Government of Rwanda
Ministry of Finance and Economic Planning

22ⁿᵈ Meeting of the Intergovernmental Committee of Experts
Sub-regional Office for Eastern Africa (SRO-EA)

Implementing the African Continental Free Trade Area in Eastern Africa: From Vision to Action

FINANCING GROWTH IN THE CONTEXT OF SUSTAINED BALANCE OF PAYMENT DEFICITS:

THE CASE OF EAST AFRICA

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Abstract

East Africa is one of the fastest growing region in Africa. However, there are concerns about the growth in the region being undermined by persistent large current account deficits and low levels of savings. Historically, countries that achieved and sustained high growth rates were able to finance their growth without running against the balance of payment constraint and maintaining high domestic saving rates. In an important contribution to the literature, Rajan et al. (2005) find that the more a developing country finances its investment through its domestic savings, the faster it grows. Conversely, the more external financing it relies on, the more slowly it grows. Based on the aforementioned, this paper explores the main drivers of balance of payment constraint in the region. It also looks at how sustainable this pattern of growth and development is, and argues, by way of econometric analysis, that the large current account deficits have undermined economic performance over the long-run. We conclude that policies need to be instituted to accelerate the reduction in dependence on foreign finance and improve the net trade balance.

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1.   Introduction

At the start of the new millennium, the African narrative changed from that of "the hopeless continent" to "Africa rising". Growth surged in the continent, with East Africa emerging as the fastest growing region. Despite the economic growth resurgence, concerns still remain. The growth in the region risks being undermined by the persistent large current account deficits and low levels of savings. Historically, countries that achieved and sustained high growth rates were able to finance their growth without running against what Thirlwall (1979) refers to as the balance of payment constraint, which postulates that "*no open economy can grow faster, in the long run, than the rate consistent with balance of payments equilibrium on current account unless it can finance ever-growing deficit*s." In addition, such countries also maintained high domestic saving rates.

As a result of the improved economic performance, the region's domestic consumption increased. Due to failure of the domestic market to satisfy the increase in demand, it has mainly been satisfied through imports without an equivalent expansion of exports. As a consequence, most countries run large current account deficits. It is worth noting that one of the main gains for countries' from international trade should actually be the ability for them to import things they want and the proceeds from exports should enable them to do so (Krugman, 1996). Clearly, this in not the case for East Africa, where the export growth has to significantly outpace the import growth to make a difference to the trade deficit. This is despite the fact that exports are recognized as a unique component of the aggregate demand as they can pay for the import content of other components of demand such as consumption, investment and government expenditure. If any of these components of demand increase, while exports are static, the balance of payments will probably worsen, and growth becomes demand constrained (Thirlwall, 2011).

Moreover, in the case of the countries in the region, where the export growth has remained low, the large current account deficits are largely financed by capital flows. Contrary to earlier predictions that capital flows should aid developing countries to grow faster by relaxing the balance of payment constraint, empirical studies focusing on the demand side reveal that capital flows actually have a negligible effect on a country's growth rate (Thirlwall, 2011). This is echoed in supply side empirical research, notably, Rajan et al. (2007) whose findings indicate that the more external financing a country relies on, the more slowly it grows.

In an important contribution to the literature, the Rajan et al. (2007) also emphasized the importance of savings for economic growth. Indeed, the fact that savings aid in capital accumulation, which in turn is the main driver of long run growth, is the basis of the standard growth model developed by Robert Solow and subsequently expanded by his successors (Ndikumana, 2014). However, in East Africa, the savings level are still low – at less than 20 percent, leading to high investment-savings gap and further dependence on foreign capital.

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Against this backdrop, this paper discusses the nexus between the current account and the balance of payment constraint and explores the main drivers of the balance of payment constraint in the region. It concludes by providing econometric analysis on how growth in the region is financed.

2.   Current account and Balance of Payment Constraint

The current account is a salient component of the balance of payment position which in turn affects growth performance, both directly and indirectly. The current account position of a country is the main constraint on economic growth, because it imposes a limit on the demand to which supply can adapt.

2.1.   Trends in Trade and Current Account Balance

Large current account deficits are a persistent feature of most Eastern Africa countries (Figure 1). The driver of these current account deficits has largely been merchandise trade imbalances that arise due to a combination of external shocks and strong domestic demand that have led to a faster growth in the import bill than in exports. Indeed, trade in goods and services is actually recognized as the largest and most volatile component of the current account (Bosworth, 1993; Osakwe, 2007).

Figure 1: Trade and Current Account Balance (% of GDP

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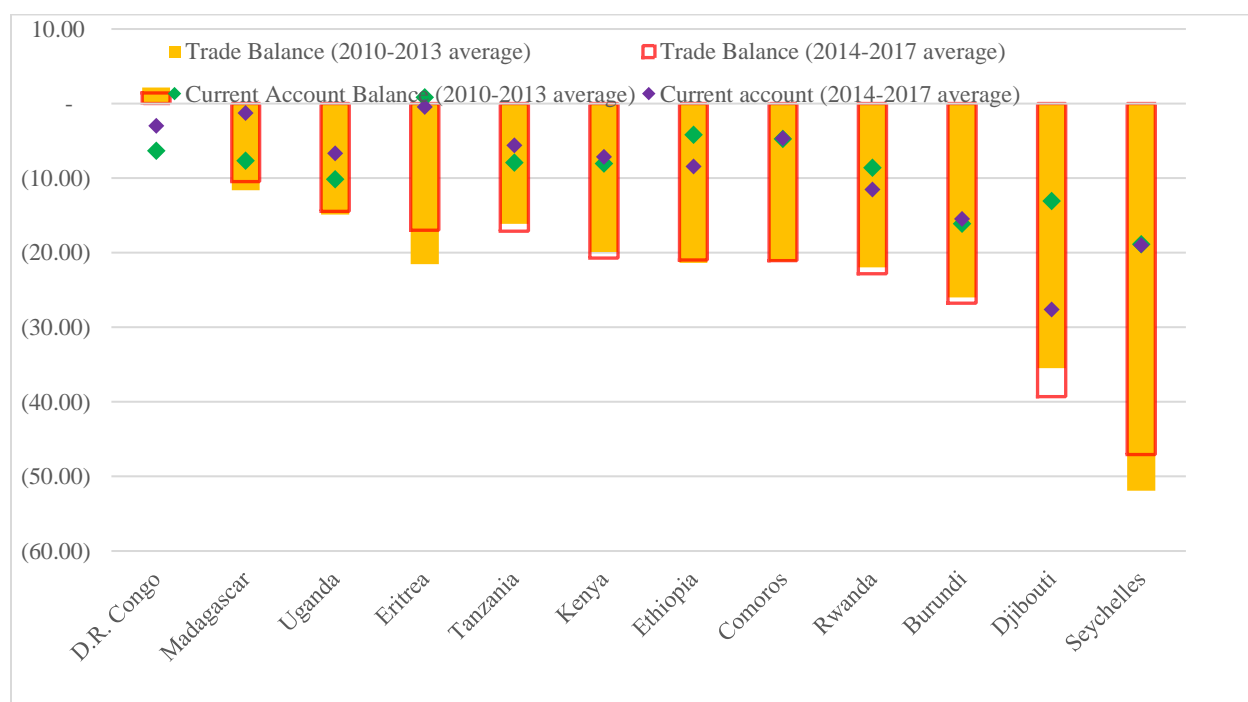
Apart from D.R. Congo, all countries in the region had trade deficits during the period 2010 to 2017, ranging from 10 percent to 53 percent of GDP (Figure 1). D.R. Congo's trade surplus was driven by positive contribution from the net exports of its minerals which surpassed its net imports. Favorable prices of commodities in the international market and increase in the export volumes of the minerals[2] when the prices started declining contributed to the positive performance of the country's exports (Banque Centrale du Congo, 2011 and 2013). Nevertheless, repatriation of profits by international companies operating in the natural resources sector led to a strongly negative primary income balance (though an improvement of the financial account balance) which contributed to the current account deficit (IMF, 2014).

The widening of the trade deficit in some countries in the period 2014 to 2017 was mostly due to increased appetite for infrastructural developments[3] which resulted in a large import bill and relatively low international commodity prices which subdued export earnings. For instance, import share of capital goods by Ethiopia, which has the largest number of high value infrastructure projects in Eastern Africa (Deloitte, 2017) increased from 33.4 percent in the 2012/13 financial year to 41.8 percent in the 2014/15 financial year resulting to a high import bill (NBE, 2014/15). The high import bill coupled with lower export earnings in some years (for instance, export earnings from coffee dropped by 7.4 percent owing to 14.3 percent decline in international price despite 8 percent increase in export volume in 2015/16) contributed to widening of the trade deficit. Similarly, deterioration of Djibouti's trade balance was attributable to increase in importation of capital products for its infrastructural projects (Banque Centrale de Djibouti, 2015 and 2017).

Major drought in the horn of Africa in 2011 and vulnerabilities in the global markets such as rise of oil prices and the Eurozone crisis contributed to the trade deficit in the period 2010 to 2013 in some countries. Kenya's share of oil imports increased from 24 percent in the fiscal year 2010/2011 to 27 percent of total imports in the fiscal year 2011/2012 due to higher international oil prices (CBK, 2012) while its export quantities of coffee, tea and horticulture declined mainly due to decreased production as a result of the drought and reduced demand due to the Euro-Zone recession[4] (KNBS, 2012). Furthermore, the Euro zone sovereign debt crisis which caused global economic volatility exposed some local currencies making them depreciate against major currencies.

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[2]For instance, copper production and exports crossed the 1 million tons threshold, making DRC the world's 6th largest copper exporter while the production of gold also more than doubled thus improving mineral export volumes in 2014 (IMF, 2015).

[3] According to Deloitte (2017), East Africa accounts for 23.4% of projects on the continent.

[4] In the first six months of 2012 horticulture exports declined to US$ 338.7 million from US$ 368.5 million in the same period in 2011, attributed to lower demand, particularly for fruit and vegetables, because of the euro zone debt crisis (Massa et al., 2012).

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It is evident that the trade component which drives the current account deficit is largely affected by external and internal shocks. This is an in indicator of underlying trade structure problems among the countries (McCombie and Thirlwall, 2004).

2.2.   Drivers of the Balance of Payment Constraint

This section unpacks the main drivers of the balance of payment by employing the extended balance of payment constrained growth model derived in Thirlwall and Hussain (1982) which has the following form:

$$y^* = [(1 + \Theta B + \varepsilon)(P_d - e - P_f) + \Theta \sigma w + \tau(k - P_d)]/\pi \qquad (1)$$

Where y^* is a country's growth rate consistent with the overall balance of payment equilibrium; B is the price elasticity of demand for exports and $B < 0$ as a rise in relative price of exports will reduce export demand; ε is the price elasticity of demand for imports and $\varepsilon < 0$ as a rise in relative price of imports will reduce import demand; P_d is the rate of change of domestic price of exports, e is the rate of change of exchange rate measured as the domestic price of foreign currency, P_f is the rate of change of foreign price of imports, σ is the income elasticity of demand for exports and $\sigma > 0$ as rise in world income leads to an increase in demand for goods, w is the world income growth, k-pd is the growth of real capital flows, is the income elasticity of demand for imports and $\pi > 0$ as rise in domestic income is partly spent on imports, Θ and τ represent the proportion of total import bill financed by export earnings and capital flows respectively.

It can be deduced from equation (1) that the growth of exports $\Theta B(P_d - e - P_f) + \Theta \sigma w/\pi$, pure terms of trade effects $(P_d - e - P_f)/\pi$, real capital flows $\tau(k - P_d)/\pi$ and a residual determined by the interaction of relative price changes and price elasticity of demand for imports $\varepsilon(P_d - e - P_f)/\pi$ are the main components of the balance of payment constrained growth rate (McCombie, 1993; Pacheco-López, 2005; Thirlwall, 2011). The extended model of Thirlwall and Hussain (1982) represented in equation (1) was later modified by Moreno-Brid (2003) to take into account sustainable debt accumulation and interest rate payments abroad (discussion in section 2.2.2).

Based on the aforementioned, it is evident that international trade is a major determinant of the balance of payment constraint mainly through growth of exports and terms of trade and this is discussed in the remainder of this sub-section.

2.2.1. Structure and Pattern of Trade

The disparity in economic growth amongst countries/regions is attributable to their varying income elasticity of demand for exports and the propensity to import (Hussain, 1999; Thirlwall, 2011). This is illustrated in Thirlwall's law below (equation 3) whereby if $\frac{e_r}{e_a} < 1$, and growth in A is

constrained by the need to maintain balance of payments equilibrium, then nation A is constrained to grow at a slower rate than the rest of the world[5] (Davidson, 1992).

$$\frac{y_a}{y_{rw}} = \frac{e_r}{e_a}$$ (3)

Where e_{rw} is the world's income elasticity of demand for country A's imports, y_{rw} is the rest of the world's growth in income, y_a is the rate of growth of country A's GNP, e_a is country A's income elasticity of demand for imports.

The income elasticities of demand for imports and exports are a reflection of the non-price competitiveness factors such as technical sophistication, reliability, after-sales service, marketing and distribution which are crucial in accounting for a country's success in international trade.[6] (McCombie, 1993; Hussain, 1999; Were et al, 2002; Thirlwall, 2011). Eastern Africa's poor performance in the international market, whereby its share of world exports has stagnated at less than 1 percent (Figure 2), compared to the East Asia tigers has largely been pegged to the characteristics of its exports (Hussain, 1999; Thirlwall, 2011).

Most of the Eastern Africa countries specialize in the export of primary commodities which are historically known to have lower income elasticity of demand than those of manufactured products in the world market (Thirlwall, 1983; Deaton, 1999; Hussain, 1999). A cursory look at Figure 3 shows that the region's export composition has remained largely unchanged over the years. The net exports of non-fuel primary commodities from the region increased by 78 percent in the past two decades but this was mostly driven by expansion of ores, metals, precious stones & non-monetary gold which increased by 89 percent. The region is a net importer of manufactured goods and fuels and share of these products has steadily risen over the years (Figure 3). Net imports of fuels grew by 89 percent while net imports of manufactured items has steadily increased from 6.14 percent in the period 1997-1999 to roughly 40 percent in the period 2015-2017.

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[5] Any attempt by country A to grow at a rate which is equal to the rate of growth of the rest of the world will cause its balance of payments to deteriorate especially in the absence of capital inflows to bridge the emerging deficit in the balance of payments. Since the rate of growth of exports is determined exogenously by the rate of growth of world income, it is the rate of growth of domestic real income that must adjust downwards to maintain equilibrium between the growth of imports and exports. This results to growth rate differences among countries (Hussain, 1999).

[6] Though Krugman (1996) argues that "competitiveness is a meaningless word when applied to national economies. And the obsession with competitiveness is both wrong and dangerous… it is simply not the case that the world's leading nations are to any important degree in competition with each other..", Blecker (1998) notes that Krugman (1996) is implicitly assuming that nations can be treated as normally operating at resource-constrained or full-employment levels of production, at least in the "long run". However, Post Keynesians believe that most countries are not generally resource constrained in their long run growth, thus aggregate demand matters in both the short and long run. If resource constraints are not generally binding, all nations are in competition for shares of the global market.

Figure 2: Share of World's Exports (%)
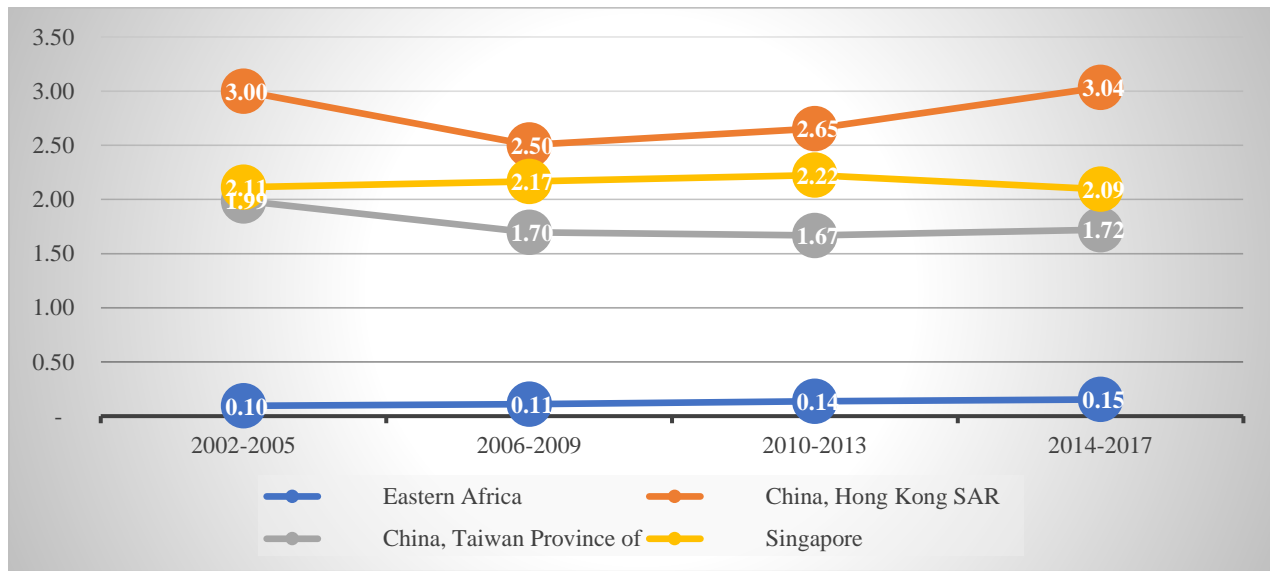
Source : UNCTADStat (2018)

Figure 3 : Composition of net exports (billions USD)
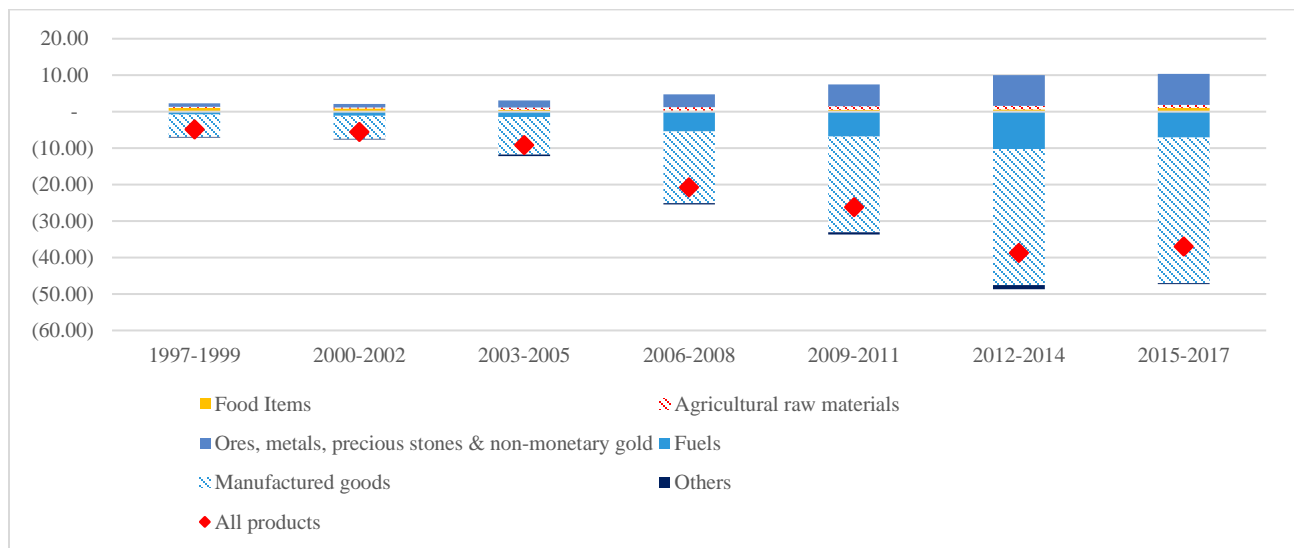
Source : UNCTADStat (2018)

Empirical research by Hussain (1999) confirms that the growth rate of some of the African countries is actually balance of payment constrained due to the slow growth of its exports. His results also indicate that the three percentage point difference in growth between Asia and African countries is wholly accounted for by the difference in growth of exports. Though Hussain's (1999)

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study did not take into account econometric issues that are likely to affect the specification of the model, his findings are echoed by Peratton (2003) and Panacheco-Lopez (2005).

What explains the low income elasticity of demand for primary commodities? Some of the exegesis for this phenomenon include the Engel's law which postulates that the demand for primary products tends to remain relatively unchanged relative to the growth of world income (Deaton, 1999; Ghodsi and Stehrer, 2018). In addition, technological advancements in the industrialized economies which lead to substitution of natural products by synthetics and also increased efficiency in the processing of goods result in minimal raw materials being required in the production of the finished goods (Prebisch, 1950; Dutt, 1996; UNCTAD, 2003; Kaplinsky, 2006).

The above arguments form the backdrop against which the Prebisch-Singer hypothesis which avers that terms of trade of economies dependent on primary commodities are likely to deteriorate in the long run due to the secular decline of price of primary commodities relative to that of manufactured products is formulated (Prebisch, 1950; Singer, 1950). The terms of trade affect the balance of payments constrained growth rate both directly through their effect on import capacity and indirectly through any relative price effect on demand[7] (Thirlwall and Hussain, 1982; McCombie and Thirlwall, 1994).

There has been a lot of debate on whether the Prebisch-Singer hypothesis is plausible. There have been periods where the price of commodities actually increased and the price of manufactures declined. For instance, the super cycle which was mostly driven by rapid income growth in emerging countries was characterized by increase in the price of primary commodities due to the increase in their demand for use as inputs in the industrial sector (Farooki, 2009). Figure 3 illustrates the expansion of exports to the emerging markets from Eastern Africa from less than $ 1 billion in the 1990s to more than $ 6billion in the 2000s due to the increased demand. On the other hand, price of many manufactures declined especially with the entry of China into the global market as an exporter of manufactures (Kaplinsky, 2006). 'Massification' of manufactured goods once considered luxurious or superior as a result of innovations led to a decline in their prices (UNIDO, 2018).

However, recent empirical studies suggest that the hypothesis still holds despite the occurrence of relatively short periods of commodity price surges (Lutz, 1999; Harvey et al., 2010). One of the arguments put forth is the fact that the increase in prices are in comport with the historic pattern of commodity prices whereby there are periods of temporary price spikes before the long run

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[7] It was initially assumed that relative price changes between countries measured in a common currency played no role in relaxing the balance-of-payments constraint on growth. Deviation from this assumption is likely to be important for developing countries, which arguably face persistent deterioration of the term of trade (Vera, 2006).

Moreover, countries that have minimal export cover and rely on capital inflows to build their current account deficit so as to grow faster than otherwise would be the case may lose by the adverse terms of trade effect what they gain from capital inflows (Thirlwall and Hussain, 1982; Hussain, 1999).

declining trend of commodity prices reasserts itself (UNCTAD and FAO, 2017). This is reaffirmed by the recent deceleration of growth in the emerging economies which is expected to affect the supply and price of primary commodities. This is exacerbated by the fact that prices of primary commodities tend to be determined in international markets and since they have low income elasticities of demand, an abundant supply will not generate a proportionate increase in demand but result in lower prices. The Eastern Africa primary commodity exporters are therefore affected by high price volatility which affects their exports earnings compared to countries with high shares of manufactures in their exports are relatively protected from unstable export earnings, although they are operating in a competitive world market.

Figure 4: Eastern Africa Exports to Emerging Markets (billions USD)
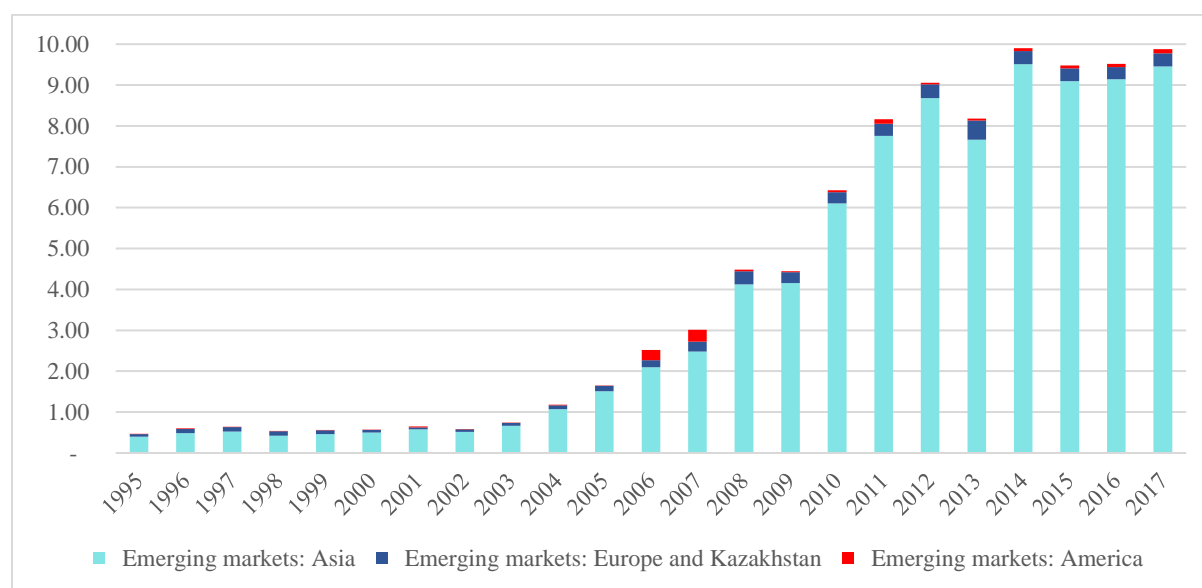
Source : UNCTADSTATs (2018)

A different strand of research on Prebisch-Singer hypothesis focuses on the manufacturing trade based on Singer (1971) assertion that the low level of technology of the manufactured exports of developing countries compared to the developed countries are responsible for terms of trade deterioration. This is premised on the fact that high quality products are more difficult to produce or imitate and tend to have greater technological content and are thus subject to less squeeze on the price and margins due to the high barriers of entry (Kaplinsky, 2006). Maizels et al. (1998) and Meizels (2000) provide evidence for the level of technology in manufacturing products as a key factor for the deterioration of developing countries' terms of trade compared to industrialized countries. This has implications for the Eastern Africa countries. More than 50 percent of Eastern Africa's manufactured exports are resource based due to abundance of natural resources in the region (Figure 5). Over the past decade, the share of medium and high technology exports has been approximately 15 percent of the manufactured exports.

Figure 5: Composition of Eastern Africa's Manufactured Exports
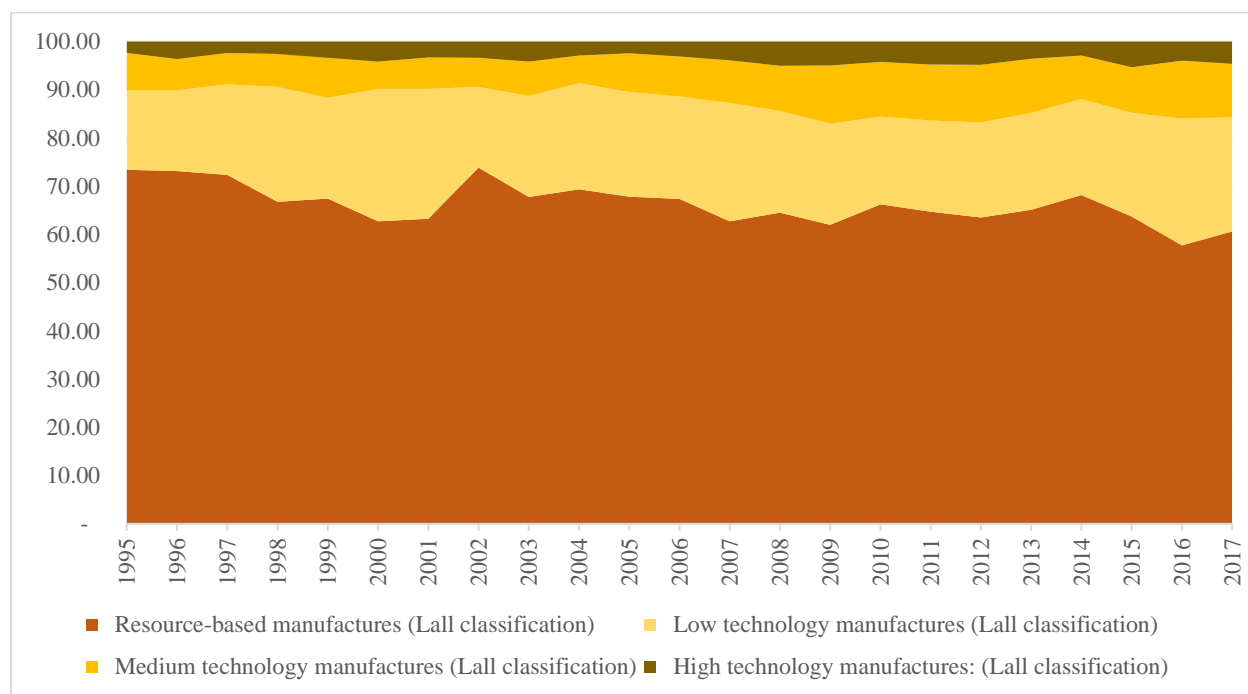
Source : UNCTADStats (2018)

It is worth noting that Pasinetti's (1981, 1983) structural economic dynamic framework has been used to develop a disaggregated multi-sectoral version of the balance of payments constrained growth model. This model reflects the impact of structural change by capturing the changes in the composition of demand or in the structure of production, which are not reflected in the changes in income elasticities but come through changes in the share of each sector in aggregate exports or imports[8] (Gouvêa and Lima, 2010). According to this version of the balance of payment model, even if sectoral elasticities are constant and there is no change in world income growth, a country can grow faster by shifting resources to sectors with higher income elasticities of demand for exports and away from sectors with a high income elasticity of demand for imports. Cimoli, Porcile and Rovira (2010) show that the developing countries that succeeded in reducing the income gap between themselves and developed countries were those that transformed their economic structure towards sectors with a higher income elasticity of demand for exports relative to imports to sectors with what they call 'higher Schumpeterian and Keynesian efficiency'[9].

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[8] The income elasticities of demand for exports and imports, which 'drive' the model, are aggregate elasticities, but in practice, of course, they are weighted averages of sectoral elasticities.

[9] Schumpeterian efficiency refers to products with superior technical characteristics, while Keynesian efficiency refers to the superior demand characteristics of goods.

The final destination of the goods also matters as the low technology composition of the exports from the region face strong competition from sophisticated and high technology intensity exports from industrialized countries (Razmi and Blecker, 2008). Dutt (2002), Vera (2006) and Sasaki (2008-9) expanded the balance of payment constraint model to better understand the gap between developed and developing countries. Sasaki (2008-9) developed a North-South model with a continuum of goods in the South allowing for changes in the pattern of trade, based on technological progress, building on the original work of Cimoli (1988). The results indicate that while the North is assumed to be fully employed, the South is balance of payments constrained in its growth, and whether there is convergence or divergence with the North depends on the size of the technological parameter. On the other hand, Bagnai et al. (2015) focused on South South trade and considered SSA, developing Asia and the rest of the world in their analysis using panel co-integration. Surprisingly, their results indicate that in the past decade, the balance-of-payments constraint of SSA has been relaxed.

In sum, it is evident that the balance of payments constitutes a 'structural' problem in the context of the East African countries. This is because it is inherent in the structure of production and the characteristics of the goods produced. To accelerate their growth rate further, the countries need to raise the balance of payment constraint on growth by shifting to the production of more attractive exports and by reducing the income elasticity of demand for imports.

2.2.2. Capital Flows

Failure of the export sector to generate sufficient foreign exchange has forced the East Africa countries to rely on substantial inflow of external resources to finance their growth (McAuliffe et al., 2012). However, different positions exist on the role and importance of capital flows in economic growth. In an extension to the Thirlwall (1979) seminal paper, Thirlwall and Hussain (1982) noted that capital flows tend to be particularly useful in relaxing the balance of payment constraint thus allowing faster growth in developing countries. The debt crisis in Latin America in the 1990s threw a spanner on the Thirlwall and Hussain (1982) model which had not incorporated a limit on the amount of capital flows that a country can absorb, yet a country cannot indefinitely increase its level of indebtedness relative to its GDP[10] (Moreno-Brid, 1998-99 and 2003; Barbosa-Filho, 2001). Attractiveness of a country in the global financial markets tends to be determined by

[10] Contrary to Thirlwall's and Hussain (1982) extended model and the modification by Elliot and Rhodd (1999) which did not set a limit to amount of capital flows into a country, Moreno-Brid (1998-99, 2003) suggests incorporating ssustainable debt accumulation into the model by imposing a long run constraint taken as a constant ratio of the current account deficit to income as it seems to better reflect the position of international financial institutions regarding what are - and are not - sustainable paths of foreign indebtedness.

its debt accumulation. Therefore deficits above a certain percentage of GDP may lead to curtailing of the foreign capital and this may eventually force the countries to adjust their balance of payment

growth rate as evidenced in Mexico[11] and Seychelles (McCombie and Thirlwall, 1997; Moreno-Brid, 1998-99; Obstfeld, 2017). In an interesting twist, even after modifying the Thirlwall and Hussain (1982) model to make it more realistic, the empirical evidence reveals that the effect of capital flows on relaxing the balance of payment constrained growth rate is actually negligible (Thirlwall, 2011). This also buttresses the fact that it is the growth of exports and not capital flows that explains the variability in growth rates among countries (Hussain, 1999; Thirlwall, 2011).

It is worth noting that finding from empirical studies which focus on supply-side economics such as Rajan et al. (2007) indicate that foreign capital actually has a negative impact on economic growth of developing countries (see section 3 for more discussion).

2.3.   Implications of the Balance of Payment Constraint

It is imperative for countries to have a healthy balance of payment position as it affects their growth performance, both directly and indirectly. According to the Verdoon law, productivity growth is induced by output growth. In the case that the rate of growth of output that is consistent with the balance of payment equilibrium is below the potential rate, given the availability of domestic resources in the form of labour and accumulation of capital, then the real economy will be depressed. This is because balance of payment difficulties experienced while demand expands and before the short term capacity growth rate is reached results in demand being curtailed, supply not being fully utilized, investment being discouraged, technological progress slowing down and a country's goods compared to foreign goods being less desirable thus worsening the balance of payments further. Dissimilarly, if there are no balance of payment difficulties in expanding demand up to the level of existing productive capacity, the pressure of demand upon capacity may raise the capacity growth rate through; encouraging investment which would augment the capital stock and bring with it technological progress, increasing supply of labour into the workforce and movement of factors of production from low to high productivity sectors (Thirlwall, 2011; McCombie and Thirlwall, 2004).

Hence, even if the supply-side issues are successfully resolved, the development of productive capacities will still be constrained if there is no demand stimulus which provides an inducement to capital accumulation and technological progress. Decisions to spend on the expansion of physical production capacity are based on the expected growth of markets. In addition, raising the

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[11] In 1950-75 and 1976-81, international capital flows were a major source of foreign exchange to Mexico, providing external resources equivalent to 2.3% and 4% of GDP. In contrast, in 1982-87 the repayment of foreign debt obligations - and perhaps capital flight too - were a heavy burden on Mexico's growth prospects (Moreno-Brid, 1998).

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rate of growth of productive capacity (e.g. by improving productivity) without being able to raise the rate of growth of demand because of the balance of payments will merely lead to unemployment. The response of labour supply to demand is likely to come through higher participation rates, the absorption of surplus labour, longer hours worked and immigration.

In addition, Current account deficits lead to the accumulation of foreign debt which has to be repaid at some point in the future. For instance, the root cause of the heavy debt of HIPCs was that most of these countries consistently had large current account deficits because their imports were persistently more than their exports, and hence they borrowed from abroad to bridge the financing gap. (Hussain, 2006). If domestic investors are rational, they will expect an increase in future taxes by the government in order to service and repay the debt. The expected increase in taxes will affect their investment decisions with negative consequences for output and employment (Osakwe, 2018).

2.4. Role of Savings

The current account deficits also reflect the gap between domestic savings and investments, as countries that save less than they invest domestically have to rely on foreign flows to finance their investment (Bosworth, 1993). Discussion in section 2.2.2 highlighted concerns on financing growth largely through capital flows and this has particular relevance for East Africa. One of the poorest regions in the world in terms of average per capita incomes, one of the key constraints to East Africa's economic performance has been the failure to mobilize resources for large-scale investments (UNECA, 2011). The region's savings rates have been consistently low compared to some of the countries which have sustained fast growth over the past decade (Figure 2). As is widely acknowledged, for instance, China's savings rate has been remarkably high, and despite an ongoing shift towards greater domestic consumption, has been one of the main explanations for the resilience of its economic performance since the reform programmes began in the early 1980s (Yang et al., 2011). There is more variation among the Asian tiger's, but it is clear that East Africa's savings rates are still lower than the countries under comparison.

Figure 6 : Comparison of Gross Savings Rate (% of GDP)
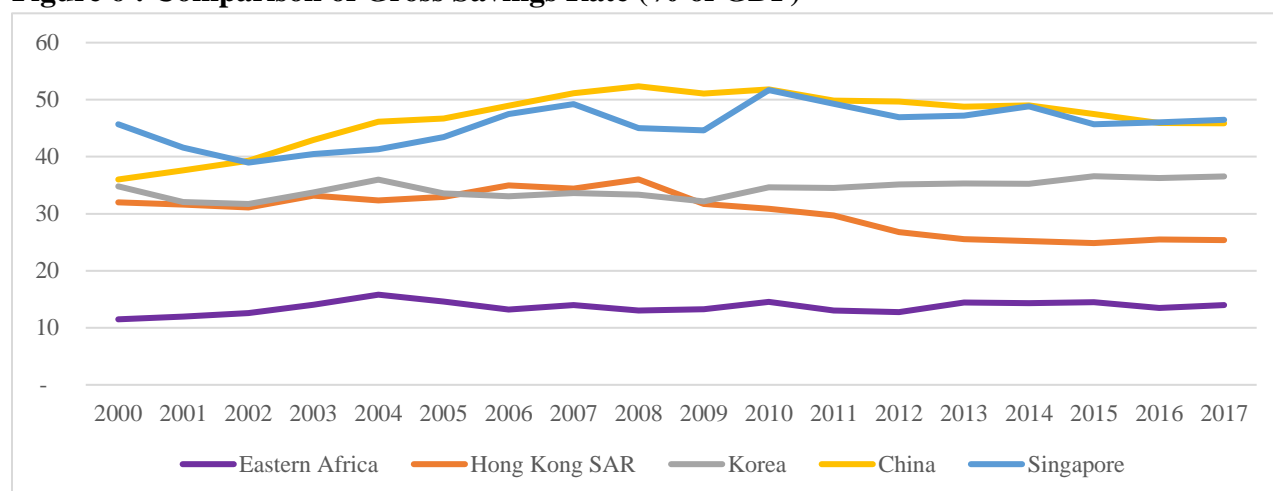

Source : FMI (2018)

The importance of generating savings from within the region is primarily because it gives greater decision-making power to domestic actors (be they government or individuals) for investment (UNECA, 2011). Greater funds for investment also allow governments to upgrade the regions infrastructure and other important public financing projects. Spending on infrastructure in particular can act as a catalyst for further economic growth (AU and NEPAD, 2011). Furthermore, according to Heuty and Letouze (2006) it does not appear to be the case that private sector investment substitutes for public investment in infrastructure.

Having said that, within the region there are a number of factors that hinder the ability of states to substantially increase their savings. The main constraints to the mobilization of savings are "weak institutional capacity, demographic factors and low levels of income" (UNECA, 2011). Institutional impediments to savings are particularly key in East Africa, as a substantial part of the saving is done informally. Financial markets in the region are highly fragmented and the high transaction costs for economic agents of trying to move across different segments act as a disincentive in savings mobilization (Nissanke and Aryeetey, 1998). Furthermore, the high interest rate spreads has resulted to commercial banks profiteering at the expense of its customers. An example of this is Kenya, which has one of the highest levels of financial integration in East Africa (

Figure 7). The average interest rate spread was approximately 14 percent in the period 2000 to 2016 and only halved to 7 percent in the period after the introduction of the interest rate cap.[12]

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[12] The interest rate cap was introduced to reduce the repayment burden on borrowers and also improve financial inclusion as more individuals and firms would be able to borrow loans at the lower rates.

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Figure 7: Saving and Lending Rates in Kenya 2000-2017
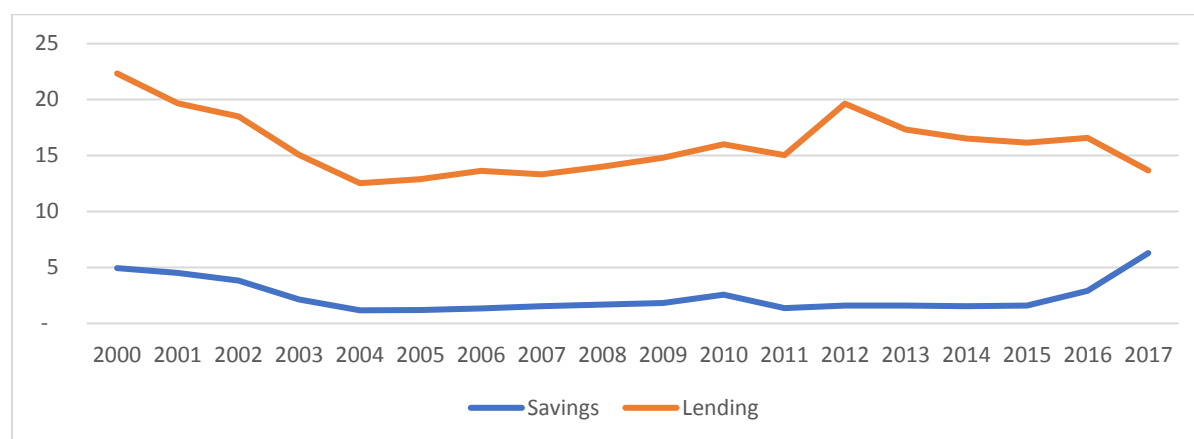

Source : CBK (2018)

Since the level of interest rates is such that it does not encourage deposits in a bank. This has encouraged households to hold their saving in the form of non-financial assets such as land and cattle, which are not recorded in the national accounts. This is highlighted in a study by Matovu (2010) which outlines the various reasons for the low private savings rates in Uganda, including the fact that savings are often held in non-financial assets making them less readily available for long-term and large-scale investments. Most formal financial institutions are located in urban areas, limiting access for those living in rural areas. Within the formal banking sector, weak competition, high overhead costs and poor credit information translate into wide spreads: borrowers can pay as much as 24 per cent, while savers earn only 4 per cent. As long as financial inclusion remains low it is difficult for investments to be made through public and private institutions as the tax base and the number of depositors remain small.

With regards to demographics, the high dependency ratio in the region undermines the level of savings. The life-cycle model predicts a negative relationship between the private saving rate and the dependency ratio (Elbadawi and Mwega, 2000). This assertion is supported by empirical studies which have found that countries with a high ratio of dependents (children and retired individuals) in relation to the population of the working age have relatively low savings rate (Bosworth, 1993). Study by Loayza et al. (2000) find that both young and old dependency ratios have a significantly negative impact on the private saving rate.

Finally, the report from the Commission on Growth and Development (2008) finds that fast growing countries sustained overall investment rates of 25 percent of GDP. Countries in the East African region have invested heavily in infrastructure in order to boost long-term growth. Figure

8 below shows that six countries (Djibouti, Ethiopia, Tanzania Uganda and Rwanda) are over-performing relative to countries of similar income levels and are spending at least 25 percent of GDP on investment. But in line with Rajan's arguments, over the long run countries that have sustained high investment rates have also had high domestic savings (Commission on Growth and Development 2008). In East Africa, Ethiopia, Tanzania Uganda Madagascar and Comoros are over performing relative to countries of similar income levels (Figure 8).

Figure 8: Investment and Savings vs per capita Income (averages 2011-2016)
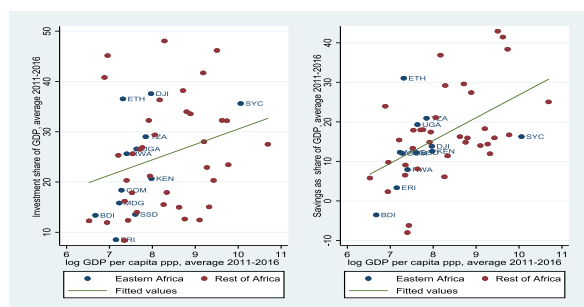
Source : Propres calculs à partir des données du FMI (2017)

3.   Financing Growth in East Africa

This section empirically investigates how the factors alluded to in chapter 2 together with other variables affect growth in the region.

3.1.   Introduction

Since the late-1980s, there has been an outpouring of literature and research into the macro-determinants of economic growth, attempting to understand and explain the differences in the rates of growth and per capita incomes across countries of the world (e.g. Barro, 1991; Barro and Sala-

i-Martin, 1995; Easterly, Loayza and Montiel, 1997).[13] Much of this work has been carried out within what is known as the 'endogenous growth theory'. Reflecting trends in the theoretical literature, variables considered in econometric analysis of this kind include initial per capita income (to see whether 'convergence' has occurred with higher income countries), savings/investment ratios, population growth, education (as a proxy for human capital), government consumption, political instability, monetary and fiscal variables, trade variables and inflation. Increasingly, too, these models have incorporated variables to capture the quality of governance. This empirical work has often been extended to focus specifically on the African continent, where it is perceived that there has been a relative growth failure (the 'African dummy')

In this paper, we construct an econometric model to help explain growth in East Africa, borrowing from the aforementioned literature, but focusing specifically on the way in which growth has been financed. There are several reasons for this approach. Firstly, despite still low average per capita incomes, in terms of growth performance, East Africa has been performing strongly since the early 2000s – far above the global and African averages, and not far short of the most dynamic economies of East and South-Eastern Asia (e.g. China, Vietnam). This makes it a good case study of the determinants of sustained economic growth in a low income setting. Secondly, in an important contribution to the literature, Rajan et al. (2005) find that the more a developing country finances its investment through its domestic savings, the faster it grows. Conversely, the more external financing it relies on, the more slowly it grows. While enjoying a strong overall growth trajectory, East Africa has generally struggled to mobilize sufficient resources from domestic sources and has been thus been forced to rely quite heavily on foreign inflows (principally, ODA, remittances and, increasingly, FDI) to finance that growth process. As a consequence, most countries in the region continue to sustain large current account deficits, indicative of low domestic savings. How this impacts on growth has implications for the sustainability of the growth process in Eastern Africa. Thirdly, much of the literature cited earlier on the causes of economic growth in Sub-Saharan Africa actually uses data prior to the growth spurt in the 2000s. Determinants may have subsequently changed. This study uses data spanning the whole of the fast growth period since 2001-2.

3.2. Literature Review

Traditionally econometric studies have tended to converge around a few key variables that influence the overall rate of economic growth. Against this backdrop, this section discusses some of the studies on the main variables that affect the economic growth. The trade-openness and economic growth nexus has been explored in a number of studies, but there is no clear consensus on the impact of trade openness on growth. Some empirical studies (Onafowara and Owoye, 1998;

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[13] For summaries and discussion of this earlier work, see Agenor (2004) for an orthodox review, and Thirlwall (2002) for a more heterodox approach.

Olufemu, 2004; Dava, 2012; Alragas et al., 2015 and Keho, 2017) conclude that there is a positive long term impact of trade openness on economic growth. In contrast, empirical evidence from Babatunde (2011), Eris and Ulasan (2013), Trejos and Barboza (2015) and Musila and Yiheyis (2015) show that trade openness has little or no impact on growth while Adhikary (2011) and Zanahogo (2017) find that trade openness has a negative impact on economic growth. However, these mixed results from empirical studies could be due to the fact that different studies use different proxies for trade openness and rely on different methodologies (Zahanabogo, 2017).

On the other hand, domestic investment and savings tend to be highly correlated with economic growth. Neoclassical models such as Solow (1956) postulates that an increase in the savings rate generates higher savings only in the short run, during the transition between the steady states. This assertion is supported by Rodrik (2000) findings which indicate that episodes of transition to higher saving precede short-run spurs in GDP growth. Further studies that confirm this relationship include Elbadawi and Mwega (2000) and Loayza et al. (2000). Conversely, models based on theories of endogenous growth pioneered by Romer (1986) and Lucas (1988) predict that higher savings and investment rates result in a permanent increase in growth rates. This is supported by studies such as Firebaugh (1992), Levine and Renelt (1992), De Long and Summers (1993), Easterly and Rebelo (1993), King and Levine (1994) and Adams (2009) where the investment rate is found to be one of the most important determinants of economic growth.

With regards to ODA, while Murty et al. (1994), Levy (1998) and Morrissey reported positive relationship between foreign aid and economic growth in Africa, Nyoni (1998) and Mallik (2008) observed a negative impact on economic growth while Burke and Ahmadi-Esfahani (2006) reported lack of any significant relationship between foreign aid and economic growth. It has been posited that the negative impact could be due to the policy environment in aid recipient countries as the economic impact of aid is contingent on the domestic policies of the recipient government (Burnside-Dollar, 2000 and Boone, 1996). On the other hand, finding of no effect of aid on growth could be due to the fact that aid especially from traditional donors tends to be destined to social sectors such as health and education where the impact may only be felt with a lag and this may not be captured by the data. Nonetheless, Clemens et al. (2011) concluded that the variation in results is largely due to econometric issues.

Regarding foreign capital, using simple OLS regressions, Stoneman (1975) revealed that foreign capital actually retards growth in poor countries. Nonetheless, in subsequent years, some economists such as Fischer (1997) supported capital account liberalization and called it "an inevitable step on the path of development, which cannot be avoided and should be embraced." Of course this assertion was challenged. In an important contribution to the literature, Rajan et al. (2005) challenge the orthodox advice that, through capital account openness countries can accelerate their rate of economic growth by borrowing funds internationally. While they find evidence to support the orthodox view for high income countries, that view does not hold for your

average developing country. Their own empirical research, bolstered by a series of subsequent publications (Prasad et. al. 2007a and Prasad et. al. 2007b), finds that the more a developing country finances its investment through its domestic savings, the faster it grows. Conversely, the more external financing it relies on, the more slowly it grows. Study by Rogoff (2006) also found little evidence of improved economic performance after a country opens up to capital flows. In addition, summarizing the emerging consensus about the determinants of sustained growth, and drawing on research by the 2008 'Growth Commission' which he chaired, Spence (2011) claims that "*evidence and experience suggest that developing countries are best served by financing most of their investment from domestic savings. That means not running persistent large trade deficits.*"

What could be the reason behind the unexpected negative impact of foreign capital on growth? The explanation could be related to the capacity of developing countries to absorb capital inflows, or to the macroeconomic consequences of capital inflows, which can lead to overvalued exchange rates which undermine growth in the manufacturing sector (Berg et . al., 2008). However, another second interpretation—that reliance on foreign financing is bad because it hurts the development of a manufacturing sector—suggests that the structure of exports (or more generally production) might matter for future growth. A possible reason for this is that manufacturing may help create a middle class that favors further strengthening of political institutions (Johnson, Ostry, and Subramanian, 2006, 2007). Another interpretation is that growth is a process by which firms discover how to produce higher productivity goods; this involves an externality which makes it easier for others entrepreneurs in the same country to produce similar goods (Haussmann, Hwang, and Rodrik, 2006).

In fact, Berg et al. (2008) find that running a current account surplus during a growth spell seems to increase the chance that growth will be sustained. The effect could be large, though it is imprecisely estimated, with a one percentage point of GDP rise in surplus lowering the probability that a growth spell will end by 5–20 percent. Similarly, overvaluation appears to affect duration adversely at least on the samples that exclude high frequency breaks, i.e. imposing h = 8. On these samples, each percentage point of overvaluation increases the hazard that a growth spell will end next period by 1–2 percent.

In addition, manufacturing exports and the length of growth spells show a particularly robust relationship. Consistent with Johnson, Ostry and Subramanian (2006, 2007), what seems to matter for sustained growth is not so much the share of manufacturing at the beginning of a growth spell, but whether or not manufacturing exports rise as a share of total exports during the growth spell. A one percentage point increase in manufacturing exports is associated with a reduction in the probability of a growth spell ending by 2–4 percent. Measures of actual or potential export sophistication also seem to correlate with the end of spells; and the link is particularly strong for the "Open Forest" measure proposed by Haussmann et al. (2006).

3.3. Empirical Methodology

The model used here builds on earlier work by Bosworth and Collins (2003) and Prasad, Rajan and Subramanian (2007). The pooled regressions include observations for 11 countries in the region over the time period 1990-2015. The empirical specification of the panel estimator[14] is shown below:

$$y_{it} = B_0 + B_1 ca_{it} + B_2 X'_{it} + (c_i + u_{it}), \qquad t = 1,2,\dots T; \;\; i = 1,2 \dots N$$

where y_{it} is the annual rate of growth of GDP per capita, ca_{it} is the current account balance as a percentage of GDP, X'_{it} is a vector of control variables that comprises initial per capita income, initial life expectancy, openness, fiscal balance, inflation, ODA, population growth, dummy variable for the year 2002[15], savings and investment[16].

3.4. Results

Table 1 and 2 present the estimation results on how growth is financed in the region. The estimated coefficients provide the effect of a variable on the GDP per capita growth. The first row of table (1) and (2) contains coefficients of the impact of current account deficits on GDP per capita growth. The coefficients are negative and statistically significant at the 1 per cent level in both the random effects and Feasible GLS models, implying that a 10 per cent increase in the current account deficit results to a 0.9 to 1.4 percent reduction in the GDP per capita growth, *ceteris paribus*. This mirrors findings by Prasad et al (2007) whereby current account deficits are associated with negative growth in developing countries.

The coefficients of initial income per capita are highly significant and positive in all the specifications in table (1) and some in table (2). This suggests that the countries in the region are actually growing slower than the richer countries, hence there is no evidence of conditional β convergence. With reference to the Keynesian economists especially Thirlwall and McCombie

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[14] The GMM estimator is not considered as it is likely to give biased estimates since our data has small N and large T. GMM was originally designed to cope with panels with little depth, but a large cross section (Roodman, 2009).

[15] This variable is meant to capture the sharp improvement in the performance of East African countries since the beginning of the 2000s, related to improvements in the external environment (better financing possibilities – increased ODA, FDI and remittances, and higher commodity prices) (Romily, Prizzon and Rogerson, 2013)

[16] To minimize the risks of multicollinearity and bidirectional causality, savings and investment variables are not included in the same regression. Indeed, empirical studies often find domestic savings to be highly correlated with investment (Feldstein and Horioka 1980, Feldstein and Bachette 1991, Bosworth 1993)

(2004), Hussain (2006) and Thirlwall (2011), the slow growth of countries in the region partly points to issues in their underlying trade structure vis a vis that of the fast growing economies such as Asian tigers (see section 2). As a result, the countries are probably running against what Thirlwall (1979) referred to as the 'balance of payment constraint'.

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Table 1: Random Effects Regressions of the Determinants of Growth in East Africa

Estimation Period: 1990-2015

Dependent Variable: Annual rate of growth of GDP per capita

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Current account balance/GDP	-0.14***	-0.06	-0.14***	-0.04	-0.10*	-0.01	-0.09*	-0.00	-0.08
	(0.05)	(0.06)	(0.05)	(0.059)	(0.06)	(0.06)	(0.06)	(0.05)	(0.05)
Log per capita income (1990)	1.35**	1.13**	1.23***	1.11**	1.28***	1.43**	1.51***	1.49**	1.56***
	(0.59)	(0.53)	(0.34)	(0.52)	(0.37)	(0.67)	(0.50)	(0.68)	(0.55)
Life expectancy (1990)	-0.17***	-0.15***	-0.16***	-0.24***	-0.25***	-0.25***	-0.25***	-0.24***	-0.24***
	(0.05)	(0.04)	(0.03)	(0.07)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Openness	-0.01	-0.01	-0.01	0.00	-0.00	0.00	-0.00	0.00	-0.00
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Fiscal balance /GDP	0.26*	0.25*	0.22*	0.21*	0.20*	0.19*	0.19*	0.15	0.15
	(0.15)	(0.14)	(0.12)	(0.12)	(0.11)	(0.10)	(0.01)	(0.10)	(0.10)
Inflation	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Investments/GDP		0.13*		0.11		0.12		0.11	
		(0.07)		(0.08)		(0.07)		(0.07)	
Savings/GDP			0.15**		0.12*		0.12		0.10
			(0.07)		(0.07)		(0.07)		(0.07)
ODA as a share of GNI				-0.13	-0.14*	-0.13*	-0.13	-0.12	-0.12
				(0.09)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Population growth						0.42	0.33	0.42	0.34
						(0.34)	(0.31)	(0.29)	(0.27)
Dummy 2002								1.28	1.188
								(0.94)	(0.881)
Constant	2.45	0.67	0.64	7.24	6.99	4.37	4.88	2.96	3.551
	(3.15)	(2.72)	(2.39)	(5.17)	(4.95)	(6.33)	(6.10)	(6.84)	(6.568)
R-squared	0.11	0.15	0.16	0.19	0.20	0.20	0.20	0.21	0.211
Wald chi-squared	1335.91	1780.64	1363.77	4749.60	8873.49	8995.82	49693.34	90096.73	191245.83
No. of observations	267	267	267	257	257	257	257	257	257
No. of cross-sections	11	11	11	11	11	11	11	11	11

Notes: Robust standard errors in parentheses.   *** p<0.01,   ** p<0.05,   * p<0.1

Table 2: Feasible GLS Regressions of the Determinants of Growth in East Africa

Estimation Period: 1990-2015
Dependent Variable: Annual rate of growth of GDP per capita

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Current account balance/GDP	-0.10***	-0.00	-0.12***	0.00	-0.06	0.00	-0.06	-0.02	-0.06
	(0.03)	(0.04)	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Log per capita income (1990)	1.21	0.93	1.35*	0.71	0.85	0.95	1.11*	0.87	0.91
	(0.79)	(0.71)	(0.72)	(0.66)	(0.64)	(0.69)	(0.67)	(0.68)	(0.66)
Life expectancy (1990)	-0.22***	-0.16**	-0.21***	-0.15**	-0.18**	-0.15**	-0.18**	-0.13*	-0.15**
	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Openness	0.01	0.00	0.01	0.00	-0.00	0.00	0.00	0.01	0
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)
Fiscal balance /GDP	0.17***	0.17***	0.14***	0.16***	0.14**	0.16***	0.14**	0.13**	0.11**
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)	(0.05)
Inflation	-0.01***	-0.01***	-0.01***	-0.02***	-0.02***	-0.02***	-0.01***	-0.02***	-0.01***
	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Investments/GDP		0.14***		0.13***		0.12***		0.10***	
		(0.03)		(0.03)		(0.03)		(0.03)	
Savings/GDP			0.11***		0.09***		0.08***		0.07**
			(0.03)		(0.03)		(0.03)		(0.03)
ODA as a share of GNI				-0.04	-0.06**	-0.04	-0.06*	-0.03	-0.04
				(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Population growth						0.25	0.27	0.34	0.33
						(0.34)	(0.34)	(0.34)	(0.33)
Dummy 2002								1.33***	1.42***
								(0.47)	(0.46)
Constant	5.07	1.66	2.24	3.55	5.31	1.74	3.25	0.00	1.56
	(3.33)	(3.20)	(3.15)	(3.41)	(3.31)	(3.86)	(3.71)	(3.89)	(3.68)
Wald chi-squared	46.72	83.09	73.92	52.14	46.86	51.31	47.23	58.14	56.43
No. of observations	267	267	267	257	257	257	257	257	257
No. of cross-sections	11	11	11	11	11	11	11	11	11

*Notes: S*tandard errors in parentheses.   *** p<0.01,   ** p<0.05,   * p<0.1

All the coefficients of initial life expectancy are statistically significant and negatively correlated to GDP per capita growth in both random effects and feasible GLS models. This finding does not necessarily belie the importance of investing in human capital for development outcomes as evidenced in empirical studies by Bloom and Sachs (1998), Gallup et al. (1998), Bloom et al. (1999) and Lorentzen et al (2008). Rather, it indicates that though improvements in life expectancy may lead to growth in aggregate incomes, it may also trigger faster population growth leading to a negative causal effect of life expectancy on growth of GDP per capita[17] (Acemoglu and Johnson, 2007).

With regards to macroeconomic factors, the fiscal balance has a significant positive influence on GDP per capita growth. On the other hand, the coefficient of inflation (a proxy for macroeconomic uncertainty) is consistently significant and negatively correlated with GDP per capita growth.

Regarding the investment coefficient, in comport with many other previous studies (Levine and Renelt, 1992; Ghura and Hadjimichael, 1996; Easterly, Loayza and Montiel 1997, and Hoeffler (2002)), it is significant and positively correlated to the GDP per capita. Similarly, the savings rate to GDP has a positive impact on the GDP per capita growth. A 10 percent increase in the savings rate to GDP increases the GDP per capita growth by around 1.2 to 1.5 percent. This is in line with Domar's approach where savings are a substantial factor for economic growth and mirrors findings by Samuelson (1976) and Noel (1980).

The results suggest that ODA has a negative impact on GDP per capita growth. Though this mirrors findings by Nyoni (1998), Brautigam and Knack (2004) and Mallick (2008), the empirical results on the aid-growth nexus have been at best, mixed. Clemens et al. (2000) and Askarov and Doucouliagos (2015) attribute this to econometric challenges in estimation. Having said that, aid may actually curtail growth by, inter alia, lowering competitiveness through Dutch disease problems (Rajan and Subramanian, 2005) and limiting the capacity to absorb foreign currency.

Finally, the dummy variable for 2002 is significant at the 1 percent level in the feasible GLS model. This suggests that 'something happened' in the 2000s which represented a clean break with the past. That 'something' is clearly related to a much improved external environment (better external financing options, higher commodity prices, debt relief, etc.), but also due to improvements in domestic policy (improved macro-stability, policy reforms, etc.). Indeed, improvements were notable already in the mid-to late 1990s for a number of countries in the region. But it was not until the 2000s that a significant turnaround in the economic fortunes of the regional economies was notable.

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[17] For instance, lower mortality may increase income per capita by increasing the productivity of available resources (most notably human capital). On the other hand, lower mortality may lead to an increase in population size. In the presence of fixed factors of production a larger population tends to reduce income per capita (Cervellati and Sunde, 2009).

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References

Banque Centrale du Congo. (2011). *Rapport Annuel 2011*. Disponible à l'adresse : http://www.bcc.cd/index.php?option=com_content&view=article&id=159&Itemid=87

Banque Centrale du Congo. (2013). *Rapport Annuel 2013*. Disponible à l'adresse : http://www.bcc.cd/index.php?option=com_content&view=article&id=159&Itemid=87

Banque Centrale du Djibouti. (2011). *Rapport Annuel 2011*. Disponible à l'adresse : http://www.bcc.cd/index.php?option=com_content&view=article&id=159&Itemid=87

Banque Centrale du Djibouti. (2013). *Rapport Annuel 2013*. Disponible à l'adresse : http://www.bcc.cd/index.php?option=com_content&view=article&id=159&Itemid=87

Barbosa-Filho, N. (2001). The Balance of Payments Constraint : from Balanced Trade to Sustainable Debt, Banca Nazionale del Lavoro Quarterly Review, 54(219)

Blecker, A. (1998). International Competitiveness, Relative Wages, and the Balance-Of-Payments Constraint. *Journal of Post Keynesian Economics,* 20 (4) : 495-526

Bosworth, B. (1993). *Savings and Investment in a Global Economy*. Washington, D.C. : The Brookings Institution

Banque centrale du Kenya (CBK). (2012). *Rapport annuel 2012*. Disponible à l'adresse :https://www.centralbank.go.ke/reports/cbk-reports-and-financial-statements/

Banque centrale des Seychelles (CBS). (2016). *Rapport annuel 2016.* Disponible à l'adresse http://www.cbs.sc/Publications/annualreport.jsp

Collier, P. (2002). Dépendance à l'égard des produits de base et avenir de l'Afrique. *Document de travail de la Banque mondiale*, rapport n° 28111

Davidson, P. (1992). *International Money and the Real World 2ᵉ édition*. Londres : Macmillan

Deaton, A. (1999). Prix des matières premières et croissance en Afrique, *Journal of Economic Perspectives*, 13 (3), 23-40

Deloitte (2017). A Shift to More but Less: Africa Construction Trends Report. Disponible à l'adresse : https://www2.deloitte.com/content/dam/Deloitte/ao/Documents/energy-resources/Africa_Construction_Trends_Reports.pdf

Dutt, A. (1996). Southern primary exports, technological change and uneven development, *Cambridge Journal of Economics*, 20 (1): 73-89

Edwards, S. (1995). *Crisis and Reform in Latin America : from Despair to Hope*, New York : Oxford University Press

Elliott, D. and Rhodd, R. (1999). Explaining growth rate differences in highly indebted countries: an extension to Thirlwall and Hussain. *Applied Economics,* 31(9), 1145-1148

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Ghodsi, M. and Stehrer, R. (2018). Éviter et échapper au « piège des matières premières » dans le développement. *Département des politiques, de la recherche et des statistiques de l'ONUDI Document de travail 09/2018*

Gouvea, R. & Lima, G. (2010). Structural change, balance-of-payments constraint, and economic growth : evidence from the multisectoral Thirlwall's law, Journal of Post Keynesian Economics, 33:1, 169-204

Hussain, M. (1999). The balance of payments constraint growth and growth rate differences among African and East Asian economies, *African Development Review, 103-137*

Fonds monétaire international (FMI) (2014). *2014 Article IV Consultation - Rapport du personnel ; Communiqué de presse ; et Déclaration du Directeur exécutif pour la République démocratique du Congo.* Disponible à l'adresse : https://www.imf.org/external/pubs/ft/scr/2014/cr14272.pdf

Fonds monétaire international (FMI) (2015). *2015 Article IV Consultation—Communiqué de presse ; Rapport du personnel ; et Déclaration du Directeur exécutif pour la République démocratique du Congo.* Disponible à l'adresse : https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Democratic-Republic-of-the-Congo-2015-Article-IV-Consultation-Press-Release-Staff-Report-and-43335

Fonds monétaire international (FMI) (2018). *Perspectives de l'économie mondiale, édition d'avril 2018.* Disponible à l'adresse : http://www.imf.org/external/pubs/ft/weo/2018/01/weodata/index.aspx

Kaldor N (1987). Le rôle des prix des matières premières dans la reprise économique. *World Development Report* 15 (5): 551-558.

Kaplinsky, R. (2006). Revisiting the revised terms of trade: Will China make a difference? *World Development*, 34, 981-995

Bureau des statistiques du Kenya (KNBS). (2012). *Étude économique 2012*. Disponible à l'adresse https://www.knbs.or.ke/download/economic-survey-2012/

Krugman, P. (1996). *Pop Internationalism*, Massachusetts: The MIT Press

Maizels, A. (1987). Commodities in crisis: An overview of the main issues. *World Development Report* 15 (5): 537-549.

Massa, I., Cantore, N., Keane, J., Kennan, J. and Willem te Velde. Shockwatch Bulletin : suivi de l'impact de la crise de la zone euro, du ralentissement de la Chine et de l'Inde et des chocs sur les prix de l'énergie dans les pays à faible revenu. *Document de travail de l'Overseas Development Institute 358*

McCombie, J. (1993). Croissance économique, liens commerciaux et contraintes de la balance des paiements. *Journal of Post Keynesian Economics,* 20 (4) :

McCombie, J. et Thirlwall, A. (1994). *La croissance économique et la contrainte de la balance des paiements 1ᵉ édition* Londres : The Macmillan Press Ltd

McCombie, J. and Thirlwall, A. (1997) 'Economic Growth and the Balance of Payments Constraint Revisited,' in P. Arestis, G. Palma and M. Sawyer , *Markets, Unemployment and Economic Policy. Essays in Honour of G. Harcourt*, Vol. 2, London: Elgar, pp. 498–511.

Moreno-Brid, J. (1998) 'Balance of Payments Constrained Economic Growth: the Case of Mexico', *Banca Nazionale del Lavoro Quarterly Review,* 51 (207), 413-433

Moreno-Brid, J. (1998-99). On Capital Flows and the Balance-of-Payments-Constrained Growth Model. *Journal of Post Keynesian Economics, 21 (2), 283-298*

Moreno-Brid, J. (2003). Capital Flows, Interest Payments and the Balance of Payments Constrained Growth Model : A Theoretical and Empirical Analysis. *Macroeconomica*, 54:2 & 3, 346–365

Banque nationale d'Éthiopie (BNE). (2014/15*). Rapport annuel de la Banque Nationale 2014/15*. Disponible à l'adresse : https://www.nbe.gov.et/publications/annualreport.html

Banque nationale d'Éthiopie (BNE). (2015/16). *Rapport annuel de la Banque Nationale 2015/16*. Disponible à l'adresse : https://www.nbe.gov.et/publications/annualreport.html

Osake, P. and Verick, S. (2007). Current Account Deficits in Sub-Saharan Africa: Do they Matter? Disponible à l'adresse *http://www.uneca.org/sites/default/files/uploaded-documents/AEC/2007/patrick_osakwe_0.pdf*

Pacheco-López, P. (2005). Testing the balance of payments constrained growth model for the least developed countries. Document d'information établi pour *le Rapport 2006* sur les pays les moins avancés, CNUCED, Genève

Prebisch, R. (1950). Le développement économique de l'Amérique Latine et ses principaux problèmes. *Economic Bulletin for Latin America*, 7: 1–12

Thirlwall, A. (1983). Foreign Trade Elasticities in Centre-Periphery Models of Growth and Development, *Banca Nazionale del Lavoro Quarterly Review*, 36 (106)

Thirlwall A. and Hussain, M. (1982). The Balance of Payments Constraint, Capital Flows and Growth Rate Differences between Developing Countries. *Oxford Economic Papers*, 34 (3), 498-510

Singer, H. (1950). La répartition des gains entre les pays investisseurs et emprunteurs. *American Economic review* 40: 473-85.

Commission des Nations Unies pour l'Afrique (CEA). (2017). Le financement du développement en Afrique. Disponible à l'adresse : https://www.uneca.org/sites/default/files/PublicationFiles/development_financing_in_africa_eng_2017.pdf

UNCTADStat (2018). Conférence des Nations Unies sur le commerce et le développement (CNUCED). Disponible à l'adresse : http://unctadstat.unctad.org/EN/

UNECA.ORG

ECA

Conférence des Nations Unies sur le commerce et le développement (CNUCED). (2003). Performance commerciale et dépendance à l'égard des matières première. Disponible à l'adresse : https://www.unctad.org/en/docs/gdsafrica20031_en.pdf

Programme des Nations Unies pour le développement (PNUD). (2011). Vers la résilience humaine : Poursuivre les progrès vers la réalisation des OMD à une époque d'incertitude économique. Disponible à l'adresse : http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/inclusive_development/towards_human_resiliencesustainingmdgprogressinanageofeconomicun.html

Organisation des Nations Unies pour le développement industriel (ONUDI) (2018). *Rapport sur le développement industriel 2018 : Demande dans le secteur manufacturier : Promouvoir un développement industriel inclusif et durable*. Disponible à : https://www.unido.org/sites/default/files/files/2017-11/IDR2018_FULL%20REPORT.pdf

Were, M., Ndung'u, N., Geda, A., and Karingi, S. (2002). Analysis of Kenya's Export Performance: An Empirical Evaluation, *KIPPRA Discussion Paper No. 22*

WITS (2018). World Integrated Trade Solution. Disponible à l'adresse suivante : https://wits.worldbank.org/

UNECA.ORG

ECA