Financial integration in Africa: implications for monetary policy and financial stability

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1. Introduction

Most African countries were not directly affected by the global financial crisis because their financial integration with global markets was limited. With the benefit of hindsight, it might be tempting to conclude that this lack of financial integration was a blessing, and that it would serve the continent well not to seek greater integration into global financial markets. But financial development and integration are indispensable if Africa is to increase its economic growth rates and reduce poverty. African financial systems have less depth than in other regions in the world, and financial services reach fewer people than elsewhere. The question is therefore not *if* but rather *how* to integrate the financial systems with the rest of the world, and *how fast* the pace of such integration should be if it is to avoid the pitfalls of cross-border banking experienced by advanced and emerging market countries during the global financial crisis.

The paper begins with a brief review of Africa's financial depth (Section 2), followed by an analysis of cross-border integration of banking flows (Section 3). The main drivers of cross-border financial integration within Africa are: agreements for regional financial cooperation (the East African Community is a good example) and the spread of pan-African banking. The impact of this integration on the transmission mechanisms of monetary policy is discussed in Section 4. Finally, the growth of pan-African banking is likely to raise new financial stability issues, notably about the role of home and host central banks as lenders of last resort: this is discussed in Section 5. Conclusions are presented in Section 6.

2. Financial depth

The effectiveness of monetary policy in Africa has long been constrained by the lack of financial depth. Africa is a diverse continent with a broad range of experiences. These range from emerging market countries such as Morocco and South Africa, through frontier countries (eg Ghana, Kenya, and Uganda) to financially developing countries, such as Chad or the Democratic Republic of Congo, at the other end of the spectrum. Indicators of financial depth – private sector credit relative to GDP and the intermediation of deposits to lending (Table 1) – suggest low financial depth relative to other regions in the world. In addition, the banking systems in Africa are characterised by a relatively large interest margin that reflects the lack of

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financial infrastructure (eg credit rating agencies), low competition in domestic banking, and riskiness of lending combined with weak property rights. Conditions for effective monetary policy include the use of interest rates to allocate savings and credit, and smoothly functioning secondary markets to influence the value of key financial indicators such as the interbank interest rate. Integration with international markets influences the arbitrage between domestic and foreign financial assets. When examining the recent developments in the banking systems below, these are the factors that will be used to evaluate the impact on monetary policy.

Table 1

Indicators of financial depth

Ratio, in per cent, weighted regional averages[1]

	Liquid liabilities to GDP[2]		Private sector bank credit to deposits[3]	
	2000–02	2010–12[4]	2000–02	2010–12[4]
Africa				
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

[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.

3. Cross-border integration of banking flows

During recent years, cross-border capital flows in Africa have reflected several factors. First, the continent's macroeconomic performance has strengthened and its economies have proven more resilient during the recent global financial downturn than in the past (Graph 1). There is greater optimism among foreign investors about private sector activity and the economic potential of Africa. Second, financial flows have reflected the change in composition of flows from North-South to South-South relations, in particular the growing role of major emerging markets such as Brazil, China and India (Graph 2).[2] Third, there has been increasing integration of financial markets in Africa. This has been promoted by regional initiatives such as the East African Community and by the spread of pan-African banking groups. These groups have been motivated by opportunities to expand their markets across borders, the scope for spreading financial services and know-how, the wish to support their home customers in foreign markets, major increases in capital

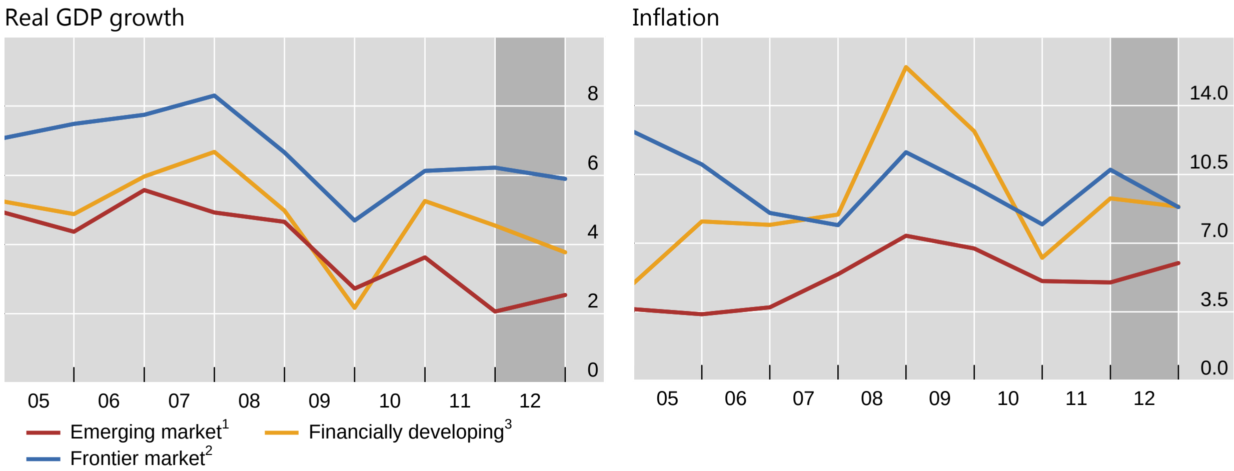
[2] Graph 2 does not reflect flows from banks in China, since they are not BIS reporting banks.

requirements in home countries, and liberalisation of entry rules in host countries. The focus of this paper is on these cross-border banking flows in Africa.

While most of the credit extended by BIS reporting banks is from European banks (about 85% of the total in Graph 3), cross-border lending from European banks accounts for less than 25% of total credit to the African private sector,[3] since financial deepening has reduced reliance on foreign financing.

Macroeconomic indicators for Africa, by level of financial depth

In per cent — Graph 1



Shaded areas indicate projections.

[1] Algeria, Egypt, Morocco, South Africa and Tunisia. [2] Angola, Ghana, Kenya, Mauritius, Mozambique, Nigeria, Senegal, Tanzania, Uganda and Zambia. [3] Botswana, Cameroon, Cape Verde, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Namibia, Seychelles and Swaziland.

Source: IMF, *World Economic Outlook*.

Regional financial integration

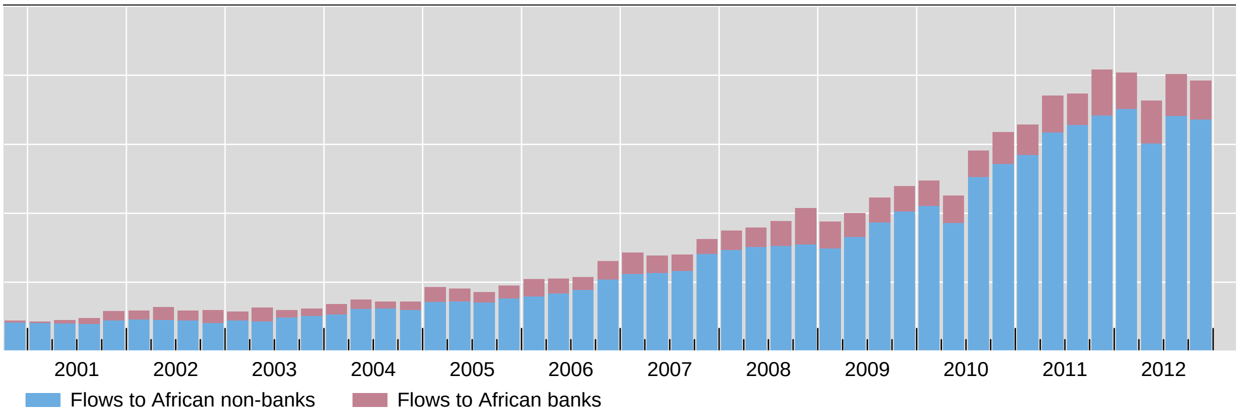
In the past, African countries have embarked on many regional integration initiatives as a way of strengthening their economies by reaping the benefits of scale. A notable example is the two CFA franc zones. While the 14 member countries in these zones have enjoyed the stability of a common currency linked to the euro and low inflation rates, the two zones are also testimony to the difficulties in achieving the integration of payments systems and government debt markets, and harmonisation of monetary policy instruments despite common overarching objectives. To what extent has regional integration played a role in promoting cross-border transactions and how has it influenced financial depth and the transmission mechanisms of monetary policy?

[3] World Bank (2012).

Loans to Africa from BIS reporting emerging market economies [1]

Amounts outstanding, in billions of USD

Graph 2



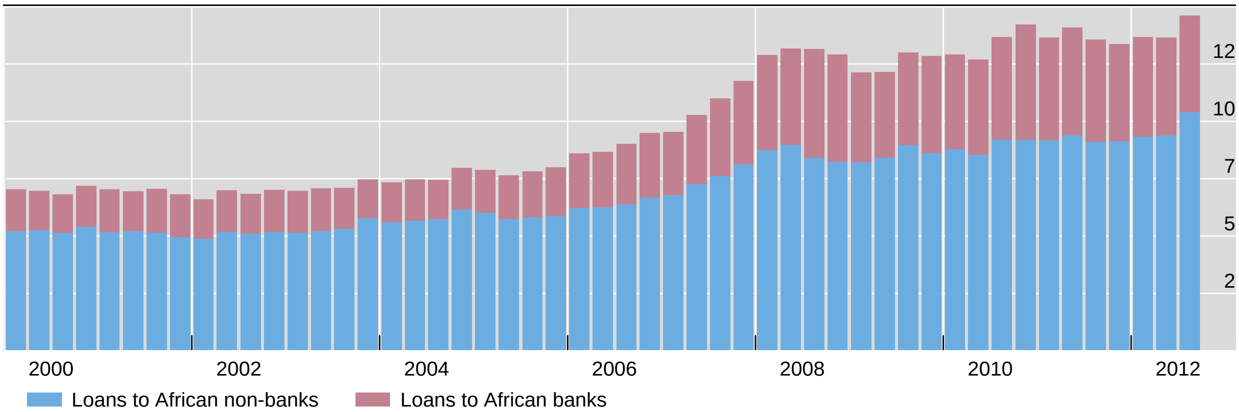
[1] Sum of loans outstanding from Brazil, Chile, Chinese Taipei, India, Indonesia, Korea, Malaysia and Mexico to Africa.

Source: BIS locational banking statistics by residence.

BIS reporting banks' loans to Africa

Amounts outstanding, in billions of USD

Graph 3



Source: BIS locational banking statistics by residence.

In recent years, the East African Community (EAC), comprising five countries Burundi, Kenya, Tanzania, Rwanda and Uganda, has been one of the more active regions in terms of regional financial integration. The EAC is therefore used here to illustrate the impact of regional financial integration. The EAC Treaty, signed in 2000, commits the participating states to establish a customs union (established in 2005), a common market (July 2010) and a monetary union. Important steps are under way towards harmonising 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.[4]

[4] IMF (2011).

But the countries still have different monetary and exchange policy frameworks. Three of the currencies are floating. Kenya and Uganda are further advanced in using the policy rates as an instrument (Uganda under an "inflation lite" arrangement), while Burundi, Rwanda, and Tanzania still operate under a monetary target framework.

The private banks in Kenya have been leading the regional integration of the banking sector. Four Kenyan banks (Kenya Commercial Bank, Equity Bank, Fina Bank and Commercial Bank of Africa) have opened branches in neighbouring countries.[5] By contrast, the banks in Uganda and Tanzania do not have a regional presence. Mobile banking that took off in Kenya and spread to Uganda has helped broaden access to financial services.

Studies on the transmission mechanisms of monetary policy and the level of bank competition suggest that the EAC has not yet reaped the full benefits from integration. These studies indicate that the effect of an expansionary monetary policy (decline in the policy rate) varies in different EAC countries, eg it lifts prices significantly in Kenya and Uganda but raises output in Burundi, Kenya, and Rwanda. Among the five countries, Kenya appears to have the most competitive banking system, but further progress needs to be made in all EAC countries in promoting competitive banking systems to ensure that bank lending responds to changes in monetary policy. This will require progress in ensuring property rights, enforcement of collateral, credit information about borrowers, and a more efficient resolution system for commercial disputes.[6]

The EAC experience suggests that regional financial integration is possible but also that it will take time, since it requires difficult institutional changes both at the country and the regional levels. The countries are at different stages of financial development, and while capacity has improved, critical skills are still needed in legal, accounting, and debt management areas.

Pan-African banking

In Africa, banks dominate the financial system. Traditionally, banks from the United Kingdom, France, and Portugal accounted for a large share of the banking in Africa, although their influence is dwindling. With the change from North-South to South-South relations in trade and finance, particularly with emerging market economies such as Brazil, China, and India, cross-border flows have also been increasing (Graph 2). Only in a few cases have these emerging market countries also established subsidiaries or branches in Africa. The most notable exception is the 20% ($5.5 billion) direct investment by the Industrial and Commercial Bank of China in Standard Bank of South Africa in 2007 to serve its Chinese clientele operating in Africa. Bank of China has also established a presence in Zambia. A number of Chinese banks have established collaboration agreements with African banks.[7] But more banks from these countries might be on their way.

[5] World Bank (2011).

[6] IMF (2012b); IMF (2011–12); Sanya and Gaertner (2012); Davoodi et al (2013).

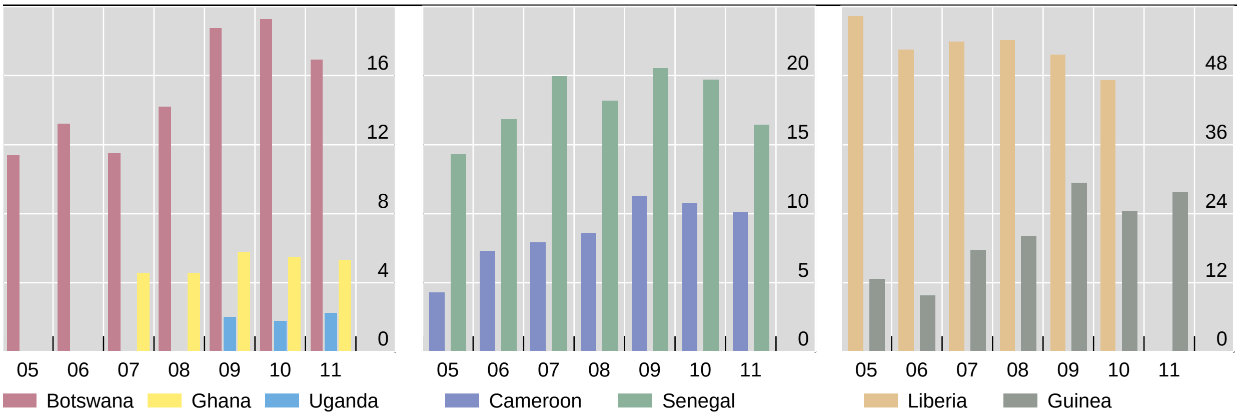
[7] In 2008 China Development Bank entered a memorandum of understanding with United Bank of Africa to finance long-term infrastructure projects. In 2009 Bank of China signed a cooperation agreement with Ecobank.

For example, at the first Africa-India Forum Summit held in March 2013, attended by 15 African leaders and the Indian Prime Minister, the two sides agreed to encourage the opening of branches of Indian banks in Africa and African banks in India. Similarly, two of Brazil's three leading banks are reportedly in talks with a major bank in Portugal on a strategic partnership to operate jointly in Africa.[8]

Pan-African banks (banking groups domiciled in Africa with subsidiaries in several countries) have accounted for an increasing share of domestic banking (Graph 4). In the West African Economic and Monetary Union (WAEMU), for example, pan-African banks account for almost a third of credit institutions operating in 2011 with nearly half of the total balance sheet. As Graph 5 shows, major banking groups are domiciled in South Africa, Nigeria, and Morocco, but other groups are headquartered in other countries (eg Ecobank with a 32-country coverage is domiciled in Togo). The banking groups located in South Africa have been present for many years. They tend to cover the southern and eastern African countries (Graph 5), and more recently they have also spread to west Africa. The foreign activity of Nigerian banking groups is relatively new; they expanded after the consolidation phase in the banking industry that started in 2004–05, which resulted in an increase in the capital base. In Morocco, the largest bank, Attijariwafa Bank, started opening subsidiaries in sub-Saharan francophone countries in its search for new market opportunities after the global financial crisis hit the euro area. The bank is reaching out to the part of the population that does not have access to banking. It lends to small and medium-sized enterprises that normally have difficulties in getting financing, but it also finances large infrastructure projects.

Pan-African banks in selected African countries

Deposits in pan-African banks as a percentage of total bank deposits — Graph 4



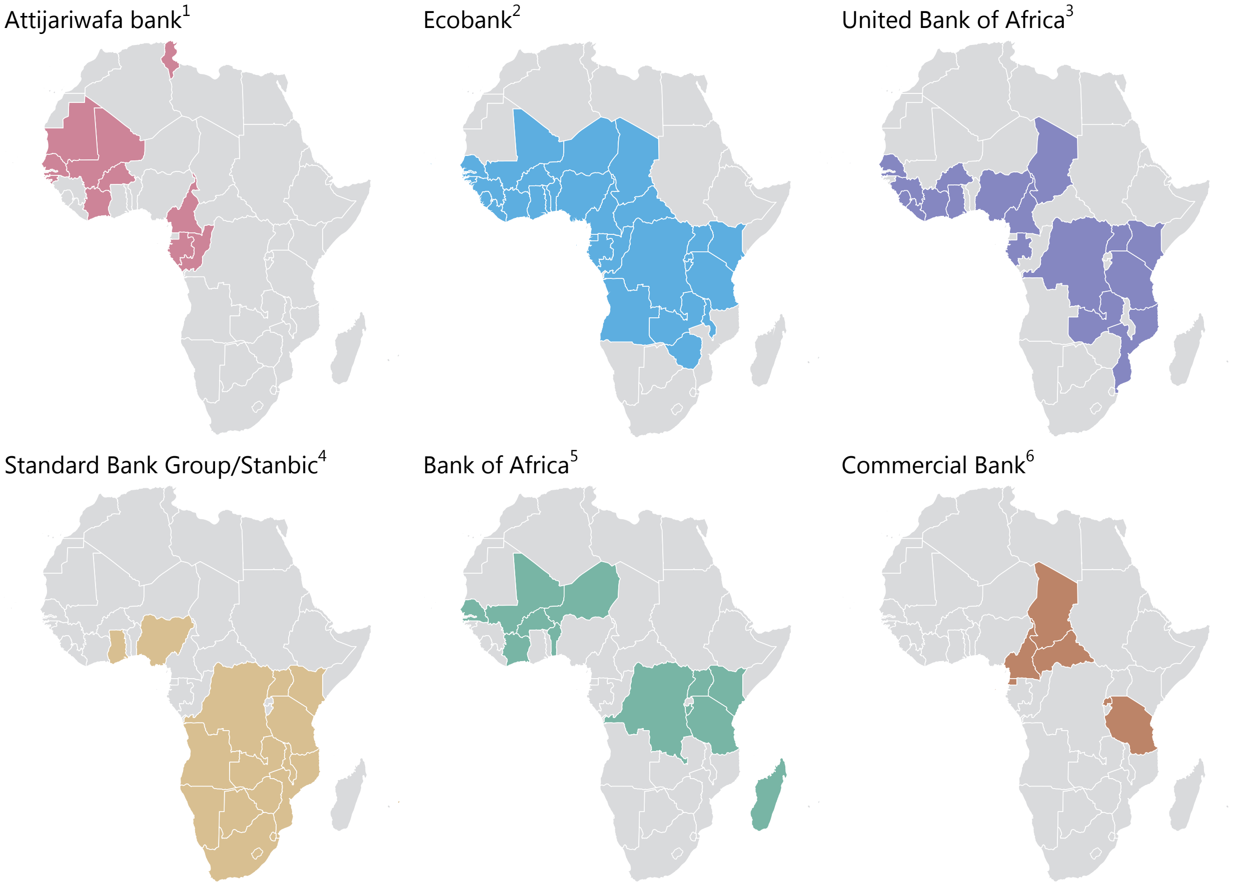
Simple averages across samples of local banks. Botswana: Stanbic Bank. Ghana: Ecobank, Stanbic Bank, United Bank for Africa. Uganda: Bank of Africa, Ecobank. Senegal: CBAO group Attijariwafa bank, Ecobank. For Cameroon, Guinea and Liberia only Ecobank data available.

Sources: Bankscope; IMF, *International Financial Statistics*.

[8] Latin American Herald Tribune, 13 March 2013.

Geographical distribution of pan-African banking

Graph 5



[1] Burkina-Faso, Cameroon, Congo, Côte d'Ivoire, Gabon, Guinea-Bissau, Mali, Mauritania, Senegal and Tunisia. [2] Angola, Benin, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Malawi, Mali, Niger, Nigeria, Republic of Congo, Rwanda, São Tomé and Príncipe, Senegal, Sierra Leone, Tanzania, Togo, Uganda, Zambia, Zimbabwe. [3] Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of Congo, Gabon, Ghana, Guinea, Kenya, Liberia, Mozambique, Nigeria, Senegal, Sierra Leone, Tanzania, Uganda and Zambia. [4] Angola, Botswana, Democratic Republic of Congo, Ghana, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Nigeria, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. [5] Benin, Burkina Faso, Burundi, Côte d'Ivoire, Democratic Republic of Congo, Mali, Niger, Kenya, Madagascar, Senegal, Tanzania and Uganda. [6] Cameroon, Central African Republic, Chad, Equatorial Guinea, Rwanda, São Tomé and Príncipe and Tanzania.

Sources: IMF, *Regional Economic Outlook,* April 2011; Attijariwafa bank website.

Pan-African banks are organised as subsidiaries of foreign banks. They behave mainly like domestic banks by taking local currency deposits; but in some countries they also take deposits and lend in foreign currency (Appendix Table 1).[9] Pan-African banks increase competition in the domestic banking systems. They also provide a transfer of know-how and technology. And they not only broaden the availability of financial services, but they also widen access to banking services.

The expansion of pan-African banking has characteristics that resemble the major expansion of Spanish banks in Latin America during 1995–98. Spanish banks were on the lookout for new markets, they had cultural and language advantages, and they were able to share their advanced technology and know-how with the Latin American countries. The experience was positive in terms of the impact on

[9] IMF (2012d).

competition but the negative impact on the quality of the loan portfolio of local banks is also instructive (Box 1).[10]

Box 1

The experience of Spanish banks in Latin America[11]

The experience of pan-African banks spreading in Africa during recent years might be compared to the expansion of Spanish banks in Latin American countries during 1995–98.

Following a period of deregulation in Spain, banks were interested in pursuing more market-oriented strategies. Spanish banks expanded in Latin America rather than in the rest of Europe for several reasons. Latin American emerging markets with their high population growth rates were considered to offer the prospects of higher economic growth than did the saturated markets of Europe. In addition, these new markets offered scope for risk diversification because the economic cycles in Spain and Latin America did not move in tandem. At the same time, the process of liberalisation and privatisation of the banking sector in Latin America had created new opportunities for investments. The banking system also showed higher margins and costs than the European markets, which offered the prospects of higher profits. Non-economic factors such as common language and culture and the presence of Spanish people residing in some Latin American countries also played a role.

For Latin American countries, the opening up of their banking sectors to foreign banks helped break an oligopolistic banking structure and promoted competition. Since Spanish banks often acquired existing banks but brought in their own management, new technologies were spread, competition increased, and financial depth enhanced. At the same time, the deregulation of the banking sector might also have led to a negative impact on the quality of the loan portfolios of local banks, either because of the increase in competition and reduction in profit margin or due to a loss of the more creditworthy customers to the foreign banks. This underlines the importance of accompanying liberalisation with solid regulation and supervision.

4. Implications for monetary policy transmission

What is the impact of these developments on the transmission channels of monetary policy? The three main channels are the interest rate channel, the exchange rate channel and the credit channel.

Interest rate channel

The interest rate channel is particularly important as a transmission mechanism for monetary policy in the more developed countries, such as South Africa, Ghana, Kenya, and Mauritius.[12] In those countries, changes in policy rates lead to changes in domestic interest rates, although this occurs sometimes with a delay and without a full pass-through. However, the existence of an oligopolistic banking structure in many countries restricts competition and thereby also the responsiveness of market interest rates to changes in policy rates. This reflects in part market concentration

[10] Sebastián and Hernansanz (2000).

[11] Calderon and Casilda (2000).

[12] For a more detailed discussion of monetary policy transmission mechanisms, see Christensen (2011).

but also risks. In fact, sub-Saharan Africa has the highest interest margins in the world.[13] It is also the region with the highest concentration ratio for banks.

To the extent that the increase in cross-border banking increases competition in domestic banking, it could help reduce the interest margin. In Nigeria, for example, the participation of pan-African banks in open market operations has helped moderate the level of the interest rate structure. In Uganda, it has increased competition in the banking sector and it is likely that it has enhanced the interest rate channel of monetary policy, although the empirical evidence is still missing. In other cases, it is too early to discern the impact on the interest rate channel.

Exchange rate channel

In countries that are open and have flexible exchange rates, the exchange rate channel can be a powerful transmission mechanism for monetary policy. A monetary expansion, for example, would tend to lower the real interest rate and cause the currency to depreciate. The exchange rate is also a very visible sign of monetary conditions in countries where timely statistics might not be available. Therefore, central banks in countries such as Ghana, Kenya, Mauritius and Morocco have reported that the exchange rate channel is among the more important transmission mechanisms for monetary policy.[14]

In several countries, foreign banks participating actively in the foreign exchange market can also change monetary conditions and the exchange rate. In Nigeria, this is reportedly the case, because pan-African banks are active in foreign exchange auctions. In Malawi, depending on the developments in the exchange rate, pan-African banks remove or inject into the system foreign exchange that is partly obtained from their parent institution. While local currency deposits and lending account for most deposits held by pan-African banks in Malawi, there is also a sizeable share of foreign currency deposits and lending and therefore scope for currency substitution.

Credit channel

The role of banks is to intermediate between savings (ie deposits) and lending for investment or consumption purposes. The intermediation ratio, ie the ratio between lending and deposits, is relatively low in Africa compared to other regions (Table 1), which has an impact on the effectiveness of monetary policy.

Have the operations of pan-African banks boosted the intermediation ratio? It is still too early to say with confidence. First, pan-African banks have to some extent replaced domestic banks or other foreign banks by buying up existing banks, often those in financial difficulties. Generally they operate like domestic banks, but it varies from country to country. To the extent that they are able to modernise the infrastructure, including through improvements in the payments system across their own network, it might be possible for them to increase the intermediation ratio.

[13] Ahokpossi (2013).

[14] See Christensen (2011).

In the WAEMU, the increased presence of pan-African banks has increased competition in the credit market and stimulated the interbank market and helped strengthen the transmission mechanism of monetary policy. In Uganda, pan-African banks have also increased competition in the banking system. This has led to a rapid increase in branch networks. 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. It is likely that they have strengthened the credit channel of monetary policy transmission mechanism. In the wake of the global financial crisis, the growth rate of bank lending declined in many countries (for example Angola, Egypt, Malawi, Morocco, Nigeria, Uganda and Zambia (Appendix Table 3). This followed a period of very strong credit growth to the private sector before the crisis, which partly fuelled inflation. Such a drastic expansion is also likely to have led to some deterioration in the quality of the loan portfolio, which has only in part showed up in the statistics for non-performing loans because of "evergreening" loans (ie the rollover of principal into a new loan when it falls due).[15]

5. Pan-African banks and financial stability

Many of the pan-African banks have systemic importance for both the home and host countries. They account for a large share of deposits; they are often important players in the Treasury bill markets, foreign exchange markets, and the payments system.[16, 17] Banks are generally well capitalised. But there may be weakness in supervision. The key issue is whether regulations and supervision are keeping up with the innovation and sophistication of activities of foreign banks.

Are banks supervised on a consolidated basis, including their subsidiaries abroad? This is normally the task of bank supervisory bodies in home countries. The practice of South African banking supervision is particularly important because South African banks have spread to a number of countries in southern and eastern Africa and account for a major share of the deposits of the banking systems in these countries. Since 2001, the South African Reserve Bank Supervision department (BSD) has conducted consolidated supervision and the BSD has established procedures and regulatory returns for banking groups, including for banking operations outside South Africa. It intends to establish a conglomerate supervision unit in line with international principles. The risk-based supervision methodology followed by the BSD requires that additional resources are concentrated on systemically important banking groups, which typically include South African banking groups with foreign operations.

Nigeria has implemented consolidated supervision in line with the Basel Committee's *Core Principles for Effective Banking Supervision*.[18] A framework for cross-border supervision for banks was developed and implemented in 2011. The framework sets as a precondition for the presence of Nigerian banks in other

15 World Bank (2012).

16 Lukonga and Chung (2010).

17 IMF (2012e).

18 Basel Committee on Banking Supervision (2012).

countries the execution of a memorandum of understanding (MoU) with the host regulators. Nigerian banks that operate foreign subsidiaries are subject to higher capital requirements.

But not all pan-African banks are subject to consolidated supervision. When Ecobank was established, it was granted the status of an international organisation and a non-resident financial institution by the government of Togo, where it is domiciled, and is therefore not supervised by the Banking Commission of the WAEMU in Abidjan.

Home/host relationships and information-sharing are of paramount importance for consolidated supervision. Here again, practice is not uniform throughout Africa. A major financial centre such as South Africa employs a standard procedure to contact foreign supervisors before agreeing that a South African banking group can establish a foreign banking operation. The BSD has also held supervisory colleges with the supervisors of South African banking group units in other African countries. The Bank of Uganda is also striving to work with the home supervisors of all foreign banks with subsidiaries in Uganda, with a view to facilitating effective consolidated supervision and to obtaining information on the financial position of the parent bank (so far, it has signed MoUs with five of nine bank regulators in the home countries of those banking groups). In other countries, regular contacts across borders are missing, or MoUs are not followed up with regular contacts or operational procedures for contacts and exchange of information. There are also examples of countries introducing regulations that do not provide a level playing field between domestic and foreign-owned banks in a country, which has led to retaliation from a home country regulatory authority. Thus equal treatment for locally and foreign-owned banks and the provision of a level playing field are important for maintaining the trust that is essential for good collaboration across borders.

Even with consolidated bank supervision and collaboration between host/home regulators and supervisory bodies, bank supervision can only be as good as the underlying information and data. Africa covers a wide range of countries with bank supervisory bodies of differing institutional strength. In low-income countries, in particular, timely and good-quality data are often not available to bank supervisors. This includes information on intra-group risk exposure, which reportedly is also an issue in pan-African banking groups.[19] In addition, credit rating agencies either do not exist or have arrived only recently, which means that it is difficult to evaluate the underlying riskiness of a bank asset. This undermines the reliability of risk analysis for a parent bank. In emerging countries outside Africa, by comparison, foreign-owned banks, in particular, have tended to underestimate the build-up in credit risk arising from a rapid expansion in credit growth compared with domestically owned banks.[20]

Finally, open foreign currency positions are a potential risk factor. In many emerging countries, such positions have proven to be the banking system's Achilles heel, depending on the regulatory requirements that exist in each country. As seen in Appendix Table 1, there is some currency mismatch among foreign banks although it does not appear to be large (with the exception of Swaziland). But even

[19] Lukonga and Chung (2010).

[20] Mihaljek (2009).

if there is no currency mismatch, as pointed out by Mihaljek (2009), extending foreign currency loans can be transformed into a credit risk in the case that a country devalues its currency, thus obliging domestic borrowers to repay a higher amount of debt as measured in domestic currency.

Lender of last resort

If a pan-African banking group with a systemic importance ("too big to fail") experienced serious financial problems, could the central bank in a host country consider being a lender of last resort for this bank, or provide emergency liquidity assistance to it? If so, under which circumstances would assistance be offered? What conditions would be applied? Such assistance is one of the foremost instruments in the arsenal of central banks. But often central banks have either not formulated their views on how to perform this role or they have hesitated to express their intentions to the public for fear of moral hazard issues.

In recent years, we have seen several instances where central banks in advanced countries have resorted to lender of last resort operations. To name a few, in 2008 the Bank of England provided emergency liquidity assistance to banks during the financial crisis, and during 2008–10, the Federal Reserve provided liquidity support to financial institutions (short-term) backed by collateral. This helped stabilise the financial system. In addition, the Federal Reserve provided foreign currency swaps to supply foreign central banks with dollars in exchange for foreign currencies. The swaps allowed foreign central banks to meet the dollar needs of their own financial institutions. Thus the Federal Reserve performed both a domestic and an international role as lender of last resort.

Pan-African banks in host countries are subsidiaries of foreign-owned banks in Africa, but they are subject to the same rules and regulations as apply to banks with domestic ownership in host countries. As mentioned above, in some countries, they account for a very large share of total deposits in the host country (Graph 4), so it is conceivable that a crisis could be of systemic proportions. If a foreign banking group experiences liquidity problems, it might withdraw capital from its subsidiaries in other countries. This could create financial difficulties for the subsidiary. In such a situation, the parent bank might be the reason for the financial difficulties of the subsidiary. This is also why collaboration and information-sharing with the home supervisory bodies and central banks are so vital. If no help is possible from the parent bank, which is normally the best option, the ring-fencing of the troubled operation might be considered to prevent any further withdrawal of funds. But ring-fencing measures taken in one host country might aggravate the stress in the banking group as a whole. Thus, ring-fencing is clearly a second-best option. (Equally, liquidity problems in a large subsidiary could have serious implications for its parent.)

In such circumstances, a central bank could be called upon to act as lender of last resort.

There are general principles that guide a central bank's involvement as lender of last resort:

- The central bank normally deals with banks that have liquidity problems but not banks that are insolvent. Insolvent banks are considered the responsibility of a government. In practice, though, it is difficult to differentiate between liquidity and solvency cases, because a problem could start as a liquidity case but, because of the impact on asset prices, it could develop into an insolvency case.

- The central bank would normally secure its emergency lending with collateral so that its balance sheet does not suffer. In fact, in many countries, good security forms the legal basis for any undertaking by the central bank to provide emergency lending.
- In four out of five cases in which central banks responded to a question on the lender of last resort function in a BIS-conducted survey in 2011,[21] it was reported that decisions on LoLR lending of last resort are within the remit of the central bank. But there are exceptions. In the United Kingdom, for example, decisions on emergency lending are ultimately the responsibility of the Chancellor.

In the context of an international banking business, a key question is which central bank should assume the lender of last resort role: the host central bank or the home central bank of the bank's parent? This was always a thorny question in discussions between G10 central banks.[22] There was no automatic link between responsibility for bank supervision (covered in the 1983 Concordat) and the assumption of a lender of last resort role. However, the general presumption was that the host country central bank would have the initial responsibility for providing liquidity support to a foreign bank. But it was also recognised that the home country central bank might become responsible very soon after such support became necessary.

A further complication arises with lender of last resort operations in foreign currency. A central bank cannot of course create money in a foreign currency. So the central bank of issue may agree to swap arrangements to facilitate central bank support operations in dollars, euros or other foreign currency.

Size matters in any home/host allocation of responsibility. Some of the pan-African banking groups are very large compared to home country GDP (eg Ecobank domiciled in Togo). What needs to be avoided is that any financial support to banks – whether through liquidity support by the central bank or through the government budget – eventually turns into a sovereign default problem. This is why the development of cross-border banking needs to go hand in hand with closer banking supervision and with forethought about cross-border collaboration in the event of liquidity stresses or worse. This might curb the expansion of foreign bank activity in the short term but it would be less costly for the country in the long term.

6. Conclusions

Economic developments in Africa have long been constrained by the lack of well developed financial markets. Regional integration in different parts of Africa as well as the spread of pan-African banking offer the prospects of deepening financial

[21] BIS Bank for International Settlements, (*Central bank governance and financial stability*, A report by a Study Group, Chaired by Governor Stefan Ingves, May 2011a).

[22] See Turner (2009), pp 117–8, for a summary of this debate.

markets, making monetary policy more effective and enhancing access to financial services to a larger population and thereby promoting growth.

The East African Community, which has made significant strides in terms of a customs union and common market, is now making progress in harmonising payments and settlement systems and the regulatory and supervisory framework in the region but much remains to be done before financial integration is a reality. In the meantime, the region is enjoying a growing provision of banking services and the proliferation of new technology (eg mobile banking).

The expansion of pan-African banks has taken off across Africa. These banks know the African continent well and are in a position to transfer know-how to other countries in which they have established subsidiaries. It is still too early to conclude what kind of impact these banks will have on monetary policy transmission mechanisms and on financial stability, but initial indications suggest that in countries where they account for a significant share of banking transactions, they are improving the interbank and foreign exchange markets, creating competition among banks and also reaching the population in rural areas that previously had no access to banking services. They also help spread technology and financial services to "non-banked" areas. Since the banks fund themselves locally for the most part, their business might also be more stable than that provided by international banks domiciled outside Africa.

The spread of pan-African banks needs to go hand in hand with improvements in the regulatory and supervisory framework of banks. The more developed countries have already introduced consolidated supervision for banking groups for which they are the home country. But this is not the case in all countries. The quality of supervision also needs to be boosted by the better and timelier availability of financial information on the banks and their customers. In addition, the spread of pan-African banking would benefit from further cross-border collaboration and contingency plans, including emergency financial assistance under lender of last resort arrangements, in case a banking group should experience financial troubles of a more systemic ("too big to fail") nature. In this respect, African policymakers can learn from the costly experience of advanced and emerging market economies during the global financial crisis.

Assets of selected African banking systems

In per cent of total assets — Table A1

	End-2000[1]							End-2005[2]							End-2012[3]						
	Local currency			Foreign currency				Local currency			Foreign currency				Local currency			Foreign currency			
	Dom own[4]	For own[5]	o.w. p-Af[6]	Dom own[4]	For own[5]	o.w. p-Af[6]	Total	Dom own[4]	For own[5]	o.w. p-Af[6]	Dom own[4]	For own[5]	o.w. p-Af[6]	Total	Dom own[4]	For own[5]	o.w. p-Af[6]	Dom own[4]	For own[5]	o.w. p-Af[6]	Total
Algeria	94.7	3.8	0.0	1.2	0.4	0.0	100.0	89.2	7.7	0.0	2.8	0.2	0.0	100.0	85.4	13.4	0.0	1.1	0.1	0.0	100.0
Angola	…	…	…	…	…	…	…	33.0	16.3	…	30.1	20.6	…	100.0	36.1	16.4	0.5	26.0	21.6	0.6	100.0
BCEAO	…	100.0	…	…	…	…	100.0	…	100.0	…	…	…	…	100.0	…	100.0	…	…	…	…	100.0
Congo, DR[7]	…	…	…	…	…	…	…	…	…	…	…	…	…	…	11.8	12.9	9.9	43.4	31.9	18.7	100.0
Egypt	…	…	…	…	…	…	…	…	…	…	…	…	…	…	55.3	20.6	…	15.1	8.9	…	100.0
Ghana	25.3	33.3	4.5	17.8	23.5	3.2	100.0	26.6	25.6	3.8	24.3	23.4	3.5	100.0	29.2	36.1	21.5	15.5	19.2	11.4	100.0
Lesotho	1.2	39.1	0.0	0.1	59.7	0.0	100.0	0.4	77.5	0.0	0.2	21.9	0.0	100.0	2.6	75.7	0.0	1.5	20.3	0.0	100.0
Malawi	44.6	45.6	36.8	8.6	1.2	0.4	100.0	64.1	29.1	23.6	3.1	3.6	1.9	100.0	58.4	30.0	25.7	6.1	5.6	5.2	100.0
Mauritius	33.5	12.5	2.3	6.5	47.5	17.9	100.0	28.3	11.0	0.2	6.5	54.3	8.8	100.0	26.9	8.4	0.4	10.8	53.8	11.0	100.0
Morocco	95.9	0.2	…	1.5	2.3	…	100.0	92.2	1.3	…	1.7	4.8	…	100.0	93.9	0.1	…	3.4	2.6	…	100.0
Nigeria	95.2	3.9	1.5	0.8	0.0	0.0	100.0	94.7	4.5	1.5	0.7	0.0	0.0	100.0	85.4	14.0	5.1	0.5	0.1	0.0	100.0
Seychelles	…	…	…	…	…	…	…	…	…	…	…	…	…	…	16.7	32.3	25.8	13.9	37.0	27.5	100.0
South Africa	…	…	…	…	…	…	…	69.4	29.1	0.0	0.8	0.6	0.0	100.0	55.0	19.9	0.0	21.9	3.1	0.3	100.0
Swaziland	17.0	69.5	…	1.4	12.1	…	100.0	18.0	75.1	…	0.3	6.6	…	100.0	14.2	67.2	…	1.7	16.9	…	100.0
Tanzania	…	…	…	…	…	…	…	…	…	…	…	…	…	…	42.1	27.7	8.5	9.5	20.7	5.7	100.0
Tunisia	86.2	13.8	…	…	…	…	100.0	72.3	27.7	…	…	…	…	100.0	71.6	28.4	…	…	…	…	100.0
Uganda	32.4	35.8	8.9	5.5	26.3	7.3	100.0	12.8	59.5	26.0	2.6	25.0	8.8	100.0	14.8	53.6	26.5	3.4	28.2	14.9	100.0
Zambia	20.4	79.5	0.7	0.0	0.0	0.0	100.0	22.3	77.7	3.6	0.0	0.0	0.0	100.0	20.5	79.5	11.5	0.0	0.0	0.0	100.0

[1] For Malawi and Nigeria, end-2001. For Swaziland, end-2003. [2] For Nigeria, end-2004. [3] End-2012 or latest data available. For Algeria, data are provisional. [4] Domestically owned. [5] Foreign owned. [6] Of which pan-African. [7] Democratic Republic of Congo.

Sources: BIS questionnaire on roles of African central banks in macroeconomic and financial stability, May 2013; BIS calculations.

Liabilities of selected African banking systems

In per cent of total liabilities

Table A2

	End-2000[1]							End-2005[2]							End-2012[3]						
	Local currency			Foreign currency				Local currency			Foreign currency				Local currency			Foreign currency			
	Dom own[4]	For own[5]	o.w. p-Af[6]	Dom own[4]	For own[5]	o.w. p-Af[6]	Total	Dom own[4]	For own[5]	o.w. p-Af[6]	Dom own[4]	For own[5]	o.w. p-Af[6]	Total	Dom own[4]	For own[5]	o.w. p-Af[6]	Dom own[4]	For own[5]	o.w. p-Af[6]	Total
Algeria	89.2	3.6	0.0	6.7	0.5	0.0	100.0	85.9	7.2	0.0	6.2	0.7	0.0	100.0	83.1	12.9	0.0	3.4	0.6	0.0	100.0
Angola	...	...	...	...	...	...	...	33.9	11.4	...	29.4	25.2	...	100.0	35.7	13.7	0.4	26.8	23.9	0.6	100.0
BCEAO	...	100.0	...	...	...	...	100.0	...	100.0	...	...	...	...	100.0	...	100.0	...	...	...	...	100.0
Congo, DR[7]	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11.1	11.8	8.9	44.2	33.0	19.6	100.0
Egypt	...	...	...	...	...	...	...	...	...	...	...	...	...	...	55.4	20.6	...	15.1	9.0	...	100.0
Ghana	24.7	33.9	4.5	17.4	23.9	3.2	100.0	26.7	25.6	6.2	24.4	23.3	5.7	100.0	29.8	35.5	21.4	15.9	18.9	11.4	100.0
Lesotho	0.3	99.7	0.0	...	...	...	100.0	0.5	99.2	0.0	0.0	0.3	0.0	100.0	3.3	96.5	0.0	0.0	0.2	0.0	100.0
Malawi	42.9	44.6	36.1	6.6	5.9	5.1	100.0	60.9	28.8	26.3	5.8	4.5	4.1	100.0	56.6	29.1	25.1	7.5	6.8	6.8	100.0
Mauritius	34.8	12.5	2.4	5.3	47.4	17.8	100.0	28.8	9.6	0.0	5.9	55.7	9.0	100.0	27.6	8.8	0.3	10.1	53.5	11.0	100.0
Morocco	93.5	0.9	...	0.9	4.8	...	100.0	96.3	0.8	...	1.1	1.7	...	100.0	95.1	0.6	...	2.6	1.7	...	100.0
Nigeria	95.4	3.7	1.4	0.8	0.0	0.0	100.0	95.0	4.3	1.4	0.7	0.0	0.0	100.0	85.0	14.3	4.8	0.5	0.1	0.0	100.0
Seychelles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17.7	29.5	24.4	13.0	39.9	28.8	100.0
South Africa	...	...	...	...	...	...	...	69.7	29.6	0.0	0.4	0.3	0.0	100.0	58.8	22.3	0.0	17.5	1.5	0.3	100.0
Swaziland	18.4	80.1	...	0.0	1.4	...	100.0	19.5	79.0	...	0.0	1.4	...	100.0	15.8	78.7	...	0.0	5.4	...	100.0
Tanzania	...	...	...	...	...	...	...	...	...	...	...	...	...	...	40.6	26.0	8.2	10.6	22.8	6.2	100.0
Tunisia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uganda	32.8	36.5	9.0	5.1	25.6	7.1	100.0	13.0	59.9	26.7	2.4	24.7	8.1	100.0	15.3	54.4	26.9	2.8	27.4	14.6	100.0
Zambia	20.4	79.5	0.7	0.0	0.0	0.0	100.0	22.3	77.7	3.6	0.0	0.0	0.0	100.0	20.5	79.5	11.5	0.0	0.0	0.0	100.0

[1] For Malawi and Nigeria, end-2001. For Swaziland, end-2003. [2] For Nigeria, end-2004. [3] End-2012 or latest data available. For Algeria, data are provisional. [4] Domestically owned. [5] Foreign owned. [6] Of which pan-African. [7] Democratic Republic of Congo.

Sources: BIS questionnaire on roles of African central banks in macroeconomic and financial stability, May 2013; BIS calculations.

Growth of bank credit to the private sector in selected African countries

Year-on-year growth rates, in per cent, period averages Table A3

	Before the crisis January 05 – September 08	During the crisis October 08 – April 09[1]	After the crisis May 09 – latest
Emerging market			
Algeria	20.5	14.5	13.5
Egypt	8.8	11.9	4.6
Morocco	17.7	21.4	9.3
South Africa	20.8	11.4	4.8
Tunisia	8.8	14.8	13.9
Frontier market			
Angola	72.4	64.8	38.6
Ghana	44.9	48.6	24.6
Kenya	15.7	25.5	20.7
Mauritius	13.6	24.1	10.5
Mozambique	27.5	54.3	27.9
Nigeria	53.0	53.6	2.0
Senegal	14.3	15.7	11.2
Tanzania	33.7	24.5	21.2
Uganda	25.6	46.1	26.3
Zambia	40.4	48.8	16.9
Selected financially developing			
Botswana	18.5	27.0	15.4
Cameroon	7.1	19.3	16.3
Cape Verde	21.5	26.3	10.9
Congo (Dem. Rep. Of)	77.8	130.7	28.6
Ethiopia	31.3	36.0	…
Lesotho	29.6	23.9	23.2
Madagascar	24.6	22.4	7.3
Malawi	37.8	100.0	44.3
Namibia	14.5	10.7	11.2
Seychelles	14.9	29.0	11.3
Swaziland	24.9	4.9	10.8

[1] For Ethiopia, until December 2008.

Source: IMF, *International Financial Statistics*.

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