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Impact of the Global Financial Crisis on Exchange Rates and Policies in Sub-Saharan Africa

Nabil Ben Ltaifa, Stella Kaendera, and Shiv Dixit

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Executive Summary

The currencies of many sub-Saharan African countries, like those of many emerging and developing economies, suffered large depreciations with the onset of the global financial crisis. Collapsing trade and financial flows led to substantial balance of payments gaps, triggering fast depreciations and higher exchange rate volatility, beginning in mid-2008. The exchange rate losses varied largely commensurate with the extent and nature of each country's exposure to trade and global financial markets.

The new external environment raises challenges for both floating and managed currencies. Countries with managed exchange rates have faced costs in leaning against exchange rate movements resulting in wider margins in the appreciation of their real exchange rates. Such an outcome could harm competitiveness and undermine long-term sustainability if their real effective exchange rates significantly deviate from their equilibrium levels. Countries with floating currencies have faced increasing exchange rate and price volatility, which could also deter long-term investment. The prospect of continued exchange rate volatility raises particular challenges for those countries seeking to enhance their integration with international capital markets. Deepening domestic capital and foreign exchange markets would enhance their capacity to handle external financial volatility over the long term.

Additional measures could be explored to mitigate the impact on exchange rates. These include, in particular, limited intervention backed by appropriate aggregate demand policies and increased regional trade. Capital controls are also attracting renewed interest, but related enforcement capacity requirements and potential adverse effects on domestic intermediation make them a challenging option.

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CHAPTER

1 Introduction

The currencies of many sub-Saharan African countries, like those of many emerging and developing economies, suffered large depreciations with the onset of the global financial crisis. Collapsing trade and financial flows led to substantial balance of payments gaps, triggering fast depreciations and higher exchange rate volatility, beginning in mid-2008. The exchange rate losses varied largely, reaching as high as 40 percent for some currencies and less than 10 percent for others. Domestic as well as external factors distinguished the impact. In the years preceding the crisis, most of the currencies that depreciated had enjoyed strong gains triggered by strong macroeconomic performance and favorable global economic and financial conditions. In addition, declining interest rates in advanced countries led to an emergence of significant carry trade operations to many African countries, which thanks to their strong macroeconomic situations and stable exchanges rates, attracted significant foreign direct investment and portfolio flows.

This paper studies the evolution of the exchange rates of sub-Saharan African currencies in the context of the global financial crisis. In particular, it analyzes the reasons behind the differences in the magnitude and volatility of the exchange rates among countries. To this end, it takes a sample of seven countries, four members of the East African Community (EAC) (Kenya, Rwanda, Tanzania, and Uganda), and three others, which experienced large exchange rate losses at the onset of the crisis: Ghana, Nigeria, and Zambia. First, it analyzes the movements of the exchange rates with respect to the U.S. dollar and two other major currencies (Chapter 2). Second, it tries to link the magnitude of their movements to key factors, relating to the external environment and the countries' internal policies (Chapter 3). Chapter 4 concludes.

CHAPTER

2 Impact of the Crisis on Currencies in Sub-Saharan Africa

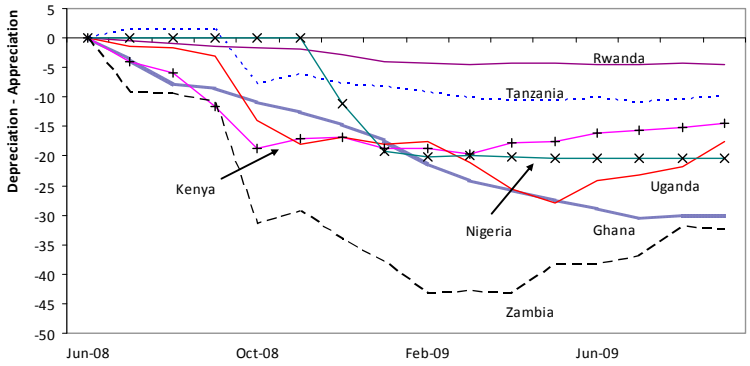
The currencies of sub-Saharan African countries depreciated in a generalized fashion vis-à-vis the U.S. dollar at the onset of the global financial crisis. The currencies of five out of the seven in this study—Ghana, Kenya, Nigeria, Uganda, and Zambia—depreciated by at least 20 percent between June 2008 and March 2009; those of Tanzania and Rwanda, in contrast, depreciated by a much smaller amount (10 percent or less) during the same period (Figures 1 and 2).

Currencies, however, grew mixed with respect to other major currencies. The five currencies that registered a large depreciation vis-à-vis the U.S. dollar also depreciated vis-à-vis the euro between June 2008 and March 2009; the other two appreciated with respect to the euro. All currencies except for the Zambian kwacha appreciated vis-à-vis the British pound (see Figure 2).

After April 2009, some currencies reversed their depreciating trend with respect to the U.S. dollar (Figure 3). The Zambian kwacha registered the largest gains over that period, recovering 25 percent of its earlier losses with respect to the U.S. dollar by end-September. The Kenyan and Ugandan shillings also appreciated with respect to the U.S. dollar. The Nigerian naira, the Rwandan franc, and the Tanzanian shilling continued almost unchanged, while the Ghanaian cedi depreciated through July and only stabilized in the last months of the period. All currencies except for the Zambian kwacha depreciated with respect to the euro and the British pound over April–September 2009.

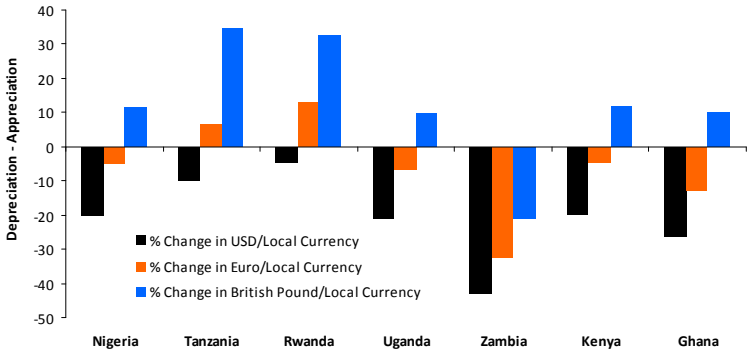
In most countries, above-trend inflation mitigated the real effect of nominal depreciation (Figures 4 and 5). Only three countries (Ghana, Nigeria, and Zambia) registered a significant (over 5 percent) real depreciation of their currencies over the whole period. The Zambian kwacha depreciated most, driven by the very high nominal effective depreciation (in spite of the recovery late in the period). The Rwandan and Tanzanian currencies appreciated substantially, while the Kenyan shilling appreciated slightly, and the Ugandan shilling ended up with only a mild depreciation.

Figure 1. Percent Change in U.S. Dollars/African Currencies (Index; June 2008 = 0)



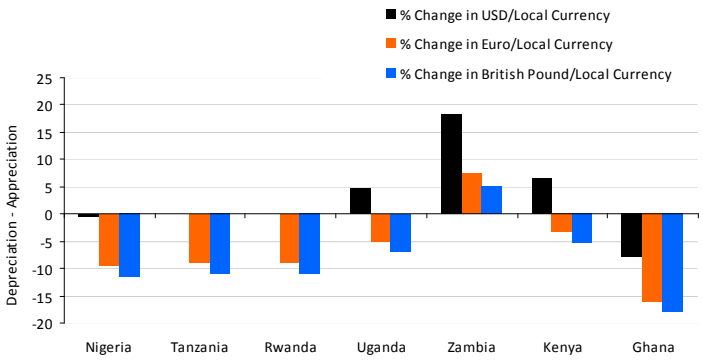
Source: IMF, *International Financial Statistics*.

Figure 2. Exchange Rate Developments, June 2008–March 2009



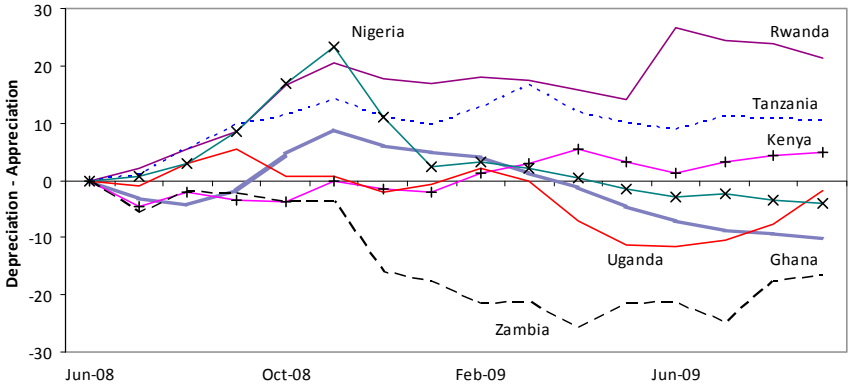
Source: IMF, Information Notice System.

Figure 3. Exchange Rate Developments, April 2009–September 2009



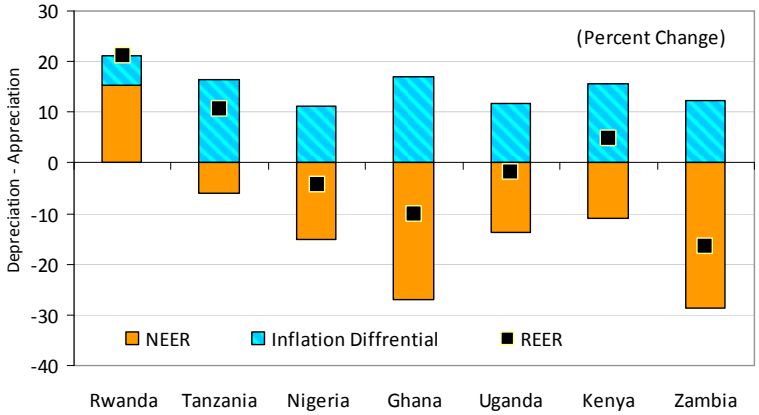
Source: IMF, *World Economic Outlook* (*WEO*).

Figure 4. Percent Change in REER
(Index; June 2008 = 0)



Source: IMF, Information Notice System.

Figure 5. Breakdown of Real Effective Exchange Rate, June 2008–September 2009



Source: IMF, country authorities and Information Notice System.

In most countries, the postcrisis movements in exchange rates only erased part of the appreciation registered in the previous period. Prior to the crisis, all currencies except the Tanzanian shilling had appreciated in real terms (Table 1). From end-2003 to June 2008, the real effective exchange rate (REER) for Zambia averaged the highest appreciation (reflecting largely positive terms-of-trade effects), followed by Kenya and Nigeria. At the other end of the spectrum, the Tanzanian shilling depreciated over that period, partly on account of efforts by the monetary authorities to preserve competitiveness. The crisis period erased part of the previous real gains

Table 1. Nominal and Real Efffective Exchange Rates; Index; 2000 = 100

		NEER			REER		
		Dec. 2003	Jun. 2008	Sep. 2009	Dec. 2003	Jun. 2008	Sep. 2009
Ghana	**eop**	**51.0**	**38.0**	**27.7**	**98.3**	**110.5**	**99.4**
	percent change[1]		*-25.5*	*-27.1*		*12.5*	*-10.1*
	cumalative percent change[2]			*-45.7*			*1.1*
Kenya	**eop**	**92.6**	**98.7**	**88.0**	**90.2**	**118.1**	**123.9**
	percent change		*6.6*	*-10.8*		*31.0*	*4.9*
	cumalative percent change			*-5.0*			*37.3*
Nigeria	**eop**	**66.7**	**66.3**	**56.2**	**105.5**	**138.7**	**132.9**
	percent change		*-0.6*	*-15.2*		*31.4*	*-4.2*
	cumalative percent change			*-15.7*			*25.9*
Rwanda	**eop**	**61.5**	**57.3**	**66.1**	**67.0**	**79.3**	**96.2**
	percent change		*-6.7*	*15.4*		*18.4*	*21.2*
	cumalative percent change			*7.6*			*43.6*
Tanzania	**eop**	**68.2**	**55.3**	**52.0**	**72.1**	**64.4**	**71.1**
	percent change		*-19.0*	*-5.9*		*-10.7*	*10.5*
	cumalative percent change			*-23.8*			*-1.4*
Uganda	**eop**	**78.0**	**85.2**	**73.6**	**78.9**	**94.7**	**93.0**
	percent change		*9.2*	*-13.6*		*20.1*	*-1.9*
	cumalative percent change			*-5.6*			*17.8*
Zambia	**eop**	**60.9**	**83.6**	**59.6**	**106.4**	**208.8**	**174.3**
	percent change		*37.2*	*-28.7*		*96.1*	*-16.5*
	cumalative percent change			*-2.2*			*63.7*

Source: Authorities, Kenya desk files, and IMF staff calculations.

[1]Percent change from preceeding mentioned period.

[2]Percent change from Dec. 2003 to Sep. 2009.

in most cases. Exceptions included the Rwandan and Kenyan currencies, which continued to appreciate, and the Tanzanian shilling, which fully offset the depreciation of the precrisis period.

Exchange rate volatility increased significantly compared to the precrisis period. Volatility was generally higher with respect to the U.S. dollar but broadly less vis-à-vis the euro (Table 2 and Figure 6). Three currencies (the Ghanaian cedi, the Nigerian naira, and the Ugandan shilling) experienced significant increases in their volatility with respect to the three major currencies. In contrast, the Rwandan and Tanzanian currencies displayed similar or lesser volatility (compared with before the crisis) with respect to the U.S. dollar.

Table 2. Foreign Currency per National Currency: Percentage Change, and Volatility[1]

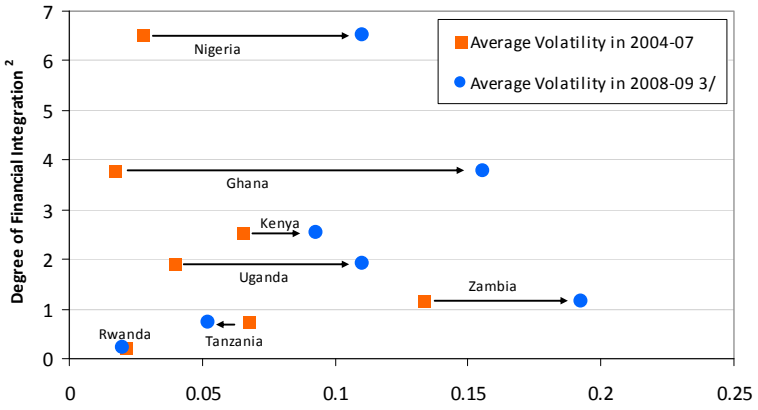
	US dollar		Euro		BP Pound	
	2004-07	2008-09	2004-07	2008-09	2004-07	2008-09 [2]
Ghana	**-2.3**	**-21.4**	**-5.9**	**-21.1**	**-5.1**	**-11.0**
	0.017	0.155	0.070	0.125	0.064	0.100
Kenya	**5.0**	**-10.2**	**1.0**	**-9.9**	**2.0**	**1.7**
	0.066	0.093	0.049	0.042	0.049	0.061
Nigeria	**3.7**	**-12.1**	**-0.2**	**-11.8**	**0.8**	**-0.5**
	0.027	0.110	0.045	0.102	0.042	0.091
Rwanda	**1.6**	**-2.5**	**-2.2**	**-2.2**	**-1.3**	**10.4**
	0.021	0.020	0.051	0.065	0.046	0.112
Tanzania	**-1.5**	**-8.1**	**-5.2**	**-7.8**	**-4.4**	**4.1**
	0.067	0.052	0.099	0.059	0.098	0.093
Uganda	**3.3**	**-7.9**	**-0.5**	**-7.7**	**0.4**	**4.3**
	0.040	0.110	0.048	0.080	0.044	0.077
Zambia	**4.8**	**-11.1**	**0.9**	**-10.8**	**1.9**	**0.7**
	0.134	0.193	0.146	0.139	0.149	0.092

Source: Authorities and IMF staff calculations.

[1]For each country, volatility is presented in the second row and is measured by the ratio of the standard deviation of the exchange rate to it's annual average.

[2]Through September 2009.

Figure 6. Volatility of African Currency/US$[1]



Source: IMF, *World Economic Outlook* and *International Financial Statistics*.

[1]Volatility is measured by the ratio of the standard deviation of the exchange rate to its annual average.

[2]Financial Integration is measured by the level of Non-offical Financial Flows in 2008.

[3]Through September 2009.

CHAPTER

3 Factors behind the Exchange Rates Evolution

The first factors that affected the value of exchange rates were external, reflecting the transmission of the global crisis through the trade and financial channels as well as the volatility of the U.S. dollar, the main international reserve currency. This impact was commensurate with the extent and nature of each country's exposure to trade and global financial markets. At the same time, domestic policies played a role in shaping the nature and magnitude of the impact.

External Environment

Trade had, as expected, an adverse impact on the region's currencies, but the magnitude of this impact seems to have varied significantly across countries (Table 3). Terms-of-trade movements were likely the main factor underlying movements in the exchange rates of Nigeria and Zambia, the two large commodity exporters in the sample. The swift and rapid collapse of copper prices in the case of Zambia and oil prices in Nigeria (although with some lag) led to substantial deterioration of these countries' trade balances, precipitating pressure on their currencies. Conversely, the rebound in copper and oil prices in the latter part of the period supported the recovery of the kwacha and a stabilization of the naira, respectively. The trade impact was more modest in the other countries in the sample, reflecting their terms-of-trade gains as oil importers, together with, in some cases, increases in the prices of some of their exports (gold, cocoa), and in the case of Uganda benefits from increased regional trade.

Abrupt fluctuations in capital flows also contributed to exchange rate movements. A tightening of credit conditions in global financial markets and a decline of confidence triggered a frantic race to safety by private investors at the onset of the crisis. As expected, the resulting depreciation was more

Table 3. Terms of Trade; Index, 2000 = 100

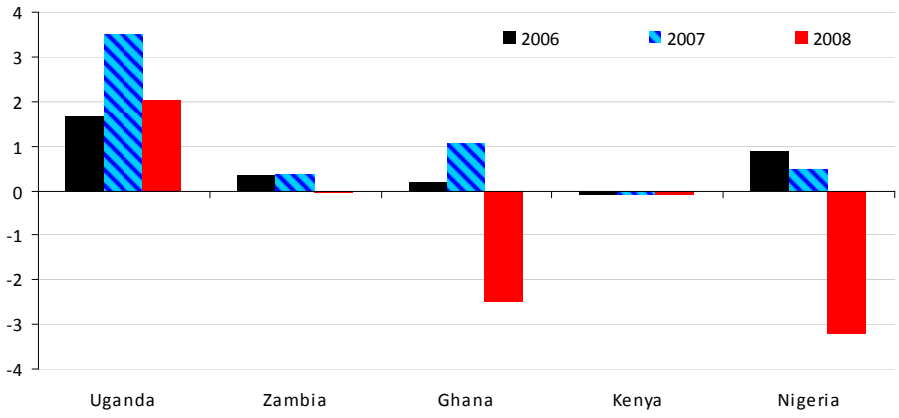
	2007	2008	2009
Ghana	**135.8**	**139.5**	**162.2**
percent change		*2.8*	*16.2*
Kenya	**76.2**	**66.7**	**69.3**
percent change		*-12.5*	*3.9*
Nigeria	**194.4**	**261.9**	**140.1**
percent change		*34.7*	*-46.5*
Rwanda	**200.0**	**170.9**	**210.8**
percent change		*-14.5*	*23.3*
Tanzania	**56.6**	**56.7**	**58.5**
percent change		*0.2*	*3.1*
Uganda	**83.1**	**88.8**	**92.3**
percent change		*6.8*	*3.9*
Zambia	**230.7**	**218.7**	**151.0**
percent change		*-5.2*	*-31.0*

Source: IMF, *World Economic Outlook*.

pronounced in those countries that had received large portfolio inflows prior to the crisis (Ghana, Kenya, Nigeria, Uganda, and Zambia). These countries registered faster and larger exchange rate movements together with sharper increases in volatility (Figures 7 and 8).

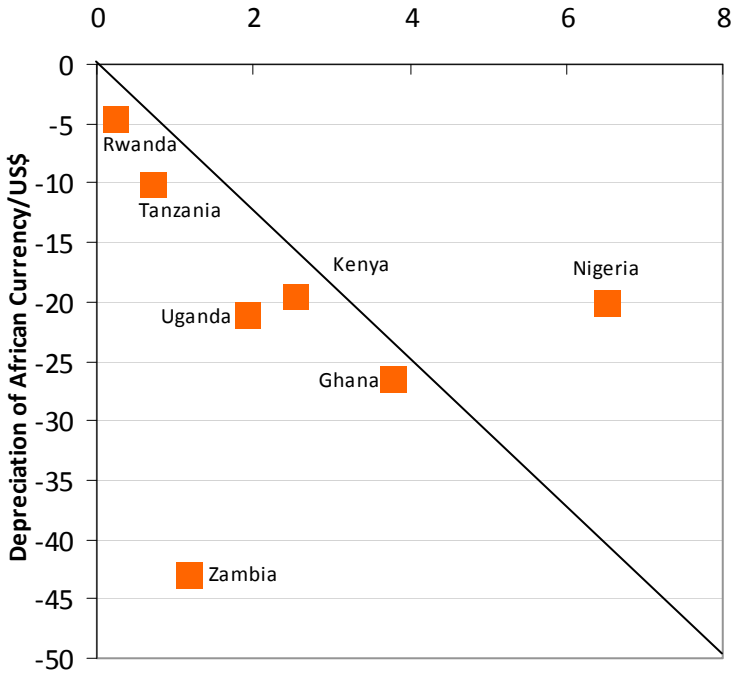
The volatility of the U.S. dollar as a reserve currency also had a strong effect on African currencies. The dollar rose sharply against all currencies, amplifying the depreciations that were triggered by other external factors. The dollar gained 11 percent vis-à-vis the euro between June 2008 and March 2009 (Figure 9), which accounts for slightly more than half the depreciation in Nigeria, Uganda, and Kenya; about 40 percent of the depreciation of the Ghana cedi; and about a quarter of the depreciation of the Zambian kwacha. Subsequently, the U.S. dollar fell, shedding 6 percent by September from its March peak with respect to the euro; this matches almost all the appreciation in the Kenya and Uganda shillings and about 30 percent of the gains in the Zambian kwacha.

Figure 7. Net Portfolio Investment
(Percent of GDP)



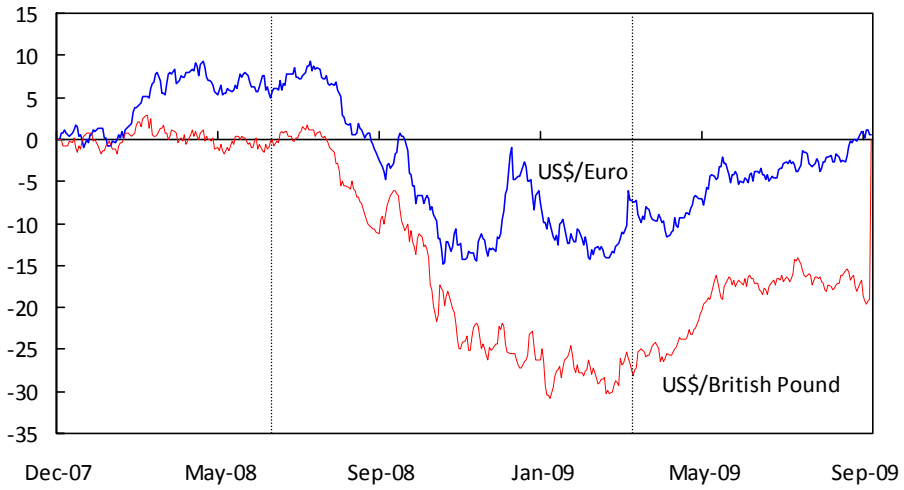
Source: IMF, country authorities and IMF staff estimates.

Figure 8. Non-Official Financial Flows (2008)
(In billions of US dollars)



Source: IMF, *World Economic Outlook* and *International Financial Statistics*.

Figure 9. Daily Exchange Rates (US$/National Currency)



Source: Thompson Reuters.

Policy Choices

The countries in the sample have different exchange rate regimes. There has been a tendency for countries in the region to move away from fixed to more flexible exchange rate regimes after the 1997 Asian crisis. All seven countries in the sample follow some form of de jure floating exchange regime. However, in practice, these regimes cover a broad spectrum, varying from floating in Zambia to managed floating in Nigeria and Rwanda (Appendix).[1] Although the free floating currencies generally tended to depreciated more, some managed floaters like Nigeria also registered large depreciations, reflecting the limits of currency management in the face of large changes in the external environment.

The domestic policy mix adopted in response to the external crisis also played a role in explaining exchange rate dynamics. In the free floaters, exchange rate depreciation reflected an explicit policy choice to use the resulting change in relative prices as a tool to facilitate adjustment to the crisis. Most countries also boosted fiscal spending to prop weakening aggregate demand, and some countries adopted an accommodative monetary

[1] *Annual Report on Exchange Arrangements and Exchange Restrictions 2008* (Washington: International Monetary Fund). Based on the de facto classification, Nigeria and Rwanda follow more managed exchange rate regimes.

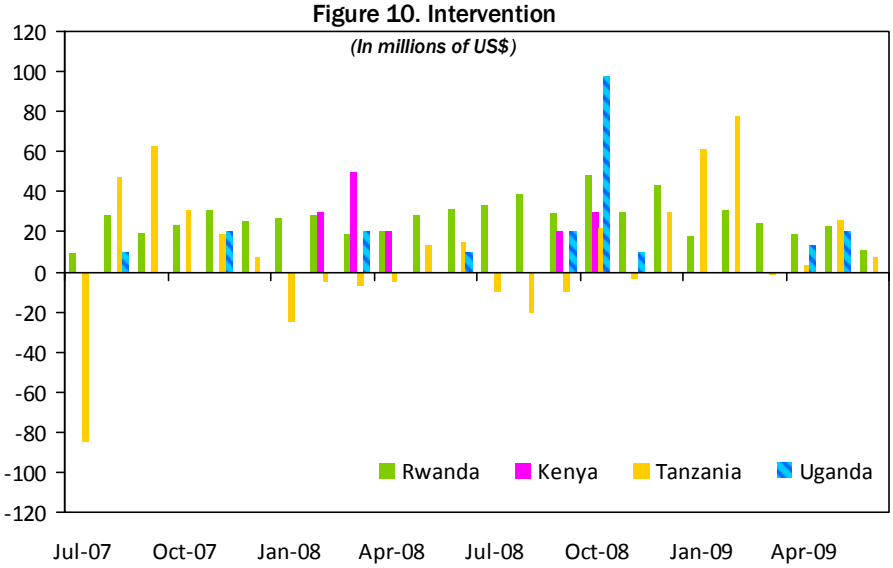
policy stance.[2] A loosening of aggregate demand policies would amplify exchange rate depreciation if it fuels inflation, lowers domestic interest rates, and weakens confidence. While the direct impact on inflation was expected to be modest given the weak aggregate demand, there likely was a second-round inflationary impact in countries with more flexible exchange rate policies; this impact is hard to discern in the data given the protracted effects of fuel and food prices hikes. Lower domestic interest rates may have reduced arbitrage margins, although this impact is likely to have been small given the low prevailing international interest rates.

Most countries in the sample intervened in their foreign exchange markets in an effort to stem the shock to their currencies. However, intervention policies fell into two distinct categories: some (including Kenya and Uganda) intervened only in a sporadic and rather modest manner to restore confidence and smooth the movement of the exchange rate, while others (including the two countries with a managed float, Nigeria and Rwanda, as well as Tanzania) intervened in a more regular and extensive manner to halt the depreciation (Figure 10). As a result, nominal exchange rates in these countries have tended to be more stable. Intervention by the Nigerian central bank was, however, unsuccessful in preventing a large step depreciation of the currency by the end of 2008, in the front of the large turnaround in trade and capital flows.

Finally, restrictions on external transactions and payments may have helped minimize currency fluctuations (Table 4). Restrictions on the financial and capital account are imposed in most countries with varying degrees; they may include acquisition of stakes in banks (Ghana), purchase of government securities (Kenya), investment in stock markets (Tanzania), purchase of money market and debt instruments (Ghana and Nigeria), and the repatriation of foreign direct investment proceeds (Ghana, Nigeria, Rwanda, and Tanzania). As expected, the countries with the least restrictions (Uganda and Zambia) registered the largest exchange rate fluctuations. It is difficult, however, to quantify the effectiveness of such restrictions in countries where they exist. Rwanda and Tanzania, for example, had to intervene extensively to counter exchange rate pressures in spite of extensive restrictions on capital transactions.

[2] In the case of Ghana, the increase in the fiscal deficit and loosening of monetary policy were initiated before the crisis.

Figure 10. Intervention



Source: IMF, country authorities.
Note: Intervention data was only available for the countries in the above chart.

Table 4. Controls on Capital Transactions

Controls on:	Ghana	Kenya	Nigeria	Rwanda	Tanzania	Uganda	Zambia
Capital market securities	●	●	●	●	●		
Money market instruments	●	●	●	●	●		
Collective investment securities	●	●		●	●		
Derivatives and other instruments	●	●			●		
Commercial credits			●	●	●		
Financial credits				●	●		
Guaruntees, sureties, and other financial backup facilities				●	●		
Direct investment	●			●	●		
Liquidation of direct investment			●		●		
Real estate transactions		●			●	●	
Personal capital movements			●	●	●		
Provisions specific to:							
Commercial banks and other credit institutions	●	●	●	●	●	●	●
Institutional investors	●	●	—	▲	●	●	—

Key:
● Indicates that the specified practice is a feature of the excahnge system
— Indicates that data were not available at time of publication
▲ Indicates that the specified practice is not regulated

Source: IMF, Annual Report on *Exchange Arrangements and Exchange Restrictions* (2008), p. lii–lvi.

Structural Factors

The shallowness and lack of versatility of hedging instruments in African financial markets likely accentuated short-term exchange rate movements. Significant reforms notwithstanding, the domestic money and capital markets in most sub-Saharan African countries remain underdeveloped and shallow—offering mostly short-term instruments. Stock market capitalization remains low, while private securities markets are largely underdeveloped. Foreign exchange markets offer a limited array of forward hedging instruments, reflecting in part the concentration of foreign exchange receipts in the hands of the public sector, through aid or commodity exports.

CHAPTER

4 Conclusions

The evolution of exchange rates in sub-Saharan Africa has reflected the impact of both external developments and distinct policy choices. The fall in export demand, commodity prices, and private capital inflows contributed to currency depreciation, which some authorities opted to counter through increased intervention while others chose to let market forces play. Given above-trend inflation, the currencies of countries that intervened generally appreciated in real terms.

The new external environment has raised costs for both floating and managed currencies. Countries with managed exchange rates have to face sterilization costs (to stem an appreciation) and external financing costs (to stem a depreciation). Their real exchange rates appreciated by a wider margin compared to the other countries. Such an outcome could harm competitiveness and undermine long-term sustainability over time if the real effective exchange rate significantly deviates from its equilibrium. Countries with floating currencies faced increased exchange rate and price volatility, which can also deter long-term investment.

African economies can expect exchange rate pressures and volatility to persist for some time. Shifts in commodity prices as well as in portfolio and other private capital flows are likely to continue given the highly uncertain trajectory of the global recovery, the geographic rebalancing of trade flows, and volatility in the exchange rate of the main currencies.

The prospect of continued exchange rate volatility raises particular challenges for those countries seeking to enhance their integration with international capital markets. Financial integration is generally expected to act as a catalyst for growth in Africa, facilitating more rapid investment in infrastructure and private sector development, enhancing competition, and encouraging foreign direct investment and technology transfer. However, exchange rate volatility could hinder progress with financial integration, skewing capital flows toward short-term options at the expense of longer-term investment.

Deepening domestic financial markets is key to enhancing their capacity to handle external financial volatility over the long term. As mentioned, interbank, capital, and foreign exchange markets are still shallow in most sub-Saharan African economies. Stronger regulatory and supervisory frameworks could help reduce inefficiencies and enhance competition. There is also scope for reforms to encourage the development of stock markets by putting in place frameworks that will allow better risk assessment, reduce market uncertainty, and improve transparency. Broader bond markets will allow diversification into longer-term investment instruments—important for long-term investors. Developing forward hedging instruments would also generate some stability in the foreign exchange market by reducing forward settlement risks.

Additional measures could be explored to mitigate the impact of external volatility in the short-term.

- Intervention on foreign exchange markets has been used with different degrees of success. Intervention has costs both if used to stem appreciation (sterilization costs) or to stem depreciation (external financing costs). Thus, to be successful, intervention must be limited in time and backed by credible monetary and fiscal policies.
- Capital controls are attracting renewed interest, either through outright limitations of foreign purchases of certain financial instruments or through price-based measures like taxes on selected inflows. It is difficult to judge the effectiveness of capital restrictions in countries where they exist and the extent to which they reduce the cost and frequency of intervention. Price-based controls such as capital transaction taxes entail significant requirements in terms of enforcement capacity and sizable risks of domestic disintermediation, which makes them a challenging option at best for most sub-Saharan African economies.
- Increased regional trade could reduce the adverse impact of volatility in the rest of the world. The elimination of intraregional tariff and non-tariff barriers would help broaden demand at a time when traditional markets are expected to show only subdued growth. However, trade integration would also need to be supported by a gradual harmonization of exchange rate policies within the region, which may be challenging given the diverging preferences shown across countries since the onset of the global crisis.

Appendix. Exchange Rate Restrictions and Exchange Rate Arrangements

	Ghana	Kenya	Nigeria	Rwanda	Tanzania	Uganda	Zambia
Currency	Cedi	Shilling	Naira	Franc	Shilling	Shilling	Kwacha
Date of acceptance of Article VIII	February 1994	June 1994	Article IV	December 1998	July 1996	April 1994	April 2002
Classification of Exchange rate Arrangements							
De Jure	Floating	Floating	Managed floating	Managed floating	floating	Floating	Free floating
De facto	Floating (managed floating based on old methodology)	Floating (managed floating based on old methodology)	Other managed arrangement (Jan. 09) (a managed floating with no predetermined path for the exchange rate based on old methodology)	Other managed arrangement or also stabilized arrangement (Feb. 09) (a conventional peg based on old methodology)	Floating (managed floating based on old methodology)	Floating (managed floating based on old methodology)	Floating (independently floating based on old methodology)
Official exchange rate and the foreign exchange market	Determined in the interbank market, on basis of average rates reported by Authorized dealers (ADs). Member of W-ERM II of the WAMZ; yet to implement its requirements. ADs may	Determined in the interbank market. The central bank participates in the foreign exchange market to build reserves and smooth out short-term exchange rate	Determined on basis of central bank auctions held twice a week; interbank rate is freely negotiated among ADs; an Exchange bureaus' rate and a parallel market rate are also available. ADs may	The official exchange rate set by the central bank using data from the interbank market, retails prices, and the previous day's reference price. Exchange rate auctions abolished in mid-2007, and ADs freely set	Determined in the foreign exchange market; frequent and large interventions by the central bank influence the market rate. ADs may undertake forward foreign exchange transactions	Determined in the foreign exchange market; central bank intervenes in shallow foreign exchange market to smooth short-term fluctuations. ADs (banks) may undertake forward foreign exchange	Determined in interbank market based on average of primary dealers' rates; central bank intervenes in exceptional circumstances with primary dealers, and may also other banks. ADs may undertake

	undertake forward foreign exchange transactions.	fluctuations. Commercial banks are authorized to undertake forward foreign exchange transactions. Approval of central bank is required.	undertake forward foreign exchange transactions subject to prudential limits provided transactions are related to trade in GS.	exchange rates in transactions with their clients. The forward exchange market has been authorized, but not yet operational.	provided they are related to trade in GS.	transactions.	forward foreign exchange transactions.
Monetary Policy Framework	Inflation targeting framework	Monetary aggregate target	Monetary aggregate target	Monetary aggregate target	Monetary aggregate target	Monetary aggregate target	Monetary aggregate target
Restrictions on External transactions and payments							
Current transactions							
Import restrictions	Standard documentation	Yes, standard documents and preshipment inspection	Yes, standard documents and destination inspection	Yes, standard documents, import licenses, and import declaration for imports above US$ 20,000.	Yes, standard documents, plus provisional classification valuation report for imports exceeding US$ 5,000.	No, except for goods in a Negative list.	No; license required only for trade in petroleum products
Export proceeds							
Repatriation req.	Yes (60 days)	No	Yes (90 days)	Yes (90 days)	Yes (unspecified)	No	No
Surrender req.	Yes, for Cocoa and a proportion of gold.	No	. . .	. . .	. . .	No	. . .

Appendix 1 *(concluded)*

	Ghana	Kenya	Nigeria	Rwanda	Tanzania	Uganda	Zambia
Capital transactions							
Controls on:							
Capital transactions	Yes	Yes	Yes	Yes	Yes, approval by central bank is required for all capital outflows.	No	No
Capital and money market instruments	Yes, restrictions apply to acquisition of stake in banking sector; purchase of market instruments allowed for maturity over 3 years.	Yes, regulations governing securities of a participating nature apply; central bank approval required for certain operations.	Yes, controls apply to purchases of non-residents of debt instruments with maturities of more than one year.	Yes, capital market not yet operational. Non residents are authorized to invest in government securities.	Yes, restrictions apply to investment in stock market, and nonresidents not permitted to hold government securities.	No	No
Credit operations	No	No	Yes	Yes, authorized with limited restrictions	Yes	No	No
FDI	Yes, (not on liquidation of FDI)	No	Yes, restrictions on repatriation of capital proceeds.	Yes, repatriation of investment capital governed by investment code.	Yes, repatriation of capital/ income subject to audit and tax clearance	No	No
Provisions to banks and institutional investors		Yes	Yes, (to banks only)	Yes, (to banks only, institution, investors not regulated)	Yes	Yes	Yes, (to banks only)

References

African Department, "Regional Economic Outlook," April 2009 (Washington: International Monetary Fund).

Chudik, A., and J. Mongardini, "In Search of Equilibrium: Estimating Equilibrium Real Exchange Rates in Sub-Saharan Countries," IMF Working Paper 07/90 (Washington: International Monetary Fund).

Citibank, "Economic and Market Analysis for Sub-Saharan Africa," (May 5, 2009).

Clements, B., and H. Kami, "Are Capital Controls Effective in the 21st Century? The Recent Experience of Colombia," IMF Working Paper 09/30 (Washington: International Monetary Fund).

Edwards, S., 1989, *Real Exchange Rates, Devaluation, and Adjustment* (Cambridge, Massachusetts: MIT Press), chapters 2-5.

IMF, 2008, *Annual Report on Exchange Arrangements and Exchange Restrictions 2008* (Washington: International Monetary Fund).

Isard, P., and others, 2001, *Methodologies for Current Account and Exchange Rate Assessments,* IMF Occasional Paper No. 209 (Washington: International Monetary Fund).

Lee, J., and others, 2008, *Exchange Rate Assessments: CGER Methodologies,* IMF Occasional Paper No. 261 (Washington: International Monetary Fund).

Monetary and Capital Markets Department, 2008, "Classification of the Exchange Rate Arrangements" (SM/08/90, and Sup. 1 and 2) (Washington: International Monetary Fund).

Saadi-Sedik, T., and M. Petri, "To Smooth or Not To Smooth—The Impact of Grants and Remittances on the Equilibrium Real Exchange Rate in Jordan," IMF Working Paper 06/257 (Washington: International Monetary Fund).

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