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AFRICAN CLOTHING SECTOR: THE CONTRASTING EXPERIENCES
OF KENYA AND MADAGASCAR***

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SUMMARY

This paper contrasts the performance of the Kenyan and Malagasy economies post MFA quota removal on garments. Although Malagasy exports to the US declined significantly, they did so at a lower rate than those of Kenya. Moreover, Madagascar was also able to significantly diversify its exports to the EU and South Africa. Following a review of trade performance and detailed plant-level research, the paper explores the extent to which this divergent performance was associated with the differential capacities of firms in the two countries to upgrade their process and product technology. It concludes that the superior performance of the Malagasy industry – achieved in the face of particularly adverse operating conditions - is largely a function of the embeddedness of key firms, some of whom are socially embedded in Madagascar itself, and others of which are of Mauritian origin, but with close regional ties to Madagascar.

Keywords

Kenya

Madagascar

Apparel

AGOA

Export-oriented industrialisation

1. INTRODUCTION

Notwithstanding the opportunities opened up for commodity specialisation in the context of a potential structural shift in the terms of trade (Kaplinsky, 2006), economic growth and the wider distribution of the benefits of growth in Africa will almost certainly depend on the deepening of industrialisation. Comparative experience has been that the clothing sector provides an important early stepping stone on this path of industrialisation (Syrquin and Chenery, 1989). Financial and technological barriers to entry in this sector are low, and the income elasticity of demand for clothing in low per capita income economies provides the potential for sustained domestic demand. Moreover, as globalisation and the fragmentation of global value chains have deepened since the 1950s, the growth of global outsourcing and the collapse of the clothing sectors in high income economies has provided the potential for substantial exports of clothing (Gereffi and Memedovic, 2003).

The exposure of low income clothing industries – and indeed, the exposure of low income industrial sectors in general - to global competition provides both opportunity and threat. The opportunities are manifest. External markets effectively provide limitless demand for small producers such as those in Africa. This provides the potential for reaping scale economies in production and for enhancing efficiency and capability-building through exposure to intensely competitive markets and demanding customers. The growth of these capabilities not only offers the prospect of enhancing productivity in the clothing sector itself, but may also induce efficiency in supplier industries (such as textiles and accessories) and through various forms of spillover, into other sectors in the economy. But the threats are equally evident. Can producers compete effectively in global markets and, particularly, can their rate of efficiency growth keep up with global efficiency growth? If *relative* efficiency growth falls behind the pace of competitors, then not only will production for the domestic market suffer from import competition, but export-growth will either be blocked, or be immiserising through dependence on depreciating real wages.

The clothing sector dominates Sub-Saharan Africa (SSA) manufactured exports. Between 1995 and 2008, clothing consistently accounted for almost half of SSA's

exports of “narrow manufactures”, whilst textile exports (the primary inputs into the clothing sector, but also with uses in other industrial sectors), declined both in absolute value and in the relative share of total exports.¹ The rate of growth of SSA’s clothing exports fell sharply after the end of the MFA quotas in January 2005 (see below).

In this paper we discuss the evolving experience of export-oriented clothing production in two relatively successful African exporting economies – Kenya and Madagascar. We have focused on these economies for two reasons. First, as will be shown below, they have been significant exporters of clothing. Second, they represent contrasting paths, involving value chains driven by different types of lead-firms, and feeding into different final markets. Kenyan exports are mostly undertaken by Asian-owned firms and are almost exclusively destined to the US market. By contrast, Madagascar’s clothing exports result from a wider ownership-base (including local, regional and European, as well as Asian firms) and are directed to the EU and South Africa as well as to the US .

The post-2000 experience of SSA’s clothing industry has been the subject of previous discussion in *World Development* (Gibbon, 2003 and 2008a; Cling 2005; Kaplinsky and Morris, 2008; Phelps et al 2009) and in other journals (Morris and Barnes 2009; Morris and Sedowski 2006, 2009; Maminirinarivo 2006; Fukunishi 2008; Omolo 2006; Rogerson and McCormick 2005). This article adds five contributions to this evolving discussion. First, it focuses on the post-2006 period. This is important, as will be shown below, since it explores the extent to which trends which emerged after the removal of trade-quotas in 2005 have been stable or dynamic. Second the comparative focus on Kenya and Madagascar enables us to test a number of hypotheses which have been identified in the literature as potential determinants of capability building and industrial linkages (see Section 2 below). Third, it gathers

¹ The calculation of “narrow manufactures” involves two adjustments to standard adjustments of manufactured exports which focus on SITC5-8 (excluding SITC 68) First, we exclude a range of products which are classified as “manufactures” in trade statistics, but which are essentially lightly-processed commodities, namely, precious metals and stones jewellery and art collections, hydrocarbon derivatives, radio-active material and organic compounds. Second, we exclude re-exports, which are particularly prevalent in transport (shipping and aircrafts and parts).

primary data from enterprises, and although this data is less than optimally comprehensive, it provides firm-level data to explore the significance of trends which can be more easily tracked at the macro level (through trade and national accounts statistics). Fourth, it demonstrates the importance market diversion as a survival strategy. Fifth, and perhaps most significantly, it highlights the importance of embeddedness in determining the behaviour of lead firms in the value chain, and in so doing, (unfashionably) places ownership at the centre of industrial policy.

The discussion in this paper takes the following form. In Section 2 we identify four sets of factors which are believed to affect the potential of the clothing sector to upgrade its operations and to develop upstream linkages to the textile sector. This is followed in Section 3 by a review of the macro experience of Kenya and Madagascar clothing exports. Then, in Section 4 we report our findings from firm-level primary research and an analysis of secondary data to consider the four sets of industrial-deepening issues identified in Section 2. The paper concludes with a discussion of wider issues raised by this comparative performance.

2. THE DETERMINANTS OF UPGRADING AND UPSTREAM LINKAGES IN THE CLOTHING SECTOR

As noted above, in the context of the growing openness of African economies to global competition (both in the domestic and in export markets), the sustained expansion of a growth-enhancing clothing sector depends on its capacity to upgrade. In assessing this issue, we are informed by developments in global value chain (GVC) theory which postulates four upgrading-paths (Humphrey and Schmitz, 2000; Kaplinsky and Morris, 2001). The first is improvement in process efficiency, including new embodied technologies, and new forms of organisation within the firm and throughout the chain. The second is product upgrading – their degree of complexity (and hence value added), the introduction of new products, and product variety. The third category of upgrading is the capacity of individual producers to change their functional position in the chain, both in order to move into higher-rent activities (such as branding, marketing and chain coordination) and to respond to the shifting dynamics of rent. The fourth and final realm of upgrading identified in the value chain literature (which will not be considered in this analysis) is the capacity to

move into wholly new chains. The GVC literature also identifies the nature of the buyers as a factor affecting the likelihoods and capacity of firms to upgrade their processes and products and, in some cases also, their functional position in the chain.

From the perspective of maximising the growth and development potential of the clothing sector, a key further issue is the development of upstream and downstream linkages. In particular, value added in the clothing sector can be very low when it is restricted to the cut-make-and-trim (CMT) assembly of imported materials. (In this respect, it is similar to other sectors – for example, in the Dominican Republic in the early 1990s, the unit value added in footwear assembly in the export processing zones was US\$0.22 per shoe; Kaplinsky, 1993).

Hence, our interest in the growth impact of the export-oriented clothing sector needs necessarily to focus both on the extent to which it is able to upgrade and the degree of linkages entailed, particularly upstream linkages into the capital-intensive textiles sector. Here the literature suggests four sets of factors which influence these developments – ownership; the nature of buyers; the country of production; and the location of the final market. We discuss each in turn as a prelude to our evidencing of upgrading and linkages in Section 4 below.

The impact of *ownership* on upgrading and linkages has been a source of considerable enquiry, and has three primary components of relevance to our study. The first arises from the national ownership of the investor, where it is often asserted (particularly in policy-circles) – but not always proven – that nationally-owned firms are more likely to deepen domestic capabilities and linkages than foreign investors. This may reflect their domain of valorisation (the local economy rather than on global operations) and/or the fact that domestic investors are more familiar with local capabilities and opportunities for linkages. By contrast, the evidence in International Business studies on the superiority of foreign investment over domestic investment remains ambiguous with regard to the deepening of capabilities and the provision of linkages. A second ownership-related factor relates to the nationality of foreign equity, since it is possible that investors from different home-countries may have different propensities to promote capabilities and linkages in the host economy, as in the current discussion of Chinese foreign direct investment (FDI) in Africa (Burke and Corkin, 2006). Related

to this, a third ownership related factor is the link between ownership, final markets and the extent to which this determines the capacity of southern producers to upgrade their process, product and functional offerings

The GVC literature has given much attention to the extent to which different *types of buyers* are likely to facilitate different types of upgrading (Schmitz and Knorrinda (2000); Kaplinsky, Morris and Readman, 2002; Gibbon, 2003; Navas-Aleman, 2006; Gibbon, 2008a). In general it is agreed that whilst most types of buyers in final markets are happy for southern producers to improve their process efficiency, northern buyers (and especially “branded-buyers”) are less likely to promote (and in some cases even to allow) upgrading and innovation of products by southern producers. Buyers are even less likely to allow for functional upgrading by producers, for example into logistics, branding and marketing since this encroaches directly on to the core competences (and hence profitability).

Country-specific factors are widely considered to be a particularly important determinant of producer upgrading and linkages. For example, the World Bank undertakes regular comparative surveys of the determinants of cost-effective and efficient operation in different producing economies (<https://www.enterprisesurveys.org/>). This data covers a wide-range of factors, including wage and capital costs, reliability and cost of infrastructure, ease of logistics and factors affecting ease of business.

The final factor which is said to influence the capacity to upgrade is the *location of final markets*. This determinant of upgrading and linkages is less-clearly articulated in the literature. Key contributions – with particular relevance to our enquiry – are Gibbon (Gibbon, 2003; Gibbon, 2008a and 2008b), Morris and Sedowski (2006; 2009) and N’diaye (2008), who considered the types of innovation associated with Mauritian and Madagascar clothing exports to the EU and the US. Gibbon argued that in general the US market – with its highly-concentrated and scale-intensive retail sector – has a preference for large-volume undifferentiated and non-branded products, and to the extent that it is associated with upgrading, this is limited to improvements in process. By contrast, EU market orders are generally smaller with more flexibility in contracts and negotiable quality requirements, allowing for a greater degree of

product innovation by suppliers D'diaye, 2008: 267, 273). Recent research on the difference in final markets in China and the EU also suggests that this factor may play a major role in capability-building and linkages in both the cassava and timber sectors (Kaplinsky, Terheggen and Tijaja, 2010).

3. CLOTHING EXPORT MARKETS: THE MACRO PICTURE

Kenya and Madagascar are located on the eastern seaboard of Africa. In 2008, Kenya had a population of 38.8m, and a per capita income of \$1,432 (constant 2005 international \$); the equivalent figures for Madagascar were 19.1m and \$974. After weak GDP growth in the 1990s (2.2 percent p.a and 1.6 percent p.a. respectively for Kenya and Madagascar), growth accelerated to 3.8 percent and 4 percent respectively in the 2000-2008 period. Both countries run sustained trade and current account deficits. In neither country is manufacturing the dominant sector as a share of GDP (12 percent and 15 percent in Kenya and Madagascar respectively in 2008)

After presenting evidence on the role played by the clothing and textile sectors in each of these economies (Section 3.1), we briefly describe the incentive regimes introduced in each economy in order to attract outward oriented investment into their clothing and textiles sectors (3.2), and then consider the role which preferential trade regimes played in inducing SSA clothing exports and in attracting inward FDI into the clothing sector (3.3). Section 3.4 then discusses the export performance of these two economies.

(a) The role of clothing in Kenya and Madagascar

Kenya and Madagascar represent contrasting economic structures, at least within the context of SSA. Relatively-speaking, Kenya is considered to be the industrial powerhouse of East Africa. It has a long history of industrial development with an indigenous (although largely immigrant) entrepreneurial class, as well as serving as a regional site of production for a number of TNCs such as Unilever and Colgate Palmolive. Its exports are relatively diversified, and include a mix of some manufactures, a number of agricultural commodities (notably tea, coffee, horticulture and floriculture) and service sector earnings (particularly tourism).

By contrast, the Malagasy economy is much less diversified, and more heavily dependent on clothing and textiles. The share of the clothing sector in manufacturing value added (MVA) in Kenya (around two percent) is very similar to that of China, and not very different from the share of clothing in South Africa. By contrast, the contribution of clothing to the Malagasy industrial sector (around 25 percent of MVA) is much higher and so, too, is its share of exports. Clothing and clothing accessories account for 35 percent of total Malagasy exports, double that of the next largest exporting sector (fish, crustaceans, molluscs and other aquatic invertebrates) (Ramiandrisoa, Razafindravonona and Rafalimanana, 2010)

(b) Incentivising clothing exports

Clothing exports in SSA were facilitated by the introduction of substantial incentives to exporters, in most cases designed to attract foreign investors. Kenya's Export Processing Zones Act was introduced in 1990. It offers a variety of tax benefits, 100% investment deduction over 20 years for building and machinery; and perpetual duty and VAT exemption on raw materials, machinery, services and other business inputs (except certain fuels and motor vehicles) and freedom from exchange control..The number of firms registered in Kenya's EPZ sector reached its peak of 40 in 2003 (employing 37,000), falling back to only 19 enterprises employing 25,776 in 2008. Almost without exception EPZ enterprises export clothing. With one exception, all of these firms are foreign-, mostly Asian-owned enterprises.

Madagascar's Zone Franche Malgache was introduced in the late 1980s when Madagascar, under pressure from external donors, adopted an export-oriented structural adjustment programme.² It provided incentives for export-oriented production for enterprises exporting at least 95 percent of their production. The incentives were also open to supplier firms. Qualifying firms benefit from a range of tax concessions, accelerated depreciations allowances and unrestricted foreign exchange controls. At its high point at the end of 2004, 180 firms qualifying firms employed over 100,000 employees. Most of the early investors were of French

² This discussion is drawn from Cling, Razafindrakoto, and Roubaud, 2007.

origin.³ The mid-1990s saw the entry of new investors from neighbouring Mauritius (which also had a large French-origin population) and Asia. The political crisis and civil unrest in 2002 led to the withdrawal of some of the more footloose investors. But other foreign investors were more deeply embedded locally and were attracted by Madagascar's access to US trade preferences and by its low wage rates. In 2000, monthly wages for an unskilled textile industry machine operator were less than one third of the equivalent wage in Mauritius, around half that in China and only about 60 percent of the average wage in India (Cadot and Nasir (2001)).

(c) Trade preferences for SSA clothing exports

Preferential trade access (PTA) has played a central role in the development of the apparel industry in Sub Saharan Africa. The EU has long offered quota- and duty-free access to ACP economies. But this access was conditional on demanding levels of local content, and only a few SSA economies had the industrial depth to benefit from these preferences. Nevertheless, by 1999 just under two-thirds of SSA's \$1.5bn, clothing exports went to Europe (Gibbon, 2008a). Most of these exports were from Mauritius (\$625m) followed by Madagascar (\$214m).

The major preferential scheme providing access to the US market was the Generalized System of Preferences (GSP), but this explicitly excluded clothing and textiles. In 2000 the US introduced the African Growth and Opportunities Act (AGOA) designed to facilitate SSA export-led growth by extending GSP tariff preferences to a wider range of products (subject to minimum levels of value added). The largest manufacturing sector beneficiary of AGOA has been the clothing and textiles sector, allowing for the use of US-origin inputs or Africa-region inputs (i.e. fabric) in the calculation of minimum levels of value added. The explicit objective of the AGOA rules of origin was through the use of local fabrics, to foster the development of the textile sector in exporting economies. In a key amendment, AGOA-qualifying countries which were classified as being in the "least developed" category could source their material and accessory inputs from non-AGOA and non-US bases suppliers. In other words, they were freed from the minimum value added

³ Cline et. al. (2005) assert that Madagascar has the largest French-origin community in Africa

requirement. This derogation applied both to Kenya and Madagascar, but not (with the exception of a single year) to Mauritius.

(d) The extra-continental growth of SSA clothing exports

The confluence of AGOA and EPZ incentive packages led to the rapid growth of clothing exports to the US from a limited number of African economies, namely Kenya, Lesotho, Madagascar and Swaziland. (South Africa and Mauritius had long-established exporting sectors). By 2004, total exports had grown considerably from these four economies (Table 1). Their respective values were \$281m (Kenya), \$457m (Lesotho), \$522m (Madagascar), and \$180m (Swaziland). With the exception of Madagascar (which had been, partly through Mauritian led GVCs, exporting to the EU in the 1990s), in each case more than 98 percent of clothing exports were directed to the US, overwhelmingly (over 97 percent) though the AGOA preference programme. By contrast, 38 percent of Madagascar clothing exports in 2004 were directed to the EU, and of these most went to France.

The ending of the MFA scheme on 1st January 2005 allowed China and other low-cost Asian economies to compete much more vigorously in the North American market.⁴ It was widely predicted that the removal of MFA quotas would lead to the decimation of clothing exports from other low income economies to major northern markets (USITC, 2004), and in reality clothing exports from all AGOA exporting economies were indeed badly affected. Between 2004 and 2006, clothing exports by AGOA economies to the US fell by 26.4 percent (Table 1). Some economies were badly affected, particularly Mauritius and Madagascar, whose total exports to the US fell by 47.5 and 26.2 percent respectively. The notable exception in SSA was Kenya, whose exports fell by only 5.1 percent. The pace of decline slowed considerably after 2006, with clothing exports by AGOA economies to the US falling by 10.6 percent between 2008 and 2006. But this period illustrates well the contrasting performance of Kenya and Madagascar in the US market, with Kenya's exports to the US *falling* by 6.2 percent and those of Madagascar *rising* by 16.9 percent.

⁴ A Memorandum of Understanding between the US and China (effective from January 2006 to December 2008) restricted the level for certain textile products manufactured in China. The restrictions covered categories 347/348, which comprise of the largest clothing exports from SSA.

But the contrasting experience in the US market after 2006 is only one part of Madagascar's exceptionalism. The other component is its diversified export-base. Unlike least-developed African significant exporters (Kenya, Lesotho and Swaziland), Madagascar has long had substantial exports to the EU. These rose from \$216m to \$302m between 2004 and 2006, and remained stable thereafter, accounting for more than half of Madagascar's clothing exports in 2008. *Thus, on the back of stable exports to the EU and growing exports to the US, Madagascar's clothing exports to these two dominant markets grew by 7.6 percent, whereas those of Kenya fell by -24.4 percent.* This is the key, headline, difference in comparative performance between these two clothing exporting economies.

Table 1: Kenya and Madagascar clothing exports to the US and EU, 2004, 2006 and 2008

		US		EU	Total
	Year		Year		
Kenya		\$m		\$m	\$m
	2004	277.1	2004	3.5	280.6
	2006	262.9	2006	1.1	264.0
	2008	246.5	2008	1.1	247.6
		% change		% change	% change
	2006/2004	-5.1	2006/04	-68.6	-5.9
	2008/2006	-6.2	2008/06	0.0	-24.4
	2008/2004	-11.0	2008/04	-68.6	-11.7
Madagascar		\$m		\$m	\$m
	2004	323.1	2004	215.6	538.1
	2006	238.3	2006	301.6	539.9
	2008	278.8	2008	302.2	581.0
		% change		% change	% change
	2006/2004	-26.2	2006/04	39.9	0.3
	2008/2006	+16.9	2008/06	0.2	7.6
	2008/2004	-13.7	2008/04	40.2	7.9
All SSA AGOA		\$m		\$m	\$m
	2004	1751.7			
	2006	1288.4			
	2008	1150.7			
		% change		% change	% change
	2006/2004	-26.4			
	2008/2006	-10.6			
	2008/2004	-34.3			

Source: AGOA.info data base, accessed 16th June 2010; USITC dataweb accessed on 18th April, 2010 and Comext-Eurostat database accessed on 19th May 2009: Euro to US\$ exchange rates based on 31st December rates for relevant years

A further feature distinguishing Madagascar's clothing exports from those of Kenya is that in recent years Madagascar has also begun to export to South Africa. These exports rose in value from less than \$1m in 2006 to more than \$13m in 2009, mirroring a similar rapid rise in Mauritian exports to South Africa (Table 2). The rise in exports from both Mauritius and Madagascar to South Africa is significant for two related reasons. First, they follow from the protectionist-inspired quotas imposed by South Africa on imports from China. Whilst these may have slowed the rate of China's market penetration in South Africa, they did little to slow the inflow of clothing imports which were merely diverted to other exporters such as Bangladesh, India, Mauritius and Madagascar (Morris and Reed 2009). Second, despite the fact that the number of Mauritian-owned firms has declined in recent years, much of Madagascar's clothing continues to be exported by Mauritian-owned firms. They have used Madagascar as a site for the manufacture of relatively labour-intensive products destined for South Africa (interviews with South African buyers – personal communication, Mike Morris).

Table 2: Madagascar Clothing and Textile Exports to South Africa 2006 – 2009 (US\$m)

	2006	2007	2008	2009
Madagascar	.96	4.02	7.96	13.38
Mauritius	26.33	41.11	52.95	54.98

Source: Trade Data from the South African Revenue Services. www.sars.gov.za/home.asp?pid=211 (accessed 26 March 2010), converted from ZAR to US\$ with South African Reserve Bank yearly average rate – SARB Quarterly Bulletin, 255, March 2010

A third difference between Kenya and Madagascar's clothing sectors is their positioning in final markets. It is common practice to compare unit prices as an indicator of product complexity, based on the view that higher unit prices reflect higher value added, and less competitive markets (Rolfe and Woodward, 2005). Since Kenyan clothing exports to the EU were negligible, the comparative performance of Kenya and Madagascar with regard to unit prices of exports can be evidenced in relation to the US market. Table 3 and 4 compare, for each country, the weighted average unit price of their top 10 products, and compares this with the average price of the same products exported by AGOA, China and the world to the US. The first observation to be drawn from this comparative analysis of unit prices, is that Kenya's

top-10 exports seem to be positioned in a higher value segment of the clothing sector than Madagascar's top-ten exports (final rows of Tables 3 and 4)

Considering the change in the unit-price of Kenya's top 10 exports, it is evident that the post-2004 period witnessed a downwards trend in unit prices, suggesting a move by Kenyan exporters either to reduce prices, or to move into lower value added items in the same broad product groupings (defined at the most disaggregated level possible, that is HS 10 Digit) (Table 3). Significantly this downward shift was not a consequence of the devaluation of the Kenyan shilling, where the real effective exchange rate appreciated by 32 percent between 2004 and 2007 (Kenya Economic Report 2009).⁵ By contrast, not only is the unit price of Madagascar's exports in the Kenya-specialized product groupings higher than those of Kenya, but they were on a rising trend. Post-2006, It is significant (but perhaps not surprising) that before the elimination of quotas, the unit price of China's clothing exports was much higher than the world average, falling sharply after quota removal and then rising as China's exporters moved into high quality product niches.

Table 3: Weighted average unit prices of top 10 - Kenya exports – Kenya, Madagascar, AGOA, China and World, 2004-2008.

	2004	2005	2006	2007	2008
Kenya	63.0	62.4	63.2	53.9	54.0
Madagascar	66.6	69.9	69.1	64.1	70.0
AGOA	53.7	52.9	52.3	50.7	52.5
China	117.5	59.9	68.7	74.8	73.4
World	63.8	64.7	60.1	60.3	58.0

Source: Calculated from <http://dataweb.usitc.gov> (data accessed on 19th May 2009)

Undertaking the same analysis for Madagascar's top 10 clothing exports (Table 4), we observe similar trends – Malagasy exports unit prices are pitched well above the AGOA and world average, and the unit prices of China's exports first collapse sharply after quota removal and are then on a rising trend. It is evident that insofar as Kenya

⁵ By contrast, D'diaye (p. 194) reports that Madagascar's currency devaluation (which was designed to compensate for the costs imposed by its poor infrastructure) contributed to its better export performance

exporters operate in the same product categories as Malagasy exporters, there is little difference in their average unit prices. A significant component of this export story is that whereas both Kenya and Madagascar export relatively simple items to the US (such as trousers), Madagascar's exports to the EU were predominantly made up of higher value items such as cashmere pullovers and hand-embroidered and "smocké" products (firm interviews, corroborated by personal communication from Mike Morris and N'diaye, 2008).⁶

We conclude from this comparative analysis that Kenya specializes in higher unit value product markets than Madagascar, but within these markets, Madagascar unit prices are higher than those of Kenya.

Table 4: Weighted average unit prices of top 10 - Madagascar exports – Madagascar, Kenya, AGOA, China and World, 2004-2008.

	2004	2005	2006	2007	2008
Madagascar	60.7	59.5	57.1	55.0	63.1
Kenya	59.9	66.2	62.3	59.5	60.0
AGOA	49.3	48.5	46.2	47.0	51.2
China	114.3	55.6	66.5	71.2	74.4
World	55.0	54.1	48.3	49.6	49.9

Source: Calculated from <http://dataweb.usitc.gov> (data accessed on 19th May 2009)

It is common to use export figures as an indicator of the dynamism and well-being of a sector, particularly in small and outward-oriented economies. However, these headline export figures tell us little about real value added. This is a particular problem in the case of least-developed country exports under AGOA due to the third-country fabric provision which, as the original AGOA scheme anticipated, may involve very thin levels of value added. Hence, in principle, a declining dollar value

⁶ Although "Smocké" products include embroidery, they are distinctly different from plain embroidery. This is one of the main attractions of Madagascar particularly for the EU market. The skill required to manufacture this product specific to Madagascar. Mechanising the technique for large scale production has not been very successful and the quality is distinctly lower. "Smockés" are mainly for niche market baby/children clothes

of exports may in some circumstances actually be associated with an increase in local content and hence value added; and vice versa.

Therefore, we need to complement the gross export figures with other indicators of sectoral well-being. One of these is the number employed. Although this too can be misleading in the case of factor substitution, the relatively short-time period in the post 2006 period makes this explanation unlikely, except at the margin. Table 5 provides data on employment in the enterprises we visited in the two countries' clothing sectors. It is based on our own survey data of a representative sample of Malagasy exporters (over of all clothing exporters and 11 of the 12 Kenyan firms exporting to the US.⁷ This employment data provides a partial picture, since it ignores firms forced out of existence – in essence it reflects the extent of downsizing as opposed to industry employment. This data confirms the disproportionate decline in the Kenya's clothing sector compared to Madagascar - a fall in employment of -24.1 in our Kenyan sample compared to -17.8 percent in our Madagascar sample. The sobering observation is that in both cases, the employment decline has been very substantial, and that this occurred in the context of already high levels of unemployment in both economies.

Table 5: Total employment and plant size in surveyed enterprises in Kenya and Madagascar, 2008 and 2009.

	Sample size	2008	2009	% change
Kenya	11 out of 12 firms exporting to the US	19,633	14,894	-24.1
Madagascar	Stratified sample of 35 out of 71 clothing exporters	46,269	38,033	-17.8

Source: Firm interviews

⁷ The Kenyan Export Processing Zone Authority reported 19 clothing exporting firms in 2009. But when we undertook detailed firm visits we found that two of these firms were no longer benefiting from AGOA preferences, two were experiencing technical stoppages, one had closed down and one did not export to the US. One firm, which did export to the US declined to be interviewed.

In summary we can draw three conclusions from the comparative analysis of trade data as a prelude to our firm-level investigation of upgrading performance and backward linkages in these two economies. First, the removal of quotas at the beginning of 2005 adversely affected all AGOA clothing exporters. Second, in the first two post-quota years (2005 and 2006), Madagascar performed worse than Kenya, but this appeared to have reversed after 2006, partly because of a less-poor performance in the US and especially because Madagascar also had substantial clothing exports to the EU and growing exports to South Africa. Third, the relatively larger downsizing of employment in the Kenyan industry corroborates the gross trade data which suggests that the Malagasy industry fared less badly than its Kenyan counterpart.

In the following section, and based on primary research at the enterprise level, we examine some of the factors which explain this differential country performance

4. UPGRADING AND UPSTREAM LINKAGES: WHAT DOES FIRM-LEVEL EVIDENCE SHOW?

In the last quarter of 2009 we interviewed 11 of the 12 Kenyan firms exporting clothing to the US, and 35 out of 71 Malagasy clothing exporters to determine the capacity of firms to upgrade in the face of growing global competition, and to try and identify the nature of their input-sourcing decisions in the context of their access to the third-country sourcing provision in AGOA.⁸ Based on the literature review in Section 2 above, we will focus on three categories of upgrading (process, product and function) and the pattern of sourcing in relation to three sets of factors (ownership; the nature of buyers; and destination of final market). In addition, we will also report country-specific operating conditions based on World Bank and International Finance Corporation surveys.

(a) Process Upgrading

Process upgrading involves a combination of embodied and disembodied technological change. Since the CMT-assembly operations of clothing firms are

⁸ In addition to these 71 clothing exporters, Madagascar has 27 other firms engaged in other forms of core activities such as production of accessories, washing and dyeing, printing and embroidery. No equivalent information is available for Kenya

relatively simple, the major realm of innovation lies in internal organisation. This involves, for example, organising production lines to reduce inventories, to increase productivity by increasing the speed of production and to reduce defect rates through the introduction of quality assurance systems. Firms were asked to rate on a five-point likert scale the impact of three types of innovation on their competitive performance - (i) the introduction of new equipment (ii) organisational restructuring (such as in work-flow and quality procedures), and (iii) the ability to enhance their product offerings. Table 6 presents the results of our empirical enquiry by focusing on ownership issues (Row 1), the nature of buyers (Row 2) and the destination of final market (Row 3). Row 4 aggregates these individual likert-scale responses to provide “country responses” for Kenyan and Malagasy firms.⁹

Beginning with the *influence of ownership* (Row 1), Asian-owned and African-owned firms operate in both countries.¹⁰ It is clear from this that in Madagascar (but not in Kenya), Mauritian and Malagasy firms appear to innovate more effectively than Asian-owned firms. Further, the US-owned firms tend to value embodied technology innovation more highly than their Asian or African competitors, and also to see relatively fewer returns from either organisational innovation or the capability to develop new products.¹¹

Moving to the *role which buyers play* in process innovation (Row 2) in Kenya, firms who sell to independent marketing agents (who act as intermediaries between producers and final buyers) appear to experience more effective patterns of process innovation than those who sell either directly to their parents or directly to final buyers. In Madagascar, this beneficial link to independent marketing agents only appears to arise with regard to the introduction of embodied technologies. In other

⁹ We are conscious of the differential response rate across the data-points in both Tables 6 and 7 (a function of whom we were able to interview), but the conclusions which emerge from these numbers were overwhelming corroborated by the qualitative material obtained during these enterprise-level discussions

¹⁰ A note of caution is warranted with respect to the wholly-Kenyan firm in this sample, since it was only established in 2009 and its upgrading performance may be a function of its recent origin rather than of ownership-related considerations. A second qualification on the Kenyan sample is that one firm which we have identified as “Asian-owned” is in fact 45 percent owned by an affiliate in the Gulf. However, despite this nominal majority Kenyan holding, the key decisions are made abroad..

¹¹ Morris and Sedowski (2006: 34) report that their interviews suggested that US buyers had higher requirements for Quality Assurance.

respects the highest rate of innovation occurs when Malagasy firms sell either through their parents (in which case they benefit from assistance in organisational restructuring) or directly to final buyers (in which case the strongest link is in their capacity to introduce new products)

Insofar as final markets determine process innovation, *selling into the EU* tends to be associated with much higher levels of process innovation than selling into the US market (Row 3). Malagasy firms which sell into both the EU and US markets tend to value their innovative efforts less highly than those which sell exclusively to the EU..

Considering *the overall picture*, the primary conclusion is that Madagascar-based firms tend to be more heavily focused on process innovation. In each of the three categories of process innovation, the average score for Malagasy firms is considerably higher than those for Kenya (Row 4). This difference arises from three factors. The first is that when Mauritian firms relocated some operations to Madagascar, they tended to keep the small-batch, short lead time and more complex operations in Mauritius and to serve the EU market for larger volumes and less complex products from Madagascar (Gibbon, 2008b: 45). Second, and despite the location of relatively larger batch production in Madagascar by Mauritian-owned firms, in general EU and South African buyers require lower volumes than do US buyers. Small batch production requires greater flexibility (and hence control over inventories and quality) than does large-batch production. And third, we observe from our fieldwork in Madagascar that the small-batch niche producers in Madagascar who focus on product quality and complexity are predominantly locally or European-owned.

Table 6: Impact of new types of embodied technology, new types of organisation and the capacity to develop own products on firm performance*

	New embodied technology	Organisational restructuring	Capacity to develop own products
Ownership			
<u>Kenya</u>			
Asia	1.9	2.4	1.4
Africa	1.0	1.0	1.0
<u>Madagascar</u>			
US	4.0	3.0	1.0
EU	3.1	3.4	2.5
Asia	2.1	3.3	1.3
Africa	3.0	4.0	3.7
Nature of buyer			
<i>Buyer Channel</i>			
<u>Kenya</u>			
Parent company	1.9	2.6	1.3
Direct contact with buyers	1.0	1.0	1.1
Indpt. marketing agents	2.5	2.5	2.0
<u>Madagascar</u>			
Parent company	3.2	3.5	1.7
Direct contact with buyers	2.9	3.7	2.9
Indpt. marketing agents	4.0	3.0	1.0
<i>Direct assistance from buyers</i>			
<u>Kenya</u>			
Yes	2.3	2.5	1.6
No	1.0	2.0	1.0
<u>Madagascar</u>			
Yes	2.8	3.3	2.1
No	3.4	3.8	2.3
Final Market			
<u>Kenya</u>			
US market	1.8	1.9	1.4
<u>Madagascar</u>			
US market	2.8	3.5	1.3
EU market	3.6	3.8	2.7
Both US & EU markets	2.5	3.0	1.9
Country			
Kenya	1.8	1.4	1.9
Madagascar	3.2	2.2	3.5

* 1 = no increase in firm performance; 2 = minor impact; 3 = moderate impact = 3; 4 = major impact; 5 =5 decisive impact

(b) Product upgrading

Product upgrading is a complex phenomenon, involving product complexity and quality (discussed in Section 3 above) and a spectrum of capabilities providing the capacity to introduce new and differentiated products. In our empirical analysis (Table 7) we asked firms two questions – to what extent their current product portfolio were

not being produced three years previously column 1), and to what extent their product offerings were independent of customer product designs (column 2). The higher the scores, the greater the degree of product innovation.

Regarding the *influence of ownership* (Row 1), there is a clear sign that Mauritian- and locally-owned firms in Madagascar are more likely to introduce new products than their competitors in either Madagascar or Kenya. With the exception of US-owned firms, all types of firms in Madagascar appear to have greater design-independence than do those in Kenya, and this is particularly pronounced for EU-owned firms. Considering the *role of buyers* (Row 2), in both Kenya and Madagascar, product flexibility is most marked when Malagasy firms sell to their parents. On the other hand, whilst Malagasy firms in general appear to have more design-independence than Kenyan-based firms, this is most pronounced in both markets when firms sell to independent marketing agents. When firms receive direct assistance from buyers, in both countries they appear to have more flexible product offerings, and in Kenya to have somewhat greater design independence. Finally, Malagasy firms which *sell into both the EU and the US market* appear to be more flexible in their product offerings, and to have greater design independence (Row 3).

As an overall conclusion, the major country difference is that Malagasy firms show a greater capacity for both product flexibility and to possess greater design independence than their Kenyan counterparts (Row 4).

Table 7 Product innovation and design independence

	Flexibility – products produced now which were not produced three years previously (1= none; 2 = <25%; 3 = 25-50%; 4 = > 50%)	Degree to which sales are not made to customer specification (1= none; 2 = <25%; 3 = 25-50%; 4 = > 50%)
Ownership		
<u>Kenya</u>		
Asia	1.1	1.3
Africa	1.0	1.0
<u>Madagascar</u>		
US	1.0	1.0
EU	1.1	1.8
Asia	1.0	1.3
Africa	1.6	1.4
Nature of buyer		
<i>Buyer channel</i>		
<u>Kenya</u>		
Parent company	1.1	1.1
Direct contact with buyers	1.0	1.0
Indpt. marketing agents	1.0	2.0
<u>Madagascar</u>		
Parent company	1.3	1.3
Direct contact with buyers	1.1	1.6
Indpt. marketing agents	1.0	2.0
<i>Assistance from buyers</i>		
<u>Kenya</u>		
Yes	1.1	1.4
No	1.0	1.0
<u>Madagascar</u>		
Yes	1.4	1.4
No	1.2	1.5
Final Market		
<u>Kenya</u>		
US market	1.1	1.3
<u>Madagascar</u>		
US market	1.0	1.2
EU market	1.1	1.4
US & EU markets	1.8	1.8
Country		
Kenya	1.2	1.1
Madagascar	1.5	1.3

(c) The overall picture on upgrading

We can draw a number of general conclusions from this analysis of process and product innovation. First, our data suggests that Malagasy firms owned either indigenously or by Mauritian parents, often marketing through independent agents and selling into the EU and South African markets, appear to have a higher degree of process innovation than the other sets of firms in our sample. Second, product innovation (at least insofar as we have been able to measure this), is less advanced than process innovation in both countries, and in the sample as a whole. Third, the EU and South African markets, with their emphasis on smaller runs of higher unit price products, appear to be more demanding of both process and product capabilities. Fourth, and contrary to the conclusions in much of the value chain literature discussed in Section 2 above, no clear picture emerges on the role which different types of buyers play in process and product upgrading.

What we have not been able to evidence is any degree of determined functional upgrading. That is, although Table 6 on process upgrading and Table 7 on product upgrading are suggestive of a hesitant move away from CMT clothing assembly into own-design-manufacture, these steps are tentative and there is no evidence of own-brand-manufacture, let alone movement into marketing and branding, logistics, or chain coordination and governance. Functional upgrading in our sample of firms is therefore virtually non-existent. This accords with the previous research on clothing in respect of Kenya (Kamau 2009) and Madagascar (Morris and Sedowski 2009; N'Diaye) as well as the general conclusion of Gibbon and Ponte that there have been “relatively few examples of clearly successful [functional] upgrading in Africa, even of a limited kind,” (Gibbon and Ponte, 2005: pp. xvi). Indeed, Gibbon concludes that the attempts by Mauritian firms to move into branded manufacture in the 1990s largely failed due in part to their distance from the final markets (Gibbon, 2008b).

(d) Patterns of input-sourcing

Having considered the interaction between clothing exports and firm-level upgrading capabilities (Sections 4.1 and 4.2 above), we now turn to the extent to which clothing exports have induced backward linkages amongst inputs suppliers by reporting two factors. The first is the link between linkages and ownership, and the second examines the locale of African-sourced inputs.

The pattern of fabric-sourcing in Kenya is clear (Table 8). With one exception, all fabric is sourced from Asia, predominantly from China/Taiwan/Hong Kong. The pattern of sourcing in Madagascar is more complex. Bearing in mind that firms sometimes source from a variety of countries, it is nevertheless clear that as in the case of Kenya, Asia (especially China/Taiwan/Hong Kong) is the predominant source of fabric. However, unlike Kenya, some Malagasy firms do source locally, from Mauritius, from the African continent and from Europe. The home country of firm-ownership clearly influences these sourcing patterns, since Asian-owned firms source disproportionately from Asia (confirming the Kenyan pattern), whereas African-owned firms tend to source to a greater extent from Africa, and EU-owned firms from Europe. (Historically, European trade preferences required fabrics to come from either Europe or Africa, but in 2008 least developed countries were able to take advantage of an AGOA-like open-sourcing fabric provision).

Table 8: Patterns of fabric-sourcing by firm-ownership, Kenya and Madagascar

	China, Hong Kong and Taiwan	India	Other Asia	Africa	Europe
<u>Kenya</u>					
Asia	10	1	3	1	0
Africa	1	0	0	0	0
<u>Madagascar</u>					
US	1	0	1	1	0
EU	5	1	1	5	7
Asia	12	2	3	3	1
Africa	5	1	1	7	3

(e) Country-specific operating conditions

In Section 3 above we highlighted the aggregate performance of the clothing sectors in Kenya and Madagascar based on a widely held view that the sector has an important lead-role to play in African industrialisation and in the expansion of non-traditional exports. We observed that after the first hit of quota-removal, the Malagasy clothing sector seemed to have performed less-badly than that of Kenya. In Section 3,

we evidenced this macro-performance on the basis of firm-level enquiry, presenting evidence that Malagasy firms – particularly the locally-owned and Mauritian owned firms who exported to the EU and South Africa - had a higher propensity to gainfully upgrade processes (and in some cases products) than their foreign owned rivals. The issue we now address is whether this enhanced performance in Madagascar was a consequence of a more favourable economic environment.

The World Bank undertakes regular enterprise surveys on the business environment in Africa and elsewhere. In Table 9 we focus on the circumstances in which the Kenyan and Malagasy clothing firms operate, comparing them not just with each other, but also with the other major AGOA clothing exporting countries.¹² The data suggest the relative unattractiveness of Madagascar, both in relation to Kenya, and compared to other AGOA clothing exporting economies (see, also Kaplinsky and Morris, 2008). Relatively-speaking, Malagasy firms were most likely to experience power outages and problems with energy; by contrast, Kenyan firms also complained about their energy supplies, but experienced relatively few outages. Transport also surfaced as a relatively severe problem in both economies, but more so in Kenya than in Madagascar. The “hassle” of doing business in Madagascar is evident (greater than in any other of the comparator economies), as is the prevalence of corruption. Added to these woes in Madagascar – but not reported on directly in these World Bank surveys – is the spectre of civil war, with the country falling into two periods of severe civil unrest (in 2002 and 2009), including during the years for which we document the performance of the clothing sector. Kenya, too, suffered from civil unrest in 2008, but this was of a shorter duration, and less disruptive.

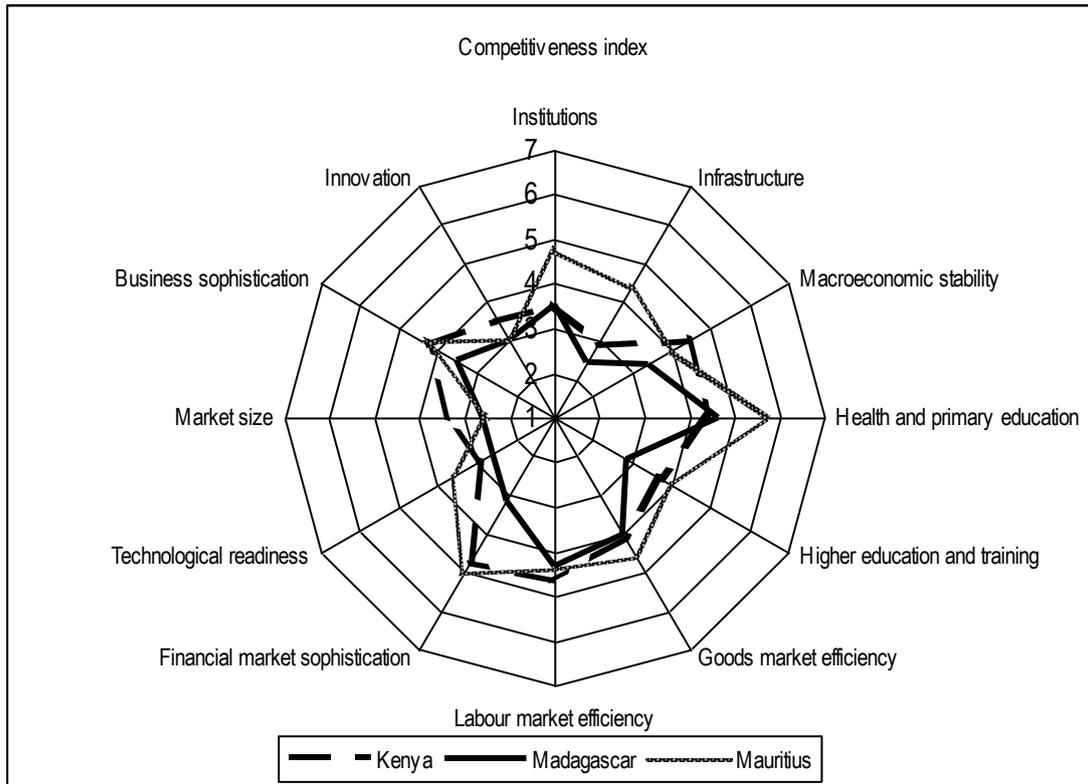
¹² Gibbon (private communication) observes that these World Bank surveys of enterprises' views on operating conditions tend to overestimate the degree of impediment (perhaps because firms hope that this will lead to improvements). Nevertheless, whatever the absolute level of impediment might be, in this analysis we are focusing on relative perceptions of difficulty and in this regard, we have no reason to anticipate a differential rate of mis-reporting by firms in different countries.

Table 9: Operating conditions in Kenya and Madagascar

	Infrastructure – Electricity		Infrastructure - Transport	Regulation and tax	Corruption
	% of firms identifying electricity as a major constraint	Number of power outages in a typical month	Firms identifying transportation as a major constraint	Senior management time spent in dealing with requirements of government regulation (%)	% of firms identifying corruption as a major constraint
Kenya (2007)	27.60	6.90	30.56	5.12	38.35
Lesotho (2009)	44.25	6.75	19.77	5.64	46.71
Madagascar (2009)	54.58	13.62	26.64	17.12	42.71
Mauritius (2009)	42.94	3.22	45.77	9.36	50.72
Swaziland (2006)	12.39	2.48	14.17	4.40	24.89
South Africa (2007)	20.77	2.06	3.92	5.95	16.87

Source: World Bank's Enterprise Surveys, accessed on 12th April 2010 via <https://www.enterprisesurveys.org/>

This relatively unfavourable operating environment in Madagascar is corroborated by the perceptions of the Plant and Production Managers whom we interviewed. We asked those respondents who had a basis of comparison, to compare the ease of operation in Madagascar with that of Kenya and Mauritius (which we include because some of the most dynamic Malagasy clothing exporting firms are Mauritian firms which have relocated their CMT operations to Madagascar to take advantage of its low wages and access to AGOA's least-developed-country fabric sourcing provision). Figure 1 shows that on almost every count, firms in Madagascar operate in a much less favourable operating environment than their competitors in Kenya and Mauritius.

Figure 1: Firm perceptions of operating environment

Source: Firm interviews

5. CONCLUSIONS

To briefly summarise the discussion above. The clothing sector is a lead-sector in economic growth, economic diversification and export growth in Africa. Clothing exports were provided with a major incentive by the US AGOA preferences in 2000, followed by a softening of EU rules of origin requirements in subsequent years. This led to significant clothing exports by a limited number of low-income African economies. The removal of global trade quotas against Asian-based (and particularly Chinese) clothing exporters had a major adverse impact on these African clothing exports, which declined by more than a quarter in the two years after quota removal. However, it did not kill-off these exports. Kenya and Madagascar have experienced divergent paths in the years since quota removal.

Whereas Kenya remained locked into value chains serving the US market in high volume commodity segments, Madagascar has followed a successful path of export diversion. Whilst also exporting to the US under AGOA, it has sustained its EU market, and begun to export to South Africa in growing volumes. Although there is little evidence of functional upgrading by clothing exporters in either Madagascar or Kenya, there is greater evidence of process and product upgrading in Madagascar, as well as of deeper backward linkages. The relative success of Madagascar has occurred despite a relatively unfavourable economic and administrative operating environment and two periods of major political upheaval, both of which were more disruptive of industrial production than the political conflict in Kenya in 2007.

What explains this relatively superior Malagasy performance? We advance three related arguments. The first addresses the different value chains within which these clothing firms operate. Kenyan clothing firms which exclusively participate in value chains feeding into the US market, are largely led by Asian-owned lead-firms seeking to take advantage of AGOA preferential trade access, and engaging in large batch production. By contrast, Malagasy producers feed into value chains delivering more differentiated products into the EU and South Africa, and manufacture in smaller batches. Amongst other things, small batch production requires more flexibility and thus enhanced process upgrading capabilities.

Our second argument echoes the conclusions of others (Gibbon 2008, Morris and Sedowski 2009; Kamau, 2009, N'diaye, 2008), and addresses the ownership relation. The Kenyan value chains exporting to the US are governed by predominantly Asian-owned lead-firms who are footloose and seek to take advantage of AGOA trade preferences and the derogation which allows the use of third-country fabrics (predominantly from their home countries). Significantly, almost without exception, these Kenya clothing exporters lease, rather than own their premises. By contrast the Malagasy clothing sector value chains are led by a much more socially embedded set of firms. In some cases these are firms owned by long-term residents (in some cases spanning more than three generations), not all of whom have Malagasy citizenship.¹³ For example, the formerly state-owned SOCOTA Group is now jointly-owned by

¹³ Although the family has been long-term resident in Madagascar, citizenship requires both parents to be born in Madagascar.

Madagascar-resident Sri Lankan citizens. Its clothing operation is closely integrated with its cotton textile mill, from which it sources 60 percent of its fabric. (Its US-buyer required the use of Chinese fabric for the other 40 percent). SOCOTA explicitly targets higher-value added niche export markets,¹⁴ and participated actively in a World Bank funded university-industry collaboration. Some local firms are owned by French expatriate families, long resident in Madagascar. In other cases the chains are led by Mauritian groups (such as Ceiltex, which is the second largest clothing exporter with three subsidiaries and employing more than 7.500 workers), who relocated the more labour intensive and larger batch segments lines from Mauritius to neighbouring Madagascar in order to take advantage of low labour costs and AGOA market access.. Morris and Sedowski (2006) report that eight European firms and two Mauritian firms have also made sizeable investments in the training of the Malagasy workforce.

What characterises all of these firms is that they have long-term residence in either Madagascar itself or in neighbouring Mauritius. By comparison with the Asian firms operating in Kenya, they are considerably more socially embedded. They are also more rooted than the recent-arrival Asian-firms operating in Madagascar. Morris and Sedowski 2006 found that with one exception, all of the Malagasy (and Mauritian) firms they surveyed in 2005 were stable or expanding post MFA quota removal. This was in marked contrast to the Asian firms who were either downsizing or adopting a wait-and-see attitude.

Third, there are a total of three textile mills in Madagascar and more than 30 firms providing inputs into the industry and undertaking specialised tasks such as embroidery. Together they comprise a proto-industrial district, that is a cluster of clothing and textile firms, reinforcing each others operations. The supplier industry in Kenya is, by comparison, poorly developed and dispersed.

What are the wider implications of our analysis? The first, which is not particularly fashionable in current policy environments, is that ownership counts. It counts because of the social embeddedness of its owners, at least in the Malagasy and

¹⁴ (http://il.youtube.com/watch?v=vYyCQH_DH0I&feature=related)

Mauritian contexts. In Madagascar's case, this embeddedness does not so much arise from indigenous Malagasy citizens, but long-term-resident expatriates of French-origin, and entrepreneurs from Mauritius who are regionally-embedded. Second, in order to be sustainable, these firms need to develop the capacity to upgrade their operations and to reduce the logistical costs involved in importing fabrics and accessories from distant economies. We have observed that this has occurred in Madagascar, albeit at a slow pace. Relatedly, Kamau found in his study of the Kenyan apparel industry that domestically-oriented firms were more likely to upgrade their operations than those focusing on the US market (Kamau, 2009). Hence, there is a corresponding need for governments to develop policies which are geared to supporting these upgrading efforts, and to deepen linkages to the textile sector, which is particularly important given the objectives of both the US and EU preference schemes for supplying countries to move away from thin value added CMT operations. Third, we have recorded very little evidence of functional upgrading, a view corroborated in the Kenyan case by Kamau (2009) and for Madagascar by Morris and Sedowski (2006). The best we have observed is successful investment in organisational process upgrading, with only nascent signs of firms developing the capacity to upgrade their product offerings, and even fewer signs of their capacity to move into design, branding, marketing, logistics and chain coordination. (However, with a longer history, some Mauritian firms clearly have developed these capabilities, as is evidenced by their the operation of their subsidiaries in Madagascar). Finally, market-diversification is important. When the US market was severely affected by Chinese exports, Madagascar was able to further develop its European market and in recent years, to create a new market in South Africa. Moreover, our research corroborates the observation that the US and EU markets have different requirements (Gibbon, 2008; Morris and Sedowski 2006 and 2008) and the conclusions of Navas-Aleman (2006) and Kamau (2009) that firms selling into multiple markets are more likely to upgrade than those selling into single markets. Large sales volumes of low-price products into the US in particular tend to foster a dependence on buyers for upgrading, and this invariably only addresses process efficiency, rather than product and functional upgrading.

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