Ethiopia and the Global Value Chains (GVCs): Learnings from China

Abstract
This paper aims to identify the key challenges that Ethiopia is experiencing in taking full advantage of processing trade and examine what can be learned from China’s strategic approach to Global Value Chains (GVCs) participation. Given its unique nature and the time it started taking the reform measures, replicating China’s success might not be possible. Moreover, in addressing the challenges that Ethiopia is facing in integrating into GVCs, the paper underlines the need for pragmatism and the limitation of a “one-size-fits-all” approach. Regardless, the paper underscores that there is a lot that Ethiopia can learn from China’s successful integration into GVCs and moving up the ladder. In this regard, apart from the specific policy measures and strategies that China employed, Ethiopia can draw lessons from China’s approach to industrial policymaking – one that is gradually evolving with the country’s level of development and global environment. Finally, the paper argues that active government policy intervention is necessary to successfully participate in GVC and benefit from it.

Key words: Global value chains; Regional Value Chains, Production Fragmentation, Trade Policy, Industrial Policy, China, Ethiopia

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1. Introduction

Following the classical trade theories of David Ricardo, Hechsher-Ohlin, and Stolper-Samuelson, Paul Krugman introduced the “New Trade Theory” in the late 1970s and early 1980s. Incorporating increasing returns to scale, imperfect competition, and the “the love for variety”, this theory explains the existence of intra-industry trade between similar countries. Later, in the early 2000s, Marc Melitz introduced the “New-New Trade Theory” also known as the heterogeneous firms’ trade theory. Using a fixed cost of exporting, this model links aggregate and firm-level productivity with international trade and offers an explanation for firms’ export market entry and exit as well as the existence of heterogeneous firms within an industry. All these trade theories focus on trade in final goods and recently there is a change in focus to trade in intermediates and/or cross-border trade in tasks. The issue of Global Value Chains (GVCs) speaks to this strand of the literature (see also (Inomata, 2017)).

Recent advances in transportation and communication technologies and the resulting reduction in trade costs as well as the decline in tariff and non-tariff trade barriers make it easier for companies to fragment their production process across countries. As a result, different stages of production processes, like design, production of parts, assembly, and marketing and distribution tend to be carried out in different countries leading to a rise in GVCs (Engel & Taglioni, 2017; Inomata, 2017). This has increased the importance of trade in intermediates, which amounted to 46 percent of total merchandise trade in 2014 (UNCTAD, 2016b). For instance, over the period 1990-2015, trade in parts and components has shown an increase of almost six times, which is much faster compared to the 4.5 times increase observed for other forms of trade (Ruta, 2017). With this rise in trade in intermediates and production fragmentation, global trade increases much faster than global GDP.

The increasing role of trade in intermediate inputs coupled with the expanding importance of vertically integrated multinational firms in international trade means that developing countries need to revisit their industrial and trade policies. Specifically, these policies need to ensure that developing countries participate in the global and regional value chains and maximize the potential benefits. With the increasing roles of GVCs in international trade and investment, the notion of comparative advantage has shifted from the comparative advantage in final goods production to that in parts of the production processes. This is beneficial for developing countries as it facilitates the industrialization process and hence boosts their exports by finding a niche in the global or regional value chains. That is, even when developing countries and firms therein do not have the comparative advantage or level of efficiency in the production of the whole final-good and/or without the need to build the whole supply chain domestically, they can integrate into global trade and industrialization (Baldwin, 2013; Dollar, 2016; Dollar & Kidder, 2017; Engel & Taglioni, 2017). For example, in the period prior to the GVC revolution, a country that wishes to export a shirt had to know how to design it, procure the necessary materials, manufacture it, distribute it, brand it, market it and sell it. Globalization, by
splitting up the value, made it possible for counties to participate in the GVCs when they do not have the capabilities to perform all these functions (Hausmann, 2014).

In general, participation in GVCs is believed to help developing countries by creating quality employment opportunities in higher value-added activities, boosting their productivity and promoting their economic growth and development. The main channels for this are the transfer of technology and know-how that comes with increases in imports of intermediate inputs, exporting, and FDI (Ahmad & Primi, 2017; Engel & Taglioni, 2017).

This is not to say GVCs are without any limitations. For example, (Kozul-Wright & Fortunato, 2018) argue that the association between GVCs and development is not straightforward and they stress the importance of Regional Value Chains (RVCs). These authors point out the downsides of GVCs from a developmental state perspective and argue why RVCs and South-South cooperation might be more conducive to inclusive growth and development. Specifically, they argue that GVC participation may delay structural transformation, as in Africa and Latin America, when it is associated with increasing backward participation in GVCs that comes at the expense of domestic sourcing and manufacturing export performance (see also (UNCTAD, 2016b)). They further argue that although participation in GVCs can make it easier for developing countries to participate in GVCs, entering at the bottom of the value chain, chances are high that they will be trapped in the lowest value-adding activities that have a low potential for institutional development, knowledge externalities, technological upgrading and growth. Similarly, (Rotunno et al., 2012), using the rise and fall of African apparel exports to the US under the African Growth and Opportunity Act (AGOA), show the limited spillovers and risk of relocations of production fragmentation. That is, the temporary opening of factories in Africa because of Chinese production fragmentation and increases in exports to the US deteriorate fast when the favorable trade preferences change indicating the footloose nature of GVCs.

Getting the best out of GVC participation requires active government policy interventions. Without the government playing a role in the process of generating a vibrant industrial base, robust local market and a dynamic enterprise sector, it is hardly possible to enjoy the benefits of GVC participation such as technology transfer and spillovers and upgrading along the value chain (Kozul-Wright & Fortunato, 2018). For African countries and Ethiopia in particular, the current policy focus should be to increase their low level of participation in regional and global value chains.

Following the rise in wages and production costs that is observed in Asian countries, like Bangladesh and China, buyer firms are forced to look for alternative source countries to reduce their dependence on Asian countries (Staritz et al., 2016). This is paving the way for African countries increased participation in GVCs. Despite, Africa’s GVC participation, measured as the share of imported value added in a country’s exports, is very little even compared to other developing countries (Dollar 2016). According to Dollar, the GVC participation for two-thirds of Sub-Saharan African countries is below the average for developing countries.
Relative to other African countries, Ethiopia has a higher GVC participation that has grown significantly since 1995. Among one-third of the countries, Ethiopia is the most populace-resource poor country that has high GVC participation. In terms of sectors, Ethiopia’s GVC participation is visible in the leather products, clothing, and motor vehicles industries (Shepherd, 2017). In particular, in recent years Ethiopia, together with Myanmar, has been promoted as the “rising star” for apparel sourcing. Despite the eight-fold increase in Ethiopia’s apparel export, from 9 million USD in 2009 to 68 million USD in 2014, Ethiopia’s participation in the global context is quite limited. For instance, in 2014, Ethiopia’s export only constituted 2.4 percent of total SSA apparel export, though it is ranked the 7th on the list of SSA apparel exporters (see (Staritz et al., 2016)).

Several factors can be listed as challenges of GVC participation among African countries. One key factor is the poor infrastructure in the forms of shortage and unreliability of power, poor and limited access to roads, and inefficient ports. On top of this, weak and inefficient institutions that result in the inability to protect the rule of law, property rights, and the ability to enforce contracts have played a significant role in limiting Africa’s GVC participation (Dollar & Kidder, 2017). Comparing Ethiopia with other African countries, these authors indicate that Ethiopia has relatively better economic institutions given its level of economic development – and this might explain its relatively better participation in GVCs.

When it comes to increasing its participation in the GVCs and maximizing the benefits from it, there is a lot that Ethiopia can learn from the success stories of China. However, while trying to draw lessons from China, it is important to consider differences in the local contexts in these two countries, the unique nature of China, and changes in the world trade and investment environment that happened over time.

Against this background, the main objective of this paper is to identify the key challenges that Ethiopia is experiencing in taking full advantage of processing trade and examine what can be learned from China’s strategic approach to Global Value Chains (GVCs) participation. The paper will focus on China’s strategic policy framework – in terms of sectoral focus, and policy measures used to stimulate trade diversification and upgrading in GVCs/RVCs.

Specifically, the paper addresses the following issues:

1. Discuss the existing policy framework (and its weaknesses) in Ethiopia with respect to processing trade and GVCs participation and upgrading;

2. Identify key lessons from China concerning processing trade policy and complementary instruments deployed to (i) facilitate the insertion of domestic firms into international production networks; (ii) guide the evolution of production capacities of national firms within those networks and their contribution to progressive increases in domestic value addition; and (iii) promote the shift of processing trade flows towards more advanced and technology-intensive sectors.
3. Use the lessons examined at point (2) to identify the building blocks of a strategic policy framework to improve the developmental impact of trade and GVCs/RVCs participation in Ethiopia, diversify away from the global apparel value chains and build more resilient regional and international production networks.

The rest of the paper is organized in the following way: In section 2, we describe Ethiopia’s trade and investment performance, and in Section 3 we discuss Ethiopia’s policy limits and challenges it faces to promote GVCs. While Section 4 presents lessons to be drawn from China along with strategic policy framework for Ethiopia, section 5 summarizes the main insights from the paper.

2. Country Performances

Ethiopia’s exports to GDP ratio is the lowest in the world, even compared to sub-Saharan African (SSA) countries (see Figure 1). Specifically, Ethiopia’s 7.9% share of total exports in GDP (on average for the period 2015-2020) is lower than all SSA countries but Burundi and Sudan. Given its size, although Ethiopia’s export share is expected to be lower than that of the smaller countries in the region, the fact that it is less than that of the relatively larger economies like Nigeria (9.2%), South Africa (30.1%), Kenya (12.8%), Tanzania (15.3%) and Ghana (34.7%) shows that there is some room for improvement. As can be seen from Figure 2, Ethiopia’s share of trade in GDP has been growing since the early 1990s and before it starts to continuously decline since 2011.

*Figure 1 Share of Exports and Trade in GDP for SSA Countries: Average of 2015-2020*

Source: Own computation based on data from World Development Indicators (WDI)
The government of Ethiopia’s second Growth and Transformation Plan (GTP II) identified the export sector as one of the key drivers of economic transformation and sets out a plan to aggressively increase the performance of the sector. Accordingly, as outlined in the GTP II, the government targeted increasing the share of exports of goods and non-factor services in GDP from 9.4 percent in 2014/15 to 20.6 percent by 2019/20. Given the 11 percent GDP growth rate anticipated in the growth plan, achieving this target requires a 30% annual growth rate of exports of goods and services.
As of 2019/20, the country is far behind achieving this GTP target by some 13.5 percentage points. To make things worse, the realized export to GDP ratio has been declining since 2010/11 from a pick of 16.7 percent to an all-time low of 7.1 percent in 2019/20 (see Figure 3). This declining trend in the share of exports in GDP can be either due to a faster growth in GDP that did not produce a proportional/similar increase in exports or by a declining or flat trend in exports. As can be seen from Figure 4, the trend in exports of goods and services has been more or less stagnant since 2014/15, except for a bit of recovery in 2017/18. That is, after a bit of a decline in 2012/13, it reaches a peak of 3.3 billion USD in 2013/14 before starting to continuously decline and bottoming 2.8 Billion USD in 2017/18. The last couple of years witness some level of recovery.

The robust performance of exports in Ethiopia observed in the 2005/06-2011/12 period has mainly been due to favorable trends in the country’s terms of trade. The other potential reason for this robust performance in exports could also be due to the depreciation of the real exchange rate of Birr against the US dollar between 2007/08-2010/11. The dismal performance in exports observed since 2011/12 and particularly after 2013/14 also coincides with a lack of favorable terms of trade as well as an appreciation of the real exchange rate of the birr.

*Figure 4 Trends in Imports and Exports (Excluding Services): 2005/06-2019/20 (Millions of USD)*

Source: Own computation based on data from the National Bank of Ethiopia (NBE)

When we come to the analysis of trends in imports of goods and services, we see from Figure 4 that Ethiopia’s import bill has been growing at a much higher speed than its exports resulting in a widening of the balance of trade gap and/or current and capital account deficits. One possible explanation for the widening of the trade gap is the arguably overvalued exchange rate of the birr, which encourages imports of goods and services while discouraging exports and domestic production of import-substituting final
and intermediate products. As is also indicated above, the relatively stagnant terms of trade since 2010/11 together with the uncompetitive exchange rate observed in these years can be considered as one main factor for the deteriorating trade gap. After several years of deterioration, the trade deficit has shown an improvement over the last two years. Import compression is a likely reason behind this improvement in the trade deficit. As can be seen from Figure 4, imports of goods and non-factor services have declined since 2016/17 and during this period the NBE has been implementing foreign exchange rationing.

From the above discussion, it is clear that Ethiopia has a lot to improve when it comes to exporting. Although having an exchange rate policy that promotes exports as well as having efficient transport and logistics services are among the strategies stipulated in the government’s second GTP, these issues continue to be major bottlenecks for promoting the export sector in the country. Similarly, the industrial parks project, which is aimed at promoting exports through increased supply of land and other benefits of agglomeration, has not yet brought significant improvements in the country’s exports.

The low industrial base has been one reason for the rapid expansion of imports and the widening of the trade balance. The manufacturing sector is quite weak to generate resources necessary to finance the country’s import needs and/or to generate products that can substitute imports.

*Figure 5 Trends in FDI inflows (in Billions of USD): Ethiopia 2005/06 – 2019/20*

Source: Own computation based on data from the National Bank of Ethiopia (NBE)
3. Policy Limits (Processing Trade and GVC in Ethiopia: Existing Policies and Challenges)

The relevant policy determinants for a country’s increased participation in GVCs include, among others, trade and foreign direct investment (FDI) related policies, industrial policies, and policies related to the quality of institutions, infrastructure, trade facilitation, intellectual property protection, and logistics performance (Kowalski et al., 2015). Accordingly, in this section, we first review Ethiopia’s trade, FDI as well as industrial policies. This is followed by a discussion of trends in the quality of institutions and infrastructure to see their implication for Ethiopia’s participation in the GVCs.

3.1. Trade and FDI Policy Related Issues

Successful participation in GVCs requires openness not only to trade in goods and services but also to inflows of FDI. This is because high trade protection restricts imports of intermediates that are essential ingredients of GVCs. Moreover, restrictive trade policy prevents countries from improving their productivity through the competitive process of international trade and imports of high-quality inputs and technology that comes with it (Shepherd, 2017).
Ethiopia’s trade and investment policies remain restrictive, both relative to countries in the region and importantly when compared to countries that use participation in GVC as a central part of their industrialization (like China and Vietnam) (Shepherd, 2017). Although Ethiopia has been taking different trade liberalization measures since 1991, its trade policy can still be considered restrictive. Even with the current maximum MFN tariff rate of 35 percent, when one cumulatively adds the different import taxes (Tariff, Excise, VAT, SUR), the maximum tax on imports in Ethiopia reaches as high as 240%.

Despite the restrictive nature of Ethiopia’s trade policy, it has some provisions that can promote processing trade. For example, firms in priority sectors and those that engage in exporting benefit from privileges like the voucher and duty drawback systems. The government also gives several exemptions to imports that are considered essential for promoting industrialization. As can be seen from Figure 7, there is a big divide between the statutory and effective tax rates applied to imports to Ethiopia. Part of this disparity between the statutory rate and the effective rate is attributed to exemptions that are given to importers of commodities that are considered essential (Mengistu et al., 2021). (UNCTAD, 2016a) also underlined the significant divergence between the statutory and effective rates and indicated that, in recent years, although the weighted average tariff rate has not been below 17.5%, the effective tariff rate (the ratio of actual tariff collection to the value of imports) does not exceed 8%.

Figure 7 Trends in statutory rate and the effective import tax rate

![Graph showing statutory and effective import tax rates](mengistu2021)
In general, Ethiopia is making efforts to increase its international competitiveness and boost its exports, among others, by expanding market opportunities via preferential trade agreements, improving logistics, reducing the cost of trade, and incentivizing firms engaged in exporting. Efforts as part of these include developing a comprehensive National Logistics Strategy (NLS), initiation of a major overhaul of trade facilitation measures, and engaging in various regional, bilateral and multilateral trade agreements.

In particular, Ethiopia has a bilateral trade agreement with Sudan and special trade relationships with countries like China and Djibouti. It also has preferential market access to China, India, Russia, South Korea, and Turkey. Moreover, Ethiopia is eligible for the non-reciprocal trading arrangements like the African Growth Opportunity Act (AGOA) of the USA, the Everything-But-Arms (EBA) with the European Union (EU), and the Generalized System of Preferences (GSP) for preferential tariff treatment by developed countries like Australia, Canada, Japan, New Zealand, Norway, and Switzerland (UNCTAD, 2016a). In terms of regional and multinational trading relationships, Ethiopia is a member of the Common Market for Eastern and Southern Africa (COMESA), and it is recently making the necessary preparations to join the African Continental Free Trade Area (Afri-CFTA) and the World Trade Organization (WTO).

Although joining these multilateral and regional trade agreements is likely to expand Ethiopia’s export market access, the external constraints these agreements impose on the policy instruments that Ethiopia can use should be taken into account. As a result of these restrictions, Ethiopia will not have the same policy space that made China and other East Asian countries successful. Among others, the policy space will be constrained by the agreement on Trade-Related Investment Measures (TRIMs) and the new WTO rules, added in the 1980s and 1990s, on services, the new provisions patents and copyright added under the Trade-Related Intelectual Property (TRIPS) (Page, 2007). This author further notes that the most restrictive rules are the ones that are related to proposals on Multilateral Agreement on Investment the environmental conventions, bilateral and regional agreements and the increased financial powers of the World Banks (WB) and IMF special for indebted countries.

Ethiopia is also taking several reform measures aimed at improving trade logistics and facilitation and it has been investing in the construction of roads, railways, and industrial parks. These measures are not only important pillars of the country’s Growth and Transformation Plans but also will be instrumental in facilitating trade in both directions and hence helping the country to be better integrated with GVCs.

**FDI Policy**

Openness to inward FDI is strongly associated with backward integration and hence facilitating GVC participation requires having an appropriate FDI policy. (Kowalski et al., 2015) empirically estimated the relationship between openness to FDI and GVC participation and find that FDI openness to be associated with a 20 percentage points increase in GVC participation for some Southeast Asian countries. They further show that this relationship is stronger for countries such as Indonesia, the Philippines, China and Malaysia.
The role of FDI as a tool to promote GVC activity in Ethiopia is well acknowledged (Shepherd, 2017). This author further argues that the increase in inflows of FDI that has been observed until 2016/17 had a clear potential to promote GVC activity in the country. Despite this Ethiopia’s FDI policy has been a bit restrictive and there are efforts by the government to encourage FDI through various incentives. For instance, incentives are given for foreign direct investors in terms of tax holidays and duty-free import of capital goods in selected sectors. Moreover, investment areas that were closed for foreigners are being relaxed over time. However, there are still challenges to attracting FDI, among others, due to security issues associated with the ongoing internal conflicts, lack of physical infrastructure, disruptions in the supply of electricity and telecom services, shortage of foreign exchange, bureaucratic hurdles as well as the current corona pandemic.

3.2 Ethiopia’s Industrial Policy: An Overview

Following the fall of the socialist regime in 1991, Ethiopia starts to follow an Agricultural Development Led Industrialization (ADLI) strategy by the mid-1990s. This strategy aims at exploiting the potentials of the agricultural sector towards creating the basis for an export-oriented manufacturing sector. It is within this context that the country later launched a comprehensive agriculture-led, export-oriented Industrial Development Strategy (IDS) in 2002/03. This industrial strategy focuses on creating strong linkages between agriculture and the manufacturing sectors. While this plan mainly focuses on the manufacturing sector in general, it considers labor-intensive and export-oriented sectors as priority sectors. Although the plan document considers the private sector as the engine for growth, it sets aside a crucial role for the developmental role of the government. According to the strategy, the government’s role includes enhancing good governance and creating a conducive environment for business, providing direct support to priority sectors, playing a coordination role as well as making public investment in sectors where there exist gaps and/or cannot be effectively covered by the private sector (EDRI, 2016). In this regard, emphasis has been given to creating a favorable macro and financial environment, infrastructure, and human capital, providing incentives like duty-drawback, voucher systems, bonded warehouse as well as providing capacity building to exporters and priority sectors identified by the government.

The 2002/03 IDS has been implemented under three major national programs and plans. Specifically, in the initial period of the industrial strategy, covering the period 2002/03-2004/05, it was implemented as part of the Sustainable Development and Poverty Reduction Program (SDPRP). In the next phase, in the period 2005/06-2009/10, the strategy was implemented under the Plan of Action for Sustainable Development & Eradication of Poverty (PASDEP). This has been the main implementation phase of the industrial development strategy and major gains have been achieved. Finally, the industrial strategy was implemented under the first year of the first five-year Growth and Transformation Plan (GTP I) that covers the period 2010/11-2014/15.
Given the human capital, availability of foreign exchange, and the lack of access to credit, etc. have remained major challenges, the government launched a longer Industrial Development Strategic Plan (IDSP) that is supposed to be implemented in three phases (FDRE Ministry of Industry, 2013). This IDSP covers a time of thirteen years (2013 – 2025) and aims to bring structural transformation by increasing the GDP share of the industrial sector from 13% to 27% in 2025 and the GDP share of the manufacturing sector from 4% to 17%. The key implementation strategies identified for this IDSP were more or less similar to the previous IDS. Specifically, the IDSP considers ensuring a conducive business environment, availing competent human resource and quality industrial inputs, developing and diversifying local, regional, and global markets, enhancing technology transfer, and developing and providing institutional support as its key implementation strategies.

The relevant manufacturing sector development programs identified in the IDSP include:

- **New Manufacturing Sectors Development Program**: which focuses on additional new sectors - considering the GVCs & the country’s resource potentials
- **Local (Private) and Foreign direct investment Promotion Program**: this involves formulating comprehensive and sector-specific FDI strategy through the Industrial Bill, strengthening /Establishing appropriate institutional setup for promoting FDI, and institutionalizing one-stop services for investors, etc.
- **Industrial Zone Development Program**: this includes establishing industrial zones that evolve to industrial cities; development of infrastructure for the new industrial zones in different parts of the country; and capacity building in the development & management of industrial zones and cities, and creating a conducive environment for the establishment of industrial cities

The Industrial Development Strategic Plan (IDSP) has been implemented under the last years of the first Growth and Transformation Plan (GTP I) (2010/11-2014/15) and throughout the second-five-year Growth and Transformation Plan (GTP II) – (2015/16-2019/20). Although these five-year plans provide a medium-term roadmap for all sectors, the government’s ambition of export-led industrialization is clear.

### 3.3. Challenges in Promoting GVC Participation

For Ethiopia’s increased participation in GVCs in the future, it is important to understand the challenges that hold back its integration into GVCs and the factors that drive other countries’ success in stronger integration into GVCs. Before we move on to discuss the successful participation of China in GVCs and the factors that drive its success, we highlight the main challenges that slow down Ethiopia’s participation in GVCs. As we have tried to highlight above, high trade costs following high import taxes, inefficient logistics, and bureaucratic border clearance, as well as macroeconomic challenges, qualities of institutions and problems with the whole business environment make it difficult for Ethiopia to actively engage in GVCs.
The high import tax rate that is used to protect the domestic market, the overvalued exchange rate of the birr, the expensive and inefficient logistics system and the bureaucratic border clearance system all work together to create an export bias and favors firms that serve the domestic market (see also (Gebreyesus & Kebede, 2017)). These need to be improved if Ethiopia is to integrate into GVCs, industrialize, improve its international competitiveness and promote export-oriented economic growth. “Other countries that have successfully used GVCs to promote rapid development through middle-income status, such as China and Vietnam, are considerably more open to international flows of goods, services, and investment than Ethiopia is” (Shepherd, 2017).

**Openness to trade:** Although Ethiopia has preferential trade agreements with a number of developing countries, the fact that it has not been actively taking part in regional trade agreements, like the COMESA, and the WTO poses a big challenge for exporters and to attract export-oriented FDI into Ethiopia. Despite the privileges of duty-free imports given to exporters and/or firms in priority sectors as well as to importers of capital goods, the high import taxes in the country reduces firms’ access to cheap imports that are integral parts of GVC participation.

When compared to the average applied MFN tariff rate in China and Vietnam, which respectively stands at 9.4% and 9.5% in 2015, Ethiopia applies a significantly higher tariff rate that is in the range of 5% -30% (Shepherd, 2017). According to this author, this is true even in the priority sectors like textile and other light manufacturing industries and is not significantly lower for intermediate inputs and intermediate product categories which are protected by tariff rates in the range of 12%-14%. This is likely to make it challenging for firms to access cheaper and high-quality intermediate inputs and hence to integrate into GVCs. Apart from restricting imports of intermediate inputs, such high rates of protection will prevent the country from enjoying the productivity gains that could accrue from openness to trade.

The government tries to compensate for this and correct the bias against exporters using the duty-drawback scheme that can promote integration into GVCs by allowing exporters to import intermediate inputs at world market prices. This scheme, however, discriminates against price-out second-tier domestic firms that can potentially grow to become exporters and can only be considered as a second-best to a flatter tariff schedule that gives broader access to intermediates (Engel & Taglioni, 2017; Shepherd, 2017). Moreover, tariff removals would not be sufficient to promote integration into GVCs, although it would be a step in the right direction, in the presence of inefficient border clearance or poor customs procedures. Trade facilitation, logistics performance, intellectual property protection, qualities of infrastructure and institutions have the highest impact on sourcing foreign inputs (Kowalski et al., 2015). Accordingly, these authors argue that policy measures that are likely to be most conducive to value chain integration are those that promote deep integration, including trade facilitation, services liberalization, competition policy, investment, intellectual property protection and dispute settlement.
**Trade Logistics and Facilitation:** On top of the high import taxes, the inefficient logistics and bureaucratic border clearance system entail high trade costs for firms and can potentially reduce/eliminate the low wage advantage that country has (Staritz et al., 2016). The sector requires reforms that can reduce the time and financial cost of importing and exporting goods and increase the efficiency and simplicity of logistics services. There are ongoing reform measures that have been started in recent years that involve the introduction of the Electronic Single Window (ESW) system and other logistics-related reforms. This is important for successful integration into GVCs and according to the World Bank, initiatives like the introduction of the eSW can facilitate Ethiopia’s integration into GVCs by facilitating importing and exporting (World Bank, 2020). The flow of goods within the GVCs is more sensitive to trade facilitation and logistics than final goods and it is hard to imagine active participation in GVCs without efficient trade facilitation and logistics. As a landlocked developing country, this is very important for Ethiopia and requires the government’s attention (Shepherd, 2017; UNCTAD, 2016a).

**Macroeconomic challenges:** Access to foreign exchange, overvalued exchange rate of the birr, high inflation rate, lack of access to finance are the major macroeconomic challenges that can make integration into GVCs challenging for firms in Ethiopia. Although keeping interest rates low is necessary to support capital accumulation and/or maintain the cost of financing investment and working capital for exporters, getting access to finance is a challenge for firms in Ethiopia. Even if there is some level of government support for investment loans, firms face problems in getting loans to finance their working capital, including their FOB order cycle, and this is a major challenge for integrating into GVCs (Staritz et al., 2016).

The high rate of inflation observed in the country over the last years has made it difficult to maintain a competitive exchange rate. Ethiopia follows a crawl-peg-like exchange rate regime and the exchange rate of the birr is usually overvalued. In recent years, the parallel market premium has become in double digits and the National Bank of Ethiopia exercises foreign currency rationing. For export-oriented industrialization strategy, appropriate exchange rate management is important in determining international competitiveness - an overvalued exchange rate has the same effect as taxing exports and subsidizing imports. The government should thus make sure that the exchange rate of the birr is closely aligned with market fundamentals and avoid exchange rate misalignment that is likely to produce the wrong incentives.

Giving priority/privileged access to foreign currency for selected sectors/industries through currency rationing cannot be a long-term solution. First, firms are unlikely to get their foreign currency needs on time and the shortage by itself creates an unofficial rent. Second, given the uncertainty in getting foreign currency, international lead firms will become less motivated to make relationship-specific investments with Ethiopian suppliers. Or that, GVC lead firms will be less likely to make local investments if they feel uncertain about repatriating their profits (Shepherd, 2017). Thus, if Ethiopia is to be well integrated into GVCs the Ethiopian government needs to address these macroeconomic challenges.
Qualities of infrastructure and Institutions, business environment, and peace and security: are important factors determining a country’s integration into GVCs. Quality of institutions like better contract enforcement and stronger property rights and the rule of law increases a country’s chance of integrating into GVCs (Dollar & Kidder, 2017). Based on a study that exploits variations in institutional qualities of Chinese cities, these authors show that firms have a relatively higher chance of participating in GVCs in cities where contracts are more enforceable, government intervention is less, and customs procedures are more efficient. Moreover, they associate Africa’s weak participation in GVCs with its weak institutions. Political stability is the first prerequisite for choosing a country for sourcing (Staritz et al., 2016). Although Ethiopia has had a relatively stable political environment, in recent years this has not been the case, and this might have been reflected in the declining trends of inflows of FDI into the country. In relation to problems with infrastructure, the unreliability of electricity and telecom service are major problems facing firms operating in Ethiopia. Human capital is also a key factor for a country’s participation in GVCs (Kowalski et al., 2015). Ethiopia should thus invest in the development of its human capital through the provision of quality education and training.

4. Lessons from China and new strategic policy framework

China started reforming its economy in 1978 and since then the country gradually and progressively opens-up its economy and implemented a successful industrialization program to become the biggest exporter and the second-largest economy in the world. Since the late 1990s, it started moving up the value chain (Wong, 2012), among other things, this can be characterized by the decline in the share of primary exports from 50% in 1980 to 26% and less than 10% in 1990 and 2000s, respectively. This decline in the share of primary exports is compensated by increases in exports of manufactured products. Even within manufacturing, the shares of light textile reduced from 44% in 1990 to 19% after 2000, while the shares of machinery and transport equipment increased from 9% in 1990 to 37% in 2000 and 50% in 2008.

Below we have reviewed policies that China has employed to facilitate the participation of domestic firms into GVCs, guide the evolution of production capacities of domestic firms and increase their value addition (see sub-section 4.1). In sub-section 4.2, we review policies that China used to promote the engagement of sectors and firms in more advanced and technology-intensive activities and products.

In each of these sub-sections effort is made to use lessons drawn from China to identify the building blocks of a strategic policy framework that can be used to improve the developmental impact of trade and participation in GVCs in Ethiopia. Specifically, we will discuss about policies that can be used to enhance Ethiopia’s integration into GVCs and build more resilient regional and international production networks by diversifying away from the global apparel value chains.
4.1. Integrating domestic firms into international production networks

4.1.1. The role of policy in China

In China’s move up the value chain, both policy and market forces play important roles. Since China started to take major economic reform measures in 1978 (the “Open door” policy), government policies have been important in China’s growth and industrialization. Since the late 1990s, China started to guide the process of industrialization by issuing guidance catalogs. A case in point is the Catalogue of Major Industries, Products and Technologies Encouraged for Development in China (1998). In relation to measures to promote trade and investment or GVC, in its early stages of development or early reform years, China has used a number of policies that can promote its industrialization and export as well as foreign reserve accumulation. In this period, China used a number of policies that promote exports, foreign exchange accumulation and technology transfer. Specifically, these policies include local content requirements, trade and foreign exchange balancing requirements, export performance requirements and incentives (tax concession), mandatory joint ventures and technology transfer requirements. Most of these measures were abandoned in the lead up to China’s joining the WTO and relaxed after that.

Specifically, China started the “Go-Global” policy in 2001 when it joined the WTO and the government of China has gradually reduced its interventionist approach and use policies that promote competition, innovation, protecting patents and property rights as these also were requirements of the TRIMs. Since 2005, the government has started implementing a host of other policies. These policies include the National Five-Year Plan of 2006 and 2011 and involve the building of new infrastructure, promotion of science and innovation (via technology parks), financial support and tax incentives – for high value-added activities and industrial innovations, etc.

4.1.2. Strategic policy framework for Ethiopia

Joining GVCs can be done either through promoting domestic firms to join global and regional value chains or by attracting FDI (Taglioni & Winkler, 2016). In both cases the main challenges that could potentially prevent Ethiopia’s active participation in GVCs can be summarized into high trade costs, weak institutions for doing business, and the capacities of local firms to respond to demands from lead firms. Unlike structural factors like market size and geographical location or proximity, these factors can be positively influenced by putting the right policies in place (Cattaneo et al., 2013).

Regional Value Chains and Regional Trade Agreements (RTAs): The government of Ethiopia should aim to take advantage of RVCs – that is by integrating the economy with intra-Africa trade and production networks. This will be very useful in terms of increasing industrial content and structural transformation (Kozul-Wright & Fortunato, 2018). There is ample room for improving intraregional trade in Africa and the African Continental Free Trade Area (Afri-CFTA) could play a significant role in promoting
industrial development, supporting the development of regional value chains and driving inclusive structural transformation in Africa (UNCTAD, 2019). According to (UNCTAD, 2019), 80 to 90 percent of African exports go to the rest of the world. The share of intra-African exports in 2017 has only been 16 percent and is relatively very low compared to the intraregional export shares of Europe (68.1 percent), Asia (59.4 percent), and America (55 percent).

As indicated above this low share of intra-regional trade among African countries suggests that there is a greater opportunity for promoting trade among neighboring countries. This will enable Ethiopia and other African countries to gain from geographical proximity and develop export competitiveness in a regional context (Kowalski et al., 2015). These authors further argue that Free Trade Agreements (FTAs) have a greater impact on trade in intermediates than on trade in final goods or aggregate trade and this impact is greater for Regional Trade Agreement (RTAs). Accordingly, they argue that engaging in regional trade agreements should be an important element of developing RVCs.

To exploit the advantages of RVCs, African countries including Ethiopia need to take active policy measures to maximize the benefits from integrating into the regional value chain. Among others, the countries should work on identifying and prioritizing entry points into the value chain, exploit regional complementarities, avoid mutual damages, facilitate connections between firms, reduce transport costs, ease border restrictions, harmonize testing and certification systems, etc (Kozul-Wright & Fortunato, 2018). Since the region has the highest trade costs, for both intra- and extra-regional trade, focus needs to be given to improving trade facilitation efforts involving improvements of hard and soft infrastructure (Kowalski et al., 2015).

Reducing Trade Costs: High trade costs are not compatible with GVCs not only because of the importance of cheaper, high-quality world-class inputs but also because high trade cost prevents the country from enjoying the (productivity) gains from international trade (Shepherd, 2017). Reducing tariff and non-tariff barriers via trade agreements and enhancing trade facilitation and logistics services are important to increase Ethiopia’s participation in GVCs. Although Ethiopia provides incentive schemes like duty drawbacks and enhanced services at the industrial parks, this is not enough to promote the integration of domestic firms into the GVCs as non-exporting/importing firms will not be able to benefit from these schemes. Thus, full-fledged trade facilitation like reducing tariff and non-tariff trade costs globally through multilateral agreements may have a better effect as it is more effective in terms of lowering the cost of GVC participation (Engel & Taglioni, 2017). Similarly, (Dollar & Kidder, 2017) argues that deep trade agreements cover a wider set of policy areas, such as investment and competition policy, that goes well beyond the traditional focus of preferential trade agreements, such as tariffs reductions. These deeper trade agreements act as shortcuts for enhancing GVC participation as they can help to internalize cross-border policy spillovers to the benefits of stronger commitments in policies that affect GVC participation.
Reforms in the areas of trade logistics and trade facilitation are priorities for policymakers and necessary conditions for Ethiopia’s enhanced GVC participation (Shepherd, 2017). This is crucial as trade costs are important determinants of firms’ international competitiveness and for successful integration into GVCs (Engel & Taglioni, 2017).

**FDI attraction and management:** Given the low levels of productivities of the local firms and their capital constraints and minimal experience in the functioning of international markets, FDI is considered a strategic tool to facilitate Ethiopia’s integration into GVCs (UNCTAD, 2016a). The government of Ethiopia needs to work on its policies of FDI attraction and management. Apart from providing incentives for attracting FDI, creating an enabling environment for both local and foreign direct investors is crucial for firms’ integration into GVCs. In order to enhance the role of FDI in boosting Ethiopia’s exports, it is important to combine export requirements with clear incentives and the rules need to be applied strictly. In this regard, Ethiopia has already a requirement for foreign firms to export 80 percent of their outputs to secure incentives (Staritz et al., 2016). This needs to be strictly enforced. Similarly, to increase technology and skill transfer to local firms, it is important to incentivize joint ventures and vertical integration and linkages.

**Investing in infrastructures:** Improving the qualities and availability/coverage of transportation (railways and highways) and communication and electric power infrastructure is very important to enhance Ethiopian firms’ participation in GVCs. Poor quality of infrastructure can increase the cost of doing business for firms and prevent them from meeting the demands of lead firms. The use of industrial parks (IPs) is important to attract investment and promote export-oriented industrialization. This is because the IPs are not only providing land and factory shields but also help to minimize the challenges with providing quality infrastructure throughout the country (Staritz et al., 2016). Moreover, the government provides on-spot customs clearance service at the IPs and there is an effort to connect IPs with railway lines that go to the Djibouti port. This is important in terms of lessening the challenges firms face in relation to poor infrastructure and inefficient logistics.

**Improving institutions:** Institutional reforms including property rights, contract enforceability, transparency, and reducing corruption are important for enhancing participation in GVCs (Dollar & Kidder, 2017).

### 4.2 Evolution of production capacities

#### 4.2.1. Role of Policy in China

Engaging in an assembly is typical of an early stage of GVC participation and China’s role as assembly hub of the world has been a case in point. Although assembly is a low value-added labor-intensive activity, it can be effectively used to shift from agriculture to industry, generate formal employment and income for a large share of the population, and achieve a large-scale poverty reduction (Shepherd, 2017). However, moving from
captive value chains, i.e., from an assembly of imported inputs in EPZs to more domestically integrated and higher-value-added activities is important and this has been key to East Asia’s success. Specifically, moving up the GVCs is important to increase a country’s gain from trade, increase its international competitiveness, and get a higher share of the profit. Moving up the value chain can take one of the following four forms or types of upgrading whereby firms can use to capture greater production value (Engel & Taglioni, 2017; Humphrey & Schmitz, 2002; Taglioni & Winkler, 2016):

- **Process upgrading**: This refers to efficiency gains and productivity improvements in existing activities in the value chain that firms achieve by introducing new technologies or organizing existing ones.

- **Product upgrading**: Involves moving into more sophisticated products that can generate higher value-added and profit margins;

- **Functional upgrading**: This refers to firms moving toward more sophisticated tasks with the aim of increasing their share of value-added;

- **Intersectoral or Chain upgrading**: In this case, firms move into value chains that have higher value-added.

It is apparent that Chinese firms are doing all of the above in recent years. China has pursued active policies and strategies to encourage firms’ move to higher value-added activities and industrial innovations. This has been reflected in China’s policy documents including in the 2006 and 2011 Five-Year development plans as well as in its industrial policy documents. The specific policies that China pursued to increase its R&D expenditures and move up the value chain include local content requirements as well as mandatory joint venture and technology transfer requirements. Since these policies are inconsistent with the TRIMS agreements that China has entered into as part of its accession to the WTO, in recent years it started to use fewer interventionist policies that can promote globalization and competitiveness of its firms. Specifically, in order to increase the value addition and technological capabilities of its firms, China started to focus more on building new infrastructural facilities, promotion of science and innovation through technology parks and the Industrial Revitalization Plan. Moreover, the government of China started giving financial support, including grants and loans, and incentives for technological upgrading and the introduction of new and advanced products while removing incentives given for low-value products (Engel & Taglioni, 2017; Wong, 2012).

Apart from active government policies, China’s move up the value chain has been supported and driven by market forces. In this regard, the appreciation of the RMB and the increases in the labor cost in China have forced firms to move to more sophisticated goods that are less labor-intensive. That is, with the tightening up of the labor market and increased availability of skilled workers that reduces China’s competitiveness in labor-intensive traditional manufacturing products, Chinese firms tend to focus more on products that have higher technology content and profits margins. On the other hand,
appreciation of the RMB incentivizes firms' to move up the value chain by reducing the cost of capital needed to import technology and intermediate inputs (Shepherd, 2017; Wong, 2012).

4.2.2 Strategic policy framework for Ethiopia

Given its level of development and engagement in GVCs, it may be natural for Ethiopia to focus on low value-added activities, assembly, or labor-intensive light manufacturing industries. These kinds of activities are typical points of entry into GVCs and, given their labor-intensive nature, they play their own role in generating formal employment, income and poverty reduction in developing counties (Shepherd, 2017). However, since the rate of growth of productivity, profit share, and income gains that would be gained from low value-added activities is going to be limited, moving up the value chain is important to both increase per capita income and facilitate structural transformation. As we have seen from the experience of China, active government policy is important to guide this process, and below we have presented the areas that need the attention of the Ethiopian government.

Investing in education and training, R&D, and technology and innovation: Availability of skilled labor is a key determinant of a country’s ability to move up the value chain (Shepherd, 2017). Ethiopia should thus invest in producing a quality labor force and try to establish a strong link between university and industry. As the experience from China shows, investing in R&D and incentivizing the private sector to be involved in R&D and promoting and incentivizing technology and innovation is important. With the increasing use of automation and computerization, the workforce that is needed even for the manufacturing of unsophisticated products is likely to increase substantially. This requires skills and knowledge for using new equipment as well as the ability to think computationally and analytically. Thus, successful integration into GVCs and moving up the value chain, in turn, requires not only a higher level of education but also a fundamental upgrading of the education systems (Engel & Taglioni, 2017).

Upgrading the Domestic Upstream Supply Chains: One policy puzzle facing policymakers in developing countries relate to increasing the foreign content of their exports vs. increasing the domestic content of exports (developing upstream supply chains). Although GVC is measured by the foreign content in a country’s exports and access to cheap and world-class imported inputs is considered crucial, this should not come at the expense of domestic upstream supply chains. The literature considers domestic and foreign value-added as complementary to one another (Ahmad & Primi, 2017; Shepherd, 2017). So, it is important to give enough attention to the development of the upstream supply chain.
5. Conclusion

Given its unique nature and the time it started taking the reform measures, replicating China’s success might not be possible. The policies that worked for China in the 1980s and 1990s may not be directly applicable to Ethiopia and in today’s globalized world at large. It is important to underline the need for pragmatism and a “one-size-fits-all” approach is unlikely to be successful in addressing the challenges that Ethiopia is facing in integrating into GVCs (Ahmad & Primi, 2017). Regardless, there is a lot that developing countries like Ethiopia can learn from China’s successful integration into GVCs and moving up the ladder.

In this regard, apart from the specific policy measures and strategies that China employed, Ethiopia can draw lessons from China’s approach to industrial policymaking. Specifically, it is important to draw lessons from China’s policymaking that is gradually evolving, with the country’s level of development and global environment.

Active government policy intervention is necessary to successfully participate in GVC and benefit from it. Without interfering too much with the workings of the market, governments can use policy tools (e.g., incentive systems) and provision of enabling environment for the private sector to enhance their participation in the GVCs and move up the value chain.

For the efficacy and possibilities of implementation of the trade and industrial policies necessary for participation in and upgrading through GVCs, political economy (governance) considerations are crucial. In this regard government’s implementation capacity is very important and China’s successful integration into GVCs is a testament to that. Even if it will be hard for Ethiopia to have a strong bureaucracy as in China, at least in the short run, the government of Ethiopia needs to be committed and capacitated to implement its policies and strategies. Since trade and industrial policies and participation in GVCs/RVCs create winners and losers in the society, mechanisms should be put in place to compensate the losers and/or reduce the size of the losing camp - through education and skill upgrading.
References


