It's What You Make, Not How You Make It: Why Africa Needs a Strategy for Structural Change

John Page, Senior Fellow, Global Economy and Development, Brookings Institution

In poor countries, what the economy makes matters as much for growth as how it makes it. Structural change—the shift of resources from low-productivity to high-productivity sectors—is as important as new technology. In a rapidly growing economy, technical change and structural change work together. In Africa they do not. Technical progress in Africa has been good, but structural change has moved in the wrong direction; resources have shifted from high-productivity to low-productivity sectors. The result is that Africa has created too few good jobs for its rapidly growing population. Today, less than 20 percent of young Africans find wage employment.

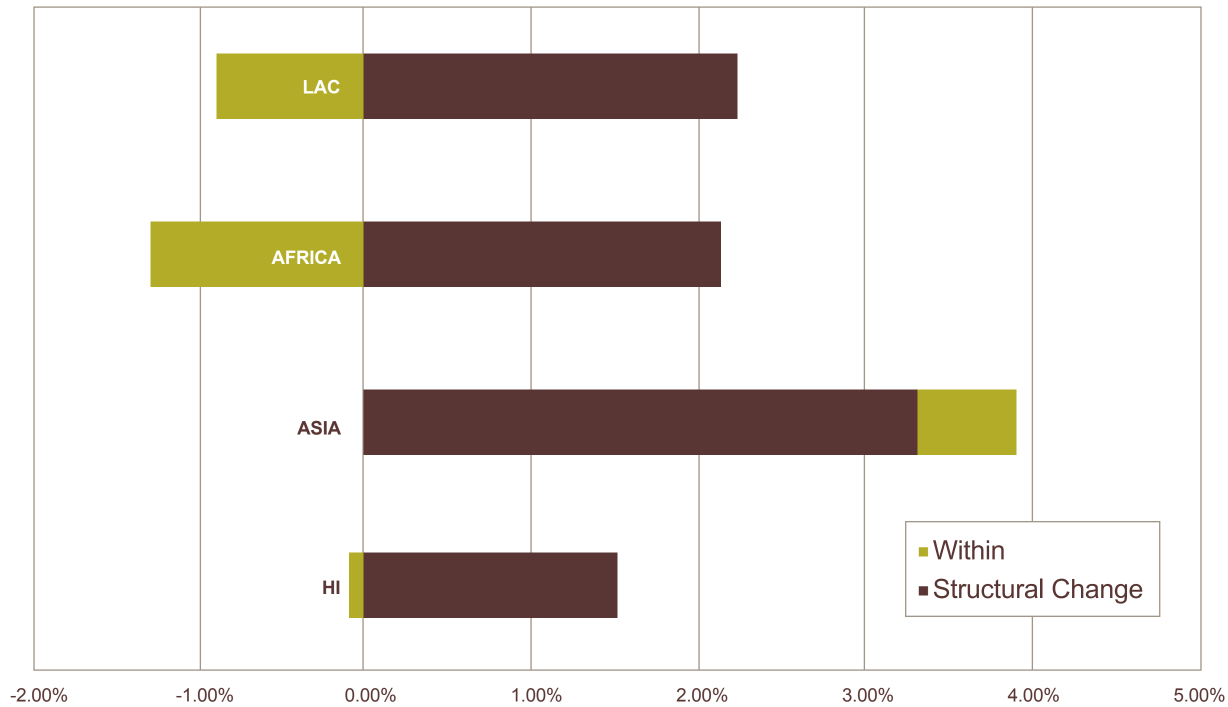
To deal with its jobs crisis, Africa needs to close its "structural deficit." It has too little structural change because it has too little industry. And new technologies will not help very much. Access to technology—in the narrow sense of production or process technology—does not constrain industrial investment in Africa. Rather, a new development strategy—one that boosts private investment in globally competitive industries—is urgently needed.

A first step is to reorient private sector development initiatives away from low-impact regulatory reforms toward relieving Africa's infrastructure and skills constraints. Beyond that, to attract competitive investments, Africa must master three global drivers of industrial location: task-based exports, agglomerations, and firm capabilities. This will require new policies and new investments to create an "export push," build globally competitive special economic zones and attract foreign direct investment (FDI) outside mining and energy. Governments will need to do most of the heavy lifting, but the donor community can help by changing aid priorities and introducing supportive trade policies.

WHAT IS THE ISSUE?

In poor countries, w*hat* the economy makes matters as much for growth as *how* it makes it. Differences in structural change—the shift of resources from low-productivity to high-productivity sectors—account for

FIGURE 1. "PERVERSE" STRUCTURAL CHANGE HAS SLOWED PRODUCTIVITY GROWTH IN AFRICA



Source: McMillan and Rodrik (2011).

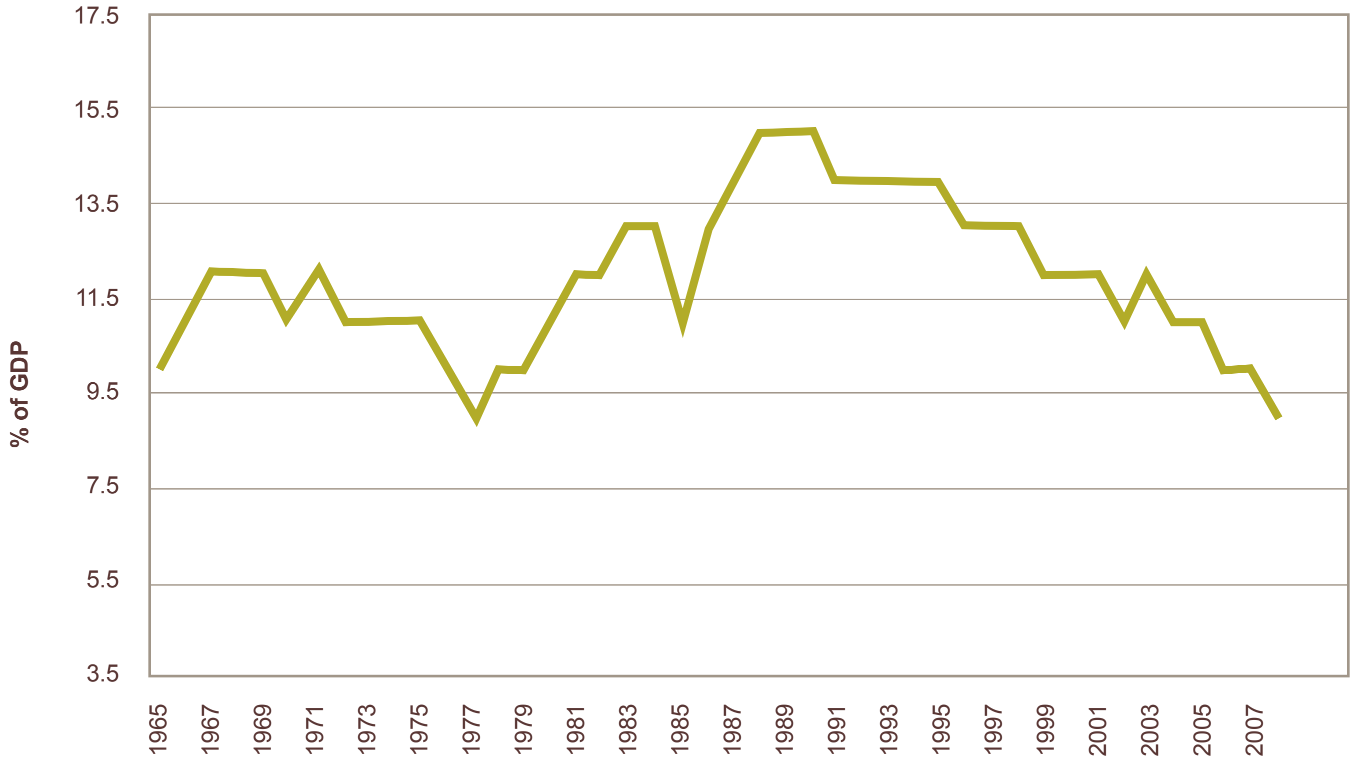
more of the differences in growth and employment creation between countries and regions than do differences in production technology.

A recent paper (McMillan and Rodrik 2011) illustrates this point. Productivity change can be split into two components. The first takes place within sectors. Broadly, this captures improvements in technology and business practice. The second reflects the reallocation of labor across sectors; this is structural change. In a rapidly growing economy—such as those in East Asia—the two components work together (see figure 1). But in Africa they do not. Africa has rates of within-sector productivity growth that exceed the advanced economies and equal Latin America, but the movement of workers from higher- to lower-productivity sectors has largely offset these gains.

Put simply, structural change in Africa is moving in the wrong direction. This is not merely of academic interest; it has a human cost. Africa is creating too few jobs capable of paying decent wages for a rapidly growing population. In North Africa and in Southern Africa, this has resulted in alarmingly high rates of open unemployment, especially among the young. Across the rest of the continent, workers are trapped in low-productivity agriculture or are forced into low-wage, informal employment. Today, less than 20 percent of young Africans find wage-paying jobs.

To deal with its jobs crisis, Africa needs to close its "structural deficit." In low-income countries with sustained economic growth, coupled with rising employment and increasing real wages, manufacturing and modern services (relatively high-wage sectors) grow rapidly. Africa, in contrast, has become deindustrialized. The region's share of manufacturing in gross domestic product (GDP) is less than half the average for all developing countries, and it is declining (figure 2). Per capita manufactured exports are less than 10 percent of the developing country average, and Africa's share of global manufactured exports is less than 0.2 percent.

FIGURE 2. MANUFACTURING AS PERCENTAGE OF GDP SUB-SAHARAN AFRICA



Note: Low-income countries only.

Source: World Bank, "World Development Indicators."

Today, Bangladesh produces more manufactured goods than all of sub-Saharan Africa.

Africa needs more private investment in globally competitive industries—broadly defined as agroprocessing, manufacturing and tradable services. Despite recent growth, private investment has remained at about 11 percent of GDP. This is well below the levels found in East Asia—especially during periods of rapid structural change (table 1). And, while there has been a modest increase in FDI, it has been in mining and minerals. African industry has not been attractive to local or global investors because it has not been judged to be globally competitive.

TABLE 1. PRIVATE INVESTMENT AS A SHARE OF GDP, 1990–2009

Group or Region	1990–94	1995–99	2000–4	2005–9
Africa, low-income countries	10.2	11.2	11.1	11.8
Africa, middle-income countries	14.6	14.5	13.8	15.8
East Asia	24.9	19.9	12.4	16.8
Low-income countries	10.0	11.5	12.9	15.4
All developing countries	13.7	14.5	14.0	16.6

Note: Entries are five-year averages in percentages.

Sources: World Bank, "World Development Indicators"; World Bank national accounts data; and Organization for Economic Cooperation and Development National Accounts data files.

Better technology is not the answer. In most industries in low-income countries, technology—in the narrow sense of production or process technology, the "hardware" of the firm—can be imported, either directly from equipment suppliers or indirectly through FDI. Since the mid-1990s, the World Bank has conducted surveys of more than 20,000 firms in 20 African countries. Not a single survey has identified a lack of access to technology as a binding constraint on industrial investment. It is policies, institutions and capabilities—software, not hardware—that is lacking. And though it is possible to define some institutional innovations or improvements in management practice as "soft" technologies, such definitional gymnastics do not add much to our understanding of what is needed to accelerate structural change.

WHAT NEEDS TO HAPPEN, AND WHY

A new approach to development in Africa is urgently needed—one that centers on boosting private investment in globally competitive industry. It must encompass two sets of public actions. One is largely noncontroversial: policy reforms and investments directed at private sector development. But efforts to increase private investment overall will not be sufficient. A second and potentially more controversial set of interventions—designed to influence where new investment goes, a strategy for structural change—is essential.

Refocusing "Investment Climate" Reforms

Since the 1990s, efforts to boost private investment in Africa have focused on the "investment climate"—the regulatory, institutional and physical environment within which firms operate. By the accounting of the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development, about one-quarter of official development assistance, some $21 billion per year, currently supports investment climate improvements. In practice, most of the attention has been directed at easily measured but low-impact reforms of trade, regulatory and labor market policies intended to reduce the role of government in economic management. Although such reforms may do no harm, they have diverted the attention of policymakers and donors alike from two more binding constraints to investment: a lack of infrastructure and skills.

In some product lines, such as garments, African enterprises have factory floor costs comparable to Chinese and Indian firms. They become less competitive because of higher indirect costs, many of which are attributable to poor infrastructure (Eifert, Gelb and Ramachandran 2005). Africa lags at least 20 percentage points behind the average for low-income countries on almost all major infrastructure measures. The quality of service is low, supplies are unreliable, and disruptions are frequent and unpredictable.

The lack of relevant skills also constrains industrial development. Africa's skills gap vis-à-vis the rest of the world is large and growing. Postprimary education in Africa suffers from limited funding, limited access and poor quality. Employer surveys report that African tertiary graduates are weak in problem solving, business understanding, computer use and communication skills. On the positive side, there is evidence that enterprises managed by university graduates in Africa are more competitive and have a higher propensity to export.

Setting New Objectives: Exports, Agglomerations and Capabilities

During the past quarter century, as Africa has deindustrialized, Asia has become the "world's factory." Three interrelated drivers of industrial location have largely determined Asia's rise and Africa's decline: success in task-based exports, rapid growth of industrial agglomerations, and the ability to attract and transfer firm capabilities (UNIDO 2009). Piecemeal investment climate reforms, even broadly defined to include infrastructure and skills, are unlikely to prove sufficient to address these.

For the vast majority of African countries, exports are the only path to industrialization. Trade in tasks is a potential entry point to the export market. As transportation and coordination costs have fallen globally, it has become efficient for different stages of production, or tasks, to be located in different places. The rapid growth of manufacturing and exports in Asia reflects its success in mastering task trade. Very little task-based production takes place in Africa. To attract investors, Africa will need an "export push"—a focused set of public investments, policy reforms and institutional innovations to remove the constraints to exporting.

Industries usually concentrate in clusters. Because of the productivity boost that such industrial agglomerations provide, starting a new industrial location is a form of a collective action problem. If a critical mass of firms locates in a new area, they benefit from productivity gains, but no single firm has the incentive to move in the absence of others. Africa has few modern industrial clusters, making it both more difficult for existing firms to compete and more difficult to attract new industry. Governments can foster agglomerations by concentrating investment in high-quality institutions, social services, and infrastructure in a special economic zone (SEZ). This has been one of the keys to rapid growth of industry and jobs in Asia.

In most industries, productivity and quality depend on the "tacit knowledge" or "working practices" of the firm's workforce. These "firm capabilities" largely determine the ability to compete globally. In poor countries, higher capabilities most often come with FDI, but they can also come from other sources, such as supplier–purchaser relationships or management training. The spillover of capabilities to other firms occurs mainly through supply chain relationships. Public policy can influence both. Investment climate reforms make it easier to attract FDI. Governments can also work with the private sector to build effective foreign investment promotion agencies and encourage the formation of linkages, knowledge sharing and management training.

RECOMMENDATIONS AND NEXT STEPS

Changing development priorities in Africa will not be easy. The U.N. Millennium Development Goals, after all, do not reward productive private investment. African governments will need to do most of the heavy lifting; implementing a strategic approach to global competitiveness is far more demanding than carrying out piecemeal investment climate reforms in response to local and donor pressures. However, the international community will also need to play a new role.

Investing in Infrastructure and Skills

Closing Africa's infrastructure gap will require about $93 billion a year, which is roughly 15 percent of the region's GDP. It is clearly unrealistic in the current global fiscal environment to count on African governments or aid to fill the financing gap. New approaches and products are needed. Guarantee instruments could leverage limited public financing by reducing the perceived risk of private debt financing for infrastructure. Greater cooperation and coordination between DAC donors and nontraditional donors, like China, could improve the focus and efficiency of resource use. The Infrastructure Consortium for Africa, if properly funded and used, could lead this effort.

Financing an expansion of postprimary education presents at least as daunting a challenge as closing the infrastructure gap. The current funding gap for education across Africa has been estimated to be anywhere between $6 billion and $29 billion. DAC donor commitments to all levels of education in Africa only approach $4 billion. Confronted with the rising unit costs of primary education and the limited prospects for external finance, it is time to replace the primary education Millennium Development Goal with a more broad-based measure of human capital.

Creating an Export Push

Institutional reforms and improved trade logistics are central to the export push. Surveys of manufacturing firms highlight a number of areas where regulatory or administrative burdens fall especially hard on exporters. Port transit times are long, and customs delays on both imported inputs and exports are significantly longer for African economies than for Asian competitors. Export procedures can also be burdensome. African countries rank at the bottom of the World Bank Trade Logistics Index.

Because so many African countries are landlocked, their competitiveness depends fundamentally on their coastal neighbors. Africa's multiple regional organizations have failed to address the institutional and physical constraints to trade through regional policy reforms and investments. Africa's development partners have failed to support regional integration, preferring instead to deal with individual countries, not regional organizations. Both will need to work together to create regional trade-related infrastructure and institutions.

Africa's success in boosting industrial exports may ultimately depend as much on the actions of its international partners as on its own efforts. Aid for Trade has the potential to improve trade logistics, but its share of total development assistance has fallen steadily since 1996. This will need to be reversed. A simple, time-bound system of preferences for Africa's nontraditional exports to high-income countries could ease entry into task-based exports. A sensible place to begin would be for the European Union and the United States to harmonize their individual preference programs for Africa—respectively, under the Economic Partnership Agreements and the Africa Growth and Opportunities Act—and to liberalize rules of origin.

Building Industrial Clusters

Africa's experience with spatial industrial policy has been largely unsuccessful. A recent review concluded that most African SEZs have failed to reach the levels of physical, institutional and human capital needed to attract global investors (Farole 2011). The first order of business is, therefore, to upgrade Africa's SEZs to international standards. African governments have generally regarded SEZs as enclaves. This will need to be reversed, and SEZ programs will need to be integrated within broader investment promotion and industrial development programs. Business support services, training, and skills upgrading are also critical to success. This is an area where a public–private dialogue to identify key performance bottlenecks and partnerships to address them could be particularly effective.

China—drawing on its own success with spatial industrial policies—has recently launched an initiative to build export-oriented SEZs in Africa. This represents an opportunity to use Chinese investment and expertise to overcome the collective action problem. The DAC donors—which have neglected SEZs as a development tool—should learn from the Chinese experience.

Strengthening Capabilities

Today, the vast majority of Africa's foreign investment promotion efforts fall short of international best practice. Often, agencies lack the active support of the head of state. Personnel practices and compensation policies are not sufficiently attractive to make it possible to recruit high-caliber staff, and agencies are frequently burdened with multiple objectives. All these deficiencies can be addressed with political will and donor support. Donors can also help "import" global best practices by supporting networks of related manufacturing companies to share advice on achieving international standards for the quality of production.

Another promising area for capability building is management training. The World Bank and the Japan International Cooperation Agency have undertaken pilot projects in which management training programs are provided free of charge to small entrepreneurs. These training programs have measurably improved management practices, including through spillovers from the training participants to nonparticipants. Recent controlled experiments with management training programs among large firms in India raised average productivity by 11 percent through improved quality and efficiency and reduced inventory. This is an area where governments, donors and the private sector can collaborate.

A FINAL NOTE

The question of whether governments can successfully implement strategies for industrial development is at the heart of the ill-tempered debate over industrial policy. What is often overlooked is that governments make industrial policy every day, through public expenditure choices, and institutional, regulatory and international economic policy changes. These decisions favor some enterprises or sectors at the expense of others. The relevant question is: Do they reflect a coherent strategic focus? In Africa they have not, and this needs to change.

REFERENCES

Eifert, Benn, Alan Gelb and Vijaya Ramachandran. 2005. "Business Environment and Comparative Advantage in Africa: Evidence from the Investment Climate Data." In *Proceedings of the Annual Bank Conference in Development Economics*, edited by François Bourguignon. Washington: World Bank.

Farole, Thomas. 2011. *Special Economic Zones in Africa: Comparing Performance and Learning from Experience.* Washington: World Bank.

McMillan, Margaret, and Dani Rodrik. 2011. *Globalization, Structural Change and Productivity Growth.* NBER Working Paper 17143. Cambridge, Mass.: National Bureau of Economic Research.

UNIDO (United Nations Industrial Development Organization). 2009. *Industrial Development Report, 2009: Breaking In and Moving Up—Industrial Development Challenges for the Bottom Billion and the Middle Income Countries.* Geneva: UNIDO.