REAL EXCHANGE RATE AND ECONOMIC GROWTH DYNAMICS IN THREE EASTERN AFRICAN COUNTRIES: AN EXPLORATORY REVIEW

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Abstract
This paper provides an overview of the dynamics of real exchange rate and economic growth in three Eastern African countries since 1960. In particular, the paper investigates the nature of exchange rate regimes and the impact that they have on economic growth, as well as the movement of real exchange rates and real GDP from 1970—2010 in these countries. The common trends identified were as follows: These countries pursued fixed exchange regimes from the 1960s until the late 1980s and early 1990s, which repressed their economic growth; the countries pursued floating and managed floating regimes from the 1990s to date, resulting in moderate-to-rapid economic growth. We conclude that liberalised exchange rates, which lead to undervalued currencies in these Eastern African countries, are growth-enhancing.

Keywords: Eastern Africa, Economic Growth, Low Income, Real Exchange Rate

JEL Classification: E02, N17, O40, O55

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1. Introduction
The real exchange rate has not entered into growth debates, until fairly recently. Eichengreen (2007) argues that this is so, because pioneering growth models, such as the Solow Model, were formulated under the assumption that economies are closed without external activities. Nonetheless, modern economic theory has underscored the real exchange rate as a fundamental determinant of growth. The export-led growth theorists, for instance, have stressed that the adoption of a competitive real exchange rate is crucial in engineering economic growth (Eichengreen, 2007).

According to this proposition, a moderately undervalued currency acts as a ‘magic wand” for unlocking resources from idle sectors of the domestic economy into the more productive export sector. This is characterized by technological transfer; and that by learning-by-doing, countries using this strategy are able to maintain the growth momentum and grow into major economies (Gala, 2007; Freund & Pierola, 2008). In contrast, other studies have emphasised the need to keep the exchange rate in check; since exchange-rate volatility could prove disastrous to the growth prospects of an economy. Calvo and Reinhart (2000) noted that most countries have hesitated to float their currencies – with the fear of volatility consequences. According to this proposition, the real exchange-rate volatility could cause severe financial distress and balance-sheet mismatch, especially in emerging economies, whose assets are denominated in local currencies; but whose liabilities are denominated in foreign currencies (Eichengreen, 2007). This, they maintain, could cause severe bankruptcies and financial crises, liquidity problems, and wealth transfer – all of which can inhibit economic growth.

By now, it should be obvious that the real exchange rate has been and would continue to be vital in determining economic growth within and across countries. Dollar (1992) found that Eastern Asian countries, such as Japan, South Korea, Taiwan, Hong Kong, Singapore, and China have used undervalued currencies, in order to enhance their economic growth over the years.

18 The success story of the “Asian Tigers” and, more recently, China has been the main example highlighted by these economists

19 This reluctance to float is now known as the “fear of floating” in the literature.
The World Bank (1984) recounts that overvalued currencies have inhibited the growth of countries in Latin America and Africa. In Africa particularly, the World Bank found that persistent misaligned real exchange rates have caused severe drops in agricultural output (World Bank, 1984).

The link between the exchange rate and economic growth has been widely documented in the literature. Past studies have discussed the complexity of the issue, mostly concentrating on countries other than those in Africa (see Dollar, 1992; Razin and Collins, 1997; Acemoglu et al., 2002; Fajnzylber et al., 2002). This paper examines the real exchange rate and economic growth trends over the years by focusing on exchange rate regimes and reforms, as well as the growth policies and programmes implemented in three Eastern African countries, namely: Ethiopia, Kenya, and Tanzania.

The choice of these countries was motivated solely by the fact that they share common economic fundamentals and policies. The rest of the paper is organized as follows: Section 2 examines the exchange rate regimes and policies pursued by the three countries; Section 3 outlines the growth programmes and policies implemented by these countries; Section 4 traces the movements of the real exchange rate and the real GDP within these countries from 1970 to 2010; and Section 5 draws conclusions from the preceding sections.

2. Exchange Rate Regimes and Policies

From 1960 until now, the Eastern African countries have pursued various exchange rate policies and regimes. These regimes have varied from fixed (or pegged) regimes to floating regimes. The policies and regimes pursued by these countries are presented in the form of country-based case studies in what follows.

Ethiopia

Ethiopia has, over the years, pursued a number of exchange rate policies. During the pre-1992, the country pursued a fixed exchange rate policy; whilst in the post-1992, it was characterised by a managed-float regime (IMF, 2012). Under the agreement of the IMF, each member country’s currency was assigned a central parity against the US dollar, allowing currencies to fluctuate by deviation of plus or minus 1 per cent of the parity.

Ethiopia, as a founding member, was bound by this agreement. Member countries were granted the authority to devalue or revalue their currencies in situations of misalignment.

In 1945, the Ethiopian birr was issued having a value of 5.52 (0.36 grams) of fine gold in line with the Bretton Woods Agreement. The currency was pegged at 2.48 birr to the US dollar in the same year. However, by 1964, the Ethiopian birr was overvalued; and accordingly, it was devalued to 2.50 birr per US dollar (Deressa, 2006). The Bretton Woods System collapsed in 1971, leading to the floating of the US dollar. The monetary authority of Ethiopia revalued the exchange rate by 8.75 per cent to 2.30 birr per US dollar on 21 December, 1971 (see Deressa, 2006).

The exchange rate was again revalued to 2.07 birr per US dollar in February 1973, after the US devalued the dollar by 10 per cent. From 1973 onwards, the fixed exchange rate regime was maintained – until 1992. In 1992, the monetary authority of Ethiopia undertook devaluation, in an attempt to enhance export competitiveness, to ensure the efficient allocation of resources, and to remove parallel markets and illegal cross-border trading activities. The other aim of the devaluation exercise was to provide an avenue for liberalising the exchange rate. In May 1993, a fortnightly auction market was introduced. The auction market included the Dutch Auction System, which used the official exchange rate, and the Marginal Pricing Auction System, which employed the marginal exchange rate (Deressa, 2006).

However, these systems were unified in July 1995. By August 1996, the fortnightly auction market was abolished, thereby paving the way for the adoption of the weekly auction market, in order to contain the growing demand for foreign exchange (IMF, 2012). Forex bureaux were allowed to operate (see IMF, 2012). The wholesale auction system replaced the retail auction system in September 1998. The interbank foreign market was also introduced, operating synchronously with the weekly auction system until October, 2001. Since then, the official exchange rate has been determined, according to the daily interbank foreign exchange market (IMF, 2012).

Kenya

Since independence in December 1963, until 1974, Kenya has operated a fixed exchange regime, with the Kenyan shilling pegged to the US dollar. Later within this period, the pegged-exchange rate was modified into the special-drawing rate, due to discrete devaluations (Ndung’u, 2000). The exchange rate was frequently misaligned between 1974 and 1981. For instance, the exchange rate depreciated at some point by 14%, leading to the devaluation exercise in the 1981/82 period (McPherson and Rakowski, 2000).

As a measure to prevent future misalignments, the Kenyan government shifted from the fixed-exchange regime to a crawling-peg regime in 1982. The objective for adopting the crawling regime was not met. The movement of the nominal exchange rate has not been stable, as was expected by the monetary authorities in Kenya after 1982. Thus, the crawling-peg exchange rate regime was abolished, with a dual-exchange rate regime being adopted in 1990. As in previous regimes, the dual-exchange rate regime also experienced overvalued exchange rates (see McPherson and Rakowski, 2000).
The exchange rate was again devalued; and the official exchange rate was unified with the black market rate. By that time, in 1993, the exchange rate was floated, allowing market forces to establish the rate. The main aim of the floating regime was to ease pressures on the balance of payment, and to remove market distortions (Ndung’u, 2000). Figure 1 shows the various exchange regimes of Kenya since independence.

**Figure 1. Exchange Rate Regimes of Kenya from 1963 to 2009**

![Graph showing exchange rate regimes from 1963 to 2009](image)


**Tanzania**

Tanzania has maintained a fixed exchange regime from independence in 1961, and well into the 1980s. This led to the development of a parallel market with premiums. The premium rose from 40 per cent in 1970 to about 250 per cent in around 1985, eventually surpassing 700 per cent in March 1986 (Nord et al., 2009). The official exchange rate of Tanzania was devalued several times in the 1980s; although these devaluations could not impact the parallel market, due to persistent inflation (Nord et al., 2009).

The misaligned exchange rate persisted into the 1980s, as the government financed public losses and budget deficits by printing money; inflation responded, rising by 30 per cent during this period (Nord et al., 2009). In addition, foreign currency became very scarce; and the increasing default on debt forced the authorities to resort to licensing and rationing. Exporters were compelled to give up their exchange earnings; and they were regularly under undue scrutiny and licensing procedures. Importers were also subjected to all kinds of regulations and licensing procedures, thereby exerting pressure on the country’s currency (Nord et al., 2009).

Amid economic hardships and severe price and exchange rate distortions, Tanzania designed and began to implement the Economic-Recovery Programme (ERP) in 1986. The main aim of the ERP was to restore economic stability, and to reform the structural system of the economy (IMF, 1996a). As part of the ERP, the shilling was largely devalued (Edwards, 2012). The exchange rate regime was gradually shifted from a pegged system, with a large parallel market premium, to a more unified managed float – between 1986 and 1993.

Before that a crawling-peg system was adopted in 1986 – as part of the gradual shift process (Nord et al., 2009). The nominal exchange rate was devalued by 60 per cent between March and June of 1986, leading to a depreciation of the real effective exchange rate by 50 per cent (Edwards, 2012). Notable exchange rate adjustments were also undertaken under the ERP. The nominal exchange rate was devalued by 95 per cent between March 1986 and mid-1995, leading to a real effective exchange rate depreciation of around 87 per cent. The parallel market premium was cut from 700 per cent to about 30 per cent.

In 1992, the financial sector was liberalised, allowing for the establishment of forex bureaux and the creation of foreign deposit accounts in local banks (IMF, 1994b; Nord et al., 2009). Besides, the forex bureaux were permitted to transact in foreign exchange at negotiated rates, meaning that the parallel market was, thus, legitimised. The foreign market responded favourably and sharply; the volume of transactions undertaken by forex bureaux increased...
markedly within a fiscal year, rising from $100m in 1992 to around $400m in 1993, financing about 20 per cent of the commodity imports (Nord et al., 2009; Edwards, 2012).

Finally, the auction system was replaced by the interbank foreign exchange market in 1994. Exporters were allowed to retain most of their proceeds, in order to finance their import needs from 1992. All restrictive requirements on exporters were abolished by 1994 (IMF, 1994b; Nord et al., 2009).

3. Economic Growth Policies and Programmes

The Eastern African countries have implemented a number of growth policies, strategies, and programmes, in order to enhance their economic growth, to reduce poverty, and to ensure the more equitable distribution of wealth in the past, and in recent times. The most common programmes implemented in these countries were the ERPs and SAPs. Other notable strategies included the Growth and Poverty Reduction Strategies, and the Medium-Term Development Strategies. The country-based overview of the strategies, policies, and programmes are presented sequentially below.

Ethiopia

At the beginning of the 1980s, the Ethiopian economy was in a state of severe crisis. The protracted civil war, recurring drought, corruption, and inflexible institutions, coupled with the heavily controlled economy led to widespread economic underperformance, poverty, and shortages of essential commodities at the turn of the decade in 1990 (see World Bank, 1984). The Ethiopian government subsequently bought into various World Bank- and IMF-sponsored initiatives already popular in other sub-Saharan African countries (World Bank, 1984 and 2013).

ERPs and SAPs were the dominant programmes at the time. The SAP and ERP were aimed at reducing poverty and enhancing growth (World Bank, 1984). The initiatives were also geared towards reforming and restructuring public institutions and enterprises. The core of the ERPs and SAPs was to facilitate the transformation of the economy from a state-controlled system to a market-oriented one, thus, providing the enabling environment with the restoration of macroeconomic stability and a conducive business environment (African Development Bank, 2000).

In 1993, the Ethiopian government implemented the Agricultural Development-Led Industrialization Strategy (ADLI) to enhance agricultural sector productivity (see Ohno, 2009). The main goals of the strategy were to reduce poverty, to enhance industrial development, and to ensure a dynamic and self-sustaining growth, especially, in the countryside. In addition, the First and Second Five-Year Development Programmes (FFYDP and SFYDP) were devised, in order to improve state institutions and public affairs (Ohno, 2009).

Building on the earlier policy initiatives, the Interim Poverty-Reduction Strategy Paper (I-PRSP) was launched in 2000 (World Bank, 2001). Under the Umbrella of the I-PRSP, the Sustainable Development and Poverty-Reduction Programme (SDPRP) was developed and implemented in 2002. This strategy was a three-year strategy lasting from 2002 until 2005 (see World Bank, 2001).

As in earlier strategies, the thrust of the SDPRP consisted of: overriding and an intentional focus on agriculture, as this sector is the source of livelihood for 85 per cent of the population, where the bulk of the poor live; strengthening private sector growth and development, especially in industry – as a means of achieving off-farm employment and output growth (including investment in the necessary infrastructure); rapid export growth through production of high-value agricultural products, and increased support for export-oriented manufacturing sectors, particularly the intensified processing of high-quality skins/leather and textile garments; the undertaking of major investment in education and strengthening the ongoing effort on capacity building (World Bank, 2001).

This was done, in order to overcome critical constraints to the implementation of development programmes; deepening and strengthening the decentralization process, in order to shift decision-making closer to the grass-roots population, and to improve responsiveness and service delivery; together with improvements in governance – in order to move forward in the transformation of society (World Bank, 2001). Further, this was done in order to improve empowerment of the poor, and to set a framework, and to provide an enabling environment for private sector growth and development, agricultural research, water harvesting and small-scale irrigation, and to focus on increased water-resource utilization, in order to ensure food security (World Bank, 2001).

The second strategy implemented under I-PRSP was the Plan for Accelerated and Sustained Development to End Poverty (PASDEP). It gathered lessons from the SPRP, and as such it was more comprehensive than the SDPRP. The PASDEP was, consequently, considered as a national development plan, which deepened the fundamentals of the SDRP by revolutionising various sectors of the Ethiopian economy (World Bank, 2001).

In an attempt to reinvigorate the economy, as well as to reduce the incidence of poverty in the rural communities, the government of Ethiopia initiated a five-year Growth and Transformation Plan (GTP) from 2010 through to 2015 (MOFED, 2010). This strategy takes up the gains from the previous Plan for Accelerated and Sustained Development to End Poverty (PASDEP). The programme emphasized the need to promote rapid and broad-based economic growth – through seven strategic objectives:
sustaining equitable economic growth, maintaining growth focused on agriculture and rural areas, developing industry, expanding the infrastructure, enhancing the expansion and quality of social development, building capacity and promoting good governance, and ultimately promoting the empowerment of women and young people (MOFED, 2010).

Kenya

From independence, in 1963, the government of Kenya has implemented a number of growth strategies and initiatives aimed at eliminating hunger, disease, and illiteracy. The pioneering plan to enhance growth and to achieve sustainable development in Kenya was the Sessional Paper No. 1 published in 1965 (Republic of Kenya, 2003). The paper outlined major strategies for achieving higher growth in Kenya. These strategies included modernising the agricultural sector, revolutionising the manufacturing sector, and reforming institutions and systems, in order to build a conducive investment climate (Republic of Kenya, 2003).

Following the Sessional Paper No. 1, the Poverty-Reduction Strategy Paper (PRSP) was soon formulated in 1999 (Republic of Kenya, 2003). The PRSP was a World Bank- and IMF-supported programme, which was designed to aid countries suffering from poverty and similar growth-related crises. The PRSP was formally launched in Kenya in 2001. In the Kenyan case, the PRSP was a short-term policy initiative for attaining the long-term vision presented in the National Poverty Eradication Plan (NPEP), which had been designed in 1999 (Republic of Kenya, 2003). The NPEP had a 15-year timeline to eliminate or reduce poverty in line with the MDG of halving poverty by 2015.

The PRSP and NPEP were, however, ephemeral. The government recently initiated the Economic Recovery Strategy (ERS). The ERS was launched in 2003 with the aim of generating economic growth, halving poverty by 2015.

The most recent strategy implemented is the Kenya Vision 2030 development strategy. This policy paper was developed in 2007, in order to consolidate the gains from the ERS. The strategy was formally launched in 2008 (Ndulu et al., 2008). This ambitious strategy was implemented to transform Kenya into a globally competitive and industrialised country, which was capable of providing its people with a high-quality life in a clean environment by 2030. The Vision 2030 had three main pillars: the economic pillar, aiming to sustain growth of 10% yearly to 2030; a social pillar, aiming to create a just, cohesive, and equitable social development; and a political pillar with issue-based, people-centred, result-oriented, and accountable democracy (Government of Kenya, 2003 and 2007; Ndulu et al., 2008).

The Vision 2030 was streamlined into three medium-term plans (Government of Kenya, 2003 and 2007). The first five-year Medium-Term Plan (MTP I) spanned 2008–2012; and it consolidated the gains from the ERS. The MTP I has since been reviewed – with satisfactory results reported. The second five-year Medium-Term Plan (MTP II) spanning 2013–2017 was launched in October 2013; and it aimed at tightening the linkages between government priorities, planning, and budgeting. The next Medium-Term Plan is yet to be launched (see Ndulu et al., 2008).

Tanzania

Throughout the 1960s and the 1970s, the economy of Tanzania was mainly State-controlled. The economy was generally not flexible; and it was characterised by monopolistic and severely regulated institutions and production processes (see Bigsten and Danielsson, 1999). These socialist mechanisms, coupled with a war against Uganda and external shocks around the 1970s led to significant macroeconomic instability; GDP per capita fell remarkably, agricultural exports crashed, inflation climbed to a period high; the economy stagnated; and the number of consumer goods dwindled (Bigsten and Danielsson, 1999).

The mounting pressures of economic stagnation compelled the government of Tanzania to buy into the IMF-sponsored Economic Recovery Programme (ERP). The central theme of the ERP was to restore the economy, and to initiate structural reforms. The implementation of the ERP began to take shape in 1986. The first step was to realign prices by abolishing price ceilings and floors, and by devaluing the Tanzanian Shilling (Edwards, 2012).

In addition, public enterprises were also re-organised, and in some cases, privatised. Subsidies were removed, producer prices were increased, in order to boost outputs; and furthermore, import restrictions were abolished (Mwase and Ndulu, 2008).

The beginning of the 1990s saw significant liberalisation of the Tanzania economy, with more concentration directed towards market-oriented reforms. By 1996, Tanzania had begun to implement more aggressive liberalisation policies, leading to significant improvement in the economic indicators. For instance, annual real growth averaged around 5 per cent from 1996 (2 per cent more than the period 1990-1995), inflation fell to single digits by 1999, and...
even below 5 per cent in 2002 (Mwase and Ndulu, 2008). The moderate macroeconomic stability recorded, as a result of the economic reforms stimulated the flow of official donor assistance into Tanzania, which further helped to cushion the real growth.

Another significant step was the improvement in monetary management by the central bank (Bank of Tanzania). Cash was effectively managed by the Bank of Tanzania, thereby preventing government withdrawals, and consolidating the funds from donors. This was enough to eliminate the budget’s domestic financing requirements, further easing inflationary pressures. The tax authority’s decision to widen the tax base under a lower tax rate regime led to huge fiscal consolidation from the tax revenue generated (Mwase and Ndulu, 2008). For instance, revenue to GDP increased from 12.1 per cent in 1999 to 13.6 per cent in 2004. The swift and often aggressive macro-economic reforms implemented from 1986 enabled Tanzania to reach the decision point under the HIPC Initiative in 2000, and the completion point in 2001. Thus, the IMF cancelled Tanzania’s outstanding debts; other donor countries and institutions followed suit, by cancelling their debts with Tanzania. This relieved the government from the pressure of debt servicing, and instead allowed them to concentrate on improving the economy. The National Irrigation Master Plan was implemented in 2002 to irrigate 29.4 million hectares of arable land, in order to boost the agricultural productivity (Mwase and Ndulu, 2008).


The link between the real exchange rate and the real GDP has received wide coverage in the literature. Slightly undervalued real exchange rates tend to be associated with an upward surge in the real GDP, while an overvalued exchange rate tends to exert a negative impact on the real GDP surge. The country-based discussion of the real exchange rate and the real GDP movements from 1970 to 2010 are presented in what follows.

**Ethiopia**

Confirming our earlier discussion, Figure 2 shows that the exchange-rate regimes in Ethiopia were of two phases: a fixed exchange rate characterising the pre-1992 period, and a managed-float regime characterising the post-1992 period. Growth stagnated under the fixed-exchange rate regime: real GDP was 16436.811 million in 1970, and 19211.149 million in 1992 (a percentage change of 14.4 points, and 0.11 percentage on the year-on-year basis).

However, when the managed-float regime was introduced post-1992, the real GDP increased moderately between 1993 and 2003, reflecting an increase in the real exchange rate. Beyond 2003, the increase in real GDP was tremendous (increasing from 32263.994 million in 2003 to 68669.848 million by the end of 2010. Clearly, as the real exchange rate was allowed to float, it gradually reflected on the fundamentals of the economy. Hence, the exchange rate depreciation led to increases in exports and the inflow of aids, and the ensuing real GDP growth (see Figure 2).

**Kenya**

Kenya maintained a fixed-exchange regime from 1963 to 1974, with few devaluations within this period. Real gross domestic product increased moderately over this period. For instance, real GDP increased from 11347.681 million in 1970 to 14007.97 million in 1974. In 1974, a special drawing rate was instituted, replacing the pegged system.

![Figure 2. Trends in Exchange Rate and Economic Growth (1970-2010)](image-url)
Between 1974 and 1981, the nominal exchange rate was frequently misaligned, prompting devaluation in 1981 (McPherson and Rakovski, 2000; Ndung’u, 2000). However, the real GDP continued to increase. The real GDP increased from 13955.831 million in 1975 to 20363.116 million in 1982 (see Figure 3). The shift from fixed to crawling, dual, and finally to a managed-float system seems not to have had any significant impact on the real GDP, as Figure 3 clearly depicts.

**Figure 3. Trends in the Exchange Rate and in Economic Growth (1970-2010)**

Tanzania

Tanzania operated a fixed-exchange rate regime right from independence until well into 1986, when the Economic-Recovery Programme (ERP) was implemented (see Figure 4). During this period, the economy of Tanzania experienced moderate growth. Real gross domestic product increased from 9554.445 million in 1970 to 14721.126 million in 2010. The moderate growth was due to a recurrent overvalued exchange rate, which led to an export decline, and the accompanied, and often irregular devaluations of the currency.

The economy of Tanzania shifted gradually from a pegged system to a more unified float, from 1986 to 1993; and this was often characterised by devaluation. Real gross domestic product increased faster during this period from 14721.126 million in 1986 to 19905.344 million in 1993 (see Figure 4). Beyond 1993, the exchange rate was eventually liberalised, thereby allowing the exchange rate to float. It is obvious from Figure 4 that the floating regime had a tremendous impact on economic growth; real GDP increased remarkably from 20509.138 million in 1994 to roughly 51417.454 million in 2010 (an increment of about 60.11 per cent in sixteen years).

**Figure 4. Trends in Exchange Rate and Economic Growth (1970-2010)**

Source: Constructed from Feenstra et al. (2013)
5. Conclusions

This paper has provided an overview of the real exchange rate and the economic growth dynamics in three Eastern African countries, namely: Ethiopia, Kenya, and Tanzania. One common conclusion is that these three countries pursued a fixed exchange rate regime from the 1960s until the late 1980s and early 1990s. Over this period, these countries undertook a series of devaluations, in order to keep their exchange rates aligned with major currencies, such as the US dollar, and the British pound sterling. The fixed exchange rate regimes were usually characterised by, at best, slow increments in real GDP. The IMF/World Bank sponsored economic recovery and structural adjustment programmes, paved the way for exchange rate liberalisation later in the 1980s and early 1990s within these countries. As the exchange rates were liberalised, they rapidly moved upwards, increasing real GDP concomitantly. One other conclusion is that for those countries surveyed, the real exchange rate undervaluation is growth-enhancing. Finally, the common growth policies and strategies pursued by these countries were geared towards generating growth, alleviating poverty, and redistributing income.

References