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Chapter 4

Capital Flows and Economic Transformation

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Economic Report on Africa 2006

Chapter 4: Capital Flows and Economic Transformation

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Contents

4.0 Overview

4.1 Africa needs structural transformation: what can capital flows do?

4.1.1 Structural transformation is essential for sustaining growth and reducing vulnerability to shocks

4.1.2 What can capital flows do to boost economic transformation?

4.2 Weak quantitative relationship between capital flows and economic transformation in Africa

4.3 Key constraints to structural transformation in Africa

4.3.1 Low investment rates and productivity and delayed demographic transition hamper growth and transformation

4.3.2 Economic transformation requires a good human capital base

4.3.3 Infrastructure: a key to Africa's development and economic transformation

4.3.4 Role of industrial and trade policy

4.3.5 Making trade liberalization effective for economic transformation

4.3.6 Policy options for initiating and fostering industrialization and promoting the role of capital flows in economic transformation

4.4 Experiences of capital flows and economic transformation in Africa

4.4.1 Tunisia

4.4.2 Mauritius

4.4.3 Nigeria

4.5 Conclusion and policy recommendations

References

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4.0 Overview

Africa needs economic transformation in order to achieve sustainable growth and reduce its dependence on primary commodity production and exports that increase vulnerability to shocks. Economic transformation is a process that alters the relative contribution of economic sectors to gross domestic product (GDP) and employment over time. This process manifests itself in growth models through two main channels: first, reallocation of factors of production from less productive sectors to more productive ones; and second, diversification of the economy away from primary commodity sectors (agriculture, oil and minerals) into industry and services (Berthelemy and Soderling 2001).

Given its strong linkages with other economic sectors, increases in the share of industry have the greatest potential to contribute to sustainable growth and structural change.² Accordingly, we use the term economic transformation in this chapter to refer to a growth process associated with an increasing share of industry in GDP. Economic transformation is more effective - in terms of employment creation and reducing vulnerability to shocks - when increases in industrial contribution to output are driven by increased manufacturing output rather than increases in the output of extractive sectors such as oil and minerals. Therefore, the shares of manufacturing output in GDP and total exports may be used as additional indicators of economic transformation.

The extent to which these structural changes take place depends crucially on the quality and quantity of physical and human capital. Factor accumulation, in turn, requires a conducive institutional framework and an investment climate that provides necessary incentives to attract both domestic and external capital. It follows that all the factors that contribute to slow growth in Africa – slow accumulation of capital, slow productivity growth, delayed demographic transition, weak institutional environment, and infrastructure deficiencies – also constrain structural transformation in the continent.

The pace of structural transformation in Africa has been very slow. Although the share of agriculture in GDP declined over the last four decades, this decline was mainly the result of increases in the shares of sectors other than industry and reflects lack of adequate policies and incentives to direct demand and investment towards domestic industrial commodities. Meanwhile, in many African countries increases in industry's share in GDP originate largely from production of oil and minerals, the main activities to which private capital flows are directed. The contribution of revenues from these activities to economic transformation depends crucially on the extent to which they are used to finance investment in more productive sectors, specifically manufacturing.

² It is worth noting that as per capita income increases beyond a certain threshold, as it is the case in industrial economies, economic activity shifts from the primary (agriculture and industry) sectors to the secondary (services and tertiary) sectors. Transformation into services normally follows relative saturation in the consumption of industrial commodities (Hayami and Godo, 2005: 38) and requires high investment in such areas as information technology, export processing, and financial services. Typically investment in these areas is low in Africa and opportunities for genuine economic transformation – that ensures sustained growth and reduces vulnerability to shocks – through services are limited. Nevertheless, the focus on industry does not undermine possibilities for some countries to directly promote economic transformation through services.

Capital flows, official and private, have the potential to influence economic transformation mainly through capital accumulation and productivity enhancement. In fact, there is a two-way causation between capital flows and economic transformation. While official capital flows may lead to economic growth and transformation given good policies, private capital flows are likely to follow economic transformation. It is necessary to introduce targeted policy interventions in order to enable capital flows to contribute to economic transformation and to attract the type of capital flows that are more likely to trigger economic transformation.

Indeed capital flows have to be adequately managed to ensure positive spillover effects to the rest of the economy through positive interactions between various sectors, especially agriculture and industry, and through targeted improvements in human and physical infrastructure and incentives. In addition to maximizing benefits from capital flows, policies should also be designed in order to minimize the risks of these flows, including current account and exchange rate risks. Africa needs to learn from experiences of successfully transformed economies and mainstream economic transformation in national development plans.

The next section examines the state of, and need for, economic transformation in Africa³. The section then discusses how capital flows might affect economic transformation in Africa. A quantitative assessment of the link between capital flows and economic transformation in Africa is presented in Section 2, while Section 3 analyzes constraints that have to be addressed for strengthening this link. Experiences of two relatively successful African countries, Mauritius and Tunisia, are highlighted in Section 4, along with the case of Nigeria, where structural transformation failed to materialize despite huge economic potential. Section 5 summarizes the findings and discusses policy implications.

4.1 Africa needs structural transformation: what can capital flows do?

Structural transformation is essential for sustaining growth and reducing vulnerability to shocks

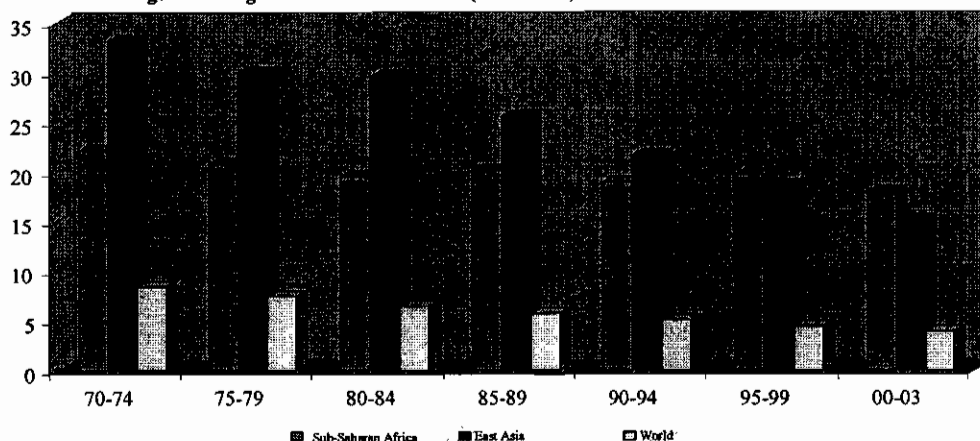
The majority of African economies are predominantly agrarian, with the share of agriculture in GDP declining at a very slow pace in the last 30 years (Figure 4.1), and with the majority of the population engaged in agriculture. These countries are in a very early stage of structural transformation and only a few of them have initiated the process of transforming their agrarian economies into diversified and dynamic ones dominated by manufacturing and services.

Due to lack of structural transformation, the majority of African countries continue to depend on very few export commodities, including agricultural raw materials, for their export earnings (Figure 4.2). While agriculture's share in GDP has generally declined, there is

³ Due to data limitations, the discussion in some parts of the chapter focuses exclusively on Sub-Saharan Africa (SSA). The main data sources, the World Development Indicators and the Africa Database of the World Bank, report aggregate data for North Africa as part of the Middle East and North Africa region.

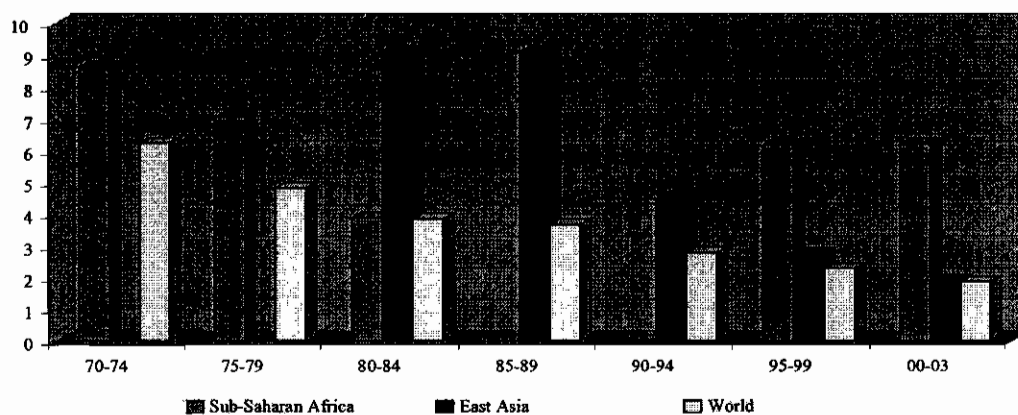
no clear trend in industry's share that fluctuated between 29 and 34 per cent between 1970 and 2003 (Figure 4.3).

Figure 4.1: Agriculture's value added (% of GDP)



Source: World Bank World Development Indicators 2005.

Figure 4.2: Agricultural raw material exports (% of merchandise exports)



Source: World Bank World Development Indicators 2005.

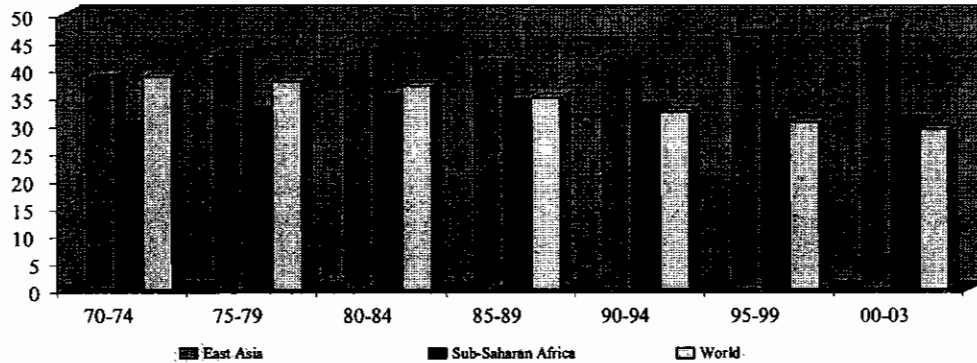
Note: Missing values for SSA in 1985-89 and 1990-94; East Asia in 1970-74 and 1975-79.

The industrial sector in many African countries depends directly and indirectly on agriculture (UNECA 2000). First, agriculture provides raw material to industry and represents a major source of foreign exchange that finances the import of industrial inputs. Second, in many African countries agriculture is the main source of income for consumers of industrial products in the rural market. Third, through taxation and savings, agriculture provides large amounts of capital to finance investment in industry and other sectors. Fourth, productivity increases in agriculture allow the release of farm labour to industry and other sectors. Therefore, changes in agricultural output and commodity export earnings, which result from internal and external factors, can also lead to changes in industrial output. And an increase in industry's share in GDP – or economic transformation – does not require a decline in agricultural output in absolute terms. The channels for shifting resources from agriculture to

industry were more important in Africa during the time of control regimes characterized by inward-looking import-substitution strategies (see Section 4.3).

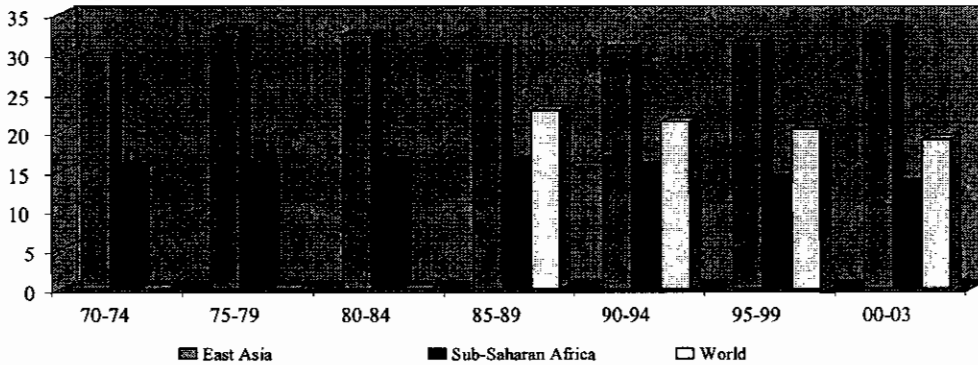
The contribution of manufacturing value added to Africa's GDP fluctuated around 15 per cent over 1970-2003 (Figure 4.4), while the share of manufacturing in Africa's merchandise exports has almost doubled between 1970-74 and 2000-2003, from 10 per cent to over 20 per cent (Figure 4.5). In comparison, the share of manufacturing exports in East Asia's merchandise exports rose from about 33 per cent in 1980-84 to about 80 per cent in 2000-2003. Meanwhile, industry's value added in East Asia rose from about 38 per cent to 48 per cent of GDP over the same period. The share of the region in global exports stood at 9 per cent in 2003, with industrial exports amounting to more than 50 per cent of its total exports. Economic transformation in East Asia contributed to the region's fast growth and integration in the world economy.

Figure 4.3: Industry, value added (% of GDP)



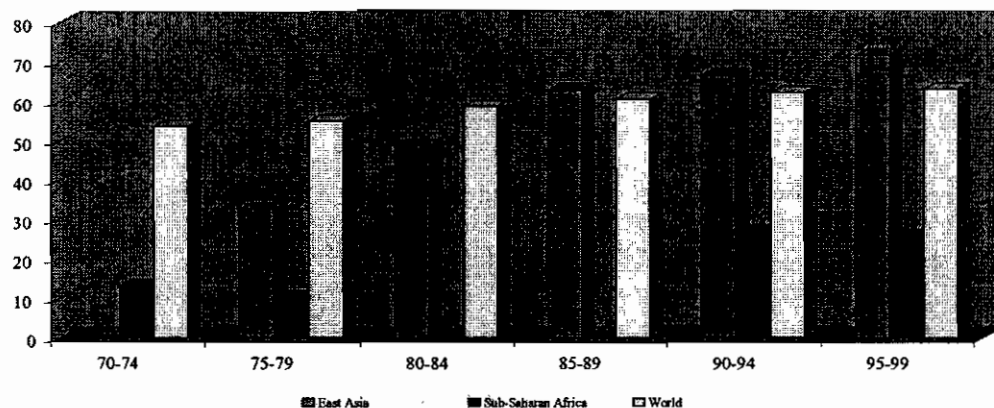
Source: World Bank World Development Indicators 2005.

Figure 4.4: Manufacturing value added (% of GDP)



Source: World Bank World Development Indicators 2005.

Figure 4.5: Manufactures exports (% of total exports)



Source: World Bank World Development Indicators 2005.

Note: Missing values for SSA in 1985-89 and 1990-94.

Lack of economic transformation and excessive dependence on primary commodity constrains economic growth, increases vulnerability to shocks and marginalizes Africa in world trade. For example, because primary commodity prices are highly volatile, many countries have had to cope with large terms of trade shocks that contribute to lower growth rates. For a yearly fall of 44 per cent in the price of a primary commodity, the direct loss of income for given export quantities is approximately 7 per cent of GDP (Collier 2003). This then triggers a cumulative contraction of the economy, leading to an additional loss of output of around 14 per cent of initial GDP. Moreover, in many countries the rents generated by primary commodities especially oil have been associated with poor governance and policy environment because they enable corrupt governments to reward constituencies, fund inefficient public work programmes and buy off opponents (Pritchett et al. 2002; Herbst and Soludo 2001). As the example of Nigeria demonstrates, availability of oil revenue reduces incentives for governments to initiate and sustain necessary reforms for achieving structural transformation (see Section 4.4).

Moreover, dependency on primary exports has been a major contributing factor to structural vulnerability of SSA economies. Between 1991 and 1999, the standard deviations⁴ for oil, mineral, and agricultural exports were 4.7 per cent, 3.1 per cent and 2.3 per cent, respectively, whilst manufactured exports had a standard deviation of only 0.9 per cent (UNCTAD 2004). Instability in primary commodity's output and price generates uncertainties in relation to export revenues, and fiscal solvency, which undermines macroeconomic management, increases investment risks, and leads to debt overhang.

What can capital flows do to boost economic transformation?

African countries are faced with a shortage of funds to meet their investment and development needs. This resource gap must be filled by capital inflows, composed of foreign

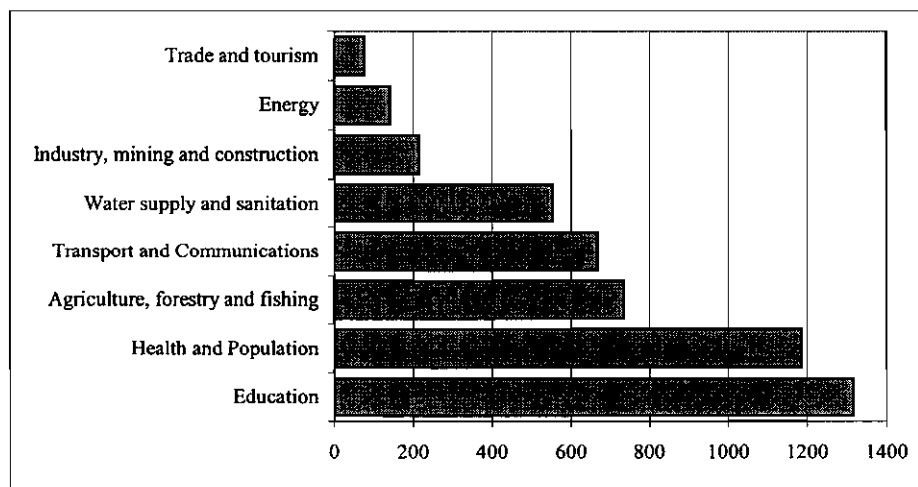
⁴ The standard deviation is used as a proxy for instability in the growth rate of the variable and is measured in percent of the mean value of the variable considered.

direct investment (FDI), portfolio investment, official development assistance (ODA), net borrowing, debt relief and remittances.

Substantial ODA flows can enable poor countries to finance physical, human and institutional infrastructure. Given adequate policies and incentive, this can foster economic transformation by inducing private capital flows and investment in various sectors (see Chapters 2 and 3 for further discussion). However, when poorly managed ODA flows can have negative economic consequences including chronic current account imbalance, inflationary pressure, real exchange rate appreciation and declining exports. Evidence indicates that contraction of the tradable goods sector and lack of economic transformation, due to the Dutch disease phenomenon, is particularly strong in small countries with high ODA-GDP ratios (Laplagne et al. 2001). In addition to crowding out private investment, some economists argue that ODA undermines or delays critical institutional and policy reforms and enables wasteful spending by corrupt governments (Erixon 2005).

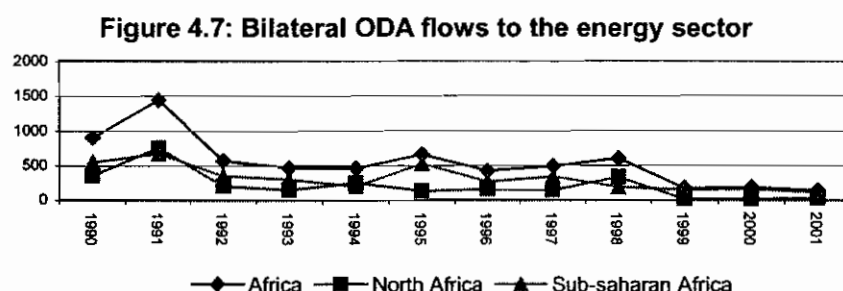
The available data indicates that ODA flows to Africa are mainly directed towards primary education and other services and very little ODA was directed to physical infrastructure (Figure 4.6). ODA flows to the energy sector have decreased by 48 per cent since 1998 (Figure 4.7). In view of the data in Figures 4.6 and 4.7 and the fact that the continent has the weakest infrastructure among developing regions (see Section 4), Africa needs to mobilize more domestic and external resources to upgrade its physical infrastructure (especially transport and energy) in order to promote economic transformation in general and the role of capital flows in economic transformation in particular.

Figure 4.6: Bilateral ODA flows per sector in 2001 (in million US\$)



Source: Development Assistance Committee, OECD, 2003

(Note: data will be updated – just waiting for it. We only have data up to 2002)



Source: Development Assistance Committee, OECD, 2003.

Private capital flows to poor countries are likely to follow ODA and flow to countries where the business environment and investment climate is perceived as attractive in terms of macroeconomic and political stability, infrastructure and availability of factors of production and access to markets. An exception is extractive FDI, especially in oil and mineral sectors, which can generate quick returns even in the absence of good infrastructure and institutions and in the presence of local and regional market rigidities, including labour market rigidities (see Chapter 3).

The literature generally predicts a positive relationship between FDI and growth through improvements in technology, efficiency and productivity (Lim 2001). But the direction of causality can run both ways (Chowdhury and Mavrotas 2005). Moreover, while FDI flows might be associated with economic success, they do not exert an independent effect on growth (Carkovic and Levine 2002). FDI promotes growth in countries with sufficiently developed financial systems, a greater degree of trade openness, and an adequate level of human resources development (Balasubramanyam et al 1999). Human capital is a factor that enables recipient countries to harness FDI's technological spillover effects (Gries 2002).

Developing countries have been repeatedly advised to adopt policies, including privatisation, and create attractive conditions for FDI flows in order to bridge the resource gap without adding to debt obligations. FDI is generally more stable than other forms of private capital flows (see Chapter 2) and has the potential to increase the rate of technical progress in the recipient country through knowledge diffusion. This can improve efficiency and productivity in local firms that can copy new technology or learn how to use existing technology and resources more efficiently in order to compete in global markets (Lim 2001). Moreover, interaction between local and foreign firms can increase productivity and efficiency through technical assistance, training and new export opportunities and market information.

However, despite macroeconomic and institutional reforms undertaken in many African countries in the last two decades, FDI flows have been below expectations (see Chapter 2). Accordingly, a recent report by UNCTAD (2005) suggests that emphasis on market-oriented reforms and governance as determinants of FDI flows to Africa is misleading and that these flows follow rather than lead growth. Efforts to attract FDI should, therefore, be accompanied with strategies to stimulate broad growth and economic diversification. In the absence of such strategies FDI will continue to be concentrated in enclave sectors with no or little overall developmental impact.

The 24 African countries classified by the World Bank as oil and mineral-dependent have on average accounted for close to three-quarters of annual FDI inflows to Africa over the past two decades. The primary sector accounted for nearly 50 per cent of FDI flows between 1996 and 2000. In 2005, the share of the petroleum industry exceeded 90 per cent of total inflows to Angola, Equatorial Guinea and Nigeria. In Egypt, a relatively more diversified economy, the share of FDI flows to the oil industry was still 64 per cent (UNCTAD 2005). Thus, the current sectoral distribution of FDI is cementing natural resource dependence in the continent and might not promote economic transformation.

Portfolio investments have no clear link to growth or structural transformation. They normally flow to countries with well-established capital markets in search of quick and higher returns. In SSA, only South Africa receives a meaningful amount of portfolio flows. Consumption and income support to families are the main motivations for remittances by nationals working abroad. Therefore, although remittances represent a stable source of flows and are better distributed across and within countries, they are less likely to have any important direct effect on growth and structural transformation.

To sum up, developing countries need external capital to augment domestic investment, but they also need good policies to maximize the growth impact of these flows and minimize their side effects. In the absence of good policies and supporting strategies capital flows are unlikely to have robust effects on economic transformation in Africa.

4.2 Weak quantitative relationship between capital flows and economic transformation in Africa

Solid empirical evidence on structural transformation in Africa is scarce. O'Connell and Ndulu (2000) provide the only available comprehensive empirical investigation in this regard. Two results from the cross-section study - based on intercept dummies for SSA - are worth emphasizing. First, given income and population they found that the size of the services sector is markedly smaller in SSA, and that of industry and manufacturing is larger than expected. The share of agriculture in GDP is just slightly higher in SSA, but the share of agriculture in total employment is markedly larger. Second, compared to other regions, Africa's movement out of agriculture and into industry was found to be significantly more rapid than would have been predicted on the basis of its growth performance. There is also weak evidence that movement into manufacturing has been more rapid than movement into services. Movement of labour out of agriculture has been slower despite sharp falls in agricultural output. Berthelemy and Soderling (2002) also provide evidence of notable diversification in favour of industry and manufacturing, but point out that this is a recent phenomenon and is not yet robust enough to stimulate significant structural change in Africa.

To quantitatively analyse the link between capital flows and economic transformation in Africa we extend the O'Connell-Ndulu (2000) model by including a capital flow variable. The data cover 42 African countries and consists of six panels of 5-year each plus one 3-year panel for

the period 1970-2003. The dependent variables are the share of industry's value added in GDP and the share of manufacturing output in GDP.

For Africa as a whole total capital flows are positively but weakly correlated with structural transformation, as measured by industrial output relative to GDP. The correlation is stronger for North Africa and negative for SSA (Table 4.1). ODA dominates capital flows to Africa and seems to have a high positive association with structural change in North Africa, but a negative association for SSA. This is not surprising, as North Africa has generally received more aid than SSA and invested substantially in economic and human infrastructure with the help of donors' money.

However, the weak link between capital flows and structural transformation in Africa is not mediated through manufacturing, which is negatively correlated with total capital flows and ODA and not related to FDI (Table 4.2). This is consistent with the fact that most FDI to Africa goes to enclave industries and very little is channelled to manufacturing. Correlations are very high for remittances perhaps because the countries that receive greater remittances, e.g. Egypt and Morocco, are relatively more diversified than other countries. Both industry and manufacturing shares in GDP are weakly correlated with growth. As expected and in conformity with existing evidence, aggregate capital flows have a positive but weak impact on economic transformation in Africa (Box 4.1). This effect is stronger, but still insignificant, for North Africa.

Table 4.1: Correlation between capital flows, growth and industry's share in GDP

Region	Total capital flows	FDI	ODA	Portfolio investment	Remittances	GDP growth
Africa	0.11	-0.02	0.11	-0.04	0.80	0.16
SSA	-0.24	-0.03	-0.24	-0.09	0.55	0.01
North Africa	0.36	0.29	0.90	-0.19	0.71	0.22

Source: Authors' computations using data from World Bank Africa Database 2005.

Table 4.2: Correlation between capital flows, growth and manufacturing's share in GDP

Region	Total capital flows	FDI	ODA	Portfolio investment	Remittances	GDP growth
Africa	-0.80	0.01	-0.80	0.26	-0.05	0.02
SSA	-0.61	0.02	-0.61	0.22	0.37	0.03
North Africa	-0.76	0.14	-0.55	-0.03	-0.33	-0.30

Source: Authors' computations using data from World Bank Africa Database 2005.

Box 4.1: Effects of capital flows on economic transformation

Dependent variable	Share of industry' value added (% of GDP)		Share of manufacturing (% of GDP)	
Explanatory variables	Fixed effects	Random effects	Fixed effects	Random effects
In (initial income per capita)	-2.75 (-1.62)	-1.48 (-0.88)	0.194 (0.19)	0.67 (0.70)
[In (initial* income pc)] squared	-0.048 (-0.22)	-1.35 (-0.62)	0.010 (0.07)	-0.0022 (-0.02)
In (initial* population)	10.99 (0.99)	6.94 (0.70)	10.96 (1.67)	7.41 (1.43)
[In (initial* population)] squared	-0.49 (-1.37)	-0.33 (-1.03)	-0.39 (-1.84)	-0.26 (-1.55)

In (initial* capital flows)	6.38 (0.89)	4.58 (0.64)	1.63 (0.38)	1.95 (0.48)
[In (initial* capital flows)] squared	-0.097 (-0.47)	-0.06 (-0.27)	-0.06 (-0.49)	-0.08 (-0.64)
Dummy (North Africa)	-	12.2 (1.76)	-	5.19 (1.90)
Constant	-94.1 (-0.96)	-55.62 (-0.64)	-73.46 (-1.28)	-53.73 (-1.18)
R ² – within	0.18	0.173	0.13	0.12
R ² – Overall	0.02	0.03	0.02	0.22
Number of observations	148	148	143	143
Number of countries	42	42	41	41

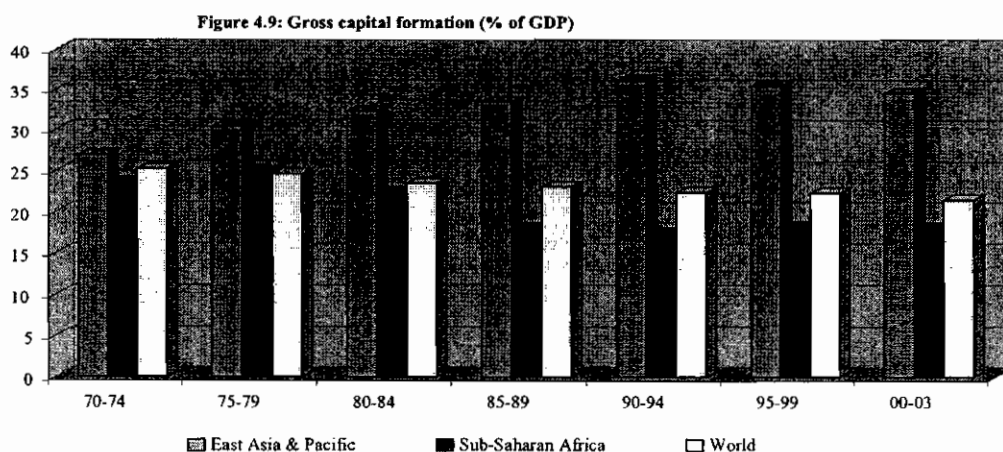
Notes: t-statistics are in parenthesis. * Initial value refers to a one period lag of the variables in question.

The model was estimated using both random and fixed effects methods besides the instrumental variables method that accounts for endogeneity problems (instruments consisted of lagged values of dependent and explanatory variables). The latter method did not produce any significantly different findings and hence its results are not reported. Model estimates using each of the components of capital flows at a time as well as estimates using rates of growth of variables produced no significant results.

4.3 Key constraints to structural transformation in Africa

Low investment rates, productivity and delayed demographic transition hamper economic transformation

Relatively slow accumulation of capital (Figure 4.9) and low saving rates in Africa together with slow productivity growth are among the major reasons for disappointing growth performance and lack of structural change in the continent (e.g., Hoeffler 2000). Slow productivity appears to have played even a more significant role in explaining Africa's growth and lack of economic transformation than the literature suggests (O'Connell and Ndulu 2000). Not only that Africa has a negative total productivity growth (TPG), but also physical and human capital productivity are the lowest in SSA compared to other regions (Table 4.3).



Source: World Bank World Development Indicators 2005

Low productivity growth in Africa is due to low quality of physical and human capital, poor policy environment and weak governance (Barro 1991, O'Connell and Ndulu 2000). It is worth noting that in regions where accumulation of physical capital has a more prominent role in growth (South Asia, East Asia and Pacific, the Middle East and North Africa, and Industrial countries), TPG also has a greater contribution to growth.

Sustained long run productivity gains require a balanced mix of capital accumulation, human capital development and structural change. The example of some small open African economies, such as Botswana and Mauritius, whose productivity trend is contrary to the continent's trend shows that successful macroeconomic reform programmes that reduce waste can produce short-run productivity gains (Berthelemy and Soderling 2001). In addition, reallocation of factors of production to more productive uses can permanently raise TPG. To this end, sustained increases in investment and demographic transition or sustained reductions in fertility and dependency rates, which has been delayed in Africa, would be crucial. Indeed, enhancing productivity and growth of per capita income in Africa requires sustained growth in aggregate income together with sustained reduction in Africa's high fertility rate (see UNECA 2005).

Table 4.3: Growth accounting decomposition by region, 1960-2000 average

Variable	SSA	Latin America & Caribbean	South Asia	East Asia & Pacific	Middle East & North Africa	Industrial countries	Total
Growth of real GDP per worker	0.51	0.76	2.18	3.89	2.37	2.23	1.63
Contribution of growth in physical capital per worker*	0.36	0.44	1.04	2.20	1.10	0.96	0.83
Contribution of growth in education per worker*	0.25	0.33	0.31	0.48	0.44	0.32	0.34
Residual (TPG)*	-0.09	0.00	0.82	1.21	0.84	0.96	0.47

Source: Ndulu and O'Connell (2003)

Note: * Contribution to overall GDP growth

Economic transformation requires a good human capital base

Adequate education and skills of a country's labour force improve the opportunities to produce exportable goods and therefore competitiveness. While literacy rates have been rising in Africa, the continent's human development remains low compared with the rest of the world. Africa has a combined Human Development Index of 0.515, compared to 0.628 in South Asia, 0.797 in Latin America and the Caribbean and 0.768 in East Asia and the Pacific.

In some African countries, such as Burkina Faso, Niger and Mali, adult literacy is extremely low with rates of 12.8, 14.4 and 19 per cent, respectively. SSA has the second lowest adult literacy rate – 60.5 per cent – with 58.9 per cent for South Asia. On the other hand, some African countries have high adult literacy rates. For example, Zimbabwe, Namibia and Mauritius had adult literacy rates of 90, 85 and 84.3 per cent, respectively, in 2003. Other countries have made good efforts in increasing education levels as reflected in the combined

gross enrolment ratio of primary, secondary and tertiary schools. South Africa has a gross enrolment ratio of 78 per cent, followed by Tunisia, Gabon, Algeria, Uganda and Egypt with 74 per cent in 2003. The countries with the highest adult literacy and/or higher gross enrolment ratios – e.g., Mauritius, Tunisia, and Egypt - also appear to be the countries that are making greater progress towards economic transformation.

In order to improve human capital it will be necessary not only to focus on enrolment rates but also to reduce dropout rates and to improve the quality of schooling. High quality secondary and tertiary education is important for promoting innovations and contributing to faster productivity growth. Limited capacity of African states to enhance spending on education can be mitigated through joint regional efforts. For example, jointly designing, producing and distributing teaching materials and textbooks reduces costs because many African countries find it too costly to design and produce textbooks solely for the domestic market. In addition, harmonization of curricula ensures transferability of high school degrees.

So far, efforts of the regional economic communities to jointly develop human resources have been limited, but still there are some good examples. The Francophone Member States of the West African Economic and Monetary Union (UEMOA) and the Central African Economic and Monetary Community (CEMAC) are already cooperating in all levels of education, especially in higher education. In Economic Community of West African States (ECOWAS), the West African examination system provides a platform for the Anglophone member states to coordinate and harmonize policies, especially on curriculum development, examinations and certificates (UNECA 2004a).

Infrastructure: a key to Africa's development and economic transformation

Reducing Africa's commodity dependence would require improving access to markets on the supply side. For example, exporting contra-seasonal fruit and vegetables would bear large potential for Africa, but this would require good access to airports. However, rural areas in Africa are generally characterized by poor access to infrastructure. Road infrastructure in rural areas is particularly weak. Meanwhile, ninety per cent of Africa's land and 80 per cent of its populated area lie more than 100 km away from the coast or from a navigable river. This underscores the special role of infrastructure development in Africa (Torero and Chowdhury 2005).

Exports of manufactured goods are also hampered by high transport costs. Transport costs in Africa are the highest in the world. For instance, freight cost as a percentage of total import value was 13 per cent for Africa in 2000 compared to 8.8 per cent for developing countries and 5.2 per cent for industrial countries (UNCTAD 2002). Transport costs in Côte d'Ivoire and Mali were on average five or six times higher than in Pakistan (Rizet and Hine 1993). Given a similar wage level, private capital flows would go to countries with lower transport cost and better access to major markets.

Poor energy service is another reason that hampers capital flows to the manufacturing sector. Earlier reports have shown that the inability of many African countries to provide reliable energy services has been a major constraint on export diversification and development of the manufacturing sector (UNECA 2004b). In a firm survey conducted in Uganda, managers rated poor utility services as the most binding constraint, followed by

telephone services, roads and waste disposal. Because of poor power supply, many firms had to invest in private generators, which represented, on average, 25 per cent of the value of investment in equipment and machinery in 1997 (Reinikka and Svensson 1999). That reliable energy infrastructure is important for economic transformation is further supported by the fact that most African countries - e.g. Lesotho, Mauritius and Tunisia - which have moved into manufacturing started with the manufacturing of textiles, a highly energy-consuming process. Energy consumption increases from yarn to fabric finishing and from synthetic to natural fibres (Schmidt 1999).

The state has to assume a key role in providing infrastructure as well as attracting and regulating private investment in infrastructure. To this end, it has to create an attractive business environment to enable private investment - domestic and foreign - in infrastructure (UNECA 2005). In addition to meeting the challenges of demographic transition and physical and human infrastructure development, economic transformation in Africa would require a stable macroeconomic environment as well as effective industrial policy. Well-designed macroeconomic and industrial policies are essential for mitigating the adverse consequences of the natural resource "curse" and locational disadvantages (Ndulu and O'Connell 2005).

Role of industrial and trade policy

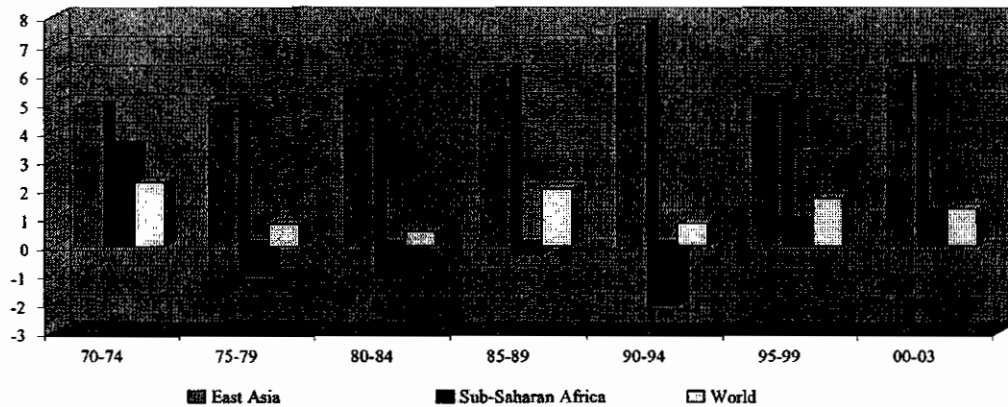
Lack of sound strategies is among the major reasons why Africa as a whole has not been able to attract the type of capital flows that has more potential to promote economic transformation. But while natural resources are a pull-factor in itself, pull-factors to attract capital flows to sectors such as manufacturing or exportable services have to be created through deliberate policy decisions. Good policies and institutions can be as much a pull-factor for FDI as natural resource revenues (Asiedu 2005). Conversely, capital flows can have a deleterious effect on growth and the structure of the economy in the absence of good institutions and policies (Easterly 2005).

In East Asia, substantial capital flows came as a result of improved business environment, policies, institutions and infrastructure (Aryeetey et al. 2003). Before the economic take-off of the East Asia around the mid 1980s⁵, Africa received more capital inflows relative to GDP than East Asia⁵. Capital flows to East Asia more than doubled in the 1990s compared to the previous decade because of the business boom that attracted large amounts of short-term flows, leading to the 1997 financial crisis. The notable recovery in capital flows to Africa in 2000-2003 is attributable to increases in private flows following recent reforms.

Success in trade and industrialization strategies boosted growth and economic transformation in East Asia at the time when "nowhere else in Sub-Saharan Africa has growth tragedy been more dramatic than in the areas of trade and industrialization" (Soludo et al. 2004:19). As a result, Africa contrasts sharply with East Asia in terms of growth in per capita income during 1970-2003 (Figure 4.8). Per capita GDP growth has been below 1 per cent in Africa compared to over 5 per cent in East Asia.

⁵ Total capital flows to Africa amounted to 112.7 per cent of capital flows to East Asia in 1970-79, 97 per cent in 1980-89, 37.6 per cent in 1990-99 and 55 per cent in 2000-03.

Figure 4.8: GDP per capita growth (%)



Source: World Bank World Development Indicators 2005

The constraints imposed by ineffective industrial policy and policy conditionality on growth and economic transformation in Africa were respectively embodied in the import substitution strategies (ISSs) of the 1960s and 1970s (Box 4.2) and the structural adjustment programmes of the 1980s and 1990s (Soludo et al. 2004; Aryeetey et al. 2003). Due to small domestic market size and poor governance, ISSs failed to promote competitive industries and established firms could only survive on a complex set of direct and indirect government subsidies including low interest rates, and tax and exchange rate subsidies. The cost of policies to support these industries contributed to unsustainable external and domestic debt levels that led to exchange rate depreciation and high inflation rates in many African countries.

Box 4.2: Import Substitution Strategies (ISSs) and Africa's Transformation

From independence to the early 1980s, most African countries adopted ISSs that aimed at producing consumer goods and move gradually towards producing intermediate goods and capital goods. ISSs were accompanied by restrictive policies, including complex systems of tariff and non-tariff protection, and strict exchange control and import licensing.

Initially ISS boosted manufacturing output relative to GDP and led to increased industrial employment. As a result, Africa maintained an average annual rate of industrial growth of 5.5 per cent during the 1970s. But Africa's industrial growth rate contracted to 2.5 per cent during 1980-1984 and 0.4 per cent in 1985-1987.

Instead of promoting sustainable growth and structural transformation, ISSs in Africa sparked a multitude of economic management and policy problems. The production of final goods relied heavily on imported inputs, adding to recurrent balance of payments deficits. Small domestic markets did not generate sufficient demand for emerging industries to grow and take advantage of economies of scale. Thus, the strategies failed to increase the productivity of new industries or make them more competitive. Instead it generated rent-seeking behaviour by firms, as they took advantage of insulation from international competition. The strategies failed to spur structural transformation and export diversification and Africa continues to depend on a few primary commodities and to be exposed to highly volatile terms of trade.

Source: UNECA 2004.

The structural adjustment programmes (SAPs), adopted by many African countries in the 1980s and 1990s to resolve these imbalances, were focused almost exclusively on macroeconomic stabilization and trade liberalization with no clear industrial policy. A major deficiency in SAPs was the policy to leave accumulation and growth to market forces without adequate attention to shortcomings in markets, institutions and physical and human infrastructure (UNCTAD 2000). Consequently, freeing markets and privatisation of public enterprises did not generate adequate private investment to expand output and employment. While macroeconomic stability improved in many countries, Africa's share in global exports saw a sharp fall from 4.1 per cent in 1980 to 1.6 per cent in 2000 before recovering to 2.3 per cent in 2003 thanks to oil and mineral exports. Likewise, Africa's share in world trade dropped from 8 per cent in 1980 to 1.3 per cent in 2000 and then rose to 2.3 per cent in 2003. More importantly, however, Africa's share in manufactured exports remained close to zero.

Making trade liberalization effective for economic transformation

Trade liberalization can directly promote economic transformation in different ways: first, it can lead to a shift in domestic demand and private investment in favour of domestic industries through real exchange rate changes and removal of import restrictions and non-tariff trade barriers. Second, liberalization can shift the incentive structure and encourage manufacturing by reducing waste stemming from rent-seeking behaviour and reforming the system of import and export licensing as well as the general institutional environment (Rodrik 2000). Improved institutional and policy environment would reduce cost and create comparative advantages for new industries. Reallocation of resources in favour of more competitive industries can enhance economic transformation even in the absence of growth.

In Latin America, liberalization has strengthened the manufacturing sector in the short-run. But in the long run it has strengthened manufacturing only in those countries with good industrial strategies (Dijkstra 2000). In Chile, the first liberalization efforts in the 1970s failed because imports grew more than exports. But in 1985 a second liberalization programme was started with emphasis on export incentives that led to net increases in merchandise exports during 1984-87 (Moran 1989).

Analysis for Ethiopia based on a simulation model reveals that the urban manufacturing sector would expand relative to the services sector through trade liberalization. As the overvalued real exchange rate declines, total imports would fall causing a shift in domestic demand away from foreign goods to domestic – mostly manufactured – goods. The manufacturing sector would thus expand because of favourable demand side conditions (Gelan 2002). But this analysis ignores supply side constraints, such as lack of skilled labour, which could be equally important.

Trade liberalization – usually accompanied by greater flexibility in labour and capital markets – contributed to structural change and rapid growth in East Asia and not in Africa. The key difference between the two regions seems to lie in the context in which trade liberalization

strategies were designed and implemented. Whereas trade policies in Africa in the last two decades have tended to be static and applied with little reference to overall development objectives, those applied in high-performing East Asian countries have been both proactive and strategically focused, at different times employing new combinations of selective openness and restrictions.

In contrast, incoherent industrial policies, compounded by control regimes and structural factors, have led to meagre gains from trade liberalization and slowed economic transformation in Africa (Lall 2004). Indeed cross-country evidence and case studies point out that economic policies and institutions have played a major role in Africa's disappointing growth⁶ over the post-independence period (Fosu and O'Connell 2006), whereas problems of governance, civil strife and geography produce a bias against the manufacturing sector in Africa and therefore lead to a concentration of investment and export in primary products including oil and mineral (see e.g., Collier and Gunning 1999).

Policy options for initiating and fostering industrialization and promoting the role of capital flows in economic transformation

The failure of ISSs in Africa does not preclude deliberate policies aimed at initiating and fostering industrialization as well as enhancing the contribution of foreign and domestic capital to economic transformation. The nature and contents of industrial policy may vary from country to country depending on endowments and opportunities, and there can be exceptional cases where it would be more feasible to promote economic transformation through services⁷ rather than industry. However, even small family-owned industries (e.g. garments, food manufactures and furniture producers) can directly or indirectly benefit from well-designed policies that boost entrepreneurship and correct market failures. At the same time, government policy often plays a pivotal role in promoting relatively large industries (e.g. Steel, Cement, Sugar and drug) in developing countries. These industries can have strong positive external effects that encourage the initiation and growth of complimentary as well as competing industries.

In fact, the process of industrialization in East Asia, like that of Africa, began with ISSs and gradually shifted to export promotion through a combination of policy, institutional and structural reforms. Policy choices aimed at promoting a stable macroeconomic environment, high education levels, efficient financial systems, and openness to foreign trade, were mixed with selective interventions that included an export push, directed credit, and selective promotion of industries in East Asia. These policies worked within an institutional framework that was characterized by technocratic insulation, high-quality civil service, and sound monitoring. This resulted in fast accumulation and efficient allocation of physical and human capital, improved mobilization of domestic and external resources, high returns on investment, and rapid technical progress through importation and adoption of technology (Aryeetey et al. 2003). Large investments in human capital and new technologies brought about significant gains in productivity and international competitiveness in East Asia, where

⁶ Fosu and O'Connell (2006) argue that avoiding anti-growth syndromes, including control regimes, adverse redistribution, unsustainable public spending and state failure, could have boosted Africa's growth by between 1 and 2.5 percentage points.

⁷ Example of Rwanda – mentioned by Emmanuel ??.

governments employed export promotion strategies that were regularly audited and reviewed according to well-defined targets.

Africa needs coherent strategies and market-based reforms to address both demand and supply side constraints to industrialization and economic transformation. Industrial policy experiences in Asia in general and East Asia in particular provide a framework on which many African countries might be able to design and implement successful industrial strategies (Box 4.3). However, it would be too simplistic to advise African countries to replicate these experiences given the many different initial conditions in East Asia in the 1970s and 1980s compared to Africa today. The laissez-faire option with no clear strategies would probably work for countries that have exceptional comparative advantages in terms of location, for example, or regional geopolitical conditions such as those that characterized Hong Kong and Singapore in the 1960s and up to the late 1980s; both countries benefitted from being open capitalist economies surrounded by mainly command economies during their early stages of industrial development. Moreover, as previously mentioned, the laissez-faire policy embodied in SAPs dismally failed to engender industrialization or sustainable growth in Africa.

Box 4.3. Policy Lessons from the initiation and maintenance of industrialization in Asia

The experience of Asia indicates that there are several options for developing countries to initiate and maintain industrialization. Assuming that the country can raise its investment and education levels and maintain a good macroeconomic policy (as a fundamental prerequisite), its options for industrialization include the following:

1. Follow a laissez-faire policy with no detailed intervention – the case of Hong Kong, in which local firms become important sub-contractors within international supply networks. Because of the stable government and good macroeconomic environment, small industrial firms in Hong Kong were able to become part of international networks and hence grow fast despite their modest initial industrial skills base.
2. Actively seek FDI. Singapore was able to augment local skills by actively recruiting multinational corporations (MNCs) – through tax and other incentives – and by building infrastructure ranging from airports to modern telecommunications systems. Singapore designed policies that helped to build a competitive infrastructure and educational stock (but many economists consider Singapore's success as fragile because "footloose" MNCs can relocate to still less expensive countries, though that has not been the case over 40 years of success).
3. Follow a detailed industrial policy of the type pursued by e.g. Japan, Korea and Taiwan. One broad rationale for this is the need to encourage purportedly missing entrepreneurship; the other is to correct market failure.

Source: Noland and Pack 2003

In addition to creating a sound macroeconomic environment and infrastructure, for the majority of African countries, government intervention would be critical for enhancing industrialization and structural change through measures that promote entrepreneurship and address market failures. Promoting entrepreneurial skills including accounting and management skills, risk-taking and the ability to perceive and exploit profitable opportunities

is not just important for starting and operating large firms, but also critical for small firms to grow and become more efficient (Noland and Pack 2003).

Entrepreneurship may be promoted through centralized technical support, by incorporating entrepreneurial skills in high school and university curricula and through training, which in many cases contributes to a better performance of businesses and can improve the entrepreneurial attitude. Firm surveys in Tanzania, Uganda and Zimbabwe show that the entrepreneurial attitude was the key to successful businesses. Most of these businesses were started because the business owner saw a good business opportunity. In fact, many entrepreneurs descend from an entrepreneurial family. Most mentioned their entrepreneurial attitude and the skills and commitment of their workforce as success factors. Many others mentioned operating in a market niche as an important success factor (UNECA 2005). Promoting entrepreneurship is "much closer to the first best imperative of targeting specific market failure rather than providing broad support such as tariffs and quantitative restrictions" (Noland and Pack 2003:14).

For industrial policy to accelerate growth and structural transformation policymakers must be able to identify market failures that inhibit growth, design and implement the appropriate interventions, and correct or terminate the applied policy as circumstances warrant (Noland and Pack 2003). Noland and Pack (2003:16-18) summarize economists' view of circumstances in which market failures provide a scope for industrial policy to enhance growth and economic transformation. These include:

- Real external economies that provide benefits to firms that generate improvements in their productivity (or a reduction in their costs) as a result of the activities of other, normally more innovative, firms.
- External economies that arise as the size of a competitive industry increases, permitting a falling long-run supply curve. For example, encouraging many firms to enter the garment industry could generate economies of scale for textile producers who would increase output so as to meet orders from many garment producers.
- Precautionary economies that may occur in some industries in which large-scale economies exist and only one firm can be established in each sector, for example, a steel mill in a relatively small economy.
- Externalities that may be conferred on other firms in an industry by the first entrant, which demonstrates that the sector is physically and economically feasible and diffuses information about technology and marketing opportunities.
- Results of research by one firm that benefits other firms, for example, all sugar factories may benefit from improved variety of sugar cane as a result of research undertaken by one factory. This provides a robust argument for government to support research and development (R&D).
- Externalities that could arise from the interaction between suppliers and buyers on the design of a product leading to a better or cheaper good than is available internationally. For example, a local machine producer may be capable of designing equipment that is more responsive to local humidity, temperature or variation in input quality than imported machines.

- Finally, firms that anticipate learning-by-doing reduce their costs, and eventually become competitive. But they might need external support in this process before they become competitive.

The above cases provide examples of how industrial policy can stimulate economic growth and transformation by assisting new industries to emerge and by improving the competitiveness of local industry. Depending on their specific endowments and opportunities individual countries need to explore possibilities for industrial policy to accelerate growth through R&D or even output subsidization schemes aimed at supporting new product development, innovation and growth.⁸

However, as Noland and Pack (2003: 19) caution: first the appropriate policy response may be highly case-specific and could vary from export subsidies to export tax if price competition rather than quantity competition is assumed for example, and that multiple policy tools may be needed for pursuing domestic and international goals at the same time; second, since policy interventions often involve costs, government has to carefully weigh all possible alternatives for using scarce resources; and finally intervention would only be effective if the government itself does not suffer from deficiencies leading to government failure. Other things being equal, industrial policies that enhance domestic investment and growth in sectors that stimulate economic transformation are likely to provide the necessary incentives and to be effective in enhancing the role of capital flows in this process.

4.4 Experiences of capital flows and economic transformation in Africa

This section examines the experiences of Tunisia and Mauritius with the aim of highlighting the role of capital flows in economic growth and modest structural transformation in these countries. The section also examines the experience of Nigeria, where lack of coherent and consistent strategies constrained economic growth and transformation.

Tunisia undertook many institutional and economic policy reforms in the last three decades. The reforms aimed at opening up the economy, encouraging economic diversification and enhancing competitiveness (OECD/ADB 2005). Sound macroeconomic management, with relatively small external debt in Tunisia resulted in low and stable inflation as well as an effective exchange rate regime (Elbadawi and Kamar 2005). A relatively favourable business environment, strengthening of the financial sector, a modern infrastructure, and human resource development strategies through education and training underpinned market-oriented reforms. Tunisia ranks 58th worldwide and 4th in Africa in terms of ease of doing business (World Bank 2006). At the same time, trade liberalization benefited from Tunisia's central position in North Africa, proximity and access to EU markets – facilitated by the Association Agreement signed with the EU in 1995 and implemented a year after - and policies that encourage technology transfer and adoption, creativity and innovation.

Over the period 1970-2003, Tunisia's real per capita income grew at an average rate of about 3 per cent (Table 4.4). This growth was associated with a steady, though slow, reduction in

⁸ Grossman and Helpman (1991) cited by Noland and Pack (2003).

the share of agriculture in GDP. The share of industry on the other hand rose from 22 per cent in 1970-74 to 32 per cent ten years later, but declined to an average of 29 per cent during 1990-2003. A significant and perhaps distinguishing feature of structural changes in Tunisia was the rise in industrial employment from 34.3 per cent of total employment in 1962-69 to 45 per cent in 1995-2000. At the same time, agricultural employment declined from 45.9 per cent of total employment to 23 per cent (Ayadi et al. 2005). The services and other sectors, including a booming tourist industry, accounted for the largest share in Tunisia's GDP, which fluctuated between 55 and 59 per cent in 1970-2003.

Manufacturing is the only (sub) sector that experienced a sustained upward trend during this period, increasing from 20 per cent of merchandise exports in 1970-74 to 80 per cent in 2000-03. This represents a remarkable success compared to the Africa's average of 22 per cent during the same period. However, despite signs of increasing importance, particularly with regard to exports, industry (and manufacturing) does not yet play a dominant role in Tunisia's economy compared to East Asian economies.

Table 4.4: Tunisia: sustained positive growth and diversification but modest economic transformation, 1970-2003

	1970-74	1980-84	1990-94	1995-99	2000-03
Real GDP per capita (2000 US\$)	976	1378	1583	1813	2121
Real per capita GDP growth (%)	6.2	2.0	2.9	3.7	3.0
Agriculture value added (% of GDP)	19.27	13.51	15.17	12.81	11.58
Industry value added (% of GDP)	21.91	32.04	28.84	28.54	28.7
Manufacturing value added (% of GDP)	9.17	10.55	17.15	18.44	18.26
Services, etc., value added (% of GDP)	58.82	57.44	55.99	58.66	59.72
Manufacture exports (% of merchandise exports)	19.98	39.14	72.35	79.82	80.24
Gross capital formation (% of GDP)	22.49	32.56	30.52	25.9	26.35
Gross domestic savings (% of GDP)	22.56	23.75	24.63	23.16	22.27
Total capital flows (% of GDP)	-	10.1	8.4	6.6	9.0

Source: World Bank Africa Database 2005.

As Tunisia's economy developed, capital inflows continued to rise at a high rate. The composition of these flows also changed over time in favour of private capital, especially FDI besides workers' remittances (Figure 4.10). However, portfolio investment flows remain very small, reflecting the lack of efficient capital markets in Tunisia. The trend of overall private flows to Tunisia appears to replicate the East Asian experience in that substantial increases in capital flows follow improvements in policies, institutions and physical and human infrastructure in an open export-oriented economy.

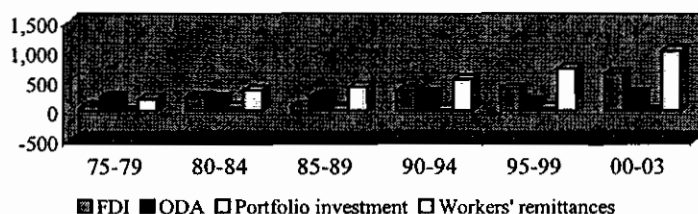
Over 2600 foreign or jointly owned firms operated in Tunisia in 2004, providing 243000 jobs.⁹ These firms operate predominantly in manufacturing in the areas of electrical and electronic products, automotive components, plastic and textile industries, leather and footwear, agricultural and food industry, packaging, ICT and tourism. They export 85 per cent of their output, mostly to Europe.

⁹ FDI Magazine at www.fdimagazine.com/news/printpage.php/aid/1349/Taleoftunisiantransformation. [Date accessed: 02-01-2006].

To enhance diversification and transformation, Tunisia adopted strong policies and long-term strategies in order to expand market and harness resources to increase investment rates and productivity. As a result, Tunisia maintained relatively high saving and investment rates compared to other African countries, but these rates are low compared to the rates that prevailed in the EA&P region during the same period. Yet good policies and sustained growth reduced poverty in Tunisia to a level comparable to that in the best performing East Asian countries: Tunisia's poverty rate dropped from over 20 per cent in 1980 to 4 per cent in 2000 (Ayadi et al. 2005)

Diversification enabled Tunisia to cope with unfavourable changes in the external environment, such as high oil prices, and consecutive droughts in the early 2000s. However, further structural reforms are needed for Tunisia to improve the business environment and industrial competitiveness and encourage increased resource mobilization and investment.

Figure 4.10: Average capital flows to Tunisia (US\$ million)

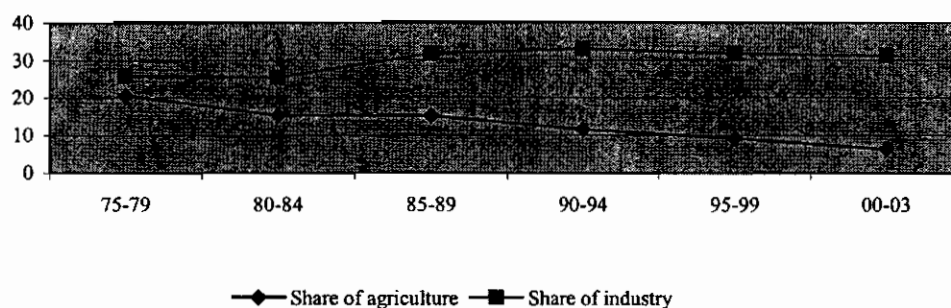


Source: World Bank World Development Indicators 2005

Mauritius has already significantly transformed its economy, moving from a basically single-good economy based on sugar to a more diversified economy based on manufactured exports. In the last decades the share of agriculture in GDP decreased significantly, from 20.7 per cent in 1970-1974 to 6.4 per cent in 2000-2003. At the same time, the share of industry rose from 26 per cent to 31.1 per cent (Figure 4.11).

Mauritius' economic transformation was not incited by capital flows, but capital flows increased after Mauritius had actively promoted manufacturing. Investment in export processing zones (EPZs) was at the beginning dominated by domestic capital. The boom in sugar prices in the early 1970s led to substantial windfall gains. Sugar companies used additional profits to invest in joint ventures with foreign investors in EPZs, because of promising conditions such as tax holidays and duty-free imports.

Figure 4.11: Share of agriculture and industry in Mauritius' GDP (per cent)



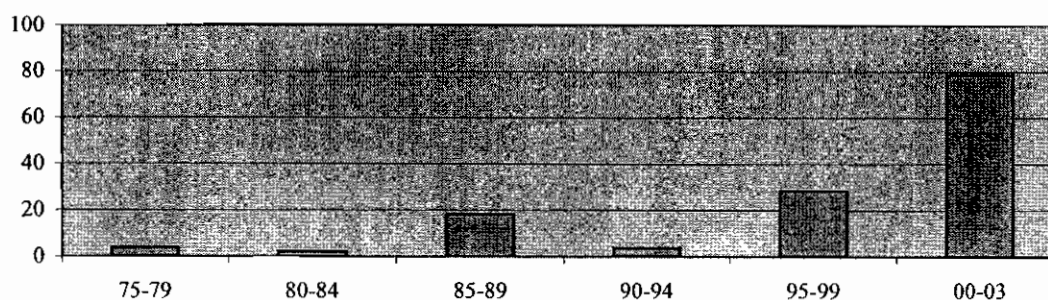
Source: World Development Indicators 2005

One of the secrets behind Mauritius' success is that the government realized the need for economic transformation and actively promoted a strategy to find new drivers of economic growth. The take-off phase already started in the 1970s with the establishment of export processing zones (EPZs) and government programmes to improve human capital. Education was made free at all levels in 1976 and health services were significantly improved (Nath and Madhoo 2003).

Mauritius has several growth phases, starting with the sugar-boom driven growth of the 1970s. Mauritius started to stabilize the economy and expanded export-led industries after 1983. The new strategy led to an average per capita growth rate of 6.6 per cent between 1985 and 1989 (Nath and Madhoo 2003). After 1989, Mauritius further diversified its economic base with tourism becoming another pillar of the economic transformation strategy.

FDI followed after the country increased its competitiveness and the financial sector further developed (Figure 4.12). In 1989 an offshore centre was set up, attracting more than \$4 billion of offshore funds. At the same time, the Stock Exchange of Mauritius (SEM) started to operate, thus setting the stage for further capital mobilization (Nath and Madhoo 2003). FDI increased substantially between 1985 and 1989 with an average of \$2.03 million and has been increasing since the early 1990s, reaching an average of \$78.4 million in 2000-2003.

Figure 4.12: Foreign direct investment in Mauritius (BoP, current millions of US\$)



Source: World Bank World Development Indicators 2005

As a result of its reforms, Mauritius was named the most competitive economy in Africa in 1998 (Nath and Madhoo 2003). Mauritius ranks 23rd worldwide and 1st in Africa in terms of ease of doing business (World Bank 2006). This seems to suggest that Mauritius had an open trade regime in the conventional sense, though its trade regime was in fact highly restrictive up to the late 1990s. The essence of Mauritius's success was a rather gradual and targeted openness that prevented an import tax from becoming an export and trade tax (Subramanian and Roy 2001).

Although Mauritius serves as a best-practice example, it has to be pointed out that some other African countries, such as Algeria and Nigeria, had similar or better trade opportunities, but they failed to use them to trigger economic transformation because of lack of good policies. There are also other factors that differentiate Mauritius from these countries, such as being a democracy since independence with strong participatory institutions. Further, because of the countries' cultural diversity, communities were able to benefit from existing network contacts such as the Chinese community with China (Subramanian and Roy 2001). Together with such factors as geographical proximity and tight export quotas on certain Chinese products, this link led to substantial FDI flows from China to Mauritius, mostly in the manufacturing sector.

Nigeria provides a classical example of policy failure in promoting sustainable growth and structural transformation despite huge economic potential including a strong human capital base. This failure stems almost squarely from rent-seeking and predatory behaviour on the part of the Nigerian state (Asadurian et al. 2006; Herbst and Soludo 2001).

The Nigerian economy continued to depend on agriculture in the post-independence period up to early 1970s when oil revenues began to rise. During this period attempts to industrialize through import substitution strategies failed because of "inadequate infrastructure, lack of skilled labour, shortage of spare parts, and lack of competitive advantage in capital-intensive industries" (Asadurian et al. 2006: 414). The oil boom spurred massive general government spending and investment in public sector projects and supported import substitution industrialization that depended heavily on imported inputs and an overvalued exchange rate that eventually generated a decline in agriculture and manufacturing through spending and resource movement effects as the non-tradable sectors (food production, import-competing industries, building and construction, general government and services) expanded at the expense of tradable sectors, especially export agriculture and non-import-competing manufacturing (ibid: 415).

The collapse of oil prices in the early 1980s and decreased oil exports due to a cut in the OPEC production quota for Nigeria led to a sharp decline in government revenue, and sizeable current account and fiscal deficits (Herbst and Soludo 2001: 657). As a result of these imbalances Nigeria's foreign reserves were quickly run down and external debt rose through borrowing from 5 per cent of GDP in 1980 to 23 per cent in 1985. Real per capita income fell from US\$ 386 in 1970-74 to \$335 in 1980-85 and remained almost stagnant ever since (Table 4.5). The share of industry in GDP has more than doubled between 1970-74

and 2000-2003 with notable fluctuations due largely to changes in oil prices and revenue. At the same time, the contribution of manufacturing to GDP fell sharply from the peak of 9.0 per cent in 1980-84 to 4.1 per cent in 2000-2003.

The share of agriculture in GDP fluctuated around 30 per cent, but that of the services sector declined rapidly from 40.4 per cent in 1970-74 to about 24 per cent in 1990-2003. Contraction of the services sector in Nigeria contrasts sharply with the situation in developing countries in general and seems to reflect the poor state of infrastructure and the business environment and other factors that hampered foreign as well domestic investment in this sector.

Following huge macroeconomic imbalances in 1981-1986, patchy economic policy in Nigeria concentrated on adjustment throughout 1986-2000, with limited scope for growth and transformation. Nigeria experimented with various types of structural adjustment and reform programmes with and without external support. In general, the broad objectives of the reform programmes were to: restructure and diversify the economy in order to reduce dependence on oil revenue and on imports; promote sustainable non-inflationary growth; reduce unproductive public investment, improve public sector's efficiency, and enhance the growth potential of the private sector (Herbst and Soludo 2001: 667). These objectives were to be realized through a realistic exchange rate policy coupled with liberalization of the external trade and payments system, appropriate market-based pricing policies and reduction in administrative controls, and rationalization and restructuring of public expenditure and custom tariffs (ibid: 667).

Table 4.5: Nigeria: Shrinking manufacturing, agriculture and service sectors

	1970-74	1980-84	1990-94	1995-99	2000-03
Real GDP per capita (2000 US\$)	386.3	334.8	338.5	330.4	338.3
Real per capita GDP growth (%)	8.8	-6.8	0.7	-0.3	2.4
Agriculture value added (% of GDP)	37.3	29.9	27.9	34.3	29.2
Industry value added (% of GDP)	22.3	34.8	50.8	41.9	46.2
Manufacturing value added (% of GDP)	3.7	9.0	4.9	5.1	4.1
Services, etc., value added (% of GDP)	40.4	35.3	21.3	23.8	24.6
Manufacture exports (% of merchandise exports)	0.5	0.1	0.7	1.9	0.2
Gross capital formation (% of GDP)	18.8	17.8	20.6	19.1	22.3
Gross domestic savings (% of GDP)	19.8	17.4	24.6	23.3	30.7
Total capital flows (% of GDP)	N/A	0.56	7.27	8.37	N/A
ODA (% of GDP)	0.6	0.1	0.9	0.6	0.5

Source: World Bank Africa Database 2005. N/A means not available.

The reforms were largely unsuccessful because of frequent reversals, lack of resources to implement them and more importantly lack of political will (Herbst and Soludo 2001: 667). Poor policy design, sequencing and implementation of policies, and lack of a holistic strategy were also to blame for macroeconomic policy failure in Nigeria (Asadurian et al. 2006). Consequently, the economy continued to depend on oil and agriculture for exports and employment, whereas lack of privatisation and structural constraints did not provide enough incentives for the private sector to expand.

With the return to civilian rule in 1999, Nigeria adopted a comprehensive strategic plan for addressing the deep-rooted economic and structural problems of the country in order to ensure macroeconomic stability, reduce poverty and combat corruption (OECD/ADB 2005: 367). Since 2000, policy reforms have been relatively more successful in reducing imbalances and in stabilizing the economy. Recently, high oil prices and improving macroeconomic environment have led to higher GDP growth rates in Nigeria. Moreover, both fiscal and monetary management improved leading to a budget surplus in 2005. As a result of these improvements Nigeria's ranking in terms of ease of doing business improved drastically by 2006; currently Nigeria ranks 94th worldwide and 9th in Africa (World Bank 2006).

However, further reforms as well as more time are needed for recent policy reforms to promote sustainable growth and transformation in Nigeria. Indeed, while the democratisation and liberalization process have created a more favourable business environment, severe constraints continue to hamper private sector development. These constraints include infrastructure deficiency (especially unreliable power supply), inadequate access to financing, pervasive insecurity, weak institutions, ill-defined property rights and enforcement of contracts and the unstable macroeconomic environment (OECD/ADB 2005: 373).

4.5 Conclusion and policy recommendations

Capital flows are neither a necessary nor a sufficient condition to trigger economic transformation. Lack of structural transformation in Africa is due to a combination of shortcomings in policy, institutions and physical and human infrastructure that inhibit growth and structural change. Overcoming these constraints is important for economic transformation, which is critical for attaining sustainable growth and reducing Africa's vulnerability to shocks. Analysis of links between capital flows and economic transformation in Africa indicate that:

- Significant capital flows to Africa during the last four decades were not associated with economic transformation. In countries - such as Mauritius and Tunisia - with relatively greater degrees of economic transformation, structural change was not due to capital flows alone but rather a mix of good policies and reforms that attracted domestic and foreign investment into sectors that are more conducive to export promotion and economic diversification.
- For most of the time, ODA has been the most important source of capital inflows to Africa (Chapter 2). The available data indicates that ODA flows to Africa have been mainly directed towards primary education and other services with very little ODA flows to infrastructure. ODA in its current structure has had limited or only indirect potential to foster economic transformation.
- FDI to SSA is mainly directed to extractive sectors, especially oil. With its limited links to the rest of the economy and limited spillover effects, FDI to this sector does not promote economic transformation per se. Nigeria is an example of large FDI inflows, but where economic transformation has not taken place.

- Portfolio flows to Africa are unlikely to affect economic transformation as they are quite small in volume and go to countries with more diversified economies and active capital markets. Research indicates that remittances are largely driven by the motive to support family consumption and hence have little impact on economic transformation.
- Quantitative analysis on the link between capital flows and economic transformation revealed that for Africa as a whole, capital flows have a positive but weak effect on structural transformation.

The absence of meaningful relationship between capital flows and structural change in Africa is attributable to lack of appropriate policies and effective measures to influence the nature and allocation of these flows. As the policy environment improves, private capital flows are likely to follow with a greater impact on growth and economic transformation through productivity enhancement, technology transfer, greater access to foreign markets and reallocation of resources in favour of more competitive sectors.

Effective industrial and trade strategies underpinned East Asia's miraculous growth and diversification, and their lack appears to be the root cause of Africa's inability to engender economic transformation. To promote structural transformation and maximize the contribution of capital flows to this process, Africa needs to:

- Mainstream economic transformation objectives in industrial and trade policies as well as in overall development strategies, and actively design and implement measures to initiate and maintain industrialization to ensure structural transformation. However, the analysis points out that in some special cases, it might be more feasible for countries to pursue structural transformation through the services sector rather than industry.
- Learn from experiences in East Asia in particular in order to develop a framework for designing and implementing successful industrial strategies. In fact Africa attracted more capital flows relative to GDP than East Asia before its take-off in the mid 1980s. Since then, improved business environment, policies, institutions and infrastructure have led to substantial increases in capital flows to the region. Capital flows increased after economic transformation had started in East Asia with a reinforcing role. However, it would be too simplistic to advise African countries to replicate these experiences given the many different initial conditions in East Asia in the 1970s and 1980s compared to Africa today.
- Maximize the role of capital flows in economic transformation within a holistic industrial policy framework, which, among other constraints, effectively addresses problems of market failures and promote entrepreneurship. Appropriate interventions for capital flows to enhance economic transformation might be country-specific.
- Ensure that trade liberalization strategies are supported by measures that build trade capacity, and raise productivity and competitiveness through technology transfer and adoption, creativity and innovation.
- Develop a good human capital base as a prerequisite for economic transformation. Studies have revealed that spillover effects from FDI only take place if a critical level of human capital is met.
- Upgrade its weak physical infrastructure, which presently hampers economic transformation. With a good human capital base and sufficient infrastructure, Africa

could attract the type of capital flows, namely non-extractive FDI, that are more likely to promote economic transformation.

- Enhance regional integration, which can be a major boost to industrialization by facilitating intra-regional movement of capital and labour and expanding markets for local producers.

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