

**Market Access for Africa's Transformation and Development:**

*What's lacking and why it's a problem?*

by

**Hilary Nwokeabia.**

**August, 2008.**

The views expressed in this paper are those of the author and do not necessarily reflect those of any organization. All comments related to the paper should be addressed to the author at [hnwokeabia@yahoo.com](mailto:hnwokeabia@yahoo.com). Citations of more than two lines require permission from the author.



## Abstract

This paper provides a perspective to some puzzling dynamics of market access initiatives for Africa's export competitiveness, in global trade. At the beginning of the 1980s, African countries contributed marginally and narrowly to the global trade. As the difficulties with trade got deep, some partners of the region, particularly the Triad (the United States, Japan and European Union) adopted legislated trade advantages, granting up to 30% cost advantage and 6,400 items duty-free and quota free, in some cases, to regional exporters against exclusion from, and narrow participation in the global economy. Over time, preference erosion has meant that the impacts of some of the initiatives, particularly those related to extensive margins of trade, were short-lived as their provisions ran into other problems or expired. The paper applies the logic of Area of influence (AOI) and Influence mobility (IM) models to add a "magnification" perspective to the complimentary/compensatory relationship between the legislated export advantages and factor input export competitiveness, and the erosion of these advantages. In the algorithm of AOI and IM models, the binding theme is that for trade initiatives to be sound and economic growth sustainable, they must not only meet short term intensive trade margins, but also help catalyze long term factor input competitiveness and extensive export margins. Events over the past years strongly suggest that the recent export boom due to GSP initiatives proved to be short-lived because legislated advantages were dominating in their effects on the region's extensive margin of exports related to these initiatives. The initiatives have not been complimented by domestic base knowledge and an iterative productive development process through vertical specialization. Thus, there are many steps African Governments must take to boost their global trade competitiveness and contributions.

**Keywords:** Market Access, Legislated Export Advantages, Factor Input Export Advantages, Area of Influence, Influence Mobility, Extensive and Intensive Margins of Trade, Preference Erosion, Vertical specialization, magnification effect, Domestic Base Knowledge, Markov Chains, sustainable economic growth and Development.



## 1. Introduction

Globalisation, the formative idea of our age, continues to affect our economic geography in ways that we are only beginning to understand. As this emerging phenomenon continued to grow, it has brought with it a new breed of trade arrangements. Countries use market access schemes in new ways, to reshape trade between them. Africa has had its fair share of trade arrangements and opened its markets to trade, but are the provisions of market access initiatives and trade preferences under the generalized system of preferences (GSP) sufficient to resolve Africa's export difficulties in a sustainable manner? What does the recent erosion of the preferences mean for the trade of beneficiary African countries? The answer to these questions is the prime objective of this paper. It posits that GSP initiatives could only lead to sustainable changes in Africa's extensive export margins if countries also highlight the trade magnification effects.<sup>1</sup> By market access initiatives and trade preferences in the World Trade Organization (WTO) arrangement, we mean the conditions, tariff and non-tariff measures (including quota), agreed by members for the entry of specific goods into their markets. Tariff commitments for goods are set out in each country's schedules of concessions on goods. The schedule of concessions represents commitments not to apply tariffs above the listed rates — these rates are “bound”.

In the 1970s up to 2000, as Africa countries struggled through economic downturns and contributed an average of about 3% of global trade, a number of major new GSP schemes and market access provisions were put in place to help improve their production, export competitiveness and overall trade performances. Some of the regional development partners, especially the Triad (the European Union (EU), Japan and the United States), adopted the GSP market access initiatives and trade preferences - hence GSP initiatives, such as the African Growth and Opportunity Act (AGOA), Everything but Arms (EBA), Cotonou Agreement for renegotiating the preferential trade and aid links between African, Caribbean and Pacific countries with the European Union (ACP-EU) and the Tokyo International Conference for Africa's Development (TICAD) for African countries.

The GSP initiatives were to help African countries to trade their way out of poverty in the new *"trade is better than aid"* paradigm (see for instance, Amsden 2001). In the initiatives, regional trade partners generally provided trade preferences and incentives, eliminating tariffs and quotas on many export items, with the goal of increasing their margins of trade. They aimed to strengthen economic development, mainly through extensive<sup>2</sup>, in addition to intensive<sup>3</sup> margins of trade for the beneficiary African countries, particularly the LDCs.<sup>4</sup> The principle is that more exports, under these initiatives, will make these countries a major partner in global trade and improve quality of life of the population. The initiatives rather than *"fire fighting"* humanitarian emergencies are to help attract much needed foreign capital, boost value-added exports, create employment, secure technology for expanded economic activities and reduce poverty.

Apparently, the initiatives rightly assumed that exporting could be a rewarding growth strategy for these countries; but sustainable exporting could also be a complex and challenging process. Sustainable exporting requires that countries do more than passively open up their economies and wait for growth to take effect. In this layer, major disagreements have existed about the extent to which the initiatives are useful as a tool to boost trade for African countries, particularly in the long-term (see for instance, Gamberoni 2007). The key among the concerns is whether there is enough latitude for increasing the extensive margins of trade for the version of any preferred goods from the beneficiary African countries, for instance. Also important is the question related to the level of vertical specialization<sup>5</sup> created during the period of implementation of these initiatives that enables these countries to achieve long-term transformation of their economies and development objectives. The process involves gathering new information, new ways of organizing production, has public goods components and appropriation of rights; and therefore also involves not just economic agents and the enterprises but an interaction between them and public institutions. The many years of implementing the initiatives have confirmed some of the initial arguments.

The end of 2008 would have marked nearly a decade that the major new market access initiatives have been implemented in countries of the region. Success was achieved in generating the much needed

---

<sup>1</sup> Magnification effect is defined in terms of the property of the Heckscher-Ohlin Model that changes in certain exogenous variables leading to larger changes in the corresponding endogenous variables. More information on the Heckscher-Ohlin Model is provided inside the paper.

<sup>2</sup> By extensive margin of trade, we mean the appearance and disappearance of exported products (diverse exports).

<sup>3</sup> By intensive margin of trade, we mean rise and fall of the export volumes of particular products (more of the same).

<sup>4</sup> LDC means least developed countries.

<sup>5</sup> Vertical specialization occurs when a country uses imported intermediate parts to create a good it later exports—that is, the country links sequentially with other countries to produce a final good.

extensive-oriented margins of trade in some focus industries such as apparel and textile and a few other products, under AGOA for instance, although the results have not been encouraging lately. In terms of intensive margin of trade, traditional products such as natural resource exports continued to do well. In the agricultural exports, problems were prevalent from the onset, particularly those related to standards - sanitary and phyto-sanitary conditions, though some countries managed to increase their exports in this area through the GSP initiatives, as well.

Between 2005 and 2007, mainly, investments including rapid foreign investment inflows to the apparel and textile industry as a result of AGOA in African beneficiary countries such as Kenya, Madagascar, Mali, Lesotho, Namibia, South Africa, Swaziland and Zambia, for instance, were being withdrawn. In Lesotho alone, where growth was rapid and some of the largest foreign affiliates were in the apparel and textile industry, six of them closed business in 2005 at the end of multi-fibre arrangement (MFA)<sup>6</sup>, leaving 6,650 garment workers jobless. In South Africa, it is feared as many as 50,000 apparel and textile workers could lose their jobs following the end of MFA.<sup>7</sup> Other examples exist. With the erosion of some of the preferences, as some of their provisions either expired or new negating factors came into play, it is becoming increasingly obvious that market access is not per se sufficient to generate supply capacity to sustain economic and extensive margins of trade growth in these countries. The floundering of the GSP provisions for Africa has raised new concerns about the region's long term role in future global trade, using these initiatives as a booster. With this, the key questions answered in this paper are:

- How and where have the market access initiatives affected Africa's exports;
- Have these initiatives effectively improved extensive margins of export competitiveness of the benefiting regional countries, over long term?
- What are the underlying causes of the successes and failures; and
- How does one solve the policy paradox for African policy makers and their partners?

To answer the questions, we take a fresh look at the role of these initiatives<sup>8</sup> in catalyzing export growth from the perspective of extensive and intensive effects on export margins and development in Africa. We analyze the difficulties by partitioning trade policy instruments into legislated and structured (labour for instance) factor input competitive advantages.<sup>9</sup> We analyze these preferences and their erosion through the Area of Influence (AOI) and Influence Mobility (IM) models.<sup>10</sup> The logics of the models are explained in three stages: 1) the structures of influence; 2) the dynamics of adjustment; and 3) a simulation of the influence mobility. At a high level of abstraction, the models are derived from a game theoretical perspective with two Nash equilibriums in pure strategies.

In the first, legislative advantages compliment and/or compensate factor input competitiveness, and the national level of competitiveness is optimal. In the second, the legislative advantages expire, national level of competitiveness is sub game perfect and exports performance worsens. But if the value of cost reduction, as a result of base knowledge<sup>11</sup> for incubating domestic learning and innovation process, as a result of the magnification effect, to the dynamics is large and long enough, the effect will dominate development through an upward transformation shock on investment inflows, diffusion of expertise and innovations and there is no economic decline. Details of the model are provided in section three of this paper. Grossman and Helpman (1995), for instance had suggested that FDI can potentially help disseminate technology to the host country. But, a country's ability to absorb foreign technology embodied in imports might depend on its level of infrastructure, part of what we call base knowledge. Bardhan (1995), also argues that the flow of technology through FDI to a developing country is often

6 The Multi-Fibre Arrangement (MFA) (a.k.a. Agreement on Textile and Clothing (ATC)) governed the world trade in textiles and garments from 1974 through 2004, imposing quotas on the amount developing countries could export to developed countries. It expired on 1 January 2005.

7 Source: "Lesotho textile workers lose jobs", 12 January 2005. BBCNews (<http://news.bbc.co.uk/1/hi/business/4169587.stm>). The six TNCs that closed factories in Lesotho in 2005 were Leisure Garments, Modern Garments, Precious Six Garments, TW Garments, Lesotho Hats and Vogue Landmark.

8 Market access for goods in the WTO means the conditions, tariff and non-tariff measures, agreed by members for the entry of specific goods into their markets. Tariff commitments for goods are set out in each member's schedules of concessions on goods.

9 In this paper, legislative advantages refer to government interventions through tariffs and quotas that enable countries to competitively trade on products over which they would have had problems trading in an open global competition, without such advantages.

10 For more on this models, see Meyn and Tweedie, 2005 and Monserud 1976.

11 A base knowledge is defined as the critical level of knowledge necessary to commence action, independently, on a particular subject. It includes intellectual skills and centralized repository for information: a public library, a database of related information about a particular subject. Whatis.com could be an example of knowledge base. An integral component of knowledge management systems, base knowledge and knowledge base are used to optimize information collection, organization, and retrieval for an organization, the general public and entrepreneurial innovation. A well-organized knowledge base can boost production for an enterprise by decreasing the amount of employee time that is spent trying to find information about - among myriad possibilities and procedures. As a customer relationship management (CRM) tool, a knowledge base can give customers easy access to information that would otherwise require contact with an organization's staff; as a rule, this capacity should make the interaction simpler for both the customer and the organization.

constrained not so much by restrictive government policies as in the shortage of infrastructure. **In the absence of these, "open door to globalization turns into empty door to trade"**. That said the remainder of this paper is partitioned as follows. This introduction is followed by a detailed background of the decline in Africa's trade and selected GSP initiatives, particularly AGOA, adopted to correct this decline. Next to this is the section on the pointers to progress in implementation of the initiatives. The progress was, however, short-lived in many benefiting countries, leading to failures that are explained in section four. Section five provides more details on the AOI and IM models, a (learning and innovation) perspective to the causes and dynamics of the difficulties related to these initiatives. The conclusions and policy recommendations are included in sections six and seven.

## 2. Background

Why are market access and trade-preference schemes necessary to boost Africa's export competitiveness? Where have these schemes been implemented and did they meet expectations? A vast array of pointers provides good indication to these questions. At the onset of poor economic performances in Africa in the 1980s, the region's annual exports amounted to \$119 billion, about 6% of world exports (table 1). SSA in particular contributed about \$75 billion of exports, just about 4% of world exports in 1980 (table 1). As the economic crisis deepened, Africa's contribution to global trade that was already low had declined further and by 2000, the region's share was about 2% of the global total, only recovering slightly to about 3%, by 2006 (figure and table 1). Most important about the rise and fall of Africa's exports was that these exports concentrated on traditional agricultural commodities and natural resources. Less than 1% of the exports were on value added exports and much of that was for intra-regional trade. As African countries did not stand full global competition, especially in adding value to many of their commodity exports for many reasons, in addition to deteriorating terms of trade of commodities, compared with the manufactured good imports, the economic performances further turned negative. The region's global exports, even as it increased in volume, had declined as a share of global exports by about 60% in 2000, from the 6% in 1980 (figure 1).

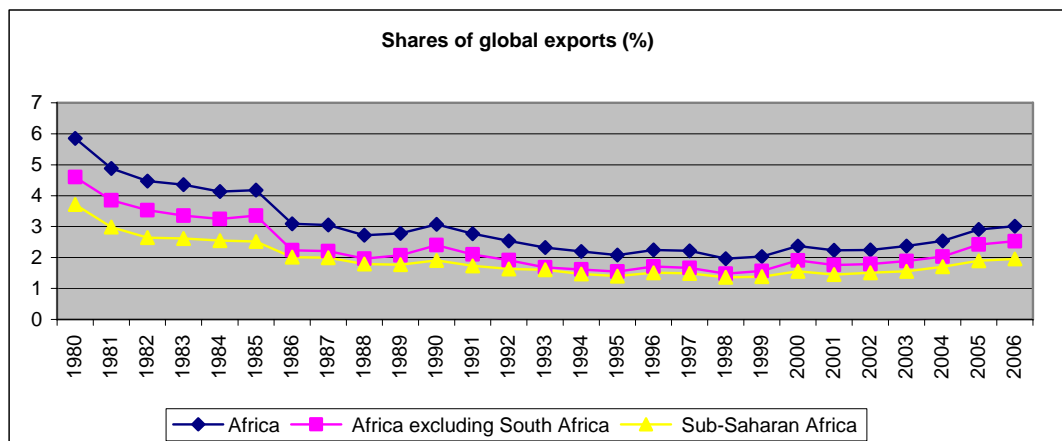
Table 1.Exports  
At current prices  
(Millions USD)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1990-1995	1996-2000	2001-2005	2006
World	2032154.2	2012474.6	1882346.9	1845287.2	1957035.1	1970356.9	2146783.4	2524773	2870552.3	3090411.7	3479591.4	3999886.85	5443155	7548886.6	12065414
Africa	118980.65	98162.538	84099.587	80375.932	80822.175	82390.108	66390.61	76991.078	78140.948	86057.442	106983.23	98297.1487	120059.78	186571.8	363342.67
Africa excluding South Africa	93440.75	77387.138	66464.387	61843.932	63487.775	66060.008	48015.01	55766.878	56327.148	63913.142	83414.931	73685.4487	92074.56	149701.85	305167.57
sub-Saharan Africa	75481.06	60077.188	49782.057	48261.172	49763.365	49597.938	43297.95	50237.578	51312.448	54770.862	66302.441	64069.572	80374.825	123208.52	235904.47

Source: UNCTAD GLOBSTAT (<http://uds.unctad.org/IntraStat/TableViewer/tableView.aspx>).

Impact of the poor economic and trade performances was dramatic on many indicators, including savings, investment and poverty, all which continued to worsen until 2000. In response to the region's poor performance in global trade and worsening economic performance, Africa's development partners had envisaged a progressive transition process through the GSP initiatives in which a sustained and accelerated economic growth and trade could be achieved through expansion of market access for the poor countries.

Figure 1.



Source: UNCTAD GLOBSTAT (<http://uds.unctad.org/IntraStat/TableViewer/tableView.aspx>).

Some of the partners of the region had opened new avenues for optimism through the GSP trade initiatives. The driving objectives of the GSP initiatives and trade preferences are that openness and

international trade affect technological progress, productivity, production and therefore export growth. The market initiatives, AGOA, EBA and Japan's 99% rule<sup>12</sup> under TICAD, for instance, were assumed to create locational advantages for investors to increase the margins of export of Africa (extensive and intensive) to the developed countries' markets. The original objectives of the Generalized System of Preferences (GSP) were to: a. increase export earnings; b. promote industrialization and; c. accelerate economic growth. The initiatives offered tangible incentives for African countries to continue their efforts to open their economies and build free markets. AGOA, particularly, expands the list of products which eligible SSA countries may export to the United States subject to zero import duty to more than 6,400 tariff items, effective until 2015. In some particular case, the duty-free and quota-free advantages due to AGOA amounted to up to 30% cost advantage for Africa-based exporters over their counterparts in the other non-AGO countries that equally export to the United States.

Consistent with the central aims of these initiatives and under a Special Rule for lesser-developed beneficiary countries of AGOA, for instance, those countries with a per capita GNP under \$1,500 in 1998, will enjoy an additional preference in the form of duty-free/quota-free access for apparel made from fabric originating anywhere in the world. The Special Rule is in effect until September 30, 2012 and is subject to a cap.<sup>13</sup> In terms of improving the extensive margins of exports for participating African countries, AGOA intentionally targeted the apparel and textile industry for special benefits because of the system of apparel and textile quotas and typically high import duties in place worldwide. Apparel and textile manufacturing is also labour-intensive, thus the provision of preferential treatment for those manufactured in the region, immediately translates into the creation of employment opportunities for a region that suffers from massive unemployment, and help to diversify their exports away from agricultural commodities and natural resources. AGOA provides reforming African countries with the most liberal access to the United States market available to any country or region with which the United States does not have a Free Trade Agreement.

What is more, under the initiatives, dependence of the regional countries is reduced by expanding the opportunities for them to engage in trade where they are no longer marginalized from globalization process. AGOA also supports United States businesses in the region by encouraging reform of Africa's economic and commercial regimes specifically, which will build stronger markets and more effective partners for United States firms. The United States had also obligated a cumulative and generous allocation to trade building capacity activities of about \$1.6 billion in 2007 for African benefiting countries.<sup>14</sup> We will return to this issue in section five of this paper when we try to explain some of the assumptions and difficulties that followed the effort to increase Africa's participation in global trade through GSP initiatives.

Assessing the impact and implications of what has been done to boost Africa's participation in global trade through the GSP initiatives, some positive outcomes have been realised but some of that require further examinations. By 2007, it would have been years or decades (depending on the initiatives) that some of the GSP initiatives, such AGOA and EBA, have been implemented in African countries. And the question would be: have they actually produced any success stories? In many ways, the pointed nature of these schemes had immediate and effective impact on Africa's exporters.

### 3. Pointers to progress

Prima-facie, African countries achieved some successes related to the GSP initiatives seen from the infrequent data. Total exports from Africa have more than tripled to over \$360 billion in 2006, from \$119 in 1980; and foreign direct investment inflows, some related to AGOA production including for raw material exports, grew to an estimated \$53 billion in 2007 from \$0.4 billion in 1980. Particularly, AGOA was a lifeline for apparel and textile made in Africa, \$1.3 billion of which was sold to America in 2006 and helped attract foreign investment<sup>15</sup> inflows in the industry. Many benefiting African countries had also

---

<sup>12</sup> In 2001, Japan established categories of products (some 360 items, including all the textile and clothing products) from LDCs are imported duty-free and quota free.

<sup>13</sup> Articles containing certain interlinings of foreign origin are eligible for benefits if the value of the interlinings (and any findings and trimmings) does not exceed 25 percent of the cost of the components of the assembled article. The interlinings permitted include only a chest type plate, a "hymo" piece, or "sleeve header," made of woven or weft-inserted warp knit construction and of coarse animal hair or man-made filaments (for more on this, see [www.agoa.gov](http://www.agoa.gov)).

<sup>14</sup> *Source*: AGOA ([www.agoa.gov](http://www.agoa.gov)).

<sup>15</sup> Foreign investment is here defined to include foreign private investment (direct and portfolio), public aid related to the initiatives and other grants for trade capacity building.

created employment for local labour force despite the difficulties that followed. Some of these will be explained later. Particularly in value addition, apparel and textile exports from Africa to the United States increased three-fold; two-thirds of Africa's apparel and textile exports are sent to the United States. At the end of 2005, about 200,000 jobs have been created in the apparel and textile industry since 2000.<sup>16</sup>

Illustrating the importance of *AGOA* apparel and textile trade preferences, figures show that the 19<sup>17</sup> *SSA* countries eligible to export clothing under *AGOA*, accounted for 98% of Africa's apparel exports to the United States. The United States apparel and textile import from Africa, increased by a remarkable 118% in the three years since *AGOA* was enacted. This strong growth in apparel and textile imports from Africa is even more impressive when viewed in the context of the United States economy, which has slowed down since the enactment of *AGOA*. Total United States apparel imports from all origins outside Africa have been virtually flat, growing by only 3.5% annually over the past two years.

Particularly on investment and capital inflows to Africa, prior to 2005 in the apparel and textile industry, many foreign investors mostly from China (including Hong Kong and Taiwan), India and also the United States, exploited the "third-party fabric provision", under which the eligible African countries can import fabric inputs from non-*AGOA* states and export the finished product duty and quota-free to the United States. This gave producers in countries such as Kenya, Lesotho, Madagascar, Mali, Mauritius, Namibia, Swaziland, Uganda, South Africa and Swaziland up to 30% cost advantage over their non-*AGOA* competitors, exporting to the United States and attracted a lot of foreign investments. As a result, African countries, depending on the time and country under *AGOA*, enjoyed "exceptional" export growth in this specific area. In South Africa for instance, total exports to the United States increased by 5% from 2000 to 2001, from \$4.20 billion to \$4.43 billion. In South African Rand terms, the increase was even more impressive, rising from R25.41 billion in 2000 to R30.63 billion in 2001, or 21%.

In 2007, sub-Saharan Africa's exports to the United States trebled to \$67.4 billion while United States exports to Sub-Saharan Africa (SSA) have more than doubled to US \$14.4 billion. Of the \$67.4 billion in total imports to the United States, \$51.1 billion of it was covered by *AGOA* agreements—six times more than in 2001. Also from the available data, African countries realised high margins of exports, including extensive margins related to value addition in apparel and textile products due to *AGOA* initiative. *AGOA* has benefited 32% of South Africa's total exports. *AGOA* provisions, particularly, had helped millions of African families find opportunities to build prosperity, particularly in a country such as South Africa.

The South Africa performance is exemplary because of the high margins (extensive and intensive) of exports it exhibited since the participation in the *AGOA* initiative. According to the United States Trade Commission (USTC), the total amount of *AGOA* exports from South Africa in 2001 was \$923 million, of which \$506 million represented normal *GSP* products and \$417 million reflected the new products added by *AGOA*. *AGOA* exports were recorded in just about every industry sector, with the most prevalent in:

- Automobiles
- Iron and Steel
- Clothing
- Chemicals
- Food Products.

These exports represented about 21% of South Africa's total exports in 2001. In comparison, South Africa exported a total of \$583 million in duty-free *GSP* products to the United States in 2000, or less than 14% of total exports.

South Africa did not just achieve progress in its intensive margins of exports, but also extensive margins necessary for long term development, employment and poverty reduction. South Africa took second place after Nigeria, which benefited narrowly on the intensive margins of exports, in mainly petroleum, as the

---

<sup>16</sup> *Source: Africa Program - "AGOA, Five Years Later: Lessons Learned, Challenges Ahead"*  
([http://www.wilsoncenter.org/index.cfm?topic\\_id=1417&fuseaction=topics.event\\_summary&event\\_id=143669](http://www.wilsoncenter.org/index.cfm?topic_id=1417&fuseaction=topics.event_summary&event_id=143669)), 5 June 2008.

<sup>17</sup> The number has changed to 27 at the end of 2007.

SSA country benefiting the most from *AGOA*. The following are examples of major “*new*” products exported duty-free from South Africa to the United States since 2001:

Table 2.

<u>Product</u>	<u>Duty-Free Exports to the US in 2001</u>
Vehicles	\$289 million
Iron and steel, and products of iron and steel	\$234 million
Articles of apparel	\$31 million
Edible fruits and nuts	\$28 million
Beverages and spirits	\$6 million
Preparations of vegetables, fruit and nuts	\$7 million
Essential oils	\$4 million.

Source: *AGOA* reviews (www.agoa.gov).

A distinct feature of the development is that *AGOA* exports of motor vehicles and parts and accessories thereof, rose from \$289 million in 2001 to \$525 million in 2002, an increase of 82%. Of this, automobile exports grew by 103%, from \$232 million to \$472 million. South African clothing exports under *AGOA* grew from Rand 313 million in 2001 to Rand 1.064 billion in 2002. The United States *International Trade Commission (USITC)* figures indicate that *AGOA* clothing exports from South Africa increased from \$31 million in 2001 to \$85 million in 2002.

Table 3.  
South African *AGOA* exports: 1<sup>st</sup> Quarter 2003 compared to 1<sup>st</sup> quarter 2002<sup>18</sup>

<b>Product</b>	<b>Growth</b>	<b>Value 2002 (million dollars)</b>	<b>Value 1<sup>st</sup> quarter 2003 (million dollars)</b>
Total	38%	269	372
Iron and steel products	62.5%	40.4	65.4
Apparel and Clothing	136%	12.1	28.6

Source: *AGOA* reviews (www.agoa.gov).

- Canned pineapples, pears and vegetables grew by 342%
- Articles of leather, travel bags and handbags by 174% from 1<sup>st</sup> quarter 2002 to 1<sup>st</sup> quarter 2003.
- Shoes exported under *AGOA* more than doubled.
- Fruit juices, not fortified (especially orange juice), grew from \$630 000 in the 1<sup>st</sup> quarter of 2002 to \$5 million for the same period in 2003, a 680% increase.
- *South Africa's Trade Surplus with the United States of America (US):*

Table 4.  
South African Trade with the United States

	<b>2001 (billion dollars)</b>	<b>2002 (billion dollars)</b>	<b>2003 (first 4 months) (million dollars)</b>
Imports from the United States into South Africa	2.8	2.44	766
Exports from South Africa to the United States	4.4	4.24	1.33
South African trade surplus	1.6	1.79	564

<sup>18</sup> The following table indicates the growth of selected *AGOA* exports up to the 1st quarter of 2003.

*Source:* AGOA reviews (www.agoa.gov).

South Africa started exporting apparel under *AGOA* at the end of March 2001. During the 9-month period ending in December 2001, 1,102 apparel shipments with a value of Rand 313 million (\$31 million) entered the United States market duty-free (around \$4 million per month) with an *AGOA* "visa", out of a total of Rand 1,604 billion (\$173 million). South African apparel exports to the US in 2002. Thus, approximately 19% of apparel products exported during 2001 was shipped with an *AGOA* visa. South Africa was the third largest apparel and textile exporter under *AGOA*, after Lesotho and Mauritius.

Foremost among apparel and textile exports is Lesotho. Exports grew to \$321 million from 2000 to 2002, an increase of 130%. This is remarkable considering that the *GDP* of Lesotho is only \$900 million and the total population is no more than 2 million in 2002. In Lesotho, historically, apparel and textile exports to the United States grew from \$100 million in 1998 to \$450 million in 2004—an average annual growth rate in excess of 50%. Apparel and textile industry employment grew seven-fold from 7,400 at the start of the 1990s to 50,000 in 2004, making the sector the country's largest employer.

In the major African AGOA related foreign investment recipient countries, inflows have led to creation of new jobs.

The United States was a leading provider of foreign direct investment to Africa. At year-end 2006, the United States direct investment position rose 52% from 2001, to \$13.8 billion. The United States direct investment in Africa promotes economic development, supports United States trade with the region, and enhances the United States-African business partnerships. In February 2008, President Bush announced that the Overseas Private Investment Corporation would support five new private equity investment funds focused on sub-Saharan Africa, with a combined target capitalization of \$875 million. In Mali, for instance, a \$12.5 million cotton-thread factory opened in February 2004. This facility was one of sub-Saharan Africa's plants outside South Africa capable of producing quality thread for use in manufacturing apparel and textile for exports under AGOA. Mauritius was among the investors. Returning to the vanguard position of South Africa in realizing extensive margins of exports under AGOA, it can be said that the country had the best infrastructure to support quick set up of re-exportation business. The financial system is also advanced to that of the other Africa beneficiaries. Anyway these were static advantages that quickly became stale as the preferences were eroded.

Many other AGOA beneficiary African countries such as Kenya, Madagascar, Mali, Mauritius, Namibia, Swaziland and Uganda achieved varying gains in investment inflows and exports related to this initiative. Generally, it can be said that the GSP initiatives—chiefly AGOA—were the catalyst for the remarkable industrial and export resurgence since 2000, particularly in the selected eligible countries. Foreign investors, mostly from China (including Hong Kong and Taiwan), India, the United States and within Africa exploited AGOA's "third-party fabric provision", under which the benefiting African countries can import fabric inputs from non-AGOA states, including China (Taiwan), and export the finished product duty- and quota-free to the United States. This gave the producers in Africa up to a 30% cost advantage over their non-AGOA competitors. In other words, very little of the surge in exports was as a result of local capacity and competitiveness growth.

As a result of this and despite these accomplishments, Africa's trade competitiveness in apparel and textiles exports, the only area where extensive gains were realised in adding value to the region's exports, had been under increasing threat from China's and other Asian countries' cost advantage in production, particularly since the phase-out of the MFA and the introduction of "free-trade" in textiles and clothing through the ATC. The resurgence of the threats also highlighted some problems that were not being resolved by the implementation of the GSP initiatives in Africa.

#### **4. Problems despite progress**

Despite the different initiatives designed to help African countries diversify their production and export bases (increase the extensive margins of its exports), it is easy to say that little transformation has been achieved. Apparel and textile production was emphasized in the AGOA initiative. In this focus-industry, the extensive margins of exports had been very volatile, rising very rapidly in many benefiting African countries mid way through the implementation of the initiative, but rapidly declining when the legislated advantages were eroded in 2005. At the end of 2007, AGOA imports amounted to \$51.1 billion, more

than six times the amount in 2001, the first full-year of AGOA implementation. Unfortunately, petroleum products accounted for the largest portion of AGOA import, with non-petroleum AGOA trade totalling about \$3.4 in 2007. The non-petroleum component of the AGOA imports included mainly agricultural products: fruits and nuts, prepared vegetables, cut flowers, prepared seafood and essential oils. As explained before, AGOA has been a lifeline for apparel and textile made in Africa, \$1.3 billion of which was sold to America in 2006 (annex tables 1 and 2).

The most discerning fact about problem related to the objectives of AGOA, for instance, is that while United States-Africa trade has expanded dramatically since its inception in 2001, this is the result of surging energy demand and prices rather than AGOA trade preferences for diversified products. Also, even with the limited successes and contrary to expectations, the region's share of global exports recovered a little to just 2.5% in 2006, just about its half in 1980 at the onset of the crisis. Most of the foreign investment for AGOA related exports are now concentrated in minerals, mainly oil and metal production. Particularly, non-oil AGOA related trade to the United States, for instance, had declined by 16% mainly due to a decline in AGOA apparel import.

But by 2006, it had become even more obvious that most of the market access-related achievements, especially those related to new export products (extensive margins of trade) were yet narrow and could not be sustained. Growth of export was mostly intensive. The export portfolios of most African countries have become more concentrated, and ever more reliant on a handful of commodities such as oil, gas, minerals and metals. While non-oil imports from Africa (at \$3.4 billion in 2007) have doubled since 2001, oil and gas imports represented 93% of the total. This has inevitably raised questions about the success of trade-diversification schemes such as the United State's AGOA, under which 98% of the imports from the eligible Sub-Saharan countries entered the United States duty-free since 2000.

Energy related oil and gas accounted for 81% of all United States imports from SSA in 2007. The only other sizeable items were precious minerals (platinum and diamonds), with an 8% share, clothing and textiles (1.9%), and metals and ores (2.1%). The United States exports to the region are dominated by capital goods—vehicles, machinery, high-tech equipment, and oilseeds and grains. Motor vehicles, aircraft and components, and ships and boats make up almost one-fifth of United States exports, followed by machinery of all kinds, including oil- and gas field equipment (18.5%). Oilseeds and grains account for a further 8%.

The fact that almost all SSA's exports to the United States consist of energy and primary commodities calls into question the issue of AGOA having "a profound and positive" impact on United States trade with SSA. It is doubtful whether AGOA preferences have had much impact on this trade, which is driven by demand and prices and the limited life of the legislated advantages.

It was always hoped that AGOA would foster industrialisation and diversification in Africa, but this did not happen. Although 27 of the AGOA countries are also eligible for "apparel benefits" under the trade-preference scheme, the fact remains that non-oil AGOA trade was lower in 2007 than 2004. Given the depreciation of the United States dollar over the period, the volume of non-oil trade must have fallen substantially. Moreover, the Trade Representative's April 2008 report notes "significant increases" in AGOA imports of agricultural products such as vegetables, fruit and nuts, cut flowers, beverages, cocoa products, essential oils and spices.

More than 98% of the increase in AGOA trade between 2004 and 2007 was either energy-related (82%) or metals and minerals (16.5%). Indeed, if motor vehicle and chemical imports, mostly from South Africa, are added in, all other AGOA exports actually declined. In other words, AGOA is falling seriously short in terms of promoting diversification of both production and exports in SSA. Nor are there signs of any improvement. In the first quarter of 2008 AGOA imports were up by US \$5.2 billion; oil, gas and minerals accounted for more than US \$5 billion of this, and South African vehicle exports US \$232m. Once again, other exports declined, with sales of clothing and textiles—the great hope of AGOA planners—down 17.5%.<sup>19</sup>

---

19 *Source:* "US-African trade: Waiting for an industrial revolution" (Trade-diversification schemes such as AGOA don't seem to be having much impact: surging energy demand and prices are driving the expansion in US-African trade), *Business Africa - main report*, EIU ([http://www.eiu.com/index.asp?layout=displayIssueArticle&issue\\_id=463618631&article\\_id=513618636](http://www.eiu.com/index.asp?layout=displayIssueArticle&issue_id=463618631&article_id=513618636)) 16 July 2008.

Too often it is forgotten that there is more to AGOA than trade. Foreign investment—often trade-related—is a key positive influence. In 2005, the United States-affiliated companies had total assets of more than US \$90 billion in SSA, with Nigeria being the main site of United States investment (with US \$17.6 billion, or 19.5% of the total); South Africa is in second place, with US \$12.1 billion, or 13.4% of the total. The United States direct investment position in SSA—excluding investments of affiliated businesses—was much smaller, at just under US \$14 billion. Almost one-third of this (30.8%) was oil investment in Equatorial Guinea, while South Africa accounted for some 28%. The other main investment locations were Angola (8%), Mauritius States (5%), Nigeria (2.5%), Côte d'Ivoire (2.2%) and Liberia (2.1%).

By 2006, specifically, foreign investment in apparel and textile industry, which grew significantly during 2001-05, had run into increasingly serious problems in the AGOA eligible and benefiting African countries. With the abolition of the Uruguay Round Agreement on Textiles and Clothing (ATC) and the MFA in 2005 competitiveness in the Africa textile exporting countries under AGOA was rapidly eroded. They lost market share in the United States market to Asian exporters, especially China, while export prices for clothing have fallen by 10-15%. In recent years, countries such as Kenya, Mauritius, Lesotho and Uganda had begun to receive foreign investment in their textile and apparel industry, in part under the AGOA, but the trend changed following the end of MFA quotas in 2005. A number of foreign investors in Africa in that industry have been relocating.<sup>20</sup> In Mauritius, there was a 30% decline in the volume of garments manufactured in 2005, following the departure of some Hong Kong (China)-owned companies. In Lesotho alone, where some of the largest foreign affiliates were in the garments industry, six of them closed in 2005 at the end of MFA, leaving 6,650 garment workers jobless. In South Africa, it is feared as many as 50,000 apparel and textile workers could lose their jobs following the end of MFA.<sup>21</sup> This shows that the value of preferential market access initiatives is limited when domestic production capacity is inadequate.

About aspects of the capacity problems, AGOA was intended to apply to 48 African countries. At various times the eligibility requirements, including more favourable and flexible rules of origin, have changed but at the end of 2006, only 38 African countries had qualified.<sup>22</sup> To date, only 18 of these countries met the rules-of-origin requirements, creating the legal conditions required for taking advantage of the scheme. Most importantly, only about seven countries have attracted AGOA-related foreign investment inflows, concretely in the apparel and textile production.<sup>23</sup>

Additionally, shortage of capacity and skilled manpower has elevated cost of production in these countries. Wages of workers in a typical African country striving to attract foreign investments for export production such as Lesotho are much higher than those in, for example, Bangladesh and China and constraining on their relative elasticity of their supply.<sup>24</sup> Thus, more African countries that benefited significantly from the legislated advantages both in terms of the extensive and intensive margins of trade, due to these GSP initiatives are quickly witnessing regression in attracting foreign investment and increasing their export of value-added goods as a result of difficulties beyond the initiatives. The competitiveness indicators were not favourable for many African countries compared with their Asian competitors ( table 5.)

**Table 5.**  
**Competitiveness indicators**  
**US\$ unless otherwise indicated**

	China	India	Kenya	Lesotho	Sri Lanka	Madagascar
Machine operator wage	150	75	65	95	na	65
Labour cost per shirt	0.29	0.17	0.18	0.19	na	0.16
Daily shirts per worker	22	16	15	18	na	15
Shipping cost to Paris	400	na	na	na	675	820
Shipping cost to New York	1000	na	na	na	1395	1395

<sup>20</sup> Source: "Urgent need to broaden the base: Island takes a buffeting with lost income from its clothing and sugar industries", *Financial Times*, 14 March 2006.

<sup>21</sup> Source: "Lesotho textile workers lose jobs", 12 January 2005. *BBCNews* (<http://news.bbc.co.uk/1/hi/business/4169587.stm>).

<sup>22</sup> The 38 African countries are: Angola, Benin, Botswana, Burkina Faso, Cameroon, Cape Verde, Chad, Congo, Cote D'Ivoire, the Democratic Republic of Congo, Djibouti, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra-Leone, South Africa, Swaziland, the United Republic of Tanzania, Uganda and Zambia. Two African countries became eligible for AGOA since 2007: Mauritania in June 2007 and Togo in April 2008. As of May 2008, 27 African countries were eligible to receive AGOA's apparel and textile benefits.

<sup>23</sup> For a description of progress with respect to exports and foreign investment in export-oriented production in some AGOA beneficiary countries, including Lesotho, Mauritius, Mozambique, South Africa, Swaziland and Uganda see *WTR04*, p.91, ff4 and AGOA website ([www.agoa.gov](http://www.agoa.gov)).

<sup>24</sup> "Africa industry: Looming difficulties for textiles", *EIU Viewswire*. 20 July 2007.

Order to arrival time (days)	15	na	na	na	35	35
------------------------------	----	----	----	----	----	----

**Source:** World Bank, Madagascar: Diagnostic Trade Integration Study, 2003.

Thus, while market access is important for the region, it is becoming increasingly obvious that other factors such as domestic capacity and competitiveness, including technical competence carry a higher weight over the short-term legislated advantages for the initiatives to yield better results, make Africa a stronger market and effective contributor to global trade.

As indicated in the introduction, the intensive margins of exports related to some commodities and natural resource exports continued to do very well under AGOA. With the sharp increase in the price of major commodities, export earnings for the producer countries of Africa to their partners, to fill the privileges of the market access initiatives, continued to surge. However, many have indicated that concentration on crude export of natural resources is unlikely to lead to sustainable development in Africa (see for instance, Jordan 2007). In the agricultural sector, problems were overwhelming from the beginning. For example, the fish industry for exports to the European Union was faced with serious problems. In 1997 the EU imposed a ban on all fresh fish imports from Uganda, Kenya, and Tanzania because of what it considered poor sanitation facilities, inadequate health and environmental conditions, and a lack of basic infrastructure for processing fish.

Simply put, the technology being used was rudimentary and did not meet international standards. Fish-landing sites lacked such elementary "infrastructure" as ice, potable water, adequate shelter to protect fish from contamination, electricity to run sanitation equipment, and lavatories. At factories where the fish were cleaned and filleted, sanitary, health, and environmental conditions were inadequate and layouts and structural designs were unsatisfactory. The translation of international guidelines into good fish-handling practices proved to be difficult because of capacity constraints. The ban was lifted in 1998, but from April 1999 to October 2000 another ban was imposed on fisheries from Lake Victoria, Uganda. Fish exports from Uganda dropped, in value terms, from \$39 million in 1996 to \$28 million in 1997, during the ban (UNCTAD 2007). In the manufacturing sector, foreign investment due to trade preferences for clothing exports are likely to be reduced still further when the third-country provisions under the AGOA and the bilateral agreement restricting China's exports to the United States expire in 2007/08.<sup>25</sup>

Generally, Africa countries benefiting from the GSP market access initiatives such as AGOA lacked the industrial base, infrastructure, entrepreneurship and low production costs that foreign investors would need if they were to set up more advanced large scale activities to increase the extensive margins and value of their exports. In Botswana, Namibia and South Africa, for instance, a high cost of production is still a major obstacle to the drive, by the Governments, for greater beneficiation of the diamond production. Diamond polishing and cutting in South Africa costs up to \$40 per rough carat in 2005 compared with \$10 to \$14 in India.<sup>26</sup> This further weakened the drive to promote industrialization in Africa through international trade. It also emphasized the fact that Africa's industrial progress requires competitive production capacity, in addition to better market access (e.g. through AGOA and EBA) and more welcoming regulatory frameworks. In the next section, we aim to explain some of the challenges and complexities behind the failed attempt to industrialize Africa and boost its global trade through GSP initiatives. This will help narrow the analysis to concrete recommendations on the way forward.

## 5. Why the problems

At the best of times, exporting can be a complex and challenging process. Yet, when it is approached with careful organization, exporting can be a rewarding growth strategy for any developing country, including the beneficiaries of the GSP initiatives in Africa. In the purview of the AOI and IM models, we add an

<sup>25</sup> Under the AGOA deal, Africa-based clothing exporters are able to import fabric from the cheapest available suppliers while still enjoying duty-free access to the United States market. When this concession expired some of the foreign-owned clothing firms in eligible African countries relocated elsewhere.

<sup>26</sup> *Source:* Financial Times (Tuesday June 28 2005). Beneficiation: In search of carrot that may persuade miners to process locally.

input magnification (learning and innovation) perspective to some of the underlying factors behind such complexity and challenges.

The AOI and IM models are a set of rules used to generate dynamics (magnification effect) for instance, for a changing influential trade inputs. The mobility model assumptions are that policy and factor-input nodes move in random directions at random speeds. It captures the simultaneous presence and trajectories of influence and their pattern in a variety of random and deterministic ways. The movement of certain policy nodes (e.g. legislated advantage, for instance) is affected by their surroundings and the movement of other forms of policy nodes (e.g. those meant to increase capacity competitiveness).

More technically, the influence model is a discrete-time Markov process<sup>27</sup> whose state space is the tensor product of the statuses of all the local variant of the Markov chains (see for instance, **Meyn and Tweedie**, 2005). Thus, interactions among the policy nodes occur when a change of status at one node alters the transition probabilities of the others, which then alter the others (compliment or compensate for them), and so on (see for instance, Monserud 1976).

To explain the possible dynamics of the GSP initiatives on trade and development growth, for instance, there is, mainly, an assumed substantial positive externalities to human capital inputs and, perhaps to physical capital due to these initiatives, to the extent that they embodies new technology, so that the classical and neo-classical result of diminishing returns are avoidable through such economy-wide spill-over effects. Basically, the argument is that the first (short-term) level impact increases the intensive margins of trade at a decreasing rate (Aghion and Howitt (1998) and Abromovitz (1986) while the magnification effect, leads to extensive margins of trade, at a gradual but increasing rate.

The model assumes a variable return to scale due to the factor input that could be indexed (see for instance, Aghion and Howitt, 1998). Total output and employment are dependent on the accumulated capital stock (human, intellectual and physical) (see for instance, Romer 2000). In this formulation, the level of learning and the rate of its amplification are not determined externally. Rather it is a function allocation of productive human capital to learning activities (knowledge incubation). Typically, only a part of human capital (labour) is used for physical production process. The other part of human capital (intellectual) is used for trade magnification - learning process. If therefore, human capital is isolated and divided between the learning function and physical production, innovation arrives randomly at a rate (influence mobility) indicating the highly variable productivity of the research. The productivity of research will have a Poisson/random distribution.<sup>28</sup> For more on Poisson distribution, see Kuznets (1966).

Therefore, taking advantage of a reduction in the entry costs (which is imposed by the GSP initiatives) implies an increase in competitiveness in the research and innovation sector, the steady-state growth rate of the economy has to be transformed. A reduction in the entry cost in the business, through GSP for instance, amounts to increasing the value of and number of actionable knowledge (rate of innovation per research firm), since the steady-state growth rate will also increase as a result of lower entry cost and more firms seeking to participate in production in the economy. In this context, growth now becomes partly an endogenous process incorporating the innovation in each research facility, increasing the size of the technological improvements and total and higher number of research facility firms in the economy.

In a simple language, what this model is saying is that in international trade, the domestic utility of the inputs emanates through two mechanisms: the level effect and spill-over effect- (magnification). In the level effect, the number of differentiated products rises in the short-term due to availability of foreign varieties and intermediate goods. In the spill-over effect, the number of producers increase, competition also grows leading to search for more innovations and efficiency gains per firm to rise. In the dynamics for

---

<sup>27</sup> The Markov property means that, *given the present state*, future states are independent of the past states. In other words, the description of the present state fully captures all the information that could influence the future evolution of the process. Future states will be reached through a probabilistic process instead of a deterministic one.

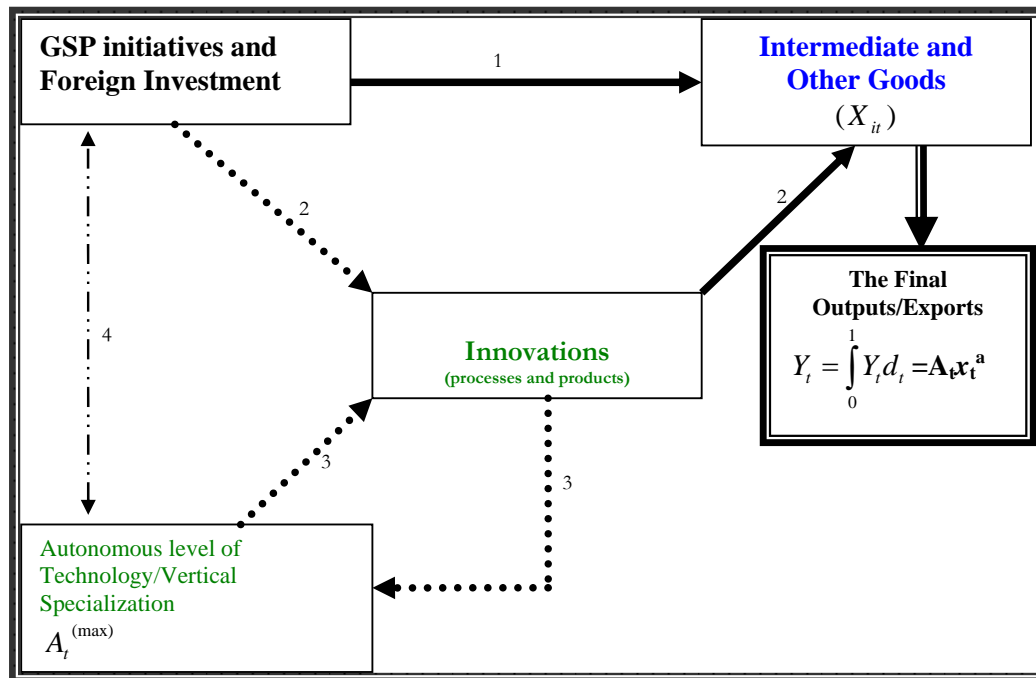
<sup>28</sup> Mathematically, Poisson process means that at the time T, the possibility of an innovation occurring is a random variable whose distribution is exponential with a deterministic parameter. It implies that an innovator may find a new invention/innovation in the process of solving the particular problem, at a time unknown to him. Even by allocating a large amount of his time and resources, it is still uncertain to the innovator when the next innovation may take place.

the spill-over effect, the increased rivalry and competition leads to increased domestic innovations, employment, total factor productivity and therefore economic growth. But this does not happen in a vacuum. The catalytic effect of the process starts with the availability of some local base knowledge for the incubation of external knowledge inputs.

Remarkably, if the value of cost reduction, as a result of domestic capacity (base knowledge) contribution to the dynamics is large and long enough, the effect will dominate development through an upward transformation shock of investment inflows, diffusion of expertise and innovations. If on the other hand, the effects are large but not long enough, and factor input productivity that it compensates for remained constant, its end will also dominate, negatively, on the direction of development which witnesses a downward transformation shock through disinvestment that occurs when cost competitiveness goes down as overall cost goes up.

The mathematics of this magnification model can become a major algebraic diversion in this paper. An elaborate detail of the model could be obtained in Dasgupta (1986). (Some of the relationships are replicated in the schematic figure below). Figure 2. on the schematic of the two way impact of international trade on production may help to keep trace of the conceptual scheme of the impact of GSP initiatives and trade on sustained economic growth. The aggregate output of the final good is the summation given by the growth rate of economy-wide knowledge which is in turn governed by the spill-over equation.

**Figure 2. Dynamics of adjustment plus a magnification of the influence of initiatives on Production.**<sup>29</sup>



Source: Author.

As admitted at the beginning of this paper, exporting could be a rewarding growth strategy for African countries but it could also be a challenging and complex process. Also given that the endogenous theory argument of the magnification effect of trade is still at its infancy, we design in Figure 3 - a schematic design of the mobility of influence. This mechanism further illustrates the complexity of achieving transformation and development oriented rewards through export strategy in the frame of the AOI and IM models:  $A_t^{(max)}$  is the variable autonomous level of knowledge (base knowledge). In the model, four main channels of influence are emphasized: 1.) direct contribution of GSP initiative to intermediate goods and exports; 2.) contribution to innovation and knowledge; 3.) spill-over of knowledge from the innovation

<sup>29</sup> Initial and variant version of this was developed in Aghion and Howitt (1998).

process to the local economy through vertical specialization, and; 4.) contribution (symbiotic) to the foreign inputs in a gradual process of internalization. Countries that are only able to achieve level 1, in the schematic fail to sustain growth beyond legislated advantages (a good case of many African countries). Countries that reach level 2 and 3, sustain growth with or without the legislated advantages and are likely to internalize the innovation process and specializations due to foreign inputs, indicated in level 4. At level 3., countries become contributors to investment in other countries. It is to be remarked that whence a local economy is able to achieve internalization capacity, the GSP initiative could be excluded from the model and yet the production process sustains itself. The simulation of this situation at a hundred percent implementation of the GSP initiative is illustrated in figure 4. This complex process, however, requires a challenging and sometimes tacit organizational capability that resembles the Japanese model of industrialization with its public-technical support units for innovation on external inputs (Choi (1984) and Ito and Urata (1994)). Through the system, the Japanese auto-industry, for instance, was able to contribute innovations to the global auto-industry and trade.

In the long-run, the increased learning and innovation causes R&D to rise and companies to produce new goods and increase their extensive margins of trade (see Branstetter (1996) and Dosi (1988)). In so far as openness and international competition increase rivalry and competition among domestic firms, innovation will be stimulated and growth will rise given the availability of capable and willing capacity to undertake the required research activities. Prove of these dynamics and effects in the case of the Asian economies, particularly Japan, are available in Choi (1984) and Ito and Urata (1994).

The conclusion is simple, based on these models. The classical and neo-classical result of diminishing returns and total collapse of industrial effort as GSP provisions are eroded can be avoided through economy-wide spill-over effects of technology and cumulative and base level of spilled-over knowledge, if a benefiting economy possesses sufficient domestic capacity to compliment and therefore contribute to learning and innovate in the focus-industry.

Also, put in the arguments of the factor proportions (Heckscher-Ohlin model)<sup>30</sup> and optimal factor choice models the development objectives of market access schemes could fail, given the absence of technical competence.

But all these could be compensated for through legislation.

### Figure 3.

---

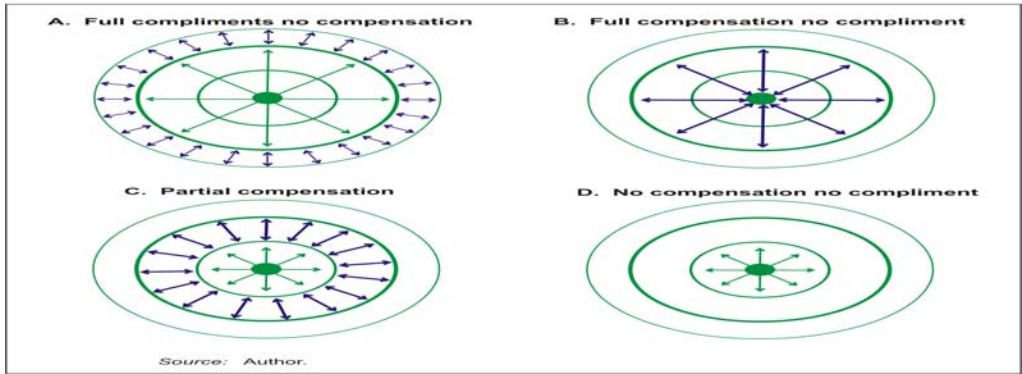
<sup>30</sup> The standard **Heckscher-Ohlin (H-O) model**, also known as "Factor Proportions Model" begins by expanding the number of factors of production from one to two. The model assumes that labour and capital are used in the production of two final goods. Here, capital refers to the physical machines and equipment that is used in production. Thus, machine tools, conveyers, trucks, forklifts, computers, office buildings, office supplies, and much more, is considered capital.

All productive capital must be owned by someone. In a capitalist economy most of the physical capital is owned by individuals and businesses. In a socialist economy productive capital would be owned by the government. In most economies today, the government owns some of the productive capital but private citizens and businesses own most of the capital. Any person who owns common stock issued by a business has an ownership share in that company and is entitled to dividends or income based on the profitability of the company. As such, that person is a capitalist, i.e., an owner of capital.

The H-O model assumes private ownership of capital. Use of capital in production will generate income for the owner. We will refer to that income as capital "rents." Thus, whereas the worker earns "wages" for his or her efforts in production, the capital owner earns rents.

The assumption of two productive factors, capital and labour, allows for the introduction of another realistic feature in production; that of differing factor proportions both across and within industries. When one considers a range of industries in a country it is easy to convince oneself that the proportion of capital to labour used varies considerably. For example, steel production generally involves large amounts of expensive machines and equipment spread over perhaps hundreds of acres of land, but also uses relatively few workers. In the tomato industry, in contrast, harvesting requires hundreds of migrant workers to hand-pick and collect each fruit from the vine. The amount of machinery used in this process is relatively small. In the H-O model we define the ratio of the quantity of capital to the quantity of labour used in a production process as the capital-labour ratio. We imagine, and therefore assume, that different industries, producing different goods, have different capital-labour ratios. It is this ratio (or proportion) of one factor to another that gives the model its generic name: the Factor Proportions Model.

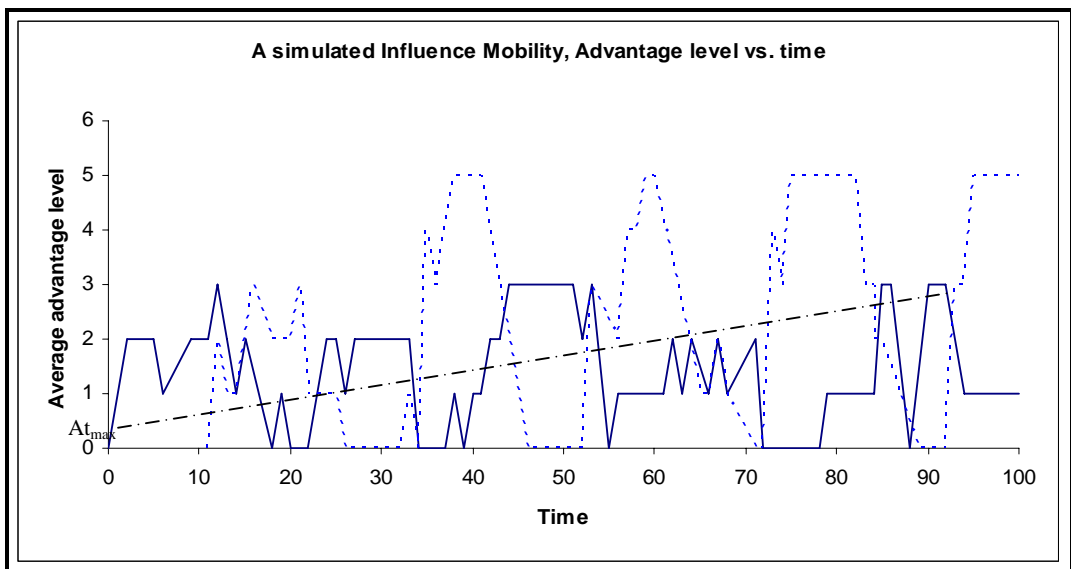
**A Four Step AOI Model (Intraspecific)**



The dynamics of the models are further explained in four-steps of figure 3., with selected ideal structures of influence in which legislative advantage are complimentary and compensatory to the factor input advantages. In the step one, a total compliment of the existing capacity takes place. The subsequent steps illustrate the Influence Mobility process. Steps two to four rather simulate the situation in many Africa trading countries that are equally beneficiaries of the existing initiatives. In step two, a total capacity hollow is compensated for by the trade advantages. Step three is a case of partial compensation for the hollow capacity. In step four, some structural capacities exist be the initiatives do not give any advantages or have expired.

The expected influence mobility effect of both legislated and structural factors could be represented by a simulation of the average advantage level of influence over the total period of time of a legislated trade advantage. In this sense, the mobility of influence of factor is affected by a multitude of other factors not captured in this paper. These include, weather effects, variable organization difficulties, transport constraints, political problems, among others. Notice that the effects of the two advantages are imperfectly but compensatory (alternating) in the model, though policy implementation allows the factor input advantages to surge above the legislated advantages. The simultaneity in the implementation of policy to build the factor input advantage almost result in a divergence in the two forms of advantages where the legislated advantages expire and the factor input advantages are strong enough to sustain a higher level of trade when the initiatives are hundred percent (full time) implemented (figure 4).

**Figure 4.**



## Implications.

Africa failed to attract durable foreign investment in the manufacturing sector, particularly in the apparel and textile industry where it had realised major progress, under AGOA for four main reasons:

- The all-important 30% cost advantage was totally legislated and the “third-party provision” under AGOA was phased out in 2007, meaning that to retain duty-free entry to the all-important the United States market AGOA eligible countries and their home-based manufacturers will have to source textile fabric inputs from other African AGOA eligible countries, where prices are higher and quality lower than in Asia, which is the currently the main supplier.
- The safeguards imposed by the United States in May 2005, restricting growth in Chinese clothing imports to a maximum of 7.5% annually, will lapse in mid-2008.
- Multilateral tariff cuts under the Doha Round will erode existing preferences in the United States and EU markets.
- No major initiatives to improve on the low domestic capacity (base knowledge) and competitiveness.

Key needs of foreign investors such as skills do not exist and the match of the skills with the national investment objectives has been low (see for instance, Daniels 2007). One does not need a regression to establish a correlation between high-end human capacity and a failed market access opportunity system because simple explanations are easy to understand. In the value-addition process, foreign investors must have to submit to human capacity/competitiveness in the countries to exploit niche/privileged markets. The OECD report on Africa Economic Outlook (2008) shows that higher technical and vocational skills are crucial to enhancing Africa's competitiveness, contributing to social inclusion, decent employment and poverty reduction. At around \$100 a month, Lesotho's typical salaries are, for instance, at least five times higher than those in Bangladesh, and two to three times higher than those in China.<sup>31</sup> Lack of resources to adequately equip the population for future growth and global competition continues to be a problem in the manufacturing sector.

**Table 5. Index of extensive export margins (apparel and textile), selected years<sup>32</sup>**

(%).

	2000	2005	2006	2007
<b>Kenya</b>	3%	16%	7%	2%
<b>Lesotho</b>	1%	27%	8%	1%
<b>Swaziland</b>	4%	30%	12%	9%
<b>South Africa</b>	15%	16%	11%	12%

*Sources:* author based on information from Thompson One Analytics ([www.thomsononeim.com](http://www.thomsononeim.com) and [solutions.dnb.com](http://solutions.dnb.com)) and various supplemental sources.

In table 5., it is easy to see a significant variation of the index of margin of trade in four countries that benefited, as well as exported additional products in the form of apparel and textiles to the United States, as a result of AGOA, for instance. These countries also attracted significant foreign investment for the production of these products, just immediately after the adoption of the AGOA initiative, granting exports cost advantages. In the three cases of Kenya, Lesotho and Swaziland, there were significant up surge in their export of additional products, outside their traditional bases. Except for South Africa where there is

<sup>31</sup> *Source:* EIU *Viewswire*, "Africa industry: Looming difficulties for textiles", 20 July 2007.

<sup>32</sup> Data for calculation of these indices  $\Delta Y_t = \int_0^1 Y_u d_t$  are anchored on 2000 as the base year and were collected from various sources. The

specific product exports were based on SITC codes and obtained from US bilateral import data reconverted as export from African countries. The indices are therefore a calculation of the annual growth (the data may yet be incomplete and preliminary). In the case of foreign investment and labour input in production of the products, data were based on various reports on changes in corporate activities and affiliates of foreign companies in host countries. These include the names of the companies, home countries, industries, sales and employment. Such data were obtained from Thompson Analytics - Who Owns Whom database (<https://solutions.dnb.com/wow>), referenced in 2008. At the moment, there is not consolidated database with all these variables which is why the calculation had been based on information gathered from various sources.

an obvious difference in the quantum of capacity, there were significant of exports of the apparel and textile exports in the other three countries grew during the period of implementation of the AGOA initiative. The decline in the exports was very steep in 2006 just after the end of MFA, which took place in 2005.

To illustrate the depth of the problems, we marshal more facts. General education is an avenue to improving capacity (base knowledge) and skills in these economies (OECD 2008). It is better when the base knowledge that education produces is targeted on the focus-industry. Yet, fewer than 5% of secondary schools students in Africa are enrolled in general technical and vocational programmes, which is low compared to other region and their share in educational budgets is only about 2% - 6%. Few countries in the region have training policies that emphasize skills development. As a result, influx of expertise with foreign investment, in the short-term following the adoption of the market access initiatives such AGOA, some African countries had success stories to tell. But this was not sustained.

First, there was not enough local capacity build-up prior to the adoption of the market access initiatives. As a consequence, the investors and main exporters that started production activities in the eligible African countries were driven purely by the legislative advantages that the initiatives granted and short-term business plans that they designed. The United States Government realised the importance of capacity to the success of the initiatives but the correction measures had partial focus. As indicated earlier, the United States Government had generously allocated an accumulated sum of \$1.6 billion by 2007 to various AGOA related capacity building projects.

The progress realized through AGOA was also entangled with other major intervening factors. As commodity prices skyrocketed, some participating AGOA countries made significant gains in their foreign reserves, leading to appreciation of their currencies and a consequent negative impact on exports of some other, non-resource based products. Copper exports<sup>33</sup> in 2006 in Zambia increased ten times to \$2.7 billion over those in 2003<sup>34</sup>. Foreign investment in exports of low-price clothing and horticulture exports, for instance, particularly those taking place under the AGOA and Euro-Mediterranean Partnership<sup>35</sup> were eroded in Algeria, Lesotho<sup>36</sup>, Libyan Arab Jamahiriya, Madagascar, Mauritania, Namibia, Nigeria, South Africa, Swaziland, Uganda and Zambia due to appreciation of exchange rates and danger of inflation. Particularly, appreciation of the exchange rate worsened the situation in countries with already low technical competence, high costs of production, capacity shortage and low competitiveness, and led to closure of some foreign investment projects engaged in processing (in Kenya, Lesotho, Mauritius and Swaziland under AGOA) activities.<sup>37</sup> In Uganda, British American Tobacco closed its cigarette manufacturing plant in Jinja. The danger posed by currency appreciations to manufacturing exports also worsened the regional slackening job markets and related pressures from poverty. In Lesotho for instance, manufacturing industry is 50% less productive than its equivalents in China or India. Because of the low human capacity, the unit labour costs in Lesotho are as high as 75% of value-added, compared with 30% in both India and China.<sup>38</sup>

Even worse, the lack of capacity had contributed to a serious rise in input costs. In 2007, in South Africa for example, the textile suffered increasing input costs, some of which have risen as much as 68% due to higher oil prices and a weaker rand.<sup>39</sup> They lost market share in the United States market to Asian exporters, especially China, while export prices for clothing have fallen by 10-15%. Indexing the changes to cost advantages due to the trade initiatives for African and the subsequent influence mobility/erosions, using the rules of AOI and IM models, we obtain the following for the countries of Africa. The base year for the initial cost advantages is 2000, just after the initiatives were adopted, thus forming the ex-ante period of index. The cut of year for indexing a change in structure of competitiveness is 2006, marking the

---

<sup>33</sup> Copper production in Zambia is in the hands of Foreign investors. The surge in copper earnings pushed the Zambian Kwacha up, from 4,600 to the dollar in 2005 to 3,000 in 2006. Current operators in Zambia include Vendanta (India), First Quantum Minerals (Canada) and various Chinese and other Asian Foreign investors.

<sup>34</sup> Exchange rate appreciations were also registered in the Africa commodity exporting countries such as Angola, Cameroon, Chad, Equatorial Guinea, Lesotho, Libyan Arab Jamahiriya, Mozambique, Nigeria, South Africa and Zambia, etc (EIU, 2007).

<sup>35</sup> The Euro-Mediterranean Partnership is an enhanced agreement of the EU Strategic Partnership with Mediterranean and the Middle East. The Partnership aims to achieve increased investment, stability and prosperity in the Euro-Mediterranean neighbourhood.

<sup>36</sup> In 2005/06, Lesotho witnessed an 8.3% contraction in manufacturing, which was strongly affected by the removal of quotas on exports from low-cost Asian producers and the continued strength of the South African Rand (Lesotho Mloti is pegged to the Rand). Source: EIU *Viewswire*, "Lesotho economy: Manufacturing sector performance to improve" (28 June, 2006).

<sup>37</sup> See for instance, *Africa Renewal* (previously Africa Recovery) Vol., No. 1 (April 2006), Page 18.

<sup>38</sup> Source: World Bank (1998). "Lesotho's Garment Findings Exports: Attracting Foreign Direct Investment". Findings Number 103, January 1998. In comparing the wage rate between African countries and those of Asia, productivity of labour is taken into account.

<sup>39</sup> Source: BusinessDay: "Embattled textile sector seeks state survival aid", February 23, 2008 (<http://www.businessday.co.za/articles/dailymailer.aspx?ID=BD4A714292>).

time the end of MFA is supposed to have noticeable impact on the exports and other factors of the economy.

At the expense of applying, some complicated, probit and logit models over data variable that are not consolidated and could be classified as anecdotal, we aim to index the dynamics in the extensive trade margins in selected African countries due to preference erosion. Even in this case, we faced extensive data challenges. The factors considered in the index, which also conforms to the AOI and IM models are: exports along the SITC codes (particularly new product exports as a result of AGOA), change in foreign investment into production of these products, change in labour force in the production process.

We study the period 2000 - 2007. Data on U.S. imports are used as mirror data for exports from the benefiting African countries and are taken from the NBER's database for Harmonized System Imports, commodity by Country, which defines goods at the 10-digit level. We focus on apparel and textile manufacturing. As a measure of the value of imports in a given year, we use the reported customs value of imports for consumption, which measures the total of merchandise that has physically cleared through customs either entering consumption channels immediately or entering after withdrawal from bonded warehouses.

Particular to the issue of capacity, the United States Agency for International Development (USAID) opened Trade Hubs in the sub-regions of Africa. The hubs build trade capacity in the region; develop exports in specific growth sectors and helps government and businesses take advantage of AGOA. The hubs work in the following areas:

1.) Export Business Development; 2.) AGOA Support Services; and 3.) Policy and Governance –Trade hub to assist African countries and regional organizations.

While the firm-level (business and marketing support), supra-institutional and project based approach was a major relief to African countries, it was based on the assumption that simultaneous national programme-based technical capacity surge, especially for vertical specialization was being managed and taking place. The capacity support assumed away national level supply elasticity that is equally linked to labour productivity.

Basically, a project/firm based export and investment plan particularly for vertical specialization focuses on business and marketing plan, with little commitment to the sustainability of national initial competitive conditions beyond the anticipated profit horizon. On the other hand, a typical national programme-based export and investment plan for technical and vertical specialization is primarily supposed to provide for supply elasticity of the inputs, starting from labour capacity, with a fall back response beyond the immediate business and marketing profitability horizon. In the absence of a long term vision, firm based plans are easily subsumed by any difficulties with inputs. This later proved unsustainable.

## **6. Conclusion:**

Focusing on GSP trade initiatives and increased foreign aid as a means of kick-starting the African economy is all very well, but it does not mean that regional governments can afford to ignore reforms at home. This is very apparent from specifically the competitiveness of the region's exports. GSP initiatives for increasing Africa participation in global trade have been important for boosting the region's total margin of export but nearly zero on the extensive margin of export. Whereas the current initiatives had positive impact of the few additional export products from the region, the fact that this change was not complimented by domestic capacity build-up (base knowledge) meant that related exports could not be sustained with the erosion of the legislated advantages. Thus, in revising their policies to attract more foreign investment inflows, especially of the kind that will have more spill-over effects (especially to stimulate manufacturing) and extensive margin of exports, African countries may have to pay greater attention in their reforms to matching resources and capacities, including human capital and skills, to production needs. Policies to attract foreign investment from SMEs can also help African countries diversify investment out of natural resource exploitation. Primarily, the SMEs can give the host African countries the opportunity to learn and also facilitate their early entry to new brand development, given sufficient level of domestic base knowledge. The initiatives have not been complimented by iterative,

productive development process focused on local learning from experiences, but rather one that is externally-directed. Africa may boost its factor input competitiveness by simultaneously increasing educational attainment, focus-industry domestic knowledge and reducing skills/economic policy mismatch, to sustain trade growth

In particular, the depth of the policy changes favouring skills development and social learning as against simple legislative advantages for trade and attracting more foreign investment inflows to exploit market access may add some critical ingredient to the necessary iterative development process. This may also help with the diversification of the economic activities especially in view of the fact the process of locating a foreign investment project implies a large number of business consideration that transcend simple market accesses.

Africa failed to attract durable foreign investment in the manufacturing sector, under AGOA for four main reasons:

The all-important “third-party provision” under AGOA is due to be phased out in 2007, meaning that to retain duty-free entry advantages to the all-important United States market AGOA eligible countries and their home-based manufacturers will have to source textile fabric inputs from other African AGOA eligible countries, where prices are higher and quality lower than in Asia, which is the currently the main supplier.

The safeguards imposed by the United States in May 2005, restricting growth in Chinese clothing imports to a maximum of 7.5% annually, will lapse in mid-2008.

Multilateral tariff cuts under the Doha Round will erode existing preferences in the United States and EU markets.

No major initiatives to improve on the low domestic capacity and competitiveness.

The AGOA initiative continued to bolster trade and investment in Africa, influencing the strategies of foreign investors in a number of industries. However in 2005, as mentioned above, policy initiatives to sustain the momentum in exports and foreign investment generated by AGOA, for instance, had been misplaced for a large part of its. As a result of this, a number of foreign investors engaged in textile and apparel processing industry in some African countries due to AGOA folded with the end of the MFA. Their departure further weakened the drive to initiate the industrial process in Africa through international trade. It also underlines the fact that the scope of the region's industrial progress lies not just in improving market access and changing legal frameworks for foreign investment narrowly, but requires also concerted effort to build the domestic competitive capacity. To enable African countries achieve growth and the United Nations Millenium Development Goals through trade initiatives such as the AGOA, EBA, ACP-EU Cotonou Agreement, and the United Kingdom Commission for Africa, these countries and their partners must prioritize the issue of domestic productive capacity and boosting the regional competitiveness.

Key needs of foreign investors such as skills do not exist, leading to reliance on outside sources for the experts to set up businesses in the region. In cases where skills were pursued through provision of education infrastructure, the match of the skills with the national investment objectives has been low. Educational curriculum did not emphasize apparel and textile production for countries that eventually concentrated on such production and exports under AGOA. Basically, what this paper is saying is that sustained changes in extensive export margins are a function of endogenous policy. A certain level of institutional features of African economies is not encouraging learning and innovation processes, which in turn leads to low investment, outweighs GSP initiatives, depresses growth and exports and as a consequence re-enforces poverty. In essence, relying the on the legislated advantages provided by the initiatives is a recipe for total failure of the GSP agenda.

## 7. Time for a coherent industrial, trade and development strategy:

Asides the challenges and complexities associated with export-led growth strategy, there are obvious solutions. GSP initiatives will succeed in Africa only where governments create the necessary conditions for private enterprise to prosper, especially in manufacturing. This is very difficult in Africa, where weak infrastructure, outdated technologies, low domestic base knowledge, high logistical costs (especially transport and electricity) and extensive state intervention in business are the major constraints inhibiting industrial development. Trade preferences and other trade-promotion programmes are not going to make much progress unless and until African industry starts to produce the kind of products that consumers want, and at competitive prices. To date, few African companies outside South Africa and Mauritius have managed to do this.

Thus, in revising their policies to take advantage of the GSP initiatives and attract more foreign investment inflows, especially of the kind that will have more spill-over effects (especially to stimulate manufacturing) and increase extensive margins of exports, African countries may have to pay greater attention in their reforms to matching resources and capacities, including technical competence and skills, to production needs. Policies to attract foreign investment from SMEs can also help African countries diversify investment out of natural resource exploitation. Primarily, the SMEs can give the host African countries the opportunity to learn and also facilitate their early entry to new brand development.

African countries may catalyze an increase in its structured trade competitiveness by simultaneously increasing their educational attainment and reducing skills/economic policy mismatch, improve skills targeting while the initiatives last. Particularly, African countries must create applied technical support units that are publicly financed and supported for each focus industry in which they intend to achieve vertical specialization. The United States could also focus its generous AGOA-related allocations for African countries to this objective. The multiplier effects are quite handsome.

For future initiatives, countries should also aim to engage in pre-initiative preparatory phase, building the focus-industry skills and organizing diffusion of related industry expertise, to sustain production and therefore exports in the long run.

There is no single formula for success in the case in these economies, but several Asian economies such as China (including Hong Kong and Taiwan), Japan and Vietnam for example, have followed a sequenced pattern of openness to trade, boosting production through reforms on light industrial manufacturing and exports. In every case there was an emphasis on raising education standards and appropriate skills levels; encouraging (and in Singapore's case, legislated); importing and applying technology; and investing in infrastructure, particularly communications. Legislated trade advantages and preferences, by themselves are insufficient: the countries in must have understood that there were a corresponding need for technology, skills, infrastructure, and knowledge base for production.

**Quote:** "God cannot help people to win a lottery if they have not bought the lottery tickets".

Annex table 1.  
Sub-Saharan Africa: Leading U.S. imports under the AGOA by HTS item,  
Annual and year-to-date from Jan - May.  
AGOA-Eligible Countries only.  
(Thousands of USD, Customs value).

HTS6	Description	AGOA including GSP provisions 2006	AGOA including GSP provisions 2007	AGOA including GSP provisions 2007 YTD	AGOA including GSP provisions 2008 YTD	GSP 2006	GSP 2007	GSP 2007 YTD	GSP 2008 YTD
270900	PETROLEUM OILS AND OILS FROM BITUMINOUS MINERALS, CRUDE	39,706,133	46,241,297	17,049,648	25,671,278	6,821,743	7,352,563	3,144,525	3,381,748
271019	PETROLEUM OILS & OILS (NOT LIGHT) FROM BITUMINOUS MINERALS OR PREPS NESOI 70%+ BY WT. FROM PETROLEUM OILS OR BITUM. MIN.	986,775	816,746	323,687	383,581	115,604	128,967	36,373	81,971
271011	LIGHT OILS AND PREPARATIONS FROM PETROLEUM OILS & OILS FROM BITUMINOUS MIN. OR PREPS 70%+ BY WT. FROM PETRO. OILS OR BITUM. MIN.	386,791	614,116	174,107	353,367	3,269	23,031	0	0
870323	PASSENGER MOTOR VEHICLES WITH SPARK-IGNITION INTERNAL COMBUSTION RECIPROCATING PISTON ENGINE, CYLINDER CAPACITY OVER 1,500 CC BUT NOT OVER 3,000 CC	328,807	438,489	177,189	638,932	0	0	0	0
620462	WOMEN'S OR GIRLS' TROUSERS, BIB AND BRACE OVERALLS, BREECHES AND SHORTS OF COTTON, NOT KNITTED OR CROCHETED	267,699	254,491	94,380	84,984	0	0	0	0
611020	SWEATERS, PULLOVERS, SWEATSHIRTS, VESTS AND SIMILAR ARTICLES OF COTTON, KNITTED OR CROCHETED	227,548	225,375	80,041	55,398	0	0	0	0
620342	MEN'S OR BOYS' TROUSERS, BIB AND BRACE OVERALLS, BREECHES AND SHORTS OF COTTON, NOT KNITTED OR CROCHETED	227,000	201,337	83,795	59,092	0	0	0	0
720230	FERROSILICON MANGANESE	114,606	180,436	52,813	94,565	114,606	180,436	52,813	94,565

720241	FERROCHROMIUM, CONTAINING MORE THAN 4% (WT.) CARBON	112,663	177,911	70,619	105,597	112,663	177,911	70,619	105,597
760612	ALUMINUM ALLOY RECTANGULAR (INCLUDING SQUARE) PLATES, SHEETS AND STRIP, OVER 0.2 MM THICK	167,532	158,589	69,270	62,443	167,532	158,589	69,270	62,443
720211	FERROMANGANESE, CONTAINING MORE THAN 2% (WT.) CARBON	97,833	149,736	53,273	143,856	0	0	0	0
620520	MEN'S OR BOYS' SHIRTS OF COTTON, NOT KNITTED OR CROCHETED	64,871	80,063	27,022	28,111	0	0	0	0
610462	WOMEN'S OR GIRLS' TROUSERS, BIB AND BRACE OVERALLS, BREECHES AND SHORTS OF COTTON, KNITTED OR CROCHETED	57,456	71,019	35,317	21,919	0	0	0	0
610510	MEN'S OR BOYS' SHIRTS OF COTTON, KNITTED OR CROCHETED	49,017	65,835	34,215	29,566	0	0	0	0
611030	SWEATERS, PULLOVERS, SWEATSHIRTS, VESTS AND SIMILAR ARTICLES OF MANMADE FIBERS, KNITTED OR CROCHETED	66,512	65,772	23,951	23,808	0	0	0	0
280469	SILICON, CONTAINING BY WEIGHT LESS THAN 99.99% OF SILICON	59,845	65,359	26,808	45,204	59,845	65,359	26,808	45,204
711319	JEWELRY AND PARTS THEREOF, OF PRECIOUS METAL OTHER THAN SILVER	76,432	57,684	28,628	14,217	76,432	57,684	28,628	14,217

610910	T-SHIRTS, SINGLETS, TANK TOPS AND SIMILAR GARMENTS OF COTTON, KNITTED OR CROCHETED	51,366	50,447	22,607	20,127	0	0	0	0
382370	INDUSTRIAL FATTY ALCOHOLS	46,091	48,118	14,449	20,819	0	0	0	0
720219	FERROMANGANESE, CONTAINING 2% (WT.) OR LESS CARBON	32,169	38,909	16,145	35,635	32,169	38,909	16,145	35,635
80510	ORANGES, FRESH	46,171	37,794	0	0	0	0	0	0
284990	CARBIDES, NESOI, WHETHER OR NOT CHEMICALLY DEFINED	30,701	37,082	18,447	24,401	30,701	36,974	18,339	24,401
240120	TOBACCO, PARTLY OR WHOLLY STEMMED/STRIPPED	36,774	35,169	23,793	7,509	26,247	28,062	18,513	2,438
220421	WINE OF FRESH GRAPES (OTHER THAN SPARKLING WINE) AND GRAPE MUST WITH FERMENTATION PREVENTED, ETC. BY ADDING ALCOHOL, CONTAINERS OF NOT OVER 2 LITERS	32,948	34,875	13,009	11,929	5,481	6,468	2,398	2,601
610610	WOMEN'S OR GIRLS' BLOUSES AND SHIRTS OF COTTON, KNITTED OR CROCHETED	23,377	29,190	9,705	6,812	0	0	0	0
220710	ETHYL ALCOHOL, UNDENATURED, OF AN ALCOHOLIC STRENGTH BY VOLUME OF 80% VOL. OR HIGHER	29,228	25,952	12,992	10,935	0	0	0	0
411390	LEATHER OF ANIMALS NESOI, WITHOUT HAIR ON, FURTHER PREPARED AFTER TANNING OR CRUSTING, OTHER THAN LEATHER OF HEADING 4114	23,733	24,832	11,148	7,856	23,546	24,522	11,109	7,752
620463	WOMEN'S OR GIRLS' TROUSERS, BIB AND BRACE OVERALLS, BREECHES AND SHORTS OF SYNTHETIC FIBERS, NOT KNITTED OR CROCHETED	16,836	23,781	10,412	10,107	0	0	0	0

610463	WOMEN'S OR GIRLS' TROUSERS, BIB AND BRACE OVERALLS, BREECHES AND SHORTS OF SYNTHETIC FIBERS, KNITTED OR CROCHETED	30,448	23,516	7,808	3,169	0	0	0	0
	<b>Subtotal</b>	43,397,361	50,273,918	18,565,279	27,975,217	7,589,836	8,279,475	3,495,540	3,858,571
	<b>All Other</b>	841,832	777,465	291,184	350,441	516,367	502,260	186,015	179,382
	<b>TOTAL</b>	44,239,193	51,051,383	18,856,463	28,325,658	8,106,203	8,781,735	3,681,555	4,037,954

*Note -- Because of rounding, figures may not add to the totals shown.*

*Source:* Compiled by the U.S. International Trade Commission from official statistics of the U.S. Department of Commerce (reportweb.usitc.gov/africa/trade\_data.html)

**Annex table 2.**  
**Sub-Saharan Africa: U.S. imports, GSP imports, and AGOA imports, by major commodity sectors, annual and year to date, Jan - Mar.**  
**Value (1,000 USD).**

Sector	2005	2006	2007	2007 YTD	2008 YTD
<b>Agricultural products:</b>					
Imports	1,333,629	1,285,251	1,156,902	366,080	453,220
AGOA including GSP provisions of the AGOA	272,075	360,803	271,538	56,796	49,475
GSP imports	150,954	174,141	145,857	34,361	24,133
Duty-free items added for AGOA cts.	151,724	224,841	154,871	27,927	30,296
<b>Forest products:</b>					
Imports	191,078	166,056	182,816	40,557	45,463
AGOA including GSP provisions of the AGOA	32,232	14,443	11,562	2,615	1,820
GSP imports	34,043	15,635	12,284	2,761	1,870
Duty-free items added for AGOA cts.	166	73	44	4	27
<b>Chemicals and related products:</b>					
Imports	875,360	778,097	991,625	211,563	389,111
AGOA including GSP provisions of the AGOA	329,282	284,739	308,885	66,702	98,157
GSP imports	429,114	317,706	377,104	58,402	143,397
Duty-free items added for AGOA cts.	44,708	48,086	51,800	8,300	12,271
<b>Energy-related products:</b>					
Imports	40,327,190	47,814,479	54,238,452	11,391,471	17,217,071
AGOA including GSP provisions of the AGOA	35,207,962	41,081,606	47,674,569	10,137,366	14,978,246
GSP imports	5,641,308	8,450,722	8,699,481	1,975,119	2,366,332
Duty-free items added for AGOA cts.	30,909,638	34,139,083	40,167,597	8,481,228	13,056,252

<b>Textiles and apparel:</b>					
Imports	1,504,188	1,338,875	1,333,860	320,965	265,802
AGOA including GSP provisions of the AGOA	1,424,939	1,261,128	1,270,589	306,907	253,634
GSP imports	6,106	5,100	3,267	623	270
Duty-free items added for AGOA cts.	1,418,986	1,256,394	1,267,420	306,332	253,364
<b>Footwear:</b>					
Imports	2,552	4,334	5,358	1,864	972
AGOA including GSP provisions of the AGOA	1,909	2,487	2,175	1,536	517
GSP imports	0	0	0	0	0
Duty-free items added for AGOA cts.	1,909	2,487	2,175	1,536	517
<b>Minerals and metals:</b>					
Imports	4,565,442	5,960,938	7,390,962	1,715,808	1,961,815
AGOA including GSP provisions of the AGOA	493,881	596,337	796,266	139,940	285,619
GSP imports	468,163	536,586	667,186	125,422	221,005
Duty-free items added for AGOA cts.	73,604	103,770	153,247	20,229	75,918
<b>Machinery:</b>					
Imports	273,226	314,898	423,496	99,739	77,764
AGOA including GSP provisions of the AGOA	19,300	27,874	29,331	5,793	4,665
GSP imports	18,979	27,660	29,361	5,796	4,665
Duty-free items added for AGOA cts.	337	216	10	0	0
<b>Transportation equipment:</b>					
Imports	391,093	588,482	669,035	169,946	427,045
AGOA including GSP provisions of the AGOA	273,632	495,315	588,548	150,559	383,021
GSP imports	135,490	140,584	121,078	29,771	21,910
Duty-free items added for AGOA cts.	138,142	354,730	467,470	120,788	361,111
<b>Electronic products:</b>					
Imports	76,069	85,149	93,611	19,295	22,535
AGOA including GSP provisions of the AGOA	19,188	16,427	21,324	3,669	3,275
GSP imports	19,145	16,438	21,256	3,669	3,274
Duty-free items added for AGOA cts.	70	0	71	0	1
<b>Miscellaneous manufactures:</b>					
Imports	132,291	185,276	182,838	48,207	25,274
AGOA including GSP provisions of the AGOA	71,995	98,033	76,596	20,777	10,992
GSP imports	71,499	98,687	74,322	20,834	10,371
Duty-free items added for AGOA cts.	3,791	3,309	4,943	792	906
<b>Special provisions:</b>					

Imports	252,385	240,186	219,603	40,218	82,568
AGOA including GSP provisions of the AGOA	0	0	0	0	0
GSP imports	0	0	0	0	0
Duty-free items added for AGOA cts.	0	0	0	0	0
<b>All sectors:</b>					
Imports	49,924,502	58,762,021	66,888,558	14,425,712	20,968,640
AGOA Including GSP provisions of the AGOA	38,146,396	44,239,193	51,051,383	10,892,660	16,069,422
GSP imports	6,974,802	9,783,261	10,151,197	2,256,758	2,797,228
Duty-free items added for AGOA cts.	32,743,077	36,132,990	42,269,649	8,967,136	13,790,663

*Source:* Compiled from official statistics of the U.S. Department of Commerce.

## References.

- Abromovitz M. (1986). "Catching Up, Forging Ahead and Falling Behind", *Journal of Economic History*, 46(2): 385-406.
- Aghion P. and Howitt P. (1998). *Endogenous Growth Theory*. Cambridge Massachusetts: The MIT Press.
- Amsden, Alice (2001). *The Rise of the Rest: Challenges to the West from Late-Industrializing Economies*. New York: Oxford University Press.
- Branstetter, L. (1996). "Are Knowledge Spill-overs International or Intra-national in Scope?" Micro-econometric Evidence from the U.S. and Japan. NBER Working Paper no. 5800.
- Choi, H.S. (1984). Technology Development in Developing Countries. Mimeo, Asian Productivity Organization, Tokyo.
- Dasgupta, A. K.. (1986). *Economic Theory and the Developing Countries*. Cambridge: St. Martin's Press Inc.
- Daniels Reza C. (2007). "Skills Shortage in South Africa: A Literature Review". Working Paper 07/121. Development Policy Research Unit. School of Economics, University of Cape Town, South Africa.
- Dosi, G. (1988). "Sources, procedures, and Microeconomic Effects of Innovation", *Journal of Economic Literature*, 36, 1120-71.
- Gamberoni, Elisa (2007). "Do unilateral trade preferences help export diversification: an investigation of the impact of European unilateral trade preferences on the extensive and intensive margin of trade". HEI Working Paper No: 17/2007, Graduate Institute of International Studies, Geneva, Switzerland.
- Golub Stephen S. and Edwards Lawrence (2002). "South African Productivity: An International Comparative Perspective". Article, based on research conducted for the South African National Treasury.
- Itoh M. and Urata S. (1994). "Small and Medium-Size Enterprises Support Policies in Japan". The World Bank Policy Research Working Paper (WPS 1403).
- Jordan, Paul (2007). "The Role of Extractive Industries in Fragile States in Africa", a presentation at the AfDB annual meeting on engaging with fragile states and the sustainable exploitation and transparent management of Africa's extractive resources, Shanghai, China, 16 - 17 May 2007.
- Krugman, P. (1986). *Strategic Trade Policy and the New International Economics*. Cambridge, Mass.: MIT Press.
- Kuznets, S. (1966). *Modern Economic Growth: Rate, Structure and Spread*. New Haven CT.: Yale University Press.
- Meyn S.P. and Tweedie R.L. (2005). *Markov Chains and Stochastic Stability*. Springer-Verleg: London.
- Muhammad U. Ilyas and Hayder Radha (2007). "The Influence Mobility Model: A Novel Hierarchical Mobility Modelling Framework". Michigan State University.
- Nwokeabia Hilary (2007). "Linking Foreign Direct Investment to Technological Progress and Sustained Economic Growth in Africa". Paper prepared for the IAMOT 2007 Conference - University of Miami, Department of Industrial Engineering, USA.
- OECD (2008). *African Economic Outlook*. Produced jointly by the Africa Development Bank and the OECD Development Centre. OECD: Paris.
- Romer (2000). Ideas – Not Machines Make Nations Proper. [web page] 2000. [http://www.ac.com/ideas/outlook/6.98/over\\_currentf2.html](http://www.ac.com/ideas/outlook/6.98/over_currentf2.html). (Accessed 8, August, 2000).
- UNCTAD (2007). *Knowledge, Technological Learning and Innovation for Development: The Least Developed Countries Report 2007*. Geneva: UNCTAD.

Verghese C. and Asavathirathan Chalee (2000). "The Influence Model: A Tractable Representation for the Dynamics of Networked Markov Chains". Phd Dissertation. Massachusetts: Massachusetts Institute of Technology.

World Bank (2003). "Madagascar: Diagnostics Trade Integration Study". Vol. I. August 15, 2003.