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ETHIOPIAN DEVELOPMENT RESEARCH INSTITUTE

**Real and Nominal Effective Exchange
Rate Indexes for Ethiopia for the Month
of September 2010**

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1. INTRODUCTION

A robust measure of changes in a country's external price competitiveness is one of the prerequisites to assess the sustainability of its current account position and the appropriateness of its exchange rate. Although there are several measures of price or cost competitiveness, the most widely used is the effective exchange rate index.

The value of the domestic currency relative to the foreign currency is determined by the domestic price level of goods and services or inflation. Because of this reason, the exchange rate is measured in both nominal and real terms and the real exchange rate is a deflated nominal exchange rate which measures the purchasing power of the domestic currency and allocates its value relative to the foreign currency against which it is measured.

An effective exchange rate index has various uses and can play a crucial role in the analysis of the price competitiveness of domestic goods relative to foreign goods, the effect of foreign economic and financial developments on the domestic price level, and the demand for domestic and foreign currency assets. Two exchange rate indexes for Ethiopia; *The Broad Real Effective Exchange Rate Index* and *The Major Currency Nominal Exchange Rate Index* are constructed and their monthly updates are presented in this bulletin.

The main purpose of the *Broad Real Effective Exchange Rate Index for Ethiopia* is to reasonably measure and summarize the effects of the Birr's appreciation and depreciation against foreign currencies on the competitiveness of Ethiopia's products relative to similar goods and services produced by important trading partners and competitors in world markets.

The selection of important trading partners and competitors is based on criteria that take into account the sources and channels of competition Ethiopian products face against similar or closely substitutable goods produced by other economies. In this regard, the sources are limited to price competitiveness, defined as a change in the relative price of a tradable good between Ethiopia and another supplier (economy). The channels are through imports and exports, where competition in traded goods occurs in both domestic and foreign markets. Overall, a basket of 47 currencies representing more than 60 economies that compete with Ethiopian products through imports, exports, and third-country exports to important markets is compiled. Trade with the economies represented in the *real index* account for well over 90 percent of Ethiopia's imports and exports since 1997.

The *real index* is calculated as a weighted average of the bilateral exchange rates that have been adjusted for relative price levels of each economy selected as an important trading partner and competitor to Ethiopia. The relative price levels are measured either from the Wholesale Price Index (WPI) or the Producer Price Index (PPI) of each trading partner and competitor economy.

Where either of these two indexes is not available for a given economy, its Consumer Price Index (CPI) is used.

On the other hand, the *Major Currency Nominal Exchange Rate Index* is intended to track the Birr's movements against only major foreign currencies in order to gauge financial market pressures on the Birr, analyze short-term developments in exchange rate markets, and obtain an understanding on the effect of foreign economic and financial developments on the domestic price level, and the demand for domestic and foreign currency assets.

Unlike its real counterpart, the *nominal index* is calculated only as a weighted average of the exchange rates of three major currencies - the U.S. Dollar, the Euro, and the British Pound Sterling. The selection criteria are based on the direction of trade involving Ethiopia, i.e., the currencies mainly used by Ethiopia and its trading partners and competitors. Moreover, the currencies are also traded in deep and relatively liquid financial markets and that they represent economies with a history of low inflation and therefore, have not experienced persistent depreciation at least in the past 20 years.

Methodology Note for detail on description of and rationale for the methods used to construct the two exchange rate indexes as well as time series of the actual indexes can be obtained at www.edri.org.et.

2. EXCHANGE RATE AND PRICE DEVELOPMENTS IN SELECTED COUNTRIES

2.1 Exchange Rates

Table 1. Exchange rates of selected country currencies (Currency/USD)

Month/Year	Ethiopia	Euro area	China	India	Brazil	Turkey	Switzerland
Jan-10	12.69	0.70	6.83	45.96	1.77	1.47	1.04
Feb-10	13.33	0.73	6.83	46.33	1.85	1.52	1.07
Mar-10	13.38	0.74	6.83	45.50	1.79	1.53	1.07
Apr-10	13.43	0.75	6.83	44.50	1.76	1.49	1.07
May-10	13.47	0.80	6.83	45.77	1.81	1.54	1.13
Jun-10	13.51	0.82	6.82	46.57	1.81	1.58	1.13
Jul-10	13.62	0.78	6.78	46.84	1.77	1.54	1.05
Aug-10	13.77	0.78	6.79	46.58	1.76	1.51	1.04
Sep-10	16.37	0.77	6.74	45.98	1.72	1.50	1.00

Ethiopia

As a result of the appreciation of the real exchange of the Birr, the Ethiopian Economy has been experiencing shortage of foreign currency in the last three years. Following this, the National Bank of Ethiopia subsequently depreciated the Birr with the aim of putting the Birr's real exchange rate back to its long term equilibrium. Four major devaluations were made by the National Bank since January 2009. The latest devaluation was made in September 1, 2010 when the interbank exchange rate was raised by nearly 20 percent from Birr 13.63 per USD to Birr 16.35 per USD.

Euro Area

From the month of June 2010 onwards the Euro has continued to appreciate against US Dollar. Euro rose 1.3 percent in the month of September compared to a 1 percent rise in August 2010. The average exchange rate of Euro reached 1.307 per USD in September 2010 for the first time since May 2010. This strong appreciation of the Euro against the US Dollar was mainly driven by the relative short-term developments in the Euro area and the US economies as well as policy-driven expectations in the United States.

China

After China announced to increase the flexibility of its exchange rate in response to market forces, the Chinese currency has appreciated against the US Dollar. The pace of appreciation on September 2010 has accelerated and the exchange rate stood at 6.74 per USD - a monthly appreciation of 0.7 percent.

India

The Indian Rupee appreciated against USD in September 2010 by 1.3 percent and stood at 45.98 per USD. The Rupee's appreciation in September is higher compared to a 0.5 percent appreciation in the previous month.

In all, the US Dollar has depreciated against the major currencies in recent months.

2.2 Price Developments

Ethiopia's monthly headline inflation in September 2010 stood at 3 percent, the highest monthly inflation since July 2008. The average monthly inflation in the past two years before September 2010 was about 0.1 percent. Year-on-year basis, inflation in September stood at 7.5 percent.

Ethiopia's monthly inflation in September 2010 was significantly higher than the average inflation in its trading partners and competitor countries.

The consumer price index in China also rose by 0.6 percent in September on monthly basis, up from 0.2 percent in August. Year-on-year, China's CPI rose by 3% in September. The increase was mainly driven by higher food prices which went up by 7percent from a year earlier.

The inflation rate in the major economies of the United States (measured by the producer price index) and Euro zone (measured by the harmonized CPI) in September 2010 was low and stable as usual and stood at around 0.2% on monthly basis.

In India, based on monthly wholesale price index (WPI), monthly inflation stood at 0.6 percent in September 2010. The annual rate of inflation in the month is 8.6 percent.

3. PERFORMANCE OF EFFECTIVE EXCHANGE RATE INDEXES

Table 2: Monthly Percentage Change*

REER and Nominal Index	September 10 over August 10	August 10 over July 10	July 10 over June 10	June 10 over May 10
Exported Weighted REER Index	-13.6	-1.1	-1.9	0.7
Total Trade Weighted REER Index	-13.6	-1.2	-1.8	1.1
NEER	-16.3	-1.5	-1.7	-1.0

As a result of the devaluation of the Birr against USD at the beginning of September 2010, the nominal effective exchange rate index (NEERI) in September depreciated by 16.3 percent on monthly basis which is much higher than the previous month's 1.5 percent depreciation. However, since Ethiopia's monthly inflation in September was higher than its trading partners, the real effective exchange rate of the Birr showed a monthly depreciation of only 13.6 percent. The depreciation of the REERI in September is lower than the NEERI depreciation by 2.6 percentage points. The real exchange rate depreciation, by improving the competitiveness of the country's export commodities in the international market and the competitiveness of import competing commodities in the domestic market is expected to improve the country's trade balance.

Table 3: Year on Year Percentage Change*

REER and Nominal Index	September 10 over September 09	August10 over August 09	July 10 over July 09	June 10 over June 09
Exported Weighted REER Index	-19.5	-7.1	-9.6	-10.6
Total Trade Weighted REER Index	-19.6	-7.0	-9.3	-10.5
NEER	-19.5	-4.8	-6.9	-9.1

On annual basis, both the nominal and real effective exchange rate indices for September 2010 depreciated by about 20 percent (against the same period of the previous year). The year on year depreciation of the NEERI and REEI at a similar rate shows that Ethiopia's year-on-year inflation is roughly similar to the average inflation rate in its trading partners and competitor countries.

Table 4. Real and Nominal Exchange Rate Indexes*

Month	Official Exchange Rate (Birr/USD)	REERI		Overall NEER Index
		Exported Weighted	Total Trade Weighted	
Jan-08	9.21	94.8	94.7	64.2
Feb-08	9.29	97.9	98.2	63.4
Mar-08	9.45	99.8	100.3	60.9
Apr-08	9.51	98.7	99.2	60.3
May-08	9.55	104.5	105.6	60.4
Jun-08	9.59	115.1	116.4	60.1
Jul-08	9.63	121.0	122.3	59.5
Aug-08	9.66	126.1	127.2	60.9
Sep-08	9.68	132.7	133.6	62.2
Oct-08	9.75	140.5	140.9	64.2
Nov-08	9.91	139.6	139.8	65.0
Dec-08	9.94	131.7	131.5	63.3
Jan-09	10.74	123.7	123.6	59.5
Feb-09	11.04	124.5	125.0	58.8
Mar-09	11.08	125.0	125.5	58.1
Apr-09	11.14	123.4	123.9	57.3
May-09	11.20	118.9	119.4	55.9
Jun-09	11.65	112.8	113.7	52.8
Jul-09	12.11	109.6	110.3	50.7
Aug-09	12.49	105.4	106.3	48.8
Sep-09	12.50	105.2	106.3	48.4
Oct-09	12.55	103.7	105.0	48.0
Nov-09	12.58	101.4	102.4	47.6
Dec-09	12.62	102.4	103.2	48.0
Jan-10	12.69	102.5	103.1	48.2
Feb-10	13.33	99.6	100.1	46.9
Mar-10	13.38	97.5	98.2	47.0
Apr-10	13.43	96.9	97.4	46.7
May-10	13.47	100.2	100.7	48.5
Jun-10	13.51	100.9	101.8	48.0
Jul-10	13.62	99.1	100.0	47.2
Aug-10	13.77	98.0	98.9	46.5
Sep-10	16.37	84.6	85.4	38.9

*Some figures of export and total trade weighted REERI have been revised

Figure 1. Trends in NEERI, REERI and Official exchange Rate

