

February 2006

China and India: What's in it for Africa?

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Preliminary draft.

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Foreword

This publication results from the Development Centre's Programme of Work 2005-2006, in the context of its broader mandate to facilitate informal policy dialogue between the OECD and non-member countries. It is part of research activity *Policy Coherence and Productive Capacity Building*.

The study has been developed in co-operation with the German Development Institute, Berlin, and the Institute for Development Studies, Sussex University. Earlier drafts of this study have been presented and benefited from comments at the African Development Bank, the Bank for International Settlements, Basel University, the EU Ecowatchers Group (Abuja), the Global Development Network, and the Nigerian Institute for International Affairs. The authors would particularly like to acknowledge helpful comments on earlier drafts from Saumitra Chaudhuri, Kenneth Ruffing and Javier Santiso.

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Preface

With the emergence of China *and* India in the world economy ever more manifest, Africa's economy and polity will be affected in various, complex ways. The interactions between the Asian giants and Africa are bound to intensify even if the recent period of supercharged growth in the former countries is unlikely to be sustained.

The Asian giants are *relevant* for *policy design* by African governments in many ways; we can think of the Asian giants as growth models, key global price setters, including for interest rates, potential markets, competitors, financiers, and polity determinants. *Policy interactions* seem relevant in the areas of raw material price levels and volatility, exchange rate developments and resource allocation (de-industrialisation, vertical integration), low-wage competition and income distribution, industrialisation strategies, input linkages (in China and India), capital-flow effects (such as through FDI, project finance, public-private joint ventures), finally the context of widely rent-seeking behaviour and ethnic distribution tensions.

The OECD Development Centre has been at the forefront of efforts to analyse the global implication of China's and – increasingly – India's ascendancy. In particular, H. Reisen, M. Grandes and N. Pinaud have explored new channels of global macroeconomic interdependence that arise from China's ascendancy (see "Macroeconomic Policies: New Issues of Interdependence", OECD Development Centre, *Working Paper*, No. 241). A. Goldstein investigates the strategies of large corporations from these and other emerging economies in *Emerging Multinationals in the Global Economy* (Palgrave MacMillan 2006). The *African Economic Outlook 2004/05* co-authored by the OECD Development Centre and the African Development Bank also documents how the very rapid rise of Asian producers in the clothing sector affects individual African exporters — in particular the Maghreb countries, Mauritius and Madagascar.

As the present study amply documents, African economies are affected differentially by the competitiveness and growth of Asia. In some cases, there may be complementary effects, as producers benefit from the demand for their outputs from Asia. China and other countries may even want to secure raw materials and improve export infrastructure in selected African countries and offer project finance, FDI and other forms of trade-linked capital flows. In other cases, interests may be competitive rather than mutual, as Asian economies divert indirectly investment resources away from African economies. While on balance the short-term opportunities of Asia's ascendancy and of corresponding South-South trade may outweigh the economic cost for Africa, in particular its raw material and energy exporting economies, there are serious long-term risks. These risks are related to weak governance standards which may lead to misallocation of receipts stemming from higher raw material prices and from disincentives for investment in non-traditional tradable activities, needed for better sharing the benefits of global trade.

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1. Introduction: Impact Channels

With the integration of China *and* India – the “Asian Drivers” – in the world economy gaining momentum, it is ever more manifest that economy and polity in poor countries will be affected in various, complex ways. The sheer size of the Asian Drivers, their phenomenal rate of growth, their hunger for natural resources, and their growing economic and political power ensure that they will re-shape the world economy and influence the rules of the game. Their growing presence is likely to transform past relationships in a number of key respects, providing both competition and opportunities not just to the major trading partners in OECD countries, but also to developing countries and other emerging economies. Therefore, innovative policy responses to the Asian Drivers have to be devised. And they will be needed for the long term, as the giants’ rise is unlikely to be only transient (OECD, 2005a) .

Through this work, the OECD Development Centre aims at inform policy decisions and strategies that maximise the benefits and minimise the risks that arise for African countries and people from the ascendancy of the two Asian giants.¹ Similar endeavours have already been made elsewhere (see Table 1). The impact on Latin America has received more attention, notably through work at the Inter-American Development Bank (IADB 2004), the UN Commission for Latin America and the Caribbean (ECLAC 2005) and Spain’s Banco Bilbao y Vizcaya Argentaria (Santiso *et al.* 2004a); likewise, the impact of China on the Asian neighbours has been studied at the Asian Development Bank Group (Lall and Weiss 2004). Production complementarities in particular, benefit Asian neighbours as China is not depriving neighbours of FDI but on the contrary is helping them attract more FDI in the integrated production networks that handle most of their technology-based exports (Eichengreen and Tong 2005 and Zhou and Lall 2005).²

Although UNCTAD’s annual *Trade and Development Report 2005* devotes considerable attention to the impact of China and India on primary commodity markets and on the terms of trade, it is fair to say that the developmental impact of the Asian Drivers’ rise on Africa has been somewhat neglected. To the best of our knowledge, the only available studies are Edwards and Jenkins (2005) and Kennan and Stevens (2005).⁴ The former combines a disaggregated trade analysis with a framework to assess trade-poverty linkages. The latter estimates the impact of China and India on African countries’ trade balance and draws a tentative list of African “losers” and “winners” from China and India’s rise in the international trade arena. In a broader sense, Alden (2005), Marchal (2005), and Tull (2005) all review the multiple dimensions of Sino-African relations and the changes they have gone through since the 1970s. By identifying the potential conduits through which the rise of the Asian Drivers may affect African growth prospects, this paper aims at a broader approach than the above-mentioned studies.

¹ In this document, “Africa” refers to Sub-Saharan Africa unless otherwise stated.

² This may change in the future as China seeks to take larger shares of exports and high-value functions.

⁴ The latter also covers Latin American countries.

Table 1: The Literature on the Effects of the Asian Drivers on Developing Regions⁵

	Africa	Asia	Latin America
General	Aldon (2005), Marchal (2005), and Tull (2005)	Agnès Bénassy-Quéré, Valérie Mignon, Alexis Penot (2005)	IADB (2004), ECLAC (2005), de Paiva Abreu (2004), Lora (2005), Peters (2005)
Trade channels	Jenkins and Edwards (2005), Kennan and Stevens (2005)	Lall and Weiss (2004), Eichengreen <i>et al.</i> (2004), Gaulier <i>et al.</i> (2004)	Santiso <i>et al.</i> (2004), Dussel Peters (2005), Ribeiro and Pourchet (2004), Negri (2005)
Investment channels		Eichengreen and Tong (2005), Zhou and Lall (2005)	Garcia-Herrero and Santabárbara (2005), Gottschalk and Prates, (2005)
Governance channels		Bustelo (2005)	

The emphasis here is on global macroeconomics, raw commodity markets, trade links and policies, foreign direct investment (FDI) by Chinese and Indian multinationals, and governance standards. In particular, given the fact that most African economies are linked to the world economy as *raw material producers* and hence important suppliers to the Asian Drivers, the paper focuses on the role of China and India on some international commodity and energy markets. The paper:

- starts with the indirect global macroeconomic effects that arise from China's and India's growth performance on raw material markets, through which Africa's economies are most prominently linked to the world economy;
- looks at terms-of-trade effects that arise as a result of lower manufactured goods prices, higher raw material prices and trend exchange rate appreciation of the Asian giants, in order to explore possible allocative consequences (the so-called Dutch Disease effects);
- traces the redirection of African trade towards China and India and identifies the corresponding policy challenges that arise from the fact that China and India are 'swing importers' in certain raw material markets;
- takes a close look at corporate players as conduits of FDI flows between China, India, and Africa and analyses how Africa multinationals (although essentially those from South Africa) can benefit from market opportunities in the Asian Drivers.

We hope to contribute to a better and deeper understanding of the implications of the Asian Drivers on economic growth and development prospects in Africa. The study is a first step in a broader project which also includes a number of country case studies. It is therefore drafted with an eye towards guiding the content of individual country studies. Ultimately, the paper aims at informing donor policy choices as to appropriate macro policies to minimise Dutch Disease effects (should any arise), sectoral diversification strategies, trade policy recommendations (such as how to deal with preference erosion in the wake of the dismantling of the Multi-Fibre Agreement), and host-country policies best suited at maximising and sustaining the benefits from FDI.

⁵ Table 1 is not intended to become a full list of papers devoted to Asian Driver's impact. Other references are available at: <http://www.ids.ac.uk/ids/global/Asiandriversbackgroundpapers.html>

2. The Asian Drivers' global macroeconomic impacts

The Asian giants' integration into the world economy has dramatically changed the nature of macroeconomic and financial interdependence (Reisen *et al.* 2004); this, in turn, shapes primary commodity markets.

- *Global output growth* is a major determinant for primary commodity prices; a recent estimate finds that world commodity prices move pro-cyclically with the growth rate of world industrial production, by about 1.5 percent for every one percent increase in world industrial output, with at most a one-quarter lag (Bloch *et al.* 2004).
- If world industrial growth exceeds 4 percent, the *barter terms of trade* of primary commodity to finished goods rise (Bloch *et al.* 2004). High global growth has recently halted and reversed the secular decline of raw commodity prices since World War II (hypothesised by Prebisch and Singer to be caused by the uneven effects of technological progress on manufactures and raw material production).
- Higher *US interest rates* (which closely govern variations in global key interest rates) have a generally negative impact, as reduced output prospects and higher storage costs lead to lower raw material prices.
- Likewise, a strengthening of the *US dollar* will depress raw material prices, partly for the same reasons just evocated for the US interest rates, partly as a result of the dollar denomination of most commodity markets.

How do the Asian Drivers impact these macroeconomic determinants of the price of raw materials?

China and India's *contribution to global output growth* is impressive (Table 2).⁸ Each year since 2001, their combined contribution to global output growth has been around 30 percent. China's contribution has been consistently higher than that of India by almost three times. Moreover, this contribution has helped to hold global output growth above the 4 percent threshold which is critical for improving the terms of trade for primary commodity producers. The sustained high level of growth in both energy and metal use since 2000 has sparked China's (to a lesser extent, India's) demand for commodities on a global scale (see below).

⁸ The contribution to world growth is calculated as

$$\frac{\gamma_c * \frac{Y_c}{Y_w}}{\gamma_c * \frac{Y_c}{Y_w} + \gamma_r * \frac{Y_r}{Y_w}}$$

i.e. China's (India's) growth rate times China's (India's) percentage share in world output divided by the sum of China's growth rate plus the growth rate of the rest of the world, each weighted by their respective share in world output.

Table 2: **China and India's Contribution to Global Growth, 2000-2004**
Percentage share of annual growth rate

	2000	2001	2002	2003	2004
Global growth, percent p.a.	6.9	4.8	4.6	5.7	7.4
China	15.8	23.0	25.2	23.4	19.9
India	6.0	7.3	8.2	9.0	7.0

Source: Authors' own calculation based on IMF *World Economic Outlook Database*, September 2005

N.B: GDP based on purchasing-power-parity (PPP) valuation of country GDP.

On the financial front, demand from Asian investors, in particular the recycling of foreign exchange reserves into US securities – the *Asian bid* – has contributed to the low level of US interest rates (Alan Greenspan's 'conundrum'). That much of Asia strictly or implicitly pegs to the dollar (whatever may be officially pronounced) is not new¹¹; exchange rate targets have repeatedly been uncovered through detecting implicit weights for basket pegs, reserve volatility, or interest rate volatility (summarised by Branson (2001)). What is new is the sheer scale of official reserve accumulation. By end 2005, China and Hong Kong had accumulated almost one trillion in foreign exchange reserves, of which 30 per cent were invested in US Treasury Bills; this in turn constituted 13.6 per cent of all US Treasury Bills outstanding (see Table3). India's foreign exchange reserves were much lower at the end of 2005 and more widely invested.

Table 3: **Foreign Exchange Reserves and US Treasury Holdings**
- end 2005 -

	<u>FX Reserves</u>		<u>US Treasury Holdings</u>	
	bn US\$	of which %UST	bn US\$	% of sum
China + Hong Kong	980	30.2	296	13.6
India	145	9.7	14	0.7

Source: US Treasury, www.treas.gov/tic; central banks of China, India and Hong Kong (Hong Kong Monetary Authority), press releases.

¹¹ In July 2005, China announced to move from a US dollar peg to a trade-weighted basket peg, with undisclosed weights. Targets of slightly undervalued real effective exchange rates can be rationalised in the development context: they provide a bias towards exports and may thus stimulate growth in countries where the absence of deep financial systems and distorted local prices would otherwise provide inferior signals for the dynamic allocation of resources (McKinnon and Schnabl 2003).

Deutsche Bank (2005a) has run a model simulation to show that a potential move of China towards *genuine currency flexibility* and ensuing real appreciation of the Renminbi might raise US interest rates for two reasons: first, a rise in US dollar prices in electronics, apparel, textile and other light manufacturing products; second, reduced intervention on the foreign-exchange market and reduced US Treasury bond purchases. The next impact of higher US interest rates stemming from reduced Asian intervention on currency markets is hard to predict. Taken in isolation, it should dampen primary commodity prices. Nonetheless, the resulting weakening of the US dollar would translate into higher dollar-denominated raw material prices. To the extent that the Euro strengthens against the US dollar as a result of higher exchange-rate flexibility in Asia, this would affect those Western African countries which peg to the Euro.

Regardless of the currency regime, any sustained growth differential of China viz. Its main trading partners will imply trend appreciation of the real effective exchange rate.¹² This will raise China's purchasing power, while it will negatively affect her export competitiveness. Africa's primary commodity exporters would be likely to benefit from a (real effective) *Renminbi* appreciation. To be sure, such appreciation amounts to a tightening of monetary conditions in China, and therefore could initially slow down the country's economic growth and demand for commodities. Recent CGE model simulations at Deutsche Bank (2005a) emphasize, however, the substitution effect of currency appreciation as China's demand for commodities would shift away from domestic suppliers to cheaper foreign supplies, including Africa's. Domestic prices would gradually adjust downwards and international US dollar prices upwards, depressing profitability of China's producers and boosting foreign competitors. This positive effect is reinforced to the extent that the currencies of other Asian commodity producers, such as Malaysia's, follow Renminbi appreciation¹³.

Furthermore, the introduction of exchange rate flexibility would equip China's macroeconomic authorities with a central policy instrument to smoothen the country's fixed investment, consumption and output profile. The reform initiated by China's authorities in July 2005 might thus help reduce uncertainty or volatility of demand growth for commodities. This point is crucial. Over the past two years, China has contributed roughly 50 percent of the global demand growth for major commodities. However, in some areas, China and sometimes India are 'swing producers' (easily switching from net import to net export positions with respective consequences for world prices). As China and the United States do not form an optimal currency area, business cycles would not be sufficiently synchronised and the relevant policy parameters will not be flexible enough (and endogenous to the requirements of the peg) to avoid serious output volatility. Insofar as China, and increasingly so India as well, are not price-takers but price-makers in raw material markets, greater exchange rate flexibility is unequivocally good news for most exporters of African commodities.

An analysis of the determinants of growth (Table 4) in China suggests that rapid growth should continue for the foreseeable future, albeit at a somewhat slower rate (OECD 2005a)¹⁴. Applying the standard

¹² When a country 'catches up' with initially richer countries, its goods become more expensive because productivity in the tradables sector rises more than in the nontradables sector. The prices of nontradables (e.g. housing) therefore rise faster than those of tradable goods, reflecting the increasing scarcity of the former and wage raises being higher than productivity gains in the non-tradables (*Balassa-Samuelson hypothesis*). This rise amounts to real appreciation, which is achieved through nominal currency appreciation under a flexible currency regime and through higher inflation under rigid currency regimes.

¹³ Reisen *et al.* (2004) have argued that Asia is unlikely to drop the dollar peg – explicit or implicit - as long as China does not. Indeed, Malaysia quit the US dollar peg the very same day China did.

¹⁴ Extrapolating past real GDP growth rates into the future, Holtz (2005) finds the size of the Chinese economy to surpass that of the U.S. in purchasing power terms between 2012 and 2015; by 2025, China is likely to be the world's largest economic power by almost any measure. The extrapolations are supported by two types of considerations. First, China's growth patterns of the past 25 years since the beginning of economic reforms match well those identified by

methodology used by the OECD, the potential output growth of the Chinese economy has been increasing since 2000. First and foremost thanks to capital accumulation (investment growth), potential growth in 2005 has reached 9.5 percent. It is unlikely that the current savings rate (which has risen to 45 percent of GDP) can be sustained in the long term. Moreover, as more capital is accumulated, its marginal product will fall, resulting in a smaller capital share and a smaller contribution to growth. There is nonetheless considerable room for further institutional and trade reforms to raise efficiency, the second most important growth determinant in China (Francis *et al.* 2005). The continued reallocation of labour from agriculture to manufacturing is a further major source of productivity growth.

Table 4: **Sources of China's Income and Output Growth, 1998-2003**
Percentage points

	Average 1998-2003	2003
Employment Contribution	0.3	0.4
Capital Contribution	4.9	5.5
Residual Factors	<u>2.8</u>	<u>3.1</u>
- Sectoral change,	0.5	0.7
- Education,	1.1	0.8
- Multi factor productivity	1.3	1.6

Source: Adapted from OECD (2005a)

To sum up: China and India are rapidly integrating their huge labour forces into the world economy and growing swiftly. Each year since 2001, their combined contribution to global output growth has been around 30 percent. Moreover, this contribution has helped to hold world growth above the 4 percent threshold which is critical for improving the terms of trade for primary commodity producers. On the financial front, demand from Asian investors, in particular the recycling of foreign exchange reserves into US securities – the *Asian bid* – has contributed to the low level of US interest rates which have further stimulated raw material prices.

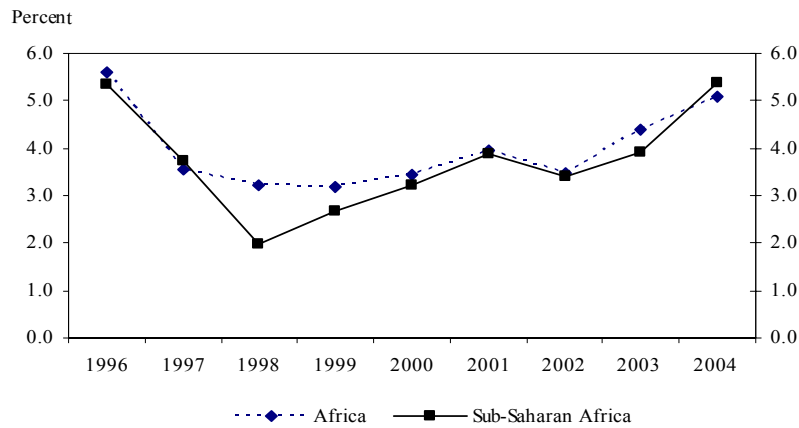
Consequently, Africa – still largely connected to the world economy through raw material exports – is benefiting from the China-driven ‘super cycle’, which is reinforced by India’s emergence.

Figure 1 shows that real GDP in Africa grew on average (year-on-year) at 4.2 percent during 2001-2004, compared with 3.3 percent during 1997-2000. Moreover, Sub-Saharan Africa’s real GDP growth rate reached 5.4 percent in 2004, an eight-year high. The African Economic Outlook 2005 (AfDB/OECD) cites commodity prices rise as a critical factor behind this promising momentum.

standard economic development and trade theories (structural change, catching up, and factor price equalization). Second, decomposing China’s GDP growth into growth of labour and other variables, the near-certain information available today about the quantity and quality of Chinese labourers through 2015 and possibly several years after allows inferences about future GDP growth.

¹⁶ 56 African countries including Northern African countries.

Figure 1: Real GDP Growth in Africa, 1996-2004

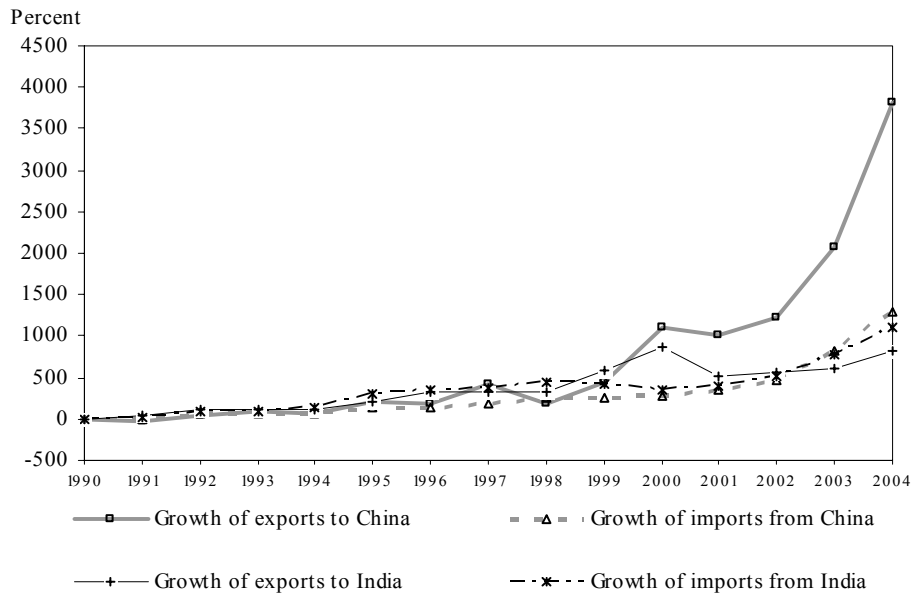


Source: AfDB/ OECD (2005), *African Economic Outlook*.

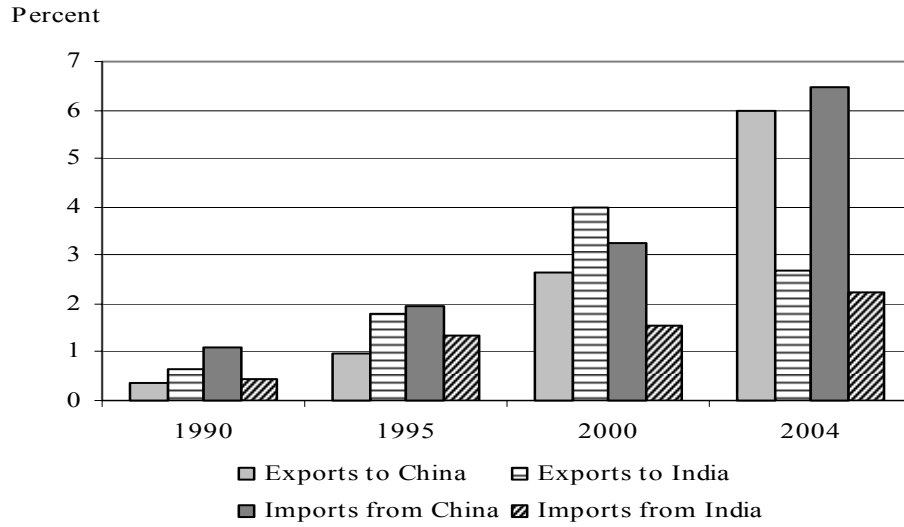
In fact, African trade with China and India has shown a striking dynamism since 2000 (Figure 2a). African exports to China started accelerating around 2000, and have since risen at an annual growth rate of 56 percent. By 2004, African exports to China stood at 11.4 billions, more than three times greater than that in 2000 and was about 6 percent of total African export to the world (Figure 2b). Although African exports to India have remained strong, with an average annual growth of 10 percent between 2000 and 2004, China overtook India as a trade partner for Africa in 2000.

Figure 2: Africa's Trade with China and India, 1990-2004¹⁶

a) Cumulative Growth Relative to 1990



b) Share of China and India in Africa's Trade, 1990-2004



Source: IMF Direction of Trade Statistics

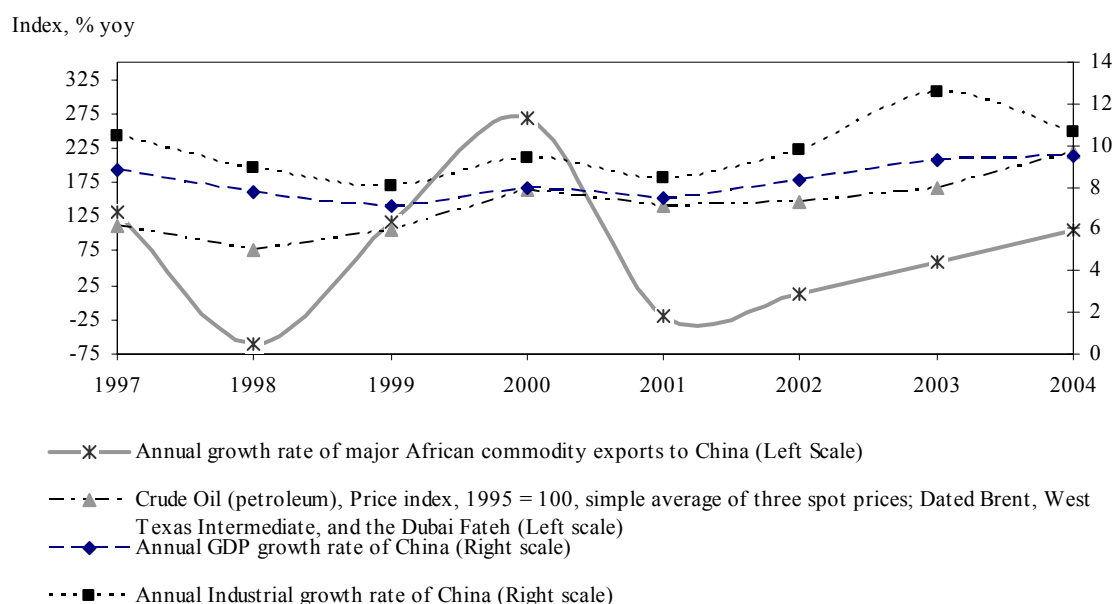
Since 2000, the average annual growth rates of African imports from both China and India (33 percent and 20 percent, respectively) have been similarly vibrant. Figure 2a shows the growth rate of imports from India is faster than the growth of exports to India which declines first and then increase. This is also illustrated by the expansion of Indian share of African imports and the fall in Indian share of African exports (Figure 2b).

3. Africa and Global Commodity Markets

Many African economies are prominently linked to the world economy as important producers of raw material and soft commodities (for a detailed description, see Appendix A). China's and India's emergence over the last decade as key net importers of commodities means that global commodity markets are likely to be the main channels through which the impact of China and India's ascendancy has been (and will be) felt on the African continent.

Figure 3 below shows the presence of considerable co-movement between China's macroeconomic performance (GDP and industrial growth rates) and Africa-relevant commodities¹⁷. One possible explanation could be that strong Chinese industrial growth drives up its own energy and metal intensity, propels demand for African commodities, and also contributes partly to the recovery of global raw material price.

Figure 3: The influence of China growth performance on commodity prices



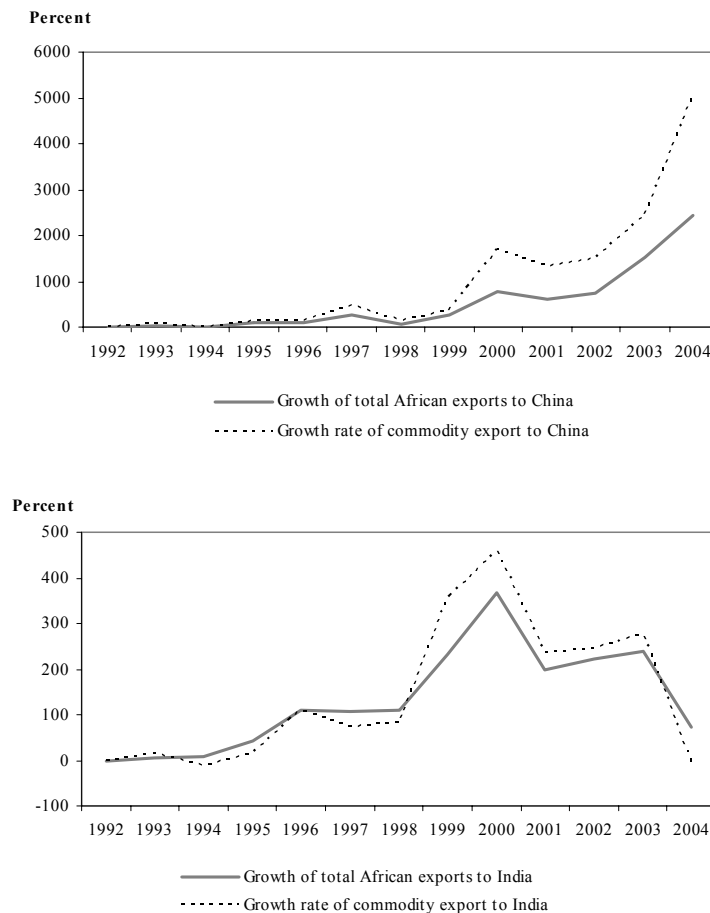
Source: UN Comtrade, World Bank Commodity Price Data (Pink Sheet) and World Development Indicators

Figure 4 shows how growth of Africa's total exports (including Northern Africa) is narrowly correlated with the growth of its major commodity exports (as explained in footnote 9) to China and India.

¹⁷ The major African commodity exports to China are: Crude oil (UN Comtrade SITC-Rev.3 code: 333), metalliferous ore, scrap (28), cork and wood (24), cotton (263), pearls and precious stones (667). Please refer to Table 10, 11 and Table A1 (in Appendix A) for more details on commodity selection.

²¹ The energy use is measured by kilotons of oil equivalent. It refers to apparent consumption, which is equal to indigenous production plus imports and stock changes, minus exports and fuels supplied to ships and aircraft engaged in international transport (International Energy Agency). The metal use is measured by apparent consumption of crude steel (thousand metric tonnes).

Figure 4: Africa's Commodity and Total Exports to China and India, 1992-2004
Cumulative Growth Relative to 1992



Source: UN Comtrade and IMF Direction of Trade (DOTS)

Africa is linked to the Asian drivers' demand for primary commodities via two channels:

- *International price of commodities.* Exchange rates, global inflation, interest rates, bond yields, house prices, wages and profits are increasingly being driven by the state of the economies in China and India. And so are international raw material prices. The focus here is on what that means for Africa, via export prices of commodities, terms of trade and potential Dutch Disease effects. In other words, have African countries benefited from China and India's increasing demand for commodities and higher resulting commodity prices, or have reallocation effects that are harmful to Africa's future growth prospects been greater?
- *The direct trade dependency of Africa on China and India.* Simply put, is Africa, as a commodity exporter, becoming more – indeed, too – dependent on China and India? Has Africa simply succeeded in redirecting its commodity exports towards China and India, currently the world's most dynamic markets for commodities? Or has Africa also become more dependent on the vagaries of the international markets for such commodities?

We will discuss the first channel in the following sections (4.1 and 4.2) and cover the second channel in section 5.

3.1. China and India's Commodity Demands and their Prices

The current process of capital deepening has spurred the drastic increase in both energy and metal use in China²¹. The average annual growth of energy consumption is 1.2 percent between 1996 and 1999, before rising steadily to 14.5 percent in 2003 with an average annual (2000-03) growth rate of 6.2 percent (Table 5). Meanwhile, Chinese energy production also increased at an annual rate of 6.2 percent (2000-03). Similarly, the growth rate of crude steel consumption surged from 1.7 percent in 2000 to 25.2 percent in 2003, a nine-year high, while the growth rate of crude steel production soared at an average annual rate of 15.7 percent. Indian energy and steel use also accelerated in the second period (2000-2003) though the paces are more moderate. In general, Chinese growth rates in terms of production and consumption of energy and metals are much faster than those of India (more than 2.5 times), consistent with industrial growth rate difference between the two countries.

Table 5: **China and India's Rising Energy and Steel Use**
Year-on-year growth rates (percent)

	China		India	
	1996-1999	2000-2003	1996-1999	2000-2003
<i>Annual average:</i>				
Industrial production	9.90	10.07	4.97	5.84
Energy consumption	1.16	6.16	3.35	2.41
Energy production	0.15	6.16	1.49	2.51
Crude steel consumption	7.78	17.74	3.56	4.04
Crude steel production	6.78	15.70	2.60	7.01

Sources: Authors' own calculation based on World Development Indicators (2005), International Energy Agency Data Service, Steel Statistical Yearbook (2004), International Iron and Steel Institute.

Although the shares of commodities (fuels and crude materials) in China's and India's overall imports are not high (see Appendix E), China and India have nonetheless become first-rank world commodity *net importers*²² because of their economic scales and potential (Table 6). Between 2000 and 2003, Indian oil import dependence (73 percent in 2003) has been greater than that of China (36 percent in 2003). However, China's net import is more than that of India despite the fact that its oil production is five times more than that of India in 2003 alone. Moreover, Indian import dependence for iron ore has been on the decline while its iron ore exports grow on average at 12 percent (2000-2003). Indian copper production and consumption are far lower than those of China and hence lower import dependence. For cotton, again a pattern of higher production and import together with lower export is witnessed in China relative to India. However, this is not surprising given that China's 2000-2003 industrial growth rates has been close to twice as high as India's.

²² From the perspective of Africa's raw commodity exporters, it is the Asian drivers' *net demand* that matters for prices and export volumes.

Table 6: China and India's global demand and supply for selected commodities

a) China:

	2000	2001	2002	2003
<i>Oil (000 tons):</i>				
Production	163000	163959	167000	169600
Export	10306	7550	7665	8133
Import	70265	60260	69406	91020
Net import	80571	67810	77071	99153
Consumption (demand ²⁴)	222959	216669	228741	252487
Import dependence (imports as % of demand)	31.5	27.8	30.3	36.0
<i>Iron Ore (000 tons):</i>				
Production	223950	217015	231430	261085
Export	0.6	1	1	1
Import	69971	92393	111423	148128
Net import	69970	92392	111422	148127
Consumption (demand)	293920	309407	342852	409212
Import dependence (imports as % of demand)	23.8	29.9	32.5	36.2
<i>Copper (000 tons):</i>				
Production	1370	1523	1632	1836
Export	40	51	77	64
Import	1814	835	1181	1357
Net import	1774	784	1104	1293
Consumption (demand)	3144	2307	2736	3084
Import dependence (imports as % of demand)	57.7	36.2	43.2	44.0
<i>Cotton (000 tons):</i>				
Production	4417	5324	4916	4871
Export	299	60	159	117
Import	251	197	245	1075
Net import	-48	137	86	958
Consumption (demand)	4369	5461	5002	5829
Import dependence (imports as % of demand)	5.7	3.6	4.9	18.4

²⁴ At this stage, we do not take into account of any domestic stock changes.

b) India:

	2000	2001	2002	2003
<i>Oil (000 tons):</i>				
Production	32426	32032	33042	33373
Export	0	0	0	0
Import	74097	78706	81989	90434
<i>Net import</i>	<i>74097</i>	<i>78706</i>	<i>81989</i>	<i>90434</i>
Consumption (demand)	106523	110738	115031	123807
<i>Import dependence (imports as % of demand)</i>	<i>69.6</i>	<i>71.1</i>	<i>71.3</i>	<i>73.0</i>
<i>Iron Ore (000 tons):</i>				
Production	75950	82000	94300	105500
Export	32910	37290	46602	55000
Import	510	300	282	457
<i>Net import</i>	<i>-32400</i>	<i>-36990</i>	<i>-46320</i>	<i>-54543</i>
Consumption (demand)	43550	45010	47980	50957
<i>Import dependence (imports as % of demand)</i>	<i>1.2</i>	<i>0.7</i>	<i>0.6</i>	<i>0.9</i>
<i>Copper (000 tons):</i>				
Production	3498	3418	3071	2903
Export	87.25	0.01	121.17	0.30
Import	472	828	698	488
<i>Net import</i>	<i>384</i>	<i>828</i>	<i>576</i>	<i>488</i>
Consumption (demand)	3883	4246	3648	3391
<i>Import dependence (imports as % of demand)</i>	<i>12.1</i>	<i>19.5</i>	<i>19.1</i>	<i>14.4</i>
<i>Cotton (000 tons):</i>				
Production	2,380	2686	2312	3,009
Export	24	8.5	10.9	119.0
Import	350	519.8	264.9	170.9
<i>Net import</i>	<i>326.7</i>	<i>511.3</i>	<i>254.0</i>	<i>51.9</i>
Consumption (demand)	2706.7	3197.3	2566.0	3060.9
<i>Import dependence (imports as % of demand)</i>	<i>12.9</i>	<i>16.3</i>	<i>10.3</i>	<i>5.6</i>

Sources: Authors' own calculations based on International Energy Agency Data Service, Steel Statistical Yearbook (International Iron and Steel Institute, 2004), World Metals Statistics, USGS, ICAC.

Table 7 highlights that both countries have contributed tremendously to world import growth in selected commodities, though China's contribution is generally greater. Kennan and Stevens (2005) find that seven categories of Chinese imports relevant to African exporters, for the most part commodities, have grown 1.5 time faster than the average growth of Chinese overall imports over the period 1998-2003: feed for Burkina Faso, Ethiopia, Nigeria, Sudan, Tanzania; cobalt for South Africa and the Democratic Republic of Congo; copper for Zambia and South Africa; alumina for Guinea; ferrous metals for Mauritania, South Africa and Zimbabwe; chemicals for Niger. Note that in the rest of the world the growth of commodity imports is far slower than in both China and India over the same period. For example, in the case of cotton, had it not been for China's strong demand, world demand would have practically stagnated -- the growth rate of cotton imports for the rest of the world excluding China was 0.9 percent and China's contribution to the growth of world demand for cotton was over 100 percent. This can also be verified by the rise in China's share of the global imports for metalliferous ores (11 percent), and cotton (26 percent) between 2000 and

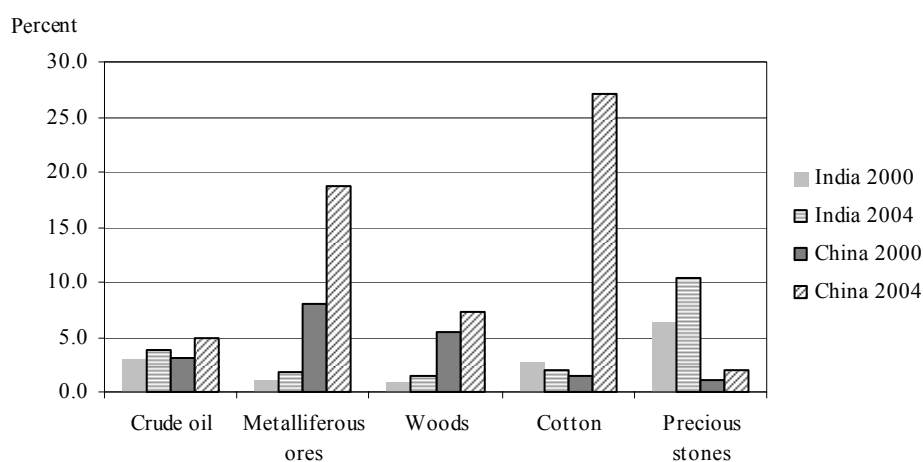
2004 (Figure 5). It should be noted that there is also a significant increase in Indian share of the global imports for precious stones (4 percent).

Table 7: **China and India's contribution to growth of world imports of selected commodities, 2000 - 2004**²⁵
Percentage

	China			India		
	Average annual growth for the world excluding China	Average annual growth for China	Overall contribution to global growth by China	Average annual growth for the world excluding India	Average annual growth for India	Overall contribution to global growth by India
Crude Oil	22.5	66.9	9.2	23.5	25.0	5.5
Metalliferous ores	16.0	52.4	31.4	19.7	26.9	2.5
Woods	4.0	17.7	15.6	4.6	18.6	3.5
Cotton	0.9	152.7	119.4	8.2	3.9	-0.8
Precious stones	6.9	29.9	7.5	6.7	12.8	31.5

Sources: Authors' own calculations based on UN Comtrade database

Figure 5: **Shares in world imports of selected commodities, China and India, 2000 and 2004**



Source: UN Comtrade database

In addition, the average annual growth for oil imports by the rest of the world except China is 22.5 percent (2000-2004). On the other hand, the average growth rate for China's oil import of the same period is 66.9 percent, which pushes up China's share in global oil import to 4.9 percent in 2004 from 3.0 percent in 2000 and contribute to nearly 10 percent of global growth in oil imports between 2000 and 2004. Similarly, India

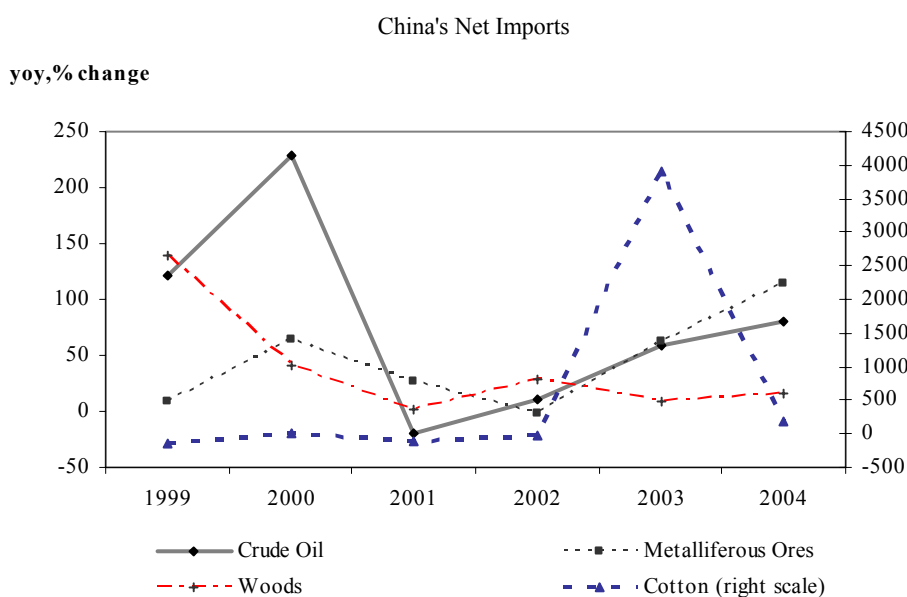
²⁵ The chosen commodities are major commodity exports from Africa to China and India, for details please refer to Table 10, 11 and Table A1 (Appendix A).

with an average annual oil import growth rate at 25 percent and an import dependence of 73 percent (2003), accounts for 3.8 percent of global oil imports in 2004.

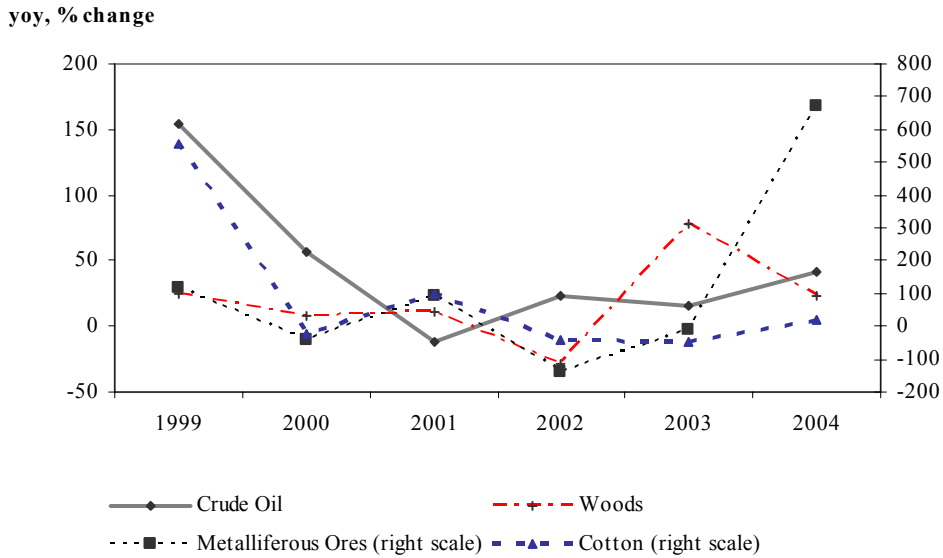
The benefits of China's and India's rising global demand (net imports) for Africa-relevant commodities may, nevertheless, be attenuated by the *volatility of demand* of the Asian giants, partly due to cyclical variations but also to arbitrage between home production and imports. Moreover, as about 70-80 percent of manufacturing exports from China is produced by multinational corporations, high raw material demand partially reflects relocation of raw material demand from production sites elsewhere. Such adjustment does not occur without friction, which could have fuelled demand volatility. Consequently, rising raw material demand from China and India is not necessarily an unfettered blessing for Africa.

Figure 6 visualises the swings in net imports by the two Asian giants between 2000 and 2004 for the most important commodities for Africa's foreign exchange receipts (oil, metals, wood and cotton). All four commodities have recorded price increases since 2001, although the price of cotton registers a sharp decline in 2004 (Figure 7). The price of oil rises steadily at an average annual rate of 18.7 percent (2000-04). The same pattern holds for copper (58 percent) after strong swings in prices.

Figure 6: China and India as Net Importers of Commodities Relevant to Africa, 1999-2004

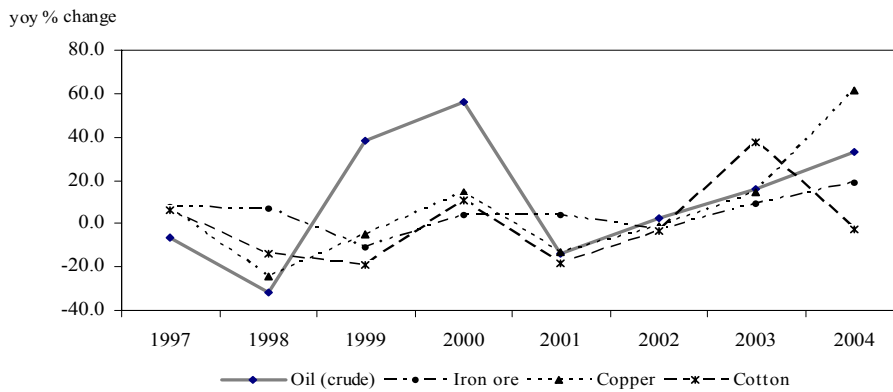


India's net imports



Source: UN Comtrade

Figure 7: Annual percentage change in commodity prices, 1997-2004



Source: AfDB/OECD (2005), *African Economic Outlook*.

Table 8 compares the volatility (measured as standard deviation around the trend) in Africa-relevant commodity prices for two periods. Volatility rose for all commodities except copper. Although it is difficult to dissect between the relative contribution of different factors,²⁷ increased volatility between 2000 and 2004 may have been *partly* due to the role of China and India as *swing producers* – exporting when prices are high and stockpiling when (be it for cyclical or exceptional reasons) they are not as attractive. Given their large size, any behavioural change is likely to translate into world price volatility.

²⁷ The *World Energy Outlook* mentions a combination of factors that stretch the market and prompt widespread speculation by hedge funds and other investment vehicles, including increased terror attack against energy infrastructure, political uncertainty in oil producing countries, and the rise in China and India's demand (IEA 2004).

Table 8: Volatility in Commodity Prices Relevant to African Countries

	Volatility in Prices*		
	1995-1999	2000-2004	Difference
Oil (crude)	7.66	8.25	+ 0.59
Iron Ores	1.90	2.76	+ 0.86
Copper	5.48	4.33	- 1.15
Cotton	4.26	5.63	+ 1.37

Note: * Standard deviation of monthly percentage changes
Source: Authors' own calculations based on World Bank data

In cotton, for example, China is not only an important world importer, but also a large-scale producer. China's cotton output is indeed very sensitive to price incentives (in particular to the price ratio between cotton and substitution crops, such as grains). Furthermore, the bulk of Chinese cotton growing now takes place in the Xinjiang province in the West of the country, which enjoys low production costs and favourable natural conditions. However, this region is distant from major textile industries, mostly located in the Eastern coastal areas, while long-distance transportation is still a problem in China. As a result, the Chinese textile industry still relies on imported cotton. African cotton producers have faced record-low prices since mid-2004, a result of record world harvest in 2004/2005. World output has increased by around 23 percent compared to 2003/2004 and 30 percent of this increase is attributable to China. By contrast, it is expected that China will account for 40 percent of the prospective fall in world production in 2005/06 (while its imports of cotton should remain high in the post-MFA context), thereby contributing to the expected rebound of cotton prices.

Table 9: China, India and the international cotton market
World cotton output ('000 tons)

Harvest	2004/05	2005/06	Percentage change 2004/05 – 2003/04	Percentage change 2005/06 – 2004/05	Contribution to change (%) 2004/05 – 2003/04	Contribution to change (%) 2005/06 – 2004/05
China	6320	5770	29.8	-8.7	30.3	39.5
United States	5149	4410	29.5	-14.4	24.6	53.0
India	3315	3825	14.7	15.4	8.9	-36.6
Pakistan	2465	2210	42.2	-10.3	15.3	18.3
Brazil	1300	1250	3.6	-3.8	0.9	3.6
Uzbekistan	1056	1125	17.3	6.5	3.3	-4.9
World	25211	23817	23.4	-5.5	/	/

Source: Authors' estimates based on *Cotton Outlook* (August 2005).

4.2. The Terms of Trade

The long-run tendency for prices of primary products to decline vis-à-vis those of manufactured products has resulted in a deterioration of the net barter terms of trade for many developing countries dependent on the export of raw materials and imports of manufactured products^{28 29}. This led to the influential policy suggestion to developing countries to industrialise and diversify their exports into manufactures (Prebisch 1950; Singer 1950). The performance of the Asian Drivers makes it important to further investigate both the diagnosis – are the terms of trade for other developing countries improving? – And the remedy – if so is it necessary for them to adopt different policies?

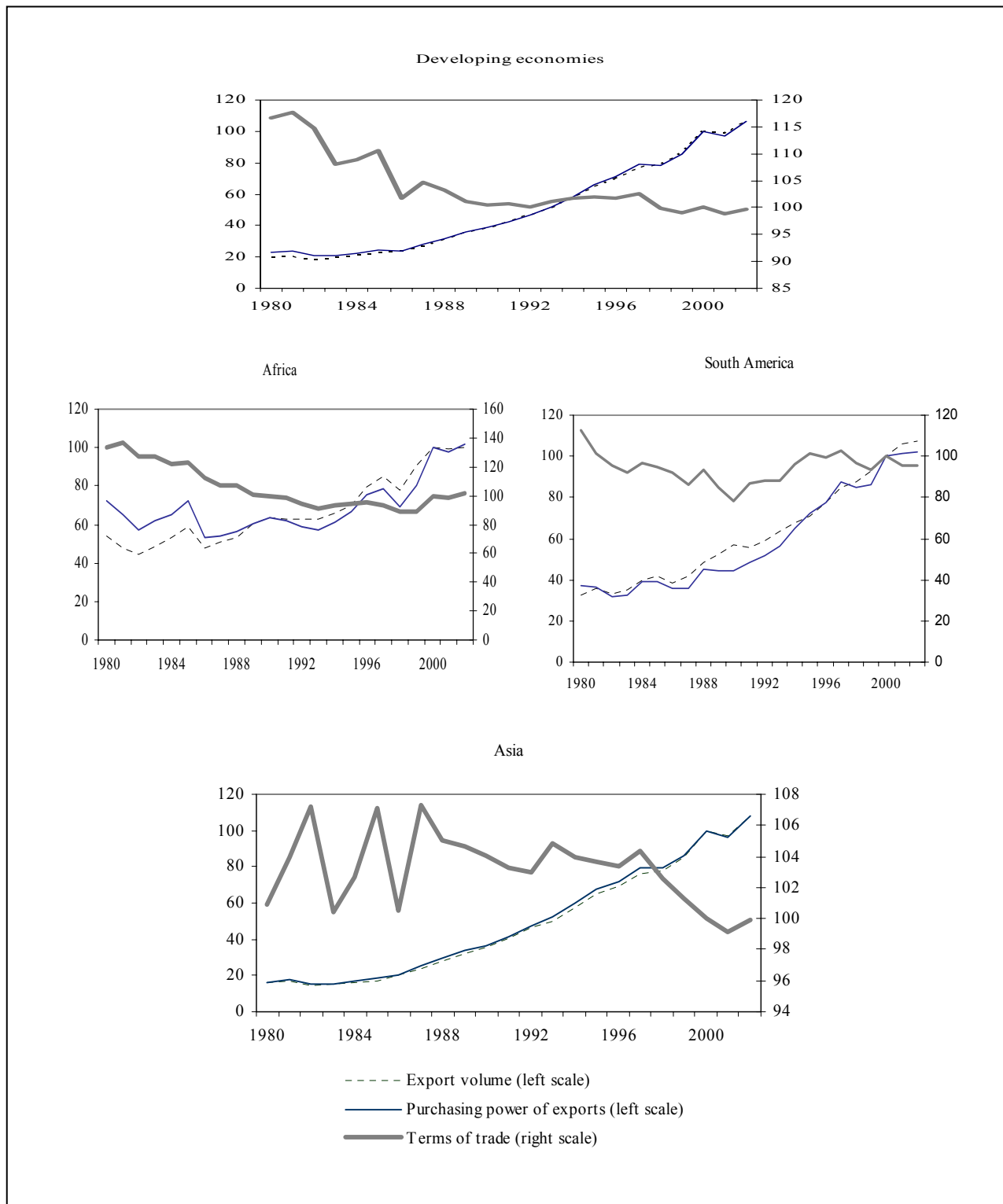
Figure 8 shows the *net barter terms of trade* and purchasing power of exports (income terms of trade) for developing countries and geographical sub-regions from 1980 to 2002. The dynamics of a country's terms of trade is determined to a great extent by the share of primary commodities in its trade basket. Insofar as the majority of African countries are still exporters of primary commodities with little diversification into manufactured exports, recent market trends have positively affected prices and improved the terms of trade. The long-term decline in commodity price has been arrested and the worsening in African terms has been halted at least momentarily.

²⁸ The net barter terms of trade are measured by the ratio between the unit value (price) index of exports and that of the imports. The formula does not take into account the possible changes in export volumes that may follow (or even cause) the observed changes in export prices. This shortcoming is somewhat compensated by another measure – income terms of trade, or the purchasing power of exports – which is defined as the value index of exports deflated by the unit value of imports.

²⁹ The impact of relative price movements in global markets for primary commodities and manufactures on terms of trade is determined in the short run by the composition of a country's imports and exports and, in the medium run, by its flexibility in adapting the composition of trade to changing global demand and supply conditions (UNCTAD 2005).

Figure 8: Terms of Trade, Export Volumes and Purchasing Power of Exports in Developing Economies, by Region, 1980-2002

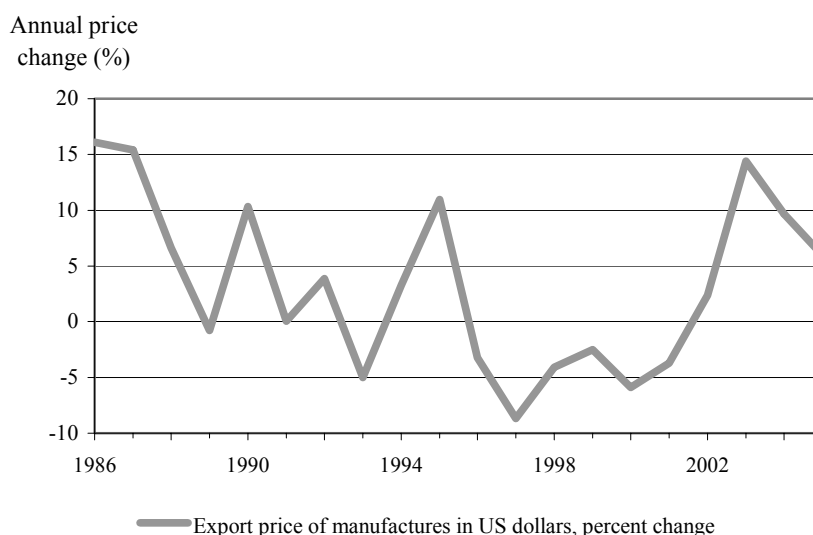
(Index numbers, 2000=100)



Source: UNCTAD Handbook of Statistics (2005)

In the 1950s, most developing countries with huge endowment of natural resources were producing primary commodities (raw materials and food). A surplus of labour exerted a downward pressure on wages. In industrialized nations, on the other hand, technical progress led to an increase in wages. Moreover, income elasticities of demand for primary commodities were lower than unity, and technical progress resulted in the need for fewer amounts of raw materials per unit of manufacturing output. The combination of these demand and supply side factors led to the widening gap between the prices of manufactures and primary commodities. Since the 1960s, new countries, especially in Asia – first Korea, Hong Kong, Singapore, and Taiwan, China, then the ASEAN countries, and now China and India – have emerged as competitive exporters of manufactures, not only to developed countries but also to other developing countries³⁰. The rapid export growth of low-skill and labour-intensive manufactures, however, has increased the market competition for these goods and hence exerted a downward pressure on their prices³¹. Similarly, there have been a relative decline in the price of labour-intensive manufactures exported by developing countries vis-à-vis those exported by developed countries (Figure 9)³².

Figure 9: Declining World Manufacturing Export Price, 1986 – 2005



Source: IMF World Economic Outlook Database (September 2005)

The main causes for the relative weak prices of manufactures by developing countries are to a great extent the same as those that determined the decline in terms of trade of commodities vis-à-vis those of manufactures until recently. The existence of abundant low-skilled labour means that productivity gains are

³⁰ Outside Asia, the increase in manufacturing exports from developing countries has been heavily concentrated in a small number of countries. In Latin America, Mexico and Brazil account for 75 percent of the region's manufactured exports in 2003 (UNCTAD 2005).

³¹ Focusing on the major product-groupings (classified at the 8-digit level) imported into the EU where developing-country exporters were prominent and reporting the proportion of the sectors for which the unit-price of imports from different income-groups fell between 1988 and 2001, Kaplinsky (2005) shows that in almost one third of these sectors the price of Chinese-origin products dropped. He concludes that the greater China's participation in global product markets, the more likely prices will fall.

³² There has been a sizeable rebound in the export price of manufacturing between 2000 and 2002. This is possibly due to the fall in the value of the US dollar in the period. The long term decline of manufacturing price is clearly visible.

reflected in lower wages and prices which is exacerbated by the simultaneous exports of labour intensive products by developing countries. However, the major difference is that while the relative decline in the export prices of low-skilled manufactures has generally been associated with considerable *volume* growth, declining export prices for primary commodities are typically associated with lower volume growth, due to the much lower *price elasticity of demand*.

Africa's income terms of trade may well have benefited from Asia's emergence, through various channels:

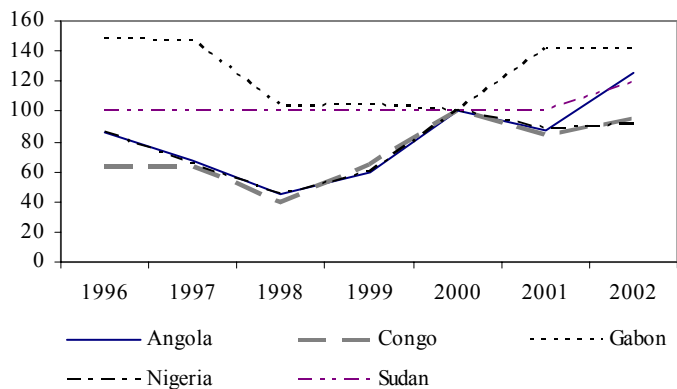
- a net rise in the demand for raw commodities translates into higher export unit prices; and
- urban consumers gain from cheaper consumer goods and investors benefit from cheaper capital goods.

These two categories may indeed enjoy a higher purchasing power as import prices are lower compared to former import sources or local producers. Note however that this is only true if lower production prices are reflected in lower selling prices, which in turn depends on the degree of competition in the market. Evidences are mixed in this respect. For instance, FIAS (2005) points to significant mark-ups and market power by traders and retailers in Burkina Faso but also emphasises the critical role of foreign competitors in making local markets more competitive. According to a study carried out in Oshikango, a booming trade centre on the Namibian-Angolan border, Chinese traders are regarded by local businessmen as strong competitors (Dobler, forthcoming). Even if comparability raises many problems, prices of imported Chinese goods are indeed very much lower than those of comparable goods from South Africa or the European Union. Moreover, workers of domestic manufactured goods that compete with Chinese and Indian imports are themselves the urban consumers. Therefore, the net welfare impact of cheaper imports sourced from the Asian drivers is ambiguous (see section 6.2 for further analysis).

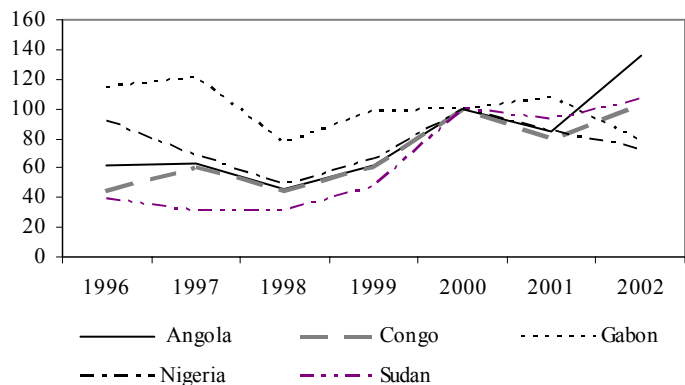
Comparing changes in the terms of trade and in the purchasing power of exports allows us to discern the relative impact of the dynamics of international commodity and manufacturing prices. After 2000, African terms of trade have risen faster, illustrating the relative larger importance of changes in their export prices. For Asian countries, on the other hand, their purchasing power has grown sharply even if their terms-of-trade have been declining since 2000 (Figure 8). This largely reflects their rising productivity and gains in world market share of low-skilled manufactures. The *volume* of exports expands so heavily and outweighs the decline in barter terms of trade. Hence, they are able to obtain a larger quantity of imports from the same quantity of factors (of production) embodied in its exports even if their terms of trade decline.

Figure 10: Terms of Trade of Major African Oil, Metal and Agriculture Exporters, 1996-2002
(Index numbers, 2000=100)

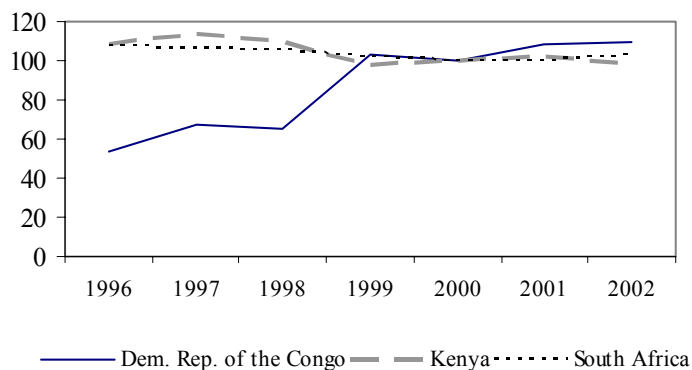
Terms of trade of selected African oil exporters, 1996-2002



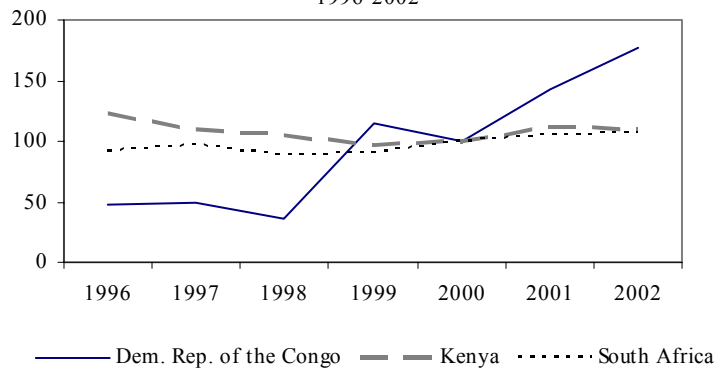
Purchasing power of export for oil exporters, 1996-2002



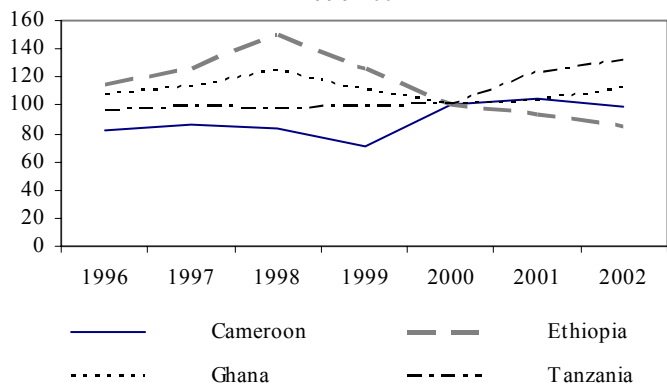
Terms of trade of selected African metal exporters, 1996-2002



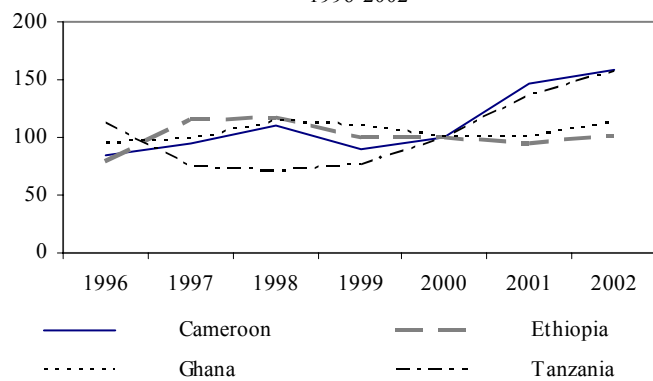
Purchasing power of export for metals exporters, 1996-2002



Terms of trade of selected African agricultural exporters, 1996-2002



Purchasing power of export for agricultural exporters, 1996-2002



Source: UNCTAD Handbook of statistics (2005)

Figure 10 shows the barter terms of trade and purchasing power of exports for the 12 African major trading partners with China and India³⁴. Since 2000, African economies with high share of oil, metals and agricultural products in their total exports have gained the most from the recent changes in the global economy. In general, both net barter and income terms of trade improve substantially since 2000. Oil exporters experienced the biggest improvement in the terms of trade – 14.53 percent on average in 2000-2002. Despite a more diverse export product composition and large differences in price trends for individual commodities, agricultural exporters also improved their terms of trade by 6.91 percent on average.

Table 10: Terms of trade variability and effects on GDI, 1997-2003

	Terms-of-trade variability for each country*, 1997-2002	Terms-of-trade variability (average) for each group, 1997-2002	Terms-of-trade effects on GDI** for each country (percent), 1997-2003	Terms-of-trade effects (average) on GDI for each group (percent), 1997-2003
Oil exporters:		30.03		7.48
Angola	41.15		16.80	
Gabon	39.92		4.46	
Gabon	22.75		7.76	
Nigeria	38.44		0.92	
Sudan	7.90		..	
Metals exporters:		10.5		2.29
D. R. Congo	23.72		4.22	
Kenya	5.72		2.12	
South Africa	1.90		0.54	
Agricultural exporters:		13.21		2.11
Cameroon	19.73		4.47	
Ethiopia	15.19		1.69	
Ghana	9.16		1.08	
Tanzania	8.78		1.22	
Manufacturing exporters:		6.61		0.91
China	3.51		0.77	
India	9.72		1.04	

Notes:

* Standard deviation of the annual rate of change of the net barter terms of trade

** UNCTAD calculates the average annual impact of terms of trade changes on GDI (Gross Domestic Income) as a percentage of GDP (Gross Domestic Product), in absolute value, 1997-2003, as the difference between the growth rates of GDI and GDP in real terms. GDI is the sum of all income earned in the domestic production of goods and

³⁴ They are classified according to their major product category in their exports: oil, metals, agricultural products, or manufactures. The classification for some exporters is not straightforward. For example, those classified as agricultural products exporters often have a more diversified export structure and majority of them also have a respectable share of metals export. This would certainly imply their terms of trade are also sensitive to changes in the prices of the remaining primary commodities in their export bundles.

services, while GDP measures the total market value of goods and services produced domestically during a given period.

Source: Authors' own computations based on UNCTAD Handbook of statistics (2005)

This overall improvement has however gone with a significant variability of a country's terms of trade. The latter is one of the main factors for their effects on income, besides the openness to international trade of a country. The variability, in turn, largely depends on the degree of export diversification. Table 10 presents estimates for the variability of terms-of-trade and UNCTAD calculations for the effects of changes in the terms of trade on Gross Domestic Income (GDI) for each country and each group from 1997 to 2003. Between 1997 and 2003, the GDI effects were greatest in the oil-exporting African countries, where terms of trade variability and export concentration are the most distinct. The average annual gain or loss of income initiated by terms of trade movements amounted to more than 7 percent of GDP. Figures are much lower for the other two categories of African exporters, but still positive.

This just illustrates that dependence on exports of primary commodity with little diversification incurs considerable developmental risk. China has a relatively greater diversification into manufactures which results in relatively low terms of trade variability; despite it is one of the most open economies in the world that has a high export to GDP ratio of over 30% in 2003.

Moreover, not all Africa is on an equal footing when it comes to reap the benefits of higher commodity prices induced by China and India's demand for commodities. Far from being homogeneously rich in natural resources, there are strong differences in African trade patterns at the country level : a large number of African countries are net importers of mineral fuels, oils and distillation products and some of them (although in limited number) are net importers of crude materials (Appendix A). In this context, in their quest for commodities resource-poor African countries may regard China and India as competitors. Some African countries may even suffer from rising commodity prices (oil prices in particular). In fact, gains from rising commodity prices mostly accrued to oil exporters, followed by exporters of metals ore (Nigeria, Chad, Equatorial Guinea, Gabon, Congo, Angola, Zambia, and to a lesser extent, Mauritania, Mali, Guinea, Democratic Republics of Congo and Sudan) (IMF 2004). Conversely, Guinea Bissau, Côte d'Ivoire, Swaziland, Kenya and Djibouti suffered net losses. For the remaining countries, gains from higher-priced non-fuel commodity exports have been offset by a higher oil bill. In sum, changes in commodity prices have had a roughly neutral effect on their trade balances.

To sum up, the growth of Africa's exports is narrowly correlated with the growth of its major commodity exports – oil, industrial as well as precious metals, tropical woods, and cotton - to China and India. Africa is linked to the Asian drivers' demand for primary commodities via two channels, namely through raw material prices (which are increasingly governed by China's net import demand) and through the growing trade dependency of Africa on China and India. Africa's income terms of trade may well have benefited from Asia's emergence as a net rise in the demand for raw commodities has translated into higher export unit prices, and as urban consumers gain from cheaper consumer goods and investors benefit from cheaper capital goods. The benefits of China's and India's rising global demand (net imports) for Africa-relevant commodities are, nevertheless, attenuated by the *volatility of demand* of the Asian giants, partly due to cyclical variations but also to arbitrage between home production and imports.

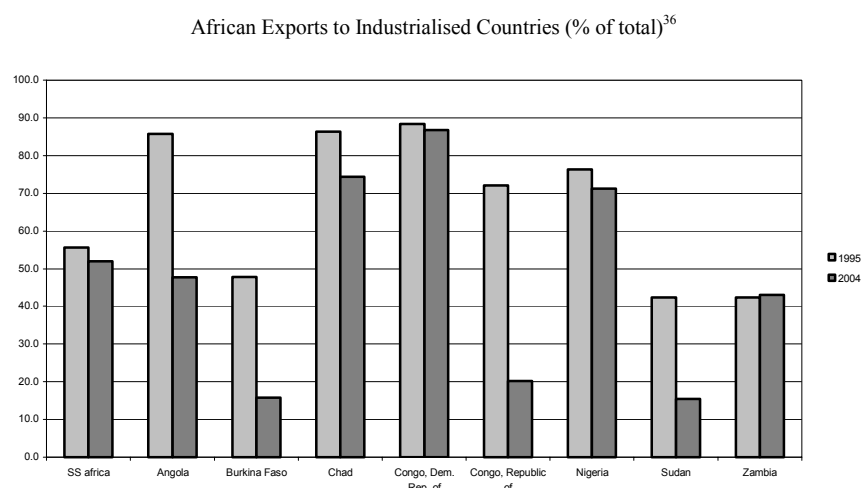
5. The Asian Drivers as Markets for African Exports

China and India's growing demand for commodities has not only resulted in higher commodity prices and in a subsequent improvement of most African countries' terms of trade, but also brought about a significant redirection of African exports towards Asian markets – away from OECD markets³⁵.

5.1. Africa's Trade Reorientation towards the Asian Drivers

While OECD countries remain by far the main destination for African exports, their share declined between 1995 and 2004. As shown in Figure 11, the industrialised country export share of major African raw and soft commodity producers (Angola, Burkina Faso, Chad, the two Congos, Nigeria, Sudan and Zambia) has dramatically receded over the same period, while China has emerged as a major market for these countries. As a result, the share of China as a destination for African exports as a whole has risen significantly from 1.3 percent in 1995 to 9.3 percent in 2004. The picture for India is different: its share in sub-Saharan Africa's exports has fallen overall and remains at low levels (less than 2 percent).

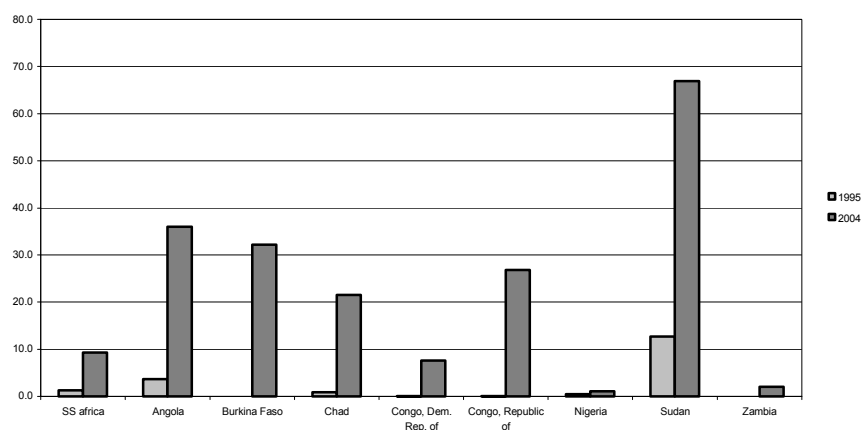
Figure 11: The Reorientation of Africa's Exports Towards the Asian Drivers



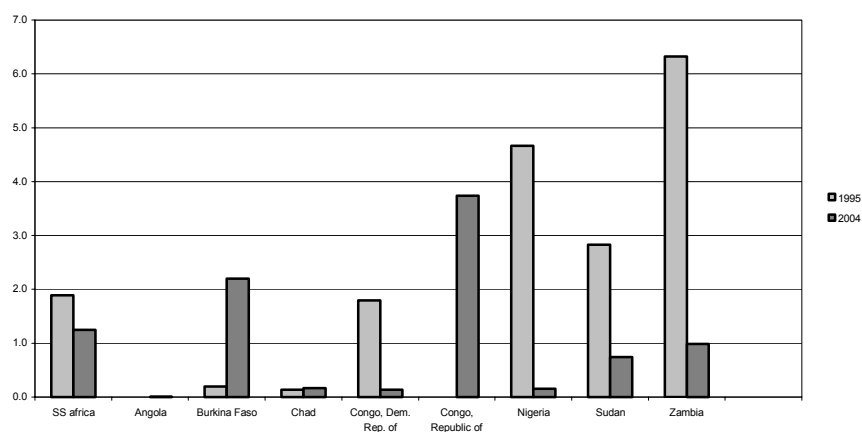
³⁵ Though, this is also in part due to the relatively slower GDP and export growth in OECD countries in the past few years, as well as to the reduced commodities intensity of OECD economies.

³⁶ Industrialised countries, as defined by the IMF Direction of Trade Statistics, include the United States, Canada, Australia, Japan, New Zealand, Austria, Belgium, Luxembourg, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, the Netherlands, Norway, Portugal, San Marino, Spain, Sweden, Switzerland, and the United Kingdom.

African Exports to China (% of total) -



African Exports to India (% of total) -



Source: IMF Direction of Trade (DOTS)

Chinese imports from Africa show a very clear pattern in terms of commodity structure which is consistent with the latter's Ricardian advantage in commodity production (Table 11). Extractive mining and forestry in particular make up the bulk of African exports to China. The degree of product concentration is also extremely high: "Product I", i.e. the main item in total exports to the world from each country, also accounts for the lion's share in its exports to China.

- Crude oil (i.e. Product I for Angola, Sudan, Nigeria, Congo and Gabon) also comes first as a share of their exports to China with almost 100 percent, 98.8 percent, 88.9 percent, 85.9 percent and 54.8 percent respectively.
- Metals rank first in Chinese imports from the Democratic Republic of Congo, Ghana and South Africa, with 99.6 percent, 59.8 percent and 45.6 percent of their exports to China respectively.
- Woods come second in Chinese imports from Gabon and Cameroon with a share of 42.3 percent and 39.7 percent respectively. As a result, woods and crude oil together account for 97.1 percent and 84 percent of Gabon's and Cameroon's exports to China respectively.

According to Table 11, the only other products to feature significantly in China's imports from the selected African exporters are cotton from Cameroon and Tanzania and cocoa from Ghana³⁷. The exports of cotton to China have been boosted by the Multi-Fibre Agreement (MFA) phasing out and the rapid build-up of the Chinese textile industry (Appendix B). Moreover, as already suggested, Chinese domestic supply of cotton remains in a state of flux and not always able to cater for domestic demand. The aforementioned figures suggest that labour-intensive agricultural and manufactured goods do not feature significantly in the exports of any African country.

Africa-India trade patterns are a bit different (Table 12). African exports to India are more diversified and labour-intensive than those to China. Cotton accounts for a significant share of Cameroon's (76 percent) and Sudan's (72 percent) exports to India. Oil seeds are significant in Congo's exports to the latter, while edible vegetables and fruits account for a large share of exports from Ethiopia, Ghana and Tanzania to India. Hides feature prominently in exports from Ethiopia. Mozambique is also an important exporter of fruit and nuts to India. Nonetheless, crude oil accounts for 99 percent and 85 percent, respectively, of Nigeria's and Gabon's exports to India, and metals make up 46 percent of Congo's exports.

³⁷ Second to metals, cocoa actually makes up the most of Ghana's exports to China (31.6 percent). While cotton accounts for more than half of Tanzania's exports to China, China absorbs no more than 4.2 percent of Tanzanian overall exports of cotton.

⁴⁰ Selected countries are those for which trade with China and India represents the highest share in total export of each African country in 2003. Selected commodities are major exports of those countries to China and India as shown by the percentage share of a given item in a country's total exports to China' (these commodities are main African exports as well). Commodity code classification is based on HS-Rev. 1 (see Appendix D for details).

Table 11: China as Market for African Exports in 2003⁴⁰

Country	Share of China in Total Exports in 2003	Main Exports (in order of importance)	Percentage																			
			Crude Oil			Metals			Cotton			Woods			Oil Seed/rubber /cocoa			Textile				
			(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)		
Angola	23.2%	Product I	25	99.9	7.5																	
Cameroon	4.4%	Product I	4.4	44.2	0.2																	
		Product II																				
		Product III																				
Congo	30.3%	Product I	31	85.9	2.4																	
		Product II																				
		Product III																				
DR Congo	2.2%	Product I																				
Gabon	5.5%	Product I	3.4	54.8	0.3																	
		Product II																				
Ghana	1.6%	Product I																				
		Product II																				
Kenya	0.3%	Product I																				
		Product II																				
Nigeria	0.5%	Product I	0.5	88.9	0.4																	
South Africa	4.6%	Product I																				
		Product II																				
Sudan	40.9%	Product I	81	98.8	5.5																	
Tanzania	2.6%	Product I																				
		Product II																				

Notes: (1)- Each export item to China as percentage of total exports of that item to the world. For example, China imports 25 percent of Angolan oil exports to the world.

(2)- The percentage share of a given item in a country's total exports to China. For example, oil accounts for 99.9 percent of Angola's exports to China.

(3)- Percentage share of export item from a given country in China's total imports for that item. For example, Angola's oil accounts for 7.5 percent of China's total imports of oil.

Source: Authors' own calculations based on ITC Trademap (UNCTAD)

Table 12: India as Market for African Exports in 2003
Percentage

Country	Share of India in Total Exports in 2003	Main Exports (in order of importance)	Crude Oil			Metals			Cotton			Woods			Oil Seed/rubber /cocoa			Vegetable/gums & fruit, cereals			Hides			
			(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	
Cameroon	0.3%	Product I				47	17	0.1	7.4	76	1.6													
		Product II																						
		Product III																						
Congo	0.2%	Product I				4.5	46	0.1				0.1	4.3	0.1										
		Product II																						
		Product III										0.1	5.7	0.04										
Ethiopia	1.2%	Product I																						
		Product II																				9	55	1.8
Gabon	2.0%	Product I	1.9	85	0.2																			
		Product II																						
Ghana	1.3%	Product I				4.89	23	0.3																
		Product II																						
Nigeria	9.9%	Product I	10	99	11																			
South Africa	4.2%	Product I	1.5	12	0.2	1.12	20	1.9																
		Product II																						
Sudan	3.0%	Product I				42.5	15	0.1	17	72	3.8													
		Product II																						
		Product III																						
Tanzania	9.9%	Product I							17	12	1.9													
		Product II																						

Notes:

- (1)- Each export item to India as percent of total exports of that item to the world.
(2)- The percentage share of a given item in a country's total exports to India.
(3)- Percentage share of an export item from a given country in India's total imports for that item.
Source: Authors' own calculations based on ITC Trademap (UNCTAD)

⁴⁵ In some instances, however, the exploitation of extractive industries may lead Indian and Chinese companies to invest in infrastructures (roads, port facilities, etc) locally so as to secure the transportation of the commodities. See the section on FDI for further elaboration.

In line with figure 11, tables 11 and 12 show that African countries have not only been exporting mostly commodities to China and India over the last years, but they have also succeeded in turning China and India into significant markets for their commodities. For instance, China absorbs one quarter, one third and four fifth of Angolan, Congolese and Sudanese oil exports, respectively. It also buys 32 percent and 37 percent of Gabonese and Congolese exports of woods, respectively. As for India, it absorbs almost half of Sudanese and Cameroon exports of metals while being by far the biggest client of Tanzanian edible vegetables (68.7 percent). The Senegalese production of phosphoric acid is almost fully exported to India.

As a result, China, and to a lesser extent India, have heavily contributed to the growth of world demand for commodities specifically directed to African countries (Table 12). In 2003, for instance, China accounted for more than 100 percent of the growth in the world demand for commodities exported by Congo and the Democratic Republic of Congo (in other words, world demand for Congolese exports would have receded, had it not been for the strong Chinese demand directed to the two Congo), and contributed 73.3 percent and 74 percent to the growth of world demand directed to Angola and Sudan.

Table 12: China and India's Contribution to Growth of Commodity Demand for African Exporters in 2003
Percentage

	China's		India's	
	Share of China in aggregate commodity export of each country in 2002	Contribution in 2003	Share of India in aggregate commodity export of each country in 2002	Contribution in 2003
Angola	14.1	73.3	..	..
Cameroon	7.9	0.1	1.2	2.0
Congo	11.7	118.7	1.1	1.5
D R Congo	9.7	178.1	..	..
Ethiopia	..	..	3.4	-12.3
Gabon	4.5	12.6	3.9	-8.7
Ghana	2.6	3.0	1.5	7.9
Kenya	0.1	0.5	3.3	3.3
Nigeria	0.4	0.7	12.3	3.9
South Africa	3.2	5.2	1.6	-0.3
Sudan	80.0	74.0	0.7	1.8
Tanzania	0.1	0.4	12.0	3.8

Source: Authors' own calculations based on ITC Trademap (UNCTAD)

Notes: Table 12 indicates China's and India's contribution to the growth of world demand directed to African countries in 2003. Contribution (ψ) in 2003 is calculated as

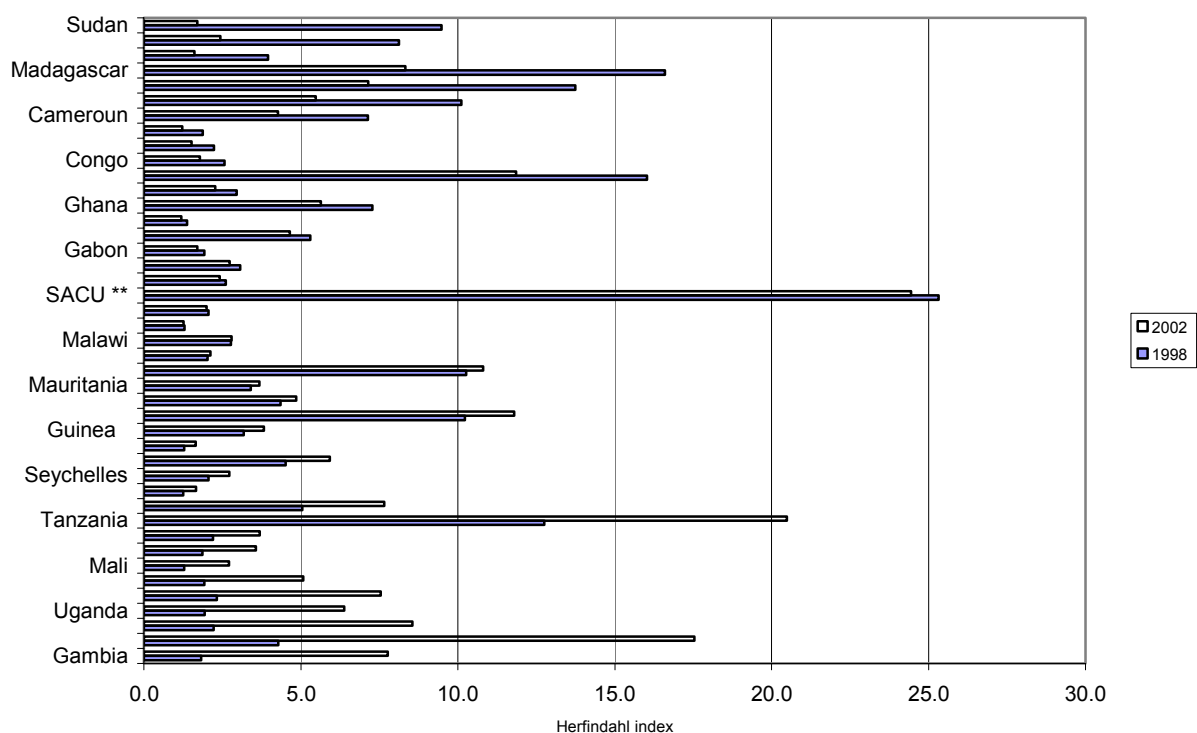
$$\psi = \frac{\Delta M_C^X \times \alpha_C^A}{\Delta M_W^A} \quad \text{where } \Delta M_C^X \text{ is the variation in Chinese imports from an African country } X \text{ between 2002 and 2003; } \Delta M_W^X \text{ the change in World imports from country } X \text{ over the same period; } \alpha_C^X \text{ the share of China in world imports from country } X \text{ in 2002. For instance, China accounted for 73.3\% of the rise in world demand for Angola's exports recorded in 2003.}$$

5.3. Trade Redirection: An Unfettered Blessing?

Africa's trade reorientation may also hold some drawbacks.

First, it may derail the endeavors by African commodity producers to diversify away from traditional exports. Diversification trends for African countries provide some interesting indications in this respect. Out of the 43 African countries included in Figure 15 (panel a), 17 have recorded a noticeable specialization of their exports between 1998 and 2002 (upper part of figure 15). A large number of them are oil and metals producers (Gabon, Angola, Ghana, São Tomé and Príncipe, Democratic Republic of Congo, Congo, Equatorial Guinea, Cameroon, and Sudan). Moreover, as shown in Figure 11, China and (to a far lesser extent) India have taken over from industrialized countries as major export markets for some of them (Angola, Republic of Congo and Sudan in particular) over the same period of time. Of course, these are not *per se* evidences supporting the existence of a *causal* link between the redirection of trade towards China and India and the "respecialisation" in traditional commodities of a number of major African commodity producers. Moreover, some of these countries had a very low degree of diversification to start with. However, considering that the surge in trade between the Asian drivers and Africa has been mainly driven by commodities (esp. oil and metals), this nonetheless makes the case for further investigating the issue of a respecialization of African countries in commodity extraction that might ensue from increased trade with China and India (see also section 7).

Figure 15: Trends in Diversification of Selected African Countries
1998 / 2002 - Herfindahl index*



Notes: * The diversification indicator measures the extent to which exports are diversified. It is constructed as the inverse of a Herfindahl index, using disaggregated exports at 4 digits (following the SITC3). A higher index indicates more export diversification

** Include Botswana, Lesotho, Namibia, South Africa and Swaziland.

Sources: *African Economic Outlook 2004/2005*.

This issue is all the more central as deepening the reliance on commodity industries may not be conducive to poverty reduction and economic diversification, especially in a context of strong Chinese and Indian competition in the manufacturing sector (see *infra*, sections 6 and 7). Using the framework developed by Winters (2002), Edwards and Jenkins (2005) point to the limited impact in terms of poverty reduction of oil and minerals industries and exports (the positive impact of which mainly consist of windfall government revenues).⁴⁵ In this respect, one must distinguish exports to China and India. Unlike those to China, exports to India are indeed much more diversified and also encompass labour-intensive agricultural products. Should African exports of labour-intensive soft commodities to India increase, the outcome in terms of poverty reduction could turn out to be positive. For example, in most African countries, cotton growing is carried out by smallholders in poor rural areas. And cotton revenues have strong spill-over effect on the whole economy.⁴⁶

Second, most raw material rich African countries receive low scores in the perception of corruption and bribery as reported by *Transparency International*. This might suggest that any increased presence of the Asian giants in the resource rich countries may increase the rents earned by an elite that commands access to those resources, rather than by the population at large. The exploitation of exhaustible resources might therefore not only burden current, but also future, generations if the proceeds are not invested at a social return high enough to exceed the inter-temporal shadow cost. It should be noted (see Table 13), however, that the transparency scores, although low, have *not* deteriorated during recent years when the presence of the Asian giants became more visible in Africa⁴⁷.

Table 13: Trade Ties with China and India and Corruption in Africa

Country	CPI TI Score*/ Rank/ CPI Change			Main Export Items	China's Share	India's Share
	2004	of 145	since 2000	percent of total Exports, 2002	2003 percent of export receipts	2003 percent of export receipts
Angola	2.0	133	+0.3	Crude Petroleum (91.4)	23.2	0
Cameroon	2.1	129	-0.1	Crude Petroleum (43.9)	4.4	0.3
Congo	2.3	114	n.a.	Crude Petroleum (30.3), Wood (7.7)	30.3	0.2
Gabon	3.3	74	n.a.	Crude Petroleum (75.2), Wood(13.9)	5.5	2.0
Nigeria	1.6	144	+0.3	Crude Petroleum (88.9)	0.5	9.9

⁴⁶ Cotton has a driving role in the Malian economy for instance: it accounts for about 8 percent of the country's GDP and closed to 3.3 million people live directly from its cultivation (AfDB/OECD 2005, p. 294). However, Mali only exports unprocessed cotton with low value-added, limited developmental spill-over effect and the revenues of which are strongly susceptible to swings in (very volatile) international prices. In this context, the authorities have supported the development of a local textile industry. However, for all the availability of the raw resource, cotton, high factor costs (transport, electricity, etc.) require that the price of cotton used as input by the local nascent textile industry be subsidized by the local ginning company (AfDB/OECD 2005, p. 297).

⁴⁷ In any case, country studies will investigate how the mineral rents gained from commodity exports to the Asian giants have been (are being) disposed. Such analysis should also include the impact of higher commodity exports on government revenues and the allocation of any increase on government spending.

Senegal	3.0	85	+0.5	Inorganic acid, oxide, etc.(21.5)	1.4	13.0
Sierra Leone	2.3	114	n.a.	Diamonds (100)	n.a.	4.0
Somalia	n.a.			Wood & Pulp (49.2)	5.6	11.7
South Africa	4.6	44	-0.4	Precious Metals	4.6	4.2
Sudan	2.2	106	n.a.	Crude Petroleum (76.2)	40.9	3.0
Tanzania	2.8	90	+0.3	Fish (12.1)	2.6	9.9
Zambia	2.6	102	-0.8	Copper (39.2)	1.7	3.6

Note: * Transparency International (TI) CPI (Corruption perception Index) Score relates to perceptions of the degree of corruption as seen by business people and country analysts and ranges between 10 (highly clean) and 0 (highly corrupt).

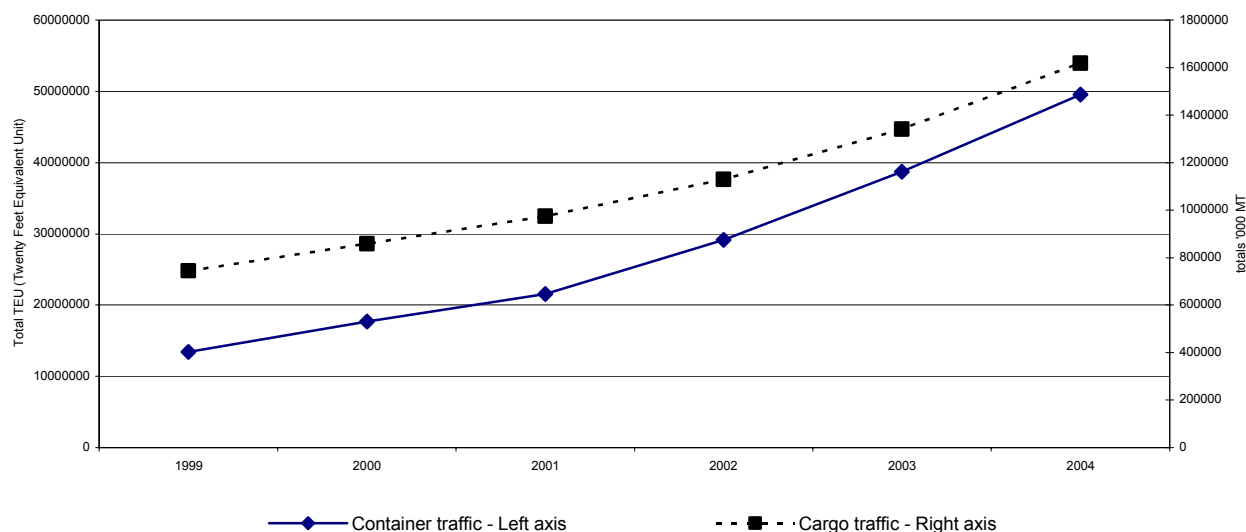
Source: Authors' own computations based on Transparency International (2004) and OECD (2005), *African Economic Outlook*.

There are also evidences that without high environmental standards and enforcement capacity, extractive industries exact a heavy toll on ecosystems whether from illegal logging in tropical forests, attracting illegal slash and burn agriculture through road development to reach mining sites, overfishing in coastal waters, etc.. Thus, potential revenues from eco-tourism (for instance) in the future may be compromised by commodity extraction for short-term commercial gains.

5.4. Asian Drivers, Global Logistics and the Direction of Commodity Trade

A fall-out from China and India's appetite for commodity, which has been little surveyed so far, is the shortage in world shipping capacities and the rise in freight rates charged to commodity exporters and importers. In brief, "China is importing substantial amounts of raw materials and exporting manufactured goods, and that is i) drawing ships into the Pacific and ii) driving up shipping rates" (Kerr-Dineen 2003). Container and cargo traffic through Chinese ports indeed have grown by 270 percent and 117 percent respectively between 1999 and 2004 (Figure 12).

Figure 12: **Growth in Cargo and Container Traffic Through Chinese Ports***
1999 - 2004



Notes: *Throughput in the ports of Dalian, Guangzhou, Ningbo, Qingdao, Qinhuangdao, Shanghai, Shenzhen, Tianjin, and Xiamen.

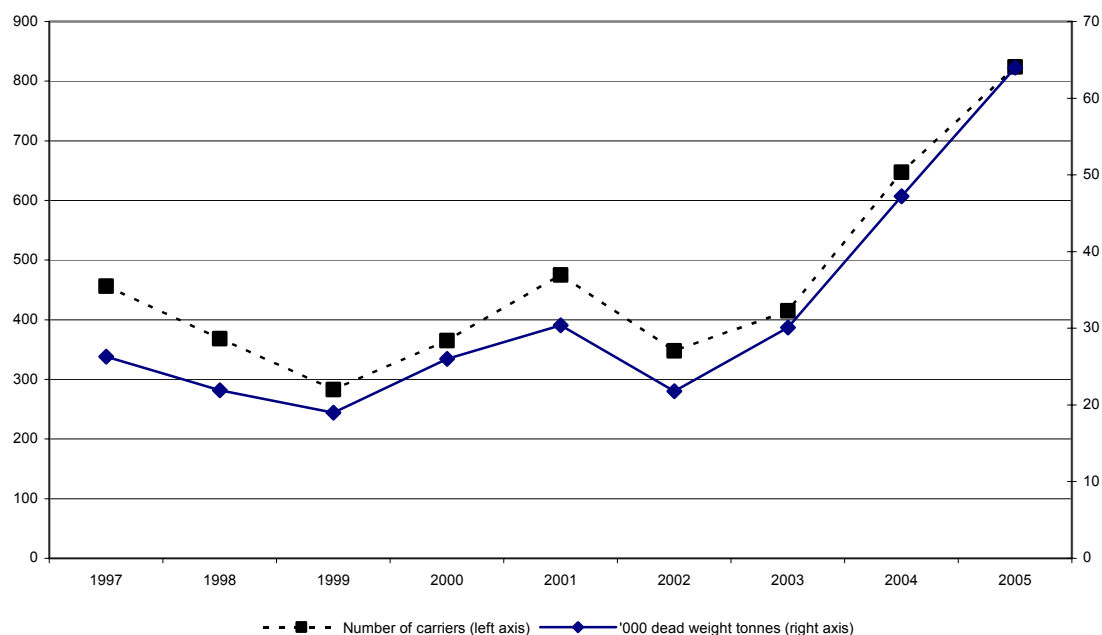
Source: ISL Port Data 2005

Developments in the dry bulk segment, i.e. dry bulk carrier market for raw materials, are particularly telling. First, an analysis of port traffic data (ISL 2005) points to a regional concentration of dry bulk traffic along specific sea trade routes connecting major suppliers (Australia and Brazil) and major importers (China in the first place). For coal and ores, for instance, four of the top five coal ports are located in the Pacific - three in Australia and one in China, Qinhuangdao, and the biggest coal importing port in the world. By the same token, the biggest iron ores exporting ports are located in Brazil and Australia while the biggest importing port for iron ores is Qingdao in China.

Furthermore, freight rates in the dry bulk segment have recorded dramatic increases. Seaborne iron trade is the main driver of the big ship, “Capesize” segment. Normally, seaborne iron trade largely moves in tandem with long term growth in steel production and therefore with changes in industrial production: in this context and before the emergence of China, needs for iron shipping was by and large predictable. But with China (almost suddenly) coming up as a major net importer of commodities, demand for dry bulk shipping has skyrocketed. This soaring Chinese demand for shipping has not been matched by an equivalent expansion of the Chinese or foreign-owned Capesize fleet: the shipping market has merely maintained its historic rate of expansion. While Chinese iron ore imports from Australia and Brazil alone represents an increase in Capesize demand of approximately 80 vessels since 2000, the world Capesize fleet has grown by merely 119 vessels over the same period (Svenning 2005).

Shortages in shipping capacities (as evidenced by flourishing order books of shipyards around the globe, Figure 13) have therefore been reported and shipping rates have soared (from 2002 onward, see the trend in the Baltic Exchange Dry Index, Figure 14) until new shipping capacities were (only lately) brought to the market and demand for shipping eased.

Figure 13: Bulk Carriers on Order as of January 1st
1997-2005



Source: ISL (2005)

These developments may have unwanted negative effects for African countries, as shipping capacities on sea trade routes from and to Africa may become relative scarce; insofar as shipping costs may also rise, local exporters may see their margins squeezed. In the end Africa risks being inadequately connected to the main international sea routes, if not marginalised.⁴⁸ Timber shipping is a revealing example: increasingly China is looking to Asian countries (Indonesia, Malaysia, Myanmar, and Papua New Guinea) for its timber imports to the detriment of less competitive African exporters of tropical logs. Not only are African log exporters undercut by their Asian competitors, but they also face increased difficulties in shipping their exports. The main timber carriers favour intra-Asia trade routes that are shorter and characterized by high rotation over long distance Asia-Africa timber trade routes. The Gabonese timber industry in particular suffers from a scarcity of vessels designed for log shipping and rising freight rates (AfDB/OECD 2004).

To sum up, China and India's growing demand for commodities has brought about a significant redirection of African exports towards Asian markets – away from OECD markets, even though Africa-China and Africa-India trade patterns are quite different. Chinese imports from Africa show a very clear pattern in terms of commodity structure which is consistent with the latter's Ricardian advantage in commodity production. By contrast, African exports to India are much more diversified and labour-intensive than those to China. Nevertheless, Africa's trade reorientation may also hold some drawbacks. First, it may derail the endeavors by African commodity producers to diversify away from traditional exports. Second, shortage in world shipping capacities and the rise in freight rates charged to commodity exporters and importers is drawing ships into the Pacific and may drive up shipping rates, to the detriment of African competitiveness.

⁴⁸ The tonnage balance is expected to remain tight at least until 2008. A continuous strengthening of freight rates is therefore expected in 2007 and 2008 while the scope for further expanding order books for bulk carrier is very limited. Shipyards in Japan and Korea which make most of the world's freighters have orders through 2007. There is no space for building additional Panamax/Capesize carriers before 2008 in particular (Svenning 2005).

Deepening the reliance on commodity industries has been shown to be at odds with poverty reduction. Third, increased presence of the Asian giants in the resource rich countries may increase the rents earned by an elite that commands access to those resources, rather than by the population at large. It is important to note, however, that transparency scores have *not* deteriorated during recent years when the presence of the Asian giants became more visible in Africa.

Figure 14: Baltic Exchange Dry Index



Source: The Baltic Exchange

6. The Asian Drivers as potential Competitors

What impact does the emergence of China and India as exporters of manufactured good have on third markets for African producers? And what about local African markets? In other words, is the emergence of China and India as strong competitors in manufacturing likely to derail Africa’s attempt to diversify away from traditional exports?

6.1. Competition on Third Markets

African countries export very few manufactured products. In this context, the competition exerted by China and India on third markets in manufacturing sectors is limited, albeit not insignificant.

Table 14: **Export Similarity Index (ESI) for Selected African Countries in 2003**

	China	India
Angola	4.0	9.6
Cameroon	6.6	11.7
Congo	6.1	11.7
D R Congo	6.6	27.8
Ethiopia	4.3	9.3
Gabon	5.5	8.7
Ghana	12.2	18.7
Kenya	19.3	27.9
Nigeria	1.7	0.8
South Africa	27.7	40.2
Sudan	2.6	10.1
Tanzania	11.0	20.6

Note: The index varies between zero and 100, with zero indicating complete dissimilarity and 100 representing identical export composition. The index formula: $XS_{j,k} = \text{sum} [\min (X_{ij}, X_{ik}) * 100]$, where X_{ij} and X_{ik} are industry i's export shares in country j's and country k's exports, which usually include a group of countries or competitors.

Source: Authors own calculations based on ITC Trademap (UNCTAD)

The export similarity index (Table 14) points to a very limited overlap between Africa and India or China. The ESI is somewhat higher for India since the latter is a significant exporter of minerals and fresh food, as too are many African countries. Note that the two countries with the highest ESI scores – Kenya and South Africa – are also those with the most developed manufacturing base. Tables C.1 and C.2 in appendix C integrate the picture. China has a revealed comparative advantage (RCA) in leather products, textile,

⁵⁰ We measure the revealed comparative advantage in exports according to the Balassa formula:

clothing, electronic components, IT and consumer electronics, and miscellaneous manufacturing.⁵⁰ India has a RCA in fresh food, minerals, leather products, textile, clothing, chemicals and basic manufactures. With respect to manufactured products, a RCA comparison between African countries and India/China indicates that China and India compete with Burkina Faso, Ethiopia, Kenya and Mali in leather products and with Lesotho and Malawi in clothing. China competes with Tanzania in textile; India with Senegal in chemicals and with Mozambique, South Africa and Zambia in basic manufacturing.

These, however, are very crude indications: indeed, it cannot be concluded from a RCA analysis based on aggregate data that products where African countries and China/India have a common RCA are identical and that their producers are competing on the same markets. For instance, the exports of the Democratic Republic of Congo and India are *prima facie* similar: actually, the top 10 products i.e. those with greatest shares in total exports of the Democratic Republic of Congo and India are the same and the difference in share of total exports is small, indicating possible competition. However, this similarity must be regarded with caution because of aggregation bias: in precious stones, for instance, at a higher digit level, there is only one major export that could be in competition, diamonds, not mounted or set. Kennan and Stevens (2005) observe that China exports mostly processed leather goods, while in the other developing countries in their sample (including African countries) exports of leather mainly consist of unprocessed leather. Moreover, the RCA analysis ignores competition in sectors where African countries have not yet any RCA but which might nonetheless constitute opportunities for diversification away from traditional exports: for instance, countries such as Kenya, Uganda, and Ethiopia have no RCA in the sector of clothing and garment. Yet, since the implementation of the AGOA a dramatic increase in the production of garment and apparels has been reported in these countries and substantial related investments have been undertaken locally (see Appendix B).

Edwards and Jenkins (2005) have therefore developed an alternative approach to the issue of Chinese and Indian competition on third markets. They identify those products in which China and India have been increasingly significant competitors in international markets, even though these products are no RCA in Chinese and Indian exports. Then, they fathom out whether these products represent a significant share of African countries' exports and ultimately examine whether these threatened exports are labour-intensive with, as a result, a strong adverse bearing on poverty. This approach show that countries most affected by China's competition (i.e. more than 50 percent of their exports are threatened) are Lesotho (90 percent of exports, of which 80 percent of labour-intensive products), Malawi, Mozambique, Namibia, South Africa and Zambia (Edwards and Jenkins 2005). But only in Lesotho, this is likely to have a strong impact on poverty: in the latter, threatened exports are indeed mostly made up of labour-intensive manufactured products, namely garments. Kennan and Stevens (2005) have adopted a similar approach: they have identified the most dynamic Chinese manufacturing export sectors, i.e. leather and articles, textile, clothing, footwear, aluminium, white and brown goods, and on this basis, they find that African countries producing leather (Nigeria and Ethiopia), textile (Zambia), clothing (Madagascar, Malawi, Mauritius, and South Africa)⁵¹ and aluminium (Cameroon, Ghana, Mozambique, and South Africa) are likely to suffer most from Chinese competition. With respect to India, Edwards and Jenkins (2005) evidence that only two countries should see more than 50 percent of their exports threatened (Botswana and Sudan, in diamonds and refined petroleum products respectively). However, a more disaggregated analysis may suggest that products exported by Botswana and Sudan on the one hand, and India on the other hand, are not actually the same and do not compete directly. Should it be the case, still, the impact on poverty should remain limited (competition would not be located in labour-intensive products).⁵²

⁵¹ Lesotho is not covered.

⁵² India is not analyzed in Kennan and Stevens (2005)

Chinese and Indian competition on third market takes a specific importance because of trade preference erosion: indeed, the latter development tends to undermine the competitiveness of African countries vis-à-vis their Asian competitors on developed countries' markets. In a context of MFA removal, the case of textile is specifically illustrative of this problem (see Appendix B for further analysis).

6.2. Competition on Local Markets

While China and India have emerged as strong competitors on third markets for the very few African producers of manufactured goods, imports of cheap Chinese and Indian manufactured products may also have flooded local African markets. In other words, Chinese and Indian companies may have emerged as significant competitors on local African markets. In this respect, three issues have to be considered:

- Do Chinese and Indian mostly cheap products displace local African production or compete with imports from other foreign producers?
- If it turns out that imports from India and China undercut local production, do the latter consist of labour intensive goods, and if so what is the impact of imports from China and India on local employment, household revenues and, in the end, on poverty?
- Considering that imports from China and India are mainly made up of cheap products, i.e. products that are cheaper than local production, what is the expected resulting benefit for the African (mainly urban) consumer purchasing Chinese and Indian final products and for local African companies resorting to Chinese and India cheap inputs? Balancing the purchasing power gains for the African consumer, the lower costs of inputs for African producers and the losses which might be incurred by local producers, what may be the overall welfare impact of the influx of Chinese and Indian imports on local African markets?

Evidences with respect to these questions are very scarce. Edwards and Jenkins (2005) analyse whether the growth of imports from China and India has brought about an increase in China and India's share of total African imports or has been additional to existing imports. Only in the latter case, Edwards and Jenkins argue, would imports from China and India harm the local manufacturing sector. Based on a sample of countries for which the Asian drivers account for the highest share in total imports, only in Nigeria, Chinese imports have displaced local producers: in Nigeria, over the period 2000 to 2004, less than 50 percent of the increase in Chinese imports is due to an increase in their share of total imports. Imports from India seem to have been more damaging to local producers, undercutting the local manufacturing sectors in Sudan, Uganda and Tanzania.

This analysis is however carried out at an aggregate level (the share of Indian and Chinese in the *overall* imports of a given African country) and is based on a relatively *ad hoc* criteria (a threshold of 50 percent of the increase in Chinese and Indian imports attributable or not to an increase in their share of total imports): as a result, it offers limited insights into the actual competitive pressure exerted by Chinese and Indian *specific products* on local producers. Imports of specific products from China and India may indeed be damaging for some local producers, especially labour-intensive local industries such as garment, thus impairing the development of nascent non traditional industries and putting diversification prospects in jeopardy. They may yet leave the figures of imports by trade partners unchanged and therefore do not come across as harmful for the local manufacturing sector when using the criteria established by Edwards and Jenkins (2005). There is here an avenue for supplementary research which would definitely benefit from a monographic approach.

For their part, Kennan and Stevens (2005) carry out a preliminary review of the impact of imports from China on African consumer welfare and local industries' competitiveness. They identify the sectors where

Chinese exports have been specifically dynamic and which correspond to goods massively imported by African countries, be they final products consumed by households or inputs being used by local industries. These are basically leather (in South Africa), textile (in Angola, Benin, Congo, Ghana, Kenya, Madagascar, Mali, Mauritania, Mauritius, Niger Nigeria, Senegal and Sudan)⁵³, clothing (in Angola, Benin, Cameroon, Congo, Ghana, Guinea, Mozambique, Nigeria, Sudan, Tanzania, Togo and Uganda), footwear (in Angola, Ghana, Nigeria, South Africa, Sudan), aluminium (in Angola, Nigeria), “white goods” (in Angola, Ghana, Nigeria, South Africa and Sudan) and “brown goods” (in all Sub-Saharan African countries in their sample). With respect to these sectors and in countries indicated in brackets, households are set to gain as consumers of Chinese final goods and local producers as users of Chinese imported semi-final goods.

Based on the analysis of these trade gains (understood as being a large importer of a good exported by China or a significant exporter of a good imported by China) which are set against trade losses (understood as increased competition on third markets or being an importer of a good imported by China, see section 4.2) associated with China’s ascendancy, Kennan and Stevens (2005) offer a typology of African “winners” and “losers”: countries that are “winners” are those for which the number of sectors recording trade gains associated with lower costs of imports or higher prices for exports exceeds the number of sectors undergoing losses due to increased Chinese competition on third markets or higher prices for imports attributable to higher Chinese demand for a given product. Those countries are Angola, Nigeria, Sudan and Tanzania and, to a lesser extent, Benin, Burkina, Cameroon, Congo, Democratic Republic of Congo, Ghana, Guinea, Mali, Mauritania, Mauritius, Niger, Senegal, South Africa, Togo, Uganda, and Zimbabwe. The impact is neutral for Chad, Ethiopia, Kenya, Madagascar, Mozambique, and Zambia and negative only for Malawi.

A major limitation of this approach however is straightforward: not only Kennan and Stevens (2005) fall short of offering a *quantitative* estimate of trade losses and gains and therefore to provide an estimation of the overall trade impact; but they do not reckon the adverse impact of cheap Chinese imports on local producers either, with its potential trail of lay-offs and subsequent revenue losses for local households. Cheap Chinese imports are merely regarded as a source of welfare gain associated with lower costs of imports.⁵⁴ Therefore, and as acknowledged by the authors, they provide a very preliminary and partial assessment of China’s welfare impact on African countries.

To sum up, as China and India are currently integrating more than one billion people into the global labour pool, competition is intensifying in tradable labour-rich goods, the relative prices of which are dropping. However, labour-intensive manufacturing industries are less prominent in Africa than in other developing

⁵³ However the MFA quotas removal might have mixed impact on prices for garment and apparels: net importing African countries may be confronted with higher prices since demand from previously quotas-constrained importing markets has surged and some Chinese and Indian suppliers may redirect part of their exports towards these new, solvent and dynamic markets. Conversely, consumers in African net exporters of garments and apparels may benefit from lower prices, driven down by a redirection of local exports to the domestic markets as a result of surging competition on third markets.

⁵⁴ Moreover the criteria used by the authors suffer from technical glitches. Sectors retained by Kennan and Stevens were those for which the growth of export by or import from China have been “particularly rapid, and which are important products for developing countries”; the threshold for determining ‘fastest growth’ was 150 percent of China’s import and export growth. As a result, some important products for African countries, such as oil, are missing in their analysis, even if the impact of China on the global demand for some of these products is well documented. Consequently, most African countries appear to benefit from China’s ascendancy merely as importers of cheaper Chinese goods: Angola for instance is identified as one of the main beneficiaries of China’s trade ascendancy, but only as an importer of textile, clothing, footwear, aluminium, white and brown goods and ferrous metals, and not as an exporter of oil!

regions; and urban consumers benefit from the higher purchasing power of their incomes thanks to lower prices for labour-rich goods. To be sure, such analysis ignores opportunities for diversification away from traditional exports, i.e. potential rather than actual competition. Imports of specific products from China and India may indeed be damaging for some local producers, especially labour-intensive local industries such as garment, thus impairing the development of nascent non traditional industries and putting diversification prospects in jeopardy.

7. Back to the Raw-Material Corner? Dutch Disease and the Leamer Triangle

The impact of China and India is often analysed, in particular for Latin America, as resulting in “Dutch Disease” (Corden and Neary 1982). The term “Dutch Disease”, coined by *The Economist* in 1977, originated in the Netherlands after the discovery of North Sea gas. Corden (1984) points out that a resource boom can take place in three ways: first, there can be exogenous technological progress in the booming resource sector; second, the country can see a windfall discovery of some natural resources; and third, there can be an exogenous rise in the world price of a natural resource exported by a country. The third case is of interest in the context of the Asian giants’ emergence in the world economy.

- First, China’s and India’s demand for raw materials has been rising since the late 1990s (see section 4). This exerts a growing upward pressure on prices, especially for those primary commodities that weigh heavily in Africa’s exports.
- Second, the long-term decline in commodity prices has been arrested and the worsening in African terms has been halted at least momentarily. The dynamics of a country’s terms of trade is determined to a great extent by the share of primary commodities in its trade basket. Insofar as the majority of African countries are still exporters of primary commodities with little diversification into manufactured exports, recent market trends have positively affected prices and improved the terms of trade.
- Third, here was a large real effective currency appreciation in some African countries as well (Table 15), regardless of the exchange-rate regime adopted; either the Euro appreciated against the US dollar and hence led to real appreciation in CFA countries, or raw material prices translated into real appreciation elsewhere.

The core model of *Dutch Disease economics* (Corden and Neary, 1982) assumes a small open economy with three sectors – two traded good sectors, one booming (commodities) one lagging (manufactures), with prices given internationally; and one non-traded sector, with prices determined by domestic demand and supply. A resource boom affects the economy through the *resource movement effect* and through the *spending effect*. Rising commodity prices raise the marginal product of labour in the booming sector, ensuing a shift of labour to the booming sector, away from manufactures (*resource movement*). The boom also leads to an increase in income and to higher demand for all three goods. With the price of tradables set on world markets, the extra spending raises the absolute and relative price of non-tradables, resulting in appreciation of the real exchange rate. In response, the non-booming tradables sector contracts (*spending effects*) and labour shifts to the non-tradable sector.

Table 15: **Real Effective Exchange Rates in Africa**
(2000 = 100)

	1977-2001	2002	2003	2004
Sub-Saharan Africa	102.7	93.5	102.5	104.8
Excluding Nigeria and South Africa	98.8	105.1	103.3	100.1
CFA franc zone	104.7	107.3	112.3	112.7
WAEMU	104.9	106.5	110.6	110.6
CEMAC	104.5	108.4	114.6	115.5
SADC	98.2	86.3	102.6	107.8
SACU	103.1	75.9	98.0	107.0
COMESA	93.2	111.0	102.4	96.0
Oil-producing countries	115.4	110.5	109.9	114.6
Non-oil-producing countries	100.4	89.1	100.3	101.9
HIPC Initiative (completion point countries)	105.2	96.2	93.4	90.7
Fixed exchange rate regime	101.9	127.7	132.1	125.0
Floating exchange rate regime	103.0	85.8	95.3	99.3

Source: IMF, *Regional Economic Outlook: Sub-Saharan Africa*, Supplement, September 2005.

The combined effect of the *resource movement effect* and of the *spending effect* will produce the following effects on the economy:

- Production in the manufacturing sector falls;
- Manufacturing exports drop;
- The real exchange rate appreciates; and
- Nontraded output expands if the *spending effect* is strong than the *resource movement effect*; this is likely in those countries where the mineral rents are spent on public services and construction.

Whether *Dutch Disease economics* have empirical content can be tested in two ways. Gelb (1988) calculates a Dutch Disease Index (DDI) to measure the extent of sectoral distortion in economies that are heavily dependent on oil and other natural commodities.⁵⁷ This index is defined as:

⁵⁷ Kyle (2005) has calculated a modified DDI for Angola – with upper and lower bounds for the value to cope with the fact that the data to compute an exact, decomposed index were not available. As the author writes, “since the benchmark measure of the size of the traded manufacturing sector (incorrectly) includes construction, a measure of Angolan manufacturing will overstate the value of the index somewhat if it excludes construction, while including construction will understate the value of the index due to the presumably larger than “normal” size of the non-traded construction sector in the now distorted 2003 economy” (p. 29).

$$DDI = (SN_{ag} + SN_{ma}) - (S_{ag} + S_{ma})$$

where SN_{ag} and SN_{ma} are the “normal” percentage shares of the traded sectors (agriculture and manufacturing) while S_{ag} and S_{ma} are the shares of these same sectors in the oil exporting countries. It should be noted that Gelb modifies the Chenery/Syrquin sectoral classification somewhat to eliminate construction from manufacturing since this is a predominantly non-traded sector which should not properly be considered as part of SN_{ma} in the analysis.

In a different approach, Stijns (2003) uses a *gravity model* of manufacturing trade (in order to control for macroeconomic determinants at home and by trade partners) to find that price-led energy booms hurt systematically, regardless of country-specific variables or of the exchange-rate regime adopted, energy exporters’ manufactured exports. In a sample that covers 98 percent of world trade during 1970-97, Stijns finds significant effects of Dutch Disease, both for a one percent increase in world energy price and in energy exports, on reducing manufacturing exports.

For the Dutch Disease to arise in Africa and become a serious policy issue, however, a number of conditions must be met:

- First, there must indeed be other sectors for which the rise in the real exchange rate would create competitiveness problems; on the face of it, manufacturing and agricultural processing are underdeveloped in Africa compared to other non-OECD regions.
- Second, it remains to be seen whether the favourable tendency in Africa’s terms of trade is sustainable rather than transitory.

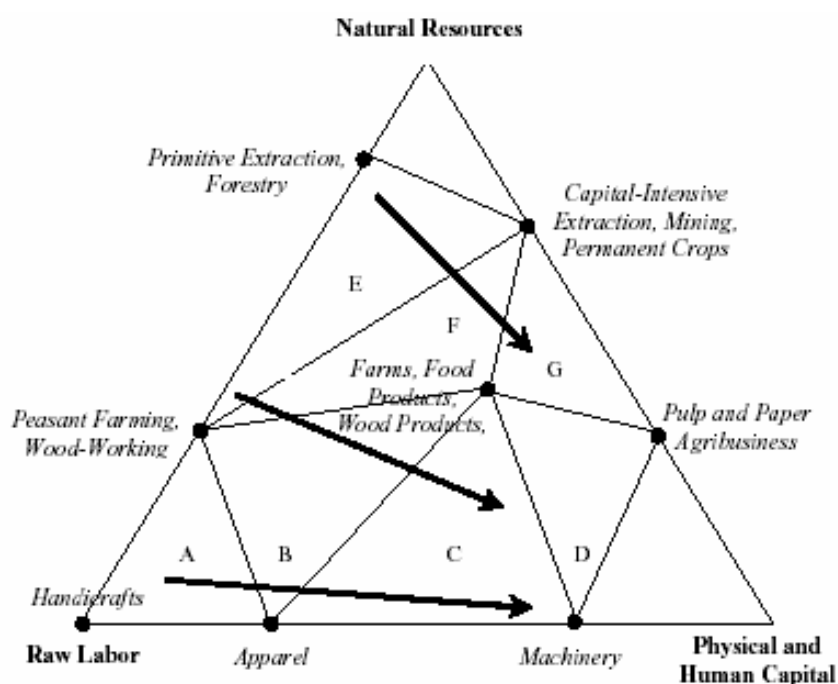
For lack of non-commodity tradable activities in Africa, another concept may be more relevant to study the impact of both the resource boom and commodity price volatility that the *Asian Drivers* tend to exert on resource-rich economies: the *Leamer Triangle*. Leamer (1987) has shown using a three-factor multi-good model that resource-rich countries can take a development path very different from resource-poor countries. Figure 16 displays a *Leamer Triangle*. The corners of this triangle represent three factors of production: labour, natural resources, and physical as well as human capital. Both the factor endowments and the factor intensities of various industries are displayed by points in the triangle. A natural resource discovery, for instance, swings a country’s endowment point directly toward the resource corner. The Figure can be used to contrast the development path A-B-C-D taken by resource-poor countries with the development path E-F-G-D taken by resource-rich countries. It may be worth investigating on a country basis whether the emergence of the Asian Drivers has led to a reversal towards the specialisation corner along the axis D-G-F-E.

The Leamer analysis can be used to analyse five problems connected to a resource boom in raw-material rich Africa (see also Leamer *et al.* 1999):

- Natural resources absorb more capital, impeding the emergence of manufacturing. While income is raised by the boom, the absorption of low-skilled labour that goes along with the development of manufactures is foregone, hence inequality is deepened.

- Those manufacturing activities that do emerge are capital intensive and skill intensive; this may be beneficial as it can avoid the deterioration of terms of trade that results from direct competition with labour-rich China and India.
- Human capital accumulation may be impeded, as skills in the resource sector are very specific and spillovers limited. Capital market imperfections prevent the channelling of funds from small elite of resource holders towards the poor requiring education.
- Volatility in prices for raw commodities may raise capital risk in resource-dependent, undiversified countries, which might deter investment and make it more difficult for other tradable activities to emerge.

Figure 16. The Leamer's Triangle



Source: Leamer et al. (1999)

Neither Dutch Disease nor Leamer effects have been prominently visible in Africa during the last five years. To the contrary, anecdotal evidence from South Africa and Zambia, for example, suggests that these countries have been able to diversify their economies. A more thorough investigation on these issues will be needed later when data have accumulated to allow for statistically relevant analysis. Beyond the empirical concepts presented in this section, they might also include tracing the share of non-traditional exports in total export proceeds (possibly corrected for nominal price changes) as suggested by Langhammer and Schweickert (2005).

To sum up, in order to avoid being trapped into the unpromising corner of vulnerable, capital-intensive and high-risk raw material dependence, resource-rich Africa will have to balance the need to match the promotion of job-rich sectors with the desire to capitalise on a windfall gain generated by higher commodity prices. Monetary authorities will have to lean against the real currency appreciation in order to avoid burdening industries competing with imports, and exporters outside the resource sector. Central banks need to be supported by fiscal authorities, which are required to limit public spending on services and construction to keep non-tradables prices in check. Investment abroad of export proceeds will further insulate the local economies from 'Dutch Disease' effects.

8. Foreign Direct Investment

It is possible to identify four main channels through which the Asian drivers impact on FDI into (and out of) Africa:

- direct competition for projects;
- indirect consequences of the rise in the price of commodities on the financial viability of FDI projects;
- interest of Chinese and Indian multinationals to invest in Africa; and
- opportunities for African – or, more likely, South African – multinationals to invest in the Asian drivers.

The first channel has already received considerable attention – although it is doubtful that this is indeed the main one. In the medium run, however, the second and the third channels may be gaining importance and deserve to be treated carefully, not least because they (and the fourth channel) point to the existence of opportunities, as much as threats.

8.1. *Direct competition for projects*

Over the past decade, China has emerged as one of the main destinations of FDI inflows. From US\$8.8b on average in 1988-93, FDI inflows rose to US\$60.6 in 2004 and over the same period its share of global FDI flows rose from 4.64 percent to 9.36 percent (UNCTAD, various years). In 2004 China became the most attractive destination for FDI in the world, followed by India and the United States (UNCTAD 2004; OECD 2005b).⁶⁵ FDI into India has also picked up lately – to US\$5.3b in 2004, an amount that is almost 23 times higher than in 1988-93 (UNCTAD, various years). Given the size of the Chinese and Indian markets, their explosive growth, low labour costs and razor-edged export competitiveness, they are likely to keep on attracting massive investment inflows into both domestic and export market-oriented activities.

Will therefore FDI diverted away from other developing countries and region, Africa in particular? After a downturn in 2002, FDI flows to Africa recovered in 2003 (+39.7 per cent) and remained relatively stable in 2004 (US\$12.8b). Although rising from 1.09 per cent in 1988-93, Africa's share in world FDI inflows remains small at 1.98 per cent. Depending on the country, 50-80 percent of FDI in Africa is in natural-resource exploitation and natural-resource-rich countries (Angola, Chad, Equatorial Guinea, Nigeria, and South Africa) continued to be the principal destinations. A large number of smaller countries are receiving FDI in services, particularly in telecommunications, electricity and retail trade.

To the extent that Africa was part of global production networks shared with China or India, it could benefit as an investment destination from the higher attractiveness for FDI to the Asian giants. Such complementarities are weak in Africa, however, as the continent is mainly linked to the world economy through raw materials. As much of FDI in sub-Saharan Africa is geared to resource extraction and domestic markets (which will grow as services are liberalised), China does *not* pose a direct threat to other

⁶⁵ Currently, FDI forms 12 percent of global capital formation.

countries here; FDI inflows depend on each country's growth prospects, resource endowment, and investment climate.⁶⁶

Countries do, however, compete for FDI in export projects. The number of such projects is determined by the global market, and if a multinational corporation (MNC) puts an export-oriented (and usually very capital-intensive) plant into China or India it deprives some other prospective sites of that plant. Some export-oriented activities are organized in tight global production chains where countries support each other, undertaking different functions. The largest foreign-owned multinationals in China – which mostly operate in information and communication technologies (ICT) manufacturing and account for the bulk of China's exports – have very little manufacturing capacity in sub-Saharan Africa (Table 16), so direct competition is limited.

Table 16. Foreign-owned Exporters in China and their African Presence

Company	Country	Sector	Number of subsidiaries	Number of plants
Motorola	United States	Electronics	1	0
Volkswagen	Germany	Motor vehicles	0	1
General Motors	United States	Motor vehicles	3	4
Nokia	Finland	Electronics	0	0
Dell	United States	Electronics	0	0
Honda	Japan	Motor vehicles	0	0
Siemens	Germany	Electronics	1	0
Flextronics	Singapore	Electronics	1	0
Acer	Taiwan, China	Electronics	1	0
LG	Korea	Electronics	1	0

Sources: Chinese Ministry of Commerce (for listing) and companies' websites (accessed 10-11 August 2005).

In low-tech activities like clothing or footwear, on the other hand, growing FDI in China and India is likely to crowd out investment.⁶⁷ Although no sub-Saharan African country ranks among the world's 20 largest apparel exporters, in Lesotho and Swaziland a clothing industry employing 70,000 in 2003 grew in the 1990s thanks to the Multifibre Agreement (MFA) quota systems and Taiwanese and other Asian investment (Goldstein 2004 and Hilligas 2004).⁶⁸ Moreover, Cape Verde and Mauritius are also among the 20 economies with the highest dependence on apparel exports (Appelbaum 2005). With the end of the MFA and the removal of quotas, sourcing and investment decisions are affected more by economic fundamentals. But low labour costs alone will not be sufficient to attract investment – especially if other costs (such as logistics) make African producers uncompetitive. There is likely to be more consolidation of production into larger factories in a smaller number of locations. China and India are likely to be in a particularly strong position in this new geography of production. China alone accounted for 17 percent of

⁶⁶ Of course the emergence of China and India may impact on the growth potential of the domestic market, on the attitude that policy-makers take vis-à-vis policy liberalisation (including privatisation), and more broadly on the investment climate. These topics are discussed elsewhere in this note.

⁶⁷ FDI into India's information and communication technology industry requires an educated labour force and does not compete with sub-Saharan Africa. There may be some overlap with South Africa, though.

⁶⁸ In 1997, Shanghai Huayuan Group Corporation (SHGC), together with a Nigerian company, acquired a textile company with an annual production capacity of 1,500 metres of printed and dyed cloth (UNCTAD 2003). In 2000, the partners expanded the operation with an additional capital injection of USD 6 million for building a cotton mill with a production capacity of 13,000 spindles. In the same year, the joint-venture operation made a net profit of USD 0.76 million, employed about 1,000 people, and became one of Nigeria's largest taxpayers.

FDI projects in textiles and clothing manufacturing in 2002–2004. On the other hand, 6,000 textile workers lost their jobs in Lesotho in January 2005 alone.⁶⁹

It must be borne in mind that various factors may also work against too much consolidation (Appelbaum 2005). Proximity to markets continues to play an important role for some product categories, and some producers have signalled that they will retain several production bases in order not to become too dependent on a single source country. Moreover, various trade policy measures – including preferential trade arrangements such as AGOA, ACP, and EBA – also influence sourcing and investment decisions and may still provide African countries with a relative advantage.⁷⁰ The idea of a regional association of textile and garment manufacturers was agreed at a Regional Cotton and Textile Executive Summit, held in Nairobi in May 2005. There is also scope for strategic responses that differentiate a country's industry and try to avoid competing with China on cost.

So far, the policy response in Africa has been rather slow. Another industry where the region may be shielded from Chinese competition is furniture and other wood products. South Africa has already attracted sizeable FDI, from Italy and other European countries, and may even benefit from the growing appetite of the Chinese middle class for quality, EU-branded furniture.⁷¹ Yet, for the process to gather momentum would require a substantial upgrading of South African furniture producers (Kaplinsky *et al.* 2003)

8.2. Indirect support for natural resources projects in Africa

The second channel is indirect. A corollary to competition is complementarity. As it is examined elsewhere in the paper, the demand from China and, most recently, India has driven the recovery in world prices for most/all commodities since 2001. Sub-Saharan Africa is incredibly well-endowed with most non-oil mining resources – in 2002 Southern Africa alone accounted for at least 45 percent of the global production of chromium, gemstones, kyanite, platinum, and vermiculite (Goldstein 2004, Table 20) – and may benefit from the interest of Western MNCs. Crucially, the current climate of high demand and high prices, especially if it is confirmed in the medium run, makes it financially viable to start projects in areas that, for geological and other reasons, were not considered prime ones in the past. Industry experts argue that this holds true in particular in the case of deepwater oil exploration in the Gulf of Guinea. Producers including Angola and Azerbaijan are increasingly setting out aggressive contract terms upfront with Western majors, linking their share of the profits to the oil price and the profitability of a project.

⁶⁹ “Lesotho facing ruin after textile trade rules change”, www.telegraph.co.uk (12 February 2005).

⁷⁰ The African Growth and Opportunity Act (AGOA) provides an effective 17 percent price advantage along with quota costs to all participating sub-Saharan African countries, along with liberal rules of origin for least developed beneficiary countries (LDCs). Only Zimbabwe, among major African apparel-exporting countries, is excluded. In July 2004, AGOA was extended to 2015, and the special “third-country fabric” rule was extended until 30 September 2007. The EU–African, Caribbean and Pacific (ACP) Agreement allows most ACP exports (including 80 percent of all industrial products) to enter the EU quota- and duty-free. The Everything but Arms (EBA) initiative, announced in September 2000, eliminates quotas and tariffs on all imports into the EU from the LDCs, with the exception of arms and munitions. The effectiveness of the AGOA and, above all, of the EBA schemes is however limited by complex and stringent rules of origin. The EU is therefore contemplating modifications of the rules of origin for LDCs (see appendix B for further analysis).

⁷¹ A survey of the delocalisation projects of Italian firms provides interesting, albeit only indirect, evidence in this sense (ICE 2005, p. 389). Furniture is the only industry for which the number of respondents indicating projects in the “other countries” category (including South Africa as well as Brazil) vastly exceeds the number responding “Brazil” and “India”.

8.3. Chinese and Indian investments in Africa

The third channel – overseas investment by Indian and Chinese companies – is partly related to the previous one, insofar as the bulk of Chinese and Indian investments in the region is of resource-seeking nature and goes to oil and non-oil mining (Goldstein 2006). Reserves in Sub-Saharan Africa have attracted the interests of national oil companies from China and India (as well as Brazil and Malaysia) as they seek to augment their international exposure (Table 17). For example, announcing on 2 August 2005 that it would abandon its US\$18.5 billion offer for Unocal, CNOOC (China National Offshore Oil Corporation) signalled that it would continue to work with foreign governments and companies in its search for overseas oil and gas reserves.

Investment relations have gained momentum in recent years, as also shown by the signing of bilateral investment (BITs) and double taxation treaties (DTTs) (Table 18). The share of Chinese and Indian FDI flows going to the region is – with all the caveats that are made necessary by the poor quality of data (see Goldstein 2006 and OECD 2005b, Box 1.1) – probably higher than for OECD countries, for which sub-Saharan Africa is a very minor investment destination. In the case of China, the 1991-2003 cumulative value of FDI to Africa was equal to US\$847 million, or 19.5 per cent of total outward FDI flows (Table 19). The whole of Africa accounted for 17 percent of Indian outward FDI flows in 1975-1990, with the bulk going to Senegal and Nigeria (Pradhan 2003, Tables 2 and 3). The amounts may be negligible when compared to global FDI flows, but they can be significant in the case of African countries such as Sudan. Moreover, since 2005 Chinese and Indian oil companies have significantly increased the size and number of their projects in Africa, especially in the Gulf of Guinea (Table 17).

Table 18. Investment relations between China and India and selected sub-Saharan African countries

	China				India			
	BIT*	DTT**	FDI		BIT*	DTT**	FDI	
			Value ^a	Nrs. ^b			Value ^c	Nrs. ^b
Angola				4				
Botswana	√							
DR Congo								
Ethiopia	√					√		
Ghana	√				√			
Kenya						√		3
Mauritius		√				√	415	9
Mozambique								
Nigeria		√ ^d	44	4				2
Senegal								
South Africa		√	120	1		√		13
Tanzania			41	1		√		2
Zambia			134	2				

Notes:

*BIT = bilateral investment treaties

**DTT = double taxation treaties

(a) Cumulative investment value of approved projects (1999-2002);

(b) Number of projects (2002-June 2005);

(c) Equity (1991-March 2001);

(d) Treaty signed (15 April 2002) but not yet in force.

Sources: www.unctadxi.org/templates/Page_1006.aspx; www.worldwide-tax.com

Thanks to Carmel Ferris for providing Logotec data for free and Richard Parry for help in accessing the IBFD Tax Treaties Database.

Table 19. China's approved OFDI flows, by Region, 1991-2003
(Millions of dollars)

YEAR	TOTAL			ASIA			AFRICA			EUROPE			NORTH AMERICA			LATIN AMERICA			OCEANIA		
	Number of Enterprises	Chinese Investment	Average Investment	Number of Enterprises	Chinese Investment	Average Investment	Number of Enterprises	Chinese Investment	Average Investment	Number of Enterprises	Chinese Investment	Average Investment	Number of Enterprises	Chinese Investment	Average Investment	Number of Enterprises	Chinese Investment	Average Investment	Number of Enterprises	Chinese Investment	Average Investment
1991	207	367.0	1.8	55	13.7	0.2	7	1.5	0.2	80	24.2	0.3	34	313.9	9.2	16	4.1	0.3	15	9.6	0.6
1992	355	195.3	0.5	106	57.5	0.5	23	7.7	0.3	131	53.7	0.4	46	171.2	0.4	26	13.0	0.5	23	46.3	2.0
1993	293	95.9	0.3	107	31.4	0.3	28	14.4	0.5	58	11.7	0.2	48	166.8	0.4	20	9.9	0.5	32	11.8	0.4
1994	106	70.6	0.7	49	25.7	0.5	12	28.0	0.2	14	5.8	0.4	17	73.9	0.4	6	0.8	0.1	8	2.9	0.4
1995	119	106.4	0.9	61	50.4	0.8	26	17.7	0.7	7	2.0	0.3	12	21.5	1.8	10	4.9	0.5	3	9.9	0.3
1996	102	293.8	2.9	53	109.3	2.1	23	56.2	0.2	8	2.7	0.3	10	4.9	0.5	4	119.8	30.0	4	0.9	0.2
1997	128	169.3	1.3	55	27.5	0.5	41	81.8	2.0	22	12.9	0.6	1	0.9	0.9	4	27.3	6.8	5	18.7	0.4
1998	266	259.0	1.0	85	68.1	0.8	40	88.3	2.2	78	33.4	0.4	21	30.5	1.4	32	24.2	0.8	10	14.5	1.4
1999	220	590.6	2.7	86	171.4	2.0	54	95.2	1.8	34	33.4	1.0	22	81.2	3.7	21	207.6	9.9	3	1.7	0.6
2000	243	551.0	2.3	102	159.6	1.6	52	214.3	4.1	32	47.7	1.5	23	54.8	2.4	19	60.7	3.2	15	13.8	0.9
2001	232	707.5	3.1	106	460.0	4.3	45	72.3	1.6	32	60.1	1.9	23	57.2	2.5	17	40.0	2.3	9	17.9	2.0
2002	350	982.6	2.8	141	605.9	4.3	36	62.4	1.7	63	74.9	1.2	45	15.3	3.4	46	37.0	0.8	19	49.5	2.6
2003	510	2,086.9	4.1	279	1139.6	4.1	53	107.4	2.0	47	52.1	11.1	94	120.9	1.3	25	164.2	6.6	12	34.1	2.8

Source: China, Ministry of Commerce (various years)

Table 17. Sub-Saharan Africa and Oil Investment from Brazil, China, India and Malaysia

Company	Region	
	North Africa	South-East Africa
<p>CNPC (China National Petroleum Corporation) Has also invested in Venezuela, Kazakhstan, and Myanmar.</p>	<p>West Africa Together with Sonangol, has shown interest in partnering with Argentina's state-owned Enarsa. In July 2005 was awarded four oil blocks in Nigeria in exchange for investing in the construction of hydropower plant in Mambila, Plateau State, with over 1,000 MW capacity, as well as taking controlling stake in the 110,000 barrels per day (bpd) Kaduna refinery.</p>	<p>Central Africa In 1995, CNPC reached an agreement to form a joint-venture with the Government of Sudan and other partners (Talisman Energy, Canadian oil minor, as well as Malaysia's Petronas and Sudan's Sudapéc). CNPC has a 40 percent share in the US\$1.7 billion project known as Greater Nile Petroleum Operating Company. are partners of the joint-venture entity. Separately, CNPC owns most of a field in southern Darfur, which began trial production this year, and 41 percent of a field in the Melut Basin, which is expected to produce as much as 300,000 barrels per day by the end of 2006.</p>
<p>ONGC (Oil and Natural Gas Corporation) Also bought substantial interests in Russia (20percent stake in the Sakhalin 1 field), Iran, and Vietnam.</p>	<p>In 2005 a deal by Shell to sell its half of the Greater Plutonio block 18 to ONGC for US\$620 million could not materialise since Sonagol exercised its pre-emption right and eventually sold it to a Chinese firm. India had reportedly offered US\$200 million for developing railways. Operates in Nigeria (Agbami and Akpo fields) and Ivory Coast,</p>	<p>ONGC Videsh, the overseas arm of India's ONGC, bought a 25 percent stake in Greater Nile from Talisman and is also in talks to build a 750km pipeline from Khartoum to Port Sudan on the Red Sea.</p>

<p>Petrobras</p>	<p>Gained E&P rights for Libya's Area 18 in 2005.</p>	<p>It undertakes E&P activities in Sudan (with CNOC and Sudapet) and Chad (with ExxonMobil).</p>	<p>Operates block number five off Tanzania's Mafia Island. In 1996 it acquired a 30percent shareholding in Engen, the South African refining and marketing, eventually buying a controlling stake for US\$775 m. The Engen purchase gave Petronas control of 18percent and 27percent of South Africa's refining capacity and retail-fuel market, respectively. Engen's operations now contribute almost 20percent to total annual revenue. In November 2004 Engen and Sasol combined their liquid fuels operations in a new joint venture, Uhambo.</p>
<p>Sinopec</p>		<p>Is erecting a pipeline to Port Sudan on the Red Sea, where China's Petroleum Engineering Construction Group is building a tanker terminal. In February 2004 signed a technical evaluation deal with the Gabonese oil ministry for three onshore oilfields.</p>	<p>Was recently awarded two concessions (blocs 3/80 and 8) in Angola.</p>

Source: Goldstein (2006).

While they do not master cutting-edge technology (as does Petrobras, on the other hand), Chinese and Indian energy companies have a number of possible advantages over Western majors. Privileged access to cheap loans extended by state-banks, particularly for Chinese companies, may make them competitive in bidding⁷⁴ – although in the future, authorities may become more attentive about the quality of Chinese bank's loan portfolios. Junior petroleum and mining companies therefore have different discount rates and are willing to take on high political and security risks, even investing before there is a mining or petroleum code, in the hope of making major discoveries before their larger, more risk-averse competitors, step into the fray.

While more competition on the demand side is welcomed by oil and gas producing countries, and may in theory contribute to make the bidding process for exploration and production rights more open, the risk exists that companies that are based in emerging economies may follow looser business practices. Legal texts such as the OECD Convention Against Bribery of Foreign Public Officials in International Business Transactions, stock market disclosure requirements, codes such as the OECD Guidelines for Multinational Enterprises, a revised version of which was issued in 2000, the British-led Extractive Industries Transparency Initiative and civil-society initiatives such as The Publish What You Pay coalition have all combined to increase revenue payments transparency in OECD countries – and more broadly for firms listed in OECD financial markets.

Other forms of outward FDI exist in manufacturing and services, especially from India. Mauritius has emerged as the third-largest destination for Indian outward FDI in 1991-2001, after the UK and the US, with 183 projects and a 9.73 percent share in cumulated equity commitments (Pradhan 2003, Table 7).⁷⁵ More recently, the Tata Group has identified South Africa as the next frontier in its globalization strategy (Goldstein 2006), where its interests already include IT services, telecoms, bus-body building, and car distribution. Tata Motors may take advantage of South Africa's free-trade agreement with the European Union to access European markets.⁷⁶ Other Indian conglomerates and firms are also active in Eastern Africa and Mauritius, where a sizeable diaspora exists with a secular history.

The Chinese in Africa constitute a more recent entrepreneurial diaspora. Although Chinese business networks are increasingly visible in hostile or indifferent policy environments where there are no resident overseas Chinese, their potential role as catalysts for industrial development in fostering Asia-Africa linkages remains limited to information, input supply, consulting services, and technical assistance (Bräutigam 2003). In Sierra Leone, individual entrepreneurs (mostly from Hunan province) are producing such necessities as spring mattresses, roofing tiles and hair lotions in a light manufacturing zone under a joint venture between the two countries.⁷⁷

Also of interest, not least for its interesting developmental consequences is the arrival in Africa of Indian (and Brazilian) producers of generics drugs (i.e., copies of branded drugs). Companies such as Ranbaxy and Dr. Reddy have become world leaders in generics – although they are still dwarfed by the leading pharmaceuticals companies in the West – and aim to take advantage of WTO provisions that allow patents to be broken in cases of national emergency, including public health crises such as AIDS or tuberculosis

⁷⁴ At the centre of the anti-CNOOC allegations at the time of its unsuccessful offer for Unocal were claims that it was funded by subsidized loans – however, such arguments have been disputed by independent analysts. See “Winning Unocal only the start of the challenge”, *Financial Times*, 30 June 2005 and “Antagonists argue over Chinese group's financing”, *ibid.*, 6 July 2005.

⁷⁵ Some Indian investment in Mauritius is likely to be of round-tripping nature.

⁷⁶ In January 2005 Tata Motors bagged a US\$18 million export order to supply 350 buses to Senegal. This order is financed by India's EXIM Bank under its NEPAD scheme.

⁷⁷ “Chinese investors target virgin markets”, *Financial Times*, 16 March 2005.

epidemics. Ranbaxy Laboratories – India’s largest pharmaceutical company and the 11th largest producers of generics in the world – set up its first international joint venture in Nigeria way back in 1977. Ajanta Pharma was the first to open a plant in Mauritius in 1996.⁷⁸ In Uganda, a Chinese pharmaceutical firm is introducing a new anti-malaria drug and bidding on a contract to supply treated bed nets (Lyman 2005).⁸⁰

As far as non-equity forms of investment are concerned, Chinese companies have been involved in major infrastructure projects, such as Olympic-style stadiums in West Africa and presidential palaces in Kinshasa, as well as the railroad in Tanzania, in competition with the nearly parallel road system built by the West (Lyman 2005). Chinese contractors are currently involved in many, which are financed by soft loans when not paid directly by Beijing. Of even greater impact is Chinese contractors’ winning of the US\$650 million bid for the Nile River’s Merowe Dam – the biggest international project secured by China so far. Costing about US\$1.5 billion, the project is financed largely by Arab multilateral and national funds. Growing familiarity with conditions in Sudan, lower risk contingencies built into the bid, and more modest expectations for pay and profit seem to have been influential.⁸¹ All managers, 90 percent of engineers and 75 percent of technicians will be Chinese. Local staff will account for 20 percent of skilled workers and all general labour. Sudanese staff earns on average US\$22 to US\$350 a week, while expatriates’ earnings are US\$220 to US\$600.

8.4. African investments in China and India

Last but not least, export-orientated and domestic market-orientated FDI coexist in China itself. As policies towards FDI have evolved from an export promotion regime into a further liberalisation of the domestic market, new opportunities are emerging that open exciting opportunities for MNCs from other developing countries to follow an evolutionary entry path into China. Companies from emerging and developing countries may find it relatively easier to operate in other economies with similar characteristics than Western competitors. Reasons include the habit of working in difficult environments, where some markets may be missing and the related functions must be internalised; the ability to deal with public authorities; a favourable attitude by stakeholders in the host economy; and the leverage provided by less stringent regulations in home countries. At end-2004, South African FDI stock in Hong Kong, Singapore, and “Other” (mostly India) was equal to ZAR2,198m, ZAR100m, and ZAR227m, respectively – for a grand total of US\$414m. Although this option is, in all likelihood, only open to South African MNCs (Box 1) and Indian diasporas in East Africa,⁸² it does point to the broader ramifications that the emergence of the Asian

⁷⁸ In June 2005 Ranbaxy won regulatory approval to make and market lamivudine tablets for the US\$15 billion PEPFAR (President’s Emergency Plan for AIDS Relief) programme. Cipla, another Indian drug manufacturer, has been roped in to supply paediatric AIDS drugs as part of President Clinton’s US\$10 million fund. Both initiatives are targeted to Africa.

⁸⁰ In 2003 Roche handed over development of a synthetic copy of an extract from the Chinese sweet wormwood plant that could fight versions of malaria that have become resistant to other drugs to Ranbaxy, which would eventually manufacture and sell the drug – without compensating Roche.

⁸¹ French, Austrian and other candidates peeled away. In the end, CCMD soundly underbid its sole surviving rival, Greek-based Consolidated Contractors International Co. teamed with Italy’s Salini Costruttori. Alstom was the only Western victor, clinching the turbine order. See “Chinese Contractors Flex Lean Muscles in Sudan”, enr.construction.com (filed 12 April 2004; accessed 5 August 2005).

⁸² Comcraft, which is owned by the Chandaria and Shah families of Kenya, is the most important group controlled by Non-Resident Indian families. It has a presence in over 30 countries with business interests in steel, aluminium and nonferrous metals, plastics, chemicals, engineering, electronics, and industrial components. In India it owns Steelco Gujarat Ltd., makers of paper thin steel, and Dexcel Electronics Designs in Bangalore. Sino-Mauritian firms have also started to invest in the Mainland (Bräutigam 2005). On Egyptian investment in China, see Bonaglia and Goldstein (2005).

drivers, and by extension globalisation itself, have for developing countries. Liberalisation and the arrival of OECD-based competitors, far from condemning domestic manufacturers to oblivion, pushes managers and firms towards internationalisation patterns. Their heterogeneity makes it important to explore in great depth the linkages between the political and institutional environment, on the one hand, and corporate trajectories, on the other.

Box 1: South African Multinationals in China and India

As an increasing number of firms from South Africa are using their management capability, i.e. the ability to organise production and distribution activities and employ adequate technology, to derive a competitive edge in global markets, a few are investing in China. SABMiller has invested US\$400 million in the Chinese consumer goods sector since 1994 through China Resources Breweries (CRB), a 49-51 percent joint venture with China Resources Enterprise (CRE). CRB owns 30 breweries throughout China and leading local and regional beer brands. In the resource field, Kumba Resources has invested an estimated RMB92m in a zinc smelter in Hongye. China also allowed foreign participation in gold mining in 1994. Although the country is the world's fifth-largest producer, its industry is plagued by production inefficiencies and safety problems, presenting opportunities for South African conglomerates, which are renowned the world over for their management and mining technology. Anglo American has confirmed its participation in the upcoming IPO of shares in China may be interested. Other South African corporates active in China include Sappi, the world's largest fine paper producer, Iscor, Polifin, ABSA, Naspers, South Africa Michael Diamonds, and Nedcor, while Standard Bank also has an East Asian operation based in Hong Kong. SABMiller also entered India in 2000. In May 2003 it announced a joint venture through its subsidiary Mysore Breweries with Shaw Wallace, in which it exercises management control. Steinhoff International, Steinhoff International, one of the top furniture and household goods groups in Europe, and the largest in Africa and the Pacific Rim, manufactures leather cut and sewn upholstered furniture covers in India. The production from the tannery is exported to Steinhoff factories in Eastern Europe for use in upholstered products sold into the German market. The group also has a large sourcing operation in China.

Of specific relevance are two more recent deals. South Africa pioneered the commercial use of coal-to-liquid fuel technology during the apartheid era as the country needed greater fuel self-sufficiency. In late 2004 Sasol, the world's largest producer of synthetic fuels, and a consortium of Chinese companies including China Shenhua Energy (CSE) group, China's largest coal producer, signed a Letter of Intent on the feasibility study of the first phase of a "coal-to-fuel conversion" programme. The two projects, in northwest China's Ningxia and Shaanxi, are expected to cost about US\$3 billion each and will have a combined annual production of 60-million tons of oil. In November 2004, South Africa's largest grocery retail supermarket group, Shoprite, opened India's first hypermarket, of which the group is the franchisor, in a modern shopping centre in Mumbai. Running a US\$5 billion business with over 700 stores in 16 countries, Shoprite's long-term aim is to increase the operating income from its non-South African operations to more than 50 percent of group revenue. The group's decision to expand to India is also justified by its predominantly Indian management team, which operates very successfully in the large Indian market of KwaZulu-Natal. Since FDI is still not allowed in the retailing sector in India (except in the cash-and-carry format, which Germany's Metro entered in 2003), Shoprite has entered into an agreement with the Nirmal group. Shoprite began retailing products from Nestle, Unilever and Procter & Gamble at discounts of 20-30 percent, prompting locally-owned Big Bazaar and Food Bazaar stores to withdraw Nestle products from its shelves in retaliation. Eventually, the three MNCs have asked Shoprite to roll back the offers or face withdrawal of supplies.

To sum up, in low-tech activities like clothing or footwear, growing FDI into China and India is likely to crowd out investment in Africa, although geography and preferential tariff treatment may still provide some African countries with a competitive edge. Head-on competition, however, is unlikely to be the main

channel through which the Asian drivers impact on FDI flows into (and out of) Africa. The first and foremost one is throughout increased international prices for oil and other natural resources, which underline the current dynamism of cross-border investment in this broadly-defined sector. Moreover, FDI from the Asian giants is growing, especially but not solely in the petroleum industry. Last but not least, the growing presence of South African multinationals in China and India is also noteworthy: the Asian Giants FDI story is not a one-way street.

9. Medium- and Long-term Scenarios

The medium-to-long term impact of China and India's emergence on Africa crucially hinges on what happens to the Asian Drivers themselves. In this section we discuss various scenarios with respect to economic developments in China and India and their likely impact on African economies.

9.1. Scenarios for China's and India's medium and long-term growth

Most analyses agree in predicting that over the next 20 to 30 years China and India will continue to grow more or less at the levels that have been prevailing since the beginning of the century. The underlying assumption of the OECD long-term baseline scenario is that the quantity and quality of labour and labour-augmenting technical change are central determinants of economic growth. As mentioned in the macroeconomics section, capital accumulation and total factor productivity have been the major sources of growth in China since 1978.⁸³ With large sections of the Chinese and Indian population still living in the rural areas, unemployed or underemployed, and with relatively low productivity, the growth potential is almost unprecedented.⁸⁴ ⁸⁵ In China, in the presence of large labour reserves, growth will not be labour-constrained for some time and the productivity of capital remain high in the industrial sector despite a vibrant pace of capital accumulation. In turn, capital accumulation, together with productivity gains driven by labour-reallocation, should support economic growth over the next 20 to 30 years. In India, by contrast, the move so far has been mainly from agriculture to services in the share of output, with no substantial increase in manufacturing, and the structure of employment has been stubbornly resistant to change (Ghosh 2005). However, with institutional reform, the enormous potential of Indian reallocation of labour into manufacturing should be unleashed. Moreover, both countries still have a lot to gain from enhancing their innovative capacity based on their large pools of engineers and scientists.

The *baseline scenario 2030* forecasts continued gains in labour productivity over the period 2002-2030 for China and India⁸⁶ (OECD 2005c) (See Table 20).

⁸³ Between 1978 and 2003, capital accumulation has contributed more than 4.5 percent of annual output growth while that of total factor productivity growth (TFP) has been 3.7 percent (OECD 2005a). Education enhancement and reallocation of labour from agriculture to manufacturing and service sectors have been quoted as two key factors driving TFP growth. Moreover, Heytens and Zebregs (2003) suggests reduction in the state sector (*privatization*), together with increased openness to trade and the change in the extent of urbanization, as also important contributors to the growth of total factor productivity.

⁸⁴ In China, total labour force is reckoned at 740 million people, no more than 370 million currently work in the industrial segment of the economy and the number of those who would potentially abandon their agricultural activities to find a job in the urban-based industrial sector is estimated at around 150 million or more (OECD 2005a).

⁸⁵ In 2002, Chinese per capita income was 13 percent of that of the United States. By historical standards, and having in mind Korean, Japanese and Taiwanese catching up process, scope for rapid growth in China is considerable (Dooley *et al.* 2004).

⁸⁶ On March 23, 2005 Deutsche bank released a study of global growth centres in 2020 which puts India as the top growth centre (5.5 per cent) ahead of China (5.2 per cent) using *Formel-G* model as India will have an even stronger population growth and increasingly more open economy.

Table 20. **Selected Baseline Labour Productivity Growth**
- Output per hour -

	2002	2007	2010	2020	2030
China	7.8	6.2	4.9	4.4	3.9
India	4.0	4.8	3.4	3.1	2.9
US	1.2	2.6	1.8	1.8	1.8
Japan	-0.4	2.2	2.3	1.8	1.7
South Africa	2.9	1.8	0.7	1.1	1.5

Source: Adapted from OECD (2005c)

The recent *Economic Survey of China* (OECD 2005a, p. 31) verifies the feasibility of Chinese government's stated goal of increasing per capita GDP four-fold between 2000 and 2020 (reaching US\$3,000 per capita), which would imply an average annual growth of just over 7 percent.⁸⁷

However, the success of the long term Chinese growth scenario depends heavily on the medium term governmental response to the current daunting challenges of imbalances caused by rapid privatisation. The recently-released 11th five-year Plan proposes a more pro-poor growth pattern and efficient utilisation of resource.⁸⁸ This is in line with tackling the current increasing inequality⁸⁹ and the high cost of commodities especially oil on the Chinese economy.

9.2. Prospects for Future Energy, Metals and Food Demand

Given China's growing importance as a driver of world trade growth, the expected medium term soft-landing could mean an ease in non-oil commodity prices and hence a possible moderate decline in the speed of terms of trade improvement for some of China's African commodities trading partners. However, considering China's relative scarcity in natural resources, a factor endowment approach to China's growth suggests that China will for some time remain a large consumer of commodities.

9.2.1. Energy and Metals

Based on the assumption of *no drastic measures to limit demand or create alternative fuels*, the *World Energy Outlook 2004* forecasts Chinese petroleum demand in 2030 at just under 14 million mb/d, and import almost 10m/b, as much as the United States imports today (IEA 2004). Of course, the scenario may need to be revised soon in light of recent government determination to build a more efficient and sustainable energy economy. Similarly, the IMF (2005) projects China's share in world demand for oil to rise from 6 percent in 2003 to 13.5 percent by 2030. Both IEA and IMF⁹⁰ reports confirm transport demand as the key driver behind China's strong demand for oil.⁹¹ By contrast, the Chinese supply response remains

⁸⁷ GDP per capita = labour productivity x labour utilisation

⁸⁸ "National Economic plan for the next years (2006-2010), by the State Council, China" (*People's Daily*, 12 October 2005)

⁸⁹ Chinese Gini coefficient increases from 0.18 in 1978 to more than 0.45 in 2003 according to a World Development Indicator and World Bank's 'China Quarterly update' (April, 2005)

⁹⁰ IMF projections are based upon a scenario which factors in an increase in car ownership from 16 to 267 vehicles for 1000 people between 2003 and 2030

uncertain: along the lines of the scenarios worked out by the IEA (2004) and the US Department of Energy (2004) scenarios, the IMF does not expect a significant increase in China's oil production (neither from the non-OPEC suppliers)⁹².

While Chinese demand for commodities is likely to remain high over the next 20 years, considerable downside risks exist⁹³. First, even though China is relatively scarce in natural resources, it is still a significant producer of commodities (e.g. oil and metals): accordingly, if prices of some commodities were to skyrocket, a supply response from China can not be dismissed out of hand for some of them (Pomfret 1996).⁹⁴ Second, the scope for implementing alternative energy/metal-saving technologies is large. For example, there have been successful implementations of wind powered farms, operating nationwide as a result of reduced Value-Added tax for wind generation from 17 percent to 8.5 percent in 2002⁹⁵. Third, though China is currently in the midst of a take-off phase⁹⁶, hence reporting high levels of energy-intensive investment (not least infrastructure investment), the pace of investment and industrialization should abate somehow over the next 20 years (UNCTAD 2005)⁹⁷. Last but not least, the high commodity import price is taking its toll on the Chinese economy though the energy prices are subsidized in China⁹⁸: one can expect that they will be at least partly liberalized in the near future, hence increasing the domestic fuel prices and dampening Chinese demand for energy. These caveats notwithstanding, Chinese demand for energy and metals is set to grow at a more moderate but still sustained level.

On the other hand, India ranks seventh in the world in terms of crude oil import demand (IEA, 2005). Its economy is projected to grow 7 to 8 percent over the next two decades, and in its wake will be a substantial increase in demand for oil to fuel land, sea, and air transportation. World Energy Outlook (IEA, 2004) projects its final energy consumption will increase at 2.1 percent per annum while primary energy supply

⁹¹ Currently, there are roughly 24 million vehicles in China, with projections anticipating 90-140 million by 2020. This would push transport demand from 33 percent of total Chinese petroleum demand to about 57 percent (from 1.6 million b/d in 2004 to roughly 5.0 million b/d in 2020 (IEA 2004).

⁹² Under these conditions, the IMF baseline scenario for the price of the oil barrel revolves around USD34 from 2010 to 2030.

⁹³ According to the IEA, worldwide petroleum reserves are sufficient to meet global demand through 2030 and beyond (Logan 2005)

⁹⁴ China is the world's sixth largest oil producer in 2004 (174 million tonnes of oil or 4.5 percent of the world total) (IEA 2004).

⁹⁵ "Grid connected wind power in China" (Department of Energy, US) <http://www.nrel.gov/docs/fy04osti/35789.pdf>

⁹⁶ China's energy elasticity of demand stands at 1.5 (NBS 2004). In other words, for every one percent increase in GDP, energy demand grew by over 1.5 percent. This is not uncommon compared with other developing countries such as India and Brazil whose energy elasticity of demand also exceed one (Logan 2005)

⁹⁷ Patterns of metal/energy intensity evolves with time, broadly following a U-inverted curve as countries develop: it is very low in poor countries; dramatically increases as countries take off and are in the midst of a rapid industrialization phase; slowdowns as the pace of investment loses momentum and more efficient ways of using metal/energy are devised. China is at an intermediary stage on this U-curve (heading for its peak) while the U-curve itself is probably moving downward as new energy/metal saving technologies are being devised and implemented by late industrialisers such as China.

⁹⁸ Currently, there are virtually no taxes on automotive fuels and the price for regular (90 octane) gasoline is 4 Yuan per litre (€0.40). However, the National Development and Reform Commission which regulates fuel price in China has lifted the fuel price five times in 2005 and has been contemplating a gradual introduction of fuel tax. On the other hand, Indian taxes comprise of about half the retail price of petrol and diesel, although kerosene (for lighting and cooking) and LPG (liquefied petroleum gas for domestic cooking) are heavily subsidized.

will rise by 2.3 percent per annum between 2002 and 2030. Certainly, its medium to long term global impact is enormous.

9.2.2. Food and Soft Commodities

The Chinese and Indian demand for food products exhibits some caveats also. The most rapid phase of growth in Chinese demand for food is over. First, population growth in China is slowing and is expected to be a third of what had been seen in the past three decades. Second, the gap between China and developed countries with respect to daily calorie intake is being bridged: by 1997-99 China had reached an average per person daily food consumption of 3040 kcal – only 10 percent short of the level reported in industrial countries. Over the next three decades, Chinese per capita food consumption is therefore expected to grow at a quarter of the rate seen in the past three decades. As a result, China should be the main factor behind the expected slowdown of world demand for agricultural products from 2.2 percent a year over the past 30 years to 1.5 percent a year over the next 30 years, a stark contrast to its role as the major engines behind the growth of world demand for food and agricultural products over the past few decades (FAO 2002).

Yet, Chinese absolute demand for food will continue to rise while this increase will go hand in hand with structural changes in food consumption patterns: driven by rapidly rising income and urbanization, diet changes have to be expected in China. The outcome should be for instance a growing demand for meat. Should the latter be met by local producers (a credible assumption), meat self-sufficiency should nonetheless induce an increasing demand for animal feed (so far, essentially soybean, but it could be maize in the future). Increased demand for edible oils and sugar, products from aquaculture, fresh fruits and vegetables is also to be expected. As a result, opportunities in the field of agribusiness and related-exports to China might be opening up in a near future.

In India, on the other hand, average food energy intake per person is still below 2500 kcal and its population is set to grow at an average of over 1 percent a year over the next 30 years. Will India hence take over from China as a major driver of the growth in world demand for agricultural products? Meat and animal feeds consumption in India is currently at low levels and vegetarianism is likely to hold back the country's demand for these products (FAO 2002).

10. Policy Implications

This study has shown that on balance quantifiable effects of the Asian Drivers' rise in the world economy are largely positive for Africa. This neither implies that those benefits will persist, nor that they lay the ground for better economic performances on the continent. While those effects are positive for Africa, their interaction with a number of *future policy challenges* – governance standards, diversification, back- and forward linkages between modern-sector enclaves and the rest of the economy, labour absorption and skill formation – merits careful policy attention.

In this context, African policy-makers, donors, and the business community should devise appropriate policy responses along these three main axes:

- First, considerable room for improvement exists with respect to exploiting African natural resources in a sustainable manner. Making the case for diversifying African economies should not indeed prejudice a more efficient exploitation of available natural resources on the African continent, especially once African relative factor endowments are factored in.⁹⁹
- Second, African diversification and trade strategies should be rethought in light of increasing Chinese and Indian competition in sectors which used to be regarded as potential avenues for Africa's diversification.
- Third, donors' support, in particular in the realm of "trade as aid", should be enhanced so as to facilitate African economies' adjustment to rising Chinese and Indian competition on third markets. Upholding African access to OECD markets is the key in this regard.

10.1. Unleashing Africa's Commodity Potential

As documented in the *African Economic Outlook* (AfDB/OECD 2005), sizeable commodity potential remains untapped on the continent. New oil fields are starting to come on stream in Angola and elsewhere in the Gulf of Guinea as the existence of tremendous reserves is attested. In a similar vein, it is only very recently that oil has started to flow in Chadian pipelines, while some substantial oil reserves allegedly exist in Mali at the border with Mauritania. Driven by a high international price, exploration aimed at discovering gold reserves is gaining momentum in Burkina Faso and mining has lately started in a few sites. There is considerable scope for further developing gold extraction in Mali and for gaining efficiency in the exploitation of diamonds in Botswana. Above all, the immense mineral potential of a large country such as the Democratic Republic of Congo is notoriously underexploited. These and other resources are costly to extract and investment has only recently become feasible as the prices of commodities recovered thanks, *inter alia*, to the demands of the Asian drivers.

However, various constraints impede a proper exploitation of the large African natural resources potential, starting with the lack of appropriate physical infrastructures (rail and road transport facilities in particular). Transport costs are specifically high in Africa and they have increased as a share of export value since

⁹⁹ While initial patterns of relative factors endowments are not destiny, Mayer and Fajarnes (2005) point to their very limited changes in Africa (in particular relative endowments of land, labour and skilled labour) overtime. They find that the share of primary products in African exports would remain very high (75 percent instead of 85 percent at present) even if African countries were to reach Latin America's per capita income. Therefore, a dramatic decline in the share of commodities in African exports is not to be expected over the coming years and considering its factor endowments, Africa's comparative advantage is set to remain in commodities.

1970 (Amjadi and Yeats 1995). While the margin of CIF prices over original shipment prices (“free on board”) has declined in every region, it has increased in Africa, the continent where this margin is highest¹⁰⁰. The culprits are deficient physical infrastructures together with excessive protection granted by African governments to their national carriers and cargo service providers. They tend to increase costs for both importers and exporters and reduce incentives for investment in export-oriented sectors.

There is also considerable room for improving the efficiency and productivity of primary agricultural production in Africa (e.g. through greater use of fertilizers and modern techniques). At this stage, Africa’s primary agricultural exports exhibit no obvious complementarities with China’s and India’s current imports of primary agricultural goods. Yet, things might evolve with changes in Chinese dietary habits (see section 8.2). As a result, there are possibly opportunities to be seized by African countries provided they succeed to respond positively to rising and evolving demands. For instance, should the expected growing Chinese demand for meat materialize and part of the latter be met by local producers, China’s imports of animal feed would increase. They may also be broadened from soybeans to maize, a commodity produced by several African countries. There are also some successful stories in Africa of countries with low labour costs and appropriate agro-ecological conditions developing market gardening to produce “off-season” and speciality fresh vegetables or cut flowers (Bonaglia and Fukasaku 2003).¹⁰¹ ¹⁰² Moreover, for a commodity such as cotton, it is critical that African cotton growers manage to find outlets in the most dynamic markets, namely Asian textile producers. Because of the MFA phasing-out, demand for cotton in the European Union and in the United States is bound to decline while Chinese and Indian demand for cotton is poised to increase.

In this regard however, the window of opportunity for African countries is set to remain narrow: China is likely to source these products from other Asian countries while India is itself investing in these sectors¹⁰³. Europe should therefore remain the main markets for African off-season products. Prospects for increasing exports of coffee, tea or (South African) wine to Asia and China in particular seem at first sight more realistic. Tourism in another industry where African countries can offer a competitive product in China and, especially, India.¹⁰⁴ Moreover, some scepticism prevails regarding the possibility of enhancing agriculture development in tropical areas. Sachs (2001) pinpoints many reasons which contribute to lower food productivity in the tropics than in temperate zone, including soil formation and erosion, pests and parasites, effects of ambient temperature on plant respiration and on net photosynthesis. The lower rate of technical innovation in tropical areas may also be due to the low rate of technological diffusion from temperate zones as key technologies could not cross the divide of ecosystems.

10.2. Improving the management of commodity-related revenues

¹⁰⁰ See Lehmann *et al.* (2003).

¹⁰¹ Malian authorities have ambitious plans in this respect. They build on the availability of vast fertile lands in the upper valley of the Niger that are currently largely untapped and inappropriately managed by the state-owned enterprise, the Office de la Haute Vallée du Niger (AfDB/OECD 2005).

¹⁰² See also Friedland (1994) on how technological advances have enabled long-distance “cool chains” and spurred changes in consumption behaviour toward healthier diets.

¹⁰³ The State of Himachal Pradesh is fast emerging as a leading producer of vegetables, for instance. Moreover, Indian exports of floriculture products have grown markedly since the early 1990’s and there is large scope for upgrading this sector, by gaining efficiency gains in production and marketing in particular (Dadlani 1998).

¹⁰⁴ The Chinese government has now increased the number of African countries as a tourist destination for Chinese citizens from 2 to 12. A number of carriers, including Ethiopian and Kenya Airways, offer direct flights to China.

Unleashing African commodity potential without improving the management of its revenues would fail to foster sustained development. The critical point here is to consider commodity endowments neither a “curse”, nor a *per se* sufficient condition for development. Natural resources in general and windfall revenues stemming from Asian demand in particular, far from being a curse, may actually serve African commodity producers, provided the corresponding revenue be carefully and efficiently managed for development purpose. This issue by far exceeds the scope of this piece¹⁰⁵.

Countries rich in natural resources should regard the latter as assets that are certainly exhaustible but which may be used to develop new areas of competitive advantage, diversify the economy, create linkages with other productive sectors, and remove development bottlenecks. As emphasised by Bonaglia and Fukasaku (2003), “natural resource sectors, such as mining and forestry, are nowadays characterised by higher technology content and can encourage the development of upstream and downstream activities as well as generating spin-offs towards side sectors, such as services” (p. 19). Resource-based sectors can be a channel for knowledge and technology transfers, as exemplified by the historical experience of both OECD (e.g. Australia, Canada, Scandinavia and United States) and non-OECD economies (e.g. Brazil, Chile and Uruguay, as well as several ASEAN countries). South Africa is also world leader in mining equipment. Commodity resources may also be a source of financial resources to be invested not only in non-traditional sectors but also in sectors where development bottlenecks are located, e.g. agriculture, where productivity gains are key to jump starting industrialization (Gollin *et al.* 2002), infrastructures or social-economic building-blocks of growth (education and health in particular).¹⁰⁶ ¹⁰⁷ In case, the regulatory and institutional framework does not allow a decent social return on the domestic investment of raw material receipts, they either be invested abroad, used to pay down domestic public debt, or used to run a structural budget surplus that would enable the government to finance countercyclical fiscal policies (see Box 2).

Box 2: Asset Policies and Non-Renewable Resources

African governments, often the direct beneficiaries of that raw material boom, face several policy dilemmas (Collier and Gunning, 2005). While they have plenty to spend on, in view of needs generally and the Millennium Development Goals specifically, it will be prudent to save part of the windfall. For at least three reasons: first, the windfall is likely to be transitory; second, local absorption capacity is limited; third, the income from accumulating net assets will allow a higher level of consumption even once the boom is over. Two well-run countries, Botswana and Chile, stand for the alternatives of using public receipts during a raw-material boom; the first has largely accumulated foreign assets, the second has reduced domestic public debt and built a special fund devoted to stabilise commodity-related government revenues (see Box 3).

In Botswana, the government responded to a diamond windfall by adopting a policy rule requiring all public investment proposals to be subjected to cost-benefit analysis; only those domestic investment projects that promised returns above the world interest rate were implemented. In practice, this policy rule has implied a substantial part of revenues invested abroad. A similar strategy was adopted in Norway, which transferred a substantial part of the oil revenue into an oil fund that was invested exclusively in foreign assets.

Some resource-rich countries carry considerable domestic government debt. Governments in those countries have an alternative to investing revenues abroad by repaying local public debt. Sovereign and other risk premia usually raise

¹⁰⁵ See the synthetic and very informative review of the commodity dependency literature by Fukasaku and Bonaglia (2005). See also Basedau (2005). For a description of how raw material wealth can be managed well, see an account of Norway’s management of oil resources in Eifert and al. (2003).

¹⁰⁶ See Nkouna (2005)

¹⁰⁷ The commodity bonanza might be used so as to increase returns on investment in health and education and lift the least developed countries out of poverty traps. In more practical terms, windfall revenues derived from high international prices could also be used to reach Millennium Development Goals (Warner and Alexander, 2005)

the debt service cost beyond global interest rates, suggesting that public budgets will benefit from first paying down public debt. This may also stimulate private local investment, as crowding out is reversed.

Appropriate ways must be devised for managing the unwanted macroeconomic effects of unstable commodity prices and avoiding boom-bust pro-cyclical fiscal management. If fiscal revenues are highly volatile, structural budget rules and commodity stabilization funds may provide the necessary framework to achieve saving (dis-saving) during expansions (contractions) as practiced in Chile, for instance (see Box 3).

Box 3: Policy Lessons from Chile's Counter-Cyclical Policy Stance

A small and open economy requires saving in boom periods of commodity exports and big capital inflows, because tax revenues will significantly increase due to increases in absorption, profits and in the value of the domestic currency, increasing the associated tax collection. More generally, if the revenue base has a high variability, there is a need to save even more when times are good. This should be recognized in a structural budget rule as higher saving (dis-saving) during expansions (contractions). Moreover, the structural budget methodology requires some adaptations in the case of introducing unemployment insurance benefits paid by the government.

The 2005 *OECD Economic Survey* of Chile praises the country's *structural budget surplus rule* for ensuring a counter-cyclical fiscal stance. Chile's fiscal policy, an example for other raw-material dependent countries, has been guided by the rule since 2000; it calls for a budget surplus of 1 per cent adjusted for the effects of the business cycle and copper price fluctuations. Chile's counter-cyclical stance fiscal stance has been based on its copper stabilisation fund. Clear and strict rules for stabilisation funds are required; and, realistically, they can only be started in a favorable cycle, as is currently the case thanks to the Asian giants' raw material demand. With a slow mean reversion process for most commodity prices, stabilisation funds need to be very large to be effective (Budnevich 2001). The stabilisation fund and the structural budget surplus rule have helped Chile to turn its consolidated public position from a net debt to a net asset position.

The Hartwick rule offers a rule-of-thumb for sustainability in exhaustible-resource economies which help avoid boom-bust fiscal management and ensure a sustainable process of economic development (Hartwick 1977). The rule indicates that constant level of consumption in a rent-economy can be sustained if the value of investment equals the value of rents on extracted resources at each point in time. Under these conditions, a zero or positive *genuine savings rate* can be achieved. Genuine saving provides a much broader indicator of sustainability than standard net savings rate by valuing and factoring in changes in natural resources, environmental quality, and human capital, in addition to the traditional measure of changes in produced assets: A persistently negative genuine saving rate implies that a country is on an unsustainable path and consumption must fall in the future. Sub-Saharan Africa is actually the only region that has constantly exhibited negative genuine savings rate since the mid-70s according to World Bank (2005) analysis.

Botswana provides one of the very few examples of sound fiscal management of natural resources revenues on the African continent: the management of its diamond wealth has actually largely been inspired by the Hartwick rule: "The treasury calculates a sustainable budget index to determine whether consumption expenditures are being financed out of resource rents, and adjusts expenditures accordingly. It also holds diamond revenues offshore in order to deal with issues of absorptive capacity, revenue stabilization, and Dutch disease effects from currency appreciation" (World Bank 2005, p. 12).¹⁰⁹

¹⁰⁹ Still, However *et al.* (2004) point to considerable unproductive investment.

Another type of resource curse attains to governance, namely predatory and rent-seeking behaviour, corruption, clientelism and capital flight¹¹⁰. In this respect, enhanced transparency surrounding the use of commodities revenues should be regarded as a prerequisite. A number of initiatives have been undertaken lately that are aimed at raising the transparency of extractive industries (the Publish What You Pay Initiative, the Extractive Industries Transparency Initiative and various endeavours in the field of corporate social responsibility).¹¹¹ Yet, genuine transparency and accountability is still a long way off. While 13 out of the 20 countries that have endorsed the principles of the Extractive Industries Transparency initiative are in Africa (Congo, Ghana, Nigeria, São Tomé and Príncipe, Angola, Cameroon, Chad, Democratic Republic of Congo, Equatorial Guinea, Gabon, Guinea, Niger, and Sierra Leone), only four of them (Congo, Ghana, Nigeria, São Tomé and Príncipe) are actually reporting on their implementation. Others are currently at odds with the International Monetary Fund (e.g. Angola) and the World Bank (e.g. Chad) over fiscal transparency requirements and inadequate reporting of oil revenues, as well as over the use of oil revenues for social and development purpose.¹¹²

10.3. Streamlining and rethinking diversification and bilateral trade strategies

If unleashing the existing commodity potential may be the most feasible and judicious option in the short/medium term, nonetheless the persistent volatility in commodity prices and the exhaustibility of natural resources underline the urgency of diversifying the bases of African economies. Diversification strategies have been tried for a number of years, with mixed results. In view of the long-term nature of the exercise, the problem is that China and India have emerged as formidable competitors in these very low-tech, labour-intensive sectors where Africa could compete. The risk is that Africa may remain trapped in a pure raw material niche, with consequences for instability, skill formation and governance standards.¹¹³ Hence the need to rethink African diversification strategies¹¹⁴ and seize what new opportunities China's and India's ascendancy opens up to African economies.

Under the MFA framework, some African countries – such as Mauritius and, albeit to a lesser degree, Lesotho and Swaziland – developed a competitive edge in the garment industry which, it is important to underline, has infallibly been the harbinger of industrialization under all latitudes. Since January 2005 Chinese and Indian competition has impeded at least some of the incipient African initiatives in this sector.

¹¹⁰ See Basedau (2005).

¹¹¹ See for instance Pourtier (2005) and Corsi (2005) for a review of transparency issues revolving around the use of oil revenues in Central Africa and Corporate Social Responsibility of oil multinational corporations operating in the same region respectively. See also The Save the Children Fund (2005) and Gary and Karl (2003).

¹¹² Commenting on the Oversight Committee's (Collège de Contrôle et de Surveillance des Revenus Pétroliers) "Report of Mission to Sites of Projects Financed by Oil Revenues" in Chad, the World Bank conveys its concerns vis-à-vis the findings in the report: "The report cites incidents of irregularities in transfers of funds; poor quality of, and long delays in the delivery of goods and services; and lack of competitive bidding processes, and cases of overpricing of goods and services. It also assesses that some local authorities were not informed of projects planned in locales under their administrative responsibility" (posted on the internet, July 26, 2005 - <http://www.worldbank.org/af/ccproj/news/index.htm>)

¹¹³ This risk does not only apply to Africa, of course; it holds likewise for countries, e.g. in Latin America, that have started to diversify from their traditional raw material base and which are now being induced back into it as a result of China's and India's demand for raw materials.

¹¹⁴ Yet, the need for rethinking diversification strategies must not preclude a genuine effort by African authorities to improve the local business environment which has been so far little supportive of private sector development.

To remain competitive in a post-MFA environment and leverage the “tremendous opportunity” of partnering with China as part of their global supply chain, African clothing producers must show “initiative and creativity” (South African Department of Trade and Industry 2005). Other countries offer some concrete examples in this respect (see appendix B for further details):

- In Cambodia, clothes-makers have been trying to build a reputation for strict labour standards that might appeal to Western firms not wishing to be associated with sweatshops (World Bank 2004). The labour laws passed by the government in recent years embed elaborate principle of corporate social responsibility. In the Better Factories Cambodia programme, inspectors from the International Labour Organisation monitor compliance, most often through spot checks, and the government decided it would require all factories to submit to such inspections to obtain export licenses.¹¹⁵
- Argentina’s export of clothing has grown from US\$30 m in 2000 to US\$66m (on annual basis, based on the first eight months of the year) in 2005. Fundación ExportAr, a public-private partnership, organizes the annual “Fashion Buenos Aires” show and carries out market intelligence activities on behalf of SMEs. According to a British buyer, Argentina combines price competitiveness with design excellence.¹¹⁶
- The government of Thailand is investing €350 million to turn the country into a hub. The “Bangkok Fashion Week”, of which the second edition was held in September 2005, serves to promote local companies that do not just make clothes under contract for foreign retailers, but also design and market products of their own.

Clear opportunities deriving from enhanced South-South trade are likely to open up for the most responsive African countries (UNCTAD 2005). In particular, vertical diversification based on the processing of African primary products should be further explored. Industrial niches can also be found for the few African countries that have a significant industrial base. South Africa, in particular, may emerge as an important supplier of the Indian and Chinese markets in sectors such as agribusiness in general and wine in particular, the automotive industry, harbour wharfs, coal to liquids technologies and chemicals. South Africa also has a buoyant services industry and some firms, as shown in Box 1 above, have already invested in both China and India.

Yet, South-South trade in general, and with China and India, in particular is unlikely to be the “magic bullet” that can significantly accelerate the pace of Africa’s insertion into the international trade arena. First, substantial tariff and non-tariff barriers still exist among developing countries, despite the proliferation of regional trade agreements and the launch of the Global System of Trade Preferences among Developing Countries (GSTP) in 1989.¹¹⁷ Second, imbalances in South-South trade are likely to subsist as heavyweights such as Brazil (not to mention some Asian countries) will possibly reap most of the benefits of trading with the Asian Drivers. Third, as the affluence of urban Chinese and Indian customers will open up new opportunities, it will also raise their demands and their expectations vis-à-vis the quality of consumer goods imports. Quality standards requirements in the food sector (sanitary and phytosanitary standards, cool chains, just-in-time delivery, packaging, traceability, stringent quality standards set by global retailers, etc.), in particular, will converge to the OECD norm, which is already proving very

¹¹⁵ “The rag trade patches up its image”, *Financial Times*, 13 September 2005.

¹¹⁶ “A la medida de Europa”, *La Nación*, 20 September 2005.

¹¹⁷ Established in 1989, the GSTP serves as a framework for the exchange of trade preferences among 43 developing countries in order to promote trade within this group of countries. China and the Group of 77 will be invited to accede to the Agreement and to participate in the new round of negotiations, which is expected to conclude by end-2006. GSTP is not part of the WTO system and is serviced by a secretariat in UNCTAD. Participants finance operations through voluntary contributions.

demanding for African exporters given problems such as poor transport and logistics. All these factors call for carefully identifying viable exports niches and for aligning trade negotiation priorities with market signals.

In this context, African countries should take a cautious approach to the negotiation of free-trade agreements with China and India¹¹⁸. At least from the point of view of producers, the issue here is how to balance the uncertain and rather modest prospects of significantly boosting exports to China and India, on the one hand, and the much more immediate risk of being flooded by imports of cheap Chinese and Indian consumer goods. The evidence so far is that African countries are indeed taking a cautious approach:

- While five African countries granted China the market-economy status between April and August 2004 (out of eight that had taken such decision at the time), none has joined the list ever since, even if the total number of countries is now 48.¹¹⁹
- Protective measures aimed at helping African countries to adjust to the shock of Chinese and Indian competition and/or to address unfair practices on local markets since China's WTO accession agreement (11 December 2001) could also be considered, albeit on a *transitory* basis. The South African Department of Trade and Industry (2005) contemplates such safeguard measures, for instance.¹²⁰
- Accordingly, a more selective approach to trade negotiation with India and China has to be adopted, laying emphasis on the liberalization of equipment and capital goods imports.

10.4. Upholding trade preferences granted to African countries

The need for OECD donors and trade partners to be consistent and coherent in their use of policy instruments has long been central to the debate about inclusive globalisation. Global trade liberalisation, Chinese and Indian increasing competition, and the renegotiation of key North-South partnerships such as the Cotonou agreement and others make it imperative to find appropriate mechanisms to uphold trade preferences granted to African countries.

In particular, it is essential to contain *trade preference erosion*. Supporting (and rethinking) diversification strategies through technical assistance and capacity building ("aid for trade") should therefore go together with a clear commitment of OECD countries to uphold trade preferences and to reform complex and partly inefficient instruments such as the AGOA or the EBA preference schemes. First, the renewal of preference schemes should be made more predictable: for instance, the extension of AGOA third party provisions after 2007 for African exports of garments and apparels to the United States is not yet guaranteed. Second, a comprehensive revision of rules of origin should be undertaken so as to increase the effectiveness of these schemes and their ability to cushion *effectively* the impact of China's and India's competition. In this respect, stringent rules of origin end up making the EBA schemes irrelevant for African exporters of

¹¹⁸ Discussions on a Southern African Customs Union (SACU) -China trade agreement began in mid-2004.

¹¹⁹ End-August 2005 information, kindly provided by Marc Bacchetta, WTO.

¹²⁰ SA DTI (2005) conveys that: "Within the global trading environment, and our own domestic legal environment, the instruments to address unfair practices, namely antidumping and countervailing duties, do exist and the processes involved in making use of these measures are well understood by industry. If China's success in the local market is attributed to unfair trade practices, measures are in place to address them". It also indicates that: "With a view to creating the space for the sector's transformation, government has indicated its willingness to explore restrictive measures (...). The long-awaited applications for safeguards received in recent months have opened the door to take this process forward. Based on the safeguards application, we have been engaging the Chinese side in order to find a speedy solution not only to the surge, but also broader economic cooperation in the sector." (www.dti.co.za)

garments and apparels (see appendix B). G-8 countries should provide *effective* duty free and quota free access to all African goods, thereby providing African countries with a genuine competitive edge over *intrinsically* more competitive Asian competitors. As underlined by Carim (2005), “‘trade as aid’ preferences need to be improved in the short run to make them meaningful. This could include deepening the preferences, where technically feasible, to retain the margin over MFN rates”.

In this context, the general move towards more reciprocity in international trade agreements may seem questionable when applied to trade relationship between Africa and developed countries. Exposing African producers to increased competitive pressures from European or American producers at a juncture where the former already have to weather the shock of rising China’s and India’s competition both on local and third markets can be deemed inconsistent. The endeavour if any, to uphold African countries’ preferential access to the EU and to the US markets vis-à-vis Asian competitors would lose part of its usefulness if counterbalanced and almost nullified by the implementation of reciprocal provisions in a context of future EU/US – Africa trade agreements. In this regard, reciprocity provisions that are being negotiated between EU and ACP countries in the framework of the Economic Partnership Agreements are utterly ominous for African countries. Broadly speaking, the increased competition from Asian countries makes the case for enhancing the development agenda of the Doha round and underlines the need for, the relevance and the timeliness of greater flexibility (Special and Differential Treatment and GATT article 24 provisions) vis-à-vis the principles of reciprocity and non-discrimination as operationalised by means of the Most Favoured Nation (MFN) and the National Treatment (NT) requirements of GATT 47 Articles 1 and 3.

11. Some Early Conclusions

China and India have brought to Africa higher demand for their natural resources. Through their high growth, export surpluses and reserve accumulation reinvested in US treasury bonds, they have contributed to dampen world inflation pressures, to lower global interest rates and to raise raw material prices and to improve Africa's terms of trade. No reason for partying, though, if with the proceeds of that demand the future of labour-rich and skill-friendly activities is compromised, inequalities are deepened and rent-seeking gets more pervasive. Governments should avoid rent-seeking which diverts resources that would otherwise be used for further economic growth and policies that crowd out other industrial activity, particularly policies that support an appreciating currency. They could also seek to utilise increased tax revenues from primary product exports to fund pro-poor initiatives.

There are a number of potential conduits through which African growth prospects might be affected by the rise of the Asian Drivers. One conduit of change lies in trading relationships. China and India are markets for African goods as well as competitors, especially in the export-oriented clothing and textile markets in which quotas to protect African exporters were removed in January 2005. On the other hand, African consumers gain from cheap consumer goods sourced from the Asian Drivers, African investors from cheap and appropriate capital goods. Another conduit is investment. China and Indian firms are increasingly outward-oriented and resource-hungry. Authorities will have to use the opportunity of higher Asian corporate presence in Africa to turn them into a source of technology, skill formation and world market access, apart from foreign finance that might (but must not necessarily) come with the investment. African countries will have to define how to fit into China/India-centred global value chains that are taking shape without being confined to the role of primary products suppliers.

Resource rich Africa will have to balance the need to match the promotion of job-creating sectors (agro-business, textile, tradable services, etc.) with the desire to capitalise on a windfall gain generated by higher commodity prices. Monetary authorities might have to pursue a defensive monetary policy that guards against the appreciation of the currency to the detriment of industries competing with imports, and exporters outside the resource sector. Fiscal authorities are required to limit public spending on services and construction in order to limit real exchange rate appreciation. Wise investment of windfall gains in exhaustible raw materials will also be needed; either to close financing gaps in reaching national Millennium Development Goals, or through investment abroad and reducing domestic public debt. Increasing net assets will ensure higher consumption levels beyond the windfall period.

While a range of industries will face a real fight for survival over the next decades partly due to unit labour cost competition from China and India, there is a list of industries that are either complementary to the rise of Asian Drivers or relatively secure from competition, such as food production. To cater towards China and India requires that Africa generate investment, technical assistance and capacity building in the field of agriculture, a tremendous task which in turn needs donor's assistance. This highlights the challenges that are to be met by African producers of agricultural products if they are to reap some benefits from an increasing Chinese demand for food products. Governments should seek to ensure that smallholders are able to participate in new export markets.

Donors need to consider whether existing policies (e.g. market preferential access) aimed at reducing poverty and diversifying local economies have to be changed in the light of China and India's expansion. Policies, such as emphasising the expansion of labour-intensive manufactured exports as a means of poverty reduction, may need to be qualified, in light of the increasing competition and falling prices for many such products (e.g. textile in a post-MFA context), while vertical integration in resource-based industries will have to be supported increasingly. China's and India's increasing competition also make the

case for donors striving to stem the process of trade preference erosion, improving the effectiveness of existing trade preference schemes targeted at Africa, and thereby upholding African preferential access to developed countries' markets.

Appendix A. Sub-Saharan Africa's trade patterns

Understanding the extent to which China's and India's emergence as key players in global trade is of relevance to African countries requires a prior analysis of African countries' trade patterns. In this respect, and beyond the diversity of situation across the continent, a common and overriding feature stands out: a widely shared reliance and dependency on commodity exports and the limited diversification of sub-Saharan African economies. This in turn translates into patterns of sub-Saharan African imports being dominated by manufactured products.

▪ African exports: the predominance of commodities in a context of limited economic diversification

Table A1 points out that for 27 out of 49 African countries, no more than five products which are mostly commodities, account for more than 75 percent of exports. Considering Africa as whole, crude oil makes up 35 percent of the continent's total exports.¹²¹

The reliance on commodities is a fundamental characteristic of African countries and is consistent with African countries factor endowments. Indeed, the latter result in Africa having a strong competitive edge in the production of commodities: using a Heckscher-Ohlin theoretical framework, Mayer & Fajarnes (2005) illustrates that the uncommon concentration of African exports in primary products is largely the result of the region's unusual resource combination and endowments. Africa is indeed strongly land-abundant while eminently skill-scarce. In this context, African countries' competitive advantage lies in primary unprocessed products. Moreover, as shown in table A2, African economies' exports are poorly diversified.

Some African countries may have a comparative advantage in low-cost and low-skilled manufacturing. However, they have failed to realize it: multiple factors, starting with a weak business environment and high production costs, have hindered the development of a vivid and diversified private sector in Africa.¹²² Notwithstanding South Africa, that is endowed with a significant, relatively diversified and long-standing manufacturing base, and Mauritius which had diversified out of sugar by building a large manufacturing base (textile for the most part) and a tourism industry¹²³, only a few countries have embarked on a diversification process and/or developed a manufacturing / agro-processing base. Table A2 points to the capacities developed by Senegal in the production of phosphoric acid and concrete, to Kenyan exports of cut flowers and clothing, and the dramatic expansion of Lesotho's clothing industry.^{124 125}

¹²¹ This figure includes Northern African countries however.

¹²² See in particular, Collier and Gunning (1999); Collier (2003); Berman and Leys (1994); Eifert *et al.* (2005).

¹²³ Mauritius is now adjusting to adverse developments in the textile and clothing industries by moving into high value-added service activities based on information and communication technologies (AfDB/OECD, 2005, p. 314).

¹²⁴ For an account of the development of Kenyan cut flowers industry, garment industry in Lesotho and of the Mauritian diversification story, see Andersson *et al.* (2005).

¹²⁵ Tanzania and Eritrea also rank among the most diversified African countries. On top of a large and varied base of traditional exports (coffee, cotton, tea, cashew nuts, cloves, sisal and tobacco), Tanzania also exports gold and is endowed with a significant tourism industry. With respect to Eritrea, its diversification index may be biased by large re-exports of electrical equipments.

Table A1. African countries' three main exports, with their share in total exports

	Product I	Product II	Product III	No. of products accounting for more than 75 per cent of
South Africa	Diamonds.excl.industrial (14.9%)	Platinum (10.2%)	Pass.transport vehicles (6.0%)	60
Kenya	Tea (25.8%)	Cut flowers and foliage (11.1%)	Oth.frsh,chll.vegetables (7.7%)	24
Burkina Faso	Cotton,not carded,combed (31.9%)	Sugars,beet or cane, raw (6.9%)	Oth.manufactured tobacco (5.4%)	20
Tanzania	Fish fillets,frsh,chlld (12.1%)	Edible nuts fresh,dried (8.3%)	Fish fillets, frozen (6.5%)	17
Eritrea	Oth.bovine,equine leathr (14.5%)	Elctrn comp pts,crystals (10.0%)	Parts,data proc. etc.mch. (6.6%)	15
Zimbabwe	Tobacco,stemmed,stripped (35.1%)	Other ferro-alloys (7.2%)	Nickel,nckl.alloy,unwrgt (5.1%)	15
Djibouti	Pass.transport vehicles (10.7%)	Sugars,beet or cane, raw (10.0%)	Legumes,dried,shelled (9.7%)	13
Sierra Leone	Diamonds.excl.industrial (27.9%)	Convertible seats,parts (21.3%)	Spirits (5.8%)	13
Madagascar	Spices,ex.pepper,pimento (27.3%)	Crustaceans, frozen (17.0%)	Jersys,pullovs,etc.knit (9.3%)	12
Senegal	Inorganic acid,oxide etc (21.5%)	Molluscs (11.4%)	Groundnut oil, fractions (8.6%)	12
Togo	Natural calc.phosphates (30.8%)	Cotton,not carded,combed (13.1%)	Cocoa beans (8.0%)	10
Gambia	Animal oil,fat,greas,nes (30.2%)	Edible nuts fresh,dried (13.4%)	Groundnuts (peanuts) (7.6%)	9
Mali	Cotton,not carded,combed (60.4%)			9
Mauritius	Sugars,beet or cane, raw (18.5%)	T-shirts,othr.vests knit (13.3%)	Jersys,pullovs,etc.knit (11.2%)	9
Swaziland	Essential oils, perfume, etc (19.6%)	Edible products, preps nes (18.4%)	Sugar and honey (11.4%)	9
Cote d'Ivoire	Cocoa beans (44.2%)	Cocoa paste (8.0%)	Wood,non-conifer, sawn (5.6%)	8
Ghana	Cocoa beans (38.7%)	Alum.,alum.alloy,unwrght (10.7%)	Wood,non-conifer, sawn (6.8%)	8
Niger	Radio-active chemicals (50.6%)	Natural gas, liquefied (9.1%)	Rice,milled,semi-milled (4.8%)	7
Uganda	Coffee, not roasted (34.1%)	Fish fillets,frsh,chlld (13.0%)	Tobacco,stemmed,stripped (10.4%)	7
Zambia	Copper;anodes;alloys (36.1%)	Copper plate,etc.15mm+th (13.4%)	Cobalt,cadmium,etc.unwrt (9.6%)	7
Namibia	Diamonds.excl.industrial (28.9%)	Fish fillets, frozen (14.1%)	Radio-active chemicals (11.7%)	6
Cameroon	Crude petroleum (43.9%)	Wood,non-conifer, sawn (14.7%)	Bananas, fresh or dried (8.1%)	5
Cape Verde	Gas turbines, nes (34.0%)	Parts footwear,etc. (21.7%)	Underwear,nightwear etc. (8.2%)	5
Ethiopia	Coffee, not roasted (36.8%)	Sesame (sesamum) seeds (7.7%)	Sheep skin without wool (6.6%)	5
Somalia	Chem.wood pulp,dissolving (38.4%)	Sheep and goats, live (19.7%)	Fuel wood, wood charcoal(10.8%)	5
Benin	Cotton,not carded,combed (49.6%)	Edible nuts fresh,dried (13.9%)	Goat or kid skin leather (8.2%)	4
Guinea	Aluminium ore,concentrat (45.0%)	Crude petroleum (15.5%)	Alumina(aluminium oxide) (12.2%)	4
Lesotho	Jersys,pullovs,etc.knit (35.0%)	Trousers,breeches,etc. (34.2%)	Suits,dresses skirts etc (8.6%)	3
Malawi	Tobacco,stemmed,stripped (57.9%)	Tobacco,not stripped,etc (9.5%)	Tea (8.3%)	3
Mauritania	Iron ore,concntr.not agg (44.2%)	Molluscs (19.8%)	Fish,frozen ex.filets (18.5%)	3
Mozambique	Alum.,alum.alloy,unwrght (62.9%)	Crustaceans, frozen (10.0%)		3
Rwanda	Crude petroleum (55.2%)	Coffee, not roasted (18.0%)	Ore etc.molybdeniob.etc (16.5%)	3
Sao Tome and Principe	Cocoa beans (65.5%)	Oth.polymers of ethylene (5.0%)	Molluscs (4.9%)	3
Central African Republic	Diamonds.excl.industrial (68.7%)	Wood,non-conif,rough,unt (14.8%)	Cotton,not carded,combed (6.1%)	2
Comoros	Ships,boats,othr.vessels (46.7%)	Spices,ex.pepper,pimento (43.9%)	Essential oils (6.5%)	2
Congo Democratic Republic	Diamonds.excl.industrial (73.7%)	Crude petroleum (12.3%)	Oth.non-ferr.ore,concntr (5.3%)	2
Liberia	Ships,boats,othr.vessels (65.7%)	Wood,non-conif,rough,unt (18.6%)	Natural rubber latex (6.6%)	2
Seychelles	Fish,prepard,presrvd,nes (54.0%)	Fish,frozen ex.filets (26.8%)	Fish fillets, frozen (4.9%)	2
Angola	Crude petroleum (91.4%)	Diamonds.excl.industrial (7.0%)		1
Botswana	Diamonds.excl.industrial (87.9%)	Nickel mattes,sintrs.etc (4.2%)		1
Burundi	Coffee, not roasted (77.2%)	Tea (5.1%)		1
Chad	Cotton,not carded,combed (76.1%)	Natural gums,resins,etc (15.1%)	Aircrft etc.ULW >15000kg (5.3%)	1
Congo	Crude petroleum (80.7%)	Wood,non-conif,rough,unt (7.2%)		1
Equatorial Guinea	Crude petroleum (90.1%)	Wood,non-conif,rough,unt (4.0%)		1
Gabon	Crude petroleum (75.2%)	Wood,non-conif,rough,unt (13.9%)	Manganese ores,concentrs (5.2%)	1
Guinea Bissau	Edible nuts fresh,dried (78.3%)	Fish,frozen ex.filets (6.1%)	Helicopters (5.0%)	1
Nigeria	Crude petroleum (88.9%)			1
Sudan	Crude petroleum (76.2%)	Sheep and goats, live (5.9%)	Sesame (sesamum) seeds (4.1%)	1
Africa**	Crude petroleum (35.0%) [15.2%]	Diamonds.excl.industrial (4.7%) [11.7%]	Platinum (2.4%) [30.4%]	47

Sources: African Economic Outlook 2004/2005, based on African Development Bank Statistics Division; PC-TAS 1998-2002 International Trade Centre UNCTAD/WTO - UN Statistics Division

Notes: * Products are reported when accounting for more than 4 percent of total exports.

** Figures in [] represent the share of Africa in the World export for each product.

Table A2. African countries' limited diversification

	Diversification index*				
	1998	1999	2000	2001	2002
SACU **	25.3	27.6	28.3	28.6	24.4
Tanzania	12.8	13.7	17.5	19.4	20.5
Eritrea	4.3	4.5	13.1	15.3	17.5
Senegal	16.0	14.0	16.7	11.9	11.9
Mauritius	10.2	11.2	12.6	11.8	11.8
Kenya	10.3	11.2	11.8	11.7	10.8
Burkina Faso	2.2	2.2	4.2	4.5	8.6
Madagascar	16.6	16.8	11.3	9.1	8.3
Gambia	1.8	2.4	3.5	5.6	7.8
Togo	5.0	7.2	7.7	8.5	7.7
Sierra Leone	2.3	4.4	4.1	6.9	7.5
Zimbabwe	13.7	9.9	11.7	9.6	7.1
Uganda	1.9	2.0	3.1	6.0	6.4
Zambia	4.5	6.1	5.0	4.7	5.9
Ghana	7.3	7.6	8.1	7.9	5.6
Cape Verde	10.1	6.2	8.5	9.6	5.5
Ethiopia	1.9	2.5	2.5	5.4	5.1
Somalia	4.4	3.6	2.9	10.9	4.9
Cote d'Ivoire	5.3	5.2	6.7	6.0	4.7
Cameroun	7.1	7.0	5.3	4.9	4.3
Guinea	3.2	3.5	3.5	3.4	3.8
Niger	2.2	2.4	2.1	5.0	3.7
Mauritania	3.4	3.5	3.6	3.5	3.7
Benin	1.9	2.7	3.2	2.1	3.6
Malawi	2.8	2.6	2.4	2.7	2.8
Rwanda	3.1	2.6	3.1	2.6	2.7
Seychelles	2.1	2.0	1.9	2.6	2.7
Mali	1.3	1.4	1.9	3.3	2.7
Mozambique	8.1	8.5	9.2	2.9	2.4
Comoros	2.6	4.6	2.3	1.3	2.4
Sao Tome and Principe	3.0	5.4	3.8	7.2	2.3
Liberia	2.0	3.1	2.9	2.2	2.1
Central African Republic	2.1	1.7	1.8	2.4	2.0
Congo Democratic Republic	2.6	2.0	2.4	2.4	1.8
Sudan	9.5	6.4	2.0	1.6	1.7
Gabon	1.9	1.8	1.6	1.7	1.7
Burundi	1.3	1.9	1.6	2.0	1.7
Chad	1.3	1.4	1.6	1.5	1.7
Guinea Bissau	4.0	2.7	2.4	1.5	1.6
Congo	2.2	2.2	2.0	1.8	1.5
Nigeria	1.3	1.3	1.2	1.3	1.3
Equatorial Guinea	1.9	1.9	1.5	1.3	1.2
Angola	1.4	1.4	1.3	1.3	1.2

Sources: African Economic Outlook 2004/2005, based on African Development Bank Statistics Division ; PC-TAS 1998-2002 International Trade Centre UNCTAD/WTO - UN Statistics Division

Notes: * The diversification indicator measures the extent to which exports are diversified. It is constructed as the inverse of a Herfindahl index, using disaggregated exports at 4 digits (following the SITC3). A higher index indicates more export diversification

** Include Botswana, Lesotho, Namibia, South Africa and Swaziland.

▪ **African patterns of imports**

In light of African patterns of exports and diversification, it is far from surprising that African imports are mostly made up of manufactured goods which account for close to 50 percent of the total (60 percent including chemicals). Further analysis evidences that literally all African countries are net importers of machines and transport equipment (item 7 in SITC-3 classification) while most of them are net importers of manufactured goods¹²⁶ (aside from South Africa, Zambia, Mozambique, Namibia, Zimbabwe and the Central African Republic), of miscellaneous manufactured articles¹²⁷ (apart from Mauritius, Lesotho, Swaziland, Madagascar, Zimbabwe and Côte d'Ivoire) and of chemicals (Swaziland, Senegal, Guinea notwithstanding).

Table A3. Africa's patterns of imports* (2003)

	Share in total imports (percent)	Cumulated share in total imports (percent)
Machines, transport equip	26.1	26.1
Manufactured goods	11.0	37.1
Misc manufactured articles	10.3	47.3
Chemicals	13.3	60.6
Fuels, lubricants, etc.	16.0	76.6
Crude Materials, inedible, except fuels	4.3	80.9
Food and live animals	10.4	91.4
Animal, veg. oils, fats, wax	2.2	93.6
Beverages and tobacco	1.3	94.8
Goods not classd by kind	5.2	100.0

Source : UN Comtrade

Notes: * Including intra-continental trade

More surprising is the significance of commodity and raw material in African imports. Even though the African region is chiefly regarded as an exporter of commodities and raw materials, practically all African countries are actually net importers of fuels (merely countries featuring in Table A4 are net exporters of fuels and lubricants) while a few African countries are net importers of raw materials (Table A5). In this context, the impact of China and India on international commodity markets, in particular on international commodity prices, and thereby on African economies may be more complex than usually thought (see section 4.2).

¹²⁶ Item n°6 in SITC, Revision 3 classification: leather, leather goods; rubber manufactures; cork, wood manufactures; paper, paperboard, etc.; textile yarn, fabric, etc.; non-metal, mineral manufactures; iron and steel; non-ferrous metals; metals manufactures.

¹²⁷ Item n°8 in SITC, revision 3 classification: miscellaneous manufactured articles; Prefabricated buildings; sanitary, plumbing, heating and lighting fixtures and fittings; Furniture, and parts thereof; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; Travel goods, handbags and similar containers; Articles of apparel and clothing accessories; Footwear; Professional, scientific and controlling instruments and apparatus; Photographic apparatus, equipment and supplies and optical goods.; watches and clocks; Miscellaneous manufactured articles, n.e.s..

Table A4. African net exporters of fuels and lubricants

	Net exports of fuels and lubricants (USD million)
Nigeria	17383
Angola	8898
Congo	2274
Gabon	2007
Sudan	998
Cameroon	612
Congo DRC	97
Côte d'Ivoire	31
Chad	19

Sources: UN Comtrade (2002) figures for Nigeria, Gabon, Sudan, Cameroon and Côte d'Ivoire; Trademap (2003) figures for Congo DRC, Chad, Congo and Angola.

Table A5. African net importers of inedible crude materials (except fuels) (2002)

	Net imports of inedible crude materials (USD million)
Nigeria	81.9
Mauritius	49.0
Sierra Leone	28.3
Malawi	4.9
Burundi	4.2
Gambia	3.6
Eritrea	3.3
Sao Tome and Principe	0.5

Sources: UN Comtrade (2002)

Appendix B. Are Asian Drivers nipping African clothing in a post- MFA bud?

The impact of China's and India's ascendancy on African economies is well illustrated by the case of the textile and clothing industry in the context of the Multi-Fibre Agreement (MFA) phasing out. It points to the difficulties for African economies to diversify and set up the basis of a manufactured sector in an unfavourable context of tough international competition amplified by an erosion of trade preference schemes implemented by developed countries.

▪ **The relevance of textile and clothing to African countries**

First, textile is an economic activity that is by and large labour-intensive (at least in least developed and emerging countries). It can therefore be a source of employment opportunities in the formal sector and an avenue for economic diversification away from traditional exports, with in turn a positive bearing on poverty. Moreover, textile and clothing activities, at least at the lower end of the products range, rely on low-costs unskilled labour force. In this regard, African countries are rather well positioned. ITC (2004) points to the low wage-related costs in countries such as Madagascar and Kenya, even compared to their Asian and Latin American competitors (Table B1).

Table B1. **Low wage costs in Madagascar and Kenya**

	Average hourly wage (\$ cents)
Madagascar	0.33
Kenya	0.38
Indonesia	0.27
India	0.38
Bangladesh	0.39
Pakistan	0.41
Sri Lanka	0.49
Egypt	0.77
China	0.88
Philippines	0.91
Nicaragua	0.91
Colombia	0.98

Source: ITC (2004)

Not only do African countries have a competitive advantage based on a cheap labour force but some of them also produce the raw material, namely cotton. Several sub-Saharan countries are indeed world class cotton producers (even though their share in total world output remains modest, Table B2).

Table B2. Major cotton producers

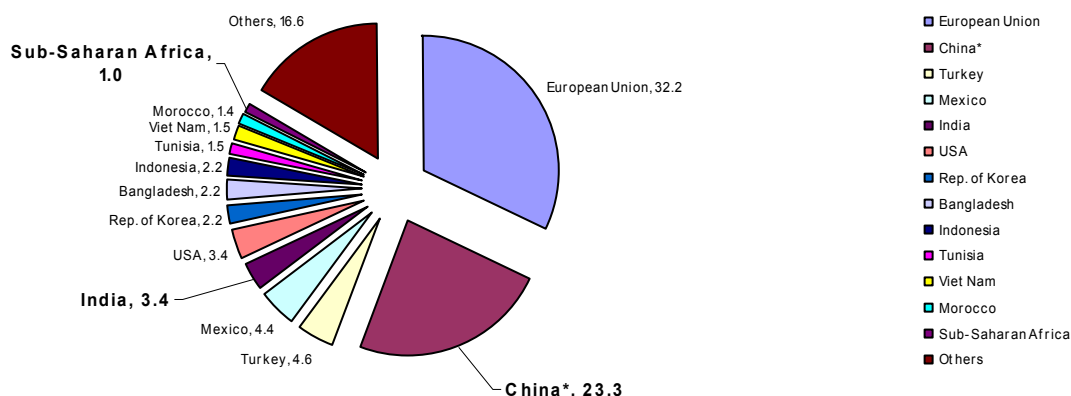
	Output		Share in world total	
	2004/05	2005/06	2004/05	2005/06
	- in thousands of tonnes-		%	
1 China	6,320	5,770	24.3	23.9
2 USA	5,062	4,755	19.4	19.7
3 India	4,080	3,825	15.7	15.9
4 Pakistan	2,415	2,210	9.3	9.2
5 Brazil	1,250	1,250	4.8	5.2
6 Uzbekistan	1,134	1,125	4.4	4.7
7 Turkey	900	800	3.5	3.3
8 Australia	613	369	2.4	1.5
9 Greece	390	362	1.5	1.5
10 Syria	331	285	1.3	1.2
11 Egypt	292	273	1.1	1.1
12 Burkina Faso	257	250	1.0	1.0
13 Mali	240	230	0.9	1.0
14 Turkmenistan	203	200	0.8	0.8
15 Tajikistan	172	160	0.7	0.7
16 Benin	152	135	0.6	0.6
17 Kazakhstan	148	128	0.6	0.5
18 Argentina	145	135	0.6	0.6
19 Mexico	141	152	0.5	0.6
20 Iran	140	109	0.5	0.5
21 Cote d'Ivoire	130	110	0.5	0.5
22 Tanzania	115	100	0.4	0.4
23 Sudan	114	97	0.4	0.4
24 Spain	110	110	0.4	0.5
25 Cameroon	105	100	0.4	0.4
26 Nigeria	100	88	0.4	0.4
27 Chad	85	85	0.3	0.4
28 Togo	71	64	0.3	0.3
29 Peru	70	70	0.3	0.3
30 Zimbabwe	65	65	0.2	0.3
31 Paraguay	65	80	0.2	0.3
32 Colombia	63	56	0.2	0.2
33 Azerbaijan	48	70	0.2	0.3
34 Uganda	44	36	0.2	0.1
35 Kyrgyzstan	40	38	0.2	0.2
36 Israel	26	26	0.1	0.1
37 Mozambique	25	24	0.1	0.1
38 South Africa	21	18	0.1	0.1
39 Malawi	17	18	0.1	0.1
World Total	26,034	24,127		

Source: Cotton Outlook (2005)

Cotton has been regarded for some time by African policy-makers as a basis for diversifying the economies and a resource to be tapped into in a view to developing a textile/clothing oriented manufacturing base, whereby adding value to the raw commodity and moving up the value chain.

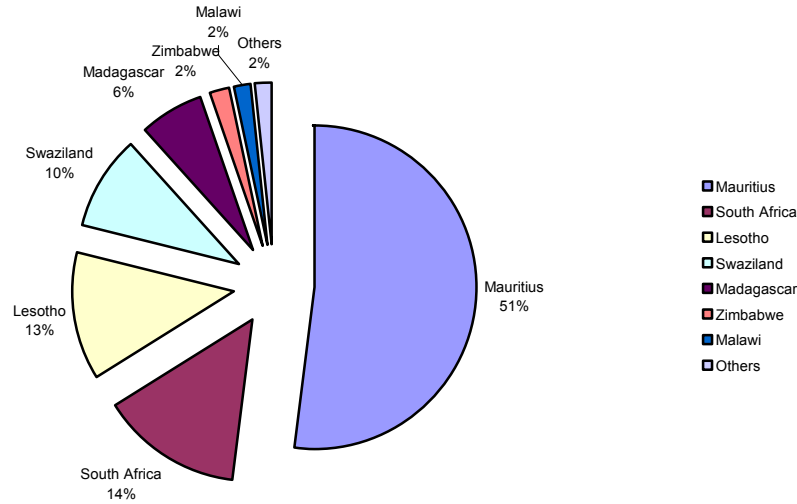
Sub-Saharan Africa has actually remained a minor player in world clothing (Figure B1) and the potential for clothing-based diversification has actually started to materialize in only very few countries (Figure B2). Still, a strong growth in clothing exports has been reported in some African countries, not least thanks to the implementation of trade preference schemes specifically targeted at them. The two most remarkable schemes in this regard are the US “African Growth and Opportunity Act” (AGOA) scheme, and to a lesser extent, the European Union “Everything But Arms” (EBA) arrangement. In a nutshell, i) the AGOA, originally implemented as part of the U.S. Trade Act of 2000, provides for the duty-free and quota-free entry of certain categories of apparel in the US market; ii) the EBA, introduced in February 2001, is a specific arrangement targeted at Least Developed Countries (LDCs) that goes beyond the standard EU Generalised System of Preferences scheme available to all developing countries. EBA grants quota-free and duty-free access to imports of (almost) all products from LDCs, except to arms and munitions. Its time-span is unlimited and not subject to periodic renewal.

Figure B1. **Sub-Saharan Africa : A Minor Player in World Clothing Trade**
 % Share in World Exports of Clothing (2002)



Source: UN Comtrade

Figure B2. **Main African Clothing Exporters**
% Share in African Exports of Clothing (2002)



Source: UN Comtrade

On top of this, the quotas associated with the long-lived Multi-Fibre Agreement (MFA) critically contributed to the efficiency of the AGOA and EBA schemes:

i) First, with the most efficient competitors in the sector of clothing and textile, namely Asian countries, being subject to the MFA quotas, preference schemes such as the AGOA and the EBA were granting eligible countries (incl. African ones) a strong advantage over their quota-restrained competitors in terms of the access to western markets. In particular, it made it easier for African countries to export to the EU and the US and to sustain competition by Asian textile and clothing producers. African countries could afford to charge higher prices than their competitors to offset higher factor costs (electricity, transport, business environment, etc.) and to uphold margins while remaining competitive. ITC (2004) indeed indicates that if labour costs in the apparel sector in Madagascar and Kenya are lower than in any other apparel exporter to the US for instance (Table B1), this competitive edge is nullified by low productivity. In this context, preferential treatment of African textile is critical for African countries to retain their competitiveness vis-à-vis Asian exporters of textile and clothing.

ii) Since African countries were not abiding by the MFA and were granted preferential access to the main markets for exports, that is the European Union and the United States, African countries attracted investment from quota-constrained producers (starting with Asian ones) in the clothing industry.

Preference schemes, esp. the AGOA, together with the protection granted by the MFA have had a positive impact on the local textile industry. For instance, impressive developments had been reported in Comesa countries such as Kenya, Lesotho, Uganda and Madagascar¹²⁸. Uganda had no apparel exports to the US in the first years of the AGOA program while it may have exported 2.7 million square meters equivalent in these products in the fifth year of the AGOA program ending September 30, 2005. By the same token,

¹²⁸ For a comprehensive and in-depth review of the challenges faced by the textile industry in Comesa countries, see USAID (2005).

exports of garments by Kenya and Madagascar to the US were projected to grow by 256 and 276 percent respectively between the second year of the program (the first full year of AGOA) ending September 30, 2002 and the fifth year of the program (USAID 2005, p.11).

▪ **Trade preference erosion and its consequence for African exporters of textile and clothing**

Yet, the emergence of an African textile industry in a context of strong international competition by Asian countries may however be impeded by the erosion of trade preferences in the textile and clothing sectors.

The removal of the MFA has come to an end in January 2005. The MFA has been gradually phased out in four phases spanning the period 1995-2005, the last and critical phase intervening in January 2005.¹²⁹ The end of quotas is likely to induce the emergence of a new worldwide business model in the textile and apparel sectors at the detriment of second-tier producers, including African producers. The implementation of quotas from 1974 on led to geographical fragmentation of value-chains: clothing assembly processes had been subcontracted to low-wage developing countries with spare export quotas. Asian countries such as Bangladesh first benefited from off-shoring by the most competitive quota-constrained Asian producers. Thus followed second tier suppliers such as African countries once they were benefiting from preferential access to quota-protected markets. The end of MFA might bring about a vertical “reintegration” of apparel and clothing production, from growing natural fibres to producing finished clothing, not least under the pressure of consolidated global retailer (Audet, 2004, p.3). In this changing environment, Audet (2004) argues that access to high quality textiles, directly sourced from domestic sources to meet tighter delivery dates, will be key to competitiveness.

African exporters of textile stand to lose from the changing patterns of production at the global level, while China and India will obviously be among the winners¹³⁰. Chinese share in the US market before the removal of the MFA was 16 percent. They could grow to 50 percent since China is likely to become the supplier of choice for western retailers.¹³¹ In January 2005 alone, Chinese exports to the US were up 546 percent year-on-year for major apparel exports, 1836 percent for cotton knit shirts, and 1332 percent for knit trousers (US Census Bureau, August 2005). African exporters are likely to be partly crowded out and confronted with declining prices.

African exporters are especially vulnerable to the phasing-out of the MFA in a context of aggressive Chinese and Indian competition:

- African products are chiefly destined to markets that were protected from quotas, i.e. the European Union and the United States, where competition is likely to bite most after the MFA removal (Figure B3);
- Most African exports are concentrated in products that are lower end, e.g. basic trousers, T-shirts, sweaters and woven shirts, incorporating low value-added and characterized by long production runs and limited styling changes. In other words, these are products that were both quota-restrained in the former MFA environment and where exporters such as China and India are extremely price competitive;

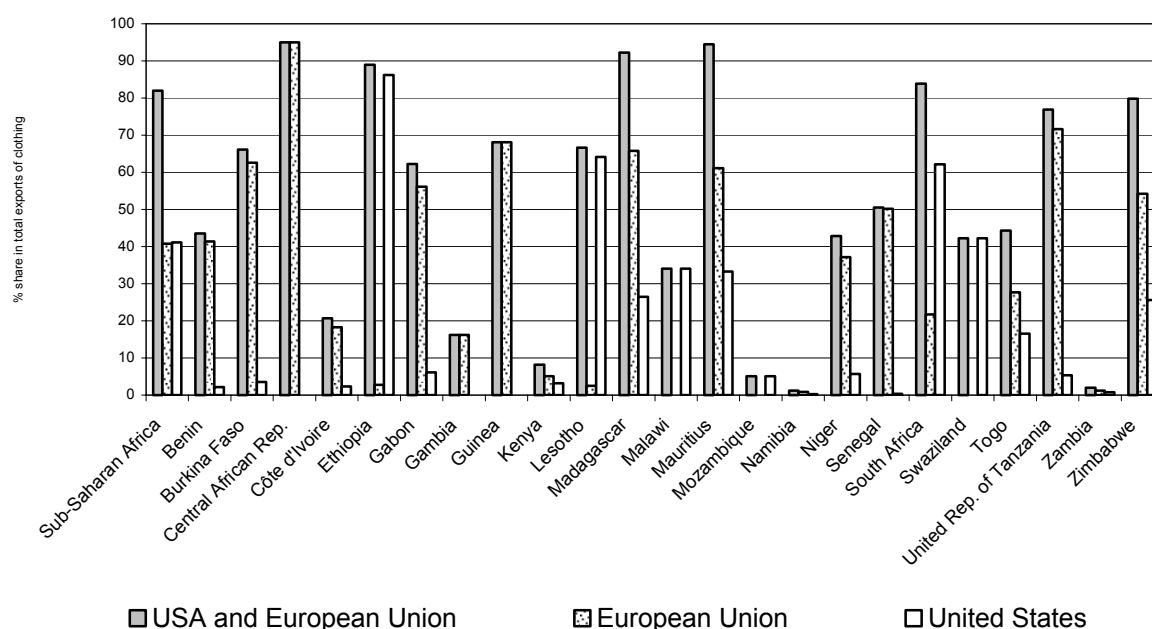
¹²⁹ The process of phasing-out had indeed been largely back loaded: out of 1325 original quotas, 1106 were due to be eliminated on January 1, 2005.

¹³⁰ Under safeguard mechanisms allowed for by China’s WTO accession agreements, new quotas have been instituted in the first half of 2005 following the surge in Chinese exports of apparels and garments to the EU and the US. They limit the imports from China of products that are very relevant to African exporters such as woven trousers, knit shirts and blouses. Yet, they are unlikely to modify the long-run dynamics of the textile industry at the global level.

¹³¹ Diverging estimates are provided by surveys. For general reviews of the impact of the ATC and the MFA removal, see among others Audet (2004), François and Spinanger (2004), Nordas (2004) and Mayer (2004).

- The adjustment of African producers to the phasing-out of quotas has been slow and limited while they suffer from a significant productivity gap vis-à-vis their Asian competitors. The latter stand to benefit from economies of scale, they rely on efficient engineering of factories and they are in a position to offer full package services now favored by global buyers (product development, fabric, sourcing, cutting, sewing, packaging, quality controls, trade, financing and logistics). AGOA producers are not: they have limited capacity to offer large volumes, display inferior logistic and are faced with deficient infrastructure (USAID, 2005, p.5). By and large, AGOA producers just cut and sew garments. Moreover, they barely enjoy geographical proximity with the EU market, let alone the US market: together with poor logistical infrastructure, this must be regarded as an impediment to just-in-time management and timely-delivery, a critical underpinning of competitiveness (Audet, 2004, p.3) and to the shipping of store-ready products to retailers on the basis of retail point-of-sale data (USAID, 2005, p. 6).

Figure B3. The United States and the European Union as Main Markets for African Exports of Clothing
 % Share of the US and the EU as destinations for African Exports of Clothing



Source: UN Comtrade

The removal of MFA has also brought into the spotlight the weaknesses and drawbacks of existing trade preference schemes: the phasing-out of MFA has brought to the fore that the actual use of preference schemes by eligible countries may turn out to be complex. As a consequence the advantages granted to beneficiaries over highly-competitive rivals such as China may be lesser than meet the eyes:

The efficiency of EBA and AGOA schemes is weakened by too stringent and complex rules of origin. The implementation of EBA is conditional on double-stage processing (from yarn to fabrics and fabrics to clothing). This has in effect made the EBA almost ineffective for African textile exporters: African countries can not comply with EBA-related double stage processing rule. Apparels made in Africa are indeed low-value added and largely rely on imported inputs since African countries have very limited spinning and weaving capacity to supply the local clothing industry. Furthermore, fabrics produced in Africa are hardly competitive. The EBA scheme merely allows the use of EU fabrics as “third-party”

input¹³², but EU fabrics are not competitive either. As a result of these constraints, African producers can not benefit from EBA provisions while resorting to the most competitive Asian fabrics.¹³³

The AGOA scheme has laxer rules of origin, especially with respect to least developed countries that are authorized to use “third party” fabrics and yarns. However, the AGOA scheme also contains caveats: in particular, quotas (“tariff preference level”) still limit the quantities of duty-free exports from Africa that can incorporate yarns and fabrics which are not sourced in the US or in the exporting country. Shipment above this quota enters the US territory at Most-Favoured-Nation (MFN) and less beneficial standard rates. Furthermore, uncertainties revolve around the extension of the AGOA scheme, in particular of its most advantageous provisions: while the entire scheme is scheduled to expire in 2015 for fabrics and yarns sourced in the region, provisions allowing the use of fabrics and yarns sourced outside Africa are due to expire in 2007 (and corresponding quotas should halve as soon as 2006). The renewal of these provisions in 2007 is far from guaranteed.

In other words, schemes such as the EBA and the AGOA still discriminate against fabrics produced in Asian countries, thereby preventing eligible African exporters to benefit from the schemes whilst using the most competitive inputs (Mattoo *et al.* 2002). Moreover, these numerous requirements add to the complexity of the schemes thus creating what Bhagwati and Panagariya (1996) have dubbed a ‘spaghetti-bowl effect’ of regulations that may discourage African exporters to resort to these schemes.

Beyond the specific glitches and weaknesses of the EBA scheme and the AGOA, the dismantlement of the MFA will result in an *automatic* erosion of the trade preferences granted by them over competitors from Asia. And further preference erosion is to be expected: the Doha Round may result in enhanced multilateral liberalization while the spread of bilateral free-trade agreements between the EU and US and garment exporters (outside Africa) has been observed lately and should intensify over the coming years. As a result, a fall in standard MFN tariffs is likely to be observed that would further shrink the margin (‘preference margin’¹³⁴) between preferential tariffs granted in the framework of trade preference schemes such as the AGOA and EBA on the one hand and standard rates allowed for by MFN / Generalised System of Preferences for developing countries on the other hand. Africa is especially vulnerable since it is heavily export-dependent on preference-granting countries (the EU and the US). More specifically, Subramanian (2003) argues that textile is among the products (together with tobacco, fisheries and cocoa), which some developing countries, incl. African ones, are heavily reliant on and the exports of which are likely to be strongly affected by preference erosion.

- **The African garment and apparel sector: a still-born industry?**

In the short-term, some closure of factories and accompanying lay-offs might occur. A shift of FDI to more competitive garment exporting regions is predictable, whilst a fall in exports should be recorded (however, the impact on African countries’ trade balance should be milder since a large share of fabrics used as inputs is imported). In late 2004 and early 2005, alarming reports of plant closures have been published in the local press: around 8000 workers may have been laid-off in Kenya since late 2004. At the same time, eight factories closed in the last six months of 2004 leaving more than 12000 workers without jobs in Lesotho,

¹³² “Third-party” fabrics are fabrics that are not made locally nor imported from the EU.

¹³³ African countries can however enjoy an access to the EU market under the standard provisions of the Cotonou agreement, i.e. under more tolerant rules of origin. However, the terms of access under the Cotonou agreement are much less favourable than those of the EBA scheme.

¹³⁴ ‘Preference margin’ is defined as “the percentage by which the trade-weighted average unit price received by a preference recipient for a particular product exceeds that received by an MFN exporter, due to the former’s eligibility for a preference scheme.” (Alexandraki 2005)

followed by the closure of 17 more factories in January throwing another 11000 people out of work. These mass lay-offs are likely to have a substantial impact on poverty since the textile industry in Africa is labour-intensive, employs a chiefly female workforce and accounts for the bulk of formal employment.

However, despite the consolidation of the textile industry worldwide and even though China stands to become the supplier of choice of European and American retailers, some room for second tier suppliers, including African ones, should be preserved: buyers in the US and the EU might indeed be keen on diversifying their suppliers' base. Moreover, with the elimination of quotas, duties will grab the spotlight: indeed, whereas the Agreement on Textiles and Clothing (ATC) requires the elimination of quotas, it does not address the issue of tariff protection. In this respect, the preferential treatment granted by a scheme such as the AGOA is far from negligible. Average import tariffs applied to clothing remains high compared to average tariffs imposed on manufactures and even on textiles (Table B3). Sub-Saharan producers of apparels and garments that are eligible to trade preference schemes such as the AGOA may uphold their competitive advantage in cases where import duties are specifically high (e.g. man-made fibre).

Table B3. Textile and Clothing, Simple average Tariffs

	Manufactures	Textiles	Clothing
OECD countries	6.2	9.4	16.1
Australia	5.4	9.9	20.7
Canada	4.9	10.7	18.4
European Union	4.4	7.9	11.4
Japan	2.9	6.5	11
New Zealand	3.1	2.4	13.7
United States	4	9.1	11.4

Source: Audet (2004)

There is also a range of policy responses which might be provided by local authorities and where donors could help with a view to preserving the competitiveness of African clothing producers. Beside general measures to be taken so as to improve the business environment,

- Steps should be taken to restore the level of preference margin granted by schemes such as the EBA and the AGOA. First, rules of origin embedded in trade preference schemes should be relaxed. African garment exporters should enjoy an unrestricted access to the most competitive fabrics and source them overseas whilst still benefiting from a duty-free and quota-free access to the US and EU markets.¹³⁵ Second, importing countries should find ways to streamline and simplify the rules, procedures, documentation and paperwork attached to the actual use of these schemes. In this respect, the EU and US trade preference schemes might be patterned upon Canada's "Market Access Initiative" for Least Developed Countries which do not include double-transformation requirement, makes it possible for fabrics to be sourced globally and which only requires that 25 percent of the value of the garment be added in the eligible country.
- Niche markets and production for African clothing producers do exist, but they remain inaccessible to most of them due to insufficient managerial and sewing skills (Mauritius notwithstanding). Therefore, donors could help improve the efficiency of production in sub-Saharan countries and narrow the productivity gap with other apparel exporters, not least by supporting the efforts of local producers in raising the productivity of sewing machine operators, training the middle-management and system engineers, and upgrading local technologies.

¹³⁵ AGOA "third-party" provision should at least be renewed. USAID (2004) argues that despite the removal of the MFA, Comesa suppliers remain by and large competitive thanks to the AGOA preferential treatment.

As already indicated, vertical integration (from the production of yarns and fabrics to the marketing of garments and apparels) is an important survival factor in the post-MFA world, especially if AGOA “third country” provisions are not extended. In this respect also, Africa is lagging behind. The availability of locally-made fabrics is very limited, while their quality is poor and their price is high. African countries have indeed very limited sewing and weaving capacities, despite a large textile-fibre base. Establishing a textile mill in Africa is overly costly, especially when set against the cost of establishing apparel manufacturing infrastructures. As a result, African fabrics are not competitive vis-à-vis products sourced in Asia, including when these fabrics serve as inputs for the local African clothing industry: ITC (2005) indicates that the cost of standard cotton chino imported from China into Lesotho is USD0.58 per square yard compared to USD1.57 for identical fabric produced in South Africa. Here again, donors may provide assistance in helping African countries to develop a competitive textile industry, based on the locally available raw material, cotton, and that would cater for the needs of the local clothing industry.¹³⁶

¹³⁶ Yet, time is running short and the scope for African countries to set up a competitive fabric and yarn industry by the time AGOA “third country” fabric provisions expire is very slim. Therefore, it is essential that the latter be extended since their expiry would merely damage the local apparel industry without being conducive to the development of a local yarn and fabric local industry. However, USAID (2004) argues that a “reward” (with respect to the access granted to the US market) should be offered to those African apparel manufacturers that use local yarn and fabrics.

Appendix C. Balassa Specialisation Index for India, China and selected African countries

The Balassa Specialisation Index measures a country's revealed comparative advantage in exports according to the following formula:

$$RCA_{ij} = (x_{ij}/X_{it}) / (x_{wj}/X_{wt})$$

It compares the share of a given sector in national exports with the share of this sector in world exports. Where x_{ij} and x_{wj} are the values of country i 's exports of product j and world exports of product j and where X_{it} and X_{wt} refer to the country's total exports and world total exports. It helps assess a country's export potential. Countries with similar RCA profiles are unlikely to have high bilateral trade intensities unless intraindustry trade is involved.

Values above 1 (in bold in tables G.1 and G.2) indicate that the country is specialized in the sector under review. A value of less than unity implies that the country has a revealed comparative disadvantage in the product.

Table C.1. Revealed Comparative Advantage in selected African countries

	Angola	Botswana	Burkina Faso	Cameroon	Congo	D.Rep. Congo	Ethiopia	Gabon	Ghana	Kenya	Lesotho	Malawi	Mali
Fresh food	.	0.48	17.72	6.49	0.17	0.34	18.67	.	14.47	10.39	.	17.63	18.73
Processed food	.	.	2.74	0.23	.	.	0.81	.	1.47	2.14	.	3.32	.
Minerals	8.97	8.62	.	4.10	8.09	8.07	0.04	8.07	0.93	1.98	.	.	.
Wood products	.	.	.	6.83	2.62	1.16	.	2.43	4.23	0.57	.	.	0.52
Leather products	.	.	3.94	.	.	.	5.13	.	.	1.00	.	.	1.86
Textile	.	.	0.47	.	.	.	0.95	.	0.16	0.46	.	.	.
Clothing	.	0.20	.	.	.	.	0.14	.	.	.	28.74	2.57	.
Chemicals	0.44	.	.	.
Basic manufactures	.	.	.	0.46	0.10	0.50	.	.	0.80	0.79	.	.	.
Transport equipment	0.15	.	.	.	.	.
Non-electronic machinery	0.47	.	.	0.13	.	.	.
Electronic components	.	0.12	0.08	.	.	.	.	.	.	0.05	.	.	0.26
IT&consumer electronics	0.79
Miscellaneous manufacturing	.	.	0.16	0.05	.	0.09	.	.	0.09	0.66	.	.	0.16

Source: Intracen 2004

	Mozambique	Namibia	Nigeria	Rwanda	Senegal	Sierra Leone	Somalia	South Africa	Sudan	Tanzania	Uganda	Zambia
Fresh food	4.8	7.94	.	3.67	6.16	1.29	12.66	1.51	3.71	15.16	20.15	1.16
Processed food	0.62	3.88	.	.	3.41	1.39	.	1.13	0.20	1.20	1.01	0.46
Minerals	0.18	1.57	8.84	7.20	2.11	4.67	.	1.86	7.37	1.52	.	0.27
Wood products	1.27	0.24	.	.	0.28	0.43	9.45	1.35	.	0.33	.	.
Leather products	.	0.38	.	.	.	.	.	.	0.91	0.63	.	.
Textile	.	0.21	.	.	0.28	.	.	0.36	.	1.01	.	0.94
Clothing	0.13	.	.	.	.	0.93	.	0.28	.	0.19	.	.
Chemicals	.	0.12	.	.	1.90	0.21	0.22	0.71	.	.	.	.
Basic manufactures	9.05	0.67	.	0.16	0.40	0.50	.	3.79	.	0.33	.	11.44
Transport equipment	.	0.27	0.12	.	0.17	0.08	.	0.84	.	.	.	.
Non-electronic machinery	0.06	0.20	.	.	0.13	0.24	.	0.76	.	.	.	.
Electronic components	.	0.12	.	.	0.06	0.56	.	0.16	.	.	.	.
IT&consumer electronics	.	0.22	.	.	.	0.50	.	0.12	.	.	.	.
Miscellaneous manufacturing	.	1.75	.	.	0.48	1.35	.	0.43	.	0.10	.	.

Source: Intracen 2004

Table C.2. Revealed Comparative Advantage in China and India

	China	India
Fresh food	0.68	2.23
Processed food	0.47	0.76
Minerals	0.28	2.03
Wood products	0.43	0.17
Leather products	3.34	2.18
Textile	2.39	4.27
Clothing	3.46	3.09
Chemicals	0.42	1.06
Basic manufactures	0.96	1.36
Transport equipment	0.27	0.23
Non-electronic machinery	0.52	0.37
Electronic components	1.04	0.23
IT&consumer electronics	2.43	0.10
Miscellaneous manufacturing	1.48	0.80

Source: Intracen 2004

Appendix D. Commodity selection for Table 9, 10 and 11

Classification of HS-Rev 1 Products according to commodity categories

Primary Commodity	HS-Rev.1 (1996) Code
<i>Non-Fuel:</i>	
i) Edibles:	
a) Food	2 (meat); 3 (Fish); 7 (edible vegetables); 8 (edible fruits); 13 (gum);
b) Beverages	9 (coffee, tea);
ii) Industrial inputs:	
a) Agricultural Raw materials	10 (cereals); 12 (oil seeds); 18 (Cocoa); 24 (Tobacco); 40 (rubber); 41 (raw hides, leather); 44 (woods); 45 (cork); 50 (silk); 52 (cotton);
b) Metals/minerals	26 (ores, slag); 72 (iron); 73 (articles of iron); 74 (copper); 75 (Nickel); 76 (aluminium); 78 (lead); 79 (zinc); 80 (Tin); 81 (other base metals); 25 (salts, sulphur), 71 (precious stones)
<i>Energy:</i>	
Petroleum	27(Mineral fuels, oil,)

Appendix E. China and India's Import Structure

China and India's Share of Commodity Imports in Total Imports, percent

	India		China	
	1998	2003	1998	2003
Fuels, Lubricants, etc.	22.9	29.0	5.1	7.1
Manufactured Goods	22.1	16.8	23.6	15.5
Machines, Transport Equip.	19.1	20.9	43.1	46.7
Chemicals	14.9	9.5	15.3	11.9
Crude Materials, Inedible, except Fuels	6.8	5.2	8.1	8.3

Sources: Estimates based on UN Comtrade database

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