

CHAPTER 4
**TOWARDS A NEW
INDUSTRIAL POLICY IN AFRICA:
THE WHY AND THE HOW
OF POLICY-MAKING**

This chapter focuses on the justification for industrial policy, particularly on its functional and horizontal dimensions, and how it can be implemented. It draws on an extensive recent literature to distil lessons from past experience in industrial policy, identify principles behind success and define the most effective new approaches to implementation. In general the debate on industrial policy has over the years evolved from a focus on the rationale (the why) to a focus on how it could be made to work (the how). However, these two are interrelated, as the content of policy is inevitably linked to its justification.

A. THE RATIONALE FOR INDUSTRIAL POLICY

The case for industrial policy rests firstly on the proposition that structural transformation, and in particular the development of competitive manufacturing activities, is a necessary condition for sustained and inclusive economic growth rather than simply a side-product of this process, and secondly, on the argument that government action is necessary to promote structural transformation.

The first step in this rationale was addressed in the introduction to this Report and will not be repeated here. However, it is important to note that those who are sceptical of the benefits of industrial policy see the economic growth processes in terms of an aggregate production function in which added inputs of various kinds (capital, labour) and productivity growth (through disembodied technological progress) lead to economy-wide increments to output. They do not think economic structure matters, do not see some leading sectors as having more propulsive effects on aggregate activity than others and do not conceptualize economic change as a process of creative destruction in which some activities are in decline, while other new activities are introduced into the economy through the innovative activities of entrepreneurs. From this perspective, industrial policy is perceived as irrelevant from the outset because structural transformation is not an integral aspect of a successful growth process.

This Report is not based on this view, but then the question arises as to why government action is necessary to promote structural transformation and in particular the development of manufacturing capabilities. In the past, the justification for industrial policy in developing countries rested on the need to protect infant industries (Soludo, Ogbu and Chang, 2004). However, in recent years, the economic case for industrial policy has focused on either the need to counteract market failures, or more broadly the need to address systemic failures and build capabilities.

One important market failure identified in the literature is the presence of information, learning and production externalities (Harrison and Rodriguez-Clare, 2009; Lin and Chang, 2009). For example, Hausmann and Rodrik (2003) show that when there is information spillover associated with discovering which goods could be profitably produced in a country, entrepreneurial entry will be suboptimal because the first entrepreneur to invest in cost discovery bears the cost, but cannot appropriate the full social benefits. In such an environment, industrial policy is called for to encourage entrepreneurial entry and promote self-discovery. The need to overcome coordination failure also provides justification for industrial policy (Aiginger, 2007; Rodrik, 2008). Coordination failure could arise, for example, when the profitability of an activity depends on whether or not there are simultaneous investments by other agents acting independently. In such settings, social welfare could be enhanced through collective action. Another type of market failure that is becoming more significant is the existence of environmental externalities, which imply that environmental goods such as clean air or biodiversity are not taken into account in private investment decisions. In the presence of market failures, markets alone cannot be relied upon to promote industrial development because they are either unable or too slow to bring about structural change and technological progress, or do so in a way that ignores environmental costs.

While there is a strong theoretical case for industrial policy based on the existence of market failures, it has been very difficult to provide conclusive and robust econometric evidence on the impact of industrial policy due in part to estimation problems and the absence of counterfactuals (Harrison and Rodriguez-Clare, 2009). In this context, some analysts have presented a broader case for government action that does not identify market failures according to deviations from some abstract equilibrium in economic theory but rather identify such failures in terms of the inability of the free play of markets to provide the goods and services that are deemed necessary by society. Moreover, some authors have gone even further and suggested that the issue is not market failure per se, but rather system failure. System failure arises when the economic system as a whole fails to achieve the development goals set by the government. This view draws attention not simply to market institutions, but also to the weaknesses of non-market institutions, for example, the capabilities of the firms and the networks in which they are embedded (see Cimoli, Dosi and Stiglitz, 2009).

There are particularly strong arguments why the technological capabilities of firms do not develop automatically through market forces. Firms do not have full knowledge of technical alternatives and developing the requisite know-how, much

of which comes as tacit knowledge that is gained through experience and practice, is both costly and time-consuming. For firms in developing countries at early stages of industrialization, mastering existing technologies is more significant than introducing products and processes that are new to the world. However, firms may not even know how to search and learn about global technological opportunities. There are also major externalities in technological learning that mean that inter-firm linkages are important to the process (see Lall and Teubal, 1998).

Until recently, the conventional wisdom was that African countries and developing countries in general, should not attempt to induce structural change through industrial policy. The idea is that industrial policy is susceptible to capture by vested interest groups. Furthermore, it is argued that governments cannot successfully pick winners in fast-growing industries and that they do not have the information and capacity necessary to conduct effective industrial policy. The view that governments should not use industrial policy is based on the assumption that: (a) self-regulating markets produce efficient outcomes and (b) government failure is more costly than market failure. However, the recent financial and economic crisis suggests that self-regulating markets can result in socially undesirable outcomes and that the private sector is not necessarily more efficient than the government. The capacity of African governments to successfully implement industrial policy is an important issue that will be discussed below (see 4.D., Institutional and governance issues).

Critics of industrial policy often argue that governments should move away from targeting specific sectors and focus on providing an enabling environment for firms to flourish. There are also economists who recognize the need for industrial policy in developing countries, but stress that the role of governments in such endeavours should be to create incentives for the private sector to exploit the country's current comparative advantage (Lin, 2009; Harrison and Rodriguez-Clare, 2009). There are both theoretical and empirical problems with this line of thought. At the theoretical level, it treats comparative advantage as a static rather than a dynamic concept. It assumes that a country cannot change or create comparative advantage in products other than those it currently produces. Redding (1999) shows that comparative advantage evolves over time and that selective trade and industrial policies that move an economy from low to high productivity exports may be welfare improving.

Empirically, the history of industrialization of currently advanced countries as well as emerging economies suggests that export specialization is determined not only by factor endowments but also by policy. In other words, policy matters.

Comparative advantage can indeed be created in new products through industrial policy. Examples are legion, but a few cases will suffice. Before the 1970s, Chile was not an exporter of salmon. However support provided by a public agency (Fundación Chile) since the late 1970s, has made it one of the world's leading salmon exporters. In the 1960s, the Republic of Korea was not deemed to have a comparative advantage in production of steel. However, in 1973 the Government established the Pohang Iron and Steel Company (POSCO) and offered it various forms of assistance. Consequently, by 1985 the Republic of Korea became a major producer of steel with lower unit costs of production than Japan and the United States of America (Redding, 1999). In Brazil, public ownership of the domestic aircraft company EMBRAER and government support in the form of subsidized credit and investments in R&D played an important role in the development of the aircraft industry (Rodrik, 2008). There are also cases in Africa where industrial policy has led to success in either developing new export products or adding value to existing products. For instance, in Ethiopia, State activism played a critical role in the successful development of the cut flower industry (box 1). In Côte d'Ivoire, government support led to an increase in the share of cocoa grinding in cocoa exports, making the country the world's third largest cocoa processing country since 1998/99 (Kjollerstrom and Dallto, 2007).¹³

Box 1. Floriculture in Ethiopia: an African Success Story

Ethiopia is a major exporter of primary commodities. However, with government support, it has successfully developed a globally competitive floriculture industry. The country's rank among top exporters of cut flowers improved from twenty-four in 2001 to fifth in 2007. The domestic floriculture industry began in the 1980s with exports by two State-owned enterprises: Horticultural Development Enterprise and Upper Awash Agro-Industry Enterprise. Since then, foreign investors (particularly, British, Dutch, and Kenyan) and local entrepreneurs have entered the industry.

The Government provides incentives to exporters in the industry through various channels, including export credit guarantees and foreign exchange retention schemes. The industry employs about 50,000 people but the government's target is to increase it to 70,000. In 2008/09, Ethiopia exported 1.3 trillion flower stems and earned \$130.7 million in export revenue. The main export destinations for Ethiopia's flowers are the Netherlands, Germany, the United States and Japan.

In terms of flower type, roses are the most important, accounting for over 80 per cent of firms and 60 per cent of total cultivated land. Field flowers account for 26 per cent of total cultivated land and flower cuttings represent 14 per cent of total cultivated land.

Source: Sutton and Kellow (2010).

B. KEY PRINCIPLES OF NEW INDUSTRIAL POLICY

A consensus is slowly emerging in the literature on the key principles which policymakers should consider in the formulation and implementation of industrial policy to enhance the likelihood of success. These include:

Supporting and challenging entrepreneurs

There is the understanding that government support to private firms is necessary to influence and direct their investments to activities or sectors deemed critical for long-term economic growth and development. However, new thinking on industrial policy also recognizes that the role of the government is not only to support entrepreneurs. It is also to challenge them to perform better and become more competitive in export markets. This implies that any support that businesses receive from the government is made conditional on the achievement of certain overall policy goals, such as increased investment or exports. Governments that have had success in using industrial policy to enhance competitiveness and promote industrialization are those that have been able to enforce discipline and terminate assistance to firms when there is evidence that they are not performing. In this context, there is a need for sunset clauses to ensure that inefficient firms are not supported indefinitely. This reflects the view that industrial policy is not about picking winners per se, but also about letting the losers exit the market.

Encouraging experimentation, search and learning by both governments and the private sector

An important feature of the new thinking on industrial policy is the emphasis on industrial policy as a social learning or search process in which the government interacts with the private sector to identify the key constraints facing domestic firms and how to overcome them (Wade, 2009; Rodrik, 2008). The idea here is that governments do not have enough information about the market failures that constrain industrial development and would need to interact with the private sector on an ongoing basis to elicit the relevant information. In doing so, however, there is a need for transparency and accountability on the part of the government to ensure that its involvement with the private sector does not encourage rent-seeking and corruption. The new emphasis on industrial policy as a learning process rather than a list of policy instruments differs from the traditional top-down mode of implementing industrial policy, in which the government sets sectoral priorities and uses certain

policy instruments to support the preferred sectors. Industrial policy is also oriented to encourage search processes by the private sector so that it can discover what can be competitively produced and it can maximize the diffusion of best practices. Unforeseen development trajectories can emerge through this process.

Adopting a mix of functional, horizontal and vertical measures

Functional measures, such as improving the general investment climate and upgrading infrastructure, remain an important strand of industrial policy. However, successful industrial policies generally also include horizontal measures, which include the promotion of socially desirable activities across sectors, such as the institutionalization of technological learning routines or the organizational competences required for exporting, as well as vertical policies that focus on particular products or sectors or clusters of activities. The horizontal activity of firm formation is particularly important in very low-income countries. The relative importance of these different types of measures may also change over time as governance capabilities develop.

Focusing on lifting binding constraints

There is a tendency for governments to put in place ambitious industrial development programmes without recognizing limits imposed by available resources. This generally results in poor development outcomes. A credible and effective industrial policy should target specific constraints facing domestic entrepreneurs. This requires identifying the key binding constraints facing domestic firms as well as possible measures that could be put in place to lift or relax them.

Monitoring, evaluation and performance criteria

Because of the scarcity of public resources, the risk of political capture and the need for public legitimacy, it is vital that decisions about sectors and activities to be supported be made in a transparent manner, based on research and consultation with firms and other relevant stakeholders. Furthermore, once decisions have been made regarding which activities to support, there should be clear benchmarks or criteria for judging success or failure. For example, the performance of supported firms in export markets could be used as an indicator of success, as was the case in East Asia. There is also a need for continuous monitoring and independent evaluation of the activities of supported firms to ensure that non-performing firms

do not continue to receive support. This is important because the implementation of industrial policy is a learning process fraught with errors and mistakes. It is important that quick and appropriate action is taken when errors are identified.

Leadership, coordination and accountability

Effective industrial policymaking requires political leadership at the top, as well as coordination across ministries and departments. It also requires the allocation of clear tasks and responsibilities across government departments. Lack of a clear division of labour and coordination across departments often leads to inter-ministerial competition and policy incoherence with negative consequences for the effectiveness of industrial policies. Rodrik (2008) stress the importance of political leadership in fostering accountability in the industrial policymaking process. In particular, it is crucial that a high-ranking government official be responsible for industrial policy and can be held accountable when things go wrong. Transparency of the industrial policymaking process is also necessary to check rent-seeking behaviour.

Recognizing domestic political conditions

In the design and formulation of industrial policy, it is important for policymakers to recognize the political circumstances and environment in which it will be implemented because any industrial strategy or programme that does not take into account the political feasibility of proposed policy actions is bound to fail. Robinson (2009) argues that the main reason industrial policy was successful in East Asia but failed in Africa has to do with differences in the political equilibrium of these societies. Promoting industrialization is not only about economic policies. It is also about the politics of policy. The power structure, political institutions and environment prevalent in a country affect the set of feasible policy actions. Consequently, whether or not industrial policy succeeds or fails in promoting industrialization in a country depends in part on the degree in which the incentives of political leaders are aligned with those of society.

Recognizing country heterogeneity

There is an understanding that industrial policy should be tailored to the needs and challenges facing each country. A one-size-fits-all approach will be counterproductive and unlikely to achieve desirable outcomes. As a result, country-

and context-specific measures are necessary, and policymakers should be mindful of this fact in the design and implementation of industrial policy. Copying the policies and strategies used by other countries without regard for the differences in structure, endowments, political situation and global environments will lead to poor outcomes. The content of policy needs to be calibrated to the industrialization path chosen, resource requirements and availability, geography, and domestic political realities (Rodrik, 2008).

C. THE AREAS AND INSTRUMENTS OF NEW INDUSTRIAL POLICY

The new approach to industrial policy recognizes that industrial policy is implemented through coordinated action in a number of different policy areas. Policy goals are essentially achieved through private enterprises though there may be a need for public enterprise pragmatically to fill gaps as needed and to enter exceptionally risky areas, for example, the provision of long-term finance. Given the private sector focus of policy, the basic instruments should be used to change the signals and incentives that agents face to stimulate economic activity in priority sectors and priority activities. Essentially this should not be a matter of telling the private sector what to do. Rather it is a question of providing information, incentives and resources in such a way that the private sector, through the pursuit of profit, behaves in such a way that the national development vision can be gradually achieved. The policy instruments should nudge entrepreneurs in the desired directions, for example through the formation of new networks of producers (Wade, 2010). What is thus required is a smart industrial policy rather than brute dirigisme.

Different policy instruments are relevant in different policy areas.

Policies to promote entrepreneurship. Entrepreneurs play an important role in the development process. Consequently, measures to promote entrepreneurship, in particular management skills and the ability to perceive and exploit profitable opportunities, are important. Governments should provide incentives to firms to encourage them to enter into foreign markets and invest in exploring new activities. This could be in the form of tax breaks for investment in new products. It could also take the form of subsidized credit.

Technology and innovation policies. Technological upgrading should play an essential role in all African industrialization efforts. It is only with the accumulation of technological capabilities that African manufacturing can contribute to the sustained economic development of the continent. Increased attention to the promotion of science, technology and innovation is a hallmark of recent discussions of industrial policy. The importance of scientific and technological innovation is evidenced by the fact that countries that have well-developed and successful manufacturing sectors tend to be those that have invested in the accumulation of technological knowledge and capabilities. Industrial policy is crucial to enhancing access to technological knowledge. This could take the form of stimulating domestic production of technological knowledge as was the case in the Republic of Korea. But it can also take the form of accessing existing technology through FDI, licensing or the purchase of capital equipment. Unlike the Republic of Korea, Singapore has relied on FDI as a source of access to foreign technology. The use of local content rules as an integral element of FDI policy, the granting of subsidies for technology imports, and the support of local knowledge creation by setting up science parks are measures that have been taken by some countries to enhance technological knowledge and capacity. Incentives provided to entrepreneurs should also be geared towards inducing technological learning and innovation. Moreover, an effective technology infrastructure is invaluable for upgrading the competitive capabilities of industries, particularly in developing countries (Kraemer-Mbula and Wamae, 2010).

Education and skill-formation policies. Education and skill-formation policies should go hand in hand with technology and innovation policies because human capital and specific technological knowledge are essential inputs to innovation. In addition, manufacturing firms need reliable access to labour with appropriate skills in order to produce high-quality goods that can survive competition in international markets. Clearly, the type of education promoted by governments has consequences for industrial development. For example, an education system that places priority on scientists and engineers is likely to have a better chance of promoting industrial progress than one that focuses on producing artists. In this regard, the new approach to industrial policy recognizes the need to redirect policy and resources towards the development of appropriate human capital. Policies aimed at increasing human capital should be designed so as to improve the quality of human capital as well as respond to the needs of industry in terms of technological capabilities and knowledge.

An analysis of the current African experience suggests that more selective action should be used in education and skill formation. Policies should aim at enhancing tertiary education, establishing national training institutes and providing incentives for firms to increase in-house training. The experience of East Asian newly industrialized countries has shown that the availability of an educated labour force is central to the development of an industrial structure. But higher education is not enough: education in technical and scientific subjects is what makes the difference. Government should use targeted incentives to facilitate entry into technical and scientific education that provides the skilled labour force crucial for industrialization.

Finance support policies. Governments should implement policies designed to ease access to credit for SMEs, which suffer considerably from a lack of internal resources. They should also improve such access for innovative firms because these may become the leading drivers for the followers. In particular, governments should intervene to link the informal credit systems to the formal ones in order to enhance access to financing for innovation and production upgrading. One way to make these policies particularly effective is to make access to loans and grants for firms conditional, for instance, on the effective implementation and maintenance of quality and sanitary standards.

Developing countries can also use discretionary credit lending and fiscal policy to influence the evolution of economic activity, direct resources to priority sectors and condition the behaviour of private firms. For example, several countries in East Asia and Latin America have effectively used development banks to provide preferential credit to industry. These banks are useful in ensuring that domestic firms have access to stable sources of long-term finance for investment. It is important, however, for the provision of preferential credit by development banks to be linked to firm-specific performance requirements to ensure better development results. Furthermore, to reduce the incentives for rent-seeking behaviour, the provision of credit should target industries with high linkage effects, high value added, high technology intensity and high market potential.

Trade policies. Trade policies are also an important component of industrial policy. While industrial policy has been associated in the past with protection and import substitution, the orientation now is towards an open-economy industrial policy. Such a policy is not simply focused on exports but also recognizes the existence of opportunities in import replacement. There is an understanding that increasing trade integration and promoting regionally integrated value chains may

enhance industrial competitiveness, favour regional economic transformation and increase production diversification in Africa (UNECA, 2010). But it is also recognized that the process of liberalization should be gradual and that it should be accompanied by a strategy of industrial restructuring and upgrading in order to allow firms to prepare for the challenges arising from liberalization. That said, African countries should pay attention to export promotion because there is some evidence that exporting increases firm productivity in the region (Van Biesebroeck, 2005a). Recent evidence suggests that the collection of market information, the search for specific market niches and fostering collaboration between export enterprises are government measures that are positively correlated with firm export performance. African governments should make use of these measures to promote exports. They should also consider creating export processing zones to reduce transactions costs for exporters. While there is no unique model for zone design and development, Farole (2011) describes two elements that characterize successful export-processing zones. First, they should be used as part of a broader package of industrial development in which both government and private sector should be involved. Second, incentive schemes have to be maintained stable over time and monitoring of the activities of export-processing zones is needed. The next chapter contains further discussion on trade policies within the WTO framework.

Cluster policies. Supporting industrial cluster creation and development is seen by many scholars as a particularly promising strategy to foster industrialization and growth. The cluster level appears to be appropriate for the design and implementation of technology policies. In particular, there are important economies of scale in service delivery and in the development of local systems capabilities that make implementation at the cluster level of the various policies more efficient. Mytelka (2007) emphasizes that government intervention should not try to create industrial clusters from scratch but instead it should create – through appropriate policies – an environment in which a cluster could eventually emerge. Zeng (2008) argues that there cannot be general policy suggestions for cluster development given the heterogeneity of countries in Africa. Nevertheless, government measures should include efforts to (a) encourage further knowledge acquisition, adaptation and diffusion; (b) strengthen educational institutions and technology institutes and their link with the business sector; (c) strengthen and upgrade skill training; and (d) provide sound infrastructure. In particular, the government should design and implement policies to support SMEs in the process of improving their supply in terms of characteristics, quality and timing. In this regard, public procurement and government demand may serve as an important stimulus.

D. INSTITUTIONAL AND GOVERNANCE ISSUES

An important constraint on effective industrial policy in Africa is weaknesses in governance capacities. Experience from East Asia has suggested two critical institutional ingredients for success. The first was the existence of an effective, dedicated and capable bureaucracy. The second was that State institutions operated in a situation of embedded autonomy in the sense that they were closely collaborating with the private sector to formulate and implement policy, but at the same time they were not influenced to favour particular interests. In Africa, State capacities for development policy formulation and implementation have been severely eroded and after years of neglect, ministries of industry are often weak. Against this background, some argue that however desirable an industrial policy is in Africa, it will only lead to huge societal costs owing to government failure.

While it is important to be cognizant of the governance challenge of industrial policy, it is too pessimistic to argue that it is impossible. Firstly, it is clear from the East Asian success story that there was a deliberate strategy to build up a few strategically important agencies rather than to improve government effectiveness across the board. Also the capabilities of bureaucracies were built up over time, with an emphasis on policy learning.

This implies that an important feature of the development of industrial policies in Africa should be the adoption of policies to enhance government capabilities in managing the industrialization process. In addition, since most of the strategies and measures discussed imply some form of government intervention, there is a need to take into account government capabilities in making decisions on the scope of intervention in an economy. In this regard, and given their limited capacity, African governments should not attempt the kind of pervasive interventions used in the past in the newly industrialized countries. They should be pragmatic and give priority to improving government capabilities for industrial diagnosis and strategy design, as well as policy formulation, implementation, monitoring and evaluation.

E. THE IMPORTANCE OF COMPLEMENTARY POLICIES

Industrial policy is likely to be ineffective in the absence of complementary policies that support its objectives. In this regard, macroeconomic stability is critical, and in successful cases, the macroeconomic environment is characterized by domestic investment, domestic savings and exports all growing in absolute terms and as a

share of GDP. In effect, the process of structural transformation is underpinned by a strong investment-profits nexus and a strong export-investment nexus (UNCTAD, 2008).

The need for policy coherence calls for consistency between industrial policy and other domestic measures, such as exchange rate policy, monetary and fiscal policies and policies that affect infrastructure development and the investment climate. Some priorities in this regard are highlighted in this section.

Avoiding exchange rate overvaluation

Exchange rate policy affects the development of manufacturing firms, as well as their ability to compete in international markets. In particular, a competitive exchange rate promotes exports and allows domestic firms to seize opportunities created in international markets. When the exchange rate is overvalued relative to its equilibrium value, it represents an implicit tax on exports and a disincentive for firms to invest in the export sector. If African countries wish to make significant progress in achieving their industrialization objectives, they will have to avoid exchange rate overvaluation by taking measures such as controlling inflation, managing natural resource wealth in a manner that minimizes the risk of the Dutch disease and adopting more flexible exchange rate regimes, where appropriate (Osakwe and Schembri, 2002).

Adopting appropriate monetary and fiscal policies

The effectiveness of industrial programmes and policy also depends in part on the extent to which monetary and fiscal policies are consistent with promoting industrial development. In particular, the mix of monetary and fiscal policies has to be such that firms have better access to credit, and real interest rates are not at a level that deters investment. This is particularly important because domestic firms tend to rely more on retained earnings rather than bank lending as a source of finance as a result of the poor access to and high cost of credit in African countries (Ramachandran, Gelb and Shah, 2009). There is a need to align the stance of monetary and fiscal policies with the objective of promoting industrial development, while ensuring that the proposed measure does not lead to medium and long-term macroeconomic instability. In East Asia, monetary and fiscal policies supported a dynamic investment-profit nexus that provided an important component of increased domestic savings (UNCTAD, 2008). How this can be achieved in Africa is an important issue.

Strengthening infrastructure development

The inadequate and poor quality of infrastructure in Africa is a major obstacle to the development of competitive industries in the region. It is estimated that Africa loses 1 percentage point per year in per capita economic growth as a result of its infrastructure deficit. The infrastructure problem is evident in areas such as power, water supply, transport and communications, which are critical to the successful development of manufacturing enterprises. Furthermore, the problem is not limited to poor network coverage but also manifested in the exceptionally high price of infrastructure services in Africa relative to global standards (table 6). The high cost of infrastructure in Africa increases trade costs and reduces productivity of African firms by about 40 per cent (Foster and Briceno-Garmendia, 2010). Public investments will be needed to address Africa's infrastructure problem. However, since governments do not have the resources they need to address all infrastructure needs, the private sector should also be provided incentives to either participate or contribute more to infrastructure development in the region. In addition, the setting up of special economic zones could enhance firms' access to infrastructure. When special economic zones are provided with good infrastructure, have management that is sensitive to the needs of firms and are supported with effective public institutions,

Table 6. Cost of infrastructure services in Africa

	Sub-Saharan Africa	Other developing regions
Power tariffs (\$ per kilowatt-hour)	0.02-0.46	0.05-0.1
Water tariffs (\$ per cubic meter)	0.86-6.56	0.03-0.6
Road freight tariffs (\$ per ton-kilometre)	0.04-0.14	0.01-0.04
Mobile telephony (\$ per basket per month)	2.6-21.0	9.9
International telephony (\$ per 3-minute call to the US)	0.44-12.5	2.0
Internet dial-up service (\$ per month)	6.7-148.0	11

Source: Foster and Briceno-Garmendia (2010).

Note: Prices for international telephony and internet represent all developing countries, including Africa.

they can be effective vehicles for promoting industrialization. Furthermore, African countries should be aware that not all manufacturing industries necessarily require the same infrastructure. Based on the selection of specific target sectors and in close consultation with the respective domestic private sector, a pragmatic prioritization of required improvements may thus be expedient.

Improving the investment climate

The 2010 Ministerial Statement adopted at the 3rd Joint Annual Meetings of the African Union Conference of Ministers of Economy and Finance and the UNECA Conference of Ministers of Finance, Planning and Economic Development recognizes the importance of a good business environment for promoting domestic as well as foreign investment. This reflects the fact that Africa's relatively burdensome regulatory environment increases trade costs and militates against the development of competitive manufacturing firms in the region. While this is just one of the many obstacles to investment in the region, there is the recognition by African policymakers that it has to be dealt with to enhance prospects for manufacturing development. In this regard, efforts should be strengthened to reduce the regulatory and administrative burdens associated with investment in the region. In addition, the sectoral dimension of investment climate perceptions and requirements should also be taken into consideration.

F. FINANCING INDUSTRIAL DEVELOPMENT: WHERE WILL THE RESOURCES FOR INDUSTRIALIZATION COME FROM?

As African countries design and implement industrialization programmes and policies, they are beginning to come to grips with the realization that it is not a costless endeavour. It requires the mobilization of resources to finance public investments in key priority areas, particularly infrastructure, education and technology acquisition. It also requires private investments in the industrial sector. In this regard, the degree to which African countries are successful in achieving their industrial development objectives will depend in part on the extent to which they are able to mobilize the required resources and channel them into productive investments in priority sectors. Consequently, African countries should pay attention to both resource allocation and resource mobilization issues in the design and implementation of policies to support their industrial development programmes.

In principle, African countries could finance their industrial development programmes through various sources: domestic savings; borrowing from banks and finance institutions; FDI; harnessing South–South cooperation as a potential source of development finance; and encouraging traditional donors to direct more official development assistance (ODA) towards promoting industrial development in the region. However, given the heterogeneity of African countries, there will be differences across countries in the degree of reliance on each of these potential sources of finance.

Strengthening domestic resource mobilization

Industrial development will have a better chance of success if there is local ownership of the process and outcome. Experience has shown that reliance on external sources of finance can limit the government's policy space and its ability to adopt alternative development paths and lead the development process. Consequently, for countries that have a choice, domestic resource should be the preferred source of financing industrialization programmes. However, apart from the resource-rich economies, most countries in the region have very small domestic savings and will need to exploit other sources of development finance for industrialization. In 2009, gross domestic savings as a percentage of gross domestic product was 16 per cent in sub-Saharan Africa, compared with 27 per cent for East Asia and the Pacific, 20 per cent for Europe and Central Asia, and 23 per cent for Latin America and the Caribbean.¹⁴ Factors constraining savings mobilization in the region include the low level of income, which means a low tax base; reliance on a narrow set of taxes; inefficient tax administration; political instability; and the low level of financial development (UNCTAD, 2009b). High tax evasion, due in part to dissatisfaction with the quality of public spending (or services) is also a factor.

African governments should enhance the domestic mobilization of private and public savings by instituting fiscal reforms, making more efficient use of public resources and developing and enhancing access to financial institutions. They should strive to maintain political stability, stem capital flight and adopt a cautious and gradual approach to trade liberalization to ensure that it does not erode the fiscal base. Many African countries rely on trade taxes as a major source of government revenue. For instance, in countries such as Benin, Togo, Madagascar, Swaziland, Lesotho, Uganda, Namibia, Sierra Leone, and Liberia, trade taxes accounted for more than 40 per cent of fiscal revenues in 2008. As these countries participate in the Doha Round trade negotiations or the economic partnership agreements

with the European Union (EU), they should be mindful of the fact that the outcome will have serious consequences for government revenue, at least in the short run. Therefore, as they negotiate it is important that they leave themselves some policy space (or flexibility) to enhance capacity to support their industrial development programmes.

The resource-rich countries, for example, Algeria, Equatorial Guinea, Gabon, Libyan Arab Jamahiriya and Nigeria, face a less binding finance-constraint than the resource-poor countries because they derive significant revenue from natural resources, especially in the context of rising commodity prices. If their export revenue is channelled into investments in infrastructure, education and technology acquisition, they are likely to make significant progress in inducing structural change and lay the foundation for high and robust growth. In this regard, a major challenge facing resource-rich countries is how to put in place mechanisms for checks and balances to ensure that policymakers do not mismanage natural resource wealth. Transparency in the management and use of resource wealth is one way to reduce rent-seeking and ensure that revenue from commodity booms are harnessed and channelled into productive activities. The Extractive Industries Transparency Initiative designed to ensure that the extractive industries are subject to public scrutiny should be supported and more countries be encouraged to participate in it. The media also has an important role to play in promoting transparency and ensuring that natural resource wealth is not squandered. However, journalists in Africa pay very little attention to the operations of the extractive industries, due in part to poor knowledge of the sector, inadequate resources for research and in-depth coverage, and lack of journalistic freedom (Canonge and Purcell, 2010). It would be desirable for the international community to provide training and support to the media to enhance their ability to cover the operations and activities of the sector.

Borrowing from banks and finance institutions

The investments required for industrial development can also be financed through borrowing from domestic and international financial markets. But commercial banks tend to focus on short-term lending, while industrial development requires long-term finance. Furthermore, African countries face high-risk premiums and have difficulties raising money in international financial markets. Consequently, if borrowing is to play an important role in financing industrialization in the region, it has to come from development finance institutions. National development banks

have been important sources of lending for industrial development in industrialized developing countries in Asia and Latin America. They also played important roles in directing credit to priority sectors in several African countries until they were disbanded, mostly in the 1980s, following the adoption of structural adjustment programmes. African countries should either re-establish or strengthen existing development banks to enhance domestic entrepreneurs' access to long-term finance. In doing so, however, governments should establish well-defined criteria for lending by these banks as well as put in place a mechanism to monitor and evaluate their performance.

Regional institutions such as the African Development Bank, the African Finance Corporation and the Development Bank of Southern Africa can also contribute to the process. They are already playing important roles in financing infrastructure investments in the region. African countries should make more efforts to harness the resources of these institutions to unlock the region's industrial potential. Multilateral development finance institutions could also provide finance for Africa's industrialization. However, although they have more resources than the national and regional institutions, they tend to link loan disbursements to policy conditions that often hamper the ability of recipient countries to adopt the development path they deem necessary. Consequently, for African countries that have a choice, preference should be for the national or regional option.

Attracting foreign direct investment

Foreign direct investment is a potential source of finance for industrialization in the region. It can also provide access to required skills and technology especially at the early stages of industrialization. There is evidence that Africa is increasingly tapping into this source of development finance. For example, FDI flows to the region increased from \$2.8 billion in 1990 to \$58.6 billion in 2009 and its share of global FDI flows rose from 1.4 per cent to 5.3 per cent over the same period. Although the region's share of global FDI is small, FDI is increasingly an important source of investment in the region. The share of FDI in gross fixed capital formation surged from 3.2 per cent in 1990 to 24.1 per cent in 2007.

In terms of value, FDI flows to Africa tend to be concentrated in the mining industry. However, there is evidence that significant investment activities are also taking place in manufacturing. For instance, over the period 2003–2009, the manufacturing sector accounted for about 41 per cent of the total number of

Greenfield investment projects in Africa (UNCTAD, 2010a). One of the challenges facing African countries is how to channel more FDI into priority sectors, such as manufacturing, deemed critical for their industrialization. The tendency has been for African countries to respond to this challenge by offering generous incentives to foreign investors. However, it has not had the desired effect in terms of inducing structural transformation and industrialization. It would be desirable if African countries adopted a more targeted approach to the use of incentives to ensure that they attract FDI into priority sectors without eroding the fiscal base. The promotion of FDI should not be done at the expense of domestic investment. There is also a need for African countries to encourage joint ventures and hence create linkages between FDI and the domestic economy.

Seizing new opportunities created by South–South cooperation

The increasing role of developing countries in global finance, trade, investment and governance has opened new opportunities for economic cooperation between Africa and non-African developing countries. The large developing countries such as Brazil, China, India, and Turkey, have relatively large financial resources as well as appropriate skills and technology that African countries could benefit from by strengthening partnerships. Although data constraints do not allow for a comprehensive estimate of the scale of resource flows from developing countries to Africa, there is some evidence that they are increasingly important sources of official flows and investment to the region (UNCTAD, 2010b). Infrastructure is one area where Africa's developing-country partners, particularly China, are making significant contributions that could have a positive impact on the region's quest for industrialization. Over the period 2001–2007, China's infrastructure finance commitment in sub-Saharan Africa increased from \$470 million to \$4.5 billion. India, Kuwait, Saudi Arabia and the United Arab Emirates are also making significant investments in infrastructure in Africa (UNCTAD, 2010b).

Using official development assistance in support of industrial development

Unlike the resource-rich African countries, the resource-poor countries in the region tend to have low domestic savings and face difficulties accessing international capital markets. For this group of countries, access to ODA could make their finance constraint less binding and provide some finance for industrial development. For ODA to play this role, however, a substantial part of it would

have to be allocated by donors to supporting industrial development. At the moment, industrial development is not on the priority list of traditional donors, since industry accounts for an insignificant share of ODA flows to the region. Gross ODA disbursement for industry by members of the OECD Development Assistance Committee as a percentage of their ODA disbursement in Africa for all sectors was about 0.8 per cent for the period 2004–2008. This partly reflects the increased emphasis by traditional donors on the social sectors since the adoption of the Millennium Development Goals in 2000. If ODA is to play a positive role in economic transformation in Africa, then it must be redirected by donors towards supporting industrial development and the development of productive capacity.

Africa is a major recipient of ODA flows, particularly from the Development Assistance Committee. Aid flows to the region increased from \$15.6 billion in 2000 to \$44 billion in 2008, representing an increase in the region's share of total ODA from 31 per cent to 34 per cent. There are concerns that the devastating impact of the recent financial crisis on OECD economies may result in a decrease in ODA to developing countries in the short to medium term. To the extent that this fear materializes, it could make ODA a less attractive source of finance. While ODA can and has played a useful role in promoting Africa's development, it should be recognized that it is often associated with policy conditions that may make it difficult for recipient countries to lead and own the development process (UNCTAD, 2006). Furthermore, it is a very volatile and unpredictable form of development finance (Bulir and Hamann, 2006). Consequently, African countries should take this factor into account as they seek finance for their industrial development programmes.

G. THE ROLE OF REGIONAL INTEGRATION

The responsibility for industrial development rests primarily with national governments. However, regional integration has enormous potential to contribute to the realization of national industrial development objectives (UNCTAD, 2009a). Globalization has led to the intensification of competition in global markets, implying that if African countries are to make any significant progress in penetrating export markets for manufactures, they would have to take proactive steps to reduce both the direct and indirect trade costs facing domestic firms in the region. Available evidence indicates that the indirect costs stem largely from poor infrastructure, high regulatory burden, and political instability (Ramachandran, Gelb and Shah 2009; Bigsten and Soderbom, 2009).¹⁵ In each of these areas, regional integration has an

important role to play in lifting the constraints. For instance, regional cooperation in the development of infrastructure would lower transactions costs, enhance the development of regional markets, and make manufacturing production and exports more competitive. Regional integration can also contribute to reducing the regulatory burden facing African firms by, for example, harmonizing policies and serving as an external agency of restraint on domestic policies. In this context, the recent adoption of the West African Common Industrial Policy by the Economic Community of West African States (ECOWAS) Council of Ministers is welcome (box 2).

Regional integration is an effective vehicle for promoting peace and security which are necessary conditions for the sustainability of industrial development. Regional institutions played a key role in defusing political crises in Liberia, Sierra Leone, Kenya and Zimbabwe. They are also involved in resolving recent political turmoil in Madagascar, Cote d'Ivoire and Libyan Arab Jamahiriya. By enhancing prospects for peace and security, regional integration reduces uncertainties associated with investment, thereby encouraging enterprise and entrepreneurship development in Africa.

Box 2. The West African Common Industrial Policy

On 2 June 2010, in Abuja, Nigeria, the ECOWAS Council of Ministers adopted the West African Common Industrial Policy (WACIP) and directed the ECOWAS Commission to take steps to ensure its implementation. The adoption of WACIP is a bold step by ECOWAS member States to exploit their comparative advantages and complementarities and to promote industrial development. The specific objectives of WACIP are as follows:

To diversify and broaden the region's industrial production by progressively raising the processing of export products by an average of 30 per cent by 2030;

To progressively increase the manufacturing industry's contribution to regional GDP to an average of over 20 per cent in 2030, from its current average of between 6 and 7 per cent;

To improve intra-community trade from the present 13 per cent to 40 per cent by 2030;

To expand the volume of exports of manufactured goods from West Africa to the global market from the current 0.1 per cent to 1 per cent by 2030.

ECOWAS was formed in 1975 and has 15 members, namely, Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, the Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

Source: <http://allafrica.com/stories/printable/201006110544.html>

Regional integration can also facilitate the development of financial markets and improve access to credit, enhancing the competitiveness of domestic manufacturing firms. Recent surveys of African firms indicate that access to credit is a major obstacle to investment in the region. This constraint is also reflected in the reliance of most firms in the region on internal sources of finance for their operations (Ramachandran, Gelb and Shah, 2009). Reasons for lack of access to credit by African firms include underdeveloped financial markets, high collateral requirements, the high cost of credit, the lack of credit history and crowding-out associated with public-sector debt.

Building a robust regional market is critical to unlocking Africa's manufacturing potential and preparing it to compete in global export markets. In particular, given the region's current lack of competitiveness in the global market for manufactures and the positive role that regional integration could play in addressing the issue, African countries should adopt an industrialization and export strategy that emphasizes the regional market as an engine of growth. This is important because it is evident that if African countries are to succeed in increasing their share of global trade, they will have to focus on rapidly growing export markets or those with high potential for future growth. The bulk of Africa's exports go to developed countries, rather than the fast-growing economies of the world. In 2009, developed countries accounted for about 60 per cent of Africa's total merchandise exports. Asia accounted for 24.3 per cent, while Africa accounted for 12.3 per cent and Latin America, 3.1 per cent. The low share of intra-African trade in Africa's total exports is disturbing, given that the region is one of the rapidly growing regions of the world. Over the period 2001–2010, 6 of the 10 fastest-growing economies in the world were in sub-Saharan Africa.¹⁶ Furthermore, growth forecasts indicate that sub-Saharan Africa will account for 7 of the 10 fastest-growing economies over the period 2011–2015. African countries are increasingly diversifying their exports towards Asia in order to take advantage of the growing export market. However, the African regional market potential remains largely untapped, as evidenced by persistently low intra-African trade.

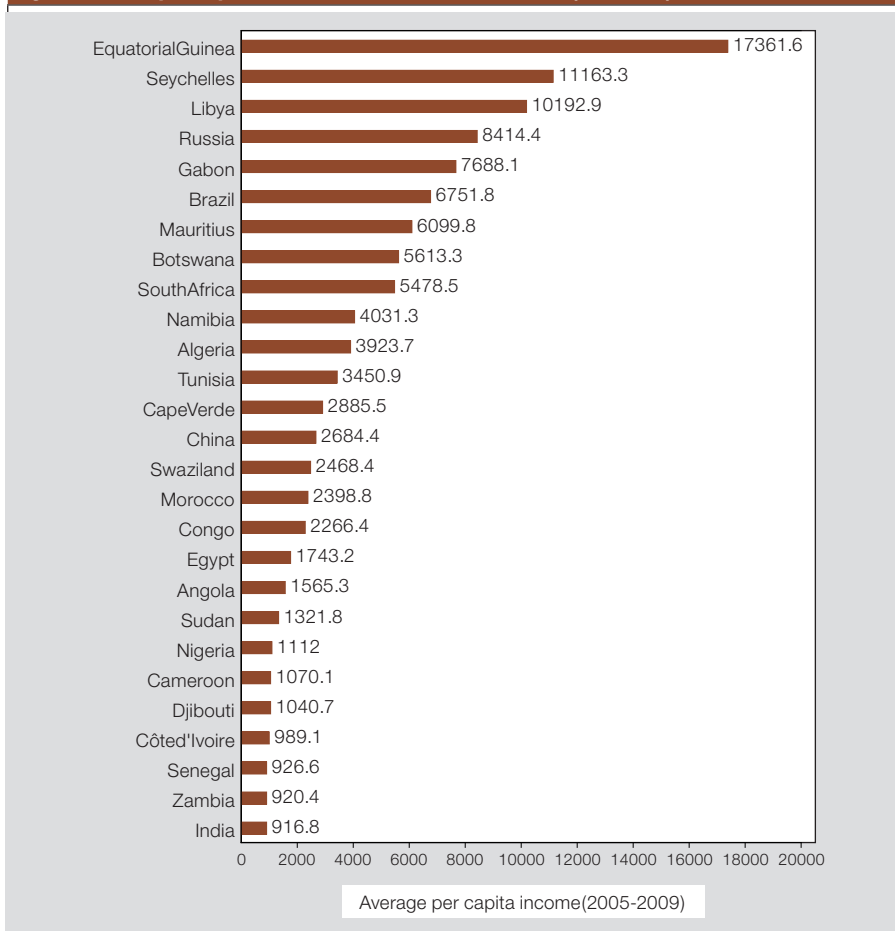
Another reason why African countries should exploit the regional market as a basis for fostering industrialization is that, unlike other regions, Africa has a rapidly growing population, which combined with high income growth, will make it an important source of export demand in the medium to long term. Over the period 1975–2009, Africa's population grew at an average annual rate of 2.6 per cent, well above the world average of 1.5 per cent. Furthermore, recent population

projections indicate that Africa will grow by 2.7 per cent over the period 2009–2050 (United Nations, 2009). In contrast, Europe's population is expected to decline by 0.3 per cent, while Asia is projected to grow by 0.9 per cent, Latin America and the Caribbean, by 0.9 per cent, and North America, by 0.7 per cent. Based on these projections Africa's share of world population will increase from about 15 per cent in 2009 to 27 per cent by 2050. In contrast, other regions will experience either a decrease or no change in their share of world population. These projections imply that if present trends continue, Africa will increasingly be a significant source of consumer demand in the world economy.

The regional market can also be a force for industrial development in Africa because, unlike Africa's exports to the rest of the world, which is skewed towards commodities and against manufactures, the share of manufactures in intra-African exports is quite high. In 2009, manufactures accounted for about 40 per cent of intra-African exports, while their share of Africa's exports to the rest of the world was about 18 per cent. This suggests that African countries can enhance the likelihood of achieving their industrialization objectives if they use the regional market as a mechanism for enhancing trade and coping with the challenge of globalization. Such an approach will permit African firms to exploit economies of scale and garner the experience they need to successfully face global competition.

It is often argued that Africa currently has low per capita income and so its rapid population and income growth may not necessarily translate into an increase in purchasing power. This line of thought is understandable, but flawed for at least two reasons. First, it ignores the fact that Africa is a heterogeneous continent made up of small, big, low- and middle -income countries. For the period 2005–2009, average annual per capita income in the region ranged from a low of \$129 in Burundi to a high of \$17,362 in Equatorial Guinea. Furthermore, several countries in the region have per capita incomes higher than that of the BRIC countries – Brazil, the Russian Federation, China and India. For instance, over the period 2005–2009, 3 African countries had average per capita income greater than that of the Russian Federation, 4 had per capita income greater than that of Brazil, 11 had per capita income greater than that of China, and 23 had per capita income greater than that of India (figure 10).

Figure 10. GDP per capita in Africa and the BRIC countries (in dollars)



Source: UNCTAD/UNIDO.

Second, although Africa has low per capita income compared with other regions, its purchasing power is rising and it currently has one of the fast-growing and dynamic consumer markets (BCG, 2010). Recent projections indicate that if the region maintains an average growth rate of 5 per cent, consumer spending will rise from \$860 billion in 2008 to \$1.4 trillion in 2020 (MGI, 2010). Most of the projected increase will be due to a rising African middle class with more discretionary or non-basic-needs income. In particular, the share of African households with discretionary income is projected to rise from 35 per cent in 2000 to 52 per cent in 2020.
