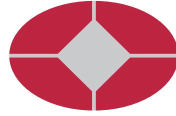
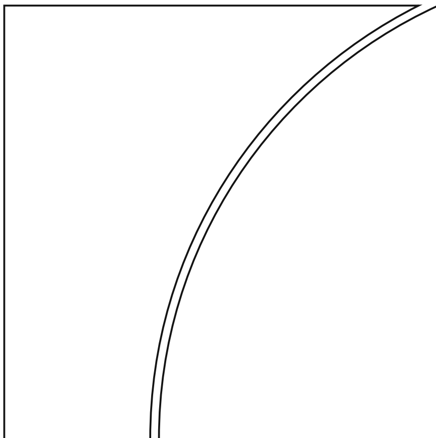


BANK FOR INTERNATIONAL SETTLEMENTS



BIS Papers

No 93

Building Resilience to Global Risks: Challenges for African Central Banks

by Benedicte Vibe Christensen and Christian Upper

Monetary and Economic Department

August 2017

The views expressed are those of the authors and not necessarily the views of the BIS.

This publication is available on the BIS website (www.bis.org).

© *Bank for International Settlements 2017. All rights reserved. Brief excerpts may be reproduced or translated provided the source is stated.*

ISSN 1609-0381 (print)
ISBN 978-92-9259-084-0 (print)

ISSN 1682-7651 (online)
ISBN 978-92-9259-085-7 (online)

Building Resilience to Global Risks: Challenges for African Central Banks[1]

Benedicte Vibe Christensen and Christian Upper[2]

Introduction

African economies tend to be less integrated into the world economy than those in other emerging regions. But this does not mean that they are immune to shocks from outside the continent. In recent years, global developments such as the rise in global risk aversion during the Great Financial Crisis (GFC), the search for yield in its aftermath, and the slump in commodity prices had significant repercussions on economies in Africa. At the same time, economic activity in Africa can also affect other countries, not least through migration flows.

Over the past year, the global environment has been evolving rapidly. World growth has gathered momentum. Monetary policy in the largest advanced economies has ceased to be the major driver of financial markets. Instead, a series of political events, most notably the United Kingdom's Brexit referendum and the US presidential election, has brought political risks to the fore. Political uncertainty has risen sharply, with some of key elements of the global economic order put into question.

This note examines the fallout of the evolving global economic and political risks on Africa, with a particular emphasis on the policy challenges for central banks.

Global economic and political risks

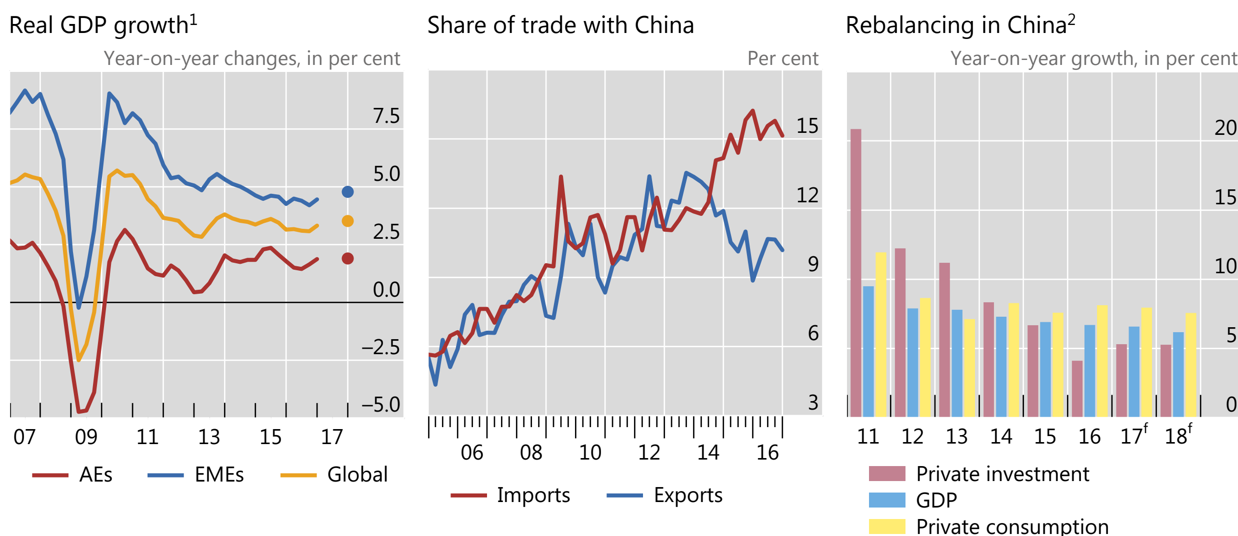
Global growth picked up in the second half of 2016 and is now expected to reach 3.5% in 2017 (Graph 1, left-hand panel). Indeed, by early 2017 virtually all major economies were expanding. Growth in China remained steady, not least as a result of policy stimulus. Commodity prices have rebounded, even though they remain well below the mid-2014 commodity boom peak.

Still, macroeconomic risks remain. Inflation could increase more than forecast, as more and more countries reach full employment and close their output gaps, forcing central banks in major economies to normalise policies faster than expected. And low productivity growth in many advanced and emerging market economies (EMEs) could be a drag on global growth in the medium term.

[1] This article is also available in French.

[2] The authors would like to thank Andreas Freitag for excellent research assistance and Dietrich Domanski for major comments. The views expressed in the paper are those with the authors and do not necessarily reflect those of the Bank for International Settlements.

External environment Graph 1



The dots indicate the forecasts for 2017.

[1] Weighted averages based on rolling GDP and PPP exchange rates. [2] Real GDP, real private gross fixed capital formation and real private consumption.

Sources: International Monetary Fund (IMF), *Direction of Trade Statistics* and *World Economic Outlook*, April 2017; Consensus; national data; BIS calculations.

Economic developments in China are of particular importance for Africa. China is now Africa's largest trading partner (Graph 1, centre panel),[3] an important source of foreign direct investment and lender to the Continent, and a key determinant of global commodity prices. Economic growth in China slowed to 6.7% in 2016 and is expected to remain around that level in 2017. But its composition has changed, with a shift from investment to consumption and from manufacturing to services (right-hand panel). This rebalancing could have major repercussions on Africa, eg through permanently lower commodity prices. It could also dampen China's foreign direct investment in Africa, although this is not (yet) visible in the data.

Moreover, high policy uncertainty clouds the positive outlook. The policies of the new US administration are still evolving. The proposed reductions in US overseas development aid could hit several African countries, in particular smaller ones (World Bank (2017c)). In Europe, Brexit negotiations have started but the outcome is still highly uncertain. Countries like Kenya, Nigeria and South Africa, which traditionally have had close trading and financial ties with the United Kingdom, could be particularly affected. Finally, geopolitical risks in North Africa, the Middle East and on the Korean peninsula could affect economic developments.

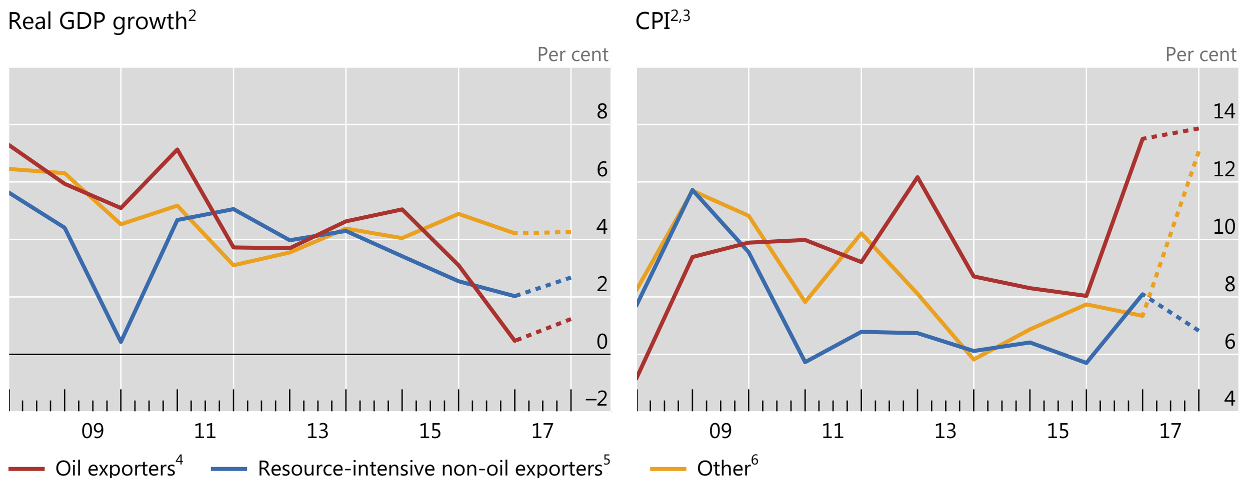
Policy challenges for African economies

Many African economies are seeing relatively weak, albeit recovering, growth and high and rising inflation (Graph 2). Following a decade of strong growth in the majority of African economies, growth plunged in commodity-exporting countries in

[3] Africa's main export partners are China, followed by India, the United States, France, and Italy.

the wake of the sharp drop in oil and metals prices after mid-2014. Commodity exporters are still reeling from this collapse, even if prices have recovered somewhat since mid-2016 (Graph 3). By contrast, non-resource-intensive countries, including Côte d'Ivoire, Kenya, Rwanda, Senegal and Tanzania, continued to enjoy strong growth. Inflation picked up across the board, in part owing to the impact of exchange depreciation and food price increases linked to the severe drought in Eastern and Southern Africa.

Lower growth, higher inflation[1] Graph 2



[1] The dashed lines are the IMF forecasts for 2017. [2] Weighted averages across listed countries based on rolling GDP and PPP exchange rates. [3] The major predicted increase in the consumer price index (CPI) for "Other" is mainly driven by a predicted increase in Egypt to 22% in 2017. The spike in CPI of "Oil exporters" during 2016 is mainly driven by Nigeria and Angola. [4] Algeria, Angola, Cameroon, Chad, Republic of Congo, Equatorial Guinea, Gabon, Nigeria and Sudan. [5] Botswana, Burkina Faso, Central African Republic, Democratic Republic of the Congo, Ghana, Guinea, Liberia, Mali, Namibia, Niger, Sierra Leone, South Africa, Tanzania and Zambia. [6] Other 27 economies.

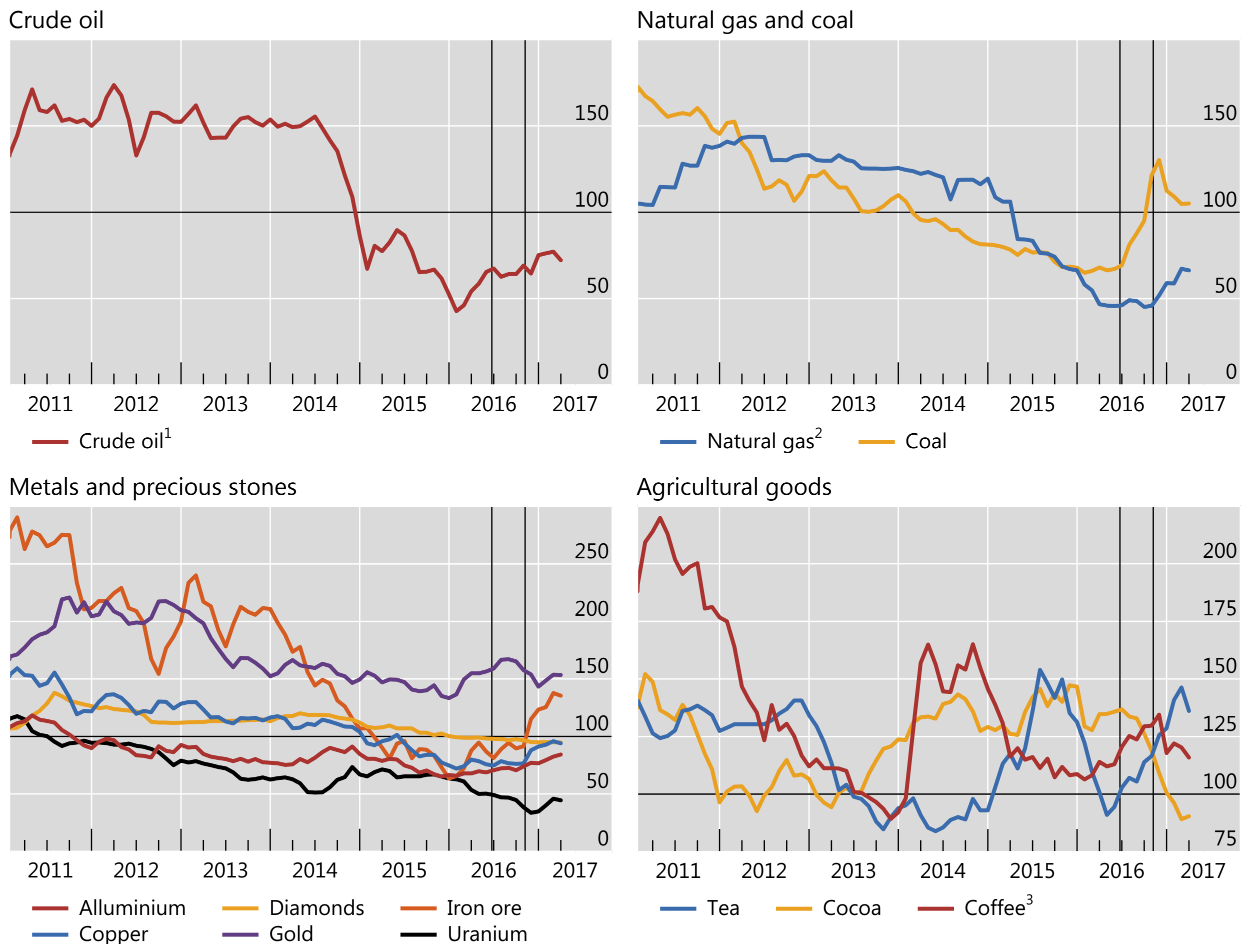
Sources: IMF, *World Economic Outlook*, April 2017; BIS calculations.

Strained fiscal positions and limited international reserves have reduced policy space in many economies. During the boom in the past decade, several countries raised public expenditures, not least to finance infrastructure investment. Then, falling commodity export revenues and depreciating currencies pushed up external debt (Graph 4). Public external debt increased by an average of 10% of GDP in sub-Saharan Africa during 2014–16 to an average of 56 percent, and by 7 percentage points to 68 percent in North Africa. Private sector debt also increased in several countries. A number of countries nearly depleted their international reserves as they supported the currency (Christensen (2016)). As a result, the oil exporters' reserves coverage ratio declined from more than 12 to less than 10 months of imports of goods and services. In countries belonging to the Economic and Monetary Community of Central African States (CEMAC)[4] it fell from over four to less than two months during 2016. In a few countries, eg Angola, Guinea, and Liberia, banks lost correspondent banking relations abroad, weakening trade financing (IMF (2017b)).

[4] CEMAC comprises Cameroon, Central African Republic (CAR), Chad, Republic of Congo, Equatorial Guinea, and Gabon.

Modest rebound in commodity prices

Average 2005 – 2010 = 100 Graph 3



The vertical lines indicate 23 June 2016 (UK referendum on EU membership) and 8 November 2016 (US presidential election).

[1] Dated Brent. [2] Russian natural gas border price in Germany. [3] Other mild arabicas.

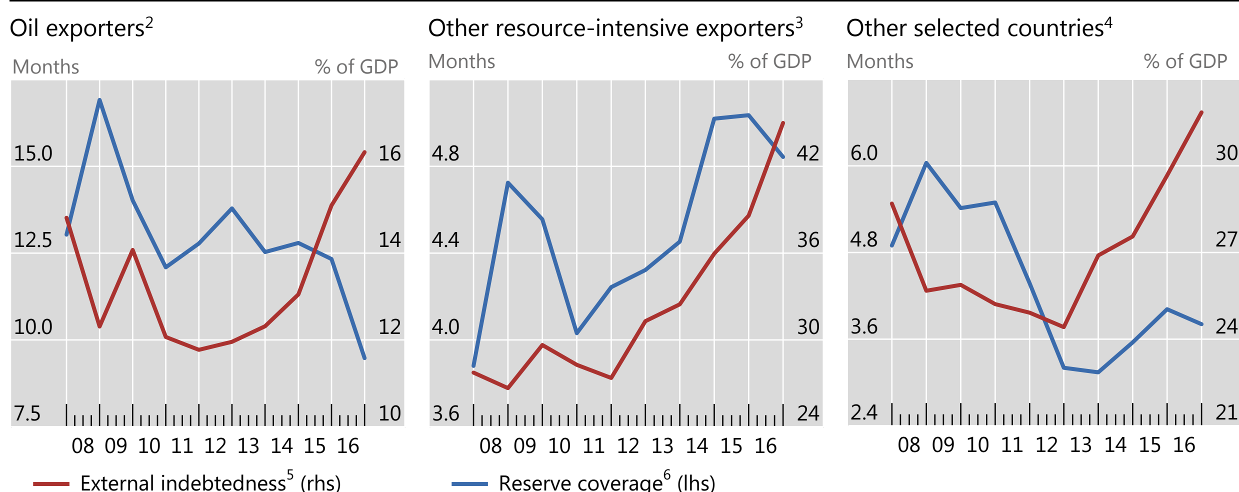
Sources: IMF, *Primary Commodity Prices*; Datastream; BIS calculations.

Risks from rising protectionism

The trade and financial integration of most African countries into the world economy is limited and often concentrated on a few countries. Africa's production and exports have not diversified from basic commodities to manufacturing products – the type of development path of EMEs in Asia and Latin America (Christensen (2016)). The large share of basic commodities in the exports of many sub-Saharan countries means that these countries participate only in the early stages of global value chains.[5]

[5] To be sure, this development is not general. Five countries (Ethiopia, Kenya, Seychelles, South Africa and Tanzania) have become more deeply integrated, eg in agriculture and agro-business. (IMF (2017c)).

Rising external indebtedness and worsening reserve coverage[1] Graph 4



[1] Weighted averages across listed countries based on rolling GDP and PPP exchange rates. [2] Algeria, Angola, Cameroon, Chad, Republic of Congo, Equatorial Guinea, Gabon, Nigeria and Sudan. [3] Resource-intensive non-oil exporters: Botswana, Burkina Faso, Central African Republic, Democratic Republic of the Congo, Ghana, Guinea, Liberia, Mali, Namibia, Niger, Sierra Leone, South Africa, Tanzania and Zambia. [4] Other 27 economies. [5] Total external debt in percent of GDP. [6] Calculated as reserves in months of next year's imports.

Sources: IMF, *World Economic Outlook*, April 2017; BIS calculations.

Since most African exports do not compete directly with advanced economies' products, the Continent might be less *directly* affected by growing protectionism. However, if protectionist measures drive down world trade and growth, they will *indirectly* affect Africa's growth prospects. In addition to the conventional trade channel, protectionism could cause significant realignments in major exchange rates, which could affect African economies, where a large share of debt is denominated in foreign currency. Countries with fixed exchange rates, in particular, could see large swings in their external competitiveness.

A protectionist threat would typically present the central bank with a trade-off between stabilising the exchange rate and economic activity. Raising interest rates may prop up the exchange rate and fend-off inflation but at the cost of reducing aggregate demand and, thus, GDP. Moreover, lowering interest rates need not support output if a large share of the country's debt is denominated in foreign currency or a country is relying on foreign credit: if so, a currency depreciation has valuation effects, particularly in cases of an unhedged foreign currency exposure, which could lead to a tightening of domestic financial conditions and thereby depress demand (Kearns and Patel (2016)).[6] Foreign exchange intervention could attenuate, but not eliminate the trade-off. If prolonged enough, it could even aggravate the problem if it hindered the necessary structural adjustment.

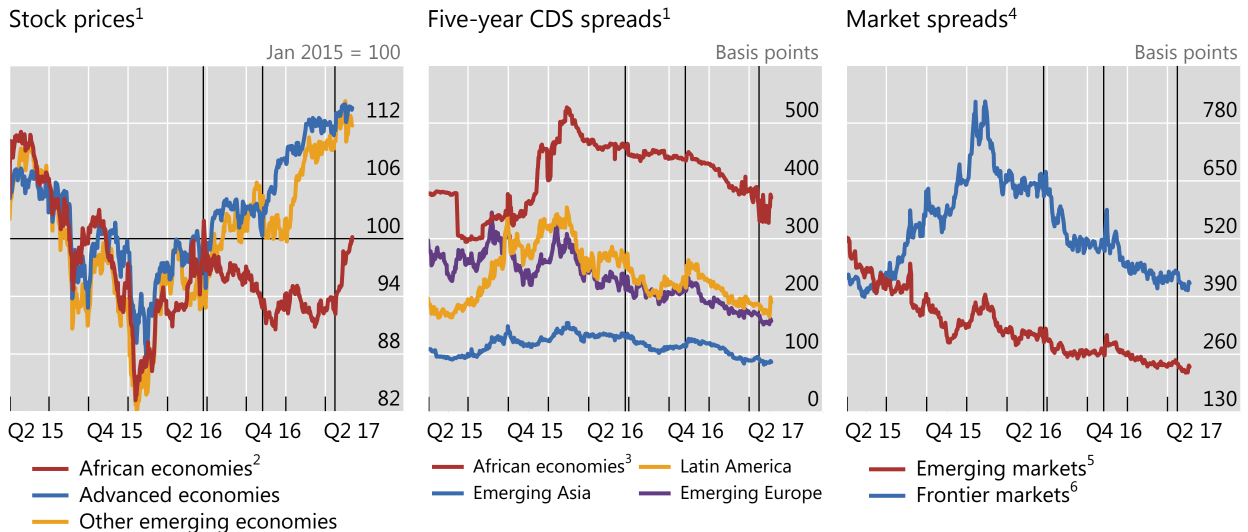
Adverse developments in global financial markets

Africa has already got a taste of increased financial market uncertainty (Graph 5). The Brexit referendum set off turbulence in the South African stock market (World Bank (2017a)). Sovereign bond issuance slowed markedly in 2016 as financial conditions

[6] Natural hedges through export revenues may not work in this scenario, as protectionism is likely to reduce trade volumes.

tightened. Ghana and South Africa were the only countries in sub-Saharan Africa that tapped the international bond market that year; others (eg Nigeria) postponed issuance to 2017. Market conditions improved in 2017, and the outcome of the French presidential election relieved financial markets, in part because the winner was considered more favourable to preserving the CFA franc link to the euro.

Improving, albeit volatile market conditions — Graph 5



The vertical lines indicate 23 June 2016 (UK referendum on EU membership), 8 November 2016 (US presidential election) and 23 April 2017 (French presidential election, first round).

CDS = Credit Default Swaps

[1] Weighted averages based on rolling GDP and PPP exchange rates. [2] Botswana, Côte d'Ivoire, Egypt, Ghana, Kenya, Morocco, Nigeria, South Africa, Tunisia, Uganda and Zambia. [3] Algeria, Angola, Egypt, Ghana, Morocco, Nigeria, South Africa and Tunisia. [4] Simple average of JPMorgan EMBI Global spreads of the economies comprising the index. [5] Argentina, Brazil, Chile, Colombia, Hungary, Malaysia, Mexico, Peru, the Philippines, Poland, Russia, South Africa, Turkey and Ukraine. [6] Côte d'Ivoire, Egypt, Gabon, Ghana, Kenya, Morocco, Nigeria, Senegal, Tunisia and Zambia.

Sources: Bloomberg; Datastream; JPMorgan Chase; Markit; national data; BIS calculations.

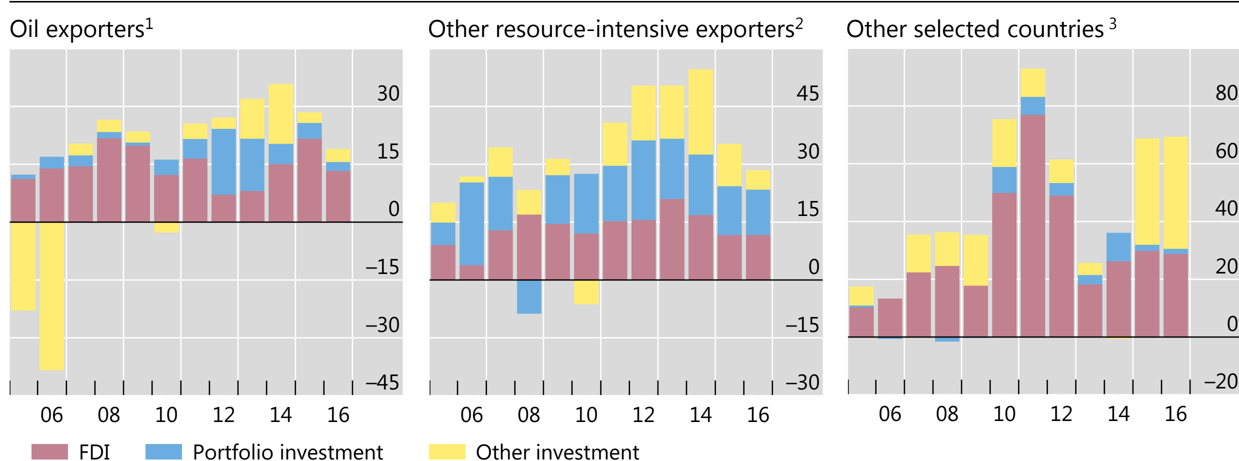
Exchange rate overshooting or rising risk premia could severely limit the room for accommodative monetary policy. To be sure, exchange rate depreciation can be a welcome part of external adjustment. But exchange rates may also overshoot and magnify global shocks. A sharp drop in the currency's value could fuel inflation or sap investor confidence, forcing the central bank to raise interest rates to fend off expectations of further devaluation.

More generally, rising risk premia reflecting a loss of investors' confidence could pose a serious problem. Typical triggers include weak fiscal and external positions or doubts about the authorities' resolve and ability to undertake the necessary structural adjustment. Higher risk premia could result in a sudden stop of capital inflows, adding to the downward pressure on the currency. Tighter monetary policy is unlikely to help under such circumstances, since it could raise debt burdens and thus drive up risk premia even further.

Higher US interest rates might lead to a reversal in capital flows similar to that following the GFC. Several African economies have relied heavily on portfolio or short-term bank credit inflows in recent years (Graph 6). Such flows might be driven more by investors search for yield than by better economic prospects in the recipient economies. They could thus reverse quickly if market conditions change.

Net private capital flows into Africa

In billions of USD — Graph 6



[1] Algeria, Angola, Cameroon, Chad, Republic of Congo, Equatorial Guinea, Gabon, Nigeria and Sudan. [2] Botswana, Burkina Faso, Central African Republic, Democratic Republic of the Congo, Ghana, Liberia, Mali, Namibia, Niger, Sierra Leone, South Africa, Tanzania and Zambia. [3] Other 24 economies.

Sources: IMF, *World Economic Outlook*, April 2017; BIS calculations.

Developments in central bank policy

As discussed in detail below, macroeconomic policy in many African economies has been markedly different from that elsewhere. First, few African countries allowed their currency to depreciate as much as other EMEs, for instance in Latin America. Instead, many increasingly resorted to administrative measures.

Second, many African economies kept their policy rates relatively low despite considerable exchange rate pressure and rising inflation. This differs from the response by some Latin American commodity exporters, who raised policy rates in order to keep inflation expectations anchored (eg Colombia and Mexico).[7]

Finally, many African economies have been less successful than other EMEs in shielding their banks from the fallout of lower commodity prices, sharp depreciation and feebler growth. This could reflect weaker prudential supervision, which allowed large currency mismatches (on the lenders or borrowers' side), and concentrated portfolios. In addition, macroprudential frameworks tend to be less developed, although there are some notable exceptions.

Exchange rate policies

Exchange rates appear to have become less flexible in Africa since the GFC. Nearly 60% of the countries have a peg and the remainder have a tendency to move towards less flexible arrangements (IMF (2016)). Most of the countries with a formal peg

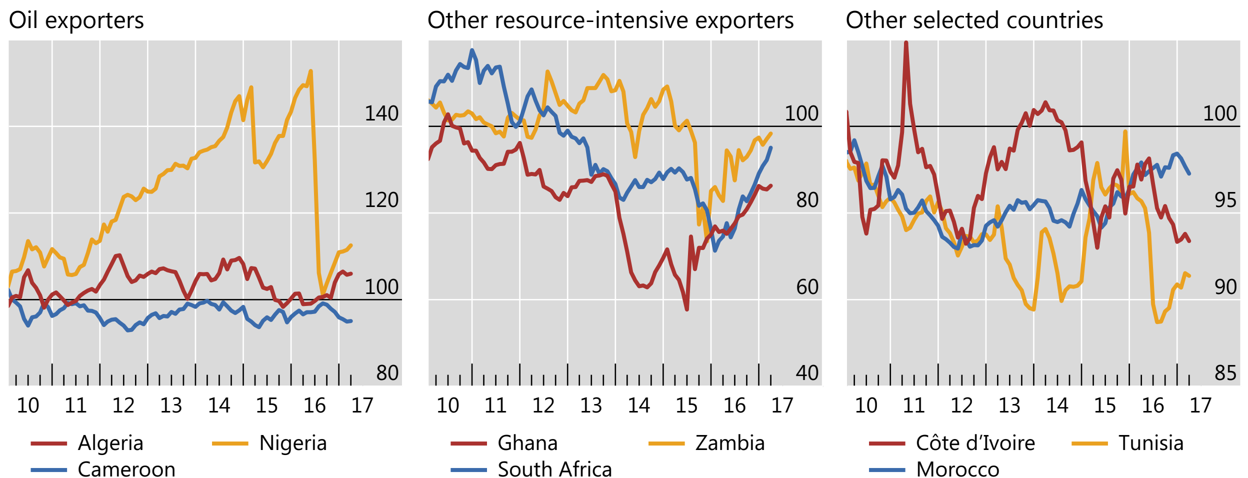
[7] Most EMEs in Central and Eastern Europe and in Asia faced completely different challenges, namely appreciating exchange rates and deflationary pressures. See Upper (2016).

belong to the CFA franc zone and are pegged to the euro. Half of these are oil exporters. Since 2008, eight countries moved from de jure floats to a less flexible exchange rate regime (Burundi, Democratic Republic of the Congo, Ghana, Guinea, Liberia, Mozambique, Rwanda and Zambia). Only South Africa's and Uganda's foreign exchange regimes are de facto floating with limited intervention.

Many of the post-2008 regime changes were associated with the commodity price cycle and corresponding capital flows. Many central banks responded to the commodities boom by leaning against appreciation and accumulating reserves. When commodity prices declined and pressures mounted, only a few countries (eg Zambia) let their currency depreciate. Many others did not, at least initially.[8] For instance, Angola and Nigeria, two of the continent's major oil exporters, allowed the exchange rate to adjust only after a considerable delay, and not by the amount sufficient to eliminate the spread to the parallel market exchange rates. The result was a sharp appreciation in the real effective exchange rate (Graph 7). Algeria, a key oil exporter, chose not to depreciate and preferred to run down reserves. The premium on the parallel exchange rate stood at about 60% in May 2017 (IMF (2017b)). By contrast, Egypt liberalised its foreign exchange regime in the context of broader policy reforms in November 2016; it raised its policy rates in steps by a total of 750 basis points during 2016 and through May 2017 to support its currency.

Real effective exchange rates[1]

Average 2005 – 2009 = 100 | Graph 7



[1] An increase in the index indicates an appreciation.

Sources: Datastream; BIS calculations.

The reluctance to allow depreciation may reflect fears of overshooting, of inflationary pressures or of a sharp rise in (external) debt burdens. It might also point to concerns that sharp exchange rate swings could deter capital inflows in local currency-denominated assets.

[8] In some cases, this had adverse implications for private sector growth, particularly where combined with administrative controls on foreign exchange purchases (Christensen (2016)).

Unwilling to let the exchange rate depreciate, several countries resorted to foreign exchange controls.[9] While such measures may have reduced pressure in the short term, they tend to come at high cost. In the short term, they may deprive industries of essential imported inputs (World Bank (2017a)), with significant knock-on effects. In the medium and long term, they can reduce foreign investment and cause sectoral misallocations, which could lower potential growth substantially. Moreover, administrative controls tend to boost the parallel market and pull down the exchange rate there, which raises import prices and fuels inflation. Last but not least, they also increase the scope for corruption.

Once in place, administrative controls tend to acquire a life of their own even when the currency is eventually allowed to depreciate. In Angola and Nigeria, foreign exchange controls on imports were retained even after the currencies depreciated.

Interest rate policy

Interest rate policy has varied greatly across the Continent, even among countries facing relatively similar shocks.[10] Some central banks raised interest rates in response to falling commodity prices and smaller capital inflows (eg Kenya, Tanzania and Uganda); others, by contrast, raised theirs with a delay or not at all, resulting in increasingly negative real interest rates (Graph 8). Among oil exporters, policy rates went deeply negative in Angola and Nigeria even as rates were raised. The Algerian central bank left policy rates unchanged despite strong pressure on reserves. In the CEMAC area the pressure on the CFA franc from falling oil prices coincided with declining policy interest rates, leading to further depletion of already low reserves. Policy rates did not go up until March 2017, when they were raised by 50 basis points.

Prudential policy

Lower commodity prices, depreciated exchange rates and lower growth has led to a significant rise in non-performing loans in many countries in recent years (Graph 9). This brought back memories of the banking instability of the 1980s and 1990s.[11] Two factors make many African banking systems particularly vulnerable: relatively large currency mismatches (Table 1); and a concentrated loan book, with large exposures to the government or a few large companies, often in the commodity sector. These vulnerabilities could point to weaknesses in regulatory and supervisory frameworks.

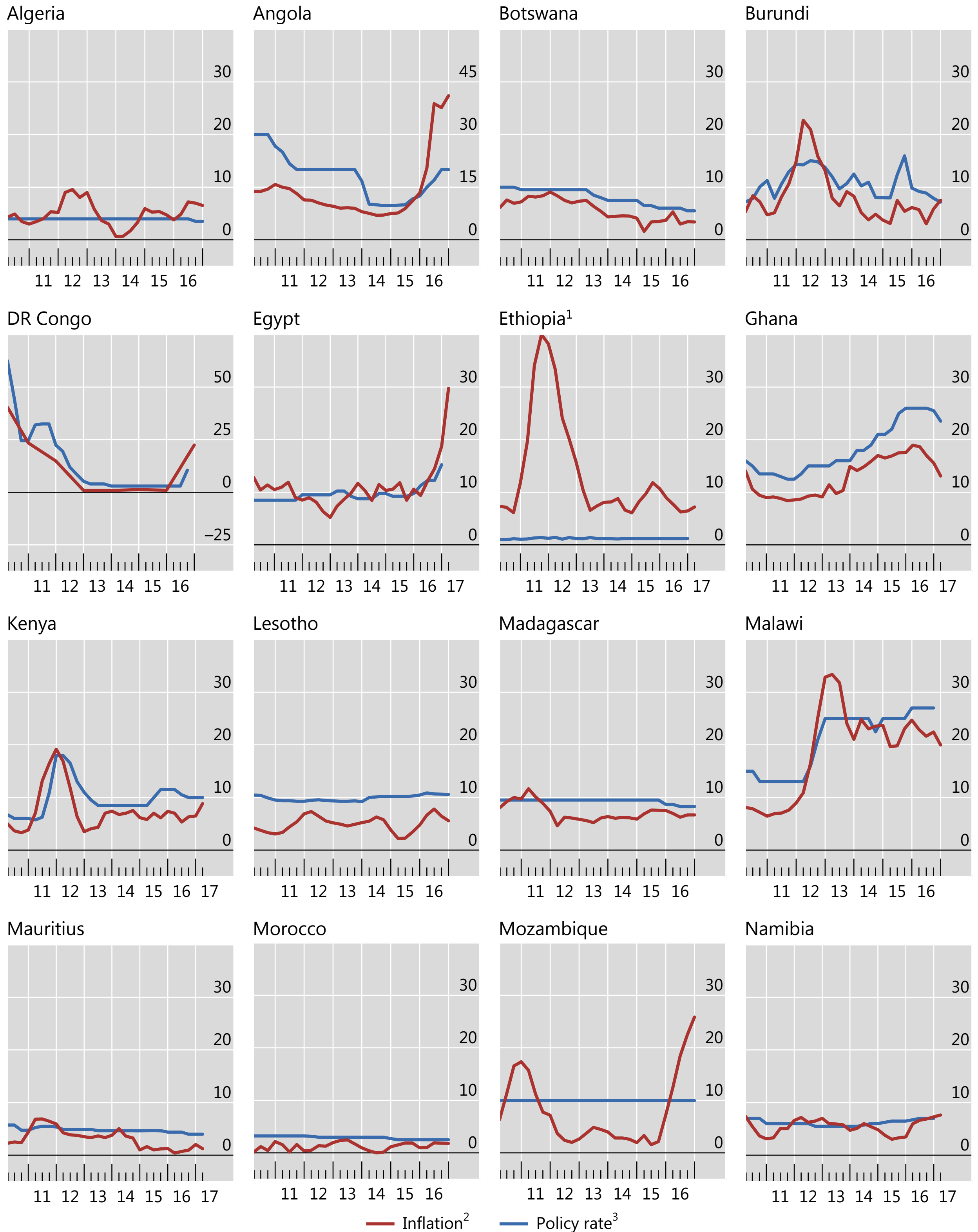
[9] Angola has a priority list for foreign exchange access at the official rate, a special tax on service payments and stricter limits on foreign exchange for travel. In Nigeria, the prohibition to access foreign exchange at the official FX markets for the payments of 40 categories of items, introduced in June 2015, remained in place even after June 2016, when the interbank market for FX was liberalised. The naira initially depreciated, and the spread between the official exchange rate and the interbank rate narrowed from 80 percent to about 25–30%. Rationing of foreign exchange intensified in Burundi, and foreign exchange and import permit restrictions were introduced in Ethiopia. Algerian exporters have to surrender export earnings and individuals face a ceiling on FX allocations.

[10] Interest rates remain a key monetary policy instrument in Africa despite a rather weak interest rate channel owing to the lack of deep financial markets, as confirmed by central banks in responses to a BIS questionnaire (Table A1).

[11] By contrast, banking crises had been virtually absent during the 2000s. Key reasons behind the crises of the 1980s and 1990s were financial liberalization that preceded corresponding changes in the regulatory frameworks, governance issues at the bank or regulator level, crony lending by state-owned or controlled banks, connected lending and looting. See IMF (forthcoming).

Consumer price index and policy rate

In per cent — Graph 8

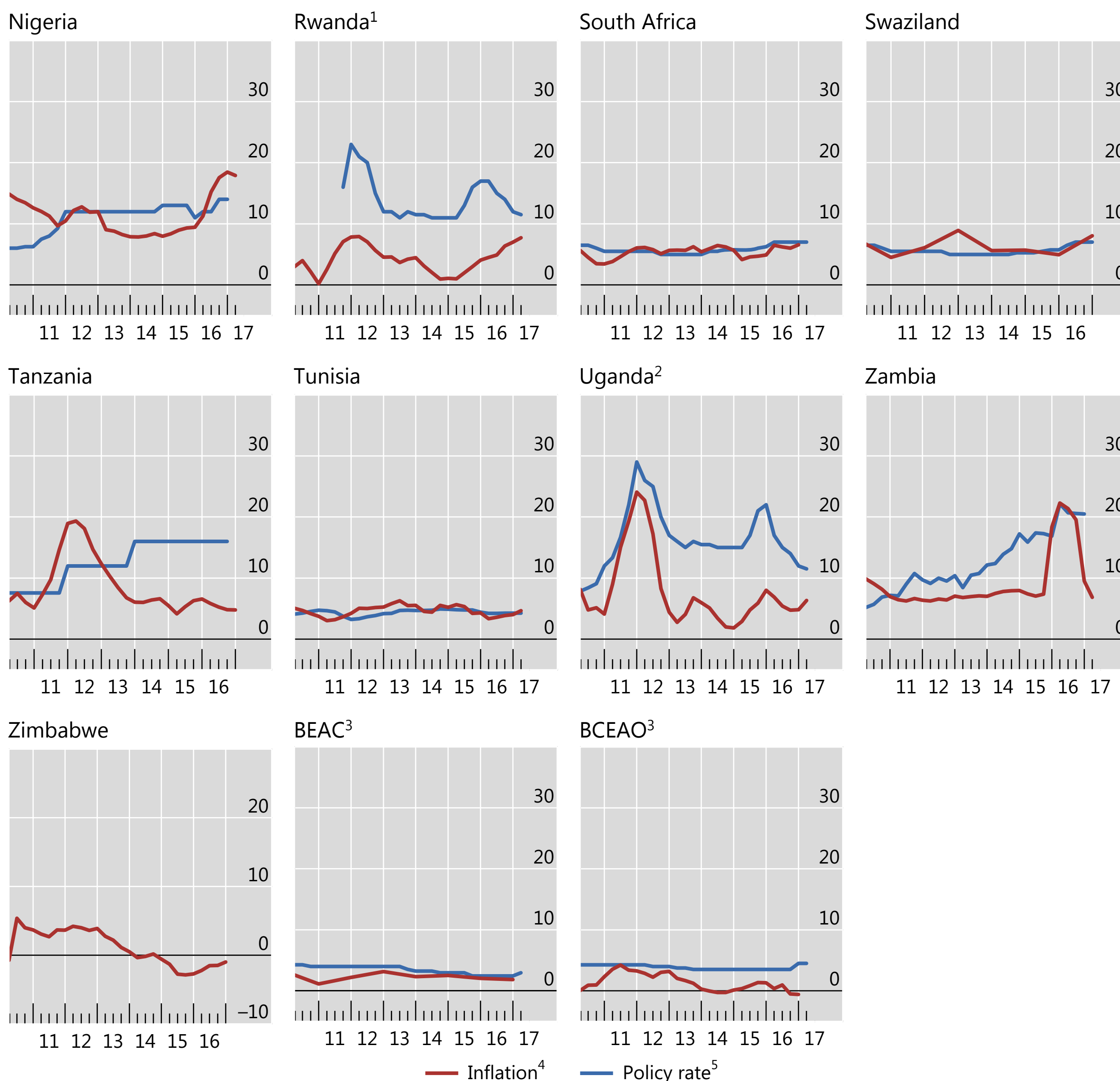


[1] For policy rate, T-bill rate is used. [2] Year-on-year changes. [3] IMF-IFS line 60.

Sources: IMF, *International Financial Statistics* and *World Economic Outlook*, April 2017; Datastream; BIS calculations.

Consumer price index and policy rate (cont)

In per cent Graph 8



[1] For policy rate, BNR Key Repo rate is used. [2] For policy rate after January 2016, Central Bank rate is used. [3] For inflation, weighted averages of the member economies based on rolling GDP and PPP exchange rates. [4] Year-on-year changes. [5] IMF-IFS line 60.

Sources: IMF, *International Financial Statistics* and *World Economic Outlook*, April 2017; Datastream; BIS questionnaire; BIS calculations.

Such weaknesses may also help explain why relatively few countries have put in place macroprudential frameworks.[12] Such frameworks aim to increase the resilience

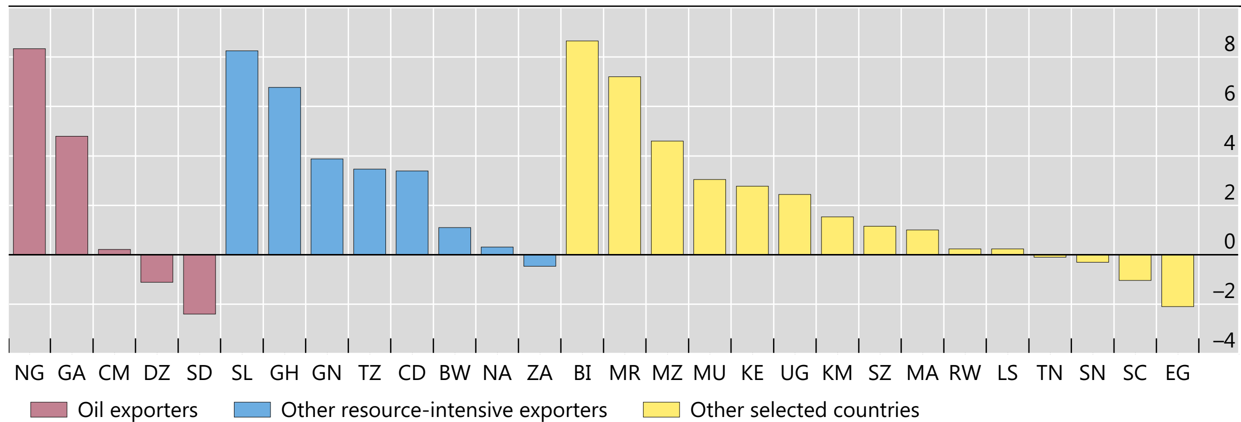
[12] According to the BIS questionnaire, only Egypt, Mauritius, South Africa, Tunisia and Uganda have put in place macroprudential frameworks, although they are under consideration in other economies, eg Ghana. In addition, the case of Namibia illustrates how macroprudential instruments have been used in practice. To address risks from rising housing prices, household indebtedness, and linkages between banks and the very large non-bank financial institutions, which is considered a macro critical vulnerability, the central bank introduced loan-to-value limits for non-primary residence purchases in 2016, effective from March 2017. The authorities have also finalised a Financial Stability Policy

of the financial system to aggregate shocks by building buffers and by smoothing the financial cycle. Macroprudential frameworks complement microprudential measures that focus on the risks of individual institutions, taking the rest of the financial system and the economy as given.[13]

Share of non-performing loans on the rise[1]

In percentage points

Graph 9



BI = Burundi; BW = Botswana; CD = Democratic Republic of the Congo; CM = Cameroon; DZ = Algeria; EG = Egypt; GA = Gabon; GH = Ghana; GN = Guinea; KE = Kenya; KM = Comoros; LS = Lesotho; MA = Morocco; MR = Mauritania; MU = Mauritius; MZ = Mozambique; NA = Namibia; NG = Nigeria; RW = Rwanda; SC = Seychelles; SD = Sudan; SL = Sierra Leone; SN = Senegal; SZ = Swaziland; TN = Tunisia; TZ = Tanzania; UG = Uganda; ZA = South Africa.

[1] Bank non-performing loans to total gross loans ratio. Change between 2013 and latest data available.

Sources: World Bank; BIS calculations.

Implementing macroprudential frameworks is challenging for a variety of reasons. One concerns the paucity of data in many economies. Another is cross-border spillovers from internationally active banks. In Africa, pan-African banks have filled the void opened by the withdrawal of European banks (BIS (2014), IMF (2015)). In 14 countries, 14 pan-African banks account for more than 50% of deposits, while in another nine countries they account for 30 to 50%. Some pan-African banks have developed very complex and hard-to-supervise operations that comprise both bank and non-bank activities, such as insurance and securities dealings: a major concern is that not all of the pan-African banks are supervised on a consolidated basis by their home-country supervisory body (eg in the Economic Community of West African States). Another concern is the lack of effective cross-border collaboration among supervisory bodies in host and home countries.

Framework to improve the coordination across the institutions in charge of supervising and regulating the financial system (IMF (2016c)).

[13] For a definition see Financial Stability Board, BIS and IMF: *Macroprudential policy tools and frameworks*: *Progress report to G20*, October 2011.

Commercial banks' foreign-currency assets and liabilities

Share of total liabilities or assets, in per cent

Table 1

		2007	2012	2016
Angola	Liabilities	55.6	58.5	34.4
	Assets	54.1	48.1	40.8
Botswana	Liabilities	26.3	13.1	14.7
	Assets	1.9	3.9	4.7
Congo, DR	Liabilities	73.7	77.3	78.1
	Assets	73.1	75.6	78.0
Egypt	Liabilities	31.6	24.6	36.7
	Assets	31.1	24.1	36.6
Ethiopia	Liabilities	2.5	1.9	1.5
	Assets	6.7	5.9	3.0
Ghana	Liabilities	27.5	29.7	28.2
	Assets	26.1	24.5	23.9
Kenya	Liabilities	16.2	21.0	22.6
	Assets	8.7	13.3	16.8
Lesotho	Liabilities	–	–	0.2
	Assets	–	–	1.1
Madagascar	Liabilities	20.1	17.5	15.7
	Assets	21.6	18.5	16.6
Malawi	Liabilities	17.3	17.9	24.3
	Assets	11.7	17.8	11.9
Mauritius	Liabilities	69.4	63.9	61.9
	Assets	66.2	61.8	61.4
Morocco	Liabilities	2.8	4.3	6.0
	Assets	7.3	6.1	7.4
Mozambique	Liabilities	34.9	31.2	33.5
	Assets	32.9	29.1	32.7
South Africa	Liabilities	–	12.0	9.5
	Assets	–	13.9	13.0
Swaziland	Liabilities	1.0	6.6	2.6
	Assets	11.0	18.2	14.5
Tanzania	Liabilities	33.8	34.4	37.4
	Assets	29.1	31.0	31.1
Tunisia	Liabilities	14.4	13.1	14.6
	Assets	11.5	11.2	10.8
Uganda	Liabilities	30.9	30.1	35.9
	Assets	30.1	31.7	35.6
CEMAC[1]	Liabilities	–	1.8	2.5
	Assets	–	7.2	4.1

Note: "–" refers to no data available. [1] Economic and Monetary Community of Central African States.

Source: BIS questionnaire.

Conclusions

Although Africa is less integrated in the world economy than other regions, it cannot escape the ramifications of changes in the global economy. Even as the prospects for the global economy look brighter than they have for several years, economic risks remain. In addition, political uncertainty is mounting, and some of the basic tenets of the current global economic system are being called into question. This has immediate consequences for all economies. For Africa, the main transmission channels are commodity prices, exchange rates and interest rates, which reflect changes in foreign demand as well as changing conditions in the international capital markets that influence the access and conditions of external borrowing.

The policy response of many African central banks to the shocks of the last few years – lower commodity prices and downward pressure on the exchange rate – has been markedly different from that of central banks in other regions experiencing similar shocks, for instance Latin America. Central banks in Africa were much less willing to let the currency depreciate than their peers in Latin America, who found that flexible exchange rates, supported by interest rate and, importantly, fiscal policy, have helped the economy to adjust to external shocks. Authorities in Africa also resorted more to administrative controls to relieve pressure on the exchange rates than most (but not all) countries in Latin America, despite some well known economic costs. Finally, the drop in commodity prices and lower growth have exposed weaknesses in the banking and financial systems in several African economies.

In addition, the emergence of pan-African banks involved in bank and non-bank transactions across borders—in many respects a positive contribution to greater financial depth-- might create vulnerabilities that are not easily detectable. In this situation, stronger regulatory and supervisory frameworks could improve African economies' resilience. The rise of pan-African banks also call for close coordination between home and host supervisors. In addition, macroprudential frameworks could help policymakers identify early on and deal with vulnerabilities across financial sectors and borders to better safeguard the financial system.

It is nothing new for African countries to respond to changes in global conditions. But the confluence of still low commodity prices, less easy external borrowing conditions and rising interest rates in advanced and emerging market economies make the external environment challenging. It is therefore important that policymakers, including central banks, try to build greater resilience to deal with any adverse external conditions.

References

African Centre for Economic Transformation (2014): *2014 African Transformation Report-Growth with Depth*.

Bank for International Settlements (2011): Central banking in Africa: prospects in a changing world, BIS Papers, no 56, September.

——— (2014): "The role of central banks in macroeconomic and financial stability", *BIS Papers,* no 76, February.

——— (2015): "When the financial becomes real", *85th Annual Report*, pp 45–63.

——— (2017): *Annual Report 2016/17*, forthcoming in June.

Christensen, B (2016): Challenges of low commodity prices for Africa, BIS Papers, no 87, September.

International Monetary Fund (2015): Pan-African banks, opportunities and challenges for cross-border oversight.

——— (2016a): *Regional Economic Outlook*, Sub-Saharan Africa, April.

——— (2016b): *Regional Economic Outlook*, Sub-Saharan Africa, April and October.

——— (2016c): *Country Report-Namibia*, no 16/373, December.

——— (2017a): *World Economic Outlook*, April.

——— (2017b): *Country Report-Algeria*, no 17/114, June.

——— (2017c): "A rebalancing act for China and Africa: The effects of China's rebalancing on Sub-Saharan Africa's trade and growth", Departmental Papers.

——— (forthcoming): Macroprudential frameworks in SSA.

Kearns, J and N Patel (2016): "Does the financial channel of exchange rates offset the trade channel?", *BIS Quarterly Review*.

Upper, C (2016): Inflation mechanisms, expectations and monetary policy: overview, BIS Papers no 89, November.

World Bank (2017a): "Weak investment in uncertain times", *Global Economic Prospects*, January.

——— (2017b): *Africa's Pulse* no 15, April.

——— (2017c): "A Fragile Recovery", *Global Economic Prospects*, June.

Annex

Primary monetary policy instruments — Table A1

	Credit ceilings	Reserve/ liquid asset requirements	Discount/ policy rate	Open[1] market operations	Foreign exchange market operations	Moral suasion	Other[2]
Angola		✓	✓	✓	✓		
Botswana		✓	✓	✓	✓	✓	
Congo, DR		✓	✓	✓	✓		
Egypt	✓	✓	✓	✓			
Ethiopia		✓	✓	✓	✓	✓	
Ghana		✓	✓	✓	✓		
Kenya		✓	✓	✓	✓	✓	
Lesotho	✓	✓	✓	✓		✓	✓
Madagascar		✓	✓	✓	✓		
Malawi		✓	✓	✓	✓	✓	
Mauritius		✓	✓	✓	✓		
Morocco		✓	✓				
Mozambique		✓	✓	✓	✓	✓	✓
South Africa		✓	✓	✓	✓		
Swaziland		✓	✓	✓		✓	
Tanzania		✓	✓	✓	✓		✓
Tunisia		✓	✓	✓			
Uganda			✓	✓			
CEMAC[3]		✓	✓				✓

[1] Includes purchase or sales of bank bills. [2] Other instruments contain: overnight lending facility (Lombard) (Lesotho), standing facility (deposit and lending) (Mozambique), collateralised (reverse) repurchase agreements (Tanzania), and bank refinancing ceiling (CEMAC). [3] Economic and Monetary Community of Central African States.

Source: BIS questionnaire.

Previous BIS volumes on Africa

Title	Issue date
Challenges of low commodity prices for Africa (BIS Papers No 87) L'Afrique face aux défis liés à la faiblesse des prix des produits de base	September 2016
The role of central banks in macroeconomic and financial stability (BIS Papers No 76) Le rôle des banques centrales dans la stabilité macroéconomique et financière	February 2014
Central banking in Africa: prospects in a changing world (BIS Papers No 56) Banques centrales d'Afrique : perspectives dans un monde en mutation	September 2011
Financial Market developments in Africa: new challenges for central banks? Développements récents au sein des marchés financiers d'Afrique : de nouveaux défis pour les banques centrales ?	November 2007
Central banks and the challenge of development Les banques centrales et le défi du développement	May 2006

All volumes are available on the BIS website (www.bis.org).