BankservAfrica

# SADC REGIONAL PAYMENTS INTEROPERABILITY

Exploring the value of mutual digital infrastructure to drive more formalised, accessible and inclusive payments in SADC

WHITE PAPER

# Acknowledgements

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# Acronyms

| | |
|---|---|
| ACH | AUTOMATED CLEARING HOUSE |
| ADLA | AUTHORISED DEALER WITH LIMITED AUTHORITY |
| AfCFTA | AFRICAN CONTINENTAL FREE TRADE AREA |
| AML/CFT/CPF | ANTI-MONEY LAUNDERING, COMBATTING THE FINANCING OF TERRORISM, AND COUNTER PROLIFERATION FINANCING |
| B2B | BUSINESS-TO-BUSINESS |
| B2G | BUSINESS-TO-GOVERNMENT |
| BIS | BANK FOR INTERNATIONAL SETTLEMENTS |
| BoP | BALANCE OF PAYMENT |
| CDD | CUSTOMER DUE DILIGENCE |
| CMA | COMMON MONETARY AREA |
| CPMI | COMMITTEE ON PAYMENTS AND MARKET INFRASTRUCTURES |
| DPI | DIGITAL PUBLIC INFRASTRUCTURE |
| DRC | DEMOCRATIC REPUBLIC OF CONGO |
| EFT | ELECTRONIC FUNDS TRANSFER |
| FNB | FIRST NATIONAL BANK |
| FSB | FINANCIAL STABILITY BOARD |
| ILP | INTER-LEDGER PROTOCOL |
| IPS | INSTANT PAYMENT SYSTEM |
| KYC | KNOW YOUR CUSTOMER |
| MMO | MOBILE MONEY ORGANISATION |
| MSME | MICRO, SMALL, AND MEDIUM ENTERPRISE |
| MTO | MONEY TRANSFER ORGANISATION |
| OTC | OVER THE COUNTER |
| P2B | PERSON-TO-BUSINESS |
| P2P | PERSON-TO-PERSON |
| PSOC | PAYMENT SYSTEM OVERSIGHT COMMITTEE |
| PSP | PAYMENT SERVICE PROVIDER |
| RCSO | REGIONAL CLEARING AND SETTLEMENT SYSTEM OPERATOR |
| RTGS | REAL-TIME GROSS SETTLEMENT SYSTEM |
| SADC | SOUTHERN AFRICAN DEVELOPMENT COMMUNITY |
| SSA | SUB-SAHARAN AFRICA |
| TCIB | TRANSACTIONS CLEARED ON AN IMMEDIATE BASIS |
| UPU | UNIVERSAL POSTAL UNION |
| USD | UNITED STATES DOLLAR |

# Executive summary

The Southern African Development Community (SADC) is one of the widest-reaching regional blocs on the continent. The efficient and effective flow of retail payments across borders is core to supporting trade and remittances, thereby cementing the close-knit cross-border economic and cultural ties that already exist in the region. To connect people across countries, public infrastructure is key. Transactions Cleared on an Immediate Basis (TCIB), live since 2021, has the scope to form a valuable digital public infrastructure to promote cross-border payments in SADC.

## Why this white paper?

Ultimately, the utility and inclusivity of cross-border retail payments depend on the network of touch points. Forming a broad network of payment service providers (PSPs) across the region requires broad-based interoperability and collaboration between the public and private sectors alike. Many established PSPs in the SADC region have already formed relationships with other schemes or bilaterally with one another and thus have limited incentive to move to all-to-all cross-domain interoperability. To help facilitate the mind shift towards regional interoperability, this white paper assesses the current state of cross-border payments in the region, and highlights how an interoperable payments platform can help to overcome the plethora of commercial, operational, and regulatory gaps and hurdles that remain in the quest for more formalised, accessible, and inclusive cross-border payments in the region.

## A dynamic cross-border payment market

There are considerable lower-value person-to-person (P2P), person-to-business (P2B) and business-to-business (B2B) flows in the region. These flows bode well for providers to scale. Moreover, the first and last mile provider landscape is shifting: the traditional dominance by commercial banks and large international MTOs is challenged by the rise of fintechs. Yet, most cross-border transactions are still conducted informally. Despite the presence of closed-loop middle mile services to aggregate cross-border payments, the market remains underserved by formal players for use cases other than P2P. Where services are provided, business model dynamics and the partnership structures necessitated by licensing regimes keep costs high.

Further growing and formalising the cross-border market requires lower-cost solutions and more providers to integrate P2B and B2B use cases. For this to happen, payment service providers need to be empowered to offer low-cost, high-quality cross-border payment services.

A number of commercial, regulatory, infrastructure and consumer barriers need to still to be overcome at the first, middle and last mile – costs of agent and liquidity management, foreign exchange costs and reporting burden, limited data availability, limited partnership interest by banks, costs and documentation barriers related to customer due diligence and reporting, lack of regulatory certainty, the prevailing cash preference of clients, and, importantly, lack of interoperability.

## Role for a regional cross-domain Instant Payment System

A regional cross-domain instant payment system such as TCIB has the scope to address many of these barriers. A digital public infrastructure that is accessible by all players for cross-border transactions in SADC is core to enabling low-cost P2P, P2B, and B2B transactions, as replacing bilateral integrations between value-chain partners with one centralised integration can scale the market and significantly reduce operational and forex costs for PSPs.

It will also benefit the first and last mile:

Cash-in/cash-out and agent network access can increase as the platform can serve as a matchmaking function between value chain partners

The cost of liquidity can be reduced if the settlement windows allow for faster velocity of liquidity and capital in pre-funded accounts is tied up for shorter periods

Non-banks can easily integrate with banks, potentially increasing the value proposition to form partnerships

If all use cases are enabled, services running via the platform can compete with informal products and decrease the preference for cash

Furthermore, the platform can make information on values, volumes, and transaction patterns more visible and help overcome the lack of real-time data on small-value, high-volume cross-border retail flows. Through its centralised nature, the IPS can consolidate industry views and act as a unified voice in discussions with the regulator and supervisor.

## Making history for the benefit of all

The large diaspora and vibrant cross-border trader market in SADC provides an immense opportunity for formalising retail transactions within SADC. Interoperability through open-loop instant payment systems is a core step to the formalisation of flows. While a shared platform cannot be the panacea to reducing the cost of formal services in the region, the benefits grow the more PSPs sign up to be integrated. SADC, a leader in many areas in Africa, can make continued history by being the first African region with multiple central banks that can provide all-to-all, open-loop interoperability to support its citizens' livelihoods and needs.

# 01. INTRODUCTION

## Strong commitment to regional integration

With a population spanning almost 400 million people, the Southern African Development Community (SADC) is one of the widest-reaching regional blocs on the continent. The SADC agreement is given effect through various protocols, including trade, finance, investment, and infrastructure, and members actively work together to harmonise frameworks towards the implementation of these protocols. SADC promotes peace, security, and stability in the region through cooperation and dialogue. It is home to a monetary union, the Common Monetary Area (CMA), which links South Africa, Namibia, Lesotho, and Eswatini. The South African rand is a legal tender in the CMA, but the other member states issue their own currencies (the Lesotho loti, Namibian dollar, and Swazi lilangeni), exchanged at par with the rand. Box 1 shows the countries within SADC.

### Box 1: SADC at a glance

Figure 1: SADC member countries

## Cross-border retail payments as a conduit for integration

The efficient and effective flow of retail payments across borders is core to supporting trade and remittances, thereby providing a conduit to cement the close-knit cross-border economic and cultural ties that already exist among peoples in the region. However, the diverse country contexts across member states, with their differing economic realities, cultures and entrenched informal trade and payment routes, mean that it is unlikely to happen organically.

## Need for public infrastructure

To efficiently connect people across countries, public infrastructure is key. Digital public infrastructure, or DPI is one of the core enablers of inclusive economies (World Bank, 2023). DPI facilitates essential society-wide functions and services, such as identification, data exchange, and payments. In the retail payment space, DPI facilitates interoperability in the payments value chain. This can accelerate regional integration and the movement towards cash-lite societies by enabling low-cost clearing and settlement of different payment channels and instruments between a variety of payment service provider (PSP) types, thereby catering for the varied payment needs of SADC citizens.

# 1.1 Problem statement

## TCIB provides needed public infrastructure for regional retail payments integration in SADC

Transactions Cleared on an Immediate Basis (TCIB), live since 2021, is aspiring to become such a form of DPI. As part of the broader SADC payments integration road map, the SADC Banking Association together with BankservAfrica, developed the system. TCIB is based on the ISO 20022 messaging standard and is available 24/7/365. It provides a centralised network that facilitates instant clearing of retail transactions, as well as timely settlement. Different to other retail payment systems operating in the region, TCIB is based on the principles of open-loop and cross-domain interoperability to process low-value cross-border retail transactions. Any provider that is licensed in a SADC jurisdiction to conduct cross-border retail payments is allowed to join the network – bank and non-bank PSPs – based on shared scheme rules and through a shared governance structure.

## Increased scale means increased sustainability and inclusivity

The success of the system depends on the network effects it can generate. The more points of direct engagement, the more DPI begin to facilitate digital ecosystems and hence the higher the utility. The higher the volume and value that is generated, the lower the per-transaction costs.

## Appeal of creating a network of PSPs linked through a central hub remains promising

Many established PSPs in the SADC region have already formed relationships with other schemes or bilaterally with one another. Thus, despite the in-principal benefits of DPI, PSPs remain incentivised to maintain bilateral interoperability arrangements with each other to facilitate formal cross-border payments services and may not yet see the value in joining TCIB as it could cannibalise their existing business. Newer and smaller PSPs stand to benefit more from joining TCIB, but they may not see the value of a shared platform unless the bigger entities also join.

# 1.2 Objective

## A stock-take and call to action

Ultimately, the success of useful, accessible, and inclusive cross-border retail payments depends on the collaboration between the public and private sectors in SADC in payments and beyond. This white paper contributes to the growing body of literature on the necessity of interoperability in payments by:

- assessing the current state of cross-border payments in the region;
- highlighting the commercial, operational, and regulatory gaps and hurdles that remain for PSPs in the quest for more formalised, accessible and inclusive cross-border payments; and
- Identifying the incentives that an interoperable payments platform can offer PSPs to overcome these hurdles

# 02. THE CURRENT STATE OF CROSS-BORDER PAYMENTS IN SADC

Understanding the current state of the cross-border payments market in SADC asks for an appreciation of cross-border payment use cases, as well as the provider landscape serving these use cases.

## 2.1 Cross-border payment use cases

There are three main use cases for cross-border retail flows in the SADC region for individuals and businesses, respectively:

For individuals, **person-to-person (P2P)** transactions are common. P2P transactions involve sending remittances to friends and family across borders.

**Person-to-business (P2B)** transactions are also prevalent. Such transactions include cross-border trade-related purchases, bill payments, loan repayments, and e-commerce payments.

**Businesses also engage in business-to-business (B2B)** transactions, which encompass cross-border trade-related purchases between businesses through supply chains and e-commerce. The B2B category furthermore encompasses cross-border tax payments, although these could technically be classified as business-to-government (B2G).

Below, the scope of each of these use cases in the SADC region is outlined in turn.

Estimates indicate that approximately **3.7 million** SADC migrants reside within South Africa

## 2.1.1 Cross-border remittances

### Remittances provide an economic and disaster resilience lifeline

Cross-border payments play a significant role in the economy of SADC by providing households with a crucial source of income and countries with foreign exchange. Moreover, monetary support from the diaspora abroad and between urban and rural areas has become an increasingly common strategy for resilience in SADC (FAO, 2017). In the eastern part of SADC, Comoros, Madagascar, Malawi, and Mozambique are frequently affected by cyclones and flooding (IDMC, 2019). In contrast, drought has affected lives and migration patterns in Botswana, Eswatini, Lesotho, Namibia, South Africa, and Zambia (SADC, 2021). In both instances, remittances are important to maintain livelihoods and aid recovery.

### Remittances make a substantial contribution to GDP

It is estimated that USD 794 billion in formal cross-border P2P, or remittances, inflows were received worldwide in 2022. USD 8.4 billion was received by SADC countries formally, up from USD 7.7 billion in 2021 (World Bank, 2022a). The informal market is even bigger: 52% of remittances originating from South Africa to the rest of SADC are estimated to be informal (FinMark Trust, 2021). Lesotho and Comoros, at an equivalent of 21% and 20% of GDP, respectively, are most reliant on remittances, while Zimbabwe (USD 2 billion), DRC (USD 1.6 billion), and South Africa (USD 1 billion) are the largest recipients (World Bank, 2022a). These inflows of remittances make up a substantial portion of gross domestic product and, after foreign direct investment, are one of the largest sources of foreign currency for countries in the region (World Bank, 2017a). While a substantial amount is received from outside SADC, intra-SADC corridors are vital given the large number of migrants from the region that stays within SADC.

### The overwhelming majority of cross-border remittances within SADC originate from South Africa

Estimates indicate that approximately 3.7 million SADC migrants reside within South Africa, of which over 88% are from Lesotho, Malawi, Mozambique, and Zimbabwe. The diaspora formally remitted an estimated USD 680 million out of South Africa in 2021, more than double the amount in 2016 (FinMark Trust, 2021). This makes South Africa (i.e. an economic hub) for many in the region, the only net sender in SADC. South Africa to Zimbabwe (46% of total flows from South Africa) is the largest corridor in the region, followed by Malawi (18%), Lesotho (10%) and Mozambique (6%) (FinMark Trust, 2020).

### The expenses associated with sending money within the region are considerably greater than those of other regions

Despite a 2.2% decrease in the average cost for a USD 200 remittance from 9.4% to 7.2% between 2019 and 2021, South Africa and various corridors within SADC remain some of the most expensive remittance markets globally (Finmark Trust, 2021). Costs in the region still significantly exceed the Sustainable Development Goals target to lower the transaction costs of migrant remittances to less than 3% by 2030 and eliminate remittance corridors with costs higher than 5% (UN, 2023). The most expensive corridor to send to from South Africa was Angola at 21%, followed by Botswana (16.6%), Madagascar (13.8%) and the Seychelles (11%). The cheapest corridors were Lesotho (0.4%) and Eswatini (0.8%). The high formal remittance prices, in part, contributes to the use of informal remittance channels.

### 2.1.2 Cross-border person-to-person payments

## Despite the increasing regional trade in Africa, P2B cross-border retail payments are still limited

Intra-regional trade in sub-Saharan Africa (SSA) has grown significantly over the years, representing 20% of total exports in 2016, compared to only 4% in the 1990s (IMF, 2017). The African Continental Free Trade Area (AfCFTA) is expected to boost intra-regional trade in the coming years, with a focus on digital payments to facilitate cross-border transactions. Electronic commerce is expected to play a critical role in achieving the goals of AfCFTA, potentially increasing intra-African trade from 18% to 50% by 2030 (UN, 2020). However, despite the efforts to promote intra-continental trade, the availability of merchant trade and cross-border e-commerce payments remains limited. By international standards, Africa still has a relatively low e-commerce penetration compared to other continents. Online shopping traffic currently accounts for less than 2% of global e-commerce users. In 2019, there were a total of 631 online retail stores across 58 African countries and territories, which collectively recorded about 2.2 billion visits that year (Klasha, 2021). SADC-specific data is not widely available.

## Intra-regional trade in SSA


### 2.1.3 Cross-border business-to-business payments

#### Micro, small, and medium enterprises (MSMEs) play a crucial role in the economic development of many African countries

Globally, MSMEs make up over 90% of the private sector and contribute more than 50% of employment, while also significantly contributing to GDP (World Bank, 2022b). Despite their relatively low contribution to international trade, MSMEs are engaged in substantial cross-border trade, with a significant volume of transactions and a high frequency of traders crossing national borders. SSA and particularly SADC is predominantly involved in raw material and wholesale trade with beneficiated goods mostly for local consumption. Markets are constrained by fluid information and liquidity and limited trust beyond cash. The market for beneficiated goods is therefore a current missing driver of B2B and P2B payments volume and value.

#### Cash is the preferred method for cross-border payments

Despite the availability of formal and digital cross-border payment solutions, a significant number of MSMEs still prefer cash payments for cross-border transactions due to limited knowledge and awareness about the benefits of digital payment solutions. The trend of using cash payments inhibits the growth of MSMEs' cross-border business and makes it difficult for them to access financing or make remote payments. As a result, MSMEs' market reach and growth opportunities are restricted, ultimately hindering the growth of the MSME sector in general. A survey of 313 MSME owners engaged in cross-border trade in Kenya, Malawi, Rwanda, Uganda, and Zambia revealed that more than half (56%) of the businesses generate less than half of their total revenue from cross-border trade. The overwhelming majority of cross-border purchases were made using cash, while only 14% were conducted through banking channels and 3% via mobile money (AfricaNenda, 2022).

#### Box 2: Summary findings: cross-border payment use cases

P2P, P2B, and B2B cross-border retail payment use cases are vital in unlocking further growth and regional integration

The flows, especially from South Africa to the rest of region, are considerable but still relatively high cost compared to the international goals and other regions in the world

Cross-border transactions are still conducted largely informally, especially P2B and B2B transactions as the formal solutions are scarcer compared to P2P payments

## 2.2 Cross-border payment providers

A variety of PSPs are licensed to conduct cross-border retail payments in SADC at the first, middle, and last mile. Figure 2 shows the typical cross-border transaction value chain in SADC.

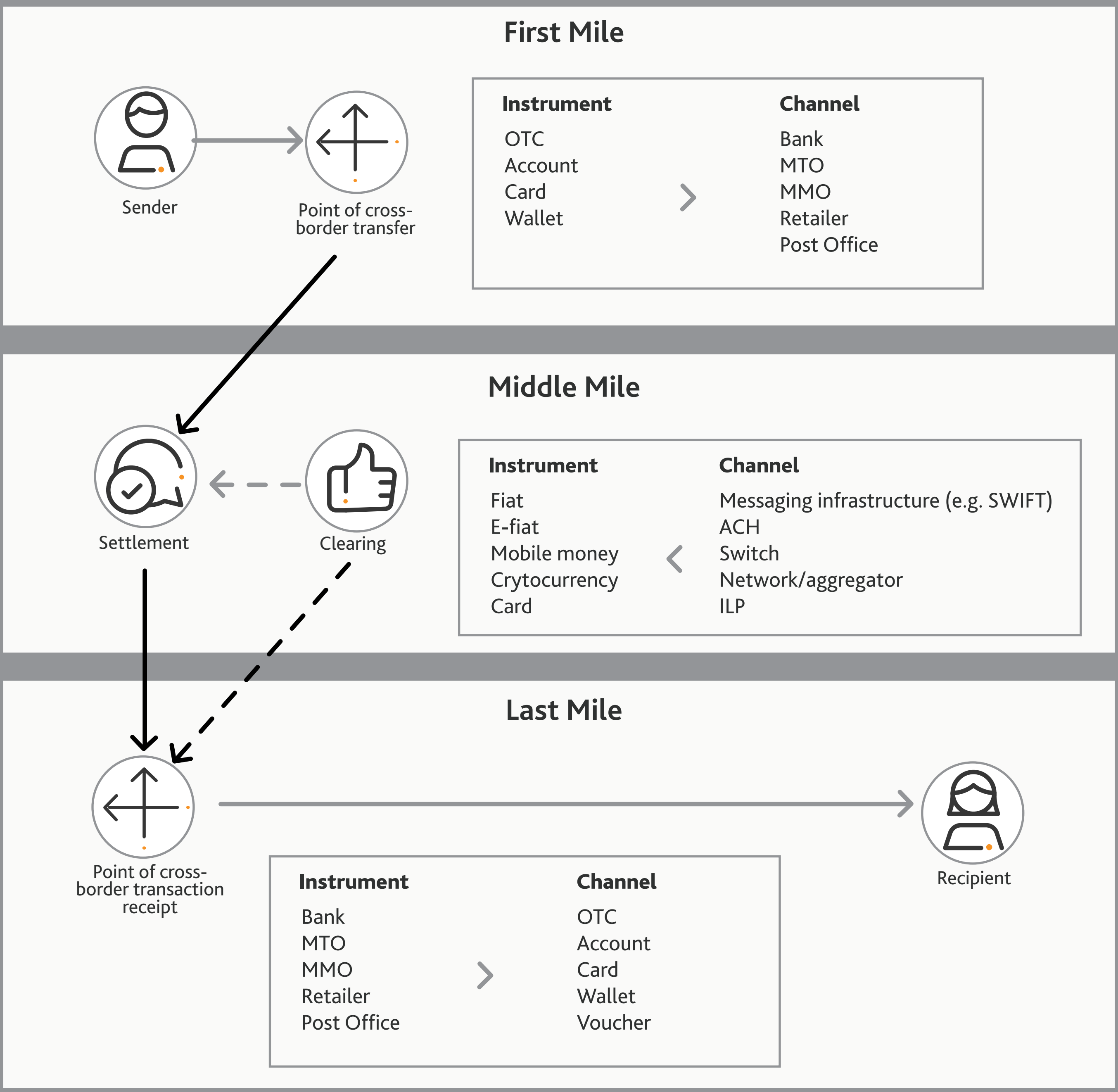



Figure 2: Cross-border retail transactions value chain in SADC

## Middle mile market dynamics

### Middle mile covers information exchange, clearing and settlement

At the middle mile, the information is exchanged and the actual transfer between the first mile and the last mile institutions takes place. The process covers the back-office functionality, including clearing and settlement. It includes the exchange of value into pay-out currency, anti-money laundering (AML), combatting financing of terrorism (CFT) and counter proliferation financing (CPF) checks, and reconciliations. The transmission of payment instructions in SADC can be conducted by a combination of SWIFT, automated clearing houses (ACH), bilateral agreements or switches/aggregators. The latter include MFS Africa, Thunes, HomeSend, Mastercard Send, TerraPay, and Visa Direct.

To clear the funds, the payment message is identified, verified and then redirected from the sender institution to the recipient institution. The message is then translated from data into funds. The funds can be injected in the system as fiat, e-fiat or mobile money, cryptocurrency or card. The services offered by digital platforms are in competition with TCIB as they fulfil the clearing function within their closed-loop network of participants, like TCIB.

At the settlement stage, the funds are settled between sending and receiving institutions. Settlement in SADC can happen via different channels, such as the SADC real-time gross settlement system (RTGS), SWIFT via correspondent banking, inter-ledger protocol (ILP, clears and settles simultaneously), or card associations like VISA and MasterCard (Cenfri, 2018).

This settlement stage falls away if there is no external settlement necessary, for example, on-us transfers that occur between branches of the same bank.

## First and last mile dynamics

### Five types of payment service providers at the first and last mile

While the regulatory regime and therefore the licences and their respective requirements differ per country, there are five general types of PSPs that conduct formal cross-border transfers at the first and last mile, i.e., at the sender and recipient end:

- commercial banks;
- money transfer operators;
- mobile money operators;
- retailers; and
- post offices

Commercial banks are most commonly the only entities out of the five that can facilitate B2B and P2B transfers as part of their licence, in addition to P2P. International card associations facilitate some of the e-commerce transactions. Informal transfer mechanisms can also be semi-formalised at the first or last mile of the payment transaction.

## First and last mile dynamics (cont.)

### Commercial banks and international MTOs traditionally dominated the market

Non-banks in the lead. Before digital remittances and innovative partnerships became more widespread, commercial banks and international MTOs such as Western Union and MoneyGram dominated the cross-border transfer business in SADC. In South Africa, the regulator introduced the authorised dealer with limited authority (ADLA) regime in 2014 to allow more competition in the market. This regime has since been adopted by Zimbabwe too. Cross-border payment services are provided by banks either through their international banking divisions or via correspondent banking relationships with other financial institutions. Within SADC, the four large banking institutions – namely Absa, Standard Bank, First National Bank (FNB) and Nedbank aBank, First National Bank (FNB) and Nedbank are the primary commercial banks operating within the key corridors. Sending and receiving at a bank involves over-the-counter (OTC) services via a banking teller in cash or cheque or via an electronic funds transfer (EFT) digitally from a bank account. If the bank has partnerships with other value chain actors, such as MTOs or mobile money providers, money can also originate or terminate in wallets or at MTO agents. Fintechs with digital transfer solutions, such as Chippercash, offer services for banked customers through partnerships with banks.

### Commercial banks and international MTOs traditionally dominated the market; non-banks in the lead

Relative to other retail cross border payment providers, commercial banks are significantly more expensive – with the total cost (made up of the fee charged to the send as well as exchange rate markup) ranging from between 22% to 50% of a USD 200 remittance as illustrated in Table 1. Transaction fees consist of a commission, a SWIFT fee and in some cases an administration or service fee, in addition to foreign exchange fees (IFAD, 2022).

### A variety of MTOs active in the SADC market

Licensed MTOs include international providers such as Western Union and MoneyGram, as well as WorldRemit. In some countries they also include Bureau de Changes. Fintechs, such as HelloPaisa, Mama Money, Cassava, Mukuru, Kawena, Sikhona Money Transfers, Sasai Fintech and others are active MTOs in the SADC region. In a key difference to commercial banks, MTOs typically are only allowed to offer P2P transfers. MTOs provide these services through a combination of online platforms, mobile applications, and networks of agents or partner institutions. MTOs require a sponsor bank for settlement services.

Cross-border payment services are provided by banks either through their international banking divisions or via correspondent banking relationships with other financial institutions.

| Provider type | Description | Excerpts of percentage costs (of USD 200) for key corridors by provider (2022) | | |
|---|---|---|---|---|
| | | South Africa - Zimbabwe | South Africa - Malawi | South Africa - Mozambique |
| Commercial banks[1] | Traditional banks offer cross-border payment services through their international banking divisions or correspondent banking relationships with other banks. | Absa: 22% (internet); 33% (branch) Standard Bank: 25% (branch) FNB: 24% (internet); 42% (branch) Nedbank: 26% (branch) | Absa: 25% (internet); 36% (branch) Standard Bank: 26% (branch/internet) FNB: 32% (internet); 50% (branch) Nedbank: 26% (branch) | Absa: 26% (internet); 37% (branch) Standard Bank: 30% (branch) FNB: 24% (internet); 42% (branch) |
| Money transfer operators (MTOs) | Typically offer a range of payment methods, including bank transfers, mobile money, and digital wallets, making it easier for customers to choose a payment method that suits their needs. They often leverage technology and innovation to provide value-added services to enhance the customer experience and increase trust in their services | MoneyGram: 4% (agent); WorldRemit: 5% (internet) Sikhona Money Transfers: 7% (agent); Mukuru: 10% (internet); 11% (agent) Mama Money: 6% (agent/ internet); Western Union: 15% (agent) | MoneyGram: 5% (agent); Mukuru: 4% (agent) Mama Money: 9% (agent/ internet); Western Union: 15% (agent) | MoneyGram: 4% (agent); WorldRemit: 6% (internet) Sikhona Money Transfers: 5% (agent); Mukuru: 8% (internet); 8% (agent) Mama Money: 7% (agent); Western Union: 15% (agent) |
| Mobile money operators (MMOs) | MMOs play a role in cross-border payments by offering mobile money services for sending or receiving remittances via mobile phones. They can leverage their customer base and mobile network infrastructure to provide cost-effective and convenient cross-border pay-in and pay-out services, especially in areas with limited banking services | EcoCash Remit: 4% (agent) | EcoCash Remit: 8% (agent) | |
| Retailers | Many retailers are increasingly offering cross-border payments. Some partner with payment providers to offer their customers more payment options. Some retailers also offer digital payment methods, such as mobile apps and digital wallets, to facilitate cross-border payments. By leveraging their existing customer base and physical network, retailers can provide a convenient and accessible option for customers to make cross-border payments. | ShopriteSend: 4% (branch); 5% (mobile money) | ShopriteSend: 5% (internet banking); 5% (mobile money); 2% (branch) | ShopriteSend: 5% (internet banking); 4% (mobile money) |
| Post office | Often government-owned, typically offer various financial services, including domestic and international money transfers. They have a wide network of branches, making it easier for customers to access their services. In some countries, post offices also partner with other providers to offer additional services, such as mobile money and digital payments. | Universal Post Union: 3% (branch) | Universal Post Union: 3% (branch) | Universal Post Union: 3% (branch) |

Table 1: Typologies of cross-border retail payment providers in SADC, including prices from providers by key corridors

Source: World Bank, 2022c; Shoprite, 2023; Government of South Africa, 2022

1 These services are geared towards trade and higher value and thus the high percentage relative to a common cross-border retail transaction value.

## First and last mile dynamics (cont.)

### Reliance on cash adds cost, necessitates foreign exchange partnerships

Given the persistently high reliance on cash, an extensive cash-in/cash-out network is required, facilitated through partnerships or through targeted recruitment. This business model increases the cost to the consumer as agent services are priced into the transaction. Given that MTOs typically do not have enough foreign exchange in both currencies to honour the transactions, they partner with banks or other entities with access to foreign exchange as pay-in/-out partners. The MTO agrees on an exchange rate between the send and receive currencies along with any additional charges. When the MTO has collected a certain amount, it will typically make a bulk transfer to the partner who then pays out based on a pre-funded account arrangement or on credit. The MTO business model therefore either centres around offering a lower exchange rate than the agreed rate with the banking partners and/or by charging a fee/ commission for the service.

### Increased competition among MTOs has played a critical role in reducing the cost in South African corridors

Non-bank entities dominate the low-value, high-volume cross-border payment space in SADC. Unlike commercial banks, MTOs have innovated and leveraged more cost-effective channels to enable cross-border retail payments. As such, prices are significantly lower, as depicted in Table 1. Whereas the average cost of a USD 200 remittance varies between 20% and 30% for commercial banks, prices via MTOs are typically lower than 10% of the total amount.

### MMOs are not yet licensed to provide cross-border remittances without a partner

Like the MTO arrangements, MMOs are not yet licensed to conduct cross-border remittances end-to-end in any SADC corridor without a sponsor bank. Prominent examples include EcoNet in Zimbabwe, which is partnering with a range of licensed providers to facilitate cross-border remittances, especially from South Africa, and MTN, which is seeking an authorised dealer with limited authority (ADLA) licence in South Africa (IFAD, 2022). Partner bank requirements and, with that, foreign exchange arrangements are the same as for MTOs. The cost of remittances via mobile money is also comparable to that of MTOs. However, MMOs have the advantage of a much larger existing customer base and agent network and are attractive partners in the long run in the cross-border transaction value chain.

### Retailers are typically licensed like MTOs

Retailers such as Shoprite in South Africa enable money transfers via kiosks in their supermarkets. Given that the Shoprite Group has outlets and partnerships in the key SADC corridors from South Africa, this model is more focused on cash and over-the-counter transactions for both sender and recipient. The model can be more cost-effective than that of the other MTOs as retailers already have a large cash management system and liquidity at hand, which reduces operational costs. Increasingly, retailers are also offering digital wallets for cross-border transfers to other users in the network. Some retailers are enabling additional value-added services through transfers redeemed as vouchers instead of money.

For example: Kawena in South Africa sends goods to Zimbabwe and Mozambique. Malaicha.com (owned by HelloPaisa) has recently started offering a similar service to Zimbabwe and to Somalia (IFAD, 2022).

## Post offices play a significantly smaller role but have a wider rural network of agents/branches

As post offices often penetrate deeper into rural areas, they can leverage this network to provide cross-border transfer services across the board. The South African Post Office has its own closed-loop services with other post offices via the international Universal Postal Union (UPU) network that allows the sending and receiving of cross-border remittances if initiated from a post office branch. No digital transfers are possible, and proof of address is required to send and receive money, which can pose a significant challenge for senders and recipients.

### Box 3: Summary findings: cross-border payment providers

Existing closed-loop middle mile services such as MFS Africa, TerraPay, VISA and MasterCard, are playing an aggregation role in the cross-border payments space, with a growing network of participants but the market remains formally underserved, especially for use cases other than P2P.

The first and last mile provider landscape used to be dominated by commercial banks and large international MTOs. Since fintech penetration and digital adoption have increased and licensing regimes reformed, more competition in the MTO space has led to a lowering of cost for the sender and recipient. However, competitive costs are limited to the main South African corridors leaving the rest of SADC with substantially higher costs.

Business models evolve around foreign exchange margins and commissions, especially in the MTO sector, keeping prices high.

Partnerships are common, especially to increase pay-in pay-out networks and to facilitate choice in channel for the sender and recipient. Non-banks are not licensed to provide first and last mile digital services domestically without a sponsor bank.

Banks are typically the only entities that are licensed to facilitate the full range of use cases instead of only P2P. This puts them at a competitive advantage, especially regarding P2B and B2B payments. However, B2B transactions would typically fall under corporate or wholesale banking, and it requires strategic reform in large institutions to align around MSME B2B and P2B needs aimed at deepening the retail value chain.

Given the need for certainty around settlement, banks are still at the core of money transfer businesses as they have direct access to settlement systems, limiting the competition domestically.

# 03. PROVIDER BARRIERS

As consumer-facing entities, PSPs need to be empowered to offer low-cost, high-quality cross-border payment services. Yet the provider landscape as outlined above is still characterised by a few gaps and hurdles that prevent them from doing so. Ultimately, these barriers stand in the way of a more formalised, accessible and inclusive cross-border payment market.

Such barriers are not unique to SADC – as highlighted by the SADC Payment System Oversight Committee (PSOC), the challenges in cross-border retail transactions in SADC are like those faced in other regions of the world (SADC PSOC, 2021). The Financial Stability Board (FSB) and the Bank for International Settlements (BIS) Committee on Payments and Market Infrastructures (CPMI) classify the main challenges as high cost, low speed, limited access, and limited transparency. They are working to remove these barriers through their G20 roadmap on cross-border payments, containing 19 building blocks that aim to remove these challenges by the end of 2027
(BIS, 2020).

Figure 3 outlines the operational, infrastructure, and regulatory barriers that PSPs in SADC face as identified in the existing literature and through stakeholder consultations (Cenfri, 2018).

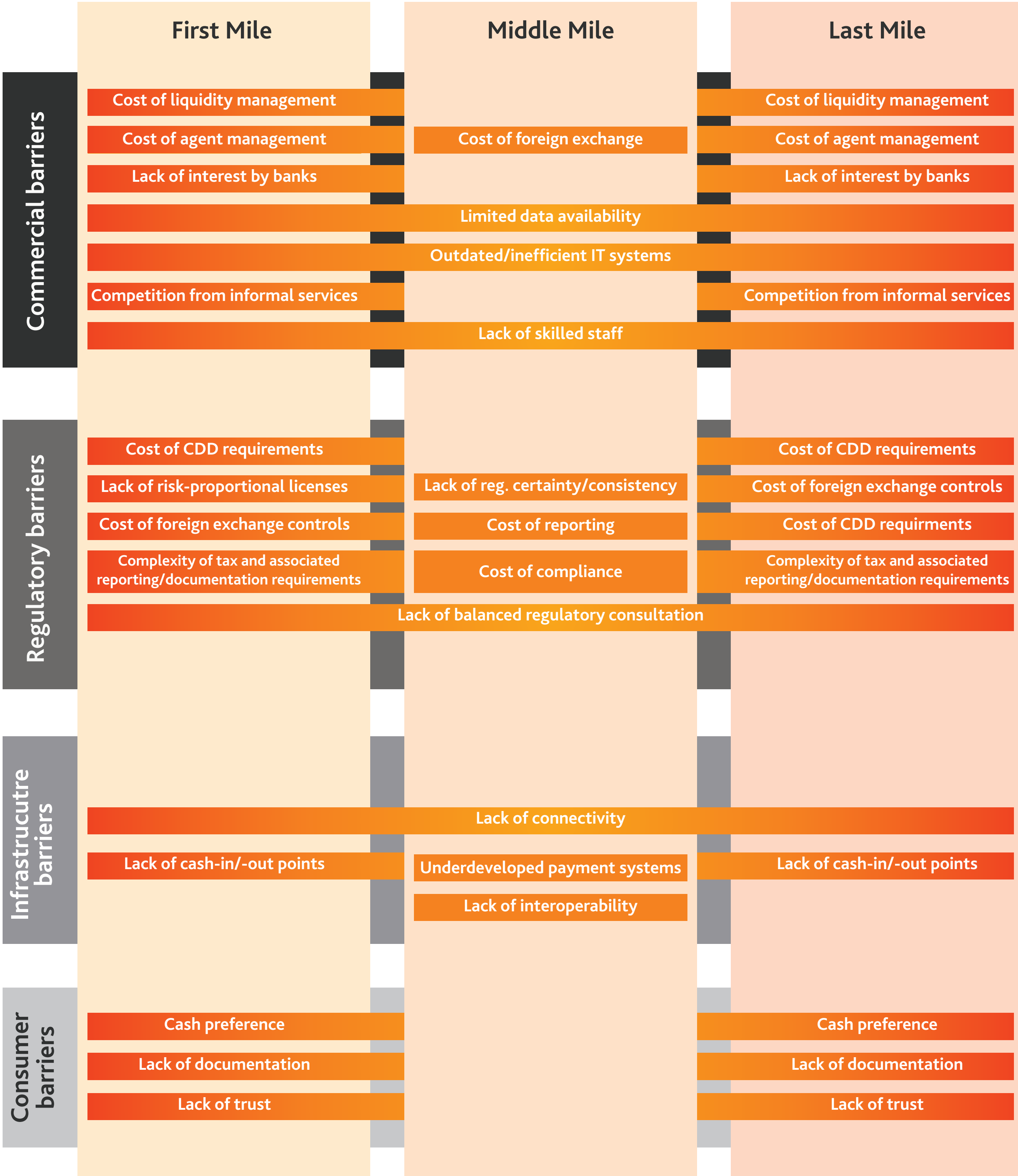



Figure 3: PSP first, middle and last mile challenges in SADC

Source: Author's own, based on literature review and stakeholder interviews

## 3.1 First and last mile barriers

First and last mile barriers manifest at four levels as summarised in Figure 3: commercial, regulatory, infrastructure and consumer related. Below, each category is unpacked in turn.

### Commercial barriers

#### Agent management and cash logistics

As noted in Section 2.2, remittance recipients mostly still prefer to cash out digital transactions or have no choice due to the absence of a digital payment infrastructure within which to transact. As result, PSPs must employ agents to ensure that cash-in/cash-out is possible. Agents, in turn, must manage their cash. This adds logistic costs for PSPs, as they need to ensure that sufficient cash is available at the points of service. Recruiting, training, and managing of agents adds a further cost layer. Finally, liquidity management imposes disproportionate costs on PSPs due to the number of correspondent accounts requiring pre-financing to facilitate cross-border payments. This results in unproductive liquidity, which makes cross-border PSPs less competitive for investment compared to other local PSPs and fintechs.

#### Lack of perceived business case by banks

Due to the restrictive cross-border licencing environment for non-bank PSPs as also discussed in Section 2.2, such PSPs are forced to partner with banks for foreign exchange and settlement. SADC banks de-prioritise especially their remittance business over other business lines. There is also a perception among banks that the enablement of cross-border remittance provision by PSPs may undermine banks' own future business case. These factors create partnership challenges for non-bank PSPs.

#### Limited data availability

Central banks mostly collect cross-border payments data through balance-of-payments reporting. However, the implementation of balance-of-payments reporting is not standardised across countries. This makes it difficult to build a coherent picture of the market across countries. Moreover, the high prevalence of informal flows distorts the true size of the market. Without a full picture of the market scope, PSPs cannot form a realistic business case view.

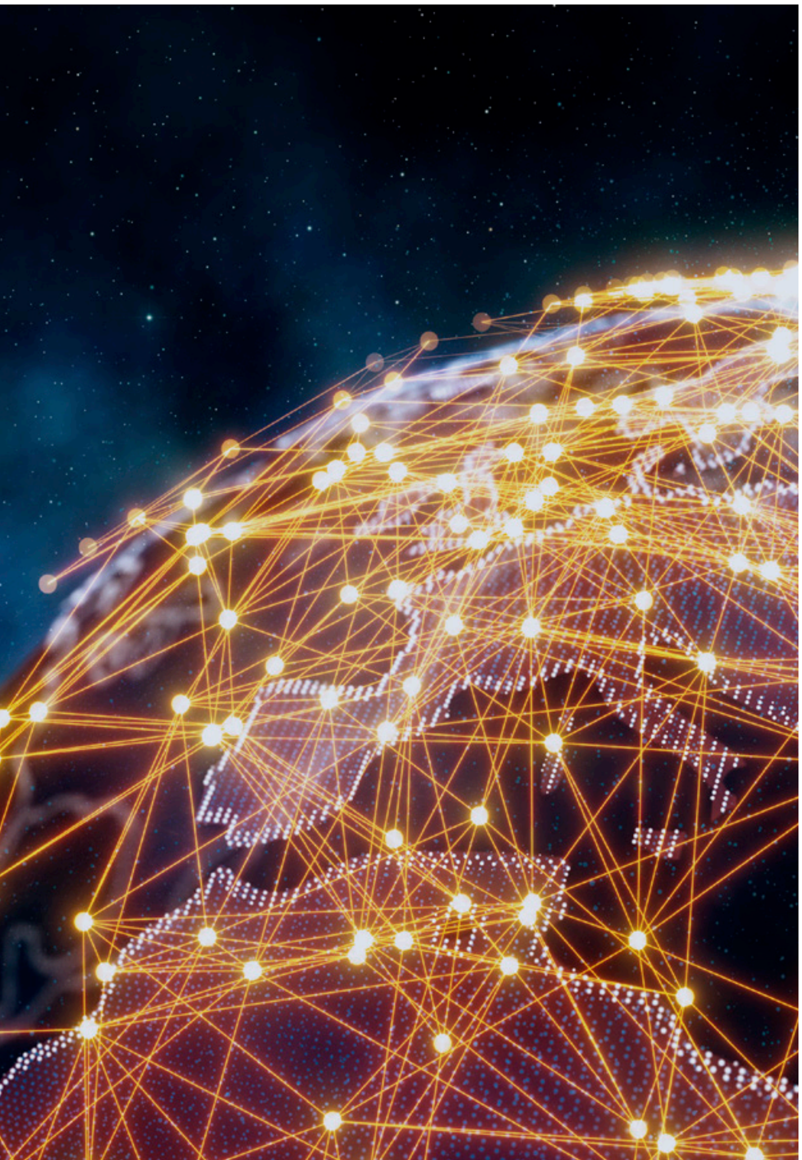
#### Outdated IT systems and lack of skilled staff

Incumbent banks and MTOs have invested heavily in legacy systems. In many cases such systems are too outdated to be able to accommodate more efficient technological advances. Integration costs can be immense and are therefore prohibitive. Moreover, there is not enough skilled staff to support integration and oversee agent management systems and compliance.

**Diverse payment system standards across jurisdictions may result in unequal access across markets.**

### Competition from the informal sector

The final commercial barrier stem from the presence of informal PSPs. They are often better positioned to serve cross-border payments customers, as they do not have as strict official documentation requirements as formal institutions are necessitated by law to require. It is not uncommon to find informal providers heavily modelled on formal institutions with formal structures, tellers and instant transfers. Informal providers also frequently offer better foreign exchange rates. In corridors that have been shut by formal providers due to de-risking, informal providers can be the only way to transfer funds across borders. Moreover, informal channels are often more trusted than banks given their knowledge of local communities.



## Regulatory barriers

In addition to commercial barriers, there are also a plethora of regulatory barriers.

### Unaligned regulatory or payment processes across jurisdictions

Domestic regulations across different jurisdictions are often unaligned in the cross-border space. SADC member states are taking different approaches in terms of who can offer payment services, licensing conditions, prudential requirements, consumer protection requirements, AML/CFT/CPF requirements and reporting. Such varying requirements across countries create uncertainty about applicable laws and regulations. One big obstacle to enabling more cross-border services is the fact that non-banks have no access to direct domestic settlement and are not allowed to provide domestic digital services within their cross-border licence framework. A separate domestic entity must be created that clears domestic and cross-border transfers through different units, but settlement always occurs via a commercial bank. Such skewed domestic regulatory frameworks are negatively impacting regional flows.

### Lack of risk-proportional cross-border licenses

PSP licenses do not always reflect the risk posed by an institution to the financial system. Licensing, prudential requirements, and mandatory deposits are designed to supervise large banks and credit institutions that intermediate deposits involving complicated balance sheet structures and complex revenue streams. In contrast, PSPs mostly have simpler products and limited operational involvement in handling customer funds. Supervisors often justify high licensing requirements by citing an internal lack of resources and skills. Yet the consequences are not fully appreciated.

# Regulatory barriers (cont.)

Disproportional licensing results in restrictions and onerous requirements for PSPs engaging in cross-border payments. Using a restrictive licensing approach also ignores the importance of competition and risk-based supervision. Moreover, a lack of clear, specific, and consistent regulatory guidance creates confusion among PSPs, banks, and correspondents. Different parties have different views on what compliance entails, how much is necessary, and what constitutes effective risk mitigation. This leads to unnecessary compliance activities that do not mitigate ML/FT/PF risks, increase costs, and exclude significant portions of the cross-border payments market. Three SADC countries (Mozambique, Tanzania, and South Africa) are on the FATF greylist, the former two partially due to not effectively measuring and understanding ML/CT/PF risks compared to compliance risk.

## Costly and differing CDD requirements

Related to the above barrier, SADC regulators have a rigid approach to AML/CFT/CPF compliance and/or enforcement and often do not effectively implement the risk-based approach stipulated by FATF[2]. This leads to several complications for PSPs, including licensing delays, disproportional scrutiny by partner banks, exclusion of consumers due to the lack of documentation, costly face-to-face onboarding of new consumers as well as the lack of harmonisation of AML/CFT/CPF standards across countries.

## Prohibitive foreign exchange controls

In countries where exchange controls exist, some or all cross-border transfers may be subject to review and/or government authorisation before a transfer may occur. As a result, these transactions typically must occur in a bank branch and/or authorised foreign exchange dealer branch or via telephone channels. This has severe time, cost, and logistics implications for digital services, such as mobile money remittances and other non-bank PSPs that rely on banks.

## Lack of broad-based consultation when drafting regulation

Regulators can be unaware of the realities and nuances of the market. This lack of consultation hampers innovation and may lead to overly conservative compliance, which adds costs. There can also be a perception that not all cross-border players are given the chance to provide input into draft regulation on a level playing field, with larger incumbent players, such as banks, being at an

2 The 2012 FATF Recommendations on the risk-based approach are intended to assist countries and their competent authorities, as well as the practitioners in the money transfer sector and in the banking sector that have or are considering providers as customers, to apply the risk-based approach associated to money or value transfer services. The risk-based approach, the cornerstone of the FATF Standards, requires that measures to combat ML/TF be commensurate with the risks. Such measures should not necessarily result into the categorisation of all providers as inherently high-risk. The overall risks and threats are influenced by the extent and quality of regulatory and supervisory framework as well as the implementation of risk-based controls and mitigating measures by each provider (FATF, 2014).

advantage.

### Stringent data localisation requirements affect PSPs' ability to operate in different jurisdictions

Where there are strict data protection measures for cross-border data-enabled services that require data to be stored domestically, it leads to increased costs for PSPs to operate across borders, as well as reduced access to foreign markets. It may also not even serve the intended purpose: a localised data server can introduce more data security risks for a jurisdiction than cloud computing or shared security centres, which often have more stringent risk containment capabilities (Yayboke, Ramos, & Sheppard, 2021; Kugler, 2021).

### Complex and inconsistent balance of payments reporting requirements represents an uneven burden

The commercial barrier of limited information links to a broader regulatory barrier regarding balance of payment reporting. The process of submitting balance of payments (BoP) reports to central banks can be burdensome, as it often involves sifting through numerous codes, sometimes in the thousands. Some institutions require detailed BoP declarations, and some receiving organisations will not proceed with a transaction until the BoP is declared and formal trade documents, such as bills of lading and invoices, are provided. This disproportionately affects smaller PSPs who do not have the manpower or funds to support the process. A detailed BoP list can lead to errors and distort categories, especially when PSPs or agents use incorrect codes for efficiency (IMF, 2022). In addition, the reporting requirements vary across jurisdictions, which makes cross-country comparisons challenging. BoP declarations can ultimately discourage end-users from making transactions due to the constraints it places on PSP speed and market access.

### Complexity of cross-border tax arrangements and associated reporting/ documentation requirements

Differential and complicated tax regimes pose a major hindrance to PSPs operating across borders. Cross-border PSPs must fit into differing tax systems in different jurisdictions. This means that they must submit numerous documents, which in turn raises the cost of providing cross-border payments services. An additional barrier is posed when tax authorities consider remittance receipts as part of the recipient's taxable income, and hence seek to tax remittances receipts for family support. This may drive remittance senders and receivers to the informal market to avoid taxes. If so, it will severely undermine the ability of PSPs to reach scale (World Bank, 2017b).

### Oversight of PSP access to domestic payment systems is uncoordinated

Domestic regulators have varying approaches and standards around who may access payment systems and on which terms (World Bank, 2021). Diverse payment system standards across jurisdictions may result in unequal access across markets where local systems clear regional transactions and restrict, or permit, interoperability and settlement at the central bank. This results in an unlevel playing field for non-banks and bank PSPs. No SADC member country allows non-banks direct access to domestic settlement functionalities, requiring the PSPs to engage in sponsorship arrangements with commercial banks.

**Some regulators deploy costly sandboxes instead of conducting less costly independent regulatory impact assessments.**

## Infrastructure barriers

Two main infrastructure barriers stand out:

### Lack of connectivity

Transfers over distance require reliable connections to ensure fast and secure payments. Unreliable connections erode consumer trust in the system. Thus, PSPs that rely on real-time fund transfers are severely impacted by unstable and unreliable electricity and mobile networks, especially in rural areas.

### Limited cash reticulation infrastructure

In many SADC markets, rural and peri-urban customers must travel far to reach PSP outlets to cash their remittances in or out. Rural RSP penetration is limited, as agents struggle to rebalance their cashflow efficiently the further they are away from a bank. The use of alternative partners such as retailers and petrol stations for cash rebalancing is still nascent.

## Consumer barriers

Finally, there are three prominent barriers that stem from consumer's preferences and perceptions:

### Consumers drawn to informal channels

Several reasons push consumers towards informal providers, namely the high cost of using formal channels, the lack of pricing transparency in the formal sector, the fact that they may not have the official documentation, such as ID or proof of address, required by formal players, inconvenient operating hours and queues, and the lack of disclosure on the time duration of a transfer. The resultant abundance of informal channels severely affects PSPs, as they prevent corridors from reaching the scale in volume and value that is vital to their business models. Informal flows are also not regulated or monitored and are, hence, likely to hide illicit activity.

### Cash preference

Despite the increasing availability of digital solutions in the region, consumers still overwhelmingly use over-the-counter transactions both at the first and the last mile. This is because they regard cash as free. Furthermore, cross-border receivers often do not have bank accounts or even bank relationships, and instead rely entirely on cash. If digital value cannot rival cash as a universal payment instrument, cash will remain the preferred way to receive remittances. As discussed, it is extremely expensive for providers to provide and circulate cash if there are no efficient partnerships with alternative distributors such as retailers and petrol stations.

### Mistrust of digital channels

Consumer research conducted in seven markets in 2022 and five markets in 2023 show that consumers are still sceptical of new technologies (AfricaNenda, 2022 and AfricaNenda, forthcoming). To increase trust in these new services, cross-border transfers should be processed in real time and effective consumer recourse mechanisms should be available. Unfortunately, neither of those aspects are in place comprehensively in many SADC markets.

# 3.2 Middle mile barriers

In addition to the first and last mile barriers, there are also middle mile commercial, regulatory and infrastructure barriers that hinder seamless cross-border retail payments at scale in SADC.

## Commercial barriers

### Outdated and inadequate IT systems

Banks' outdated or inefficient legacy systems impact the middle mile by causing delays in processing domestic and cross-border payments. This constrains integration of more efficient technologies, which results in delayed transactions and the inability to satisfy compliance standards set by the regulator. It also adversely impacts non-bank PSPs that rely on bank partnerships. The use of disparate messaging standards across countries and entities can lead to significant costs when integrating and translating messages, making it more expensive to conduct business. This disparity offers an opportunity for aggregators to fulfil the function of a messaging translator, but adding such a role ultimately increases the cost of transactions for the consumer.

### Expensive foreign exchange margins

Foreign exchange is by its nature a centralised middle mile function where MTOs and banks transact and price the foreign exchange component in the middle mile and then apply charges and additional spreads in the first and sometimes last mile. The limited number of settlement or switching currencies available often requires multiple foreign exchange transactions in the middle mile. Cross-border payments involve the settlement of two or more linked currencies, with African countries demanding hard currencies like the US dollar, even between neighbouring or regional jurisdictions, to pay for commodities in the global market. This creates limited demand and trade between more illiquid African currencies. In SADC, as in the rest of the continent, there is a lack of transparency around foreign exchange charges, especially by MTOs whose business model evolves around these margins. This complex and opaque system prevents both consumers and PSP partners from fully understanding the foreign exchange spread, which is often significantly higher than wholesale rates. Apart from the cost burden on partners, this practice can have negative reputational consequences for the whole industry.

### Skills gap

Like the first and last mile, the middle mile also faces a staff skills gap. In SADC, this gap is especially pronounced in system integration. In a long value chain such as cross-border payments, technical skills are necessary to understand all partners' system requirements to integrate their systems. The fast pace of technological changes in this sector has not been accompanied by a proportional rise in the number of skilled professionals.

### Unreliable volume and value data

In addition to the limited reliability of value data in the cross-border payments space discussed under first and last mile barriers, the middle mile is also challenged by the absence of volume data. A lack of understanding of the frequency of remittance flows hampers business strategy, as it is crucial to understand whether payments can be sent through the system in real time or require aggregation before being sent through.

The fast pace of technological changes in this sector has not been accompanied by a proportional rise in the number of skilled workers.

## Regulatory barriers

### Reliance on correspondent banking

The fact that licensing is often restricted to banks places a heavy cost burden on non-bank PSPs, as they must compensate their partner bank for the clearing and settlement of cross-border payments. While exclusive partnership agreements in many jurisdictions have been banned, stakeholder interviews revealed that the practices often continue under the radar and take many different forms, adversely affecting market entry of new players. Correspondent banks often dictate the terms of relationships with non-bank PSPs, increasing their operational costs and limiting their options for handling forex arrangements.

### High regulatory compliance costs

Regulators in SADC require an array of onerous and costly documentation and licence applications from PSPs. Where new technologies are involved, some regulators deploy costly sandboxes instead of conducting less costly independent regulatory impact assessments.

## Regulatory inconsistency and uncertainty

The challenges relating to the reliance on banks and high compliance costs are compounded by the fact that many countries in SADC have gaps in their cross-border payments legislation, which cause regulatory uncertainty and costly delays for PSPs. Moreover, the lack of harmonisation of regulatory requirements in SADC leads to inconsistency between jurisdictions. Apart from pushing up compliance costs, such inconsistencies – for example where each country has its own AML/CFT/CPF-related minimum and maximum transaction amounts – can also lead to de-risking by banks of certain PSP partners if banks are not confident that partner institutions can satisfyingly comply with the different requirements in all relevant jurisdictions.

## Lack of understanding of new technologies

Finally, regulators in the region do not have sufficient understanding of new technologies in the remittances space. This hampers innovation at the middle mile due to delays in licensing or a complete ban on certain technologies based on a perception of unknown risk.

## Infrastructure barriers

Two main infrastructure barriers stand out:

### Lack of connectivity

Transfers over distance require reliable connections to ensure fast and secure payments. Unreliable connections erode consumer trust in the system. Thus, PSPs that rely on real-time fund transfers are severely impacted by unstable and unreliable electricity and mobile networks, especially in rural areas.

### Limited cash reticulation infrastructure

In many SADC markets, rural and peri-urban customers must travel far to reach PSP outlets to cash their remittances in or out. Rural RSP penetration is limited, as agents struggle to rebalance their cashflow efficiently the further they are away from a bank. The use of alternative partners such as retailers and petrol stations for cash rebalancing is still nascent.


GUARANTEED REAL

## Box 4: Summary findings: Provider barriers

Providers in SADC face first and last mile as well as middle mile barriers that limit their scope to offer low-cost, high-quality cross-border payment services. These barriers can be commercial, regulatory, infrastructure or consumer-related.

### First and last mile barriers

Main **commercial barriers** witnessed in the region are agent management and cash logistics, lack of perceived business case by banks, limited data availability, outdated IT systems and lack of skilled staff, as well as competition from the informal sector.

Main **regulatory barriers** are: unaligned regulatory or payment processes across jurisdictions; lack of risk-proportional cross-border licenses; costly and differing CDD requirements; prohibitive foreign exchange controls; lack of broad-based consultation when drafting regulation; stringent data localisation requirements that affect PSPs' ability to operate in different jurisdictions; complex and inconsistent balance of payments reporting requirements, which represents an uneven burden; complexity of cross-border tax arrangements and associated reporting/ documentation requirements; and uncoordinated oversight of PSP access to domestic payment systems.

**Consumer-related barriers** are three-fold: mistrust of digital channels; a lingering cash preference; and the fact that consumer remain drawn to informal channels.

### Middle mile barriers

**Commercial barriers** at the middle mile to some extent overlap with that experienced at the first and last mile: outdated and inadequate IT systems; a skills gap; expensive foreign exchange margins; and unreliable volume and value data.

Salient **regulatory barriers** at the middle mile are: reliance on correspondent banking; high regulatory compliance costs; regulatory inconsistency and uncertainty; and lack of understanding of new technologies.

The middle mile also faces three **infrastructure barriers:** underdeveloped domestic and regional payment systems; lack of interoperability; and weak telecommunications and electricity infrastructure.

# 04. THE INCENTIVES TO JOIN A REGIONAL CROSS-DOMAIN IPS

Regional instant payment systems (IPS) such as TCIB can substantially increase a region's economic performance and ensure that payment instruments and channels are inclusive. Only if a new system can meet the needs of participants will cross-border payments providers utilise the platform to clear and settle their transactions. Many SADC providers have already entered partnerships and bilateral integrations, especially MTOs with their sponsor banks. For the transactions already running through these existing arrangements to be moved to platforms such as TCIB, PSPs want to see a commercial benefit (Stakeholder interview, 2023).

This chapter outlines to what extent a regional IPS can overcome the PSP challenges in SADC as raised in Chapter 3. Figure 5 provides a summary overview of the assessment. The rest of the discussion is structured according to the differing level of impact that a regional IPS can have on the various barriers as per the star rating in Figure 5 – three stars are high-impact barriers, two stars medium, one star lower, and no stars denote no expected impact on that particular barrier.

| | Impact of open-loop IPS | Conditional? | Conditions |
|---|---|---|---|
| **Commercial barriers** | | | |
| Cost of Forex | ☆☆☆ | Yes | Pool of all currencies traded at market rates |
| Scarcity of skilled staff | ☆ | Yes | Degrees of technical assistance in integration |
| Limited data availability | ☆☆ | Yes | Data sharing is agreed at scheme level |
| Outdated IT systems | ☆☆☆ | Yes | Integration of middle-mile functions |
| Cost of liquidity/agent management | ☆☆ | Yes | High velocity of liquidity |
| Lack of interest by banks | ☆☆ | Yes | Banks join the scheme |
| Competition from informal services | ☆☆ | Yes | All use cases are integrated |
| **Regulatory barriers** | | | |
| Lack of regulatory certainty | ☆☆ | Yes | Degrees of regulatory advice |
| Cost of reporting | ☆ | Yes | Reporting requirements aligned at regional level |
| Cost of CDD/compliance | ☆ | Yes | Integration of centralised CDD function |
| Lack of risk-proportional licenses | ☆ | Yes | Domestic licensing is revised; IPS as test bed |
| Tax complexity | | | |
| Lack of balanced BoP reporting | ☆ | Yes | Reporting requirements aligned at regional level |
| **Infrastructure barriers** | | | |
| Underdeveloped payment systems | ☆☆☆ | No | |
| Lack of interoperability | ☆☆☆ | No | |
| Lack of connectivity | | | |
| Lack of cash-in/ cash-out network | ☆☆ | Yes | Integration of cash-in/ cash-out matchmaking |
| **Consumer-related barriers** | | | |
| Cash preference | ☆☆ | Yes | All use cases are integrated |
| Lack of documentation | ☆ | Yes | Integration of centralised CDD function |
| Lack of trust | ☆ | Yes | Rescourse in scheme rules; confirmation sent |

Figure 5: Open-loop regional IPS value proposition

## 4.1 High impact

The most tangible value proposition is at the middle mile. An open-loop regional IPS allows all licensed PSPs to connect through a centralised entity. This opens the market for PSPs to compete on the same rails under shared scheme rules. A regional IPS can have the highest impact on four fronts, each addressing a crucial current barrier:

### Providing a clear value proposition around interoperability

Interoperability allows the consumer choice and ultimately increases inclusivity as providers compete on the quality of their services rather than on the size of their network or price. The network effects increase exponentially with every new player that joins the scheme, increasing the targetable market for all providers. The benefits of interoperability have been witnessed in many domestic SADC markets, e.g., in Tanzania on the mobile money side. The importance of interoperability on the regional level is even more pertinent to not cut off vital corridors.

### Overcoming underdeveloped payments infrastructure

The maintenance cost of bilateral integrations and relationships is much lower through a centralised platform. Bilateral integrations typically cannot scale as complexity and costs increase by order of magnitude with each additional integration. Ultimately, bilateral integrations will be uncompetitive and unsustainable.

### Reducing the cost of foreign exchange

A centralised platform such as TCIB can bring competition into the market for foreign exchange. Depending on the number and size of PSPs, the platform can be used as a marketplace to trade SADC currencies at competitive rates. Given that there is no such facility in the whole of Africa, SADC could be a pioneer in enabling local-to-local currency trading on the continent. The competitive access to foreign exchange can enhance the value proposition for PSPs. However, those banks that would be likely to cannibalise their existing forex trading may have less of an incentive to join the scheme unless they see value in accessing a market beyond the scale of their current client base.

### Finding a way around outdated IT systems

A centralised platform can also overcome technical differences between players' backend systems. Those entities that are not yet ready to integrate with ISO 20022 can use the platform with an interim technical layer to allow those with older messaging systems to still be part of the scheme. Instead of bilaterally integrating with each value chain partner, the PSP in question only needs to integrate once. Outdated IT systems here refer to specifically the middle mile functionalities as these can be performed by the platform. The platform is less relevant for first and last mile IT integration challenges.

## 4.2 Medium impact

There are also several barriers with medium scope for a regional IPS platform to address:

### Limited data availability

Given the centralised nature of the platform, data collection and analytics can provide a wealth of insight into cross-border retail transactions. This is especially the case for a platform based on ISO 20022 with its additional data fields, like sender and receiver identity fields. The insights can be analysed according to, amongst others, volumes, values, sender and recipient behaviour patterns, level of inclusivity, gender and location. This will not only inform the business case in specific corridors but can significantly contribute to understanding individuals' and MSMEs' risk profiles related to specific products lines. Pre-emptive risk screening can go a long way to harmonise and stabilise supervisory approaches to licensing, AML/CFT/CPF, fraud and other operational risks. Open-loop IPS can therefore assist with reduced cost of compliance for PSPs due to appropriate due diligence measures in line with the risk-based approach. However, for this benefit to realise, responsible data sharing agreements must be signed as part of the scheme rules and in line with domestic regulation/ legislation.

### Cost of liquidity and agent management

According to domestic regulatory requirements in SADC, cross-border PSPs must engage a sponsor bank for settlement. Maintaining multiple bilateral integrations can lock in a significant amount in prefunded accounts at the sponsor bank. By consolidating multiple transactions into a single settlement, the omnibus model settlement reduces the number of trades that need to be settled and simplifies the settlement process. This can help PSPs to manage liquidity more efficiently by reducing the amount of liquidity that needs to be managed at any given time. Since the net amount of funds and securities that need to be exchanged is much smaller, PSPs can better manage their liquidity requirements and reduce the risk of settlement failures. Moreover, the multiple daily settlement windows of an omnibus model settlement means that trades are settled quickly, which frees up funds and securities for other transactions. In this way, it reduces settlement risk and required liquidity overall, which can in turn affect licensed entities' ability to settle directly or indirectly. These benefits can be especially helpful in a situation where liquidity is tight as it allows PSPs to quickly free up the capital, they need to settle other trades or to meet other obligations. Therefore, while the requirement for prefunding is not influenced by an open-loop IPS, capital may be made available quicker through increased settlement windows.

In terms of agent management, the value position of a shared platform is less clear. Agent recruitment, management, and commission structures are typically first and last mile issues. However, with an increased network of providers that connect to each other's services, the potential market for agents increases too.

> **Rivalling cash requires a fully digitalised ecosystem in cross-border retail payments.**

## Lack of interest by banks

Non-bank PSPs lament the fact that commercial banks do not always prioritise the cross-border retail market in SADC and that they can struggle to find sponsor banks, especially if the PSP is still small. Having a shared infrastructure platform can significantly decrease the cost of maintaining partnerships and the commercial value proposition for a bank to act as a sponsor can increase as integration is much less onerous for both sides, especially if externally managed. This benefit will likely only materialise if the bank sees the value in integrating with the platform. Cross-border trade in commercial banks tends to be dealt with in the wholesale banking and trade divisions that are not geared to retail systems and lower value transactions. Rethinking bank structures to align better with the emerging reality of a retail ecosystem as an engine of regional economic growth is a growing realisation in some of the fastest growing pan-African financial service groups.

## Competition from informal services

Informal services are easily accessible by senders and recipients in the region. For formal services to be able to compete on equal footing, licensing requirements need to be aligned with the risk-based approach to ML/TF/PF across countries so that entities are licensed based on the level of risk that they pose. Moreover, the functionality of digital payments needs to rival that of informal services. The only path to rival cash and informal services is for formal real-time payments to build trust and increase convenience for senders and recipients, and to enable not only P2P but also all other use cases at a low cost. An interoperable platform is one of the key elements that enables the real time transfer of values across jurisdictions.

## Lack of regulatory certainty

To help combat regulatory uncertainty, the centralised platform can offer differing levels of regulatory inputs, from technical assistance to guidance, if this is part of the onboarding package that is offered. Regulatory inputs on the payment system perspective can also be taken to the regulator to contribute to evidence-based regulatory decision making.

## Lack of cash-in/cash-out network

IPS platforms do not typically take on any cash-in/cash-out network development. However, the platform increases the number of players in the real-time payments market and therefore contributes to the cash-in/cash-out network effects overall. As it is up to the PSP to identify a suitable cash-in/-out partner, the IPS can provide a matchmaking marketplace for different players in the value chain.

## Cash preference

Digital payments will only compete with cash if they can be deployed as easily as cash. This requires a full suite of use cases, real-time transfers based on a stable network, low cost and a range of channels and instruments. Rivalling cash also requires a fully digitalised ecosystem in cross-border retail payments: from digital sending and receiving to avoiding the need to cash out because all payments can be made digitally easily. The ecosystem starts with centralised rails, of which the open-loop IPS is a core component. However, just the IPS on its own is likely not going to be able to fully compete with cash. Appropriate digital interfaces, trust-building products and services, full agent roll-out (especially in rural areas), stable connectivity and electricity, compatible and affordable devices such as phones and digital literacy are just some of the areas that need to be tackled in conjunction.

# 4.3 Lower impact

There are also some foundational barriers where the impact of a regional IPS like TCIB is likely to be lower, but still meaningful:

## Scarcity of skilled staff

While the platform can reduce the need for technical expertise as some functions are taken over in the middle mile, technical staff will still be needed for the onboarding and any other integrations that may be required. The IPS will not solve the skills shortage. Nevertheless, the IPS operator can offer valuable technical expertise and technical assistance depending on the needs of the PSP.

## Cost of reporting

The level of reporting required is dependent on the regulatory and legal framework of each SADC jurisdiction. While the platform cannot reduce the level of reporting, it can assist through the consolidation and real-time availability of transactional information. This can reduce the cost of reporting.

## Cost of CDD/compliance

The cost of compliance is also dependent on the reporting requirements and is therefore out of the direct control of the IPS platform. Customer due diligence in line with the risk-based approach concentrates the efforts on a smaller number of high-risk clients and products once the actual and residual risks around ML/TF/PF are minimised. A platform can assist with transaction insights and provide an additional layer of screening. But without the implementation of the risk-based approach across SADC, these benefits will remain underutilised as a blanket approach to due diligence is adopted.

## Lack of risk-proportional licenses

The lack of risk-proportional licenses to allow for a level playing field between different providers in SADC also curtails the value proposition of a shared IPS. As only licensed entities can participate in a SADC-wide platform, the number of participants is dependent on the number of licenses. More competition can be enabled if domestic licensing regimes open to allow non-bank entities, and especially mobile money providers, to conduct cross-border transfers. Similarly, the requirement for sponsorship for settlement is skewing the market towards banking participants that can capitalise on their functions in the value chain. A harmonised regulatory regime across the region, based on mutual recognition of each jurisdiction's requirements, increases the value proposition for a provider to service more corridors in the region, aided by interoperability through the platform.

## Lack of balanced balance of payment reporting

The differing approach to balance of payments reporting between the SADC countries increases operational costs for PSPs. A shared platform can assist in the consolidation and rationalisation of BoP codes if the supervisors and regulators agree on the regional level about the BoP standards.

## Lack of documentation

Many senders and recipients are hamstrung in accessing domestic and cross-border services because they do not have the required credentials to conduct such transactions. While the IPS cannot create credentials for those not in the financial system, it can assist in the creation of proxy identifiers or alias based on transaction history and behaviour. This means for those consumers that only transact sporadically, KYC information can be provided that allows for lower-tier accounts. The platform can also act as a centralised register for KYC information if robust data sharing principles, in line with responsible Open Finance practices, are agreed between participants.

## Lack of trust

When digital transactions go wrong, trust by the sender and/or recipient is eroded. While the platform is not consumer-facing and hence cannot directly influence the trust that the sender/recipient has in the transaction, the provision of services, such as confirmation of receipt messages, can contribute to consumer transacting more at ease. Through strong risk mitigation measures and the clear rules and enforcement of the rules around recourse mechanisms available to the consumer, participants are encouraged to build trust with the help of the system.

## 4.4 No impact

Finally, some barriers are beyond the remit of a regional IPS to fix. The issues of tax complexity and the lack of connectivity to support digital transactions are likely not directly or indirectly influenced by an open-loop payment system. However, the scheme stakeholders can continuously highlight how issues across these two areas impede inclusive digital payments that can rival cash or informal services. By identifying these issues, the platform can promote the implementation of effective measures across the SADC region to increase the value proposition for providers and consumers alike.

## Box 5: Summary findings: incentives to join an open-loop IPS

### LOWER IMPACT

Lower impact is likely to be achieved around regulatory challenges. Arguably the most difficult to address from a PSP perspective, issues around non-bank licenses and the lack of risk-proportional requirements, cost of customer due diligence and balance of payment reporting, are best addressed directly with the regulator and through industry associations. However, IPS can facilitate consolidated reports for reporting, real-time information, and can even enable proxy identifiers/aliases if standards are agreed at the domestic and regional regulator/supervisor level.

### MEDIUM IMPACT

Medium impact can be achieved at the first and last mile especially regarding commercial challenges. Cash-in/cash-out and agent network access can increase as the platform serves as a matchmaking function between value chain partners. The cost of liquidity can be reduced if the settlement windows allow for faster velocity of liquidity and capital in pre-funded accounts is tied up for shorter periods. Non-banks can easier integrate with banks, potentially increasing the value proposition to form partnerships.

If all use cases are enabled, services running via the platform can compete with informal products and decrease the preference for cash. The latter is mostly true once the ecosystem is fully digitised so that cashing out is no longer a necessity. The former materialises in conjunction with licensing reforms that allow non-bank PSPs to operate without sponsor banks, and informal services can be closer mimicked.

The platform can make information on values, volumes, and transaction patterns more visible and help overcome the lack of real-time data on small-value, high-volume cross-border retail flows. Through its centralised nature, the IPS can also consolidate industry views and act as a unified voice in discussions with the regulator/supervisor to clarify regulations and to input into draft regulation, legislation, and/or guidance.

### MOST IMPACT

Most impact of an open-loop cross-domain IPS is achieved at the middle mile, providing interoperability between all licensed PSPs in the region. Replacing bilateral integrations between value-chain partners with one centralised integration can scale the market and reduce operational costs of PSPs significantly. A DPI that is accessible by all players for cross-border transactions in SADC is core to enabling low-cost P2P, P2B, and B2B transactions. Given that the integration platform can accommodate different technical standards, outdated IT systems are only an issue during the first platform integration. Thereafter, the system can provide different integration layers.

The cost of forex can also be reduced if the platform can facilitate a local-to-local currency trading marketplace However, larger banks may be disincentivised to join the scheme if this is the case.

# 05. CONCLUSION

## The opportunity of formalising retail transactions within SADC is immense: currently expensive and informal

SADC is a diverse region with substantial migration flows. The diaspora within SADC and mostly in South Africa, has a pressing need to send funds back to support communities back home. MSME trade is also significant, but its payments are not yet enabled efficiently. In fact, volumes and values are not as visible as remittances, and are mostly informal or in cash. B2B payments are also not easily facilitated in the region, partly because licensing restrictions and complicated partnerships have kept the costs of these services high. Overall, SADC members are closely tied to one another in terms of economic and social development. Costs to send cross-border retail transactions remain prohibitively high, making it difficult to formalise these high-volume, low-value flows. The high costs are a key opportunity to capture an underserved market with lower cost alternatives.

## Interoperability through open-loop instant payment systems as a core step to formalisation of flows

Open-loop, cross-domain instant payment systems, such as TCIB, that can facilitate the shared rails to enable low-cost, inclusive retail transactions across borders are quickly becoming essential digital public infrastructure around the globe. These centralised platforms enable all-to-all interoperability: from wallets to bank accounts and vice versa, wallet-to-wallet, and account-to-account transactions. This enables choice for the consumer, increases competition in the market with regards to the quality of service, and has the potential to reduce the cost for provider and consumer. This in turn can make cash and the informal sector less appealing if convenience trumps the benefits of cash or informal channels. All-to-all interoperability enables scale far beyond any single instrument switch. If this cost advantage is applied effectively, it can steepen the gradient of change towards open-loop IPS.

## Challenges for SADC providers range from commercial arrangements to regulatory unlevel playing fields

Payment service providers in SADC face similar issues to other regions in the world. Costs of retail transactions are high through a concoction of expensive value-chain partnerships, costly access to foreign exchange, liquidity and agent management, restrictive non-bank licenses that prescribe a sponsor relationship with a bank, cost of customer due diligence and reporting, among others. Unless reforms are brought underway domestically, the prospect for lower regional retail transaction pricing is bleak.

## Integration with an open-loop regional utility contributes significantly to the removal of middle mile challenges

PSPs mentioned issues around outdated IT systems, lack of interoperability, underdeveloped national payment systems, and the cost of foreign exchange. Open-loop interoperability platforms can assist with solving these challenges directly. As these are major cost drivers for PSPs requiring bilateral integrations that significantly contribute to operational costs, the value proposition for PSPs to join a scheme that is endorsed by regulators and supervisors in SADC is high. However, without the necessary regulatory reforms that level the playing field between banks and non-banks as well as the technical capability to integrate all use cases in retail payments, providers may have different degrees of priority of joining such a scheme. Depending on the level of existing partnerships and investment in building their own payment rails, their relative position in terms of market share and extent of proprietary agent and liquidity logistics, and the degree to which the business model is centred around foreign exchange margins, PSPs may see relatively more or less value in joining a regional scheme.

## Centralisation enables additional value

Given the complexity of challenges in the retail cross-border value chain in SADC, a shared platform cannot be the panacea to reducing the cost of formal services in the region. However, the benefits of interoperability are clear both for providers and consumers. A regional centralised platform not only facilitates a once-off technical integration that then opens the provider to a network of partners, but it can house CDD data, provide technical updates to PSP back-end systems, provide technical expertise, consolidate data, package insights, and speak on behalf of the industry with the various supervisors/regulators. Through clear scheme rules recourse mechanisms can be enforced, increasing the trust by consumers and quality of service. Increased settlement windows can free up tied-up liquidity in sponsor relationships and transaction data can be used to create identity proxies/aliases to assist low-risk customers with access to remittances and other cross-border payment services.

A centralised platform may simply appear to be a technical solution but the benefits and implications for the wider market are immense, especially the more PSPs sign up to be integrated. SADC, a leader in many areas in Africa, can make continued history by being the first African region with multiple central banks that can provide all-to-all, open-loop interoperability to support its citizens' livelihoods and needs.

# References


**AFRICANENDA (2022)** Use of cross-border digital payments in the COMESA region. Retrieved from https://www.africanenda.org/uploads/files/AfricaNenda_MSMEs-Report_WEB_July-2022.pdf

**BIS (2020)** CPMI Cross-border payments programme

**CENFRI (2018)** Where are the flows

**FAO (2017)** Atlas: Rural Africa in Motion. Dynamics and Drivers of Migration South of the Sahara

**FATF (2014)** Guidance for a risk-based approach. FATF

**FINMARK TRUST (2020)** SADC Remittance values and volumes. Retrieved from finmark.org.za: https://finmark.org.za/system/documents/files/000/000/143/original/FMT_SADC_values_volumes_report_CB5_18052020.pdf?1594134149

**FINMARK TRUST (2021)** South Africa to the Rest of SADC Remittances Market Assessment 2021. Retrieved from https://finmark.org.za/Publications/SADC%20Remittances%20Pricing.pdf

**FSB (2020)** Enhancing Cross-border Payments. Stage 1 report to G20: Technical background report. Basel: FSB

**GOVERNMENT OF SOUTH AFRICA (2022)** Post Office on sending money home from South Africa. Retrieved from https://www.gov.za/speeches/send-money-home-through-post-office-18-oct-2022-0000

**IDMC (2019)** Africa report on internal displacement

**IFAD (2022)** RemitScope Diagnostic South Africa

**IMF (2017)** Recent Trends in Correspondent Banking Relationships - Further Considerations. Washington, D.C.: IMF

**IMF (2022)** A Cross-Border Payments, Exchange, and Contracting Platform for the 21st Century. Retrieved April 2023, from https://www.imf.org/en/News/Articles/2022/11/18/sp-cross-border-payments-exchange-contracting-platform-21st-century

**KLASHA (2021)** International e-commerce in Africa. Retrieved from https://assets.klasha.com/International+e-commerce+in+Africa+-+Klasha+x+TechCabal.pdf

KUGLER, K. (2021) — The impact of data localisation laws on trade in Africa. Johannesburg: University of the Witwatersrand

SADC (2021) — The state of food and nutrition security and vulnerability in Southern Africa

SADC PSOC (2021) — SADC Payment System Oversight Committee Report

SHOPRITE (2023) — Shoprite Send. Retrieved from https://www.shopritesend.co.za/

UN (2020) — AfCFTA: Implementing Africa's free trade pact the best stimulus for post-COVID-19 economies. Retrieved from: https://www.un.org/africarenewal/magazine/may-2020/coronavirus/implementing-africa%E2%80%99s-free-trade-pact-best-stimulus-post-covid-19-economies

UN (2023) — Sustainable Development Goal 10: Reduce Inequalities. Retrieved from https://southafrica.un.org/en/sdgs/10

WORLD BANK (2017a) — Migration and Remittances: Recent Developments and Outlook. Retrieved from https://documents1.worldbank.org/curated/en/719531507124177735/pdf/120240-WP-PUBLIC-3-10-2017-22-22-41-MigrationandDevelopmentBrief.pdf

WORLD BANK (2017b) — Why taxing remittances is a bad idea. Retrieved April 2023, from https://blogs.worldbank.org/peoplemove/why-taxing-remittances-bad-idea

WORLD BANK (2018) — The Market for Remittance Services in Southern Africa

WORLD BANK (2021) — Cross-border Fast Payments. Washington, D.C.: World Bank

WORLD BANK (2022a) — Personal remittances received. Retrieved November 23, 2022, from https://data.worldbank.org/indicator/BX.TRF.PWKR.CD.DT?locations=GM

WORLD BANK (2022b) — Small and Medium Enterprises (SMEs) Finance. Retrieved from https://www.worldbank.org/en/topic/smefinance

WORLD BANK (2022c) — Remittance Prices. Retrieved from https://remittanceprices.worldbank.org

WORLD BANK (2022) — How digital public infrastructure supports empowerment, inclusion, and resilience. Retrieved April 12, 2023, from https://blogs.worldbank.org/digital-development/how-digital-public-infrastructure-supports-empowerment-inclusion-and-resilience

YAYBOKE, E. RAMOS, C. & SHEPPARD, L. (2021) — The Real National Security Concerns over Data Localization. Retrieved April 2023, from https://www.csis.org/analysis/real-national-security-concerns-over-data-localization

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