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Currency Dichotomy and Cross-Border Payment Analysis:

A Step Towards Integrated Payment Interface For Africa

Agpaytech

Executive Summary

While Scholars have identified several challenges in cross-border payments such as expensive, slow, and not transparent, with more disconnected layers, etc., few studies focused on the impact of diverse currencies in the same region as well as other regions on cross-border transactions. With several monetary zones in Africa coupled with over 42 currencies in circulation, the report explores how cross-border payments occur within and across regions based on cross-currencies. Moreover, we expanded the concept of building regional payment areas as championed by Arner et al. (2022) and proposed a comprehensive policy approach to enhance cross-border transactions in Africa.

Introduction

Cross-border transaction has been the core of international trade, money remittances, e-commerce, and other multinational projects or business. With the inherent technologies, the challenges of physical cash distribution over nations have been minimized. While digitalization improvement has promoted real-time domestic payments and settlement efficiency, transfers across several currencies into different regions are yet to optimize their full efficacy. Moreover, the existence of correspondent banks and payment service providers only increased the transactional cost and risk, whereas time-consuming and cost remains effects are unresolved.

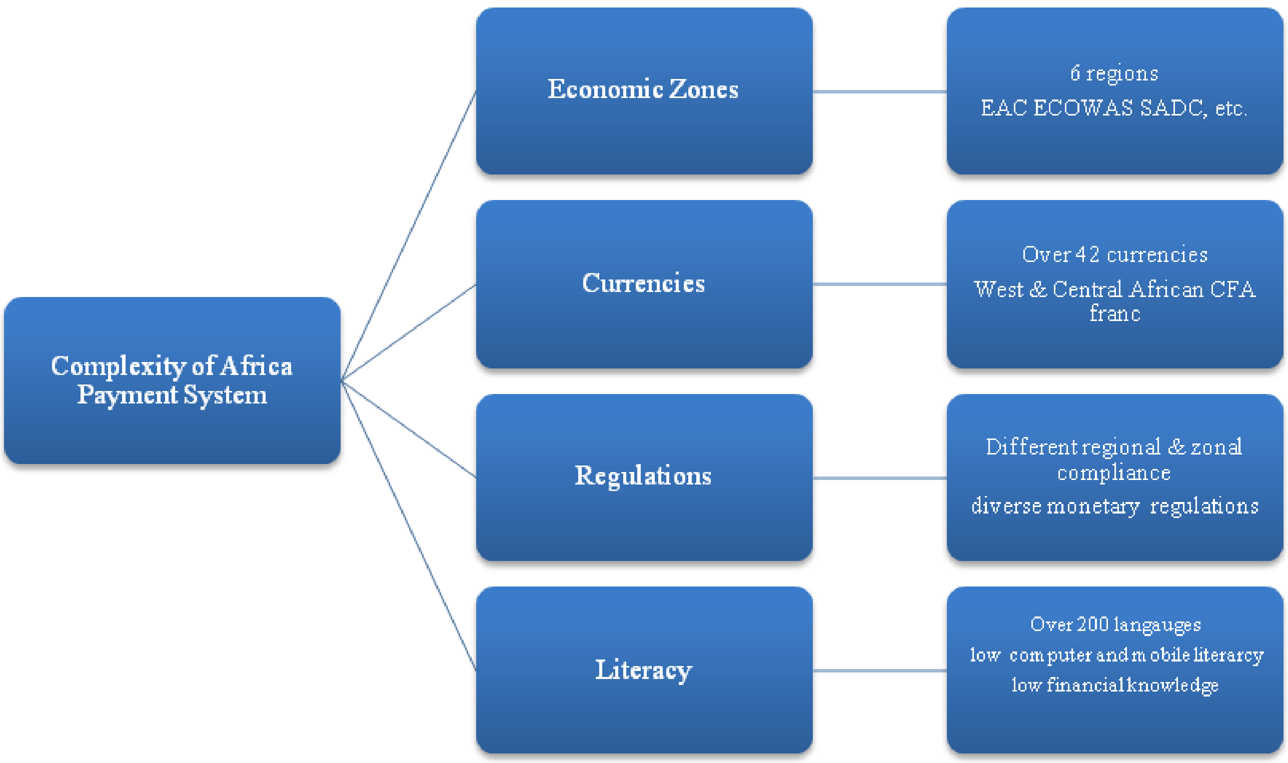
In October 2020, the G20 endorsed a significant initiative to enhance cross-border payments. Faster, cheaper, more transparent, and more inclusive cross-border payment services will deliver widespread benefits for citizens and economies worldwide, supporting economic growth, international trade, global development, and financial inclusion. Enhancing cross-border payments requires more than mere adoption of technical standards. The best outcome involves aligned technological, regulatory, and legal frameworks. This paper analyzes such payment integration projects.

Contents

Background: Africa Monetary and Currency Environment

The payment systems in Africa look complex due to the intersecting economic zones in Africa. Thus, several regional monetary unions and economic regional communities in Africa are involved. A feature of regional cooperation in Africa is the existence of overlapping regional integration initiatives coupled with countless monetary currencies in the continent. More ambitiously, single money for the whole of Africa is also an official objective. The creation of a typical African currency has long been a pillar of African unity, a symbol of the strength that its hope will emerge from success with efforts to integrate the continent. As a common currency and payment system for the Africans is on the table, different monetary zones aim to launch and use a common currency. Besides, many African countries' central banks are exploring issuing their digital currency, which contradicts their monetary zone and AU financial ambitions.

Figure 1: Complexity of African payment system



Source: Agpaytech Research

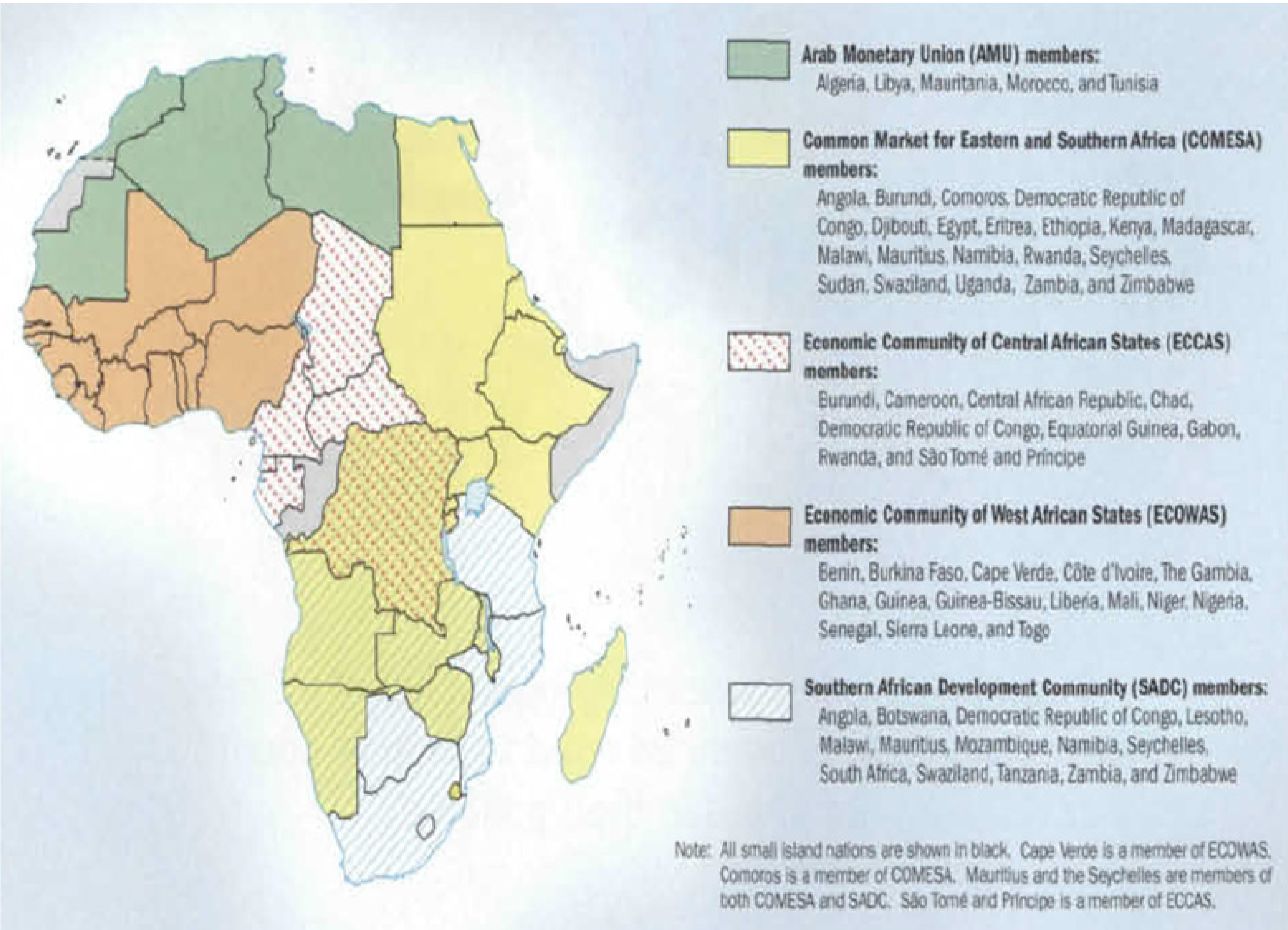
Monetary Unions and Zones in Africa

The currency unions and the adoption of a single currency in the context of regional integration have been in the spotlight for past years. Recently, African monetary unions are on the rise, with overlapping zones.The West African Monetary Zone is a group of six member states comprising: The Gambia, Ghana, Guinea, Liberia, Nigeria, and Sierra Leone, established by the West African Monetary Zone (2000). The WAMZ Agreement made provision for the establishment of the West African Monetary Institute (WAMI), tasked with undertaking technical preparations for the establishment of a standard West African Central Bank (WACB) and the launch of a single currency for the West African Monetary Zone (WAMZ). Kenya, Tanzania, and Uganda have agreed to revitalize the East African Community, effectively dissolved in the 1960s. The project envisions a single currency, reestablishing the currency union constituted around the East African shilling that was in place at the time of independence.

Southern Africa has been exploring regional integration in the context of the Southern African Development Community (SADC) to build on the long-standing but more restricted South African Customs Union and the Common Monetary Area (CMA). The CMA, which now includes Lesotho, Namibia, Swaziland, and South Africa, is centered on the rand, and the South African Reserve Bank has responsibility for monetary policy.

However, a proposal for a true multilateral monetary union would include all the SADC countries. SADC leaders are pushing for a single currency.
Moreover, Common Market for Eastern and Southern Africa (COMESA) includes most of the countries of SADC (with the notable exception of the Republic of South Africa) but also Egypt, Sudan, and the East African countries, and has a different timetable for trade liberalization.
The CFA franc zones overlap partially with ECOWAS, as only one of the two CFA zones, WAEMU, is part of West Africa, while the other one, CEMAC, is part of Central Africa (ECCAS). Both WAEMU and ECOWAS have criteria for regional surveillance, but not identical ones, and the dismantling of trade restrictions has proceeded differently in the two organizations.

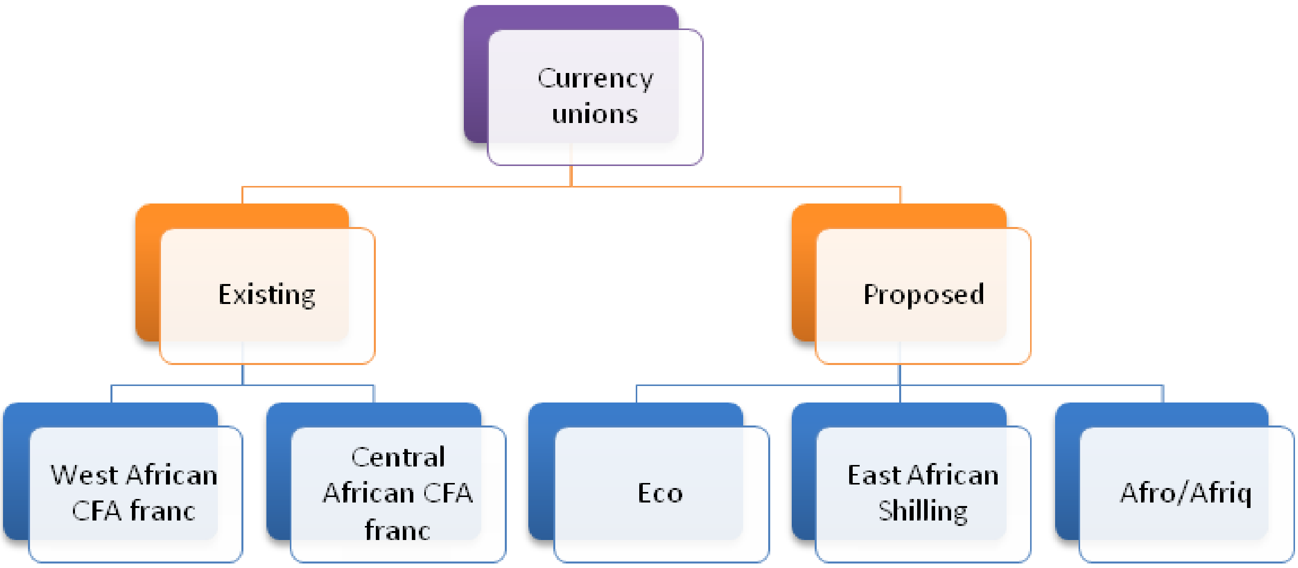
Figure 2: Creation of monetary unions in the five regions



Currency Union in Africa

Currently, there are two existing currency unions in Africa. They are the West African CFA franc and Central African CFA franc. However, another economic bloc has proposed a single currency for its members such as the East African Community planning to use the East African Shilling and the whole of the African region is preparing to issue a single currency.

Figure 3: Currency unions in Africa

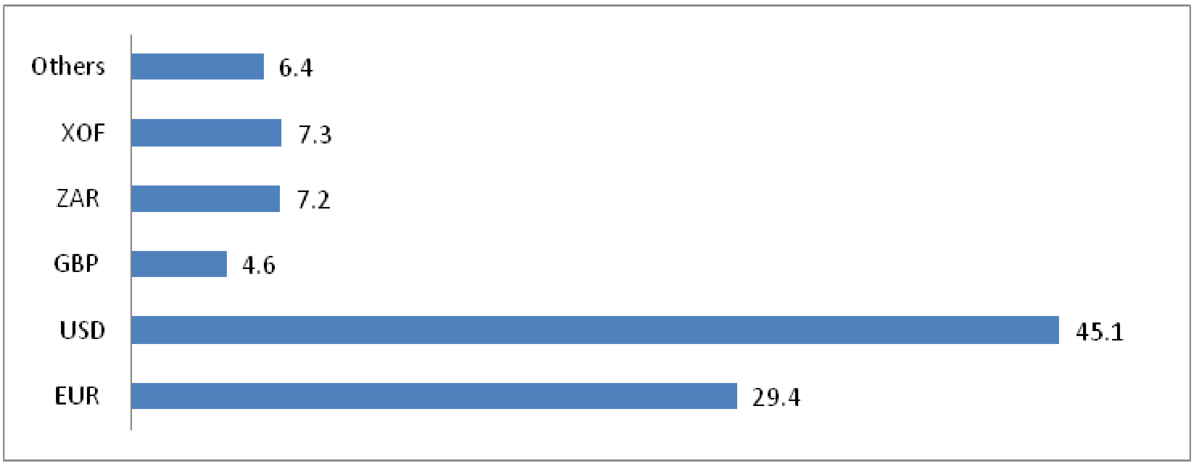


Source: Agpaytech

Currencies in Circulation

According to the AfCFTA Secretariat, there are over 42 currencies in the continent, and this remains a constraint to intra-Africa trade due to the need to use international currencies for the transaction. The notable currencies are the West African CFA franc, used in 8 independent countries, and the Central African CFA franc, used in 6 other nations. Their relative stability is guaranteed to utilize the fixed exchange rate; currently, both are pegged to the Euro. However, the only local currency ranked among the most-traded in the international forex market is the South African rand, placed at 20th position globally. Multiple websites confirmed that the Libyan Dinar had been Africa's most robust currency. The US dollar accounted for more than 45.1% of payments from Africa in 2017. The Euro is increasing in importance by 29.4%. However, the British pound has seen a decrease in use from 6.2% to 4.6

Figure 4: Africa's currency usage for cross-border commercial payments

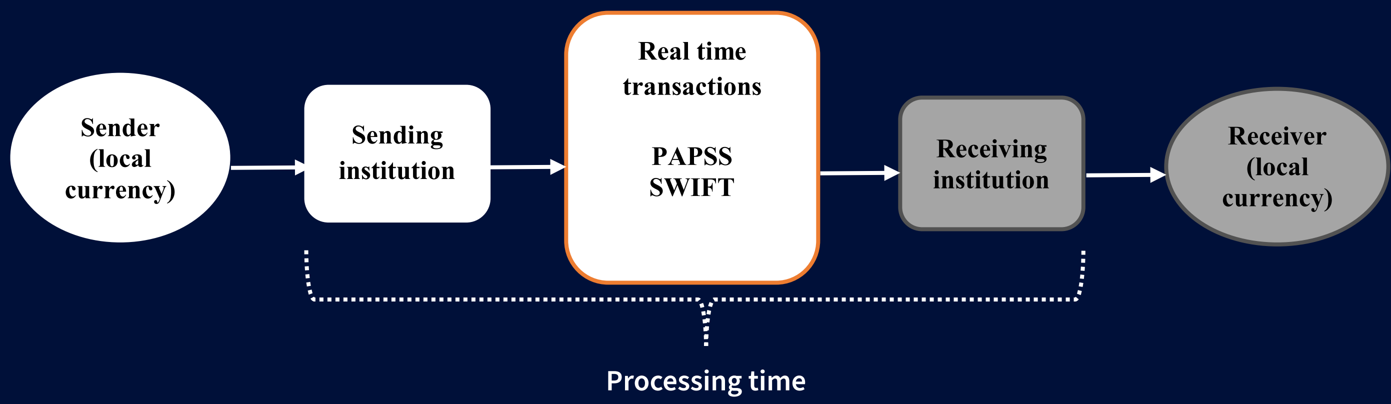


Source: SWIFT BI Watch, 2017

Cross-Border Payment

A cross-currency payment refers to the entire transaction chain which results in the debiting of an account in one currency and the crediting of an account in another currency (Renzetti et al, 2020). While the current literature analyses obviously focus on instant payments between two or more countries in Africa, multiple currencies within the region have also affected speed, cost, and transparency in cross-border payments. Among the African countries, a cross-border transaction between two different countries using the same currency is relatively cheaper, faster, and less risky as compared to transactions that involve several currencies. For instance, 100 XOF in Benin is the same as 100 XOF in Burkina Faso. However, cross-transaction from Ghana to Comoros passes through several processes which increases the transaction cost and delay.

Figure 5: A typical cross-border payment in Africa

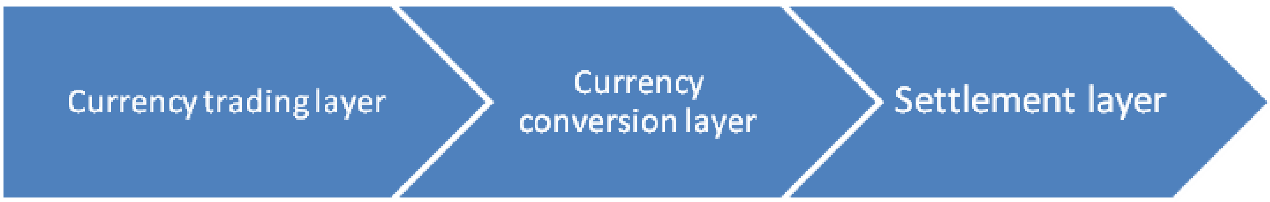


Source: Agpaytech

Cross-Border Payment (Multi-currency)

A Multi-Currency Clearing and Settlement Mechanism (CSM) is a system implementing the processes underlying all payment transactions exchanged between two PSPs in a multi-currency scenario. This means that payments may take place in different currencies even though, for each payment, the debited and the credited accounts are denominated in the same currency (Renzetti et al, 2020). The cross-border payment involving multiple currencies involves three main layers.

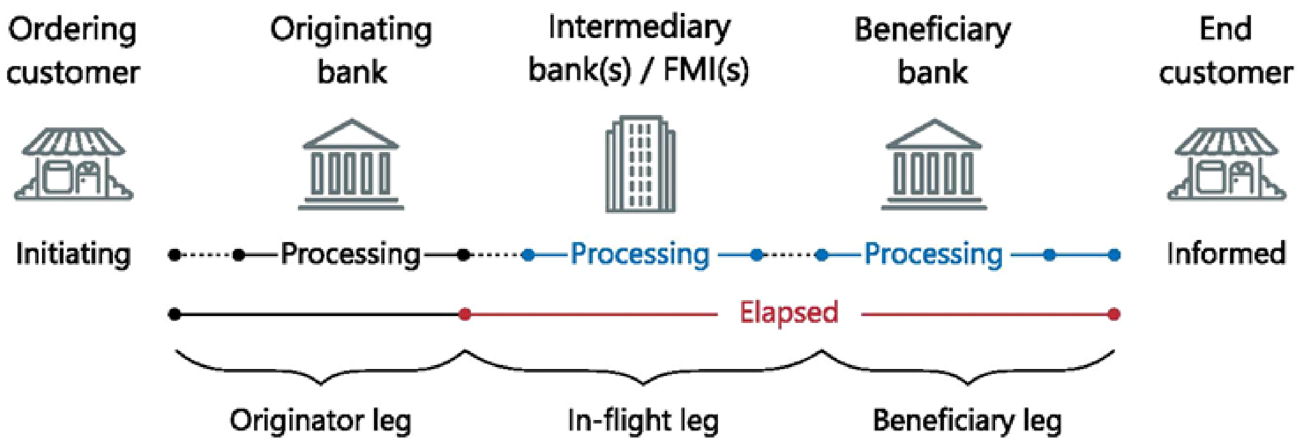
Figure 6: Multiple currency settlement layers



Source: Agpaytech

The majority of the cross-border payment involving multiple currencies and different nations have two features. First, there is an intermediary bank that processes the order to the beneficiary bank. Second, the originating sender bank may have another correspondent bank acting on their behalf in the home or receiver bank indirectly. Most of the cross-border payments among African nations are facilitated by SWIFT, which involves on average, just over one intermediary between the originator and beneficiary banks. Each additional intermediary prolongs payment time to a limited extent, while the size of time zone differences between banks has no apparent effect on speed (CPMI (2022). Besides, the type of infrastructure does not affect the volume of payments to the beneficiary country. The payment amount and whether it involves multiple currency conversions hardly affect processing time. In Africa, SWIFT constituent countries and dependent territories are; Eastern Africa, Northern Africa, Southern, Central Africa, and Western Africa. Another challenge with SWIFT is no clearing house or Bank in Africa. All the commercial and central banks act as intermediaries to the sending or receiving person or institution.

Figure 7: Typical cross-border payment on SWIFT



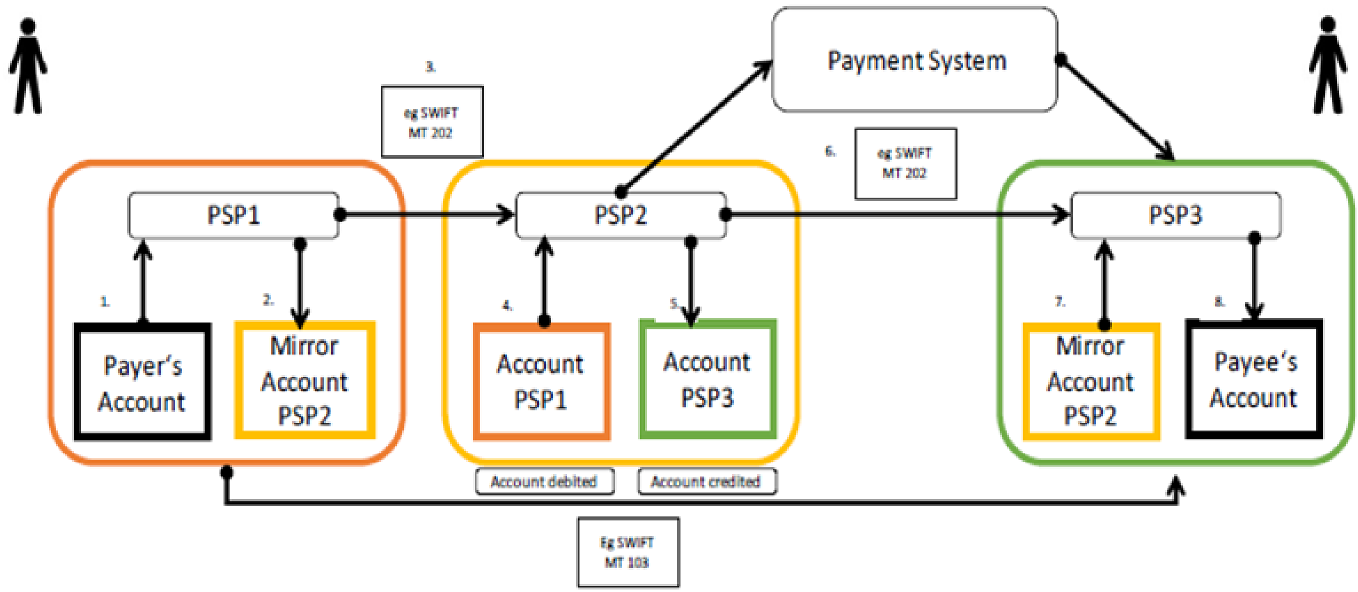
Source: BIS (2022)

Note: Data from the SWIFT gpi Observer only track the in-flight and beneficiary legs, that is, the blue and red parts of processing time and elapsed time, respectively

Cross-Border Payment with Correspondent Bank

In some cases, cross-border payments flow through the correspondent bank because the transaction payment systems are located in two different jurisdictions with no common facility to support payment. Instead, banks (generally large) provide accounts for foreign counterparts and have their own accounts with foreign counterparts. Accounts are credited in one jurisdiction and debited in another. This system of double accounts enables banks to exchange book positions in FX-adjusted terms. The respective amount is then credited and debited to the correspondent banks' (Arner, et al., 2022).

Figure 8: Cross-border payment with Correspondent Banks



Source: Adapted from Arner et al., 2022

Based on figure 8, the transactional process that involves many correspondent banks follow this procedure:

[1] PSP1 debits the payer's account the amount to be transferred;
[2] PSP1 credits a mirror account held in the name of PSP2, which is kept purely for accounting purposes;
[3] PSP1 sends to PSP2 a payment message via an electronic messaging system (e.g., SWIFT MT 202) and announces the forthcoming payment to PSP3 (via e.g., SWIFT MT 103);
[4] PSP2 debits PSP1's account with PSP2.
Then, if an (electronic) fund transfer/payment system is involved:
[5] PSP2 sends a payment message to the fund transfer system (often using a proprietary messaging standard);
[6] Settlement takes place via the fund transfer system;
[7] The fund transfer system sends a payment message to PSP3 (often using a proprietary messaging standard);
[8] PSP3 credits the payee's account with PSP3

In a situation whereby there is no (electronic) fund transfer is involved, the process change from stage 4. In this scenario;

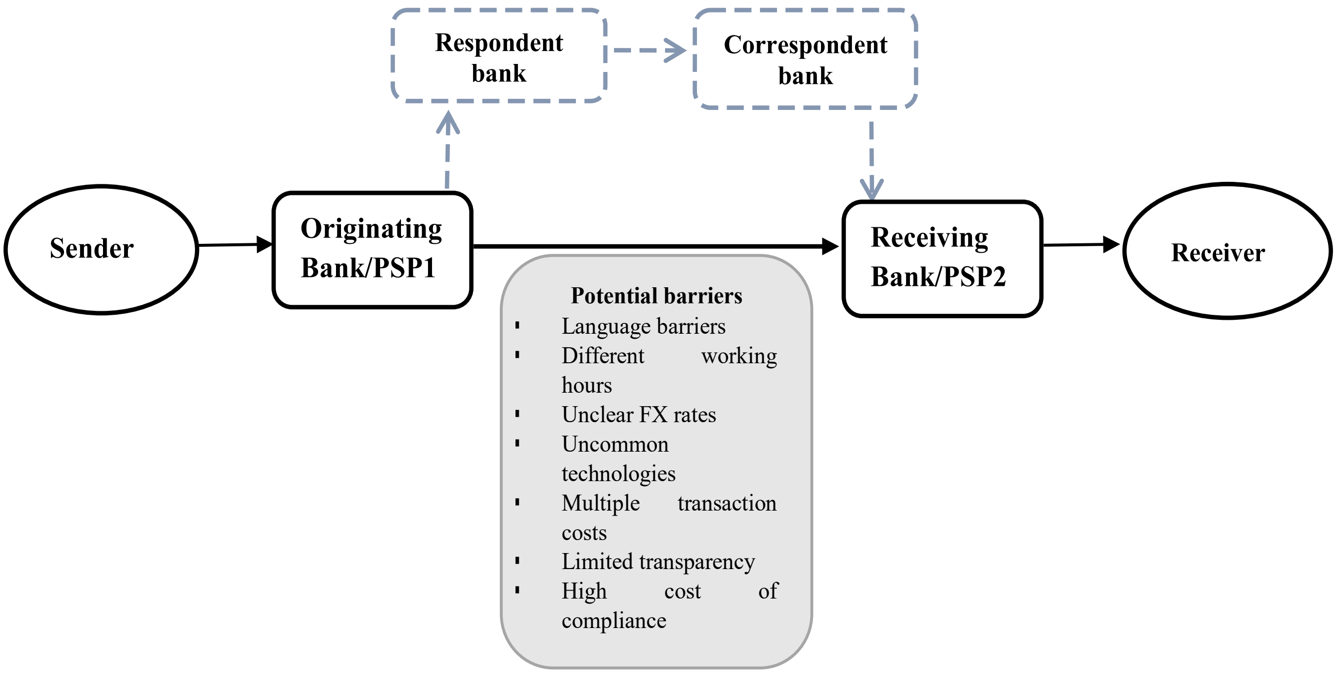
[5] PSP2 credits PSP3's account with PSP2;
[6] PSP2 sends a payment message to PSP3 via an electronic messaging system (e.g., SWIFT MT202);
[7] PSP3 debits PSP2's mirror account with PSP3, which is kept purely for accounting purposes;
[8] PSP3 credits payee's account with PSP3

Correspondent banking remains essential to cross-border payment and international trade, however, the Committee on Payment and Market asserted that it experienced an overall 25% contraction between 2011 and 2020. The worldwide decrease in correspondent banking associations can largely be attributed to the complexity and multiple layers of the process increasing the invisibility in payments' final settlement and cost of the transaction as well as to increasing AML/CFT concerns and concentration in the global banking industry (CMPI, 2020; Arner et al., 2022).

Impact of the Currencies Dichotomy in Africa

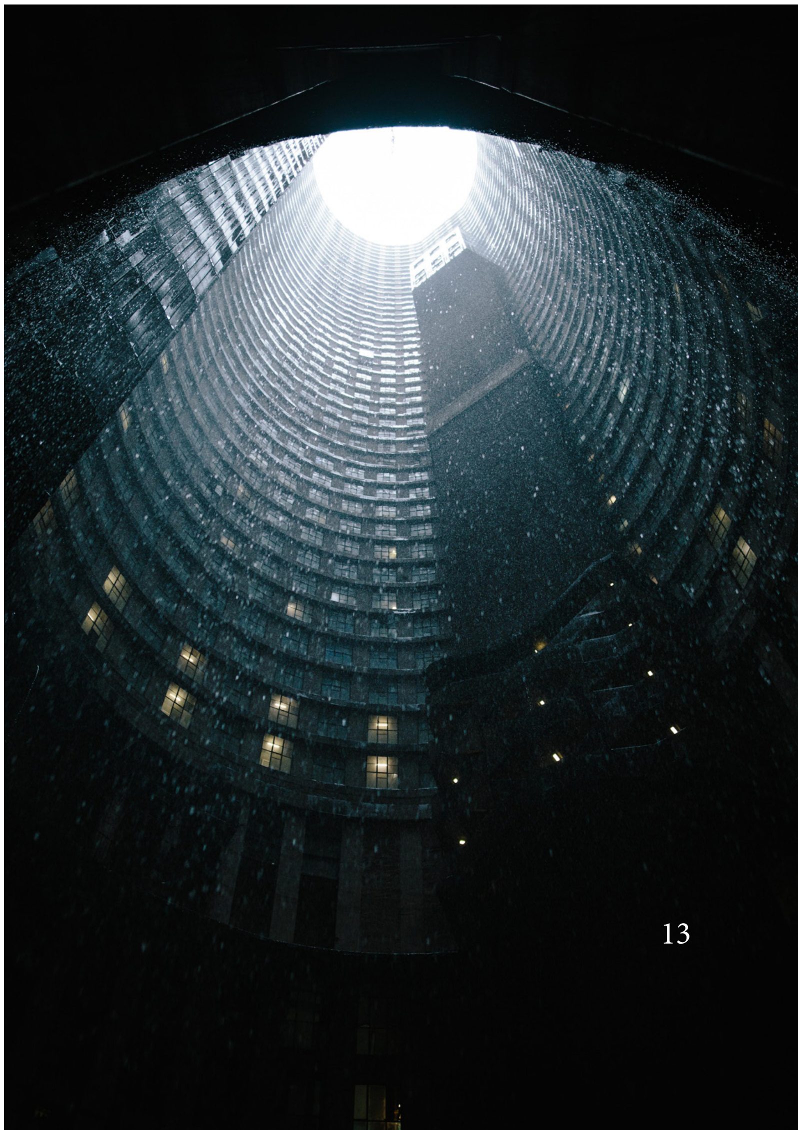
The existence of numerous currencies, languages, fragmented compliance and regulatory policies have resulted in inadequate or lack of coordination among payment service and payment infrastructure providers in cross-border payments in Africa. The implications of the cross-currency payment can expose parties to high transaction costs in the form of foreign exchange settlements. This implies that participating banks have to get enough reserve liquidity in other foreign currencies which can be risky due to the high volatility rate (Arner et al., 2022; Auer et al., 2021). Moreover, inadequate unified payment platforms and interoperability facilities make payment more complex among African nations. The multiple currencies in circulation together with no unified payment interface have resulted in high cross-border transaction costs. During the cross-border payment, in most cases, two or more intermediaries are required to complete the process. For each process, it is unclear what amount constitutes the processing fees. Due to time differences and working hours, the FX rate is different between the two countries increasing the hiding cost. While limited transparency has led to the surge of the informal channel, few have been done to resolve this issue across the continent. Besides, the currency dichotomy in Africa has led to the involvement of several intermediaries in order to complete transactions among the African counties. Most of the currency's denominations also differ making payment inflexible.

Figure 9: Multiple currency cross-border in Africa



Source: Agpaytech

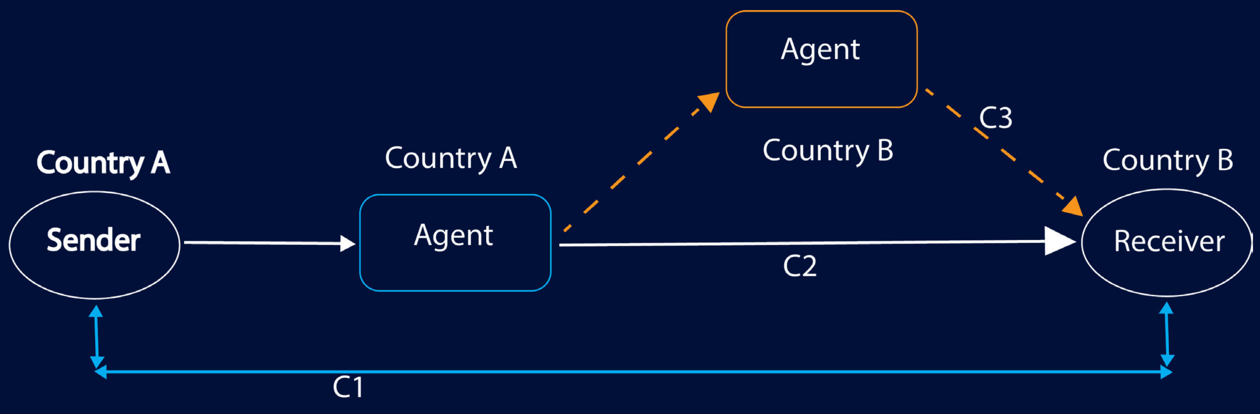
Figure 9 illustrates cross-border transaction involving multiple currencies between the Sender (A) in a different country and the Receiver (B) also in a different jurisdiction. Here, the payment occurs with the help of the Originating Bank or PSP1 and both a Respondent and Correspondent Bank acting as intermediaries to credit the account of the Receiver in his or her local currency through the Receiving Bank or PSP2. Moreover, the scenario depicts potential barriers that could delay or affect the process such as different working hours, unclear exchange rate, delay and many others.



Informal Cross-Border Currency Transactions

While the currency dichotomy has posed several cross-border payment challenges, the informal or unregistered payment service providers (agents) are providing risky but cheaper and faster payment services

Figure 10: Informal payment process



Source: Agpaytech

C1: The parties exchange currencies or make payment like the barter trade system. First, both the sender and the receiver play interchangeable because each needs the other currency. Using the current FX market rate, they exchange the equivalent amount without any intermediaries. While the process is risky, it is considered most convenient, faster and no transaction fees or tax in the process.

C2:Under the channel two, the Sender in country A sends money in local currency to an agent in the same country who then make direct payment (in country B local currency) to the final Receiver in a different country.

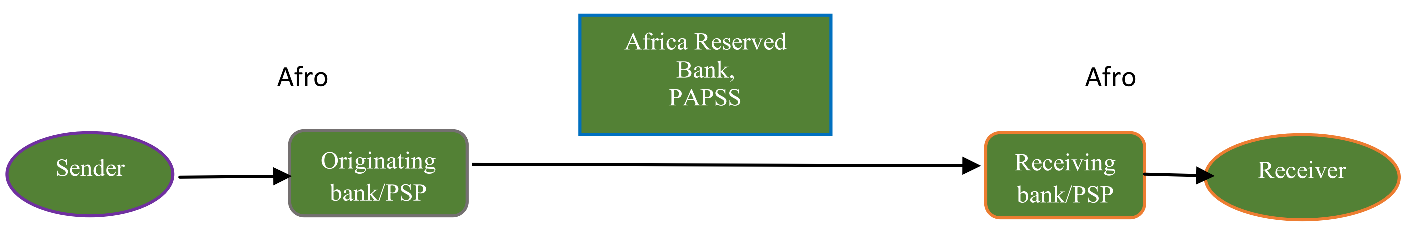
C3: In this scenario, there are two agents or PSPs acting as intermediary (informal agents) who provide different payment in diverse currencies. While this process is riskier and take long, it is the only possible way to send money to and from in situation where there is no access to banks or MTOs, lack of payment corridors between countries and when the channel has proven to be reliable and cheaper.

Building Integrated Payment Interface

While financial innovations are increasingly becoming common worldwide, their applicability is not fully utilized across Africa as a result of different currencies, technologies, regulations, and legal systems. The disjoint of each nation's payment system, inadequate regional payment interface, and lack of unified payment facility for Africa make cross-border transactions expensive, slow and uncertain.
Overcoming the limitations associated with multiple currencies in the continent, there is the need to establish an "Integrated Payment System (IPS)" that connects all central banks, commercial banks, and PSPs in the region to provide clean, affordable, and speedy cross-border payment services. The central pursuit is that cross-border payments would face no borders or challenges with respect to currency, geographical location, technology, and regulation terms.

Adopting full synchronization of IPS is possibly in line with achieving Afro or Afriq (the proposed single Africa currency) in the long term. In this scenario, all regional real-time gross settlements will be harmonized into a single interface to provide a straight-through process of transfer between onecountry and the other. Besides, a key lesson could be learned from the Arab Regional Payments Clearing and Settlement Organization and the Indian Unified Payment Interface.

Figure 11: Proposed single currency and payment infrastructure



Source: Agpaytech

Conclusion

Domestic and cross-border payment has undergone several transformations in Africa. However, multiple currencies across the continent have created cross-border payment problems. Major issues in cross-border payment have been related to cost, speed, transparency, and access. While there is inadequate integrated real-time gross settlement among the regions in Africa, payment to other countries sometimes involves multiple agents decreasing the tendency to achieve speedily, and cost-effective transactions.

Many scholars have proposed several cross-border payment solutions through mobile innovations and regional reforms. But the situation has been heavily affected by several currencies in circulation. In this report, we proposed a fully synchronized Integrated Payment Platform that connects all currencies, central banks, and onboard fintech to make cross-border payment and exchange easier.

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About Agpaytech

Agpaytech is a company pioneering in the Fintech Space with a focused approach to building robust technologies for eCommerce Card Processing Solutions for Payment Service Providers (PSPs). Additionally, we provide Compliance and Regulatory Umbrella, Remittance-as-a-Service White-Label Solution, Foreign Exchange, Cross Border Payments, and digital currency technology. We have partnered with multiple banks, non-banking financial institutions, and corporate organizations to create a solid service delivery model for them and their customers to ease their international remittances and payments concerns.

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