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Economic Implications of Foreign Exchange Rationing in Ethiopia

Summary of ESSP-II Discussion Paper 9: Economic Implications of Foreign Exchange Rationing in Ethiopia (December, 2009)

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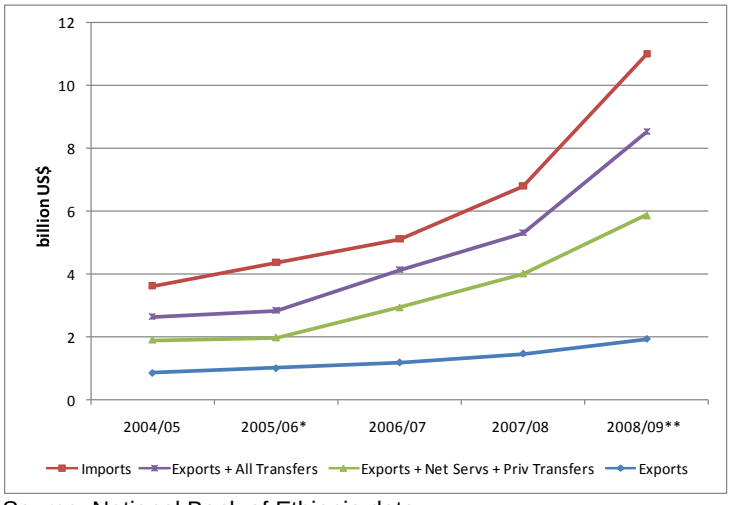
This paper examines macro-economic developments in Ethiopia between 2004/05 and 2008/09, focusing on the external accounts and the real exchange rate. Simulations using a Computable General Equilibrium (CGE) model of Ethiopia's economy show that, compared to a policy of foreign exchange rationing, a policy of real exchange rate depreciation and no rationing improves economic efficiency and welfare of all households except those who receive the rents (excess profits) arising from rationing.

Between 2004/05 and 2007/08, Ethiopia successfully accelerated its economic growth through a deliberate policy of expanded domestic credit to finance private investment and increased foreign borrowing to finance public investment. Increased investment implied increased demand for imports of capital and intermediate goods, and thus for foreign exchange, by private (and public) sector investors. At the same time, workers' remittances and private transfers were increasing, supplying resources for private investment in residential housing and other domestic consumption and investment. As a result, merchandise imports surged by 87 percent ($3.2 billion) between 2004/05 and 2007/08. Half of this increase in merchandise imports was financed by a 195 percent increase in private transfers (including workers' remittances); increases in merchandise exports and capital inflows each financed 16-19 percent of increases in merchandise imports (Figure 1).

Figure 1: Ethiopia Imports and Import Financing, 2004/05 to 2007/08



Source: National Bank of Ethiopia data.

Higher world prices, increased domestic credit, foreign capital inflows, changes in inflationary expectations and other factors all contributed to increases in overall domestic inflation, however, which rose from 11.5 percent in 2004/05 to 64.5 percent in 2007/08. Inflation has slowed substantially since then, though, and between July 2008 and March 2009, the price level actually fell by 6 percent. Yet, with nominal exchange rates changing little relative to the US dollar, the real exchange rate appreciated by 13.8 percent between July 2004 and January 2008, and by a total of 33.8 percent through July 2008 (Table 1).

Table 1: Ethiopia Nominal and Real Exchange Rates, 2004-2009

	Nominal Exchange (Birr/$)	Nominal Exchange Rate (Birr/$) (Index)	World Price Index ($)	World Price Index (Birr)	CPI	Real Exchange Rate Index
July 2004	8.80	100.0	100.0	100.0	100.0	100.0
January 2005	8.83	100.3	102.7	103.0	102.9	100.1
July 2005	8.84	100.5	101.4	101.9	111.5	91.3
January 2006	8.86	100.6	104.1	104.7	112.8	92.8
July 2006	8.87	100.8	108.7	109.6	125.7	87.2
January 2007	8.99	102.1	110.4	112.7	131.6	85.7
July 2007	9.21	104.7	116.8	122.3	143.6	85.1
January 2008	9.40	106.9	127.0	135.7	157.5	86.1
July 2008	9.83	111.7	139.6	156.0	235.8	66.2
January 2009	11.06	125.7	120.0	150.8	217.0	69.5
June 2009	12.00	136.4	121.3	165.4	224.4	73.7
July 04 - June 09 (percent change)	36.4%	36.4%	21.3%	65.4%	124.4%	-26.3%

Source: Dorosh, Robinson and Ahmed (2009) from CSA and IMF data.

By early 2008, with foreign exchange reserves sharply reduced and import demand in excess of supply of foreign exchange, there were two broad options:

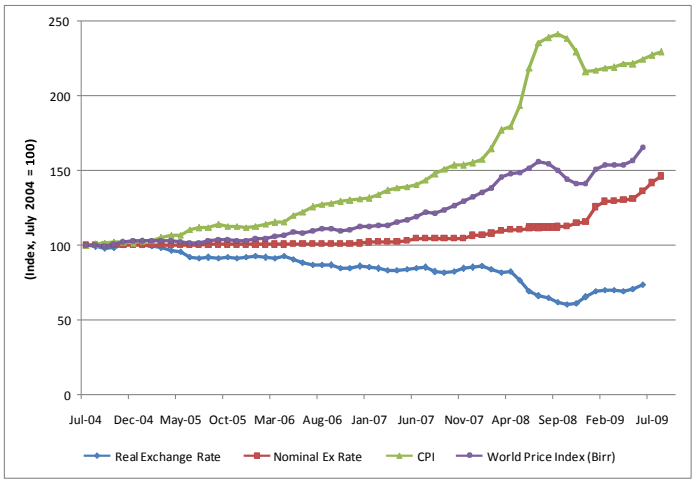
Devalue the currency so as to reverse the real exchange rate appreciation of the previous few years, reducing demand for imports, increasing supply of exports and restoring equilibrium in the market for foreign exchange; or

Control imports by imposing foreign exchange controls and allow the exchange rate to remain overvalued (and in fact become increasingly over-valued)

Nominal depreciation from 9.83 to 11.39 Birr/US$ between July 2008 and March 2009 helped reduce real appreciation of the birr to 29.9 percent, but incentives for production of tradables (export goods and import substitutes) were still substantially below July 2004 levels (Figure 2). Moreover, Ethiopia was increasingly financing its current account deficit through drawdown of official foreign exchange reserves. From June 2007 to March 2008, foreign exchange reserves fell by $381 million (equivalent to 13 percent of the value of merchandise imports in that period). For 2007/08 as a

whole (i.e. through June 2008), foreign exchange reserves fell by $264 million in 2007/08 (an amount equal to 5 percent of merchandise imports in 2006/07), in spite of large inflows of private and public transfers.

Figure 2: Ethiopia Nominal and Real Exchange Rates, 2004-2009



Source: EDRI and authors' calculations.
Note: In this figures an appreciation of the real exchange rate is denoted as a decrease in the index.

To assess, the economy-wide implications of rationing of foreign exchange, including implications for income and consumption of poor households, we utilized a CGE model of the Ethiopian economy to examine two broad policies:1) the surge in investment, public transfers and foreign capital inflows between 2004/05 and March 2008, and 2) strategies in response to the subsequent decline in foreign capital inflows: import rationing (the policy actually adopted) and an alternative strategy (a significant depreciation of the real exchange rate). The base data is the EDRI/IDS 2005/06 Ethiopia Social Accounting Matrix, a consistent macro to micro accounting framework derived from Ethiopia's national accounts, the 2004/05 Household Income, Consumption and Expenditure Survey (HICES) and other data. The CGE model itself is based on the models of Dervis, deMelo and Robinson (1982) and Lofgren et al. (2001).

The Ethiopia CGE model simulations suggest that there are substantial adverse efficiency and distributional effects of foreign exchange rationing. Foreign exchange controls result in the creation of large rents that likely accrue mainly to non-poor households. At the same time, foreign exchange controls reduce economic efficiency so that real income from factors of production (land, capital and labor) decline, as do overall household incomes (except for households who gain large rents). Moreover, foreign exchange controls inhibit depreciation of the real exchange rate, and thus slow or prevent reversal of the real exchange rate appreciation between 2004/05 and 2007/08, which has resulted in major price disincentives for exports and production of import substitutes.

Compared with the rationing scenario, the real exchange rate depreciates by 12 percent and incomes of the rural non-poor rise by 5.7 percent, in large part because of the improved performance of the export crop sector. The real incomes of the rural and urban poor also improve by 2.2 and 4.0 percent respectively, reflecting increased economic activity (a 0.7 percent increase in real GDP). Although real household incomes of the urban non-poor fall by only 3.4 percent relative to the base scenario, the fall relative to the foreign exchange rationing simulation is very large (-17.4 percent), because these households no longer receive rents (excess profits).

The modeling results presented here are not meant as definitive estimates, but rather as indicators of the broad magnitudes of the effect of the policies simulated. Further efforts are needed to refine the model simulations so as to include the effects of changes in world prices and to assess dynamic effects of shocks and policies on growth and income distribution. Nonetheless, the broad policy implications of this analysis are clear. **There are substantial costs to both foreign exchange rationing and real exchange rate appreciation in terms of growth (reduced incentives for production of tradables) and income distribution (large rents accruing to the non-poor)**.

Policy reforms need not involve full liberalization of the foreign exchange market, however. Various versions of managed floats and controls in foreign capital markets exist that can gradually reduce economic rents, improve incentives for exports and increase overall economic efficiency. Indeed, policies since late 2008 have significantly reduced the earlier appreciation of the real exchange rate. **To recover more fully from the effects of adverse external price and capital inflow shocks of 2007 and 2008, and to sustain the rapid pro-poor growth of recent years, though, further measures to restore real price incentives to exports, and reduce rents and economic inefficiencies arising from import rationing should be considered.**

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