

# Exchange rate management and export growth: lessons for Ethiopia

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## Question

*Using examples from comparable countries such as South Korea (state-led export oriented models), what can Ethiopia learn from successes and failures in foreign exchange management?*

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# 1. Overview

Key findings from the literature and reflections on how these experiences may apply to Ethiopia can be summarised as follow:

- **The exchange rate does matter for exports, however this varies considerable with country context and sector.** For primary commodities and manufactured exports with low in-country value added, the exchange rate matters much less than for highly price sensitive exports with more significant local content (including labour).
- **Competitive and even undervalued exchange rates were used by a number of countries with successful export-led growth, especially in East Asia.** However this often followed early rapid export growth, and exchange rate and other trade-related liberalisation was mostly gradual and context specific.
- **The case for early investment in structural constraints, especially when also benefitting from significant aid-related inflows is consistent with other countries.** Especially successful countries made early investments, which also included human capital in terms of education and reproductive rights as well as building capacity and linkages to domestic firms to supply export manufacturers. This appears to have allowed a sustained progress up the value chain. Other countries that have seen significant increases in manufactured goods also made structural investments, although potentially more dependent on intermediate inputs imports as see more limited domestic suppliers to the export market.
- **In all cases, clear incentives for exporters were put in place.** This includes tariff free imports, access to preferential financing, ability to keep part of export value in foreign currency, and seeking preferential tariffs from key markets.
- **A fixed or pegged exchange rate helps import stability.** This is found to help reduce risk and uncertainty, with benefits seen from agricultural commodity exporters to more sophisticated manufacturers.
- **And a moderately overvalued currency does enable increased capacity to invest in critical infrastructure, as well as purchase of capital goods critical for domestic and export focused manufacturing.** This means that while a more competitive exchange rate is probably optimal for exports, it may not be optimal for the wider economy, especially when aid in-flows are significant.
- **In all successful cases, there was a recognition and active process to gradually liberalise the exchange rate and wider traded sector.** Fixed rates and associated parallel markets encourage rent seeking and corruption. Periodic shortages of foreign exchange reduce allocative efficiencies and directly affect production. Building up domestic manufacturing through protection does have some merit, but only if steadily exposed to increased competition and access to best practise that trade enables.
- **And exchange rate policy cannot be divorced from fiscal policy.** The stabilising benefits of a fixed or pegged exchange rate have to be balanced with ensuring low inflation. A conservative fiscal policy (and on average, moderately positive real domestic interest rate) is usually critical for this, and arguably often not met.
- **Shifting political incentives also appear to be a driver.** Early stages of export growth in low income countries are often accompanied by significant aid flows and access to soft credit lines. However donors will tend to increasingly seek “graduation” as a country becomes wealthier. For some countries, domestic politics may lead to an increased wish to be less dependent on donors, or lower the risk of having to resource to the IMF.

Increased exports are then seen to offer a lower dependence on aid-related foreign exchange, shifting political priorities.

Evidence from literature drawing on a range of countries over time tends to suggest that it is important to keep the exchange rate competitive, though not necessarily undervalued. However lessons from country specific cases, supported by economic theory, do suggest that for low-income countries, like Ethiopia, transitioning to increased manufacturing and exports, the exchange rate is not the primary determinant. Especially where significant aid and soft loan inflows exist, the benefits of relatively strong and stable exchange rate may outweigh the costs. As manufactured exports expand, countries that have successfully continued to rapidly expand manufactured exports (like, South Korea, Vietnam) have tended to move to a more competitive exchange rate policy and gradually liberalise their trade regime.

This report reviewed some of the literature, focused on experiences in other countries that can be drawn on. The structure of the report is as follows: it starts off with a brief overview of what academic literature says about real exchange rates for low income countries seeking to expand exports, followed by the example of South Korea and of other countries when at early export growth stages that have supported long term strong export and wider economic growth patterns. The impact of shifts in real exchange rates on different sectors is reviewed. Finally, the challenges of shock and associated political economy, as well as impact on taxation is covered, with a conclusion of what this literature review-based report may imply for Ethiopia.

The literature on export growth and exchange rates tends towards making the case for more flexible and competitive exchange rates being the correct policy for (export-led) economic growth. However this report seeks out lessons that are at least partially aligned with Ethiopia's current reality, and so focusses on lessons from country with fixed and pegged currency policies, with a tendency to a moderately overvalued currency. As in cases such as South Korea and Taiwan, the comparable periods are several decades ago, some of the references are from the 1960s-1970s, reflecting the period when more research went into their early take-off periods.

## **Context and theory**

### **Context of Ethiopia**

Ethiopia has experienced an impressive economic annual growth rate of about 10% in the last decade (World Bank 2017, p8), and seen poverty rates fall significantly. At 3.89% of GDP (IMF 2018), export-to-GDP is one of the lowest ratios in the world. They are concentrated in primary products such as coffee, oilseeds and gold. The government is investing in infrastructure with the aim to increase and diversify exports. Manufactured exports remain below 10% of total exports (AfDB 2017, p 7), however the IMF (2018, p7) consider logistical, policy and investments into export-oriented production means that exports of goods and services can be envisaged to pick up substantially in the medium term. Tax revenue is relatively low at around 13-14% of GDP. Debt (foreign and domestic) is close to 60% of GDP, and foreign reserves reflect around two months of imports (IMF, 2018).

Exchange rate policy is managed with a nominal depreciation path of 5-6% to the US\$ which given domestic inflation levels, in turn leads to gradual strengthening of the Birr, albeit with a recent correction through a devaluation of 15% in 2017 (IMF, 2018). The illegal parallel market

rate currently sees a premium 15-25%<sup>1</sup>. The IMF estimates inflation pass-through of devaluation if around 0.43% for every 1% devaluation, so for every 1% devaluation (to the US\$), inflation can be expected to rise 0.43% in the short term as import costs rise.

Exports in 2017 were estimates at around US\$3.5 billion, and imports at US\$16 billion. Ethiopia benefits from significant inflows from remittances estimated at US\$4 billion, and so larger than physical exports (AfDB, 2017). Donor funds (grants and soft loans) as well as Foreign Direct Investment (FDI) and other private inflows help cover the current account deficit. Given the exchange rate policy and current account deficit, foreign exchange on the official market is constrained leading to temporary shortages of foreign exchange and a government managed process of allocation of scarce foreign exchange.

One of the challenges Ethiopia faces is to diversify and expand its exports to reduce balance of payment risks associated with exogenous shocks, provide a motor of continued economic growth as well as much needed formal employment. It needs to balance this with continued domestic-led growth, investment needs, as well as maintain economic stability. The exchange rate is one of the policy tools available to support this, and this report draws on lessons from other countries how this policy tool was used in other countries.

## Fixed versus Flexible exchange rates

Maintaining a fixed exchange rate, or pegged rate, is an exchange rate policy that governments can implement, and which can help provide a degree of price stability to the market, effectively importing monetary credibility. More often than not, this leads to the real effective exchange rate (REER) moving to be overvalued, tending to lower reserve levels, increase the cost of exports and lower the costs of imports.

The literature shows the following benefits of a fixed or pegged rate to the government in low and middle-income countries:

- Aside from providing greater stability to the economy, it means that foreign exchange is cheaper to buy, and therefore able to pay for infrastructure and other structural investments, which is required in low-income countries if economic growth rates are to be maintained.
- It also reduced the foreign exchange debt burden, both in terms of servicing costs and as a percentage of the economy.
- Assuming that there are no significant constraints on accessing foreign exchange, private investors are better able to import capital goods required for domestic and export focused production as relatively prices are lower due to the stronger exchange rate.
- Domestic consumption is likely to be higher, not least as imports of consumer goods are relatively cheaper, and combined with import tariffs, import-substituting growth can be encouraged with domestic production.

There are also risks to governments and the wider economy by maintaining a fixed exchange rate. The literature mentions the following:

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<sup>1</sup> Estimate based on figures published on Facebook by “Ethiopia Birr Black Market Exchange Rate” which provides a regular update of rates as a public information service.

- In most cases the reserves will be lower, making shocks harder to manage unless much of the cost of shocks is securely underwritten by donor resources and commitment.
- Some exports sectors, such as agricultural commodities and high-import content manufacturing (e.g. technology firms) are generally less affected by over-valued exchange rates, however sectors with higher domestic content including high labour content, will require significant price incentives through the exchange rate to overcome the higher costs associated with the exchange rate and so unlikely to expand. Structural changes and other incentives are more likely to be effective.
- Rent seeking associated with higher profits, regulatory short cuts, existence of a parallel market, all have a cost to the economy and can distort incentives and so undermine longer term growth as well as government capacity.
- The impact on taxation is mixed, and also limited by challenges of data. While it is generally assumed that over-valued exchange rates tend to lead to under-invoicing of exports to support capital flight, which would in turn reduce tax revenue on profits from exports, the net benefits of a devaluation from a tax revenue perspective is mixed.

## 2. A brief overview the findings from multi-country analysis

Multi-country empirical reviews by Rodrick (2008) confirm that competitive and undervalued exchange rates, rather than overvalued exchange rates, are more likely to promote growth and export diversification. Bresser-Pereira (2008) focussed on lessons from 1970s Latin America - with high growth rates driven by domestic consumption and foreign savings, which supported higher investment. This work concluded that while strong currencies supported this growth, this was not sustainable in the long term and therefore vulnerable to exogenous shocks which led to significant economic crisis and requirement of external support (bail out). Magud and Sosa (2010)<sup>2</sup> carried out an extensive literature review of studies focus on Low and Middle Income Countries (LMICs), and the relationship between exchange rate and growth. They conclude that while overvalued exchange rates do lead to lower export and manufacturing-led growth (though limited evidence of being detrimental to wider economic growth), evidence regarding the effect of undervaluation of the exchange rate on economic growth is mixed and inconclusive as the higher exports do not necessarily lead to higher economic growth rates.

It could be said that the general consensus is that competitive exchange rates are required for (export-led) growth, there are solid counter-arguments to this that raise the possibility that devaluation to maintain a competitive exchange rate can be contractionary, especially in LMICs with limited capacity to expand exports without significant negative shifts in domestic consumption. This is mostly based on the premise that economic problems of low-income countries are structural, and significant devaluations are likely to have a contractionary effect on output and employment while structural constraints limit ability to respond with significant increases in exports.

Part of the argument lies in what could be categorised as New Growth Theory, or Endogenous Growth Theory. Arrow (1962, p155) makes the case that aside from exogenous factors, endogenous learning was a critical part to explain growth and that "learning is the product of

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<sup>2</sup> While this study specifically explores links between Dutch disease and growth, this includes significant donor inflows which allow stronger currencies than would be possible without aid and soft loans.

experience”, with the “repetition of essentially the same problem is subject to sharply diminishing returns”. This arguably provides intellectual support to policies that protect domestic industry while they build capacity to supply domestic and over time, export markets. Clerides, Lach and Tybout (1998) make the case for learning by exporting, which would follow on from capacity built up in the domestic market. Entering export markets exposes companies to information on the best managerial and marketing practises, new technology and exposure to competition. Romer (1994), makes the case of a role for industrial policy to create incentives for the private sector to invest in new knowledge and product development and thus go beyond routine business. Aerni (2012) makes the case based on work of Joseph Schumpeter and Paul Romer, that trade and exchange of non-rival rather than rival goods (as in know-how and technology) has produced the biggest welfare effects in the process of global economic integration, which was especially the case of East Asian countries including China who used infant industry, trade and reverse engineering to catch-up with high-income countries, and then move to technological leaders in their own right.

Roberts and Tybout 1997, *inter alia*, make the case for self-selection of firms that export, as a large sunk cost is required to modify domestic products for foreign consumption, searching new markets and distribution networks, and transportation. It would be the more profitable firms that are able to cover this initial fixed costs, and so it is the more productive firms that are able to do this. These hypothesis are not exclusionary, Siba and Gebreeyesus (2016) note that a number of studies find evidence of self-selection only, while others studies find evidence of both self-selection and learning-by-doing. In their own study based on data covering the period from 1996 to 2009, they found that both applied to Ethiopia’s manufacturing exports.

### 3. Lessons from South Korea

After emerging from Japanese colonial rule followed by civil war which led to the partition of Korea into North and South, the country that emerged as South Korea was one of the poorest countries in the world. In 1960, its GDP was lower than Ethiopia’s (Kim, 1991), by 2017, per capita GDP is estimated at US\$32,770, while Ethiopia has a per capita GDP of US\$909 (IMF, 2018b). South Korea’s growth story offers an attractive model and as such, seen a number of studies seeking to tease out what made South Korea so successful. Although South Korea is generally seen to have had a policy of competitive exchange rates to encourage exports, this was not the case in its earlier economic development and so this earlier period is the main focus of this section.

It had made significant investments in local economic development including infrastructure (Kim, 1991) in the 1950s as it recovered from Japanese colonialism and the devastating civil war. It also invested heavily in human capital, rising basic literacy levels from 22% in 1945<sup>3</sup> to 71% by early 1960s. This human capital investment combined with a rapid expansion of family planning in the early 1960s lead to a rapid fall in population growth (and so faster per capita GDP growth), which additional further supported high growth as South Korea’s reaped the growth benefits of its “demographic dividend”<sup>4</sup>.

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<sup>3</sup> Savada and Shaw (1990)

<sup>4</sup> Defined by UNFPA as “the economic growth potential that can result from shifts in a population’s age structure, mainly when the share of the working-age population (15 to 64) is larger than the non-working-age share of the population (14 and younger, and 65 and older)”

In the mid to late 1950s, South Korea saw growth primarily driven by import substitution (Frank et al., 1975), supported by significant aid inflows. Kim and Roemer (1979) found that during this period, import substitution had created possibilities to improve utilisation of capital for export expansion in subsequent periods. Kim (1991) concluded that by the late 1950s, initial domestic demands for substitutable goods had been mostly satisfied, and the heavily protected local manufacturers was not sufficiently efficient to compete in the world market. In addition, the lack of foreign exchange limited capacity of local firms to import capital and other goods that were required to build capacity and increased productivity.

From 1951 to the early 1960s, multiple exchange rates were in place, generally with an overvalued exchange rate (Frank et al., 1975). It was in 1964 and 1965 that South Korea shifted to a more competitive exchange rate through a significant devaluation of its official rate, followed by partial liberalisation of its exchange controls. The new rate sought to maintain the median purchasing power parity in international markets. While import tariffs were generally reduced, the government continued to protect key sectors that were still developing competitive capacity into the 1970s (Kim, 1991).

The decade of the 1960s is therefore of particular interest when comparing with Ethiopia today. As a comparator, a selection of indicators for South Korea in early 1960s and Ethiopia to date are provided in the table below.

Table 1. A comparator of South Korea in early 1960s and Ethiopia today

|                               | South Korea ('60s) | Ethiopia (2018)    |
|-------------------------------|--------------------|--------------------|
| <i>Domestic Savings</i>       | 4.3% <sup>5</sup>  | 20% <sup>6</sup>   |
| <i>Gross Investments</i>      | 9.2% <sup>4</sup>  | 37% <sup>7</sup>   |
| <i>Exports</i>                | 3.2% <sup>4</sup>  | 3.9% <sup>6</sup>  |
| <i>Imports</i>                | 9% <sup>4</sup>    | 20% <sup>6</sup>   |
| <i>Literacy</i>               | 71% <sup>8</sup>   | 46.7% <sup>9</sup> |
| <i>Economic growth rate</i>   | 6.8% <sup>5</sup>  | 8.5% <sup>6</sup>  |
| <i>Population growth rate</i> | 2.9% <sup>5</sup>  | 2.5% <sup>5</sup>  |

Source: Ferrand, A. (2018)

The early 1960s reflect the period when South Korea started to make a transition from a mostly import-substitution led growth to a more export-led growth model. In many ways, South Korea's

<sup>5</sup> Frank et al (1975)

<sup>6</sup> World Bank on-line data for 2016 (Ethiopia) and 1961 (South Korea)

<sup>7</sup> IMF (2018)

<sup>8</sup> The Economist (2010) <https://www.economist.com/node/16564142>

<sup>9</sup> AfDB (2017) for 2011

economy was more protected from international trade in the early 1960s than Ethiopia today, with lower domestic resources and investment. It was also highly depended on foreign aid, especially from the USA.

Export incentives had been put in place in the 1950s, including being able to keep part of the foreign exchange earned from exports, as well as export credits and other incentives (Frank et al., 1975), and exports as a percentage of GDP started to rise significantly (from a very low base). However in the early 1960s, a more substantive focus on exports was implemented included interest subsidy on credit lines to qualifying exporters, other incentives including expanded export finance, and encouragement of importing firms that were making good profits from an overvalued currency to invest and develop key inputs for manufactured exports (Kim 1991).

Connolly and Yi (2008) also note the series of export-focussed incentives put in place, with the elimination of import tariffs on all imported inputs and capital goods in the early 1960s, as long as these imports were used to produce goods for export considered the most significant one and which was followed by broader import liberalisation in the 1970s. They also conclude due to “leakage”, that exporters often sold into the domestic market and so these tariff exemptions reflected a broader import liberalisation albeit one that favoured companies that exported.

The academic debate of early success of South Korea has moved on, recognising it was not primarily about exchange rate and trade liberalisation, although this was part of an evolving process. For example, Amsden (1989) makes the argument that “late industrialisation” such as South Korea, integrated learning effectively into their development processes, and this was complemented by state intervention providing incentives and supports. Amsden concluded that the South Korean government was particularly effective at using the price changes that occurred as a result of exchange rates, tariffs and other policy interventions to ensure rents to benefiting firms were converted into investments that raised productivity and exports.

Westphal (1978) concluded that South Korea built up rudimentary standards of product design and manufacturing to serve the local market as part of import substitution, with exports following later which required standards to be upgraded. As capacity to export grew, support to infant industry shifted more to support to infant exporters as incentives where structured to support sectors serving both the domestic and export markets. Similarly, Kim and Roemer (1979) found that prior import substitution had created possibilities to improve utilisation of capital for export expansion in subsequent periods. While Dornbusch and Park (1987) argue that it was South Korea’s price competitive export focus that led to its particular success, the structural investments and especially early and consistent investment in human capital is credited as a strong part of the narrative. Productivity grew rapidly meaning that while wages grew rapidly, the rising quality of South Korea’s ensured wage costs remained globally competitive. Through most of the 1960s and 1970s, there was a clear focus on supporting infant industry only where there was an economic case, and relatively rapidly exposing the sector to competitive pressures of exports and imports, with initial incentives to exporters to support the transition.

Although exports were increasing part of the consideration by South Korea’s government in terms of setting an ‘optimal’ exchange rate, Frank et al (1975) concluded that it was likely that the incentives were at a sub-optimal level (for exports) as government also had an incentive through an stronger domestic currency to lower its costs for investment in infrastructure. Using foreign reserves as a proxy for sterilisation of foreign exchange (to in turn keep the exchange rate competitive), these only started to increase significantly at the end of the 1960s, by which time exports had increased by more than a factor of twenty between 1960 and 1969 (data from Frank



et al., 1975). Arguably the exchange rate was adjusting to falling aid flows (both in absolute terms as well as percentage of GDP) as much as it was to seeking a more competitive exchange rate.

Reviewing the late 1950 and 1960s of South Korea, it can be concluded that

- Government used a mixture of import substitution and export promotion policy levers to encourage growth, shifting only gradually from import substitution to export led growth.
- Although export growth is the headline, it also ensured continued domestic growth and associated technical change continued to be a driver, both contributing to rapid increases in labour productivity.
- It invested heavily in physical and human capital initially, which also was supported by significant aid flows.
- It depended heavily on foreign capital initially having minimal domestic savings coming out of colonial rule and civil war; however it built up national capacity to manufacture, export and over time also innovate.
- This required government to be unusually effective at choosing sectors and champions to tailor incentive policies, and be particularly adept at recognising rent-based wealth creation, and ensure this was in turn used for investment through incentives (and assume also “moral suasion”<sup>10</sup>).
- Exchange rates were part of the incentive structure, and increasingly became market based; however exchange rate liberalisation was gradual and done in parallel with initial export take off rather than prior to the shift to expanding exports.

#### 4. A review of other countries which have increased exports while maintaining fixed or pegged exchange rates

A significant number of countries have used a mixture of import substitution and export promotion, including managing their exchange rates as part of their policy tools. It is only in the 1980s onwards that more flexible exchange rates started to be more widely implemented (in part due to structural adjustments). However many fast growing developing economies had, or still have, fixed and pegged exchange rates facing periods of overvaluation.

The island of **Taiwan** took a similar path as South Korea, with possibly an earlier shift to promoting private sector-led growth. It held its exchange rate fixed to the US dollar through most of the 1960s and 1970s during the earlier stages of export take-off, importing stability from its main export market. However unlike many countries with fixed rates, it also implemented a tight fiscal policy and moderately positive interest rate to maintain low inflation and encourage domestic savings. Lau (2002) credits the stability and pro-market focus as part of the key policies

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<sup>10</sup> Adjusted definition from the Financial Times: “When a government or central bank uses **persuasion** rather than regulatory coercion to convince economic sector participants to take a particular course of action”, and in practice can be backed by threat of other tougher actions.

consistently implemented as Taiwan's economy shifted from an agricultural to manufacturing based economy.

Similarly there was a gradual but steady opening up of the economy, protecting domestic manufacturing enough to enable their establishment, but exposing them to the open economy to keep enterprises efficient. Although a parallel market existed, maintaining low inflation meant this was consistently close to the official rate. Early investment in human capital, especially education, but also family planning, was considered a key part of Taiwan's success, and continued investment in human capital and technical know-how ensured intangible capital accumulation, which in turn ensured tangible capital (ie: financial capital) would be more attracted to continue to invest.

While still in relatively early stages of rapid growth and development, **Bangladesh** has successfully shifted its export base from being dependent on a few agricultural commodities to expanding non-traditional export times (especially ready-made garments and frozen foods). It focused on a few key sectors with potential to export, provided incentives which included duty-free access to imported inputs, subsidies, tax rebate on export incomes (Rahman 1994). Similarly imports were gradually liberalised, with lower tariffs, rationalising tariff structures, removal of quantitative restrictions, simplification of procedures and formalities.

Although the exchange rate was only gradually liberalised (having been pegged to sterling), timing of initial liberalisation factored in rising remittances, which eased foreign exchange constraints (Hossain 2011). Hossain also found that exports were sensitive to real exchange rates in the short run; however, in the longer run the impact of the real exchange rate on exports was not significantly different from zero. However Hossain concluded this was partly explained by exchange rate policy shifting to a managed float that avoided especially large over (or under) valuations of the real exchange rate.

**Vietnam** has mostly operated fixed and pegged exchange rates, with periods of overvaluation. A parallel market operates reflecting a degree of scarcity of foreign exchange, benefiting in particular from the significant remittance flows. The premium fluctuates up to around 20% (Duy Hung Bui 2014). In a separate paper, Duy Hung Bui et al (2017) concluded that Vietnam had in fact had sustained periods of overvalued currency between 1995 and 2014, linked to pegged exchange rates and relatively higher inflation. Lan Huong Hoang (2016) concluded that the real exchange rate played only a limited role in supporting exports. This was explained by the high import content of exports, with value-added limited primarily to labour costs. Although Vietnam had been successful in very significantly expanding its manufactured exports, it has been less successful at integrating domestic supplies to exports, which in turn limits the impact of fluctuations in the real exchange rate.

By having its currency pegged to the South African Rand, and being part of the Southern African Customs Union (SACU), **Lesotho** had managed significant growth in manufactured exports without having the policy lever of setting its own exchange rate, and limited in terms of import tariffs set by SACU. Malefane and Odhiambo (2016) found that Lesotho through a series of National Development Plans and national strategies carrying out structural reforms that enabled increased manufactured exports. They highlight the establishment of financing facilities for exporters, a focus on ensuring access to major markets such as the USA, with the African Growth and Opportunities Act (AGOA), as well as structural and human capital improvements as the main drivers Lesotho's export growth, combined with a more gradual liberalisation of markets.

In the case of the **Philippines**, Difuntorum (2008) found that exports consistently grew in the 1980s when the exchange rate was generally undervalued, with a more mixed response in the 1990s when the domestic currency appreciated significantly.

Different sectors respond differently to the incentives of a competitive exchange rate. Difuntorum (2008) and Hossain (2011) both concluded in **Philippines** and **Bangladesh** respectively that export of manufacturing sectors with higher import content respond differently from those with mostly domestic content. Those with a high domestic content, which are likely to include a high proportion of low-cost labour in the case of developing countries, will tend to respond to more competitive exchange rates. In the case of the Philippines, sectors such as electronics and machinery/transport equipment continued to expand during periods of overvalued exchange rates, as the value-added provided in-country was labour, with labour costs being a smaller part of the total value of products. Sectors such as garments have a higher labour element in the total value, and therefore were more significantly affected by less competitive exchange rates.

Agricultural commodity exports tend not to respond significantly to exchange rate related incentives, where climatic factors, stable prices, and the fact most inputs (especially fertiliser) are dependent on foreign exchange rates. Mehare and Edriss (2012) found that for Ethiopia's oil seed exports, second only to coffee, changes in the exchange rate (despite all being nominal devaluations) were actually detrimental to exporters as it increased uncertainty for producers. In the longer run, the same study found that real effective exchange rates were insignificant in determining oil seed exports for **Ethiopia**. Based on interviews with exports, constraints that were more significant included quality of the product, transport costs, rent seeking associated with significant bureaucratic constraints that encouraged lobbying and other short-cuts, and adverse selection on incentives by government who favoured exporters were not always those best placed for the job.

Similarly, non-export sectors may be impacted by liberalisation of the exchange rate. In a computable general equilibrium (CGE) model of **Tanzania**, Wobst (2001) concluded that exports would also increase as a result of a devaluation following a liberalised exchange rate, however imports and consumption would fall as a result given limited capacity of domestic substitution of domestically more expensive imports resulting from the exchange rate shift.

Wondemu and Potts (2016) found that in practise, Tanzania's subsequent move to an undervalued exchange rate came at a "heavy price" for Tanzania. Reserves were accumulated, in part to ensure the undervalued currency as foreign exchange was bought by the central bank to keep a lower exchange rate. And exports did increase with positive externalities these will generate. However, Tanzania faced higher inflation (which impacts negatively, *inter alia*, on real incomes and also domestic savings), and lower tradable absorption (given lower imports). The net welfare effect was therefore unclear in terms of positives versus negatives, and had clear distributional impacts, and domestic consumers are likely to face higher prices (of imports), while domestic producers gain with reduced competition from imports, and exporters tend to benefit from higher export prices in domestic currency (though limited if in a sector with a high import content to exports). This same study compared Tanzania's experience with **Ethiopia's** (which had maintained a fixed and generally overvalued exchange rate) and concluded that Tanzania had increased and diversified exports more significantly linked to a more competitive exchange rate policy albeit at the cost to the wider economy already noted.

## 5. Withstanding shocks and external politics

Countries with fixed or overvalued exchange rates tend to face low reserves and periodic balance of payment challenges unless significant foreign exchange inflows (such as large aid flows, remittances, FDI, exports). A balance of payment crisis can be challenges for domestic political reasons. An IMF “bailouts” is more likely. Particularly for low income countries where aid is significant, countries will have to factor in donor views, and manage the risk of an “aid shock” in which relations with donors becomes difficult and aid withdrawn for bilateral reasons or shifting priorities within the donor community. IMF and “donor dependency” is not an ideal relationship for sovereign governments even where relations are highly positive.

There is significant literature noting the value of international reserves in helping limit the macroeconomic volatility stemming from exogenous shocks. These shocks include shifts in FDI and aid flows, climatic shock, and terms-of-trade price shocks (oil prices, key exports). Crispolti and Tsibouris (2012) found that sufficient reserves were found to both reduce the intensity and duration of the shock on the economy. In the case of a significant terms of trade shock, countries with lower reserves were found to face cumulative losses around twenty times more than those economies with more than three months of import cover.

In a follow-up study, Crispolti et al (2013) assessed reserve adequacy in low income countries, concluding that “three month of imports” remained a sound guide in terms of countries being able to smooth consumption and absorption in the face of external shocks compared to those with lower reserve holdings. In general, countries with open economies are more vulnerable to shocks, and therefore require higher reserves. Similarly countries that do not have exchange rate flexibility also benefit from increased reserve levels.

To complement the role that foreign exchange reserves provide in managing shocks, countries can and do build up “buffers” to shocks, which can help with both foreign exchange inflows and direct support to the economy and more vulnerable sectors of society. An IED (2017) review of World Bank summarises key actions that can be taken (in this case with World Bank support and funding) to be:

- fiscal response through the provision of funds to help cover the budgetary impact of the shock,
- financial response to support the banking sector, especially working capital to small and medium enterprises,
- social safety nets that can be expanded in the event of a systemic shock,
- international effort to rehabilitate damaged infrastructure and housing, and health systems (in the case of natural disasters, health pandemics).
- In addition to World Bank resources, the other literature notes the importance of wider international community coordination and commitment, options of insurance against shock, and importance of national governments buy-in and leadership.

At a country level, the political as well as economic trade-offs can be a factor. Kim (1991) and Frank et al (1975) noted that USA threats to cut off flows of aid to South Korea (the largest source of foreign exchange in the 1950s) was one of the motivations for South Korea to shift to a more export focused economy in the 1960s including a shift to a competitive exchange rate policy. A brief pause in USA aid in 1960 triggered a balance of payment crisis in South Korea. The reality that US aid flows were expected to gradually be phased out was also a factor for Taiwan in the same period (Wolfe 2012). In both South Korea and Taiwan, the USA also had

strategic interests in both countries linked to cold war politics, and so both provided technical support and encouraged USA investment, coupled with market access to the USA (although market access was not necessarily on more favourable terms than other countries).

## 6. The challenge of rent seeking and taxation with fixed and overvalued exchange rates

Academic evidence of the impact of overvalued exchange rates that can result from fixed and pegged foreign exchange policies, and associated parallel markets on taxation is understandably limited as firms will not seek to publish their tax avoidance or other forms of rent seeking. Given the incentives that arise from parallel markets that often follow fixed exchange rates, these can be assumed to lead to tax evasion (Gandhi et al 1987), although the main incentive is likely to be driven by capital flight and rent seeking through importing goods with prices set at the parallel rather than official rate. Tandon and Rao (2017) in reviewing what can be measured in trade mis-invoicing from a broad sample of countries note that incentives for export under-invoicing include tax avoidance, as well as capital flight. Press reports based on more anecdotal information gathering made the case of importers and exporters, as well as individuals, shift to the parallel market to be able to pay for goods when official foreign exchange is scarce, as well as avoid other payments and elicit transactions via what is effectively laundering<sup>11</sup>.

Gulati (1988) estimates that in the late 1970s/early 1980s when a number of Latin American countries were seeking to maintain strong currencies, under-invoicing of exports as a percentage of official exports ranged from 20% for Argentina, 13% for Brazil and a huge 34% for Mexico. This in turn would lead to significantly lower declared profits, and associated taxation.

Kaufmann and O'Connell (1991) concluded in their computable general equilibrium (CGE) model of **Tanzania** that fiscal impact would be positive as significant donor flows through the government budget would increase in domestic terms, as would flows from import tariffs. This in turn would limit inflationary impact of devaluation. They also arguably more optimistically made a case that the supply response would be positive, linked to many prices already valued at the higher parallel rate limiting the impact of devaluation on the private sector.

A number of studies found that real tax revenue increased with an increase in the real exchange rate (depreciation). This includes Morande and Habel (1991) in the case of **Zimbabwe**, and Ayoki et al (2008) in the case of **Uganda**. However multi-country reviews by Easterly (1991) and Eberill et al (1999) found revenue fell with real devaluations.

Based on a series of models, Popkova (2010) concluded that rent-seeking and propensity for fixed exchange rates will vary according to country context. Fixed rates can import monetary credibility, allowing a higher tolerated level of corruption as this doesn't directly affect output. A stable environment facilitated by the exchange rate and knowing where facilitation payments are required can help production and so output. Where corruption has a more negative impact on output, political tolerance will be lower, and so government incentive is to move to a more flexible rate avoiding the challenges of rent seeking associated with fixed rates.

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<sup>11</sup> As an example reflecting motivations for trading the parallel market in Ethiopia in December 2016, see: <https://addisfortune.net/columns/rise-in-parallel-forex-market-raises-concern/>

## 7. What is next for Ethiopia?

For Ethiopia, the challenge is to move to an optimal exchange rate that balances export priorities with the needs of the wider economy.

- This is likely to infer a moderately overvalued exchange rate which avoids significant appreciation and the need for larger devaluation. This shorter term reality applies while aid flows remain significant and which supports continued investment (and foreign debt servicing).
- However a clear trend towards a more balanced exchange rate would be appropriate, backed by a fiscal policy which supports low inflation and stability. Lessons from South Korea and others suggest this would follow from early take off of exports rather than precede export take off.
- Consideration of a more open approach to the parallel market to help reduce the risk premium (which incentivising rent seeking through arbitrage between the official and parallel market) and bring in these financial flows back into the formal market. It also offers an proxy indicator of the market rate, and should rarely see a significant spread over the official rate.
- Continued focus on structural challenges, which may also include further efforts on accessing markets through, for example, successful accession to the WTO and continued leveraging of the benefits of access to the US market under AGOA.
- Lessons from east Asia, suggest that building linkages into the wider economy yield long term benefits, in terms of domestic inputs to exports aside from labour, and building knowledge that feeds into improvements in production and business. The importance of human capital as part of this is strong and consistent message.
- Ethiopia will remain vulnerable to shocks, and require international community financial support to help manage these in the short to medium term. If possible, building up mechanism to manage shocks, be it weather-related insurance, or pre-approved rapid disbursement options to complement humanitarian aid if and when needed.
- The challenge is to be effective in choosing these levers, and where high rents are accrued by beneficiaries of import protection and export incentives, that legal excess rents are then directed towards further investment including into the export sector. Illegal rents acquired through corruption and crony capitalism should of course be avoided where possible.
- While not a significant part of the review for this report, managing the political economy of gradual liberalisation including at population level, helps the shift as some sectors will gain over others. Policies and investments that broaden the benefits are clearly part of this.

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