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MONETARY TRANSMISSION IN AFRICA: A REVIEW OF OFFICIAL SOURCES

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Abstract

This paper focuses on the subject of monetary transmission in Africa. It begins with a report on the effects of the financial crisis of 2008 in Africa. In the countries with more developed financial systems the financial channel proved to be the most important in transmitting the crisis. In the more peripheral countries the trade channel proved to be the most important. Where countries were able to withstand the global shock coming from the financial crisis they did so with a diversified group of trading partners in fast growing economies. The paper then turns to examine three post crisis institutional developments and asks, how are: a) an increased momentum towards regional integration, b) the rise of Pan African banking and, c) an increase in cross border flows, affecting the monetary transmission mechanism (MTM) in Africa. It is clear from the literature that the rise of Pan African banking and the regionalization thrust of the authorities are deepening the financial channels between countries. But with respect to cross border flows, the huge size of deposits maintained by Africa's BIS reporting banks suggest relatively low levels of bank intermediation and competition. Thus the benefits that are assumed to accrue as a result of increased cross border flows are withdrawn from the local economy and stored up in the BIS banks. We know large deposits reflect the expectations of the deposit holders. But beyond that very little is known about the role of expectations and the workings of the expectations channel in monetary transmission in Africa. Even less is known about how such expectations would interact with those formed as a result of operations in the large informal sectors which characterise African macro economies. Until research can bridge this gap, the increasing cross border flows with the large deposits held in BIS banks form the basis yet another explanation for the historical weakness of the MTM in Africa.

Keywords: Africa; Economic Development; Monetary Policy; Central Banking

JEL codes: E50; E60; G10; O16

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1 Introduction

This paper focuses on the efficacy of monetary policy in Africa. We ask two sets of related questions. First, how are increasing volumes of cross border flows, a rise in Pan African banking and an increased momentum towards regional integration (new emergent processes) changing financial arrangements in Africa? Second, what explains the historical weakness in the African monetary transmission mechanism (MTM) and what can be done about it? The MTM is the sequence through which the monetary policy decisions of the authorities express themselves on price and output levels (see Schema 1). There is a fairly well developed body of literature on the MTM that comes from the working economists of the World Bank, Bank for International Settlements (BIS) and the International Monetary Fund (IMF). It may be because the questions that concern us are technical in nature, or it may be neglect, but on the academic side, with regard to Africa, this type of literature is relatively underdeveloped. The aim of this chapter is to review these official sources. The exercise offers a theoretical (non VAR)[1] route to the answers to our questions for students, teachers, central bankers, policy makers and those in civil society that may need such answers. The review reveals a disjuncture in the literature; on the one hand, the official sources posit that the credibility of the monetary authorities is the key variable in promoting monetary policy objectives. Yet, in actuality, the literature assumes away the possibility of using monetary policy to promote credible and coherent policy because it is unable to conceive of a broader role for the monetary policy of the central banks.

[1] Vector Autoregessive Models used by econometricians to measure linear dependency in time series analysis.

Like almost everything else in this area written since 2008, there is an underlying preoccupation with risk and destabilization of the economy that is framed by the seismic events of the 2007/2008 Great Recession. Thus, the first object of our enquiry is monetary transmission in Africa during and after the recent crisis. The paper is arranged as follows: reflecting the underlying motivation for the paper, section 1 explains how Africa was affected by the 2007/2008 crisis. Section 2 discusses regional integration and reviews the associated rise of Pan African banks. Section 3 describes two new features of the capital inflow picture. First, there are the deepening investment linkages with Brazil, China, India and, conspicuously, Malaysia, who have all become important sources of Foreign Direct Investment (FDI) for Africa and, second, a marked increase in interregional FDI. Section 4 discusses the interaction between monetary transmission and monetary policy. Section 5 concludes. In general, the new forms of banking, their associated capital flows and the tendency towards regional integration are processes that bring a degree of financial depth to monetary arrangements. However, the biggest challenge to effective monetary policy lies in the unknown size and scope of informal sector activities that mediate the policy. Where the sector is large, interest rates do not reflect liquidity and credit conditions, and the MTM is often weak and unresponsive. In these circumstances until African countries can rebase their economies and provide more jobs in the official sector, monetary policy remains a blunt instrument with a weak MTM.

2 The Great Recession in Africa

The crisis itself had a differential impact across the continent and many countries were spared the more damaging slowdown in economic activity that ensued in the North Atlantic countries simply because they were not well integrated into the world system and because financial arrangements were undeveloped. Thus, the transmission channels were muted. Where the crisis did hit, it did so with a vengeance. In the decade leading up to the Great Recession, Africa experienced accelerated economic growth averaging annual increases in real GDP of 6 per cent per annum (see Appendix A1). Growth stuttered immediately after the events of 2007/2008 and declined to 1.1 per cent in 2009 (Luvhengo, 2010). At the depth of the crisis the International Labour Organization (ILO, 2010) estimates showed that unemployment increased appreciably by between 1 and 4 million from 2008 to 2009. In addition, the ILO estimates showed unemployment and working poverty[2] increased up to 15 per cent in 2009 as a result of the crisis. All told, rates of poverty, working poverty and unemployment reverted to 2003 levels. Trade and current account balances deteriorated across the continent but particularly so in the oil exporting countries. Worsening current account balances were accompanied by rising fiscal deficits leading to twin deficits in several countries (Brixiova et al, 2011).

In the years leading up to the Lehman's bankruptcy in 2008, Africa had benefited from a prolonged energy and commodity boom driven by demand mostly

[2] The working poor are those living on less than $1.25 a day or less.

emanating from India, Brazil and China[3]. In the aftermath of the collapse there was a contraction in demand; the prices of mineral ores, oil and other primary goods declined and the perennial concerns about Africa's poor growth and development performance reclaimed centre stage in any discussion of Africa's future prospects. In 2010 the International Monetary Fund's (IMF) Global Economic Outlook reported that Brazil would grow by 5.5 per cent, Russia by 4 per cent, India by 8.8 per cent and China by 10 per cent. The forecasts were accurate and this growth once again fuelled demand for commodities. In general, the fastest growing countries in 2008 declined the most in 2009 and the least growing countries in 2009 rebounded the most in 2010 (Brixiova et al, 2010). Thereafter, Africa and other commodity rich economies again derived the benefit of rising commodity prices. In 2011 commodity prices were expected to reach their pre crisis era levels, but in both 2011 and 2012 GDP growth slowed in the BRIC countries; China's GDP declined to 9.3 per cent and 7.8 per cent, and India's to 6.6 per cent and 4.7 per cent (World Bank Data). But, with regard to Africa, the initial dire projections[4] were tempered as SSA's GDP rose to 4.7 per cent and the region attracted foreign direct investment worth a 'near record' $43 billion (up 16 per cent in 2012) largely driven by coal, oil and gas discoveries in Angola, Mozambique and Tanzania (World Bank, 2014).

[3] Weisbrod and Whalley (2011), use growth accounting methods to show how Chinese FDI contributed to an additional one half of a percentage point or above to GDP growth in the 2005 to 2008 pre crisis period.

[4] See the IMF Survey Magazine, 3 February 2009, for a good example of the dire type of forecasts and projections that typify the period.

In 2013 the World Bank reported:

> ... weaker demand for metals and other key commodities, combined with increased supply, could lead to a shaper decline in prices. In particular, if Chinese demand, which accounts for about 45 percent of total copper demand and a large share of global iron ore demand, remains weaker than in recent years and supply continues to grow robustly, copper and iron ore prices could decline more sharply, with significant negative consequences for the metal-producing countries.

In 2014 economic growth in sub-Saharan Africa increased to 5.2 per cent, driven largely by increasing investment aimed at exploiting the region's natural resources and developing infrastructure (World Bank, 2014). According to the Bank's estimates, economic expansion in sub-Saharan Africa is projected at 5.4 per cent for 2015. By 2014 it was clear that the demand for commodities coming from the BRICs would not return to pre crisis levels. China, Brazil and India still required raw materials and fossil energy for their own growth and development purposes, but growth in those countries slowed and the prices of the various raw materials have declined accordingly. In the first quarter of 2014 Chinese GDP grew at 7.4 per cent (the slowest rate of increase since the third quarter of 2012), thereby escalating concerns of China's ability to act as a sustained engine of growth for the rest of the world[5].

With regard to the trajectory of trade in the aftermath of the global financial crisis, a Brixiova and Ndikumana (2013) comparison between the EAC, SACU and

[5] The data here are taken from a report in the Financial Times, 16 April 2014.

SADC regional groupings is instructive. In general, the EAC region's lack of integration into global financial markets protected it from the direct consequences of the crisis. The more indirect financial channels had a muted impact largely attributed to the fact that, in the EAC, the banks primarily fund their loans from deposits. According to the authors, the crisis was therefore transmitted primarily through trade (and in some cases also foreign investment, aid, remittances[6] and tourism receipts). In contrast, studies by Ncube et al (2012a and 2012b), and Ncube and Ndou (2013), show that South Africa (and therefore all of SACU), which is closely integrated into the global financial system, was directly affected through both financial and trade channels. Interestingly, Brixiova and Ndikumana (2013) also found that, 'the deeper intra-regional trade in the EAC region as well as the EAC region's trade links with the rest of Africa have increased the community's resilience to global output shocks'. The lesson appears to be that in order to withstand a global shock of the magnitude of the Great

[6] It's worth noting that The World Bank estimates that Sub-Saharan Africa received remittances in the amount of $32bn in 2013, up 3.5 per cent in 2012 and equal to roughly 2 per cent of the region's GDP. 'Many countries in the region have large diasporas overseas, with substantial diaspora savings that could be mobilised for development financing.' Nigeria, Africa's biggest economy and most populous nation, is the biggest recipient of remittances, with its migrants sending home $21bn last year. According to the Overseas Development Institute (ODI), Africa pays, 'a remittance super-tax' of nearly $2bn a year due to the higher-than-average cost of sending money to the continent. The ODI report said migrant workers in some African countries, such as Mozambique, pay fees as high as 20 per cent to send money back home to another country in the region. The situation is far worse for money transfers corridors within sub-Saharan Africa. (Javier Blas, 'Africans face $2bn yearly "remittance super-tax"', Financial Times, 16 April 2014**).**

Recession countries need '...to diversify[7] their geographical composition of trade to include fast growing economies, both in Africa and other regions' (ibid).

There were at least two other mitigating factors. First, 'food' accounted for most of the EAC's total exports and the financial crisis unfolded contemporaneously with a food crisis. The consequent rise in food prices made the EAC far less vulnerable to the global slump than it otherwise would have been. In the EAC region, a combination of counter cyclical policies, public investment and the upward thrust of world food prices came together to cushion and mitigate the more deleterious effects of the crisis that had enveloped the rest of the world. This is in stark contrast to the crisis of 1991 in which the EAC nations grew at a slower pace than the world economy (ibid). Second (and for Africa in general), because most of the private capital flows to Africa take the form of FDI, Africa's exposure to the global credit crunch was less severe (Brixiova et al, 2011). On balance, insofar as integration into the world system is concerned, SSA is the least integrated region and so SSA in particular was insulated from the full impact of the financial crisis. In general, FDI flows to Africa are in small, absolute amounts but in 2009 SSA was the recipient of more net FDI inflows than other countries and regions (ibid). With regard to official capital inflows aimed at mitigating the crisis, SSA has

[7] In Kenya, Uganda and Tanzania, the top three products account for less than 40 per cent of total exports, well below levels in the SACU. (Brixiova, Z. and Ndikumana, L., 2013). According to the authors, the EAC's deeper intra-regional trade and its fewer trade ties with advanced economies have strengthened capacity of this REC to reduce exports volatility and mitigate global output shocks. Further, unlike the case of the SACU where the small countries export mostly to South Africa, the EAC's regional trade is better diversified among various members and other countries in the region (Sudan, Democratic Republic of Congo). This underscores the importance of export diversification and trading with fast growing economies.

received smaller gross and net amounts (relative to GDP and in absolute terms) than other developing regions except Asia. Asia has been in the vanguard of the global recovery (ibid).

With respect to the balance of payments for EMEs and frontier market countries, the effects of the crisis were related to portfolio flows. South Africa's current account deficit is one of the highest in the world and it is funded by large portfolio inflows. South Africa was particularly hard hit by the retreat and volatility of these inflows and, in response, the South African banks cut their lending to branches in other countries (ibid). The impact on the banking system then reverberated throughout the rand area. The banking sector in South Africa was also affected by the sharp decline in equity prices during the crisis, which further negatively impacted private consumption via the wealth effect (ibid).

In Nigeria the banking system was also negatively affected by the crisis. The banks had expanded lending significantly in the pre crisis period. The lending was primarily funded by foreign financing and it was this financing that dried up first. Nigeria's banks were also engaged in margin lending for equity investments. With the sharp decline in equity prices, banks' assets declined accordingly. In addition, some of the banks also had sizeable off balance sheet instruments that concealed nonperforming loans. Christensen (2010, 47) observes that this, '…was a home-made problem accentuated by the global financial crisis.' Ultimately, in August 2009 the Central Bank of Nigeria was forced to intervene in five banks. The ensuing liquidity support totalled \$2.8 billion (2½ per cent of nonoil GDP) (ibid). Other countries in which declines in local equities affected the banking sector included Kenya and Uganda in East Africa.

In general, Africa did not experience currency mismatches on the balance sheets of the government, banks or the private sector. Consequently, currency valuation losses in the face of significant local currency depreciations were limited. Africa nevertheless suffered from the indirect effects of the crisis on the balance sheets of the banks. Thus, a fall in export demand and commodity prices induced a decline in the quality of bank loan portfolios. ‘In addition, interest rate spreads increased and the availability of foreign credit declined. Equity markets declined across the board in line with equity markets globally. Likewise, African currencies depreciated in line with developments in other emerging regions.’ (ibid)

The foregoing represents a brief recapitulation of the crisis in Africa. The period after the crisis (post 2008 / 2009) has been characterized by an increase in cross border flows, the spread of Pan African banking and an increase in issue of debt by the authorities. These developments pose challenges and yield opportunities at one and the same time. The challenges lie in their combined ability to transmit the negative effects of financial excess from country to country when coupled with the lax management and loose arrangements that characterized the run up to the crisis in the developed markets of the US and UK. The opportunities come from the much needed financial deepening and financial integration that can enhance growth and transform the continent. Two points remain to be made; first, the continent’s financial integration into the world economy and its financial depth are markedly underdeveloped (Table 1). While this lack of depth was important in shielding Africa from the full effects of the crisis, it constrains growth in GDP and makes for the general arrested development of the

African continent[8]. Second, the banking systems in Africa are characterized by relatively large interest margins that reflect, among other things, an absence of competition, the lack of financial infrastructure and the riskiness of lending when combined with weak property rights (Christensen, 2014). From a monetary policy point of view, the authorities would like to use interest rates as they are used in other parts of the world, i.e., to allocate savings and credit so that they could influence the value of key financial indicators such as the interbank interest rate (ibid). Globally, integration with international markets would enforce a convergence of prices that is both desired and necessary if the continent is to move forward.

3 Regional financial integration and pan African banks

The theoretical rationale for integration comes from Lewis (1950) in his *Industrialization of the British West Indies.* The basic idea is that integration allows smaller economies to scale up and enjoy the benefits of economies of scale. Regional integration as an aspiration of African countries was given tremendous impetus by Kwame Nkrumah, George Padmore, Jomo Kenyatta and other Pan African leaders of the post independence era who envisaged it as a step on the way to a United States of

[8] Growth is important because, as Benjamin Friedman (2006) says, 'economic growth more often than not fosters greater opportunity, tolerance of diversity, social mobility, commitment to fairness, and dedication to democracy'. It follows that the absence of growth is always accompanied by xenophobia, intolerance and a negative attitude toward the poor.

Africa with full economic and political union. The ratifying of the AU's Sirte Declaration of 1999[9] has given the process a more contemporary impetus.

Drawing on Lewis (ibid), the EAC Treaty, signed in 2000, committed the five participating countries of Burundi, Kenya, Tanzania, Rwanda and Uganda to establishing a customs union (established in 2005), a common market (July 2010) and a monetary union (Christensen, 2014). Significant steps have been taken towards harmonizing the regulatory environment for financial banking and services. In addition, preparations have begun for a common payment and settlement system for the five member states, which would allow settlement in local currencies (IMF, 2011). There appears to be the necessary political will to see the process through to its conclusion and, by all indications, we are to see a fully integrated EAC region. On the way there are obvious difficulties to overcome. As Christensen (2014, 15) notes, the countries have different monetary and exchange policy frameworks. The countries involved are Kenya, Uganda, Tanzania, Rwanda and Burundi. Kenya and Uganda have the more sophisticated systems where the authorities utilize what the author calls a 'responsive set of policy rates'. In contradistinction, Burundi, Rwanda and Tanzania employ a monetary target framework. Among the banks only the Kenyan banks have so far established a regional presence (ibid) and, perhaps most importantly, '… it appears that expansionary monetary policy works differently in the different countries; in Kenya and

[9] Three financial institutions were established to facilitate inter African trade. These were: the African Investment Bank (AIB), the African Monetary Fund (AMF) and the African Central Bank (ACB). It was agreed that it would be necessary to establish a single common currency in Africa in order to speed economic integration. The planning for the African Monetary Fund and for the African Central Bank was supposed to be a phased process alongside the process of the full unification of Africa, leading towards the Union Government of Africa.

Uganda it lifts prices significantly but raises output in Uganda, Burundi, and Rwanda[10].' Going forward, a functioning an East African banking system will rely on an in depth understanding of these differences and their dynamic interaction with each other. In general we can say that, among the five countries, a banking system that supports growth and development will, first of all, require progress in ensuring property rights and, secondly, a working system for the resolution of contractual disputes. (ibid)

Table 1: Indicators of financial depth

	Liquid liabilities to GDP[2] 2000-2002	**Liquid liabilities to GDP[2] 2010-2012**	**Private sector bank credit to deposits[3] 2000-2002**	**Private sector bank credit to deposits[3] 2010-2012**
Emerging market[5]	52	60	90	78
Frontier market[6]	18	31	65	74
Financially developing[7]	17	26	62	69
Selected other emerging market economies[8]	39	48	73	97

Ratio, in per cent, weighted regional averages[1]
[1]Weighted average based on 2005 GDP and PPP exchange rates. [2] Liquid liabilities refer to currency plus demand deposits and Interest bearing liabilities of banks. [3] Bank credit to the private sector is taken from IMF, *International Financial Statistics*, line 22D. [4]Latest available data. [5]Algeria, Egypt, Morocco, South Africa and Tunisia. [6] Angola, Ghana, Kenya, Mauritius, Mozambique, Nigeria, Senegal, Tanzania, Uganda and Zambia. [7] Botswana, Cameroon, Cape Verde, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Namibia, Seychelles and Swaziland. [8] Brazil, Chile, Czech Republic, Hungary, Indonesia, Malaysia, Mexico, Philippines, Poland, Russia, Thailand and Turkey.
Sources: IMF, *International Financial Statistics* and *World Economic Outlook*; BIS calculations in Christensen, 2014.

[10] See World Bank (2011) in Christensen, 2014.

In general, Africa has a bank based system where banks dominate the financial system. In large part because of the imperialist history, banks from Britain, France and the other imperial countries have held the larger share of the banking business. This is now changing because of the entry of new Pan African banks. Pan African banks are banks formed with African capital that have subsidiary banks in other African countries. In the West African Economic and Monetary Union (WAEMU) Pan African banks accounted for approximately one third of credit institutions operating in 2011 with nearly half of the total balance sheet. The major Pan African banking groups come from South Africa, Nigeria, Togo and Morocco.

The foreign activity of Nigerian banking groups is new. According to Alade (2014, 83), the Nigerian banks expanded after a consolidation phase in the banking industry that started in 2004 and resulted in a tenfold increase in the capital base. The greater proportion of the Nigerian banks' expansion came via an increase in branch networks in the domestic market and the opening of subsidiaries in other African countries[11]. The largest bank in Morocco is Attijariwafa Bank. After the global financial crisis enveloped the euro zone, Attijariwafa started opening subsidiaries in sub Saharan francophone countries. What is altogether new about these banks is that they reach a part of the population that the long standing traditional banks have ignored. Attijariwafa in Morocco, African Bank in South Africa and the other Pan African banks generally lend to small and medium sized enterprises that have otherwise been ignored by the traditional banks.[12]

[11] United Bank for Africa (UBA) and Access Bank combined are operating in more than 20 countries on the continent (Alade, 2014, 83).

[12] In Attijariwafa's case, it also finances large infrastructure projects.

The expansion of Pan African banks is gaining momentum across Africa. These banks know the conditions very well and are (in theory) in a position to transfer know how to the other countries in which they operate. What is different about these banks is that they are self funded; as such they provide a degree of insulation from credit and liquidity shocks that have affected other regions. Early studies cited in Christiansen (2014) and initial indications suggest that, in countries where they account for a significant share of banking business, Pan African banks are:

1. Improving the market clearing effectiveness of the interbank and foreign exchange markets
2. Creating competition in the bank sector
3. Reaching the population in rural areas that previously had no access to banking services
4. Spreading technology and financial services to non banked areas.

Risk diversification and greater profit opportunities for shareholders are the main benefits for the parent company, while recipient banking systems benefit through increased intermediation and improved efficiency (resulting from technological advancement), and reduced interest rates and efficiency improvements as a result of increased competition (see Alade, 2014, 83).

The growth of these banks with the accompanying financial deepening makes for an increased mobility of goods and capital. With respect to trade integration, this would mean a reduction in the costly delays at African ports of entry, which in general constitute 1 per cent of the selling price of the commodity (Ncube et al, 2014). We would also anticipate that African intra continental trade, which now stands at 10 per cent of all trade with the rest of the world, to rise toward the 60 per cent average of other regions (ibid). There would be some contribution to employment and some alleviation in food shortages. We are already seeing much of this in the EAC, perhaps most starkly where the benefits of professionals offering services in several countries (without needing work permits) are already manifest in a region that has historically been bereft of skills and management.

In this manner, the emergence of Pan African banking promises to transform financial arrangements, deepening and strengthening the hold of an indigenous banking system that appears to be far more inclusive than the traditional financial institutions.

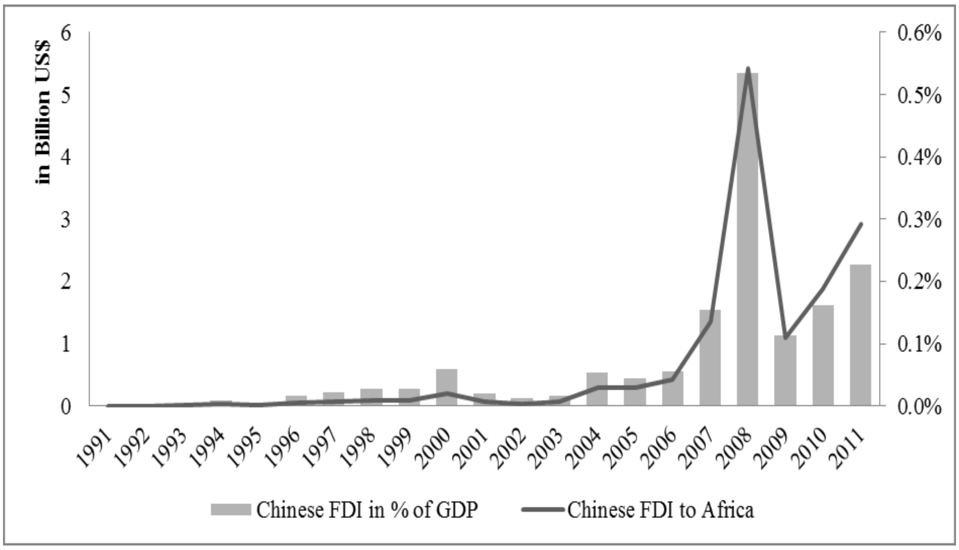
4 South-South FDI

Private cross border flows are made up of foreign direct investment (FDI), portfolio investment and other investment. With regard to Africa, there are two new features of the capital inflow picture. First, there are the deepening investment linkages with Brazil, China, India and, conspicuously, Malaysia, who have all become important sources of FDI for Africa, and second, a marked increase in interregional FDI (World Bank, 2014).

China is the leading southern investor in Africa by a considerable margin. Chinese FDI to Africa increased from $200 million in 2000 to $2.5 billion in 2011 (Busse et al, 2014) with about 40 per cent of this total holdings invested in South Africa[13] (Rangasamy and Mihaljek, 2011).

[13] In addition, Chinese private investors have also increased their presence in many African countries (Gu, 2009).

Figure 1: Chinese FDI to Africa



Source: Busse et al, 2014

The pattern of Chinese FDI to Africa over the last decade is shown in Figure 1. Despite the rapid increase, actual volumes are fairly small, both in terms of African GDP and total FDI inflows in Africa. According to Busse et al (2014), average Chinese FDI flows to Africa in 2000 and 2011 amounted to only 5 per cent of total FDI inflows to Africa. Nevertheless, according to the UNCTAD (WIR, 2013), China is the biggest and largest proponent of South to South investment in Africa.[14]

[14] According to Busse et al, Chinese investment is a particularly important source of capital for certain African countries. Chinese FDI accounted for 52 per cent of FDI inflows in Zimbabwe, 26 per cent in Mauritius and 13 per cent in both South Africa and Zambia.

4.1 Foreign direct investment

FDI flows into Sub-Saharan Africa have grown nearly six fold over the past decade. The flows increased from about US$6.3 billion in 2000 to US$35 billion in 2013 (Figure 1). While this is still just 2.5 per cent of total global flows, '…it represents an unprecedented size of investment capital in most African countries' (UNCTAD, 2014).

Rangasamy and Mihaljek (2011) show interesting cross regional variations within Africa. Emerging markets showed a strong increase in FDI from 2002 to 2008. But from 2008 to 2010 the crisis led to the halving of FDI in these markets. In this period, by contrast, portfolio inflows exhibited strong growth in 2010, exceeding FDI by $5 billion. Pre crisis, the EMEs were the largest recipients of net portfolio flows, especially in 2006 to 2007. But their reversal in 2008 was deep and pronounced. In contrast, FDI inflows to the frontier markets and financially developing countries were essentially undisturbed by the crisis. The outflows from these countries were confined to portfolio and other investment categories. These were large and significant outflows. In the frontier market countries other investment inflows recovered in 2009 and 2010.

In 2013 FDI inflows to Africa rose by 4 per cent to $57 billion, fuelled by international and regional consumer seeking flows, and infrastructure investments. Africa's middle class is said to have expanded by 30 per cent from 2007 to 2015, and now totals approximately 120 million people[15]. It is at this market that much of the FDI

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[15] According to a World Bank/UNIDO survey of 713 potential investing firms from Brazil, India, South Africa and South Korea, new market access is the most important motivation of Southern outward FDI

is now aimed. The extractive industries continue to be a destination for FDI, but consumer oriented markets are now starting to drive FDI increases (UNCTAD, WIR, 2013). These markets include consumer products such as foods, information technology (IT), tourism, finance and retail, and similarly driven by the growing trade and consumer markets, infrastructure FDI showed strong increases in transport and in information and communication technology (ICT)' (UNCTAD, 2014, 38). Between 2003 and 2012, 15 countries accounted for some 80 per cent of the total FDI inflow. The largest inflows go to sectors where the region has a comparative advantage (i.e. agriculture and natural resources) or where returns are high[16] (i.e. construction[17]). Figure 2 shows that Nigeria, Mozambique and South Africa received the largest amounts of FDI. They were followed by Ghana, DRC, the Congo and Sudan (all above US$2 billion)[18].

Intraregional investments are also increasing with South African, Kenyan and Nigerian corporations accounting for the lion's share. Most of the outflows were directed to other countries in the continent, paving the way for investment driven regional integration. With respect to intraregional FDI, the share of African countries in

(nearly 70 per cent), followed by lower production costs (20 per cent) and acquisition of natural resources and inputs (5 per cent) (UNCTAD, WIR, 2014).

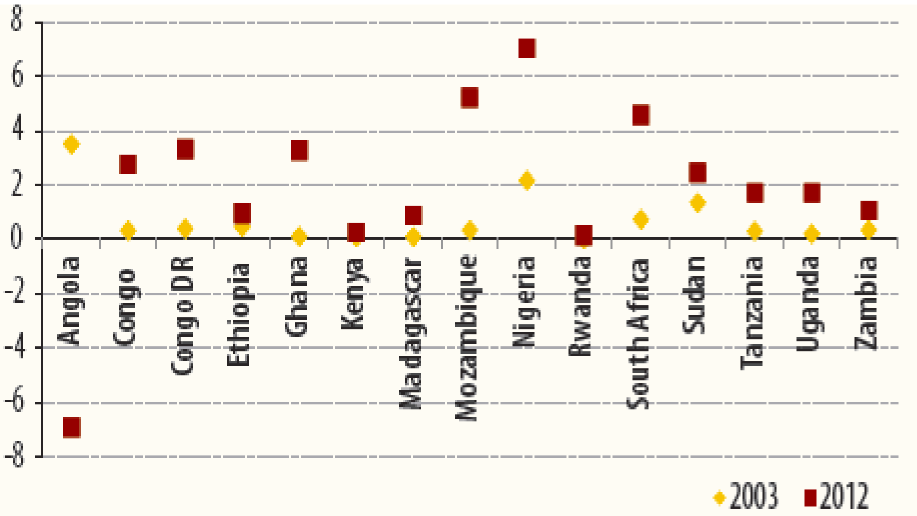
[16] Angola recorded the highest rates of return on FDI in 2011 with 87 per cent, followed by Nigeria (36 per cent) and Zambia (13 per cent). (World Bank 2014)

[17] 'In residential construction and in hotels and restaurants services, TNCs from South Africa, Kenya and Egypt were the leading investors in Africa by number of cross-border acquisitions deals. The high shares of intra-African investment targeting the manufacturing sector accord with evidence from trade statistics showing that the industry products that are most traded intraregionally are manufactured goods – especially those entailing low and medium levels of processing', (UNCTAD, 2013b in WIR 2014, 40).

[18] See Appendix A2 for FDI Flow Distribution by Range.

South Africa's FDI stock grew from 5 per cent in 2000 to 22 per cent in 2008. South Africa is not only a major recipient of FDI, but also a major source of FDI in Africa. According to UNCTAD (2013), South Africa was the second most important investor in Africa (from developing countries) in 2012 after Malaysia. The rise in outward FDI flows from Africa in 2012 to $14 billion was mainly due to large flows from South Africa directed at mining, the wholesale sector and healthcare products. South Africa holds the fifth largest stock of FDI in Africa, with the largest proportion in Mauritius, followed by Nigeria and its neighbours Mozambique and Zimbabwe. According to the IMF's CDIS, in 2012 it also had a sizeable stock of FDI in Ghana, DRC, Tanzania and Zambia.

Figure 2: Largest Recipients of FDI Inflow in SSA (2003-2012)



Source: World Bank, 2014

According to UNCTAD (2010), '… there were a total of 2,250 South African projects in African countries in 2009, in areas such as infrastructure, telecommunications, energy and mining' (ibid). In 2013, South African outward FDI almost doubled to $5.6 billion, driven by investments in telecommunications, mining and retail investors[19] (UNCTAD, WIR, 2014). The other main investors were Angola and Nigeria, with flows mostly directed to neighbouring countries. Unlike foreign investment, where the extractive industries are the main focus of attention, intra African projects are concentrated in manufacturing and services: '… 97 per cent of intra-African investments target non-primary sectors compared with 76 per cent of investments from the rest of the world, with a particularly high difference in the share that targets the manufacturing sector[20]'(ibid). The other main targets for intraregional FDI flows are finance (especially banking) and business services.

With respect to greenfield investments, there are three key aspects: first, it is the service sector that is driving investment; second, roughly 40 per cent of all greenfield investments by number of new projects are concentrated in finance and business services, low technology consumer products and wood furniture; third and last, recently announced greenfield projects show rising inflows in the textile industry and high interest by international investors in motor vehicle industries (UNCTAD, (WIR, 2014). Between 2009 and 2013, the share of cross border greenfield projects, which is the

[19] These include Bidvest, Anglo Gold Ashanti, MTN, Shoprite, Pick n' Pay, Aspen Pharmacare and Naspers.

[20] Intra-African investments in the manufacturing sector concentrate in agri-processing, building materials, electric and electronic equipment, and textiles, while in the services sector African TNCs have been attracted to telecommunications and retail industries, especially in rapidly growing economies like those in Nigeria, Ghana, Uganda and Zambia.

major investment type in Africa, originating from other African countries has increased to 18 per cent from about 10 per cent in the period 2003 to 2008. All major investors, namely South Africa (7 per cent), Kenya (3 per cent) and Nigeria (2 per cent), more than doubled their shares. The gross value of cross border intra African acquisitions grew from less than 3 per cent of total investments in 2003 to 2008 to more than 9 per cent by 2013 (ibid).

In general, intraregional FDI appears to be an increasingly important mechanism through which Africa can reduce its dependence and satisfy its increasing demand out of its own resources. Furthermore, '… intra-African investment helps African firms enhance their competitiveness by increasing their scale, developing their production know-how and providing access to better and cheaper inputs'[21] (UNCTAD, WIR, 2014, 43).

4.2 Net portfolio flows

The data show that, for Africa's EME's net portfolio, capital inflows were increasing before the crisis. Among the EME's, South Africa has been the preeminent recipient of net portfolio inflows. Rangasamy and Mihaljek (2011) estimate that some $30 billion in portfolio capital flowed out of Africa when the crisis struck in 2008. After small net outflows in 2009, in 2010 'portfolio capital flows recovered strongly with some $25 billion returning to the continent' (ibid).

[21] All quarters of the literature welcome these emerging trends, but Bond (201??) finds that South Africa for one is motivated by sub imperialist aspirations.

In addition to South Africa, which received net portfolio inflows of $4.6 billion per year on average, Nigeria was the other big recipient of net portfolio inflows between 2000 and 2009 ($0.7 billion per year). Since 2009, other countries, including Ghana, Kenya, Tanzania, Uganda and Zambia, have started to attract increasing amounts of portfolio inflows[22].

4.3 Other investment flows

Other investment is mostly made up of cross border bank lending to African countries and deposits placed by African countries in foreign banks. Between 2001 and 2005, these were negative but stable. In 2006 the outflows jumped to almost $75 billion due to large placements of deposits by some oil exporting countries (in particular Nigeria) in overseas banks. Since 2008 the pattern of these flows has reversed. As the crisis began and foreign investors withdrew from Africa and other emerging markets, many African countries withdrew their deposits from overseas banks to compensate for the loss of liquidity in local markets. This resulted in net inflows of other investment of about $10 billion per year.

Claims of BIS reporting banks (which consist mainly of cross border loans to African countries), with regards to all sectors in Africa, doubled between 2001 and 2010, with total amounts outstanding of close to $160 billion in the third quarter of 2010 further increasing to $195 billion by the fourth quarter of 2014 (BIS, 2014b). One stark difference between Africa and other developing regions of the world is that the

[22] But several countries, in particular Egypt, experienced net outflows of portfolio capital during 2000 to 2009.

continent on average holds more deposits in BIS reporting banks than it does loans received from them. According to Rangasamy and Mihaljek (ibid), the '… imbalance reflects the underdevelopment of Africa's financial systems in general and its banking systems in particular'. It suggests that a large share of the revenue from exports is not intermediated by local banks. About 60 per cent of these funds are recycled back to the continent in the form of cross border loans by recipient banks (ibid).

Cross border capital flows in Africa increasingly reflect three key factors; first, the *Africa Rising* narrative. This is very much a 21st century development; according to this official story, sound macroeconomic policies (aimed primarily at restraining inflation) and the good governance practices that the various governments had all instituted in the previous decade have combined to give Africa a far more robust institutional fabric that can now support profit making. In short, by dint of these changes Africa is decidedly more market friendly and ripe for investment. Thus, there is a greater optimism among foreign investors about private sector activity and the economic potential of Africa. Second, financial flows now reflect the shift in emphasis from North-South to South-South relations, in particular the growing role of the major BRICs such as Brazil, China, India and South Africa[23]. Third, because of the proliferation of Pan African banking groups and the WAEMU and EAC regional trade initiatives, there has been increasing integration of financial markets in Africa.

[23] Forty of the top 50 companies that operate on a Pan African scale are South African in origin.

5 Monetary transmission and monetary policy

The literature identifies four main pillars for responsive and effective monetary policy:

1. Secondary markets that are deep enough to promote the sale and resale of financial paper that strengthen the central bank's ability to manage the interbank interest rate and the money stock (Mishra et al, 2010).
2. A degree of competition in the banking sector such that changes in policy rates induce changes in market rates (Christensen, 2014; Knutter and Mossler, 2002; Davoodi et al, 2013)
3. A long term bond market that ultimately helps to establish a market based term structure of interest rates that retires the inverted yield curve that so often characterizes the more undeveloped financial arrangements (Christiansen, 2013).
4. Regional and international financial integration so that arbitrage between domestic and foreign financial assets can bring about price convergence (Christiansen, 2014).

These would be the pillars upon which a credible central bank's communication with the general public on the conditions, expectations surrounding inflation, employment and output would form the basis of functioning market. The big question that remains to be answered is how far have the emergent post crisis trends, described in the previous sections, gone in establishing the four preconditions for effective and responsive monetary policy? In particular, we want to know more about the MTM and its effectiveness in transmitting monetary policy.

Figure 2 shows there are six channels through which policy can influence the real economy. Answers to our questions therefore come from six different directions. Each channel (the top of the schema) affects one or more macroeconomic variables, ultimately impacting through aggregate demand and/or supply on inflation and output (the bottom of the schema). At the very outset it is to be noted that the heterogeneity reported by the various authors poses significant challenges for officials. For example, if monetary policy increases interest rates in one jurisdiction, and the same policy leads to an increase in the monetary base in another, then the first question to arise is: what exactly do we mean when we describe monetary policy as expansionary or contractionary?

If Africa is to manage its growth process in a way that avoids the excess and the boom and bust of the last global crisis, the authorities must establish these framework conditions and must then manage the constituent parts of the monetary transition mechanism. The literature differentiates between six main channels for the transmission of monetary policy.

1. The interest rate channel
2. The money channel
3. The exchange rate channel
4. The credit channel
5. The asset price channel
6. The expectations channel

The money channel is the oldest and perhaps the most well-known of the channels that make up the MTM. Changes in reserve money that are transmitted to broad money through the money multiplier aggregate demand are assumed to move in tandem with money balances that finance transactions with consequent effects on nominal and real GDP as well as the price level (Mishkin,1998). In economies with a high share of currency in circulation, reserve money will weaken the central banks' ability to influence the cost conditions in the economy. As a result, regulating a small part of reserve money, namely bank reserves, will not be as effective. Alternately, bank excess reserves are high as they are in many African countries as the central bank's ability to regulate the market for bank reserves are again weakened. In such cases the central banks' actions in no way constrain bank lending; instead, banks simply draw on these balances when they need to make loans[24] (Knutter and Mosser, 2002).

With respect to the interest rate channel, we have already stated that African authorities would like to use this option in order to manage monetary conditions in the economy. Theoretically, increases in nominal interest rates mean that the real rate of interest also increases. Together they make for an increase in the cost of capital, which in turn leads to a deferral of consumption and/or a decrease in investment spending. This is how the mechanism is supposed to work, but Bernanke and Gertler (1995) found that, in the case of the US, the reaction to policy initiated changes in interest rates of a much larger magnitude than the interest elasticities for consumption and investment (Knutter and Mosser, 2002). Insofar as cross border banking increases competition in domestic banking, it contributes to a reduction of interest rate margins and, in that the Pan African banks participate in open market operations, they contribute to an amplification of the interest rate channel (Alade, 2014, Christensen, 2014). This would

[24] A high currency ratio might be due to, 1) a lack of trust in the banks, 2) the inability of the banking sector to offer a return above that of cash and 3) the desire to hold cash may be tied to an intention to engage in illicit underground economy activities where cash is king.

apply to Uganda and Nigeria. It remains to be seen if the theoretical basis for the interest rate channel lies entirely in the Keynesian IS-LM construct.

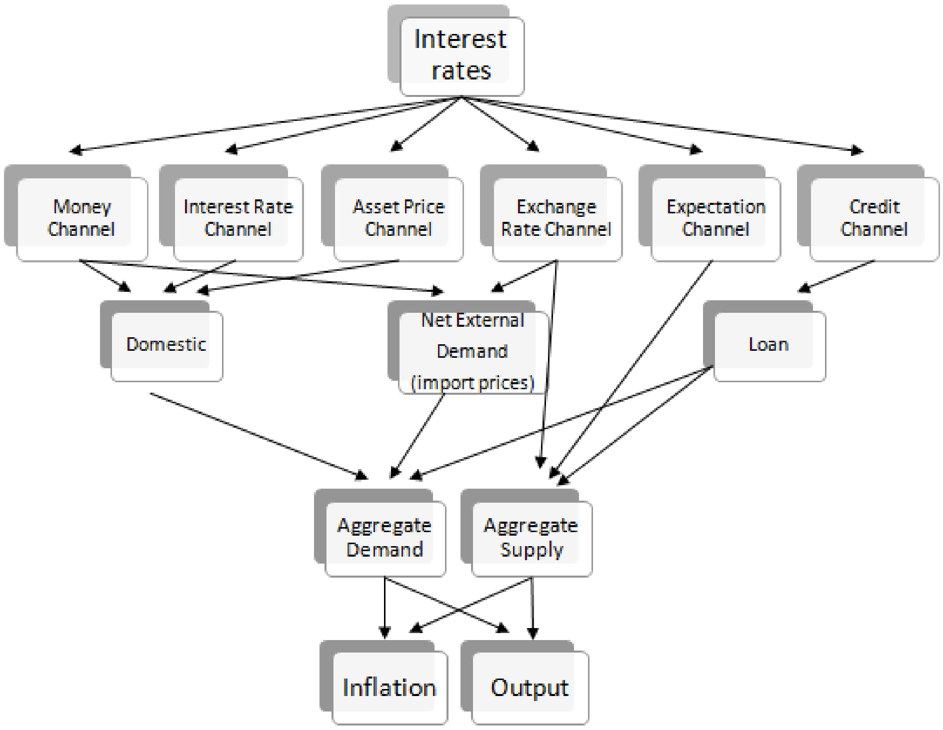
We know from other experiences that, in open economies with flexible exchange rates, the exchange rate channel is a powerful transmission mechanism for monetary policy (Alade, 2014). This is certainly the case in South Africa, Ghana, Mauritius and Morocco (Christensen, 2014). In these countries a monetary contraction would have the effect of raising interest rates, thus causing the local currency to appreciate in value. Alternately, monetary expansion would reduce the real interest rate and lead to a depreciation of the currency. The theoretical basis for the operation of this channel within the MTM lies in uncovered interest parity (UIP). Essentially, UIP posits that any expected future changes in the nominal exchange rates are the result of the differentials between the domestic and foreign interest rate. Theoretically, UIP means that the monetary policy authorities can influence the exchange rate and thereby the relative prices of goods both domestic and foreign (Davoodi et al, 2013). Where Pan African banks are actively participating in the local foreign exchange market they have the effect of changing monetary conditions and consequently the exchange rate. This is the case in Nigeria where these banks are active in the foreign exchange auction. Christensen (ibid) reports that in Malawi these banks withdraw or inject (depending on the conditions) foreign currency that in part comes from the parent. Further, because a sizeable proportion foreign currency deposits and lending is undertaken by the Pan African banks there is scope for currency substitution. So, here again the capacity to influence monetary policy is augmented by the workings of a more responsive exchange rate channel. On the other hand, the capacity to transmit macro economic shocks from region to region is a by-product of this closer integration.

The literature on the subject distinguishes between two types of credit channel: the bank lending channel and the balance sheet channel. As far as the bank lending channel is concerned, a monetary contraction decreases bank reserves and bank deposits as well as degrading the quality of bank loans that are available. The balance sheet channel works in such a manner as to influence net worth both of businesses and households. Here monetary contractions would lower the net worth of firms by reducing both cash flows and the value of collateral. As a consequence, lending, investment and output would all be reduced (Bernake and Gertler, 1995; Davoodi et al, 2013).

To the extent that Pan African banks are able to bring about improvements in the local payments system and modernize the infrastructure, it will be possible for them to increase the intermediation ratio, i.e., the ratio between lending and deposits. Alade (2014), reports that in the WAEMU Pan African banks have increased competition in the credit market and, according to Christensen (2014, 19), they have also stimulated the interbank market and helped strengthen the transmission mechanism of monetary policy. Further, Pan African banks are also more willing to serve non prime borrowers than the major international banks and thereby have made a contribution to the strong growth in intermediation that has occurred in Uganda. In this case the credit channel of the monetary policy transmission mechanism is made more responsive to monetary policy initiatives (ibid).

The asset price channel played a very important role in the lead up to the subprime crisis. The rise in the value of the Dow Jones had the effect of increasing financial wealth and thereby the financial resources of households. This increase contributed to an expansion of output that aimed to satisfy the increase in consumption demand. The house price appreciation that accompanied the lead up to the crisis also worked in a similar manner.

Figure 3: Open market operations



Source: Davoodi, Dixit and Pinter, 2013

Thus asset price increases/decreases contribute to wealth effects that in turn influence the MTM[25]. The asset price channel has become more important among some of the frontier market economies (with relatively developed financial markets). Several bond issues have had the effect of deepening the local markets and the COMESA-EAC-SADC Free Trade Area initiative between the Common Market for East and Southern Africa (COMESA), the East African Community (EAC) and the Southern African Development Community (SADC) aimed at creating one single solitary exchange for

[25] For more on wealth effects, see Case et al, 2001.

the region with a common regulatory and accounting framework for 26 countries would have the effect of strengthening the workings of monetary policy in the region.

6 Conclusion

This paper has sought to report on the aftermath of the Great Recession of 2008 in Africa and to examine the workings of monetary transmission in Africa. Specifically, we examined three post crisis developments: a) an increased momentum towards regional integration, b) the rise of Pan African banking and c) an increase in cross border flows, and enquired as to their effects on the MTM in Africa. The effects of the crisis were unevenly spread and differed from region to region. The EAC by virtue of its lack of integration into global financial markets was insulated and protected from the more damaging consequences of the crisis. Here the effects of the crisis were largely transmitted through trade. In the SACU region, which is more integrated into the global financial system, both the financial and trade channels were important transmission mechanisms. In general, we found that in order to withstand a global shock of the magnitude of the Great Recession countries needed to diversify their trading partners so as to include fast growing economies both in Africa and other regions.

There are three main findings with regard to the operation of the MTM in Africa. The official literature is clear and unequivocal. Pan African banking and the regionalization thrust of the authorities are both important tendencies in establishing the four pillars for effective monetary and responsive policy. It follows that the MTM is playing an increasing part in the transmission of monetary policy to the real economy. In terms of bolstering the MTM, there is uniform agreement across the BIS literature

(Jeanneau, 2014; Christensen, 2014; Alade, 2014; all in BIS Papers #76, 2014) that monetary arrangements in Africa would benefit from a freer flow of information and greater cross border collaboration including contingency plans. This would require improvements in both the regulatory and supervisory arrangements.

Second, the huge size of deposits maintained by Africa's BIS reporting banks suggest relatively low levels of intermediation and competition. Thus the benefits that would accrue as a result of increased cross border flows are withdrawn from the local economy and stored up in BIS banks. Deposits of this size can limit the effectiveness of monetary policy and weaken the responsiveness of the MTM.

Third and last, BIS surveys of central banks suggest that the expectations channel is important in the operation of the MTM. In South Africa it is already regarded as one of the important transmission mechanisms. In Kenya the expectations channel is also becoming more and more important. The same applies to Mauritius. Unfortunately, research output on the expectations channel in Africa is relatively undeveloped and, until researchers catch up with events, this important expectations feature of the MTM remains unexamined. The need for research work in this area is reinforced by the example of Nigeria.

Nigeria carried out a rebasing of its GDP[26] in 2014 and, as a consequence, the economy expanded by 87 per cent making it Africa's largest economy by GDP (ahead of South Africa by quite some margin).

Rebasing deepens our knowledge of the Nigerian economy by taking into account new economic activity in telecommunications, construction, financial services

[26] Nigeria had not changed the base year for calculating the value of its GDP since 1990.

and other new sectors. If repeated throughout Africa[27], the more robust GDP data and information point to a significant problem with the official literature on the MTM in Africa. A large part of the increase in GDP is explained by the fact that the rebased GDP now includes activities in the informal sector. Without a grasp of the size and scope of this sector, interest rates cannot reflect the liquidity conditions. The informal economy requires its own currency in circulation and gives birth to its own expectations channel that can diminish the relevance of the MTM and the effectiveness of monetary policy.

In general, the big problem with almost all of the official literature is that it assumes that the success of monetary policy lies solely in its ability to restrain inflation. But if the monetary authorities in Africa are to be credible, as the literature insists, monetary policy must also be used to support employment generating objectives. What the rebasing profoundly demonstrates is an urgent need for the central banks to do more than target inflation; they must target jobs as well. The MTM (despite the new emergent processes analyzed in earlier sections) remains weak in proportion to the size of the informal sector. If the size and scope of the informal sector is a function of the lack of jobs in the official sector, as many studies suggest, it follows that the monetary authorities can only enhance the credibility of monetary policy by addressing employment as well as inflation. The official literature is deep and technically insightful as far as it goes. Its weakness lies in its inability to conceive of a broader role for the monetary policy of the central banks.

[27] By the new rebased GDP, Nigeria's 2013 GDP stood at US$520 billion dollars - 25th largest in the world. Kenya and Ghana also rebased and experienced increases in GDP as a result.

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