Payment Infrastructure Assessment Report

Regional Harmonization of Remittance Policies in the Economic Community of Central African States (ECCAS)

Democratic Republic of the Congo

Data and analysis in this report reflect the period up to December 2022

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LIST OF ACRONYMS AND ABBREVIATIONS

AML/CFT	anti-money laundering/combating the financing of terrorism
ACH	automated clearing house
API	application programming interface
ARPTC	authority for the regularization of the post and telecommunications
ATM	automatic teller machine
ATS	automated transfer system
BCC	Banque centrale du Congo
BCDC	Banque Commerciale du Congo
Bif	Burundian franc
BSS	Bank of South Sudan
CDD	customer due diligence
CDF	Congolese franc
CEMAC	Economic and Monetary Community of Central Africa
CI/CO	cash-in/cash-out
COMESA	Common Market for Eastern and Southern Africa
COVID19	coronavirus disease 2019
CSD	central securities depository
DRC	Democratic Republic of the Congo
DFS	digital finance system/service
e-money	electronic money
e-KYC	electronic know your client
EAC	East African Community
EAPS	East African Payment and Settlement System
EFT	electronic funds transfer
ECCAS	Economic Community of Central African States
FX	foreign exchange
GDP	gross domestic product
GPs	general principles for international remittances services
ID	identification
IMF	international monetary fund
KES	Kenyan shilling
KYC	know your customer
ISO	International Organization for Standardization
LMICs	low- and middle-income countries
MFIs	microfinance institutions
MFS	mobile phone financial services
MMO	mobile money operator
MNO	mobile network operator
MTO	money transfer operator
MRPs	money remittance providers

NPS	national payment system
P2B	person to business
P2G	person to government
P2P	person to person
PAPPS	Pan African Payment and Settlement System
POS	point of sale
PSOs	payment systems operators
PSP	payment system provider
PvP	payment-versus-payment
REC	regional economic community
REPSS	regional payment and settlement system
RSP	remittance service provider
RTGS	real-time gross settlement system
SACCO	savings and credit cooperative organization
SADC	Southern African Development Community
SDGs	sustainable development goals
SIM	subscriber identity module
SME	small and medium enterprises
SMS	short message service
SSP	South Sudanese pound
STP	straight-though processing
SYGMA	Système des gros montants automatisé
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TIPS	Tanzanian Instant Payment System
TMB	trust merchant bank
TZS	Tanzanian shilling
UAE	United Arab Emirates
UGX	Ugandan shilling
UN	United Nations
UNCDF	United Nations Capital Development Fund
UNDESA	United Nations Department of Economic and Social Affairs
USD	United States dollar
USA	United States of America
WB	World Bank
WU	Western Union

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ABOUT THIS REPORT

The scope of this report draws from the policy diagnostic assessment of the Democratic Republic of Congo which identifies key policy areas that require attention to enhance the remittance flows to the Republic of Burundi, including but not limited to modernization of payment system infrastructures. In this context, 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 automated teller machines (ATMs), merchant point of sale (POS) and cash-in/cash-out agents.

- Access to the National Payment System (NPS) infrastructures by non-bank remittance service providers (RSPs), including mobile network operators (MNOs), money transfer operators (MTOs) and fintech.

- Interoperability for key retail payment systems and instruments including POS, mobile money services and agents. In fact, agent interoperability is currently not available.

- Connectivity with local, regional, and international hubs and gateways as well as 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.

LANDSCAPE FOR CROSS-BORDER REMITTANCES IN THE DEMOCRATIC REPUBLIC OF THE CONGO

REMITTANCE MARKET OVERVIEW

The population of the Democratic Republic of Congo (DRC) is 95.2 million[1] people living on 2.345 million km[2] square kilometres (2020), making the DRC the largest country in sub-Saharan Africa with a population density of 41 per sq Km [2] the DRC has an almost even gender distribution of men (51 percent) and women (49 percent)[3]. The DRC has vast mineral resources, and with its size, the abundant opportunity has fueled armed conflicts in the country for the last three decades, causing loss of life, property, and livelihoods and the displacement of its citizens to neighbouring countries. There are approximately 1.8 million migrants from the DRC, with an equal distribution between men and women.[4] Approximately 952,871 migrants live in the DRC, of which 48 percent are women.[5] Top migrant destinations are countries that the DRC shares borders with, like Central African Republic (34 percent), Rwanda (26 percent), Angola (19 percent), Burundi (6 percent), Uganda (1 percent), Sudan (1 percent) and South Sudan (1 percent), other countries account for 4 percent combined. [6]

In 2021, remittances to the DRC were approximately US$1.3 billion, which is 2.47 percent of the GDP of $54 billion.[7] There was a decline in formal remittances of 52 percent in 2020 as reported figures fell from $2 million (2019) to just under $1 million (2020), attributed to the global slowdown due to the economic shocks of the COVID-19 pandemic. Remittances started to recover alongside the global economy, and in 2021, remittances registered an increase of 25 percent to $1.3 million.

EFFORTS BY THE GOVERNMENT OF THE DEMOCRATIC REPUBLIC OF THE CONGO TO IMPROVE REMITTANCE INFLOWS

The Banque Centrale du Congo (BCC) has issued instructions on electronic money, electronic transfers, and settlement systems. The national payment system is regulated

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[1] https://www.unfpa.org/data/world-population-dashboard is (accessed 12 November 2022)

[2] https://databank.worldbank.org/views/reports/reportwidget.aspx?Report_Name=CountryProfile&Id=b450fd57&tbar=y&dd=y&inf=n&zm=n&country=CD (accessed 15 December 2022)

[3] UN Department of Economic and Social Affairs, International Migrant Stock 2020. (Accessed 14 December 2022)

[4] UN Department of Economic and Social Affairs, International Migrant Stock 2020. (Accessed 14 December 2022)

[5] UN Department of Economic and Social Affairs, International Migrant Stock 2020. (Accessed 14 December 2022)

[6] https://www.un.org/development/desa/pd/content/international-migrant-stock (accessed 13 December 2022)

[7] https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=CD (accessed 15 December 2022)

under Law No. 18-019 relating to payment and securities settlement systems. The law aims to address the financial sector shortcomings with improvements such as broadening payment instruments and enforcing interoperability among market players to ensure the harmonious development of the financial sector. The law also introduces major innovations relating, on the one hand, to the operation of the electronic payment system and, on the other hand, to payment instruments. Interoperability is promoted under article 53 of the law, stating that credit institutions and other payment instrument issuers are obliged to cooperate to ensure the acceptability of such instruments and their exchange under the best conditions of speed, security, and cost. Instruction No. 24 relates to the issuance of electronic money (e-money) and electronic money issuers.

The instruction covers the application process, access conditions and the process of issuing e-money, a prudential regime for e-money issuers, redeemability of e-money, AML/CFT, reporting obligations, the scheme for issuing or distributing electronic money via access points and agents, and penalties.[8] In addition, Instruction No. 42 relates to the rules applicable to payment systems. The instructions cover purpose and scope, participation in the payment system, approval and authorization, interoperability, payment system rules, cybersecurity, pricing, reporting obligations, standards for access points, ATMs operations, and payment cards.[9] Articles 11 and 12 of Instruction No. 42 describe interoperability and which services should be interoperable and covers e-money issuers. It also includes a definition of the standard to be used by each participant. BCC issued Instruction No. 37 relates to the securities custody, settlement, and delivery system. It covers affiliation conditions, administration of securities accounts, custody and accounting of securities, settlement of securities, transfer of funds, technical management, and penalties.[10] The instructions may not specifically relate to RSPs or remittances, meaning that further amendments might be required.

On 11 July 2022, the DRC was admitted as a Member State of the East African Community (EAC). Other Member States include Uganda, Kenya, and Tanzania (since 7 July 2000 when the treaty came into force), Rwanda and Burundi (since 1 July 2007) and South Sudan (since 15 August 2016). Five Member States (Burundi, Rwanda, Tanzania, South Sudan, and Uganda) share a border with the DRC. One of the pillars of the EAC is the common market protocol, the second of five regional integration milestones of the EAC, which has been in force since 2010. The pillar grants the rights and freedom of movement of persons, labour, and capital among Member States.[11] Being a member of the EAC benefits migrant men and women in all Member States as their status is recognized in the country they migrate to. This will benefit Congolese migrant men and women living in any of the other EAC member states.

[8] https://www.bcc.cd/systemes-et-instruments-de-paiement/reglementation (accessed 15 December 2022)
[9] https://www.bcc.cd/systemes-et-instruments-de-paiement/reglementation (accessed 15 December 2022)
[11] https://www.eac.int/common-market (accessed 15 December 2022)
[11] https://www.eac.int/common-market (accessed 15 December 2022)

The DRC has a telecommunications regulator established by law 014-2002 of 16 October 2002.[12] The Autorité de Régulation de la Poste et des Télécommunications du Congo (Post and Telecommunications Regulatory Authority of the Congo – (ARPTC)) is mandated to protect the interests of consumers and operators in the postal and telecommunications market by ensuring the existence and promotion of effective and fair competition and taking all necessary measures to restore competition for the benefit of consumers. In terms of remittances, the mandate is relevant as remittance providers and the customers who receive remittances have access to a complaint's redress mechanism. ARPTC has put in place mechanisms for questions related to consumer complaints and established a partnership with civil society organizations active in telecommunications to defend consumer interests. ARPTC also regulates the installation and operation of authorized mobile networks. This also applies to mobile network operators (MNOs). Licensing and regulating the mobile money aspect of their business is carried out by the Central Bank of the Congo (BCC).

[12] https://arptc.gouv.cd/mission/# (accessed 15 December 2022)

KEY STAKEHOLDERS IN THE PAYMENTS AND REMITTANCE MARKET

CENTRAL BANK OF THE CONGO

The Banque Centrale du Congo (BCC) is the Democratic Republic of Congo's central bank headquartered in the capital city of Kinshasa. BCC has eight branches in the following cities: Lubumbashi, Goma, Kamina, Kasumbalesa, Kikwit, Tshikapa, Ilebo and Matadi. A commercial bank can be appointed to represent cities where the central bank is not present, one example being Trust Merchant Bank (TMB) performs such a role in Likasi and Kolwezi. BCC is responsible for licensing and supervising banks, MFIs, mobile money operators (MMOs) or payment institutions under which e-money issuers and money transfer operators (MTOs) belong. BCC also oversees the clearing and payment systems, e-money, and e-money issuers.[13]

BANKS

As of 2021, there were 15 licensed commercial banks and 4,570 non-branch retail agent outlets of commercial banks in the DRC. Most banks are in urban areas like Kinshasa, Kongo Central, North and South Kivu, and Haut Katanga provinces. This leaves a large underserved geographical region and, with a population of 95 million people, has presented an opportunity for regional players in the financial sector to grow since the DRC joined the EAC on 11 July 2022. The DRC has since witnessed a few mergers and acquisitions in the banking sector. For example, Equity Bank, which has a regional presence in five East African countries (Kenya, Rwanda, South Sudan, Tanzania, and Uganda), acquired a majority shareholding of Banque Commerciale du Congo (BCDC) from the family of George Forrest in July 2020.[14] The acquisition makes Equity BCDC the second largest bank in the DRC, with a balance sheet of $2.5 billion, a national footprint of 74 branches, and 214 ATMs. KCB also has a presence in the same five East African countries. As of 2 August 2022, KCB acquired an 85 percent majority shareholding in Trust Merchant Bank (TMB) in the DRC. The acquisition makes KCB TMB one of the DRC's largest banks, with $1.5 billion in total assets, over 110 branches, and numerous agency banking outlets spread across the DRC.[15] Four of the five countries where Equity and KCB banks are present share a border with the DRC. Banks with a regional presence offer more competitive digital remittance products for migrants than the SWIFT network used in many correspondence banking relationships, which is a

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[13] http://www.bcc.cd/ (accessed 10 to 15 December 2022)
[14] https://equitygroupholdings.com/cd/en/ (accessed 22 December 2022)
[15] https://ug.kcbgroup.com/about-us/news-room/business/kcb-group-plc-to-acquire-drc-based-lender-trust-merchant-bank-tmb (accessed 22 December 2022)

positive step for remittances as the banks have a presence with the DRC's neighbours with active remittance corridors.

NON-BANK REMITTANCE SERVICE PROVIDERS

Non-banks RSPs are made up of money transfer operators like money gram and western union, forex bureaus who act as agents for the MTOs, and e-money issuers. E-money issuers like mobile money operators and other digital financial services also fall in this category.

MOBILE MONEY OPERATORS

The DRC has four Mobile Network Operators (MNO): Vodacom, Airtel, Orange, and Africell. In terms of market share of mobile network operators, Vodacom accounts for 36.3 percent, Airtel 26 percent, Orange 27.5 percent, and Africell at 10 percent.[16] Each has a mobile money product, namely Vodacom's M-Pesa, Airtel Money, Orange Money, and Afrimoney, respectively. All MMOs support multi-currency wallets (e.g., Vodacom's M-Pesa supports USD and CDF[17]), and some MMOs support international transfers to banks' digital channels and other cross-border MMOs and aggregators (e.g., Orange Money international transfer).[18] There is partial interoperability between some MMOs, such as P2P from Vodafone to Orange. Even when bilateral agreements have been established between MMOs, transfers are not instant, and users face many challenges, including waiting periods of up to 24 hours that can elapse without final payment confirmation between MMOs. The challenges may be down to the different practices MMOs adopt to discourage mobile money users from transferring e-money away from their ecosystems to competitor networks. Furthermore, the costs for transacting or sending mobile money across networks are high as the MNOs strategically try to out-compete each other for market share.[19] The value of mobile money transactions as a percentage of GDP grew by 8 percent from 14.15 percent in 2020 to 22.22 percent in 2021.[20]

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[16] https://arptc-gouv-cd.translate.goog/?_x_tr_sl=fr&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc (22 Dec 2022)
[17] https://www.vodacom.cd/particulier/m-pesa/transferer-de-l-argent (accessed 22 December 2022)
[18] https://www-orange-cd.translate.goog/fr/orange-money-transfert-dargent/transferts-international.html?_x_tr_sl=fr&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc (accessed 22 December 2022)
[19] Private Sector stake holder consultation 26 and 27 July 2022
[20] https://data.imf.org/?sk=E5DCAB7E-A5CA-4892-A6EA-598B5463A34C&sId=1460043522778 (accessed 22 December 2022)

MICROFINANCE INSTITUTIONS

The DRC has 127 microfinance institutions and cooperatives grouped per province. In the east of the country, i.e., North and South Kivu (57), Kinshasa (25), Bas-Congo (15), Bandundu (25), Kassai Occidentale (2), and Maniema (3). Microfinance institutions and cooperatives have the potential to support inclusive growth and reduce poverty.

AGENTS

Financial institutions can work with agents through agency banking, with 4,570 agents spread across the country but mainly in urban areas leaving the rural areas underserved. As for MNOs, the agents have been expanding their network but mainly in urban areas leaving rural areas underserved regarding financial services.

NATIONAL PAYMENT SYSTEMS INFRASTRUCTURE

The payment systems in the DRC are designed to facilitate the transfer of money between individuals and businesses within the country. These systems are important for financial inclusion and economic development, enabling people to access financial services and participate in the formal economy.

The Banque Centrale du Congo (BCC) plays a key role in establishing and overseeing the national payment system (other participants being the national government and commercial banks). The BCC is responsible for issuing and regulating the use of currency in the country, overseeing the payment systems and ensuring their stability and security. The national government is also involved in the payment systems in the country, setting policies and regulations concerning payment systems and working to ensure that they are aligned with the country's broader economic development goals.
Commercial banks in the DRC also play a role in the payment systems. These banks provide checking and savings accounts, credit and debit cards, and online banking, which allow individuals and businesses to make and receive payments.

The DRC is implementing the National Digital Plan 2025 (Plan National du Numérique) to develop and implement a strategy for financial inclusion in the country. This plan aims to increase access to financial services, including payment systems, for people currently underserved or excluded from the formal financial sector. The development of payment systems is a key part of this plan, as it will help to increase the efficiency and accessibility of financial transactions in the country.[21]

LARGE-VALUE PAYMENT SYSTEMS

BCC has established a national payment system with infrastructure and systems to facilitate efficient and secure financial transactions. One of the systems is the Automated Transfer System (ATS), made of the real-time gross settlement system (RTGS) that allows for the real-time settlement of large value payments, and the Automated Cheque Clearing House (ACH), the automated system for clearing and settling checks. Alongside the ATS is a Central Securities Depository (CSD), the central repository that provides safe custody and transfer of government-listed securities. BCC systems use ISO 15022/MT-based messages as the messaging standard to ensure the security of messaging used in transactions between financial institutions. To date, all 15 banks have direct access to the RTGS, ensuring an efficient settlement for all commercial bank transactions.[22]

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[21]https://www-numerique-cd.translate.goog/fr/objectifs/?_x_tr_sl=fr&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc
[22] Public Sector stake holder consultation Kinshasa – DRC 25 July 2022

NATIONAL RETAIL PAYMENT SYSTEMS

A national retail payment switch is underway to connect both banks and non-banks. Implementation is still in progress, with six banks in the pilot stage and five in the test stage. Non-banks like MNOs and MFIs are scheduled to be integrated at a later stage. Interoperability with MMOs is yet to be achieved, leaving MMOs with the only option of establishing bilateral agreements among themselves. The national retail payments switch also supports a domestic card scheme called "Mosolo". The Mosolo network connects ATMs and POSs that accept the branded card.[23] The national retail payment switch uses SmartVista (propriety payment switch technology), which issues payment cards, connects all payment terminals and automatic teller machines, and creates a collaborative community ecosystem with the participating banks. The messaging standards are based on ISO 8583 for card schemes. The cards are issued to work domestically with CDF, but there are plans to have them work abroad with multiple currencies.[24]

RETAIL/LOW-VALUE PAYMENT SYSTEMS

Other low-value retail payment systems include e-money platforms provided by commercial banks and MFIs. Most banks and MFIs provide internet and mobile banking. There is partial interoperability between some banking and MFI digital financial products like internet and mobile banking with some mobile money operators. However, the systems face power and network connectivity outages.

PERSONAL IDENTIFICATION CARDS

The DRC national identification system is currently under development. Voter registration cards (carte d'electeur) are used nationwide as a valid form of identification. However, the availability of these cards can be limited, as they are only issued to individuals who are registered to vote. Passports and driving licenses can also be used as forms of identification, but these documents are not as widely held as voter registration cards, and their renewal process is cumbersome, making them obsolete after the validity period, which is not the case with voter cards. The lack of a well-structured and implemented national identification system makes it difficult for many Congolese people to access financial services, as well as other services that require proof of identity, but also make it hard for financial institutions to comply with AML/CFT regulations.

[23] Public Stake holder consultation, Kinshasa – DRC between 26 and 27 July 2022.

[24] Public Sector consultation, Kinshasa – DRC between the 26 and 27 July 2022.

TERMINALS AND CARDS FOR AUTOMATIC TELLER MACHINES (ATMS) AND POINT OF SALE (POS)

In July 2022, an ongoing initiative to get an up-to-date record of ATMs and POSs across the country was launched, so data capture is still in progress[25]. However, implementing the retail payment switch will directly connect ATMs and POSs to the banks and MFIs. There are plans to scale up the number of access points by about 5,000 POS and 2,000 ATMs countrywide using the Mosolo scheme.

REMITTANCE-LINKED PRODUCTS AND SERVICES

There are domestic, regional, and international RSPs in the DRC. Most of the country's financial activities are carried out in urban areas, making RSPs prone to the same trends in the provision of remittance services. This trend in DRC leaves a vast geographical area underserved with remittance services and financial services at large. Several banks partner with International Money Transfer Operators (MTOs). However, high fees caused by long value chains limit the ability of many potential users of the formal remittance channels.

Currently, the DRC has four MNOs, namely Vodacom, Airtel, Orange, and Africell, and there are a number of bilateral interoperability agreements between them. However, there are still some challenges with cross-network mobile money transactions. However, cross-network mobile money transactions continue to pose certain difficulties. For example, transfers are not instant when connections are established and are affected by channel downtimes, and e-money issuers impose high cross-network transaction fees to prevent customers from shifting their e-money to a competitor's ecosystem.

Poor access to formal remittance services in the DRC caused by the large geographical area, underdeveloped financial sector, and intermittent conflict in some parts of the country is responsible for the extensive use of informal channels for sending remittances. Remittances are mainly cashed out over the counter at banks or approved remittance service providers.

Results from a 2018 FinMark study of remittances in the DRC show that 81 percent of the remittances sent and received are informal.[26] Digitizing remittances and related services is one way to enable migrants to reach their families in more rural areas and reduce the cost of remittances, which remains high.[27] Partial interoperability among players affects the cost of transactions. Multiple commercially driven bilateral agreements exist between different players in the e-payment ecosystem.

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[26] https://www.finmark.org.za/system/documents/files/000/000/216/original/DRC-Remittances_Final-English.pdf?1601981145 (FinMark study on Understanding Global Remittances Corridors in the Democratic Republic of Congo (DRC) published 22 May 2018)

[27] Private Sector consultation, Kinshasa – DRC between 26 and 27 July 2022.

ASSESSMENT OF THE PAYMENT SYSTEMS INFRASTRUCTURE

This section assesses progress made by the BCC and market stakeholders in four key areas to address the NPS infrastructure gaps and challenges.

RETAIL PAYMENT ACCESS POINTS FOR SENDING AND RECEIVING REMITTANCES

CONTEXT

The value of transaction accounts for payment and remittance services is enhanced by a large network of access points with extensive geographical coverage and a range of interoperable access channels.[28] The existence of a national-level retail payment infrastructure, including ACH, payment cards, and mobile money switches, can effectively increase the network of access points (e.g., ATMs, POS, branches, or agent networks) for individual customers. Such centralized payment infrastructures act as hubs for processing interbank transactions, improving interoperability and exhibiting positive network externalities for all system participants. Any branch of a bank or other PSP participating in the ACH or Switch can be used to transfer funds to a customer of another ACH or switch participant, supporting countrywide reachability, even if a particular bank does not have access points deployed in specific regions. The success of digital remittance services that use the rails of retail payment systems depends on the availability, quality, and reliability of customer service and access points.

THE SITUATION IN THE DEMOCRATIC REPUBLIC OF THE CONGO

The BCC has implemented an NPS, including but not limited to large-value payments via the ATS comprising an RTGS, an ACH and a CSD. A national retail payment switch is also being implemented to provide interoperability between RSPs. The National Retail Payment Switch already supports a domestic card scheme called Mosolo. The DRC has four mobile money providers, 15 commercial banks, 127 MFIs, and 4,570 agents. Despite efforts, financial inclusion levels remain low for the 95.2 million[29] people living on 2.345 million km^2.

Furthermore, ATMs, POS, and other access points are distributed mainly in major towns and cities. The different RSPs, including banks, MFIs, and MMOs, all implement proprietary retail payment solutions with little or no interoperability enabled. Even where interoperability is established, multiple bilateral relationships and anti-competitive

[28] World Bank, *Payment Aspects of Financial Inclusion (PAFI)* (2017), www.worldbank.org/en/topic/financialinclusion/brief/pafi-task-force-and-report.

[29] https://www.unfpa.org/data/world-population-dashboard is (accessed 12 November 2022)

practices are implemented by market players to try and maintain e-money within their payment ecosystem.

RECOMMENDATIONS

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

1. **The BCC** can further develop the **National Retail Payment Switch** to ensure it is **interoperable with mobile money**. The BCC should enable the four MMOs to connect directly to the Switch. This will integrate the MMOs using the Switch as an interoperable retail payments infrastructure, enabling interoperability between banks and MMOs. **Interoperability of Mobile Financial Services (MFS)** within the retail payments ecosystem may help avoid complex and duplicate bilateral agreements between players. This will also enable the BCC and ARPTC to oversee and implement competitive guidelines among RSPs. Where RSPs need to incur capital expenditure, the BCC can encourage them to consider **shared infrastructure** to save costs.

2. **The BCC** can enhance the uptake of digital financial services by **increasing** the **use cases** on the National Retail Payments Switch. Once banks and non-banks have been onboarded, users should be able to transfer money between mobile wallets and bank accounts, pay bills, and pay for government services. Adopting a common standard for QR code technology can further enable this.

3. **The BCC** can consider working with banks, MFIs, and MMOs to **expand the agent network.** The agent network can adopt **POS devices that are compatible** with the card scheme, and mobile money will widen the reach of access points in the DRC. Relevant examples where this has successfully worked are in Rwanda and Uganda.

ACCESS TO NATIONAL PAYMENT INFRASTRUCTURES BY NON-BANK REMITTANCE SERVICE PROVIDERS

CONTEXT

According to the FSB Stage 2 report,[30] "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 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

[30] 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), www.bis.org/cpmi/publ/d193. pdf.

become global payment players, serving many jurisdictions. Lower cost and higher speed in cross-border payments with lower credit and liquidity risks would be the targeted outcome."

THE SITUATION IN THE DEMOCRATIC REPUBLIC OF THE CONGO

Non-banks cannot currently participate in the NPS directly, but they can develop settlement procedures with commercial banks that have direct access to the RTGS. Examples of non-banks without direct access include MFIs and MMOs. In addition to not having direct access to retail payment systems, MMOs face several challenges, including inadequate interoperability, network coverage, availability, power, and security. The DRC does not have a centralized national identity database, meaning financial institutions cannot check and verify their potential customers.

RECOMMENDATIONS

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

1. **The BCC** could **grant NPS access** to **non-banks (such as strong MFIs and MNOs).** This could be a tiered approach at first and then scaled up later.

2. **Build resilience in critical retail NPS infrastructures.** The impact of operational incidents could be mitigated, in principle, by building resilience that withstands service disruptions and supports effective business continuity plans. NPS system operators could be required to: (i) adopt rigorous risk management procedures in line with global best practices to identify and mitigate operational risks, including cyber-resilience; (ii) incorporate appropriate redundancy and business continuity arrangements to ensure the timely service recovery in the event of a major disruption; and (iii) establish procedures for timely communication to stakeholders of operational incidents. In addition, the BCC should hold periodic and regular disaster recovery drills (both announced and unscheduled) to ensure the effectiveness and resilience of the systems operated by the BCC and the other PSOs. This should be based on guidance developed by the Committee on Payments and Market Infrastructures (CPMI) on cyber-resilience[31] and other global best practices.

3. **The BCC** and the relevant authorities can work toward setting up a **centralized National Identification Database**. The identity system should be able to support open application programming interfaces (API) for payment system integration. Once this is in place, RSPs can be granted access to the National Identity System via secure integration to automate the KYC process.

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[31] Bank for International Settlements and International Organization of Securities Commissions, *Guidance on Cyber Resilience for Financial Market Infrastructures* (2016),www.bis.org/cpmi/publ/d146.pdf.

INTEROPERABILITY AND INTERCONNECTIVITY OF DOMESTIC PAYMENT INFRASTRUCTURES

CONTEXT

Interoperability is one of the most desirable characteristics of payment and financial market infrastructure to ensure interconnectivity and the widespread availability of digital financial service access points. While the widespread availability of digital solutions for remittances, payments, savings, and credit provides people with access to financial services, payment interoperability enables these targeted people to transfer their money to any other individual without a requirement for multiple transaction accounts, thereby increasing the importance of transaction accounts and their usability. ISO 20022 has emerged as 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 fewer errors. ISO 20022 is a global standard for financial messaging that provides a standard model across business domains such as payments, securities, trade services, card services and foreign exchange. The standard defines messages with clarity of purpose and conveys information between parties within a payment chain. It also defines message specifications for each message type. Benefits of ISO 20022 include: (i) **sharing large volumes of information,** as ISO 20022 can carry large data sets and messages. Users of the standard can choose the quantity of data to share for necessary insights; (ii) **integrating domestic and cross-border payments,** as ISO 20022 can integrate and standardize domestic and cross-border payments in market practices by rolling out standard guidelines; (iii) **ensuring interoperability and harmonization,** as ISO 20022 enables the harmonization of previously known interoperable formats, and simplified data consumption and transmission. The underlying syntax of XML and the structured platform makes this standard more feasible for payments; and (iv) **efficient gains and cost-saving,** as ISO 20022 makes financial messaging more efficient by standardizing and harmonizing payment message formats, increases STP rates and simplifying cost-intensive procedures such as payment processing, investigations, data analytics and reporting.

THE SITUATION IN THE DEMOCRATIC REPUBLIC OF THE CONGO

There is a lack of interoperability guidelines among players (banks and non-banks) despite many of them operating in the DRC. Although there is some partial domestic interoperability between MMOs, it is based on bilateral commercial agreements between players. Such bilateral agreements become complex to manage as the number of players increases.

RECOMMENDATIONS

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

1. **The BCC** can provide capacity-building to the National Retail Payments Switch by harmonizing messaging standards, adopting open APIs, and providing guidelines for participants on the National Retail Payments Switch.

2. **The BCC should provide clear guidance to the market on the plans for standardization and interoperability framework for QR codes.** It is recommended that clear guidance to the banks, PSOs and PSPs (entities responsible for developing their proprietary QR code standards) is provided on what they should be doing now regarding harmonization efforts. This process will lay out the importance of establishing interoperability and will outline the intended framework for the standardization process[32] for QR codes to bring uniformity and provide equal opportunity for all players in the payment space.

INTERCONNECTIVITY WITH 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, cost, 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 their reliance on traditional correspondent banking. Interlinking arrangements can range from simple agreements on cross-participation to full technical integration of systems.[33]

THE SITUATION IN THE DEMOCRATIC REPUBLIC OF THE CONGO

The DRC is a member of the Regional Payment and Settlement System (REPSS) for cross-border large-value payments in the Common Market for Eastern and Southern Africa (COMESA). The BCC is directly connected to the REPSS, and all retail banks access the REPSS as members of the BCC RTGS.

The DRC is also a member of the Southern African Development Community Real-Time Gross Settlement (SADC-RTGS). In this setup, all retail banks connect directly to SADC-

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[32] Based on EMVCo and international standards.

[33] 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), www.bis.org/cpmi/publ/d193.pdf.

RTGS, and the BCC also connects directly as a member of SADC-RTGS. There are approximately 88 banks directly connected to the SADC-RTGS.

The East African Payments and Settlement System (EAPS) provides interoperability of large-value payment systems of the central banks in the participating Member States of the EAC, namely Uganda, Kenya, Tanzania, Rwanda, Burundi, and South Sudan. In EAPS, each central bank maintains an account in the currencies of the other Member States (Ugandan shilling (UGX), Kenyan shilling (KES), Tanzanian shilling (TZS), Rwandan franc (RwF), Burundian franc (BIF), and the South Sudanese pound (SSP)). EAPS enables 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 in May 2014. Rwanda subsequently joined EAPS in December 2015 after implementing its RTGS. Burundi joined EAPS in 2020 and was still to finish the RTGS integration to be fully operational on the EAPS by October 2022. South Sudan, and the DRC, which joined the EAC in 2017 and 2021, respectively, are yet to join EAPS pending the readiness of their RTGS platforms.

In 2014, the EAC undertook diagnostic studies of the interoperability of cross-border retail payment systems in the EAC. The central banks of the EAC Member State reviewed the findings and commissioned stakeholder consultations in each of their respective countries. Overall, public and private institution stakeholders recommended that each country works toward achieving domestic interoperability by implementing interoperable national retail payment switches. The stakeholders also recommended a regional infrastructure to serve as a regional hub connecting the national retail payment switches of the EAC Member States. As of October 2022, Kenya and Tanzania had operational compatible national retail payment switches (Kenswitch[34] and TIPS[35] , respectively). Rwanda had successfully piloted mobile money interoperability with its national retail payments infrastructure, the RSwitch, and Burundi was implementing the Bi-Switch and had also piloted mobile money interoperability between two MMOs (Lumitel, and Ecocash). South Sudan was still implementing the RTGS at the BSS[36], and the DRC, still a new member of the EAC, was yet to join EAPS. Although the DRC is also implementing a national retail payments switch, the project has been delayed since its inception in 2010.

Another integration initiative not yet considered is the Pan African Payment and Settlement System (PAPSS), a centralized payment and settlement infrastructure for intra-African trade and commerce payments. The PAPSS is endorsed by the African

[34] 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

[35] Tanzania Instant Payments System (TIPS) is an interoperable digital payment platform operated by Central Bank

[36] Bank of South Sudan (BSS).

Union (AU) and is being developed in collaboration with the African Export-Import Bank (Afreximbank). It will facilitate payments and formalize some unrecorded trade due to the prevalence of informal cross-border trade in Africa.[37] 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 PAPPS for cross-border payments include reduced costs, smoother processing times, fewer liquidity requirements for commercial banks, 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 buy-in and 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 the interconnectivity with local and regional multilateral platforms.

1. **The BCC** can take up **active participation** in **regional cross-border payment system projects. The** BCC is yet to join the East African Payment and Settlement System (**EAPS**) alongside the other five Member States of Kenya, Rwanda, Tanzania, and Uganda. **Joining the EAPS project** would enable BCC to settle large-value transactions in any of the other four currencies of its neighbours, reducing its reliance on external networks like SWIFT and other currencies and mitigating associated risks. The EAC diagnostic report on cross-border retail payment systems recommends establishing domestic interoperability before regional integration. The **BCC** can **prioritize** completing the **national retail payments switch,** a precursor to regional retail payment systems integration. The same domestic integrated retail payment infrastructure will provide interoperability with domestic RSPs, and regional and international payment system providers.

2. **The BCC may foster connectivity of 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 allow 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

[37] https://papss.com/ (accessed 14 December 2022)

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 ECCAS

The Economic Community of Central African States (ECCAS), created in 1983, comprises 11 Member States—Angola, Burundi, Cameroon, Central African Republic, Chad, Republic of the Congo, Democratic Republic of the Congo, Gabon, Equatorial Guinea, Rwanda, and São Tomé and Príncipe. It is one of the five development zones on which the African Union (AU) intends to build continental cooperation and integration.

According to its statutes, ECCAS' mission is to foster political dialogue in the region, establish a regional common market, set common sectoral policies, foster and strengthen harmonious cooperation and balanced and self-sustaining development in all areas of economic and social activity, especially in the fields of industry, agriculture, natural resources, infrastructure, trade, customs, monetary and financial matters, and tourism.

ECCAS member states adopted a strategic plan for integration and a strategic vision in October 2007. The vision is to create by 2025 "a stable, prosperous, united, economically and politically united Central Africa" to make the region an area of peace, solidarity, and balanced development, with free movement of people, goods, and services.

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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