Payment Infrastructure Assessment Report

Regional Harmonization of Remittance Policies in the Intergovernmental Authority on Development (IGAD)

Uganda

Data and analysis in this report reflect the period up to November 2023

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ABOUT THIS REPORT

The scope of this report draws from the policy diagnostic assessment of the Republic of Uganda, which identifies key policy areas that require attention to improve the remittance flows to Uganda, including but not limited to the modernization of payment system infrastructures. In this context, the following four key areas have been assessed for the development of modern and efficient payment system infrastructures to enhance remittance flows using digital payment channels:

- Availability of access points for sending and receiving remittances, including automatic teller machines (ATMs), merchant points of sale (POS) and cash-in/cash-out agents.
- Access to national payment system (NPS) infrastructures by non-bank remittance service providers (RSPs), including mobile network operators (MNOs), money transfer operators (MTOs), and fintechs.
- Interoperability for key retail payment systems and instruments, including points of sale, mobile money services, and agents. Agent interoperability is currently unavailable.
- Connectivity with local, regional, and international hubs, gateways, and multilateral payment platforms.

The report assesses the progress made under each of the four priority areas identified as crucial for NPS infrastructures and provides guidance for future action for both public and private stakeholders to improve the digital ecosystem for increased remittance flows through monitored and regulated digital channels.

ACRONYMS

ABC	Agent Banking Company
ACH	automated clearing house
AML/CFT	anti-money laundering/combating the financing of terrorism
API	application programming interface
ATM	automated teller machine
B2B	business to business
BIF	Burundi francs
BLA	bilateral labour agreement
BNPS	Bank of Uganda National Payment Switch
BOU	Bank of Uganda
CDD	customer due diligence
COMESA	Common Market for Eastern and Southern Africa
CPMI	Committee on Payments and Market Infrastructures
CSD	Central Securities Depository
DvP	delivery versus payment
EAC	East African Community
EAPS	East African Payment and Settlement System
EFT	electronic funds transfer
EFTPOS	electronic funds transfer at point of sale
e-KYC	electronic know your customer
EMI	electronic money issuer
FSB	Financial Stability Board
FSDU	Financial Sector Deepening Uganda
GBP	Great British pound
GDP	gross domestic product
GSM	Global System for Mobile Communications
IEC	International Electrotechnical Commission
IGAD	Intergovernmental Authority on Development
IPI	issuers of payment instruments

ISO	International Organization for Standardization
K-ACH	Kampala Automated Clearing House
KES	Kenya shilling
MAC	Monetary Affairs Committee
MDI	microfinance deposit-taking institution
MFI	microfinance institution
MFS	mobile financial services
MOMO	mobile money operator
MNO	mobile network operator
MTO	money transfer operator
NID	national identification
NIRA	National Identification and Registration Authority
NITA	National Information Technology Agency
NPS	national payment system
NPSD	national payment system department
PAPSS	Pan-African Payment and Settlement System
PSC	project steering committee
POS	point of sale
PSO	payment system operator
PSP	payment system provider
QR code	quick response code
REPPS	Regional Payment and Settlement System
RSP	remittance service provider
RTGS	real-time gross settlement system
RWF	Rwandese francs
SAB	shared agent banking
SIM	subscriber identity module
SCD	securities central depository
SME	small and medium enterprises
SSA	Sub-Saharan Africa

SSD	South Sudanese pound
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TWG	technical working group
TZS	Tanzania shilling
UBA	Uganda Bankers Association
UGX	Ugandan shilling
UNCDF	United Nations Capital Development Fund
UNFPA	United Nations Population Fund
UNISS	Uganda National Interbank Settlement System
UPI	Union Pay International
USSD	unstructured supplementary service data
USD	United States dollar
USE	Uganda Securities Exchange
UTL	Uganda Telecoms Limited

LANDSCAPE FOR CROSS-BORDER REMITTANCES IN UGANDA

Remittance market overview

Uganda is a landlocked country spanning approximately 200 square kilometers, and its population is estimated to be 48.6 million people, according to UNFPA.[1] The country is mainly recognized as a source of migration, with approximately 2 percent of its population migrating to destinations within East Africa, Europe, and the Middle East. Moreover, Uganda hosts a significant number of around 1.4 million people who have been forcibly displaced, making it the largest destination country in Africa for forcibly displaced people and the third-largest worldwide.[2] In 2021, global inbound formal remittances to Uganda amounted to US$1,077.28 million, 2.5 percent of the country's gross domestic product (GDP).[3] The most frequent migrant destinations are countries that border Uganda, such as Kenya (40 percent) and South Sudan (20 percent). All three countries are members of the IGAD regional economic community. Most inflowing remittances to Uganda come from Kenya and South Sudan, at 36 percent and 15 percent, respectively. Other migrant destinations include Europe and North America, but Ugandan migrants also move to Afghanistan, Iraq, Qatar, Saudi Arabia, and the United Arab Emirates. Equally, Uganda is a frequent destination country for migrants and people who have been forcibly displaced. An analysis of data on work permits issued in Uganda from 2012 indicates that 62.7 percent were issued to people from Asia, with Indians accounting for 38.6 percent of all work permits, followed by Chinese (14.9 percent), and Americans (6.1 percent).[4] Uganda has experienced an increase in regular migrants in recent years, which the national government attributes to the free movement regime within the East African Community (EAC). The number of international migrants whose destination is Uganda increased by 73 percent from 2010 to 2015 and 102 percent from 2015 to 2020.[5]

According to the World Bank's 2021 Global Findex Database, 66 percent of adults over 15 had an account at a formal financial institution. Around 41 percent had used their mobile phone to access financial services. The capital city, Kampala, accounts for 40 percent of financial service activities such as bank branches, ATMs, and agent POS networks. The presence of countrywide banking and mobile money agents is the main reason for the improved accessibility of financial services. However, inward remittances are not adequately leveraged to improve financial inclusion in the domestic economy. The international remittance market is yet to be fully harnessed to encourage financial inclusion. Where remittance beneficiaries withdraw cash, this is a missed opportunity for last-mile use cases for remittances.

The uptake of domestic digital financial services has been steadily improving since 2011. Regarding domestic retail payments, the Bank of Uganda released a financial stability review in March 2022, showing the uptake of digital channels. Between 1 March 2021, and 31 March 2022, there was a 23 percent increase in mobile money transactions from 3.7 billion to 4.5 billion, with transaction values up 46 percent from UGX 101.5 to 145.6 trillion. The mobile money escrow account balances grew 0.57 percent from 1.42 to 1.43 trillion. The number of active mobile banking users grew 34 percent from 1.13 to 1.53 million, volumes grew by 56 percent from 1.74 to 2.71 million, and transaction values increased 146 percent from UGX 2.11

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1 https://www.unfpa.org/data/world-population-dashboard (accessed 28 September 2023).
2 KNOMAD, https://www.worldbank.org/en/country/uganda/overview#1 (accessed 9 April 2022).
3 KNOMAD, *Remittances Data*. https://www.knomad.org/data/remittances (accessed 18 September 2022).
4 International Labour Organization, (2020). *An Assessment of Labour Migration and Mobility Governance in the IGAD Region: Country report for Uganda*, www.ilo.org/wcmsp5/groups/public/---africa/---ro-abidjan/---sro-addis_ababa/documents/publication/wcms_743324.pdf.
5 UNDESA, *International migrant stock: Destination*, https://www.un.org/development/desa/pd/content/international-migrant-stock (accessed 27 April 2022).

to 5.20 trillion. The volumes transacted using Internet banking grew by 61 percent from 1.72 to 2.77 million, and transacted value via Internet banking by 83 percent from UGX 35 to 64 trillion. The above shows domestic adoption of digital channels continued to be a preferred choice for transactions after the country went through two prolonged lockdowns to stem the spread of Covid-19.[6]

The Government of Uganda's efforts to improve remittance inflows

Several pieces of legislation are relevant to the regulation of payment systems in Uganda and include the following: the Bank of Uganda (BOU) Act; the Financial Institutions Act as amended; the Electronic Transactions Act, 2011 governing the use, security, facilitation, and regulation of electronic communications and transactions; the Computer Misuse Act, 2011 providing for the safety and security of electronic transactions and information systems to prevent unlawful access, abuse or misuse; the Contracts Act, 2010; the Electronic Signatures Act,2011; Consumer Protection Regulations, 2022; and Anti-Money Laundering Act as amended. In addition, Uganda has an NPS policy that establishes a framework to enforce NPS law, specifies the roles and responsibilities of all the payment system stakeholders, applies measures to ensure the safety of all payment systems in the country, enables increased access to electronic payment systems to reduce cash-based payments, and fosters innovation. Equally, Uganda passed the National Payment Systems Act (NPS Act) in 2020. The NPS Act applies to operators of payment systems, payment service providers (PSPs), and issuers of payment instruments (IPI)and to any system or technology that enables the electronic transfer of money, including electronic payments and remittances, EFTs, mobile money operators (MMOs), card-based payments, aggregators, payment gateways, online PSPs, and electronic payments. It aims to ensure they are safe and efficient. Moreover, the NPS regulations gazetted on 5 March 2021, oblige all payment systems to comply with international payment system standards. Uganda also has a National Payment Systems (Agent) regulation, 2021. The regulation guides the agent's appointment and allows agents to be non-exclusive.

The Uganda Anti-Money Laundering Act, 2013 prohibits money laundering; creates a financial intelligence authority to combat money laundering activities; imposes specific duties on institutions and other persons, businesses, and professions who may be used for money laundering purposes; issues orders concerning proceeds of crime and offenders' properties; and fosters international cooperation in investigations, prosecution, and other legal processes aimed at prohibiting and preventing money laundering. The law requires increased due diligence for higher-risk categories and allows for reduced or simpler steps in certain low-risk cases. If they can indemnify the email, customers in the diaspora can send their copies of national IDs and passports via email.

Uganda has key infrastructure for the National Payment Systems. These include a large value system at the central bank, and there is an ongoing project to implement the Bank of Uganda National Payment Switch (BNPS) infrastructure. The BNPS is expected to improve domestic interoperability, a precursor for regional integration initiatives in the East African Community (EAC). This was a recommendation made by the EAC Monetary Affairs Committee (MAC), of which Uganda is a member represented by the BOU.

6 Bank of Uganda, (2022), https://www.bou.or.ug/bouwebsite/bouwebsitecontent/MediaCenter/Public-Lectures/BOUFSS/Financial-Stability-Assessment-Report.pdf.

BOU has a National e-Payments Strategy 2021-2026 with a focus on payments and financial markets infrastructure. Some of the planned activities include a project for replica data PSPs to enable real time reporting of mobile money payments, establishment of a National Switch, support for e-KYC, integration of the two depository systems at the BOU and at the Uganda Securities Exchange.[7]

7 https://www.bou.or.ug/bouwebsite/bouwebsitecontent/PaymentSystems/Uganda-National-E-Payments-Strategy-2021-2026..pdf (accessed 20 September 2023).

KEY STAKEHOLDERS IN THE PAYMENTS AND REMITTANCE MARKET

Bank of Uganda

The Bank of Uganda (BOU) is the country's central bank, headquartered in Kampala with one currency branch at the headquarters, eight branches upcountry and one technical currency centre also located upcountry. Within the BOU, the National Payment Systems Department (NPSD) is mandated to oversee all payment systems. The NPSD is a department under the Finance Directorate of the BOU responsible for overseeing the operations of the payment ecosystems in Uganda. The department licenses electronic money issuers (EMI), payment service providers (PSPs) and payment system operators (PSOs). The department derives its mandate from the Bank of Uganda Act, 2000, the NPSA, 2020 and the implementing regulations of 2021 (including the sandbox regulations). The key divisions include financial inclusion, operations, and supervision.

The following are the key payment systems at BOU:

i. The Uganda National Interbank Settlement System (UNISS) is managed by NPSD and is comprised of a Real Time Gross Settlement (RTGS) system. UNISS also provides an interbank electronic payment service in real-time between accounts in different financial institutions. Implemented in February 2005, the UNISS participation is open to both banks and non-banks. Currently, there are twenty-seven (27) registered UNISS participants. The RTGS is also part of integrated regional initiatives like the East African Payment System (EAPS) and the Regional Payment and Settlement System (REPSS), whose objectives are to facilitate cross-border payment and settlement within the East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA) regions, respectively.
ii. The Kampala Automated Clearing House (K-ACH) processes electronic funds transfers (EFTs), credits, debits, and cheques in five currencies, namely the Ugandan shilling (UGX), US dollar (USD), Euro (EUR), Great Britain pound sterling (GBP), and Kenyan shilling (KES). The ACH communication standard is the ISO 20022. The RTGS and K-ACH are integrated.
iii. The BOU operates the central securities depository (CSD) system which provides custody of government-listed securities. These include treasury bills, bonds, and commercial papers. The CSD is integrated with RTGS which, enables the automated settlement of government securities on T+1. Participation in the primary auction is through primary dealer banks. Private banks dominate the primary and secondary activity regarding government securities and provide various services, including primary dealer banks (T-bonds and T-bills), custodial services, and corresponding relationships via the SWIFT network for international clients. Domestic investors also participate via licensed primary dealer banks and brokers. For international investors, one of the requirements is opening an account at the primary dealer or custodian banks. Over time, investors must maintain several bilateral custodial relationships and bank accounts when they opt to change dealers.

Uganda Securities Exchange (USE)

The second depository system in Uganda is the Securities Central Depository (SCD), which is an independent entity established for the custody of securities listed at the Uganda Securities Exchange (USE). The USE is a pre-funded market and lists 18[8] equity companies and three corporate bonds. Trading on the USE is automated via the USE automated trading system and is integrated with the payment systems of a private settlement bank. Investors in the diaspora

8 Airtel Uganda is the newest company to list on the USE in Q4 2023.

can open depository accounts online via the USE Easy Portal website.[9] However, they must submit their KYC to one of the seven licensed brokers or four custodian banks.

As with government-listed securities, custodian banks engage in business relationships with regional and global investment banks that wish to participate in the USE. For banks with cross-border custodial relationships, cross-border payments for securities cab be via the SWIFT network or regional banks connected to the EAPS network that links RTGS platforms of EAC Member States. For domestic payments, the licensed brokers receive money through several channels, including bank branch deposits, online domestic transfers via the UNISS payment system, mobile money, and RSP platforms. Equities traded on the USE settle T+3, while corporate bonds settle T+1. There are plans to integrate the BOU and USE depository systems, bringing payments for securities on the USE closer to true DvP. This should also eliminate the requirement for an investor to open a new bank account whenever they change prime dealers, as the process also uses the RTGS settlement system. The integration will provide straight-through processing for secondary trading of government T-bills and bonds at the USE. T-bills and bonds are traded via prime dealers with secure access to an automated platform provided by the BOU.

Banks

As of 31 December 2021, Uganda had 25 licensed banks, including the state-owned Post Bank. [10] Branches of commercial banks, credit institutions, and microfinance deposit-taking institutions (MDIs) totalled 741[11] and assets held by banks amounted to UGX 39.8 trillion.[12] The top five banks comprise 53 percent of the market share by assets and 66 percent of the number of ATMs installed countrywide. Kampala, the capital city, is served by 40 percent of the ATMs in the country, while the remainder of the districts only have no more than four percent of the total number of ATMs. Banks also provide remittance services via money transfer operators (MTOs) and correspondent banking relationships (CBRs) that use the SWIFT messaging system. This is generally expensive for small amounts, and it is unsuitable for those who do not have bank accounts. Correspondent banks/SWIFT-based international remittances are used for larger B2B/organizational transfers that do not require cash pickups. The banking sector plays a large role in remittances as they innovate for last-mile use cases like bills, utility use cases, and P2P transfers. Most banks provide a combination of online and mobile channels. However, the KYC and opening accounts are partially automated, with a representative still required to run KYC validation checks. The retail banks all have core banking systems integrated with their online platforms. The Finacle Suite is a popular web platform used by commercial banks. Finacle is an Internet banking solution with a proprietary API to improve onboarding, sales, service, and engagement. Mobile banking is also gaining popularity. Each bank uses USSDs that connect via GSM networks with text messaging and applications that run on Android and iOS smartphones. Most mobile banking products are interoperable with domestic and regional MMOs.

Non-bank remittance service providers

The foreign exchange bureau and money remittance sub-sector had 210 foreign exchange

9 USE Easy Portal, https://scd.use.or.ug/ (accessed 12 September 2022).
10 Bank of Uganda, https://bou.or.ug/bouwebsite/Supervision/supervisedinstitutions.html (accessed 27 April 2022).
11 Bank of Uganda, *Statistical Abstract 2022*, https://www.bou.or.ug/bouwebsite/bouwebsitecontent/publications/Statistical_Abstract/2022/2022-Bank-of-Uganda-Statistical-Abstract.pdf (accessed 15 December 2023).
12 Bank of Uganda, *Annual Report 2021*. https://bou.or.ug/bouwebsite/bouwebsitecontent/publications/Annual_Reports/All/Annual-Report-2021-for-upload-on-website-1.pdf (accessed 27 April 2022).

bureaux with 315 outlets as of 30 June 2021. There are 85 money transfer operators (MTOs) with 263 outlets, including three MDIs (Pride, FINCA, and UGAFODE), that are also licensed to conduct remittance operations under the Foreign Exchange Act of 2004.[13]

Agent Banking Company (ABC)

The ABC was established in 2017 by the Uganda Bankers Association (UBA) with Technical Assistance from Financial Sector Deepening Uganda (FSDU). Commercial banks employ agents to perform banking services on their behalf, such as deposits and withdrawals, via the ABC networks. Agents may also run other businesses that require various payment methods, such as cash, debit cards, and mobile money, and can also be MTO and MNO agents, supermarkets, or anyone usually involved in handling services that provide the public with cash-in and cash-out services. As of the end of 2021, twenty-two commercial banks, one MFI (UGAFODE Microfinance), four PSPs (Pegasus, Pivot Pays, Interswitch, and SchPay), and 20,108 agents were enrolled on the platform. Between 2018 and 2021, agents on the platform cumulatively processed over 12 million transactions worth $4.3 billion. There are plans to extend the use cases of ABC to provide micro-lending, micro-savings, micro-insurance, micro-investment, and pension services.[14]

Mobile money

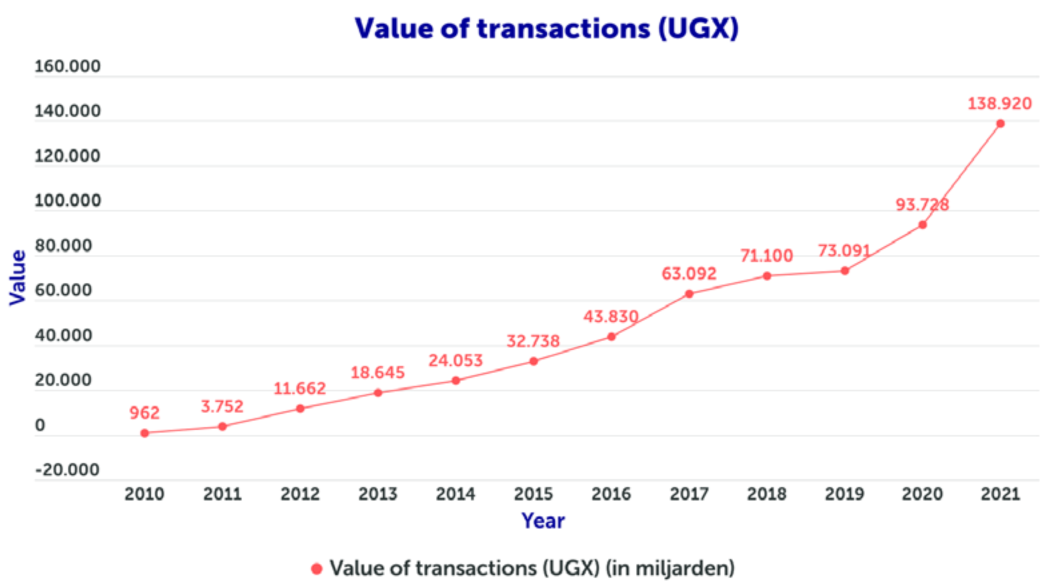
Mobile money operations are regulated under the NPS Act 2020. Mobile money has been adopted as a trusted channel for receiving remittances because it is convenient, fast, secure, and cheap. In Uganda, MOMOs are licensed as Electronic Money Issuers (EMI). These include MTN Mobile Money, Airtel Commerce, Uganda Telecom, M-Cash, EzeeMoney, and Microplay. Airtel Commerce and MTN MOMO are the two dominant operators. Both are integrated with regional aggregators like MFS-Africa, Thunes, and TerraPay. Bilateral agreements have made cross-border transactions possible with other MOMOs in the Sub-Saharan region using aggregator gateways. Mobile money remains a key driver of financial inclusion in Uganda, with 40.7 million[15] mobile wallets recorded at the end of June 2022. Ninety-one percent of mobile wallets are MNO-mobile money wallets linked to MTN, Airtel, and UTL. Non-MNO-linked mobile wallets accounted for nine percent of the total or a total count of 3.8 million mobile wallets administered by licensed non-MNO Payment Service Providers. Both MTN MOMO and Airtel Commerce extensively use mobile money agents countrywide. Uganda has approximately 350,000 mobile money agents, with MTN MOMO accounting for seventy-one percent of the total.[16] Although mobile money agents cover a wide geographical area, they are usually located near re-balancing points for their float, e.g., near other banks, commercial areas like markets, retail shops, and busy highway intersections.

In August 2020, the Uganda Communications Commission (UCC) publicised the framework for implementing the National Broadband Policy 2018/19, which, among many objectives, mandates telecommunication companies to offer their shares to the public[17]. On 6 December 2021, MTN Uganda announced listing 22.4 billion ordinary shares on the Uganda Securities Exchange, making it the first telecom company to implement the National Broadband Policy 2018/19 directive. The MTN Initial Public Offering (IPO) was the first "green IPO" because subscription was via digital channels like the MTN mobile money application available on both Android and iOS, via USSD, and the USE Easy Portal website. Airtel Uganda is the second

13 Ibid.
14 Agent Banking Company, https://agentbanking.co.ug/# (accessed 5 October 2022).
15 Uganda Communications Commission Market Performance Report, Q2 2022.
16 Private Sector Consultation, MTN Uganda (7 November 2022).
17 The National Broadband Policy 2018/19 was published by the Ministry of Information, Communications Technology, and National Guidance in September 2018.

telecommunications company to issue an IPO on 30th August 2023 offering 8 billion ordinary shares[18]. Airtel is also a green IPO with investors able to subscribe using digital channels like USSD, mobile applications, and USE Easy portal. Investors are also able to open depository accounts, apply and pay for shares with the same digital channels, using their national identity cards. The diaspora can subscribe via the digital channels provided they have a valid NID.

The statistics below show mobile money trends in Uganda.



As of 30 June 2022, the value of mobile money transactions was UGX 156 trillion, a 37.6 percent from UGX 113.38 trillion in June 2021. Transaction volumes were 4.8 billion a 22.1 percent increase from 3.9 billion in June 2021.[19]

Microfinance institutions

Uganda has five microfinance deposit-taking institutions (MDIs). As non-banks, MDIs are not restricted from participating directly in the RTGS. They participate indirectly using the settlement services of commercial banks. Only one MDI is a member of an agent banking company (UGAFODE Microfinance). Given that a large section of the population lives in rural areas and does not have proper access to banking, MFIs could serve as an important remittance channel if they all had the opportunity to partner with the agent banking company and some PSPs and fintech's. The MDIs are EFC[20] Uganda Limited, FINCA Uganda Limited, Pride Microfinance Limited, UGAFODE Microfinance, and Top Finance Bank Uganda Limited.

18 https://www.airtel.co.ug/assets/pdf/Airtel-Uganda-IPO-Factsheet.pdf (accessed 28 September 2023).
19 Bank of Uganda, *Annual Report 2021 -2022*: https://bou.or.ug/bouwebsite/FinancialStability/AnnualReport/Annual/index.html (accessed 28 September 2023).
20 EFC Uganda Limited is a licensed and regulated microfinance deposit-taking institution in Uganda.

NATIONAL PAYMENT SYSTEMS INFRASTRUCTURES

Large-value payment systems

The BOU has national payment systems, which include the following: (i) the real-time gross settlement system (RTGS), which processes high-value and time-critical payment transactions by the Uganda National Interbank Settlement System (UNISS); (ii) the Kampala Automated Clearing House (K-ACH) system, which processes systems in which participants present transactions in batches for processing in the morning and afternoon sessions. The K-ACH processes electronic fund transfers (EFTs), debits, credits, and cheques in five currencies, namely Ugandan shillings, US dollars, euros, British pound sterling, and Kenyan shillings; and (iii) the central securities depository, which electronically handles transactions related to government securities. The RTGS is also part of integrated regional initiatives like the East African Payment System (EAPS) and the Regional Payment and Settlement System (REPSS), which aim to facilitate cross-border payment and settlement within the EAC and COMESA regions. On 15th January 2022 BOU changed the top limits of cheque by half from UGX 20 million to UGX 10 million, KES 600 million to KES 300 million, USD 5,500 to $2,750, EUR 4,500 to EUR 2,250, GBP 4,400 to GBP 2,200. Subsequent cheque transaction values were UGX 6.02 trillion, a decrease of 5.19 percent from UGX 6.35 trillion in June 2021. The reduction in cheque values was attributed to the new interbank cheque value limits that took effect on January 15, 2022.[21]

Private sector systems

As of June 30, 2022, fifteen institutions had been issued Payment System Provider and Operator licenses. One institution had been issued with an Issuers of Payment Instruments licence. In addition, Letters of Approval (LOA) were granted to Culipa Ltd and Absa Bank to test their innovations under the regulatory sandbox. There was also progress with testing Quick Response (QR) technology under the regulatory sandbox.

Commercial banks provide a wide array of payment products and services, these include clearing and settlement functions. The product is used by several private institutions including the SCD serving the USE. This is different from the CSD hosted at the BOU. Private sector systems also include Internet banking, e-money providers such as MOMOs, ATMs provided by commercial banks, points of sale provided by commercial banks and merchants, B2B, P2P, and P2B platforms.

Additionally, Uganda has private switch operators like Interswitch (U) Ltd, part of Interswitch East Africa, payment infrastructure serving banking institutions in Uganda and across the border with other countries like Kenya, the Gambia, and Nigeria. Special Purpose Vehicles have also been created by mobile network operators and are licensed as EMIs. These are MTN MOMO and Airtel Commerce, UTL, Smile Telecom, K2 Telecom, and Lycamobile Uganda. The private sector also issues single-purpose stored value cards and plays the role of an aggregator/integrator.

Moreover, Uganda has a shared agent banking (SAB) platform, where agents operate with an interoperable terminal. The SAB platform is a shared interoperable technology platform and agent network management framework. It makes deposits, withdrawals, account opening processes, and payments more convenient. However, not all players have activated

21 Bank of Uganda, *Annual Report 2021 -2022*: https://bou.or.ug/bouwebsite/FinancialStability/AnnualReport/Annual/index.html (accessed 28 September 2023).

all functionalities on the SAB platform. The handheld devices operated by SAB agents are interoperable with most of the different banking products of its members.

National identification system

The National Identification and Registration Authority (NIRA) is the government agency responsible for issuing national identification cards (NID). It also has the mandate for registration of births, deaths, marriages, and divorces. NIRA was established in 2015 by the Uganda Registration Services Bureau Act of 2015 as a semi-autonomous body under the Ministry of Internal Affairs. The NID card issued by NIRA is the primary identification, has a secure card without a chip, containing a photo, signature and basic biographic details, a bar code on the front, and a machine-readable zone on the back. Holders of a NID card can open a bank or mobile money account. EMIs, PSPs, and PSOs have access to the NID centralized database for purposes of validation of KYC details. As of 30 December 2022, NIDs were not being issued overseas at embassies or consulates. This is a limitation for the diaspora obtaining national ID's. There are plans of BOU working towards e-KYC, and NIRA would be one of the key stakeholders for the initiative, as it is where the national identity database is hosted.

Automated teller machines

As of 31 December 2021, Uganda had over 980 ATMs in major towns. During the year ended June 2021, some 213,613 financial cards were issued, increasing the cumulative number to 2,082,034.[22] Kampala, the capital city, is served by 40 percent of the ATMs in the country, while the remainder of the districts only have no more than four percent each of the total number of ATMs.

Point of sale terminals and cards

As of 31 March 2022, the number of active debit and credit cards in Uganda was 2.9 million, and the number of active POS devices was 3.7 million.[23]

22 Bank of Uganda, Annual Report, https://bou.or.ug/bouwebsite/bouwebsitecontent/publications/Annual_Reports/All/Annual-Report-2021-for-upload-on-website-1.pdf (accessed 27 April 2022).

23 Bank of Uganda, Q2 Stability Report March 2022, https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/FinancialStability/Financial-Stability-Review/2022/Mar/Financial-Stability-Review_March-2022.pdf (accessed 28 August 2022).

REMITTANCE-LINKED PRODUCTS AND SERVICES

The NPS is still undergoing transformation, hence its usage maybe still be low for remittances as the dominant use case is cashing out immediately. Consumer preference for cash is due to the low levels of financial inclusion and financial literacy. Remitters may opt for cash-out transactions instead of terminating in a bank account or mobile wallet. There are also limited use cases in terms of interoperability. DFS and merchant payments are not standardized in the retail payments ecosystem, this may further explain why inward remittances continue to be predominantly terminated in cash at bank branches or agent locations.

Commercial banks and MTOs such as Western Union and MoneyGram have partnerships to enable direct deposits into individual accounts. The option is still expensive for small sums of money as the remittance fees fixed by international MTOs are high for such small sized transactions. Commercial banks also leverage their correspondence banking relationships, although transaction costs are still high as they may involve two or more international banks.

MOMOs provide remittance products. For example, MTN's mobile money service is interoperable with mobile wallets of regional and international RSPs. Mokash is a digital financial product owned by NCBA Bank and MTN. It enables MTN users to save and borrow based on their transaction history. It runs an algorithm for credit scoring, enabling MTN mobile wallet holders to borrow 10 percent of their transaction average. As of the end of October 2022, the service had been used by 7 million subscribers. Borrowers get 30 days (about 4 and a half weeks) to repay the principal and interest. The service offers a 9 percent rate on loans and a 6 percent rate on savings. Customers just need an MTN mobile money wallet to use the service, so there is no need to open a bank account with the NCBA.

FlexiPay is another example of a mobile wallet offered by Stanbic Bank, providing P2P and P2B. To open a FlexiPay mobile wallet, users do not need a Stanbic bank account. They only need a valid NID and can self-register using the USSD menu and installing the app on Android or iOS devices. FlexiPay also provides merchant services for SMEs to collect money from their customers. The platform is interoperable via APIs with MNOs, MTN, and Airtel. FlexiPay has also used APIs to integrate with aggregators, including MFS-Africa and TerraPay, for mobile money remittances and plans to merge with WorldRemit. For bank-to-bank remittances, Stanbic Bank account holders use the correspondence bank relationship where Stanbic has a presence like Rwanda, Kenya, South Sudan, and Tanzania. Since being live, the total transaction value between the five East African countries of Uganda, Kenya, Tanzania, Rwanda, and South Sudan has been US$ 40 million. Another innovation named "Shift" is in the works, supporting various currency wallets.

ASSESSMENT OF THE PAYMENT SYSTEMS INFRASTRUCTURE FOR DIGITAL REMITTANCES

This section assesses progress made by the BOU and market stakeholders in the four key areas identified in the scope of the study to address the NPS infrastructure gaps and remaining challenges.

Retail payments access points for sending and receiving remittances

Context

The usefulness of transaction accounts for payments or remittance services is augmented by an agent network offering wide geographical coverage and a variety of interoperable access channels. The existence of both shared agent banking and mobile money agent networks can increase access points for individual customers. The partial availability of a national retail payment infrastructure or national switch limits interoperability with some RSPs. The success of digital remittance services that use the rails of retail payment systems depends critically on the availability, quality, and reliability of customer service and access points.

Situation in Uganda

Considering the large population of Uganda and the flow of remittances, the number, availability, and distribution of agent-based service points are low. Uganda's key disbursement sites are bank branches, ATMs, and agent-based POS terminals. Eighty percent of remittances sent through MTO channels are picked up in cash at MTOs. The remaining 20 percent are credited to bank accounts that can be accessed through ATMs or used to pay for goods/services using debit cards and, in some instances, mobile wallets. Different mobile money service providers have their own infrastructure. However, installing distinct infrastructures incurs additional or duplication expenditures, and separate infrastructure maintenance costs raise recurrent costs. In addition, some players in the retail payments ecosystem are investing significant capital in operations and infrastructure.

QR code payment solutions are being developed and implemented in silos by stakeholders in the retail payments ecosystem. A QR code is a type of barcode that holds information and can be read by a digital terminal, such as a mobile phone. Partially harmonizing common standards for essential payment technologies, procedures, and security features has duplicated projects such as QR code payments from various PSPs, which are not always interoperable. Although PSP platforms have application programming interfaces (API), they are not necessarily open to third-party systems in the ecosystem, which means that prominent participants are entrenched, and small participants are excluded. The opening of APIs has been on bilateral agreements, limiting opportunities for interoperability with new entrants. The partial interoperability of platforms being implemented in silos means end users must open multiple user profiles on different platforms.

An aspect that works well in Uganda is the shared agent network, where POS interoperability has been achieved.

Recommendations

The following recommendations could be considered to improve access points for remittances.

1. **The BOU could establish targets for increasing the number of access points for cross-border remittances.** Working with banks and mobile agent networks, the geographical reach of access points, particularly in rural and remote areas with low coverage, would improve the last-mile distribution channels and encourage customers to send and receive remittances through regulated channels. Examples are having less stringent requirements for RSPs who set up physical branches in rural areas, allowing RSP's to share infrastructure where possible to reduce operational costs of maintaining a presence in the rural areas. The incentives would target RSPs especially involved in cross-border payments. In addition to targeting the growth of bank branches, the BOU could establish concrete, time-bound targets for increasing the number of ATMs, POS, and agent-based cash-in cash-out agent locations engaged in cross border payments. This effort could be taken in partnership and consultation with the industry.

2. Regarding the above recommendation, **the BOU could consider developing an incentive structure for RSPs to expand the distribution of access points beyond urban areas and enable ATMs and points of sale to be leveraged for cross-border remittances**. In addition to establishing concrete targets, in coordination with industry stakeholders, the BOU could propose adopting an incentive plan to increase the uptake of digital payments in the value chain and to mobilize the deployment and activation of Points of sale and ATMs.

3. **The BOU could target increased use cases for digital financial services by improving availability and coverage, including use cases for women.** Bill payments, POS, and quick response (QR) code-based acceptance for card-based purchase transactions are limited to a few customers with access to banking services. Remittance recipients still need to visit a bank branch or an agent to withdraw the funds in cash so they can use those funds to pay for the goods and services they need. Several efforts have been made to drive the usage of formal and regulated digital channels, including bill payment platforms. However, usage is low as few banks are connected to the platforms, and service availability is limited. Wider development of the POS and QR code infrastructure at the merchant and bank agent levels could increase the number of distribution points for remittances and improve banking services for remittance recipients by providing them access to low-cost electronic payments and eliminating the need to withdraw cash. QR-code technology for growing merchant acceptance can be cost-effective and quick as merchants and customers require little or no technical knowledge. The QR code structure should be standardized to promote interoperability and usage to improve its effectiveness. The BOU or the government can promote standardization. In consultation with the RSPs, the government could develop a comprehensive plan to incentivize recipients to use formal and regulated channels, receiving their money directly into bank accounts or mobile wallets, and encourage the development of different use cases for digital payments that can be offered to customers at a low cost directly from their accounts (e.g., bill payments, payment of government services, etc.). As part of the incentive efforts, inflowing remittances to bank accounts could earn a somewhat higher interest rate (e.g., 0.5 percent), incentivizing them to keep some of the money in the bank accounts. As a result, interactions between low-income remittance beneficiaries and regulated financial institutions would improve.

Access to national payment infrastructures by non-bank remittance service providers

Context

According to the Financial Stability Board (FSB) Stage 2 report,[24] there are clear advantages to promoting direct access to the national payment infrastructures by non-bank RSPs as this reduces the costs for remittances transfers and the time it takes to settle these transactions. Lowering barriers to access improves the possibility for PSPs and payment infrastructures to become direct members of multiple payment systems across different jurisdictions. Similar access requirements in different payment systems can encourage PSPs to become global payment players, serving many jurisdictions. The targeted outcome would be lower costs and higher speed in cross-border payments with lower credit and liquidity risks.

Situation in Uganda

Non-banks are not restricted from participating on the NPS, however they are required to be participants on UNISS. Currently, participants on UNISS require to fulfil a set criterion including acquiring BIC code, having an account at the BOU among many. The practice is for non-banks to partner with commercial banks who already have these in place. Some of the criteria are a challenge for non-banks, for example holding a certain amount of liquidity in the account opened at BOU. For smaller RSP's, this could starve them of the operational capital. Nonetheless, they will have access through a settlement bank which would act as a settlement agent to carry out the clearing function for the final settlement.[25] As several new PSPs are processors and payment platforms, gaining access to NPS infrastructure is critical, as it will lower settlement costs as volumes grow.

ICT and power failures can cause frequent disruptions in ATM/POS availability. With the increasing levels of participation by non-bank PSPs in the NPS infrastructure, the ability to effectively service the growing number of access points should also be monitored, and proper upgrades could be implemented to address this growth.

Digital e-KYC platforms are still to be developed in Uganda. However, as noted above, National IDs are issued by the National Identification and Registration Authority (NIRA). In compliance with Financial Action Task Force (FATF) standards, both remittance senders and receivers should be identified by RSPs, and the remittance flows must be traceable. Facilitating this process using digital ID, e-KYC and credit-scoring platforms could help to promote financial inclusion, access, reduce costs for RSPs, and address issues related to de-risking where global financial institutions refrain from entering correspondence banking relationships with domestic banks. Incorporation of digital ID, e-KYC and credit-scoring platforms by banks and non-bank RSPs could help to facilitate account opening, authentication, development and issuance of alternative digital products and channels, which are much needed in the Ugandan environment to promote digital remittances. For directory services to work (aliases) in support of instant payments, an upgrade to a properly functioning ID platform is needed.

24 Building Block 10 describes the importance of direct access. Committee on Payments and Market Infrastructures, *Enhancing Cross-Border Payments: Building blocks of a global roadmap* (2020), http://www.bis.org/cpmi/publ/d193.pdf.

25 Globally, there is no clear precedent on whether access to the NPS infrastructure for non-bank financial institutions should be done directly or indirectly through settlement banks/agents. The BoU's approach is consistent with the CPMI definition, which defines the role of a settlement agent as one that manages the settlement process for transfer systems or other arrangements that require settlement.

Recommendations

The following recommendations could be considered to improve the quality of access to NPS infrastructures.

1. **BOU can create a category for non-Banks to access directly to the NPS for settlement purposes** without having fulfilled some requirements that are specific to banking institutions. Some non-banks like mobile money operators and large MFIs transact relatively high volumes and can be considered on a case-by-case basis. This will encourage non-banks to access the NPS directly, especially those with high volume turnover.

2. **Implement digital ID, e-KYC, and credit-scoring infrastructures to speed up the digitalization of remittance services.** The digital National Identity management system provided by NIRA does not currently support e-KYC. An e-KYC platform would support credit scoring systems that facilitate account-opening processes, authentication and development and issuance of alternative digital products and channels. E-KYC can help automate the account opening procedure which can be used for example by migrants in the diaspora to access digital financial services back home.

3. As the BNPS is still being implemented, BOU can continue to **build capacity** to provide oversight for the national retail payments switch infrastructure to prepare for operationalization once the implementation is complete. As TWG has been established, they can benefit from knowledge transfer type of capacity building from similar retail payments switch infrastructure projects.

Interoperability and interconnectivity of domestic and regional payment infrastructures

Context

Interoperability is one of the most desirable characteristics of payments and financial market infrastructures to ensure infrastructure sharing and the widespread availability of digital financial service access points. Whereas the widespread availability of digital solutions for remittances, payments, savings, and credit provides access to financial services, payment interoperability enables these targeted people to transfer money to any other individual without needing multiple transaction accounts, thereby increasing the importance and usability of transaction accounts.

ISO 20022 has become the key global standard for developing modernized financial market infrastructures. Currently, most payment systems follow the ISO 20022 standards, resulting in improved efficiency, lower costs, and the avoidance of errors. ISO 20022 is a globally recognized financial messaging standard that establishes a uniform format for various business domains, including payments, securities, trade services, card services, and foreign exchange. By defining clear and purposeful messages, this standard facilitates efficient information communication among parties involved in a payment chain. It also defines message specifications for each message type. Benefits of ISO 20022 include the following: (i) **It can carry large data sets and messages**, making it capable of sharing voluminous and complex information. Users of the standard can choose the quantity of data to share for necessary insights; (ii) **It can integrate and standardize domestic and cross-border payments** in market practices by rolling out standard guidelines, facilitating the integration of domestic and cross-border payments; (iii) **It harmonizes previously known interoperable**

formats, and the structured platform and underlying syntax of XML makes this standard more feasible for payments. This results in simplified data consumption and transmission, fostering interoperability and harmonization; and (iv) **It makes financial messaging cheaper and more efficient** by standardizing and harmonizing payment message formats, increasing STP rates, and simplifying cost-intensive processes, including payment processing, investigations, data analytics, and reporting.

Situation in Uganda

The BOU is in the early stages of implementing its National Retail Payment Switch Infrastructure. The BNPS will support the domestic interbank network, payment systems providers including MOMOs. Until its completion, the interbank network is currently supported by the Interswitch platform. Interswitch is a private platform offering domestic ATM and card interoperability to commercial banks, and the Agent Banking Company. Mobile money domestic interoperability has been established between the different MOMOs via bilateral agreements. Individual countries and MOMOs have experienced varying progress toward achieving cross-border interoperability. Some mobile money operators use payment gateways like MFS-Africa, Thunes, and TerraPay, although using them also requires bilateral agreements between individual players in each country. The result is a complex ecosystem of domestic and cross-border commercial contracts. Commercial banks use correspondence banking, MoUs, and commercial agreements for cross-border transactions. Commercial banks have digital products like mobile and internet banking, which are interoperable with other banks, MOMOs, MTOs and payment gateways. The Agent Banking Company provides a Shared Agent Banking (SAB) network, which is interoperable with domestic banks to serve a wider geographical area. On the network, agents can use interoperable POS devices to serve customers of participating banks.

Despite the improvements, not all banks have been fully integrated into the shared agent banking network. Furthermore, the Interswitch platform does not serve all commercial banks. It is envisaged that the establishment of domestic interoperability using the national retail payments switch will help fill the integration gaps. Banks maintain their correspondence banking relationships which present additional costs to remittances, and different payment services are also introducing QR codes and following their own standards. Closed-loop systems are not interoperable with each other and may require end users to download respective applications to use them. For example, the two dominant MOMOs provide mobile money wallets that scan QR codes issued by their respective networks and recognized by their applications, a situation which is only multiplied with the emergence of new payment aggregators and fintech's, each providing similar solutions. A QR code standardization framework would improve interoperability and uptake of digital channels. However, the same problem remains regarding the cross-border interoperability of QR code solutions from several banks, switches, payment gateways, MNOs, etc.

Different countries in the SSA region have varying payment infrastructure advancement levels. There is partial retail payment interoperability between Uganda and its neighbor's Kenya, Tanzania, Rwanda, South Sudan, and the DRC. MTN MOMO and Airtel Commerce in Uganda have achieved interoperability with M-Pesa and Airtel Money in Kenya, M-Pesa in Tanzania, MTN MOMO, Airtel Rwanda in Rwanda, M-Gurush in South Sudan, and Orange in the DRC. There are high transaction costs for end users when making cross-border transactions, which vary by corridor. These expenses include transaction fees on both ends, higher foreign exchange conversation charges, and other fees associated with using the service. End users are also faced with varying transaction limits, unharmonized tax regimes, unclear escalation procedures for cross-border transactions, and network unavailability due to power fluctuations. The lack of uniformity in cross-border remittance codes adds to the high cost of processing low-value, high-volume payments and payment processing delays. A lack of open and secure application programming interfaces (APIs)[26] means that dominant players maintain their market position at the expense of smaller players. The lack of industry-wide standard open API arrangements entrenches large participants and excludes small ones. APIs have been opened bilaterally among service providers, limiting competition, innovation, and choice. Mobile payment service providers have failed to fully open access to their APIs, hampering innovation and the ability of new products to be rolled out at scale and affordably.

The retail payments ecosystem uses technologies that have various messaging formats. Examples of different technologies within the market include the following:

i. Mobile push payments at points of sale: Mobile push payments at points of sale are not standardized across the sector.
ii. Cardless cash withdrawals: Cardless cash withdrawals depend on a specific bank implementing a custom process for its ATMs or a switch operator applying the process on a network under its control.
iii. Domestic card transaction payments: There are different standard-compliant card schemes. Specific card transaction payments are restricted to the systems of each switch's members. Even though it is technically feasible, they are currently incompatible with each other's switch networks.
iv. Proximity NFC payments: No industry-wide or region-wide agreements on standards and functionality roll-out for NFC contactless cards and mobile devices are currently issued by isolated participants.
v. NFC tag presentation: NFC tags are not standardized across the industry, making the industry-wide use of tags and optimal use of the acquiring infrastructure unfeasible. For example, those used by MOMOs cannot be read by bank NFC readers.
vi. QR code payments: QR code-initiated transactions, using either a merchant QR code or a customer QR code, are currently issued by individual participants.

Recommendations

The following recommendations could be considered to improve the interoperability environment:

1. Once implemented, the BNPS might resolve some of the challenges above, by providing interoperability that supports development of several use cases. It is envisaged that the infrastructure will be capable of onboarding all stake holders in the retail payments ecosystem. To this effect **guidelines with requirements for participants** of the national switch such as messaging standards, adoption of open APIs, business continuity, disaster recovery, cyber security among many should be provided by BOU. As some RSPs might require similar infrastructure resources, the use of **shared infrastructure** can be encouraged by BOU. The guidelines from BOU should adequately cover entities that share infrastructure.

2. **The BOU could develop guidelines for market players on a harmonized and coordinated cyber-reporting framework as the first step toward collective efforts and sharing of experiences necessary to put sufficient safeguards in place.** A standard security framework (ISO/IEC 27001) could be adopted to address payment cybersecurity and cyber-resilience issues, specifically indicating who should oversee insecure unstructured

26 A software intermediary that allows two applications to talk to each other.

supplementary service data (USSD) channels, who should be notified of breaches in USSD and the appropriate course of action, who is responsible for any loss of customer funds because of such breaches, and who should handle any customer complaints where USSD-based breaches result in loss of customer funds. Infrastructure security should be properly addressed, especially the roles and responsibilities of those who transmit and hold data.

3. **BOU to provide capacity-building support to scale retail payment services.** As the BNPS is awaited, both regulator and participants can build capacity in issues of regulating and development of products that will support the different use cases.

Interconnectivity with local, regional, and international hubs, gateways and multilateral payment platforms

Context

Cross-border payments through the correspondent banking model often involve long transaction chains that lead to fragmented and truncated data standards, high costs of capital, and weak competition, all of which negatively affect payment speed, costs, and transparency. Interlinking retail payment systems (including fast payment systems) and wholesale payment systems (such as RTGS) enables PSPs to interact directly through the linked infrastructures and reduces reliance on traditional correspondent banking. Interlinking arrangements can range from simple agreements on cross-participation to full technical system integration.[27]

Situation in Uganda

The BOU has licensed several payment system providers and operators in Uganda. These entities have also established connectivity with international payment companies and remittance hubs through direct and indirect partnerships. Banks are collaborating with fintech's to provide digital financial solutions.

Financial institutions in Uganda have partnered with Visa and Mastercard over the SWIFT network to facilitate cross-border electronic fund transfers. Banks and MNOs have also partnered with money transfer operators like Western Union and MoneyGram to disburse remittances directly into the recipient's bank account.

Interswitch East Africa (U) Ltd. is a private sector stakeholder and provides cross-border retail payments infrastructure with a presence in Uganda, Kenya, Nigeria, and the Gambia. Uganda and Kenya are members of the IGAD, EAC, and COMESA regional economic communities. Interswitch filled the void left by the absence of a national switch in Uganda by providing infrastructure for the banking network for 13 commercial banks' ATMs. In Kenya, Interswitch and UnionPay International (UPI), a subsidiary of ChinaPay, have partnered to provide interoperability with UPI-branded cards.

PivotPays started in 2019 with a P2P business model focused on Ugandan immigrants in the United Arab Emirates sending remittances to support small- and medium -enterprises (SMEs) in Uganda. They have since transitioned to providing digital banking services and B2B solutions. PivotPays now has a presence in Kenya, South Sudan, Tanzania, Ghana, and Nigeria, with 250,000 accounts opened since 2019. The product is available as an application on both Android and iOS. Users can use the application to apply for loans and save, while for B2B, the model is a collection of payments for goods and services via mobile money, debit card, utility payments, etc. PivotPays serves the UAE (Dubai) corridor.

WorldRemit is a global RSP with a presence in several sub-Saharan African countries. The product supports P2P transfers and is interoperable with MOMOs, banks, and branded cards like Visa and Mastercard. WorldRemit exclusively works as a receiving business in Uganda, and instead of applying for a license, it partners with banks and MNOs that are already licensed. The pay-out channels include cash pickup, mobile money, and bank transfers. WorldRemit has integrated with aggregators like Thunes, MFS-Africa, Equity Bank, and PegasusPay for international transfers. Bank Transfers are possible with integration with DTB, DFCU, Centenary Bank, and Bank of Africa.

27 Building Block 13 describes the importance of interlinking of different payment systems. Committee on Payments and Market Infrastructures, *Enhancing Cross-Border Payments: Building blocks of a global roadmap* (2020), http://www.bis.org/cpmi/publ/d193.pdf.

Regarding the interoperability of large-value payments, the BOU is a member of the East African Payments and Settlement System (EAPS). The EAPS enables the interoperability of large-value payment systems of the Central Banks in the Member States of the East African Community (EAC), namely Uganda, Kenya, Tanzania, Rwanda, and Burundi. Each central bank in the EAPS maintains an account in the currencies of the other Member States, i.e., the Ugandan shilling, Kenyan shilling, Tanzanian shilling, Rwandan franc, and Burundian franc. The EAPS enables the central banks to settle transactions in each of the five currencies to foster inter-regional trade. The system went live on 25 November 2013 with Uganda, Kenya, and Tanzania and was officially launched by the Governors of the Central Banks of the EAC Member States in May 2014. Rwanda subsequently joined the EAPS in December 2015 after completing the implementation of its RTGS in 2014. Burundi joined EAPS in 2020 but had yet to finish the RTGS integration to be fully operational on the EAPS by October 2022. South Sudan and the DRC, which joined the East African Community in 2017 and 2021, respectively, are yet to join EAPS, pending the readiness of their respective RTGS platforms. Three Member States of IGAD are also members of the EAC, namely Kenya, Uganda, and South Sudan, providing an opportunity to tap into established convergence areas such as message standard adoption and lessons learned while implementing EAPS.

The Regional Payment and Settlement System (REPSS) provides clearing and settlement for members of the Common Market for Eastern and Southern Africa (COMESA) region. Settlements are in US dollars, euros, and British pound sterling, and the system is operational in the Member States of Mauritius, the DRC, Malawi, Swaziland, Uganda, Zambia, Rwanda, and Kenya. Uganda and Kenya are also Member States of the IGAD and EAC regional economic communities.

Neither EAC nor COMESA has implemented regional retail payment systems, such as regional large-value payment systems, as of October 2022. However, in 2014, the EAC conducted diagnostic studies on the interoperability of cross-border retail payment systems in the EAC. The Central Banks of the EAC Member States reviewed the findings and commissioned stakeholder consultations in their respective countries. Overall, public and private institutions' stakeholders recommended that each country work toward achieving domestic interoperability by implementing interoperable national retail payment switches. The stakeholders also recommended a regional infrastructure to serve as a regional hub between the national retail payment switches of the EAC Member States. As of October 2022, Kenya and Tanzania had made considerable progress in operationalizing their interoperable national retail payment switches, i.e., Kenswitch[28] and TIPS.[29] Rwanda had successfully piloted mobile money interoperability with its national retail payment infrastructure, the R-Switch, and in June 2023. Burundi had implemented P2P mobile money interoperability via the Bi-Switch, between the two MMOs, Lumitel and Ecocash, South Sudan was still implementing the RTGS at the BSS,[30] while the DRC was still a new EAC member and had yet to join the EAPS. The DRC is also implementing a national retail payments Switch, but the project completion has been delayed since its inception in 2010.

Another regional integration initiative is the Pan African Payment and Settlement System (PAPSS). PAPSS is a centralized payment and settlement infrastructure for intra-African trade

28 Kenswitch is a PSP in the Kenyan market, regulated by the Central Bank under the NPS law and has been in the market since 2002.
29 Tanzania Instant Payments System (TIPS) is an interoperable digital payment platform operated by the Central Bank.
30 Bank of South Sudan (BSS).

and commerce payments. It is endorsed by the African Union (AU) and is being developed in collaboration with the African Export-Import Bank (Afreximbank). It is developed to facilitate payments and formalize some unrecorded trade due to the prevalence of informal cross-border trade in Africa. It will also provide an alternative to current high-cost and lengthy correspondent banking relationships to facilitate trade and other economic activities among African countries through a simple, low-cost, risk-controlled payment clearing and settlement system. The benefits of the PAPSS for cross-border payments include reduced costs, smoother processing times, fewer liquidity requirements for central banks regarding settlements and their own payments, and better central bank supervision of cross-border payment systems.

The PAPSS is currently live in the West African Monetary Zone (WAMZ) in the central banks of Nigeria, Ghana, Liberia, Sierra Leone, the Gambia, and Guinea, using six local currencies and two languages. Its unique offering supports instant payments in local currencies with settlement finality supported by Afreximbank. It has been fully endorsed by the African Union Heads of State and has a continent-wide regulatory framework for the participation of multiple players.

Recommendations

The following recommendations could be considered to improve interconnectivity with local and regional multilateral platforms:

1. **The BOU's active participation in regional cross-border payment system projects.** The EAC's diagnostics on cross-border retail payment systems recommend achieving domestic interoperability before regional integration. The BOU could prioritize implementing the national retail payment switch as a precursor to integrating regional retail payment systems. The same domestic integrated retail payment infrastructure will provide interoperability with domestic RSPs, and regional and international payment system providers.

2. **The BOU could propose connecting the NPS with local, regional, and international hubs and payment gateways.** Establishing connectivity with international hubs and gateways will facilitate greater access to digital payment channels. Such service aggregation platforms and remittance hubs enabled RSPs to scale quickly and not incur disproportional operational and regulatory costs. These platforms and remittance hubs also have the potential to reduce the distance to access points and transaction costs by facilitating a high number of low-value/low-fee transactions through many access points (or accessible remotely through the Internet or mobile networks).

ABOUT IGAD

The Intergovernmental Authority on Development (IGAD) is one of the eight regional economic communities (RECs) and building blocks for the African Union. IGAD was established in 1996 to supersede the Intergovernmental Authority on Drought and Development (IGADD), which was founded in 1986. The new and revitalized IGAD was launched during the fifth Summit of IGAD Assembly of Heads of State and Government — Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan, and Uganda — held on 25-26 November 1996 in Djibouti. The Summit endorsed the decision to enhance regional cooperation in the priority areas of food security and environmental protection, economic cooperation, regional integration and social development, peace, and security. The founding leaders of IGAD were motivated by a vision where the people of the region would develop a regional identity, live in peace, and enjoy a safe environment, alleviating poverty through appropriate and effective sustainable development programmes.

ABOUT UNCDF

UNCDF mobilizes and catalyzes an increase in capital flows for SDG impactful investments to Member States, especially Least Developed Countries, contributing to sustainable economic growth and equitable prosperity.

In partnership with UN entities and development partners, UNCDF delivers scalable, blended finance solutions to drive systemic change, pave the way for commercial finance, and contribute to the SDGs. We support market development by enabling entities to access finance in high-risk environments by deploying financial instruments, mechanisms and advisory.

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