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Global Value Chains, Industrial Policy, and Sustainable Development – Ethiopia's Apparel Export Sector

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LIST OF ABBREVIATIONS

AACCSA Addis Ababa Chamber of Commerce and Sectoral Associations

ADLI agricultural development led industrialisation

AGOA Africa Growth and Opportunity Act

CMT cut-make-trim

COMESA Common Market for Eastern and Southern Africa

CRGE Climate Resilient Green Economy

EAC East African Community
EBA Everything But Arms

EDRI Ethiopian Development Research Institute

EFFORT Endowment Fund for the Rehabilitation of Tigray
EHDA Ethiopian Horticulture Development Agency

EiTEX Ethiopian Institute of Textile and Fashion Technology

EPA Economic Partnership Agreement

EPRDF Ethiopian People's Revolutionary Democratic Front

ETGAMA Ethiopian Textile and Garment Manufactures' Association

ETP effluent treatment plants FDI foreign direct investment

FOB free on board FTA free trade area

GDP gross domestic product

GIZ German Corporation for International Cooperation

GSP Generalized System of Preferences

GVC global value chain

IDS Industrial Development Strategy
ILO International Labor Organization

JV joint venture

LDC least developed country
LIC low-income country

LIDI Leather Industry Development Institute

OBM original brand manufacturer
ODM original design manufacturer
PTA preferential trade agreement

ROO rules of origin

SADC Southern African Development Community

SOE state-owned enterprise
SSA Sub-Saharan African
TCF Third Country Fabric

TIDI Textile Industry Development Institute
TPLF Tigrayan People's Liberation Front

TVET technical and vocational education and training UNECA United Nations Economic Commission for Africa

VAT value added tax

WTO World Trade Organization ZLD zero-liquid discharge

EXECUTIVE SUMMARY

The apparel sector has traditionally been a gateway to structural transformation, industrialisation, export diversification, and sustainable development for low income countries (LICs). The Ethiopian government regards this sector as a key priority in driving the country's industrial development strategy. Ethiopia is an exporting latecomer compared to other Sub Saharan African (SSA) apparel exporters. But recent export growth has been impressive with Ethiopia being hyped as a "rising star" for apparel sourcing. This paper assesses the achievements and challenges manifested in growing the Ethiopian apparel sector, the government's active industrial policy strategy to develop the sector, and its implications for industrial and sustainable development.

What makes Ethiopia an interesting case amongst LICs is its active, state-driven industrial policy. This is aimed at attracting foreign lead firms and manufacturers from major apparel producing countries whilst still providing local firm support and protecting the local market. The focus is on incentivising exports and developing domestic value chain linkages between cotton, textile, and apparel firms. Industrial policy is particularly focused on skill and capability building with a major role of sector specific institutes such as the Textile Industry Development Institute (TIDI). Despite capacity problems, the government has a vision and commitment to drive industrialisation and has played a decisive role.

The industry consists of apparel, textile, and integrated firms. Ownership of these firms is more diversified than in other SSA apparel exporters, with state-owned, party-linked, private locally-owned, Ethiopian diaspora-owned, and a variety of foreign-owned firms. Local firms produce largely for the large domestic market, but several have started exporting. Major foreign-owned firms include Turkish textile producers, transnational apparel producers largely from India, as well as a few Pakistani and Chinese firms. A number of foreign investors are more locally embedded, not just interested in Ethiopia as a cut-make-trim (CMT) supplier for their global higher value added operations, but rather interested in locating higher value added activities domestically, developing more complex products, and building linkages to local input providers.

Active industrial policy and firm strategies have resulted in important skill development and some economic upgrading processes, particularly process and product improvements. Regarding social upgrading, there are positive outcomes in terms of formal, mainly female, employment and skills development. However wage levels, working conditions, and the role of unions remain contested. Important proactive processes are underway in terms of environmental sustainability, particularly in the industrial parks.

Crucial value chain challenges include however: limited local linkages of apparel exports; a focus on CMT production; long lead times and low production and product flexibility; skill issues; and infrastructure. Backward linkages (apparel to textile to cotton) remain quite limited in the export sector even though an integrated value chain approach has been prioritised in the development strategy. Despite progress, maintaining industrialisation and sustainable development targets remains a challenge.

The paper identifies and recommends the following policy interventions to overcome these challenges and promote a sustainable industry.

Create TIDI as a one stop value chain shop: TIDI needs to continue building capacity and improve coordination between public and private agencies and firms to become the one stop shop for firms in the value chain.

Continue and adapt skill training: Sector specific education and training focuses on the managerial and technical level which needs to be complemented through training institutions for production workers. Government should further extend its support for in-house technological and production upgrading.

Improve local input linkages and availability of raw materials: A major cotton development programme is required to deal with the limited development of the cotton sector. Attracting new and supporting existing textile investors to fulfil international yarn and fabric supply standards should be prioritised.

Attract Foreign Direct Investment (FDI) with potential for local linkages/embeddedness: Government should build on its strategic FDI attraction policies, focusing on carefully targeting lead firms and manufacturers willing to invest in higher value added activities and build linkages to local input providers.

Allow investments of strategic agents: For buyers to start working in a country it often requires an agent they know and trust. International agents can potentially have an important role to increase exports even though they are not directly engaged in manufacturing investments. Hence, strategic agents should be allowed and attracted.

Support end market diversification and regional markets: Export end markets are split between the EU and the US. But there are large export opportunities in emerging and developing country markets, including untapped regional markets.

Approach social upgrading issues more proactively: Compliance with social standards is a prerequisite for entering and remaining in many, particularly higher value, GVCs. The commendable proactive government approach towards environmental upgrading should also be pursued with regard to social upgrading in order to deepen sustainable development.

1. INTRODUCTION

Structural transformation and export diversification into higher value added products and away from primary commodities remain major development objectives for low-income countries (LICs). The apparel sector has traditionally been a gateway to export diversification for LICs and is generally regarded as a first step for developing countries embarking on an export-oriented industrialisation process. Given its low entry barriers (low fixed costs and relatively simple technology) and its labour intensive nature, the apparel sector absorbed large numbers of unskilled - mostly female - workers. This, in turn, provided upgrading opportunities into higher value added activities within and across sectors. However, the defining characteristics of this sector also mean that it is very competitive, leaving many suppliers with limited leverage and challenges in ensuring longer-term development benefits.

In Ethiopia, the objective to transform from the still dominant agricultural sector to the industrial sector is paramount in policies. Agricultural development led industrialisation (ADLI) was developed as the main guiding principle of Ethiopia's development process. The underlying idea was that Ethiopia's manufacturing sector should complement the growth of the country's dominant agricultural economy, focusing on labour intensive and low-tech industries with linkages to the agricultural sector. One of the main priority sectors is apparel and textiles due to its direct links to agriculture through cotton production, labour intensity, relatively simple technology, and large export potential. Unlike most other main Sub Saharan African (SSA) apparel exporters, Ethiopia has adopted an active, state driven industrial policy aimed at incentivising exports, attracting lead firms and foreign direct investment (FDI), supporting local firms, and creating local linkages to promote priority sectors such as apparel and textiles (Brautigam et al. 2015).

In this context, Ethiopia has become one of the new alternatives or frontiers of apparel sourcing. Together with Myanmar, Ethiopia is hyped as the "new hot spot" or "rising star" for apparel sourcing. Apparel exports from Ethiopia have increased impressively, particularly in the past five years, jumping almost eight fold from US\$9 million in 2009 to US\$68 million in 2014. However, despite this hype, Ethiopia is still a very marginal supplier in the global context. As the 7th ranked SSA apparel exporter, it only accounted for 2.4 percent of total SSA apparel exports in 2014.

This paper focuses on the apparel sector in Ethiopia, its important role in the country's export-oriented development strategy, and its implications for industrial and sustainable development. The two principal research questions are:

- 1. How and why has the apparel export sector in Ethiopia developed?
- 2. What are the sustainable development implications of its rise and how can they be improved to ensure a sustained role in economic development and structural change in the country?

In order to analyse these two broad questions, the paper focuses on answering the following more detailed questions:

- Which types of firms and global value chains (GVCs) exist in the Ethiopian apparel sector?
- What are their main characteristics with regard to governance structures, export markets, export products, firm set up, and production processes?
- What are the implications for embeddedness, skill development and knowledge transfer, and economic, social, and environmental upgrading?

 Which policies exist in the apparel sector and how can they be improved to ensure continued growth and a broader contribution to sustainable development of the sector in Ethiopia?

Methodologically, the paper is based on trade and national sector data, as well as 21 firm level interviews conducted in November 2015 with representatives of textile, apparel, and accessories firms and eight interviews with representatives of relevant institutions from the public and private sector. The latter include the Ethiopian Textile Industry Development Institute (TIDI), the Ethiopian Textile and Garment Manufactures' Association (ETGAMA), the Addis Ababa Chamber of Commerce and Sectoral Associations (AACCSA), the Labour Inspectorate of Addis Ababa, the Industrial Federation of Ethiopia Textile, Leather and Garment Workers Trade Unions, the Ethiopian Development Research Institute (EDRI), the United Nations Economic Commission on Africa (UNECA), and the German Corporation for International Cooperation (GIZ).

2. CONTEXTUALISING THE APPAREL GLOBAL VALUE CHAIN AND SUSTAINABLE DEVELOPMENT

Production and trade in the apparel sector as in many other sectors - are organised in GVCs where production of components and assembly into final products is carried out via inter-firm networks on a global scale. Apparel represents a classic example of a buyer driven value chain characterised by decentralised, globally dispersed production networks, coordinated by lead firms who control activities that add "value" to products (e.g. design, branding), but often outsource all or most of the manufacturing process to a global network of suppliers (Gereffi 1999). Although buyers are not directly involved in production, through detailed product and production specifications, they significantly control manufacturers. Hence, the strategies of buyers, in particular their global sourcing policies, importantly shape production and trade patterns.

Sourcing decisions are motivated by labour cost differentials, given the labour intensive nature of apparel production. But in addition to the classic criteria of costs, quality, and reliability, other criteria increasingly shape sourcing decisions. Most importantly, flexibility demands have increased and lead times have declined, which requires more efficient supply chains and production processes. Further, there is the requirement of non-manufacturing capabilities, such as input sourcing, product development, inventory management and stock holding, logistics, and financing. Finally, there is compliance with labour and environmental standards, which has become a minimum criterion for entering and remaining in value chains (Gereffi/ Frederick 2010; Staritz 2011).

The sourcing policies of buyers have led to a consolidation of the supply base, thereby reducing the number of supplier countries and firms within countries (Gereffi/Frederick 2010; Frederick/Staritz 2011). More capable suppliers faced with high demands on price, quality, and lead time, high and changing volume demands, and demands for broader

non-manufacturing capabilities, have also tried to position themselves as coordinators of networks with a global supply base. Hence, large manufacturers - in particular in Hong Kong, South Korea, and Taiwan developed into intermediaries organising farflung transnational production and sourcing networks (Gereffi 1999; Appelbaum 2008). They have become an important source of FDI in LICs' apparel export sectors and provide an opportunity for new supplier countries to enter apparel GVCs despite low capabilities (Staritz 2011). Thus, in such triangular manufacturing networks, entry barriers are substantially lower but upgrading opportunities are also limited by the intermediaries' control over key decisions and functions.

More recently, there have also been developments that further the continuing spread of the supply base. Cost increases in core supplier countries in Asia have led buyers to look for new alternatives to diversify risks. As a result, buyers or core suppliers have screened new supplier countries that can at least partly replace or reduce dependence on Bangladesh, China, and other Asian countries.

As always in the apparel sector, preferential market access has played an important role in this search for new sourcing locations since tariffs (and hence preferential market access) still play a central role in global apparel trade. Besides regional and bilateral agreements, developed countries have provided tariff preferences to over 100 beneficiary countries through the Generalized System of Preferences (GSP). However, tariffs for apparel products are only marginally reduced in the standard EU and US GSP. But some countries have negotiated preferential access specifically for least developed countries (LDCs), such as the EU's Everything But Arms (EBA) arrangement. Other relevant agreements are the EU's Economic Partnership Agreements (EPAs) and the US's Africa Growth and Opportunity Act (AGOA).

Hence, SSA LDCs have faced zero tariffs in EU markets for a long time but this was coupled to double transformation rules of origin (ROO). However, in 2011 EBA ROOs changed to single transformation. The interim EPAs negotiated recently also stipulate single transformation rules. However, EU preferential market access is offered to all LDCs, meaning that countries such as Bangladesh and Cambodia can also export duty free to the EU. AGOA only came into force in 2001 and was recently extended until 2025. It offers duty free access for apparel exports under certain conditions with lesser-developed countries facing single transformation ROO under the Third Country Fabric (TCF) derogation. A big advantage of AGOA is that only SSA and regional supplier countries in Central America have duty free access to the US market in apparel with LDCs in Asia facing tariffs.1 This makes AGOA more valuable for SSA countries as they have a competitive edge over Asian suppliers, which is not the case with EU preferential market access.

Given intense competition in the global textile and apparel sector, strategies of upgrading are extremely important for suppliers to sustain and improve their positions in value chains. This GVC "upgrading" means moving to higher value activities to increase the benefits from participating in global production (Bair/Gereffi 2003). The following strategies have been suggested to achieve this upgrade (Kaplinsky/Morris 2001; Gereffi et al. 2001, 2005; Humphrey and Schmitz 2002; Frederick/Staritz 2012):

- process upgrading (improving technology or production systems to gain efficiency and flexibility);
- product upgrading (shifting to more sophisticated and complex products);
- supply chain upgrading (establishing domestic linkages, most importantly backward linkages to input sectors);

- end market upgrading (diversifying to new buyers or geographic and product markets);
 and
- functional upgrading (increasing the range of functions or changing the mix of activities to higher value tasks).

Functional upgrading is of specific importance for apparel suppliers and is encompassed within the following types of suppliers (Frederick/Staritz 2012): A cut-make-trim (CMT) manufacturer is generally responsible for sewing apparel, cutting the fabric, and providing simple trim (buttons, zippers). The buyer provides product specifications and the fabric. The factory is paid a processing fee rather than a price for the product. A full package manufacturer (also called free on broad (FOB) manufacturer) purchases (or produces) the textile inputs and provides all production services, finishing, and packaging. The buyer provides the design and often specifies textile suppliers. An original design manufacturer (ODM) is involved in the design and product development process, including the approval of samples and the selection, and production of purchase, required materials. An original brand manufacturer (OBM) develops its own brands and is in charge of branding and marketing (Gereffi 1999).

From a sustainable development perspective, upgrading is extremely important to not only remain competitive in GVCs but to secure local benefits, particularly in the forms of learning, technology transfer, value addition, and employment. It is also important to compete on low costs, which often goes along with low wages, problematic working conditions, and poor social and environmental standards. The disaster at Rana Plaza in April 2013 in Bangladesh, which killed around 1,200 people — the worst single incident in the history of the textile and apparel industry — has once again focused discussions on the problematic

The only exception is Vietnam that will get duty free access for apparel exports in the context of the Trans-Pacific Partnership (TPP).

working conditions in the sector. Hence, social and environmental upgrading are other key upgrading dimensions, often intertwined with economic upgrading (Barrientos et al. 2011). Social upgrading refers to improvements in working conditions and rights of workers which improve the quality of their employment. It also includes skill upgrading, including capturing learning and skill transfer to local workers.

Environmental upgrading entails focusing on and improving environmental performances of production and infrastructure through protecting ecosystem assets (e.g. clean water and energy) and natural resources. The aim of a broader upgrading strategy is hence to ensure inclusiveness and decent employment and reduce environmental impacts while achieving economic benefits and competitiveness.

3. MAPPING THE DEVELOPMENT OF THE APPAREL SECTOR IN ETHIOPIA

With the end of the war against the Derg regime in 1991 came a switch to market-led economic policy and political and economic stabilisation. This, combined with the industrial policy focus implemented since the early 2000s allowed the textile and apparel sector begin to grow in Ethiopia. Substantial growth, however, only really took off in the last five years but data on the precise number of firms varies slightly. In a business opportunity report for investors from the Netherlands, Van der Pols (2015) states that there were less than 20 firms in 1991, which increased to above 80 in 2012 and nearly 110 in 2013, reaching around 130 medium and large scale factories today. ETGAMA talks about 115 to 120 medium and large-scale textiles. TIDI data (complemented by our interview data) shows that there are 127 textile and apparel firms in January 2016.

With regard to exports, apparel exports were modest and remained largely flat at around US\$1 million until the mid-2000s.

Subsequently, they climbed to around 12 million in 2010. Since then, they continued to rise substantially and accounted for around US\$68 million in 2014. The following year, exports continued to climb — particularly to the US — reaching an estimated US\$73 million.² Although Ethiopia's share in the global apparel export market is still not visible, it is gradually emerging as an important newcomer amongst SSA apparel exporters.

Textile exports accounted for US\$49 million in 2014, including US\$20 million in made up textiles, US\$18 million in cotton yarn, and US\$6 million in knit fabric. Hence, in 2014, textile and apparel exports together accounted for US\$117 million (Table 1). Despite the strong growth, textile and apparel exports still account only for 2.6 percent of total exports in 2014 — but are up from 0.7 percent in 2010. TIDI (2016) reports, however, that the export share of textile and apparel in total exports was 3.5 percent in 2015, and in total manufacturing exports 23 percent.

Table 1: Ethiopia's Apparel and Textiles Exports to the World

	2000	2004	2008	2009	2010	2011	2012	2013	2014	
Apparel	Apparel									
Total value (\$, mio)	1	5	13	9	12	44	52	66	68	
Annual growth rate (%)	-	115	116	-27	30	264	18	26	4	
Textiles										
Total value (\$, mio)	2	9	10	16	24	39	29	46	49	
Annual growth rate (%)	-	-10	-28	66	48	63	-26	60	6	
Cotton (raw & waste)	Cotton (raw & waste)									
Total value (\$, mio)	3	11	11	6	8	1	5	5	0	
A&T: Total value (\$, mio)	3	14	23	25	36	83	81	112	117	

Source: UN COMTRADE (2016).

² This estimate is based on USITC and Eurostat export data reported for the US and EU-15 markets. As it does not cover the last three months of 2015, they were extrapolated based on the previous year.

However, the domestic market is still important, not only for domestic firms but also for foreign owned firms — even though the government aims at pushing the latter group solely into exporting. This attractiveness is related to a 96.6 million population with an increasing share of consumers, but also to protection of the domestic market in textile and apparel. The importance of the domestic market is also demonstrated by high apparel imports, particularly from China, accounting for US\$377 million in 2014.

The rapid rise of the sector and particularly of exports is the result of a number of factors, including preferential market access, changes in buyers' sourcing strategies, local context factors, and active industrial policies of the Ethiopian government.

Duty free access to the EU and the US through EBA and AGOA are key drivers of the export growth. If these preferential trade agreements (PTAs) disappeared – certainly at this early stage — industrial expansion in the sector would collapse. Even though Ethiopia is not a member of the WTO, it enjoys duty free access under EBA and AGOA under single transformation ROO. While overall exports to the US under AGOA are still far from its possible potential, Ethiopia is actively working to utilise the Act. It has developed an AGOA strategy and has recently launched an AGOA Centre within the Ministry of Trade with a mandate to help Ethiopian firms take advantage of this agreement. Ethiopia also has duty free access to 16 other nations including Australia, Belarus, Canada, China, India, Japan, Norway, New Zealand, Russia, Switzerland, and Turkey and is member of the Common Market for Eastern and Southern Africa (COMESA) (TIDI 2016).

Buyers from the US and EU have an active role in favouring Ethiopia as a new frontier in apparel sourcing, coming directly to Ethiopia to screen potential suppliers or "convincing" their core suppliers to invest in or source from Ethiopia. This active role is related to the importance of maintaining a serious presence or searching for new low cost production sites

in Africa, so as not to concentrate all their buying activities in Asia, particularly in the context of cost increases and compliance issues in main Asian supplier countries. A first prerequisite for considering a country for sourcing is political stability, and here Ethiopia outperforms many SSA countries. Hence, many buyers have visited Ethiopia to see if it meets the criteria for being a new sourcing location. Most prominently, H&M opened a sourcing office in 2012, which gave a boost to the international image of the Ethiopian textile and apparel sector.

Other buyers, however, have not pursued Ethiopia as a sourcing location, given the low development of capabilities, infrastructure and total price comparability. Although labour costs are very low if all costs are counted together, the prices in Ethiopia are not comparable to locations such as Bangladesh. The price issue seems to be a larger problem for European buyers that compare Ethiopia one-to-one with prices in Bangladesh. A further problem is that European buyers prefer full package suppliers and many firms in Ethiopia can only fulfil CMT export orders. Some European buyers, for example, seem to be struggling with finding suitable suppliers given their tight price and other sourcing conditions, including full package supply. For US buyers, prices in Ethiopia are more advantageous, as Asian supplier countries are obliged to pay tariffs that are especially high for synthetic apparel products (up to 32 percent). This is also an important reason why workwear and sportswear buyers are sourcing from Ethiopia.

Concerning country conditions, the fact that Ethiopia is "politically stable" and also "personally and socially safe" differentiates it from other SSA production sites, and makes a big difference to the buyers and owners or managers of firms investing there. Further, Ethiopia offers a large pool of trainable labour at one of the lowest costs worldwide. The trade union reports wages between US\$35 and US\$60 per month. GRIPS (2015) states wage levels of approximately US\$50 per month for entry level workers and US\$70-80

for more experienced ones. Wages are lower in Ethiopia than in any other SSA apparel exporting country as well as in newcomer countries in Asia, such as Myanmar. Further, water and electricity costs are very low, which is important for textile investments. Moreover, energy is environmentally friendly and carbon neutral as it is largely supplied by hydroelectric plants. Ethiopia grows some of the world's finest cotton and has a spinning, weaving, and knitting history. The cotton sector is, however, underdeveloped and production does not meet textile demand.

But arguably the key "country condition" that singles out Ethiopia particularly in the SSA context is that the Ethiopian government pursues active industrial policies with a clear vision and commitment. The textile and apparel sector is one of the top priority sectors in Ethiopia's development plans which receives special attention regarding resource allocation (land, loans, foreign exchange), sector specific institutes supporting technological and skill development, and other incentives particularly linked to exports.

4. UNDERSTANDING THE DYNAMICS OF APPAREL VALUE CHAINS IN ETHIOPIA

Ethiopia is a latecomer to textile and apparel exporting compared to the main SSA apparel exporters Kenya, Lesotho, Madagascar, Mauritius, and Swaziland. What makes Ethiopia an interesting case is that many of its firm and industrial policy dynamics are substantially different from these other regional exporting economies. This leads to specific value chain dynamics with important implications on sustainable development.

4.1. Types of Firms and Ownership Structures

Ownership is diversified in the Ethiopian textile and apparel sector, made up of state owned enterprises (SOE), endowment-owned firms linked to the dominant party, private locally owned firms, Ethiopian diaspora owned firms, and a variety of foreign owned firms.

SOEs and party affiliated firms in the "public domain": There are only two SOEs currently operating as vertically integrated mills producing woven fabric and made up textiles largely for the domestic market but with an increasing export share (around 30 percent of production). They have upgraded and have relatively high productivity. Within the "public domain" there are also endowment owned firms that are effectively controlled by political parties and their associated ethnic groups.3 The business group controlled by the Ethiopian People's Revolutionary Democratic Front (EPRDF) is one of the largest conglomerates in SSA, with the Tigrayan People's Liberation Front (TPLF) and its Endowment Fund for the Rehabilitation of Tigray (EFFORT) being the most powerful faction. EFFORT is involved in a large number of industries, including textiles and apparel through the fully integrated firm Altex (Almeda Textiles). Altex produces woven and knit fabric, apparel and made ups, largely for the domestic market with around 10 percent exported. These public domain firms remain among the largest locally owned firms in terms of workers employed.

Locally owned private firms: These dominate the sector accounting for 84 firms. This type of ownership represents 66 percent in terms of number of firms, but only 51 percent in terms of employment, showing the smaller size of these firms (Table 2). Although most of these firms employ between 50 (or even less) and 400 workers, there are also some larger ones. ETGAMA estimates that 75 percent focus on apparel production for the domestic market, with around 25 percent producing to varying degrees for both the export and domestic market. Ethiopian diaspora investors that emigrated to the US or EU under the Derg regime but have returned home play an important role among the exporters (around five of the larger exporting firms). They were attracted by business opportunities, AGOA preferential market access, and supportive government policies. Diaspora investors have the advantage of having international business experience, contacts abroad, and an understanding of foreign languages and cultures. Hence, they are able to make the value chain connections more easily - as one diaspora owner manager said "we know how to walk the talk with US customers." Other locally owned firms get access to buyers largely through participation at international trade fairs and through buyer visits to Ethiopia.

Foreign owned firms: FDI has increased in the textile and apparel sector, particularly in the last five years. There are 43 foreign owned firms in the textile and apparel sector accounting for 34 percent of firms and 49 percent of employment, the latter demonstrating the larger size of FDI firms. Turkey is the largest investor accounting for nine firms and 23 percent of total sector employment, followed by India (six firms, 8 percent), China (13 firms, 6 percent), Korea (three firms, 5 percent) and Pakistan (three firms, 2 percent) (Table 2). These shares will change markedly in the near

³ Political parties are not legally allowed to invest in business. To comply with this law, businesses are owned by endowment funds run or owned by party members or close allies.

future as several large Indian investors plan to expand or are in pre-investment stages (TIDI 2016). Ethiopian FDI is different from the other SSA apparel exporting countries in that a larger share of FDI firms is owner managed. This leads to more local decision-making power. Turkish FDI is not only in apparel but also in textiles

with investors focusing on integrated mills. This is in contrast to Indian and Korean investments focusing on apparel production. Chinese firms are much more small scale and diverse compared to other Asian investors (Table 2). Very few FDI projects are realised under joint ventures (JVs) with Ethiopian firms.

Table 2: Overview of Firm Ownership (January 2016)

Citizen	Туре	Num-	share	Employ-	share	Type of Product			
		ber		ment		integra-	textile	appa-	cultu-
						ted		rel	ral
Ethiopia	private	81	64%	20,091	36%	10	14	50	7
Ethiopia	share	3	2%	7,919	14%	3	0	0	0
Turkey	private	9	7%	12,923	23%	7	0	2	0
India	private	6	5%	4,254	8%	1	1	4	0
China	private	13	10%	3,205	6%	2	6	5	0
Korea	private	3	2%	2,795	5%	0	0	3	0
Pakistan	private	3	2%	1,302	2%	1	1	1	0
Italy	private	2	2%	660	1%	0	0	2	0
Israel	private	1	1%	500	1%	0	0	1	0
US	private	1	1%	500	1%	0	0	1	0
Taiwan	private	1	1%	491	1%	0	0	1	0
Sri Lanka	private	1	1%	300	1%	0	0	1	0
Canada	private	2	2%	104	0%	0	0	1	1
Sudan	private	1	1%	32	0%	0	1	0	0
Total		127	100%	55,076	100%	24	23	72	8
Ethiopia		84	66%	28,010	51%	13	14	50	7
Foreign		43	34%	27,066	49%	11	9	22	1

Source: Estimated based on TIDI (2016) and interviews (2016).

Broadly, three FDI waves can be historically identified. FDI in the early and mid-2000s was rather small scale, involving few individual entrepreneurs involved in textile production, largely from India and Pakistan. These firms largely produced for the domestic market. The government has tried to push them to export but with rather limited success so far.

A second more substantial FDI wave from 2008/09 involved mainly Turkish textiles firms, with some investment in apparel in response to the government's focus on exports and the higher export competitiveness of

apparel. Active FDI attraction and incentives from the Ethiopian government played a key role, as well as political stability, security, low labour and energy costs, and domestic wage increases in Turkey that made labour intensive manufacturing uncompetitive. The close diplomatic relationships between the two countries and the fact that the current president of Ethiopia used to be ambassador in Turkey and actively promoted Ethiopia are also important factors (GRIPS 2015). Some Turkish firms also relocated their factories from Egypt given the political instability in the country. 4 Turkish firms aimed for exports,

⁴ Turkish textile firms operate in three tiers: Istanbul, Eastern Turkey (which is cheaper than Istanbul), and low cost locations for very basic items. The latter locations used to be Egypt and Syria but the productivity of labour and particularly political instability has made these countries difficult recently with Ethiopia becoming an alternative.

but many now also produce fabric for the domestic market. A particular concern for these firms is getting access to cotton, which was promised but is a huge challenge. These firms are to some extent locally embedded not because of generational residence or local networks, but because of major capital investment in textile production. Some Turkish firms also relocated their whole factories with only offices remaining in Turkey. Turkish firms are not located in the new industrial parks but largely in cities around Addis Ababa. There are around nine Turkish investments in the sector, six integrated mills, two apparel factories, and one accessories producer (narrow fabric).

A third more recent wave of transnational apparel producers (from India, Korea, Sri Lanka, and Taiwan) are mostly concentrated in two industrial zones — Bole Lemi, 5 which is already in operation, and Awassa, 6 which is still under construction. The main motivations are low labour, electricity, and water costs, security and political stability, duty free market access to the US and Europe, as well as government FDI incentives (Ethiopian and also from their home countries). They generally have globally dispersed plants, focus on exporting, and follow the typical production set up of transnational manufacturers producing low value added, large run products in Ethiopia on a CMT basis with head offices and often also textile mills abroad pursuing higher value added activities. However, several have plans to also produce more complex products in Ethiopia. They also aim to build backward linkages into textiles with one even aiming to invest in cotton production having the full supply chain in Ethiopia. This backward integration diverges from the typical production structure of transnational producers. Hence, some of these firms have the potential to be more locally embedded and diverge from governance structures and firm setups typical for transnational producers (Morris et al. 2015).

Chinese investment in the textile and apparel sector is small scale and limited. There are 13 Chinese textile and apparel firms - six in textile, five in apparel, and two integrated. Average employment is 250 workers, with only six having more than 100 workers. The Eastern Industrial Zone developed and run by a private Chinese group concentrates Chinese investments but there seems to be only one firm that makes woven bags and other types of packaging material. In Bole Lemi, there is one apparel firm. These firms seem to largely produce for the local market with more recent apparel investments aiming at exporting. Chinese investors get incentives from the Chinese government through China's Eximbank, the China Development Bank, and the China-Africa Development Fund (CAD-Fund).

The large share of local firms and the prevalence of vertically integrated firms at this early stage of sectoral industrialisation are a distinguishing feature of Ethiopia compared to other SSA main apparel exporter countries. FDI in the latter (apart from Mauritius) is to a large extent only involved in exportoriented apparel assembly. In Ethiopia, the sector covers an important part of the whole value chain, including spinning, weaving, knitting, and sewing as well as cotton farming and ginning. TIDI data (complemented by interview data) shows that there were 127 textile and apparel firms in January 2016, including 24 integrated mills (textile and apparel), 23 textile mills (spinning, weaving, or knitting), 72 apparel, and eight handloom factories. Including ginning, accessories, and packaging there are 155 firms (two accessory firms, five packaging, printing, and dyeing firms, and 21 ginneries). Integrated mills account for the majority of the employment of 55,076 in the textile and apparel sector (51 percent) followed by apparel factories (32 percent), textile mills (13 percent), and handloom factories (8 percent) (Table 3; TIDI 2016).

⁵ In Bole Lemi there are seven apparel firms (four from India, one each from China, Korea, and Taiwan).

⁶ In Awassa, there will be apparel investors from China, Hong Kong, India, Indonesia, and Sri Lanka.

Table 3: Number and Employment of Textile and Apparel Firms (January 2016)

	Number of factories	Number of workers
Ginning	21	1541
Spinning, weaving, & knitting	23	7229
Integrated textile	24	28255
Apparel	72	17431
Handloom	8	2161
Trims & accessories	2	150
Packaging, printing, dyeing, & finishing	5	665
Total	155	57432
T&A total	127	55076

Source: TIDI (2016).

Despite this diversity, the textile and apparel export sector is characterised by a high concentration of a few large firms. There are around 10 firms in apparel and eight vertically integrated mills that account for the bulk of exports (B&M Analysts 2015). According to ETGAMA, only 30 to 35 firms export, with 30 further firms having the potential to export. Around 60 percent of exports are by one integrated Turkish firm. Five to six large firms account for the next 20 percent of exports, with the other 20 percent coming from the rest of the firms. The approximately 20 locally owned firms that export account for only 20 to 25 percent of exports. The World Bank (2014) shows that in 2012 the two largest categories of exporters sold over US\$1 million, representing a total of 5 percent of exporters and 84 percent of Ethiopia's textile and apparel exports. In contrast, 72 percent of exporters exported less than US\$100,000 and accounted for a mere 3 percent of total exports.

4.2. Industrial Policies of the Ethiopian Government

A very active government policy driving economic and particularly industrial development with a vision and high commitment from political leaders is a further major distinguishing feature of Ethiopia relative to the other SSA main apparel exporting countries. With the exception of

Mauritius, which also had a clear development strategy focusing on upgrading, in the other SSA apparel exporter countries most policies have focused on investment attraction with less effort to ensure learning, upgrading, and local linkages. Despite capacity problems, the Ethiopian government is clear that its aim is to drive industrialisation through an exportoriented strategy focusing on priority sectors, foreign and domestic investment attraction, and capability and skill development. Horizontal efforts include creating a conducive environment for private sector development, particularly the government's massive efforts to invest in infrastructure (particularly power generation and transport), education (primary education, technical and vocational education and training (TVET) and universities), and health. In addition, industrial policies have a selective character, providing direct support for and hence influencing resource allocation towards priority sectors (Brautigam et al. 2016; UNECA 2016).7

Ethiopian industrial policy for the textile and apparel sector encompasses five key strategies to drive export-oriented industrialisation.

1. Strategic FDI attraction and GVC participation: Participation in GVCs and attraction of foreign firms are seen as key to pulling Ethiopia onto the ladder of industrial development. In particular, FDI is seen as a primary channel for accessing global markets,

⁷ Other priority industries are leather and leather products, chemicals, metals, agro-processing, and construction.

capital, technology, and skills. Hence, foreign investors are actively approached particularly in manufacturing and priority sectors — and supported by the government. FDI attraction involves high-level politicians and bureaucrats — the two prime ministers Meles Zenawi and Hailemariam Desalegn personally visited several priority countries to talk to potential investors. The focus is on persuading buyers from the EU and US to source from Ethiopia in combination with approaching large first tier suppliers in countries such as China, India, and Turkey but also Bangladesh, Cambodia, Korea, Indonesia, and Vietnam, which are ahead of Ethiopia in terms of industrialisation and technology but face cost constraints in labour intensive manufacturing. The strategy is to bring key buyers and suppliers to Ethiopia as first movers that would increase its profile and make it visible on the international sourcing landscape.

The strategic approach to FDI attraction not only involves focusing on particular types of firms, but also on establishing requirements placed on investors to try to ensure an export focus, and vertical integration or linkages. A key requirement from the Ethiopian side is that foreign firms export (80 percent of production) which secures incentives and political support; firms not able to reach their export targets lose this support. This has not always worked to the satisfaction of foreign firms, as some Turkish textile firms reported facing challenges in reaching export targets. Policies do not confuse localisation with indigenisation despite encouraging JVs but focus on vertical integration and linkages. Textile firms are consequently pushed to create apparel activities to increase local value addition. Textile firms are also pushed to sell yarn and fabric to local apparel manufacturers in the domestic market. Apparel firms, on the other hand, are pushed to also invest in textiles, particularly if they have textile mills abroad.

The Ethiopian government is clear that an exclusive focus on attracting FDI is not a

sustainable way of building competitive industries. Hence, the emphasis on FDI is complemented by a focus on developing existing and new domestic capacity and building strategic collaboration with foreign firms to secure technology and skills transfer. This should allow Ethiopian firms to "emulate" their foreign counterparts, and develop their own capacity to break into international markets. Through this, the strategies try to avoid the usual bias in favour of larger firms and scale economies that can be seen in the other main SSA apparel exporter countries. It is, however, too early to see if this approach is successful as currently there seem to be quite limited backward as well as subcontracting linkages.

2. Driving firms to export alongside domestic market protection: All firms in the sector are strongly encouraged to export. Firms in the textile and apparel sector have to submit their export plans on a yearly basis, show commitment that they strive to export, and meet certain export targets to which incentives are coupled. Foreign firms are only allowed to sell up to around 20 percent in the domestic market but also domestic firms are pushed to export, which is also seen as an avenue to make firms competitive in the domestic market. The government engages in selective policies influencing resource allocation to priority sectors and exporting, most importantly through regulating the banking sector and foreign exchange flows. This is supplemented by general export promotional schemes, such as the establishment of a foreign exchange retention scheme as well as voucher and duty drawback schemes and bonded warehouses to facilitate duty free importing of inputs for the production of export products. Further, priority sector exporting firms have access to a credit guarantee scheme to avoid problems of working capital, corporate tax holidays, serviced industrial parks, and support through sector specific institutes (Gebreeyesus 2013).

Besides influencing resource allocation of the private sector, the Ethiopian government not

only provides infrastructure but also directly engages in providing support services. There are state owned logistics companies such as Ethiopian Airlines, Ethiopian Shipping Line, Dry Port Services, and Maritime that provide their services at breakeven prices. The government is also about to launch its own transportation company providing trucks to supplement the new railway to Djibouti (van der Pols 2015). Further, the government plans to establish an industry import supply corporation to address the limited access to inputs and act as a wholesaler by either producing inputs locally or supporting to buy them locally or through importing.

Import protection is high but it is subordinated to exporting and is intended to facilitate export-oriented industrialisation. For textiles and apparel, almost two thirds of tariff lines are protected by the maximum tariff of 35 percent plus an excise duty of 10 percent, a surcharge of 10 percent,8 and a value added tax (VAT) of 15 percent with the latter also applying to local inputs. However, exporters have access to exemptions that allow them to import inputs that are used for export products duty free (see below).9 This protection does mean that firms in the textile and apparel sector have an incentive to sell to the domestic market. Firms that struggle to export find the domestic market secures them higher profits than the highly demanding export market. However, the thrust of government industrial policy in this sector is to provide protection but also make it difficult for firms to sit back comfortably as simply suppliers to a domestic market. Government provides both a stick and carrot approach to firms intent on primarily hiding behind protective domestic barriers.

3. Use of serviced industrial parks to attract investment: Access to land is important as there is no private land ownership. Land can only be leased from local and regional

authorities for up to 99 years (UTSR 2012). Firms in priority sectors get access to land at favourable lease rates, particularly in the industrial zones. These zones are playing a major role in driving export-based industrialisation, especially in attracting FDI in priority sectors. They are particularly important in tackling the infrastructure challenges faced in Ethiopia as they provide not only land and factory shells but also service supply including electricity, water, and communication/telecom services. So far, industrial zones are in different stages of development or planning in Addis Ababa, Kilinto, Awassa, Dire Dawa, Kombolcha, Mekele, Adama, and Mojo. The first zone established by the Ethiopian government was Bole Lemi, which was fully booked even before construction was completed. Outside of Addis Ababa, the most developed industrial zone is Awassa, where a group of foreign manufacturers — largely from the apparel sector — is already moving in.

There are more FDI firms wanting to invest or expand in industrial zones in Ethiopia than the government can offer, with the consequence that some of them have started to build industrial zones for their own expansion. The government allocated zones to foreign investors who promise to mobilise a large number of investors from their home country. So far, exclusive industrial estates have been granted to Chinese, Egyptian, Indian, and Turkish investors. The Chinese Eastern Industrial Zone outside of Addis Ababa is the first of such industrial zones in Ethiopia developed by a Chinese private firm with Chinese government support in 2007. Up to 80 Chinese firms involved in textiles, leather, and manufacturing of construction equipment were expected to invest in the zone but so far only 10 firms have come, with most engaged in construction related production activities (GRIPS 2015). The status of other country based industrial zones is at an early stage and their performance yet to be seen.

⁸ Beginning in February 2007, the government levied a10 percent surtax on selected imported goods, with the proceeds designated for distribution of subsidised wheat in urban areas (UTSR 2012).

⁹ Ethiopia has also prohibited the import of second hand textile and apparel that has proved to be a major problem in neighbouring East African countries.

4. Focus on skills and productivity through specific institutes: The Ethiopian government is aware of the crucial importance of skills and productivity. Priority sectors are particularly strengthened through the establishment of sector specific capacity building and technology support institutes. TIDI, ¹⁰ set up for the textile and apparel industry, was established by the Ministry of Industry to support, coordinate, and guide the private sector (see also Brautigam et al. 2015 for the leather sector). TIDI is organised in a way that simulates the value chain, and is in charge of cotton, textile, apparel and accessories, and other inputs. With a staff of around 300 employees, it implements a capacity building programme to enhance the competitiveness of the private sector and provide investment promotion, consultancy, training, research, and marketing services (Gebreeyesus 2013).

The government has generally strongly invested in education and training. TVET has been expanded, new universities have been built with a focus on science and technology, and sectorspecific training facilities at TIDI have been set up. The Ethiopian Institute of Textile and Fashion Technology (EiTEX) at Bahir Dar University has an important role, with the diploma and degree graduates in Textile Engineering, Garment Engineering, and Fashion Design occupying most top management positions in the textile and apparel firms. The government further supports recruitment of foreign supervisory and managerial personnel in local firms through a matching grant scheme, facilitates access to temporary work permits for technical personnel at foreign firms, assists export firms in hiring expatriate experts, organises short term training seminars for supervisors and managers, and facilitates experience sharing between firms.

5. Development of value chain linkages between apparel, textile, and cotton sectors: Access to competitive inputs is crucial for textile and apparel production and particularly exporting. The Ethiopian government seems to have a dual strategy in terms of imports. Apart from facilities to allow exporters to import inputs that are needed to export products duty free, improving trade logistics, and rail transport, a key focus is to increase local value addition through backward and forward linkages. This requires improving the capacity, quality, and price in the textile sector in tandem with the apparel sector. The objective is to develop a well-integrated industry and avoid import dependency. Hence, the government also focuses on identifying and building capacity of existing textile mills and attracting new investors. A similar strategy is followed for accessories (e.g. zippers, buttons, labels, collars, threads) and other inputs (e.g. cartoons, other packing materials).

The recent decision by the government to transfer the responsibility of cotton development to TIDI is a positive development as it provides a chance to coordinate the entire value chain. To meet the growing demand for cotton, the government is working toward expanding cotton cultivation, improving cotton production and quality, and attracting domestic and foreign investors. However, inconsistent government support has led to frustration and mistrust in the cotton sector. Further, there are attractive alternatives to planting cotton (e.g. sesame), which some famers have switched to and there is also a potential conflict with food production.

¹⁰ Others include the Ethiopian Horticulture Development Agency (EHDA), the Leather Industry Development Institute (LIDI), the Metal Industry Development Institute (MIDI), and the Meat and Dairy Technology Development Institute.

5. ANALYSING THE RELATIONSHIP BETWEEN APPAREL VALUE CHAINS AND THE SDGs

There have been important economic upgrading processes (end market, process, product, and functional) in the apparel sector. Simultaneously, there are also localisation processes in terms of local linkages that go beyond the experience of the other SSA main apparel exporter countries, once again with the exception of Mauritius. But a caveat is that most of these processes are just starting with no conclusive outcomes to be observed yet. Regarding social upgrading, there are positive outcomes from a quantity perspective with less success quality wise. Important processes are underway with respect to environmental sustainability, particularly in the industrial parks.

5.1. Economic Upgrading

End market upgrading: End export markets are very concentrated. Regarding apparel, the major end markets for Ethiopian exports are the EU-15, which accounted for almost 73 percent of total exports in 2014. The bulk of these exports go to Germany (59 percent) and Austria (9 percent). This can be explained by a large integrated Turkish firm supplying a buyer serving the German and Austrian market and accounting for around 60 percent of exports. Generally, Turkish firms export to the EU. The US market accounted only for around 18 percent in 2014 with the Czech Republic, Poland, Switzerland and Turkey being other important, albeit smaller, markets (Table 4). Recent data on US apparel imports from Ethiopia suggests that US exports have increased by more than 30 percent since 2014 and account now for almost US\$18 million (USITC 2016). This is due to the rise of transnational producers with their global networks. US exports are expected to increase further in coming years when wave three investors reach capacity. The share of EU-15 apparel imports grew also in 2015 but only by 3 percent (Eurostat 2016).

Textile exports have also risen from US\$23 in 2010 to US\$49 in 2014. This is primarily related to the emergence of Turkey as a major end

market, accounting for more than half of all textile exports, and linked to Turkish investors. In contrast, the share of the EU-15, which historically accounted for more than 90 percent of textile exports, has decreased to around a third (Table 5). The lion share of textiles going to Turkey and China is made up of cotton yarn and, in Turkey's case, also of knitted fabric, while exports to the EU-15 are dominated by made-up textiles. It is expected that the share of textile exports to Turkey will decrease with some Turkish textile mills planning to also invest in apparel production in Ethiopia.

Locally owned, older, and integrated firms tend to export to the EU (if they export at all) with local apparel firms that were more recently established exporting largely to the US. The latter is related to the AGOA advantage and the higher acceptance of CMT production of US buyers. US buyers seem to be very concentrated, with the same workwear and sportswear buyers having been named repeatedly by local firms. These buyers source polyester rich items from Ethiopia given the higher duty advantage. These products are also quite standard and have longer delivery and lead times. Fewer locally owned firms seem to export to the EU. A big challenge is providing full package production which particularly European buyers demand. Further, some firms stated that EU buyers demand higher quality, more fashion items, and lower volumes, which they see as disadvantageous.

Regional exports play a very limited role, which is related to Ethiopia's restrictive regional trade policy. Despite being a member of COMESA, Ethiopia has not yet acceded to the COMESA free trade area (FTA). But the government announced plans to join the FTA as it believes that the competitiveness of its industries has increased. Locally owned textile and apparel manufacturers have high hopes and ambitions regarding regional exports as they expect these markets to be similar to their domestic market.

Table 4: Top 10 End Markets of Apparel Exports from Ethiopia

		Value (\$US Mil)						Share of Total (%)				
	'00	'04	' 07	'10	'13	'14	'00	'04	' 07	'10	'13	'14
World	1	5	6	12	66	68						
EU-15	0	1	1	5	48	49	83,2	17,3	12,6	41,3	72,5	72,8
Germany	0	0	0	3	39	40	0,2	7,3	0,7	27,7	59,5	59,3
United States	0	4	5	7	10	12	1,1	78,9	84,0	54,5	15,8	17,7
Austria	0	0	0	0	6	6	0,8	0,4	0,1	2,9	8,6	8,7
United Kingdom	-	0	0	0	1	2	0,0	0,3	0,5	0,1	2,2	3,5
Switzerland	0	0	0	0	1	1	0,2	0,4	0,2	0,0	1,5	2,1
Poland	-	0	0	0	2	1	0,0	0,0	0,1	0,6	2,9	1,8
Czech Republic	0	0	0	0	1	1	0,0	0,0	0,0	0,6	1,9	1,6
Turkey	-	0	-	0	1	1	0,0	0,0	0,0	0,2	1,3	1,1
Slovak Republic	-	0	-	0	1	1	0,0	0,3	0,0	0,2	1,0	1,0
Canada	-	0	0	1	1	1	0,1	0,7	0,6	0,7	0,2	0,7

Source: UN COMTRADE 2015; apparel represents HS92 61+62; exports represent partners' imports.

Table 5: Top 10 End Markets of Textile Exports from Ethiopia

	' 00	'04	'07	'10	'13	'14	' 00	' 04	' 07	'10	'13	'14
World	2	9	14	23	45	49						
Turkey	0	0	0	16	22	25	3,2	2,9	0,5	66,5	48,5	51,1
EU-15	2	8	11	5	10	17	90,3	90,0	80,3	22,9	21,7	35,2
Germany	0	2	3	2	3	11	4,6	17,6	21,0	7,0	5,6	22,7
China	0	0	0	2	12	5	0,0	2,8	0,3	8,2	26,9	9,8
Italy	1	2	3	2	7	5	43,2	18,6	21,1	9,7	14,4	9,6
Austria	0	0	0	0	0	1	2,1	0,0	1,3	0,0	0,9	2,2
Switzerland	0	-	0	0	0	0	0,0	0,0	1,1	0,2	0,1	0,6
Poland	-	0	1	0	0	0	0,0	0,1	6,0	0,3	0,3	0,6
Belgium	0	2	1	0	0	0	15,6	27,3	9,2	2,0	0,8	0,5
Czech Republic	0	0	0	0	0	0	0,1	0,0	1,0	0,1	0,1	0,5
Nigeria	-	-	-	-	0	0	0,0	0,0	0,0	0,0	0,2	0,4

Source: UN COMTRADE 2015; apparel represents HS92 50-60+63; exports represent partners' imports.

Process upgrading: A foreign input provider firm reported that productivity of apparel firms in Ethiopia is 30 percent less than in Bangladesh. A European buyer reported that production costs on average are 20 percent higher than in Bangladesh. Limited capacity utilisation, smaller scale operations, poorly trained workers, poor organisation of firms, and low quality of raw materials are major reasons for this (Gebre-Egziabher 2012; van der Pols 2015). However, a World Bank (2012) study indicates that in a few well-managed firms, labour productivity is comparable to productivity

levels in China and Vietnam. This shows that, if proper training is put in place, average labour productivity can be improved significantly. This is particularly the case for basic apparel products, where productivity gaps are expected to be overcome soon, while it will remain an issue for more complex apparel products. A large FDI firm in an industrial zone complains about massive fluctuations in productivity, arising from a lack of experience, and hence an inability to shift between lines or to adapt quickly to new requirements. Another large Turkish investor states that the complexity of

products has increased but that productivity remains an issue resulting in only two thirds of the pieces manufactured in Turkey.

The technology used in the industry varies considerably. Local firms, particularly older ones, tend to use basic- and medium-level technology, while newer locally owned apparel firms tend to have better technology. Some foreign owned firms in the industrial zones have invested in the latest technology, while others have made use of the government allowance to relocate their whole factory from abroad including second hand machinery.

Product upgrading: The Ethiopian textile and apparel industry mainly produces cottonbased products such as cotton yarn, cotton fabrics, bed sheets, blankets, and cotton-based apparel. But there have been some shifts in exports. Beginning in 2010, there has been new investments in the apparel sector, with knitted apparel exports driving export performance and accounting for around half of total textile and apparel exports. Overall, woven apparel exports account for only 5 percent of total textile and apparel exports. After knit apparel, the number two export is cotton yarn which is nearly at the same level as made-up-textiles in 2014. Knitted fabric is nearly as high as woven apparel in 2014.

Focusing on the apparel segment, exports are concentrated in basic apparel but several firms aim to upgrade the types of products to more complex ones. A large Turkish firm claims that 90 percent of their products are the same in Ethiopia and Turkey, which is significantly different to three years ago. Another firm states

that determining what gets produced in Ethiopia and Turkey is a combination of complexity, skills, efficiency, costs, and speed with the complexity-basic mix having improved in Ethiopia. A large FDI firm in an industrial zone produces quite complex products (e.g. waterproof apparel for motorbikes) for outwear brand buyers. Workers achieve the quality required but they do so at the cost of productivity. Locally owned firms tend to be focused on basic knit products for the EU market or relatively standard workwear and sportswear products for the US market (with the latter being more important in terms of size).

The current focus on basic products is also confirmed by export data. Ethiopian apparel export products are focused on basic relatively low unit value knit, cotton-based items and show a high degree of concentration. Key export products include knit t-shirts, trousers, and jerseys. Cotton t-shirts account for around 35 percent of total apparel exports in 2014, followed by cotton women's trousers (18 percent), and shirts of cotton (6 percent). There is no woven product category among the top-10 products in 2014. Export product concentration is relatively high compared to Asian and also other SSA countries. The top five products account for almost 70 percent of total apparel exports in 2014. Unit values are relatively low with a median price of the top five products US\$8.8 per piece (Table 6). With regard to the two key end markets, product concentration is high in both markets with the top 10 products accounting for 92 percent in the EU-15 and for 88 percent in the US. All of the top 10 products for the EU-market in 2014 are knit items while there are four woven items among the US top 10.

Table 6: Ethiopian Top-10 Apparel Export Products (2014)

HS code	Product	Value (US\$ ths.)	Share (%)	Unit Value (US\$/pc)
610910	T-shirts (N/A, cotton)	23.733	35%	4,3
610462	Trousers (W&G, cotton)	12.563	18%	5,6
610510	Shirts (M&B, cotton)	4.413	6%	8,8
611430	Garments (N/A, MMF)	3.924	6%	14,0 (US\$/kg)
611030	Jerseys (N/A, MMF)	2.703	4%	10,5
Average		47.336	69%	8,6
Median				8,8
620343	Trousers (M&B, synthetic)	2.240	3%	12,5
610469	Trousers (W&G, other textiles)	2.227	3%	7,9
610463	Trousers (W&G, synthetic)	2.127	3%	7,7
610444	Dresses (N/A, artificial)	1.729	3%	13,7
610990	T-shirts (N/A, other textiles)	1.673	2%	5,1
Average		57.332	84%	9,0
Median				7,9
Total		68.408	100%	

Source: UN COMTRADE 2015; apparel represents HS92 50-60+63; exports represent partners' imports.

Functional upgrading: The majority of exporting firms are currently CMT but there is diversity in plans for the future. Most foreign transnational firms are undertaking CMT in Ethiopia, with their head offices abroad conducting higher value functions. But some, particularly Indian investors, seem to have a more flexible division of labour and are also planning to bring textile production to Ethiopia. Other foreign firms have offices abroad but already pursue a more flexible division of labour with Ethiopia being their only foreign production location. Some foreign firms, particularly the majority of Turkish firms that are vertically integrated, even have their head offices in Ethiopia as they have stopped producing in their home country where they only have sales offices or agents.

Local exporting firms are almost all CMT. For some, this is the preferred option as FOB is too risky in the current business context in Ethiopia. Hence, they prefer that buyers be in charge of input sourcing and financing, design, and specifications. For those local apparel firms that would like to upgrade to FOB a particular problem is access to competitive fabric inputs for exports that are often not available locally. Further financing local or imported textile and

the payment terms of buyers is challenging. This constraint forces firms to focus only on CMT and leave input sourcing to buyers (Gebre-Egziabher 2012). One local firm lost its first export order as it had problems in getting local fabric on time. This was a turning point to switch to CMT. A problem, however, is that buyers increasingly want to work with full package suppliers.

Local linkages: While the sector exhibits some important characteristics of an integrated value chain, this is still at an early stage with regard to backward and subcontracting linkages among exporting firms. There are minimal linkages between foreign and local firms in the export business. There are, however, more linkages between firms supplying the domestic market, with local apparel firms sourcing fabric locally from local or foreign (largely Turkish) fabric mills. Foreign apparel firms generally do not source from local textile mills, stating that local supply is not competitive regarding price, quality, and delivery time and also that they prefer using their own global textile mills or suppliers nominated by buyers. Subcontracting relationships between foreign and local firms also seem to be very limited. There have, however, been some subcontracting relationships among local exporting firms, particularly within the group of Ethiopian diaspora firms. Foreign export firms located in industrial parks have up to now had no linkages to local firms, which substantially limits learning possibilities.¹¹

Due to lack of experience and a sole focus on domestic sales, many fabric qualities are based on carded instead of combed cotton, have inferior quality, and do not comply with international testing on chemical use, restricted substances, or shrinkage. Hence, local fabric can only be used to produce made up textiles, workwear, and uniforms for the domestic market (Van der Pols 2015). Local textile mills, however, may also not be interested in selling to export firms as the domestic market offers better business due to high demand, protection, and lower quality requirements. There is also a mismatch between knit and woven fabric. The former SOE textile mills all produce woven fabric, while exports are focused on knit apparel products. But the development of backward linkages may also be hampered by the increasing share of transnational producers that only have CMT production in Ethiopia and use their global input suppliers (B&M Analysts 2015). Currently, all firms located in Bole Lemi import all their inputs using their own textile producers or global supplier networks; as a consequence, textile imports have increased, particularly in the past five years (Figure 1). Even though some, particularly Indian firms, have plans to change this transnational division of labour, it still has to be seen to what extent this will materialise.

Given ADLI, textile and apparel were also selected as priority sectors due to their strong backward linkages to the agriculture sector (i.e., cotton). However, linkages to the cotton sector are below potential. This is also related to internal problems in the cotton sector that cannot secure supply at the large volume and high quality needed. The majority of cotton used in the textile sector comes therefore from imports. There is much larger potential as around 3 million hectares of land is suitable for cotton cultivation, but only around 5 percent is utilised so far.

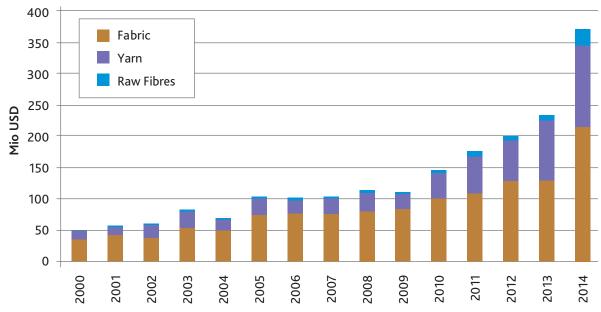


Figure 1: Textile Imports to Ethiopia

Source: UN COMTRADE 2015.

¹¹ The plan to establish a second industry association that only represents foreign owned firms in industrial parks confirms this. Firms in Bole Lemi think that ETGAMA does not represent their interests which are different to those of locally owned firms that largely produce for the domestic market.

5.2. Social Upgrading

Employment: The most substantial direct socio-economic impact of the growth of the textile and apparel sector in Ethiopia has been and will remain to be (given continuously high investments) the employment effect. The latest industrial survey on medium and large enterprises employing at least 10 persons estimates that textile and apparel account for roughly 56,000 persons employed in 2013/14 (CSA 2015). This figure is close to TIDI data (complemented by interview data), which suggest that the textile and apparel sector had 55,076 direct employees in January 2016 - an increase from around 48,000 in 2014. Including ginning, accessories, and packaging, the sector employs 57,432 workers (Table 3 above; TIDI 2016). As a share of GDP, the manufacturing sector accounted for around 4.2 percent in 2014. Within manufacturing the textile and apparel sector accounts for around 15 percent of employment and around 3 percent of value added (CSA 2015).

Even though manufacturing employment is still small in overall employment, it has increased, with the textile and apparel sector playing a prominent role. A substantial number of people — particularly women — from the rural areas have found industrial wage employment in the sector. This is of crucial importance for employment generation, female incomes, and poverty reduction. Based on firm interviews and estimates of the trade union, women comprise around 75 percent of employment in the sector with a higher share in apparel than in textile. Men, however, occupy the majority of technical and management positions.

Skill development: Given Ethiopia's very recent transition, workers — particularly from the countryside — have little experience in industrial employment. Hence, basic labour skills are absent. All firms interviewed mentioned the "raw" but high potential of Ethiopian workers to develop their skills not only at the operator but also technician and management level. Some FDI firms said that they were positively surprised by the existing skills, the very professional workforce, and

particularly the good trainability of workers. Thus, skills are a challenge but most firms state that it can be handled.

Most workers, however, are trained internally as high quality training institutes for workers are limited. This is in contrast to managers and technical personnel where all firms mentioned EiTEX at Bahir Dar University from where graduates are recruited. Hence, skilled labour at higher levels is increasing as a result of fast growing education and training institutions. The general level of education is also seen as highly linked to past investments in this area by the government and high school pass rates, particularly as compared to most other SSA countries.

In foreign owned firms, there is a mix of expatriate and local workers in management and technical positions. Notwithstanding the limited development of the export-oriented industry, the share of expatriates is low, however, compared to other SSA main apparel exporting countries. In most firms the objective is also to train locals and replace expats at technical and lower management positions, and later in middle and higher management positions. In local firms, workers are generally locals. But local exporting firms can access matching grant and other government support schemes to use foreign experts for a limited time to improve production processes through knowledge transfer.

Wages and working conditions: There is no minimum wage regulation. GRIPS (2015) stated wage levels to be approximately US\$50 per month for entry level workers and US\$70-80 for more experienced ones, but higher and lower numbers were also reported depending on location and benefits. According to B&M Analysts, wages in 2014 ranged from US\$35 to 70 in the apparel sector, while wages were higher in textiles (US\$81-110). The trade union reported wages between US\$35 and US\$60. The average wage rate of approximately US\$50 per month was lower than in LICs, such as Cambodia (US\$101), Bangladesh (US\$86), and Myanmar (US\$71) (GRIPS 2015).

There is a national trade union for the textile and apparel sector that is also in charge of leather. Starting in the 1990s, the union has four permanent employees and gets support from IndustriALL. The major obstacle the union faces is to organise workers and establish company trade unions. According to the union, the level of unionisation is low but is increasing. The labour inspectorate states that most large textile mills have trade unions while smaller apparel factories do not. Most investors are hostile towards trade unions and do not see the advantage of unionisation. Union leaders and members do not know how to negotiate and undertake collective bargaining, which leads to conflicts between management and the union. Hence, there is a need for continuous training.

Other issues confirmed by the trade union and the labour inspectorate are occupational health and safety of workers, overtime, very low wages and no minimum wage, no collective agreements, limited social rights such as sick and annual leave, and limited social insurance coverage. There are further complaints that TIDI focuses on technical training but not on compliance-related training. The main challenge of the labour inspectorates is limited labour inspectors and, hence, the high work load per inspector, which leads to a very low coverage of inspections. Generally, owners or managers do not know the labour laws and do not support inspectorates. Inspectors focus on prevention through routine inspections. Only if no major action is taken do inspectors go to court for enforcement.

It seems that social compliance is primarily driven by the buyers in the export sector rather than by the government. All larger international buyers have codes of conduct for social compliance issues that have to be fulfilled and are checked internally or by third party inspectors. This is an aftermath of the building tragedies in Bangladesh and Pakistan, and long-term pressure from civil society in the EU and the US. However, there still seem to be differences between brand buyers that demand higher compliance standards and buyers from the more basic segment where standards are lower.

A new three year programme that will be launched at the Bole Lemi industrial zone could improve collaboration between the government, trade unions, buyers, and firms. It has the objective to support the development of a socially sustainable textile and apparel industry through improved labour relations, productivity, wages, and working conditions. It is funded by Sweden and H&M and implemented by the International Labor Organization (ILO) in collaboration with the Ministry of Labour and Social Affairs, the Ministry of Industry, the Confederation of Ethiopian Trade Unions, and the Employer Federation. One component of the programme also involves strengthening the capacity of regional labour inspectorates for labour law enforcement. In this programme, improved social dialogue is seen as important to solve economic productivity-related and social issues (ILO 2016).

5.3. Environmental Upgrading

By placing the Climate Resilient Green Economy (CRGE) strategy at the core of its future growth model, Ethiopia is attempting to mainstream a green industrialisation agenda into the country's industrial development strategy and policies. Ethiopia has pledged to become a zero net emissions economy by 2025. The Ethiopian government's green economy plan is based on four pillars, the last one being leapfrogging to modern and energy-efficient technologies in transport, industrial sectors, and buildings. It aims to implement innovative measures to bring a green growth agenda to three key industrial sectors; leather, cement, and textile and apparel. At the core of this industrial strategy is a major focus on renewable energy using its abundance of renewable sources of power generation hydro, geothermal, and wind energy - as a means to radically cut carbon emissions.

The government checks environmental and technical compliance regarding water, mineral, and toxic dispatch. A large number of factories have effluent treatment plants (ETP) thanks to government investments (Van der Pols 2015). For example, the ETP that will be built in the industrial zone in Awassa is based on zero discharge. The government is using this park in

Awassa to leapfrog global competition by using the green identity of the park to provide a competitive advantage over Asian competitors. The green industrial park includes recycling of water, saving of electricity by using LED and intelligent lighting systems, developing green areas through tree planting, and using natural ventilation and lighting. In order to achieve zero pollution, a state of the art "zero-liquid discharge" (ZLD) technology is being instituted. It intends to use 100 percent renewable and clean energy (Arkebe 2015).

6. IDENTIFYING CHALLENGES

There are seven main challenges that the government needs to address to make the apparel export sector more internationally competitive and to improve its developmental outcomes.

First, apparel and textile firms have identified access to raw material, yarns, fabrics, and accessories - including availability, quality, lead times, and cost - as a major impediment in their operation. This leads to the situation that exporting firms have to import inputs which creates lead time and finance issues. But most importantly, this contradicts the main focus of the Ethiopian industrial development strategy that focuses on an integrated value chain approach. While Ethiopia's ADLI policy explicitly identifies agro-industrial linkages as crucial to activating the country's industrial potential, these linkages remain underdeveloped in the textile and apparel sector leading to increasing import dependence (see Brautigam et al. 2015 for the leather sector). This is linked to the poor quality and inadequate supply of cotton. But it is also linked to the low quality of local yarn and fabric production and the limited supply of other inputs such as accessories. Further, the sourcing policies of certain types of foreign investors that are geared towards transnational production networks and a global supply base exacerbate the situation.

A second challenge is the focus on CMT and limited capabilities to offer FOB production by locally owned firms. This is related to a lack of adequate local input supply but also to limited international experience and networks in importing fabric and other inputs on their own account. Difficulties in getting access to working capital add to these problems. There seems to be government support to get loans for investment, particularly new investments. But access to finance to cover working capital expenses, including the FOB order cycle, is a problem. The recent reduction in costs for letters of credit from 4.5 percent to around 1 percent by the government had an impact in making the management of imports cheaper.

Third, a further value chain facilitation problem involves the challenge of local firms developing relationships with global buyers. This has improved, given the interest in buyers to source from and hence to visit Ethiopia. Further, government support for visits to trade fairs helps develop this value chain linkage. However, getting access is different to building longer-term stable relationships. This is still a challenge for local firms that have had no exposure to US and European business culture and networks.

Fourth, infrastructure, particularly the high costs and inefficiencies of transport, logistics, and customs remain a problem leading to high trading costs. Most firms stated that this nearly eliminates the country's wage advantage. It further prevents firms from entering the high value time-sensitive segments of the export market given the related high lead times for importing and exporting. But the new train line to Djibouti is expected to reduce transit time and customs clearance processes are improving quite quickly. Further, industrial parks have on site customs clearance which should also speed up the process. Moreover, there is the option to use airfreight though Ethiopian Airlines at quite competitive prices, but this option seems not to be used widely. A further issue is the unreliability of electricity, water, and telecom supply. But the electricity supply is expected to be greatly improved when the new hydroelectric dam comes online. Hence, even though infrastructural constraints are important, particularly for exporting firms, and will require government coordination and sustained investment in physical infrastructure, the government seems to be on a good track, particularly given the country's overall economic development level.

The fifth challenge involves tackling value chain flexibility. Importing inputs and inefficient and unreliable logistics leads to long lead times of around four months (i.e., importing inputs around two months, production around one month, transport to Djibouti one week, and

three weeks to the EU or US). However, firms also stated lead times of five and even up to six months. An Indian firm compared India's lead times of three months with four to five months from Ethiopia. Integrated firms can reduce lead times significantly to around three months. Larger foreign owned firms also tend to have common fabric in stock, which allows them to react more quickly to standard orders. For certain type of buyers lead times of four to five months on average are too long and limit Ethiopia only to basic standard products with limited fashion content.

Sixth, availability of skills (e.g. managerial, technical, and sewing) is a main challenge. However, it seems it is a challenge that firms can handle through internal training, particularly for sewing operators, and the use of training institutes that focus more on managerial and technical skills. Productivity is a more crucial issue, particularly for more complicated apparel. Related to this skill

and productivity issue is the fact that most products are still quite basic with limited complexity and fashion content. This is a constraint for some buyers that prefer to be able to source different types of products from one country. The development of specific skills (e.g. knowledge in fabric and other input sourcing, product development, design, preproduction, marketing, and communication capabilities) is also important to develop from CMT to FOB production. These will become more important in the context of functional upgrading.

Seventh, social upgrading — particularly in terms of working conditions — is a concern. Major issues include occupational health and safety of workers, overtime, low wages, a lack of collective agreements, limited social rights (such as sick and annual leave), and limited social insurance coverage. Low unionisation rates and limited capacities of labour inspectorates are underlying challenges.

7. POLICY RECOMMENDATIONS FOR A SUSTAINABLE APPAREL INDUSTRY

Based on these challenges, we recommend seven policy interventions.

Create TIDI as a one stop value chain shop: Besides the vision and commitment of particularly high level policy makers and bureaucrats in the Ethiopian government, are often bureaucratic procedures complicated with limited flexibility which necessitates meetings at high levels to find solutions. Inter-ministerial coordination is limited with different government agencies required to make decisions separately, which often requires contacting several agencies. This has been improved but not solved by the creation of TIDI. Hence, TIDI needs to continue building their own capacity and coordinating in a more effective way between different public and private agencies to become the one stop value chain shop for firms in the cotton, textile, and apparel sector. To be an effective support provider of the sector, close links to the industry associations and particularly firms and regular visits are needed to understand their challenges and develop a mutual learning process.

Continue and adapt the focus on skill training: Skill training is a major focus of the Ethiopian government. Sector-specific education and training focuses on the managerial and technical level through sector specific training programmes. This needs to be complemented by setting up training institutions for production workers, supervisors and sewing operators, which also requires improvements in the TVET system. In addition, government should further extend and develop its support for in-firm technological and production upgrading through extending the breadth of its expat salary contribution programme and emphasising training in world class manufacturing techniques. To ensure the latter, TIDI should facilitate the setting up of clusters, learning networks, and benchmarking clubs to assist firms to learn about new cutting edge production techniques. Lead firms can also be encouraged to institute and implement supplier development programmes. This policy initiative can be implemented through matching grant schemes and bringing in private sector expertise from countries where it has been proven to be successful. This will facilitate a transition to greater product diversity, specialisation, and flexibility in production upgrading.

Improve local input linkages and availability of raw materials: The export performance of the Ethiopian apparel and textile sector and its development outcomes will be improved only in the context of an integrated cotton-textileapparel value chain as envisaged in ADLI. The most important problem is the limited development of the cotton sector in terms of quantity and, even more problematic, quality. A major cotton development programme linked with the textile and apparel sector strategy is required. The shift of responsibility of the cotton sector under TIDI provides opportunities for such an integrated approach. Regarding local yarn and fabric supply, the government should give priority to attracting textile investors that can fulfil international standards. Three strategies could be pursued: first, approach accredited international textile suppliers to come to Ethiopia; second, support existing largely local textile mills to improve their quality to be able to sell to export apparel firms; and third, encourage exporting apparel firms to integrate backward into textile production. Forcing integrated mills to sell fabric to apparel firms does not make a lot of sense if their main interest is to use fabric internally and will not provide competitive prices. A fourth backup strategy could be to envisage government investments into this area if no private investors can be attracted as the government has shown productive capabilities in other areas. Regarding accessories and other inputs, it is not clear why there are so few suppliers given the dynamic growth of the sector in recent years. This would be a particularly suitable segment for domestic firms as it generally involves lower capital investments.

Attract FDI that has more potential for local linkages/embeddedness: Investment attraction by the Ethiopian government was based on a close understanding of final markets, and the role played by lead firms. Hence, the policy stressed encouraging FDI from lead firms linked to key export markets, and initial engagement started with approaching large US and EU buyers. The government then approached leading Asian manufacturers with the aim of building a vertically integrated value chain as the basis of the industry. The new wave of firms — particularly Indian — entering Ethiopia is both proof and fruit of the success of this policy approach. Government should build on its strategic FDI attraction policies. It should carefully target selected lead firms and manufacturers in key countries who are willing to operate differently from the usual transnational producers and not only depend on CMT production, but also invest in higher value added activities and build linkages to local input providers in Ethiopia.

Allow investments of strategic agents: Ethiopia has been successful in bringing buyers to the country. This is a large advantage particularly for local firms that have otherwise had difficulties accessing buyers. However, many buyers have also left again. For buyers to start working in a country it often requires an agent they know and trust to be in the country to link up with potential suppliers. Not all buyers are interested in establishing their own offices but work through agents in new sourcing locations. Therefore, such agents can potentially have an important role. International actors involved in trading, however, are restricted from investments in Ethiopia, as these activities should be left to locals. We generally agree with the government's focus on manufacturing FDI but the capacity to grow manufacturing and particularly to ensure exports intermediaries can have an important role. Hence, strategic agents should not only be allowed to invest in Ethiopia but should be actively attracted.

Focus on end market diversification and regional markets: Export end markets are split between the EU and the US. But there are large export opportunities in emerging and large developing country markets that have not been tapped. These opportunities increasingly involve regional markets in SSA, and most importantly for Ethiopia the large market of the COMESA and the East African Community (EAC). South Africa is clearly the largest market but, given that Ethiopia is not a member of the South African Development Community (SADC), it faces high tariff barriers. End market diversification offers more export opportunities but also reduces the dependency on specific markets and buyers and may assist upgrading opportunities and increase bargaining power in GVCs. Negotiating preferential trade agreements, particularly at the regional level, and understanding these new markets and the sourcing policies of buyers selling in these markets will be the key to being able to enter these markets. For regional trade, the most important challenges remain: intraregional trade barriers (tariff and non-tariff ones) and poor intraregional transport, logistics, and customs facilities, which are central to reducing the costs and lead times of regional trade. These challenges need to be actively addressed. Central to regional strategies is also building co-ordination and strategic partnerships in the region between cotton, textile, and apparel firms.

Approach social upgrading issues more proactively: Compliance with social standards is important to ensure that apparel production leads to sustainable development. It is, furthermore, a prerequisite for entering and remaining in GVCs, particularly those serving the EU and the US and those of brand buyers. Hence, fulfilling these standards is a precondition for export diversification and economic upgrading. However, up to now there has been limited government focus on and support in these areas. The pro-active approach towards environmental upgrading should be also pursued with regard to social upgrading in order to deepen sustainable development.

8. CONCLUSION

What has been happening in the Ethiopian apparel and textile sector is quite exceptional for a LIC. Despite starting from a very low base, Ethiopia has seen progress through an active, state driven industrial policy based on understanding the strategic importance of GVCs and of creating linkages between lead firms, large foreign producers, and knowledge transfer to locally owned firms to build domestic industrial and exporting capabilities. The Ethiopian state has played a decisive role in a number of respects. It developed a holistic industrial policy to promote industrialisation through developing the manufacturing industry with textile and apparel being among the key priority sectors. It has used state levers to provide support for exporters without opening up the domestic market to foreign imports and FDI firms, leaving it to local firms. The government has strategically attracted buyers to come to Ethiopia and sought FDI from major apparel producing countries. Serviced industrial parks with targeted incentives for exporting firms have been a central mechanism to attract investment. It has encouraged integration between textile and apparel production as well as the cotton sector with the aim to create a domestically integrated value chain. It has created sectorfocused institutions concentrating on skills and technological capability building, targeting managers, technicians and workers, in addition to facilitating knowledge linkages between the industry and higher education institutions.

Thus far, Ethiopia has shown some remarkable success in creating an export apparel and textile sector. The growth rates of exports over the past five years are impressive. The goals to force the pace are admirable. The

sector has also experienced some important economic upgrading processes regarding end market, processes, products, and functions as well as localisation processes in terms of skills development. Regarding social upgrading, there are positive outcomes from a quantity perspective with less success quality wise as wages, working conditions, and particularly the role of trade unions remain contested. The government has a proactive approach in terms of sustainability. Instead of simply reacting to consumer concerns in the developed markets by tacking on environmental standards, industrial policy is charged with being proactive, particularly in the industrial parks. Providing Ethiopia with a niche as a green apparel and textile production location is seen as a competitive edge against global producers and a way to leapfrog the global position of Asian and other SSA producers. A similar proactive approach to social upgrading is missing.

However, challenges remain, particularly in terms of limited local linkages of apparel exports, the focus on CMT production, long lead times, low production and product flexibility, skill issues, and infrastructure. Most worryingly, backward linkages from apparel to textile and cotton remain quite limited in the export sector even though an integrated value chain approach through ALDI has been a main feature of the Ethiopian development strategy. Hence, despite important progress, it remains to be seen how sustainable the process will be. The jury is still out on whether the initial successful performance will achieve its industrialisation and sustainable development targets. But it is already certain that this is a production location that differs from other LIC apparel producers in SSA.

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