

## FOCUS

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## Currency Risk in Africa: easing in 2018, but reserves have melted

**T**he exchange rate risk is still relevant on the African continent, as evidenced by the depreciation of the Angolan kwanza by more than 30% since the partial liberalisation of the exchange rate regime in January 2018. The shock of falling commodity prices, particularly oil prices from summer 2014 onwards, destabilised many African countries. In the wake of the poor performance of its main economies (Nigeria, South Africa, Angola), the region's growth slowed to its lowest level for 20 years in 2016. In addition to the slowdown in activity, commodity price developments have resulted in deteriorating terms of trade<sup>1</sup> and downward pressure on most African currencies.

The exchange rates of exporters of oil (led by Nigeria and Angola) and of mineral resources (Mozambique, Zambia) have been under intense pressure, which in many cases has led to significant depreciations, despite the use of foreign exchange reserves to mitigate their magnitude. Since 2013, the majority of African currencies have lost more than 20% of their value. For companies, these depreciations resulted in accelerating price increases for imported products, and an increase in their foreign currency-denominated debt burden. For those exporting and/or importing from these countries, currency instability has also meant higher costs for cross-border transactions. In some cases (Nigeria, Angola, Democratic Republic of the Congo), liquidity shortages have made it more difficult to repatriate profits, as well as to trade within borders. Capital controls (Egypt) and/or import controls (Algeria), implemented to curb pressures on the foreign exchange market, have also had direct consequences on business operations.

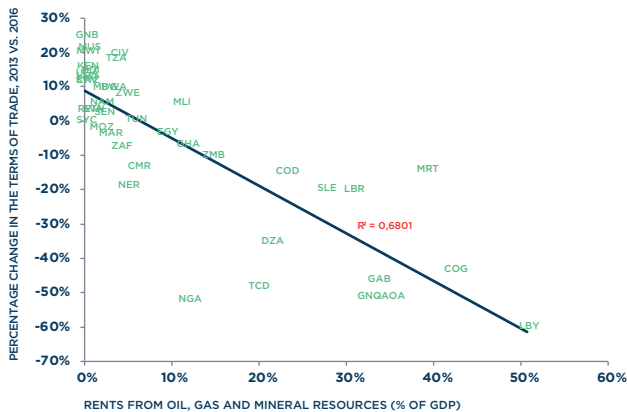
In 2017, this depreciation movement eased as a result of the rise in commodity prices, but – as indicated by the exchange market pressure index deployed in this study – downward pressures remain significant in some countries (Democratic Republic of the Congo, Ethiopia, Angola, Liberia, Guinea). For the countries that are the most dependent on income from natural resources, imbalances relative to the severe deterioration in fiscal and current account balances between 2014 and 2016 continue to exert pressure on exchange rates. Moreover, with the erosion of international reserves during this period, vulnerability to new external shocks must be monitored closely.

1 - For a given country, the terms of trade are the ratio between the export price index and the import price index.

### Deteriorating terms of trade and downward pressures since 2014

The shock on commodity prices had a direct impact on the terms of trade of countries dependent on their profits (Chart 1). In the face of deteriorating terms of trade and pressures on their currencies, authorities reacted in different ways: many had to allow significant depreciation, but those with a less flexible exchange rate regime relied on their reserves to support parity.

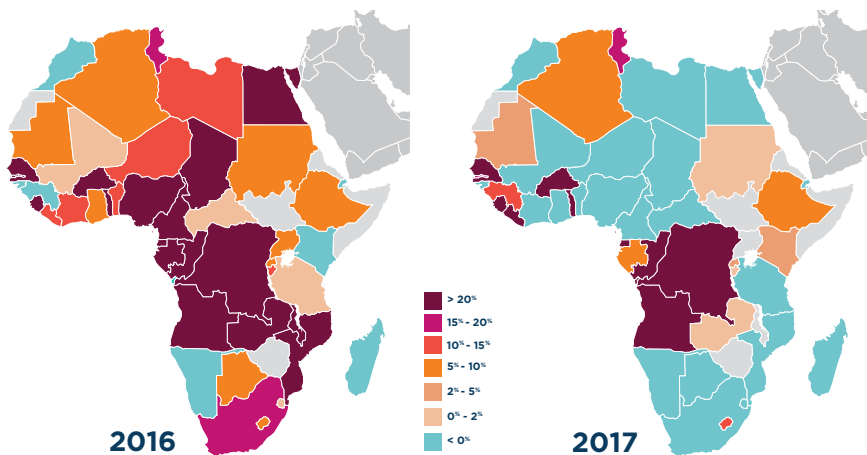
**CHART 1**  
Change in terms of trade and natural resources rents



Sources: UNCTAD, World Bank, Coface

Given the diversity of exchange rate regimes and responses to this type of shock, the Exchange Market Pressure Index (EMPI) developed by Girton and Roper<sup>2</sup> is used to quantify pressures on a currency. This indicator is relevant whether the exchange rate is flexible, fixed, or intermediate. The EMPI is calculated monthly as a weighted sum of both the annual change in the exchange rate against the US dollar<sup>3</sup>, and the change in reserves<sup>4</sup>. As such, it can be either positive or negative. A higher EMPI - indicating a depreciation and/or depletion of reserves - reflects increased tensions in the foreign exchange market.

**MAPS 1 AND 2**  
EMPI in Africa - 2016 vs. 2017



Sources : IMF International Financial Statistics, Coface calculations

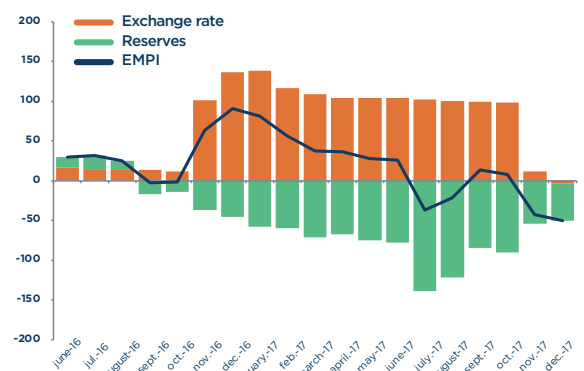
### Pressures ease in Southern Africa, Egypt and Nigeria...

The results for 2016 and 2017<sup>5</sup> (Maps 1 & 2) confirm that African currencies suffered significant pressures in 2016, but also reveal their attenuation the following year. This trend is particularly noteworthy in southern Africa (South Africa, Zambia, Mozambique), where shocks were first absorbed by the floating exchange rate regime in 2016. The improvement in trade balances in 2017, in large part due to increases in production and the prices of exported commodities, subsequently allowed a relative stabilisation of the exchange rate.

This easing of pressure can also be observed in countries with a less flexible exchange rate regime. In West Africa, and more particularly in the West African Economic and Monetary Union (WAEMU)<sup>6</sup>, the widening external deficit resulted in a high EMPI (18%) in 2016. Nonetheless, in 2017, reserves began to replenish in Mali (where gold production increased by 5%) and Niger (with the increase in uranium and oil exports), contributing to an improvement in the overall WAEMU EMPI to: -27%.

In North Africa, tensions remain high (Algeria, Tunisia), but improvements are visible - particularly in Libya, where oil production doubled in 2017<sup>7</sup> compared to 2016. For Egypt, hit by a shortage of US dollars following the 2011 revolution, which caused foreign capital and tourists to flee and made profit repatriations more difficult, the EMPI peaked at nearly 91% at the end of 2016. However, after the 50% depreciation linked to the exchange rate flexibilisation in November 2016, the Egyptian pound stabilised and reserves increased by 80%. Pressures in Egypt are therefore decreasing, which can be seen in the EMPI's return to a negative figure at the end of 2017 (Chart 2).

**CHART 2**  
Monthly EMPI and its contributions - Egypt



Sources: IMF International Financial Statistics, Coface calculations

2 - Girton, L., & Roper, D. (1977): "A Monetary Model of Exchange Market Pressure Applied to the Postwar Canadian Experience". *The American Economic Review*, 67(4), 537-548. <http://www.istor.org/stable/1813387>

3 - For the countries of the franc zone (UEMOA, CEMAC, and Comoros), São Tomé and Príncipe and Cape Verde, the variation of the exchange rate against the euro was used because the respective currencies of their countries/zones are anchored to the euro.

4 -  $EMPI_{it} = \epsilon_{it} - \frac{\sigma_{\epsilon}}{\sigma_r} r_{it}$  with  $\epsilon_{it}$  = percentage change in the exchange rate;  $r_{it}$  = percentage change in reserves;  $\sigma_{\epsilon}$  = standard deviation of the change in exchange rate; and  $\sigma_r$  = standard deviation of the change in reserves.

5 - EMPI values are calculated by averaging the EMPI value calculated at a monthly frequency for the last three months available in 2017 and 12 months earlier in 2016. In this study, foreign exchange markets are considered as particularly under stress when the EMPI score is above 10%.

6 - The WAEMU has eight member states: Benin, Burkina Faso, Côte d'Ivoire, Guinée-Bissau, Mali, Niger, Senegal and Togo. The EMPI has been calculated for each country, as well as at the regional level.

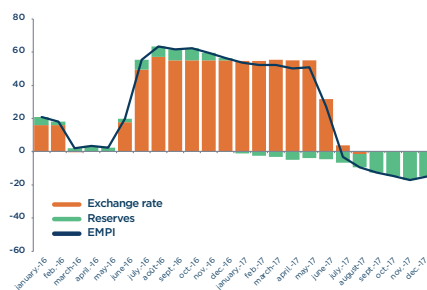
A similar situation can be seen in Nigeria, where – once the effects of the June 2016 devaluation on the value of the 2017 EMPI dissipated – pressures fell into negative territory (Chart 3A). This fall in the EMPI in 2017 is linked to a more favourable domestic and external context, particularly with the rise in oil prices and the stabilisation of production in the Niger Delta. In addition, the opening of a dedicated foreign exchange platform (the Investors' and Exporters' FX Window)<sup>8</sup> helped reverse the decline in reserves. It also reduced the spread between the official rate and the parallel market rate, which exceeded 40% in February 2017 (Chart 3B).

### ...but pockets of risk remain in Angola, Algeria, Tunisia, CEMAC, and Ethiopia.

The role of Nigeria's new exchange platform in mitigating exchange rate pressures appears all the more significant in light of the evolution of Angola's EMPI, another major oil exporter from sub-Saharan Africa. Unlike Nigeria, Angola's international reserves continued to decline at an alarming rate in 2017, despite a devaluation in April 2016. The country's EMPI therefore remained positive throughout the year, averaging 15% (Chart 4). These pressures have resulted in a widening spread between the official kwanza – US dollar pegged rate (AOA 166 to USD 1) and the parallel rate (more than AOA 420). Despite the greater exchange rate flexibility and a 30% depreciation of the kwanza, the disparity with the black market remained substantial in the first quarter of 2018, indicating a persistent imbalance between supply and demand for the Angolan currency. However, while depreciation is expected to continue in the coming months, a relatively restrictive monetary policy, reduced imports, and increased export revenues (commissioning of the Kaombo oil production unit and higher crude oil prices), should allow for a gradual easing of tensions on the kwanza.

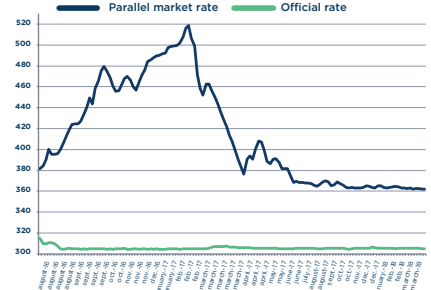
The EMPI also indicates that the Central African Economic and Monetary Community (CEMAC)<sup>9</sup> is still struggling with significant downward pressure on the CFA franc. In total, the indicator is estimated to average over 45% in 2017. The decline in reserves continued in the zone in 2017, reviving intense rumours of a possible devaluation, and a break between the value of the CFA franc in West Africa and Central Africa. However, as a result of developments in international crude oil prices, a policy rate increase in March 2017 (from 2.45% to 2.95%) and, above all, the International Monetary Fund's approval of loans for three countries in the region (Cameroon, Gabon, and Chad) between April and September 2017, the CEMAC balance of payments improved, albeit slightly. The external coverage ratio<sup>10</sup> – the Bank of Central African States' preferential indicator for assessing monetary stability – thus improved (again, slightly) from 56.8% in 2016 to 60% in 2017<sup>11</sup>. While it remains well above the minimum threshold of 20% set by the Bank of Central African States, this level remains well below the 90% recorded in December 2014. Reserves have begun to stabilise, but remain low, and their evolution could trend downwards if the IMF fails to reach an agreement with the Republic of Congo and Equatorial Guinea. The risk of devaluation of the Central African CFA franc can therefore not be completely ruled out.

**CHART 3A**  
Monthly EMPI and its contributions - Nigeria



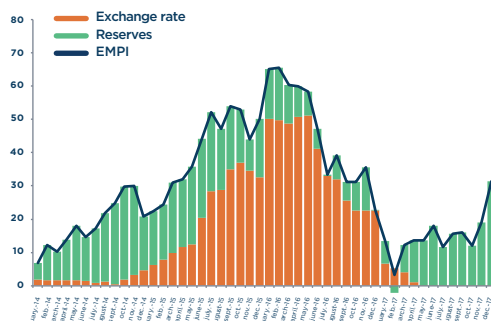
Sources: IMF Financial Statistics, Coface calculations

**CHART 3B**  
Naira-to-US dollar exchange rate: official vs black market



Sources: Central Bank of Nigeria, AbokiFX

**CHART 4**  
Monthly EMPI and its contributions - Angola



Sources: IMF International Financial Statistics, Coface calculations

The EMPI also indicates that the Democratic Republic of Congo – still plagued by domestic instability and external imbalances, despite the rise in prices of exported minerals – continues to experience significant tensions on the foreign exchange market. This is also the case for the countries that suffered the 2014 Ebola virus outbreak: Guinea, Liberia, and Sierra Leone. Although less intense, pressure also remains in North Africa, and particularly in Algeria, which banned imports of around 900 products at the beginning of 2018 in order to reduce its trade deficit. In addition, pressure on the Ethiopian birr (which has been overvalued since 2014-2015) also intensified in 2017, leading to a 15% devaluation of the currency in October: estimated at around 20% by the IMF<sup>12</sup> before the devaluation, the overvaluation is still around 7%, and the disparity with the black market remains around 20%. The persistent current account deficit will therefore likely continue to put pressure on both the country's reserves and currency, especially as the outlook for coffee prices – the main positive contribution to Ethiopia's trade balance – remains weak, and the rise in oil prices could affect imports. The increase in imports, oil purchases in particular, is one of the factors contributing to the increased pressure on both Tunisian reserves and the dinar in 2017 and early 2018.



7 - From 390,000 barrels per day in 2016 to 817,000 in 2017, according to data compiled by the Organisation of Petroleum Exporting Countries  
8 - Central Bank of Nigeria, 21<sup>st</sup> April 2017, "Establishment of investors' & exporters' FX window", <https://www.cbn.gov.ng/out/2017/fmd/establishment%20of%20investors%27%20and%20exporters%27%20fx%20window.pdf>  
9 - CEMAC has six member states: Cameroon, Central African Republic, Republic of the Congo, Gabon, Equatorial Guinea and Chad. The EMPI has been calculated for each country, as well as at the regional level.  
10 - Ratio between the BCEACS net foreign asset and its short-term liabilities  
11 - "Lettre de la Recherche", Numéro 3, janvier 2018, Banque des États d'Afrique Centrale. URL : [https://www.beac.int/download/LR\\_03\\_2018.pdf](https://www.beac.int/download/LR_03_2018.pdf)  
12 - The Federal Republic Democratic of Ethiopia: 2017 Article IV Consultation, <http://www.imf.org/en/Publications/CR/Issues/2018/01/24/The-Federal-Democratic-Republic-of-Ethiopia-2017-Article-IV-Consultation-Press-Release-Staff-45576>

## Foreign exchange reserves have melted

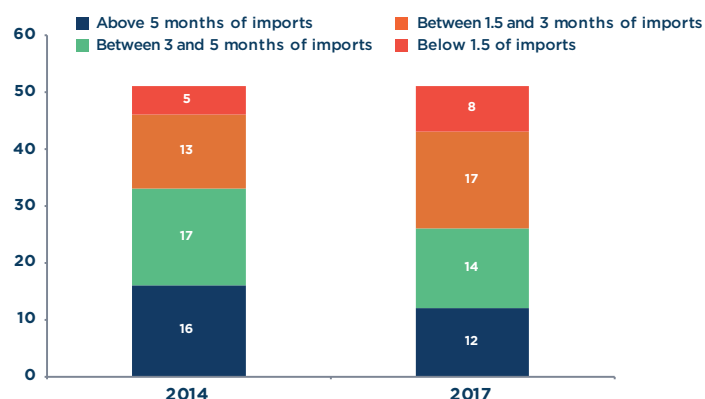
Nevertheless, with Coface forecasting an average Brent oil price of USD 65 per barrel for 2018 (against nearly USD 55 in 2017), the rise in crude oil prices is unlikely to destabilise the terms of trade of net importers of black gold: in most cases, they have reduced their import volumes in recent years. However, recent developments in the region's economies have made them vulnerable to new shocks.

Despite a relative stabilisation of fiscal deficits and current account balances, the imbalances inherited from this period continue to weigh on currency developments. For example, the debt crisis in Mozambique and Zambia's inability to reach an agreement with the IMF have led to further depreciations of both the metical and the kwacha in recent months.

In addition, the reserves that supported the currencies have largely been depleted. While the median level of import coverage in African countries was 3.9 months in 2014, it declined to 3.2 months three years later. Therefore, 32 out of 51 countries have a lower cover ratio in 2017 than in 2014. Seven additional countries in particular saw their reserves fall below the traditional 3-month import coverage reserve adequacy indicator (**Chart 5**), including Zambia, Mozambique, Guinea, and members of the CEMAC zone. Countries with higher levels of foreign exchange reserves are not immune either: given the dependence on natural resources, declines in reserves can be extremely rapid. For example, the coverage ratio in Algeria fell from 33.4 to 19.3 months of imports in just three years.

This dependency on raw materials – with many countries using only one product as a source of liquidity<sup>13</sup> – exposes the foreign exchange market to very large

**CHART 5**  
African countries by level of import cover



Sources: IMF World Economic Outlook, Coface

fluctuations. Countries exporting agricultural raw materials could therefore be put under pressure, as prices remain relatively low for certain cash crops – such as cocoa (Côte d'Ivoire, Ghana, Nigeria, Cameroon) or coffee (Ethiopia, Uganda, Tanzania) – and Africa remains particularly exposed to the effects of climate change.

In addition to these vulnerabilities, political risk (as in Burundi, where sanctions relating to the political crisis have put pressure on the exchange rate) and the acceleration of the United States' monetary tightening cycle could once again intensify capital outflows from the region, putting pressure on exchange rate. In short, currency risk, although shrinking, could once again permeate the African continent.

13 - Bossuet P., Daudier J.L., Fèvre A.S., Marcilly J. (2015). "Sub-Saharan Africa: sunny in the east, cloudy in the centre". Coface Economic Publications. <http://www.coface.com/News-Publications/Publications/Global-Country-Risk-Outlook-June-2015>

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