



# CAPTURING THE GAINS



*economic and social upgrading  
in global production networks*

**Local embeddedness and economic and  
social upgrading in Madagascar's export  
apparel industry**

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## Abstract

Over the past decade, several Sub-Saharan African (SSA) countries have developed or expanded export-oriented apparel industries in the context of the Multi-Fibre Arrangement (MFA) quotas and preferential market access, most importantly under the African Growth and Opportunity Act (AGOA). Madagascar is different to the other main SSA low-income country (LIC) apparel exporters – Kenya, Lesotho and Swaziland – given its more diverse end markets and ownership structures and the political instability that led to the loss of AGOA status at the end of 2009. This paper assesses the development of Madagascar's export-oriented apparel industry and economic and social upgrading dynamics in particular in the context of the AGOA loss. It identifies four types of firms and value chains that differ with regard to ownership patterns, end markets and, most importantly, 'local embeddedness', with important implications for both economic upgrading dynamics and possibilities and the sustainability of the industry. The paper concludes that, despite the contraction in the export-oriented apparel industry post-AGOA, Madagascar is still a more successful apparel producer in terms of economic upgrading than the other main apparel-exporting LICs in SSA. The key to this trajectory lies in the differentiation of global value chain (GVC) relationships, local embeddedness and export diversification.

**Keywords:** Global value chains, upgrading, apparel/clothing industry, foreign direct investment, ownership, embeddedness, end market diversification, African Growth and Opportunity Act, Madagascar, Sub-Saharan Africa.

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## Abbreviations

ACFRN	African Clothing and Footwear Research Network
ACP	African, Caribbean and Pacific
AFD	French Development Agency
AGOA	African Growth and Opportunity Act
AmCham	American Chamber of Commerce
CCIFM	France–Madagascar Chamber of Commerce
CDE	EU Centre for the Development of Enterprise
CMT	Cut-Make-Trim
CPRC	Chronic Poverty Research Centre
DFID	Department for International Development
EBA	Everything But Arms
EDBM	Economic Development Board of Madagascar
EPA	Economic Partnership Agreement
EPZ	Export Processing Zone
ESRC	Economic and Social Research Council
EU	European Union
EUROSTAT	Statistical Office of the European Communities
FDI	Foreign Direct Investment
FOB	Free on Board
GDP	Gross Domestic Product
GEFP	Association of Free Zone Enterprise and Partners
GVC	Global Value Chain
LDC	Least Developed Country
LIC	Low-income Country
MEI	Ministry of Economy and Industry
MFA	Multi-Fibre Arrangement
MFN	Most Favoured Nation
MMF	Man-made Fabric
MVA	Manufacturing Value Added
ÖFSE	Austrian Research Foundation for International Development
PRISM	Policy Research in International Services and Manufacturing
PTA	Preferential Trade Agreement
RoO	Rule of Origin
SACU	South African Customs Union
SADC	South African Development Community
SARS	South African Revenue Services
SCI	Sustainable Consumption Institute
SSA	Sub-Saharan Africa
TCF	Third Country Fabric
UK	United Kingdom
UN COMTRADE	UN Commodity Trade Statistics Database
US	United States
USAID	US Agency for international Development
USITC	United States International Trade Commission

## Introduction

Over the past decade, several Sub-Saharan African (SSA) countries have developed or expanded export-oriented apparel industries, in particular Kenya, Lesotho, Swaziland, Madagascar and Mauritius. This has occurred on the basis of three regulatory regimes: the Multi-Fibre Arrangement (MFA) quota restrictions on large Asian producing countries; preferential trade agreements securing US and European Union (EU) market access, in particular the African Growth and Opportunity Act (AGOA); and national policies supporting the establishment of export-oriented firms, including export processing zones (EPZ) and/or investment incentives. Foreign direct investment (FDI) has played a dominant role in the development of export-oriented apparel industries in all these countries. After the 31 December 2004 MFA phase-out, apparel exports declined, however, from these major SSA apparel-exporting countries (Kaplinsky and Morris 2006), with the global economic crisis from 2008 accelerating this decline (Staritz 2011).

While an aggregated analyses of SSA apparel export growth is import, it masks the existence and emergence of a variety of firm types inserted in different global value chains (GVCs) in these SSA countries. These firm variations refer to differences with regard to ownership, end markets and export products. Ownership dynamics manifest themselves in significant disparities in levels of local embeddedness, with important implications for economic and social upgrading, as well as the sustainability of apparel-exporting operations (Morris et al. 2011; Staritz and Frederick 2012; Staritz and Morris 2012).

In this respect, although Madagascar shares characteristics with the other main SSA low-income country (LIC) apparel exporters (Kenya, Lesotho and Swaziland), there are also important differences, concentrated along the following lines:

- **Market destination:** With the exception of a brief period in the mid-2000s, the EU market has been the largest export market for the Madagascan apparel industry. This is different from Kenya, Lesotho and Swaziland, which have overwhelmingly exported to the US under AGOA. However, while Kenya remains concentrated solely on the US market, since 2006 Lesotho and Swaziland have increasingly diversified exports to South Africa (Morris et al. 2011).
- **Ownership:** There is a larger variety of differentially owned apparel investors in Madagascar. Asian transnational producers, European (mainly French) residents and regional (Mauritian) and indigenous Malagasy investors have played an important role in the Madagascan apparel industry since the 1990s. In Lesotho and Swaziland, alongside Asian (largely Taiwanese) transnational investors, regional investors from South Africa re-emerged in the late 2000s, although there are still no local indigenous investors (Morris et al. 2011). In Kenya, there are no regional investors in the export-oriented EPZ industry, and only one local investor, although there are some more embedded Indian resident investors, besides largely Asian transnational producers (Staritz and Frederick 2012).
- **Political instability:** Unlike the other main apparel-exporting SSA LICs that have been politically stable in recent times, Madagascar has experienced political unrest, which culminated in political crises in 2002 and again in 2009. This led to the closure and relocation of foreign-owned apparel firms and ultimately to the loss of AGOA trade benefits at the end of 2009.

Given these differences, analysing the development and current situation of Madagascar's apparel export industry is particularly interesting, for several reasons. First, there exist four different types

of value chains with regard to ownership and end markets; this paper examines the dynamics within and between these. The four types can be viewed as:

- Asian-owned firms exporting largely to the US market;
- European, overwhelmingly French diaspora-owned firms, exporting largely to the EU, and, more recently, the South African market;
- Mauritian-owned firms exporting to the US, the EU and, more recently, the South African market;
- Local indigenous Malagasy-owned firms exporting largely to the EU market.

Second, the political economy dynamics resulting from the recent regime changes have led to loss of AGOA status. This has radically altered the possibility of accessing the US as an end market. This paper examines the impact this has had on the different types of firms and value chains.

Third, these ownership and governance structures, end market positioning and political economy dimensions have had an impact on the manner in which local embeddedness and economic and social upgrading operate in Madagascar. This paper uses the concept of embeddedness in order to provide an examination of the dynamics of economic and social upgrading.

In order to examine these characteristics and dynamics, this paper poses the following questions:

- What are the main characteristics and differences among Asian-owned, European/French diaspora-owned, Mauritian-owned and Malagasy-owned firms with regard to governance structures, firm set-up, end markets and export products?
- What impact has the political crisis in 2009 and the resultant loss of AGOA benefits had on the apparel export industry in Madagascar? Have different types of firms reacted differently to these events?
- What are the implications of the distinct characteristics of these firms on local embeddedness and economic and social upgrading?

The paper comprises seven sections. The first provides a conceptual discussion on the importance of ownership and, more broadly, local embeddedness, as well as end markets and preferential trade agreements (PTAs) in GVC analysis, in order to assess the dynamics of upgrading and sustainability. The second gives an overview of recent developments in the export-oriented apparel industry in Madagascar, and the third details the public policy and institutional context of Madagascar's apparel export industry. The fourth section identifies four types of firms, classified according to ownership and driven by different value chain dynamics. The fifth discusses impacts on sustainability, economic upgrading, local linkages and skills development and the sixth discusses social upgrading. The last section concludes.

The research in this paper is based on trade and national industry data and interviews in Madagascar in March 2012 with representatives of apparel firms and nine relevant institutions. The latter included government agencies such as the Ministry of Economy and Industry (MEI), the Economic Development Board of Madagascar (EDBM) and the Labour Inspectorate; industry associations such as the Association of Free Zone Enterprise and Partners (GEFP), the Textile Mada Group and the American Chamber of Commerce (AmCham); and three trade unions. With regard to firms, 16 interviews were conducted covering 24 plants (as some firms own more than one plant in Madagascar). These were taken from a total of around 60-70 plants and 50-60 firms

sector-wide (see below on data problems). Selection of firms was based on ownership, types of products (woven and knitwear), export markets and size (employment).

### **Conceptual discussion: ownership and end markets in GVCs**

There is a large literature on GVCs, as well as on economic and to a lesser extent social upgrading dynamics in the apparel industry. However, two crucial dimensions that are particularly relevant for SSA apparel industries and economies in general tend to be underrepresented in most GVC research. The first is the role of ownership and more broadly local embeddedness. The second is the importance of end markets and PTAs.

In the GVC literature, governance and economic upgrading are core concepts defined as: exercising the power of the organizational linkages within a value chain to ensure its efficient operation and determine the distribution of rewards; and as moving to higher-value activities in value chains to increase the rents from participating in global production (Bair and Gereffi 2003; Gereffi et al. 2005; Kaplinsky and Morris 2001). Embeddedness inserted into the GVC perspective refers to the extent to which firms and owners of firms are enmeshed in local social networks, and how their economic action is shaped by the structure of these social relationships (Granovetter 1985). This has been further developed in the business literature (e.g. Eden and Miller 2004; Heidenreich 2012). Nationality and location of ownership firms are two important aspects of such social relationships; as shown below, they can be a fruitful way of understanding how firms behave in value chains (such as relating to end markets, value chain access or upgrading).

Generally speaking, insufficient attention has been paid to the role of ownership in GVC analysis. There are exceptions, but it is still early days in terms of analytically developing differences in ownership as a conceptual driver within GVC analysis. Important exceptions are those authors who conceptually state the importance of ownership as a dimension in GVC analysis (Henderson et al. 2002) and those who develop it analytically as a contextual driver of linkages (Morris et al. 2012).<sup>1</sup> Earlier work on the apparel sector noted the differential possibilities for economic upgrading associated with value chains governed by EU- and US-based buyers (Gibbon 2003, 2008; Gibbon and Ponte 2005; Kaplinsky and Wamae 2010; Morris and Sedowski 2009; Palpacuer et al. 2005). Less is said, however, about the ownership characteristics of suppliers in the apparel GVC and how they relate to upgrading (Phelps et al. 2009).<sup>2</sup> This may be related to the apparel industry being organized in a buyer-driven value chain, where lead firms generally focus on non-production-related activities such as design, branding and retailing, and outsource all or most of the manufacturing process to a global network of suppliers (Gereffi 1994, 1999). However, there are important exceptions; in particular, LICs have often been integrated into apparel value chains through FDI and triangular manufacturing networks (Gereffi 1999; Morris et al. 2011; Pickles and Woods 1989; Staritz 2011).

Introducing 'ownership' dynamics into GVC analysis from the perspective of governance, requires analysing buyers' strategies and related value chain dynamics, as well as the strategic interest of

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<sup>1</sup> In discussing the 'ownership' dimension of lead firm behaviour in commodity sectors, Morris et al. (2012) refer to a number of different ownership attributes determining firm behaviour. Ownership of the lead driver firm (origin and place of incorporation) has an impact on the extent to which local linkages are favoured. Lead firms more embedded in local economies are more familiar with local supplier conditions, more in touch with institutional constraints and able to access regulatory opportunities and more committed to developing local linkages.

<sup>2</sup> More research on the role of ownership at the supplier level can be found in relation to other sectoral value chains such as in electronics (e.g. Phillips and Henderson 2009), horticulture (Dolan and Humphrey 2000) and, more recently, mining (Fessehaie 2011; Fessehaie and Morris 2012).

foreign (and local) investors and the extent of their integration or specialization of activities along their production networks (Staritz and Morris 2012). Dunning (2000), in discussing firm-specific attributes of FDI, reminds us that the nationality of ownership influences firm-level behaviour. This has important implications regarding the role and potential for upgrading of differently owned plants. Hence, differentiating ownership of supplier firms specifies how these supplier firms are linked to global production and distribution networks, and is an important criterion in understanding and differentiating the behaviour and activities of these firms. Differentiating in this way reveals the extent to which firms are locally embedded, that is, have roots in the social and economic fabric of the host country, and captures the different strategies of investors and how they play out in terms of local decision-making power, value added and linkages. These strategies are influenced by the nationality of the investor as well as the drivers and governance structures of different value chains and end markets. Hence, ownership is not only about firm ownership, but also involves the firm's interaction with the dynamics of the distinct value chain it is part of.

Four main groups of foreign investors can be generally identified in apparel GVCs in SSA (Frederick and Staritz 2012).

- Brand manufacturers, largely from the US and Europe, which have established regional and global production networks largely via FDI. This group of investors has, however, declined in importance, with many shifting to marketers or retailers and sourcing networks based on contract manufacturing;
- Transnational producers initially based in East Asia (Hong Kong, Taiwan and Korea) but more recently also in other Asian countries (Singapore, Malaysia, China and India) and the Middle East. Transnational producers, faced with quota restrictions, rising labour costs and high demand from global buyers, have developed triangular manufacturing networks. These networks were limited to the Asian region in the 1970s and 1980s but extended to Latin America, the Caribbean and SSA in the 1990s (Appelbaum 2008; Gereffi 1999). They generally own or source from production units in several countries, follow a global strategy involving long-run production of a narrow range of basic products made in large plants and specialize in a narrow range of functional activities (Gibbon 2008). The headquarters are generally in charge of input sourcing (often drawing on their own textile mills or sourcing networks based in Asia), product development and design, merchandising and marketing, and have direct relationships with buyers;
- Regionally embedded investors that organize production networks within a region, for example Indian and Sri Lankan investors in South Asia, Malaysian and Thai investors in Southeast Asia and South African and Mauritian investors in SSA;
- European investors who are foreign by passport designation, but domestically resident. These are identifiable in the case of Madagascar but are not as relevant as the other groups in the other SSA main apparel-exporting LICs. These are largely French investors from the diaspora that are locally embedded as they have lived in Madagascar for decades, have national domestic resident status and only own production plants in Madagascar with no regional or global reach. By retaining their French culture and language identification, they are also linked to European and/or French end markets and sales networks.

The dimension of end markets is related to the ownership and local embeddedness dimension. Earlier work focused on the implications of trade policy in the apparel industry, including quotas and tariffs on market access in different end markets (Gereffi 1999 is a prominent example). To our knowledge, Gibbon was the first to explicitly and conceptually state the importance of end market segmentation, for the empirical cases of Mauritius and South Africa. He argued that apparel firms

exported either to the EU or US, given the differing end market and buyers' requirements. This end market segmentation is related closely to nationality; Asian-owned firms tend to export to the US market, and local or European-owned firms to the EU market (Gibbon 2002, 2003). End market segmentation is even more pronounced in Lesotho, Swaziland and Kenya, where Asian-owned firms export nearly exclusively to the US market. Exports from Lesotho and Swaziland to South Africa have increased since 2005/06, but these exports come mostly from South African-owned firms (Morris et al. 2011; Staritz and Morris 2012). In Madagascar, Asian firms export to the US market whereas European/French diaspora, Mauritian and locally owned firms export largely to the EU and recently also the regional South African market (see below).

These apparel import markets (US, EU, South Africa) operate in distinct ways, and firms follow different strategies to access them. Three main factors can be identified that influence these dynamics (Gibbon 2003; Staritz 2011).

*End market segmentation is related to language as well as political and economic history:* Firms oriented exclusively or mostly to US markets are Asian-owned (largely Hong Kong in Mauritius, Taiwanese in Lesotho and Swaziland, more mixed in Kenya and Madagascar, with only few Asian firms left in Madagascar, as discussed below). Generally, these investors have other plants that already supplied the US market before they came to SSA. Thus, they know the US market and their global strategies are geared towards it. In contrast, in the case of the three SSA countries that also export to Europe, strong historical, cultural and language ties are evident – Mauritius exporting to the UK and France, Madagascar to France and South Africa previously to the UK. In particular, French diaspora investors in Madagascar are part of French networks creating access to, and maintaining close relationships with, French buyers and other actors in the industry. In the case of the South African market, South African apparel manufacturers relocating all or part of their operations to Lesotho and Swaziland have maintained close supplier relationships with South African retailers (Morris et al. 2011; Staritz and Morris 2012).

*Trade regulations and PTAs are central to understanding end market segmentation and the integration of SSA economies into apparel GVCs:* The apparel (and textile) industry has been one of the most trade-regulated manufacturing activities in the global economy. While quotas were eliminated to a large extent in 2005 with the phase-out of the MFA, and totally in 2009 when the China safeguards were phased out, tariffs still play a central role in global apparel trade, being among the highest in all manufacturing industries.<sup>3</sup> In this context, preferential market access has a substantial impact on global apparel trade patterns (see Fredericks and Staritz 2012 for details). For SSA countries, preferential market access to the EU and US has been crucial. Generally, preferential market access to the EU requires fulfilling double transformation rules of origin (RoO);<sup>4</sup>

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<sup>3</sup> Average most favoured nation (MFN) tariffs on apparel imports are around 11 percent for the EU and the US but vary considerably for different product categories. US duties on cotton products range between 13 and 17 percent, with duties on synthetic products ranging between 25 and 32 percent. EU tariffs on apparel products vary between 0 and 12 percent; there are no systematic differences between cotton-based and synthetic products. In South Africa, the apparel (and textile) industry was protected by high tariffs until 1995. After this, tariffs were reduced on yarns to 15 percent, fabrics to 22 percent and apparel to 40 percent until 2002, but this increased to 45 percent in 2010.

<sup>4</sup> RoO should ensure that the products of trading partners receive preferential market access and exporters from third countries do not use transshipment and 'light' processing to circumvent external tariffs (Brenton and Oezden 2009). Tariffs are stipulated either as a certain percentage of the total value of products or as certain production steps that must take place in the beneficiary country. For apparel, it is common to differentiate: single transformation, where only the sewing stage has to take place in the beneficiary country, double transformation, where one input production step has to be conducted, such as knitting or weaving of fabric, and triple transformation, where, in addition to knitting/weaving, the spinning of yarn also has to take place in the beneficiary country.



however, this changed with the economic partnership agreements (EPAs). For countries that signed interim EPAs in 2008 and 2009, including the five main SSA apparel exporter countries (including Kenya, Lesotho, Madagascar, Mauritius and Swaziland), RoO requirements changed to single transformation (i.e. only the sewing stage). Only South Africa has not signed an interim EPA and still has to fulfil the double transformation RoO. For the US, AGOA was signed in May 2000 and became operative in October 2000. AGOA RoO requirements state that 85 percent of the source fabrics (yarns, fabrics and threads) in apparel in this category must originate from the US or be produced in AGOA beneficiary countries. However, a special rule, the Third Country Fabric (TCF) derogation, applies to lesser developed countries, allowing them duty-free access for apparel made from fabrics originating anywhere in the world. Only South Africa requires triple transformation to qualify under AGOA.<sup>5</sup>

The South African market has grown in importance for SSA apparel exporter countries, and duty-free access has played an important role. Being part of the South African Customs Union (SACU), Lesotho and Swaziland have duty-free market access to South Africa. The elimination of duties on apparel imports within the South African Development Community (SADC) at the end of 2005 was important for Mauritius and Madagascar, which have been successful in meeting the SADC double transformation RoO requirements, given their (locally or regionally) vertically integrated textile and apparel industry (see below).

*Differences in sourcing practices between EU and US end markets, and different buyer expectations of suppliers' functions and capabilities:* EU buyers seem to be more interested in flexibility and versatility, and expect suppliers to contribute to design and product development (Gibbon 2008), US buyers emphasize the ability to produce to buyers' specifications. US buyers nominate specific fabrics and other input suppliers, mostly from Asia, and are generally not interested in suppliers' contributions to design. Supplier firms state that production for EU markets brings an overhead structure that is uncompetitive for the US market (Gibbon 2003, 2008). Moreover, there is a difference in the size of orders. US buyers demand high volumes, particularly in the basic segment. European markets are not unified like the US, and each country has its own retailers and chains, with few large cross-border retailers. This translates into smaller orders. Orders from South African retailers are often even smaller than average European orders, although there are important differences between retailers. Firms follow different strategies to fulfil these different end markets' and buyers' requirements, which makes it difficult to diversify export markets.

### **Development of the apparel export industry in Madagascar**

The export-oriented apparel industry has been the main source of growth in exports and formal employment for the past two decades in Madagascar. The share of the apparel sector in manufacturing value added (MVA), accounts for around 25 percent (Kaplinsky and Wamae 2010), meaning developments in the apparel industry have wide economic and social consequences. Given that employment of women from poorer households is particularly high in Madagascar's apparel industry, the development of the sector also has a crucial role to play in women's socioeconomic development and in poverty reduction.

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<sup>5</sup> Besides varying RoO, an important difference between US and EU trade preferences is the value of duty-free access: lower in the case of the EU. This is for two reasons: i) duty levels on certain apparel products, in particular synthetic-based products, are higher in the US than the EU; ii) EU preferences are accessible for all African, Caribbean and Pacific (ACP) group countries and least developed countries (LDCs), thereby including some large Asian apparel producer countries (e.g. Cambodia and Bangladesh), whereas AGOA is accessible only for SSA countries.

The historical development of apparel exports has been based largely on four factors: EPZ law and incentives to export firms, preferential market access to the EU, MFA quota hopping and AGOA.

Following the example of Mauritius, Madagascar set up EPZs, called *zones franche malgache*, in 1988/89 in the context of an export-oriented structural adjustment programme, which offered incentives to firms exporting at least 95 percent of their production. Qualifying firms were exempt from all duties on exports and imports. They benefited from accelerated depreciation allowances, special access to foreign currency and unrestricted foreign exchange controls and capital transfers as well as a range of tax concessions (Cling et al. 2007; Kaplinsky and Wamae 2010; N'Diaye and Raparson 2012). Textile and apparel-related investments accounted for the majority of EPZ investments in most years with regard to number of firms, employment and investment size (Maninirinarivo 2006). Most early investors were of French origin, attracted by the large number of French diaspora residents and the use of French as the national language. The mid-1990s saw the entry of new investors from Mauritius.

Preferential market access to the EU has played a central role in the development of apparel exports in Madagascar. In Madagascar, quota- and duty-free access to the EU market under the Lomé Convention for ACP countries (later under the Cotonou Agreement and the Everything But Arms (EBA) initiative) together with the EPZ law triggered apparel exports to the EU market. Madagascar's apparel exports increased from \$118 million in 1995 to \$368 million in 2000, 91 percent and 67 percent going to the EU market, respectively, in these two years. In 1990, there were eight firms employing 3,000 people (Rafalimanana et al. 2008). By 2000, this had jumped to over 150 firms and nearly 70,000 employees (Bregger et al. 2004).

The development of the apparel industry in Madagascar, as in many other LICs, was further supported by the MFA and quota hopping considerations. As recognised apparel exporter countries reached their quota limits, they established triangular manufacturing networks, particularly in LICs, to use the non-existing or unfilled quota of these countries. Madagascar faced no quota restrictions for apparel and textile exports to the US and the EU. This ensured markets for its apparel exports and motivated investors, in particular from Asian producers. In the late 1990s, Mauritian producers that had exceeded their quotas in the US and particularly the EU also relocated some of their production to Madagascar to take advantage of its under-utilized quotas, lower labour costs and proximity to their plants in Mauritius (Gibbon 2008; Joomun 2006).

From 2000/01, preferential market access to the US under AGOA and the TCF derogation became the main motivation behind apparel FDI in much of SSA. Madagascar qualified for AGOA preferences in March 2001. Consequently, FDI from Asian transnational producers (Hong Kong, China and India) increased significantly in the early 2000s. In the context of AGOA, some US buyers and agents established sourcing offices in Madagascar. In 1995, US exports accounted for 6 percent of Madagascar's total apparel exports, increasing to 31 percent in 2000 and 62 percent in 2004.

Apart from these determining factors, low labour costs were also an important investment motivator for foreign investors, while for Mauritian investors an additional motivation was the proximity to their plants in Mauritius. From 2002 onwards, several developments had negative effects on Madagascar's apparel exports: the political crisis and civil unrest in 2002, the MFA phase-out at the end of 2004, the China safeguards phase-out at the end of 2008, the global economic crisis and the renewed political crisis that led to the loss of AGOA at the end of 2009. A positive

development has been the elimination of apparel tariffs in the South African market in 2006, which has led to increased exports to the country.

The post-election political crisis and civil unrest in 2002 had a severe impact on Madagascar's apparel sector and led to the temporary closure of many firms, withdrawal of investors and closure of sourcing offices. Gross domestic product (GDP) shrank by 12 percent (N'Diaye and Raparson 2012) and apparel exports by nearly 50 percent. The number of apparel firms declined from 158 in 2000 to 84 in 2002, with employment dropping from 92,400 in 2001 to 75,120 by the end of 2002. Some sources reported employment losses of 30,000 to 40,000 as firms restructured or closed permanently (Manchester Trade Team 2005; Salinger 2003); others speak of 10,000 job losses (Zafimaharo 2005). Exact data on firm numbers and especially employment are notoriously unreliable (see below). Firms that stayed in operation were also strongly affected by the crisis, as they missed deadlines, experienced order cancelling and lost international buyers; 80 percent of firms laid off workers and halted production for more than six months (N'Diaye and Raparson 2012). The sourcing offices for MAST, Li & Fung, Eddie Bauer, Gap, Dockers and Levi's closed during the crisis or in its immediate aftermath (Morris and Sedowski 2009).

Apparel exports decreased after the MFA phase-out in 2005. The decline of only 4 percent in Madagascar was lower than in the other SSA main apparel-exporting countries, given different ownership patterns in the apparel sector and related diversification in end markets. Dynamics in the US and EU markets were different: US exports declined by 14 percent in 2005/06 but exports to the EU increased significantly, by 14 percent and 28 percent in 2005 and 2006, respectively, leading to a diversion of exports to the EU. This is related to the closure of many Asian-owned firms that served the US market, whereas European, French diaspora, Mauritian and locally owned firms focusing on the EU market largely stayed in operation. Unlike Kenya, South Africa, Lesotho and Swaziland, which all experienced an appreciation in their currencies, the franc malgache lost nearly half its value against the US dollar and the euro between February and June 2004. Its depreciation gave apparel firms a 'bit of breathing space' by stimulating exports and reducing the costs of production just before the end of the MFA (Morris and Sedowski 2009).

Driven by exports to the EU, Madagascar's total apparel exports increased by 7 percent in 2006 and 20 percent in 2007. But the global economic crisis and, most importantly, the renewed political crisis arising from the coup in January 2009 had a negative impact and exports declined dramatically in 2009 and 2010, by 16 percent and 35 percent, respectively (Table 1). The political crisis resulted in the US suspending AGOA status at the end of 2009. US exports declined by 24 percent, 74 percent and 27 percent in 2009, 2010 and 2011, respectively (Table 3), whereas exports to the EU decreased by 12 percent, 7 percent and 6 percent in 2008, 2009 and 2010 but increased by 22 percent in 2011 (Table 4). The share of the US market in total apparel exports decreased to 15 percent in 2010 (from 43 percent in 2008), with the EU accounting for 72 percent (Table 2). The number of firms declined from 120 in 2005 to 79 in 2009, with employment dropping from over 100,000 to 79,000 employees during the same period. By March 2012, this had dropped again to an estimated 60-70 firms and around 55,000 employees (see below for data problems).

In the past few years, exports to a third market, South Africa, have increased considerably. South African exports rose in value from less than \$1 million in 2006 to more than \$40 million in 2011 (Table 5). This rise is related to the SADC elimination of duties but also to South African protectionist policies in the form of quotas on Chinese apparel imports between 2007 and 2008 that diverted their imports to other markets, including other Asian but also regional supplier countries such as Mauritius, Madagascar, Lesotho and Swaziland (Morris and Reed 2009). These

exports to South Africa emanate largely from Mauritian and to a lesser extent European and French diaspora-owned firms. These exports have gone hand-in-hand with increased Mauritian apparel exports to South Africa (Kaplinsky and Wawae 2010).<sup>6</sup>

**Table 1: Madagascar apparel exports to the world**

	1995	1998	2001	2004	2005	2006	2007	2008	2009	2010
Value (US\$m)	118	247	446	561	539	579	696	683	577	378
Annual growth (%)	19.0	20.1	21.1	54.5	-3.9	7.4	20.3	-1.8	-15.5	-34.6
<b>Woven and knit share (%)</b>										
Woven share	57.9	54.0	41.3	44.2	45.7	45.6	44.2	43.7	45.5	45.7
Knit share	42.1	46.0	58.7	55.8	54.3	54.4	55.8	56.3	54.5	54.3

Notes: Exports represent world imports from Madagascar; apparel represented by HS1992: Woven: HS62; Knit: HS61. Growth rate reflects change from previous year.

Source: UN COMTRADE.

**Table 2: Madagascar's top five apparel export destinations**

Country/ region	Value (US\$m)						Market share (%)					
	1995	2000	2005	2008	2009	2010	1995	2000	2005	2008	2009	2010
<b>World</b>	118	368	539	683	577							
EU-15	107	246	229	345	308	275	90.6	66.7	42.5	50.4	53.4	72.2
USA	7	115	294	295	223	58	6.2	31.3	54.5	43.1	38.6	15.3
South Africa	-	-	-	7	13	18	-	-	-	1.0	2.3	4.8
Canada	-	1	7	11	11	6	-	0.3	1.4	1.6	1.9	1.7
Japan	-	1	2	--	3	--	-	0.2	0.3	-	0.4	-
<b>Top 5 total</b>	<b>118</b>	<b>364</b>	<b>533</b>	<b>661</b>	<b>558</b>		<b>99.8</b>	<b>98.8</b>	<b>98.9</b>	<b>96.7</b>	<b>96.6</b>	<b>95.1</b>

Notes: Apparel represented by HS1992 (61+62); exports represented by partner country imports; (-) indicates country not in top five in given year.

Source: UN COMTRADE.

**Table 3: US Apparel imports from Madagascar**

	1996	1998	2001	2004	2005	2006	2007	2008	2009	2010	2011
Total value (US\$m)	11	22	178	323	277	238	290	279	212	55	40
Annual growth (%)		43.8	62.5	64.6	-14.2	-14.0	21.4	-3.6	-24.1	-74.1	-27.4
<b>Woven and knit share (%)</b>											
Woven	66.6	68.4	39.4	43.6	51.5	58.2	53.4	53.5	46.6	51.9	26.7
Knit	33.4	31.6	60.6	56.4	48.5	41.8	46.6	46.5	53.4	48.1	73.3

Notes: Apparel imports represented by HS61 and 62; general customs value; growth rate reflects change from previous year.

Source: US International Trade Commission (USITC).

<sup>6</sup> Apparel exports from Madagascar to South Africa may be higher than reported in the UN Commodity Trade Statistics Database (UN COMTRADE) or South African Revenue Services (SARS) data, as some Mauritian-owned firms in Madagascar are said to export via Mauritius.

**Table 4: EU-15 apparel imports from Madagascar**

	1995	1998	2001	2004	2005	2006	2007	2008	2009	2010	2011
<b>Total EU-15 Madagascar apparel imports</b>											
Million euros	95	186	266	158	181	231	246	217	201	190	231
Annual growth (%)		15.7	2.1	23.2	14.2	27.7	6.6	-11.6	-7.4	-5.6	21.8
<b>Woven and knit share (%)</b>											
Woven share	63.4	51.1	41.7	45.4	38.1	34.8	35.6	34.4	43.6	39.2	49.9
Knit share	36.6	48.9	58.3	54.6	61.9	65.2	64.4	65.6	56.4	58.4	56.6

Notes: Apparel represented by HS61 and 62; growth rate reflects change from previous year.

Source: Statistical Office of the European Communities (EUROSTAT).

**Table 5: South Africa apparel imports from Madagascar and Mauritius**

	2004	2005	2006	2007	2008	2009	2010	2011
<b>Total SA apparel imports</b>								
Madagascar	0.07	0.08	0.07	3.44	7.05	12.99	18.20	40.06
Mauritius	4.17	8.61	21.25	36.33	47.25	49.60	69.12	103.03
<b>Annual growth (%)</b>								
Madagascar		20%	-8%	4683%	105%	84%	40%	120%
Mauritius		107%	147%	71%	30%	5%	39%	49%
<b>Woven share</b>								
Madagascar	35%	50%	6%	48%	38%	55%	61%	60%
Mauritius	21%	26%	33%	34%	36%	41%	38%	37%
<b>Knit share</b>								
Madagascar	65%	50%	94%	52%	62%	45%	39%	40%
Mauritius	79%	74%	67%	66%	64%	59%	62%	63%

Source: SARS.

## Public policy and institutional context

National policy and institutional contexts have crucial impacts on the development and sustainability of apparel industries. The MEI has responsibility for industrial policies in Madagascar. In addition, the EDBM, created in 2006, has the mandate for promoting investments, facilitating administrative processes for setting up EPZ firms and providing visas to expatriate workers. The government, however, has no specific industrial strategy for the apparel sector, despite the large contribution it makes to the Madagascar economy and the employment and revenue it creates. Besides the EPZ regulation, there are few policies that specifically target the apparel industry and no industry-specific training institutes. Instead, government prioritizes agro-based development over industry, meaning development policy is currently focused on rural rather than industrial sectors. Firms interviewed repeatedly mentioned the government's lack of interest in the industry (see also Morris and Sedowski 2009). Political instability and regular changes in the positions and responsibilities of ministers make the situation even more complicated. This can be described as a government or institutional failure and/or incongruence, in the form of regulatory inefficiencies combined with inadequacies in industry-specific institutional arrangements and policies.

An important factor in the competitiveness of the apparel industry is the efficiency of public infrastructure. This includes not just physical infrastructure, such as transport networks, water, electricity and communication, but also bureaucratic infrastructure such as port and customs clearance, company registration and enterprise set-up, and the delivery of appropriate certification, including work visa applications. Morris and Sedowski (2006) reported that logistical problems with customs, inland and sea transport, electricity costs and reliability, internet and telecommunications and rent all increased the vulnerability of apparel firms in Madagascar. Related to these

infrastructural challenges, nearly all apparel firms are located in the capital, Antananarivo, as the city has the best availability of infrastructure, including water, electricity and factory shells, as well as being close to the airport and having greater availability of skilled workers. Only four firms are located outside the capital, in Antsirabe.

Cost of and access to finance are also major issues. A World Bank benchmark study shows that 70 percent of exporters in Bangladesh report having a bank loan, compared with 64 percent in Mauritius, 31 percent in Morocco and only 3 percent in Madagascar (World Bank 2010). In terms of costs, high interest rates of up to 45 percent in 2007-2009 were found (N'Diaye and Raparson 2012). This is especially problematic for local indigenous firms that cannot access transnational financing networks and have difficulties accessing finance to initiate operations, invest in upgrading or use for working capital.

Volatility in the exchange rate makes it difficult to plan and enter into contracts with buyers and plays a key role in the competitiveness of apparel exports. Buyers do not accept a renegotiation of prices when the exchange rate changes, and as prices are paid in the buyers' currency, mostly in US dollars or euros, this has huge effects on producers. Firms generally stated that, besides the EPZ regulation, the only other positive government policy has been the central bank's recent success in stabilizing the currency. More positively, Madagascar has also reaped a windfall from two depreciations, which have benefited exports.

The association for EPZ firms in Madagascar is the GEFP, which has six full-time employees. It was established in 1998 and includes EPZ firms and partners (banks, shipping firms, etc.). Currently, it has 77 members, of which 63 are firms (34 of them in the apparel industry). Membership is composed of European/French diaspora, Mauritian and local Malagasy firms. Asian firms are not members, with one exception. GEFP's main activities are focused on helping firms by acting as an interface with government; lobbying and negotiating with the government and trade unions; and offering some skills development and training support. Before 2009, the GEFP had regular meetings with the government, but since then it has met only over customs issues. The GEFP has worked for seven years on developing a training programme without a definitive outcome. Besides some lobbying, it has shown little effect in terms of initiating industry-wide activities or projects.

French locally owned firms are also organized in the France–Madagascar Chamber of Commerce (CCIFM), a business council providing information on import regulations, market analysis and some training activities. Asian-owned apparel firms are organized in AmCham but apparel membership has collapsed with the loss of AGOA and the closing-down of many Asian firms. Currently, only four apparel firm members are left.<sup>7</sup> Textile Mada is another industry cluster association focusing on training and collective activities. There are a number of trade unions in Madagascar's apparel industry, discussed below in the section on social upgrading.

### **Distinct value chains: types of apparel firms in Madagascar**

We turn now to analysing the dynamics of different types of firms inserted in different GVCs with important implications for the sustainability of apparel-exporting operations. Investment from Asia, Europe, in particular French diaspora, Mauritius and local sources is the basis for the identification of four types of apparel firms. These firms are integrated in distinct value chains with different characteristics and dynamics, and with major implications for the activities and behaviour of the

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<sup>7</sup> <http://www.amcham-mada.mg/index.php/our-members/>

plants feeding into these value chains. They differ with regard to investor motivation, governance structure and firm set-up, end markets and export products with important implications for local embeddedness and economic and social upgrading (Morris et al. 2011; Staritz and Morris 2012). They have also been differentially affected by the MFA phase-out, political unrest and the AGOA loss, and have different perceptions on the sustainability of their operations in Madagascar.

There are no consistent and publicly available data on firms that give information on numbers, ownership, employment, export markets and types of products for Madagascar's apparel industry. Reasonable estimates<sup>8</sup> are of 60-70 plants and 50-60 firms operating in the EPZ apparel and textile industry, the variation in number owing to some firms owning more than one plant. Very roughly, these firms can be broken down into four types of apparel firms according to ownership: 45 percent are European/French diaspora owned, 23 percent Mauritian, 10 percent Asian and 15 percent indigenous Malagasy. The insignificant remaining firms are owned by other nationalities (US and Canada).

The following section discusses the four types of apparel firms with regard to investors' motivation, governance structure and firm set-up, end markets and export products.

### **European/French diaspora-owned firms**

The majority of what we refer to as 'European' firms were set up by French residents who have been in Madagascar for decades or were born in Madagascar. There are three main motivations for these firms to manufacture in Madagascar: (i) the EPZ laws that were put in place in 1988/89 combined with low labour costs; (ii) trade preferences to access the European market; and (iii) the language and cultural proximity of Madagascar to France and networks with European markets and buyers. Although Malagasy law prevents these residents from attaining citizenship, they generally perceive themselves as Malagasy, notwithstanding the fact that they have French passports and maintain close relations to and networks in France. N'Diaye and Raparson (2012) state that 80 percent of French diaspora investors are permanent residents in Madagascar, and have been for three or more generations. This was confirmed in interviews for this study. The combination of Malagasy residence and French market connections provides them with a unique defining characteristic - local embeddedness in Madagascar but also access to the European, and particularly French, market and buyers through close cultural and other linkages. Networks to European markets and buyers are described as 'oiling the value chain linkages'.

These organizations have their headquarters and decision making located largely in Madagascar. Most European/French diaspora-owned firms are free on board (FOB) and conduct input sourcing locally as well as some design and product development functions, depending on the specific firm. Decisions with regard to merchandising and marketing, and direct contact with buyers, seem to be located largely in Madagascar, but several firms have sales offices or staff located in Europe and particularly France in order to maintain close relationships with their buyers. Most European/French diaspora-owned firms are locally based and have no factories in other countries.

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<sup>8</sup> Two data sources provide partial data on number of firms – MEI, shows all EPZ firms and GEFP shows member firms of the industry association. Data from MEI show new EPZ investments for each year from 1990 onwards for different subsectors. With regard to employment and investment level, only the expected levels of employment and investment are shown, and not the actual employment and investment reached or how this has developed. Firm closures are also not captured in the data. These sources were used as a basis and supplemented with data from interviews. The data are not a fully accurate representation and should therefore be taken with caution.

These firms export nearly exclusively to the European market and have not been affected by the loss of AGOA. However, they have recently begun exporting to South Africa, given duty-free access under SADC, and since most firms produce largely for the European summer season this has been seen as a way to fill capacity in slack periods (given the reverse seasons). But, after starting with the South African market, some firms now see more potential in this market and aim to increase exports on a sustainable basis. However, the generally lower prices required in the South African market make it less attractive. The primary focus therefore remains largely on the European market.

There is some diversity in European/French diaspora-owned firms with regard to types of products, but most focus on more complex and fashionable items. Order size fluctuates quite substantially but often involves smaller batches, which require a flexible firm set-up. The strategy of most of these firms is to go upmarket, focus on higher-quality, more complex products and build on their long-term relationships with European buyers. Some firms seem to be very successful with this strategy, serving high-range customers, including some French brands of haute couture.

One firm is slightly different, as it is not European but Indian-owned, but still fits into this type of embedded 'diaspora-owned' firm. The firm is owned by an Indian family that has lived in Madagascar for generations and started operations in the textile sector in the 1930s. They started exporting in the 1990s and expanded into apparel production in 2001. The headquarters is in Mauritius but many key decisions are made in Madagascar. The firm has a design office in France and offers an integrated production model including design, textile and apparel production. They produce mid-level fashion products and export to Europe and South Africa.

### **Mauritian-owned firms**

The apparel industry in Mauritius experienced a crisis in the early 1990s based on the exhaustion of cheap labour and unsuccessful initial attempts to move into higher-value products. Most of the firms remaining beyond this crisis were larger firms. They undertook improvements in quality assurance, reducing lead times and shifting towards less labour-intensive products, and began replacing domestic with foreign contract labour (Gibbon 2008). Concurrently, some firms undertook a strategy to relocate the production of basic products to Madagascar, given its substantially lower labour cost structure and geographical proximity to Mauritian plants. The main motivation of these firms to manufacture in Madagascar has been (i) the EPZ regulations, lower labour costs and availability of workers; and (ii) geographical proximity to operations in Mauritius, making managing these production networks easy by allowing flexible use and easy spatial flow of management, technical and logistical resources. Outsourcing basic production in cut-make-trim (CMT) operations to Madagascar has allowed Mauritian firms to expand production and remain competitive in the basic product segment of the market while simultaneously creating regional demand for Mauritian textile and apparel inputs. The latter aspect is evident as Madagascar is Mauritius's largest export market for textile and apparel inputs.

The first major relocation was by Floreal (part of the CIEL Group) in 1990; management estimated that 10 years after this the firm employed around 5,000 workers in Madagascar. The other major relocation was by CMT International Trading, which moved its basic production to Madagascar and, at the same time, around the turn of the century, employed around 4,000 workers (this firm is no longer in operation) (Joomun 2006). FDI from Mauritius to Madagascar reached a peak in 1999. The political crisis and civil unrest in 2002 resulted in nearly all the Mauritian firms leaving Madagascar, with only Floreal remaining. Some firms returned after the crisis was resolved in



2003, including the two other CIEL Group factories (Aquarelle and Tropic Mad). Thus, regionally integrated production networks have developed where Mauritian firms invested in CMT facilities in Madagascar to fulfil larger runs of basic products for which firms in Mauritius supply fabric and other inputs.

The headquarters of these firms are located in Mauritius and are involved in most decision-making and higher value functions such as input sourcing, design and product development, merchandising and marketing and direct contact with buyers. These firms are thus regionally embedded. Even though most decision power is located in Mauritius, given the geographical proximity there seems to be more interaction between headquarters in Mauritius and plants in Madagascar, in particular in production-related matters.

Mauritian-owned firms export to the EU and, to a much lesser extent, the US. Historically, their Madagascar plants have focused on longer-run, basic products, with more complex, fashionable and shorter-run products produced in Mauritius. Generally, US orders are more basic and require longer runs. After the loss of AGOA status in 2009, these Mauritian-owned firms were compelled to restructure by increasing production for Europe in Madagascar, and shifting US destined production to Mauritius. This led to changes in the product mix in Madagascar, to shorter-run, more flexible and more complex products. This coping strategy was only possible given the regional embedded production networks that had made changes in the division of labour possible between Mauritius and Madagascar, as well as the ability to use existing management capabilities in a flexible manner between locations. Hence, the loss of AGOA had two contradictory effects on Mauritian owned firms. The first was that several Mauritian firms closed or reduced employment in Madagascar. Second, other firms changed the mix of production between their Mauritian and Madagascar plants, with an increase in the share of European orders leading to product upgrading.

Since 2006, Mauritian firms have considerably increased their exports to South Africa as a consequence of the elimination of duties under SADC, coupled with an active strategy to approach South African retailers. Increased Madagascan exports to South Africa have gone hand-in-hand with increased Mauritian apparel exports to South Africa (Kaplinsky and Wamae 2010). Mauritian-owned firms in Madagascar have been successful in meeting the SADC double transformation RoO requirements given their vertically integrated apparel production system, with the largest players owning textile mills in Mauritius. They also have a lead time advantage, as Madagascar is only six days away from South Africa by sea. Finally, the South African market is similar to the European markets in terms of order size (e.g. smaller volumes) and demand specifications (e.g. design and product development capabilities).

### **Asian-owned firms**

Asian-owned firms primarily invested in Madagascar in the early 2000s because of MFA quota hopping and AGOA (plus the TCF derogation). An additional motivation was the availability of special FDI incentives in the context of the EPZ regulation and low labour costs. Most Asian-owned firms in Madagascar are local affiliates of transnational producers with their head offices in Hong Kong, China or a few other Asian countries that own or source from production units in several countries on a global scale. They follow a global strategy involving long-run production for export to the US of a narrow range of basic products made in large plants, with generally highly inflexible operating environments and specializing in a narrow range of functional activities (Gibbon 2008). This type of integration has on the one hand enabled access to global sourcing and merchandising networks, and on the other implied a certain governance structure and firm set-up, where critical

decision-making power and higher-value functions, including input sourcing (often drawing on their own textile mills or sourcing networks based in Asia), product development and design, logistics, merchandising and marketing and the direct relationship with buyers, are all located abroad. Production plants of transnational producers in Madagascar are generally in charge of CMT activities only.

Several Asian firms left after the political crisis in 2002 and after the MFA phase-out in 2005. Most Asian firms that weathered these two crises left in 2009/10 when AGOA was suspended. In March 2012, an estimated five Asian firms (covering six plants) still had a presence in Madagascar. These firms had specific locational reasons for remaining. One firm traditionally exports high-quality and high value-added knitwear to the EU, so the AGOA loss had no impact. Another firm, with two plants, continues to export at a loss to the US, but claims its principal operation is textiles in China and it is remaining in operation in Madagascar to secure stable orders for its textile mill and mop up textile capacity in the hope that the US market will return to Madagascar in the future. The remaining firms have effectively closed but keep a fictitious presence in a 'wait and see' position. They believe that increasing costs in China and other Asian countries will make Madagascar more competitive in the future and hope for the comeback of AGOA.

### **Indigenous Malagasy-owned firms**

These Malagasy-owned firms seem to have started mostly as subcontractors for foreign-owned firms before developing some direct contact with buyers. Attending fairs in France was important for local firms to establish such direct relationships. They largely have subcontracting relationships with European/French diaspora-owned firms and, on a smaller scale, with some of the larger Mauritian-owned firms. These firms subcontract to indigenous Malagasy firms to deal with the seasonality of their orders and seem to provide some upgrading support with regard to processes and quality. Local Malagasy firms are relatively small, employing between 70 and at most 400 workers.

It is estimated that there are around nine indigenous Malagasy export firms left, all exhibiting similar problems. Even though they have some direct contacts with buyers in Europe, their key problem is they are unable to maintain long-term relationships with these buyers and therefore cannot secure long-term, predictable orders. Moreover, it is difficult for them to build such relationships as, in contrast with French diaspora-owned firms, they do not have the luxury of being embedded in networks in France. This makes it difficult to develop and maintain contacts with clients. These firms also lack merchandising departments, making them incapable of reacting quickly to buyers' requests. Hence, clients and orders vary from year to year, which has an impact on these firms' long-term upgrading trajectory. As a result of these dynamics, the complexity of the products they produce varies as well. One year, they can be producing complex products such as down jackets and seem to be on an upgrading trajectory; the next year, buyers may be demanding simple apparel products, which means they have effectively downgraded. They are like puppets dancing to the tune of a puppet master, and the complexity of the choreography varies with whichever theatre director they link up with. Another problem is that buyers increasingly demand FOB. Local firms have difficulty gaining access to credit to finance FOB production and payment periods that are generally 60-90 days, and to cope with the related risks. Ultimately, what enables them to survive is subcontracting, which does not protect margins, is insecure and provides no guarantee of maintaining an upgrading trajectory.

## **Implications of value chain characteristics for sustainability and economic upgrading**

The integration of Madagascar-based apparel firms into these four value chains has important impacts on production processes, on products produced and functions performed in Madagascar and on the sustainability of the operations in the country. This section discusses different trajectories for the four types of firms, focusing on issues of sustainability, economic upgrading, end market unit values, local linkages and skills development.

### **Sustainability**

Most firms dependent on exporting primarily to the US market left after the MFA phase-out and after the loss of AGOA status. The few that remain in Madagascar are in a 'wait and see' position, either building their strategy based on a return of AGOA preferences or, if they are still producing, subsidizing prices while they wait.

European/French diaspora and Mauritian firms focusing on the European market are in a much more sustainable position; some have even experienced a growth in orders, expanded production plants and developed close and long-term relationships with European, mostly French, buyers. A few of these firms, largely French diaspora owned, are high-end players producing branded, quality fashion products for luxurious brands.

Malagasy firms are in a less sustainable position as they have challenges in developing long-term relationships with foreign buyers and still depend largely on subcontracting with European/French diaspora and Mauritian firms. This provides them with low margins, high insecurity and fragile long-term sustainability.

In conclusion, Madagascar's apparel industry's current wellbeing owes mostly to European/French diaspora locally embedded and Mauritian regionally embedded firms that have historically been focused on (or, as in the case of Mauritian firms, were able to shift exports to) the EU market, as well as now increasingly exporting to the South African market.

These different dynamics with regard to sustainability can be seen in the development of ownership patterns (Table 6). The share of Asian-owned firms declined from 25 percent in 2005 to around 10 percent in March 2012, while the share of European/French diaspora-owned firms increased from 24 percent to around 46 percent, and the share of Mauritian firms from 14 percent to around 23 percent for the same years. The share of indigenous Malagasy firms has remained relatively stable, accounting for around 15 percent in March 2012. The share of other nationalities (including unknown origin) declined from 23 percent in 2005 to 7 percent in 2012.

**Table 6: Ownership patterns in Madagascar's apparel sector**

Nationality	Total plants (2005)		Total plants (2009)		Estimated total plants (March 2012)	
	No.	Share (%)	No.	Share (%)	No.	Share (%)
European/French diaspora	28	24	22	28	28	46
Mauritian	17	14	14	18	14	23
Asian	30	25	24	30	6	10
Malagasy	16	14	15	19	9	15
Others (incl. unknown origin)	27	23	4	5	4	7
<b>Total</b>	<b>118</b>		<b>79</b>		<b>61</b>	

Source: For 2005, Morris and Sedowski (2006); for 2009 MEI (2010), in N'Diaye and Raparson 2012; for March 2012 field research.

### Economic upgrading

In the context of growing competition (in both export and domestic markets), the sustained expansion of a growth-enhancing apparel industry depends on its capacity to pursue economic upgrading (Kaplinsky and Wamae 2010). Economic upgrading is generally conceptualized in four types (Gereffi et al. 2001, 2005; Humphrey and Schmitz 2002; Kaplinsky and Morris 2001). They are process upgrading (improving technology and/or production systems); product upgrading (producing more sophisticated or complex products); functional upgrading (increasing the range of functions or changing the mix of activities to higher-value tasks); and chain upgrading (moving from one industry to another). Two further dimensions can be added: channel upgrading (diversifying to new buyers or new geographic or product markets); and supply chain upgrading (establishing local backward and forward linkages within the supply chain) (Frederick and Gereffi 2010; Frederick and Staritz 2011). The latter is discussed below in the section on local linkages.

Madagascar's apparel sector has seen important economic upgrading processes in the past decade, in particular with regard to process and product upgrading, despite the unfavourable domestic context arising as a result of political instability. However, upgrading has been irregular between different types of firms:

Economic upgrading has been limited in most Asian-owned firms that have their head offices, decision-making power and higher-value functions abroad. These firms have focused on relatively basic long-run production for the US market under AGOA and, apart from assembly, all other functions are conducted at head offices largely in Hong Kong or China. This leaves Madagascar-based plants destined to remain simple CMTs. The main objective of these firms is to reach efficiency through high-volume production, making to specifications (with regard to design and quality) set by US buyers. Hence, these firms have aimed for and achieved process upgrading but very limited product or functional upgrading. They have also not achieved channel upgrading, that is, end market diversification, as this is not part of their global strategy. Their strategy focuses solely on the US market. It is also very difficult for these firms to switch markets, given the different requirements with regard to order size in the European and South African markets.

Indigenous Malagasy firms have achieved some economic upgrading but it has been erratic owing to their lack of long-term relationships with buyers. For example, the most developed local firm specializes in producing high-quality, complex padded winter jackets, and became the main supplier of this product in Madagascar. This took place in a close relationship with one buyer that also supported process and product upgrading in the firm. One would have assumed it was then on an upgrading trajectory, but then the European buyers shifted to an Asian producer. When it lost this contract, the indigenous Malagasy firm had to move to other products to secure orders,

meaning the following year its production order resulted in downgrading to manufacturing simple products. These firms have developed skills but the problem is how to maintain these and apply them on a consistent basis. This is a value chain linkage deficiency arising from their inability to secure long-term sustainable relations with European buyers. In short, in the absence of European buyers located in Madagascar, these firms do not have the marketing capacity, office presence in Europe and cultural connections to enable them to take full advantage of their prior upgrading processes. The alternative to supplying European buyers directly is subcontracting, which most of these firms are locked into, but which keeps them in survival mode by providing limited margins. Subcontracting has, however, supported some upgrading with regard to processes and quality, as larger firms send their quality control staff to local firms they subcontract, to provide advice on production processes and quality. Hence, these firms have mainly achieved process and limited but unstable product upgrading.

Mauritian-owned firms have historically used their plants in Madagascar for longer-run simple products, compared with their more capital and skill-intensive plants in Mauritius. As US orders are generally more aligned with those characteristics than orders from European buyers, they use Madagascar largely for US exports. This changed after the loss of AGOA at the end of 2009, however, as firms tried to change the mix of production between their Mauritian and Madagascar plants, shifting US orders away from Madagascar and increasing their share of European orders. This had positive impacts on upgrading with regard to processes, quality, skills and products, as production for European markets is associated with short runs and more style changes. For one firm, this also led to a shift away from men's wear to more complex and higher fashion-content women's wear. Headquarters are based in Mauritius, where most decision-making power and higher-value functions of Mauritian-owned firms exist, but, given the geographical proximity, there is interaction with Madagascar, in particular on production-related matters. Most Mauritian firms increased exports to South Africa as they simultaneously increased such exports from Mauritius. Hence, these firms have achieved process and, in particular in the context of the AGOA loss, product upgrading as well as channel upgrading, that is, end market diversification (away from the US and to South Africa), but limited functional upgrading.

European/French diaspora-owned firms exhibit substantial internal differentiation but they generally focus on more complex and fashionable products with varying order sizes. Many of these firms have invested in equipment and upgraded their processes and products, with some positioning themselves in a high-value segment producing for branded buyers. In particular, one firm produces complicated, high-quality brand products sold for up to €12,000 a piece in Europe, the average ex-factory price ranging between €8,000 and €9,000. Its average order size is 300; sometimes, it produces only one piece. This firm imports fabric from Europe and its main competitors are firms in France and Italy. It does CMT, as the fabric it uses is too expensive for it to finance. Most European/French diaspora-owned firms offer FOB production, sourcing and financing inputs themselves, either to the specification of buyers or on their own proposal. They also generally have some design and product development capabilities. At times, they may propose designs, but the mainly simply interpret the design of their buyers. Some are involved in lean production, but most seem to work in bundles, with several in-line quality controls. European/French diaspora-owned firms focus on the European market, most importantly France, but have also increased exports to South Africa. Hence, these firms have achieved process, product and, to a varying extent, functional upgrading, as well as some channel upgrading, that is, end market diversification to South Africa.

## End market unit values

Differences with regard to product upgrading can also be assessed by looking at export products to different end markets (Table 7, Table 9) and the development of unit values (Table 8, Table 10). In 2009,<sup>9</sup> the top 10 products in the US market accounted for 75 percent of total apparel exports, while in the EU it was 68 percent. Of the top 10 products, four were the same in the US and the EU market, including men's and women's woven cotton trousers, and cotton and man-made fabric (MMF) sweatshirts. Knit cotton and synthetic trousers, woven synthetic trousers and knit cotton shirts are also in the top 10 list of US exports. Cashmere and wool sweaters, silk scarves, woven cotton shirts and knit cotton t-shirts are also in the EU top 10 list. Some of the EU top 10 products are clearly more complex, which can be seen in the high unit values. In 2009, silk scarves had a unit value of €319 per kg and cashmere sweaters of €98 per kg, compared with an average unit value of Madagascar's total apparel exports to the EU of €31. Cashmere sweaters accounted for 17 percent and silk scarves for 6 percent of total EU exports in 2009.

**Table 7: Top 10 US imports from Madagascar**

HS code	Product	Customs value (US\$m)				Market share (%)			
		2000	2005	2008	2009	2000	2005	2008	2009
<b>Total</b>		<b>110</b>	<b>277</b>	<b>279</b>	<b>212</b>				
620462	Trousers	10	76	81	60	9.1	27.2	29.0	28.4
611030	Sweatshirts	4	10	12	16	3.2	3.6	4.5	7.6
611020	Sweatshirts	12	63	30	16	11.2	22.6	10.7	7.6
610510	Shirts	-	7	18	15	-	2.4	6.5	7.3
610343	Trousers	-	-	7	11	-	-	2.4	5.0
620342	Trousers	21	49	20	10	19.1	17.8	7.0	4.8
610462	Trousers	-	9	19	9	-	3.2	6.7	4.4
620343	Trousers	-	-	19	9	-	-	6.9	4.3
610342	Trousers	-	5	-	7	-	1.8	-	3.1
620463	Trousers	-	-	-	6	-	-	-	2.8
<b>Top 10</b>		<b>101</b>	<b>161</b>	<b>222</b>	<b>160</b>	<b>92.4</b>	<b>85.2</b>	<b>79.6</b>	<b>75.4</b>

Notes: US imports general customs value; apparel represented by HS61 and 62; (-) indicates product not in top 10 in given year. The equivalent of HS code 611010 switched to 611012 in 2002.

Source: USITC.

**Table 8: Top 10 US apparel imports from Madagascar – unit value (US\$/dozens)**

	HS code	Product	Gender	Fabric	Fibre	2001	2005	2008	2009
1	620462	Trousers	W&G	Woven	Cotton	67.4	75.3	67.4	70.3
2	611030	Sweatshirts	N/A	Knit	MMF	71.6	64.4	50.5	45.5
3	611020	Sweatshirts	N/A	Knit	Cotton	55.8	43.1	47.2	53.0
4	610510	Shirts	M&B	Knit	Cotton	57.9	43.3	44.6	44.7
5	610343	Trousers	M&B	Knit	Synthetic	45.5	39.7	22.0	26.0
6	620342	Trousers	M&B	Woven	Cotton	73.4	75.8	80.5	72.6
7	610462	Trousers	W&G	Knit	Cotton	51.9	29.8	25.9	28.5
8	620343	Trousers	M&B	Woven	Synthetic	40.6	65.1	109.9	91.9
9	610342	Trousers	M&B	Knit	Cotton	43.0	59.6	34.5	43.7
10	620463	Trousers	W&G	Woven	Synthetic	49.5	59.1	37.3	45.9

Note: Unit value general customs value/first unit of quantity (dozens).

Source: USITC.

<sup>9</sup> Data are compared for 2009 as after this exports to the US declined considerably, making a comparison more difficult.

**Table 9: Top 10 EU-15 apparel imports from Madagascar**

HS code	Product	Value (€m)				Market share (%)			
		2000	2005	2008	2009	2000	2005	2008	2009
<b>Total</b>		<b>261</b>	<b>181</b>	<b>217</b>	<b>201</b>				
611010-12	Sweaters	85	46	51	34	32.6	25.6	23.6	16.8
611010-11	Sweaters		25	30	25		14.1	13.8	12.5
611020	Sweatshirts	24	11	24	21	9.1	6.0	11.2	10.2
621410	Scarves	15	12	-	12	5.8	6.4	-	6.2
620342	Trousers	27	12	11	11	10.2	6.9	4.9	5.3
620520	Shirts	6	6	9	9	2.3	3.2	4.1	4.5
620462	Trousers	13	6	8	7	5.0	3.4	3.8	3.4
610910	T-Shirts	21	-	7	6	8.1	-	3.3	3.1
611030	Sweatshirts	-	5	-	6	-	2.7	-	3.1
620630	Shirts	-	-	-	6	-	-	-	3.0
<b>Top 10</b>		<b>209</b>	<b>132</b>	<b>160</b>	<b>137</b>	<b>80.1</b>	<b>73.3</b>	<b>73.4</b>	<b>68.1</b>

Note: (-) indicates product not in the top 10 in given year. HS code 611010 was broken into three separate codes in 2002.

Source: Eurostat.

**Table 10: Top 10 EU-15 apparel imports from Madagascar – unit values (€/kg)**

HS code	Product	Gender	Fabric	Fibre	2000	2005	2008	2009
611010-12	Sweaters	N/A	Cashmere	Knit	42.4	105.8	97.6	98.0
611010-11	Sweaters	N/A	Wool	Knit	42.4	24.1	28.3	26.6
611020	Sweatshirts	N/A	Knit	Cotton	20.3	17.0	23.5	23.6
621410	Scarves	N/A	Silk	Woven	354.7	319.0	43.1	319.3
620342	Trousers	M&B	Woven	Cotton	10.1	9.4	12.3	12.0
620520	Shirts	M&B	Woven	Cotton	20.6	24.5	23.9	25.6
620462	Trousers	W&G	Woven	Cotton	15.9	21.2	19.0	17.9
610910	T-Shirts	N/A	Knit	Cotton	14.4	13.3	13.1	13.4
611030	Sweatshirts	N/A	Knit	MMF	32.9	19.6	27.1	27.6
620630	Shirts	W&G	Woven	Cotton	29.3	35.9	36.6	37.5
61	All knit apparel				27.3	33.9	34.5	31.5
62	All woven apparel				18.9	24.5	24.1	29.8
Total	Knit and woven apparel				23.1	29.6	30.0	30.8

Note: Values calculated; products represent the top 10 HS apparel import codes in 2009.

Source: Eurostat.

### Local linkages

The apparel sector can lead to important linkages to related industries, most importantly to direct input sectors such as textiles and trims (e.g. threads, zippers, buttons, labels) but also to support services such as printing, embroidery, laundry, dyeing and ironing. The growth of local input production is important not only from a development perspective (increasing local value added, employment and capabilities), but also from a competitiveness perspective. In the context of lead times being of crucial importance for buyers, local or regional input sourcing can reduce lead time and transport costs and increase flexibility and control.

Linkages to textiles have declined in Madagascar. In the 1980s, six textile mills existed, including state-owned firms such as Sumatex and a semi-public firm Sotema, which employed more than 2,000 workers. As the apparel industry grew in the 1990s and early 2000s, cotton and textile production declined, with the closure of several textile mills in the 1990s. This was related to uncompetitive production of most local textile mills and the use of imported textiles for export production – either from Mauritius, which fulfilled double transformation for the EU market owing to regional cumulation, or from Asia, which was possible as AGOA allowed for single transformation.

In Madagascar, cotton can be grown, but the share of domestic cotton used in apparel production has decreased since the mid-1990s. Given low cotton prices during this time, many farmers shifted to other crops (e.g. pepper). Presently, Cotona, the only textile mill in Madagascar that produces cotton woven fabric, is able to meet only a relatively small share of the fabrics needed by EPZ firms (estimates range between 15 and 25 percent).

A prominent difference remains in the types of firms with regard to textile sourcing locations. Asian transnational producers source textile nearly exclusively from Asia, often from their own textile mills, or suppliers they use for their other apparel plants. European/French diaspora-owned firms tend to source from Asia and Europe as well as from the local textile mill Cotona. Besides supplying their own apparel plant, two French diaspora-owned firms are the largest external customers of Cotona. Mauritian-owned firms source textiles largely from Mauritius (the larger ones are vertically integrated with their own textile mills in Mauritius), or from Asia. Input sourcing is conducted at head offices or sourcing offices, being Asia for the Asian firms and Mauritius for the Mauritian firms. European/French diaspora-owned firms tend to make most sourcing decisions in Madagascar but some also have sourcing offices abroad.

These textile sourcing patterns can be seen in textile import data also. In 2010, 36 percent of imported textile came from China, 26 percent from the EU-15 (of which 77 percent was from France), 13 percent from Mauritius and 5 percent from Hong Kong and India (Table 11). The high share of the EU-15 and particularly France as a textile supplier indicates the higher-value products exported from Madagascar compared with other SSA countries, where the large majority of textile comes from Asia. The importance of Mauritian textile imports shows the role of regional production networks. A comparison with 2009 data confirms the shift in firm types discussed above. In 2009, 41 percent of total textile imports came from China and 12 percent from Hong Kong, declining from a joint share of 53 percent in 2009 to 41 percent in 2010. In contrast, textile imports from the EU-15 accounted for 21 percent in 2009, increasing to 26 percent in 2010. The share of imports from Mauritius remained stable. Value-wise, there was a slight decline in total textile imports in 2010 (3.6 percent), with imports from China and Hong Kong declining and imports from the EU-15 increasing.

**Table 11: Madagascar's textile imports from top five countries**

Country/ region	Value (US\$m)							Market share (%)						
	1995	2000	2004	2006	2008	2009	2010	1995	2000	2004	2006	2008	2009	2010
<b>World</b>	<b>103</b>	<b>199</b>	<b>278</b>	<b>291</b>	<b>345</b>	<b>278</b>	<b>287</b>							
China	4	41	79	115	123	113	103	3.4	20.7	28.5	39.4	35.8	40.6	35.9
EU-15	50	44	40	41	72	58	74	48.2	22.3	14.3	14.0	20.8	21.0	25.8
Mauritius	32	53	39	44	46	39	38	31.4	26.5	14.1	15.0	13.4	14.0	13.2
Hong Kong	7	45	83	60	62	33	15	7.2	22.6	29.9	20.5	17.9	12.0	5.2
India	-	-	10	7	-	10	14	-	-	3.5	2.5	-	3.5	4.9
<b>Top 5 total</b>	<b>97</b>	<b>189</b>	<b>251</b>	<b>266</b>	<b>312</b>	<b>253</b>	<b>244</b>	<b>94.3</b>	<b>94.9</b>	<b>90.2</b>	<b>91.4</b>	<b>90.4</b>	<b>91.1</b>	<b>91.2</b>

Notes: Imports represented by countries exports to Madagascar; (-) indicates country not in top five in given year.

Source: UN COMTRADE; Standard International Trade Classification Revision 3.

Apparel firms use locally sourced trims (including buttons and labels), packaging materials (boxes, cartons and poly bags) and services such as embroidery and printing. These inputs are also imported from Mauritius, South Africa, Asia and Europe, however. Rough estimates suggest there are around 30 input and service provider firms in Madagascar, with 7 producing trims, bottoms and labels, 13 offering embroidery services, 3 printing, 1 offering more general finishing services, 2 producing boxes/cartons and 1 producing poly bags.



## Skills development

With regard to skills, interviews generally indicated that the skills level is high in Madagascar's apparel industry, in particular among sewing operators. Skills shortage exists in terms of managers, technical positions and, to a lesser extent, supervisors. The lack of training centres that meet the specific needs of apparel firms compromises the skills development of workers, productivity and upgrading at the firm level. Most firms offer some kind of internal on-the-job training for sewing operators and other positions. Some firms also use external training through Textile Mada Group (see below). The skills shortage and absence of government- or industry-funded apparel-related training schools are cited as key reasons for the use of expatriates in management, technical and supervisory positions. Those expatriates often provide in-house training for Malagasy workers. For example, one firm brings in expatriate workers for two years, during which time they are required to train a local Malagasy as a replacement. Hence, the firm claims there is a symbiotic, rather than antagonistic, relationship between its use of expatriate workers and the promotion of Malagasy workers into the ranks of lower and middle management. The ratio of local Malagasy to Chinese expatriates in the merchandising department of this firm has, for example, changed fundamentally in recent years as a result of this policy. Seven years ago, there was only one local merchandiser in the department; now, there are 22 local Malagasy with two Chinese expatriates. The same firm sends promising Malagasy workers to Bangladesh for training. But cultural and language differences hinder learning, as the expatriates do not speak the local language. Conversely, this is also a problem when using French expatriates, as not all local workers are fluent in French.

Emphasis on training is different for different types of firms, depending on their production processes and upgrading strategies. In particular, European/French diaspora-owned firms tend to take training more seriously. Most such firms started with a small number of expatriates, which has declined further. Asian-owned firms have also created local skills, but this training is generally limited to more basic production. The number of expats is also higher in the few remaining Asian firms compared with the European/French diaspora- and Mauritian-owned firms. At management level, Asian firms have hardly any locals, the only exception being in human resources.

The fact that the Malagasy government does not seem to be able to make the necessary industrial policy and skills strategy interventions is a major limitation in addressing economic as well as social upgrading (see below). Instead, institutional interventions have been left to the private sector: firm and industry initiatives. Notwithstanding their importance, such initiatives are often hamstrung, since they depend on a combination of support from local firms, which lack sufficient finance, and the magnanimity of external funders, whose attention wanes when new development problems become more fashionable. This might turn out to be the story and future of Textile Mada.

Textile Mada is a cluster that was established in 2005 with financial support from the French Development Agency (AFD), the EU Centre for the Development of Enterprise (CDE) and the World Bank. It has three employees and assists firms to be more competitive by identifying member training needs and organizing training programmes (e.g. machinists, supervisors, modellers and designers, maintenance, management, human resources and leadership, information technology and computing, financial and budgeting); organizing and supporting the attendance of members at trade fairs; and negotiating joint freight fees and co-shipment of small orders in the same container. External training is organized through a French training provider that offers specialized training for the textile and apparel sector focusing on technical, production and maintenance skills. Trainers come for two months a year and spend around one week in each member firm. Textile Mada had 19 members in 2005, 23 in 2006 and 17 in 2010. In March 2012, it

had only nine, comprising two large, two medium and five small firms. This differential size of members creates problems in meeting the different needs and priorities of the larger and smaller firms. The larger firms maintain Textile Mada's sustainability but the operations of the cluster are particularly important for the smaller and locally owned indigenous firms. As EU funding ceased at the end of 2011, the sustainability and extent of activities of Textile Mada are in serious question.

### **Social upgrading in the apparel industry**

Social upgrading is defined as improvement in the quantity and quality of employment. The quality dimension stresses improvements in the rights and entitlements of workers as social actors. It is composed of two broad elements (Barrientos et al. 2010; Barrientos and Smith 2007). First, measurable standards, which include wages, physical wellbeing (e.g. health and safety, working hours) and employment security (e.g. type of contract, social protection). Second, enabling rights, which include freedom of association and collective bargaining, the right to freely choose employment, non-discrimination and voice. Social upgrading dynamics in Madagascar can be discussed only at the industry level because data are insufficient to make comparisons between different types of firms and value chains.

Employment in Madagascar's apparel industry increased considerably from the early 1990s until the mid-2000s, providing employment opportunities specifically for low skilled workers. Since then, employment has decreased, in particular since the loss of AGOA. That said, the apparel industry is still the largest manufacturing and private sector employer in Madagascar. In particular, it provides formal employment opportunities for women from poorer households. In the apparel industry, women account for on average approximately 80 percent of workers. Labour turnover and absenteeism tend not to be an issue; firms stated average turnover and absenteeism rates of between 1 percent and 4 percent. These rates are even lower in Antsirabe (compared with Antananarivo), where there are limited alternative employment options.

In 1998, there was a general strike for one week in the apparel industry: workers demanded a minimum wage increase of 250 percent. The resolution in 2000 was a result of a collective bargaining framework that focused on national minimum wages and yearly negotiations on wage increases between the eight largest trade unions and employers. Wage increases agreed are ratified by government decree. Madagascar is generally regarded as a very low-wage apparel-producing country. The national minimum wage was around \$47 per month for sewing operators in 2011, excluding meal allowances, overtime and bonuses, which are based on individual or group performance. In February 2012, a 10.8 percent increase in minimum wages was agreed for that year. The average take-home wage can fluctuate substantially depending on overtime and bonus payments; the industry association stated an average of around \$70. Differences arise in payment structures related to knitting and other apparel firms. In knitting firms, most workers are piece-rate workers. If workers achieve more pieces or work longer hours they get a higher wage. In the other apparel firms, wages are generally paid per fixed time period, but include production bonuses set by supervisors and management based on performance, quality and absenteeism.

Working time is 40 hours plus 20 hours of overtime per week. It seems that most firms work 60 hours, at least in peak season. They work Monday to Friday, often with a half day on Saturday as an option. Overtime has to be paid at a higher rate – the first 8 hours of weekly overtime must to be paid at 1.3 and the rest at 1.5. An important issue concerning working time is the seasonality of apparel production in Madagascar. As most firms work for the European and US summer season, there are slack periods. A main motivation for Mauritian- and European/French diaspora-owned firms to start exporting to South Africa was to cope with this seasonality, as South Africa has

reverse seasons. Balancing orders and peak and slack seasons also has important implications for working time, security of employment and stability of wages (i.e. overtime payments).

Many factories have work councils, to which representatives are elected every two years. Work council representatives may stand on a union ticket, but often tend to operate as autonomous bodies. There exist a large number of trade unions in Madagascar, estimated to number 150. Unions are highly fragmented and seem to lack a strategy at the national or sector level. There are no stop orders where membership fees are directly subtracted from wages, but trade unions collect subscriptions and fees by hand through shop stewards in firms. As such, they do not have a comprehensive overview of their representation in firms. They seem to work mainly on the basis of taking up individual grievance cases, with the union organizer appearing before management. If there is a big problem at a factory, workers may approach unions and go on strike; after the issue is solved, there is often no on-going involvement.

From the perspective of unions, the principal labour rights problems are:

- National minimum wage: Most EPZ firms abide by the national minimum wage, although there are claims from the unions regarding violations by some Asian-owned firms and smaller firms. According to union organizers, workers are also insecure about the correctness of the calculation of basic wages, overtime and bonus rates. They cite, for example, the various disputes union organizers are involved in over the veracity of information in wage slips.
- Hours of work: Employees work very long hours at peak times. Even though most firms seem to not directly force workers to work overtime, there is moral pressure to work. However, workers frequently prefer to work overtime to increase their wages. Unions claim there are often problems in calculating correct overtime pay, and paying full leave entitlement. In slack periods there are limited orders, hence working time is occasionally reduced. Issues related to working time and work intensity are related to the seasonality and flexibility of orders.
- Work intensity: Knitting firms generally have a piece-rate system, while other apparel firms pay wages per fixed time period, including production bonuses. According to unions, the targets that underlie these wage systems are often unrealistic, which leads to a high work pace and intensity.
- Union recognition: Most firms accept trade unions. There are exceptions, however, particularly in some Chinese and Indian firms, which seem to relate to different work cultures, limited knowledge of laws and experience with work councils and collective bargaining structures and also cultural and language barriers. Since 2005, there have tended to be regular meetings between elected work councils and management, but union organizers complained that management did not always respect these meetings.
- Union membership: There are no data available on union membership, only vague estimates. Unions complain that many workers support unions in general but do not become members, as they are scared to be negatively affected and of harming relationships with employers. Unions therefore have trouble recruiting and retaining members.
- Government oversight: The Labour Inspectorate and the Ministry of Labour have limited means and capacity to inspect firms and ensure compliance with labour rights. Further, if workers or unions litigate, it can take a very long time to get to trial, as industrial tribunals operate very slowly.

While training and skills development are seen mostly from the perspective of economic upgrading and competitiveness, they are also a crucial aspect of social upgrading, since an upward shift in skills has an impact on workers' economic conditions and livelihoods. This operates at a number of different levels. First, skills development/training is necessary if Madagascar apparel workers are to have a long-term sustainable future. Competing simply on the basis of low wages is a 'race to the bottom', since there will always be another location where wages can be even lower. Second, skills training and upgrading may have a knock-on effect as they become generalised throughout the local workforce. There is often (but not always) a relationship between increased skills levels and income levels, and hence between skills upgrading and social upgrading. Third, skills upgrading aimed at accelerating Malagasy workers through training programmes into lower and middle management positions has a major impact on the social division of labour and breaks down inherited class and ethnic inequalities.

## Conclusions

Despite having experienced a contraction in apparel exports, numbers of firms and employment in recent years, and being bedevilled by political crises and successive governments that seem not to understand the importance of supportive industrial policy, Madagascar is still a more successful apparel producer in terms of economic upgrading than other main apparel exporting LICs in SSA (i.e. Kenya, Lesotho and Swaziland). What explains this? In this paper, we provide two crucial dynamics related to GVC operations and types of ownership of firms:

- The key to this trajectory lies in the differentiation of GVC relationships and export diversification. The industry has survived the loss of AGOA status and a substantial drop in exports to the US by expanding its exports to the EU market and growing a new presence in the South African market. With the flight of Asian-owned firms over the past few years, the bulk of apparel producers feed into value chains delivering more differentiated products into the EU and South Africa. In particular, the European market has allowed firms to move up the value chain and to engage in both process and product upgrading. Firms supply a more sophisticated EU market, whose buyers request smaller orders and more complex products, requiring more flexibility and thus enhanced process upgrading capabilities as well as product upgrading. End market destination clearly plays an important role in this process.
- While end market differentiation has played an important role, the crux of the process is also, and perhaps more so, related to dynamics of embedded ownership patterns, derived from differentiated GVC relationships. European/French diaspora-owned firms, run primarily by longstanding French residents with historically embedded roots in Madagascar (and sales networks in France), and Mauritian-owned firms, regionally embedded with an interest in maintaining the long-term future of Madagascar's apparel industry, have been the drivers of upgrading processes. Ownership matters and embeddedness is a powerful upgrading driver in the case of Madagascar.

The sustainability of this trajectory is dependent on these dynamics within the local apparel industry. However, there are limits to how far this can be taken by purely private sector actors. If the industry is to grow substantially and ensure that gains are to be captured more broadly and distributed throughout the economy, then the Malagasy government will have to overcome its political instability and engage in more substantial institutional intervention, in cooperation with the private sector, civil society and unions, to initiate economic, skills and social upgrading.

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