

# DYNAMIC INDUSTRIAL POLICY IN AFRICA



ECONOMIC REPORT ON AFRICA



United Nations  
Economic Commission for Africa



African Union

2014



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## LIST OF ABBREVIATIONS USED

Aft	Aid for Trade
AIDS	Acquired Immune Deficiency Syndrome
AIEC	Automotive Industry Export Council
ARV	Antiretroviral
AUC	African Union Commission
BMN	Skills Upgrading Bureau
BOI	Board of Investment
BRICS	Brazil, Russia, India, China and South Africa
CABs	Conformity Assessment Bodies
CAGR	Compound Annual Growth Rate
CAR	Central African Republic
CNES	Senegalese National Confederation of Employers
CSP	Customized Sector Programme
DBM	Development Bank of Mauritius
DGI	Directorate General for Industry
DRC	Democratic Republic of Congo
DTI	Department of Trade and Industry
ECA	United Nations Economic Commission for Africa
EDB	Economic Development Board
EDPRS	Economic Development and Poverty Reduction Strategy
EIU	Economist Intelligence Unit
EM	Enterprise Mauritius
EPU	Economic Planning Unit
EPZ	Export processing zone
EPZA	Export Processing Zone Authority
EU	European Union
FDI	Foreign direct investment
FIDEN	Ivorian Fund for the Development of National Enterprises
FOSAD	Forum of South African Director Generals
GDP	Gross domestic product
GEAR	Growth, Employment and Redistribution
GLP	Good Laboratory Practice Act
ICP	Industrial Competitiveness Programme
IDB	Industrial Development Bureau
IDEC	Industrial Development and Export Council
IDPDD	Industrial Development Policy Development Division
IFIs	International financial institutions
ILO	International Labor Organization
IMF	International Monetary Fund
IMP	Industrial master plan
IPAP	Industrial Policy Action Plan
IPO	Industrial policy organization
JEC	Joint Economic Council
KIPI	Kenya Industrial Property Institute
KIRDI	Kenya Industrial Research and Development Organization
LCCI	Lagos Chamber of Commerce and Industry
MCCI	Mauritius Chamber of Commerce and Industry
MEXA	Mauritius Export Association



MITI	Ministry of International Trade and Industry
MOI	Ministry of Industry and Mines
NAAMSA	National Automobile Association of Motor Vehicle Manufacturers of South Africa
NAEB	National Agricultural Export Development Board
NEDLAC	National Economic Development and Labour Council
NES	National Export Strategy
NIPF	National Industrial Policy Framework
ODA	Official development assistance
PIACs	Presidential Investors' Advisory Councils
PMN	Skills Upgrading Programme
PMPA	Pharmaceutical Manufacturing Plan for Africa
PND	National Development Plan
PPN	Primary Policy Network
PPP	Public-private partnership
PSF	Private Sector Federation of Rwanda
R&D	Research and development
RBS	Rwanda Bureau of Standards
RHODA	Rwanda Coffee Authority and Rwanda Horticulture
SADC	Southern African Development Community
SANAS	South African National Accreditation System
SARS	South African Revenue Service
SME	Small and medium-size enterprise
SMEDA	Small and Medium Enterprises Development Authority
SNDES	National Economic and Social Development Strategy
SPN	Secondary Policy Network
SRTC	SME Resource and Technology Centre
SYB	Start Your Business
TFP	Total factor productivity
TIPS	Trade and Industrial Policy Strategies
TISA	Trade and Investment South Africa
UN	United Nations
UN-DESA	United Nations Department of Economic and Social Affairs
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
UNCTAD	United Nations Conference on Trade and Development
US	United States
WEF	World Economic Forum
WTO	World Trade Organization



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## FOREWORD

Africa's recent impressive economic performance continued despite subdued global economic activity and is expected to accelerate further in the medium term. Africans are eager to see this growth sustained, accelerated and translated into new employment opportunities, secure incomes and improved livelihoods. But the growth so far has not been inclusive, and structural transformation on the continent remains limited. Africa's commodity- and investment-driven expansion has not created the jobs to meet the continent's growing young population, and this growth path has left the continent vulnerable to external commodity prices, demand shocks and internal weaknesses.

Industrialization is key for Africa to foster structural transformation and improvement in standards of living. Yet industrialization has remained elusive, with an embryonic manufacturing sector, low productivity and marginal participation in domestic and international markets. While services have surpassed agriculture and industry as the leading income-generating sectors across Africa, this has not created the quantity or quality of jobs likely to result from manufacturing and labour-intensive production.

The 2014 Economic Report on Africa builds on the previous year's report, which made the case for commodity-based industrialization. It calls on the continent to refocus its economic development strategies on industrial-

ization, particularly on the means for formulating and implementing effective industrial policy. In the past, most African countries pursued industrial policy with mixed results. It is now time to reactnowledge that state support is vital to address market failures and spur industrialization—and to institutionalize industrial policy in national and regional development strategies at the highest levels of government. Yet the state's role is different from a direct producer of goods.

The report emphasizes that African governments should not repeat the errors of the past. They used industrial policy tools ranging from tax credits to export subsidies and export processing zones. But these often followed a "blueprint approach" of adopting formulaic

interventionist packages, with little private and other non-governmental input. A more holistic alternative would build strong and inclusive institutions for industrial policy and ensure that they interact regularly and harmoniously. A strong institutional setting will allow the correct and collective identification of constraints and the formulation of smart policy interventions that are dynamic and refined to deal with the ever-changing needs of industry in an ever-changing global economy.

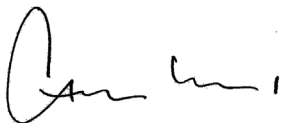
The report is based on commissioned studies of industrial policy frameworks in 11 African countries. The focus was on identifying the challenges and pitfalls faced in designing and implementing industrial policy and how they have been overcome. Studies of coun-

tries that have successfully built strong institutions are drawn from within and outside of Africa. They show that success depends on allowing industrial policy organizations to be dynamic and organically connected to the myriad of processes and players underlying industrialization.

High-level political support and coordination for industrial policy is a necessary first step. Institutionalized dialogue with the private sector, and addressing capacity constraints and bottlenecks, are vital for establishing strong processes and mechanisms for policy-making. The report finds that industrial policy organizations can avoid being structurally hollow and dysfunctional by expanding at rates consistent with their underlying capacities, financing

and political support. Putting in place incentive structures for firms to expand production and investment in vital and high growth potential industries is a key function of effective industrial policy organizations, as is monitoring and ensuring that the support goes to its intended purposes. States must also address gaps in infrastructure (including energy), skills, financing and other constraints identified directly by industrial stakeholders.

We hope that this report serves as a guide to building dynamic industrial policy institutions, processes and mechanisms—with the goal of generating a prosperous industrial sector that fosters structural transformation and inclusive development.



**Carlos Lopes**

United Nations Under-Secretary-General and  
Executive Secretary of UNECA



**Nkosazana Dlamini-Zuma**

Chairperson  
African Union Commission



# EXECUTIVE SUMMARY

## INDUSTRIALIZING FOR STRUCTURAL TRANSFORMATION IN AFRICA

One of the most puzzling paradoxes over the last decade is that Africa has benefited from unprecedented growth while a large part of its population remained trapped in economic poverty, facing rampant unemployment and inequality. The continent has averaged 5 per cent a year growth over the last decade, with some countries returning more than 7 per cent. Underpinning this growth were relatively high commodity prices, increased domestic demand (due especially to increased private investment in infrastructure and energy) and improved economic governance and management.

The contribution from industrialization was minimal, however. The continuing apparent disconnect between strong commodity-driven economic growth and employment and social development has been exacerbated by the failure of most African economies to structurally transform. The failure to experience inclusive growth has been reinforced by several developments in the world economy—particularly volatile commodity prices—highlighting the perils of strong economic growth without concurrent industrial development and structural transformation.

**Structural transformation is associated with the reallocation of resources, especially new investments, from low to higher productivity activities and sectors**

Structural transformation is associated with the reallocation of resources, especially through new investment, from low to higher productivity activities, typically from agriculture to industry and modern services, leading to higher economy-wide productivity and progressively raising income. Much of Africa, however, has seen the opposite, as resources moved from higher to lower productivity sectors, slowing growth in national productivity. Factors of production such as labour have shifted notably from agriculture and manufacturing to

services—harming productivity and in some cases curtailing employment in both agriculture and manufacturing and frequently cutting the contribution of manufacturing to the continent's GDP and employment over the last decade.

Partly for this reason, African countries remain marginal players in domestic and international markets for their manufactured goods, with a negligible share of manufactured exports in world exports, compared even against other developing countries.

All this is worrying, as industry—manufacturing particularly—has traditionally been a source of substantial employment generation in developed countries and more recently in developing economies. Industrialization is thus a precondition for Africa to achieve inclusive economic growth.

Africa's share in global trade is also way below potential, at around 3.3 per cent, and its exports are dominated by oil, metals and minerals. Intra-African trade remains low versus other regions (about 11.5 per cent in 2012, though informal trade lifts the figure) and is hindered by steep intra-African trade barriers. Yet intra-African trade is far more industrialized than Africa's trade with the rest of the world, suggesting that boosting intra-African trade can contribute to industrialization. Other encouraging news, given the crucial role of services in development, is the buoyant expansion of Africa's service exports: exports of commercial services, for example, have nearly tripled in the last decade.

But we cannot forget that a majority of Africans still depend on agriculture for their livelihoods, and thus enhancing its performance is central to sustainable poverty reduction. Beyond increased agricultural income, effects on the wider economy of a more prosperous agricultural sector include strengthened backward linkages and greater demand for industrial products.

Managing these change processes is fundamental to structural transformation and inclusive development. Economic advancement does not occur in a vacuum, despite the claims of some proponents of market reform, as market forces alone cannot sustain increases in a country's income and development. Countries that industrialized required far-sighted and cogent state efforts to address market failures and promote restructuring.

To enhance its industrial development, Africa too needs to follow this line, ensuring credible industrial policy and the right conditions for it, led by the state machinery of industrial policy organizations (IPOs)—though debate resounds on the best approach for developing countries (box 1).

Against this backdrop, the Economic Report on Africa 2014 focuses on how to build innovative, effective and flexible IPOs and mechanisms to enhance industrialization and structural transformation in Africa. It hones in on the answers to three basic questions:

- Why, along a broad historical perspective, has industrial policy been ineffective in Africa?
- How have IPOs operated and how have they affected industrial development in Africa?
- How do African countries formulate strategies for building and operating effective IPOs?

This report builds on previous work by the United Nations Economic Commission for Africa and the African Union Commission as published, for example, in two recent Economic Reports on Africa—2011, which focused on the role of the state in economic transformation, and 2013, which ran the theme of commodity-based industrialization.

Market failure is one of the most important reasons for limited economic transformation and slow growth in Africa, coupled with governments' inability to act. Three key types of market failure are commonly recognized. First, there are those that relate to self-discovery externalities where the social value of an activity exceeds its private worth. The key barrier is the

information needed to determine how new products can be produced profitably in the economy.

Second, there are also failures linked to coordination externalities. "Lumpy" parallel investments are often needed to accompany economic activities upstream and downstream. Decentralized markets do a very poor job of coordinating these.

### **ERA 2014 focuses on how to build innovative, effective and flexible industrial policy institutions, processes and mechanisms to enhance industrialization and structural transformation in Africa**

The third aspect concerns the missing inputs from the public sector, which could include everything from transport to laws and to research and development specific to an industry.

African government intervention through industrial policy can help spur structural transformation by addressing these market failures. The approach followed by policy-makers, academics and other industrial stakeholders has been to identify key general constraints and devise broad policy interventions to alleviate them. Unfortunately, these responses have rarely focused on the institutions governing industrial policy, or on the impact that weaknesses in these institutions have on their own ability to operate in a coordi-

#### **BOX 1: KEEP OR SHIFT—OR COMBINE EFFECTIVELY?**

The question of whether developing countries should industrialize along their current comparative advantages or defy these static comparative advantages and shift resources to new high-tech industries at an early stage of development has long been debated. Lin (2012) argued that governments should first align their industrial policies with their resource base and level of development and subsequently invest in new industries as they accumulate human and physical capital. In contrast, Chang (2012) argued that in view of the high cost of moving capital from relatively low to high tech industries, industrial policy should encourage investment in high-productivity industries at an early stage of development.

The Economic Report on Africa 2013 (ECA and AUC, 2013) argued, however, that these strategies are not mutually exclusive, and that commodity-based industrialization can be a stepping stone to diversifying over the long term and building competitive advantages in resource-rich countries.

Further, any policy mix of the two requires direct state interventions, hence more recently the debate has shifted to focusing on institutions and mechanisms that ensure these actions' effectiveness.



nated, dynamic framework. Indeed, weak institutional structures and poor policy design have been at the root of Africa's industrial policy problem throughout its post-independence history.

Thus once the need for intervention is accepted, the focus falls on how to design IPOs capable of supporting industrial transformation. So, beyond an analysis of the problems of industrialization in Africa, and based on the experience of successfully industrializing countries in the global south, this report offers an institutional framework for designing and implementing industrial policy in Africa. Many of the elements in this framework originated from 92 interviews held in 11 countries, with interviewees in four groups, depending on their level and type of involvement in industrial policy and business. Country case studies, too, provided many examples of how institutional frameworks operate and how failures were overcome or avoided. The findings and their policy implications are now summarized.

## **BUILDING DYNAMIC INDUSTRIAL POLICY FRAMEWORKS ORGANICALLY**

Successful frameworks for industrial policy are organic and dynamic, and should avoid blueprints and goals that are largely donor driven. A blueprint approach is where industrial policy consists of standard packages of predefined policies copied from other country settings. Industrial policy should though be dynamic, and IPOs must have the ability and motivation to constantly adapt to the changing needs of the industrial sector. Some IPOs performed disappointingly and failed to respond to changing circumstances, while some lacked autonomy from overseeing ministries and failed to consult the private sector in strategy development. In other cases, priorities have been set by donors rather than arising organically from interaction of the key players in the economy. Corruption, lack of funding and poor operations further inhibit success.

## **ENSURING HIGH-LEVEL COORDINATION AND POLITICAL SUPPORT**

The industrial policy framework requires top-level coordination to properly deal with potential problems that undermine the efficiency of industrial policy. Some countries suffer from coordination failure in the upper reaches of the government and bureaucracy, leading to IPOs disconnected

from the private sector, communicating badly and lacking the backstop of political will—all of which may generate short-term shifts in policy and undermine the long-term investment climate. Worse, ministries (and their parastatals) may have conflicting goals, or policies may be designed along sectoral lines. And even with an apex coordinating unit, policy can fail because of a lack of political support for either the creation or implementation of political policy.

In contrast, successful governments often form high-level units with representatives from the private sector and state, involving the private sector in identifying recommendations for policy. The upper echelons of successful countries understand the need for systematic coordination and regularly incorporate the private sector and encourage super-ministerial collaboration.

## **LETTING THE PUBLIC AND PRIVATE SECTORS DIALOGUE**

Such systematic private sector representation in IPOs allows governments and IPOs to remain adaptable to the changing needs of the private sector. Feedback points to the steps needed to resolve private sector concerns, such as financial shortages or lack of infrastructure. Successful industrial policy in African countries has rapidly created IPOs to fill the gaps, as seen by the private sector, in the industrial policy framework.

## **GRANTING EMBEDDED AUTONOMY TO BUREAUCRACIES**

Successful IPOs have “embedded autonomy”. Embeddedness among IPO officials means that they understand the industry and have built relations with private stakeholders, improving their ability to collect information (and as seen, allowing businesses to be part of the policy loop). Autonomy is needed to ensure that bureaucrats are not “captured” by any special interest groups, to strive for the development goals of the whole country. Indeed, some claim that balancing autonomy and embeddedness on the part of government officials is far more important than the final policy choices.

Thus bureaucrats conducting industrial policy should be insulated from political pressure and selected through competitive recruitment and well-defined career paths that make politically motivated hiring and firing difficult—ideally, impossible.



### TRANSCENDING ORGANIZATIONAL IMPERFECTIONS

Operational failures hinder IPOs due to poor target setting, monitoring processes and incentive structures. One crucial dimension is the failure to develop—and then monitor—contingent rents (policies to increase private sector profits that are linked to undertaking the expansion of production and investment), which incentivize the private sector to follow the IPO's interventions.

Operational failures can also arise from “structural hollow-ness”—a mismatch between resources and responsibilities. So although many African countries have no IPO or it has the wrong mandate, some operating IPOs cannot provide the services. The more successful economies carefully match the two sides, or have evolved to focus on a tighter range of services.

### STARTING WITH POCKETS OF EFFICIENCY

From the above, it stands that IPOs should be developed in line with the political commitment they get, and their capacities and resources. But with little experience and a narrow funding base, most IPOs need to start slowly, developing “pockets of efficiency” to demonstrate the effectiveness of industrial policy and initiate the institutional processes that can be drawn on later if successful.

### BUILDING COALITIONS

Still, these pockets need the support of the ruling elites that deem certain policies instrumental to strengthening their economic or political power. Thus successful industrial policy also requires a confluence of interests among the elites, which is particularly important when businesses pursue new economic activities where the risks are high, sunk costs large and the need for government support great.

### PLANNING COHERENTLY FOR DEVELOPMENT

One way to coordinate industrial policy with other macro-economic issues—exchange rate, monetary and fiscal policies; infrastructure strategy; and investment-climate measures—is through development planning. This is a

purposive governmental mapping to coordinate economic decision making over the long run and to achieve a pre-determined set of development objectives.

### ENHANCING TECHNOLOGY TRANSFER, INNOVATION AND COMPETITIVENESS

Increasingly sophisticated productive capabilities are needed to produce internationally competitive goods and services. But although Africa is moving, many other economies are moving faster: the 2012-2013 Global Competitiveness Index places 14 of the 20 least competitive countries in Africa. It attributes this to weak institutions, infrastructure deficits, limited technological advancement and too few skills for a knowledge economy. African countries need to respond at once, and effectively.

**Industrial policy should be dynamic and IPOs must have the ability and motivation to constantly adapt to the changing needs of the industrial sector**

### CREATING POCKETS OF INFRASTRUCTURE

Industrial growth requires modern infrastructure and logistics. As with the earlier pockets of efficiency, governments with few resources should create “pockets of infrastructure” focused on sectoral or clustering needs of industrial expansion. Industrial parks are one approach, providing high potential for growth and value addition as well as for solid linkage development and related spillovers among companies, suppliers and service providers—even government institutions. Domestic technologies should play a key part here.



## RESPONDING TO CLIMATE CHANGE

Climate change could hobble Africa's economic growth momentum as the continent attempts to switch to industrialization and economic transformation. But it could also provide an opportunity: Africa has vast renewable energy resources of hydropower, geothermal, biomass, wind and solar. And as Africa is not locked in any technology preferences, it can follow a green and clean industrializing energy pathway and leapfrog old carbon-intensive models.

## FOCUSING ON GROWTH POLES

A key element of any regional strategy is a focus on growth poles, because economic growth usually occurs in regions or industries (poles) and not throughout the economy. In this approach, the growth pole consists of a concentration of productive economic activity in a region that can foster growth in peripheral regions through positive spillovers and backward and forward linkages. The objective of growth pole strategy is not to address market failures but to capitalize on resources already in place.

## CAPITALIZING ON TRADE

Countries that industrialize, also trade. And as intra-African trade is far more oriented towards industrial products and diversified than extra-African trade, measures to boost the former can help the continent industrialize. African governments need to bring down the current very high trading costs, and make efforts to formalize informal traders, especially women. In addition, African countries need to boost the development impact of trade negotiations and agreements, continentally and globally. To this end, countries should develop greater capacity to coordinate, negotiate and lobby for lower tariffs on imported intermediate inputs.

## FINANCING INDUSTRIALIZATION

Most of the above policy reforms, and all of industrialization, will cost. African economies therefore need to find new sources of finance and make better use of existing resources, as they already do with infrastructure investment.

The success of industrial policy projects depends heavily on African countries securing public and private finance in priority areas, especially infrastructure, education and tech-

nology acquisition. A further, untapped, area is the pharmaceutical industry, which is expected to burgeon in the next few years as Africans become richer and seek greater access to medicines. Governments should promote better access to credit, especially for small and medium-size enterprises, which will improve prospects for expanding and diversifying output.

## FINALLY.....

The exact design of national industrial policy will vary among countries, based on the needs of the private sector, resource attributes and national development objectives. The key is to institutionalize industrial policy so it becomes part of the regular decision-making mechanism of government and becomes no different from more broadly accepted responsibilities such as monetary and fiscal policy. Doing this, African governments will have to ensure that the economic benefits are not captured by special interest groups, but are spread inclusively among the whole population.

**The exact design of national industrial policy will vary depending on the needs of the private sector, resource endowment, and national development priorities, among other factors**





# CHAPTER

# 1

## **RECENT ECONOMIC AND SOCIAL DEVELOPMENTS IN AFRICA AND MEDIUM-TERM PROSPECTS**

Global growth of gross domestic product (GDP) continued to decelerate in 2013, mainly owing to subdued global demand. The euro area finally came out of a protracted recession, and growth strengthened in the United States (US) and Japan and stabilized in most emerging and developing economies (box 1.1). The global economy is projected to strengthen over the medium term with growth rebounding in major economies such as the US and Japan and continued robust growth in some emerging economies such as China.

Africa's growth slowed from 5.7 per cent in 2012 to a projected 4.0 per cent in 2013, still almost twice the global average, but slightly lower than the average for developing countries. Africa was surpassed only by East and South Asia, which grew at 5.6 per cent in 2013.<sup>1</sup> Africa's expansion was underpinned by sustained relatively high commodity prices, increased domestic demand (due especially to higher private investment in infrastructure and energy) and improved economic governance and management in African countries.

Despite softening global commodity prices, Africa's export performance continued its post-2011 improvement in absolute terms, thanks to rising commodity exports and diversifying trade partners, though low export-product diversification and high dependence on primary commodities are still major constraints to Africa's external trade. Intra-African trade remains low, largely because of high trading costs exacerbated by inefficiencies in customs and administrative procedures.

### **Industrialization is an imperative for Africa to foster structural transformation, job creation and reduce inequality and poverty**

Even with the improved export and still-strong growth performance, Africa's financing gap remains large, against a backdrop where the global economic slowdown and more stringent budgetary consolidation in many donor countries are expected to affect official development assistance (ODA) to the continent. Africa's economic transformation thus has to rely increasingly on domestic sources of finance, and

### **At 4.0 per cent in 2013, Africa's growth remains robust and stands at nearly twice the global average**

African countries need to develop innovative approaches to development financing from both internal and external sources.

Africa's medium-term growth prospects are strong, bolstered by relatively high commodity prices, increasing domestic demand, easing infrastructural constraints, ever-tighter trade and investment ties with emerging economies, and improving global economic and regional business environments. A moderate global growth recovery in the medium term—underpinned by expansion in industrial production and trade in emerging economies led by China and by projected faster growth in the US, European Union and Japan—should also stimulate growth in Africa through increased trade and investment flows. Still, the continent's medium-term growth outlook faces several downside risks, including unexpected adverse developments in the global economy, external shocks due to changes in weather conditions, and political instability and civil unrest in some countries.

To translate rapid economic growth into sustained and inclusive development, Africa must follow through on development strategies that foster economic diversification, create jobs, reduce inequality and poverty and boost access to basic services. It can only do this through the structural transformation of its economies, which requires a healthy population with high-quality and relevant skills, particularly as the contribution of manufacturing—a traditional source of substantial employment in developed and developing countries alike—to GDP and employment has stagnated, or worsened. As elaborated throughout this report, African countries thus need to embrace industrial strategies that spur industrialization and economic transformation.



# 1.1 AFRICA'S GROWTH PERFORMANCE

## MODERATING GROWTH SET TO PICK UP AGAIN

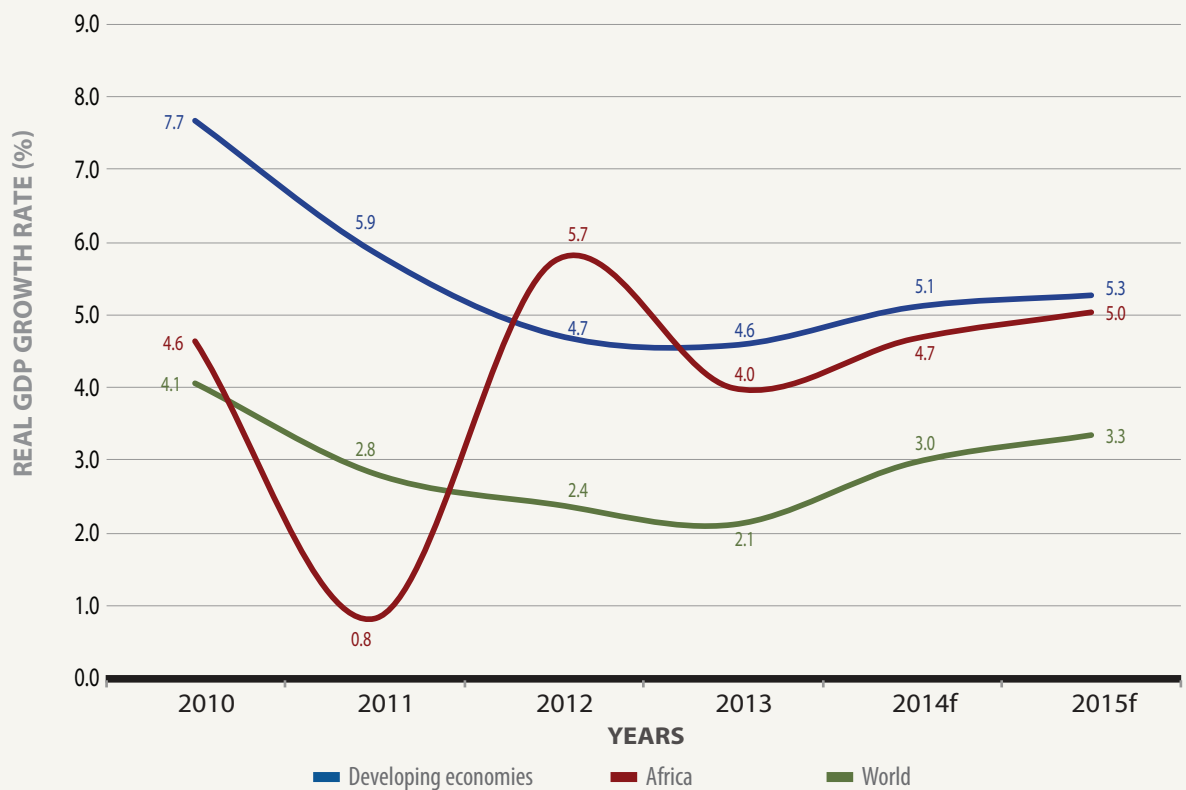
Africa's GDP growth slowed from 5.7 per cent in 2012 to 4.0 per cent in 2013, against developing economies' average of 4.6 per cent (figure 1.1). The slowdown was mainly due to weakened global demand following the financial and debt crisis in the euro area, sluggish growth in some emerging economies and political instability and civil unrest in major commodity-producing countries, especially in Central and North Africa. Growth in Africa continued to benefit from relatively high commodity prices, increased trade and investment ties with emerging economies, greater domestic demand underpinned by new, urbanizing consumers with rising incomes, and public spending on infrastructure. Improved economic governance and management were mirrored in generally

stable fiscal and current account balances, which supported macroeconomic stability and improved investment environment in many African countries.

In particular, improved economic governance and management contributed to growth by encouraging private demand (especially domestic and foreign investment demand), increasing government outlays on infrastructure and social services and diversifying production and exports. Continental growth in 2013 was also buttressed by increased agricultural output, given favourable weather conditions in most areas. As highlighted later, Africa continued to attract strong capital inflows (including FDI, remittances and ODA).

GDP growth is projected to accelerate to 4.7 per cent in 2014 and 5.0 per cent in 2015 on the back of continuing relatively high commodity prices and increasing domestic demand. An expected firmer global recovery in 2014, bolstered by robust growth in industrial production in emerging and developing countries led by China, should also stimulate growth in Africa through increased trade, investment and capital flows.

FIGURE 1.1: GDP GROWTH, 2010–2015



Source: UN-DESA (2014).  
Data updated 9 January 2014

TABLE 1.1: DISTRIBUTION OF GROWTH PERFORMANCE IN AFRICA, 2011–2013 (NUMBER OF COUNTRIES)



Source: Calculations based on EIU Database and UN-DESA (2014).  
 Note: Calculations exclude South Sudan.

## STRONGER GROWTH IN COUNTRIES RICH IN OIL AND MINERALS

In 2013, although GDP growth was relatively strong across Africa, it showed some divergence between oil-exporting and oil-importing countries (table 1.1). Around half of African countries grew at 5 per cent or more in 2013, a higher share of countries than in 2011 and 2012. Relatively high commodity prices, improved economic governance and macroeconomic management and more diversified sources of growth propelled growth in many of these countries.

Growth in oil-exporting African countries fell from 9.9 per cent in 2012 to 4.7 per cent in 2013 (figure 1.2).<sup>2</sup> A recovery accounted for the unusually high growth in 2012, while the decline in 2013 was, in addition to the high base, mainly due to subdued global demand as well as disruptions in oil production and political unrest in some of Africa’s major oil-producing economies such as Libya. Despite their sharp drop in growth, these countries stayed among the leading drivers of Africa’s weighted growth in 2013 with oil alone contributing about 24 per cent of the continent’s total growth.<sup>3</sup> Oil-importing countries grew at 3.7 per cent in 2013, up from 3.1 per cent in 2012.<sup>4</sup>

Mineral-rich economies saw growth of 3.8 per cent in 2013, after 3.7 per cent in 2012 (figure 1.2).<sup>5</sup> In resource-rich and

resource-poor African countries, growth was also driven by strong expansion in services and agriculture.

Growth is expected to accelerate in oil-exporting countries to 6.5 per cent with a slight decline to 5.9 per cent in 2015, while in mineral-rich economies it will accelerate to 4.4 per cent in 2014 and to 4.7 per cent in 2015, as stability returns to Egypt, Libya and Mali. The forecast pick-up also reflects investment and production at new mineral sites in Sierra Leone (iron ore and diamonds), Zambia (copper), Botswana (copper, coal and diamonds), Namibia (uranium and diamonds), Angola (coal) and Ghana and Liberia (gold).

Oil-importing economies are also expected to record strong growth at 4.1 per cent in 2014 and 4.3 per cent in 2015, mainly driven by robust expansion in services and agriculture, assuming favourable weather conditions.

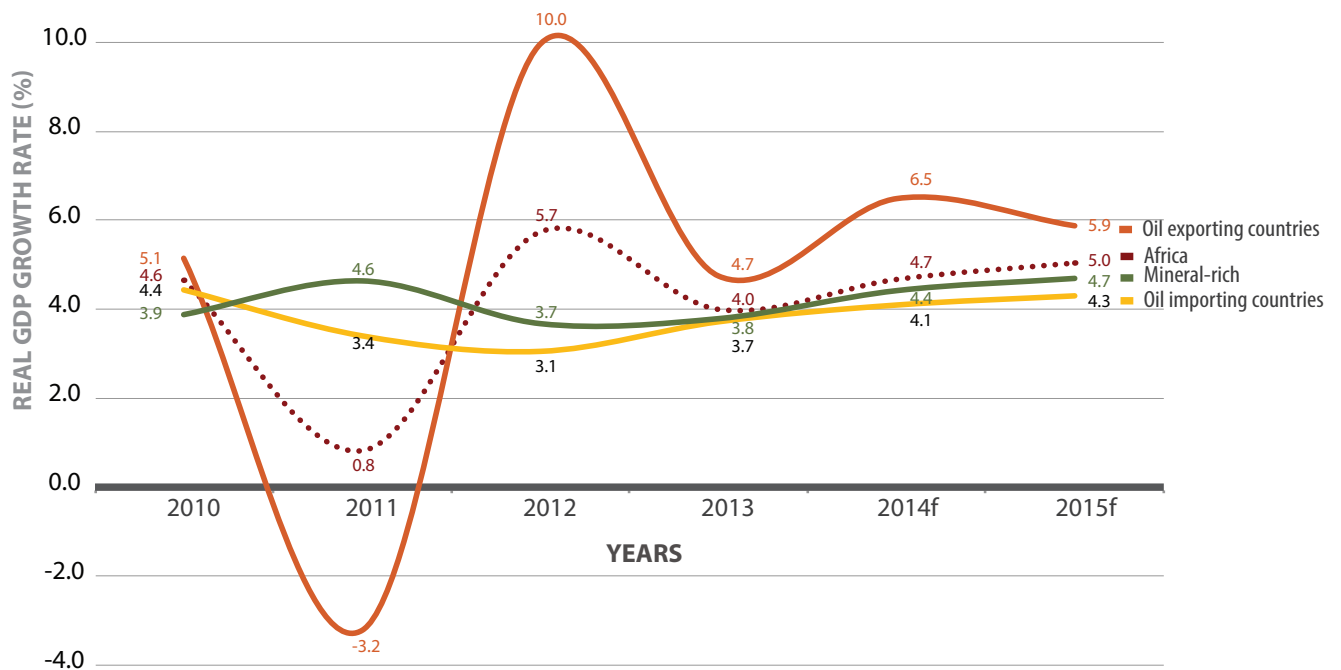
## SUBREGIONAL OUTCOMES

Growth varied among Africa’s subregions in 2013 slightly more than in 2012, but remained respectable in all (figure 1.3). West Africa led, though its growth rate remained unchanged at 6.7 per cent in 2013. The subregion still attracts investments in the oil and mineral sectors, which are a key source of growth especially in Burkina Faso, Ghana, Guinea, Liberia, Niger, Nigeria and Sierra Leone.





FIGURE 1.2: AFRICA'S GROWTH PERFORMANCE BY ENDOWMENT GROUPING, 2010–2015



Source: UN-DESA (2014).

**BOX 1.1: SALIENT DEVELOPMENTS IN THE WORLD ECONOMY IN 2013**

**Global and regional growth performance**

Global economic growth decelerated to 2.1 per cent in 2013, but this is projected to rebound to 3.0 per cent in 2014 and 3.3 per cent in 2015,<sup>1</sup> owing to increased economic activity in the US and euro area, as well as stabilizing growth in most emerging economies, notably China. The European Union contracted by 0.1 per cent in 2013 but is forecast to expand by 1.4 per cent in 2014 due to increased exports and business confidence. Among the larger economies, Germany grew by 0.4 per cent in 2013, while France grew by 0.1 per cent and the United Kingdom 1.4 per cent.

Economic growth in the US decelerated to 1.6 per cent in 2013, largely because of fiscal tightening and spending cuts (“sequestration”), political brinksmanship on the government budget, reduced business and entrepreneurial investment and slow recovery of the labour market. The world’s largest economy is projected to grow at 2.5 per cent in 2014<sup>2</sup>, underpinned by a rebound in private consumption, recovering real estate, supportive monetary conditions and easing fiscal consolidation.

Japan’s economy grew at 1.9 per cent in 2013,

following fiscal stimulus packages geared at improving public infrastructure as well as quantitative and qualitative monetary easing, but growth is projected to decline to 1.5 per cent in 2014 with the introduction of a consumption tax and the unwinding of stimulus packages.

Expansion in East and South Asia moderated to 5.6 per cent in 2013, mainly due to decelerating export growth induced by China’s marginal slowdown to 7.7 per cent, which is expected to continue in 2014 with a 7.5 per cent outturn (despite the recent pick-up of export growth and industrial production). India’s growth declined to 4.8 per cent in 2013, owing to a reversal in capital outflows and exchange rate depreciation, though it is projected to return to its potential 5.3 per cent growth path in 2014, underpinned by increased investment and government-backed structural reforms.

Western Asia’s growth slipped a little from 3.2 per cent in 2012 to 3.7 per cent in 2013 as political instability and social unrest, notably in Iraq, Lebanon and Syria, weighed heavily. Latin America and the Caribbean economies grew by 2.6 per cent in 2013, reflecting faltering external demand, low commodity prices and weakening domestic conditions.<sup>3</sup>

**Worsening labour markets**

Global unemployment was 6.0 per cent in 2013, and the number of unemployed is set to rise from 202 million in 2013 to 205 million in 2014 as subdued private capital flows and fiscal austerity continue to restrict investments and job creation (ILO, 2013a). In 2013, the average unemployment rate was 12 per cent in the euro area, with crisis countries such as Greece and Spain registering rates above 25 per cent. Global youth unemployment remains high, and is projected to stagnate at around 12.8 per cent until 2016 as the rebound in global growth will not be enough to lift depressed labour markets.

**Easing inflationary pressures**

Global inflation was 2.5 per cent in 2013, down from 2.9 per cent in 2012, owing mainly to large output gaps in most economies, softening global commodity prices and insipid demand from key emerging markets (UN\_DESA, 2014). It is projected to increase to 2.7 per cent in 2014 with the forecast rebound in economic activity, though prudent monetary and fiscal policies in many countries are expected to keep it in check.



Growth in the subregion's largest economy, Nigeria, remained unchanged at 6.5 per cent, as increases in domestic demand seem to have compensated for a decline in oil output and weaker global oil prices. Investments in oil and mining supported growth in Niger at 5.7 per cent. Côte d'Ivoire posted 8.8 per cent growth driven by large infrastructure projects reflecting a more stable political environment, a more propitious investment climate and greater capital spending by the government. In Ghana, growth stayed robust (8.0 per cent), thanks to higher oil production. Iron ore production remained the main growth driver in Sierra Leone and Liberia, which turned in strong growth of 14.5 per cent and 7.5 per cent, respectively.

East Africa's growth also remained unchanged at 6.0 per cent in 2013. Growth in the subregion's largest economy, Kenya, rose to 5.0 per cent in 2013 from 4.6 per cent in 2012, owing mainly to stronger consumer spending. Tanzania grew at 7.2 per cent in 2013, mainly due to increased private consumption and investment in natural gas. Uganda grew at 5.8 per

### Despite a notable drop in growth, oil-exporting countries stayed among the leading drivers of Africa's growth in 2013, with oil alone contributing about 24 per cent of the continent's growth

cent in 2013, up from 4.4 per cent in 2012, reflecting greater activity in construction, transport, telecommunications and financial services, as well as investments in exploration and construction of the burgeoning oil industry. Expansion in agriculture and services was one of the major factors underpinning Ethiopia's growth of 6.9 per cent in 2013. Growth was also buoyant in Rwanda (7.4 per cent), Eritrea (6.0 per cent—largely due to mining, especially of copper and gold) and, less so, Seychelles (3.2 per cent).

#### Improving fiscal balances amid fiscal consolidation

Fiscal balances continued to improve in almost all major economies and regions, after tight fiscal consolidation and cuts in government spending. Fiscal deficits in advanced countries declined from 5.9 per cent in 2012 to 4.5 per cent in 2013, and a further drop to 3.5 per cent is projected for 2014. The euro area recorded a budget deficit of 3.1 per cent in 2013, despite fiscal austerity measures. The US registered a 5.8 per cent deficit in 2013, which is expected to narrow to 4.7 per cent in 2014 as a result of sequestration.

#### Subdued world commodity prices

The index for all commodity prices calculated by the International Monetary Fund (IMF) was volatile in 2013 and reached its annual high of 191 in February before steadily declining to 184 in December, due to weak global demand and deceleration of economic activity in emerging and developed economies. In 2014, global commodity prices are expected to change little, largely unaffected by growth, though supply constraints may exert some upward pressure.

The IMF's world crude oil (petroleum) index declined from a high of 203 in early 2013 to a low

of 188 mid-year, before accelerating to 199 by December, though this trend is projected to reverse as economic recovery in most economies induces more demand for crude oil. The IMF's agriculture, food and beverage price index declined from an average of 178 in the first quarter of 2013, to an average of 168 in the last quarter, mainly owing to increased food production in most agricultural regions. In 2014, world food prices are expected to continue to slide, though global demand for food and severe weather conditions in the world's major agricultural regions may halt or reverse this trend.

#### Slowing world trade growth but improving current account balances

In 2013, exports grew at only 2.3 per cent by value, down from 3.1 per cent in 2012 as import demand from major developed countries contracted sharply. Current account balances for the major economies and regions improved slightly in 2013, despite slowing international trade and global demand (IMF, 2013).

Global foreign direct investment (FDI) inflows stabilized in 2013 at around 2.3 per cent of world GDP and are expected to rise to 2.4 per cent in 2014. Developed countries and regions such as

the euro area remain the largest recipients of FDI, with Brazil and China, being two of the largest destinations among emerging economies.<sup>4</sup>

#### Medium-term risks and uncertainties

Key risks to the global economy include continued fiscal consolidation and austerity programmes in major developed countries (which have aggravated the already fragile global economy), weakening global demand, financial market turbulence and paltry growth in the euro area. Although the world economy is forecast to rebound slightly in 2014, to be prolonged this growth will need to see global imbalances corrected (especially on trade and international reserves), implementation of fiscal policies improved and long-run structural growth policies consolidated.

Notes:

1. UN-DESA, 2014.

2. UN-DESA, 2014.

3. However, the advanced estimate for the United States GDP shows an annualised growth of 3.2 per cent for the fourth quarter of 2013, higher than the initial estimate, which might lead to a relatively higher annual growth rate and estimate for both 2013 and 2014 respectively (UN-DESA, February, 2014, Monthly Briefing).

4. EIU Database.



Growth in Central Africa slowed from 5.8 per cent in 2012 to 4.2 per cent in 2013, largely owing to political instability and violence, especially in the Central African Republic, where the economy contracted by 8.9 per cent in 2013. In 2013, oil production underlay robust growth in Republic of Congo (6.0 per cent), Gabon (5.5 per cent), Cameroon (5.0 per cent) and Equatorial Guinea (1.8 per cent). The decline in oil production from some of Chad’s maturing, large oilfields cut growth from 5.9 per cent in 2012 to 4.5 per cent in 2013.

**West Africa continued to lead the subregions with 6.6 per cent growth rate in 2013, thanks to investments in the oil and mineral sectors, among other factors**

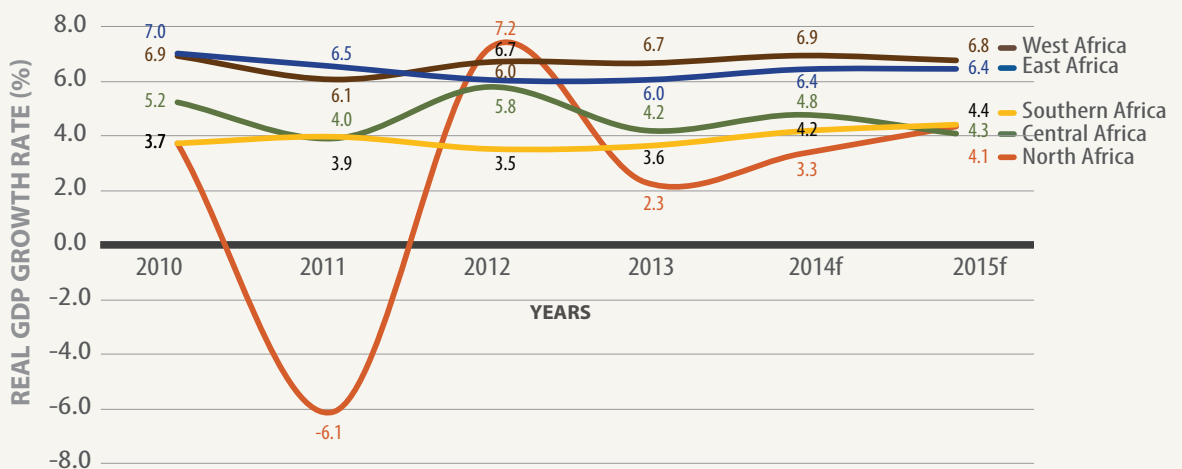
Growth in Southern Africa edged up from 3.5 per cent in 2012 to 3.6 per cent in 2013, mainly due to increased investment in the subregion’s mining sector. South Africa’s recovery (2.7 per cent in 2013 against 2.5 per cent in 2012) was marginal, partly because of labour unrest in mining and the economic slowdown in key emerging markets, the country’s most important export destinations. Zambia, with increased copper production and consumer spending, registered the highest growth in the subregion at 7.7 per cent, followed by Angola’s 6.8 per cent, which as in previous years

relied heavily on oil. Growth in Mozambique decelerated to 6.5 per cent in 2013 from 7.4 per cent in 2012, mainly because of floods in early 2013 that affected agriculture, electricity generation and coal production.

Political instability and disruptions to oil output undermined growth in North Africa—especially Egypt, Libya and Tunisia—cutting it to 2.3 per cent in 2013 from 7.2 per cent in 2012. Mauritania registered the strongest growth at 6.1 per cent in 2013, mainly reflecting increased investment in the oil and mining sectors and donor support. However, Morocco’s growth accelerated to 4.6 per cent in 2013 from 2.7 per cent in 2012, propelled by robust domestic demand and improved agricultural performance. Increased oil production and continued expansionary fiscal policy enabled 3.0 per cent growth in Algeria. Growth continued to weaken in Egypt as aggregate demand, especially investment, and tourism receipts all fell owing to political uncertainty. Instability in Libya hurt oil output and exports, cutting growth to 3.0 per cent (after the prior year’s sharp recovery). Sudan, still absorbing the shocks of oil and population losses to South Sudan, returned to growth (2.0 per cent) after its 2012 contraction (4.0 per cent), reflecting growth in services, agriculture and manufacturing.

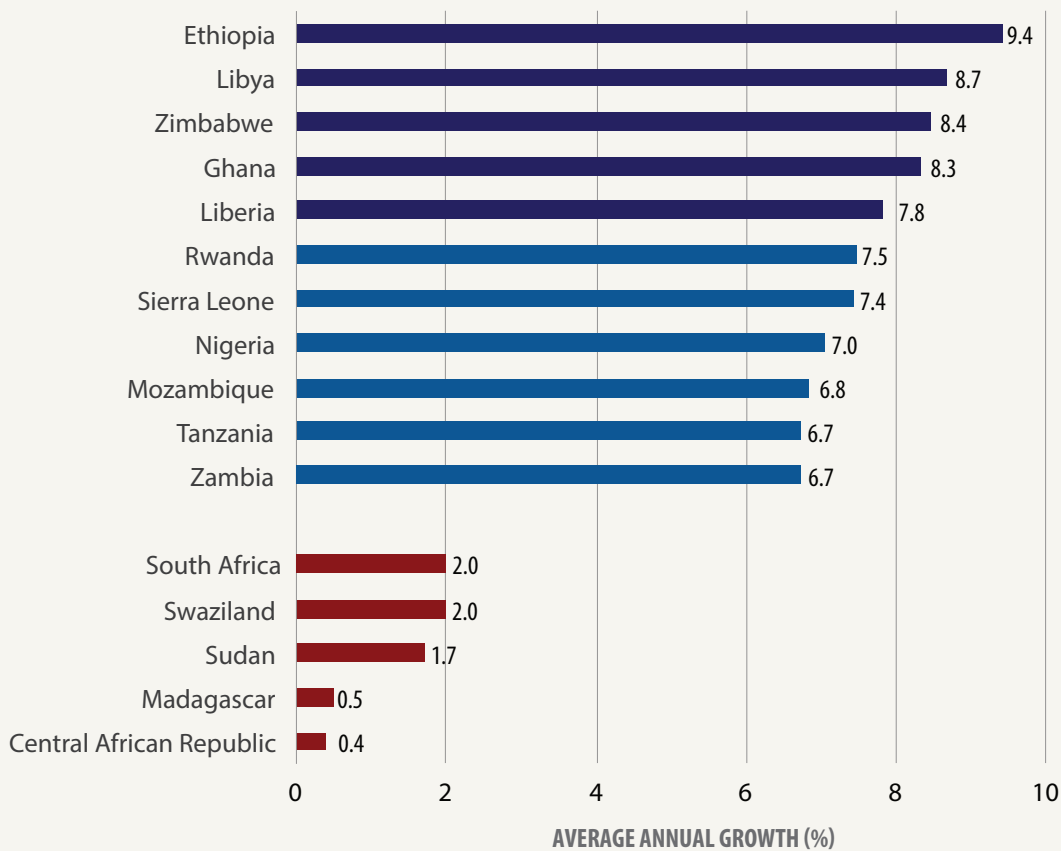
All five subregions are expected to experience robust growth in 2014, led by West Africa. This subregion, growing by 6.9 per cent and 6.8 per cent in 2014 and 2015 respectively, will continue to attract investment in oil and mining—key sources of growth for Burkina Faso, Ghana, Guinea,

FIGURE 1.3: GROWTH BY SUBREGION, 2010–2015



Source: UN-DESA (2014).  
Data updated 9 January 2014

FIGURE 1.4: TOP 11 AND BOTTOM 5 PERFORMERS, 2009–2013



Source: Calculations based on EIU Database and UN-DESA (2014).  
 Note: The average for Sudan includes the years before South Sudan’s independence.

Liberia, Niger, Nigeria and Sierra Leone. East Africa’s growth is expected to accelerate to 6.4 per cent in 2014 and remain unchanged in 2015, mainly due to increased consumption, stronger investment in natural gas and infrastructure and improved performance in agriculture and services.

Growth in Southern Africa is forecast to accelerate to 4.2 per cent in 2014 and 4.4 per cent in 2015, lifted by increased investment in extractive industries. While growth in North Africa is projected to climb to 3.3 per cent in 2014 and 4.3 per cent in 2015 on the assumption that stability returns, growth in Central Africa is expected to pick up to 4.8 per cent in 2014 and then slow to 4.1 per cent in 2015.

## TOP 11 AND BOTTOM 5 PERFORMERS

Over 2009–2013, Ethiopia recorded the fastest growth (9.4 per cent a year) reflecting expansion in services and construction, aggressive public spending on infrastructure and public services, and increasing agricultural production associated with rising domestic demand (Ethiopian Economic Association, 2013; figure 1.4). Next is Libya, which despite strikes and disruptions to oil production still managed to expand by 8.7 per cent, mainly because of hydrocarbons.

The Central African Republic had the slowest five-year growth (0.4 per cent). Political instability and high insecurity affected agriculture (the largest economic sector and main source of employment). Political uncertainty in Madagascar since the overthrow of the head of state in 2009 has similarly kept GDP growth far below potential. Despite the recent increase in Swaziland’s growth owing to increased production in mining, the country’s growth over the last three years has been subdued by a steep fall in manufacturing output, which accounts for almost 45 per cent of GDP.

**With an average growth of 9.4 per cent a year, Ethiopia recorded the fastest growth over the period 2009-2013, while Central African Republic registered the slowest growth over the same period**



## AFRICA'S GROWTH POTENTIAL IS LARGELY UNTAPPED

Africa's output gap—the difference between actual and potential real output as a percentage of potential output using the Hodrick–Prescott filter—was generally negative over 2000–2013, signifying that African countries were underperforming (figure 1.5). (A positive output gap suggests that the economy is operating above its potential.)

During 2009–2013, Africa grew at 3.6 per cent a year, below its concurrent potential of about 4.2 per cent. This gap shows the existence of spare capacity in Africa, suggesting that growth can be fostered with policies that stimulate aggregate demand and trade within Africa and between Africa and the rest of the world. Indeed, efforts to facilitate intra-African trade and enhance access to global markets can help the continent promote growth and diversification and benefit more from expected increases in global economic activity.

## RISKS AND UNCERTAINTIES

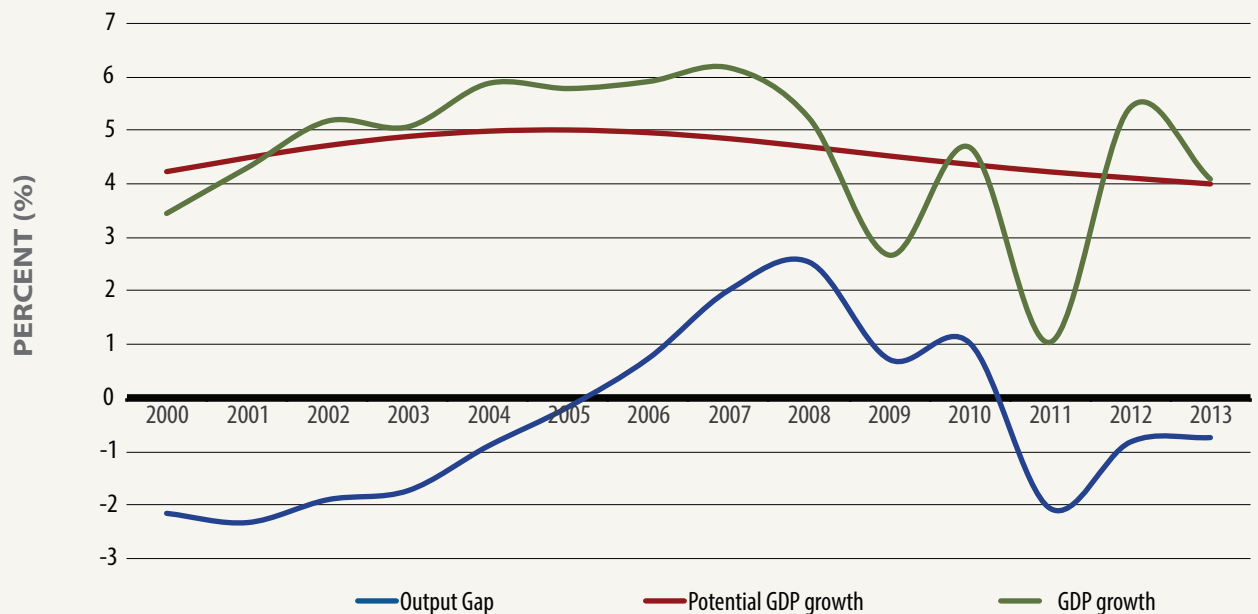
Africa's growth outlook is subject to risks and uncertainties. Any unexpected slowdown in global growth may constrain Africa's economic performance through trade; FDI, ODA and remittances; and tourism. Instability in global commodity prices (especially oil) and changes to the terms of trade are among the key risks that Africa will face in the medium term.

While growth in developed economies is expected to pick up in the medium-term, growth in emerging economies is likely to moderate with potential significant adverse impact on global commodity prices as well as trade and investment flows between Africa and the rest of the world. In the face of these risks, African countries need to continue to implement measures to boost domestic demand, diversify production and trade and promote rapid expansion in intra-African trade.

Political and civil unrest pose a threat in several African countries, including the Central African Republic, Democratic Republic of Congo (DRC), Libya, Mali, Somalia, South Sudan and Tunisia, especially through their effects on investment, trade and tourism.

Finally, as most of the economies in the region are agriculture-based, weather-related shocks present downside risks for agriculture, but upside risks for prices.

FIGURE 1.5: AFRICA'S GDP GROWTH AND OUTPUT GAP, 2000–2013



Source: Calculations based on UN-DESA (2014).

## 1.2 OTHER MACROECONOMIC INDICATORS

### MOUNTING FISCAL PRESSURE IN OIL-IMPORTING COUNTRIES

Africa's fiscal deficit, which widened from 1.5 per cent of GDP in 2012 to 1.9 per cent in 2013, is projected to accelerate to 3.1 per cent in 2014, as many governments continue to face intense pressure to increase spending on education, health and infrastructure, as well as raise public sector wages and maintain food and fuel subsidies (figure 1.6). This fiscal deterioration was mainly caused by rising spending and subdued revenue growth in both oil-importing and mineral-rich economies. In oil-importing countries, the fiscal deficit widened from 1.3 per cent of GDP in 2012 to 3.2 per cent in 2013. It also widened in mineral-rich economies from 5.0 per cent in 2012 to 5.5 per cent in 2013, reflecting the effects of the global economic slowdown. However, it narrowed in oil-exporting countries from 1.7 per cent in 2012 to 0.2 per cent in 2013 despite softening global oil prices. Angola and Equatorial Guinea had fiscal surpluses, while Egypt, Morocco and Sudan have taken steps to address their deficit by partially removing subsidies on food and fuel, widening the tax base

and improving tax administration. However, most African countries are expected to experience further deterioration in their fiscal balance in 2014.

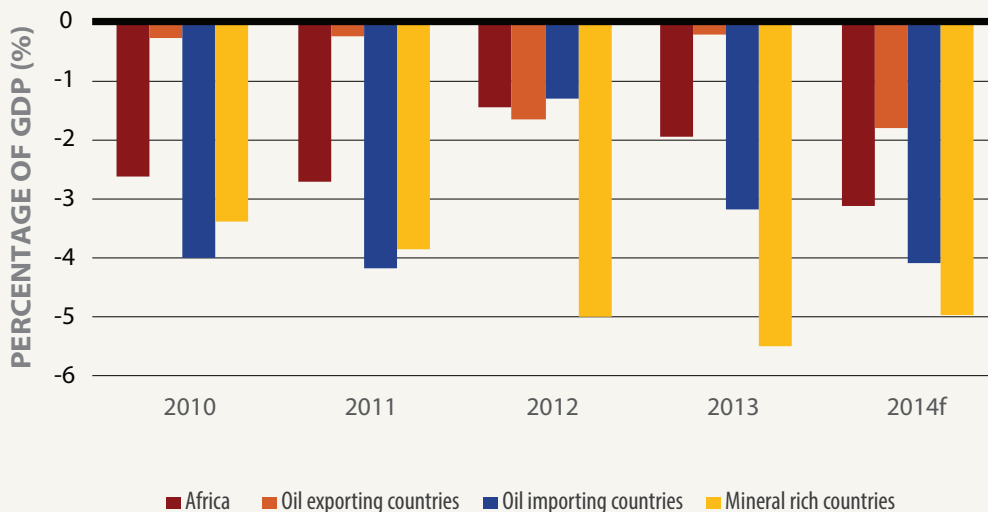
### DECLINING INFLATIONARY PRESSURE AMID TIGHT MONETARY POLICY

Continent-wide inflation fell from 8.2 per cent in 2012 to 8.0 per cent in 2013 and is projected to decline further to 7.8 per cent in 2014. Factors include moderating international food and fuel prices as well as tighter monetary policy in most African countries.

In Central Africa (the subregion with the lowest rate—figure 1.7), inflation decelerated a little from 4.4 per cent in 2012 to 3.9 per cent in 2013, and is forecast to decline further to 3.3 per cent in 2014. Monetary policy in most Central African countries is managed by the regional central bank, Banque des Etats de l'Afrique Centrale, which is keeping its focus on controlling inflation and maintaining the CFA franc's peg to the euro.

South Africa is expected to tighten monetary policy in 2014 to control inflation (5.8 per cent in 2013) and to return real interest rates to positive territory.

FIGURE 1.6: FISCAL BALANCES, 2010–2014

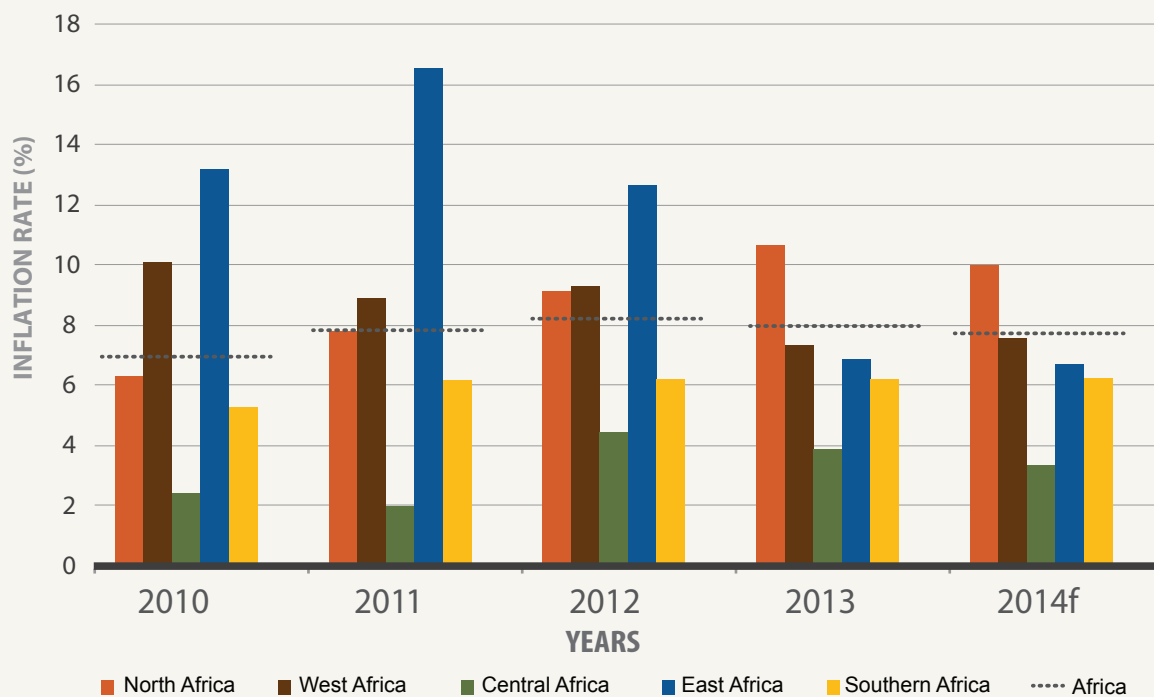


Source: Calculations based on EIU Database.



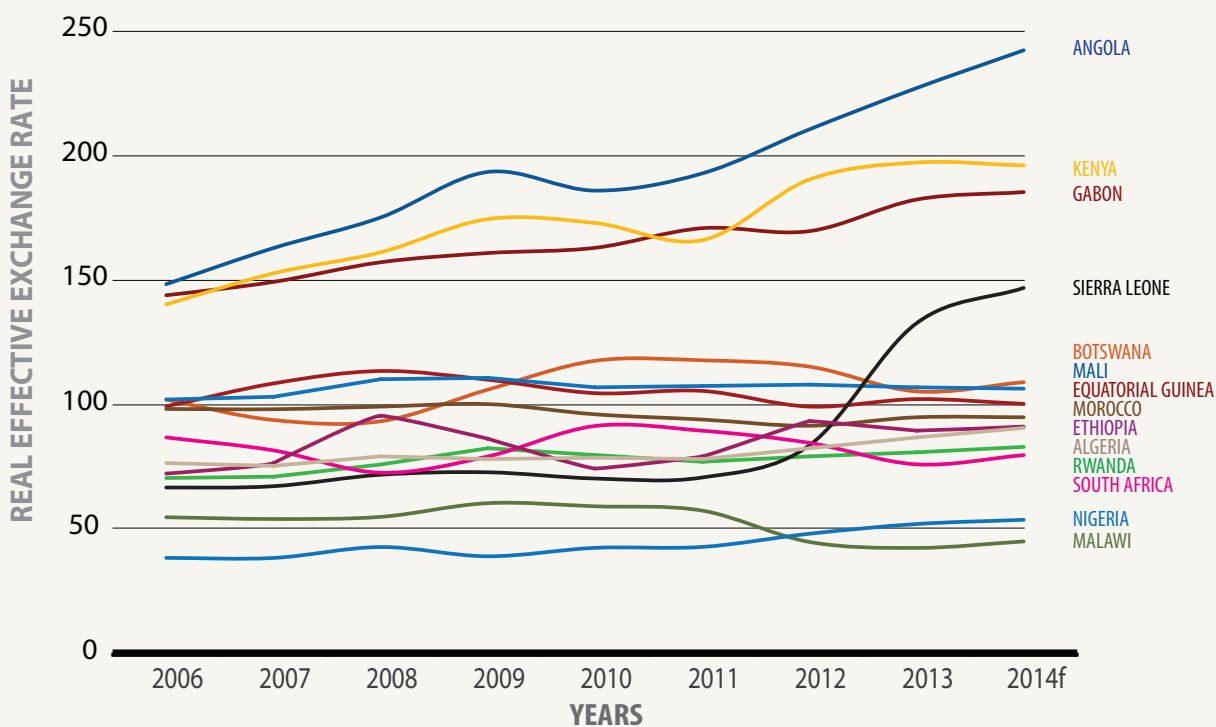
FIGURE 1.7: INFLATION BY SUBREGION, 2010-2014

(2005 = 100)



Source: UN-DESA (2014).  
Data from 9 January, 2014

FIGURE 1.8: REAL EFFECTIVE EXCHANGE RATE MOVEMENTS, SELECTED COUNTRIES, 2006-2014



Source: Calculations based on EIU Database.

Domestic credit growth slowed in much of Africa in 2013, notably in Ethiopia, Guinea, Malawi and Sudan, where tight monetary policy was needed to control relatively high inflation.

Exchange rate depreciation and falling foreign reserves will be a major concern for monetary policy in Malawi, Kenya, Burundi, Tanzania, Uganda, Sudan and Egypt, although the gravity of the situation varies. Loose monetary policy, wide fiscal deficits, domestic currency depreciation and relatively steep energy costs are expected to heighten inflationary pressure in 2014 in some East and Southern African countries.

**Inflationary pressure recedes across Africa thanks to moderating international food and fuel prices and tighter macroeconomic management in most African countries**

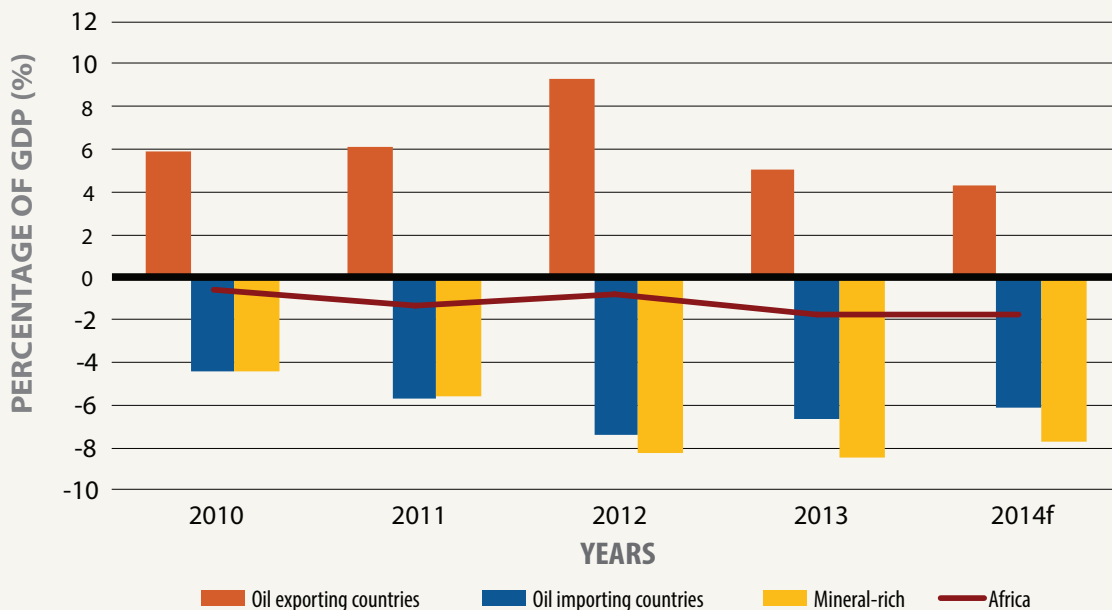
### REAL EXCHANGE RATES GENERALLY APPRECIATING

Real exchange rates appreciated in most African countries in 2013, often influenced by tight monetary policies to reduce inflation. However, significant real depreciations were seen in Botswana, Ethiopia, Gambia, Mali, Morocco, Sudan and Swaziland (figure 1.8), primarily owing to widening current account deficits and weakening global commodity prices. Malawi and South Africa also saw real depreciation, to some extent influenced by instabilities in South Africa's mining sector.

### MIXED EXTERNAL PERFORMANCE AMONG ENDOWMENT GROUPINGS

Africa's current account deficit widened from 0.8 per cent of GDP in 2012 to 1.8 per cent in 2013 but is expected to slightly narrow to 1.7 per cent in 2014 (figure 1.9). In oil-exporting countries, external balances are seen as staying positive, though falling, but negative and narrowing in oil-importing and mineral-rich countries. Improved macroeconomic management is one of the key factors, as in Egypt, Kenya and South Africa, which allowed their exchange rates and interest rates to adjust in line with changes in macroeconomic fundamentals.

FIGURE 1.9: CURRENT ACCOUNT BALANCE BY ENDOWMENT GROUPING, 2010–2014



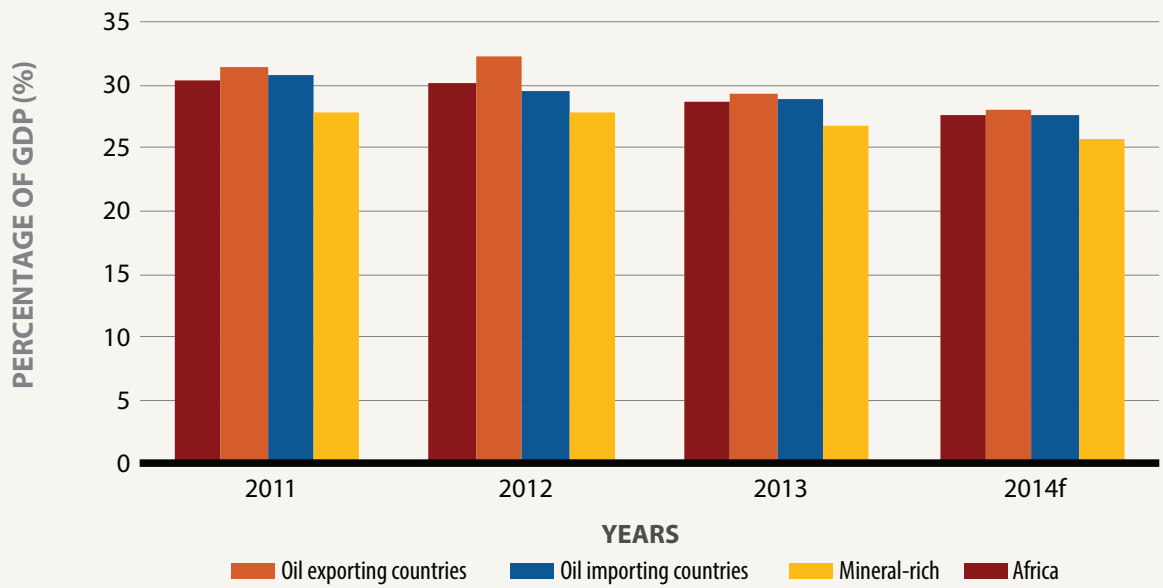
Source: Calculations based on EIU Database.





**FIGURE 1.10: TOTAL EXPORTS BY ENDOWMENT GROUPING, 2011–2014**

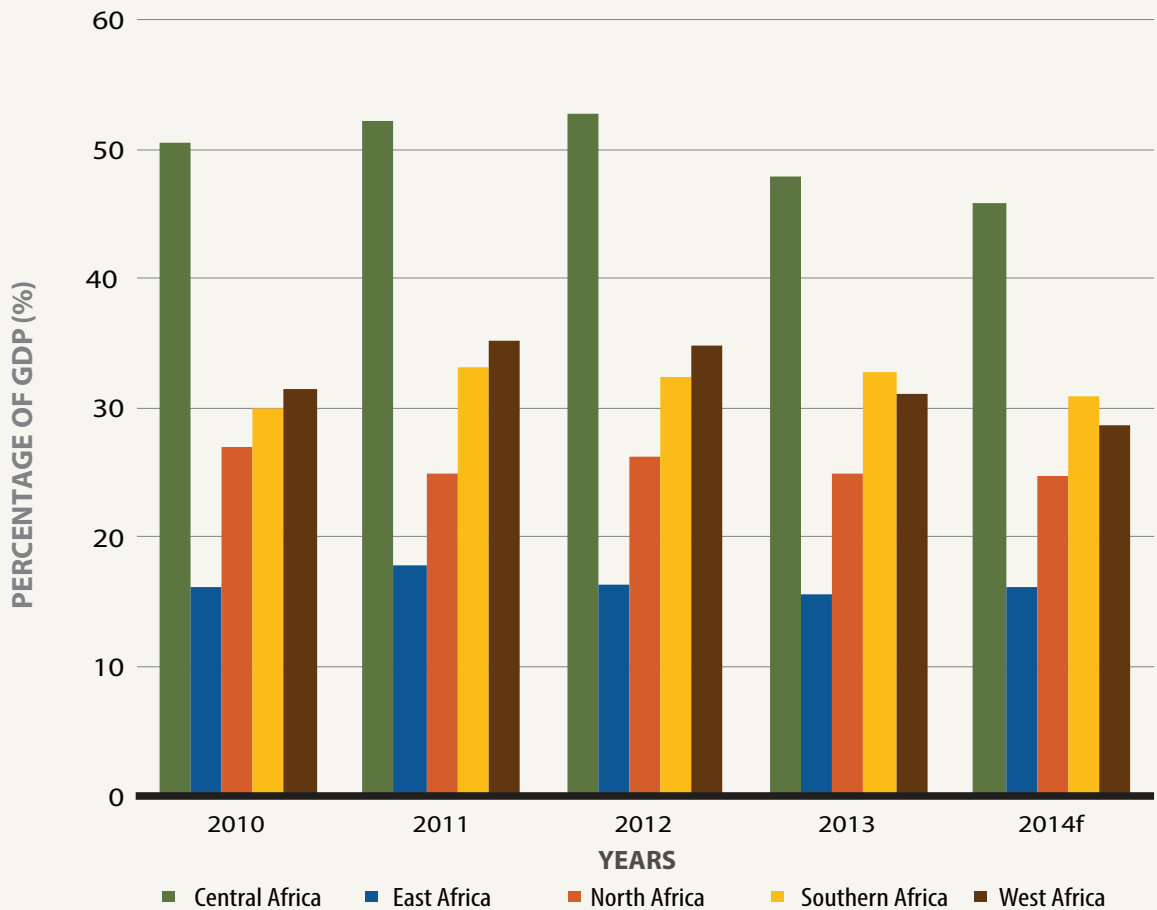
Exports of goods by oil-exporting versus oil-importing in Africa's countries



Source: Calculations based on EIU Database.

**FIGURE 1.11: TOTAL EXPORTS BY SUBREGION, 2010–2014**

Exports (% of GDP)



Source: Calculations based on EIU Database.



Africa's exports are projected to decline further to 27.5 per cent of GDP in 2014, in all subregions except East Africa (figures 1.10 and 1.11). There they show a slight gain due to increasing non-traditional exports such as floriculture and trade in services, especially in Ethiopia, Kenya and Tanzania.

Similarly, total imports are expected to decline as a share of GDP across all subregions with the largest decline in Southern Africa, from 29.5 per cent in 2013 to 27.3 per cent in 2014.

### INTERNATIONAL RESERVES—HIGHER FOR OIL EXPORTERS

International reserves climbed in US dollar terms by 3.5 per cent in 2013, but marginally declined relative to GDP from 28.3 per cent in 2012 to 28.1 per cent in 2013 (figure 1.12). Reserves declined in oil-exporting countries but marginally increased in oil-importing and mineral-rich countries. North Africa, led by Algeria and Libya, had the highest reserves as a share of GDP (48.0 per cent) in 2013, East Africa the lowest (12.4 per cent). Oil exporters maintained higher reserves (49.1 per cent of GDP) than oil importers (13.1 per cent) in 2013. Adequate reserves help countries better manage their economies and respond to external shocks, while appropriate reserves management is essential for minimizing the opportunity cost of holding reserves and maximizing returns.

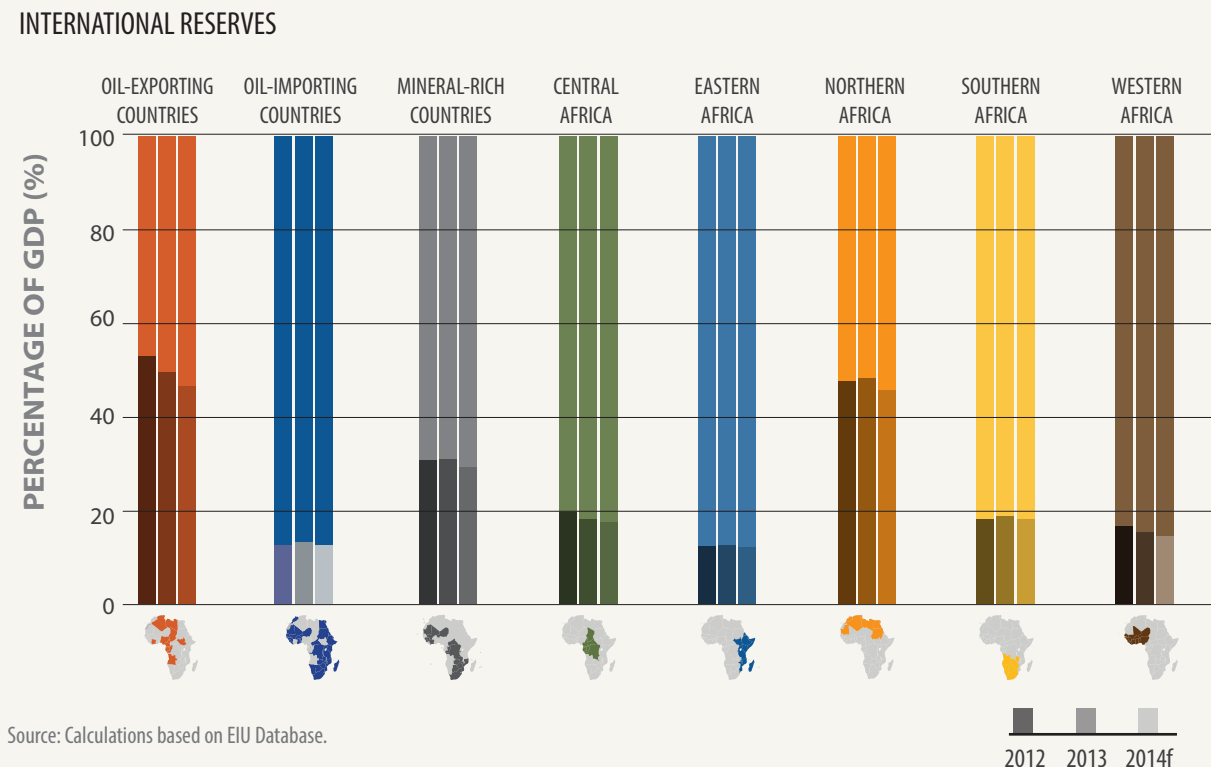
## 1.3 RECENT DEVELOPMENTS IN AFRICA'S TRADE

### AFRICA HAS TO DIVERSIFY ITS EXPORTS TO BOOST TRADE AND SUSTAIN GDP GROWTH

Although Africa's exports have generally kept growing in absolute terms, they showed declines in 2013 relative to aggregate output.<sup>6</sup> And although the volume of African merchandise (or goods) trade grew faster than that of non-African economies from 2011 to 2012 (WTO, 2013), Africa's share of world exports is still low. In 2012, the continent accounted for just 3.3 per cent of world merchandise exports<sup>7</sup>—against 4.9 per cent in 1970–1979, though a little better than the 2.8 per cent seen in 2000–2010 (UNCTAD, 2013b). Africa's share of world imports has witnessed a similar slowdown.

Oil, metal and other mineral exports accounted for more than two thirds of total export growth over 2002–2012, and oil alone for more than half of merchandise exports in 2012. In the first half of 2013, goods exports (by value) contracted by 4.1 per cent owing to decreased overall output caused

FIGURE 1.12: INTERNATIONAL RESERVES BY SUBREGION AND ENDOWMENT GROUPING, 2012–2014





by political instability in Egypt and Libya as well as slowing global demand and softening global commodity prices. African imports are dominated by products from the EU-27, accounting for 31.6 per cent of Africa's total imports of goods in 2012. Africa's imports from China accounted for 12.7 per cent of its total imports, close to the equivalent share of exports. Africa's imports from the US accounted for only 6 per cent of its total imports (as in 2000), around half the share of the US as an importer of African exports (11.7 per cent).<sup>8</sup>

Even if trade between Africa and its traditional partners (EU-27 and the US) has continued to increase in recent years in absolute terms, Africa is diversifying its import sources and export destinations in favour of developing economies.

### **With increasing diversification of trade destinations, Africa's share of total world exports to developing countries increased from 2.6 per cent in 2000 to 3.8 per cent in 2012**

Africa's share of total world exports to developing countries increased from 2.6 per cent in 2000 to 3.8 per cent in 2012 (OECD, 2011). After 2009, the BRICS<sup>9</sup> became the second-largest trading partner (after the EU-27) for Africa, excluding South Africa (ECA, 2013c).

Africa has the natural resources demanded by the BRICS while the BRICS have the finance and capital goods that can improve Africa's infrastructure. Yet the Africa-BRICS relationship should not be restricted to this exchange, which does not encourage Africa to diversify its exports.

More specifically, the Africa-Brazil relationship offers further potential. In one example that may point to the future, a private fund has been set up to attract capital from Brazil and Japan for large investments in soy and other crops in Mozambique's Nacala region (which has a climate similar to Brazil's Cerrado).<sup>10</sup> In this triangular partnership, called ProSavanna, Brazil shares technology with Mozambique while Japan finances infrastructure to help farmers in Mozambique export their high-value crops.

## **FORMAL INTRA-AFRICAN MERCHANDISE TRADE IS RISING BUT INFORMAL TRADE STAYS SIGNIFICANT**

Intra-African trade (imports and exports) rose from \$67.7 billion in 2011 to \$73.7 billion in 2012.<sup>11</sup> In 2012, the share of intra-African trade accounted for 11.5 per cent of Africa's total trade. Between 1996 and 2011, Africa's trade with the rest of the world grew at 12.0 per cent, faster than intra-African trade's 8.2 per cent. High commodity prices largely explain this, as Africa's exports to the rest of the world are skewed towards primary commodities (dominated by mineral, oil and other metal products—figure 1.13), unlike intra-African trade (UNCTAD, 2013b).

Although Africa's trade is constrained by low export diversification and heightened dependence on primary products, within the region non-fuel exporters trade more than oil exporters. Intra-African trade among oil exporters was close to 8 per cent in 2007–2011 but 16 per cent for non-oil exporters. Intra-African trade also is more diversified and industrialized than the continent's trade with the rest of the world: manufactured goods accounted for 40 per cent of total intra-African goods trade in 2011, but only 13 per cent of that with the rest of the world.<sup>12</sup> Thus diversifying the production base is expected to boost intra-African trade (UNCTAD, 2013b).

Although informal intra-African cross-border trade is not recorded in the above data, it is nonetheless significant. One recent report suggests that informal trade within the Southern African Development Community (SADC) accounts for 30–40 per cent of total intra-SADC trade (UNCTAD, 2013b). Such trade also seems high in other subregions, but estimates are few. For example, in 2006, 83 per cent of Ugandan exports to its five neighbours—DRC, Kenya, Rwanda, Sudan<sup>13</sup> and Tanzania—was estimated to be informal (Ogalo, 2010). In West Africa, the informal sector (beyond just trade) makes up a large proportion of GDP in some countries, with estimates at 20–90 per cent (ECA, AfDB and AUC, 2010). Strategies to formalize informal agents—in trade and other sectors—should therefore be considered.

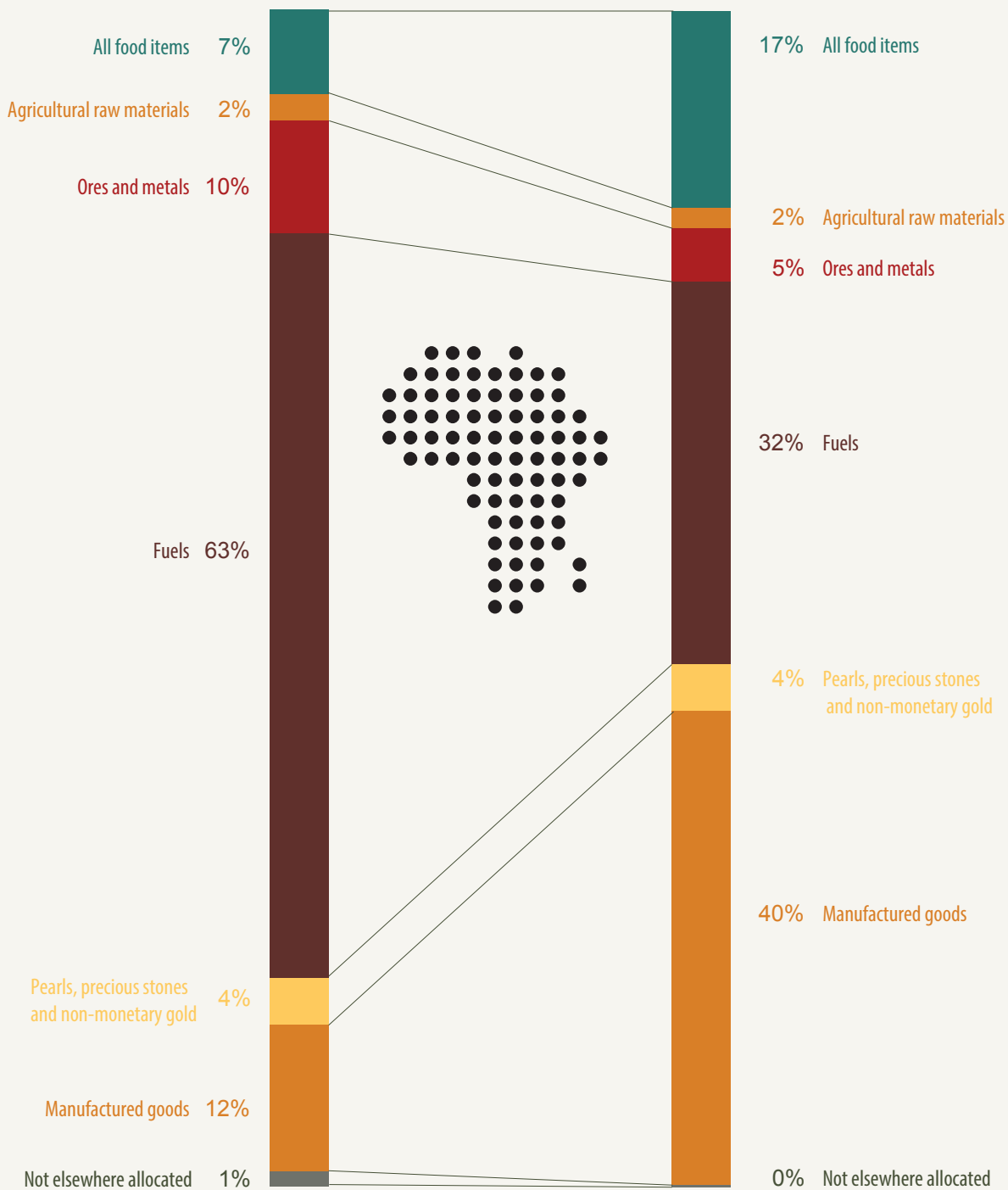
**Intra-African trade is more diversified than the continent's trade with the rest of the world**

FIGURE 1.13: COMPOSITION OF AFRICAN EXPORTS, 2010–2012



Composition of African exports to the rest of the world

Composition of African exports to Africa



Source: UNCTAD (2013b).



## AFRICA'S TRADE IN SERVICES IS ON AN UPWARD TREND

The steep increase of global trade in services in the past three decades has been reflected in Africa. Services are the fastest-growing sector in the global economy, accounting for one fifth of global trade and three quarters of global output; the value of Africa's total exports of commercial services<sup>14</sup> to the world more than doubled over the last decade (WTO, 2013).

In Africa's services imports in 2012, transport is by far the largest subcategory, accounting for 39.3 per cent, followed by travel which makes up 16.5 per cent (figure 1.14). The low share of Africa's trade in categories such as business services<sup>15</sup> is a disturbing sign, as they add high value and are crucial for economic diversification.

Africa's services exports increased from \$31.6 billion in 2000 to \$91.2 billion in 2012—a rather encouraging sign considering services' critical role in development and job creation (World Bank, 2010). One sector that offers great potential for growth in services is the financial services sector, which is underdeveloped in most African countries. Africa's main services exports are travel (47 per cent), transport (29 per cent), business services (11 per cent) and communications (5 per cent).

## POTENTIAL POLICIES TO BOOST AFRICA'S TRADE AND ITS IMPACT ON ECONOMIC TRANSFORMATION

Among the key factors constraining Africa's trade are its narrow production and export base, which is dominated by primary commodities, very high trade costs, tariff and non-tariff barriers to intra-African trade, and access to international markets. Trade and growth policies should therefore include the following efforts.

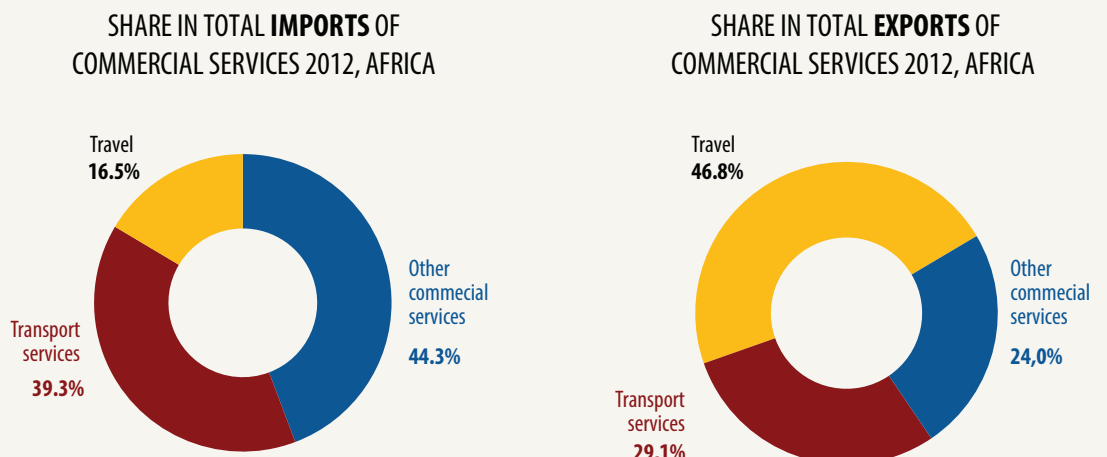
### *Enhancing productive capacity and widening the production and export base*

As discussed many times in previous Economic Reports on Africa (ERAs), such policies must be based on a long-term development planning framework that enables governments to work closely with stakeholders to identify and address market failures and other constraints such as the infrastructure gap, skills gaps and poor access to credit, all limiting Africa's investment and productivity growth.

### *Reducing trade costs*

Africa (excluding North Africa) is one of the most expensive regions for trading internationally, along with Eastern Europe

FIGURE 1.14: SHARE OF TOTAL IMPORTS AND EXPORTS OF COMMERCIAL SERVICES IN AFRICA, 2012



Source: International Trade and Market Access Data, WTO, accessed 25 October 2013.

**Removing all remaining tariff barriers within the continent, coupled with making customs procedures and port handling twice as efficient, could double intra-African trade within the next 10 years**

and Central Asia (where, however, the share of land-locked countries is higher). Trade document requirements are particularly burdensome by international standards, with an average of eight documents needed for exports and nine for imports. In Africa, import procedures (including document preparation, customs, terminal handling and inland transport) take 22 per cent longer than exporting ones and are some 25 per cent more costly (ECA, 2013b). Trade-related costs vary greatly in Africa but are particularly high in land-locked countries, largely due to expensive inland transport.

Trade costs are also sometimes higher within Africa than between Africa and the rest of the world (ECA, 2013b). Some African countries such as Algeria, Burkina Faso, Egypt, Ethiopia and Rwanda have started reducing cross-border trade costs relative to the world average despite a rise in the global trend of these costs in nominal terms (ECA, 2013b). These countries are proof that trade costs can be reduced by facilitating movement of goods and people across borders and simplifying custom procedures.

### *Mobilizing resources for regional integration and trade*

As discussed in ERA 2013, implementation of the Continental Free Trade Area is expected to help address many of the constraints to intra-African trade. Indeed, removing all remaining tariff barriers within the continent, coupled with making customs procedures and port handling twice as efficient, could double intra-African trade within the next 10 years (Mevel and Karingi, 2012). Such reforms would primarily boost industrial trade while offering great opportunities for structural transformation. Hence the Continental Free Trade Area's Action Plan recognized that efforts to boost intra-African trade need to go beyond lowering trade barriers, and it has designated trade facilitation as a priority. The Action Plan also recognizes improving productive capacities and trade information and integrating factor markets as critical to boosting intra-African trade. Yet such measures are costly and with aid from traditional donors under greater pressure, their financing will have to rely more on domestic resources.

### *Enhancing AfT effectiveness*

Over 2009–2011, \$16.3 billion of commitments and \$11.9 billion of Aid for Trade (AfT) disbursements were made to Africa.<sup>16</sup> However, the share of AfT allocated for trade facilitation remains low overall and for Africa in particular (1 per cent of AfT to Africa in 2011 was devoted towards trade facilitation), despite research suggesting that improving the efficiency of Africa's customs and administrative procedures could have a substantial impact on trading costs across the continent (ECA, 2013a). Further, during 2006–2011, the disbursements-to-commitments ratio for AfT to Africa was the lowest of any world region. Hence a higher share of AfT commitments disbursed, coupled with improved donor coordination, would improve AfT effectiveness in Africa.

### *Boosting the development impact of trade negotiations and agreements*

Developments in multilateral trade negotiations have pivoted around the 9th World Trade Organization (WTO) Ministerial Conference held in Bali in December 2013. Thirteen years after the Doha Ministerial Declaration, WTO members reached agreement in Bali, sealing the WTO's first multilateral deal and helping revitalize the multilateral process, which had been threatened by the prolonged stalemate of the Doha Development Agenda and by the proliferation of bilateral agreements and the move to plurilateral negotiations.

The agreement on trade facilitation signed at Bali is expected to boost global trade and economic growth. African countries stand to gain considerably from any reduction in trade-related costs, even though they may have to undertake deeper reforms to align themselves with the agreement's commitments. The agreement thus provides an opportunity for African countries (particularly land-locked ones) to lock in and implement critical reforms to facilitate international trade.

Beyond trade facilitation, the Bali Package encompasses only a narrow subset of the issues covered by the Doha Development Agenda. In agriculture, member countries have agreed to refrain from challenging, through the WTO dispute

**The Bali Package provides an opportunity for African countries to lock in and implement critical reforms to facilitate international trade**



settlement mechanism, support provided by developing countries for staple food crops through public stockholding programmes. However, no binding agreement was reached on the long-standing issue of developed countries' export subsidies. Nor do the commitments for duty-free, quota-free market access for exports from least developed countries, or those for preferential rules of origin for these countries, have a binding nature. African countries must therefore develop greater capacity to coordinate, negotiate and lobby to ensure that key issues from the Doha Development Agenda (agricultural market access, cotton, etc.), unresolved at Bali, can now be addressed.

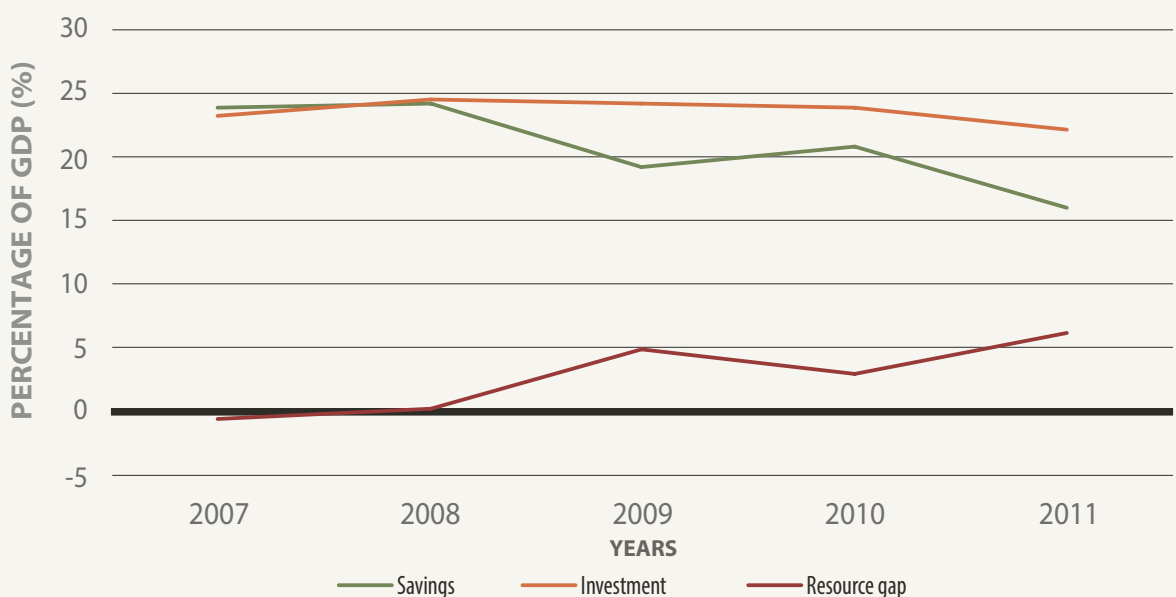
African countries need to make concerted efforts to enhance the developmental impact of existing and potential bilateral agreements. Notwithstanding the potential benefits and risks for Africa such as decisions by the US on renewing (or not) the African Growth and Opportunity Act, African countries should explore and exploit opportunities to benefit more by fully exploiting the trade preferences allocated under the Act, for example, by lowering the high tariffs on imported intermediate inputs that could allow African firms to use cheaper inputs in their production processes and further add value to exported goods.

## 1.4 UNTAPPED APPROACHES TO BRIDGING AFRICA'S FINANCING GAP

Scaling up both domestic and external financial resources is central to Africa's industrialization as its financing gap remains large, at around 6 per cent of GDP in 2011, with the gross domestic savings rate consistently lower than the gross domestic investment rate since 2008 (figure 1.15). Despite improved recent economic growth, domestic savings have consistently fallen short of the continent's investment needs (see ERA 2012 and ERA 2013), whereas ODA is expected to continue to decline in the near future. Africa thus needs to focus on more innovative or untapped approaches to mobilizing domestic resources and external private capital.

FDI flows to Africa have been steadily increasing over the last few years, from \$20 billion in 2001 to \$50 billion in 2012, a rise of 5 per cent from 2011. Although such inflows are concentrated in extractive industries, there are an increasing number of success stories of market-seeking investments, particularly in manufacturing FDI not directly linked to these industries. Examples of market-seeking FDI include investments in the automotive sector in South Africa, leather in Ethiopia

FIGURE 1.15: AFRICA'S DOMESTIC FINANCING GAP, 2007-2011



Source: Calculations based on World Development Indicators, 2013b.



**Worker's remittances are Africa's largest external source of finance, though the continent remains the most expensive region to remit funds to**

crisis and the turmoil in the euro area that has led several donors to tighten their aid budgets. Much ODA to the region (40 per cent of commitments in 2011) targeted social infrastructure (health and education sectors), with only about 2 per cent targeting industry, mining and construction.

As domestic savings and external capital flows have often fallen below the levels needed to bridge the financing gap, many African countries have resorted to external borrowing to finance domestic investment, especially in infrastructure, taking foreign debt as a share of GDP from 22.7 per cent in 2010 to 24.0 per cent in 2013. East and Southern Africa have the highest debt-to-GDP ratios—31.8 per cent and 33.5 per cent in 2013, respectively (figure 1.16). Many countries have seen sharp increases in debt over the past four years, including Ghana and Nigeria in West Africa; Angola and South Africa in Southern Africa; Egypt, Morocco, Tunisia and Sudan in North Africa; and Ethiopia and Kenya in East Africa.

Africa's oil importers have higher debt as a share of GDP (35.1 per cent) than oil exporters (8.5 per cent) in 2013 (figure 1.17).

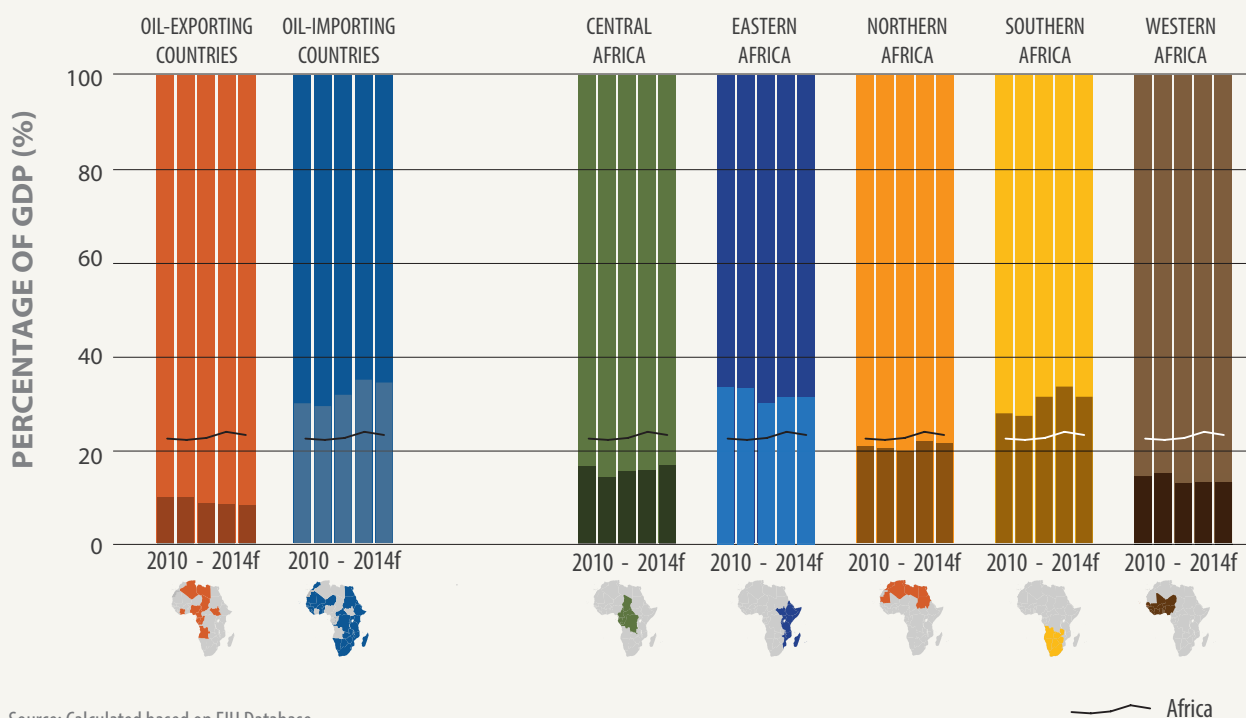
Although tax revenues are the largest source of domestic resources in Africa,<sup>17</sup> tax collection as a share of GDP increased only marginally from 26.6 per cent in 2009 to 27.0 per cent in 2011. Worse, several countries have tax ratios below 10 per cent, including the Central African Republic, DRC, Ethiopia, Liberia, Nigeria and Sudan. The challenges in

and pharmaceuticals and services (such as information and communications technology) in East Africa. Notably, foreign investors from the BRICS and other emerging countries have started to explore the potential of Africa's manufacturing (UNCTAD, 2013a).

Workers' remittances have since 2010 become Africa's largest external source of finance, with an estimated inflow of \$62.5 billion in 2012, up from only \$13.5 billion in 2001. At 12.4 per cent per transaction in 2012, Africa remains the most expensive region to remit funds to (World Bank, 2013b). If this cost can be brought down to around 5 per cent—a target set by the G8 and G20 for 2014—Africans could save up to \$4 billion a year (World Bank and European Commission, 2013).

Total ODA to Africa increased from \$51.3 billion in 2011 to \$56.1 billion in 2012 despite the continuing global financial

**FIGURE 1.16: FOREIGN DEBT BY ENDOWMENT GROUPING AND SUBREGION, 2010–2014**



Source: Calculated based on EIU Database.



expanding and exploiting the tax base are still pervasive in most African economies (AfDB et al., 2013). Moreover, in as much as improving revenue collection should be a principal fiscal policy objective, African governments also need to give priority to using internally and externally generated revenue more efficiently.

### External borrowing is increasing in some countries due to widening domestic financing gap

## SOURCES OF FINANCE TO SUPPORT AFRICA'S GROWTH AND TRANSFORMATION

The financing of Africa's industrialization and economic transformation has to be increasingly based on domestic public and private resources (ECA and AUC, 2013), and for that to happen Africa needs to explore untapped approaches to raising capital to meet its development agenda. In addition to traditional domestic sources of finance such as taxes, levies and private savings (extensively discussed in ERA 2012 and ERA 2013), Africa needs to adopt a broader and more diversified set of mechanisms and financial products and an enabling environment for mobilizing resources from non-traditional sources. Fresh approaches to development financing revolve around sovereign wealth funds, pension funds, insurance savings, private equity funds, diaspora, remittances and sovereign bonds, public-private partnerships (PPPs) and the curtailment of illicit financial flows.

The availability of long-term financing is a particular problem for Africa. Sovereign wealth funds are some of the non-traditional forms of savings that could fund development projects or, in some cases, be used as savings for future generations. Only 10 African countries have such funds, including the recently established Nigerian fund. Sovereign wealth enterprises and strategic development sovereign wealth funds could contribute to the financing of national and cross-border projects in the context of the Programme for Infrastructure for Africa under the New Partnership for Africa's Development.

Pension funds are a potentially reliable source of financing for development projects that generally struggle to attract long-term financing. The pension market in Africa is underdeveloped (apart from Botswana, Kenya, Mauritius and South Africa) and is dominated by state-owned schemes. Only 7 per

cent of such schemes are privately managed, against 16 per cent worldwide (Beck et al., 2011). Still, these new markets highlight the growing sources of new capital for the continent's development (ECA and NPCA, 2013). Yet, owing to the infancy of capital market development and lack of regulation in Africa, channelling pension funds into productive investment is not risk free. Improvements in the regulatory and investment framework for domestic and foreign capital are a necessary condition for unlocking productive investments.

Long-term funds can also be channelled into capital markets through the insurance sector. Insurance companies across Africa are generally small, selling shorter-term non-life products rather than longer-term life and savings products. Nevertheless, the sector has the potential to provide capital for longer-term projects given the fact that insurance growth on the continent outstripped economic growth between 2000 and 2011 when total premiums reached \$8.8 billion (Karl, 2012). Moreover, insurance premiums could exceed \$16 billion by 2017 and \$25 billion by 2022, particularly if the middle class grows rapidly and innovative micro-insurance products emerge to serve low-income individuals and businesses (Karl, 2012).

Still, African insurance markets remain thin. For instance, after a decade of rapid premium growth, Africa accounted for only some 1.7 per cent and 1.2 per cent of global life and non-life markets in 2010 (Mohamed, 2013). In 2012, apart from South Africa (13.2 per cent), Namibia (8.4 per cent) and Mauritius (4.5 per cent), Africa had insurance penetration (total premiums as a share of GDP) of less than 2 per cent against the 7 per cent global average. And insurance density (annual per capita insurance premiums) is about \$54 per capita in Africa compared with the global average of \$596 (Mohamed, 2012). South Africa accounts for the bulk of the African insurance market.

Similar to the pension market, expanding and using insurance markets, not only for increased welfare but also as a source of capital, will require reforms in risk diversification, solvency, consumer protection and taxation. In addition, capacity building among regulators and financial literacy programmes for policyholders are essential (Beck et al., 2011).

**The financing of Africa's industrialization and economic transformation has to be increasingly based on domestic public and private resources**



Private equity has grown strongly since 2007 with the market valued at \$25 billion–\$30 billion in 2013 (ECA and NPCA, 2013), with Kenya, Nigeria and South Africa being the major beneficiaries. Although FDI via private equity has been rising in Africa, the continent still only attracts a small share of global equity funds, which are relatively small and in 2011 concentrated in a few sectors and countries—such as South Africa (53 per cent), Egypt, Mauritius and Morocco (8 per cent) and Nigeria (5 per cent)—and in a few sectors (UNCTAD, 2013a).

Trends in private equity demonstrate the persistent attractiveness of extractive industries, infrastructure and energy, where extractive industries alone account for nearly 46 per cent of all cross-border mergers and acquisitions by private equity firms in Africa since 2009 (UNCTAD, 2013a). This signifies the potential role that private equity could play in Africa's transformation, but African countries need to identify constraints to private equity investment and to design appropriate regulatory, tax and other policy measures to boost private equity investments.

Approaches to mobilizing external sources include diaspora bonds, remittances and sovereign bonds such as Eurobonds. Around 140 million Africans in the diaspora save up to \$53 billion in destination countries every year (AfDB, 2010). Ethiopia was the first African country to issue a diaspora bond to finance its Renaissance Dam project in 2011. Cape Verde, Ghana and Kenya are considering similar bonds. However, for such bonds to be successful, institutional mechanisms are needed to generate the expected revenues for a particular development project, as is an institutionalized role for the private sector.

### **Africa lost around \$854 billion in illicit financial flows over 1970–2008, while over 2001–2010, \$409 billion were lost through trade mis-pricing alone**

A few African countries have met part of their foreign currency needs by borrowing on international financial markets by selling Eurobonds, usually denominated in dollars or euros. Some of them have sold bonds at low interest rates owing to rapid growth, better economic policies, lower global interest rates and continued economic stress in many advanced economies (Sy, 2013). By February 2013, 10 African economies<sup>18</sup> had collectively raised \$8.1 billion from their maiden sovereign-bond issues (Stiglitz and Rashid, 2013). East African countries such as Kenya, Tanzania and Uganda were expected to issue Eurobonds in the near future (Sy, 2013).

However, African countries need to ensure that their sovereign-bond issues remain sound by putting in place a forward-looking and comprehensive debt management structure, mainly because such bonds entail significantly higher borrowing costs than concessionary debt. They need to invest the proceeds in the right type of high-return projects—and to ensure that they do not have to borrow further to service their debt (Sy, 2013).

PPPs too remain largely unexploited. Broadly, PPPs are risk-sharing mechanisms in which a legal contract assigns public service delivery responsibilities to a private entity. Whereas

### **BOX 1.2: RECLAIMING AND PREVENTING ILLICIT FLOWS CAN BRIDGE 70 PER CENT OF AFRICA'S INFRASTRUCTURE FINANCING GAP**

Africa lost around \$854 billion in illicit financial flows over 1970–2008—about \$22 billion a year or 70 per cent of Africa's current infrastructure financing deficit. Billions of dollars leave every year in proceeds of tax evasion by multinational corporations, corruption and other criminal activities. During 2001–2010, Africa lost more than \$409 billion via trade mis-pricing (or mis-invoicing) alone; just one of several channels to illicitly move money out of a country. This is greater than all ODA disbursements to Africa (\$357 billion) or FDI flows to Africa (\$344 billion) over the same period<sup>1</sup> and almost the same as Africa's current external debt of \$413 billion (ECA et al., 2013).

Policy action to tackle illicit financial flows may include partner countries requiring their companies to improve the disclosure of financial data on their operations abroad and African governments implementing the recommendations of the Extractive Industries Transparency Initiative, which would oblige firms in their countries to disclose information on taxes, dividends and royalty payments, and to make that information public.

Note:

1. UNCTADstat, accessed January 2014.



private sector participation in infrastructure investment in developing countries increased from about \$30 billion in 1995 to \$140 billion in 2008/09, engaging the private sector in public service delivery and infrastructure development remains limited in Africa (ECA, 2011). However, encouraging signs of PPPs are emerging in productive sectors such as Tanzania's agriculture corridor.

**Private equity could play an important role in financing Africa's transformation if countries address constraints to investment and design appropriate regulatory, tax and other policy measures**

While identifying and preparing "bankable" projects for PPPs is essential, some infrastructure projects in Africa are rendered less attractive by high and front-loaded costs, the presence of redistributive factors in pricing outputs, long pay-back periods and foreign exchange risks. Investment projects thus require supplementary finance to make them bankable through public cost sharing and various funding mechanisms—in India and Ghana, for example, the Viability Gap Scheme and Financial Intermediary Loans fill capital-investment funding gaps.

Beyond the challenge of raising finance it is also important to stem illicit financial outflows. They have been a huge drain on Africa, not only in denying the continent access to funds for productive investments but also by undermining economic governance. Africa should address illicit outflows as much as it tries to mobilize domestic and external resources (box 1.2).

## 1.5 RECENT SOCIAL DEVELOPMENTS AND THE NEED FOR TRANSFORMATIVE POLICIES

Structural transformation is essential for rapid and inclusive growth and employment creation in Africa. Renewing their focus on industrialization, policymakers are committed to ensure that economic growth translates into wider access to basic social services, decent job opportunities and a hefty reduction in inequality and poverty. Africa is progressing on some key social development challenges, but too tardily to meet its social development goals, including the targets in the Millennium Development Goals. To overcome persistent human development deficits, Africa needs economic growth and transformation strategies that also promote human development.

### SOME KEY SOCIAL INDICATORS ARE IMPROVING

Africa continues to make steady progress in addressing some key socioeconomic challenges. In many countries, the incidence of extreme poverty is on the decline.<sup>19</sup> Attending primary school is becoming the norm, with most countries having achieved universal primary enrolment (above 90 per cent). Nearly half of African countries have achieved gender parity in primary school. On the political front, 20 per cent of seats in African national parliaments are held by women, a figure surpassed only in Latin America and the Caribbean. Health has also seen major gains: under-five mortality declined from 146 deaths per 1,000 live births in 1990 to 90 in 2011, a 38 per cent decrease. Similarly, the maternal mortality ratio fell from 745 deaths per 100,000 live births in 1990 to 429 in 2010, a 42 per cent decrease. Strong gains have been made in HIV/AIDS: adult HIV/AIDS prevalence declined from 5.9 per cent in 2001 to 4.9 per cent in 2011, HIV/AIDS-related

**Progress in social development remains below the level needed for Africa to meet its social development goals**

deaths fell by 32 per cent between 2005 and 2011, and new infections among children also tumbled by 52 per cent in 2001–2012, largely reflecting scaled-up antiretroviral therapy (UNAIDS, 2013).

## POVERTY REMAINS HIGH AND ACCESS TO SOCIAL SERVICES WEAK

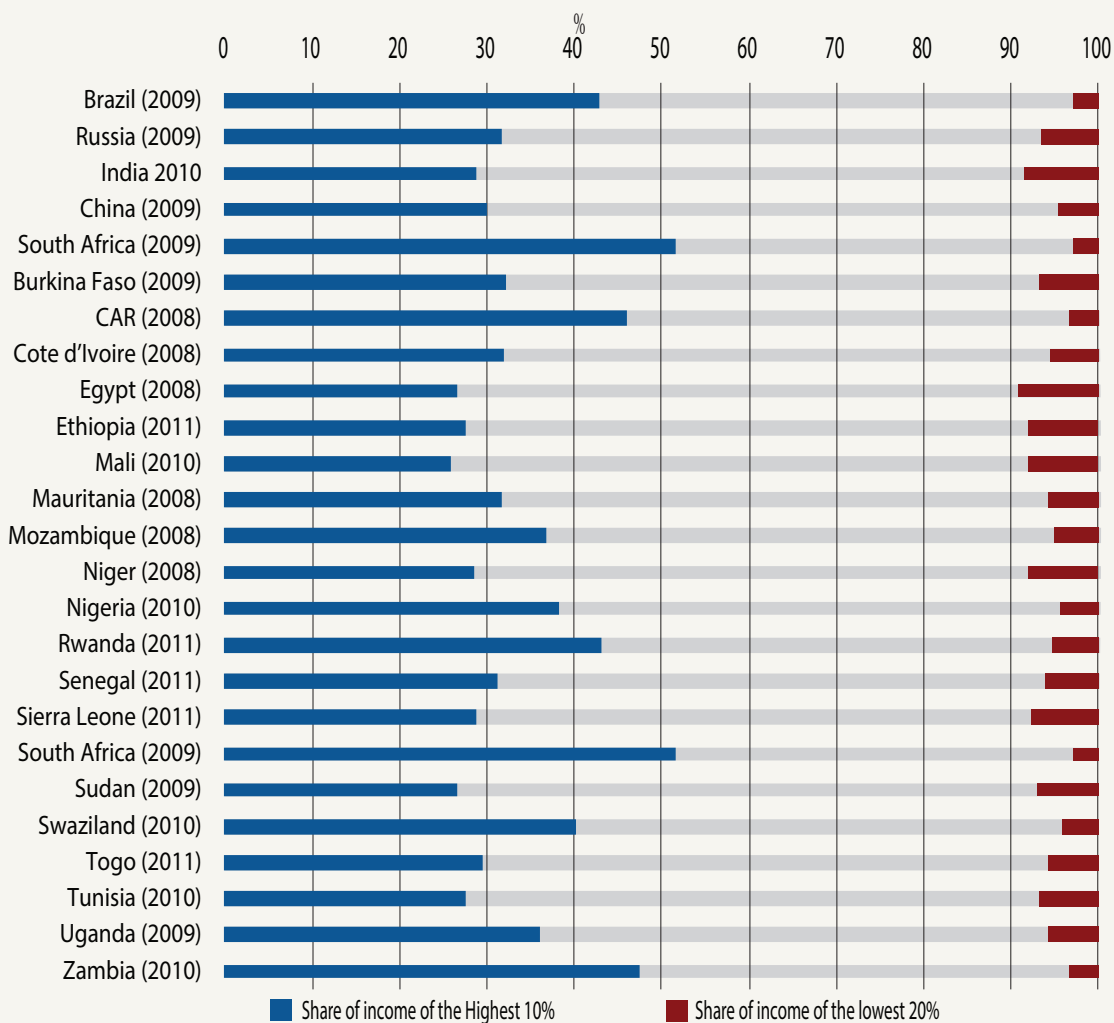
Still, the continent is off target for most of the Millennium Development Goals. At 48 per cent, nearly half of Africans are in extreme poverty, and 72 per cent of the youth population lives on less than \$2 a day. Burundi, Ethiopia, Nigeria, Uganda and Zambia have a youth poverty rate of more than 80 per cent (Mubila, Lannes and Ben Aissa, 2012). Underweight prevalence is second only to Southern Asia (UN, 2013). While

the world is on track to meet the target for the proportion of the population using improved drinking water sources, Africa is not, and the continent now accounts for more than 40 per cent of people without access to safe drinking water worldwide. Further, most of the continent is off track to meet the improved sanitation facility target: coverage edged up by a mere 4 percentage points during 1990–2010, with stark disparities between rural and urban areas.

## INEQUALITY IS UNDERMINING EFFORTS TO REDUCE POVERTY

The unimpressive impact of growth on livelihoods and access to social services has widened gender, income and rural–urban inequalities, resulting in rising poverty in many African countries (figure 1.17), where the poorest 20 per cent of the population often accounts for far less than 10 per cent

FIGURE 1.17: INCOME DISTRIBUTION, RICHEST 10 PER CENT VERSUS POOREST 20 PER CENT



Source: Compiled from World Development Indicators (database), accessed November 2013.  
 Note: The year of data collection is in parentheses; CAR = Central African Republic.



of total income while the richest 10 per cent controls from quarter to half of it or more. In the Central African Republic, Rwanda, Swaziland and Uganda, the richest 10 per cent earn more than 40 per cent of total income and the poorest 10 per cent 3–5 per cent.

In short, slow progress in addressing poverty and inequality has undermined opportunities for human development for large segments of the population. Addressing gender and spatial inequality is thus vital for Africa’s sustainable economic development.

### Slow progress in addressing poverty and inequality has curtailed opportunities for human development for large segments of the population

The Gini coefficient for Africa—a measure of income inequality—was 44.2 in 2008, ranking it second-highest regionally to Latin America and the Caribbean (Ortiz and Cummins, 2011). A 1.0 per cent rise in inequality increases poverty by 2.2 per cent in Africa where gender inequalities persist. In Algeria, Côte d’Ivoire and Mauritania, women’s wages are almost half the wages of men for similar work.

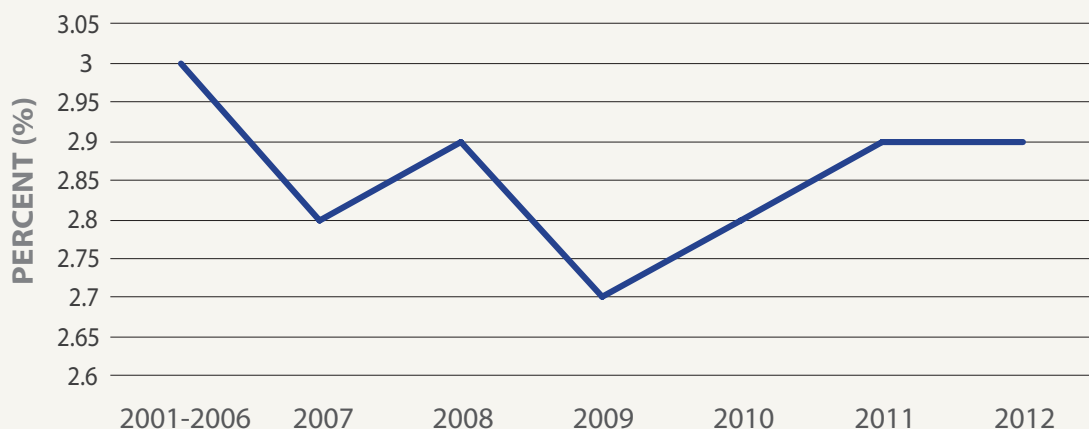
Gender and spatial disparities in access to social services are concerning. Births to women in the richest 20 per cent are nearly three times as likely to be attended by a trained professional as those in the poorest 20 per cent, while 90 per cent of women in urban areas had at least one antenatal care visit during pregnancy versus 71 per cent of women in rural areas. Children and adolescents from the poorest households are at least three times as likely to be out of school as children from the richest households, and children from the poorest households are more than twice as likely to be stunted as those from the richest households, leading to further school dropouts (ECA et al., 2013).

### SLOW PROGRESS IN EMPLOYMENT AND POVERTY REDUCTION

Labour market indicators are still positive after the 2008–2009 global economic and financial crisis. Employment growth in Africa (excluding North Africa) was firm at 2.9 per cent in 2012 (figure 1.19), and the employment-to-population ratio reached 65.1 per cent the same year, largely driven by women’s increased participation, and only second to East Asia at 69.8 per cent. In comparison, the employment-to-population ratio in 2012 remained stagnant at 60.3 per cent in the rest of the world (ECA et al., 2013).

The indicator on the working poor (working people whose incomes fall below a given poverty line) has also maintained its positive trend in Africa, mainly because of minimum wage policies that have taken wages above the international poverty line in some countries—and the harnessing of natural resources, which has triggered improvements in working people’s conditions (ECA et al., 2013; ILO, 2013a). In some North African countries, however, this indicator has worsened as governments are giving more priority to unemployment reduction. It is critical that policymakers focus on the working poor, as well as the unemployed, to reduce poverty and tighten social cohesion.

FIGURE 1.18: ANNUAL EMPLOYMENT GROWTH IN AFRICA (EXCLUDING NORTH AFRICA)



Source: Calculations based on ILO (2013a).

**Most Africans are locked into vulnerable jobs and low productivity. With 46.5 per cent of workers earning less than \$1.25 a day in 2012, vulnerable employment in Africa is stubbornly high compared with other regions**

Most Africans are locked into vulnerable jobs with low wages and low productivity.<sup>20</sup> With 46.5 per cent of workers earning less than \$1.25 a day in 2012, vulnerable employment in Africa is stubbornly high compared with other regions (ILO, 2013a). This largely stems from an abundant labour supply coupled with an absence of social safety nets, which makes it difficult for many low-skilled workers to exit the labour market as they have no alternate means of survival (UN, 2013).

The figures remain highly skewed towards women and youth. In 2012, 84.9 per cent of African women were in vulnerable employment—most of them contributing family workers—against 70.6 per cent of men (ECA et al., 2013). Cultural impediments and scarce economic opportunities still push women into informal and vulnerable jobs.

These challenges are particularly pressing for the young generation of Africans. The continent has the world’s youngest population, and one that has been increasing faster than elsewhere in the world. Yet formal employment is elusive for the majority, most of whom are underemployed or self-employed in the informal or agricultural sectors.

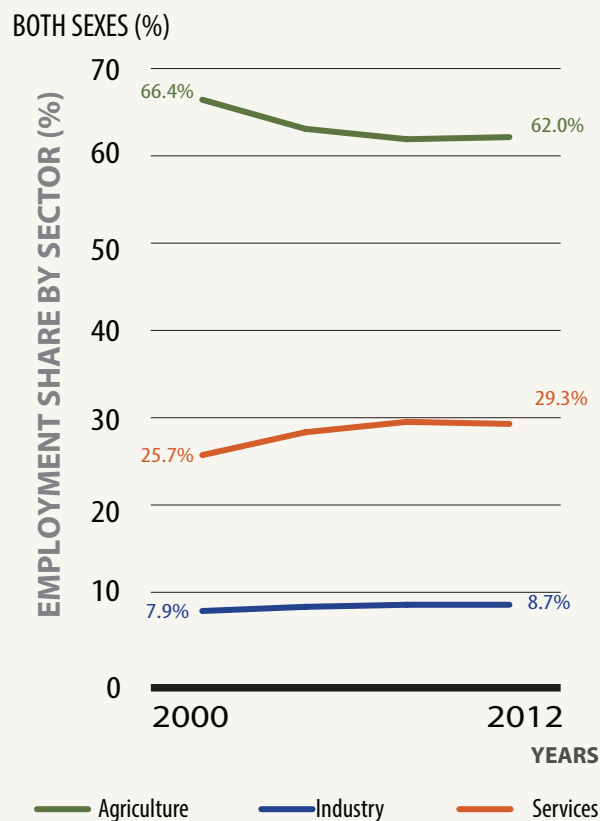
Although official youth unemployment rates in Africa (excluding North Africa) are lower than in most other regions, they are much higher than adult unemployment rates (around 12 per cent and 6 per cent in 2012, respectively). While the lack of skills is the common hurdle for youths trying to enter the labour market, sometimes the lack of jobs and the mismatch between skills demanded and supplied is the main source of unemployment (AfDB et al., 2012). In Egypt, 70 per cent of the unemployed are 15–29 years old, and around 60 per cent of them have a university degree, meaning that there is a very high level of “educated unemployment” (AUC, 2013). The youth population not in employment, education or training is a growing group of discouraged unemployed youth, potentially representing a threat to social cohesion and political stability in many African societies.

## TARDY LABOUR-PRODUCTIVITY GAINS HINDER EMPLOYMENT PROSPECTS

Labour productivity increased by an average 1.6 per cent in 2000–2011 (see chapter 2) and by 2.3 per cent in 2012–2013, but remains low compared with East Asia where it grew by 7.5 per cent. It is expected to drop to a cumulative 1.9 per cent over 2014–2016, mainly because of inadequate investment in human and financial capital (ILO, 2013a).

Part of the productivity growth in Africa is due to labour shift from less productive to more productive sectors, particularly from agriculture to services. But alongside low agricultural productivity, jobs are not moving out of agriculture or industry as fast as expected. Services are absorbing most of the fall in agriculture’s share, leaving employment in industry almost stagnant at 8.6 per cent over the past 13 years (figure 1.20). This is likely to hinder economic and employment prospects, as most of the jobs in agriculture and services remain informal with low productivity and wages and poor working conditions.

**FIGURE 1.19: EMPLOYMENT SHARE BY SECTOR, AFRICA (EXCLUDING NORTH AFRICA)**



Source: Calculations based on ILO (2013b).





## STRONGER HUMAN CAPITAL IS CRITICAL FOR EMPLOYMENT, LABOUR PRODUCTIVITY AND INDUSTRIALIZATION

Decent jobs and steep poverty reduction hinge on diversifying the economy from low-productivity agriculture and informal sectors to high-productivity sectors such as manufacturing and modern services. Consequently, policies to improve education and health should be part of economic growth and transformation strategies.

### *Education should be improved further*

The progress in universal primary enrolment has not been matched by gains in completion, which has stayed at 70 per cent in Africa over the last decade (excluding North Africa) against the global rate of 90 per cent (UN, 2012). Higher levels of education are important for students to acquire the skills needed by employers and to engage in technical and entrepreneurial activities. Basic literacy and numeracy alone are not enough to get a good job. Employers want assurances that young people applying for work can also use their knowledge to solve problems, take the initiative and communicate with others—the main elements of a good primary education—rather than just follow prescribed routines.

Lower secondary school enrolment extends and consolidates the basic skills learned in primary school; upper secondary school deepens general education and adds technical and vocational skills. Neither is possible, however, without ensuring that all children complete a good quality primary education that is a prerequisite in building the skills individuals, societies and economies need.

**Despite Africa's decade-long high growth, the contribution of manufacturing to aggregate output and GDP growth has either stagnated or declined in most countries**

Secondary school enrolment—at 40 per cent in Africa (excluding North Africa) in 2010—is an important channel through which young people acquire skills that improve opportunities for good jobs as compared with above the 90 per cent in developed countries and South East Asia

(UNESCO, 2012). High-quality secondary education that caters to the widest possible range of abilities, interests and backgrounds is vital for the well-being of youth and provides countries with the educated workforce needed to compete in today's technologically driven world.

### *Inequitable access to primary education has lifelong impacts*

The increase in primary enrolment is biased towards urban and higher-income groups and male access, despite the quest for free universal primary education. Urban dwellers and high-income households are more likely to complete school than rural dwellers or low-income households—69 per cent of African children who do not complete the primary cycle are rural dwellers. The disparities are greater when comparing groups having more of the adverse factors that hinder primary education (being a girl, rural or poor) with those with favourable factors (being a boy, urban or rich) (ECA et al., 2013).

Inequitable access to primary education greatly affects completion rates and skills acquired. Low completion rates are mainly attributable to households' failure to enrol their children in school at the right age (often doing so when children are two or more years older than the official school entry age), thus having an effect on completion rates as peer pressure of age cohorts and household demand for older children's labour takes hold. This means that such children are more likely to drop out than those who started school at the right age, an outcome exacerbated by poverty, poor health and nutritional status, or lack of parental awareness of the importance of sending children to school on time (UNESCO 2011).

Also contributing to low completion rates is teacher quantity and quality, a serious constraint to educational attainment. Even with the increase in teachers of 59 per cent between 1999 and 2010, the number of new teachers needed in Africa to achieve just universal primary education has been calculated at more than 2 million (UNESCO, 2012). In many countries, the proportion of teachers trained to national standards is very low, and teachers may often lack the necessary subject knowledge and ability to deliver instruction effectively.

### *Better health is essential for higher productivity and economic transformation*

Ill-health affects productivity through a range of channels. In agriculture, which employs the bulk of Africa's workforce, absenteeism due to morbidity and caring for the sick, along-

side loss of savings and assets when dealing with diseases, are the channels linking health to productivity. In Oyo State, Nigeria, malaria was responsible for the loss of 64 workdays a year for agrarian households; in Ethiopia, 42 person-days a year were devoted to taking care of a child with malaria (Asenso-Okyere et al., 2011). Because of mortality or morbidity, the loss in agricultural productivity follows this path: to cope with the labour shortage, farm households reduce the area they cultivate and reduce the varieties. When illness leads to long-term incapacity, risk-averse behaviour becomes even more apparent as households sell important assets and withdraw children from school. Risk aversion as a coping strategy is exacerbated by the persistence in the African policy landscape of out-of-pocket spending on health services, which represents a substantial factor driving households into poverty.

In Egypt, Ethiopia, Swaziland and Uganda, prevalence of stunting in early childhood as reflected later in life on the working-age population is in the range of 40–67 per cent. The associated potential GDP productivity loss is substantial, estimated at 0.5–3.8 per cent (table 1.2).

## 1.6 POLICY IMPERATIVES FOR TRANSFORMATION

Although robust, Africa’s recent growth remains below potential. It has failed to translate into meaningful job creation and broad-based economic and social development needed to reduce high poverty and inequality rates. African countries need to embark on strategies to transform their economies through increased value addition in the primary commodity sector and diversify into higher-productivity employment-generating sectors, especially manufacturing and modern services.





Industry—particularly manufacturing—has traditionally been a source of substantial employment generation in developed and developing countries. However, despite Africa’s decade-long high growth, the contribution of the sector to aggregate output and GDP growth has either stagnated or declined in most countries.

As discussed in the following chapters, reversing this trend calls for industrial policies in long-term planning frameworks that address constraints to economic diversification and development. To finance the necessary investments, Africa needs to tap new sources of finance, especially innovative domestic sources.

A well-crafted growth and transformation strategy that enhances the productive capacities of all segments of the labour force tends to reduce inequality by promoting equal opportunities for employment. Economic transformation strategies should thus embody policies to promote high-quality education and health services, powering greater productivity and more inclusive growth.

**Economic transformation requires policies to promote high-quality education and health services, powering greater productivity and more inclusive growth**

**TABLE 1.2: PRODUCTIVITY LOSSES FROM STUNTING**

Country	Estimated Prevalence of stunting in working age population		Lost potential productivity in terms of GDP due to stunting (%)
	Number (In millions)	Prevalence (in %)	
Egypt	20	41% 	1.03%
Ethiopia	26	67% 	3.8%
Swaziland	0.27	40% 	0.5%
Uganda	8	54% 	1.28%

Source: ECA et al. (2013).



## CHAPTER

# 2

## THE SOURCES OF GROWTH FOR AFRICA'S STRUCTURAL TRANSFORMATION



Understanding the key sources of growth for Africa's structural transformation<sup>1</sup> is the focus of this chapter. Such transformation requires reallocating resources towards higher-productivity activities across and within sectors, especially manufacturing and modern services, and should therefore foster growth. However, the limited structural transformation of many African countries appears to have induced a shift towards low-productivity activities, particularly to the informal sector, and has not been conducive to broad-based sustainable growth, confirming the discussion in chapter 1, which flagged the role of primary commodity production and exports in Africa's growth. Institutions and policies are the key instruments for increasing productivity, growth and structural transformation.

This chapter analyses the expenditure and sectoral composition of aggregate output and output growth. It presents new analysis that disentangles the contributions of factor accumulation and productivity growth in driving African economic growth and then investigates the drivers of productivity growth itself. It presents several important findings.

First, African economic growth surged during the 2000s compared with the 1990s. Although domestic consumption has dominated GDP expenditure shares, investment was the key driver of growth during 1960–2011. Sectorally, services were the main source of growth in this period. From the early 2000s, the continent saw growth in total factor productivity (TFP) for the first time since the early 1970s.

Second, although growth picked up in the 2000s, there has been no change in the growth rate of human capital and even a slight reduction in the rate of physical capital accumulation. Thus the 2 percentage point increase in GDP per worker over this period is entirely driven by productivity growth.

Third, macroeconomic and institutional policy reforms seem to have underpinned this resurgence in Africa's productivity growth. Specifically, key macroeconomic considerations—such as maintaining competitive exchange rates, participating in trade, reducing barriers and relaxing restrictive regulations in banking, capital flows, agricultural markets and electricity and telecommunication services—have contrib-

uted to this growth. Institutionally, competitive elections and institutions to promote inclusive political participation have been features of Africa's leading economic performers.

If Africa's physical and human capital stocks continue to expand at current rates, annual GDP growth per worker will also rise. Yet this growth rate is dramatically slower than that in many of East Asia's rapid-growth "transformed economies." Africa's structural transformation has been held back by the slow progress of its agriculture. Thus if the continent aspires to continue its recent growth acceleration, it will need to prolong its recent acceleration of productivity growth as well. This will require greater investment in research and technology transfer, as well as a more supportive policy environment for innovative activities that facilitate the structural transformation, which, in turn, will enhance economic growth.

**Macroeconomic and institutional policy reforms have contributed significantly to the continent's productivity growth**

## 2.1 AFRICA'S GROWTH AND STRUCTURAL TRANSFORMATION

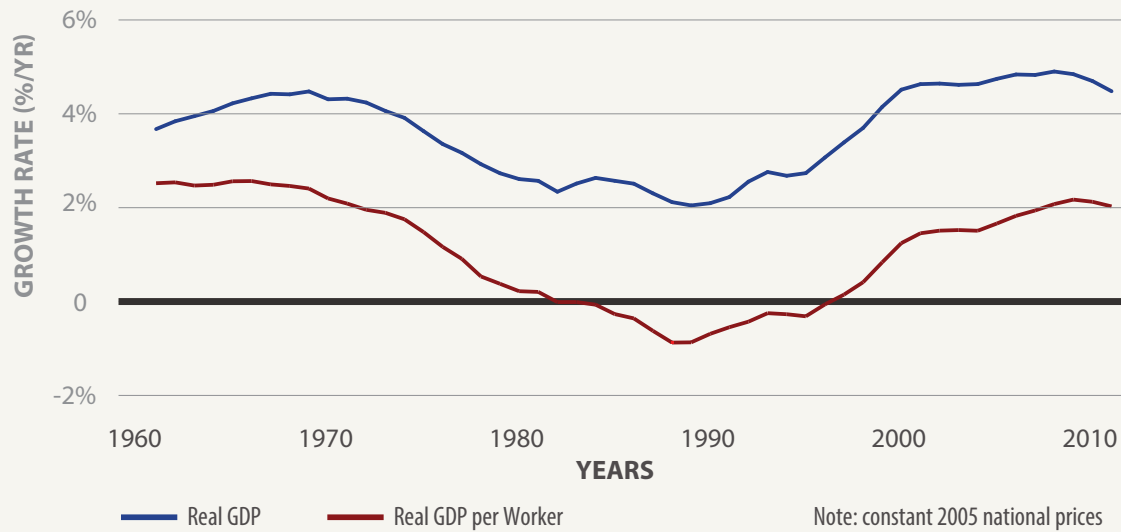
The average annual growth rate of aggregate GDP for African economies during the 2000s was 4.7 per cent, a sharp increase over the 2.7 per cent of the 1990s.<sup>2</sup> This pick-up fits in with the broader historical pattern of decline and recovery that has characterized African economic growth since independence in the early 1960s (figure 2.1).<sup>3</sup>

While the continent's vast diversity belies generalization, the pattern of decline and recovery in aggregate GDP and GDP per worker is robust at subregional level, as well as between countries with and without endowments of oil and minerals, and between coastal and land-locked countries.<sup>4</sup> For example, analysis of production functions and productivity across growth rates of GDP per worker, capital stock per worker and human capital shows much less subregional variation relative to the African average across decades (table 2.1).

**Reallocating resources to high productivity-activities across and within sectors is crucial for Africa's structural transformation**



FIGURE 2.1: GROWTH RATE OF GDP AND REAL GDP PER WORKER, 1960–2010



Source: Calculations based on PWT8.0 (database) and Feenstra, Inklaar and Timmer (2013).

TABLE 2.1: AVERAGE GROWTH RATES OF OUTPUT PER WORKER, CAPITAL STOCK PER WORKER AND HUMAN CAPITAL, BY SUBREGION AND DECADE, 1960–2010

Subregion	Growth of:	1960s	1970s	1980s	1990s	2000s
East	Output per Worker	0.016	-0.003	-0.003	0.004	0.03
	Capital per Worker	-0.007	0.027	0.003	0.014	0.042
	Human Capital	0.006	0.011	0.011	0.01	0.01
Central	Output per Worker	0.016	0.01	-0.003	-0.034	0.004
	Capital per Worker	0.024	0.039	0.014	0.003	0.018
	Human Capital	0.008	0.016	0.016	0.009	0.006
Southern	Output per Worker	0.029	0.03	0.006	0.007	0.017
	Capital per Worker	0.001	0.046	0.01	0.037	0.028
	Human Capital	0.008	0.01	0.013	0.009	0.008
West	Output per Worker	0.016	0.009	-0.011	-0.017	0.009
	Capital per Worker	-0.009	0.026	-0.004	0.033	0.003
	Human Capital	0.006	0.01	0.01	0.009	0.011
North	Output per Worker	0.049	0.029	0.007	0.015	0.025
	Capital per Worker	0.027	0.049	0.038	0.066	0.048
	Human Capital	0.007	0.012	0.014	0.013	0.011
Africa (all)	Output per Worker	0.025	0.017	-0.001	-0.004	0.016
	Capital per Worker	0.003	0.037	0.009	0.033	0.024
	Human Capital	0.007	0.011	0.012	0.01	0.009

Source: Calculations based on PWT8.0 (database), Feenstra, Inklaar and Timmer (2013) and World Development Indicators (database).

The U-shaped pattern of growth rates of GDP per worker is reflected in the African averages for the growth of capital stock per worker: an annual 3.7 per cent during the 1970s, 3.3 per cent during the 1990s, but less than 1 per cent during the 1980s. While accumulation of capital stock per worker was slower in each subregion in the 1980s than during the previous and subsequent decades, the resurgence of physical capital accumulation during the 1990s was particularly robust among North African countries, while Central Africa's accumulation of capital stock per worker continued its deceleration through the 1990s.

In contrast, growth rates of human capital have been more stable, suggesting much less subregional variation relative to the African average within each decade, as well as a high degree of stability over time. It is safe to generalize that the annual growth rate of human capital across Africa has been approximately 1 per cent since the 1960s.

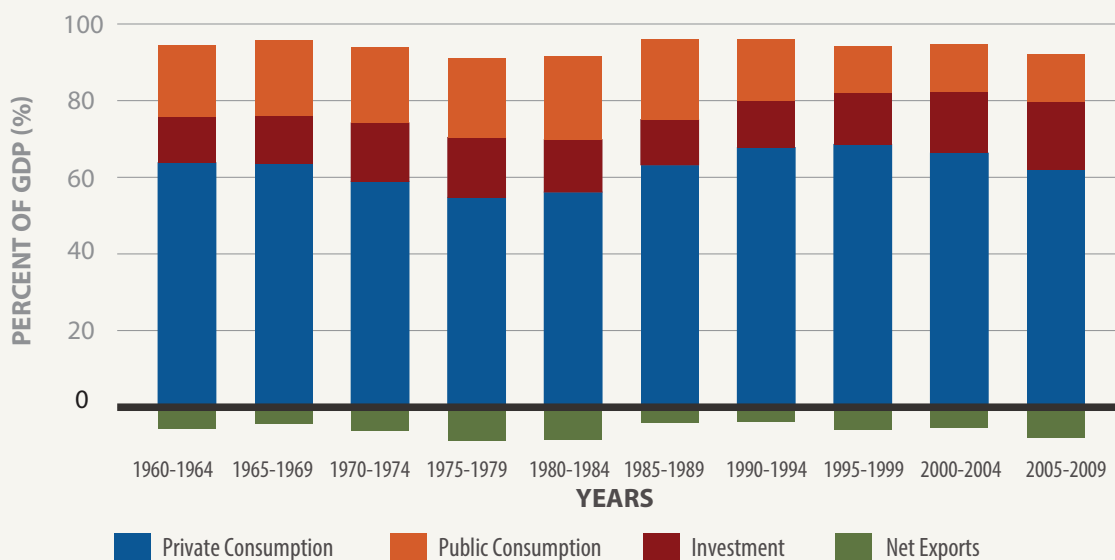
### PRIVATE CONSUMPTION DOMINATES AGGREGATE EXPENDITURE SHARES, BUT INVESTMENT IS THE MAIN DRIVER OF GROWTH

When decomposed for half-decade periods from 1960–1964 to 2005–2009, private consumption dominates, typically accounting for 60–70 per cent of GDP (figure 2.2).<sup>5</sup> The

second-largest category was public consumption, averaging 20 per cent, though declining sharply as a share of GDP since the mid-1990s. This decline appears to have contributed to an increased share of investment in GDP, which averaged 16 per cent over the entire period but increased from 13 per cent in the late 1980s to nearly 21 per cent in the late 2000s. Net exports accounted for a negative share of Africa's GDP throughout.<sup>6</sup>

Two key policy issues arise from an expenditure share decomposition of GDP. The first pertains to the balance between public and private consumption, and the broader balance between consumption and investment. While it is difficult to generalize, most economists agree that too large a share of public consumption in GDP has tended to impede growth in Africa. Government consumption in Africa has historically been far greater than in East Asia's high-growth economies—an observation broadly consistent with Africa's own growth experience. Comparing the 1990s, when Africa on average did not grow, with the 2000s, when growth returned, public consumption saw a significant reduction in its GDP share (figure 2.2); private consumption's share of GDP also declined over the period. The beneficiary was investment, and economic theory is clear in pointing to the growth benefits of increased investment shares. The specific policy challenges then lie in a combination of budgetary restraint and of adoption of financial sector and interest rate policies that promote investment.

FIGURE 2.2: EXPENDITURE SHARES OF GDP, 1960–2009



Source: Calculations based on PWT8.0 (database) and Feenstra, Inklaar and Timmer (2013).



## International trade is key in driving economic growth, and fast-growing countries have created policy environments supportive to trade

The second key policy issue is that international trade has a critical role in driving economic growth. Africa's net exports have been consistently and substantially negative (with the obvious exception of the oil-exporting countries). Countries that have created policy environments supportive of trade have tended to grow faster than closed economies. Mauritius, an oil-importing country, has combined openness to trade with additional pro-growth policies and institutional reforms to create one of Africa's leading success stories (as further discussed in chapter 4). Mauritius is currently ranked as an upper middle-income country with a 2011 GDP per capita of \$12,733 (2005 purchasing power parity).<sup>7</sup> Frankel (2010) identifies five key growth-enhancing policies adopted by the government: creating a well-managed export processing zone (EPZ), negotiating trade preferences with trading partners, spending on education, maintaining a competitive exchange rate and creating a business-friendly environment. Institutional and policy reforms helped Mauritius foster structural transformation through increased investment and productivity growth across sectors, including agriculture.

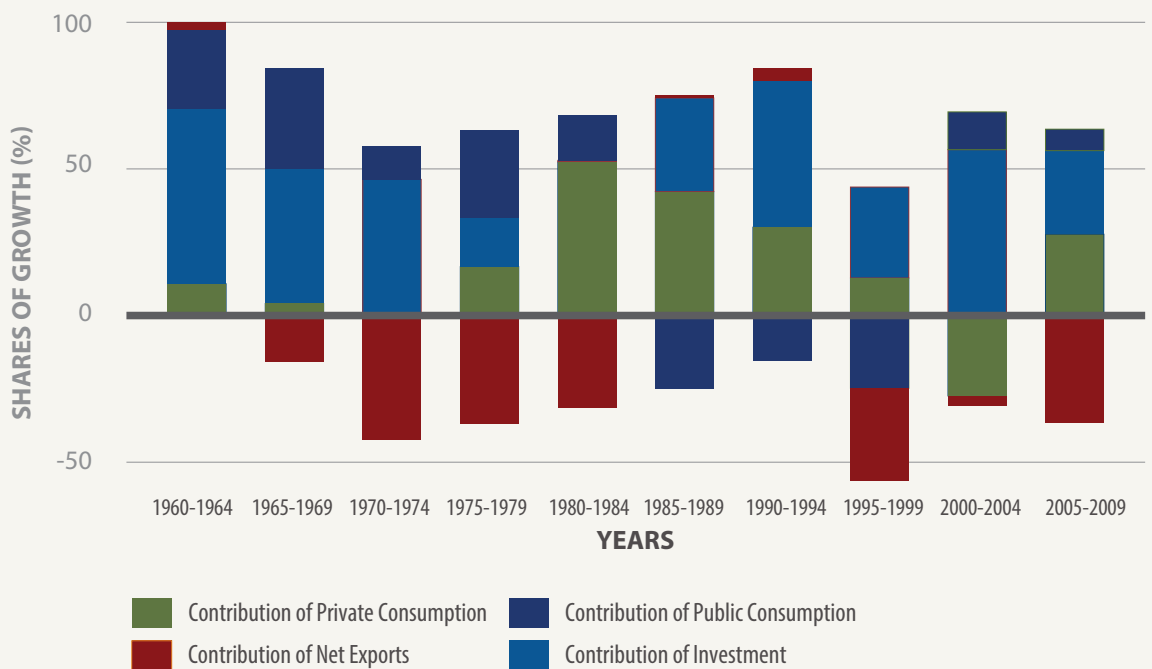
To connect these GDP expenditure shares to growth, we multiply each expenditure category's share by its annual growth rate. This approximates the contribution of each expenditure category to GDP growth (figure 2.3).

Several patterns emerge for Africa as a whole. Investment has been the most consistent contributor to growth among the major expenditure categories. Public expenditure contributed positively to growth during the 1960s and 1970s, but curtailed growth in the late 1980s and 1990s as structural reforms led this category to negatively contribute between the mid-1980s and the late 1990s. The most striking pattern, however, is the consistently negative contribution of net exports.

## AFRICA'S SECTORAL COMPOSITION REVEALS LIMITED STRUCTURAL TRANSFORMATION

Structural transformation involves systematic changes in sector proportions as economies grow. This process reflects the empirically robust pattern in which agriculture typically dominates the economies of poor countries but declines in importance as economies develop, giving way to industry and services.

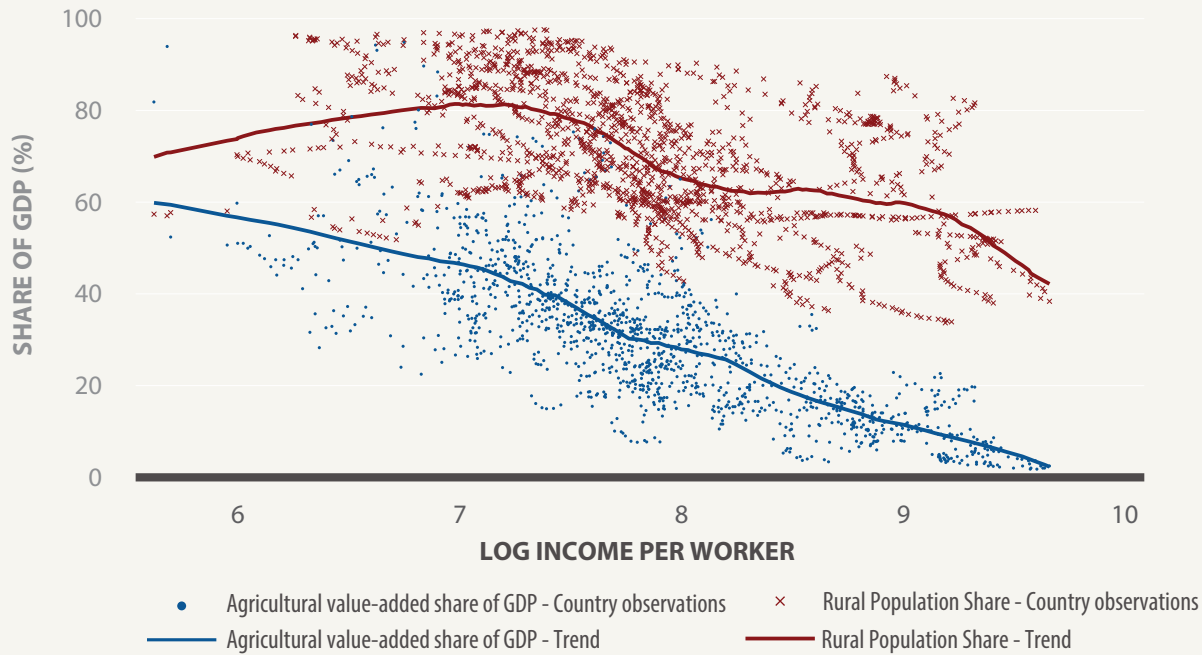
FIGURE 2.3 CONTRIBUTIONS TO GROWTH OF EXPENDITURE CATEGORIES



Source: Calculations based on PWT8.0 (database) and Feenstra, Inklaar and Timmer (2013).

**FIGURE 2.4: STRUCTURAL TRANSFORMATION IN AFRICA, 1960–2011**

1960 - 2011 country-year observations



Source: Calculations based on PWT8.0 (database) and Feenstra, Inklaar and Timmer (2013).  
 Note: Ag stands for agriculture.

Broadly, the progress of structural transformation in Africa, as indicated by changes in the share of rural labour force in total labour and the share of agriculture in GDP during 1960–2008, has lagged far behind that of other developing regions, especially East Asia and Latin America (Perkins et al., 2013). The Latin American countries reflect the most advanced stage of structural transformation among the included developing regions, of South Asia, East Asia and Pacific, and Africa (excluding North Africa), with quite a small share of GDP from agriculture and the rural labour force accounting for around 20 per cent of total labour.

In contrast, structural transformation in Africa remains limited, as evidenced by still-high rural population shares, and the downward trend as a function of income per worker is both limited and inconsistent. Agriculture’s share of GDP in Africa has declined more as a function of income per capita, with a nearly linear trend.

Africa’s structural transformation differs in an important way from that in broader developing countries. There appears to be a trend towards convergence of the rural population share with the agricultural value-added share of GDP as income grows (figure 2.4). Perkins et al. (2013) argue that this distinction is important as to its implication for urban–rural income

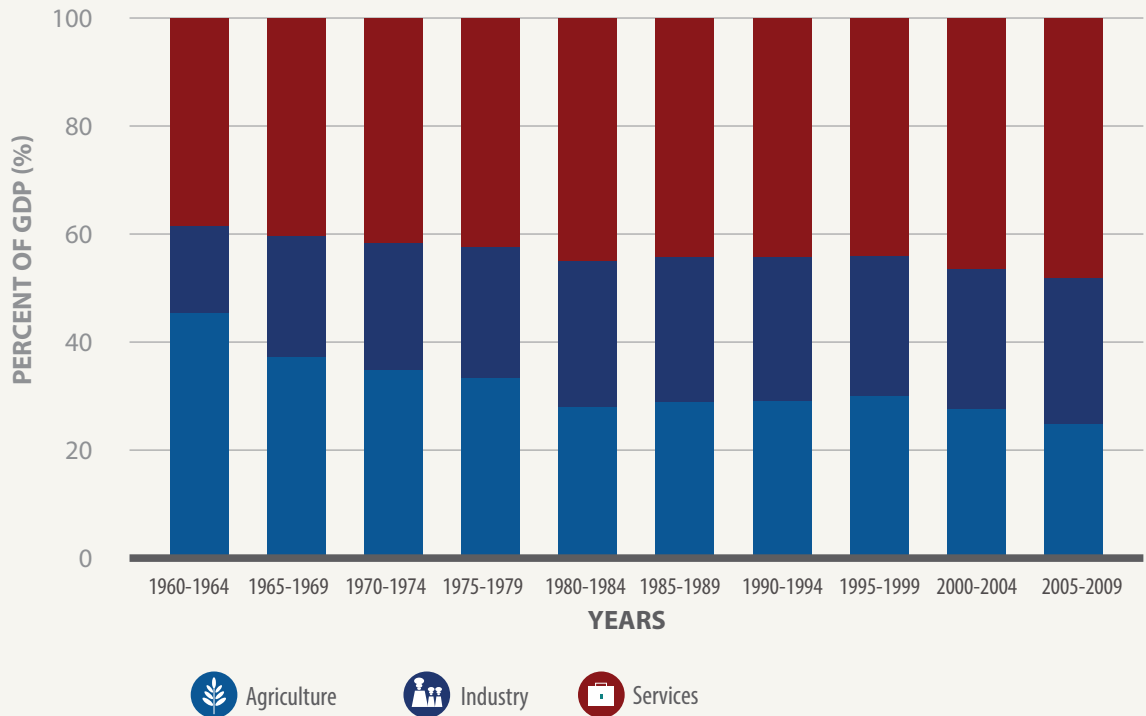
disparities. To the extent that the rural population share exceeds the agricultural value-added share of GDP, it implies that a relatively large proportion of the total population (such as rural dwellers) is sharing a smaller proportion of national income (such as rural poverty thus being disproportionate). This implied urban–rural disparity dissipates as the structural transformation leads the rural population share to converge downwards to the agricultural value-added share of GDP, as exhibited in the paths of East Asian and Latin American countries. However, the analysis suggests that Africa is yet to follow this pattern.

Decomposing GDP into the shares of agriculture, industry and services across successive five-year periods underscores Africa’s limited structural transformation (figure 2.5). In the early 1960s, agriculture accounted for the largest share of GDP, followed by services and industry. By 2005–09, agriculture’s share of GDP had fallen by some 20 percentage points, with the shares of services and industry making up the difference in roughly equal proportions (figure 2.5).

Within Africa, from the 1960s through the 1980s, East Africa consistently exhibited the highest share of agriculture and the lowest share of industry in GDP (table 2.2). Reflecting in part their more arid environments, North and Southern Africa



FIGURE 2.5: SECTORAL COMPOSITION OF AFRICA'S GDP



Source: World Development Indicators (database).

had the lowest agricultural GDP shares. Taking the proportional decline in agriculture's share of GDP as an indicator of structural transformation, this suggests that the most rapid transformation occurred in Southern Africa, where agriculture's share of GDP fell from 37 per cent to just under 14 per cent (a proportional decline of nearly two thirds). East and North African countries underwent an equivalent proportional decline of just more than 40 per cent, and Central and West African countries by closer to 20 per cent. Conversely, the shares of services and industry increased in all subregions, with the services contribution more prominent in all of them - with the exception of Central Africa where industry outstripped services—and across three country groupings of endowment (mineral poor or rich); geography (coastal or land-locked); and oil (importer or exporter)—as shown in table 2.3.<sup>8</sup>

Among the country groupings, mineral endowment appears to be essentially unrelated to the sectoral composition of GDP in any given decade (see table 2.3). Yet applying the same indicators of agriculture, industry and services share of GDP, the mineral-poor countries exhibited twice the rate of structural transformation as the mineral-rich countries. In contrast, geographical distinctions appear to have a greater impact on the sectoral composition of GDP. Land-locked countries have been substantially more dependent on agri-

culture than coastal countries (though there has been a slow tendency for their sector shares of agriculture to converge over time). Industry and services both played larger roles in the coastal countries than in the land-locked countries from the 1960s through the 1980s.

### OIL-IMPORTING AND OIL-EXPORTING COUNTRIES EXHIBITED VARIED PATTERNS OF STRUCTURAL TRANSFORMATION BUT A LIMITED CONTRIBUTION OF MANUFACTURING TO GDP GROWTH







The greatest differences in sectoral composition of GDP lie between the oil-importing and oil-exporting countries. While both groupings witnessed steep declines between the 1960s and the 2000s in their agricultural share of GDP, that share in the oil-importing countries remained consistently 13 percentage points above that of the oil-exporting countries. Oil-importing and oil-exporting countries also differed markedly over time in the evolution of their industrial shares of GDP. While that share among oil importers only increased

from 20 per cent to just under 23 per cent, in oil exporters it more than doubled, from 23 per cent to nearly 50 per cent. The oil-exporting countries by the 2000s thus exhibited a much higher industrial share of GDP than any other country grouping in table 2.3 (at nearly twice the African average).

When sectoral contributions are approximated to growth based on the ratio of each sector's growth rate to the country's overall growth rate in a given year,<sup>9</sup> the largest contributions to growth come from services, followed by agriculture

**Southern Africa has experienced rapid transformation, as agriculture's share of GDP fell from 37 per cent to just under 14 per cent**

**TABLE 2.2: SUBREGIONAL SECTORAL COMPOSITION OF GDP**

Subregion	1960s	1970s	1980s	1990s	2000s
 East	35.5 12.8 51.7	36.9 14.5 48.6	43.8 14.5 42.5	50.0 16.1 34.3	53.4 17.9 28.8
 Central	35.5 12.8 51.7	36.9 14.5 48.6	43.8 14.5 42.5	50.0 16.1 34.3	53.4 17.9 28.8
 Southern	40.1 26.2 37.0	42.1 31.9 26.0	44.1 36.0 19.9	46.8 36.7 16.5	50.6 35.9 13.6
 West	37.6 17.4 44.8	40.9 19.4 39.7	47.3 18.7 34.1	43.9 20.0 36.1	45.7 20.0 34.3
 North	41.6 26.2 32.2	43.4 31.0 25.9	46.4 33.0 21.3	45.9 30.9 23.2	45.9 35.1 18.9
 Africa (all)	40.0 20.8 39.8	41.5 24.3 34.3	44.9 25.4 30.0	45.3 25.8 29.0	46.3 28.6 25.0



Agriculture



Industry



Services

Source: World Development Indicators (database).

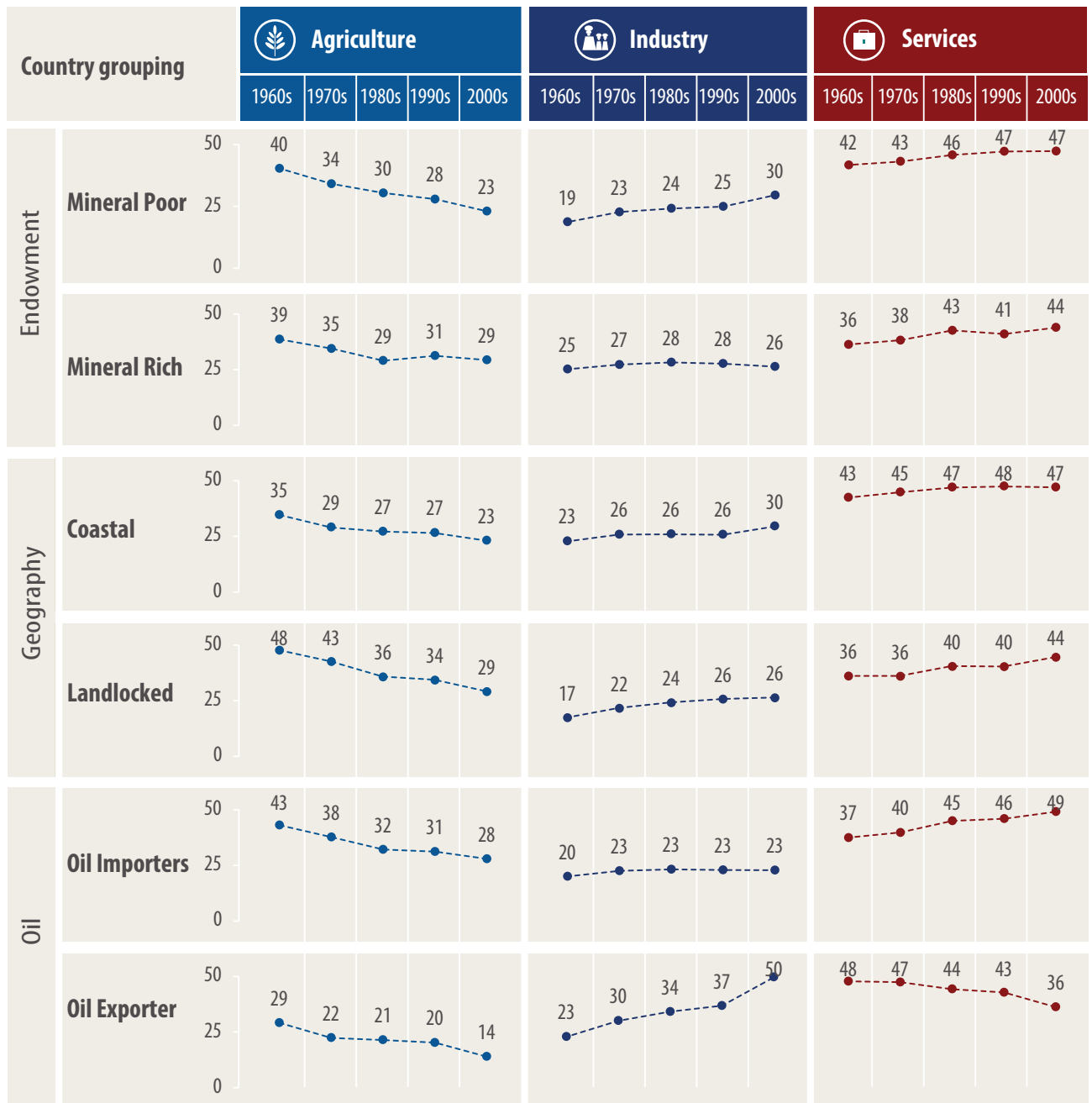




and then industry (figure 2.6). The trends are uneven over time but generally reflect a diminishing growth contribution from agriculture, with that proportional decrease absorbed in rough equal measure by industry and services.

More important, in both oil-importing and oil-exporting African countries, the share of manufacturing (a subsector of industry that is often a source of high productivity) in GDP remained small or declined over time (table 2.4). The contribution of manufacturing to GDP growth is smaller in oil-rich countries.

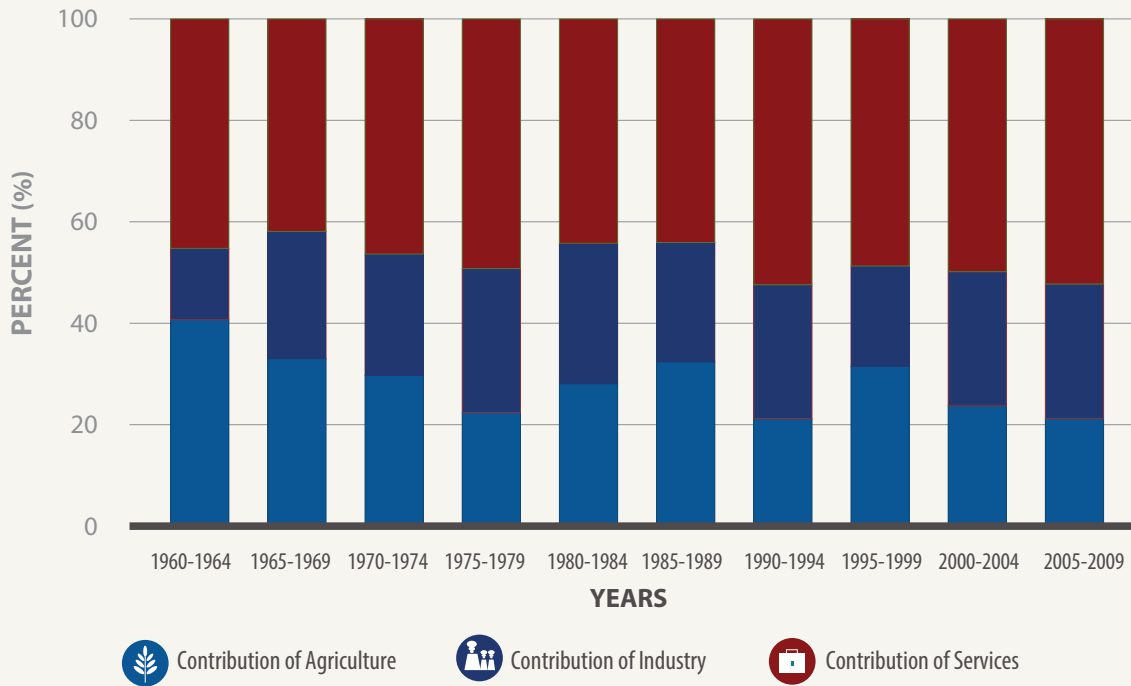
TABLE 2.3: SECTORAL COMPOSITION OF GDP, BY COUNTRY GROUPING



Source: World Development Indicators (database).

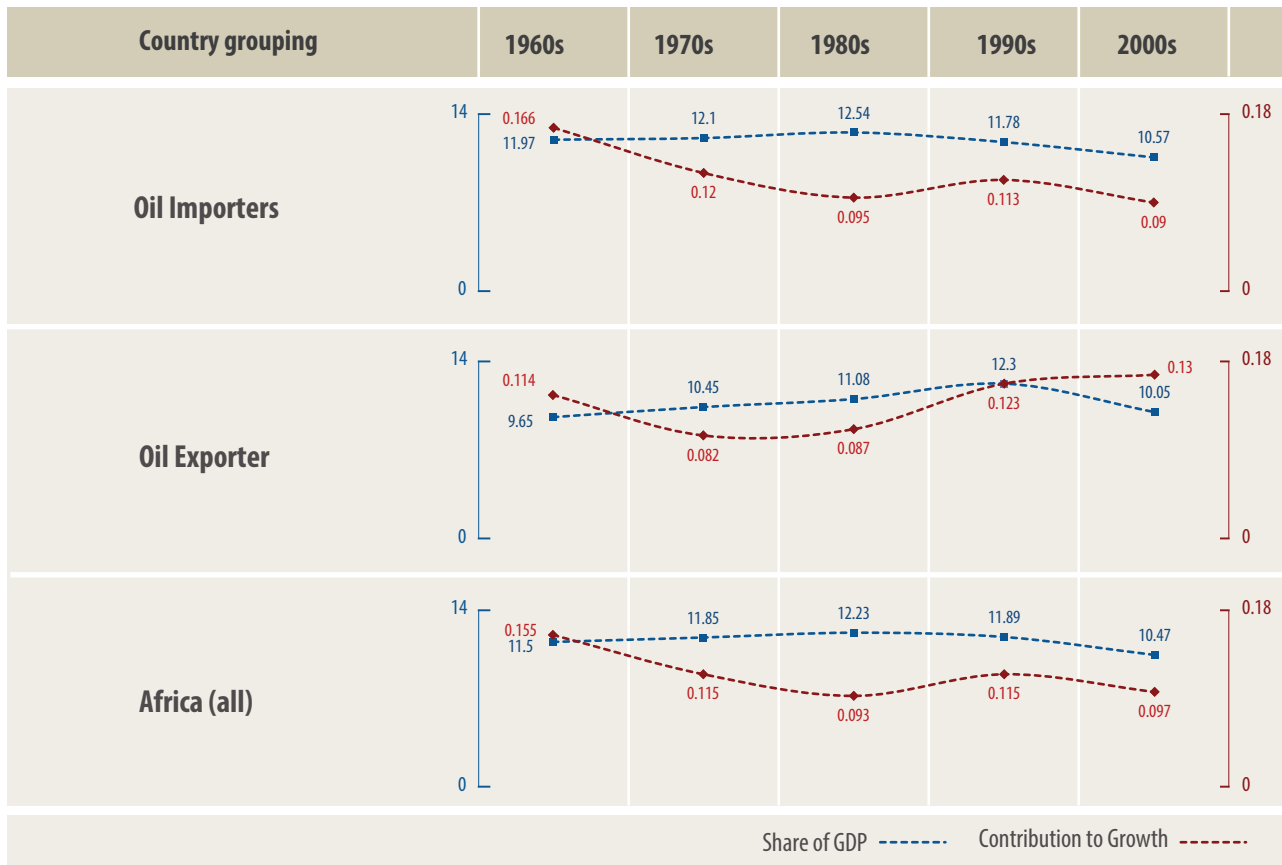


FIGURE 2.6: SECTORAL CONTRIBUTIONS TO GDP GROWTH, 1960–2009



Source: Calculations based on World Development Indicators (database).  
 Note: Data trimmed of outliers.

TABLE 2.4: SHARE OF MANUFACTURING IN GDP AND CONTRIBUTION TO GROWTH



Source: World Development Indicators (database).  
 Note: Data trimmed of outliers.



## 2.2 STRUCTURAL TRANSFORMATION CAN BE A SOURCE OF GROWTH—BUT HAS NOT BEEN FOR AFRICA

Structural transformation can be a source of growth in labour productivity if it entails the migration of labour from relatively low- to relatively high-productivity employment. However, the opposite is also possible—when it entails the movement of labour from higher- to lower-productivity employment it can diminish productivity growth.

Recent research by McMillan and Rodrik (2011) presents key stylized facts on the relationship between structural transformation and productivity growth. They generalize that such transformation is more likely to diminish productivity growth in countries with a comparative advantage in natural resource-based primary commodities. Unlike manufacturing, extractive industries such as mining, while exhibiting higher labour productivity, are also highly capital intensive and thus absorb little labour. Conversely, the authors find that countries with competitive (or undervalued) exchange rates have tended to experience productivity-enhancing structural transformation. Such exchange rate regimes incentivize the production of tradable commodities, effectively subsidizing exports. Finally, McMillan and Rodrik find that countries with flexible labour markets tend to experience productivity-enhancing structural transformation, as this facilitates the core process of transformation. Unfortunately, none of these stylized facts works in Africa's favour.

McMillan and Rodrik (among others) note that an economy's average labour productivity can grow either because of labour productivity growth within individual sectors or because of the migration of labour between sectors from lower to higher productivity sectors (the structural transformation component). Decomposing labour productivity growth in 11 African countries<sup>10</sup> for 1990–2005, they find that labour productivity grew at only 0.9 per cent per year—a combined result of average labour productivity growth within sectors of 2.1 per cent but a negative contribution of structural transformation of –1.3 per cent.

Thus they find that structural transformation in the 11 countries was characterized by the migration of labour from higher to lower productivity employment, diminishing labour productivity. (This stands in sharp contrast to their decomposition of labour productivity growth in Asia between 1990 and 2005, where average labour productivity grew by 3.9 per cent per year—3.3 per cent from productivity growth within sectors and 0.6 per cent from structural transformation in which labour migrated from lower to higher productivity sectors.)

Across African countries, the authors' findings differ widely. Ethiopia, Ghana and Malawi experienced growth-enhancing structural change as employment in manufacturing increased, unlike Nigeria and Zambia, which experienced expanding employment shares in agriculture and shrinking shares in manufacturing and services—structural transformation in reverse.

More recent research by de Vries, Timmer and de Vries (2013) extend both the analytical framework developed by McMillan and Rodrik and the data available to study structural transformation in Africa.<sup>11</sup> This extended analytical framework considers not just whether labour migrates from sectors with low versus high levels of labour productivity, but also whether labour productivity in the expanding sectors is growing faster or more slowly than in the shrinking sectors. Thus de Vries, Timmer and de Vries distinguish between what they call "static" and "dynamic" effects of structural transformation on aggregate labour productivity. They also provide a higher degree of sectoral disaggregation within industry and services than in previously available data (extending the period of analysis back to 1960).

### **Structural transformation is a key source of growth and high-productivity employment**

They identify three distinct phases of structural transformation in Africa (table 2.5). In 1960–1975, labour productivity rose as workers migrated from agriculture to manufacturing. Manufacturing's share of employment grew from 4.7 per cent in 1960 to 7.8 per cent in 1975, and labour productivity in manufacturing over that period was around 2.5 times greater than average labour productivity (compared with agriculture, where labour productivity was about half the economy-wide average). But this productivity-enhancing structural transformation stagnated between 1975 and 1990.

**TABLE 2.5: GDP, EMPLOYMENT AND RELATIVE PRODUCTIVITY LEVELS BY SECTOR AND SUBSECTOR, 11 AFRICAN COUNTRIES, 1960–2010**

	GDP (%)				Employment (%)				Relative productivity levels			
	1960	1975	1990	2010	1960	1975	1990	2010	1960	1975	1990	2010
<b>Agriculture</b>	37.6	29.2	24.9	22.4	72.7	66.0	61.6	49.8	0.5	0.4	0.4	0.4
<b>Industry</b>	24.3	30.0	32.6	27.8	9.3	13.1	14.3	13.4	4.4	3.7	3.5	2.6
<b>Mining</b>	8.1	6.2	11.2	8.9	1.7	1.5	1.5	0.9	15.7	22.4	23.3	19.5
<b>Manufacturing</b>	9.2	14.7	14.0	10.1	4.7	7.8	8.9	8.3	2.5	2.8	2.4	1.6
<b>Other industries</b>	7.1	9.2	7.3	8.9	3.0	3.8	3.9	4.2	8.5	5.8	5.3	2.9
<b>Services</b>	38.1	40.7	42.6	49.8	18.0	20.9	24.1	36.8	2.7	2.5	2.4	1.6
<b>Market services</b>	24.5	25.5	28.1	34.0	8.8	10.3	12.9	23.5	4.5	3.4	3.0	1.8
<b>Distribution services</b>	21.5	20.8	22.7	25.4	8.2	9.5	11.4	20.1	4.6	3.2	2.7	1.5
<b>Financial and business services</b>	3.0	4.7	5.4	8.6	0.6	0.8	1.5	3.4	6.1	8.9	10.4	8.1
<b>Non-market services</b>	13.6	15.2	14.4	15.8	9.2	10.6	11.2	13.3	1.8	1.7	1.8	1.3
<b>Government services</b>	10.5	11.7	11.5	12.2	4.2	5.0	6.4	8.7	2.8	2.5	2.5	1.7
<b>Other services</b>	3.1	3.5	2.9	3.5	5.4	6.1	5.3	5.4	0.9	0.9	1.0	1.0
<b>Total economy</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	1.0	1.0	1.0	1.0

Source: de Vries, Timmer and de Vries (2013).

After 1990, Africa's renewed growth was characterized by a structural transformation that exhibited static gains but dynamic losses (table 2.6). That is, labour flowed from both agriculture and manufacturing to services. The static gains arise because the level of labour productivity in services was greater than that in agriculture; the dynamic losses arise because the growth of labour productivity in the expanding services sector was slower than that in manufacturing.

de Vries, Timmer and de Vries find that labour productivity in the 11 African countries between 1990 and 2010 grew at 1.9 per cent a year. Productivity growth within sectors was the dominant contributor, at 1.8 per cent (see table 2.6). The between-sector static gains from the transfer of labour from sectors with low levels of labour productivity to sectors with higher levels (1.40 per cent) were all but erased by the negative dynamic effects of transferring labour from sectors with higher rates of labour productivity growth to sectors with lower rates (-1.34 per cent). Most of the static gains

**TABLE 2.6: SUBSECTORAL DECOMPOSITION OF LABOUR PRODUCTIVITY GROWTH, 11 AFRICAN COUNTRIES, 1990–2010 (%)**

	Within sectors	Between sectors	
		Static	Dynamic
<b>Agriculture</b>	0.65	0.00	0.00
<b>Industry</b>	0.81	0.43	-0.34
<b>Mining</b>	0.17	0.02	-0.01
<b>Manufacturing</b>	0.19	0.12	-0.12
<b>Other industry</b>	0.44	0.29	-0.21
<b>Services</b>	0.38	0.96	-1.00
<b>Market services</b>	0.15	0.82	-0.82
<b>Distribution services</b>	0.06	0.65	-0.70
<b>Financial services</b>	0.09	0.18	-0.12
<b>Non-market services</b>	0.23	0.14	-0.18
<b>Government services</b>	0.06	0.14	-0.15
<b>Other services</b>	0.17	0.00	-0.03
<b>Total economy</b>	1.83	1.40	-1.34

Source: de Vries, Timmer and de Vries (2013).



came from the expansion of services (particularly market services); yet services also exhibited growth rates of labour productivity substantially below average for their economies. Crucially, they find that structural transformation made no contribution to productivity growth through manufacturing.

In short, this evidence suggests that structural transformation in Africa has been limited, and the structural transformation has not contributed to growth, in sharp relief to East Asia. Take Vietnam—a prime example of how policy reforms can support rapid structural transformation, contributing to economic growth (box 2.1). Vietnam saw its real income per capita more than triple between 1990 and 2012.

## 2.3 TRENDS AND DETERMINANTS OF AFRICA'S LOW PRODUCTIVITY

### AFRICA'S PRODUCTIVITY IS TOO LOW

High productivity growth is essential if African countries are to accelerate economic growth. However, low (or even negative) productivity growth has underpinned the bulk of Africa's experience since independence.

Over 1960–2000, almost all the meagre annual real GDP growth rate of 0.61 per cent in Africa (excluding North Africa) came from physical capital accumulation per worker, not productivity growth per worker. The upshot was that other developing countries in East Asia and Latin America grew 2.5 times faster and per worker productivity had a contribution of 28 per cent to GDP growth (Ndulu and O'Connell, 2009)

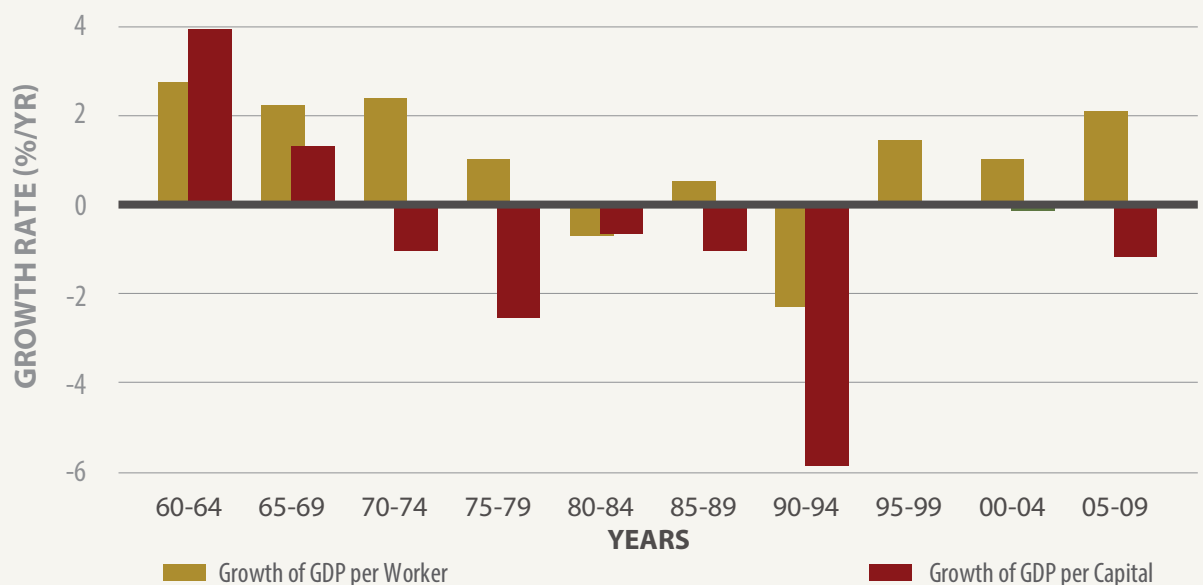
Using data for 51 African countries for 1960–2011, ECA (2013) analysed productivity growth in terms of the average productivity of factors of production ("partial productivity ratios") as well as TFP.

#### Partial productivity ratios

Figure 2.7 illustrates the growth rates of output (GDP) per worker and per unit of capital stock by five-year period in Africa.

What is most striking is the dramatic switch for capital productivity from growth in the early 1960s to contraction for the next four decades. The fluctuations in labour productivity have been much more moderate. Table 2.7 disaggregates these trends by subregion, though by decade rather than half-decade. Across all subregions labour productivity declined from positive growth in the 1960s to negative growth in the 1970s, 1980s and 1990s but recovered to positive territory in the 2000s. However, the decline in capital productivity continued to the 2000s, except in West Africa where capital productivity growth was zero.

FIGURE 2.7 GROWTH RATES OF LABOUR AND CAPITAL PRODUCTIVITY



Source: Calculations based on PWT8.0 (database) and Feenstra, Inklaar and Timmer (2013).  
Note: See 51 African countries as listed earlier.

## BOX 2.1 VIETNAM—POLICY CHANGE PROMOTING STRUCTURAL TRANSFORMATION

Vietnam provides a relevant and striking contrast to much of Africa with its rapid structural transformation making major contributions to economic growth. Since the late 1980s, Vietnam's income per capita has more than tripled, and poverty has seen a sharp decline. Prior to this period, Vietnam's income per capita was slightly below Kenya's, but by 2012 income per capita had risen to \$3,600 (2005 purchasing power parity), or twice Kenya's.

Accompanying this period of rapid economic growth was a drastic shift in the composition of Vietnam's economy (McCraig and Pavcnik, 2013). Between 1986 and 2009, agriculture's share of GDP fell from 34 per cent to 17 per cent, and the share of the labour force employed in agriculture fell from more than 70 per cent to 54 per cent. Manufacturing and services exhibited similarly rapid expansions in their shares of GDP and labour. To explain these changes, McCraig and Pavcnik highlight the effects of policy reforms collectively known as Doi Moi.

As earlier in this chapter, growth in aggregate labour productivity can be decomposed into the separate contributions of productivity growth within individual sectors and of that from structural transformation (between sectors). The latter requires that labour migrate from lower to higher productivity activities. Structural transformation accounted for 38 per cent of Vietnam's economic growth during the 1990s and 2000s, surpassing within-sector productivity as a source of growth as of 2001. In 1990, Vietnam's economy depended on agriculture as much as Africa's today.

The policy foundation for Vietnam's rapid structural transformation was built on major policy reforms in three areas: agriculture, enterprise, and international integration. All three fall within the Doi Moi reforms beginning in the late 1980s, which began in agriculture. As in Tanzania under Nyerere during the 1970s, Vietnam's agricultural sector through the 1980s was

organized around collective farms. In 1987 and 1988, Vietnam reversed course, first by legalizing private economic activity and then by eliminating price controls and state procurement of agricultural products. Family farms replaced collective farms. Land titling was adopted to promote investment and productivity growth in agriculture. The improved incentives for agricultural producers were accompanied by trade policy reform. Over the 1990s, Vietnam more than quadrupled its exports of rice.

Structural transformation cannot proceed without productivity growth in agriculture. As few countries (and none in Africa) can risk substantial declines in food production, releasing labour from agriculture for potentially more productive employment in industry or services requires a "labour push" based on productivity growth in agriculture. Rapid growth in the productivity of rice labour in Vietnam was an important catalyst for structural transformation.

The flip side of this labour push contribution to structural transformation is the "labour pull" from industry and services. This labour pull in Vietnam was accelerated by enterprise reforms under Doi Moi. In particular, Vietnam's non-agricultural economy was dominated by state-owned enterprises (SOEs) before Doi Moi. On the eve of the reform period in 1989, half of Vietnam's non-agricultural labour force was employed in SOEs. The Foreign Investment Law of 1987 opened nearly all of Vietnam's economy to foreign ownership and provided generous tax exemptions to promote this investment. Additional enterprise reforms removed price controls and decentralized decision-making to the firm level. The government promoted the expansion of exports by creating special EPZs beginning in 1991. Capital account liberalization, along with the Foreign Investment Law, yielded large inflows of FDI, which increased from 2.8 per cent of GDP in 1990 to nearly 12.0 per cent by 1994.

Around the same time, Doi Moi targeted the SOE sector. The most striking reforms were the imposition of hard budget constraints on SOEs and the removal of export subsidies. By the mid-1990s, the number of SOEs in Vietnam had fallen by half—and shed more than 800,000 workers. Private sector development was further accelerated by the 2000 Enterprise Law, which facilitated the registration of private firms in most sectors of Vietnam's economy. Within two years, the number of private firms registered in Vietnam quadrupled.

### Successful structural transformation must foster productivity growth in agriculture

Together, these enterprise reforms not only increased labour productivity within the industrial and services sectors, but they also contributed to a substantial labour pull that accelerated the country's structural transformation and contributed to economic growth by drawing labour from low- to high-productivity employment.

A critical complement to all these policy reforms was Vietnam's gradual integration into the global economy. Prior to Doi Moi, Vietnam (like many African countries today) was largely closed to trade, with incentives to trade further undermined by overvalued exchange rates. Extensive trade and exchange rate reforms started in the late 1980s, including exchange rate unification and export facilitation measures that further contributed to Vietnam's structural transformation and economic expansion.

Source: Based largely on McCraig and Pavcnik (2013).









TFP

TFP growth provides a more comprehensive perspective on productivity growth, controlling for changes in the intensity in the use of all inputs, even though it has measurement difficulties. Annual TFP growth early after independence averaged more than 2 per cent, but declined sharply and then contracted faster until 1991, not returning to positive growth until after 2001 and then strengthening further (figure 2.8). The mean contraction over 1960–2011 was 0.5 per cent a year.

Subregional TFP growth shows wide variations. All regions had at least some period of shrinking productivity between the 1970s and late 1990s, but North Africa (which had the highest TFP growth for most of the 1960s) was the only subregion that failed to return to positive TFP growth rates during the 2000s (see figure 2.8). Growth accounting shows that the TFP patterns displayed by the subregions follow the same pattern as that for GDP growth, underscoring the importance of TFP as a driver of growth (ECA, 2013).<sup>12</sup> Most African countries saw contracting TFP over the period, with Democratic Republic of Congo (DRC) coming off worst at –3.9 per cent a year; Botswana had the fastest TFP growth at 1.5 per cent.

TABLE 2.7: GROWTH DECOMPOSITION OF LABOUR AND CAPITAL PRODUCTIVITY BY SUBREGION

Subregion Growth of:	GDP/ Capital Stock					GDP/ Worker				
	1960s	1970s	1980s	1990s	2000s	1960s	1970s	1980s	1990s	2000s
 East	1.6%	-0.3%	-0.3%	0.4%	3.0%	2.3%	-2.3%	-0.1%	-2.5%	-1.7%
 Central	1.6%	1.0%	-0.3%	-3.4%	0.4%	0.4%	-2.7%	0.0%	-3.3%	-3.0%
 Southern	2.9%	3.0%	0.6%	0.7%	1.7%	3.1%	-1.8%	-0.1%	-2.7%	-0.2%
 West	1.6%	0.9%	-1.1%	-1.7%	0.9%	0.9%	-2.5%	0.0%	-1.5%	0.0%
 North	4.9%	2.9%	0.7%	1.5%	2.5%	2.8%	-1.8%	-2.8%	-4.5%	-2.1%
 Africa (all)	2.5%	1.7%	-0.1%	-0.4%	1.6%	1.8%	-2.2%	-0.3%	-2.6%	-1.1%

Source: PWT8.0 (database), Feenstra, Inklaar and Timmer (2013) and World Development Indicators (database).  
Note: See 51 African countries as listed earlier.



Economic growth and development in Africa has been further hampered by the negative TFP growth during 1960–2011. The extent to which TFP growth accounts for growth in GDP per worker varies widely across subregions and decades, when the latter is distinguished by contributions of the accumulation of human and physical capital and TFP growth. Africa’s GDP per worker during the 2000s grew 1.6 per cent a year, comprising accumulation of human capital of 0.5 per cent, accumulation of physical capital per worker of 1.0 per cent and TFP growth of only 0.1 per cent—a turnaround from the 1960s when GDP per worker grew at 2.6 per year, primarily due to TFP growth of 2.1 per cent. Still, the 2000s show better TFP growth than the 1990s in every subregion (including North Africa, where TFP growth during the 2000s remained slightly below zero).

Despite the above heterogeneity, the role of declining TFP growth in dragging down GDP growth per worker is striking (figure 2.9).

**Economic growth and development have been further hampered by the negative total factor productivity growth**

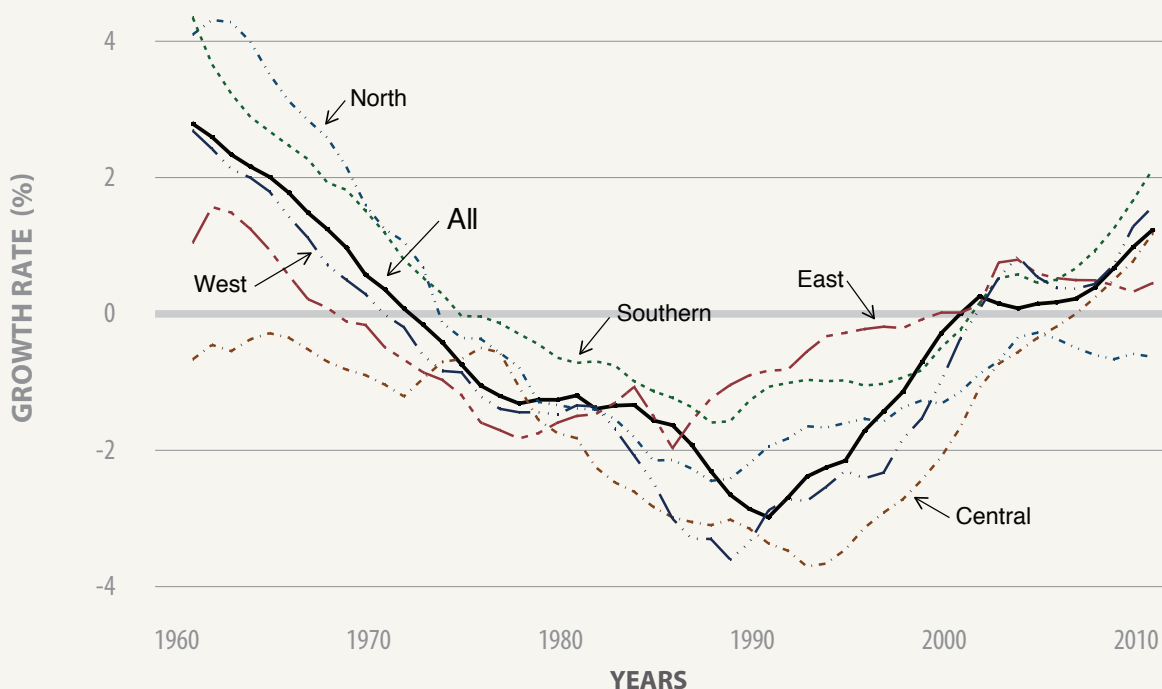
## CONFLICT IS THE BIGGEST OBSTACLE TO HIGHER TFP

Civil war in several countries has undermined TFP growth (figure 2.10). The ECA growth accounting study shows that mean TFP growth in 1960–2010 for country-year observations is 1.66 per cent with a civil war versus 3.50 per cent contraction without. The figure suggests that conflict is the most important factor in growth variations among the four country groupings.

## CORRELATIONS BETWEEN THE DRIVERS OF PRODUCTIVITY GROWTH

Understanding the sources of productivity growth within and among countries remains a fundamental challenge for economists. Efforts to identify and measure the determinants of productivity growth remain only partially complete, even in advanced economies. In Africa, where data are more limited and often of poor quality, this challenge is even greater. In practice, the best one can hope to do may be to identify and measure the effects of relevant country characteristics associated with productivity growth, most likely with that effort falling short of a full accounting exercise.

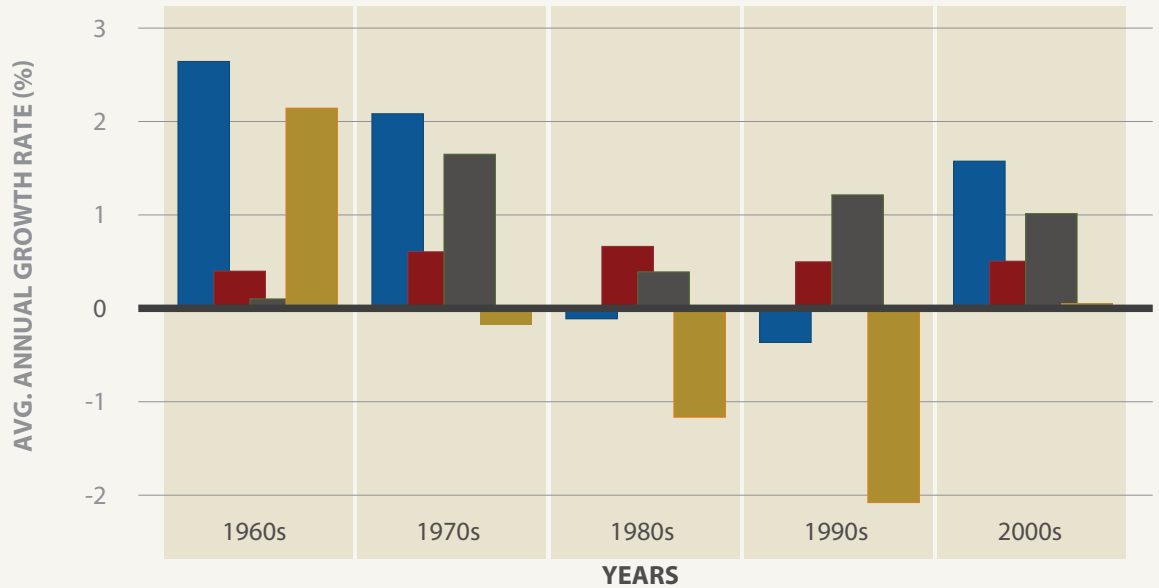
FIGURE 2.8: GROWTH RATE OF TFP BY SUBREGION, 1960–2010



Source: Calculations based on PWT8.0 (database) and Feenstra, Inklaar and Timmer (2013).  
Note: See 51 African countries as listed earlier.

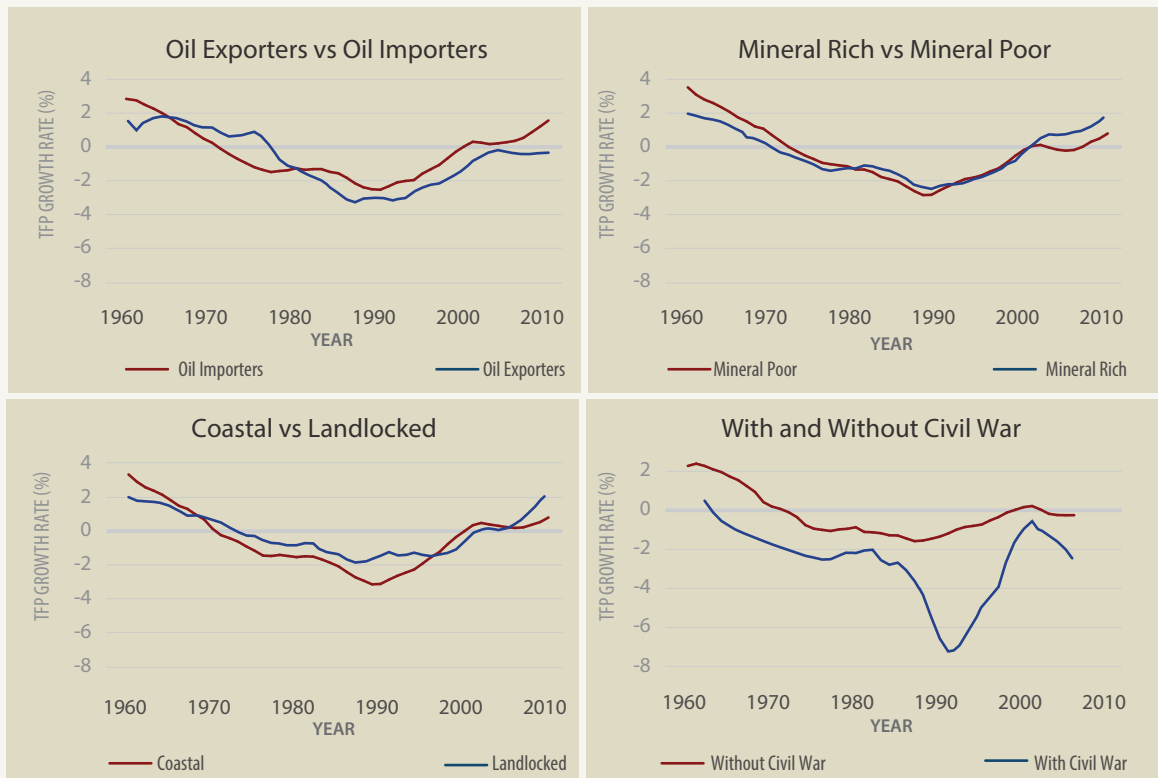


FIGURE 2.9: AVERAGE GROWTH DECOMPOSITION BY DECADE FOR AFRICA 1960–2000s



Source: Calculations based on PWT8.0 (database) and Feenstra, Inklaar and Timmer (2013).  
 Note: GDP growth is the sum of contributions of human and physical capital per capita and TFP.

FIGURE 2.10: TFP GROWTH RATES ACROSS COUNTRY GROUPING, 1960–2010



Source: Calculations based on PWT8.0 (database) and Feenstra, Inklaar and Timmer (2013).  
 Note: See 51 African countries as listed earlier.



The econometric analysis in this section focuses on a few variables included as potential drivers of productivity growth in ECA (2013). This subset is intended to highlight policy choices and institutional influences (though even within these domains, no specification is comprehensive), as well as covering rainfall, demography and trade (see ECA 2013 for methodology and econometric details). These variables are given in box 2.2 followed by some stylized facts that indicate theoretically consistent relationships among selected institutional and policy indicators and productivity growth.

### *Stylized facts underscore strong correlations among institutions, policies and productivity growth*

The incentive environment for productive activities is strongly shaped by governments' macroeconomic and regulatory policy choices—economic and political reforms are two broad themes that characterize Africa's post-independence development. The policy choices of many African governments (especially before the 2000s) led to overvalued exchange rates and high unofficial foreign exchange (black market) premiums. These policies distorted incentives and led to substantial misallocation of resources. Beyond the immediate effects of currency overvaluation, the black market premiums have also been interpreted as a proxy for broader macroeconomic distortions. (However, one must distinguish member countries of the CFA zone, whose currency was pegged in a fixed ratio to the French franc, and later to the euro.)

Incentives for productive activities throughout Africa's economies may also have been shaped by regulatory reform that proceeded throughout 1960–2010, with a notable accel-

### Successful industrialization requires African countries to shift from existing technologies to the development of innovative technologies

ation beginning around 1990 (figure 2.11). This potential is captured through the inclusion of a new composite index of policy reform released by the International Monetary Fund and described in Giuliano, Mishra and Spilimbergo (2013). The reforms that started since independence seem to have only gathered pace in the 1990s and 2000s. As they did so, the black market foreign currency premiums—which surged in the post-independence period, peaking at well more than 100 per cent in the 1980s and hovering around 100 per cent after—started dropping sharply in the 2000s (see figure 2.11).

The relationship between institutions and economic growth has received widespread academic attention in recent years, even if the debate is an old one. While no one denies that the relationship exists, there is no clear agreement on the direction of causation. Although the debate is not the focus here, box 2.3 presents a practical meaning of institutions, whereas box 2.4 illustrates how institutional reforms helped South Africa reverse economic decline.

The explanatory variables included in the analysis of the drivers of TFP growth also include institutional quality indicators specific to political processes (see ECA, 2013, for more

### BOX 2.2: POTENTIAL DRIVERS OF PRODUCTIVITY GROWTH—VARIABLES

Rainfall is included as a critical determinant of agricultural productivity, given that agriculture alone accounts for an average of 30 per cent of GDP in Africa.

A demographic indicator, proxied by the "dependency ratio"—the proportion of the population under 15 and older than 65—is also included as a determinant. A larger non-working-age share of the population (the sample mean is 48 per cent, with a standard deviation of only 0.03) could impose a "demographic burden" that hurts productivity growth.

Trade's share of GDP is included to account for the possibility of technology transfer (and hence productivity growth) through international trade. Substantial movements of labour from low- to high-productivity activities in the tradable goods sector are also a potential source of productivity growth. Therefore an increasing share of trade in GDP can be both a source and a result of structural transformation.

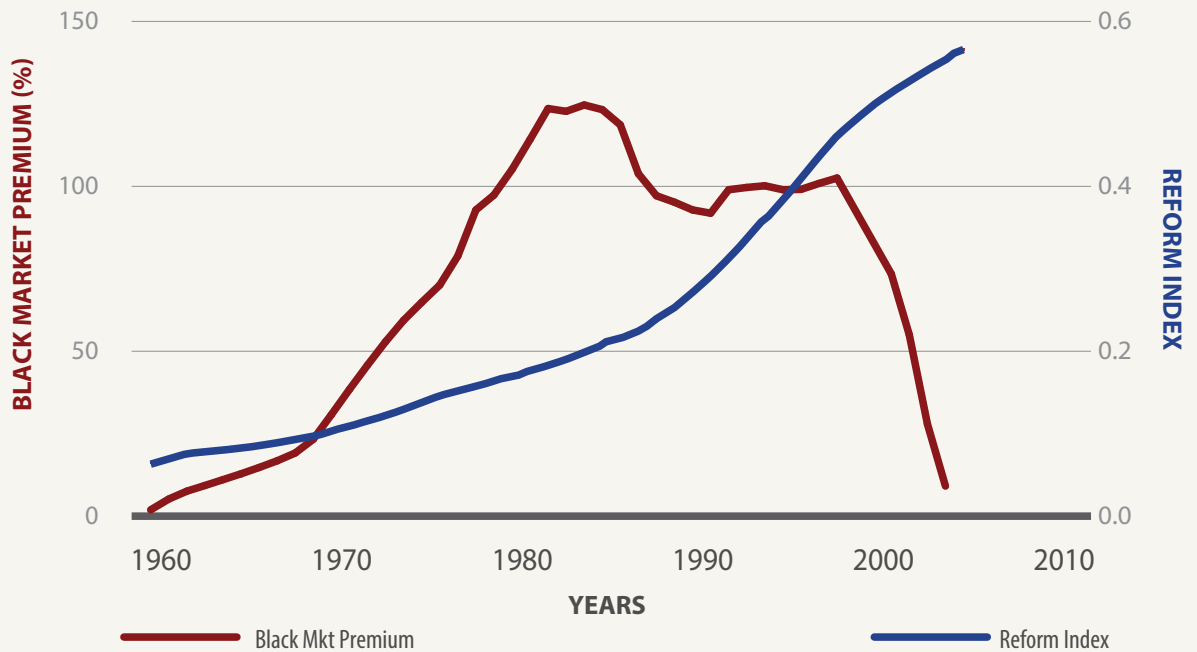
In addition, a dummy indicator for the prevalence of civil war is included. Such conflict has been pervasive in Africa, particularly during the 1980s and 1990s, and could

hurt productivity growth through multiple channels. The destruction and diversion of productive resources (particularly if unmeasured) can undermine productivity growth—a potential underscored by the two-dimensional relationship depicted in figure 2.10.

Finally are the variables relating to institutions and policies—discussed in detail in the rest of the section.



FIGURE 2.11: TRENDS IN AFRICA'S FOREIGN CURRENCY BLACK MARKET PREMIUMS AND INDEX POLICY REFORM, 1960–2010



Source: Giuliano, Mishra and Spilimbergo (2013).

details). These two indicators represent the degree of autocracy or democracy in the country (polity2)—and the degree of competitiveness of presidential elections (or executive index of electoral competition).<sup>13</sup>

The rationale for focusing on the quality of political institutions is that they reflect the accountability of policymakers to their constituents. In principle, greater accountability should result in policy choices that serve a broader set of societal interests than under more autocratic or clientelistic forms of government where special interests may dominate—as seen all too often in Africa before the 1990s, when politics was typically dominated by powerful interest groups (Bates, 1981). Policies thus tended to serve elites, often at the expense of both macroeconomic performance and the majority of Africans (farmers in particular).

**Greater accountability of policymakers should result in policy choices that better serve societal interests**

Accompanying the move towards democracy and electoral competition in the 1990s (figure 2.12) was the acceleration of policy reform. The presumptive mechanism was that the increase in electoral competition made African leaders accountable to a broader set of societal interests, limiting to an unprecedented extent the narrower interests of urban and industrial elites. Investigating this hypothesis with regard to democratic political institutions and agricultural productivity growth in Africa, Bates and Block (2012) suggest that electoral competition caused agricultural TFP growth to increase by about 0.5 percentage points.

ECA (2013) examined the impact of electoral competitiveness on GDP growth and productivity by repeating the growth decomposition exercise in figure 2.10, but splitting the sample into settings with and without competitive electoral systems. The decomposition strongly suggests that electoral competition is associated with faster GDP and productivity growth in a sample of 26 African countries during the 1970s–2010s. This evidence is merely suggestive, however, as it provides no protection against possible reverse causality.

**BOX 2.3: PRO-GROWTH INSTITUTIONS—NATURE AND KEY FUNCTIONS**

Economists and political scientists are much better at defining and describing pro-growth institutions than they are at agreeing on how they work and how countries can acquire them. Most definitions of institutions draw on the seminal work of economic historian Douglass North, who defined a society’s institutions to include formal rules (laws, regulations and constitutions), informal constraints (norms, traditions and conventions), and the organizations that operate within these boundaries. Rodrik and Subramanian (2003) expand these notions into four broad categories:

- Market-creating institutions for the protection of property rights, contract enforcement and rule of law in general.
- Market-regulating institutions for correcting market failures, which take the form of regulatory agencies governing activities in various economic sectors, should promote competition, ensure transparency and provide public goods.

- Market-stabilizing institutions for managing inflation and macroeconomic volatility and responding efficiently to macroeconomic and financial shocks. Independent central banking is a key example.
- Market-legitimizing institutions for providing social protection, insurance and conflict management. These types of institutions are realized through the construction of social safety nets.

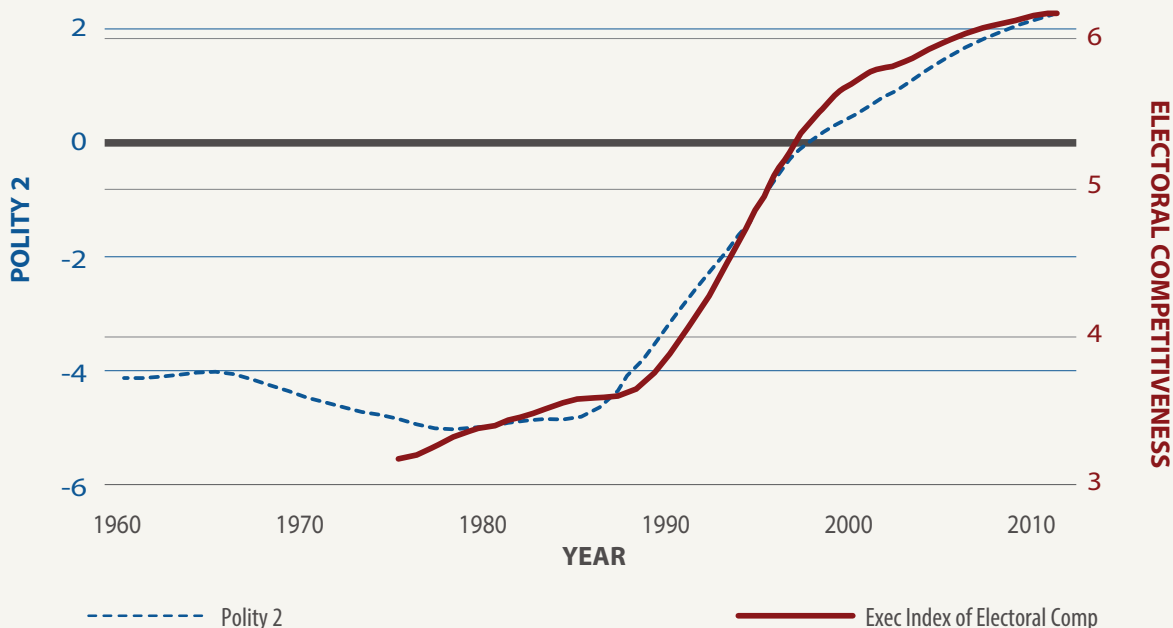
While there is broad agreement that good institutions can provide a critical ingredient for economic growth, there is little agreement on the causal mechanisms that link institutions to growth or on the specific institutions best suited for that purpose. Rodrik (2000) argues that there is no specific mapping between markets and the institutions required to make them function well. An emphasis on contract enforcement may have more potent effects in one society, while the independence of monetary authorities may matter more in another.

Rodrik also suggests that countries can acquire pro-growth institutions in various ways. Two broad ways include adopting successful approaches from other countries and growing good institutions domestically in response to the specific needs of a given society. In practice, some blend of these approaches is inevitable. He characterizes the former approach as top down, the latter as bottom up.

How to reconcile these alternative approaches? Rodrik argues that participatory politics is a “meta-institution” that is critical for adopting and developing legitimate and sustainable specific institutions. As an example, he cites the inclusive parliamentary structure adopted in Mauritius, described as an essential foundation for the country’s creation of its export processing zones, writing “Mauritius found its own way to economic development because it created social and political institutions that encouraged participation, negotiation and compromise. That it did so despite inauspicious beginnings . . . speaks volumes about the importance of such institutions”.

Source: Perkins et al. (2013); Rodrik (2000).

**FIGURE 2.12: TRENDS TOWARDS DEMOCRACY AND ELECTORAL COMPETITION, 1960–2010**



Source: [www.systemicpeace.org/polity/polity4.htm](http://www.systemicpeace.org/polity/polity4.htm) (accessed 30 October 2013)



### BOX 2.4: INSTITUTIONAL CHANGE AND POLICY REFORM UNDERPINNED SOUTH AFRICA'S REVERSAL OF ECONOMIC DECLINE

While unique in aspects of its political history, South Africa's reversal of economic decline demonstrates the benefits of regulatory reform, institutional development, prudent fiscal policy and sound macroeconomic management in promoting productivity growth as a driver of broader economic growth.

Historically, South Africa's economic fortunes have been tied to its mineral base, especially gold. As an international economic pariah prior to its political transition in 1994, the country's trade policies were largely based on import substitution, with heavily subsidized parastatal corporations playing a large role. Commodity prices strongly conditioned growth. The resulting macroeconomic conditions, aggravated by the economic costs of apartheid, included inefficient industries, an overvalued exchange rate, large budget deficits and debts, and high inflation.

The result was decelerating economic growth that became particularly severe in the decade before 1994, with GDP per capita falling by 16 per cent between 1981 and 1993. The demise of apartheid and the transition to majority rule in 1994 brought with it a dramatic reversal of this economic decline, with GDP growth on average three times greater during 1994–2003 than in the previous decade. While renewed optimism in the country's future surely played a role, Faulkner and Loewald (2008) stress that resurgent growth was also the result of a broad and sustained campaign of economic and institutional reforms.

The new regime in 1994 inaugurated a Reconstruction and Development Programme (RDP) intended to reprioritize basic human needs, boost investment in human resources, and support the country's democratization. Yet the RDP also explicitly advocated tax reform and debt consolidation as components of a prudent fiscal policy. In addition, beginning in 1996, the government's Growth, Employment and Redistribution (GEAR) programme set out to tame inflation and budget deficits and promote private investment. Positive results followed, especially in construction, financial services, and retail and wholesale trade, buoyed by strong commodity prices and real exchange rate depreciation. In addition, increased employment supported household income, allowing growth in private consumption to further support economic growth.

Growth accounting provides one perspective on South Africa's economic recovery. Successive policy reforms and the country's reintegration into the world economy contributed to increased productivity growth, despite slower growth in the accumulation of both capital and labour. Faulkner and Loewald explain this structural shift in the sources of South Africa's economic growth as a result of macroeconomic stability, historically low inflation and interest rates and the transition to a sustainable democratic constitution as incentives for increased private investment. They explain the reduced contributions of capital and labour to growth as by-products of these reforms, as the removal of

previous factor market distortions resulted in more efficient uses of capital and labour. Increased spending on research and development has also added to the acceleration of productivity growth.

The RDP and GEAR programmes combined to restart the country's economic growth. The centrepieces of the GEAR reforms in particular were fiscal reform, tariff reform, public sector restructuring and inflation containment through a more consistent monetary policy. This last objective was supported by the institutional innovation of constitutional independence for the South African Reserve Bank. This reform, along with trade liberalization and public sector restructuring, facilitated the reduction of inflation and interest rates. In turn, the creation of a more stable macroeconomic environment helped attract foreign capital, which promoted not only increased investment but also productivity-enhancing technical progress. Domestic investment also increased in response to these reforms, and the growth impact of that investment was magnified by greater public investment in infrastructure.

Exports have also contributed to South Africa's economic growth since 1994. Taking advantage of the removal of apartheid-era international trade sanctions, the government set about dismantling the failed import substitution regime of trade protection. The key there was the phase down of trade tariffs, increasing the economy's openness to trade and thus boosting competitiveness (including for an expanded range of non-gold manufactures). Automobile exports have been particularly successful following a focused programme of trade liberalization for that sector.

Source: Based on Faulkner and Loewald (2008).

**South Africa's reversal of economic decline demonstrates the benefits of regulatory reform, institutional development, prudent fiscal policy and sound macroeconomic management in promoting productivity growth as a driver of economic growth**

### *Econometric findings underline the importance of institutions and policies*

Econometric results for the determinants of TFP growth, based on a fixed-effects<sup>14</sup> (lagged)<sup>15</sup> model specification using data for 1960–2010, indicate that:

- Annual rainfall is positively, but not robustly, associated with TFP growth.
- The dependency ratio, as expected, is consistently statistically significant and negatively associated with productivity growth.<sup>16</sup>
- Like rainfall, a country's exposure to trade appears positively, but not robustly, associated with TFP growth. This runs counter to broader findings regarding export-led growth, as exemplified by the experience of the Republic of Korea, for example (Westphal, 2003).
- The policy indicators suggest that the black market premium is robustly negatively associated with TFP growth (slightly more so in the CFA-zone countries). The point estimate suggests that a 1 per cent increase in the black market premium is associated with a roughly 0.14 percentage point decrease in TFP growth. This result changes little when the specification also includes the index of regulatory policy reform. This latter indicator is also robustly and positively associated with TFP growth.<sup>17</sup>
- Consistent with expectations, the indicators of political institutions also emerge as determinants of TFP growth. The democracy indicator ( $\text{polity2} > 0$ ) is significant, suggesting that the transition from autocracy to democracy is associated with a nearly 1 percentage point increase in TFP growth. The indicator of electoral competitiveness, introduced alone, is also significant and suggests an even greater boost to productivity—on the order of 1.5 percentage points.
- The share of trade in total GDP, an indicator of structural transformation yields statistically insignificant results. However, the lack of a positive effect of structural transformation on TFP growth does not mean that it lacks the potential to boost TFP growth in Africa. Rather, Africa's structural transformation during the sample years may have been too small to influence productivity.<sup>18</sup>

According to ECA (2013), the determinants of TFP growth appear not to have important effects on GDP growth through their impact on factor accumulation. Using a fixed-effects model, this possibility was examined by testing whether the explanatory variables for TFP growth also explain countries' accumulation of physical and human capital. The key finding here is that the drivers of TFP growth—especially the policy and institutional drivers—do not appear to operate in a substantial way directly through their effect on inputs (with some exceptions for human capital).<sup>19</sup>

**Key findings suggest the need for institutions and policies that focus more directly on productivity enhancement as a means to accelerating economic growth and structural transformation**

This key finding suggests the need for institutions and policies that focus more directly on productivity enhancement as a means to accelerating economic growth and structural transformation. These institutions and policies will undoubtedly be more effective when they are developed and implemented in the context of broader development strategies, including industrial policies that focus on addressing constraints and attracting investment into new and innovative activities. Indeed, successful experiences in countries such as in Malaysia indicate that comprehensive and well-coordinated long-term development planning frameworks are critical to the success of structural transformation strategies that accelerate economic expansion through increased and sustained productivity growth (World Bank, 2010; Khoo Boo, 2010).

The above findings and discussion raise a number of questions on the nature of institutions and policies needed to foster productivity growth and structural transformation and how they can be established. These and other questions are addressed in the remainder of this report with a focus on industrial policy institutions, processes and mechanisms.





## 2.4 CONCLUSION AND KEY POLICY IMPLICATIONS

This chapter has provided a raft of perspectives on African economic growth. The key finding is that average GDP growth across Africa surged during the 2000s. This is an important and substantial accomplishment. Yet the growth analysis that follows provides a more nuanced perspective—one that includes a cautionary note.

Structural transformation in Africa has been limited and that which took place has not been conducive to higher productivity and GDP growth as it was often the result of a shift in resources, especially labour, from traditional agriculture and rural activities to low-productivity often informal activities in urban centres. Successful structural transformation in East Asia and Latin America relied on migration of labour from low-income agriculture to high-productivity high-income manufacturing and modern services.

### **Successful growth strategies have consistently been preceded or accompanied by the creation of some form of political and economic institutions**

The analysis in this chapter underscores the importance of institutional and policy reforms if African countries are to foster growth and structural transformation through increased mobility of capital and labour into high-productivity activities within and across sectors. This evidence points to the need for institutions and policies that establish the norms needed to promote macroeconomic stability and a regulatory environment as well as incentives to attract increased investment, foster trade and address issues related to, for example, human capital and technology transfer and adoption in a dynamic and coherent development framework. Institutions are essential if governments are to avoid policy mistakes such as overvalued exchange rates (which severely reduce competitiveness, growth and transformation) and to establish mechanisms to facilitate trade at national and regional levels.

The most fundamental lessons from the chapter's boxes relate to the importance of pro-growth institutions. Successful growth in each case was preceded or accompanied by the creation of some form of inclusive political and economic institutions. Mauritius entered independence as a parliamentary democracy, with a constitution specifically geared towards inclusion of diverse ethnic and economic interests. Protection of property rights, particularly the decision not to expropriate the sugar plantations, was a fundamental ingredient of this success. Vietnam's Doi Moi reforms systematically dismantled restrictive market controls, introducing a broad set of market-based incentives.

South Africa provides the crowning example of institutional reform as a source of economic renewal. This example extends well beyond the meta-institutional change brought about by the replacement of apartheid with electoral democracy. This institutional transition paved the way for a host of more specific institutional reforms, such as the constitutional assurance of an independent monetary authority. It was precisely the creation of inclusive political institutions, reflected as well in Mauritius, that provided the legitimacy for the wide-ranging economic reforms that led to macroeconomic stability, increased trade and investment, and ultimately South Africa's renewed growth in productivity and GDP.

Unfortunately, this most important dimension of Africa's development challenge is also the least amenable to general policy recommendations. There is wide agreement among development scholars that high-quality institutions and economic growth go hand in hand. Many of these scholars accept that high-quality institutions drive growth. Yet there is no consensus on precisely what steps are required to build high-quality institutions, or which are the most important in any given setting. Generic recommendations for one-size-fits-all institutions belie the need for context-specific analysis. This chapter has illuminated general policy directions that have promoted growth in various settings, but ultimately each country must find its own path towards growth.

The relationship between structural transformation and productivity growth provides, too, a context for industrial policy. Evidence in this chapter indicates that structural transformation in Africa has been limited, and in particular has resulted in essentially no productivity growth through the expansion of manufacturing. This failure stands in sharp contrast to the experience of East Asia's rapidly industrializing economies. The challenge for industrial policy in Africa is to

remedy this failure by creating appropriate conditions for accelerating structural transformation, which in turn must take full advantage of the potential benefits of expanded manufacturing. Increased labour productivity in manufacturing will be an essential component of this transition, and should be a central goal for industrial policy. But successful industrial policy can also leverage productivity growth in agriculture as an additional essential component of structural transformation in Africa.

Successful cases of transformation in East Asian economies have also usually been underpinned by industrial policies with appropriate institutional mechanisms for effective implementation and monitoring.

As highlighted in subsequent chapters, the literature suggests several generic features of institutions for industrial policy, beginning with strong political leadership to increase the profile of industrial policy and facilitate its implementation—Rodrik (2012), for example. He notes that coordination of industrial policy is an additional core institutional requirement, best served by the creation of coordinating councils that include both public and private representation.

Building and running high-quality institutions thus emerges as the key challenge for creating the positive synergies between productivity growth and structural transformation that are required to sustain Africa's renewed economic growth—a challenge further discussed in subsequent chapters, with a focus on industrial policy.



## CHAPTER

# 3

## INDUSTRIAL POLICY IN AFRICA: INSTITUTIONAL DYNAMICS AND CHALLENGES

**The right model for industrial policy is not that of an autonomous government applying Pigovian taxes or subsidies, but of strategic collaboration between the private sector and the government with the aim of uncovering where the most significant obstacles to restructuring lie and what type of interventions are most likely to remove them. Correspondingly, the analysis of industrial policy needs to focus not on the policy outcomes—which are inherently unknowable *ex ante*—but on getting the policy process right (Rodrik, 2004)**



There is a strong consensus that an expanding and prosperous industrial sector is crucial to the structural transformation of African economies and that, given the ubiquity of market failures, industrial policy interventions are usually required to address these failures. Markets by themselves are also generally incapable of undertaking the kinds of structural transformation needed to move from low- to high-productivity activities.

Once this is accepted, the focus is not on questioning the need for industrial policy but how to design industrial policy organizations (IPOs) capable of supporting industrial transformation. A key to this is to transcend blueprint approaches to industrial policy (where industrial policy is simply a set of non-contextual, predefined interventions) and shift towards building a set of institutions that generate processes that can address industry's ever-changing exigencies.

In African (and Asian) countries, successful frameworks for industrial policy are organic and dynamic—and should avoid blueprints. Industrial policy should support the ever-changing needs of industry not simply as a set of organizations with static functions, but should be dynamic, developing strategies to meet goals. Monitoring the effectiveness of strategies should be done regularly and adjusted when they are not serving their purpose. Goals should be evaluated and measured by governments periodically against changes in industry. Where they are inadequate they need to be altered.

At the heart of a successful industrial policy is embedded autonomy (or autonomous embeddedness). Bureaucrats enculturated or positioned this way understand industry and have built relations with key actors, which improves their ability to collect and process information. In the eyes of business, such embeddedness allows businesses to be part of the policy loop and creates credibility in certainty of government policy that increases the willingness of businesses to assume risk. Bureaucrats should not be “captured” by the private sector but be able to act independently so as to pursue a country's development objectives.

**Public–private partnership, effective coordination and regular monitoring of projects are key ingredients for successful industrialization**

### **Avoiding blueprint approaches is the key to designing IPOs capable of supporting the structural transformation of industry**

Similarly, IPOs need to constantly reorganize and restructure to deal with perceived changes in the requirements of industry. New organizations need to be created when there are disjunctures in the industrial policy framework that cannot be handled by the tasked body or bodies, and others should be closed if they are no longer needed. IPO activities are best coordinated through a centralized structure that has representatives of overseeing ministries, IPOs and the private sector—information flows are vital in avoiding coordination failures where IPOs work in conflict or at cross-purposes. And from the start—or top of the hierarchy—policy documents must not create competing goals for different ministries.

Finally, countries with a poor track record or little experience in industrial policy should start building political coalitions to support industrialization in key sectors—starting slowly to create “pockets of efficiency” and garnering the political support of enough elements of top political leaders to ensure that the policy is implemented.

## 3.1 AFRICA'S STRUGGLES WITH INDUSTRIAL POLICY

Weak institutional structures and poor policy design have been at the root of Africa's industrial policy problem throughout its post-independence history. In addressing the issue of industrialization in Africa, the approach followed by policymakers, academicians and other industrial stakeholders has been to identify key general constraints and devise broad policy interventions to alleviate them.<sup>1</sup> But these responses have rarely focused on the institutions governing industrial policy or on the impact that weaknesses in these institutions have on their ability to operate in a coordinated, dynamic framework.

Industrialized economies have at their core—regardless of policies—institutions and processes to promote strategic collaboration between the private sector and the government. Additionally, the success or failure of industrial policy frequently hinges on issues of political economy at three



levels: nature of political leadership, ability to impose visions for industrialization on the state apparatus, and different economic actors. Good policies are likely to fail if the government officials implementing industrial strategies lack the skills needed to design, implement, monitor and enforce industrial policies (ECA and AUC, 2011). Such failures have been a major factor in Africa's chequered history with industrialization, as the convening of state and non-state actors to devise, together, comprehensive visions for industrialization, and the capacity to carry out the necessary steps, have been missing.

By contrast, East Asian and European countries that, while not necessarily having high-quality institutions and bureaucratic capabilities when initially launching industrialization, convened stakeholders and allocated the necessary resources (Chang, 2012). A key question in developing countries is: "Have we [the government] set up the institutions that engage the bureaucrats in an ongoing conversation of pertinent themes with the private sector, and do we have the capacity to respond selectively?" (Hausmann, Rodrik and Sabel, 2008).

### **Economies that have industrialized have at their core—regardless of policies—institutions and processes to promote strategic collaboration between the private sector and the government**

Sadly, the answer in Africa has too often been "no". Many African policymakers have adopted a blueprint approach to industrialization, limiting industrial policy to designing and implementing policy instruments—such as tariff protection, tax rebates, research and development subsidies, industrial zones and cheap credit—to address market failures (box 3.1) and support investment and growth in priority sectors. The focus has often been on policy outcomes rather than on an appropriate institutional framework.

The approach was misguided for various reasons. First, policy was designed and run by governments that offered little (or no) role to the private sector or other stakeholders. Second, in concentrating on industry alone, governments missed the chance to combine industrialization efforts with strategies on agriculture, urbanization, infrastructure and other linked

areas. Third, a blueprint approach often took industrial policies from other countries, often East Asia, and applied them to Africa but ignored key contextual factors in the Asian successes. And fourth, government interventions and subsidies were subject to capture by political and business interest groups.<sup>2</sup>

As highlighted in chapter 2, economic transformation is associated with a fundamental change in the economy's structure and its associated impact on employment, growth and development.<sup>3</sup> Africa has not, however, done well in most of these areas in the last three decades, though it has seen unprecedented growth over the past decade. It has also been resilient to the global economic crisis, but this is a negative virtue: most African economies still depend heavily on unprocessed primary commodities or natural resources, and industry is embryonic, limiting the potential employment gains from processing primary commodities (see chapter 1). Indeed, although governments across Africa have pursued industrialization as a means to structural transformation (box 3.2), the continent has yet to start fully exploiting manufacturing's opportunities for fostering growth and transformation (see chapter 2).

And so Africa's share in world's manufacturing value addition is smaller than other developing regions:<sup>4</sup> In 1980, Africa's share was 1.9 per cent, and fell to 1.4 per cent in 2000—and even after a decade of strong growth, it had climbed back only marginally to 1.5 per cent by 2011, a startling contrast to Asia, which saw its share of global manufacturing value addition nearly double from 5.8 per cent in 1980 to 11.0 per cent in 2000 and then shoot up to 34.9 per cent in 2011. For all developing economies, this share tripled from 14.6 per cent in 1980 to 43.3 per cent in 2011.

Still, Africa has made some progress in boosting technology-based manufacturing in recent times—notably chemicals—at least to maintain its overall share of world manufacturing value added in medium and high technology (table 3.1).

These continental and global trends underline the potential space for Africa to diversify through higher technology-based manufacturing, given that its share in world manufacturing value added was still only 1.1 per cent in 2009. Resource-based exports are its forte, with its top 10 exports accounting for 68.1 per cent of its total exports in 2012—and petroleum alone 41.6 per cent. The equivalent top tens for manufactured exports were 4.5 per cent for medium-technology, 2.5 per cent for low-technology and a mere 1.2 per cent for high-technology shipments<sup>5</sup>. Commodity exports

### BOX 3.1: MARKET FAILURES

Market failures can arise when competitive markets either do not exist or are incomplete—for example, when there are information asymmetries, scale economies or externalities. Markets can also fail when investment decisions are interdependent and require coordination. From the theory of comparative advantage, free trade can result in an increase in a country's national income by moving resources into sectors in which its opportunity cost of production is lower than its trading partners. However, allocating resources according to comparative advantage can only ensure static efficiency and in no way guarantees dynamic efficiency (see chapter 2). Nor are income gains automatic as the theory fails to recognize the relationship between a country's choice of specialization and its implications for living standards (see, for example, Reinert, 2000). It also ignores forward linkages between present choices and future production possibilities (Succar, 1987).

For all these reasons, therefore, the theory of comparative advantage cannot guide

the pattern of international specialization when there are asymmetric learning opportunities associated with the production of different goods or use of certain techniques (or both). Promotion of industries that generate substantial "learning-by-doing" economies should be integral to any strategy of human capital formation in developing countries (Succar, 1987). The challenge then is how to design policies that can target the right industries.

Hausmann, Rodrik and Sabel (2008) observed that market failures that demand industrial policy can take three main forms. First, self-discovery externalities can show where the government may help to determine which new products can be produced profitably, particularly where the social value of an activity greatly exceeds its private value. Second, coordination failures justify intervention since "new economic activities often require simultaneous and lumpy investments upstream, downstream and in parallel forks, which decentralized markets are not good at" (Hausmann, Rodrik and Sabel, 2008: 2). And third, the

state is needed to provide public goods inputs, where private production typically requires highly specific public inputs, such as laws, accreditation, research and development, transport and other infrastructure specific to an industry.

These three types of market failure hold back structural transformation in developing countries and thus slow their economic growth. They are highly dimensional distortions—they implicate many different markets and inputs, each relatively specific to a variety of existing and potential activities—and no single actor in the economy has full knowledge about where they lie.

Thus developing countries have many market failures requiring interventions—all very complex—and a better and more inclusive process is needed to identify and address them systematically, rather than in an improvised manner.

can lead to high economic growth but because it is not sustainable, structural transformation is required through increasing value added in commodity and resource exports, alongside agricultural productivity growth and development and new non-agricultural jobs in industry and services (UNCTAD and UNIDO, 2011).

Thus Africa's industrialization potential lies mainly in exploiting its commodity base by adding value (ECA and AUC, 2013). Instead of relying on exports of commodities in their raw form, Africa should add value to them. With support from the right industrial policies, this can serve as a launching pad for long-term diversification and competitiveness while having important spillover effects in new and non-commodity sectors in Africa's commodity-rich countries. In addition, government support aimed at empowering indigenous firms to insert themselves and compete in regional and global value chains can potentially lead to the creation of linkages between commodity sectors and others, especially those in industry, as firms seek to outsource non-core competencies. (Not all countries have

such resources of course; they need to create the conditions for manufacturing firms to be created and grow.)

African governments have pursued industrialization, but industry has stagnated or even declined and structural transformation is patchy across Africa, signifying that industrial policies have largely failed, associated in part with the market failures discussed above. Ineffective policies (to promote economies' productive capacities and their ability to compete on international markets) have left a legacy of misaligned incentives and institutions. Major deficits in state and institutional capacities and in physical and policy infrastructure, as well as an inability to mitigate impacts of external shocks, have all contributed to the continent's "transformation challenge" (ECA and AUC, 2013).

A central question therefore is: How can governments create effective IPOs that foster industrialization, economic transformation and inclusive development in Africa?<sup>6</sup>



**BOX 3.2: UGANDA—INDUSTRIALIZING FOR STRUCTURAL TRANSFORMATION**




Uganda’s Vision 2040 long-term development plan sets a target of lifting industry’s share of GDP by 5 percentage points by 2040 (box table 1).

As well as modernizing agriculture and services, the 2008 National Industrial Policy plans to build a modern, competitive and dynamic industrial sector fully integrated with domestic, regional and global markets. Target indicators include manufacturing contributing 25 per cent of GDP; manufactured exports accounting for 30 per cent of total exports; industry accounting for 30 per cent of value added as a share of GDP and a 4.2 score on the global competitiveness index (MTIC, 2008).

Services make the largest sectoral contribution to GDP, yet agriculture contributed 66 per cent of total employment in 2009/10. The annual percentage growth of agricultural value added was 0.33 per cent in 2010, and never exceeded 6 per cent in the previous 10 years (World Bank, 2012). Furthermore, the contribution of traditional exports (coffee, cotton, tea and tobacco) to overall export earnings has increased, from 27.2 per cent in 2010 to 31.4 per cent in 2011 (Uganda Bureau of Statistics, 2012).

The Ministry of Trade, Industry and Cooperatives is the key line ministry for industrial policy, but related ministries and important private sector representatives are also heavily involved in the push towards industrialization. A framework exists to formalize interactions between Uganda’s industrial stakeholders, and the

**BOX TABLE 1: VISION 2040 TARGETS**

Sector	Baseline Status (2010)	2012	Target (2040)
 Agriculture	22.4	22.2	10.4
 Industry	26.4	25.7	31.4
 Services	51.2	46.6	58.2

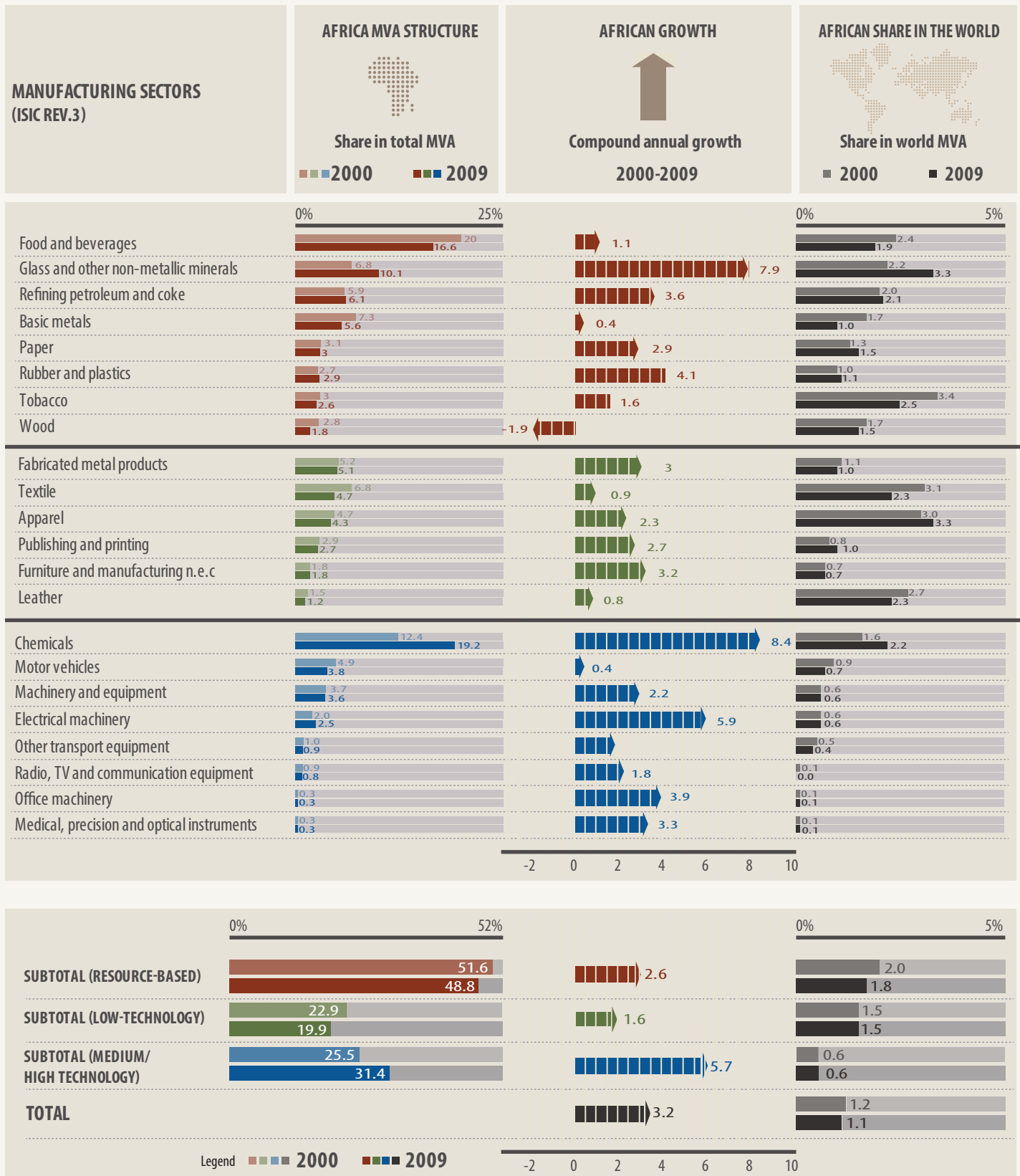
Source: National Planning Authority of Uganda, 2013; Uganda Bureau of Statistics: [www.ubos.org/](http://www.ubos.org/).

National Industrial Policy identified an “Industrial Consultative Council” chaired by the Prime Minister. Yet private sector representatives indicate that there is in practice only on-the-fly coordination between the bodies responsible for industrial development and that small and domestic private sector actors are often excluded from high-level dialogue. (Information on policy dialogue came from responses from seven governmental and non-governmental industrial stakeholders surveyed in 2012; ECA, 2012.)

The implementation and monitoring of Uganda’s National Industrial Policy is led by the Ministry of Trade, Industry and Cooperatives with the involvement of other ministries and stakeholders. However, respondents argued that the policy documents lack details on implementation and monitoring and need to focus on addressing specific challenges including energy, transport infrastructure, financing and other hindrances in an actionable manner.

Uganda’s vital next steps in implementing Vision 2040 could include establishing a solid implementation and monitoring plan—and building on the interventions and initiatives that the government has already pursued. The formulation of specific and implementable policy actions may need to be undertaken by a consortium of ministries, along with the private sector and experts on policy implementation. A monitoring scheme should also be governed independently, and properly resourced. A coordinating council needs to be instituted to bring the public and private sectors together, involving the office of the Prime Minister, relevant government stakeholders and representatives of domestic industries of all sizes.

TABLE 3.1: AFRICAN MANUFACTURING BY SECTOR AND TECHNOLOGICAL CLASSIFICATION, 2000-2009



Source: UNCTAD and UNIDO (2011).

Note: ISIC = International Standard Industrial Classification; MVA = manufacturing value added; n.e.c. = not elsewhere classified.





## 3.2 TOWARDS A THEORETICAL FRAMEWORK FOR INDUSTRIAL POLICY

### INSTITUTIONAL THEORY

As discussed above, much of the literature on industrial policy focuses on interventions to deal with perceived market failures. Here the aim is to explain why purposive state actions are needed to overcome these imperfections and lift the economy towards an improved trajectory of growth and development.

Industrial policy involves identifying industrial gaps and designing, as well as constructing and effectively running, state or quasi-state organizations aimed at supporting industrial transformation. Institutions should be seen as habits of thought common to the generality of men and women (Stein, 2008). These ideas have real applications to understanding how the commitment to industrial transformation can become generally accepted and systematically institutionalized. This leads to a discussion of organizations and institutions.

**Deliberate state actions are needed to overcome market imperfections and lift the economy towards an improved trajectory of growth and development**

Organizations require common habits of thought that will allow them to operate effectively. However, they also have a host of other dimensions including structures, and internal regulations affected by external laws and internal and external power relationships. An institutional approach to organizations recognizes that they are socially or politically constituted entities that operate in accord with norms, rules and beliefs both within their structures and relative to other related entities. Institutionalized organizations can work in a coordinated fashion both to meet their internal goals and to operate in consonance with other organizations to fulfil the state's broader needs of indus-

trial transformation. A counter-example is when IPOs<sup>7</sup> push in different directions (export subsidies versus monetary contraction that leads to appreciation in the currency).

Viewing states as a set of interlocking organizations, IPOs similarly operate in a substratum that is both connected to the state in multiple ways but also has its own semi-autonomous operating structures.<sup>8</sup> Part of the semi-independence is needed so that the rubric of industrial policy can be connected to industrial enterprises in what Evans (1995) has referred to as "embedded autonomy".<sup>9</sup> IPOs must be connected to the industrial sector to ensure clear channels of communication and negotiation, but must also act independently to help attain broader social and economic goals. Hence IPOs need institutional links to the government and private industrial sector, but should not be subordinate to (or captured by) either of these.

### THE KEY ROLE OF NEUTRAL, BUT ENGAGED, BUREAUCRATS

Autonomously embedded bureaucrats understand industry and have built relations with key actors, which improves their ability to collect and process information. In the eyes of business, such quasi-embeddedness allows businesses to be part of the policy loop and creates credibility in certainty of government policy that increases the willingness of businesses to assume risk.<sup>10</sup> Buur, MondlaneTembe and Baloi (2012) also point to role of the "mediating bureaucracy" in creating successful industrial policy in some African countries. The term refers to a situation where the "bureaucrats liaised between business and political interests, technical and technocratic concerns, and administrative and legal procedures" (p. 350). The mediating bureaucracy can be particularly effective where distrust pervades relations between the bureaucracy and government (on acceptability of foreign investment, for example) or between foreign investors and government (particularly where assets have been previously nationalized).

Bureaucratic mediation can also boost productivity enhancement, which is at the heart of industrial policy: officers learn from industrial firms while at the same time mediating between the more economic goals of industry and the political objectives of the government (discussed below).

Bureaucrats conducting industrial policy should be insulated from political pressure and based on competitive recruitment and well-defined career paths that make politically motivated hiring and firing difficult, if not impossible

(Chang, 2004). Because industrial policy is open to corruption and rent seeking, governments must find an intermediate position—as Rodrik (2007) emphasizes: “getting the institutional setting right, balancing between autonomy and embeddedness on the parts of the government officials is far more important than what policy choices are adopted”. Professional, highly skilled and high-performing bureaucrats should be properly shielded from undue political pressure and legal harassment—a precondition for successful policy implementation (Cornick, 2013).

### **Industrial policy involves the identification of industrial gaps and the design, construction and effective operation of state or quasi-state organizations aimed at supporting industrialization**

Cornick also offers a valuable discussion of protecting bureaucracy from private sector capture. His first suggestion is to block the “revolving door” between the government and private sector but provide a career path—the application of sound technical criteria cannot be expected if these are routinely overruled or if career advancement is predicated on compliance with political criteria. Second, he suggests maintaining transparency and accountability, including well-publicized rules for taking part in policy dialogue and the frequent presentations of evaluations. Third, he argues that overall public sector job packages must be competitive to attract and retain the talent required, as young professionals are more likely to join an organization where the

entire body of professionals is highly motivated and skilled, thus making for challenging but rewarding work.

Experience suggests the importance of “pilot agencies”<sup>11</sup> staffed by bureaucrats in increasing the policy effectiveness (Chang, 2004). This is because industrial policies often cross-cut government ministries and agencies, so it becomes useful to have a pilot agency with the power to coordinate activities across agencies and resolve potential conflicts between them. This also increases the political insulation of the bureaucracy responsible for economic matters (Cornick, 2013).

So much for the ideal. The reality in many African countries is that structural adjustment eroded not only the industrial base of countries but also the IPO capacities that had operated in the 1960s and 1970s. So although many policy interventions (such as to increase spillovers from extractive industries local-content measures) require sophisticated bureaucratic input to design measures of support, to set targets, and to design monitoring, evaluation and enforcement systems, experience is in short supply. So the key is to start slowly to create what Buur et al. (2013) call “pockets of efficiency” (box 3.3).

While important, bureaucracies including those with industrial policy cannot be reduced to merely creating and applying rules. Policy formulation and implementation are infused by politics shaped by individuals, factions and competing interests. Politically connected enterprises can have a large impact on the direction of industrial policy.<sup>12</sup>

### **BOX 3.3: POLITICAL SETTLEMENT—A BALANCING ACT**

To succeed, pockets of efficiency must have the support of top political leaders that deem particular industrial policies instrumental to strengthening their economic or political power. Thus successful industrial policy usually requires a confluence of mutual interests (or trade-offs) where the growth and development of a sector or an activity, for example, serves the political interests of the government and the

transformation needs of businesses. This is particularly important when businesses pursue new economic activities where the risks are high, sunk costs large and the need for state support great. State commitment has to be credible and is best secured by coalitions within ruling political leaders who will in turn gain palpable political benefits or the support from businesses to maintain those coalitions.

Extractive industries are particularly challenging given how easy it is to secure rents from pure extraction without the complexities to push for greater value added and technological sharing—but there are some promising signs (see chapter 4).

Source: Based on Buur et al. (2013).





## A FRAMEWORK FOR UNDERSTANDING BETTER HOW IPOs WORK

Against this background, we can begin to put into place the elements of a framework for understanding IPOs in African countries. It is possible to divide industrial policy failures between a more static analysis of current IPO operations and a more dynamic perspective on their failure to evolve.

Figure 3.1 schematizes these differences and points to intrinsic and extrinsic sources of institutional failure.

It also shows the various levels of the main actors that formulate and implement industrial policy: at the top are “higher government”—the main government ministries, the president or prime minister’s office and an industrial policy council (often with private sector representation), which is an IPO but given its policymaking and coordinative role and proximity to the highest levels of government it is placed above the other IPOs, which appear in the middle, and are involved with the mechanics of industrial policy.

IPOs’ configuration and purpose vary by country but may include industrial banks; state capacity-building organizations dealing with engineering, marketing and finance; vocational training institutions; industrial census units; industrial policy coordination units; export processing authorities; small and medium-size enterprise support units; units promoting inward foreign direct investment; industry-focused subcommittees on macroeconomic policy (interest and exchange rates); bodies looking at food production and import policies and prices aimed at constraining wage increases; units dealing with union and other labour policies; and infrastructure planning units.

IPOs should be focused on formulating goals, developing and then implementing strategies, monitoring processes and evaluating outcomes against the goals.

**Empowering indigenous firms to compete in regional and global value chains can lead to the creation of linkages between commodity sectors and industry**

Institutional failures, which can become systematic, can arise in any of figure 3.1’s components; worse is a lack of response to deal with the errors and adjust to reach goals. Problems may arise, for example, from the scope, design and authority of IPOs and their incentives and operating rules, and can include a host of connective failures. Outside regulatory structures and rules can have a particularly dramatic effect. There may also be poor communication or overlapping authority with other IPOs.

**IPOs should be focused on formulating goals, developing and then implementing strategies, monitoring processes and evaluating outcomes**

Particularly vexing are coordination failures at senior government or ministerial levels when they have competing and overlapping authorities, multiple plans and visions, conflicting industrial policies and no industrial policy council. Information to IPOs can lack certainty and stability, leading to serious operational challenges (further explored in chapter 4).

Overseeing authorities can also fail to provide enough resources or political support for the IPO’s operations. Equally important are the channels that allow industrial companies to communicate their “self-discovery” (see box 3.1) to IPOs. IPOs must continually listen and adjust policies to the observations and perceptions of market opportunities, innovation, distortions, barriers and requirements of industrial players. Failures due to insularity in IPOs can arise when industrial firms are not organized or empowered enough to communicate their findings from self-discovery or when there are poor capabilities and incentives for IPOs to act on the findings of such discovery.

In dynamic terms, as market failures are overcome new ones arise and will need to be resolved. IPOs require a mechanism to continue to analyse the state of industry; to design new approaches to transform industry; and to alter their organizational structure to deal with new forms of industrial policies—all in order to overcome market failure. A central source of difficulty occurs when IPOs become inflexible and intransigent with no attempt to perceive or adjust to changing external circumstances or policy positions of government. Static IPOs usually lead to institutional failures in policy, and

are likely to be seriously hampered by the same types of connective failures discussed above. In addition, in a dynamic situation entrenched interests could be challenged by new policies and organizations, and so here coalitions are needed. Finally, changes in trade regulations, including regional arrangements, donor pressures and international financing, can hamper the institutionalization or operation of industrial policy.

High-level industrial policy councils play a central role in embedding industrial policy (McMillan and Rodrik, 2013). They have the capacity to identify constraints on investment among both foreign and domestic players with concrete recommendations for policy action while accelerating or diminishing policy changes. They can provide important input, corrections and feedback on sectoral promotions and in setting broad industrial plans and frameworks. However, a council can become ineffective or even fail when one or more of the following occurs: it is imposed from the outside with little local ownership; it lacks commitment from senior political leadership; it is inappropriately focused on extrinsic agendas (such as donors'); it is static rather than experimental and innovative; it is exclusive, failing to offer representation from enterprises of different sizes and ownership structures; and it does not adjust its agenda over time.

From the secondary literature and our case studies discussed in chapter 4, it is possible to illustrate how IPOs in practice have been overwhelmed by a plethora of organizational imperfections and institutional failures with negative implications to the trajectory of industrial development. The next section focuses, however, on approaches to run effective IPOs in Africa, followed by three examples of past success from elsewhere in the global south.

**High-level industrial policy councils have the capacity to identify constraints on investment among both foreign and domestic players with concrete recommendations for policy action while accelerating or diminishing policy changes**

### 3.3 CREATING AND RUNNING EFFECTIVE IPOs

#### GETTING THE PRIVATE AND PUBLIC SECTORS TOGETHER

The case for industrial policy rests on two main ideas: structural transformation (see above and chapter 1), and the importance of effective government industrial policy, as mediated through IPOs.

Central to industrial policy is the need to support African countries in accelerating the broadening and deepening of production linkages to their commodity endowment (when they have one), achieved by:

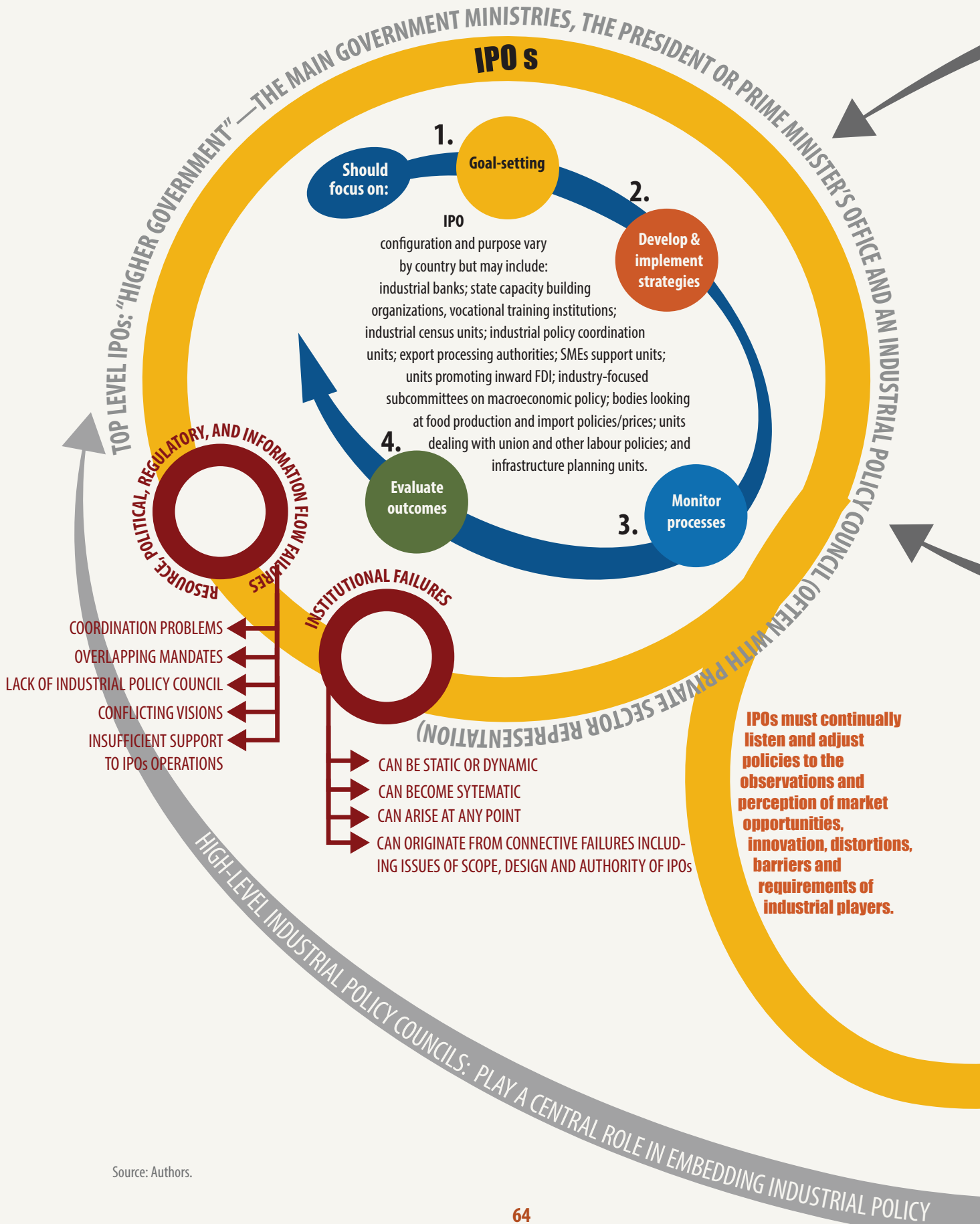
- Adopting a coherent industrial policy.
- Creating institutional industrial policy mechanisms.
- Developing local content policy.
- Raising lead-firm procurement, sourcing and processing.
- Running supply chain development programmes among major commodity firms.
- Boosting local skills and technologies.
- Addressing infrastructure bottlenecks.
- Coordinating ministries to improve policy implementation.
- Negotiating regional trade arrangements and fostering intra-African trade (ECA and AUC, 2013).

The agents steering economic and technological transformation are typically domestic enterprises, though foreign investors' involvement may be important in some activities. Private firms, in pursuit of profit, generate and manage technological improvements bringing to the market new products at diminishing costs. An economy dominated by technologically dynamic firms will tend also to grow faster. Government intervention becomes necessary when market forces are unable to propel businesses to innovate and undertake productivity-enhancing investments (ulHaque, 2007).

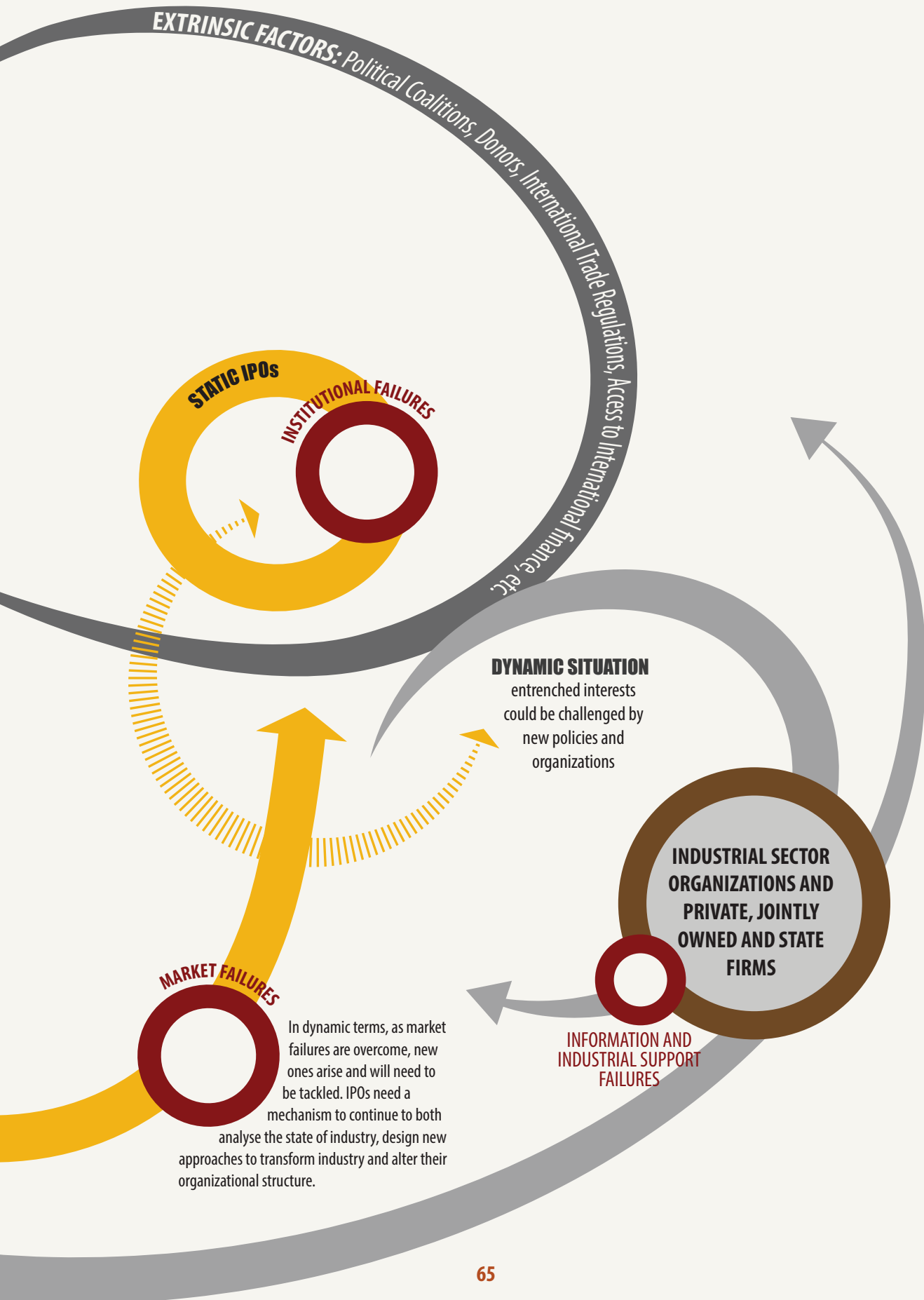
Manufacturing, beyond providing demand stimulus for agricultural growth, is a major conduit for diffusing new



FIGURE 3.1: SCHEMATIC OF INDUSTRIAL POLICY FRAMEWORK



Source: Authors.





technologies, with strong forward and backward linkages contributing to domestic investment, employment and output (UNCTAD and UNIDO, 2011). Manufactures also offer significant opportunities for export market expansion and are therefore a key driver of growth in merchandise trade. Manufacturing also has a higher potential for employment creation relative to agriculture and traditional (pre-modern) services, particularly as diminishing returns to scale in agriculture (owing to fixed factors such as land) limit the opportunities for job growth in that sector. Consequently, as a country sees population growth and urbanization, it needs growth in manufacturing jobs to absorb labour displaced from agriculture (see chapter 2).

Government involvement in structural transformation, particularly manufacturing capabilities, has long focused on the “infant industry” argument of protecting new domestic industries from foreign competition before it can take off unaided. Two drawbacks: this approach assumes that the industry in question is likely to be profitable (Pack and Saggi, 2006), and it does not specify how technological diffusion and learning occur.

### **Industrial policy ought to address the pervasive discrepancies between private gains and social returns and to correct major sectoral or other misallocations**

In recent years, though, such involvement has started to focus on the need to either counteract market failures or more broadly address systemic (including non-market) failures and build capabilities. Industrial policy is thus seen as a process through which government and private sector actors work together to identify opportunities for faster growth and facilitate their exploitation by addressing failures and building capabilities (Lin, 2012).

Hence industrial policy ought to address the pervasive discrepancies between private gains and social returns and to correct major sectoral or other misallocations. Africa’s priorities include ensuring that resources (labour, capital and knowledge) are transferred from low- to high-productivity sectors and areas, including the migration of Africa’s abundant unskilled rural labour to unskilled labour-intensive industries; and increasing productivity through learning and education (Stiglitz et al., 2013). A key feature of the policy process is to identify constraints—or, more precisely, to organize “searches” to identify and respond to them.

In this endeavour, “the private sector needs government to help internalize the various externalities of the cost-discovery process and to provide many of the public inputs (standards, public infrastructure, certification, property rights) that only the government can supply. The government in turn requires cooperation from firms because it needs to elicit the relevant information about the obstacles and opportunities they face and because it has to be able to influence their behaviour in the desired direction” (Hausmann, Rodrik and Sabel, 2008: 4). Hence the need for the two sectors to work together in seeking distortions and resolving them. The role of government here is to set up institutions that can be useful in engaging the necessary actors, especially in developing capacity. These institutions can enable governments to respond selectively yet quickly using proper policies to respond to the economic opportunities presented through such an engagement process (Wade, 2009; Hausmann, Rodrik and Sabel, 2008). One good example of this is Taiwan (China), where the authorities created industrial extension services that accelerated the formation of supply linkages between domestic firms and big multinational companies in the territory, as a way to upgrade the technological capacity of domestic firms (see below).

### **GROWING ACCEPTANCE OF INDUSTRIAL POLICY**

Externalities, lack of efficient outcomes from the market and the role of government intervention have long been acknowledged by neoclassical economists, though conservative economists have argued for a limited role of the government intervention. The neoclassical economists argue that market failures are seldom widespread—and, confronted with the implementation strategy, dismiss the entire notion of industrial policy. Private actors in the neoclassical view play little or no role in designing these public solutions: either they “free ride” on the efforts of others who are presumed to have an interest in addressing the problems, or they prefer to lobby for solutions that serve their particular interests at the expense of the public (Hausmann, Rodrik and Sabel, 2008).

In fact, though, even in countries with a pronounced “hands-off” theoretical underpinning to government intervention, state involvement has been successful. Take the United States, which for nearly 200 years has benefited from such policies, from agriculture to canals, roads, telecommunications and the Internet. Elsewhere, the development of East Asia has arguably been heavily based on government intervention in the market economy, including extensive use of industrial policies (Stiglitz et al., 2013; Chang, 2012).



This success has led to a marked shift in the policy debate, to the circumstances under which industrial policies will work, and the forms of industrial policy appropriate for countries in different stages of development and with different political and economic institutions.

### IDENTIFYING AND PLUGGING GAPS IN AFRICA'S INDUSTRIAL POLICY

Successful industrial policies, as seen, require government-private sector collaboration, which directs industrial policy to work right. The emphasis is thus to shift the orientation towards processes for selecting (and correcting selections), “rather than specific policy instruments or sectors” (see Rodrik, 2008). On this view, industrial policy activities should be oriented along two axes—one that works “locally” to improve the performance of existing industries through stepwise increases in their capacities, and one that works “globally” through strategic focus on high-productivity new industries whose success depends on bigger capacity leaps” (Hausmann, Rodrik and Sabel, 2008: 4).

Industrial policy in many African (and other) developing countries may be viewed in a tri-form perspective: functional policy is government policy for improving market operations; vertical policy refers to interventions favouring certain sectors, industries or firms; and horizontal policies refer to interventions for promoting specific activities across sectors (UNCTAD and UNIDO, 2011). Efficient industrial policies require a mix of all three.

However, vertical intervention came under severe criticisms as it was branded “picking winners” and that it breeds corruption and rent seeking—objections that opponents find sufficient grounds for dismissing industrial policy.

As always, implementing industrial policy depends on a country's circumstances and institutional setting. Recent African experiences underscore the potential of dynamic processes and policy dialogue in identifying and facilitating growth. Take Ethiopia. As part of its growth and transformation plan, it has, with stakeholders, identified constraints to expanding its leather industry, which has high growth potential, and designed measures to boost technical skills and access to technology and markets. These interventions improved the quality and quantity of leather exports.<sup>13</sup>

However, in Ethiopia, as in most other African countries, institutional and capacity challenges still constrain policy design

and implementation and progress in fostering industrialization and economic transformation remains limited. Notable common challenges to African countries include constrained capacity of government implementing bodies and coordination of support-providing government institutions, shortage of industrial inputs and limited involvement of private investors in the manufacturing sector. Moreover, low levels of technological and managerial capacity of factories, productivity and technological capacity limitations, inefficient logistical systems and inability to cope up with fierce global competition on quality and price are also common in Africa.

**Successful industrial policy require close government-private sector collaboration that ensures its relevance and effectiveness**

## 3.4 SUCCESSES FROM THE GLOBAL SOUTH

### HIGH-LEVEL COORDINATION AND EMBEDDED AUTONOMY IN MALAYSIA

In the 1960s, Malaysia was one of many commodity-dependent, underdeveloped countries.<sup>14</sup> Thanks to a comprehensive and well-implemented development strategy, the country achieved rapid economic growth, structural transformation and substantial reduction of poverty, making it one of the East Asian newly industrializing economies, or what the World Bank once categorized as “high-performing Asian economies” (World Bank, 2010). From 1960 to 2000, agriculture's share of GDP declined from 40.5 per cent to 12.8 per cent while that of manufacturing rose from 8.2 per cent to 34.7 per cent. Having relied heavily on income from its natural resources to engineer successful diversification into manufacturing, Malaysia is now an upper middle-income country.<sup>15</sup> Its real GDP per capita surged more than sixfold between 1960 and 2010.

Malaysia's growth story, like that of other developing countries, can be viewed as the structural transformation of a predominantly agricultural to a more industrialized economy.



Initially, primary commodities—rubber, tin and, later, palm oil—dominated, before export-led growth of labour-intensive manufactured products sustained growth. A key policy instrument was the New Economic Policy, launched in 1971 and ended in 1991 (Khoo Boo, 2010). Its objectives were poverty eradication and restructuring through growth with redistribution. It was unusual in that it provided for an overarching goal for economic development, which was national unity despite ethnic diversity. In addition, it built consensus on definitions and measurement of development. And it was tremendously successful: GDP per capita rose from \$1,222 in 1975 to \$8,927 in 2000 (in 1993 purchasing power parity dollars) and the incidence of poverty fell from about 50 per cent in 1970 to well below 10 per cent in 2000.

### Institutional and capacity challenges continue to constrain policy design and implementation in most African countries

From the early 1990s, Malaysia attempted to transform itself even further towards a knowledge-based economy. It did so because, with rising competition from emerging economies, the prospects for long-term growth started looking bleaker, ramping up the pressures for further structural transformation. The latest industrial master plan (Third IMP 2006–2020) has pushed the country once again to reorient its direction to deal with new challenges aimed at moving to high-income status. The focus is now on promoting investments in high value-added, knowledge-intensive and high-technology industries such as in biotechnology, electronics, machinery and equipment, renewable energies including photovoltaic, advanced materials, optics and photonics, and medical devices.

Industrial policy fits well into the broader general policy framework and partly explains its success (Yusof and Bhat-tasali, 2008). It has also been highly embedded in the private sector in multiple ways. At the top level is a macroeconomic policymaking body whose sources include the federal government, state governments, nonfinancial public enterprises, government-linked companies and the private sector.

The federal government has the authority and is therefore the source of macroeconomic policies. The three centres for macroeconomic policy initiatives are the Economic Planning Unit (EPU) in the Prime Minister's Department, the Ministry of Finance or the Treasury, and Bank Negara Malaysia, the

central bank. Entities responsible for developing the various economic sectors are also involved, but the lead is taken by these three key agencies.

The EPU is responsible for formulating the five-year development plans and these plans' mid-term reviews. It is also tasked with preparing the long-term development plans—that is, the outline perspective plans that cover 15 or 20 years. The EPU also initiates specific studies or master plans and has worked closely in coordinating the content of its plans with the longer term industrial master plans as well as participating in generating industrial master plans.

The private sector is usually engaged in formulating policies, proffering many opportunities to businesses to initiate policy discussion and to recommend policy changes. Representatives of private associations and commercial groups as well as corporate leaders take part in these groups. The budget dialogue among the Minister of Finance, senior staff and corporate leaders is held every year. Written contributions from the private sector with their views and recommendations on measures for the budget are solicited actively. The Ministry of International Trade and Industry (MITI) also holds an annual dialogue with the private sector, focusing on industrial policies. In addition, there is an extensive list of committees, task forces and working groups led by various ministries and departments where the private sector is invited to discuss new policy ideas, or to review and refine existing policies.

Independent and semi-independent groups from leading universities and think tanks are also part of the policymaking loop. The Institute of Strategic and International Studies, with partial funding from the government, conducts work for the government, especially on strategic long-term policy issues. It is usually impossible to identify the numerous actors in the design and refinement of economic policies, as policy ideas in particular emanate from official and unofficial sources, so it is not until an organizational unit is given a mandate to initiate the policy that the actors become visible. A distinction should also be made between the sources or initiators with key roles and others that expand or refine the initial policy ideas. Usually, there is an amalgamation of initiators, feeding on each other through interaction and leading to policy formulation.

These groups have been intimately involved with the creation of the industrial master plans. The structure was made up of an overseeing Industrial Planning Committee headed by the MITI minister, and representatives from MITI, EPU and other economic agencies (figure 3.2).



The general direction of the Third IMP was initially set by the Industrial Planning Committee. Once decided, a steering committee was created and put in charge of organizing the technical resource groups to coordinate drafting of chapters. The technical resource groups submitted first drafts to the MITI secretariat, which were reviewed by the private sector as well as within MITI. The private sector was also deeply involved in both drafting the chapters and in brainstorming.

The formulation of the Third IMP was broadly inclusive, which helped not only its legitimacy but also dissemination of its rationale, objectives and details of its policies. Political support came from the highest level. Prime Minister Mahathir took special interest in industrialization, was closely involved with implementing these policies and programmes and gave strong support to Rafidah Aziz, who ran MITI from 1987 to 2008.

Other than MITI, the key agency for promoting investment (foreign and domestic) is the Malaysian Investment Development Authority (MIDA), which operates with comparative autonomy. MIDA has been a highly professional and effective IPO with representatives in 14 countries and with a flexible array of incentives and packages to attract investment often developed closely with the Ministry of Finance. Decisions are very quick in responding to investors. MIDA holds weekly meetings to approve projects and formulate incentives. A

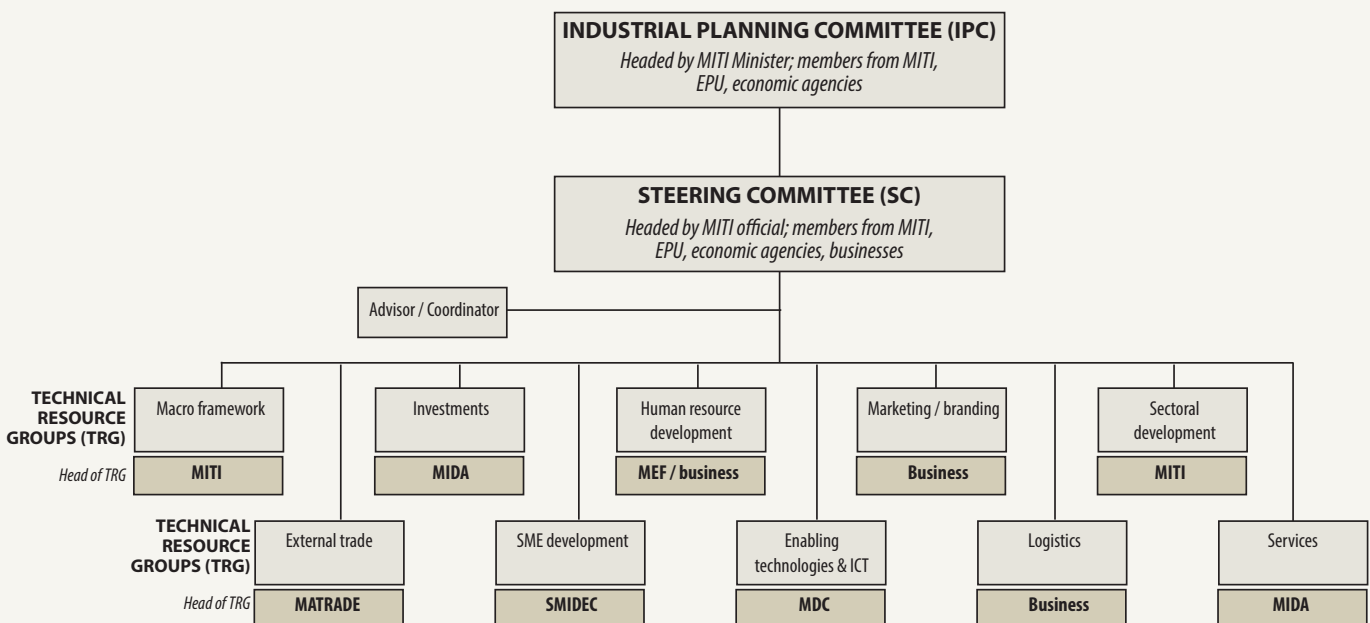
Ministry of Finance representative sits in these meetings and can approve proposed tax incentives on the spot. If there is any question, the proposal is sent to a higher level in the Ministry of Finance and the issue is resolved by the following week. Problems over executing industrial policies are dealt with at MITI Annual Dialogues with the private sector and as a continuous process.

**Development planning was instrumental to Malaysia's structural transformation**

**INSTITUTIONALIZING SUCCESSFUL INDUSTRIAL POLICY IN SINGAPORE**

Singapore has been one of the best examples over the past four decades of a state-driven effort to industrialize and to rapidly raise the standard of living.<sup>16</sup> By 1990 real GDP per capital was five times the 1970 level. Real manufacturing value added rose seven times over the period, and exports in nominal dollars increased nearly 50-fold.<sup>17</sup> At the heart of

**FIGURE 3.2: ORGANIZATIONAL STRUCTURE OF THE THIRD IMP, 2006**



Source: Ohno, 2006.



the transformation was Singapore's Economic Development Board (EDB), a quasi-government agency set up by an Act of Parliament in 1961, before the country's independence, which acted as the pilot agency in coordinating industrial policy.

From the start, the focal point was attracting investors in manufacturing, as the government recognized that there would not be enough jobs if the country focused on continuing to trade as an entrepôt. The EDB originally had four divisions: investment promotions, finance, projects and technical consultants, and provision of industrial facilities like land. It was overseen by a 12-member board appointed by the government, with monthly meetings.

**At the heart of Singapore's transformation was its Economic Development Board, a quasi-government agency, which acted as the pilot agency in coordinating industrial policy**

The EDB, a government corporation or parastatal and therefore with a degree of autonomy, was driven by the principles of embedded autonomy. It was able to offer much higher salaries than elsewhere in government and was not constrained by government procedures. Plans and projects were developed by the staff and approved by the board. Once the government had abandoned plans for import substitution (with the collapse of the plans for a federation with Malaysia and a larger internal market), it was apparent that it would need to develop an export-oriented strategy by attracting overseas investors. Within that priority, it was important to get information from foreign corporations. Within a few years of its formation, the EDB opened an office in New York. By the early 1990s, it had offices in 15 cities worldwide. Typically, officers would start by working locally and then be sent overseas for periods of time. They would often visit up to 50 companies a year, particularly those that fit into the priorities of the master plans and send information back to Singapore. The same information would inform annual priority setting (see below).

The EDB declared itself in its very first annual report as a "one-stop government agency to promote the establishment of new industries in Singapore and accelerate the growth of existing plants" (quoted in Schein, 1996). Once a company showed interest it would find land to build their factories,

assist it in recruiting and training local labour, put in place the infrastructure needed, provide tax breaks and other incentives and even take partial ownership of investment funds, all within the operating principles and rules of the EDB. As both "midwives" and "husbands", the EDB worked assiduously to deal with the problems of companies as they cropped up and expanded to act as the main liaison to other government agencies and ministries. However, it was never subordinate to the needs of the companies and had a clear preference for "settler" companies versus the "cowboys" with a short-run orientation.

At the start of each year, EDB strategies would be formulated at a strategic planning meeting of the board. Extant issues were handled with senior-level committees that generated task forces around key issues. Embedded autonomy involving consensus building with both the government and private sector was central at all times. The EDB would typically invite academics, private sector representatives and civil servants to come up with recommendations and reports.<sup>18</sup> The committees could meet from six months to two years to come up with analysis and recommendations. Regional staff would meet twice a year, once for developing strategies and once for operations that feed into the annual planning meetings of the board. Key to operationalize priorities and avoid institutional failure were weekly operation meetings of the managing director and 35 directors and officers were key to operationalizing priorities and avoiding institutional failures. The meetings received progress reports on major projects and other issues introduced by attending officials. It was an open forum for identifying problems, devising strategies to deal with them, new opportunities and new clients.

The EDB avoided institutional failures by altering its organizational structure, capabilities and practices to adapt to a rapidly changing world while retaining its core norms, operating principles and philosophy. Lim (1995) points to four phases in Singapore's post-independence industrialization between 1959 and 1991, all a product of shifts in government strategies: import substitution in 1961–1967; labour-intensive export-oriented manufacturing in 1967–1979; more capital-intensive manufacturing with development of services exports in 1979–1991; and technological upgrading from 1991. In 1991 the government, with input of labour and business, launched a new strategic economic plan to upgrade technology through precision engineering and IT, increase manufacturing and service clusters and improve local industry. Each element was selected to deal with shifting labour conditions, export diversification and expansion, and ways to increase the standard of living.

The organizational structure and capacities of the EDB shifted both in preparation for and in accord with changing state priorities. For example, when the priority shifted in 1967 to attracting labour-intensive export-oriented foreign direct investment, there was a major structural change at the EDB. There was a sense that the EDB needed to focus on the new task and could not also internally handle all its other tasks. It had already spun off the EDB training unit in 1964 with the formation of the Singapore Institute of Management. In 1968, it carved off the land development function to create the Jurong Township Corporation, merged its investment functions into the Singapore Development Bank and created the International Trading Company to promote exports, the National Productivity Board to deal with wage and productivity issues, the Institute of Standards and Industrial Research, and the Engineering Industries Development Agency to further technical training. It kept the Investment Promotions Division and opened its first office abroad in 1967.

There were continual changes over the 1970s and 1980s. By the early 1990s, in line with the priorities of the new strategic plan, a group of directors was overseeing five operating divisions: enterprise development, services development, industrial development, manpower and capability development and international business development. It also has units dealing with strategic business units and services, focusing on planning, human resources, corporate services and internal auditing.

An effective organization requires an effective institutionalized culture, and Schein (1996) identifies five dimensions of the EDB's. The first is "individualist groupism". The organization works on the principle of team-focused cooperative problem solving. The EDB hires highly trained professionals with independent thinking, but requires them to perform in a team setting. They are often selected to use their own initiative to form their own teams. Rewards are given more to teams than individuals, encouraging cooperative behaviour.

Second, the focus is on a cosmopolitan technocracy, made up of the best and the brightest, often educated abroad. They can bring in the values and beliefs needed to market Singapore in foreign and multicultural settings.

A third dimension is the commitment to a boundary-less structure. A key element was to keep open channels of information and communication both internally with other branches of government and with the private and labour sectors. The operating norms are best summed up as "One must pass on all relevant information truthfully and not use

**Individualist groupism, the focus on cosmopolitan technocracy, the commitment to boundary-less structure, a culture of non-hierarchy and the ethos of continual learning are five dimensions of the Economic Development Board's effective institutionalized culture**

information as a personal source of control or power" (Schein, 1996:189). The view that information should be shared was also strengthened by the formation of teams from all over the organization, not simply those within a particular division.

A fourth dimension is a culture of non-hierarchy, aligned with a strong ethos of autonomy and initiative from all levels and a bottom-up style of management. At the same time is a need for deference to superiors and a willingness to take criticism from above.

And fifth, there is the ethos of the continual learning from past mistakes and other experiences. The EDB provided a listening post for Singapore. It was expected to present information and seminars to the government while at the same time act as the arm of policy implementation for the government.

### THE INDUSTRIAL EXTENSION SERVICE IN TAIWAN (CHINA)

Asian countries built effective IPOs to deal with a host of weaknesses in the industrial sector—high-level coordinating industrial policy councils aside. Particularly notable was the Industrial Development Bureau (IDB) of Taiwan (China), created in 1970 at the same time as the agricultural extension service.<sup>19</sup> Between 1970 and 1986, manufacturing in Taiwan (China) expanded by nearly 650 per cent in real terms and reached almost 40 per cent of GDP.<sup>20</sup> The IDB was a vital part of industry's contribution to this success, introducing plans to develop the machinery, food, petrochemical, textile and motor industries (Wade, 2009). Responding to the needs of the booming private sector, the government developed industrial parks so that investors could acquire land easily.



Like the EDB in Singapore in the early 1980s, the IDB comprised a top professional cadre of some 130 industrial engineers, plus another 50 experts in other corporate areas such as marketing and accounting, but with very few economists. As of 1983, the IDB was divided into four divisions: steel, electronic and information, petroleum and chemicals, and consumer goods—with cross-cutting divisions for land use, industrial organization, industrial law and environmental pollution, coordination with banks, customs and taxation, and research.

The IDB's main function was to maintain a close watch on the production capabilities of firms and seek out ways of enhancing those capabilities. This was only possible if it had developed good communications with the private sector. To do this, most of its staff was required to spend several days a month, visiting firms around the island. They were expected to look for ways the government could support them in improving factory layout, upgrading machine tools, diversifying product range and building supply relationships between domestic firms and subsidiaries of multinational corporations in Taiwan (China). Hence the IDB was alert to developments in the private sector that were already beginning to look successful, with a view to supporting them and making them even more successful.

In addition, the IDB's involvement through its staff in firms' operations had an important role in screening applications for loans from the various concessionary credit functions made available by the state. An example of IDB involvement that overcame coordination failures of the Hausmann type was in upgrading the technological capacity of domestic firms to accelerate supply linkages between them and the big multinationals in the country. The IDB worked closely with the Ministry of Trade to provide "incentives" or at least to remove "disincentives" that were impeding production.

Using the IDB experience in Taiwan (China), Wade (2009) identifies the following features of the industrial policy as a process. First, industrial policy support measures were designed so that they could target new products and technology. As more producers supplied new products, the criteria of eligibility for support were raised so companies had incentives to further push out the frontier of industrial transformation. Second, IDB officials helped firms secure financial assistance, having in mind the need to keep them under international competitive pressure through pricing mechanisms—for instance, the products had to be competitive with imports. Thus benchmarks for success were derived from international comparators. Third, most IDB staff were recruited based on merit. And fourth, the industrial policy was the responsibility of two high-ranking cabinet ministers who supervised the work of other key IPOs, allowing for solid coordination while avoiding jurisdictional fights.

In short, the experiences of Malaysia, Singapore and Taiwan (China) underscore the need for inclusive industrial policy processes—and innovative and dynamic institutions that facilitate continual dialogue among stakeholders to identify long-term and emerging challenges to industrialization and put in place effective and flexible mechanisms to address them. From an institutional perspective, there is much to be learned from these countries that can be used to interpret industrial policy failures and successes across African countries.

**The experiences of Malaysia, Singapore and Taiwan (China) underscore the need for inclusive industrial policy processes**

## 3.5 CONCLUSIONS

Noting the importance of industrial policy for Africa's transformation, this chapter has pinpointed the weaknesses of industrial policy institutions in undertaking this vital task. Both by historical standards and relative to other regions, Africa's industrial sector remains embryonic and technologically backward with low productivity and in some cases declining employment. African countries remain marginal players in manufacturing for their domestic and international markets. Generating an expanding and prosperous industrial sector is important for transformation. Institutional and organizational failures of current and past industrial policy frameworks have undermined the ability of African countries to address the ubiquity of market failures that have prevented transformation.

Unlike many Asian and Latin American countries that used industrial policies to transform their economies relatively fast, Africa—and its institutions—have followed the blueprint line. This has led to the absence of institutions that generate processes and mechanisms that can understand the ever-changing requirements of industry. Indeed, industrial policy in Africa has frequently focused on policy outcomes rather than on the institutional frameworks used to formulate, implement, monitor and enforce industrial policy.

One recommendation is to avoid a blueprint approach where industrial policy is simply a set of "off-the-shelf" interventions. Instead, the focus is to build institutions that generate procedures that can address the ever-changing requirements. Equally, industrial policy will perform poorly unless embedded in the private sector. Bureaucrats need to set, monitor and adjust goals through the input and feedback of key business actors, but without being captured by business. In the eyes of enterprises, embeddedness allows businesses to be part of the policy loop and creates credibility in the certainty of government policy that increases the willingness of businesses to assume risk.

**African countries need to focus on building institutions which generate processes and procedures that can understand and address the ever changing needs of industry**

Institution building is complicated by other factors. In much of Africa structural adjustment not only eroded countries' industrial bases but also the institutional capacities necessary for industrial policy. Many policy interventions require sophisticated interventions to design measures of support, fix targets and design monitoring, evaluation and enforcement systems. But with today's more scarce bureaucratic experience in industrial policy, the key is to start slowly and create pockets of efficiency, which must have the support of political leaders and be embedded in long-term development planning frameworks.



## CHAPTER

# 4

## EXAMPLES OF AFRICA'S INDUSTRIAL POLICY PROCESSES AND INSTITUTIONAL DYNAMICS



Drawing on the framework in chapter 3 and using examples from a dozen countries (box 4.1), this chapter shows how the problems of industrial policy have affected the operations of industrial policy organizations (IPOs) in Africa—and how these problems have been avoided or minimized. For exposition purposes, it breaks the cases down into three main sections by type of failure (or reason for success), but in fact many of the cases offer more than one of each of these elements.

This chapter finds, first, that industrial policy coordination at higher levels is minimal—and in some countries completely missing. One notable omission is that the private sector is often left out. Hence high-level coordination needs to be stepped up. (More successful countries understand, however, the need for systematic coordination and regularly co-opt the private sector and encourage super-ministerial collaboration.)

Second, IPOs are replete with organizational imperfections that can lead to debilitating institutional problems. There is a need to strengthen IPOs—and in some cases establish new ones—that will address gaps, weaknesses and industry's market failures, specifically in target setting, monitoring processes, incentive structures and embeddedness in the private sector. To remain relevant to industry, many IPOs may need to be refocused and even reconfigured.

Finally, IPOs need to be set up to deal with other institutional gaps in, for example, infrastructure, training and—particularly—funding.

## 4.1 CHALLENGES OF HIGH-LEVEL INDUSTRIAL POLICY COORDINATION

An industrial policy framework requires high-level coordination to deal with a host of problems that can undermine the policy effectiveness. Different ministries can work in conflict, wasting their energy and resources. Communications can break down among IPOs owing to a lack of coordination. Financial resources for vital interventions to support industry may be scarce because of internal ministerial priorities that do not reflect broader national policies.

Even with some form of coordinating unit, problems can arise with a lack of upper political support or of broad coalitions that can overcome resistance and vested interests impeding industrial policy. High-level industrial policy councils with representatives from the private sector and state can also “embed” industrial policy (see chapter 3) by

**For IPOs to operate effectively, high-level coordination needs to be stepped up and underpinned by improved regulation and private sector participation**

### BOX 4.1 METHODOLOGY

Eleven cases were based on data collected using questionnaires at four levels of respondents in countries from the five African subregions over September–November 2013 (see the chapter appendix). A total of 92 interviews elicited views on the challenges in designing and implementing industrial policy and how they have been overcome, or otherwise. (A country case study was prepared for each of the 11 countries in the form of an overall report and evaluation, partly based on the interviews of industrial organizations and processes, along with supporting data.<sup>1</sup>)

The first level of questionnaires focused on understanding the challenges African countries encounter in the design and

coordination of industrial policy at high (generally ministerial) levels. The second was used to interview key officials in IPOs involved in formulating, monitoring and implementing industrial policy, with a focus on understanding their challenges and how they were overcome. The third was with officials from key business organizations, to find their views of the challenges of industrialization, IPOs' effectiveness and the extent to which they were involved in formulating industrial policies and goals. The fourth was developed to collect the views of experts in the field of industrial policy, including former and retired officials of IPOs, to give a historical perspective. The discussion in this chapter

was based as much as possible on evaluations from people not only on the inside of IPOs but also from interviewees at business organizations and outside experts who could confirm information collected from IPOs.

The 12th case—a detailed case study of how a coalition was organized to help rehabilitate the sugar industry in Mozambique (see box 4.4 below)—came from a separate source.

Note:

1. Full manuscripts may be made available on request to Macroeconomic Policy Divisions, ECA.





### BOX 4.2 PROBLEMS WITH EXTRINSICALLY SET AGENDAS IN HIGH-LEVEL POLICY COUNCILS

In 2001, Horst Koehler, Managing Director of the International Monetary Fund (IMF), and James Wolfensohn, President of the World Bank, made a joint tour of Africa. One upshot was the creation of Presidential Investors' Advisory Councils (PIACs), which were to be forums for private–public dialogue. Their focus was to identify barriers to investment, recommend actions to deal with the barriers, and accelerate reform.

However, from the start the priority was to accelerate the reform agenda of the IMF and World Bank with an emphasis on governance issues and a focus on improving the business environment. The World Bank directly linked its financial support to the improvement of its investment climate indicators (Page, 2013; IMF, 2002). This priority made it hard for the councils to promote industrial policies.

With the financial assistance of the international financial institutions (IFIs), PIACs were set up between 2002 and 2010 in Ghana, Senegal, Tanzania and Uganda. But the IFIs used a blueprint approach with no solicitation from individual countries. And while all councils were to have 15 private sector representatives (five each local, foreign, and potential foreign investors); 5 from the government; and 1 from the IFIs, the overwhelming presence of foreign investors in the total precluded representation of all-size companies and led to the exclusion of small and medium-size enterprises (SMEs).

Costs were initially born by the World Bank. PIACs were to be located in the executive branch close to the president. However, there was flexibility in choice: Senegal and Uganda put them in the Investment Promotion Agency, Ghana in the Ministry of Private Sector Development in the President's Office, and Tanzania made it part of the National Business Council. But there were serious problems on both the agenda and the operation of the PIACs.

Working groups of public and private sector stakeholders were to be created to identify barriers to investment and to ensure tangible policy reforms. These groups were intended to be issue or sector oriented and to build on local institutional structures and capacities, but unlike approaches in Malaysia and Singapore (see chapter 3), the technical work was done by members of the World Bank.

Input from SMEs was only to come indirectly from associations, further degrading their input. This lacuna was recognized in a 2005 World Bank review (World Bank, 2005) but there was little evidence that it was seriously addressed (Page, 2013). They were to meet twice a year with the president and coordinated by a small secretariat. However, in reality only in Uganda did the president hold more than one meeting a year. It was also the only country that followed up on deliberations. In Ghana, the president had little interest and the council did not gain much traction (Page, 2013).

The Councils were seldom focused on domestically generated agendas and when they did there was little follow-up. The focus was mostly on dialogue and the exchange of information around broad issues rather than on solving specific problems that would facilitate an increase in investment, production and employment. Hence the opportunity was lost to gather the information and formulate the interventions that could begin to address sector-specific market failures (see chapter 3). In Senegal, Tanzania and Uganda, the private sector had been asked to respond to national priorities, but the resulting input from the private sector was not taken seriously, in part because there was no follow-up analysis or research to support the recommendations.

In Senegal and Tanzania, the focus was on how to improve the country's standing in nine Doing Business indicators, which is arguably quite a dubious promoter of

investment in general and industrialization in particular. (China has rapidly industrialized but has consistently ranked poorly on these indicators.)

The World Bank (2005) evaluation of the councils admitted “government advisors expressed frustration over what they felt were poor investment responses” (p.1). Because the Councils originated from a recommendation by the World Bank—and other donors obviously saw it as an opportunity to push their own reform agenda—some governments might also have seen it as an extension of the donor agenda rather than as an organization to incorporate the private sector into an internally generated industrial policy agenda. Hence there was little innovation or experimentation. And like IPOs in general, they required a system of feedback associated with monitoring implemented recommendations and an evaluation mechanism to adjust policies.

Finally, the monitoring and evaluation capacity of the PIAC secretariats was extremely weak. No council has made a serious effort to monitor and evaluate the impact of decisions or to evaluate outcomes relative to the goals set by the councils. Page (2013) argues that “with the exception of the quantitative feedback provided by the Doing Business surveys, none of the Councils have a systematic means of assessing the impact of their decisions on firm performance, investment and growth. This lack of feedback is closely linked to their lack of focus in agenda setting” (p. 24).

Thus the Councils suffered from a raft of organizational imperfections linked to their short-term capacity to function and their longer term ability to evolve in response to self-monitoring and to the shifting character of industrial needs—all ensuring a negligible beneficial impact on industry.

tapping foreign and domestic players to identify concrete recommendations for policy action while accelerating (or softening) policy changes. Successful councils have often formed task forces with state representatives, academics and other experts to study issues and recommend solutions. Serious problems can arise, however, when such councils aim to fulfil an agenda set by outside donors (box 4.2).

### RWANDA— PROGRESS IN INTRODUCING AN ELABORATE INDUSTRIAL POLICY FRAMEWORK

Rwanda has made some good progress in introducing an elaborate industrial policy framework but could improve conditions for the growth and transformation of the industrial sector.

Its industrialization strategy has a short history. The first-generation strategy was put in place in 2006 and lasted for five years, followed by a second strategy for 2011–2015. They are both based on targets set in Vision 2020, in which Rwanda aims to become a middle-income country with per capita income of more than \$1,000 by 2020 (MFEP, 2000). The government is also guided by the medium-term Economic Development and Poverty Reduction Strategy (EDPRS 2, 2013–2018), which targets annual GDP growth of 11.5 per cent, relying heavily on industrialization.

At the top of the industrial policy framework, the Ministry of Trade and Industry (MTI), has promulgated strategies to improve the business environment and efforts to develop industry. These include the SME Development Policy (2010), Trade Policy (2010) and Competition Policy (2010). Also, institutional support has been rearranged to revitalize industry. The MTI has put in place a number of IPOs, including the National Agricultural Export Board (established in 2000 but only in operation from 2011—explained below), the Rwanda Bureau of Standards (RBS)(established in 2002), the newly created National Research and Development Authority (for industrial related research beyond what is done at the universities) and the Rwanda Development Board.

The last of these was established in 2009, to provide current and potential exporters with trade and market information as well as advice and recommendations to the government on practical measures to stimulate exports. In addition, the government provides financial support to the Private Sector Federation of Rwanda (PSF)—the main representative organization of the private sector—established in 2006. It aims to strengthen private companies, build human capacity for the

private sector, facilitate sustainable funding sources for the private sector, develop a vibrant membership association of private sector players and provide an economic dispute arbitration centre.

**At the top of the industrial policy framework, the Ministry of Trade and Industry has promulgated strategies to improve the business environment and promote industrialization in Rwanda**

The industrial sector, especially SMEs, has been nudged to seek support from international non-governmental organizations including the Netherlands Development Agency, the United Nations Industrial Development Organization and the US Agency for International Development, which have implemented industry support projects, especially for small rural enterprises. High-level coordination of the National Export Strategy (NES) and the Industrial Development and Export Council (IDEC) has been established since the IDEC was formed in 2011. The chair of the IDEC is the Minister of Trade and Industry, to ensure high-level political oversight. This council is responsible for monitoring and evaluating NES implementation. It also submits annual reports to the Annual Leadership Retreat on the progress of NES implementation. For more technical decisions, the IDEC meets twice a month to fast track the industrial policy activities at a high policy level. It also holds two policy meetings a year. However, the private sector is only consulted through annual conferences.

The Public Private Dialogue is now active and that provides input into the implementation process and a consistent dialogue between stakeholders working in the sector and those working on the cross-cutting issues affecting industrial growth. The PSF is charged with developing position papers on cross-cutting issues with data and evidence based upon surveys, consultation and feedback in order to support objective decision making. The Workforce Development Agency is entrusted with advancing technical and vocational training. Still, even though the IDEC is in place to coordinate industrial policy at highest levels, interactions among industrial institutions are limited, according to respondents. Holding only two meetings a year at this level hardly constitutes the vision of industrial policy as an “ongoing” process. In addition, constraints at lower levels feed through to the



IDEC's targets. For example, respondents stressed that the RBS lacks enough qualified staff to demonstrate appropriate quality standards for industrial operators and this affects the quality of products to be exported.

Rwanda now ranks as the best place to do business in Africa, after Mauritius, but as seen, this focus is unlikely to lead to industrialization, partly because it is failing to attract the kinds of foreign direct investment (FDI) needed for industry. In 2012, of gross investment of \$1,870 million, \$987 million was domestic public investment and \$660 million domestic private investment; only \$160 million was FDI (even if it was a steep increase after \$100 million in three of the four previous years). The higher public investment failed to leverage FDI, thus missing an opportunity to boost FDI-abetted industrialization.<sup>1</sup>

### **Rwanda now ranks among the best places to do business in Africa, but more needs to be done to attract the investment needed to foster structural transformation**

Indeed, more widely the movement towards improving conditions for industry has been disappointing. While annual GDP grew at 8.1 per cent in 2007–2012, manufacturing expanded at less than half that rate, taking its contribution to GDP from 6.4 per cent to 5.4 per cent. Industry employs only 4 per cent of the country's work force—leaving a steep mountain to climb if industry is to account for 26 per cent of the workforce by 2020 (MFEP, 2000).

The private sector seems to be insufficiently included when industrial policy is made. The PSF representative was unequivocal: "We have not been involved in developing the industrial policy of Rwanda". Nor does the IDEC have private sector representation, thus keeping the private sector out of the industrial policymaking loop. Private sector respondents also stated that the government did not discuss with them the types of support that firms needed to take advantage of the new special economic zone developed by the government for manufacturers at Nyandugu. The PSF representative argued: "Financial capacity to increase on the investment is a big challenge to members of private sector federation and more especially when industries are required to shift from Gikondo industrial zone to Nyandungu Special Economic Zone for better industrial practices".

### **NIGERIA—PROGRESS IN POLICY DESIGN BUT THE INDUSTRIAL BASE REMAINS TINY**

Nigeria is another country where much needs to be done to improve policy coordination.<sup>2</sup> Although it has pursued industrialization since independence in 1960, most observers consider industry's performance disappointing. Nigeria has experienced extreme policy swings from high protectionism in the first few decades after independence to its current more liberal stance. It has also shown a wide range of ambitious industrial policies—and then their abandonment midway through the process—such that policies have grown less effective over time.

Iwuagwu (2009) argues that "Nigeria's manufacturing sector especially since the 1980s has been beset by numerous challenges including low capacity utilization, unstable infrastructure (which impacts the cost of doing business), absence of venture capital for business start-ups, high cost of capital especially from banks and other financial institutions, lack of long-term loans, absence of enabling macroeconomic environment, multiple taxation by different agencies of government, etc." These issues, alongside those in the industrial policy framework, still plague the business environment and inhibit industrial growth.

Nigeria has no coherent national industrialization strategy. Rather, what exist are sectoral plans in areas like sugar, cement and automobiles. In addition to sector plans there is an elaborate set of IPOs under the authority of different ministries (box 4.3). However, there is no super-ministerial coordinating body. An overarching coordinating body would better ensure the greatest efficiency of efforts, no gaps in support of the private sector, and no overlapping mandates. Interviewees indicated that inter-agency meetings and coordination were rare.

While embeddedness is encouraged through public IPOs such as the Industrial Training Fund, whose board is composed of public and private actors, not all private stakeholders felt that they were adequately represented in policy formulation. The interviewee from the Lagos Chambers of Commerce and Industry (LCCI) stated that the LCCI is involved in developing industrial policy but only "at the finishing stages. We have always advocated that the private sector is carried along at the inception of any industrial and trade policy but this is yet to happen especially in recent times". Only the interviewee from the Nigerian Export Promotion Council explicitly mentioned meeting "regularly"

with the organized private sector to “target interventions to best suit their needs and purposes”.

The need for increased communication and coordination from above was also evident in what the LCCI representative called “the wide gap between the existing industrial policy institutions and the business community”. He added, “The institutions are highly disconnected from actual realities as they are more theoretical and academic and less than practical. We recommend that successful private sector operators be more involved in the management and decision making of the industrial institution”.

Interviewees also thought that industrial policy suffered from a lack of thorough implementation. The representative from the Nigerian Association of Small-Scale Industrialists said, “We have good industrial policies but the implementation is poor and most implementation efforts are short lived and the gains recorded also fade away within a short time. The existing industrial policies are great. The missing link is poor implementation of existing policies. We also feel that government should increasingly move into more protective fiscal policies to save the dying local industries”. Similarly, Iwuagwu (2009) associates this poor implementation with weak policy coordination, frequent policy changes and inconsistency.

Nigeria’s history of industrial policy (at least as illustrated above) shows the lack of commitment to stable, long-term policy. It also appears that the IPOs are not receiving adequate support from their supervising ministry, and do not have the capacity to successfully implement private stakeholder input and are not adequately supporting the growth of the private sector. The LCCI interviewee stated, “The institutions are doing their best [given] the limit of their capacity and the realities on the ground. Underfunding of the institutions and wrong set of management/employees

in the institutions remains a key challenge”. For example, the Bank of Industry interviewee named a “lack of working capital [and] infrastructural facilities such as electricity supply, good roads” as impediments to its operations. A lack of finance and paltry government spending in areas like infrastructure are critical shortcomings—every interviewee from private and public institutions mentioned a lack of finance as an inhibitor to growth, and many mentioned infrastructure.

### **With an elaborate set of IPOs in Nigeria, strengthening high-level coordination and improving coherence is essential for policy effectiveness**

Another common theme is the lack of effective policy implementation mechanisms. The frequent change in policy direction combined with diminished human capacity stemming from structural adjustment (see chapter 3) has exacerbated deindustrialization. As the Nigerian Institute of Social and Economic Research interviewee stated: “Arising from [structural adjustment], [the] Nigerian industrial base collapsed because of careless liberal policies. The associated diminished role of government resulted in sub-optimal infrastructural development making the industrial sector uncompetitive as they faced high cost of production. They also suffered from technological obsolescence implying that they could not meet the stringent international standards and hence could not export”.

And so none of Nigeria’s many industrial policies pursued since independence has resolved the underlying issues in the industrial policy structure: poor coordination among

#### **BOX 4.3: AN OVER ELABORATE PATCHWORK IN NIGERIA**

Under the Ministry of Science and Technology are the National Office for Technology Acquisition and Promotion, the National Agency for Science and Engineering Infrastructure, the Projects Development Institute, the ministry’s bank of industry, the export processing zones authority and export free zones. IPOs linked to the Federal Ministry of Trade and Investment include the Small and Medium Enterprises Development Agency of Nigeria and the Industrial Training Fund.

Others include the Bank of Industry, the Nigerian Export Promotion Council, the Nigerian Investment Promotion Commission and the National Planning Commission. There are still other IPOs like the National Automotive Council, the Standards Organisation of Nigeria, the Industrial Training Fund, and the Federal Institute of Industrial Research, Oshodi, under the agency of the Ministry of Science and Technology.





all actors, weak private sector participation, inadequate support for IPO capacity and major gaps in support of the private sector efforts in industry. The stark reality is that Nigeria is continuing its deindustrializing path that began during structural adjustment: manufacturing's contribution to GDP fell from 10.4 per cent in 1983 to only 2.4 per cent in 2011.

### **Private sector operators should be more involved in the management and decision making of industrial institutions in Nigeria**

#### **SENEGAL—MORE STATE INVOLVEMENT REQUIRED**

Senegal has seen the contribution of manufacturing to GDP fall steadily in the past decade from around 17 per cent of GDP in 2002 to only 14 per cent in 2011.<sup>3</sup>The static nature of industrial policy and the failure to include revised policies in national development plans, apex coordination problems, political interference, weak private sector participation and underfunding are all factors.

Interviews with business organizations felt that there was no effective industrial policy in Senegal and that the current industrial policy—the *Politique de Redéploiement Industriel* (Industrial Redeployment Policy)—has had no visible impact on developing their sectors. The interviewee from the Senegalese National Confederation of Employers (CNES), for example, felt that industrial policy had “absolutely no impact on the industrial sector. In our view, the industrial policy is outdated. ...The industrial sector does not currently occupy the place it should in economic development policies. It should be the backbone of our economy. A new industrial policy needs to be drawn up, and soon”.

National development plans do not take industrial policy into account. Although the goal of the National Strategy for Economic and Social Development (SNDES), developed in 2012, is to set Senegal on the path to emergence, notably through accelerated economic growth and enhanced productivity, there is no mention of industrial policy and the Industrial Redeployment Policy seems to be very much on the back burner. Despite this, the *Stratégie de Croissance Accélérée* (Accelerated Growth Strategy)—a body working to fulfil the SNDES goals under the Prime Minister's Office—

has approached IPOs to ensure that interventions happen in their sectors. However, interviews suggested that this use of these IPOs will not succeed (especially for industrializing) because they are being used outside of the conceptual framework for which they were created. The actions of these institutions will likely be isolated, dispersed, inconsistent and not designed to fulfil any strategy. Thus the lack of a national overarching industrial policy remains an issue for Senegal.

Interviews with officials from the Ministry of Industry and Mines (MOI), IPOs and private sector bodies all illustrate the sentiment that the government needs to lead a coordinated effort on industrial policy, and that a lack of effective coordination is a major inhibitor to progress. Further are structural coordination issues between actors.

Essential to successful industrial policy in any country is a coalition of stakeholders that is super-ministerial and super-sectoral, with strong public-private dialogue that allows coordinated policy design and implementation across multiple bodies (box 4.4 for an example in Mozambique). Yet our analysis points in Senegal to non-existent systematic and formalized coordination of various MOI departments, and that formal and regular coordination between ministries responsible for industrial policy is absent. For example, the MOI has supreme responsibility for industrial policy design and implementation, but several IPOs were created to support industrialization but are not under MOI supervision and do not coordinate with it. This also duplicates efforts and wastes ministerial resources. The MOI also suffers from underfunding and a lack of resource support because the government does not prioritize industrial development. In addition, there is a clear need for regular and formal coordination between stakeholders.

There is also a need to insulate the body coordinating industrial policy from political pressures. A former MOI director recounts how “decision makers let themselves be influenced by lobby groups” and how they were “only interested in the short term”. He reported the MOI as “not independent at all”, and its interventions as subject to influence from lobby groups, as well. This illustrates the need for the body in charge of industrial policy to have embedded autonomy (see chapter 3)—that is, to be insulated from political pressures.

For its part, the private sector is not represented in policy discussions and private stakeholders feel uninvolved in dialogue in any meaningful way. There is no collaboration among private employers' organizations; interviews indicated the rivalry between them has weakened the force

that they were supposed to represent so that they cannot carry as much weight as possible in dealings with the state. In addition, each profession often serves only its own interests, even to the detriment of a nationwide industrial policy. Representation of the private sector in IPOs is therefore no more than a formality, and its stakeholders remain frustrated. The CNES interviewee felt that “the private sector could have played a much greater role in the drawing-up of the industrial policy of Senegal” and that in the future “all stakeholders should be involved in the process at an earlier stage to allow them a greater say”.

The state must also better support IPOs, which suffer from resource and operational constraints and are therefore achieving way below potential. When asked what institutions the government has put in place to support industrial policy implementation, the interviewee from UNACOIS Jappo, the private sector SME organization, responded: “What institutions? While it is true that we saw the beginning of a rather promising institutional response with the establishment of a number of support and supervisory agencies, the reality is that none of the institutions has the means to carry out its remit. They are weak, both in terms of resources and organizational capacity”. Indeed, the National Subcontracting and Partnership Exchange of Senegal interviewee reported that “fewer than half of the 2013 goals have been met” for his organization.

**Senegal has seen the contribution of manufacturing to GDP fall steadily in the past decade from around 17 per cent in 2002 to only 14 per cent in 2011**

The IPOs’ lack of resources also affects their operations in other ways. There is no staff evaluation or incentive system, and training projects are rare. The lack of an adequate and operational system for controlling, monitoring and evaluating the institutions and the fact that there is no systematic measurement of the interventions make it impossible to assess performance.

Another area of state intervention is to shift IPOs to the appropriate ministry. For example, a few IPOs were created by and for the MOI but are overseen by the Ministry of Commerce. The current system of organization is inefficient and coordination is inadequate among IPOs under different ministries. IPOs are designed almost exclusively for SMEs and

**Essential to successful industrial policy in any country is a coalition of stakeholders that is super-ministerial and super-sectoral, with strong public–private dialogue that allows coordinated policy design and implementation across multiple bodies**

do not consider big business, following the Industrial Redeployment Policy, which also does not consider larger industries. A more inclusive new industrial policy would change this.

The state must also invest more in research and development (R&D), as well as design. Industrial companies build factories and use them with little thought of technological upgrading, partly because the state offers no incentives to innovate. As with other IPOs, R&D and design institutions suffer from budget shortages.

To sum up: with current policies and on current trends, a reversal of manufacturing’s decline as a share of GDP seems unlikely. The CNES interviewee, for example, expressed extreme disappointment in the effectiveness of industrial policy. The state needs to direct large structural changes to encourage industrial growth.

### **MOROCCO—NOTABLE PROGRESS THANKS TO EFFORTS TO ADDRESS COORDINATION ISSUES**

Morocco made notable progress in diversifying its economy thanks to efforts to improve policy coordination and implementation. Since independence in 1956, it has had switch-back industrial policies over two main periods—before and after structural adjustment—and seven sub-periods—three before structural adjustment, four after. According to the economic literature, such policy inconsistency creates uncertainty and deters long-term investment. Possibly worse, many of the policies were poorly implemented.

For coordination, Morocco created an industrial strategy called the National Pact for Industrial Emergence in 2009,



### BOX 4.4: MOZAMBIQUE AND SUGAR REHABILITATION

Successful industrial policy requires a confluence of mutual interests where the growth and development of a sector serves both political interests and the transformation needs of businesses. The commitment of the state needs to be credible and is best secured by coalitions within the government who will in turn gain palpable political benefits or the support from firms to maintain those coalitions. These coalitions are particularly important to overcome vested interests that might become economic losers.

It is hard to map out general recommendations, but case studies can be instructive—such as the sugar industry in Mozambique.

Sugarcane has been produced in Mozambique since the end of the 19th century. In 1975, at independence, six sugar estates with manufacturing capacity employed 45,000 people, and were the biggest formal sector employer. Production had peaked in 1972 at 325,051 tons, with 60 per cent exported, making the country Africa's third largest exporter. But the sector rapidly deteriorated after independence with civil war and flight of capital and skilled personnel, just as international sugar prices started tumbling. By 1982, production was below 50,000 tons and bottomed at a mere 23,000 tons, or well below 10 per cent of capacity in 1990–1997. By 1999, employment had fallen to only 17,000 workers. Following the implementation of the sugar rehabilitation strategy, the area under cultivation increased from 7,266 hectares in 1998 to 42,703 hectares in 2011. Sugar production rose to 389,425 tons in 2011, of which 198,181 tons was exported and 32,000 full-time jobs were created. The strategy arose from a group of politicians surrounding President Chissano (1986–2004). The group pursued industrial policies in key sectors following a 1992 peace agreement to provide jobs, rural infrastructure, foreign exchange and state revenue.

Industrial policy was overseen by a high-level task force chaired by the Minister of Finance and including key ministers such as trade and agriculture, directors of departments, industry players, labour unions and others with the National Sugar Institute in charge of monitoring implementation. The main industrial policy unit charged with implementing the new strategy was the National Sugar Institute, which became a core pocket of efficiency and an important component of an embedded and mediated bureaucracy. The organization was in place from Portuguese times and oversaw the period of state control when the sector eroded. The National Sugar Institute management and employees had an accumulated knowledge over many years with key members moving among the private sector, state sector and the institute.

The key components in the industrial policy package were regional FDI from South Africa and Mauritius, co-ownership and financing by the state, and creation of a protected internal market through a tax on imported sugar, which was only possible with the coordination of national ministries, regional authorities, and harbour and border control agencies. These moves lifted the price of sugar for users like beverage makers, by two or three times, prompting considerable push-back from some of the large multinational beverage companies. However, they were provided with a discount below the reference price. In addition special arrangements were made to swap locally made brown sugar for refined white sugar, with the difference paid by the Mozambican sugar industry.

Incentives for productivity from the private estates were created because the foreign firms needed state infrastructure and government-guaranteed loans. In return, the bureaucrats in the National Sugar Institute could threaten to withhold these benefits if the firms did not invest, create jobs, improve production and processing,

and begin to export. The foreign firms investing in sugar estates also had the technological capabilities to meet these demands, become profitable and hence use the government incentives productively.

In addition, the Mozambican state, through Banco de Mozambique, initially kept 51 per cent ownership in all but one of the companies. The majority position was to lend money and to closely monitor the situation through state representation on the company boards. As loans were reduced and companies increased their investment the government share declined.

Over time, new industrial organizations appeared. The first organization to emerge was the Associação dos Produtores de Açúcar de Moçambique in 1998, representing the producers, and was primarily engaged in negotiating with the government. The second important body was the National Sugar Distributor, created to market sugar domestically and internationally. Initially, the four companies tried to run it jointly but in the end hired an internationally recognized consulting company with international marketing experience. With the folding of the National Sugar Institute into largely ineffectual CEPAGRI (Agricultural Promotion Centre), it has replaced some of the institute's functions.

Source: Buur, Mondlane Tembe and Baloi (2011 and 2012); Buur, Baloi and Mondlane Tembe (2012); Whitfield and Buur (2014); Buur and Whitfield (2011).



which has two pillars. One is designed to expand larger businesses in areas in which Morocco has a competitive advantage, and the second is to boost SME growth and make these enterprises more productive and competitive. During the first period of the pact (2009–2012), overall job creation declined with an estimated loss of 190,000 jobs in areas not prioritized by the pact. And the pact has not reversed the downward trend of manufacturing value added in GDP, which fell from 17.3 per cent in 2003 to 14.7 per cent by 2011 (Bank of Al Maghreb, 2013; High Commissariat of Planning, 2013).

The pact has therefore been less than successful, partly because collaboration among ministerial departments in the pact is tenuous. Along these lines, an interviewee from the Ministry of Industry, Commerce and Handicraft acknowledged that more focus must be put on “coordination and convergence of efforts between various ministerial departments that normally work in isolation from each other”. Once again, despite the plethora of ministries, as well as a few IPOs and private sector organizations involved in the plan, there is no overseeing body to coordinate efforts, and the only meeting among all actors is annual, to provide an update on the pact’s implementation.

There are also several committees for the pact—“steering” or “monitoring”—and these too have cross-representation from various combinations of ministries, IPOs and private organizations. Each of these committees involves ministries of finance, interior, employment and vocational training, representatives from the relevant sector and representatives appointed by the private sector association (General Confederation of Enterprises of Morocco). The monitoring committee of textiles and leather is, for example, chaired by the Ministry of Industry, Commerce and Handicraft and involves the Ministry of Agriculture as well as other actors in four other committees. The situation becomes complicated once the steering committees for the first pillar and the steering and monitoring committees for the second pillar are added to the mix. Without a single coordinating body, it is hard to imagine how these efforts could be directed to one national industrial policy.

Furthermore, a multiplicity of other sectoral plans abound, such as Green Morocco for promoting agriculture, the Azur Plan for tourism, a handicraft programme, an Energy Strategy, Halieut is for fisheries—all requiring more coordination among stakeholders. Not only is their relationship to each other unclear, but they all compete for resources and financing, which has slowed industrial-park building. Moroccan ministries need to coordinate their efforts far more in one long-term, national industrial policy.

### Efforts to improve industrial policy coordination and address constraints resulted in notable economic diversification in Morocco

#### MAURITIUS—DOING WELL

Mauritius shows how high-level coordination failures can be overcome through the state’s dedication to strong representation of all stakeholders and explicit creation of systems of coordination.

Despite being a small island with a limited endowment of productive resources, Mauritius has transformed itself from a low-income mono-crop economy to a middle-income country and is now one of Africa’s most successful—and diversified—economies. Its success stems from smart domestic policies (including private sector feedback) and international connections that allowed its exports duty- and quota-free access to the European market.

The questionnaires support the view that much of the success of Mauritius’s industrial policy is attributable to the continual government efforts to involve public and private stakeholders in discussions on formulating and executing policies (a key element in chapter three’s framework).

Behind the industrial strategy of the Mauritian manufacturing sector lies a network of government and private sector institutions responsible for drafting policies, negotiating and fulfilling international agreements and elaborating export promotion programmes. Through regular contacts, their representatives can monitor the performance, constraints and opportunities of production. Such close cooperation is fairly unique in Africa, and has been made possible through the devising of structured forms of dialogue between the various institutions constituting the network.

This structured dialogue exists mainly among the Ministry of Industry, Commerce and Consumer Protection, the Board of Investment (BOI), the Development Bank of Mauritius (DBM), the Mauritius Chamber of Commerce and Industry (MCCI) and the Mauritius Export Association (MEXA). Of these, the first three are government and public authorities and the MCCI and the MEXA are private organizations. (The evolution of major institutions is shown in figure 4.1.)



The dialogue can be divided into three parts. First, regular meetings between the government ministers directly concerned with the country's economic development and the presidents and directors of the main private sector institutions are held, in discussions that transcend sectoral considerations. There are weekly cabinet meetings to ensure inter-ministerial collaboration, and additional meetings scheduled ad hoc for very important topics. Heads of important IPOs and other government parastatals such as Enterprise Mauritius (discussed below) and the BOI are invited to weigh in on serious issues (GRIPS Development Forum, 2012).

Second, the permanent staff of the main private sector institutions sit, as full-fledged members, on a host of public and parastatal bodies in charge of running investment and export promotion programmes, of elaborating national economic development strategies and, more important, of outlining strategies and stands to be adopted by Mauritius. Third, Mauritius's core private sector institutions have representatives in European offices and at the World Trade Organization.

The interviewees agreed that this dialogue is particularly successful because there are well-established systems of collaboration in place. The multiple levels of regular public-private interactions allow for informed policy decisions. For example, the heads of the MCCI sit on the Board of the Mauritius Industrial Development Authority, on the BOI's Management Council and on the Coordination Committee on International and Regional Cooperation. Similarly, the Ministry of Industry interviewee said that the organizations running industrial policy programmes have board members appointed from "both private and public sectors [and], in some cases, from academia and from employees' representatives".

The evolution of these institutions was driven by careful evaluation of their performance each year. For example, the Ministry of Industry interviewee reports that in 2002

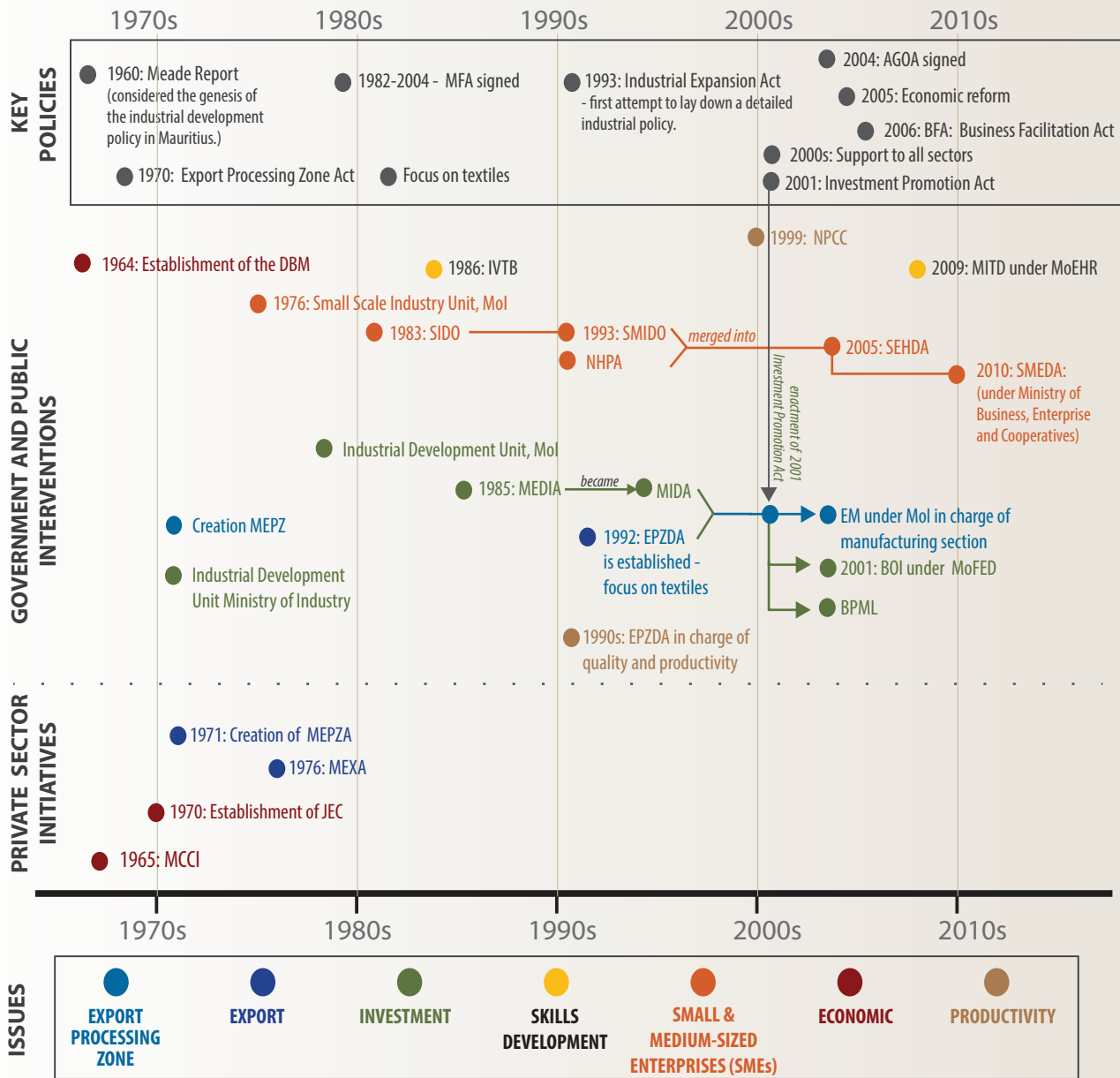
**Mauritius shows how high-level coordination failures can be overcome through the state's dedication to strong representation of all stakeholders and explicit creation of systems of coordination**

the Mauritian government hired the services of a Canadian consultant to review the structure of the industrial sector. The consultant found issues of "duplication, lack of coherence and coordination, absence of needs identification, weak synergy with the private sector" and others. In addition, because the multiple organizations supporting industrial policy were created at different times, they "had not kept pace with the forces of change" and "were not effectively responding to the needs of the whole manufacturing sector". In response, the Mauritian government created Enterprise Mauritius (EM) in 2006, a public-private partnership, which absorbed the industrial responsibilities of the Mauritius Industrial Development Authority (the investment responsibilities were given to the newly created BOI), the Export Processing Zone Development Authority and the National Agency for Subcontracting.

Interviewees expressed strong approval for both the system of collaboration surrounding the development and implementation of industrial policy. A former vice prime minister said, "Institutional dialogue between policymakers and industry stakeholders [is] important. Effective policy coordination explains the success of Mauritius in the clothing industry". The EM representative said that goals are generated with "extensive consultations with stakeholders", and "EM coordinates with its parent ministry, with the Ministry of Business, with public agencies like the BOI [Board of Investment], SMEDA and MTPA, and private institutions like MCCI, MEXA, JEC [Joint Economic Council] and AMM [Association of Mauritian Manufacturers]". In addition, by government mandate, "the three leading private sector institutions namely JEC, MCCI and MEXA are all minority shareholders of EM and hold directorship positions on the Board of EM as such they participate fully in setting our goals". The BOI and SMEDA, which are also IPOs, likewise stated that they "work jointly with various stakeholders and key industrial policy institutions" (BOI) and work "to align the goals of stakeholders with the vision of the government" (SMEDA).

The interviewees from private sector organizations expressed similar sentiments. The MCCI interviewee said, "The MCCI is involved on all fronts in the industrial policy of the government. Public-private consultations are held on a regular basis to design and implement industrial policies". The MEXA interviewee said, "Mauritius's success story partly resides in its state-business relationship, which is renowned for being very interactive...at policy formulation level and implementation level"—the MEXA is "more than satisfied with the role played by the various ministries and related institutions".

FIGURE 4.1. EVOLUTION OF MAJOR INDUSTRIAL POLICY INSTITUTIONS IN MAURITIUS SINCE 1970



- BOI - Board of Investment  
 BPML: Business Parks of Mauritius Limited  
 DBM: Development Bank of Mauritius  
 EM: Enterprise Mauritius  
 EPZDA: Export Processing Zones Development Authority  
 IVTB: Industrial and Vocational Training Board  
 JEC: Joint Economic Council  
 MCCI: Mauritius Chamber of Commerce and Industry  
 MEDIA: Mauritius Export Development and Investment Authority  
 MEPZA: Mauritius Export Processing Zone Association  
 MEPZ: Mauritius Export Processing Zone  
 MEXA: Mauritius Export Association  
 MIDA: Mauritius Industry Development Authority  
 MITD: Mauritius Institute of Training and Development  
 MoEHR: Ministry of Education and Human Resources  
 MoFED: Ministry of Finance & Economic Development  
 Mol: Ministry of Industry  
 NHPA: National Handicraft Promotion Agency  
 NPCC: National Productivity and Competitiveness Council  
 SEHDA: Small Enterprises and Handicraft Development Authority  
 SIDO: Small Industries Development Organisation  
 SMEDA: Small and Medium Enterprises Development Authority  
 SMIDO: Small and Medium Industries Development Organisation

Source: Grips (2012) and Mauritius country report.



**Systematic representation of the private sector is important to IPO success because it does not only tailor goals to the changing needs of the private sector but also promotes ownership and confidence in industrial policy**

However, the need for a single, super-ministerial authority to coordinate cross-sector and cross-ministerial policy was widely acknowledged. While there is strong communication within a ministry's parastatals and related institutions there is less coordination between different ministries. For example, when the EM was created, the Small and Medium Industries Development Organisation was not included in the restructuring because of resistance from its overseeing ministry, allowing room for inefficiency through overlapping or even conflicting jurisdictions or goals, a lack of identification of gaps in IPOs, and a lack of opportunity for cross-ministerial collaboration. A former director of the Ministry of Economic Planning and Economic Development said, "There is no overarching agency nowadays responsible for devising national policies that cut across all sectors". The well-structured dialogue surrounding industrial policy could be improved by a high-level council that coordinates all ministerial action—and has been targeted by the government. Indeed, it has included a potential solution in the new Economic and Social Transformation Plan, which was under preparation at the time of data collection.

Systematic representation of the private sector is important to IPO success because it not only tailors goals to the changing needs of the private sector but also creates confidence of business owners in industrial policy. In fact, the development of strategies is driven by the private sector input to the degree that EM's services are "demand driven". The impact of EM's interventions is monitored by a systematic evaluation framework "to assess the effectiveness of each of its actions in terms of value for money spent and return on investment". According to the EM interviewee, the EM also hires "external consultants to evaluate the effectiveness of its services".

In addition, the EM is a "result-oriented organization", and therefore gives its workers strong incentives for good performance. Well-performing officers receive a performance-related bonus.

There are also incentives in place for private industrial companies to follow EM's interventions. The EM interviewee said, "EM fully finances the participation of all participating companies in all international trade fairs and promotional events as such they are under contractual obligation to follow EM and its guidelines".

Statistics provided by ministerial officials indicate how well the economy has done during the period of IPO support. Average GDP growth since independence has stayed nearly constant at 5 per cent, and GDP per capita has risen from \$260 in 1968 to more than \$6,000 in 2011. Between 1980 and 2010, Mauritius created a highly diverse economy, moving from an export base composed of 68.9 per cent sugarcane and 18.0 per cent garments to a diverse export base of 15 sectors, including land-based oceanic activities, hospitality and property development, healthcare and biomedical activities, and a knowledge hub. It has also diversified the sugarcane industry to include refineries, specialized sugar, a biomass industry and rum distilleries. In 2012, manufacturing accounted for 18 per cent of GDP, 65 per cent of total exports and 22 per cent of total employment (MCCI, 2013).

Mauritius has achieved successful industrial outcomes, primarily it would seem owing to the structural dialogue created between government authorities, IPOs and private stakeholders. The government adjusts industrial policy based on the expressed needs of the private sector and the evaluation of successes and failures of previous policies.

**Mauritius has achieved successful industrial outcomes through the structural dialogue created between government, public IPOs and private stakeholders**

**SOUTH AFRICA—CLOSE COORDINATION**

The design, implementation, monitoring and evaluation of national industrial policy plans in South Africa illustrate sophisticated and efficient high-level coordination among government authorities, public organizations and private stakeholders. The National Industrial Policy Framework (NIPF) is the articulation of South Africa's national industrial policy vision, and the Industrial Policy Action Plan (IPAP) is its



implementation document. IPAPs are three-year rolling plans published annually (South Africa is currently implementing IPAP 2). These plans “emphasize the importance of manufacturing and its ability to generate dynamic increasing returns to the depth of its linkages [and] recognize the technological progress [that] is embedded within manufacturing” (interviewee, Department of Trade and Industry [DTI]).

The design and implementation of the NIPF and the IPAPs are the responsibility of the Industrial Development Policy Development Division (IDPDD), a division of the DTI. The IDPDD is also responsible for the Industrial Competitiveness Programme (ICP) and the Customized Sector Programme (CSP). The ICP designs and implements cross-cutting or transversal interventions aimed at building capabilities and competitiveness across the targeted IPAP sectors, while the CSP designs and implements high-impact sectoral strategies. Below is a table showing the main processes and primary and secondary stakeholders involved. Primary actors are the core actors responsible for managing the activities and outputs in the policy phase and the secondary actors are those who provide inputs, reflections and commentary in the policy phase (particularly if they are from organized business and labour). The CSP articulates the targeted sectors’ strategic plans and implementation plans, which are then incorporated into the IPAP as key actions plans. “Living” documents are thus subject to continual change as milestones are met or redesigned or as key actions are introduced.

Figure 4.2 displays the extent of the advanced coordination at each step of these processes. The regular involvement of all relevant stakeholders—ministries, public organizations and private institutions—is not only emphasized but formalized, and the private sector is involved in most steps. The division of primary and secondary actors streamlines the coordination by giving people clear roles of those who plan and manage and those who reflect and criticize. The agenda-setting stage of the CSP heavily involves the private sector by discussing the opportunities, weaknesses and strengths faced by a sector.

From interviews it was learned that this agenda is set through research, analysis and stakeholder engagements with organized business, organized labour and the research network. Since the DTI does not have adequate capacity to conduct all the required research, it relies on a research network of academics, consultancies and centres managed by research steering committees, comprising officials from the CSP and affected or interested line function departments and agencies, organized business and organized labour. Research findings are presented to the IDPDD executive committee

### **South Africa represents an example of sophisticated and efficient high-level coordination of industrial policy and dialogue between public and private stakeholders**

for approval and the stakeholders in affected sectors for comment.

The agenda-setting and implementation strategy of sector plans is determined through research of the outcomes of that sector and extensive consultation with organized business and labour. After the CSP is formally adopted, it is incorporated into the national strategy in the IPAP.

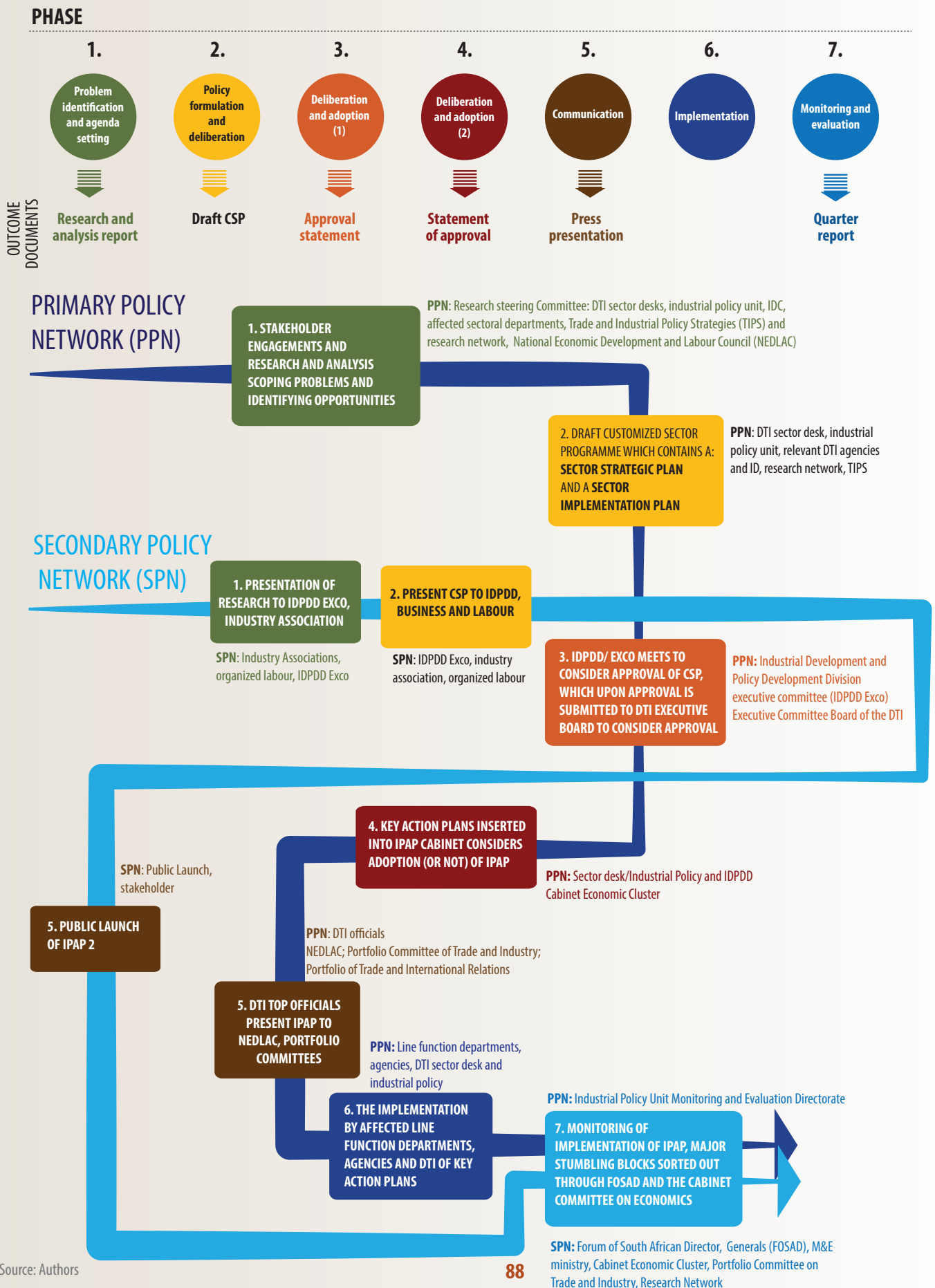
The above description illustrates the multiple stages of feedback and collaboration as well as the formal feedback mechanisms. Such coordination allows the private sector to have more confidence in upcoming policy because it was heavily involved in its creation. This creates businesses confidence and interventions that are useful to and needed by the private sector. In addition, the multiplicity of public actors involved in the creation of the IPAP through multiple CSPs allows for national strategies that involve coordination of different sectors and ministries and that are in line with the national development strategy.

The performance of the IPAP is monitored regularly. The IDPDD drafts a monthly report on the achievement of the IPAP’s milestones, which is reviewed by ministries and other government officials at monthly meetings. During these meetings, the stumbling blocks are discussed and solutions found to problems to fast track the implementation of the IPAP milestones. The IPAPs are also monitored by several other bodies, including a council of different departments (FOSAD), which draws from multiple departments to facilitate joint or coordinated policy development and implementation.

The process of designing, implementing and monitoring an IPAP is therefore heavily collaborative, dynamic and embedded, incorporating many relevant stakeholders at all stages of the process allowing South Africa to avoid high-level coordination problems.



FIGURE 4.2: CSP AND IPAP POLICY PROCESSES AND POLICY NETWORKS, SOUTH AFRICA



In South Africa, multiple stages of feedback and collaboration allow the private sector to build confidence in industrial policy because it is heavily involved in its creation

## 4.2 ORGANIZATIONAL IMPERFECTIONS

Many African countries are missing the IPOs vital in plugging the myriad gaps and resolving market failures in industry. The absence of industrial banks with the financial depth to lend to industrial enterprises is one. In other cases, two of which are shown here, these IPOs are in place but suffer from “structural hollowness”—a mismatch between their purpose and their capacity or financial means to fulfil it.

### IMPLICATIONS

The above examination illustrates both failures in high-level coordination and how they can be overcome.

Nigeria’s travails lead to policy institutions that are disconnected from the private sector and do not communicate efficiently. In addition to volatile, short-term shifts in policy that do not generate a propitious long-term investment climate. Furthermore, policies are typically designed by sector, with no overarching national policy considered. Policies are created and abandoned before full implementation, and no top-level coordinating council exists. As a result, inter-ministerial cooperation is limited, and private sector stakeholders feel out of the design and implementation loop of industrial policy. The plethora of IPOs are not properly financed and are disconnected from the needs of the private sector. Nigeria illustrates the need for an apex coordinating body that incorporates private sector input and is backed by the political will to follow through with industrial policy over the long term.

In contrast, Mauritius shows how such failures can be overcome through a government’s dedication to embedding all stakeholders and explicitly creating a system of coordination. The private sector is systematically represented in all relevant IPOs, and Mauritius has created a multi-tiered system of collaboration. This allows the government and IPOs to remain adaptable to the changing needs of the private sector—as seen with the Economic and Social Transformation Plan, for example.

It therefore seems that successful countries understand the need for systematic coordination and regularly co-opt the private sector and encourage super-ministerial collaboration.

### STRUCTURAL HOLLOWNESS

*Rwanda Bureau of Standards—the aim far exceeds the means*

Rwanda presents a good example of such a mismatch. A bureau dealing with developing and enforcing standards is crucial for the industrial policy of any developing country, and is key to upgrading quality of production, for internal and export consumption.

From its founding in 2002 to 2013, the budget of RBS doubled, as did its responsibilities. To put it mildly, its mandate is huge. The RBS’s goals relate to EDPRS 2, which has four thematic areas: economic transformation, rural development, productivity and youth employment, and accountable governance.

For economic transformation, the RBS is expected to develop standards for all aspects of energy production and distribution, undertake certification for export markets and develop safety and environmental standards for urban construction along broader environmental standards. On rural development, it is expected to work with the local government ministry to develop human settlement standards, to devise standards on irrigation and produce handling with the Ministry of Agriculture and to test material used in rural road construction. For productivity, it is to develop information and communications technology standards with the Ministry of Information and Technology. It is also to work with the Ministry of Youth and Employment to develop standardized products for youth training while also developing new manufacturing practices for SMEs to access export markets. For governance, it is supposed to accredit metrology and testing laboratories.

It has five divisions and 19 departments to deal with all these tasks, but only 138 people (some posts are not operational) and a tiny budget of around \$3.8 million in 2013. The RBS





reports to the Ministry of Commerce but also works closely with five other ministries and the airport authority, making it hard for it to prioritize.

Static and dynamic organizational constraints have exacerbated its hollowness. Goals do not change from experience. According to the RBS interviewee, "The process of formulating goals [is] not changing because our goals have to fit and feed in the national priority programmes, which have already been set in the EDPRS 2". Nor has the organizational structure changed.

### Many African countries are missing the IPOs vital in plugging the myriad gaps and resolving market failures that constrain their industries

The monitoring system in place should be improved to ensure a quick response to problems. The target of testing all commodities in the country, including exports and imports, is a huge challenge according to respondents.

The private sector has no part in setting goals. There seems to be no systematic incentive system in place for companies to follow their recommendations or following it up, making it difficult to put in place incentives to improve product standards. The RBS interviewee said, "The incentives that have been put in place for industrial companies to abide by our interventions are cost-free training; we organize cost-free training for industrial companies so that they can abide by the quality and standards procedures in the process of their production".

They have been affected negatively by regulations. For example, the importation and manufacturing of polythene packing is banned and negatively affecting the food processing sector. Bread, for example, is being packed in hard paper, which was compromising its quality and lifespan. Information and feedback mechanisms to the government seem limited since they have been unable to change this regulation.

#### *Kenya Industrial Property Institute*

The Kenya Industrial Property Institute (KIPI) was established in 2002 as an agency under the Ministry of Industrialization. Previously, it was known as the Kenya Industrial Property

Office, which was established in 1990. KIPI's key mandate is to administer intellectual property rights (IPRs) in Kenya and to provide technological information to the general public and training in intellectual property rights, in order to promote innovativeness. The KIPI also protects innovations and intellectual property both nationally and internationally. There are currently about 86 employees, mostly technical staff who deal with industrial property rights administration in Kenya. Except for the subordinate staff, all the others have technical training related to their field of study, with some senior staff having trained outside the country for specialized training on industrial property rights.

Located in Nairobi as the coordinating office, the KIPI has a board of directors that reports to the Cabinet Secretary for the Ministry of Industrialization. The managing director, appointed by the board, manages the day-to-day running of the organization. The KIPI also has a team of senior staff based in Nairobi, but with a national mandate. Other organizations that this institution works closely with are the Kenya Industrial Research and Development Organization (KIRDI), the Kenya Bureau of Standards (KEBS), the Kenya Industrial Estates and the Kenya Jua Kali Association, among others. It coordinates issues pertaining to innovations, patenting and intellectual property rights in Kenya. For instance, while the KIRDI is involved with the development of prototypes, the KEBS is involved with quality control of an innovation by, say, the Jua Kali association members. It then issues the patent licenses for these innovations. The KIPI therefore drives the protection of the industrial property rights.

Since the KIPI is a public agency, its strategies are set out by the ministry through performance contracting and it reports to the ministry. The government funds its operations with an annual budget of KSh 200 million (\$2.3 million). The budget is highly delimiting. The KIPI interviewee reported the organization has to prioritize based on the allocated finances from the ministry and is thus unable to meet many of its objectives. There is a lack of capacity in many areas, including infrastructure (such as inadequate and reliable electricity, Internet and communication resources) and facilities (such as machines), which limits its ability to discharge its duties. The KIPI is limited in activities such as outreach, training and creating public awareness. There is no formal stringent system to monitor the impact of its activities. Although the organization has issued many licenses, this is not being done effectively because of a lack of staff.

From the interviews, it is apparent that the lack of competitiveness and efficiency in operations has also hampered its effectiveness. The KIPI has witnessed companies colluding

and adopting the same design so that they avoid paying for a license for each individual product resulting in loss on license fees. There is lack of control on the activities of private businesses in most cases because some industries are left to be self-regulating. Sometimes its mandate overlaps with other similar institutions like the KIRDI, affecting efficiency in service delivery. Also the slow pace of bills going through parliament negatively affects the pace of implementation.

### *South African National Accreditation System—well resourced and embedded*

In South Africa, the broad responsibilities of standards are handled by four separate agencies—the South African Bureau of Standards, the National Metrology Institute, the National Regulator for Compulsory Specifications and the South African National Accreditation System (SANAS). The South African Bureau of Standards alone recently had more than 1,000 employees, with the vast majority technically and professionally trained. The evolution of the SANAS provides a good example of how goals and finances were aligned.

In 2006, the SANAS became a public entity and saw its powers and responsibilities expanded through the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act (GLP). The SANAS became the only national body that provides internationally recognized and effective accreditation. Among its purposes is to facilitate accreditation as a means of promoting international trade and enhancing the economic performance of the export sector. The SANAS is empowered to accredit calibration, testing and verification laboratories; encourage and promote GLP compliance with principles adopted by the Organisation for Economic Co-operation and Development for GLP facilities; liaise with national, regional and international standard bodies including negotiating multilateral arrangements and guidelines; and establish appropriate technical committees.

This change, together with the increased expectations of government, regulators and industry, necessitated a review of SANAS's processes and structures aimed at positioning the organization to effectively meet South Africa's current and future accreditation demands.

In 2008, the SANAS developed a rightsizing agenda, aimed at contributing to achieving the organization's strategic objectives, with a special emphasis on increasing productivity, improving external relationships and processes and improving the quality of its product. The project recognized SANAS's need to restructure, automate and rightsize the organization. Project Breakthrough led to a reorganiza-

**In some countries, IPOs are in place but suffer from “structural hollowness”—a mismatch between their purpose and their capacity or financial means to fulfil it**

tion of SANAS's structure and a steady increase in its staff, which grew 40 per cent between 2011/12 and 2013/14. The number of divisions has remained small and manageable at five. Financing is handled in two ways. The SANAS recovers its expenses with accreditation fees calculated on a cost-recovery basis. It also receives a transfer payment from the government for its national work, such as developing new programmes.

There is a heavy emphasis on capacity building so the IPO can deal with changing needs of industry. The skills development initiatives available to employees include short courses, in-house trainings and bursaries. Through its efforts, the number of accredited Conformity Assessment Bodies (CABs) such as laboratories, certification and inspection bodies have grown from 1,167 in 2008/09 to 1,419 in 2012/13. Nationally, SANAS accreditation supports South Africa's industrial policy aims of locking out unsafe and poor quality imports and locking in access to the demanding export market, as envisioned through IPAP 2, as well as other programmes under various government departments and industry stakeholders. Because of this strong structure, the SANAS can closely align its functions with government objectives. The SANAS also meets many of the IPO objectives discussed in chapter 3. It is well embedded in the private sector, as it is deeply involved with accrediting many private sector CABs. Private sector CABs provide input through SANAS Specialist Technical Committees. The SANAS conducts a yearly customer survey, measuring the customer satisfaction of CABs on an annual basis in relation to responses to enquiries, accreditation assessment, benefits of accreditation and the quality of accreditation certificates through an independent customer survey measure.

The SANAS is also autonomous under the strategic guidance of a board of directors appointed by the Minister of Trade and Industry. The board, as the Accounting Authority, is accountable to the executive authority, the Minister of Trade and Industry, and is ultimately responsible for implementing sound corporate governance practices.



Still, the SANAS is subject to institutional checks and balances that ensure compliance with government objectives and the flow of information. The Audit Committee and the Risk Committee ensures that the SANAS has the necessary mechanisms to comply with the laws and regulations governing its activities, that it is conducting its affairs ethically and that it is maintaining effective controls against conflicts of interest and fraud. Quarterly reports are presented to SANAS's board and the DTI. These are measured against one-year SANAS business plans, which are compared with three-year SANAS annual performance plans, which are also checked against the SANAS five-year strategy plans. As part of the reviews of the South African Industrial Policy Action Plan, the SANAS also provides input to the bi-monthly meeting of the Minister of Trade and Industry.

### **IPOs' lack of representation of the private sector and poor monitoring capacities led to dynamic imperfections**

#### *Implications—filling in the hollow*

While many African countries have institutional gaps where IPOs are either missing or have the wrong mandate, there are also situations in which IPOs are in place and have a needed mandate but are structurally hollow and unable to provide the necessary services. For example, in Rwanda, the state has created the RBS, an IPO that develops and enforces standards, which is a vital component of industrial policy. However, due to large shortages of staff and financing (only 138 people on a small budget of \$3.8 million in 2013), the RBS cannot deal with all its assigned tasks. Some posts are not even operational due to the limited number of staff. Targets of testing all commodities in the country are simply not possible. The mandate of this IPO is far too large for its capacity. In addition, a lack of representation of the private sector and poor monitoring capacities has led to dynamic imperfections, such as unchanging goals regardless of performance or private sector needs. Organizational structure has not changed, and there are no incentives in place for the private sector to abide by RBS's interventions.

In South Africa, the evolution of the SANAS illustrates how to fill in the hollow. In contrast to the RBS, the SANAS has evolved to have a select number of specific focuses, such as the accreditation of laboratories, and has done very well by its targets in those areas. It has also been able to align its services closely with the government's targets. The SANAS

has been successful because it has been able to fulfil functions within its capacity and it has been supported in doing so by the government.

### **OPERATIONAL FAILINGS**

This section evaluates problems in the operations of IPOs that are linked to monitoring lapses, poor target setting, incentive structures and their lack of embeddedness in the private sector. A particular focal point is the failure to either use incentives for the private sector or to enforce the contingency dimension of incentives.

#### *Côte d'Ivoire—an unsatisfactory loan record*

The Ivorian Fund for the Development of National Enterprises (FIDEN) provides a useful example of how operational issues weaken an IPO so that it cannot perform its functions effectively. The FIDEN does not sufficiently monitor the impact of its policies on SMEs, its main beneficiaries. And so it underperforms, sometimes giving less than 50 per cent of its target financial support to SMEs.

The FIDEN was created in 1999 under the Ministry of Commerce, with a mandate to facilitate the establishment and development of national enterprises, especially SMEs, largely through cash advances, guarantees and loans.

The FIDEN interviewee said, "FIDEN focuses on sectors with strong value addition, so as to boost the secondary sector of the economy and achieve the growth rates projected in the macroeconomic framework". However, he also reported low rates of success in terms of goals fulfilled. For example, he reported that the loan success rate was 44.6 per cent and the recovery rate of loans 35.1 per cent. The interviewee described obstacles to FIDEN's ability to achieve its goals. For a start, it does not have a medium-term plan, which hampers its ability to include longer-term items when setting targets. And there are "irregular meetings of the Management Committee, the Credit Committee and the Treasury Committee, in violation of current regulations" and "difficulties in developing activity programmes and producing financial statements", though he did not specify what caused these difficulties. In addition, he felt that the FIDEN suffers from a "lack of control over the services provided" owing to strong oversight. He claimed that "political decisions greatly impact the operation of bodies like FIDEN" and a "system in which every stakeholder plays its part should be encouraged", indicating (in his opinion) both the need for IPOs to be insulated from political pressure and to collaborate with the organized private sector.

Other operational issues include the lack of a training programme; a much larger number of administrative than technical staff; lack of monitoring (“After 10 years of activities, FIDEN has not sufficiently monitored small and medium enterprises” and that there is a “lack of control...over the monitoring of loan beneficiaries”); and “weak governance of FIDEN”. The effect of the lack of monitoring and weak governance is evident in FIDEN’s poor goal attainment and “non-payment of loans”.

### *Republic of Congo—lack of autonomy and private sector involvement*

A key IPO for building industrial policy in the Republic of Congo is the Directorate General for Industry (DGI), established in 1979 by the Ministry of Industry. DGI’s main role is formulating and monitoring industrial policy. From 1980 to date, only two development plans have been launched: a five-year plan for 1982–1986 and the 2012–2016 National Development Plan (PND). (A plan on social and economic development was to cover 1990–1994, but was never put into place owing to the political upheaval at the end of 1990.)

During the years between these two programmes, there were no operating plans and therefore no overall guiding priorities for industrial policy. The policy agenda was dominated by the adjustment and reform programme of the International Monetary Fund and World Bank.

The PND was a recommitment to industry after a long hiatus. It responded to the concerns of the government to diversify the productive base and render industry the driving force of development. The increased processing of a part of the country’s great natural resources potential is one of the pillars for creating jobs, diversifying exports and increasing the domestic supply. The strategic thrusts of the industrial policy focus on the development of agro-industry, the processing of natural resources (timber, oil and gas) and the manufacture of construction materials.

While the new commitment could have a large impact on industry, it is unlikely to, especially as according to the interviewee the “DGI does not have its own strategies” but were “set out in Decree No. 2003-159 of 4 August 2003”, which rather hamstrings the IPO in responding to industry’s changing needs.

Other issues seemingly abound: “Challenges include low professional qualifications for a good number of the institution’s staff, lack of human resources training and capacity-building policy and the institutional weakness of the

public expenditure chain. The weak public expenditure chain is a limiting factor for the efficiency of the institution and decision making. The institution receives very little assistance for building the capacities of human resources in the use of computer software”. The interviewee also noted: “most of the missions to be accomplished involve making available to the institution human resources with the required qualifications in the institution’s areas of intervention but this has no longer been the case for many years”.

When asked about the ability to monitor intervention impact, the interviewee responded: “Mere opinions, for example, are irregularly provided on the setting up of industrial facilities by examining environmental factors. The institution does not have the human resources and laboratories for the quality control of industrial products”. Adjustments are hampered in other ways: “We cannot talk of adjustment as DGI and the government agencies do not have information databases on industrial activity”. This renders any incentives ineffective, though under the decree DGI has a duty to develop such measures for priority sectors.

The situation is exacerbated by the lack of interaction with the private sector. The interviewee from Union Patronaleet Interprofessionale du Congo, a business organization, was unequivocal: “Private sector company executives are not involved in the formulation of industrial policy and we know that is what government wants. We only learn about the contents of industrial policy at the time of its publication”. This was confirmed by the interview with the Chamber of Commerce. When asked if they had been involved with industrial policy, they said emphatically, “Absolutely not”.

### *Rwanda—Moving in the right direction*

In 2011, the Rwanda Tea Authority, the Rwanda Coffee Authority and the Rwanda Horticulture (RHODA) were merged to form the National Agricultural Export Development Board (NAEB). NAEB’s responsibilities include helping develop agricultural exports with a focus on tea, coffee, horticulture and livestock. It is also expected to support research activities and extension and to facilitate investment in agriculture, including factories for processing.

Despite the heavy focus on investment, the NAEB interviewees emphasized that “the private sector has not been engaged in setting the goals for this industrial policy institution”. They coordinate their goals with other industrial policy institutions by exchanging and sharing information through regular meetings and reporting to Industrial Development Export Council (IDEC) and Integrated Development





Programmes. They also indicate that NAEB has performance contracts with its employees and that they are only “semi-autonomous with proposals approved by the Ministry of Agriculture”. However, they also point to a plethora of constraints including a lack of funds to implement a key goal of their IPO securing land for investors, few funds to encourage fertilizer use and improved quality of products, no training programme and no funds to set it up, serious problems with monitoring lack of monitoring systems for fast-track activities, and no IT equipment to assist with monitoring. They admit that “our organizational weakness in meeting our goals” include “the monitoring system in place to monitor the impact of the interventions in the industrial policy”.

Because the organization is so new, there are few details of the success or failure of its projects since 2011. However, the development of a horticulture industry was a high priority in 2006 when the RHODA was formed, which later merged into the NAEB. A key focal point of the organization was to put in place the infrastructure to encourage the processing and export of fruits, vegetables and flowers. The RHODA invested heavily in building a cold storage facility at the Kigali airport and in a flower park.

It also supported the purchase of two large aircraft by the national carrier and signed contracts with air freight companies and helped form a professional association and sponsored agricultural trade fairs in Germany. The organization subsidized fertilizer to key farmers and a professional certification company for quality control while encouraging research in a local scientific institute (Institut des Sciences Agronomiques de Rwanda) for improved plants. These are all positive interventions that provide the kind of forward-looking industrial policy investments that can overcome market failures. There is under use of the facilities and transportation leading to very high costs and hence limited markets. A lack of land means that RHODA cannot undertake large scale plantations. Instead, they are pushing contract farming with small-scale operators, which is not well developed. What is missing is the domestic or international capital to make it work (Kelsall, 2013: 139–140).

### *Tunisia—good at monitoring*

The Skills Upgrading Bureau (BMN) of Tunisia maintains strong programming because of its thorough monitoring. While the organization would be strengthened by consulting more with private stakeholders and strengthening internal operations, the BMN has performed well given the confines of its legal structure, which subordinates it to the Ministry of Industry and limits its autonomy.

The government set up the BMN in 1996 one year after signing a free trade agreement with the European Union. According to the BMN interviewee, the main “purpose of BMN is to support and work with Tunisian companies, especially SMEs, so as to better withstand foreign competition”. The BMN improves the competitiveness of companies in local and international markets by “moderniz[ing] their means of production, adapt[ing] to new technologies and develop[ing] their human resources”, which increases their adaptive capacity.

Specifically, the BMN has set quantitative goals regarding its Skills Upgrading Programme (PMN), including targeting 500 companies each year for the PMN, which is considered an important tool for industrial development. The PMN allows a company to carry out a diagnosis of its organization, its manufacturing procedures and so on, and also receive external experts to audit it. The company then embarks on a real process of raising its level of operations through material and non-material investments. The objectives of the programme are to enable the private Tunisian industrial sector to improve its competitiveness within the next five years. The current programme subsidizes the cost of audit and feasibility activities at 70 per cent and investment activities at 20 per cent. To ensure that projects are actually implemented, the PMN disburses the grant in a stepwise manner following the implementation of the agreed measure allowing for proper monitoring of the impact of contingent rents.

In the past, PMN’s goals were linked to national goals like the 9th (1996–2001) and 10th (2002–2006) development plans. However, in 2013 there was no five-year plan in place and no clear “economic road map” to follow. There were no goals set by the ministry so the BMN set its own goals. Instability in Tunisia may have hampered its operations and effectiveness but never the less this institution has been largely considered a success, according to the BMN interviewee.

A major strength of the BMN is post-intervention monitoring, notably (according to the interviewee) tight coordination between technical centres and the Ministry of Industry regarding follow-up of PMNs. The interviewee reports that there is also coordination between member companies of the PMN and the technical centre to prepare achievement reports. The interviewee gives the following account of follow-up and how this monitoring affects operations and goal setting:

*Follow-up is done through a project record, which is opened when the company joins the PMN. The record is closed with the submission of the follow-up report from*

*the technical centres. The report is validated by BMN. On the whole, follow-up is done through indicators: number of membership files, number of approved files, approved investments, approved bonuses, number of instalments and bonuses disbursed. The follow-up process at the microeconomic level (project record) and at the global level allows for progress towards the target to be monitored and for subsequent mishaps to be detected. Project records are followed up on a monthly basis, and indicators are done on a monthly, quarterly and yearly basis.*

This monitoring process is therefore largely positive, though the interviewee notes that providing incentives to consultants would strengthen the process. The follow-up allows the BMN to remain aware of the effectiveness of its programmes, and as the interviewee noted, to revise a strategy when a “subsequent mishap [is] detected”. The interviewee said, “The assessment of PMN by external institutions is to a large extent positive. It could be said that the goal of improving on the competitive edge of companies vis-à-vis foreign competition has somewhat been achieved even though some improvement is still required”. To date, more than 4,440 companies have gone through this programme. The interviewee expressed great satisfaction with this organization and claimed that, “PMN is one of the most effective tools in the pursuit of industrial policy in this country”.

However, per the interviewee, the BMN lacks transparency and there are no rewards or penalties for job performance because “BMN employees are part of the civil service”. In addition, the private sector is not consulted in goal setting—although stakeholders are included in the Joint Steering Committee, there is no explicit mention of private stakeholders.

In addition, greater autonomy in goal setting would allow the BMN more flexibility to respond to its feedback garnered from monitoring, as seen in 2013. More sophisticated data systems have recently been introduced, which increases the efficiency of the organization’s record-keeping and monitoring.

BMN services have been well received. According to the seventh business survey conducted by the BMN, 60 per cent of the companies were satisfied with BMN assistance. The BMN is seen as a necessary tool of industrial policy, and has demonstrated strong monitoring systems. Its continued growth should be supported by national long-term plans and greater coordination with the private sector. The government should better cover its financial needs.

### **A major strength of IPOs in Tunisia is post-intervention monitoring, notably tight coordination between technical centres and the Ministry of Industry**

#### *South Africa—keeping the private sector embedded*

Motor vehicle manufacturing is one of South Africa’s most important sectors. In 2012, it contributed 7 per cent to the country’s GDP and 12.1 per cent of South Africa’s manufacturing exports. Vehicle manufacturing employment in 2012 amounted to 30,159 persons with another 70,000 in parts’ production. It creates significant trade-related jobs with an estimated 200,000 in vehicle sales, maintenance and servicing (Lamprecht, 2013). The government relies on it to achieve its objective of employment creation, poverty alleviation and equality. One of the key institutions in this sector is the National Automobile Association of Motor Vehicle Manufacturers of South Africa (NAAMSA), a private body established in 1935.

What makes the NAAMSA more than simply a business association or chamber is that it effectively operates as an IPO and runs the Automotive Industry Export Council of South Africa (AIEC), formed in 1999 by the DTI. The AIEC works closely with Trade and Investment South Africa (TISA), the trade promotion arm of the DTI. With the TISA, the NAAMSA promotes South African automotive manufacturing through trade missions and by investigating new markets. The TISA directly supports AIEC activities.

The NAAMSA has a large role in a motor industry development council, which includes “all of the constituents on the industry side, the vehicles, the component manufacturing, the retail side, the unions, the government, the South African Revenue Service (SARS) [and] the DTI” (NAAMSA interviewee). Within the NAAMSA, there has been the constructive collaboration amongst all players—government, industry and labour. In addition, the NAAMSA is keen on pursuing long-term policy certainty to safeguard investments in the sector and the hundreds of thousands of people employed. On any particular issue, the NAAMSA first discusses with the main manufacturers until some form of consensus is obtained. It then discusses the outcomes of such discussions with the government and develops programmes to address key concerns in the industry. As the interviewee said: “automobile people take automobile decisions”.





The NAAMSA leadership works with the government on most industrial policy decisions, especially those affecting the automotive industry. Because the automotive industry is such a large and crucial part of the South African economy, the NAAMSA has substantial bargaining power with the government and can incorporate the views of the automotive private sector into policy discussion. As the interviewee pointed out, there are seven vehicle manufacturing plants that are the “key drivers; ...without the seven manufacturing plants...component suppliers would disappear; that’s the way the industry is structured”. The NAAMSA must therefore be consulted to best reflect the support needed to keep the automotive sector competitive. Indeed, according to the interviewee, the government acknowledges this, because a key feature of South African industrial policy is “constructive collaboration—government, industry and labour all these years. [The government] realized from the start that you can’t afford a weak link”.

### **South Africa’s motor vehicle manufacturing sector has a strong IPO with extensive knowledge of the industry that works closely with the government, helping keep industrial policy dynamic**

The NAAMSA leadership has identified the “double logistics” involved with importing parts and exporting a car, and is part of a national steering committee that develops “the strategy for component suppliers to make it more competitive and more localized”. In addition, the NAAMSA has recognized that, following the recession in Europe, Africa has actually become the country’s main region for vehicle exports, and the industry has adjusted accordingly. To remain competitive, the national steering committee will continue to develop strategies with the NAAMSA leading the discussion. As the NAAMSA interviewee stated: “We are proactive with the challenges ourselves and we obviously need support from the government and the parastatals [in] the short term, medium term and long term, [for] operational issues; for the logistics, for the train to arrive on time...to build more wagons and new rails”.

The NAAMSA also maintains communication with global suppliers of automobile components to keep tabs on new innovations and global trends. This ensures that this sector is up to date and produces vehicles using the latest technology. For example, before 1995 when the Motor Industry Development

Programme was implemented, the South African economy and the automobile industry “operated behind high tariff walls; it was 115 per cent protection of cars”. In 1994, following the completion of the Uruguay Round, South Africa was obliged to reduce their high tariffs. The NAAMSA used a “very cleverly designed programme” to assist the industry. The tariff provided protection to investments and employment, but the tariffs dropped to 65 per cent when the Motor Industry Development Programme started, with continual declines in line with the World Trade Organization agreement, which exposed companies to greater international competition every year. It was still a high duty “but the way the programme was structured was if [a manufacturer] exported, [the firm] could reap the export duty but only if its exports were at the competitive price and if it had improved its efficiencies” (NAAMSA interviewee). Companies were compensated for import duties paid if they were able to export the equivalent of value of domestically produced content (Black and Michelle 2002).

The NAAMSA acts in effect as an IPO, with extensive knowledge of its industry and working closely with the government on policy. In this way, it helps keep industrial policy dynamic by providing insight into the specific types of support the private sector needs to remain competitive.

## **IMPLICATIONS**

One operational issue of IPOs is linked to their poor target setting, monitoring processes, incentive structures and the lack of embeddedness in the private sector. When an IPO suffers from these operational failures, they are unable to adequately fulfil their mandated function. An important point is the failure to develop the incentives for the private sector to abide by the IPO’s intervention. For example, in Côte d’Ivoire, the FIDEN does not sufficiently monitor the impact of its policies on and status of its loans to SMEs (its main beneficiaries), and subsequently reaches sometimes less than 50 per cent of its targets. Because the FIDEN does not monitor adequately, it has a very low repayments. Even if the FIDEN developed heavier penalties for unpaid loans, it must first develop stronger monitoring systems, or it will be unable to track and assign these tougher actions. In addition, the FIDEN lacks a medium-term planning document, which restricts its goal setting to the short term when longer-term policies are more needed. Lastly, there are infrequent meetings within the IPO and a general lack of coordination. Operational issues inhibit the effectiveness of this IPO.

In Tunisia, the BMN provides an example of how an IPO can overcome operational failures with strong monitoring.

The BMN supports the skills upgrading of national firms, especially SMEs, and is able to maintain strong programming because of its monitoring process. Once a company uses BMN's services, a report on that company is created on several indicators (such as number of membership files, number of investments and the like) by the BMN in collaboration with technical centres and the Ministry of Industry. These reports guide goal setting and allow the BMN to identify issues in their programming that are then adjusted. This has allowed the BMN to produce generally successful results. Generally, IPOs—with stronger operations, with goal setting that incorporated private sector input and the use of incentives and with strong monitoring that also influenced strategy development—performed better. Embeddedness in the private sector is very important and can come in many forms—in South Africa, the NAAMSA (which is private) effectively runs an IPO and undertakes South Africa's automotive manufacturing capability, allowing private sector needs to drive public action.

### INSTITUTIONAL DYNAMISM AND INTRANSIGENCE AMONG IPOs

Industrialization is a dynamic process. In contrast, institutions are by nature slow to develop and change. However, for many IPOs to remain relevant to industry, they may need to be refocused and even reconfigured. The next two cases present a study in contrasts: one has responded quickly to deal with industry's shifting needs; the other has made few changes despite a poor track record (an issue exacerbated by inadequate funding).

#### *Mauritius—dynamism at work*

The BOI is an example of a dynamic IPO with a mechanism to re-evaluate the state of business. It was created in 2001 after the Investment Promotion Act 2001 “to stimulate the development, expansion and growth of the economy by promoting Mauritius as an international investment, business and service centre” by attracting and facilitating new foreign and local investments and advising the government regarding investment policies and planning.

The BOI seeks to attract “sustainable investment” to Mauritius and to develop business relations with other countries, and has been successful in doing so. The BOI interviewee said, “Despite [recent] uncertainties in the global economy, Mauritius has recorded high levels of FDI”. The key to success in this organization is the ability for the leadership to remain flexible and adaptive in its strategies to adjust to a changing business climate.

Private sector organizations are well represented. New or revised goals are set after consultation with private bodies such as the MCCI and the JEC, with which the BOI works closely. While BOI's goals are in line with government industrial priorities, the BOI also exercises autonomy in decision making and is insulated from the political pressures that might hinder its flexibility. In addition, the BOI encouraged the development of new potential “pillars of the economy: ocean economy and film industry” (BOI interviewee).

BOI's monitoring processes occurs regularly and influences goal setting. Key performance indicators are monitored and reported every week at a management meeting and reported at a board meeting every quarter. The BOI also produces monthly reports detailing the impact of its intervention. The interviewee provides an example of how monitoring influences strategy:

One of the strategies set to achieve high levels of FDI is to diversify our sources of FDI. We have been monitoring the influx of FDI from non-traditional markets (Middle East, China, Russia). Currently, the proportion of FDI from non-traditional sources averages 20 per cent. As such, more promotional campaigns and marketing efforts should be focused on these countries/regions.

This is a change in strategy from traditional to new markets of FDI based on global business conditions. In addition, the BOI is now attempting to attract “quality FDI: investment in sectors that will create jobs”, given that “nearly 60% of FDI attracted was in the real estate sector”. In addition, the interviewee stated that BOI's goals are driven by changing policy and that, “Attracting sustainable investment is vital since FDI plays a key component in achieving the industrial policies set by the government”. In addition, the BOI has adapted its internal structure: it is moving from a cluster-based approach to a sales team and technical and facilitation team, in order to “enable more specific targeting” of FDI sources and greater market penetration.

The Mauritius Bank of Industry illustrates the importance of dynamic IPOs driving industrial development. While several African countries noted finance as a major constraint to IPOs' support of industrial development, Mauritius benefits from an IPO that attracts FDI from a diverse range of markets. Because the BOI coordinates so closely with private sector stakeholders, goal setting is heavily influenced by the changing needs of domestic business as well as global conditions.



*Kenya—poor funding and the dead weight of intransigence*

The Export Processing Zones Authority (EPZA) was established through the Export Processing Zones Act (CAP 517) of November 1990, as a state corporation under the Ministry of Industrialization and Enterprise Development.<sup>4</sup> Employment creation is one of the most important goals of export processing zone development. In addition, the EPZA seeks to increase productive capital investment, technology transfer, backward linkages and export diversification, through a range of incentives. A one-stop-shop service at the EPZA aims to facilitate investment.

That is the theory—the reality is different. While EPZA's goals have been created with the input of key stakeholders (government, employees, private sector and research institutions), it has reached few of them.

Similarly, although EPZA's main operations are financed from three main sources—grants from the government, Appropriation in Aid and self-generated revenue obtained from licensing, service charge and utilities—this funding is inadequate, such that most of its projects are not implemented and others are delayed. For example, it has failed to fully develop Kipevu Export Processing Zone in Mombasa.

Equally, while the EPZA is meant to coordinate its goals with those of other institutions, most of whom are its stakeholders and are engaged in formulating its goals—weak collaboration and poor facilitative links with most of these agencies and other government departments make investor facilitation poor.

And while all zones have a resident customs office for documentation and clearance, the EPZA has been unable to execute its mandate effectively. Take employment. In July 2013, an EPZA official reported employment of only 36,000 from 95 companies in 42 “gazetted” zones—a poor outcome after 23 years, below the peak of 2003 and well below other zones.<sup>5</sup>

Other obstacles are institutional lack of autonomy and embeddedness. Interviews with companies operating in the EPZA revealed serious gaps in addressing the needs of companies. For example, one executive reported that he would upgrade to higher value added textiles if the government supported a training institute as in some Southeast Asian countries. He added that if the government provided free-on-board rebate schemes comparable with those in Lesotho, “I would move 4,000 jobs here, in a moment.”

**For IPOs to remain relevant to industry, they may need to be refocused and even reconfigured in an interactive and dynamic process**

Interviews also revealed a lack of flexibility in incentives including those aiming to attract new forms of FDI (see chapter 2 on this in Singapore), an inability to respond to the exigencies of development and a lack of coordination with other agencies when new regulations and laws are passed. For their part, textile producers seem to be largely driven by external opportunities like the African Growth and Opportunity Act. Interviewees reported that the uncertainty of the enforcement of the African origin of cloth contributed to the departure of a number of firms in recent years. China has been the largest recipient of the waiver, since it is overwhelmingly the source of cloth. However, the government has not attempted to put incentives in place to ensure that there is a domestic producer of high-quality cloth, which would have the added benefit of increasing demand for local cotton production.

Beyond the paltry funding and lack of flexible responses to keep abreast of issues, alterations to the Export Processing Zones Act, often with little consultation to stakeholders, have watered down incentives or increased the administrative burden of compliance.<sup>6</sup> Further, the EPZA lacks autonomy and is now managed under the Ministry of Trade and Foreign Affairs. The authority has also failed to address many concerns facing companies in the zone such as high energy costs and delays in clearing goods at the port. EPZA's failures have even prompted debate on the usefulness of setting up special economic zones as alternatives for industrial development.

*Implications—engendering functionality and dynamism in IPOs*

Industrial policy is a dynamic process and IPOs must have the ability and motivation to constantly adapt to the changing needs of the private sector. For example, Kenya's EPZA has had disappointing performance and has failed to respond to changing circumstances in the business sector. The EPZA, in operation for 23 years, has made poor progress towards its targets. It lacks autonomy from its overseeing ministry and does not consult the private sector in its strategy development. There is thus a lack of flexibility in changing its strategies, and interviewees report serious gaps in EPZA's services

that are needed by the private sector. Corruption, lack of funding and poor operations further inhibits funding. The EPZA could produce more successful outcomes with more collaboration in target setting with the private sector, more autonomy from its ministry and more incentives for both EPZA employees to work effectively and private sector companies to work with the EPZA.

On the other hand, the BOI in Mauritius provides a positive example of a dynamic IPO. Following the eurozone crisis, the BOI refocused its strategies to diversifying sources of FDI, and began monitoring new sources of FDI from China, Russia and Turkey. The BOI has also altered its internal structure to better market Mauritius to potential investors in these countries and is currently in the process of moving to a cluster-based sales team approach. In sum, IPOs need to stay dynamic if they are to adequately support the changing needs of the private sector.

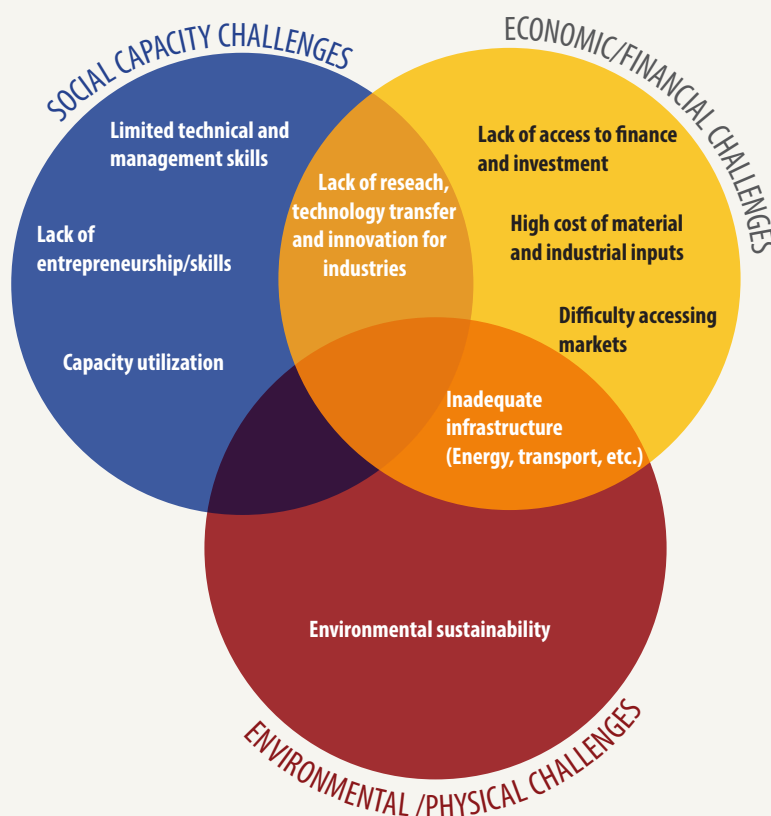
## 4.3 INSTITUTIONAL GAPS

Institutional gaps in the industrial policy framework of many African countries leave companies exposed to market failures that threaten their current or any proposed future operations. They also make it difficult to attract new investors to vital industrial areas.

### RWANDA—INDUSTRIAL WEAKNESSES AND INDUSTRIAL POLICY FRAMEWORKS

Rwanda’s industrial sector illustrates the kind of gaps seen in the early stages of industrial transformation which have yet to be addressed with an industrial policy framework (figure 4.3).

**FIGURE 4.3: CHALLENGES FOR INDUSTRIAL POLICY, RWANDA**



Source: Compiled from Ministry of Trade and Industry et al. (2011) and interviews with respondents.



Perhaps the single greatest impediment is inadequate infrastructure, as it greatly raises the cost and ease of production and marketing of commodities. Energy is vital for industry, but Rwanda's industry does not get enough, or even a steady supply, even though unit costs are very high (\$0.21 per kilowatt-hour), compared with other countries in the East African Community (around \$0.12 per kilowatt-hour), which is still far higher than in some developing countries. The unsteady supply makes it impossible for metal manufacturing to operate. The 2011 industrial survey showed that about 40 per cent of manufacturing firms operate below capacity, largely because of power outages and irregular supply, inadequate water and poor transport.

Yet no IPO focuses on infrastructure for industry—a serious gap in the industrial policy framework—even though the Ministry of Infrastructure is represented on the IDEC. Hence infrastructural priorities tend to be defused with scarce resources allocated to too many priorities. For example, a priority area in the medium term has been to increase the access of households to electricity from 70,000 to 270,000 between 2006 and 2012. However, the target was surpassed by 2011, reaching 308,000 households. While this is obviously a valid end in itself, it raises questions about the importance of ensuring industrial access to power particularly since the planned expansion of generation had not reached the target by 2011.

In the 2011 industrial survey the top complaint was a lack of access to finance. Most industries in Rwanda—big or small—lack working capital. The problem is that many are not credit-worthy based on commercial banks' criteria. The government has moved towards privatizing banks but has not put in place the organizational structures, incentives and risk sharing that would allow finance to get to the places it is most needed. For example, Rwanda has no industrial bank, and FDI is not an alternative—it reached a mere 2.8 per cent of firms and accounted for 3.3 per cent of total investment in industry in 2010.

Nor are there IPOs dealing with technical, management and entrepreneurial skills in industry,<sup>7</sup> even though the low level of education and specifically the lack of managerial skills are among the major causes of mismanagement of industries. The 2011 industrial survey revealed that university graduates account for only 2.4 per cent of the total workforce in industry, those with technical education and vocational training 4.4 per cent and those with no education or only primary education the remaining 93.2 per cent. This compels manufacturing and construction firms to hire technicians from neighbouring countries, and they are expensive.<sup>8</sup>

Entrepreneurial skills are also missing in industry, partly because entrepreneurs are not part of any target group—business schools recruit elite students and do not target small business owner-managers or future entrepreneurs. The education system is still characterized by traditional lecture-based teaching methods that do not allow students to develop skills such as creativity, autonomy, initiative or tolerance of risk, but encourage them to be reactive instead. The culture of entrepreneurship needs to be nurtured, and although the government programme Hanga Umulimo is a step in the right direction, it needs supportive educational backup by the private sector as well as mentors for young entrepreneurs.

### MAURITIUS—FILLING GAPS AMONG SMES

Mauritius shows how to counter market failures and support SMEs to address constraints through the creation of special IPOs. A key challenge for the country's industrial sector was low technology adoption and innovation, an area that is even more pressing now that income has risen in Mauritius to the degree that it can no longer base its competitiveness on cheap factors of production. Instead, Mauritius's comparative advantage has to be based on qualitative factors such as technology, creativity, knowledge and innovation, which will be increasingly crucial for future competitiveness.

However, technological innovation can be too costly for many businesses, a problem common to many African countries. The interviewee from the SMEDA thought that the most pressing weaknesses of the industrial sector are "inadequate SME capacity to cope with the rate of current technological advancement due to lack of R&D capacity at SME level, low technology/innovation base, low productivity" and so on. There is a clear need for SMEs to develop technologically in order to remain competitive and increase productivity, but cost constrains them from doing so.

However, the Mauritian government was able to "fill" this gap in the industrial policy framework through the SMEDA. It was created in January 2010 by the Small and Medium Enterprises Development Authority Act 2009 to "facilitate the promotion, development and competitiveness of small [and] medium enterprises and [to] provide for business facilitation services to medium enterprises". To this end, the SMEDA interviewee stated that the organization's interventions will "contribute to the development of innovative, high-tech and skill-intensive industries capable of operating in a [global] trading environment" by "equip[ping] existing SMEs with technical and



innovative capabilities to raise productivity, efficiency and profitability”.

The SMEDA created the SME Resource and Technology Centre (SRTC), which was designed to propel innovation practices in the manufacturing sector that will ensure enhanced competitiveness. The SMEDA interviewee continued:

The SRTC has been set up at SMEDA to enable entrepreneurs to obtain necessary information on new technology; avail of digital literacy courses for improving efficiency and doing more business online; and facilitate access to cloud computing to modernize business operations and eliminate the need to invest in high-tech IT equipment and application.

The SRTC therefore can provide very valuable resources to SMEs that could not otherwise afford such services. The SMEDA also has created multiple capacity building programmes, which allow new entrepreneurs to acquire necessary skills to succeed in business. The SMEDA interviewee describes the following three:

- “Start Your Business (SYB) courses are being provided to impart the necessary skills and competencies to people willing to start their own enterprises.
- “Entrepreneurship Training Workshops as per the model developed by Harvard University and UNCTAD are being run to build 10 key competencies that influence how successful entrepreneurs manage and develop their businesses.
- “New handicraft courses have been launched to allow new activities to emerge”.

The SMEDA interviewee also reports that the SMEDA is attempting to restructure its services by coordinating with other private sector institutions (such as the National Women’s Entrepreneur Council and the National Institute for Cooperative Entrepreneurship), to reduce overlap. Similarly, using the model of entrepreneurship training workshops allows the SMEDA to facilitate the workshop and reduce inefficient overlap. The interviewee adds that the SMEDA now focuses mainly on facilitation, coordination and monitoring, leaving business development services to the private sector. This change was driven by the amount of overlap between institutions and the fact that “generally, the private sector is more efficient at providing business development services”.

The effects of these various services are closely monitored by SMEDA staff. Each SME using a SMEDA service is registered

### Mauritius shows how a specialized IPO can be created to counter market failures and support small and medium-size enterprises

in SMEDA’s database, and many are monitored at least once a year. From there, SMEDA’s “resources are directed towards addressing the issues, which come to surface during the monitoring process”. The SMEDA interviewee identifies inadequate capacities, such as technical staff and budget constraints, as the main inhibitor of SMEDA’s ability to monitor every SME regularly and more generally to fulfil all their goals.

The SMEDA provides a useful example of how an IPO may be used to fill an institutional gap that inhibits the progress of the industrial sector. The SMEDA is particularly successful because it is embedded as leadership understands how unproductive overlapping services are and instead collaborates with private sector organizations already providing the necessary workshops.

## 4.4 CONCLUSIONS

This chapter’s analysis of the case studies has shown a range of factors inimical to the design and implementation of industrial policy. Of primary importance is high-level coordination, but that between government and stakeholders, including the private sector, frequently remains very weak and even non-existent, often driven by insufficient funding, irregular meetings, unqualified personnel and policy inconsistency.

Coalition building within government, to guarantee support of government programmes, is also rare, often frustrating efforts towards industrialization.

Institutional challenges among IPOs include structural hollowness; limited organizational capacity; inadequate incentives for new (dynamic) activities; lack of private sector embeddedness; a dearth of systematic monitoring and evaluation of operations; and missing mechanisms for engaging stakeholders (notably from the private sector) in sustained dialogue. Finally is a notable lack of focus on institutional failures such as training and funding.

Chapter 5 presents broad policy lessons from the case studies.





## APPENDIX

Eleven cases were based on data collected using questionnaires at four levels of respondents in countries from the five African subregions over September–November 2013 (tables A4.1 and A4.2).

Level 1 targeted government ministries involved in developing industrial policy such as the ministry of industry, agriculture, mining/energy, finance, the central bank/visions, regional organizations and national economic and social councils, among others. Only one questionnaire was recommended to be filled.

Level 2 focused on key institutions within the identified ministries involved in industrial policy design and implementation. These include industrial banks, state capacity building organizations dealing with engineering, marketing and finance, vocational training institutions, industrial census units, industrial policy coordination units and participatory committees

that set priorities, which include input from industrial firms, SME support units and the like. Four questionnaire responses were recommended.

Level 3 focused on organizations largely representing the private sector that can present an alternative perspective to industrial policy. Examples include bankers associations, associations of manufacturers, chambers of commerce, mining and agriculture associations formed by key actors in specific sectors and so on. Four questionnaire responses were recommended.

Level 4 was completed by individuals being directly involved in running a closed institution dealing with implementing industrial policy or by experts with some good knowledge of the history of the institution. The aim is to collect historical information useful in understanding the operations of the institutions. At least one questionnaire response was recommended.

**TABLE A4.1: NUMBER OF RESPONDENTS PER TYPE OF QUESTIONNAIRE AND COUNTRY**

Country	Level 1	Level 2	Level 3	Level 4
Congo, Rep.	1	2	2	1
Côte d'Ivoire	1	3	5	2
Gabon	1	4	1	1
Kenya	1	4	5	0
Mauritius	2	3	3	1
Morocco	1	1	3	0
Nigeria	4	3	4	3
Rwanda	1	2	2	1
Senegal	0	4	4	1
South Africa	2	3	1	1
Tunisia	3	3	2	1
Total	16	32	32	12

Source: Authors.

**TABLE A4.2: EXAMPLES OF MINISTRIES, IPOS AND BUSINESS ORGANIZATIONS INTERVIEWED IN SELECTED AFRICAN COUNTRIES**

Country	Level 1	Level 2	Level 3	Level 4 (former IPO affiliation)
Congo, Rep.	Ministry of Industry	Directorate General for Industry	Republic of Congo	Ministry of Industry
Côte d'Ivoire	Ministry of Industry and Mines	Professional Training Development Fund Food Technology Institute Chambers of Commerce and Industry Ivorian Fund for the Development of National Enterprises National Laboratory for Quality and Metrology Testing and Analysis	Union of Major Industrial Companies of Côte d'Ivoire Ivorian Federation of Small and Medium Enterprises	Ivorian Fund for the Development of National Enterprises Industry Statistics and Information Systems at the Ministry of Industry and Promotion of the Private Sector
Gabon	Ministry of Industry	Ministry of Water and Forestry, Ministry of Mining, Oil and Hydrocarbons, National timber company of Gabon, Chamber of Commerce	Total Gabon	Department of Industry and Processing in the Ministry of Industry
Kenya	Ministry of Industrialization and Enterprise Development	Exports Processing Zones Authority Industrial and Commercial Development Corporation Kenya Industrial Estates Kenya Industrial Property Institute Kenya Investment Authority	Kenya Association of Manufacturers Kenya Private Sector Alliance Fresh Produce Exporters Association of Kenya Kenya National Farmers Federation	
Mauritius	Ministry of Industry	Enterprise Mauritius Small and Medium Enterprises Development Authority Board of Investment, Mauritius	Joint Economic Council Mauritius Chambers of Commerce and Industry Mauritius Export Association	Ministry of Economic Planning and Economic Development
Morocco	Ministry of Industry, Trade, Investment and Digital Economy	National Agency for the Promotion of Small and Medium-Sized Enterprises	Industry and Investment Commission Automobile Federation	
Nigeria	Ministry of Investment, Trade and Industry Ministry of Science and Technology	Nigeria Export Promotion Council Nigeria Investment Promotion Commission Industrial Training Fund	Nigeria Association of Small and Medium Enterprises Manufacturers of Association in Nigeria Lagos Chambers of Commerce National Association of Small Scale Industrialists	Nigerian Institute of Social and Economic Research Minister of the National Planning Commission Bank of Industry
Rwanda	Ministry of Trade and Industry	National Agricultural Export Board Rwanda Bureau of Standards	Private Sector Federation of Rwanda Rwanda Bankers Association	Rural Small – Micro Enterprise Promotion Rwanda



Country	Level 1	Level 2	Level 3	Level 4 (former IPO affiliation)
Senegal		Upgrading Bureau Senegal National Subcontracting and Partnership Exchange of Senegal	UNACOIS Jappo Senegalese National Confederation of Employers National Economic Development Bank Community of Sahel-Saharan States Banking Institutions	Ministry of Industry and Mines
South Africa	Department of Trade and Industry	South Africa National Accreditation System Industrial Development Corporation Trade and Industrial Policy Strategies Automotive Industry Export Council	National Automobile Association of Motor Vehicle Manufacturers South African Chamber of Commerce and Industry	Special Projects at the Department of Trade and Industry
Tunisia	Ministry of Development and International Cooperation Ministry of Trade and Crafts Ministry of Industry	Export Promotion Centre Skills Upgrading Bureau Agency for the promotion of Industry and Innovation	SOTEFI-Groupe Bouricha Chamber of Commerce and Industry of Sfax	Minister of Industry and Technology

Source: Authors.

**CHAPTER**

# 5

## **TOWARDS A DYNAMIC INDUSTRIAL POLICY FRAMEWORK FOR AFRICA**



Africa's recent strong economic growth has been not matched by economic and social transformation, leaving the continent in a state of commodity dependence, with high inequality and poverty rates and increasing reliance on low-productivity informal activities. Structural transformation would enable the continent to shift from a largely agrarian society with acute dependence on natural resources towards an economic model based on high-productivity sectors, especially manufacturing and modern agriculture and services, with significant value addition, employment generation, increased competitiveness at home and abroad, and a more equitable distribution of income. Yet so far, such transformation has been limited for a variety of reasons, including weak institutional and organizational capacities; few investments in manufacturing and productive capabilities; and limited development of skills and knowledge for higher economic activities.

Industrialization is recognized as the means by which developed and developing countries alike have achieved economic transformation, and this is the clearest route for Africa to pursue employment-generating growth and development. The promotion of industries—either by adding value to agricultural goods and commodities based on current comparative advantages or building competitive advantages in new industries—has been a hallmark of recent industrializers. Growth of the industrial sector brings with it more high-income jobs, upstream and downstream linkages to domestic firms and ripple effects throughout the economy for both formal and informal workers.

Overall, the report argues that a main reason for the failure of industrial policy in Africa has been the neglect of the process and heavy focus on instruments. Yet the question of how these instruments should be used, the trade-offs they involve, complementarity and substitutability among them, and their diverse and asymmetric effects on different objectives and sectors also remains important.<sup>1</sup>

This chapter underscores the need for institutional innovations and makes recommendations for Africa's Industrial Policy Organizations (IPOs), stressing that they should show dynamism and organic growth, strength in public-private dialogue, high-level coordination and political support, "embedded autonomy" for bureaucrats, and regulatory effectiveness.

It also underscores the need for policy harmonization and coordination within a development planning framework that helps African countries address related imperatives including technology transfer and adoption, provision of

infrastructure and special industrial services, climate change, and promotion of regional integration and intra-African trade (including through growth poles) and the financing of Africa's industrialization.

**Developing the industrial sector is crucial for sustained growth and structural transformation in Africa, and industry will play a vital role in developing high-productivity sectors, feeding back into higher growth**

## 5.1 AFRICA'S INDUSTRIAL POLICY PROBLEM

African countries are maintaining their commendable economic growth. However, its quality, sources and drivers exhibit few kernels of productivity and of structural transformation as well as a lacklustre impact on social development. Most African countries still depend heavily on production and export of primary commodities and on low-productivity agriculture, while the informal sector is their main provider of employment.

Developing the industrial sector is crucial for structural transformation of African economies, and industry will play a vital role in developing high-productive sectors, feeding back into higher growth. Industrialization will involve increased value addition in commodity and resource exports, where many countries already have a comparative advantage, as well as investments in other activities, where economies can develop that advantage.

Market failures are a key reason for Africa's lack of structural transformation (Hausmann, Rodrik and Sabel, 2008). However, the approach followed by policymakers, academics and other stakeholders has been to identify key general constraints and devise broad policy interventions, but it has rarely focused on the institutions governing industrial policy, or on their weaknesses—weak institutional structures and poor policy design have been at the root of Africa's industrial policy problem.

Once this analysis is accepted, the focus should not be on whether industrial policy is needed but how to design IPOs able to promote industrial transformation. Key thrusts are to transcend blueprint approaches (where industrial policy is a template of non-contextual, predefined interventions) and to shift towards building institutions that can address industry's ever-changing exigencies. Industrial countries have at their core—regardless of policies—institutions overseeing processes that encourage strategic collaboration between the private sector and governments.

Additionally, the success or failure of industrial policy frequently hinges on issues of political economy at three levels: the nature of political leadership; the ability to impose visions for industrialization on the state apparatus; and consideration of the needs of the various economic actors.

Successful structural transformation in Africa will therefore require close collaboration between the government and the private sector. As observed by Hausmann, Hwang and Rodrik (2007), the private sector needs the government to help internalize the externalities associated with the cost-discovery process and needs many of the public inputs (standards, infrastructure, certification, property rights) that only the government can provide or assure. The government in turn requires the cooperation of firms and entrepreneurs because it has to elicit the relevant information on the obstacles and opportunities they face and because it must be able to influence their behaviour in the desired direction, partly by providing incentives. Thus the necessity of collaboration between the two sectors in the search for distortions and their solutions. A key question is whether governments have set up the institutions that engage bureaucrats in an ongoing conversation of pertinent themes with the private sector, and whether they have the capacity to respond selectively.

As seen in earlier chapters, many African policymakers have adopted blueprint approaches, limiting industrial policy to instruments to address market failures and support investment and growth in priority sectors, with a focus on policy outcomes rather than an institutional framework. (Other key findings are in the next section.)

**African countries should focus on how to design efficient IPOs that can foster industrial development**

## 5.2 KEY FINDINGS

While Africa's medium-term economic prospects are strong, the rapid growth in the last decade can only be sustained through structural transformation, job creation and the reduction of poverty and inequality.

As said, African countries have seen patchy structural transformation and slow progress in industrializing, largely owing to low productivity growth, exacerbated by weak growth-enhancing and industrial-policy institutions.

Coalition-building within the state apparatus is lacking, as is that with stakeholders. Both are needed to guarantee support of government programmes. A key element is the absence of support at the highest levels of government, which often undermines industrial policy efforts.

Similarly, coordination of industrial policies within government and with stakeholders, including the private sector, is weak to nonexistent. This is seen in irregular meetings with stakeholders, insufficient funding, unqualified personnel and shifting strategies. In some cases, there is no overriding industrial policy coordinating body that can deal with conflicts or redundancies between IPOs under different supervising ministries. So there is a need for proper coordination of industrial policy at top level.

IPOs have a range of organizational imperfections. Some are structurally hollow: they do not have the capacity or financial means to fulfil their functions. Some IPOs have little organizational capacity and inadequate incentives for new activities that need to be time bound. Too little is done to monitor and thus ensure that companies are carrying out activities in line with the incentives received.

Weak monitoring stems from inadequate systematic and active institutional capacity for monitoring and evaluating performance—the mechanisms for engaging stakeholders in a sustained dialogue are often missing. Many IPOs remain static and cannot evolve organizationally to deal with the shifting challenges facing industry.

Finally, few IPOs focus on lifting the barriers to expanding industries, and they fail to offer, for example, training and infrastructural support, thus hindering industrial policy effectiveness.





### **BOX 5.1: THE HUB KEEPS THE SPOKES ALIGNED IN TUNISIA AND SINGAPORE**

The Skills Upgrading Bureau in Tunisia coordinates closely with technical centres to employ strong monitoring, which allows them to achieve targets and to tackle subsequent issues quickly. While in Singapore, the Economic Development Board has altered its organizational structure, as well as its goals, to avoid institutional failure and meet changing business needs and state priorities.

### **BOX 5.2: REVIEWING INDUSTRIAL PROJECTS CLOSELY**

Hausmann, Rodrik and Sabel(2008) propose that key industrial projects should be reviewed annually by a council of mixed expertise, comprising, say, a manager of a globally successful business, an official from a high-level development agency in another country and a leader from an organized private sector institution.

This council would then review the status of the project and discuss its progress and issues with stakeholders, including customers and suppliers of firms receiving services from the projects. The goal of this review is to identify and fix routines and systems that constrict progress.

The authors propose that such a review should have three main focuses: including all relevant stakeholders in the discussion process, exploring alternatives to proposed projects and thoroughly understanding whether the project has met its targets and, if it did not, what changes can be made. The findings from this review would then be shared with relevant decision makers and review teams who would identify flaws in decision making and propose solutions for recurring problems in industrial projects. Action plans would be created to address issues specific to an industrial project, and these action plans in turn can be assessed by future reviews.

The exact structure of such a process will of course vary but should incorporate continual review and modification of key industrial projects, driven by public-private dialogue.

### **BOX 5.3: ORGANIZED DIALOGUE IN MAURITIUS**

This dialogue occurs on three levels: regular meetings between government ministers and directors of the main private sector organizations; weekly cabinet meetings to ensure inter-ministerial collaboration, which includes relevant IPOs; and permanent private sector seats on boards of many IPOs.

For example, the export-promoting Enterprise Mauritius provides completely demand-driven services through extensive consultation with the private sector, including the actors who hold directorship positions on its board. These actors participate fully in goal setting and evaluation, and allow Enterprise Mauritius to be adaptable in using policy tools.

## **5.3 POLICY RECOMMENDATIONS**

Several ingredients are important in designing and executing industrial policies.

### **DYNAMISM AND ORGANIC GROWTH**

Successful frameworks for industrial policy are dynamic and organic. Rather than a static set of interventions, industrial policy should be constantly reevaluated and changed to fit the ever-shifting needs of industry. IPOs should monitor the effectiveness of their strategies regularly, and should adjust them when they fail to match up. Similarly, goals should be periodically measured against real changes in the private sector and should be altered when necessary.

Coordination structures usually require strong IPO operations for assuring monitoring systems, capacity and subsequent review, for executing coordinated policies among multiple bodies and for developing incentives for industry—and these systems of course must be supported by political will and resources (all elements discussed later this chapter). IPOs with strong monitoring can help the private sector stay competitive (box 5.1), while their key industrial projects should be subject to close review (box 5.2).

### **PUBLIC-PRIVATE DIALOGUE**

Impediments to industrial transformation should be jointly identified by government, the private sector and other stakeholders. The state should construct effective state or quasi-state organizations that can generate policies to support industry. Industrial policy design should arise from a system of organized dialogue between the government and key private sector stakeholders, which can take many forms (box 5.3).

Given that neither public nor private stakeholders know where the industrial policy gaps are, an important outcome of this dialogue must be to identify and respond to these gaps. As with organized dialogue, the responses can take multiple forms (box 5.4).

By following this system of dialogue between the public and private sectors, industrial policy should emerge through a process of discovery of constraints on industrial development. This also provides information on the private sector's willingness (or otherwise) to make investments, subject to the state's adopting policies or institutions (or removing them). Using the information and decisions that arise from this dialogue, the government can then choose from among policy instruments, such as tax breaks, research and development subsidies and credit incentives.

This public-private dialogue also creates a feedback mechanism by which the public sector can improve industrial policy and its services to the private sector. It is essential that the public sector not only seeks regular feedback, but acts on it quickly and efficiently, gaining private sector trust and supporting industrial growth more effectively.

Countries that see greater success with industrial policy place greater emphasis on monitoring and systematic mechanisms of feedback. These countries also take steps to implement changes based on this feedback and the changing needs of the private sector. Indeed, when the strategies of IPOs are not frequently reevaluated and modified, they are ineffective; funding too can be a problem (box 5.5).

New organizations need to be created when there are disjunctures in the industrial policy framework that cannot be handled by existing institutions; others should be closed if they are no longer needed.

### HIGH-LEVEL COORDINATION AND POLITICAL WILL

Action plans and the budget implications ought to be shared with the government and, if possible, discussed at the cabinet level for approval and support. This is because successful industrial policy frameworks have close links and high-level approval by the government as well as associated political support. In Africa, however, many good policies are not implemented because they do not enjoy government support (box 5.6).

The political process is important in other ways. New industrial policy interventions need to assess the entrenched interests and political support for existing policies and frameworks and build the kind of political coalitions inside and outside of government that can overcome impediments to change (box 5.7).

#### BOX 5.4: RESPONDING TO INDUSTRIAL POLICY GAPS IN SOUTH AFRICA

South Africa's Department of Trade and Industry (DTI) uses the identification of industrial constraints to create smaller sectoral key action plans every year. Response plans like these must then be supplied with enough human and financial resources to operate on a sufficient scale to address the identified gaps and implement changes in the economy (DTI, 2007).

#### BOX 5.5: OMISSIONS IN REEVALUATING AND FUNDING IN TWO COUNTRIES

Kenya's Export Processing Zones Authority has modified its strategies too little to changing private sector needs and has seen unsuccessful results. In contrast, the Mauritian Board of Investment has done this successfully by, for example, diversifying investment sources to new markets after the euro-zone crisis. It also benefits from setting goals in consultation with successful, long-standing private organizations.

In Nigeria, private sector actors expressed concern that IPOs were inadequately supplied with resources and funding, and were not serving the needs of the private sector.

#### BOX 5.6: WEST AFRICAN WOES

In Nigeria, a lack of industrial policy implementation left many sound projects unfinished and inhibited industrial growth. While in Senegal, there was no relevant national industrial policy, and many stakeholders felt that the government needed to initiate a coordinated effort towards an updated, national industrial framework.

#### BOX 5.7: DTI'S APPROACH TO FINANCING INTERVENTIONS IN SOUTH AFRICA

Finance for industrial interventions should support specific activities that target constraints to new opportunities, rather than broadly finance a particular sector or type of activity. It follows that this financing should be given conditional on the recipient firms meeting certain measurable goals (sometimes called "contingent rents"). The programme design should contain a sunset clause and scheduled reviews, and consideration should be given to the potential of programmes to generate spillovers, demonstration effects and so on. In addition, government must consider the international comparability of finance for certain industrial sectors, which it could want to at least match in strategic sectors (DTI, 2007).



States should have one centralized institution that has representatives of overseeing ministries, IPOs and the private sector, and that has the financial and human capacity to coordinate IPO activities (box 5.8).

Information flows coordinated by one overseeing body are essential to avoiding coordination failures. Earlier chapters showed that countries without one suffered from gaps in needed industrial support from IPOs, conflicting mandates or overlapping jurisdictions. Similarly, where small groups of IPOs reported to different overseeing ministries, a common feature was a lack of coordination between IPOs. And without a super-ministerial body to ensure that ministries were encouraging communication among their parastatals, policy formulation and implementation were hurt. In Senegal, the Ministry of Industry is charged with overseeing industrial policy, yet several important IPOs do not operate under its jurisdiction and do not coordinate with it. All stakeholders should be represented in this body.

### EMBEDDED AUTONOMY

Given the importance of public-private dialogue in driving policy formation, states should ensure that there is embedded autonomy. To know what interventions are needed and how they must be changed to meet industry's needs, they must put in place a strong feedback loop, by structuring IPOs so that the private sector is involved at all levels of industrial policy making.

This is because embedded bureaucrats understand the industry and have built relations with key actors, which improves their ability to collect and process information. Embeddedness allows businesses to be part of the policy loop and creates credibility in policy certainty, which increases businesses' willingness to assume risk. Yet bureaucrats must not be "captured" by the private sector but be able to act independently to ensure that the greater social and economic objectives of the country are met (box 5.9).

### REGULATORY EFFECTIVENESS

Regulatory effectiveness in government is crucial, and requires governments to consider all possible impacts (intended and unintended) of new industrial policy on large and small private firms in all sectors. A central agency connected to (or a sub-agency of) the overseeing industrial policy council should review proposed and existing regulations to ensure that they do not conflict with other industrial policies.

#### BOX 5.8: SINGAPORE'S SUCCESS

The Economic Development Board in Singapore was created as a "one-stop shop" for promoting industrial growth. It fulfilled this role by coordinating all movements of public and private stakeholders to address problems in strategic planning meetings, and thereby avoid overlapping or conflicting mandates among ministries.

#### BOX 5.9: AVOIDING CAPTURE

The Mauritius Chamber of Commerce and Industry (MCCI) has representatives on the board of the Mauritius Industrial Development Authority, the Management Council of the Board of Investment, and the Coordination Committee on International and Regional Cooperation. While the MCCI plays an active role in developing goals in these IPOs, the IPOs are not captured by the MCCI and still follow national industrial priorities and report progress to ministries.

#### BOX 5.10: CHECKS AND BALANCES

The National Automobile Association of Motor Vehicles Manufacturers of South Africa (NAAMSA) is a private body that in effect runs an IPO, the Automotive Industry Export Council, and is the gatekeeper of South Africa's automotive manufacturing capability. This arrangement creates a system of checks and balances, because while the IPO managed by the NAAMSA reports directly to the Ministry of Trade and Industry, the NAAMSA represents the private automotive sector, balancing public and private interests. This system forces bureaucracy to remain honest and efficient, but also prevents IPOs from being fully captured by the interests of the private sector with little regard to wider national priorities.

Bureaucrats in charge of industrial policy should be kept accountable through checks and balances (box 5.10). Public officials must remain honest to maintain the trust of private investors and businesspeople—and for efficiency's sake.

In addition, the public deserves an account of how decisions are made in government and why certain sectors or firms are favoured, especially given that industrial policy can appear to benefit large firms more than small and medium-size enterprises.

One response is to raise the political profile of industrial policy activities and to associate a high-level champion with them (Rodrik, 2008). The virtue here is that it identifies a

### Industrial policy should emerge through a process of discovery of constraints and opportunities for industrial development without following a blue print

person who has the job of explaining why the agenda looks as it does, and who can be held politically responsible for things going wrong—or receiving the accolade if things go right. Accountability can also be fostered among individual agencies if the state gives them clear mandated targets and requires them to explain any deviations from them. Another fundamental tool for accountability is transparency. The government of Mauritius, for example, passed the Business Facilitation Act in 2006, which created clear, transparent and non-discriminating procedures for investment.

States should ensure publication of the activities of the various deliberation councils and periodic accounting of the expenditures made under industrial policies. Any request made by firms for government assistance should in principle be public information. Keeping government–business dialog

open to new entrants will assuage worries that the process may be monopolized by incumbents.

### POCKETS OF EFFICIENCY

When there is a lack of bureaucratic experience, governments need to slowly create “pockets of efficiency”. These pockets need the support of the ruling elites that deem particular industrial policy instrumental to strengthening their economic or political power. And so countries with a poor track record or little experience of industrial policy should build political coalitions to support industrialization in key sectors.

Doing too much too soon is a recipe for institutional failure, however. Far too often IPOs have been built but are structurally hollow due to a lack of political and financial support. The lack of consistent and long-term policy, as well as of political commitment, causes even well-designed policy to fail. East Asian countries, especially China, provide examples of states encouraging industrial policy that is dynamic and organic, with high-level coordination and political support, embedded autonomy, regulatory effectiveness and more than a few pockets of efficiency (box 5.11).

#### BOX 5.11 INDUSTRIAL POLICY IN EAST ASIA: SOME LESSONS FOR AFRICA

Although there is a lot of focus today on the replicability of China’s approach to development and industrialization in Africa, industrial policy in East Asia’s economies did not follow identical paths: (though they had similarities in their basic tenet of the importance of exporting to the industrial world). Despite the variations, however, the role played by the East Asian developmental states (including China) in providing long-term strategic guidance cannot be underestimated.

##### Key ingredients

Industrial strategy was a politically driven process, not just a piece of paper. In the successful industrializing economies, such as Japan, the Republic of Korea and Taiwan (China), strong and effective national development planning institutions, consulting with the private sector, identified the right entry points for industrial development, set clear goals and targets, developed strategies, facilitated coordination among sectors and stakeholders, concretized implementation plans and established monitoring and evaluation mechanisms. A highly competent and independent bureaucracy, insulated from

political or interest-group influence, was responsible for planning, intervening and guiding the economy. Governments employed a mixture of subsidized credits, tax and duty exemptions and other financial and non-financial incentives to foster competition.

By contrast, industrial policy in China involved (at times) strong-arm tactics of the state and local governments. As a latecomer, China tailored its industrial strategy since Deng Xiaoping’s “reform and opening” policy to fit its own political and socioeconomic conditions as the country prepared to embrace economic globalization constructively. Through a top-down approach, the Chinese state (in collaboration with local governments) focused first on special economic zones (SEZs) linked to Hong Kong, first in Shenzhen, and later in other cities on the eastern and southern seaboard to kick-start industrialization. It identified growth-leading industries for the future, and concentrated on removing constraints on these industries. The strategy involved heavy investment in infrastructure, diversion of public land for constructing

industrial parks and provision of financial and non-financial incentives. This approach (a mix of statism and market-based incentives) provided a replicable model for export-oriented manufacturing to flourish. Foreign ideas and technology were welcomed, but had to be adapted to the local context to promote learning and technology acquisition.

One area of convergence (between China and the other East Asian countries) was capacity development, which involved setting up strong think tanks and university-based research institutes. High-quality research and training in science and technology were considered by all East Asian governments as important for industrialization. In China, special emphasis was given to developing a learning culture of trial and error, monitoring and scaling up if initiatives were found to be fruitful, and being willing to discard them quickly if initiatives failed. The Chinese state ensured that the measures adopted were consistent with the country’s institutional capacity and executed with discipline.

Source: China-DAC Study Group (2011); Yimin (2011).





## 5.4 TOWARDS AN INTEGRATED INDUSTRIAL POLICY FRAMEWORK

Industrial policy is not the remit of just one government department but requires coordination and cooperation across a range of government departments. Industrial policy is likely to be ineffective absent complementary policies and institutions that support its objectives. These and other issues were frequent focal points of criticism from private sector organizations (see chapter 4). They felt many of these areas needed to be developed with other industrial policies to properly address the multitude of challenges they were facing in continuing or expanding their industrial activities. Steps towards an integrated industrial policy framework are likely to encompass the following.

### COHERENT DEVELOPMENT PLANNING

Supporting macroeconomic policies are needed to facilitate industrialization in multiple ways. In successful cases, the macroeconomic environment is characterized by domestic investment, domestic savings and exports all growing in abso-

lute terms and as a share of GDP. A strong investment-profits and export-investment nexus underlies the structural transformation of economies (UNCTAD, 2008). Coherence calls for a careful weighing of the impact of related measures such as exchange rate, monetary and fiscal policies, as well as policies that influence the development of infrastructure and the investment climate (ECA and AUC, 2010).

For example, tight monetary policies can sharply raise the cost of borrowing, countering incentives to raise investment. The level and stability of the currency have a substantial impact on the performance of non-traditional tradable goods and services, too. The overall regulatory environment also strongly influences investment decisions. There is a need for all government departments and agencies to take into account the possible negative unintended consequences of proposed regulatory changes on industrial and related sectors (DTI, 2007). One key way to coordinate industrial policy with other macroeconomic issues is through development planning (box 5.12).

### PRODUCTIVE CAPABILITIES, TECHNOLOGY AND INNOVATION FOR COMPETITIVENESS

Industrialization involves a shift from learning to use existing technologies to developing innovative domestic technologies. Technology use can be broken down into three stages

#### BOX 5.12 THE ROLE OF DEVELOPMENT PLANNING IN AFRICA

Development planning may be described as a deliberate governmental attempt to coordinate economic decision making over the long run and to influence the level of growth of a nation's principal socioeconomic variables to achieve a predetermined set of development objectives. The overall planning process involves the design, implementation and monitoring of the plan, and starts with the government outlining its economic and social development objectives, such as poverty reduction, inclusive growth and industrialization (Todaro and Smith, 2006; Elhiraika and Bodart, 2012).

Although post-independence state-led development planning models did not achieve their

objectives, there are several reasons to think that development planning can still promote industrialization and structural transformation in Africa.

First, market failure in African countries coupled with weak institutional and financial capacities warrant appropriate allocation of resources to improve human capital and infrastructures, combat poverty and inequality, finance innovation and technology, enhance governance and the capacities of the public sector and improve the business environment. More specifically, by linking industrialization objectives to the budget and medium-term expenditure frameworks, and by following up through a sound monitoring and

evaluation mechanism, development planning can promote industrialization, facilitate assessment and enjoin corrective actions. Development plans also facilitate prioritization and coherence of the industrial agenda with other government programmes and the macroeconomic framework and at the same time ensure that all external assistance and partnerships be aligned with the national priorities, hastening the transformation process and improving its outcomes.

Second, the design of a development plan, especially through a consultative and participatory process, is a powerful mean to rally the public behind the government for achieving its development agenda, such as structural economic

during industrial development. First, countries can import technologies from abroad and adapt them to local conditions. This allows for technological absorption in early stages of development without requiring local production of technology. Second, they can acquire technology through foreign direct investment (FDI). Proprietary technologies acquired from FDI may be necessary to make industries competitive globally. Third, at later stages of development, local technologies can be generated through domestic research. Although this final source is the most difficult, it also the most rewarding for a country to invest in, given the risky nature and the long-term horizons involved in technological investment (DTI, 2007).

To remain competitive, governments must ensure that there is a strong link between industrial policies and skills institutions in the shorter term; in the long term, this requires producing many graduates with tertiary technical skills and integrating industrial policies with earlier (primary) education. Strengthening links between tertiary institutions and industry greatly improves competitive advantage in geographical-specific industrial clusters, but in turn requires graduates from secondary institutions who have strong skills in mathematics and science (DTI, 2007).

Other issues also need to be resolved for Africa to be fully competitive (box 5.13).

## INFRASTRUCTURE AND SPECIAL INDUSTRIAL SERVICES

Industrial growth requires sufficient, reliable and competitively priced traditional and modern infrastructure and strong logistics and monitoring systems. These are necessary for production efficiencies; transportation of goods and people; and strong communication networks that connect people and businesses cheaply.

Traditional infrastructure refers mainly to transport, electricity and water, but these areas are major inhibitors of competitiveness (DTI, 2007). Africa loses 1 percentage point a year in per capita economic growth owing to the debilitated state of its infrastructure (UNCTAD, 2011). Governments must therefore prioritize infrastructure building, but all infrastructure construction must be coordinated by governments through a raft of supporting policies and IPOs. Transport infrastructure allowing the movement of good over large distances is especially important, given the amount of inland industrial activity.

Modern infrastructure refers primarily to fixed, mobile, wireless and satellite telecommunications networks. Widely available broadband facilities at competitive prices are particularly important for industrial development (DTI, 2007). Although governments need to provide public investments to tackle the infrastructure deficit, they lack the resources

transformation and industrialization, inclusiveness and sustainability (Todaro and Smith, 2006).

Finally, economists such as Johnson (1982), Amsden (1989), Evans (1995), Wade (1998 and 2000) and Stiglitz (1999) overwhelmingly credit development planning for the East Asian Miracle. A key lesson from that model is that planning should be aimed at encouraging industries that best promote growth.

Africa's development planning experience—centralized—dates back to the 1960s, but both that (up to the first oil price shock of 1973) and the market-based structural adjustment programmes of the 1980s and 1990s failed to spur economic transformation and substantial

social development. These approaches have since been revamped with partial planning models embodied in poverty reduction strategy papers from around 2000, and continue with the more comprehensive approach to development planning, generically called national development plans (Nnadozie, Jerome and Keita, forthcoming).

Botswana and Ethiopia provide good success stories in development planning. Botswana is in fact often held up as one of the biggest successes in Africa: development planning was key in the country's transformation from a poor agrarian economy after independence 1966 to an upper middle-income and mining country. Botswana is operating under the Tenth National Development Plan, which, like the previous plans, is guided

by the principles of economic growth and independence, sustainable development and social justice (Armah et al., forthcoming).

Thanks to its Growth and Transformation Plan 2010/11–2014/15—focused on well-articulated, designed and implemented economic policies for agriculture-led industrialization—Ethiopia is successfully developing, with sustained two-digit growth rates and greater investment in agriculture and industry.

Source: Compiled mainly from Nnadozie, Jerome and Keita (forthcoming), Armah et al. (forthcoming) and Elhiraika and Bodart (2012).





### BOX 5.13 FOSTERING COMPETITIVENESS

Competitiveness is critical for Africa's aspiration to structurally transform through industrialization. Weak competitiveness often leads to low productivity, curtailing long-term growth and industrialization—and the news is not good for Africa.

Based on the 2012–2013 Global Competition Index, 14 of the 20 least competitive economies are African (WEF, 2013). The report attributes this to weak institutions, infrastructural deficits, weak technological advancement and a narrow skills base for a knowledge economy. The World Economic Forum provides regional labour productivity comparisons within Africa (excluding North Africa), developing Asia and Latin America and the Caribbean. It shows that although Africa and developing Asia started with similar productivity in the 1960s of around

\$20 GDP per hour worked, Africa's fell to around \$12 in 2012—developing Asia's soared to about \$40.

Globalization, rapid technological advances and integration into global value chains are reinforcing the need to continually boost competitiveness, but Africa lags behind in developing cutting-edge skills and absorbing the latest technology. As information technology has become increasingly critical for transformation, the top 10 African countries on the 2013 ICT Development Index, produced by the International Communication Union, are ranked only between 64th and 109th. Lifting African competitiveness will require real action on two major fronts—infrastructure gaps and a skilled workforce.

African countries need to formulate policies to help firms and industries increase their competitiveness and upgrade (or even create) their production capabilities so as to encourage investment, increase output and lead to greater sustainable and skilled employment. They hence require a mix of policies and strategies that enhance productivity, address binding skills and infrastructure constraints, entice resource allocation and are supported by a conducive trade environment, at home and internationally.

Examples from countries such as Brazil, Chile, China, Costa Rica and India show governments taking the lead in developing broader competitiveness strategies involving new forms of collaboration. Africa's examples are Mauritius and South Africa.

Source: WEF (2013).

and must therefore provide incentives to the private sector to contribute to infrastructure building. Along the same lines as pockets of efficiency in industrial policy creation, governments with limited resources need “pockets of infrastructure” focused on sectoral or clustering needs of industrial expansion (UNCTAD, 2011), including industrial parks (box 5.14).

### CAUGHT BY CLIMATE CHANGE?

The sustainability of Africa's economic growth momentum, industrialization and transformative economic development will depend to a significant extent on how African countries position themselves to address challenges of climate change. Some industries contribute heavily to greenhouse gas emissions, and both adaptation and mitigation will have cost and opportunity implications for industrial development.

Many scientists argue that the current pace of global warming is 10 times faster than at any time over the last 65

million years (Diffenbaugh and Field, 2013). Recent droughts in the Horn of Africa (2011) and the Sahel (2012), which together affected more than 23 million people, attest to the challenge of global warming as well as its pace and rate. Africa is believed to be the region causing the least harm to the climate, yet experiencing the highest climate change as a share of GDP (Mendelsohn, Dinar and Williams, 2006).

It is thus imperative that African countries invest in mechanisms to mainstream mitigation and adaptation into their development strategies. Industrial policy can help—for example, by promoting ground-breaking technologies for low carbon production, carbon capture, storage and sequestration. Energy-efficient systems in industrial process can heavily cut greenhouse gas emissions, and energy savings in the industrial sector constitute a key area in greenhouse gas abatement.

Commensurate efforts must be made to identify and exploit the opportunities that climate change mitigation presents to deepen Africa's transformative, low-carbon and inclusive development pathway. Achieving these developmental ambitions requires concerted action at national, subregional and continental levels.

Africa possesses one of the best resource bases for industrial production, yet exporting these resources deprives Africans from higher paying jobs and exacerbates carbon dioxide emissions. Shifting production closer to the source would create sustainable employment and generate wealth, and

**New industrial policy interventions need to build the kind of political coalitions inside and outside of government that can overcome impediments to change**

**BOX 5.14 INDUSTRIAL PARKS AND CLUSTERS**

Industrial parks and clusters present a real opportunity for African countries to make the most of their industrial policy interventions and benefit from multiplier and spillover effects. Industrial parks—often used by successful (notably East Asian) industrializers—involve applying resources to a concentrated geographical area, frequently close to ports or airports.

Hard and soft infrastructure investments, incentives for firm start-up and relocation, business support services and knowledge networking, streamlined customs and regulations procedures and other interventions are usually all features of such parks. Together they create an environment conducive to entrepreneurship, knowledge spillover externalities and the growth of industrial firms that may otherwise not have found enough support to overcome initial capital, technology, skills and market-access constraints.

Industrial parks provide a pocket-sized approach to building infrastructure and improving the business environment for industrialization (Lin, 2012). Rather than diffusing these projects around the country—more costly and time consuming—countries can spur industrialization and exports quickly, and provide an environment that increases the likelihood of new and domestic firms surviving. Such gains have immediate employment and foreign exchange impacts, benefiting surrounding areas and ultimately the whole country. As multinationals are more interested in investing in areas with substantial support and infrastructure—industrial parks—countries will be better able to negotiate for skills and technology spillover to

accompany this inward investment.

Industrial clusters may involve a concentration of resources within a specific subsector of the economy. Here, a subsector for a type of product with large potential for growth and value addition can be targeted within industrial parks, with significant linkage development among companies, suppliers, service providers and associated institutions (box figure 1).

China has had one of the largest and most successful networks of industrial zones, with more than 900 zones employing 40 million people (Stein, 2009). The use of industrial clusters in China led to “speciality cities” focusing on sweaters, footwear and other products, with huge upstream and downstream linkages. In its neighbour to the south, too—Vietnam—much large-scale garment, footwear and furniture production by foreign firms is in industrial parks. Most manufacturing in another neighbour to the southwest—India—is conducted in industrial parks (Lin, 2012).

**The long African trail**

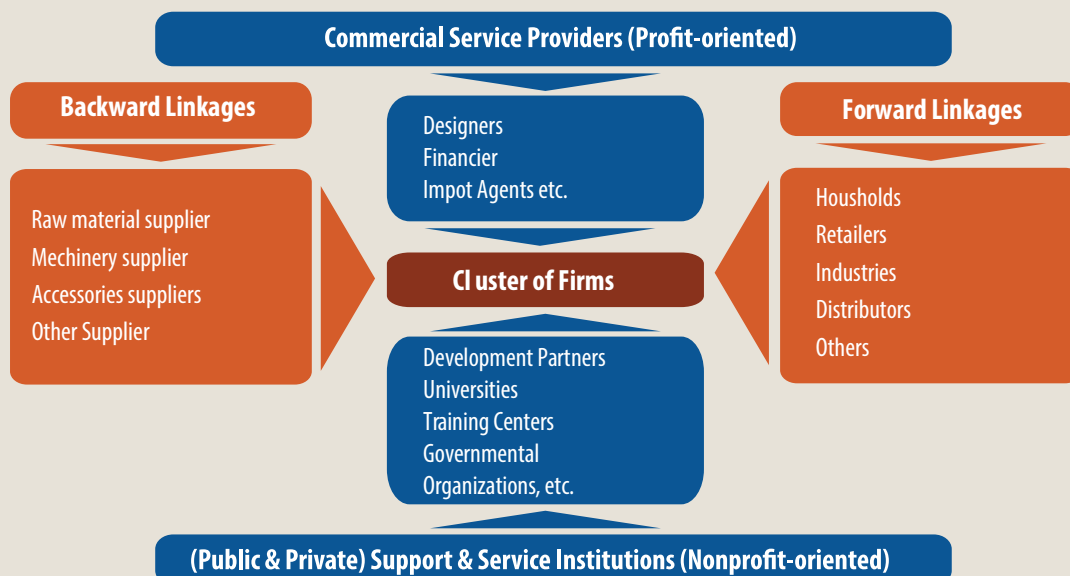
More than 22 African countries have at least one industrial zone, park or cluster (Lin, 2012). Many more have “visions” for them, but most remain little more than that. Firms in such parks enjoy knowledge spillovers, but competition within clusters can impede networking. The lack of a critical mass of skills and talent, weak links between businesses and knowledge institutions, failure to meet international standards and rising global competition all make it hard for these parks to develop as planned and compete globally (Zeng, 2008).

Although performance has been less impressive than in Asia, some developments stand out, especially where parks have led to industrial clustering. For example, manufacturing is at the heart of Ethiopia’s economic transformation programme, which has a large investment by a Chinese firm producing designer leather shoes for the US and European Union markets. Production is in an industrial SEZ just outside Addis Ababa. It is estimated that more than 25,000 jobs have been created through similar enterprises in the country (Lopes, 2013).

Still, new policies are needed for more African countries to design, implement and reap benefits from industrial zones, as in East Asia. First, African governments must develop an institutional environment—along with broad stakeholder inputs particularly from the private sector—to identify the right sorts of parks and incentives. Parks require the concerted efforts of IPOs, firm and private sector representatives, financing institutions, international agencies, higher education centres, multinationals, small and medium-size enterprises and other stakeholders. Plans for parks must be accompanied by concrete and actionable implementation plans.

Second, the state needs to create a stable political and socioeconomic environment that encourages trust among firms, and to establish and enforce a business-conducive institutional plan, including clear regulations, standards and quality assurance mechanisms.

**BOX FIGURE 1: TYPICAL CLUSTER MAP**



Source: Shakya 2009.



also be less wasteful in terms of transport and other emissions. Industrialization is important for green growth—as countries grow, they become cleaner, more efficient and better informed, as illustrated by the environmental Kuznets curve (Grossman and Krueger, 1993).

Leveraging the capacity of the private sector to scale up investment in agro-processing in particular is a means to create jobs, encourage manufacturing and help address climate resilience in agriculture. Africa has nearly 60 per cent of the world's uncultivated agricultural land (McKinsey Global Institute, 2010). Yet more than 90 per cent of agricultural production in Africa is rain-fed, leaving agriculture exposed to the impacts of climate change. With a growing population and ever-increasing demand for food, investments in climate-resilient agricultural production technologies, innovation, water access and use efficiency as well as sustainable land management are essential. This is vital for Africa's industrialization, as a secure and productive agricultural sector is a necessity of industrial development, and will have a strong multiplier effect on the economy through increased incomes and poverty reduction.

Institutions play a significant role in the governance of climate change. They can enable climate change adaptation, and can support communities by crafting policies and enabling strategies that will provide safety nets and strengthen the resilience of the vulnerable poor. African countries therefore need to create effective platforms for building the necessary institutional and policy capacity and for multidisciplinary participation of climate scientists, development economists, social anthropologists, policy experts, entrepreneurs and the private sector in developing innovative multi-sectoral policy options and development strategies.

Although the last two decades have seen exciting gains in climate-science adaptation, Africa still faces huge challenges in generating, analysing and disseminating climate-related data, impeding the provision of sound advice for resilience and adaptation to climate variability. The solution lies in investing in climate data infrastructure, using satellite technology to improve observation and data analysis, improving modelling capacity and enhancing access to and sharing of climate data.

Africa possesses vast renewable energy resources of hydro, geothermal, biomass, wind and solar power, yet domestic energy consumption in Africa remains predominantly based on biomass, which provides energy for about 80 per cent of households. The International Energy Agency estimates that the number of fuel wood dependent people will continue

### Industrialization involves a shift from learning to use existing technologies to developing innovative domestic technologies

to increase in the near future. Overdependence on biomass is partly due to the under exploitation of renewable energy resources. Of the total hydropower potential in the Congo, Nile, Zambezi and other river basins, less than 10 per cent has been exploited. Africa has the potential to benefit from an industrial pathway that is anchored on clean technologies and renewable energy, which will both contribute to climate change mitigation and provide sufficient energy to drive Africa's industrial development and transformation. As Africa is not locked in any technology preferences, it can follow a green and clean energy pathway towards industrialization and leapfrog old carbon-intensive models. Many African countries are already investing in innovative renewable and clean energy sectors and offsetting traditional energy sources dependent on fossil fuels, biomass and forest resources.

Regional institutions are critical in leveraging adaptation and mitigation activities in Africa. When acting in a coordinated manner, they can pool knowledge and resources and provide greater visibility to adaptation and mitigation problems. Regional approaches are needed to convene multiple financing options and promote investments in climate observation systems, climate science analytical capacity and related research. This calls for strengthening regional climate centres and institutions like the African Centre of Meteorological Application for Development and the IGAD Climate Prediction and Application Centre. Africa's regional economic communities, as drivers of regional economic transformation, must create regional mechanisms for addressing climate change. Further investment in South–South partnerships can also help manage climate risk, as countries facing similar challenges can share experiences, lessons learned and solutions.

Given Africa's rich and diverse natural tourism resources, countries must also invest in sustainably exploiting them—to maximize their contribution in improving the livelihoods of communities sharing these ecosystems, and to raise overall transformative growth and development.

**Commensurate efforts must be made to identify and exploit the opportunities that climate change mitigation presents to deepen Africa's transformative, low-carbon and inclusive development pathway**

### REGIONAL INTEGRATION AND GROWTH POLES

Responsibility for industrial development rests primarily with national governments, but similar to environmental approaches, regional integration has enormous potential to improve a country's industrial outcomes and its progress to national goals (ECA and AUC, 2013; AUC, 2008). Given the intensification of competition in global markets from globalization, African countries should take steps to reduce the direct and indirect trade costs facing domestic firms in the region if they want to penetrate export manufacturing markets. These indirect costs stem mainly from poor infrastructure, high regulatory burdens and political instability.

Regional integration can reduce all these costs. For example, if African countries negotiated regional cooperation in infrastructure building, there would be lower transaction costs, a greater development of regional markets and more competitive manufacturing exports. Regional integration can also reduce the regulatory burden facing African firms by, for example, harmonizing policies and serving as an external restraint on domestic policies (ECA and AUC, 2013).

Regional integration also promotes peace and security, necessary for sustaining industrial development. Regional institutions assisted, for instance, in defusing political crises in Kenya, Liberia, Sierra Leone and Zimbabwe, and helped resolve more recent political turmoil in Côte d'Ivoire, Libya and Madagascar. By promoting greater peace and security, regional integration reduces investment uncertainty and so encourages entrepreneurialism. Regional integration can also facilitate financial market development, leading to an increase in the access to credit and competitiveness of domestic firms (ECA and AUC, 2013). This is particularly important owing to the many firms that cited access to credit as a major obstacle to growth (see chapter 4). Interviewees cited reasons such as stringent collateral requirements, expensive credit and underdeveloped financial markets.

Robust regional markets are critical to unlocking Africa's manufacturing potential and supporting the growth of globally competitive firms. Given the benefits that regional integration could provide to globally uncompetitive African firms, African governments should incorporate the regional market into their industrial policy frameworks as an engine of growth. This is essential because if their countries are to succeed in increasing their share of global trade, they must focus on export markets with high potential for future growth. Regional integration has not been used enough as a tool for industrial growth, but has the potential to be used much more systematically to promote regional industrial policy and should be seen as an area for future research.

**Industrialization requires both public and private investments in priority areas, especially infrastructure, education and technology acquisition**

In light of the above benefits of regional integration, regional development strategies constitute key factors in successful implementation of industrial policies, and include a growth pole and diffusion approach, which hinges on the assumption that economic growth occurs in specific subnational regions or industries (poles) and not necessarily in the entire economy (see ECA and AUC, 2012).

Under this approach, a growth pole consists of concentrated productive economic activity in a region that can foster growth in peripheral regions through positive spillovers and backward and forward linkages. The objective of a growth pole strategy is not to address market failures but to capitalize on existing resources (such as infrastructure, technology, external economies, skilled labour, markets and sound investment and business climates) in an economy. As elaborated by Ogunleye (2011), growth poles can also constitute a single industry or group of industries, or a single firm or a group of firms in an industry. The growth of these industries and the presence of strong inter-industry linkages eventually leads to greater benefits such as domestic and foreign investment, job creation, diffusion of technological progress, skilled human capital and replication of sound institutional settings and best practices in the peripheral sectors or regions of the economy.

Growth poles can therefore act as key policy instruments to foster spatial and regional planning in the context of regional



integration, but obstacles need to be overcome. They include coordination between different institutions and regions over identifying viable growth poles; risk management and sharing, which has an impact on the efficiency of public private partnerships; and mobilization of resources for large investments (WEF, 2013). Further, when establishing growth poles, countries must put in place the mechanisms (involving economic and social policies) to ensure diffusion of benefits throughout society, which requires strong coalitions across regions and sectors, and close regional dialogue.

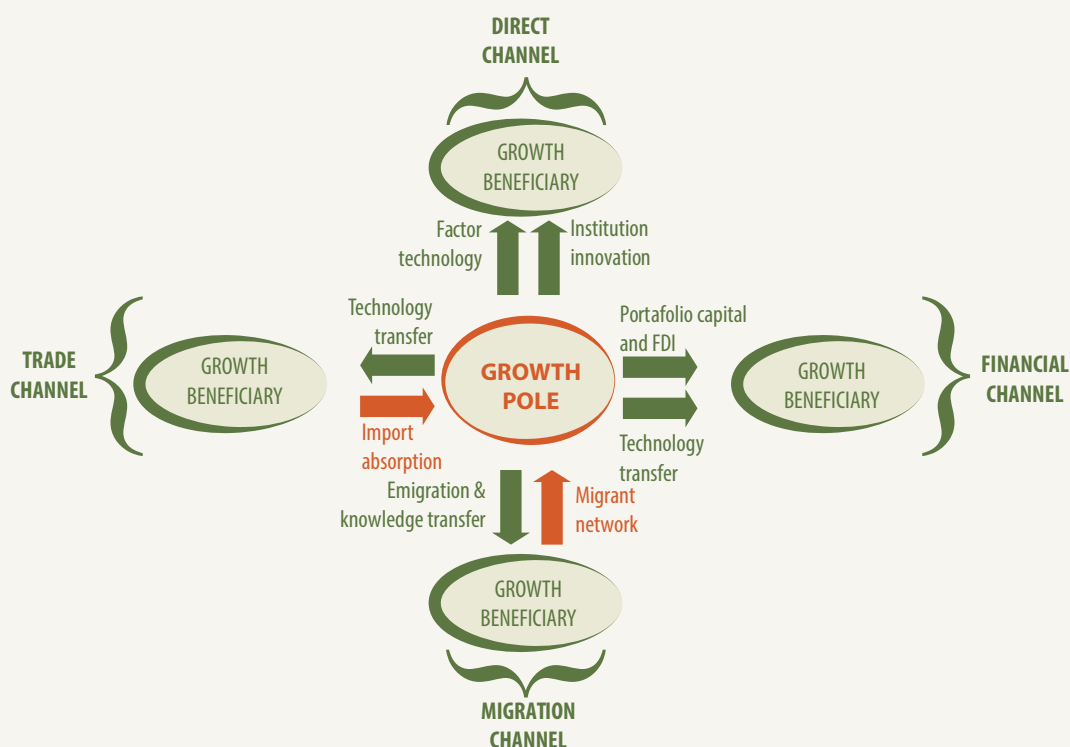
African countries adopting a growth pole strategy should therefore embark on identifying potential growth poles with the capacity to ignite growth in other sectors through linkage development. Experience shows that successful identification hinges on several factors such as consultations with key stakeholders (especially the private sector), a focus on establishing competitive industries, coordination between different institutions and decision-making organs and adequate financing (WEF, 2013). Success in these areas will in turn ensure that the channels of spillovers—trade, investment, technology and knowledge transfer, and skilled migration from the growth poles to the periphery—are fully exploited (ECA and AUC, 2012) (figure 5.1).

**Regional integration can propel Africa's industrialization and economic transformation through increased trade and capital flows and the creation of regional growth poles and value chains**

Most of the African countries that have followed a growth pole approach have adopted a twin focus of identifying regional clusters that can act as development corridors and of helping set up value chains in each cluster (box 5.15).

Regional integration is also important for a so-far overlooked area—pharmaceuticals (box 5.16).

**FIGURE 5.1. TRANSMISSION CHANNELS FROM GROWTH POLES TO PERIPHERY**



Source: World Bank (2011).



### BOX 5.15 GROWTH POLES IN SELECTED COUNTRIES

#### **The Democratic Republic of Congo Western Growth Poles Project, 2013–2019**

This project aims to increase productivity and employment in selected value chains in target zones. It seeks to develop agricultural value chains in Bas-Congo in order to boost agricultural supply capabilities of farmers and provide basic rural infrastructure and better access to markets. The project is estimated to cost \$114.7 million: \$110 million from the World Bank and \$4.7 million from the Ministry of Finance. The project also aims to develop the Maluku SEZ, as well as improve the business environment, foster strategic partnership along selected value chains and enhance the government's capacity to implement and monitor growth pole project (World Bank, 2013).

#### **The Lamu Port–South Sudan–Ethiopia Transport Development Corridor Project**

One of Kenya's Vision 2030 flagship projects, this aims to foster transport links among Kenya, South Sudan and Ethiopia, promote economic

development through increased cross-border trade and enable dynamic promotion of regional socioeconomic economic development along the transport corridor that runs from Lamu, Kenya, to Port Sudan, South Sudan.

The project comprises a new road network, a railway line, oil refinery, oil pipeline, resort cities, airports and a free port. Financed through public–private partnerships, the completion of this project is expected to accelerate competitiveness in global maritime trade and promote international trade by linking the East and Central African regions to the international markets. Studies show that if well implemented, the project can add 2–3 per cent of GDP in Kenya's economy (Kenya Vision 2030, 2013).

#### **The Mozambique Integrated Growth Pole Strategy, 2013–2019**

The associated project aims to support the government's objective of increasing agricultural production and productivity, creating jobs through targeted interventions and

strengthening private sector dynamism to drive economic growth in the whole country. The project is estimated to cost \$119.1 million: \$100 million from the World Bank and \$19.1 million from the Ministry of Finance and other commercial sources. The project is being implemented in the Zambezi Valley and in the Nacala Corridor. The focus is on two identified growth poles, the Angonia pole (comprising the districts of Angonia, Tsangano and Macanga in Tete province) and Nacala pole (Nacala Porto city and Nacala-a-Velha town).

The objectives are to support the Tete agribusiness growth pole in the Zambezi Valley by developing infrastructure (feeder roads) to link smallholders to value chains, to support the Nacala SEZ in the Nacala Corridor through infrastructure development and increased public–private investment and to promote institutional development, capacity building and project implementation (Government of Mozambique, 2013).

## FINANCING INDUSTRIALIZATION

As African countries designing and implementing industrial interventions are discovering, industrialization is not costless. It requires the financing of both public and private investments in priority areas, especially infrastructure, education and technology acquisition. Indeed, the success of industrial policy projects depends heavily on the ability of African countries to mobilize resources.

States should therefore focus on tapping domestic savings (public and private) as well as external sources (especially FDI, portfolio flows, donor support and remittances), using trade as an engine of development financing, bolstering South–South cooperation and stemming illicit financial flows and money laundering (ECA and AUC, 2012).





**BOX 5.16 LOCAL MANUFACTURE OF PHARMACEUTICALS: AN OPPORTUNITY WAITING TO BE TAPPED**

Pharmaceutical production in and for Africa presents an opportunity for Africa to industrialize. Antiretroviral (ARV) drugs have had a tremendous impact on the AIDS epidemic in the continent, with some 7.6 million people on ARV treatment (UNAIDS, 2013). However, Africa is largely dependent (more than 80 per cent) on imported pharmaceutical and medical products.

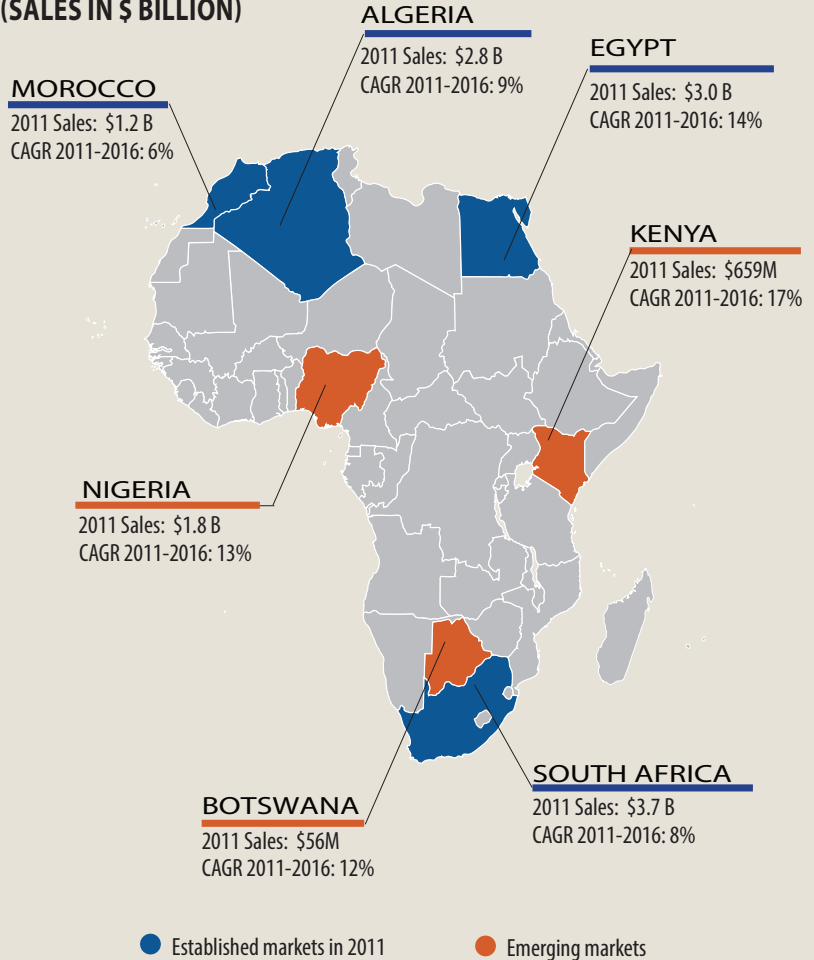
The need for such drugs presents a potential market opportunity for African pharmaceutical companies. Using a low estimate of \$140 per person a year, the current number of people on ARV treatment in Africa represents a market opportunity of more than \$1 billion. This market will more than treble over the next decade as more people are placed on ARV treatment and other uses of ARV treatment are expanded. The total pharmaceutical spending for the continent in 2012 was estimated at \$18 billion, and this market is expected to reach \$30 billion by 2016 and potentially \$45 billion by 2020 (box figure 1). The large support from the President’s Emergency Plan for AIDS Relief and the Global Fund to Fight AIDS, Tuberculosis and Malaria can be tapped as major sources of financing an ARV-focused pharmaceutical industry. Through 2012, the Global Fund had already spent nearly \$12 billion dollars in Africa (Global Fund, 2012).

Local production of pharmaceuticals can also advance industrial development, reduce external dependency, facilitate stronger regulatory oversight to curtail counterfeit products, improve the trade balance and create jobs. Some 38 member states of the African Union have some form of pharmaceutical production (AUC, 2012). Yet the companies vary in product quality and the ability of the regulatory authorities to enforce standards. Manufacturers largely rely on imports for most inputs.

Local production of ARVs can serve as a path-breaker to broader pharmaceutical- and medical-based industrialization. The challenges that prevent the industry from scaling up production include steep investment requirements; the need for expertise and skilled workers; stringent quality standards as a prerequisite to access donor-funded prequalified markets; cross-border regulatory harmonization for regional markets; an uneven playing field for locally produced drugs against finished product imports that are value-added tax-exempt or duty-exempt; and insufficient access to supportive industries. Strengthening local production requires governments to offer fiscal and non-fiscal incentives and coordinate policies so as to strengthen the industry—and to support regulatory authorities in order to reassure investors. A

**BOX FIGURE 2: THE PHARMACEUTICAL INDUSTRY IN AFRICA'S SEVEN LARGEST COUNTRIES BY SALES**

(SALES IN \$ BILLION)



Source: IMS Health (2012).  
Note: CAGR is Compound Annual Growth Rate

conducive private sector investment climate is also needed.

At regional level, the Business Plan of the African Union Pharmaceutical Manufacturing Plan for Africa (PMPA) lists flexible and comprehensive solutions that can be applied for internationally standardized, sustainable local production of essential medicines. The PMPA Consortium (which includes the African Development Bank, the New Partnership for Africa’s Development, the Joint United Nations Programme on HIV/AIDS, the United Nations Development Programme, the United Nations Population Fund, the United Nations Industrial Development Organization and the World Health Organization) is providing means to

encourage interaction between stakeholders at the national, regional and continental levels.

India is a positive example of a country that tackled many of the hurdles and turned around its pharmaceutical industry. Until the 1970s, non-Indian pharmaceutical firms enjoyed nearly 80 per cent of the Indian market. A number of state interventions to promote low-cost quality domestic generic drugs led to Indian firms controlling 70 per cent of the domestic market today, with the Indian pharmaceutical industry ranking third globally in terms of product manufacturing volume.

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# END NOTES

## CHAPTER 1

- 1 UN-DESA, 2014
- 2 Egypt, Sudan and Tunisia are excluded from the list of oil-exporting countries as they have become net oil importers in 2014. South Sudan was also excluded because of disruption of its oil exports during most of 2013. The oil-exporting countries are thus Algeria, Angola, Cameroon, Chad, Republic of Congo, Côte d'Ivoire, Gabon, Equatorial Guinea, Libya and Nigeria.
- 3 UN-DESA, 2014
- 4 These countries include Benin, Botswana, Burkina Faso, Burundi, Cape Verde, Comoros, DRC, Egypt, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritius, Morocco, Mozambique, Namibia, Niger, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe.
- 5 These countries include Botswana, Central African Republic, DRC, Ghana, Guinea, Mali, Mauritania, Mauritius, Mozambique, Niger, Rwanda, Sierra Leone, South Africa, Tanzania, Zambia and Zimbabwe.
- 6 In 2012, African exports totalled \$640.5 billion and imports \$613.5 billion.
- 7 UNCTADstat, accessed 28 October 2013.
- 8 UNCTADstat, accessed 2 January 2014
- 9 Brazil, Russia, India, China and South Africa. They account for 40 per cent of the world's population, more than 20 per cent of its GDP and more than 20 per cent of its trade.
- 10 See [www.prosavana.gov.mz/index.php?num\\_lang=2](http://www.prosavana.gov.mz/index.php?num_lang=2), accessed January 2014.
- 11 UNCTADstat, accessed 29 October 2013.
- 12 UNCTADstat, accessed 6 September 2013.
- 13 South Sudan since 9 July 2011.
- 14 Referring to services minus government services, not included elsewhere.
- 15 Other business services include trade-related services and miscellaneous business, professional and technical services such as legal, accounting, architectural and engineering services.
- 16 These figures come from the Organisation for Economic Co-operation and Development's Creditor Reporting System database (accessed November 2013), which does not include assistance offered by some developing economies, including Brazil, China and India.
- 17 Africa generates more than \$520 billion a year from domestic taxes (ECA and NPCA, 2013).
- 18 Angola, Côte d'Ivoire, DRC, Gabon, Ghana, Namibia, Nigeria, Senegal, South Africa and Zambia.
- 19 Available continent-wide data indicates that the extreme poverty rate fell from 52.3 per cent in 2005 to 48.47 per cent in 2008 (World Bank, 2013a).
- 20 Vulnerable employment is defined as the sum of the employment status groups of own-account workers and contributing family workers.

## CHAPTER 2

- 1 Also called economic transformation or structural change.
- 2 All growth and productivity calculations in this chapter are based on the PWT8.0 database, unless otherwise indicated.
- 3 The dataset was based on 51 African countries for 1960–2011. The countries not included in the study are Libya, São Tomé and Príncipe and South Sudan.
- 4 See ECA (2013) for additional graphs and tables with these disaggregations.
- 5 It is worth noting this conventional method - mainly used because of data constraints - to assessing the contribution of aggregate demand categories to growth has important limitations. An appropriate method would be by accounting for import content of each component of aggregate demand (private and public consumption, investment and exports) and then calculating their contributions net of imports. This would correctly assess the true contribution of exports (as well as domestic demand components) to growth and is also helpful in demand management under balance of payments constraints.
- 6 ECA (2013) presents data on expenditure shares of GDP disaggregated by regional and other country groupings.
- 7 World Development Indicators (database).
- 8 Oil-exporting countries are Algeria, Angola, Cameroon, Chad, Republic of Congo, Côte d'Ivoire, Equatorial Guinea, Egypt, Gabon, Libya, Nigeria, South Sudan, and Tunisia. (The dataset excludes Libya and South Sudan.) Mineral-rich countries are Botswana, Central African Republic, DRC, Ghana, Guinea, Mali, Mauritania, Mauritius, Mozambique, Niger, Rwanda, Sierra Leone, South Africa, Zambia and Zimbabwe. Land-locked countries are Botswana, Burkina Faso, Central African Republic, Chad, Ethiopia, Lesotho, Malawi, Mali, Niger, Rwanda, South Sudan, Swaziland, Uganda, Zambia and Zimbabwe. Coastal countries are Algeria, Angola, Benin, Cameroon, Cape Verde, Comoros, Republic of Congo, DRC, Côte d'Ivoire, Djibouti, Egypt, Equatorial Guinea, Eritrea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Madagascar, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Nigeria, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Tanzania, Togo and Tunisia.
- 9 Each sector's contribution to growth can be approximated as,  $(Y_{it} * \omega_{it}) / Y_t$  where  $Y_{it}$  is the growth rate of sector  $i$  in year  $t$ ,  $\omega_{it}$  is the share of sector  $i$  in GDP in year  $t$ , and  $Y_t$  is the rate of GDP growth in year  $t$ . These contributions are "approximate" because they reflect only an accounting approach. Calculating each sector's true contribution to growth would require a much more elaborate modelling exercise with





the goal of capturing not only each sector's direct accounting contribution to GDP, but also the indirect contributions that may arise through various intersectoral interactions. This indicator of direct sectoral contribution to growth is based on World Bank (2007).

10 Botswana, Ethiopia, Ghana, Kenya, Malawi, Mauritius, Nigeria, Senegal, South Africa, Tanzania and Zambia.

11 The de Vries, Timmer and de Vries data, recently released as the Africa Sector Database, are available at [www.ggdc.net](http://www.ggdc.net). The data cover the same 11 African countries as the McMillan and Rodrik subset.

12 ECA (2013) provides full methodological detail for the growth accounting exercise, a discussion of data sources and the econometric approaches used to identify the key drivers of productivity growth in Africa.

13 The polity2 indicator is a composite of two underlying variables from the Polity IV dataset, developed and maintained under "Polity IV Project: Political Regime Characteristics and Transitions, 1800-2012" by Societal-Systems Research Inc. University of Maryland. Initially developed to measure political system durability, the dataset main index is now a measure of the degree of democracy and autocracy (see Marshall, Monty and Jaggers, 2002; Beck, Clarke and Keefer, 2001). The polity2 indicator is included in the analysis in the form of a dummy variable for democracy equal to 1 when polity2 is positive (and zero otherwise). The indicator of the degree of competitiveness of presidential elections is also included as a dummy variable for competitive systems, ranging from 1 for fully competitive to 0 for fully uncompetitive.

14 ECA (2013) provides estimates of the same TFP model using the generalized method of moments, a generic method that allows for explicit estimation of time-invariant regressors, permitting the inclusion of dummy variables indicating mineral-rich, oil-exporting and land-locked countries. The generalized method of moments results are quite similar to the fixed-effects estimates. Two notable differences, however, are that occurrences of civil war have statistically robust adverse effects on TFP growth and that TFP growth is lower in oil-exporting countries by 0.06–0.60 percentage points.

15 All the explanatory variables in this model are lagged by one 5-year period to mitigate the threat of endogeneity bias. (This precaution may be unnecessary for rainfall, though, which is clearly exogenous.)

16 The magnitude of the point estimate for dependency ratio may be implausibly large, as it suggests that a 1 per cent increase would reduce TFP growth by 20–30 percentage points.

17 This index is scaled to range from 0 to 1, and is less amenable to an intuitive quantitative interpretation. However, given a sample mean of .26 and a standard deviation of .24, a one standard deviation increase in this index would be a relatively large change, and would imply an increase of approximately 0.7 percentage points in the rate of TFP growth.

18 As mentioned earlier in this chapter structural transformation can be a source of growth but has not been for Africa. In fact, McMillan and Rodrik (2011) argue that Africa's structural transformation has on average been growth-retarding in Africa.

19 As illustrated by ECA (2013) this set of explanatory variables explains only 15 per cent and 27 per cent, respectively, of the variation in physical and human capital accumulation, but 74 per cent of the variation in TFP growth rates.

### CHAPTER 3

1 See ECA and AUC (2012 and 2013) for extensive discussion of industrial policy experiences in Africa since independence.

2 Akyüz and Gore (1996) point to five reasons why the Asian experience with rents was successful at building industrialization: rents were given in response to activities that served the national interest; rent seeking costs such as information collection and influence-peddling bargaining were kept low; governments closed non-productive avenues for wealth accumulation like real estate; rents were provided on a selective and temporary basis and withdrawn once industries matured sufficiently to compete internationally; and rent realization was linked to explicit performance standards.

3 This process entails a reallocation of resources from less productive to more productive sectors and activities; an increase in the relative contribution of industry and manufacturing to GDP; a declining share of agricultural employment to total employment; a shift in economic activity from rural to urban areas; the rise of a modern industrial and service economy; a demographic transition from high rates of births and deaths (common in underdeveloped and rural areas) to low rates of births and deaths (associated with better health standards in developed and urban areas); and a rise in urbanization (ECA and AUC, 2013). However, as Akyüz (2009) correctly noted It is not always possible to take resources from one activity and put them into use into another. Such allocation should be done through new investment, not by reshuffling existing resources.

4 UNCTADstat (database), accessed 15 December 2013.

5 UN Comtrade (database), accessed on 25 December 2013.

6 For a working definition of IPOs, see primarily figure 3.1 and the associated discussion. In their simplest form, IPOs are bodies supporting the formulation, monitoring and implementation of industrial policy. Many examples are provided below.

7 Schematized in figure 3.1; some positive examples are discussed in Successes from the global south, below.

8 Not all IPOs are state owned. While originally privately capitalized but state run (officers and directors appointed by the Ministry of Finance), after its formation in 1903, the Industrial Bank of Japan became a private company after 1950 focused on providing funds for industrial enterprises.

9 Evans (1995) points to four roles of states in an industrial context: "custodian" or regulator; "demiurge" or producer of infrastructure or goods where gaps exist in the private sector; "midwife" or promoter of the emergence of new entrepreneurs or existing venture capitalists into new areas; and "husband" or supporter of existing private sector groups.

10 The idea is found more broadly in a number of traditions in institutional theory, including new institutional economics. Williamson (1994) sees credible commitments as the long-term guarantees influencing the parties of transaction that reduce contractual hazards while stimulating investment in transaction-specific assets. State guarantees to property rights can take many forms, not just legal guarantees. In China, he argues, there are no formal central private property rights. However, federalism has increased the local communication of credible commitment and limited the confiscatory capacity of the central state—encouraging private investment.

11 Not used in the sense of "test agencies".

12 Four main types can be discerned: politically connected enterprises that seek both profits and rents; government-owned enterprises

or parastatals; military-owned companies operated for off-budget profits; and profit-and rent-seeking private enterprises owned or co-owned by politically well-connected business elites.

13 ECA and AUC (2013) provide a case study of Ethiopia's leather industry and the policies that helped its expansion.

14 The analysis of Malaysia is taken from Yusof and Bhattasali (2008), Ohno (2006) and responses to a questionnaire sent to MIDA in November 2013, by the drafting team of this report.

15 However, Flaaen, Ghani and Mishra (2014: 1) argue that "like many other middle income economies, Malaysia seems to be in a middle-income trap owing mainly to competition from low-wage economies on the one hand, and more innovative advanced economies on the other". They emphasized "the need for broad structural transformation; that is, moving to higher productivity production in both goods and services" for the country to move to a higher-income level.

16 This section is drawn from Schein (1996) and Lim (1995).

17 UNCTADstat (database), accessed 20 December 2013.

18 For example, with rising wages, Singapore sought to keep companies by developing regional parks where labour-intensive production could continue. It invited key government, private operators and academics to map out the new strategy in 1993 through focus groups and a conference.

19 The section draws heavily on Wade (2009).

20 UNCTADstat (database), accessed 20 December 2013.

## CHAPTER 4

1 According to various reports from the National Institute of Statistics Rwanda: [www.statistics.gov.rw/](http://www.statistics.gov.rw/).

2 Other countries also have challenges of policy coordination though progress has been made. For example, for a long time, there was no real industrial policy in Kenya. The various development plans and sessional papers were not comprehensive and lacked continuity and there was limited funding. However, since the Economic Recovery Strategy for Wealth and Employment Creation, 2003–2007, there has been a new strategic focus on industrialization.

3 UNCTADstat (database), accessed 6 February 2014.

4 This section comes from interviews associated with the ECA-commissioned case study on Kenya as well as others undertaken by the authors of this chapter. The latter included interviews with both EPZA officials and private companies operating at Athi River in July 2008 and July 2013.

5 Milberg and Amengual (2008) report employment in 2006 of 270,000 in Tunisia, 1.2 million in Mexico, 1.1 million in the Philippines and 260,000 in Malaysia—a country with only 75 per cent of the population of Kenya.

6 Some of the changes introduced in successive Finance Bills include disallowing parallel commercial and manufacturing activities by a single enterprise, requiring that commercial activities be licensed only after consultation with the Commissioner General and the Kenya Revenue Authority and imposing a mandatory (as opposed to discretionary) 2.5 per cent duty surcharge on EPZA goods sold to the domestic market.

7 In 2008, the government created the Work Force Development Authority. However, the purvey of the organization is massive, covering everything from forestry to auto mechanics. See [www.wda.gov.rw/curriculum](http://www.wda.gov.rw/curriculum).

8 Gabon suffers from the same problems that have not been addressed by IPOs. It is the second most heavily forested country in Africa with 23 million hectares of forests covering nearly 85 per cent of its total land mass. Yet its ability to increase forward linkages in the country through greater processing has been terribly disappointing. While production went up by 55 per cent between 2007 and 2012, the portion of veneer and plywood relative to the total, which includes the less processed sawn wood, fell to close to 40 per cent from its high point of nearly 60 per cent in 2009. Interviews indicated numerous gaps in the industrial policy framework were creating high costs and reducing the international competitiveness of producers. This is included a poor educational system creating a lack of skilled and semi-skilled labour. The available supply is very costly. An attempt to introduce a government sponsored apprentice programme was largely a failure. Research has been poorly developed. The main research institute—the Agricultural and Forestry Research Institute—has only 34 FTE for all of agriculture and forestry. Roads are poorly developed and maintained dramatically raising the cost of transportation. Gabon has the poorest road network density of any Central African country with only a single heavily congested road heading into the capital where most processing occurs. There is poor access to finance, electricity and water supply but no IPOs to deal with these issues. The European Community market would be potentially receptive to higher quality wood products, but there are no IPOs dealing with improving market access (Stads and Angway, 2011; DGS, 2009; UNECA, 2013; Terrhegen, 2011).

## CHAPTER 5

1 This question has become particularly important as policy space in developing countries has shrunk significantly as a result of multilateral and bilateral commitments and pressures and practices of international actors. On the other hand, the policy process should actually help widen the policy space. Many East Asian countries, for example Korea and Japan, continue to have strategic interventions in industry despite prohibitive multilateral and bilateral commitments and obligations, thanks to judiciously designed processes and institutions.



## A STATISTICAL NOTE

This year's Economic Report on Africa is based on the latest updated and harmonized data from various sources, including questionnaires developed by the authors. The main economic and social data variables are obtained from the United Nations Department of Economic and Social Affairs (UN-DESA) database and the United Nations Statistical database. Data from the statistical databases of the International Monetary (IMF), Economist Intelligence Unit (EIU), United Nations Conference on Trade and Development (UNCTAD), World Bank and International Labor Organization (ILO) are also used in connection with various economic indicators. Data published in the report may differ from those of previous editions due to recent revisions.

The UN-DESA Global Economic Outlook database provides comparable data on GDP growth for all African countries, except Seychelles and Swaziland for which data are obtained from the EIU database. Real GDP growth rates are generated using country data with 2005 as the base year. Sub-regional inflation rates for country groupings are weighted averages, where weights are based on GDP in 2005 prices and exchange rates. Baseline scenario forecasts are based partly on Project LINK and the UN-DESA World Economic Forecasting Model. The calculation of Africa's potential GDP and output gap is based on the Hodrick- Prescott time series filter which decomposes GDP growth into both trend and cyclical components.

Social data is based on the latest available data from the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Bank database. Employment figures are from the ILO official employment database while data on trade (exports and imports) are from the UNCTAD and World Trade Organization (WTO). Aid for Trade statistics are from the Organization for Economic Cooperation and Development (OECD) Creditor Reporting System database.

Countries are classified into geographical regions and country groupings. Unless otherwise noted, the data covers 53 African countries (excluding South Sudan due to data unavailability). Geographical regions are: North, Southern, East, West and Central. Parts of the analysis are also based on country groupings of oil importers, oil exporters and mineral rich countries. Oil exporters are those with oil exports at least 20 per cent higher than their oil imports and include: Algeria, Angola, Cameroon, Chad, Congo Republic, Cote d'Ivoire, Equatorial Guinea, Gabon, Libya and Nigeria. Oil importers include: Benin, Botswana, Burkina Faso, Burundi, Cape Verde, Comoros, Congo DRC, Egypt, Eritrea, Ethiopia, Gambia The, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritius, Morocco, Mozambique, Namibia, Niger, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, and Zimbabwe. Mineral rich countries are those where mineral exports account for more than 20 per cent of total exports and include: Botswana, Central African Republic, Congo DRC, Ghana, Guinea, Mali, Mauritania, Mauritius, Mozambique, Niger, Rwanda, Sierra Leone, South Africa, Tanzania, Zambia and Zimbabwe.

The thematic part of the report employs primary data and information collected, harmonized and analyzed by consultants through questionnaires. A total of 92 interviews were conducted in 11 countries which included Congo, Cote d'Ivoire, Gabon, Kenya, Mauritius, Morocco, Nigeria, Rwanda, Senegal, South Africa, and Tunisia. The interviews were divided into four groupings. The first set of questionnaires focused on understanding the challenges African countries encounter in the design and coordination of industrial policy at high levels (generally at the ministerial level). The second set of questionnaires was used for interviews with key officials in industrial policy organizations (IPOs) involved in the formulation, monitoring and implementation of industrial policy in each country. A third set of interviews was undertaken with officials from key business organizations. Finally, one questionnaire was developed to collect the views of experts including former and retired officials of IPOs aimed at understanding the formation and challenges of industrial policy from an historical perspective.



Driven by rising commodity prices and domestic demand, improved macroeconomic management and stronger trade and investment ties with emerging economies, Africa has experienced robust growth over the past decade. Yet much of its population has not shared this expansion. Poverty remains rampant, inequality is worsening in many countries and viable employment and livelihood opportunities continue to elude millions of young people.

African countries need to transform their economic structures to generate inclusive and sustainable growth. Market failure is one of the most important reasons for the poor performance of industry—a key to economic transformation. Government intervention through industrial policy can help spur the structural transformation of African economies by addressing these market failures. However, it is important that African governments do not repeat the industrial policy errors of the past where they often followed a “blueprint approach” of adopting static formulaic interventionist packages, with little non-government stakeholder input.

Based on commissioned studies of 11 African countries and experiences from the global south, this report identifies the challenges and pitfalls faced in designing and implementing industrial policy and how they have been overcome. And it points to the key institutional features that allow industrial policy to be dynamically and organically connected to the processes and players underlying industrialization.

