From cowries to mobile phones: African monetary systems since 1800

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1. Introduction

Stable currencies and effective financial institutions provide a crucial foundation for economic development. Money has three functions within an economy: it acts as a medium of exchange, a store of value and a unit of account. Having a common monetary unit facilitates exchange in several ways. First, it reduces the cost of transactions, both now and in the future, by providing a standard unit by which the value of things may be agreed, and the means with which the transaction can be completed. Second, it allows surplus earnings to be saved and invested. In addition, beyond its economic role, money has considerable political importance, as a symbol of economic unity and prosperity.

The study of financial systems has been shaped primarily by the experiences of advanced economies in Europe and North America. However, the monetary systems of developing economies, including African economies, often differ from advanced economies in important ways. Firstly, formal financial institutions, like banks, tend to be less developed. In sub-Saharan Africa this is partly linked to demography: low population densities, along with low incomes, mean banks have difficulty remaining profitable outside large urban areas. Rural populations therefore have little access to financial services. Where fewer people have access to banks and bank accounts, more transactions are conducted with cash than other financial instruments (such as cheques, or credit or debit cards). It also means that savings tend to be kept by individuals rather than banks. Banks have less money to loan to individuals or businesses, who must look to other 'informal' institutions to obtain credit.

The value of money in terms of prices, or the goods a given amount of money can purchase, also tends to be less stable due to higher rates of inflation. Inflation occurs when the growth of the money supply exceeds the supply of goods, and nominal prices rise. During the height of the Zimbabwean hyperinflation of 2008, for example, the nominal prices of goods doubled in less than 24 hours according to some estimates. In other words, if you received your salary payment on a Friday, the purchasing power of the money would have been cut in half by the following morning. While this is an extreme case, the relatively high rates of inflation across many African countries often makes people reluctant to hold their savings in money, and many people prefer other types of assets such as consumer goods or (in rural areas) livestock.

Fluctuations in the value of currencies relative to other currencies (exchange rates) can also be extremely disruptive to both the private and public sector, which often import substantial shares of consumer goods. A change in the exchange rate can suddenly raise the price of imported goods in terms of local currency. If, for example, someone who is paid in Kenyan shillings wishes to purchase a car produced in South Africa, the price she will pay will depend partly on the rate of exchange between the Kenyan shilling and the South African rand (or, in other words, the number of shillings per rand). Since the original price of the car is in rand, the price in shillings will increase if the shilling depreciates against the rand (meaning it takes a larger number of shillings to purchase one rand). The price paid by the customer in Nairobi will therefore increase, even if the price has remained the same in rand.

Since exchange rate changes can happen very quickly on global currency markets, the effects can be dramatic. For businesses that rely on imported goods, exchange rate shifts can mean a sudden increase in the costs of production, which can decrease profits. For individuals, it can mean a rise in the cost of living if, for example, imported foodstuffs are widely consumed. Governments often take steps to limit the fluctuations of exchange rates. One such step is the fixing of 'official' exchange rates between the home currency and foreign currencies. Such fixed rates are difficult to enforce, requiring extensive bureaucratic controls which impose costs on individuals and companies trying to acquire foreign exchange to purchase imports. To avoid these costs, many such actors will make use of extensive informal markets for currency in which a parallel (or black-market) exchange rate is used that may be different from the official rate.

As an example, consider a Nigerian trader in the 1970s who wished to purchase cigarettes in Niger for re-sale in Nigeria. This was a common strategy during this period, as high tariffs in Nigeria made imported cigarettes more expensive. He or she would first need to exchange Nigerian naira for the CFA francs of Niger. At this period, the Nigerian government restricted the purchase of foreign currencies in an effort to defend the value of the naira. Exchanging money on the official market was therefore costly, involving considerable delays in the processing of applications for foreign exchange and uncertainty about the outcome. So the trader might go to a parallel market for currency, and exchange naira for CFA francs at the parallel, or market rate. In 1977 the parallel rate was 243 CFA francs to the naira, while the official rate was 437. Currency traders were able to earn a profit on the difference between these two figures. Having made this exchange, our trader could then buy cigarettes in Niger and import them for sale in Nigeria in exchange for naira.

An even more dramatic step, which was taken in Zimbabwe following the 2008 crisis, is to adopt a foreign currency (in Zimbabwe's case, the U.S. Dollar), which circulates in place of a local currency. This has the benefit of reducing uncertainty, but also means governments can no longer use monetary policy to mitigate the effect of crises. Further, it is often seen as a symbol of lost political sovereignty, and has considerable political costs. Finally, it can be difficult for such a country to acquire a sufficient quantity of foreign currency to use for daily transactions.

These two examples, the Zimbabwean crisis and the West African parallel market, show how the ways in which money is used in Africa are complicated by local political and economic factors. This chapter will examine the development of Africa's financial and monetary systems since the nineteenth century. It begins by examining how African currency systems changed along with the dramatic expansion in the export of agricultural products from the early nineteenth century. The next two sections examine the first introduction of government-issued coins and notes under colonial regimes and then the changes to these systems after independence. The effects of fluctuating exchange rates during the 1970s, 1980s, and 1990s are the subject of the next section, and the chapter concludes by considering the impact of new technologies over the past decade.

2. What is money?

The three currencies mentioned in the previous section (the Zimbabwean dollar, the Nigerian naira and the CFA franc) were all examples of 'fiat currencies'. Fiat money is money that has no fixed value in anything other than itself. Most currencies used today, in the form of paper money and coins, are comprised of fiat money. Fiat money was first introduced in Africa under colonial rule in the twentieth century. Prior to that, in Africa as well as much of the rest of the world, the the objects used as currency were valued either because they had intrinsic value as goods ('commodity money') or because they could be exchanged for something that did. Gold dust is one example of a commodity currency which circulated in West Africa. The value of the gold dust was determined by its weight, just as gold coins were often weighed in Europe in earlier periods to assess their value in terms of the quantity of gold they contained. Later, under the gold standard regime introduced by colonial powers, gold remained the source of the value of currency but in a different way. Coins were no longer valuable primarily because they continued precious metals but because they could be exchanged for a certain quantity of gold. Such currencies are known as 'representative money'.

Prior to the beginning of colonial rule, commodity money was the most common type of money in sub-Saharan Africa. In addition to gold dust, other commodities such as specific types of shells or cloth were also widely used as currency. Early European observers frequently misunderstood African monetary systems, assuming that the exchange of cloth or shells was merely 'barter' exchange in which money was not used. Subsequent research on the commodity currencies of pre-colonial Africa has shown that, whatever the prejudices of European traders, they formed a sophisticated and versatile monetary system well suited to African conditions. One of the best known examples, which circulated in East and West Africa as well as India and China, was the cowrie shell. Cowries, or more specifically the shells of *Cypraea moneta*, were imported primarily from the Maldive Islands in the Indian Ocean.

The volume of cowrie imports was considerable: by the early nineteenth century, the English alone were shipping approximately 100 tons of cowries to Africa every year. Individual or small numbers of cowries could be used for small purchases in local markets. They were also exchanged in larger units. On the West African coast, for example, cowries were threaded on strings of forty cowries each, and numbers of strings made up larger units. In 1720, a ‘grand cabess’ of 100 strings (or 4,000 shells) was worth around £1.

As a medium of exchange, cowries had several advantages. They were impossible to counterfeit and durable enough to survive travel over long distances. They also served as a store of value and unit of account. Strings of cowries could also be incorporated into clothing or jewelry, just like precious metals, as a form of savings. In times of crisis, these savings could be dismantled and used to purchase foodstuffs or other consumer goods. They could also be stored individually in large treasure rooms which existed into the twentieth century.

From Uganda: Cowrie Shells on a Bark String.

Another major commodity currency was textiles. Portuguese traders arriving on the West African coast in the fifteenth century first encountered a currency system based on locally-produced textiles. As the Atlantic trade expanded, local textile production was supplemented by textiles produced in Europe and Asia, brought to West Africa by traders who exchanged it with African agents for gold, slaves, ivory, gum arabic and other products. As the volume of trade increased, specific kinds of cloth became most important as units of currency. The selection of specific types of cloth served to both maintain stable prices in the context of increasing imports of textiles, and guarantee a certain level of quality. One example, which became one of the most important imports during the Atlantic slave trade, was a type of cotton cloth dyed a striking dark blue produced in India. Known as ‘guinee’ cloth, it had a specific smell which European producers could not imitate and African traders could use to determine if it was genuine. The cloth’s color and the methods of its production gave it characteristics similar to cowries.

3. A ‘currency revolution’?

When colonial rule was established in the late nineteenth century, colonial governments gradually outlawed the circulation of pre-colonial African currencies. They hoped to replace the simultaneous circulation of multiple currencies with the circulation of single currencies comprised of representative money within the newly established colonial borders. Historians of African monetary history have sometimes referred to the introduction of colonial currencies as a ‘currency revolution’. This phrase is based on the idea that colonial currencies lowered transaction costs and helped facilitate the rapid commercialisation of African economies in the late nineteenth and early twentieth centuries. This idea has been debated: given the limited power of the early colonial state, laws banning the use of commodity currencies were often difficult to enforce and many Africans continued to use shells and other currencies from the pre-colonial period. Why did the colonial administration want to remove these currencies from circulation, and why did they initially fail? Answering these questions requires us to look more closely at what influences the practices of people (and governments) in spending or saving particular types of financial asset.

Growing trade with Europe during the nineteenth century had added foreign coins to the mix of circulating currencies, particularly near the East and West African coasts. Foreign coins were in demand by African traders because they could be exchanged for the growing variety of imported goods becoming available through the coastal trade. In the Gambia in the nineteenth century, for example, British colonial officials complained that African producers preferred to trade with the French, who paid in 5-franc coins (known as ‘dollars’), rather than British companies which tended to use trade goods like textiles or manillas. British traders were reluctant to use coins, because they could earn additional profits through arbitrage, or the difference in the price of consumer goods in Britain and their higher value in West Africa. For example, a unit of cotton cloth purchased in Britain in the mid-19th century for ten pounds in British currency might have purchased a certain volume of palm oil in West Africa. Because of the high demand for cotton cloth in West Africa, the palm oil purchased with that cloth might have had a higher value in British currency than the cotton cloth. In this case, the West African price of the cotton cloth (in terms of palm oil) was higher than the British price (in terms of pounds). Profiting from differences in the price of the same good between two different markets is known as arbitrage.

Colonial governments, however, had different needs. They had to collect taxes from across their new territories in order to make their new administrations financially viable. They also needed to be able to spend that tax revenue internationally, to pay the pensions of colonial officials or buy equipment from Europe. The system of multiple currencies in place before the colonial period introduced both costs and risks into these transactions. If exchange rates between, for example, a grand cabess and the British pound, shifted, it could have imposed losses on a colonial administration whose expenses and debts were denominated in pounds. It was for these reasons that European traders before the colonial period had been willing to pay for African exports in cowries and cloth, but not to receive such commodities for the purchase of other imported goods such as firearms. Cowries and cloth had a lower value in European markets and therefore could not be exchanged into European currencies which the trading firms needed at the same rate.

By the late nineteenth century, therefore, colonial governments began enacting legislation banning the importation of cowries and manillas and declaring that they were no longer legal tender within colonial boundaries. They then began to issue new currencies which were intended to replace the old commodity currencies. These included the West African pound, the East African rupee, the East African shilling, and the Congolese franc, among others. These new currencies were intended to serve several purposes in addition to the minimization of exchange rate risk discussed above. They had an important political role in demonstrating the sovereignty of colonial administrations over African territories. The images used on the coins and notes themselves were clearly intended to link their issue with imperial rule. British colonial coins, for example, featured the image of the monarch (see image below). Colonial governments also hoped to use the issue of new currencies to gain greater macroeconomic control over colonial economies.

A West African shilling from 1916.

How successful were these policies in achieving their aims? Like most colonial policies, the impacts were slow and uneven. Colonial currencies were used increasingly as the medium of exchange in the growing trade between African colonies and their European colonizers. However, they did not displace pre-colonial currencies for several decades. Contemporary reports record instances of cowries, manillas and cowries still used as a medium of exchange and store of value through the first decades of the twentieth century. Some have interpreted this as an act of protest against the political symbolism of colonial currencies. Other explanations focus on the uses of currencies. In many cases, the smallest denomination of colonial money was too large for small daily transactions.

If colonial regulation was not sufficient to displace commodity currencies, what did? There have been a variety of explanations for the gradual abandonment of commodity currencies. One was inflation linked to the expansion of trade with Europe. The trade boom of the late nineteenth and early twentieth centuries dramatically increased the volume commodity currency imports. Because commodity currencies could not be converted into international currencies, this expansion in volume resulted in inflation in priced denominated in these currencies. Cowries provide a particularly good example. As European demand for African produce grew in the nineteenth century, traders began importing larger quantities of cowrie shells, supplementing the original cowries from the Maldives with a larger and more abundant species found in Zanzibar (Cypraea Annulus). The 'cowrie inflation' of the nineteenth century increased the costs of their use as a medium of exchange. This included the costs of physically moving a sufficient number of cowries to make larger purchases and of counting and storing them. This was accompanied by a general inflation in prices which meant that smaller denominations of colonial currency could be used for daily transactions. Another explanation relates to the expansion of the colonial state through the twentieth century. A growing number of African employees - members of the colonial armed services or employed in building roads and railways - received their wages in British currency, which expanded its circulation. Finally, with the expansion of colonial infrastructure came a growing commercialization with more and more Africans engaging with the international market, for which colonial currency was necessary.

4. Who issues money?

Commodity currencies fluctuated in value because their supply could not be controlled - it was governed by the market, rather than by an institution. By contrast, representative and fiat currencies are issued by an institution - usually, today, a central bank - which controls the supply of money according to specific rules and policies. As the example of the Zimbabwean hyperinflation suggests, this does not necessarily guarantee stability in prices. This section will review the different types of institutions which have issued currency in sub-Saharan Africa. Each type of institution have different consequences for the stability of the value of the currency.

The supply of colonial currencies was regulated by institutions known as currency boards. The distinguishing feature of a currency board is its limited discretionary power over the supply of money. Under a currency board regime, a local currency (such as the West African pound or Congolese franc) is issued at a fixed exchange rate with an anchor currency (such as the British pound or Belgian franc). Banks can acquire local currency only by depositing an equivalent amount of the anchor currency with the currency board. The currency board holds this deposit as a reserve, which guarantees that people who hold local currency can always redeem it at its fixed value for the same amount in the anchor currency. This guarantee helps maintain its value and avoids depreciation against other currencies. Prioritizing stable exchange rates fit with the desire of colonial governments to use the money they collected locally in taxes to buy manufactured goods in Europe. However, there are several downsides to such an arrangement. One is that colonial governments cannot use the money supply or the exchange rate to stimulate economic expansion or respond to crises. A second potential problem is that the reserves held by currency boards cannot be used for local investment.

It was these two aspects of colonial monetary systems, along with the role of colonial currencies as a symbol of political domination, which prompted many (but not all) African governments to establish central banks after the transfer of power in the 1950s and 1960s. The naira was introduced in 1972 by the independent Nigerian government, replacing the country's first national currency, the Nigerian pound. Its introduction represented the gradual de-linking of the Nigerian monetary system from that of its former colonizer, Britain. The Nigerian pound had replaced the colonial currency, the West African pound, which had circulated in Nigeria, Ghana, Sierra Leone and the Gambia since 1913. Similar processes were taking place in other parts of Africa. In the East, the East African shilling which had circulated in British-ruled Kenya, Uganda, Tanzania and Zanzibar was replaced by the Kenyan, Ugandan and Tanzanian shillings. In the former Belgian Congo, the colonial franc was replaced by the zaire in 1967.

Compared with currency boards, central banks have much greater discretionary power, which means they can be more active in trying to influence economic activity through monetary policy. They can take steps to increase the money supply during economic downturns, and alter fixed exchange rate to change the price of domestic exports relative to imports. They can also lend money to government. In addition, central banks play an important role in the financial system, acting as a lender of last resort for commercial banks if they find themselves in financial difficulty. With discretionary power comes risk, however. If these powers are used badly - often, owing to political interference in central bank operations - it can lead to inflation (as in the case of Zimbabwe above). Further, if the central bank sets the exchange rate above or below the market rate, economic distortions can result. In the 1970s and 1980s, for example, the official exchange rate of the naira overvalued the currency compared to the market rate. This benefitted politically powerful urban consumers by making imports cheaper, but hurt rural agricultural producers by making their exports more expensive.

This risk meant that African central banks were relatively slow to make use of their new powers after independence. Many scholars have argued that the initial decision to establish central banks was largely motivated by politics. Central banks, it was believed at the time, were a symbol of national sovereignty and necessary to demonstrate the independence of new states from their former colonizers. Such considerations informed the design of new coins and notes. Newly independent governments often looked to the histories of commodity currencies in designing their own coins and notes in the twentieth century. Ghanaian cedi coins, for example, have a cowrie shell on one side. In terms of policy, however, the management of new currencies closely resembled the system in place during the colonial period. New currencies like the Nigerian pound remained pegged to the British pound until the 1970s, and while reserve requirements were decreased slightly and some central bank lending to the government was permitted, most African central banks remained fairly conservative until the 1970s.

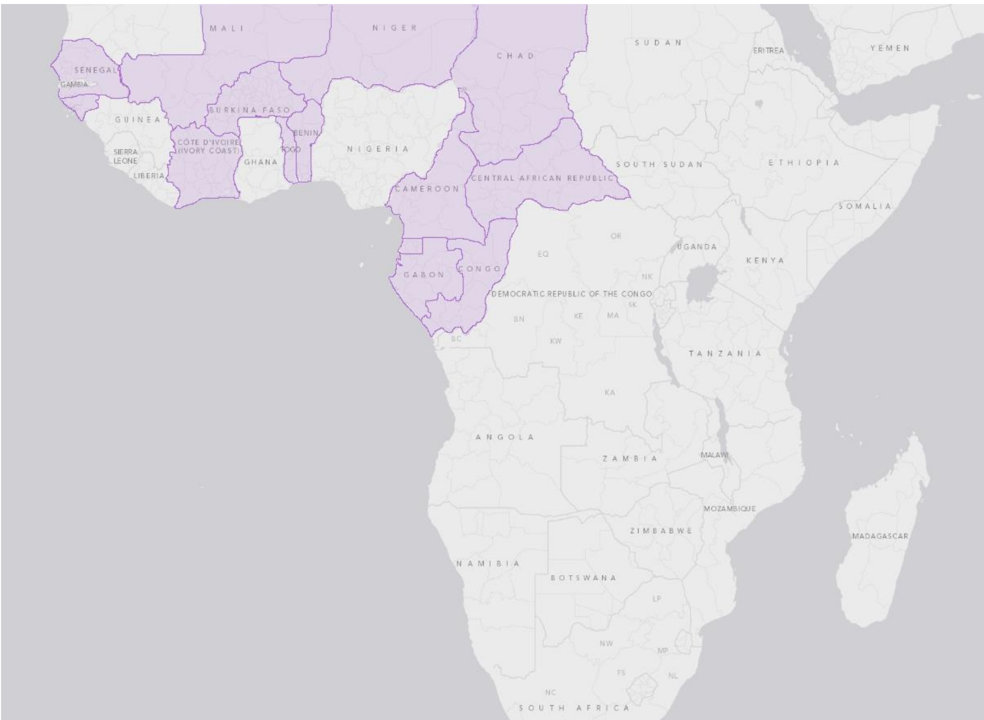
Other African countries, most notably the Francophone colonies, chose to retain colonial monetary arrangements. The CFA franc, mentioned in the introduction, was first issued in 1945 by French colonial authorities. The acronym CFA originally stood for Colonies Francaises d'Afrique. The introduction of a new currency for French colonial territories allowed was motivated by the devaluation of the French franc after World War II. The metropole had experienced a higher level of war-time inflation, and the new CFA franc allowed the exchange rate between the two francs to be altered so that 1 CFA franc was worth 1.7 metropolitan francs. Apart from this difference, however, the issue of the colonial CFA franc was similar in many ways to British colonial currency boards at the time. When the French colonies became independent in the 1960s, the leaders of the new states agreed to maintain the monetary union. Regional central banks were established in West and Central Africa, but they retained a close link with the Banque de France in Paris in order to maintain the convertibility of the CFA franc and the French franc (subsequently the Euro).

5. How far should money travel? Monetary unions since 1945

Today, the CFA franc zone is known as one of the longest surviving monetary unions of the twentieth century. A number of studies have contrasted the economic performance of franc zone countries since independence with that of other former colonies which established their own national currencies. This debate continues to inform current policy, as in the decades since independence numerous new monetary unions have been proposed since that time. One example is the East African Monetary Union (EAMU), which under the terms of a protocol signed by the leaders of Kenya, Uganda, Tanzania, Rwanda and Burundi in late 2013 would be established in 2024. This section will examine the costs and benefits of monetary union in an African context.

Colonial monetary unions were not restricted to Francophone colonies The East African shilling, for example, circulated in Kenya, Uganda, Tanganyika (later Tanzania) and, later, Zanzibar. The West African pound was issued in the colonial Gold Coast (later Ghana), Nigeria, Sierra Leone and the Gambia. The same was true of the Francophone colonies, in which currency zones were established in West and Central Africa. Another currency area - the Rand zone - included the colonies surrounding South Africa. With the exception of the Rand Zone and the Francophone currency areas, the transfer of power meant the collapse of colonial monetary unions.

Map 1: The CFA franc zone



Source: Author.

Events in Africa reflected developments throughout the world in the post-war period, with newly independent nations in Asia and the Caribbean also creating their own national currencies. The growing number of national currencies prompted monetary economists at the time to develop a theory about the economic effects of this new monetary geography. The most important was the theory of optimum currency areas, first conceptualized by Robert Mundell in 1961. Mundell began by asking how we determine the economically optimal area over which a single currency should circulate, and argued that such an area may or may not coincide with national boundaries. He used the example of North America to argue that, from an economic perspective, it might be better to have Eastern and Western currency areas which cut across the boundary between the United States and Canada, reflecting the economic dynamics of the two regions. However, he acknowledged that such a development was unlikely given the political significance of national currencies.

The question of whether national boundaries formed 'optimum currency areas' was particularly relevant for Africa. What became Africa's national boundaries had largely been set during the colonial period, with little regard for existing trade routes or ethnic communities. Mundell argued that if production and trade in one part of a country differed from another part, any efforts made by a national central bank to stimulate the economy may harm one part while helping the other. If labour and capital can move between these regions, this may not be a problem, but in practice people are not always able or willing to move between regions depending on economic trends. This may suggest that optimum currency areas should be small. On the other hand, having a single currency over a larger area eliminates the costs of exchanging currency and the potential risk of exchange rate changes. It can therefore increase trade under certain circumstances. This was why, for example, colonial governments sought to introduce single currencies through their territories. It was also why members of the European Union, for example, adopted the Euro in 2002. An additional potential benefit to monetary union is that, as in the example of the CFA franc zone above, a regional central bank is often less vulnerable to political influence than a national one, which may mean less risks of inflation.

Determining whether countries can profitably form a currency union is complicated, and the answer often depends on existing economic relationships. In the case of the Eurozone, member countries already traded frequently with one another. These trades could benefit from the reduction in transaction costs and expanded after the adoption of the Euro. In contrast, African countries trade very little with one another, at least according to official statistics. This is in part the legacy of colonial infrastructure investments, which focused on linking production centers in the interior with coastal ports. It is also the result of the great specialization in the global economy which began in the nineteenth century. The key exports of most African economies are primary commodities, while imports are dominated by manufactured goods. Production of manufactured goods in African countries is limited, owing to low average incomes and thin markets. As a result, there may be limited prospects for intra-African trade even with the adoption of a common currency.

Political relationships also play a role. Member states of a monetary union must cede control over their monetary policy to the regional central bank. Monetary unions can therefore struggle if their constituent states have different economic needs, as has been the case in the Eurozone since the beginning of the 2008 financial crisis. Similar political differences undermined efforts after independence to establish an East African Central Bank to replace the East African Currency Board. This was part of a broader effort to create an East African Federation, building on a long history of shared administration and public services in the three territories. Tanzania and Uganda, which were poorer than Kenya at the end of the colonial period, wanted to allow the central bank to lend extensively to their respective governments to fund development efforts. Kenya, on the other hand, insisted on a more conservative policy in order to maintain stability in prices. Exacerbating these differences were the divergent economic policies adopted by socialist Tanzania and capitalist Kenya after independence. In the end, all three countries established their own central banks in 1965. Whether similar political differences can be overcome in current efforts to create an East African Monetary Union in 2022 remains to be seen.

The risk of political interference harming the stability of currencies and the development of financial systems was not merely theoretical. The consequence of such interventions can be understood by following the histories of the Kenyan, Tanzanian and Ugandan shillings after

1965. The three currencies were initially issued at parity, with the intention of maintaining this parity in order to facilitate trade between the three countries. Inflation rates rose in Tanzania and Uganda rose much faster than in Kenya, as did budget deficits. By the time the protocol for the new EAMU was signed in 2013, someone traveling across the border between Kenya and Uganda who exchanged 100 Kenyan shillings would receive nearly 3,000 Ugandan shillings in return.

6. Political intervention and parallel markets

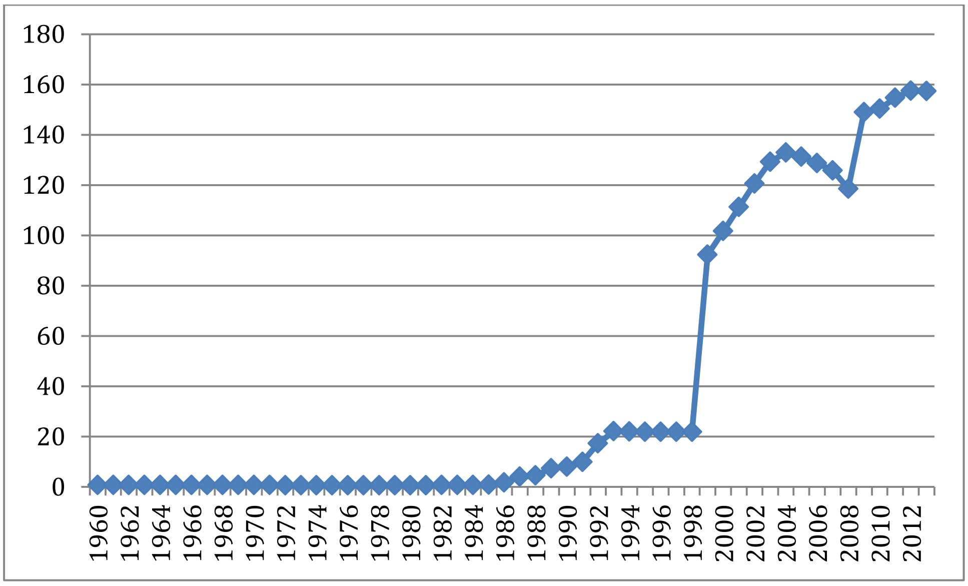
The divergence in the value of the Kenyan, Ugandan and Tanzanian shillings did not happen right away. Rather, it was a reflection of the downturn in African economic performance which began in the 1970s. Before that point, most African countries had enjoyed a post-war boom in economic growth. This growth, along with new flows of foreign capital, helped fund ambitious government projects intended to promote economic development. Spending on education and healthcare - areas long neglected by departing colonial governments - increased rapidly, as did investment in new infrastructure projects. Standards of living increased and ever more people moved into cities. The expansion of state intervention in the economy served a further purpose in helping to maintain political support for governments which often had limited legitimacy amongst their citizens.

The global economic downturn of the 1970s cut both government revenue and aid flows, making continued spending at that level unsustainable. This represented both an economic and political threat to African governments. Falling demand for exports threatened to undermined gains in living standards achieved since independence. At the same time, diminished state resources made it more difficult to use government budgets to reward supporters, thus making political survival more difficult

One tool that governments with central banks did have left was monetary policy. This could be used in several ways to help sustain government spending and political stability. One was in fixing the exchange rate. The exchange rate, as discussed above, can influence the prices of both imports and exports. A currency that is overvalued relative to others will make imports cheaper for consumers, but exports more expensive. A currency that is undervalued will have the opposite effect. In the 1980s, many African governments were accused of overvaluing their currencies - that is, setting an official exchange rate in which local currency was more valuable relative to others than the ‘unofficial’ or market exchange rate. It was argued that this served the interests of urban consumers, who were more politically influential, by lowering the cost of imported goods. At the same time, exports of African produce became more expensive, limiting demand and harming both the interests of rural producers and undermining economic growth as a whole.

Beyond serving the interests of urban consumers, overvalued fixed exchange rates also provided an opportunity to supplement government revenue earnings. Governments are the primary recipients of foreign exchange in Africa, and many African governments earned a premium by receiving foreign exchange in the form of mineral royalties or foreign aid at the official rate and selling it at the market rate. Another method of using monetary policy to supplement government treasuries is by borrowing from the central bank. One of the key reasons for the creation of central banks was to allow more flexibility in such borrowing than what had been allowed under the rigid colonial regime. However, if used too much this option has the effect of raising the price level through inflation.

Figure 1: Nigerian exchange rate (Nigerian pound/naira per US $1), 1960-2013



Source: World Bank World Development Indicators

To illustrate these issues we can return to the example of Nigeria given in the introduction. In the first years after independence, most African currencies retained a fixed exchange rate with the currency of their former colonizers. In Nigeria, for example, the Nigerian pound was issued at fixed rates with the British pound, much as it had been under the colonial currency board system. After the Bank of England devalued the pound against the dollar, Nigeria, like most African governments thereafter abandoned their fixed peg and in 1972 introduced the naira. It was in this context that the hypothetical trader discussed in the introduction resorted to the 'parallel market' for foreign exchange, in which the naira had a much lower value than at the official rate. The Nigerian government also made use of this market, earning a bonus on foreign exchange received from oil royalties at the official rate and then sold at the parallel market rate.

Pressure came in the 1980s and 1990s for African governments to reduce the gap between official and market exchange rates by devaluing their currencies. This was one of the key requirements of structural adjustment programmes proposed by international organizations as a condition of development lending. Debates on the impacts of these devaluations on African living standards continue. Some argue that the devaluations stimulated demand for African produce by making exports cheaper, while others claim that such gains were outweighed by the cost of living for the urban poor. Complicating this debate is the fact that reform were often implemented only partially by governments - in Nigeria, for example, reform of the foreign exchange market led to slow convergence in the official and parallel market rates.

Since the adoption of structural adjustment programmes, most African countries have adopted floating exchange rates. This has resulted in some cases - like Uganda - with greater stability relative to the 1980s. In other cases, like Zimbabwe, inflation has run out of control. These outcomes depended on a complex interaction between political and economic factors individual to each country.

7. Conclusions on the future of African monetary systems

New innovations in African financial systems since the adoption of floating exchange rates have prompted speculation about a new ‘currency revolution’. One of the most important of such innovations is mobile money. The use of mobile phones for financial services has widened the use of formal banking and other financial institutions in several African countries, streamlining transactions and allowing savings to be put to use more effectively. This is linked to a second innovation, that of micro-credit, which has pioneered the granting of small loans to individuals, helping to overcome the limited access to funds which has hindered economic development in the past.

The challenges of financial development, as this chapter has illustrated, have influenced African monetary history since the pre-colonial period. Commodity currencies like cowrie shells and cloth provided the foundation of a monetary system that was well adapted to pre-colonial economies. These currencies continued to be used following the introduction of representative and fiat moneys under the colonial powers in the twentieth century. However, they imposed significant costs in their use as both a medium of exchange and store of value - in the case of cowries, for example, they were expensive to move in large quantities and, as trade expanded, inflation eroded their value for savers.

These problems were not entirely eradicated by the introduction of currencies managed by, first, colonial currency boards and, second, post-independence central banks. Under colonial regimes, commodity currencies or small-denomination coins were still used for most transactions and suffered from the same transport costs. After independence, extensive political intervention in monetary policy was often linked to high levels of inflation. Meanwhile, limitations in the provision of financial services meant most transactions remained in cash.

African monetary history is a reflection of its broader economic and political history. The slave trades of the early modern period, the cash crop revolutions of the nineteenth century, the rise and fall of colonial rule and the difficult decades after the 1970s have all left their mark on the monetary systems of African countries. Like other areas of state intervention, monetary policy is often informed as much by political imperatives as economic ones and can be shaped by both short- and long-term priorities. The development of monetary systems can also be overtaken by external events, including both global economic crises and technological innovation.

Discussion topics:

1) What have been the advantages and disadvantages of the different types of money used in Africa since the nineteenth century?
2) In what ways do political institutions influence the effectiveness of money in fulfilling its roles as a medium of exchange, unit of account and store of value?
3) What would be the costs and benefits of having a pan-African currency union?
4) What are the advantages and disadvantages of a fixed exchange rate between two currencies?
5) What might motivate consumers to choose one currency (e.g. naira or CFA franc) or form of currency (e.g. coin or bank balance) over another?

Suggested readings:

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