

Ethiopia: Impacts of the Birr Devaluation on Inflation¹

November 8, 2017

On October 10, 2017, the National Bank of Ethiopia (NBE) devalued the Birr by 15 percent as pressures on the foreign exchange intensified.² According to the Government, the devaluation was undertaken to encourage exports and overcome the foreign exchange shortage.³ Exports, which with remittances constitute Ethiopia's main source of foreign exchange, have seriously underperformed in recent years (as compared to the Government's objective in its Development Plan). Foreign reserve decreased from around USD4 billion or 2.5 months of imports at end-2015 to USD3.2 billion or 2 months of imports in June 2017.

The forex pressure stemmed from an overvalued real effective exchange rate. After a brief decline following the 17 percent devaluation of the Birr in 2010, the real effective exchange rate (REER) started appreciating again in 2011. Since 2014, and notwithstanding the depreciations of the official exchange rate against the US dollar by 6 percent in 2015/16 and 5.8 percent in 2016/17, the pace of appreciation

continued unabated. The REER overvaluation of the Birr was estimated at 30 percent in FY15 and 20 percent in FY17.⁴ The premium in the parallel foreign exchange market reached 20 percent on the eve of the October devaluation.

The appreciation of the REER has been a drag on competitiveness and on the restoration of external balances for several years. Recent empirical analyses conducted by the World Bank, the IMF and others all conclude that the Ethiopian economy has been suffering from an overvalued exchange rate. These analyses also generally underlined that a more competitive real exchange rate would provide a more conducive environment to manufacturing-led structural transformation, sustained growth acceleration, and improved external balance.⁵ Specifically, it was estimated that a 10 percent depreciation of the REER would reduce the current account deficit by about 2 percentage points of GDP (through a 5 percent increase in exports and a 6 percent decrease in imports) and increase real GDP growth by more than 2 percentage points in

¹ This note was prepared by Zerihun Getachew Kelbore (Research Analyst MFM) and Nora Dihel (Senior Economist, MFM) with inputs from Tom Bundervoet (Senior Economist, POV) and reviewed by Jean-Pierre Chauffour (Lead Economist, MFM) and Mathew Verghis (Practice Manager, MFM).

² Ethiopia's exchange rate arrangement is classified as a crawl-like arrangement by the IMF. The authorities describe it as a managed float with no predetermined path for the exchange rate. In practice, the Birr is pegged to the US dollar.

³ National Bank of Ethiopia, 2017. Newsletter (Amharic Version), Vol. 5, No. 25, October 2017, Addis Ababa, Ethiopia; and <https://addisfortune.net/articles/ethiopia-devalues-currency-raises-interest-rates/>

⁴ International Monetary Fund 2015, "Ethiopia: 2015 Article IV Consultation", Washington D.C.; International Monetary Fund 2017, 'Ethiopia: 2017 Article IV Consultation', Washington D.C. (Draft)

⁵ See for instance World Bank 2016, Ethiopia's Great Run: The Growth Acceleration and How to Pace It.

a year. However, in the short term, the devaluation will have the immediate adverse effect of raising the external debt and debt service payments in local currency.

Successful exporters have usually avoided overvaluation of their currency. Developing countries that managed to transition from low-income to middle-income, such as several countries in East Asia, have generally engaged

with the world economy by pursuing export-led development strategies. Such strategies were typically underpinned, at least in the initial phase of economic catching-up, by competitive REERs. The exchange rate instrument was strategically used to maintain external balances and fuel economic growth and job creation, including through episodes of successful exchange rate devaluations (see Box 1).

Box 1: Examples of relatively successful use of the exchange rate instrument

- *South Korea* undertook successive devaluations in the 1970s, as part of its export-led strategy to boost growth and shared prosperity. The devaluations were generally supported by restrictive monetary and fiscal policies to keep inflation in check. Furthermore, the success of devaluation in boosting exports was tied to the strong external demand and continued high investment in the export sector.⁶
- *Brazil* devalued the Real by 64 percent in 1999 without causing a major surge in inflation, thanks to a massive tightening of monetary and fiscal policies.⁷ Economic growth, underpinned by the agriculture and services sectors, turned positive in 1999 and further expanded by 4.4 percent in 2000. FDI increased by 37 percent between 1998 and 2000. Industry then became the lead growth sector in 2000, reflecting a lagged response to the changing policy environment. The Brazilian experience suggests that the resurgence in growth was a result of the devaluation combined with structural and institutional reforms including fiscal adjustment, structural reforms of the financial sector and the adoption of credible inflation-targeting.⁸
- *Egypt* depreciated the Egyptian pound by about 200 percent between November 2016 and May 2017 and adopted a floating exchange regime. The devaluation coupled with the introduction of a VAT, and partial removal of energy and petroleum subsidies fueled inflation. Inflation peaked at 30 percent, but the devaluation achieved the desired depreciation of the REER. The central bank increased interest rates by 400 basis points and tighten liquidity in the banking sector. The gap between the parallel and the official exchange rate eventually closed and official foreign exchange reserves began to grow again.

⁶ World Bank 2016 Devaluing the Exchange Rate in Ethiopia: Why, When and How. June 2016, Addis Ababa

⁷ Annual inflation increased from 1.7 percent in 1998 to 8.9 percent in 1999 followed by a decline to 6 percent in 2000.

⁸ Aman, E. and W. Baer (2002), Anchors Away: The Costs and Benefits of Brazil's Devaluation, Working Paper No. 02-01222, University of Illinois, Urbana Champaign. http://www.business.uiuc.edu/Working_Papers/papers/02-01222.pdf

The long term positive effects of Ethiopia's devaluation will depend on how much the nominal devaluation translates into a real depreciation of the Birr.

The larger the exchange rate pass through to the CPI the lower will be the beneficial real effects of the devaluation. The pass-through in turn depends on the elasticity of demand for imports and import substituting domestic goods.⁹ That is, if the elasticity of demand is low, the pass-through would be higher. The IMF recently estimated an exchange rate pass-through of around 30 percent for the general CPI and 10 percent for the food CPI.¹⁰ With a 15 percent devaluation, it is thus expected that, *ceteris paribus*, the general CPI would increase by an additional 4.3 percentage points and the food CPI by an additional 1.6 percent over a 12 months' period. To limit the pass-through on inflation, the authorities could adjust their macroeconomic policies by tightening fiscal and/or monetary policies (see below). The World Bank estimates also show that larger price changes will be observed in the non-food items than food items.¹¹

The precedent of the 2010 Birr devaluation should help guide policymakers.

Because of exceptional circumstances and the lack of appropriate accompanying macroeconomic policies, the devaluation of the Birr in September 2010 led to an episode of high inflation, especially

of food inflation, that lasted until March 2013 (see Figure 1). The inflation rate picked up to 41 percent in August 2011. However, within this period, not only Ethiopia did not tighten monetary conditions, but it had to deal with the 2011 international commodity price hikes (e.g., coffee) and suffered from a severe drought that affected 4.5 million people. These developments contributed - beyond the effects of the devaluation - to inflation and thus to a welfare loss for many poor Ethiopians.

Since October 10, 2017, inflation seems to have remained under control, although some prices have picked up.

Annual inflation as measured by the Consumer Price index (CPI) increased by 12.2 percent in October 2017 as compared to October 2016.¹² The monthly CPI increased by 0.2 percent between September 2017 and October 2017.¹³ An informal assessment of the evolution of market prices¹⁴ over the last couple of weeks shows that, as expected, the price of imported goods not subject to price controls have swiftly adjusted and increased by 15 percent (compared to their September level).¹⁵ By contrast, prices of locally produced goods and imported goods subject to price controls (e.g., petroleum products and wheat) have remained fairly stable.

Grain prices, which are quite socially sensitive, have broadly been stable so far and may have actually benefited from

⁹ The change in the exchange rate is transmitted to domestic prices both directly through higher import prices and indirectly through the higher demand for domestic goods (import-substitution).

¹⁰ IMF 2017 Article IV Consultation Presentation in Addis Ababa, September 2017.

¹¹ World Bank 2016 Devaluing the Exchange Rate in Ethiopia: Why, When and How. June 2016, Addis Ababa

¹² Annual food inflation has increased by 16.1 percent in October 2017. Cereal prices such as teff, maize and wheat showed a slight decline as compared to last month. Price declines were also observed for meat, milk, cheese and eggs, butter and onions. By contrast, prices for fruits, sugar, selected vegetables, and coffee increased in October 2017. Annual non-food inflation increased by 7.8 percent mainly due to increases in the prices of chat, clothing and footwear, housing and energy (especially charcoal), household goods and furnishings, health care, and food and drinks (Central Statistical Agency of Ethiopia, October 6, 2017).

¹³ Monthly food and non-food inflation increased by 0.2 percent and 0.3 percent, respectively (Central Statistical Agency of Ethiopia, October 6, 2017).

¹⁴ Randomly visited the local markets, supermarkets and assessed the price developments.

¹⁵ Note that these price increases for non-food items are higher than those reported by the Central Statistical Agency of Ethiopia in October 2017.

a favorable seasonal effect (see Figure 3). Indeed, the average seasonal pattern of grain prices shows that there is a 7 percent difference between the peak and slack season prices in the course of the year (see Figure 4). Interestingly while wholesale prices decreased, retail prices registered increases for certain cereals such as teff.¹⁶ On average, grain prices start decreasing in October until February. The timing of the devaluation may therefore have been opportune to attenuate the inflationary pressures on grains and related basic commodities. In the same vein, although the Ethiopian economy is not well integrated into global markets, the benign international commodity prices outlook should help ease some of the inflationary pressure.¹⁷

Instances of inflation bouts (in certain regions and/or certain products) may also reflect adverse local market conditions that are unrelated to the devaluation. Temporary shortage of goods and services in local markets may drive up prices independent of the country's exchange rate policy. Such shortages could reflect the lack of access to market, the monopolistic nature or lack of contestability of certain markets, or disruption in the supply chains. For example, prior to the devaluation, the shortage of sugar in the country has increased sugar prices by around 175 percent (from 18.15 Birr/kg in April to 50 Birr/kg in October 2017).

The adverse effect of the devaluation on the poor should be limited in scope and time. These adverse effects come mainly from rising prices of imports. According to World Bank estimates, a 10 percent devaluation would

decrease consumption of the poor by 1.4 percent.¹⁸ Given their higher dependence on imported items, urban households are expected to be more affected than rural ones. In most scenarios, the poverty rate is expected to slightly increase (by about one percentage point) immediately after the devaluation. Poverty would decrease again when the devaluation triggers a supply response and exports increase.

Supportive monetary and fiscal policy in the coming months can maximize the positive effects of the devaluation and minimize negative effects on the poor. To be successful, the devaluation needs to be accompanied by tight monetary and fiscal policy. This has been the case so far. The NBE appropriately tightened its monetary policy in the immediate aftermath of the devaluation by raising the floor on time and savings deposits from 5 to 7 percent and by reducing the 2017/18 target growth of base money.¹⁹ Given the lagged effect of monetary policy, the NBE would need to be particularly vigilant as the relaxation of monetary policy in the first part of the year – that is before the October devaluation – may have created inflationary pressures that would need to be reduced in the coming months. Fiscal policy could usefully help the NBE with the burden sharing. The more the fiscal deficit could be contained and the domestic financing of the deficit limited, the more liquidity will be available for the private sector to grow the economy and create jobs without jeopardizing the inflation target. Additional structural and institutional reforms would also need to complement these monetary and fiscal policy measures.

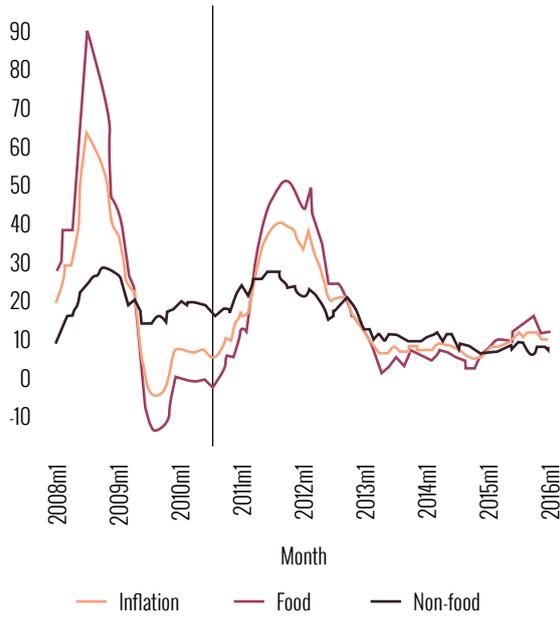
¹⁶ Wholesale price reductions of about 10 percent did not translate into lower retail prices; in fact, retailers increased the teff price by between 10 to 15 percent depending on the location of the market.

¹⁷ In 2018, crude oil prices are forecasted to increase only moderately to reach USD56 per barrel (compared to USD53 per barrel in 2017) and agricultural prices are projected to stabilize (World Bank Commodity Markets Outlook, October 2017).

¹⁸ World Bank 2016 Devaluing the Exchange Rate in Ethiopia: Why, When and How. June 2016, Addis Ababa

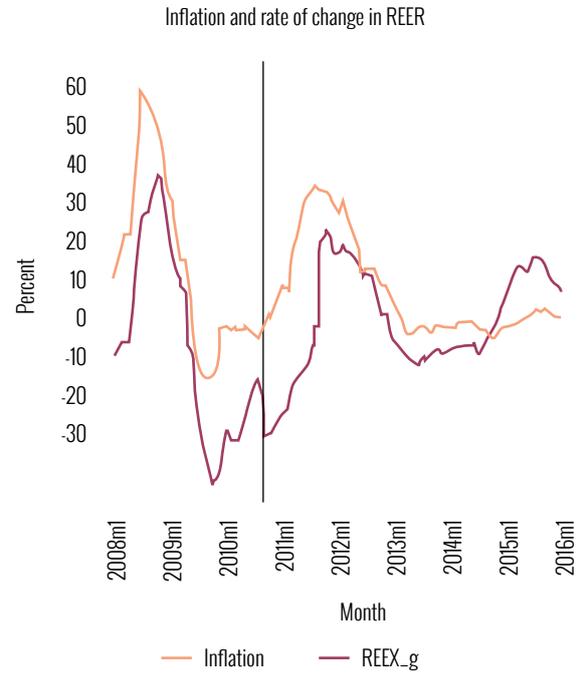
¹⁹ The NBE's operational target for monetary policy (growth of base money) was reduced from 22 percent to 16 percent to contain the pass-through from the exchange rate into domestic prices.

Figure 1: Year-on-Year Inflation (CPI), 2008-2016



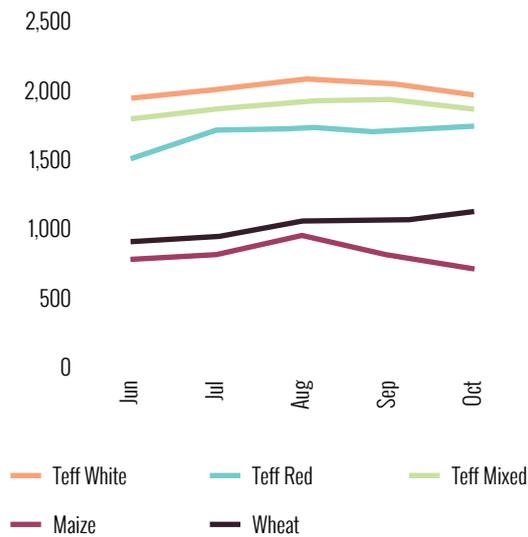
Source: World Bank Staff calculation based on data from CSA

Figure 2: Inflation (CPI) and RER (growth), 2008-2016



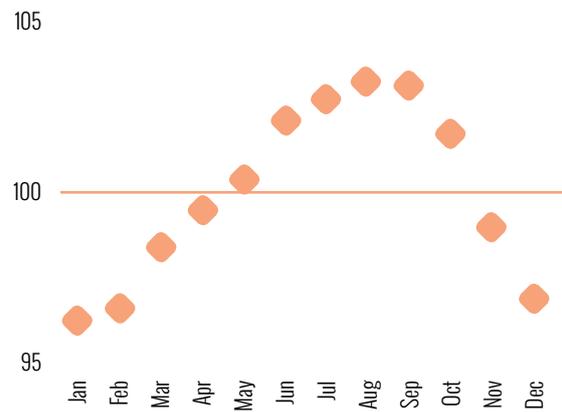
Source: World Bank Staff calculation based on data from CSA and IMF

Figure 3: Grain prices in Addis Ababa, June-October, 2017



Source: Ethiopian Grain Trade Enterprise (EGTE)

Figure 4: Average seasonal impact on food prices, 1997-2016



Source: World Bank Staff calculation based on data from CSA and IMF