SARB) approach to developing and implementing payment systems. The policy objectives outlined in its National Payment System Framework and Strategy: Vision 2025 (Vision 2025) remain pertinent. The PEM Programme will prioritise the delivery of these objectives, with a key focus on enhancing financial inclusion through digital payments. The SARB will take an active role in driving digital payments by setting the direction for domestic payment schemes and national product development. A national payment utility (NPU) will play a central role in this effort.

Growth in digital payments plays a crucial role in economic efficiency and financial inclusion. Digital payments improve transparency, reduce the risk of illicit transactions, support innovation, and tend to be more cost effective than the existing payment methods. Widespread adoption has the potential to increase gross domestic product (GDP) by 0.5% which could particularly benefit less well-off South Africans.

Three main reasons necessitate a comprehensive modernisation of the payment's ecosystem.

- **First, the South African national payment system (NPS) must reach a higher equilibrium like its emerging market peers.** PEM aims to enhance the NPS by promoting competition, innovation and efficiency across the payments value chain. A higher equilibrium implies greater adoption of simple, affordable, secure, faster payments with reduced coordination frictions. Achieving this will require regulatory reforms, such as an activity-based model allowing non-banks to compete in e-money issuance and payment acceptance.

- **Second, to transform the underlying infrastructure that supports the ecosystem.** PEM will modernise the middle-mile infrastructure crucial for facilitating comprehensive ecosystem transformation. Once established, the NPU will be led by the SARB and will operate as a public good, prioritising inclusion and innovation over profit.
- **Third, to reduce cash dependency among underserved segments.** Despite South Africa having a highly banked economy, certain consumer segments remain overly dependent on cash. PEM seeks to offer a viable digital alternative to cash that is cost effective, easy to use and widely accessible.

To demonstrate its commitment to payments modernisation, the SARB has elevated payments as a strategic priority. As part of its 2030 strategy, it has identified payments, along with price and financial stability, as one of its three primary focus areas. Consequently, it is making significant financial investments to advance the modernisation of payment systems.

PEM is structured to achieve rapid change, then be disbanded. Specialised teams consisting of senior industry representatives have been tasked with designing initial products, focusing on rapid concept development. Existing structures have been consulted to provide input for initial designs. The implementation will adhere to a set of PEM Core Principles, including collaboration with willing participants and central coordination to ensure for timely delivery.

Introduction

The PEM Programme aims to transform South Africa's payments ecosystem. It seeks to leverage the talents and resources of the financial sector, with active leadership from the SARB. This paper aims to address industry stakeholders by explaining the need for transformation and outlining the implementation strategy. The programme will benefit all participants in the NPS aiming to elevate South African payments.[1]

The paper is timely. Since 2023, SARB and PEM Programme representatives have engaged banks and non-bank industry stakeholders through discussions and presentations. However, a single, comprehensive overview of PEM's strategic rationale and work programme has been lacking, and this paper aims to fill that gap.

PEM signifies a shift in the SARB's approach to payment system development and implementation. While the objectives set out in *Vision 2025* remain relevant, PEM will prioritise goals such as increasing digital payment inclusion. Previously, the SARB set high-level objectives through its Vision documents and left the market to achieve them.[2,3]The SARB will now actively drive digital payments by setting the direction for payment schemes and operating retail payment systems,[4] with an NPU central to this effort.

The SARB has created PEM as a strategic programme to drive the ecosystem modernisation effort. The programme is one of the largest transformative efforts by the SARB. The programme will ensure alignment across the SARB and broader industry to achieve the PEM's objectives, while maintaining a clear distinction from its regulatory function. The SARB is committed to this transformative journey and has explicit support from the Governors' Executive Committee (GEC).

1 Readers should have a basic understanding of the NPS structure, stakeholders as well as payment mechanisms and methods.

2 In 2018, the SARB published the *National Payment System Framework and Strategy: Vision 2025*, which sets out the goals and strategies for the national payments industry. The Vision document, published approximately every five years, provides a roadmap for building a world-class NPS that serves the economy and people of South Africa. To achieve this vision, industry stakeholders collaborate to ensure the safety, efficiency, integrity, transparency and accessibility of the NPS.

3 The SARB provided the market with a supportive regulatory framework, including various directives, position papers and regulatory changes.

4 According to the BIS, a payment scheme is an agreed-upon arrangement between participants (such as banks, payment service providers, or other institutions) defining the functional, business, legal, and technical rules for executing payments using a particular instrument (e.g., credit transfer, debit transfer, card payment, instant payment). Traditionally in South Africa, schemes are often interpreted to mean the international card schemes only. However, this definition clarifies that schemes are a broader construct and applies to payment clearing houses (PCHs) developed locally under the NPS as well such as credit transfers, fast payments, and so forth.

The SARB has already dedicated significant resources to the PEM Programme and will continue to do so for the duration of the programme.

To demonstrate commitment and focus on the PEM, the SARB has elevated payments ecosystem modernisation as a strategic priority. Historically focused on price stability and financial stability, the SARB has streamlined its strategic focus areas to include payment system development as one of its top priorities. This elevation underscores the recognition of the macro-critical nature of payments modernisation to South Africa's economic trajectory.

PEM's success will depend on clear communication, aligned goals and industry support. With several initiatives occurring simultaneously, transparency is essential. Each initiative must work together to achieve the main goal: making digital payments in South Africa simple, fast, affordable and secure for all. Strong stakeholder buy-in is vital for the adoption of payment solutions. This paper clarifies PEM's goals and reaffirms the SARB's commitment to transparency. As the programme moves from concept to implementation, further industry engagement and publications will aid stakeholders in business planning.

PEM's success will be premised on effective execution and defined by the adoption of new payment solutions. To achieve this, the SARB will take a hands-on role in driving the payments ecosystem modernisation effort. The National Payment System Department (NPSD) will continue to work on policy reforms to create the appropriate regulatory environment. Industry-wide coordination will ensure that initiatives are prioritised appropriately and executed within defined time frames. The NPU will provide the necessary middle-mile infrastructure to facilitate broader digital payment adoption, especially for cash-reliant segments.

This paper thus addresses why the PEM Programme is necessary and how it will be approached. Section A addresses the case for change (i.e. ***why*** PEM?) by reflecting on the current state of South Africa's payment systems, identifying gaps and outlining PEM's desired future state. Section B includes a discussion on ***how*** this adoption will be approached. Appendix A covers the ***'what'*** part, namely the PEM initiatives. Figure 1 depicts the PEM framework that has been adopted.

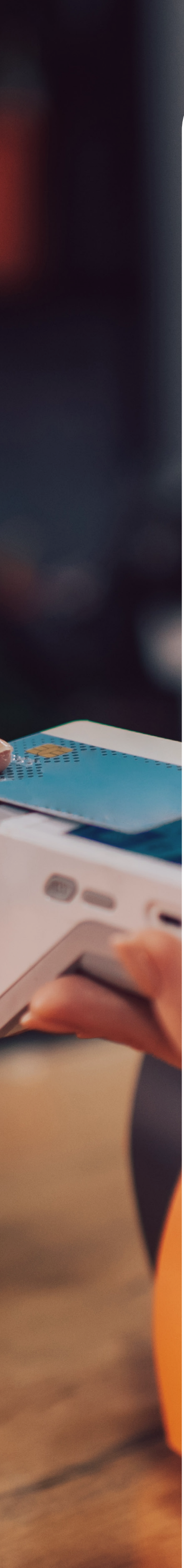
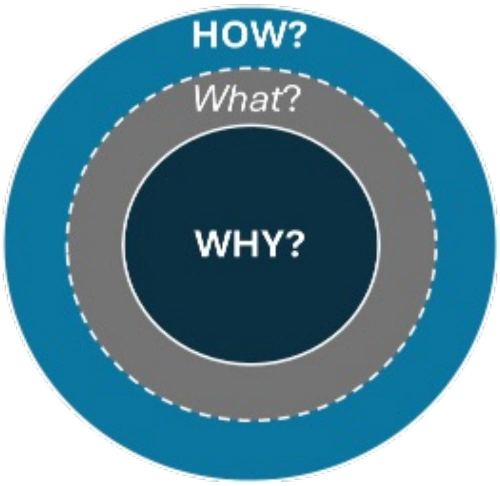


Figure 1: PEM rationale and approach



A. Why PEM? The case for change

(i) The need for broader payments ecosystem modernisation

PEM is a SARB strategic initiative aimed at delivering transformative modernisation of the NPS. Despite the efficiencies of existing systems such as card payments and electronic funds transfer (EFT), there are opportunities for improving the payments ecosystem further. These include better integration of non-banks into the payment system, increasing fast payment system usage, including Quick Response (QR) payments, and enhancing authentication methods.

Several factors make this step-change and broader ecosystem modernisation essential. First, the industry must shift to a more advanced and competitive state, or a higher equilibrium[5] – one that embraces new customers, participants, products, innovations and technologies. Second, the middle-mile infrastructure must be modernised to support this transformation. Third, the over-reliance on cash must be addressed.

(ii) Moving South Africa's payment system to a higher equilibrium

The adoption and usage of fast, simple, affordable and secure digital payments, referred to as the 'Red Dot', is the primary objective of the PEM. South Africa's payment system, like many others, operates at a certain equilibrium – a state where different participants (banks, fintechs, businesses, consumers and regulators) interact in a way that is stable but not necessarily optimal. The inefficiencies of the current equilibrium include coordination frictions,[6] high costs, slow transactions, limited access and reliance on outdated infrastructure. Moving to a higher equilibrium means transforming the system into one that is more efficient, inclusive and responsive to the needs of a modern economy.

The needs of a modern economy can be illustrated by a few examples. A modern, low-cost fast payment system would see a critical mass of users making payments using just a phone number or QR code, without necessarily needing a bank account. A universal digital financial identity (DFID) system would allow people to open accounts, access credit and receive government services without lengthy paperwork or physical verification. This would reduce fraud and improve compliance while making financial services more accessible. While improving fast payments and developing a DFID are key areas of focus, Appendix A covers the remaining PEM components that can move South Africa's NPS to a higher equilibrium.

5 In economics, a low equilibrium refers to a stable but suboptimal state where an economy, market or system remains at a lower level of productivity, income or development than its potential capacity.

6 PayShap, for example, has issues such as slow decision-making, lack of proxy standardisation, insufficient joint marketing and communication, inconsistent user experiences, and unclear pricing, which hinder adoption.

The benefits of achieving a higher equilibrium are extensive. Small businesses would experience lower transaction costs and reduced cash dependency. Consumers, especially the unbanked and underserved, would gain broader access to digital payments. Banks and fintechs would operate within a more integrated, competitive and innovation-driven ecosystem. The government would benefit from improved grant disbursements, tax collection, enhanced service delivery, increased mitigation of money laundering and terrorist financing, and overall, a more efficient economy.

To enable this shift, regulatory reforms are crucial. An activity-based regulatory model will ensure a level playing field, allowing non-banks to compete more effectively. A new licensing framework and exemption notice will facilitate non-bank participation in key payment activities such as e-money issuing and payments acceptance in a more efficient and timely manner. Additionally, a pre-funded settlement model for fast payments will allow non-banks to provide payment services without relying on bank sponsorship. These policy changes will drive competition, innovation and efficiency, and reduce counterparty risk in the payment sector.

Reaching a higher equilibrium requires effective policy implementation, industry collaboration and investment in modern infrastructure. By modernising its payment system, South Africa can position itself as a leader in Africa's digital economy – driving growth, financial inclusion and prosperity for all.

(iii) Modernisation of middle-mile infrastructure – the importance of digital public infrastructure (DPI)

> *"The SARB, through the PEM, is building a national payments utility that aims to be resilient, efficient and accessible, powering a thriving and inclusive digital economy." – Pradeep Maharaj*

The establishment of an NPU is a pivotal component of the ecosystem modernisation. This initiative, driven by the SARB, aims to create a secure, inclusive, resilient and efficient payment infrastructure that will benefit all participants in the financial ecosystem, while also strengthening sovereignty. See Box 1 for the three critical components that underpin a DPI strategy.[7]

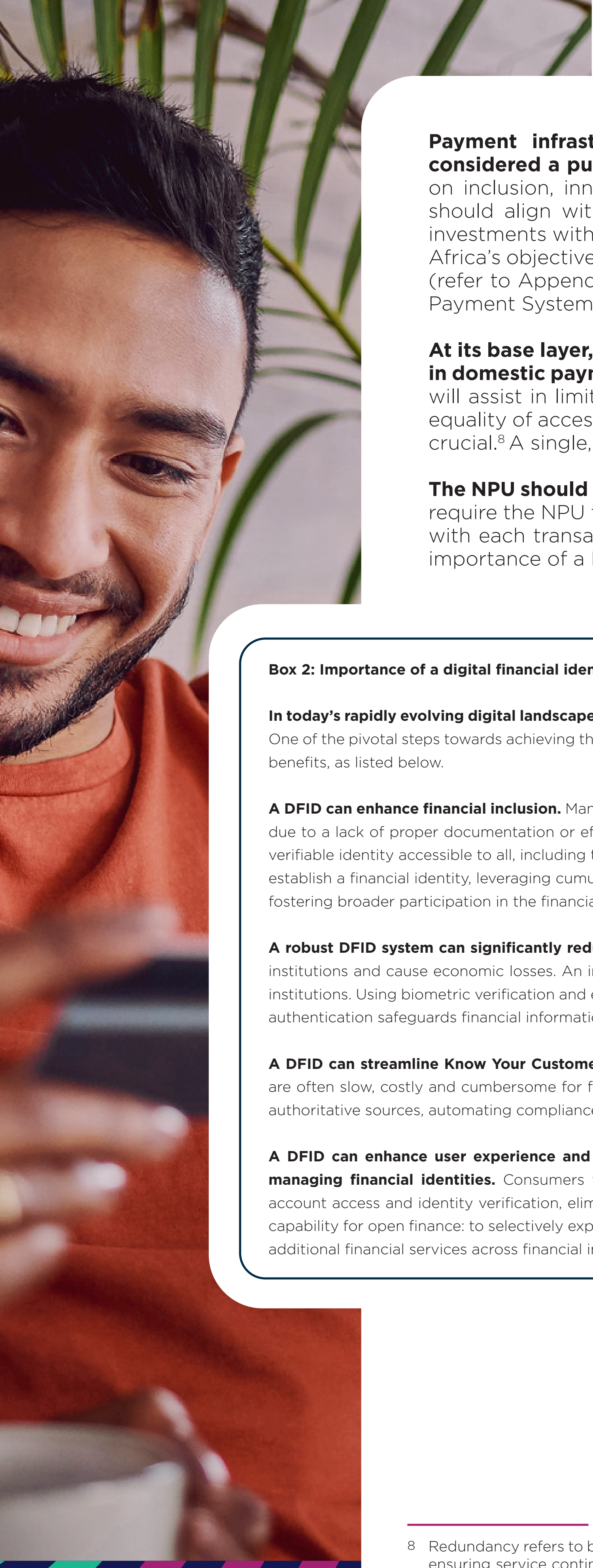
Box 1: Critical components of a digital public infrastructure (World Bank Group)

Digital public infrastructure (DPI) refers to a set of foundational digital systems that enable three essential services. Proactive DPI modernisation efforts by central banks should adopt principles of inclusivity, easy and secure access, and interoperability between the stakeholders that execute three essential services, namely:

1. **Digital identity and e-signatures:** Regulators should prioritise a robust identity verification system that would allow a set of electronically captured and stored credentials that uniquely identify a person and enables authentication. E-signatures increase trust of origination of information and ensure that transactions carried out electronically are legally valid.
2. **Digital payments:** Digital payments should provide secure, convenient and interoperable cashless transactions, enabling individuals, businesses and governments to transfer money easily. Digital payments facilitate e-commerce, government-to-person (G2P) benefits, tax payments and person-to-person (P2P) transfers, while allowing users to receive and manage funds remotely through digital stores of value. Fast payment systems (FPS) provide immediate access to funds, lower fees, and promote interoperability, enhancing competition and efficiency in the payments ecosystem.
3. **Data sharing:** Regulators should prioritise data-sharing systems that optimise data flow in the digital economy by enabling secure and efficient exchange while protecting sensitive information. Further, regulators should facilitate entity-to-entity data sharing, open data access and decentralised personal data management, enhancing service delivery and innovation. The choice of data-sharing infrastructure would depend on the type and purpose of data, with various technical solutions supporting seamless cross-sector exchange.

When established, an NPU will provide a central, public interest-driven infrastructure. Historically, South Africa's payment system has been led by the private sector, where banks and financial institutions spearheaded innovation and investment. While this approach has yielded successes such as the real-time clearing (RTC) system and authenticated debits (DebiCheck), it has also led to fragmentation, high costs, and slow decision-making and progress towards greater digital payments inclusion and interoperability.

7 J M Clark, G Marin, O P A Alper and G A G Rabadan, *Digital Public Infrastructure and Development: A World Bank Group Approach – Digital Transformation White Paper: Volume 1,* Washington DC: World Bank Group, March 2025.



Payment infrastructure is not just a commercial service; it may be considered a public good. A central bank-led payments utility would focus on inclusion, innovation and interoperability instead of profit. Investments should align with the nature of the utility, often necessitating substantial investments with long-term returns. NPS reforms worldwide align with South Africa's objectives of enhancing infrastructures to promote financial inclusion (refer to Appendix B for insights from the World Bank Group's 2024 Global Payment Systems Survey).

At its base layer, the NPU should be the vehicle through which participants in domestic payments connect with each other (i.e. a payment switch). This will assist in limiting costly and risky point-to-point interactions and ensure equality of access and interoperability. Oversight and system redundancy are crucial.[8] A single, widely used entity also benefits from economies of scale.

The NPU should integrate with identity credential management. This would require the NPU to either provide or consume identity credentials associated with each transaction it processes. (See Box 2 for more information on the importance of a DFID.)

Box 2: Importance of a digital financial identity

In today's rapidly evolving digital landscape, there is a critical need for a secure, efficient and inclusive financial system. One of the pivotal steps towards achieving this is the implementation of a digital financial identity (DFID), which has several benefits, as listed below.

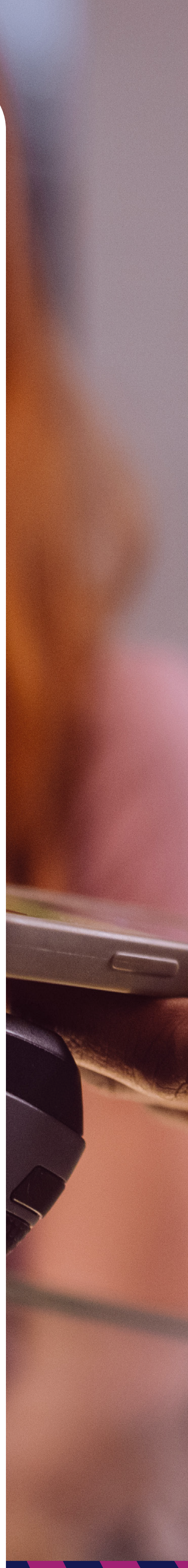
A DFID can enhance financial inclusion. Many unbanked and underbanked individuals struggle to access financial services due to a lack of proper documentation or effective identity verification. A DFID can bridge this gap by providing secure, verifiable identity accessible to all, including those in remote areas. Leveraging digital technologies will allow individuals to establish a financial identity, leveraging cumulative electronic trust that reduces the reliance on traditional documentation, fostering broader participation in the financial system.

A robust DFID system can significantly reduce fraud risks. Identity theft and financial fraud undermine trust in financial institutions and cause economic losses. An integrated identity approach can prevent fraudulent activities across multiple institutions. Using biometric verification and encrypted credentials can help stop identity theft-related fraud. Secure digital authentication safeguards financial information and boosts consumer confidence in digital transactions.

A DFID can streamline Know Your Customer and anti-money laundering compliance. Traditional verification processes are often slow, costly and cumbersome for financial institutions. A DFID can enable real-time identity verification against authoritative sources, automating compliance while reducing operational costs and expediting customer onboarding.

A DFID can enhance user experience and information-sharing capabilities through a unified, efficient platform for managing financial identities. Consumers value convenience, and a single digital credential simplifies authentication, account access and identity verification, eliminating the need for multiple verification steps. A DFID can also provide the capability for open finance: to selectively expose and share identity and behavioural information and enable easy access to additional financial services across financial institutions.

8 Redundancy refers to backup systems and alternative processes that help prevent single points of failure, ensuring service continuity during disruptions, supporting crisis response, and to build user trust in the system's reliability.



The NPU should offer a baseline fraud protection capability. With credential and transaction insight gained during processing, the NPU can then offer a 'level playing field' baseline fraud protection capability. At a minimum, this would require participants to report suspected and actual fraudulent transactions. The NPU should then provide transactional fraud scoring across each payment channel and for each participant. Linked to the DFID, the NPU should also provide proxy resolution and confirmation of payee services.

The NPU should also promote innovation and prevent fragmentation. While banks and payment providers continue to innovate, progress is often slow and proprietary, leading to interoperability challenges. An NPU can standardise and universalise fast payments, QR codes and proxy-based payments (using mobile numbers or digital IDs), ensuring that these innovations are accessible and interoperable across the entire financial ecosystem. Further, the NPU should be designed to be future-fit, ready to adopt emerging technologies such as open banking and finance, Artificial Intelligence (AI) and Machine Learning (ML), quantum computing tokenisation, and so on.

Modernisation includes phasing out legacy systems and ensuring resilience and redundancy. Legacy systems that could be replaced include RTC and EFT. Ensuring resilience and redundancy includes considering alternative messaging networks, domestic schemes, cybersecurity measures, onshore infrastructure hosting and robust business continuity planning (BCP)/ disaster recovery (DR) protocols, all contributing to a reliable payment system.

The establishment of an NPU is at the heart of modernising South Africa's NPS. By providing a central low-cost and interoperable infrastructure, the NPU can drive the next generation of digital payments and financial inclusion. The experiences of other countries demonstrate that a central bank-led approach can lead to quicker decision-making, faster adoption, lower costs and greater inclusion.

(iv) Addressing the country's over-reliance on cash

Digital payments must be widely adopted. PEM aims to provide a viable digital alternative to cash in order to reduce South Africa's dependence on cash.[9] Everyone in South Africa should have access to cost-effective, easy-to-use and accessible digital payment methods.

Adopting digital payments on a large scale is crucial for the overall economy. Shifting from cash to digital payments helps economies achieve greater transparency, reduces the risks of illicit financial flows and unlocks new innovations in financial services. This transition is more than just a technological advancement – it is a foundational step towards building a resilient, inclusive and globally competitive economy. Digital payments can boost South Africa's GDP by 0.5%.[10]

South Africa needs to align with its peers in the modernisation of payments. Although the country has previously been a leader in payment system development, other countries have advanced in developing and adopting digital payment systems, particularly fast payment systems (refer to Appendix B for a view on the success achieved by India and Brazil). To stay competitive and encourage inclusive economic growth, South Africa should enhance its efforts to promote digital payment adoption. Box 3 explains why, despite having some of the best payment systems, digital adoption has still lagged, highlighting the necessity for transformation through the PEM Programme.

As digital payments grow and displace cash, both banks and non-bank providers can benefit. While digital payments are likely to reduce traditional cash revenue, they present significant opportunities. Providers can improve efficiency, reduce cash-handling costs, and leverage off ISO 20022's modernised data standards to enhance real-time data utilisation for value-added services. Furthermore, the continued adoption of ISO 20022 reinforces the SARB's commitment to financial crime compliance and fraud risk management by enabling more structured and richer data exchange across the payments ecosystem. A parallel development of a national cash infrastructure management strategy is necessary to avoid digital exclusion.

9 The SARB does not envision a completely cashless society. Instead, the aim is to create suitable alternatives to cash and have a cash-smart society (i.e. where cash may be used in situations where digital alternatives may be challenging to implement).

10 The South African government could increase GDP by up to 0.4% by digitising government payments alone. See S Lund, 'Chapter 13: The value of digitalising government payments in developing economies', in *Digital Revolutions in Public Finance*, Washington DC: International Monetary Fund, November 2017. Additionally, the BIS found that a one percentage-point increase in digital payments usage is associated with an increase in two-year per capita GDP growth of 0.10 percentage points. See A Aguilar, J Frost, R Guerra, S Kamin and A Tombini, 'Digital payments, informality and economic growth', *BIS Working Papers No. 1196*, Basel: Bank for International Settlements, 8 July 2024.

Box 3: Current payment system issues

Background

South Africa has been a proud leader in payments innovation since the 1980s. The country introduced Saswitch as one of the first interoperable automated teller machine (ATM) networks in 1986 and same-day batch clearing for electronic funds transfer (EFT) in 1989. In 1998, the country adopted the Real-Time Gross Settlement (RTGS) system, launched real-time clearing (RTC) in 2006, and pioneered debit order collections. South Africa was also quick to adopt Europay, Mastercard and Visa (EMV) chip cards, 3D Secure, Near Field Communication (NFC) tap-and-go, virtual cards, and payment applications. In 2018, DebiCheck was introduced – an authenticated electronic mandate management and early collections capability – and in 2023, PayShap – a cutting-edge faster payment option including a pay-by-proxy solution – was rolled out. Appendix C highlights payment trends in South Africa.

Financial institutions, especially banks, have led NPS development. Banks have driven payment system advancements by evolving payment products and by establishing a central automated clearing house, BankservAfrica. Organisations such as the Payments Association of South Africa (PASA) and the Payment System Management Body (PSMB) have been instrumental in managing and regulating payments, ensuring a well-organised system. Non-banks have also contributed significantly, offering payment gateways and innovative solutions such as payment initiation services.

Current challenges

While NPS development is clearly commendable, slower progress on Vision 2025 goals require further action. Five of the nine goals of Vision 2025[11] remain partially realised or unmet, especially those related to broadening digital payment inclusion, greater competition and innovation, cost effectiveness, and improved flexibility and interoperability. Large sectors of society still do not benefit from new digital payment systems. Although South Africa can boast high bank account penetration (approximately 88%),[12] digital payments per capita remain much lower than for major emerging market peers, with consumers using their bank accounts as a post box for receiving funds, which are then converted to cash for payments.[13]

Innovation, especially in fast payments, faces significant challenges. The adoption of PayShap has been slower than expected, and rather than decreasing cash usage, it has primarily displaced transactions from existing payment systems such as RTC and EFT. Further, some design choices and a fragmented industry approach have delayed PayShap's adoption. For instance, not all banks accept PayShap transactions and those that do have applied various transaction limits, resulting in payment failures or rejections. Some banks enable auto-registration of their user base, while others do not, leading to inconsistent user experiences and slow penetration across banking platforms and channels. Opaque pricing and inconsistent marketing further hinder adoption.

The demand and supply challenges reinforce the use of cash, particularly in informal economies. On the demand side, barriers include irregular income patterns[14] and a preference for cash's anonymity and accessibility, particularly in informal trade. Further, limited access to smartphones and affordable internet,[15] mistrust of digital systems[16] and the added risk of device theft, increase the preference for cash. On the supply side, challenges include limited merchant acceptance,[17] perceived high transaction costs,[18] fragmented payments ecosystems,[19] and poor infrastructure to support digital payments, particularly in rural areas. Many digital solutions fail to meet the needs of low-income and rural populations, such as real-time access to funds, poor customer service from merchant-acquiring solutions, and offering offline or USSD-based options. The ubiquity of cash is, at times, symptomatic.

PEM goals: Alignment with Vision 2025 and the need for a strategic programme

One of the core objectives of the PEM is to adopt, prioritise and implement the Vision 2025 policy goals. Table 1 provides a summary of the PEM goals by themes, including the desired end state success factors that would evidence the payments ecosystem moving to a higher equilibrium.

11 The nine goals of Vision 2025 are: (i) A clear and transparent regulatory and governance framework; (ii) Transparency and public accountability; (iii) Financial stability and security; (iv) Promoting competition and innovation; (v) Cost-effectiveness; (vi) Interoperability; (vii) Flexibility and adaptability; (viii) Regional integration; and (ix) Financial inclusion.

12 Statista, 'Penetration rate of the banking accounts market in South Africa from 2014 to 2029', 28 February 2025.

13 Statista reports that as of 2024, approximately 70.5% of South African adults reported making a digital payment in the past year (*'Population making a digital payment in Africa 2024, by country', May 8, 2024*) but lower digital transactions per capita.

14 Many South Africans work in the informal sector or have irregular income streams, making cash a more practical option for daily budgeting. See A.T. Kearney, Inc (2018): *Digital Payments and the Global Informal Economy report.*

15 High costs may restrict access to app-based payment platforms, hindering the adoption of digital payments. See *SARB, Digital Payments Roadmap: Towards Inclusive, Accessible, Effective and Sustainable Digital Payments in South Africa,* Pretoria: SARB, 2024; and *Alliance for Affordable Internet: From luxury to lifeline: Reducing the cost of mobile devices to reach universal internet access,* 5 August 2020.

16 Concerns about fraud, data privacy, and system reliability discourage users from adopting digital payment systems. See E Arendse and C van den Berg, *Exploring the barriers to digital financial inclusion amongst businesses in the informal sector,* Paper presented at the 2024 IST-Africa Conference, 20-24 May 2024.

17 Small and informal businesses often lack the infrastructure (e.g. point-of-sale systems or QR code scanners) or incentives to accept digital payments. See AT Kearney and Visa, *Digital Payments and the Global Informal Economy,* 2018; and FinMark Trust, Community Digitalisation: *The State of the Digital Payments Ecosystems in South African Townships,* 2022.

18 High setup and maintenance fees discourage many merchants from adopting digital payment systems. See SARB, *Digital Payments Roadmap: Towards Inclusive, Accessible, Effective and Sustainable Digital Payments In South Africa,* Pretoria: SARB, 2024.)

19 A lack of interoperability among payment providers and solutions (e.g. banks, wallets and QR codes) creates friction and limits usability for end-users. See A Aguilar, J Frost, R Guerra, S Kamin and A Tombini, 'Digital payments, informality and economic growth', *BIS Working Papers No. 1196,* Basel: Bank for International Settlements, 8 July 2024.

Figure 2: The nine goals of Vision 2025

Table 1: PEM goals

Theme	Critical success factors
Widespread adoption and financial inclusion (Vision 2025 Goal 9)	• Digital payments are widely adopted by all in South Africa, providing a seamless and inclusive alternative to cash. • Both banks and non-banks expand access points for digital payments, driving financial inclusion and reaching into informal economies. • Financial and digital literacy initiatives empower consumers and businesses to confidently use digital payments and manage financial risks.
Increased digital payment affordability and accessibility (Vision 2025 Goal 5)	• Transactions are free for consumers and a low cost for users, ensuring affordability and accessibility. (The NPU reduces unit costs to participants through enhanced processing efficiencies). • Real-time payments operate at scale, ensuring instant, low-cost transactions (e.g. across person-to-person, person-to-business and government-to-person use cases), as well as payment methods (i.e. card, NFC and faster payments).
Increased competition (Vision 2025 Goal 4)	• The payments sector is highly competitive, with a market structure that enables both banks and non-banks to participate in clearing and settlement in a secure and efficient manner. • A pre-funded settlement model shows an increased uptake in faster payments by non-banks consumers. • Multiple, competing stores of value exist, yet remain fully interoperable.
Secure, resilient and trusted infrastructure (Vision 2025 Goal 1,2 and 3)	• The digital payments infrastructure is secure, trusted and resilient. • Resilience and redundancy are built into the system, ensuring continuous operation, despite cyber threats or infrastructure disruptions.
Increased innovation and interoperability (Vision 2025 Goal 4 and 6)	• Innovation flourishes, with new payment products and form factors – such as interoperable QR codes – gaining widespread adoption. • A fully interoperable payment system leverages network effects to maximise efficiency and usability. • A unified payments architecture underpins the ecosystem, ensuring seamless interaction across all participants.
Embedded and data-driven payments (Vision 2025 Goal 7)	• Embedded and contextual payments enable seamless integration into everyday experiences, from e-commerce to government services. • Data-driven innovation enhances financial services, leveraging insights (with appropriate safeguards) to improve fraud prevention and user experience. • The NPU, through a robust management information system (MIS) framework, supports the seamless monitoring of payment transactions, risk management, fraud detection and financial inclusion initiatives, while driving innovation through data analytics and predictive modelling.
Seamless cross-border payments and global integration (Vision 2025 Goal 8)	• Cross-border payments are fast, affordable and well-integrated with regional and global networks, supporting trade and remittances.

For a comprehensive comparison of the alignment between the Vision 2025 goals and PEM initiatives, see Appendix D.

> "By achieving these (success factors), we can realise a modern, inclusive and resilient payments landscape that serves the needs of all in South Africa while positioning the country as a leader in digital payments." – Tim Masela

B. How will change be approached?

A structured but flexible approach to PEM execution is crucial. Numerous initiatives in the PEM wheel need to align their goals, scope and timing with the overall PEM goal – the Red Dot. The PEM has a defined governance and programme structure that will facilitate alignment across the broader programme and stakeholder community. Figure 3 illustrates how various initiatives associated with PEM are integrated. Five sub-programmes organise the respective initiatives into logical groupings.

Figure 3: PEM Programme structure

Programme 1 involves extending the current South African Multiple Option Settlement (SAMOS) and Southern African Development Community (SADC) RTGS systems to maintain operational longevity while the new RTGS is being developed. Programme 2 focuses on creating an NPU, including an investment in BankservAfrica. Programme 3 aims to develop four core transactional systems: new domestic and regional RTGS and a fast payment system. Programme 4 provides essential enablers such as interoperability, centralised fraud and insight capabilities, and necessary policy, legal, and regulatory changes. Close collaboration with the NPSD ensures continuous alignment of changes to the programme. Programme 5 is centred on provision of a DFID, in close collaboration with the Presidency and the Department of Home Affairs, who are driving the establishment of a national digital identity capability.

The Programme Steering Committee (SteerCo) is chaired by the Deputy Governor responsible for the PEM and payments. The PEM SteerCo aims to provide sponsorship and allocate resources to the programme. Senior SARB staff members offer guidance and direction to the programme. Several subcommittees to the PEM SteerCo oversee the day-to-day functioning of the different aspects of the programme, bolstered by an Integrated Programme Management Committee (IPMC) responsible for cross-programme integration.

A concerted and pragmatic approach is crucial due to the programme's complexity. The programme aims to combine traditional and agile project management methods to facilitate rapid delivery while balancing good governance. For conceptual developments, small teams, including senior industry representatives, will design the initial products. These teams will focus on promoting diversity and ensuring rapid concept development. These designs will then be refined by larger industry working groups and proceed through standard development processes. Minimum viable products will be produced as outputs to the strategic recommendations and initial design process to ensure market needs are met. Box 4 shows the current or planned 'hit squads.'

Existing structures such as those at PASA may be used to consult on initial designs. Additional consultation structures will be established to gather input from stakeholders who may have been previously marginalised. Where requirements and designs are finalised, traditional but flexible programme and project management methods will be leveraged to implement the required changes. Integrating the different components, at different stages of delivery, will be led by dedicated portfolio management expertise as a mechanism to identify and manage interdependencies and priorities in a structured manner.

Box 4: Examples of specialist task teams ('hit squads')

A working group has been developing standards for pre-payment initiation such as Quick Response (QR) codes. The group reviewed the Payment Association of South Africa's (PASA) work on QR code standardisation, involving experts from several leading banks and fintech companies. The group will continue to update and consult with the industry until the specifications are finalised.

A fraud 'hit squad' has been formed to assess current industry-wide fraud capabilities and maturity. Its initial task is to provide recommendations for advancing fraud prevention, which will then be reviewed by a larger industry group.

A fast payment system 'hit squad' has been established. This group includes both banks and non-banks, and aims to explore potential pilot use cases, features and components of an ideal fast payment system needed to reduce the reliance on cash and increase the adoption of PayShap. Its findings will be presented to the PEM SteerCo and broader industry core groups for consideration.

A working group for a digital financial identity (DFID) helped finalise DFID proof of concepts. Three vendors developed and provided detailed reports on initial rationale, high-level designs, technology considerations and approaches to DFID pilots and implementation.

Once established, the NPU will aim to streamline initiatives through an improved design, development and implementation process. A review is underway to confirm governance and stakeholder engagement processes, including consultation processes. To enhance decision-making, a majority independent board is envisioned.

Additionally, initiatives will adopt a phased and iterative approach to modernisation, guided by several core principles. Each of these principles will define the steps and actions needed to accomplish the PEM initiatives (see Box 5).

Box 5: PEM principles that will guide the approach

Centrally coordinated delivery at pace: The PEM will prioritise action over lengthy consensus building, creating efficient governance for quick decisions and execution. Defined roles and responsibilities will align national products, technology, risk and policy teams towards shared goals. By reducing bureaucratic delays and promoting collaboration, the SARB will enable swift action, iteration and timely delivery. Agile methodologies will ensure continuous improvement and adaptability to market demands.

Coalition of the willing: The PEM Programme will work with proactive contributors while staying open to stakeholder engagement, without waiting for consensus or slower participants. This includes forming partnerships with active payment stakeholders or government bodies. The PEM will regularly update stakeholders to ensure alignment. Incentives may promote collaboration, enabling quicker stakeholders to lead as others catch up.

Reference and align: The PEM will unify past and ongoing efforts within the ecosystem to shape future activities by mapping current and previous activities, engaging stakeholders, analysing data and reviewing lessons from past projects. The PEM will align existing systems with new initiatives, ensuring all modernisation efforts work towards a common goal, combining past successes with innovation.

Maximise and rationalise: Infrastructure investments and optimisations must be in line with PEM goals. Reviews of existing infrastructure to identify consolidation and optimisation opportunities will be conducted. Strategic investments will be prioritised and integrated into a unified system, incorporating streamlined processes and the use of data-driven decision-making to enhance operational efficiency. The approach aims to establish a more agile, cost-effective and responsive ecosystem.

Consumer focus – inclusive by design: The future payments ecosystem aims to serve all consumers, regardless of their sector in society. PEM will create accessible solutions for diverse needs, focusing on underbanked communities and businesses. This involves designing payment systems with accessibility, usability and affordability in mind, ensuring inclusivity through research, engaging with marginalised groups and adapting to various socio-economic realities.

Contribute to financial stability: All actions within the PEM aim to maintain or enhance financial stability by establishing a strong risk management framework. This includes prudential requirements for all participants in the national payment system, assessing new technologies' resilience, ensuring regulatory compliance and maintaining dialogue with financial institutions to tackle emerging challenges. By integrating financial stability considerations into the programme, PEM aims to mitigate risks and ensure a stable environment for payments.

Mitigate sovereign risk: The PEM will consider sovereign risk, including the potential impact of international sanctions, and optimise actions for the benefit of South Africa as a whole. This principle is designed to integrate risk assessment and scenario planning into the decision-making processes at each stage of the ecosystem's modernisation. By continually monitoring political, economic, regulatory and geopolitical conditions, the PEM aims to enhance the resilience of the payment system, mitigate vulnerabilities and swiftly adapt to shifts in both national and global environments. This may also involve collaboration with international partners and institutions to ensure that South Africa's payments ecosystem aligns with global standards while proactively managing exposure to sanctions-related risks.

Conclusion

Although it is still in its early stages, the PEM Programme is progressing well. The programme, approved and funded by the SARB, is a priority for the GEC. Strengthening the SARB's role in BankservAfrica and the ongoing acquisition process highlights the commitment to establishing an NPU. The capacity boost from industry secondments will facilitate progress and demonstrate the PEM's focus on collaboration.

Reaching PEM's goals will require sustained collaboration. Pursuing multiple initiatives at once may lead to change fatigue. To achieve success, all efforts – building blocks, initiatives and stakeholder contributions – must be focused and disciplined, with a clear vision of the final objective. Over the next three years, the PEM will provide strategic direction, industry coordination and market implementation of several initiatives established under the NPU.

Successful execution of the PEM Programme will foster inclusive growth. By modernising South Africa's payments ecosystem, the SARB will move the country to a more cash-smart market, enhance payment efficiency and create new opportunities for economic participation.

Overarching higher equilibrium: A resilient, inclusive and competitive NPS where digital transactions are seamless, secure and accessible to all.

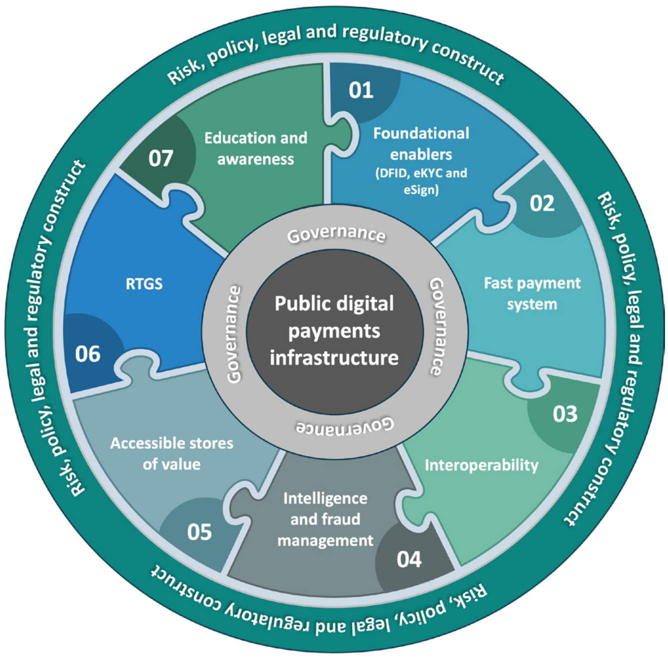
"The SARB, through the PEM, aims to cement a future where financial inclusion and economic empowerment are no longer aspirations but realities." – Deputy Governor Rashad Cassim

Appendices

Appendix A: Payments Ecosystem Modernisation initiatives

All the areas in the Payments Ecosystem Modernisation (PEM) 'wheel' represent step changes to the national payment system (NPS) modernisation. A lack of robust coordination, integration and alignment across all stakeholders, including product and policy alignment, may run the risk of a haphazard implementation of initiatives. The PEM proposes a phased, centrally driven approach to modernise the payment infrastructure; grounded in addressing the root causes of inefficiency, inequality and fragmentation in South Africa's payments ecosystem (visually represented in Figure 4). Three central components support and complement the seven PEM initiatives.

Figure 4: PEM Wheel



Central component 1 – Public digital payments infrastructure: at the centre of the PEM wheel is the development of an appropriate middle-mile national payment utility (NPU), which will establish and operate the digital payments infrastructure. As a vehicle to establish the envisioned NPS, the NPU will also have a clear governance framework to oversee its decision-making of scheme rules and operations. Given the establishment of the PEM and the acquisition of this infrastructure, the PEM aims to influence the design and implementation of inter-institutional products and related scheme rules. With this approach, the applicable rules of the NPU will be directed and regulated by the SARB.

Central component 2 – Governance: a robust governance structure for the NPU will ensure balanced interaction between public and private sectors in the payments ecosystem. The structure aims to foster innovation in South Africa's best interest while affording all participants a voice in shaping changes. After conducting regular industry consultations and ensuring alignment with market needs, the NPU will be the final decision-making authority. A governance framework (already in flight) will guide how decision-making will happen and how stakeholders will be engaged.

Central component 3 – Risk, policy, legal, regulator construct: an activity-based regulatory framework will enable greater competition and innovation. Non-banks will be able to directly participate in payment activities such as issuing e-money and providing acquiring services and have direct access to clearing and settlement systems. For instance, a pre-funded settlement model will enable direct access to a designated settlement system. Non-banks and banks have been calling for a level playing field, which the SARB will address through an exemption notice, licencing framework and amendments to the forthcoming NPS Bill. Entry to the licensing process will require robust but fair regulation and supervision.

Seven key areas where reforms will be driven

01 - Foundational enablers are essential components that support the effective operation of the NPS, serving as building blocks rather than payment-specific elements. Key enablers include a centralised digital financial identity (DFID) platform to streamline user onboarding and improve access to financial services, real-time identity verification to reduce costs and enhance system efficiency (e.g. e-Know Your Customer) and alias-based payment capabilities (e.g. mobile numbers and email address) to improve accessibility and user experience (proxy databases). Other enablers include electronic signing (eSign) and electronic contract storage, with the potential for additional enablers to emerge over time.

02 – A fast payment system (FPS): The current FPS (PayShap) requires critical enhancements to respond to the adoption and usage of fast, simple, affordable and secure digital payments – or 'Red Dot' – goal. This includes the introduction of new access channels (e.g. QR codes), wider adoption of use cases (e.g. request-to-pay), broader participation by non-bank entities and fintechs, supported by a pre-funded settlement model that enables real-time settlement. The PEM will therefore focus on producing an FPS that mimics cash by offering immediate, low-cost transactions, frictionless and ubiquitous payment options ensuring certainty and clarity of payment completion. Its effectiveness in including underserved populations is by providing a low-cost, accessible system that meets diverse digital payment needs.

03 - Interoperability is the ability of different systems, networks or arrangements to work together seamlessly by facilitating the exchange, clearing and settlement of transactions across different providers, platforms and jurisdictions.[20] It is essential for instant or near-instant payments and requires standardised mechanisms, such as QR codes, to allow merchants to accept payments from various providers using a single code. This initiative will propose measures to strengthen interoperability across the ecosystem.

20 The Bank for International Settlements refers to interoperability as the technical or legal compatibility that enables a payment system to be used in conjunction with other systems. It allows participants in different systems to conduct, clear and settle payments or financial transactions across the systems in a timely and efficient manner.

04 - Intelligence and fraud management: A centralised fraud and intelligence capability provides end-to-end visibility into digital transactions, enabling deeper insights and enhanced monitoring compared to the cash economy. This capability is crucial for ensuring safe, trustworthy digital payments and addressing the shortcomings of South Africa's anti-money laundering and counter-terrorist financing measures as highlighted by the February 2023 Financial Action Task Force (FATF) report, which contributed to South Africa's greylisting.

05 - Accessible stores of value: For digital payments to work, everyone – including unbanked and underbanked individuals – needs simple and reliable options they can trust. In digital payments, a store of value is money stored electronically that can be used for transactions, such as a bank account and e-money, through a digital wallet. While the programme encourages market participants to provide the requisite stores of value at a low cost, the SARB may step in (in the long run) to offer an affordable solution, if needed.

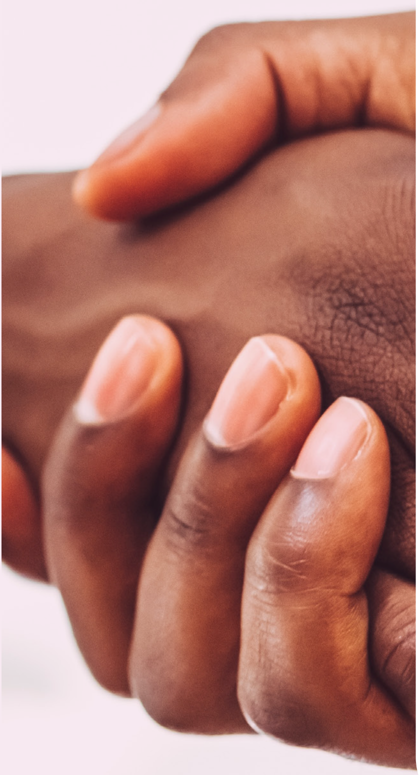
06 - Real-time gross settlement (RTGS): The PEM Programme builds on the RTGS modernisation and is expected to influence its technical delivery, ensuring alignment with the modernised payments ecosystem. Work on defining the ideal RTGS architecture has begun, and the focus is on aligning it to the PEM vision.

07 - Education and awareness: The shift from physical cash to digital payments can be challenging, especially for those unfamiliar with digital technology or payment methods. To foster adoption, the programme will include effective communication and education strategies, particularly for unbanked and underbanked individuals, who often face lower financial literacy and trust in digital systems. Public awareness campaigns will be launched to drive adoption and usage, and market testing/pilot programmes will be conducted to validate system capabilities.

This transformation is not just about upgrading infrastructure; it also includes reimagining the future of payments in South Africa. By integrating these seven key components, the PEM aims to ensure a secure, inclusive and efficient digital payments ecosystem that meets the needs of all users. With strong governance, strategic oversight and industry collaboration, the SARB is paving the way for a modern and resilient NPS that drives economic growth and financial empowerment.

Appendix B: International comparisons

B.1 Lessons from Brazil and India



The South African Reserve Bank (SARB) is among several countries taking the lead on payment modernisation efforts. Global precedents offer valuable insights into central bank efforts to reform national payment systems. Countries such as Brazil and India[21] have successfully modernised their payments ecosystems, balancing financial inclusion, innovation and regulatory oversight. By comparing key structural elements such as adoption rates, regulatory frameworks and technology enablers, South Africa can identify best practices and potential pitfalls, ensuring its own transformation aligns with global trends while addressing local challenges.for economic participation.

Lessons learnt from Brazil and India

Brazil's PIX (payment system) highlights the role of central bank leadership in driving adoption and inclusion. Launched by the Central Bank of Brazil, PIX allows real-time and low-cost payments for individuals and businesses. Its rapid adoption – surpassing traditional payment methods – was driven by central bank leadership, public awareness campaigns and mandatory acceptance by financial institutions. Significant progress has been realised in reducing cash reliance and promoting financial inclusion. The PIX system facilitated 29.2 billion transactions in 2022, representing 15% of global real-time transactions, and is expected to account for 44% of Brazil's online payment market by the end of 2025 (compared to 41% for credit cards). In 2024, PIX processed 64 billion transactions – a 53% year-over-year increase.[22]

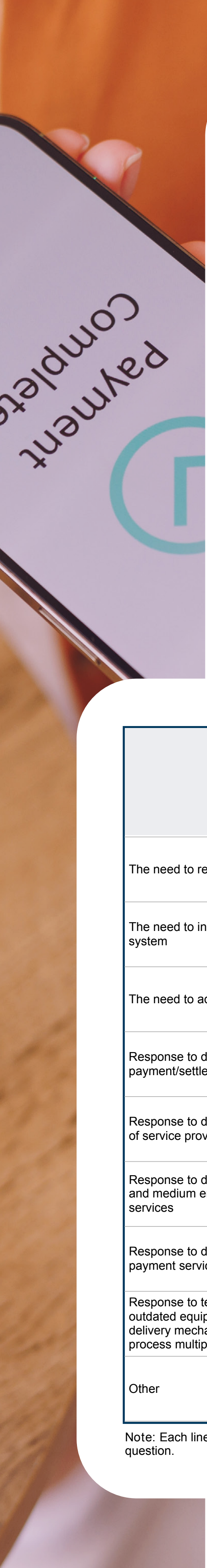
India's Unified Payments Interface (UPI) demonstrates the power of public digital infrastructure. UPI provides a real-time, interoperable payment platform that supports multiple use cases, including peer-to-peer transfers, bill payments and merchant transactions. By fostering collaboration between banks, fintechs and the government, India has built an inclusive ecosystem that drives innovation and economic participation. UPI's success underscores the value of open application programming interfaces, broad participation and central coordination. India led in real-time payments, with 89.5 billion transactions in 2022, accounting for 46% of global real-time payment transactions. More recently between 2023 and 2024, UPI processed 131 billion transactions (contributing to 80% of the retail payments across the country) [23].

Global examples of national payment system (NPS) reforms in countries such as Brazil and India provide valuable lessons for South Africa's payments transformation. These nations have successfully modernised their payments ecosystems, balancing innovation, financial inclusion and regulatory oversight. Brazil's PIX and India's UPI highlight the importance of central bank leadership, public-private collaboration and interoperable infrastructure in driving adoption. Taking lessons from these markets and noting other relevant global trends, South Africa can identify best practices and avoid pitfalls as it modernises its own NPS.

21 Other notable National-led schemes include Saudi Arabia Financial Sector Development Program (FSDP) which aligns with their Vision 2030 delivery plan. Saudi Payments, a subsidiary of the Saudi Arabian Monetary Authority (SAMA), partnered with Hightech Payment Systems to launch an interoperable national mobile payments platform utilising QR codes).

22 'Pix Statistics' available on the Banco Central do Brasil website offers in-depth insights with detailed breakdowns.

22 'UPI Ecosystem Statistics' on the National Payments Corporation of India (NPCI) website offers in-depth insights with detailed breakdowns.



Further, global pandemics such as COVID-19 provide insight into the adaptability and inclusiveness of NPSs. At that time, COVID-19 accelerated the adoption of digital financial services, driving innovation in payments, mobile banking and digital lending. With social distancing measures in place, cash usage declined, and consumers turned to contactless methods for safety. Financial institutions and governments explored new ways to support inclusion such as digital aid distribution and alternative lending platforms. While countries such as India and Brazil adapted quickly due to strong digital payments infrastructures, South Africa saw a rapid shift towards digital banking and mobile payments, even though challenges persisted for underserved populations with limited access to technology. The digital divide in South Africa, particularly in rural areas, continues to hinder financial inclusion and exacerbate inequality.

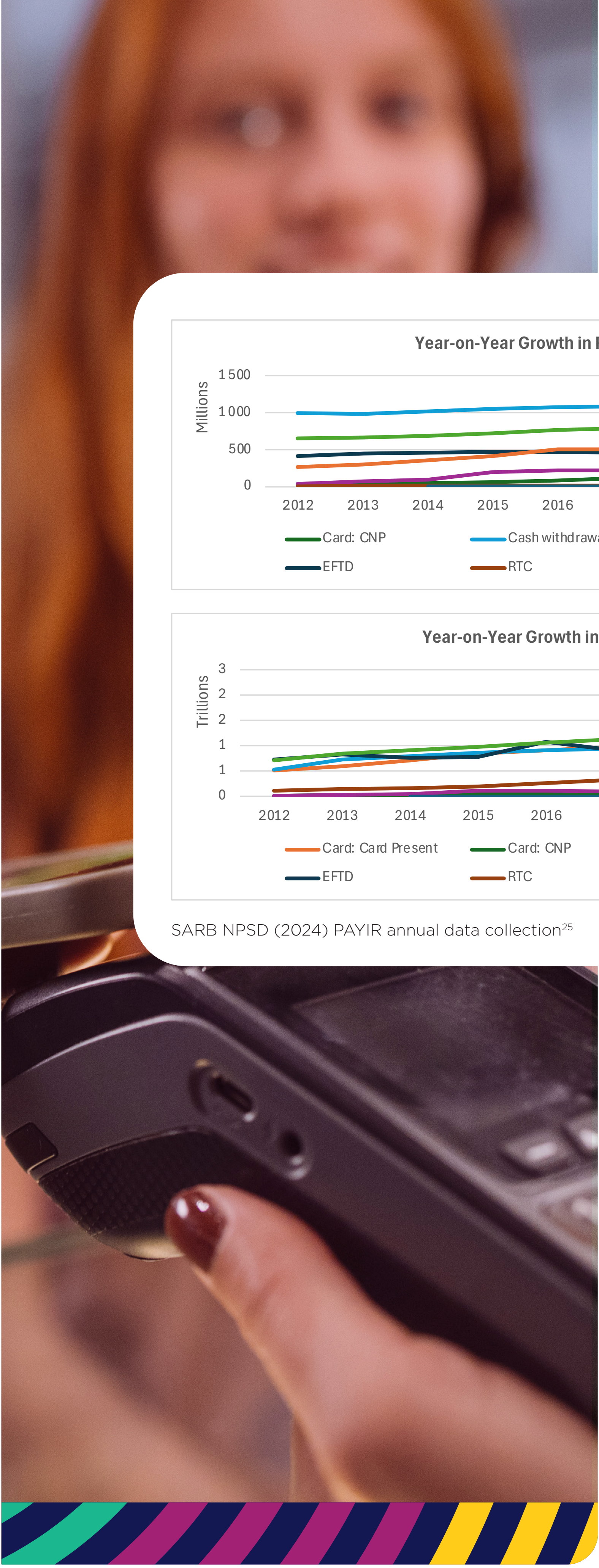
B.2 The World Bank Group's 2024 Global Payment Systems Survey

NPS reforms globally share common goals with South Africa. The 2024 Global Payment Systems Survey (GPSS)[24] highlights that most surveyed countries are implementing reforms to modernise their NPS. These reforms are primarily driven by the need to address technological innovations and enhance the overall efficiency of the NPS; however, in low and middle-income countries, a key motivation is the expansion of financial access and inclusion (see summary table below).

All Economies		By Region							By Income Level	
		East Asia & Pacific	Europe & Central Asia	High Income OECD	Latin America & Caribbean	Middle East & North Africa	South Asia	Sub-Saharan Africa	LMIC	High income
The need to reduce systemic risk	74% (53/72)	100% (4/4)	75% (9/12)	53% (10/19)	73% (11/15)	83% (5/6)	100% (4/4)	83% (10/12)	85% (39/46)	54% (14/26)
The need to increase the overall efficiency of the payment system	96% (78/81)	100% (4/4)	93% (14/15)	96% (22/23)	100% (15/15)	100% (7/7)	100% (4/4)	92% (12/13)	96% (47/49)	97% (31/32)
The need to advance financial inclusion in the country	82% (59/72)	100% (4/4)	85% (11/13)	35% (6/17)	100% (15/15)	100% (7/7)	100% (4/4)	100% (12/12)	98% (46/47)	52% (13/25)
Response to demands from market participants for better payment/settlement services	87% (59/68)	100% (3/3)	92% (12/13)	78% (14/18)	85% (11/13)	83% (5/6)	100% (4/4)	91% (10/11)	93% (41/44)	75% (18/24)
Response to demands from market participants for new types of service providers	68% (46/68)	100% (3/3)	86% (12/14)	32% (6/19)	75% (9/12)	60% (3/5)	100% (4/4)	82% (9/11)	86% (38/44)	33% (8/24)
Response to demands from end-users (e.g. individuals, small and medium enterprises) for better payment and settlement services	77% (55/71)	100% (3/3)	93% (14/15)	61% (11/18)	79% (11/14)	40% (2/5)	100% (4/4)	83% (10/12)	87% (40/46)	60% (15/25)
Response to demands from government institutions for better payment services	57% (34/60)	100% (3/3)	89% (8/9)	22% (4/18)	50% (6/12)	60% (3/5)	100% (4/4)	67% (6/9)	76% (28/37)	26% (6/23)
Response to technological innovations (e.g. upgrading of outdated equipment/systems, availability of more efficient delivery mechanisms, new infrastructures being able to process multiple payment instruments/channel streams)	96% (79/82)	100% (4/4)	100% (15/15)	91% (21/23)	93% (14/15)	100% (7/7)	100% (4/4)	100% (14/14)	100% (50/50)	91% (29/32)
Other	29% (14/48)	100% (2/2)	29% (2/7)	25% (6/24)		67% (2/3)		67% (2/3)	35% (8/23)	24% (6/25)

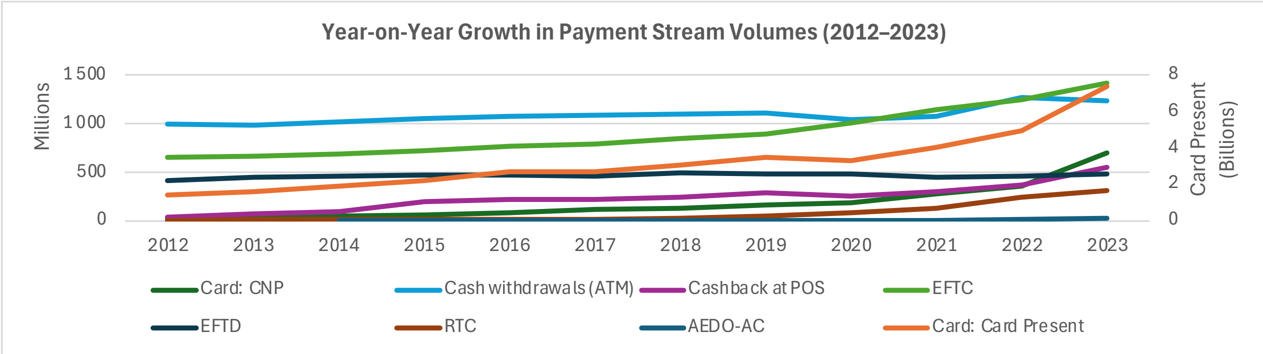
Note: Each line item in the chart refers to a standalone question, thus the number of total respondents may vary. Blanks in the chart should be interpreted as zero positive responses for the specific question.

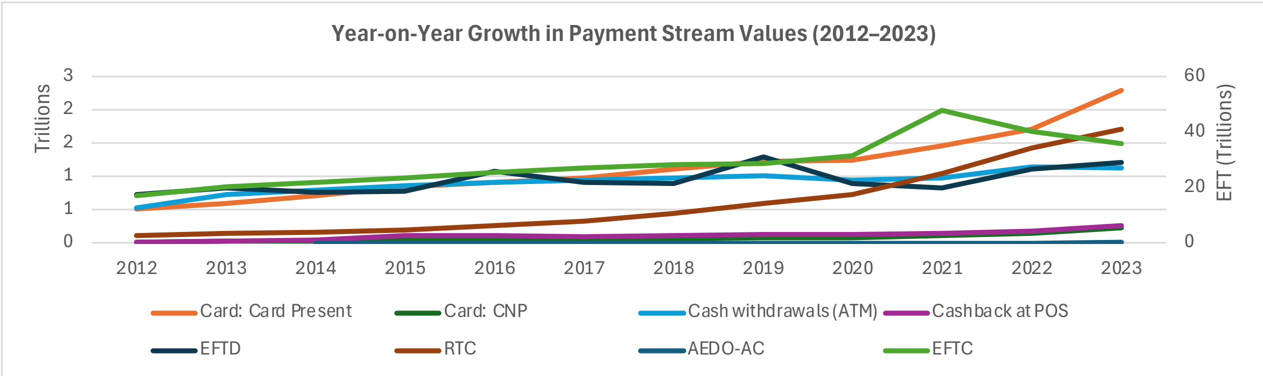
24 See World Bank Group, *Global Payment Systems Survey,* 6th Iteration, October 2023. The GPSS collects data from central banks and monetary authorities, covering all aspects of national payment systems such as infrastructure, legal/regulatory environment, innovations, international remittances and oversight. It combines both quantitative and qualitative measures of payment system development. The findings help guide policy decisions at national and international levels and support the World Bank Group in providing technical assistance.



Appendix C: South African payment trends

C.1 All payment streams - volumes and values (2012–2023)





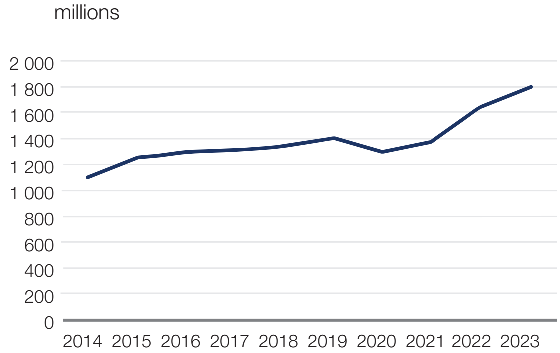
SARB NPSD (2024) PAYIR annual data collection[25]

The value of electronic funds transfer (EFT) credits decreased as smaller transactions moved to PayShap. Automated teller machine (ATM) volumes remained steady, recovering from a slight dip during COVID-19. Cashback at point of sale (POS) has grown since 2020. Note: Graphs do not include PayShap data (launched in 2023); however, BankservAfrica data suggests that PayShap volumes are growing, with PayShap expected to continue to cannibalise other payment streams due to its limit increase to R50 000 in September 2024.

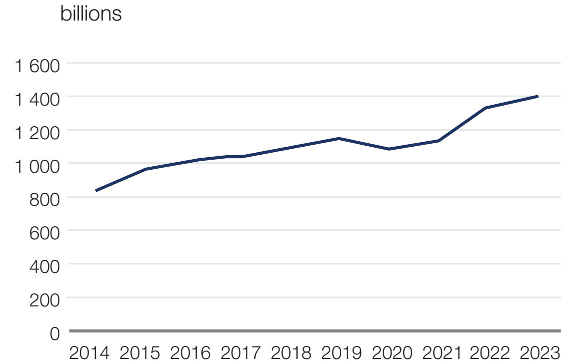
25 2021 EFTD Value adjusted based on anomaly.

C.2 ATM cash withdrawals and cashback at POS - volumes and values (2012–2023)

ATM Cash Withdrawals and Cashback at POS (Volumes)



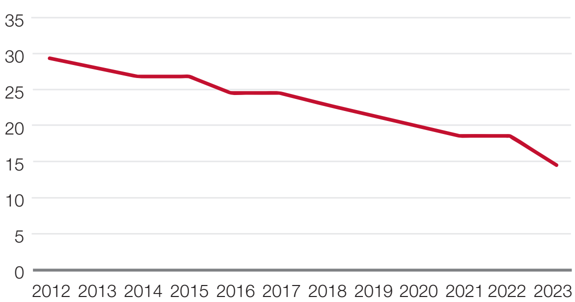
ATM Cash Withdrawals and Cashback at POS (Volumes)



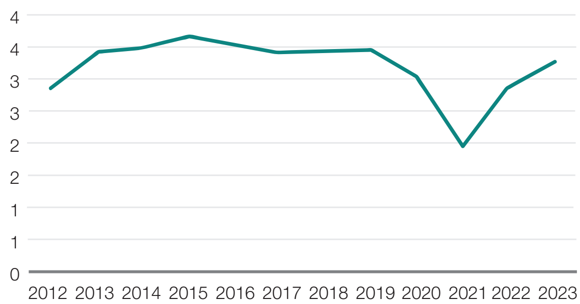
The total demand for cash, evidenced by ATM cash withdrawals and cashback at point of sale, remains strong. It is also important to note that the data excludes the onward velocity of cash in circulation; PEM would want to accelerate positive trends towards digital alternatives.

C.3 ATM cash withdrawals and cashback at POS contribution to low-value payments (2012-2023)

ATM Cash Withdrawals and Cashback at POS% Contribution to Total LVP (Volumes)



ATM Cash Withdrawals and Cashback at POS% Contribution to Total LVP (Values)



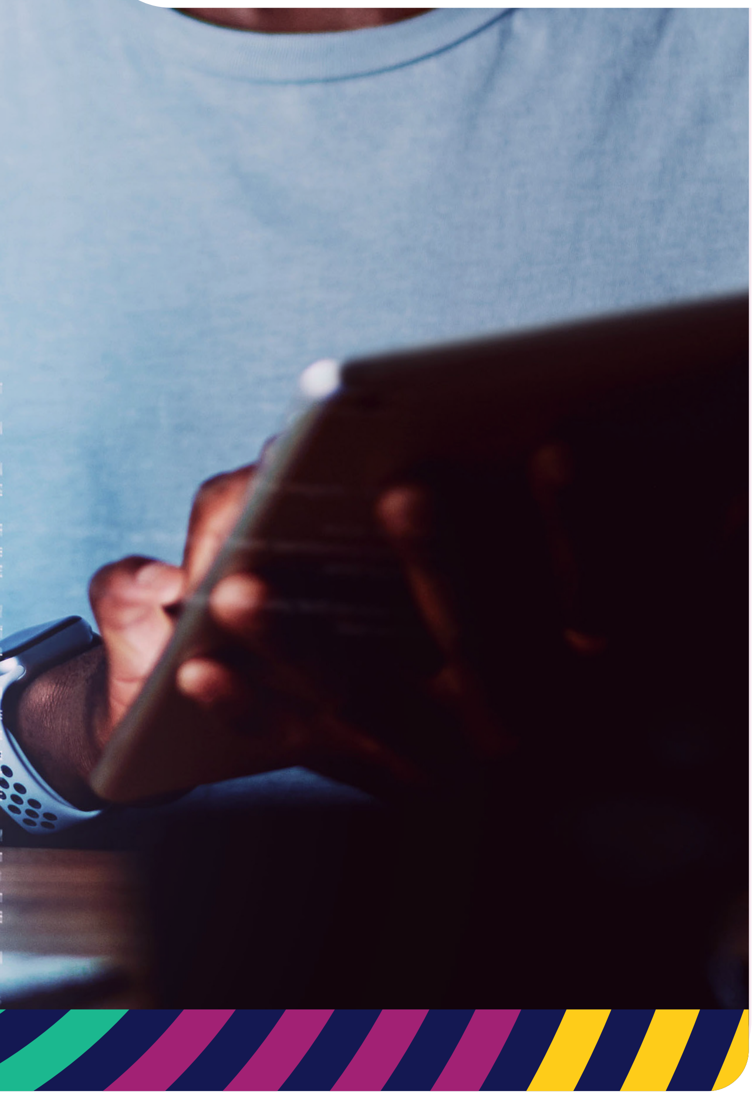
Source: SARB NPSD (2024) PAYIR annual data collection. BSVA PayShap interbank annual data (2023).

The decline in volume of cash-related transactions (ATM cash withdrawals and cashback at POS) as a percentage contribution to total low-value payments (LVP) suggests that cash demand, while strong, is growing at a lower rate compared to other digital methods (e.g. cards, EFT, debit orders, etc.). However, the percentage contribution of cash-related transactions in terms of values (approximately 3%) suggests that while volumes are decreasing, the values withdrawn are not decreasing – possibly even increasing per transaction.

Appendix D: The alignment of PEM initiatives to Vision 2025 goals

Vision 2025 goal	PEM initiatives that address the Vision 2025 goal
1. **A clear and transparent regulatory and governance framework:** Improve regulatory oversight and governance structures.	A well-defined governance structure is essential for stability and confidence in the financial system. **The PEM addresses this through its governance framework for a national payment utility (NPU) (Central component 2),** ensuring balanced decision-making between regulators and private sector participants. **The activity-based regulatory framework (Central component 3)** introduces clear, risk-based licensing requirements for new entrants, promoting fair market participation while upholding financial integrity. These measures create a predictable and well-regulated environment that fosters growth and trust.
2. **Transparency and public accountability:** Improve awareness, adoption and trust in digital payments.	Trust in the financial system is reinforced through clear governance and regulatory oversight. The **PEM's governance structure for the NPU (Central component 2)** ensures balanced participation from both public and private stakeholders, while the SARB retains final decision-making authority to safeguard stability. The **activity-based regulatory framework (Central component 3)** establishes clear, proportionate rules for all participants, including non-banks, fostering accountability and a level playing field. Regular industry consultations and standardised mechanisms further enhance transparency and public trust. Additionally, **a centralised fraud and intelligence management system (Initiative 4)** strengthens security, ensuring a safe and reliable digital payments system that boosts consumer confidence.
3. **Financial stability and security:** Strengthen risk management and fraud prevention.	A secure and resilient financial system safeguards consumers and institutions from fraud, cyber threats and systemic risks. **The PEM introduces a centralised fraud and intelligence management system (Initiative 4)** to provide end-to-end visibility into digital transactions, enhancing security and mitigating financial crime. This system also supports improved monitoring and insights, contributing to better FATF and other ratings for South Africa. **Enhancements to the RTGS infrastructure (Initiative 6)** strengthen the backbone of the financial system, ensuring long-term stability and resilience. Additionally, an **activity-based regulatory framework** ensures that non-bank participants adhere to proportionate regulations, maintaining financial stability as the ecosystem evolves.
4. **Promoting competition and innovation:** Foster a competitive and innovative payments market.	A dynamic and competitive financial ecosystem fosters innovation, enhances consumer choice and drives economic growth. The PEM advances competition by enabling non-bank participation through an **activity-based regulatory framework (Central component 3),** allowing qualified banks, fintechs and new entrants to engage directly in clearing, settlement and payment services alongside traditional banks. Enhancing the **fast payment system (Initiative 2)** introduces real-time, low-cost digital transactions and encourages broader participation from fintechs and non-banks. Additionally, the establishment of an **NPU** standardises access to payment rails, ensuring a level playing field for all market participants. **Interoperability (Initiative 3)** further promotes competition by allowing different providers to transact seamlessly across the ecosystem.
5. **Cost-effectiveness:** Enhance efficiency and reduce the cost of payments	Reducing transaction costs makes digital payments more attractive and accessible. The **fast payment system (Initiative 2)** enables instant, low-cost transactions, offering the convenience of cash without hidden fees. Additionally, the **centralised digital identity system (Initiative 1)** lowers onboarding costs, making it easier and more affordable for individuals to access financial services. **Interoperability (Initiative 3)** further enhances efficiency by enabling seamless transactions across different providers. By streamlining payment processing and leveraging economies of scale, the PEM ensures digital payments remain cost-effective for all users.
6. **Interoperability:** Ensure seamless transactions across platforms and providers.	Seamless payment interactions across networks, providers and jurisdictions are crucial for financial inclusion and efficiency. **Interoperability (Initiative 3)** enables users to transact effortlessly across shared infrastructure using standardised mechanisms, such as QR codes and proxy databases. Enhancements to the **fast payment system (Initiative 2)** ensure broader participation, including non-banks, allowing participants to integrate into the wider payments ecosystem. By eliminating silos and fostering connectivity, the **PEM promotes a more inclusive, efficient and user-friendly financial system,** expanding access beyond traditional banks to drive widespread adoption.

7. Flexibility and adaptability: Strengthen payment system resilience against disruptions.	A modern financial system must be agile and responsive to emerging technologies and market shifts. **The PEM ensures flexibility** by introducing an activity-based regulatory framework **(Initiative 3),** enabling new business models to emerge without compromising stability. **The digital infrastructure (through the establishment of an NPU) (Central component 1)** offers a scalable foundation that can adapt to changing needs. Additionally, **education and awareness (Initiative 7)** equip consumers and businesses with the knowledge to embrace new payment innovations, fostering long-term adaptability.
8. Regional integration: Frictionless cross-border transactions and financial connectivity.	Seamless cross-border payments and financial connectivity drive regional economic growth. **The PEM supports integration** by modernising the Real-Time Gross Settlement **(RTGS)** system **(Initiative 6)**, aligning it with global payment trends and regional interoperability. Additionally, **improvements in interoperability (Initiative 3)** create a harmonised ecosystem that enables transactions across multiple networks and providers. By establishing a robust governance structure for the NPU, the PEM ensures alignment with international standards, making South Africa's payments infrastructure more attractive for regional partnerships.
9. Financial inclusion: Increase access to financial services for the unbanked and underbanked.	To include the unbanked and underbanked in the digital economy, the PEM ensures the availability of **accessible stores of value (Initiative 5),** allowing users to transact without a traditional bank account. **The fast payment system (Initiative 2)** enables low-cost, real-time transactions, reducing reliance on cash and enhancing accessibility. Additionally, **education and awareness campaigns (Initiative 7)** promote digital payments adoption by building trust and ensuring individuals understand how to use these systems effectively.



Abbreviations

AI	Artificial Intelligence
ATM	automated teller machine
BCP	business continuity planning
BIS	Bank for International Settlements
DFID	digital financial identity
DPI	digital public infrastructure
DR	disaster recovery
EDO	electronic debit order
EFT	electronic funds transfer
EMV	Europay, Mastercard and Visa
FATF	Financial Action Task Force
FPS	fast payment system
G2P	government-to-person
GDP	gross domestic product
GEC	Governors' Executive Committee
GPSS	Global Payment Systems Survey
IPMC	Integrated Programme Management Committee
LVP	low-value payments
MIS	management information system
ML	machine learning
NFC	Near Field Communication
NPS	national payment system
NPSD	National Payment System Department
NPU	national payment utility
P2P	person-to-person
PASA	Payments Association of South Africa
PCH	Payment Clearing House
PEM	Payments Ecosystem Modernisation
POS	point of sale
PSMB	Payment System Management Body

QR	Quick Response
RTC	real-time clearing
RTGS	Real-Time Gross Settlement
SADC	Southern African Development Community
SAMOS	South African Multiple Option Settlement
SARB	South African Reserve Bank
UPI	Unified Payments Interface
USSD	unstructured supplementary service data

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