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The Africa Competitiveness Report 2015

THE WORLD BANK

OECD
BETTER POLICIES FOR BETTER LIVES

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Insight Report

The Africa Competitiveness Report 2015

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The Africa Competitiveness Report 2015 is a special project within the framework of the World Economic Forum's Global Competitiveness and Risks Team. It is the result of collaboration between the World Economic Forum, the International Bank for Reconstruction and Development/the World Bank, the African Development Bank, and the Organisation for Economic Co-operation and Development.

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The Africa Competitiveness Report 2015 comes out at an auspicious moment for the continent. Africa's solid average growth rate of more than 5 percent over the past 15 years bears witness to the region's impressive economic potential. A growing labor force and a large and emerging consumer market hold the promise of significant further growth opportunities. Yet myriad challenges need to be addressed in order to reap these potential gains. Africa's growth path could be more equitable and broad based. Economies need to shift toward higher value added activities that will provide quality employment opportunities for their growing populations and lay the foundations for sustained growth. Africa has all the ingredients to make this happen, and decisions and actions taken today will determine whether Africa will succeed in achieving higher levels of prosperity.

Published on a biennial basis, *The Africa Competitiveness Report* highlights areas that require policy action and investment to ensure Africa's sustained growth. The *Report,* which is the result of a long-standing collaboration, leverages the knowledge and expertise of the African Development Bank, the Organisation for Economic Co-operation and Development (OECD), the World Bank Group, and the World Economic Forum to present a joint vision to inform policies that can help Africa transform its economies.

Through a comprehensive analysis of Africa's most pressing competitiveness challenges, the *Report* discusses the barriers and difficulties that have been preventing Africa's economies from reaching their full potential. It examines the role and potential of the agriculture sector, which provides employment for a large share of the working population; it also considers the service sector, looking at how to reap the full benefits of this increasingly prominent sector as well as its implications for structural transformation. The *Report* also explores the potential for regional and global value chains to help Africa's economies develop and expand new activities and build dynamic and competitive agricultural and service sectors. In doing so, it further informs an ongoing debate on the role of the manufacturing sector in Africa's development. Finally, this work provides competitiveness profiles for 40 African countries, along with a comprehensive summary of the drivers of productivity and competitiveness in the continent.

We hope that this year's *Report* will stimulate discussion among government, business, and development partners and community leaders about what we can all do, individually and collectively, to support Africa's journey toward sustained growth and shared prosperity. Investments in physical and human capital will be key factors that need to be robustly supported by a sound institutional framework and an enabling business environment. Businesses can advocate for reforms that enhance competitiveness and can engage in a dialogue with policymakers about the type of reforms required for firms to prosper. Governments can ensure sustained investments in infrastructure, health, and education; provide the legal and regulatory framework for a sound business environment; and, most importantly, ensure that policies and their implementation are consistent across time and national boundaries.

Africa's recent achievements suggest a brighter future is already in the making. We hope that by providing this analysis, we can contribute to seizing this opportunity for Africa's current and future generations.

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Overview

The Africa Competitiveness Report 2015 comes out at a promising time for the continent: for 15 years growth rates have averaged over 5 percent,[1] and rapid population growth holds the promise of a large emerging consumer market as well as an unprecedented labor force that—if leveraged—can provide significant growth opportunities.[2] Moreover, the expansion of innovative business models, such as mobile technology services, is indicative of the continent's growth potential. However, Africa continues to be largely agrarian, with an economy that is underpinned by resource-driven growth and a large and expanding informal sector.[3] Indeed, more than a decade of consistently high growth rates have not yet trickled down to significant parts of the population: nearly one out of two Africans continue to live in extreme poverty,[4] and income inequality in the region remains among the highest in the world. What is more, across sectors—from agriculture to manufacturing and services—productivity levels remain low. It will be necessary to raise productivity across all sectors of the economy to achieve higher growth and create quality employment, and turn this progress into sustainable and inclusive growth.

The optimal path of development, however, remains uncertain. For decades, the typical path out of poverty was increased agricultural productivity followed by growth in manufacturing. Yet data explored in Chapter 1.1, Assessing Africa's Competitiveness, suggest that Africa's *structural transformation*—defined as the reallocation of economic activity away from the least-productive sectors of the economy to more-productive ones—is proceeding along a very different trajectory. Across the region, agriculture's share of GDP is declining and manufacturing is stagnating, while the service sector, in contrast, is increasing as a share of total employment and GDP, providing critical inputs to boost other economic activities. To inform this debate, this year's *Report* looks at structural transformation in Africa and the region's challenges and opportunities for unlocking new and more-productive activities.

This evolution in Africa's economic structure is happening in parallel with Africa's unique and evolving demographic dynamics: 450 million workers are projected to join the workforce between 2010 and 2035.[5] This presents an unprecedented opportunity in terms of a "demographic dividend," but at the same time it presents challenges because successfully meeting the imperative of job creation becomes even more crucial. Africa's transformation therefore entails the double challenge of productivity growth and massive job creation. What is more, demographic developments will require important and urgent public investments in economic centers and secondary cities: despite the continent's high population growth and rapid urbanization, Africans living in the countryside will remain the majority until the 2030s, and their number will continue to grow well after 2050.[6] This development, which is somewhat unusual compared with other regions, will also require policies that bridge the urban-rural divide while managing Africa's transformation.

Earlier editions of this biennial *Africa Competitiveness Report* have addressed distinct but related themes in considering the most effective ways to boost the continent's competitiveness. The 2011 *Report* examined Africa's human resources and services industries and looked at the efforts required to improve higher education, strengthen women's entrepreneurship, and capitalize on the emerging Travel & Tourism industry. The 2013 *Report* focused on the potential of regional integration as a stepping stone for building economies of scale, increasing competition, and fostering economic diversification. It also discussed constraints and the policy environment required to develop the necessary infrastructure for connecting Africa's markets in a sustainable way. This year's *Report* leverages the expertise and research that has been carried out by its partner organizations—the African Development Bank, the Organisation for Economic Co-operation and Development, the World Bank, and the World Economic Forum—to explore how best to transform Africa's economies. It is based on the assumption that increased competitiveness—by definition—is a critical driver for structural transformation and broad-based growth. By *competitiveness* we mean all of the factors, institutions, and policies that determine a country's level of productivity. Productivity, in turn, sets the sustainable level and path of prosperity that a country can achieve.

Against this backdrop, the *Report* begins with an overview of the region's current economic structure and moves on to outline the competitiveness challenges it now faces.

ASSESSING THE COMPETITIVENESS OF AFRICAN COUNTRIES

Chapter 1.1 of the *Report* analyzes competitiveness across the continent and looks at a broad range of factors that affect productivity in African countries. The Global Competitiveness Index (GCI) identifies the majority of African countries as being among the least competitive in the world and indicates that, despite 15 years of strong growth, Africa's overall competitiveness has remained stagnant.

In many respects, Africa's competitiveness challenges are the same ones that this *Report* has been highlighting since it was first published in 1998: these are weak institutions, a persistent infrastructure deficit (as explored in detail in the 2013 *Report*), and low levels of health and education that risk leaving the continent's vast human potential untapped. This sense of déjà vu is of concern because the majority of African economies find themselves in a development stage where these basic requirements will be necessary to establish a solid basis for higher-value-added sources of growth. And despite Africa's mobile revolution, the region as a whole is not keeping up with the rapid pace of technological advancements elsewhere. Only one-fifth of the region's population is using the Internet, compared with 30 percent in Southeast Asia, 40 percent in Latin America and the Caribbean, and 80 percent in Organisation for Economic Co-operation and Development (OECD) economies. Even in instances where the Internet is being used, its potential is not being fully harnessed. At the same time, however, much progress has been made and the region is showing a more solid record of macroeconomic performance than it did a decade ago. Despite prevailing governance challenges, it is more stable and better governed now than it has been at any other time since independence, and it classifies as the world's most rapidly reforming region when it comes to its business environment.[7] In spite of these positive trends, Chapter 1.1 shows wide regional disparities in competitiveness across the continent, as captured in findings such as the placement of Mauritius at 39th while Guinea, at 144th, is the lowest-ranked country out of all assessed. The regional divergence is particularly pronounced in the areas of infrastructure and health and primary education as well as financial and macroeconomic performance.

Recognizing the continent's heterogeneity, the chapter explores in greater detail the main competitiveness challenges by classifying Africa's economies into oil and gas exporters, middle-income economies, non-fragile low-income economies, and fragile economies. The data show that oil- and gas-exporting economies perform as poorly as fragile economies in 8 out of the 12 competitiveness pillars, calling into question whether these countries' high economic growth rates are sustainable. The chapter further observes that non-fragile low-income economies do particularly well in the areas of financial, goods, and labor market efficiency. Middle-income economies, while generally faring better, face many of the same competitiveness challenges as their peers, such as an infrastructure deficit and low levels of education. The chapter also looks at "Africa Then and Now." In the last decade, middle-income economies and oil-exporting economies overall register a mixed picture when it comes to improvements in competitiveness, while the majority of fragile and low-income economies register slight improvements. Among all economies, Mauritius has made the biggest strides, superseding South Africa for the first time in 2013.

TRANSFORMING AFRICA'S ECONOMIES

Although past experiences in other regions have emphasized industrialization as the driving force of economic development—as seen, for example, in East and Southeast Asia since the 1960s—data for Africa tell us a different story: agriculture continues to employ over half of the continent's population, but its share of value-added has been falling over the past four decades, dropping from 34 percent in 1965 to just over 20 percent in 2010. Rather than being replaced by an expanding manufacturing sector, as the experiences in other regions would predict, this decline has largely been offset by an expanding service sector, accounting for over 50 percent of GDP—a figure that is close to the share seen in the Association of Southeast Asian Nations. This shift took place largely in the market service sector—most notably in retail, distribution, and other trade services—employing 25 percent of the working-age population.[8] However, labor productivity in both the agriculture sector and the trade service sector—where most agriculture employment has shifted—remains low and should be enhanced. Greater productivity in agriculture and trade services would not only boost economic growth but also support structural transformation by allowing factors of production to move away from the agricultural to the service sector.

The dichotomy of a largely agrarian society underperforming in the basic drivers of competitiveness on one hand, alongside the rapidly growing role of the service sector coupled with a rapidly reforming business environment on the other, raises a question about the sustainability of Africa's path of development, particularly whether development toward a rising service sector that bypasses manufacturing is viable. A fast-growing but generally low-productivity service sector does not offer strong prospects for increased competitiveness.

INCREASING AGRICULTURAL COMPETITIVENESS

Chapter 2.1, Transforming Africa's Agriculture to Improve Competitiveness, begins the discussion of Africa's transformation by looking at the agriculture sector. In spite of its vast expanse of arable land, Africa has the highest incidence of undernourishment of its population

worldwide, and the continent imports a large quantity of food staples. The agriculture sector's low productivity, largely characterized by small-scale subsistence production, has not benefited from the green revolution that aided much of the rest of the developing world.[9] The poor performance of the agriculture sector poses a major impediment to Africa's economic development and structural transformation by preventing labor from moving out of that sector into manufacturing and services. Chapter 2.1, therefore, looks at possible ways to unlock the sector's enormous potential and make it more competitive to support the continent's structural transformation process as well as to decrease food insecurity and meaningfully contribute to poverty reduction. The chapter argues that—on a higher level—urgent attention should be given to the development of agricultural value chains integration in order to boost African farmers' benefits and create an agribusiness industry. Value chains would support the recent growth in large commercial agribusinesses (see also Box 1; see Chapter 2.3 for a discussion of global value chains, or GVCs). At the same time, to ensure inclusiveness of the sector, links to small-scale farmers—including through outgrower schemes where smallholder farmers supply products for a larger firm under pre-agreed conditions—should be encouraged. Small-scale farmers, linked to large-scale agribusinesses or organized in groups, would diversify their production into higher-value crops, adopt better production processes, and earn higher output prices. In this way regional value chains can be used as a stepping stone for African farmers to improve their production, enhance marketing processes, and ultimately meet the quality standards of world markets. In addition, a sound regulatory and institutional system, financial instruments suited to the agricultural production cycle, and increased spending in research are vital to encouraging the development and adoption of high-yield crops, including genetically modified ones. All these elements are particularly vital at the national level, as much more effort is needed to meet the 10 percent of national spending on agriculture that was agreed under the terms of the Comprehensive Africa Agriculture Development Programme established by the New Partnership for Africa's Development. Furthermore, land reform will be particularly crucial for increasing access to land, including by women, which is necessary to decrease inequality in the distribution of land and to ensure security of tenure.

THE ROLE OF SERVICES

The increasingly important role of services in economies across Africa is challenging the conventional understanding of the path of structural transformation. Chapter 2.2, Valuing Trade in Services in Africa, looks at new trade statistics for countries in Africa that take into account value-added data and show that service exports are much more significant for Africa than previously thought. Services contribute to exports through two channels: as direct service exports and as inputs into exports from other sectors. By disaggregating value-added data, the importance of services as inputs into other export activities becomes much more evident, especially their contribution as inputs into exports of primary goods and manufacturing. Services, for example, account for 83 percent of the final price of Ethiopian roses in the Netherlands. Distribution and trade services (including hotels and restaurants) and other business services (including ICT and professional services), in particular, tend to have stronger links to other export sectors when measured in value-added. Typically viewed as an area of comparative advantage for more-advanced economies, these trends give the service sector a more prominent role in the development agenda of Africa. A growing service sector can also help improve gender equity in Africa, because the barriers to female employment are lower for services than for manufacturing. Yet service exports from Africa remain a small portion of overall exports and numerous impediments to trade in services exist. To maximize potential gains, countries in Africa need to reduce direct barriers to trade in services as well as indirect ones that result from poor regulation. As countries continue to seize opportunities in the sector, policymakers and economists need to question old assumptions and consider new implications. The role of services in structural transformation must be reexamined, and the link between a growing service sector and poverty reduction in Africa—and whether this a viable export sector for Africa—must be determined.

TAPPING THE POTENTIAL OF GLOBAL VALUE CHAINS (GVCS)

Although not new, cross-border value chains have gained a global dimension through their expansion toward emerging and developing countries (see Box 1). Firms increasingly operate in a context of internationally

Box 1: Global value chains: A definition and method of measurement

Global value chains (GVCs) are the interconnected production process that goods and services undergo from conception and design through production, marketing, and distribution.[1] The primary measures of a country's participation in GVC trade are *backward integration,* which occurs when a country sources foreign inputs for its export production; and *forward integration,* which occurs when a country provides inputs for a foreign country's export production. Combining backward and forward integration gives a measure of a country's total GVC participation.

Note

1 Gereffi and Fernandez-Stark 2011.

fragmented production chains. Through GVCs, trade is facilitated by flows of goods, services, investment, and knowledge necessary to produce products in multiple locations—giving rise to what has been called the *trade-investment-service-intellectual property (IP) nexus.*[10] The importance of this nexus for international trade and development has motivated new research efforts that, notably, assess its influence on the links between trade, competitiveness, and development. Recent data suggest that participation in GVCs is associated with economic benefits particularly for developing economies, where value-added trade contributes 28 percent to countries' GDP on average—considerably higher than the contribution of 18 percent in developed economies. Moreover, economies with the fastest-growing GVC participation have GDP per capita growth rates some 2 percent above the average.[11] For Africa, GVCs offer the opportunity to link into a specific part of the production chain based on a country's or sector's comparative advantage rather than providing the fully fledged production chain itself.

In view of the economic opportunities associated with GVCs, Chapter 2.3, Tapping the Potential of Global Value Chains for Africa, explores ways Africa could tap the potential of GVCs in the form of gains associated with enhanced productivity, skills development, and export diversification. As discussed in the 2013 *Africa Competitiveness Report,* Africa's share of global trade remains very small, at around 2 percent of world trade, and exports overall remain highly focused on commodities.[12] This important exposure to commodities renders the region vulnerable to fluctuations in commodity prices, as evidenced by their current fall, possibly also jeopardizing governments' fiscal stability. Export diversification—both in goods and services and also across geographies—therefore remains essential to raising Africa's resilience to external shocks and moving up the value chain. The region's participation in GVCs remains a small (albeit growing) share at 2.2 percent of total GVC trade, of which two-thirds is determined by forward integration related to the continent's rich endowments in natural resources and low levels of industrialization. Further development of GVCs, in particular backward linkages, will depend on the implementation of a broad set of policies with a particular focus on trade facilitation, investment policy, and improved transport infrastructure and access to finance. These policies will have most impact on African small- and medium-sized enterprises, which face the greatest hurdles to GVC integration and whose participation is especially hindered by limited access to finance. Moreover, the chapter argues that accelerating the harmonization and implementation of regional trade agreements should help African firms, in particular small- and medium-sized enterprises, develop a greater capacity to compete on a global scale. The chapter warns, however, that gains from GVC participation will vary with economic sector and structural factors such as the country's level of development and market size. Furthermore, additional data and empirical studies will be needed to fully assess the extent of GVC integration in Africa and its links to development outcomes such as employment.

As the number of consumers in Africa grows, nontraditional crops—such as fruits, vegetables, and fish—that are buyer-driven value chains and where upgrading can occur as retailers seek "ready-to-sell" products that are already packaged for the final market are a particularly promising GVC for Africa.[13] Regional value chains can also provide an important step and learning experience for integrating into global agricultural GVCs, so smallholder farmers especially can learn to meet the high-quality standards for the world market, as noted above.

COMPREHENSIVE POLICY MIX NEEDED

As each of the chapters explores ways, opportunities, and barriers to transforming Africa's economies, it has become clear that the policy space to unleash the continent's tremendous potential is often overlapping. On a higher level, these are efforts to close the infrastructure deficit and leverage the region's human resource potential. At the same time, identifying and implementing a strong regulatory framework within and across sectors as well as reducing barriers to trade will be important. Jointly, the following levers will be the most critical to address many of the challenges explored in the *Report:*

- **Developing transport and ICT infrastructure:** Chapter 2.1 lists inadequate infrastructure—including unreliable energy, an ineffective urban-rural road network, and inefficient ports—as main impediments to better performance of the agriculture sector. Increased spending on rural infrastructure (irrigation, roads, and energy) will help reduce the continent's dependence on rain-fed agriculture by supporting intensified irrigation, increasing resilience to climate change, and improving access to markets for intermediate inputs and agricultural produce. The availability and quality of infrastructure is also an important determinant to unlock (intra-) African trade in general and participation in regional and GVCs specifically (Chapter 2.3). Likewise, developing ICT infrastructure cuts across all sectors: ICTs can streamline production knowledge and market information flows between stakeholders in the agriculture sector by, for example, (1) facilitating the process of land registration and access to credit; (2) ensuring more efficient land use and water management; (3) obtaining weather, crop, and market information;[14] and (4) allowing food and animals to be traced. ICTs are also critical to facilitate the provision of services within countries and across national borders (Chapter 2.2).

- **Increasing the quality of education:** Most importantly, increasing levels and quality of education will be essential to raising productivity across all sectors. Chapter 1.1 shows that, although the continent has made considerable progress in improving access to primary education, enrollment rates in higher education—especially in tertiary institutions—remain disappointingly low. Increasing levels and quality of education, including enhancing skills in biotechnology as a way to increase agricultural productivity, will be important to raising productivity in the agriculture sector (Chapter 2.1). Empirical evidence shows that tertiary education enrollment is an important determinant of services in developing countries, primarily via skills and entrepreneurial activity (Chapter 2.2). Indeed, a highly educated workforce is needed to develop high-value-added service exports such as finance, communication, and business services. With regard to GVCs, improving the quality of education will help increase the attractiveness of African producers and ensure technology and knowledge transfers and spillovers in order for the continent to upgrade along GVCs.
- **Reducing barriers to trade:** The reduction of barriers remains a critical component for increasing Africa's competitiveness. Beyond the poor quality of physical infrastructure and high tariffs, estimates shows that 60 to 90 percent of trade costs relate to non-tariff measures (Chapter 2.3). In addition, delays and unpredictability are often a strong impediment to the region's participation in GVCs because many industries rely on just-in-time production and depend on the reliability of the supply of intermediate inputs. Chapter 2.1 provides an example, based on agriculture value chains, where reducing shipping time and costs would significantly reduce losses in perishable food shipping. Key recommendations noted in the last edition of the *Africa Competitiveness Report,* therefore, remain critical for Africa's participation in GVCs. Essential among these are simplifying import-export procedures—including streamlining border administration to reduce the cost of procedures and delays during clearance, and improving the coordination of the clearance process.
- **Strengthening the regulatory framework:** Chapter 2.1 discusses land access based on customary rights that disadvantage women, unequal distribution, and the absence of land markets that are preventing the most efficient farmers from the opportunity to scale up their production. Insecure land tenure also limits farmers' ability to use their land as collateral and thus to access credit markets. In the service sector, key components—such as telecommunications, professional services, and transport services—are relatively restricted in many countries. For example, restrictive policies and disjointed regional regulations have caused a fragmented market in the professional services industry in East Africa, which is further aggravated by strict immigration policies in some countries in the region. Yet lifting restrictiveness alone is not enough without complementary regulatory reform (Chapter 2.2). Similarly, the absence of competition and inefficient regulation in the freight logistics sector add to high transportation costs that pose an important barrier to increased trade and GVC participation, as explored in Chapter 2.3.

Efforts to address all these challenges are underway in some parts of the continent, but in order to truly transform Africa's economies, these efforts must be scaled up and accelerated.

Following the discussions above, the final section of the *Report* provides detailed competitiveness profiles for the 40 African countries included in the World Economic Forum's Global Competitiveness Index that allow for a detailed assessment country-specific context and unique challenges. These profiles present the detailed rankings that underlie the broader global competitiveness rankings.

NOTES

1 Authors' calculation, based on the International Monetary Fund's *World Economic Outlook* (IMF 2015).

2 Growth opportunities are contingent on several factors, such as the critically important issue of the employment of the expanding workforce. Successfully extended employment opportunities would lead to greater economic output and labor income per household, and among other aspects, would increase per capita investments in health, education, and infrastructure, and a move away from the informal to the formal sector. For a complete discussion, see also IMF 2015, Chapter 2.

3 Only one in two young Africans participates in wage-earning jobs; see World Bank 2014a.

4 This figure is 46.8 percent of the population measured against a threshold of US$1.25 dollar a day. See http://povertydata.worldbank.org/poverty/region/SSA for details.

5 IMF 2015.

6 UNESA 2015.

7 World Bank 2014b.

8 These numbers refer to 2010 and cover 11 sub-Saharan and 2 North African economies for which data are available in the GGDC Africa Sector Database (Timmer et al. 2014). The sub-Saharan Africa sample includes Botswana, Ethiopia, Ghana, Kenya, Malawi (1966 data have been used for 1965), Mauritius (1970 for 1965), Nigeria, Senegal (1970 for 1965), South Africa, Tanzania, and Zambia. The North Africa sample includes Egypt and Morocco.

9 The *green revolution* refers to the dramatic rise in the productivity of global agriculture in other parts of the world as a result of chemical advances and the development of high-yield crops, which made possible the production of much larger quantities of food and feed the growing population.

10 Baldwin 2011, 2012. See also Feenstra 2010; Grossman and Rossi-Hansberg 2008; Helpman 2011; and Jones 2000 for an analysis of defragmentation, trade in tasks, and offshoring.

11 UNCTAD 2013.

12 Fuels and mining products account for over half of sub-Saharan exports, compared with only about 10 percent for developing Asia and advanced economies.

13 Traditional cash-crops (such as coffee, cotton, cocoa, sugar, tea, and tobacco) tend to be producer-driven chains with limited scope for functional upgrading, given the tight control by lead producers with higher-value activities—such as processing and manufacturing—that are carried out outside Africa.

14 The Esoko Ghana commodity exchange publishes a weekly cash price index of commodities. Esoko has expanded in a dozen countries and provides price and knowledge data to farmers via mobile text messages.

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Part 1

Assessing Africa's Competitiveness

CHAPTER 1.1

Assessing Africa's Competitiveness: Opportunities and Challenges to Transforming Africa's Economies

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The 2015 *Africa Competitiveness Report* comes out as Africa is growing at a brisk pace, surpassed only by emerging and developing Asia. Indeed, compared with the economic turmoil that affected advanced economies in recent years, economic growth in the African region has provided something of a silver lining. Growth is now returning in some advanced economies—notably the United States—although it remains anemic in much of Europe, Japan, and other advanced economies. In contrast, many sub-Saharan economies continue to register growth rates of over 5 percent on average. Yet, despite maintaining such healthy growth rates for over a decade, Africa's levels of productivity are low and overall competitiveness has remained stagnant—a concern voiced since the first *Africa Competitiveness Report* came out in 1998.

Low levels of competitiveness are concerning for two reasons. In the short run, they render the region's economies vulnerable to important economic downside shocks; such shocks range from a slowdown in emerging markets to repercussions of the four-year low in oil prices and lower prices for other commodities for the region's resource-rich economies. In the medium run, they call into question whether the continent will be able to leverage its demographic dividend: Africa's population of over 1 billion people represents a large emerging consumer market and labor force that provides significant growth opportunities.[1] In this context, making Africa's economies more competitive will be critical. This year's *Report* therefore explores whether structural transformations critical for driving competitiveness are being implemented. It also asks the question: are policymakers putting the fundamentals into place to maintain the high growth trajectory needed to ensure increases in living standards?

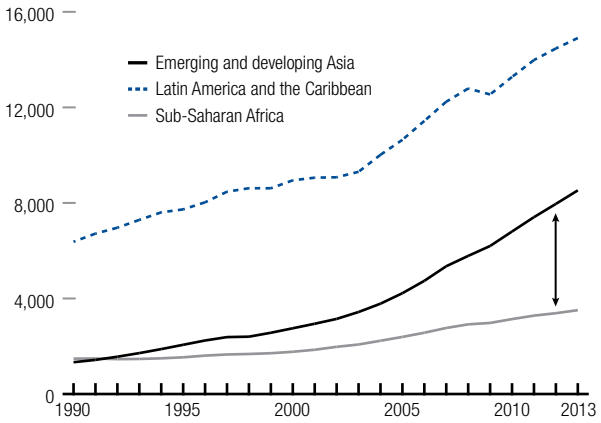
Following a brief analysis of the current structure of the region's economies, this chapter will assess in detail the competitiveness landscape on the continent and in the individual countries covered by our analysis. By highlighting the strengths and weaknesses of the region and comparing individual African economies in a regional and global context, policymakers, business leaders, and other stakeholders are offered an important tool for formulating competitiveness-enhancing policies. This approach lays the groundwork for a more in-depth analysis of structural transformation in the chapters to follow.

AFRICA'S COMPETITIVENESS CHALLENGE

Much talk has centered on whether or not recent economic growth rates in Africa are sustainable in the medium to long run. The analysis undertaken in this *Report* can help inform this debate because the levels

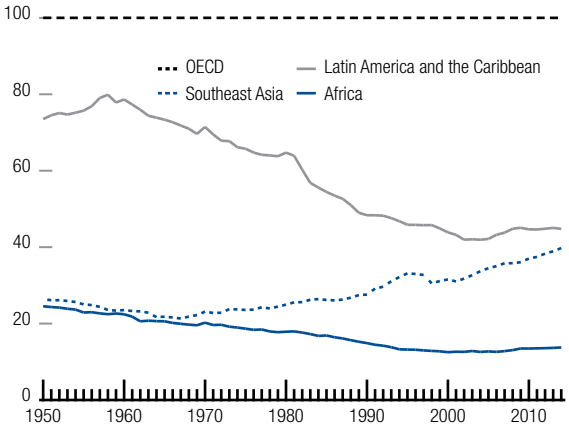
The authors would also like to thank Charlotte Karagueuzian and Anna von Wachenfelt (AfDB Consultants) for their excellent research assistance.

Figure 1: Prosperity and economic growth, 1990–2013
GDP based on purchasing power parity (PPP) per capita, current int'l dollars



Source: IMF, 2014c.

Figure 2: Africa's falling productivity
Labor productivity per person employed in 1990 US$ (converted at Geary Khamis PPPs)



Source: The Conference Board *Total Economy Database*™, forthcoming, June 2015, http://www.conference-board.org/data/economydatabase.

Note: **Southeast Asia** includes Cambodia, Indonesia, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam; **Africa** includes Algeria, Angola, Burkina Faso, Cameroon, Côte d'Ivoire, the Democratic Republic of Congo, Egypt, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mali, Morocco, Mozambique, Niger, Nigeria, Senegal, South Africa, Sudan, Tanzania, Tunisia, Uganda, Zambia, and Zimbabwe; **Latin America and the Caribbean** includes Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Jamaica, Mexico, Peru, St. Lucia, Trinidad and Tobago, Uruguay, and Venezuela; **OECD countries** include Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Rep., Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

of competitiveness of African economies are important determinants of productivity. In other words, more competitive African economies will tend to produce higher levels of prosperity (see Figure 1).

Structural transformation

As widely recognized, the past decade has heralded a new era of a reinvigorated Africa on the back of high average growth rates. The most critical question observers and analysts have since debated is whether the continent will be able to continue growing briskly and ensure rising living standards. The opportunities arising from Africa's rapid population growth—most notably a large consumer market and a young and dynamic workforce—stand in stark contrast to the present structures of economies that are characterized to a large extent by primary product dependency, insufficient education (both in quantitative and qualitative terms), and consistently low rankings in overall human development.[2] For some economies—as some observers suggest[3]—recent growth has been the result of high commodity prices, which would mean slower growth during the current downturn in commodity prices. Other observers reference sounder macroeconomic policies and a more efficient business environment as decisive underlying drivers of African growth performance, which would point to a more sustainable evolution.[4] In addition, Africa is far more stable and better governed now than at any other time since independence. Although there is not yet agreement on where the continent's economy is headed, the debate highlights the diversity of a region with elements that range from diversified middle-income economies such as South Africa and Mauritius to fragile ones such as Burundi and resource-dependent ones such as Chad and Angola.

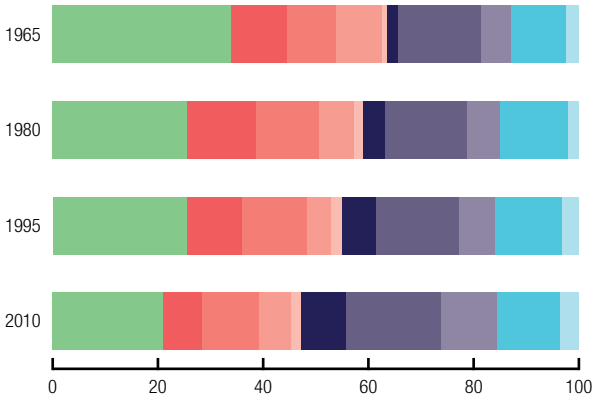
Figure 2 compares labor productivity—as a proxy for overall productivity—in Africa with that of other regions for the past 50 years. Although Africa and Southeast Asia started from similar, very low levels, labor in Southeast Asia has since become more productive, effectively converging toward the Organisation for Economic Co-operation and Development (OECD) average. In contrast, as Figure 2 shows, not only has Africa been trailing Southeast Asia, but in fact the productivity gap between the two regions deepened between 1960 and 2005. However, the slight recovery in productivity seen since the early 2000s provides a small bright spot, indicating that economic growth is increasingly driven by rising productivity in some African countries. Data from the Groningen Growth and Development Centre (GGDC) 10-sector database,[5] further explored below, suggest that these productivity gains occurred across many sectors, including agriculture, but were especially large in the utilities, transport, and telecommunication services.

In this context, *structural transformation*—here defined as the reallocation of economic activity away from the least productive sectors of the economy to more productive ones—stands as a fundamental driver of economic development.[6] Structural transformation contains two elements: the rise of new, more productive activities and the movement of resources from traditional activities to more sophisticated ones.[7] Is there evidence of reallocation of labor across sectors in Africa?

Agriculture continues to play an important role in terms of value-added on the continent, yet its decline over the past four decades has largely been offset by the larger role of the service sector while manufacturing has been stalling.[8] Figure 3 shows the composition of value-added for selected economies from sub-Saharan Africa, North Africa (Egypt and

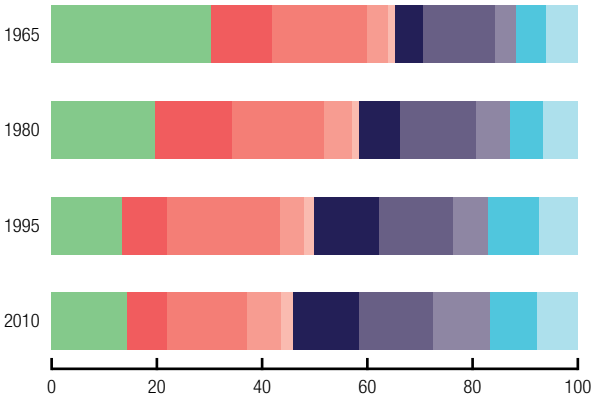
Figure 3: Sectoral value-added by regions, 1965–2010 (% total value-added)

3a: Sub-Saharan Africa



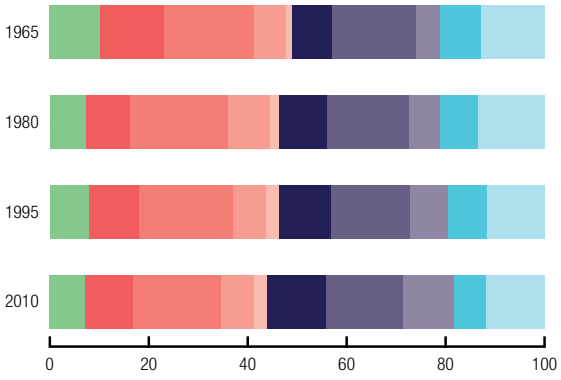
Note: The **sub-Saharan Africa** sample includes Botswana, Ethiopia, Ghana, Kenya, Malawi (1966 data have been used for 1965), Mauritius (1970 for 1965), Nigeria, Senegal (1970 for 1965), South Africa, Tanzania, and Zambia.

3b: North Africa



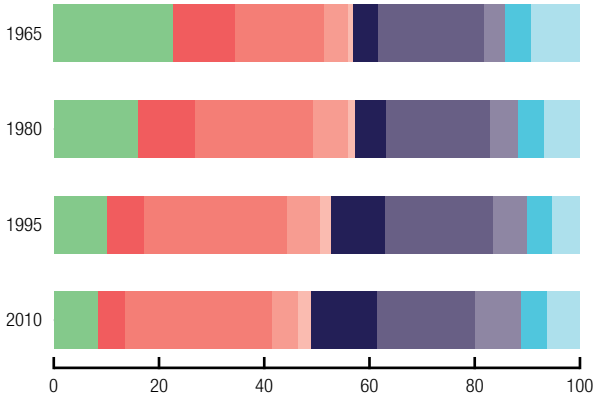
Note: The **North Africa** sample includes Egypt and Morocco.

3c: Latin America



Note: The **Latin America** sample includes Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru, and Venezuela.

3d: ASEAN



Note: The **ASEAN** sample includes Indonesia, Malaysia (1970 data for 1965), the Philippines (1971 for 1965), Singapore, and Thailand.

Agriculture
- Agriculture

Industry
- Mining
- Manufacturing
- Construction
- Utilities

Market services
- Business services
- Trade services
- Transport and communication services

Non-market services
- Government services
- Personal services

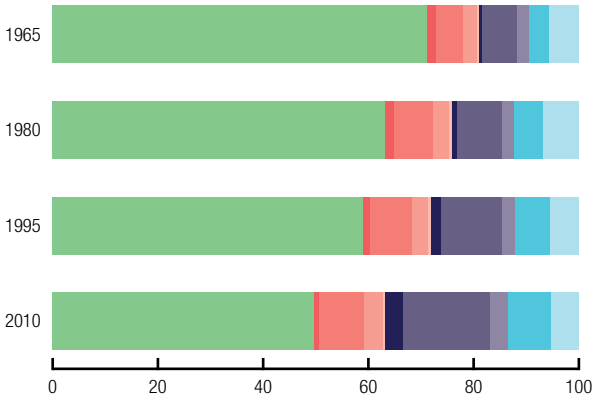
Source: Timmer et al., 2014.

Note: The 10 economic sectors are grouped following the ISIC Rev. 3.1 classification as follows: agriculture (ISIC Rev. 3.1: A,B); mining (C); manufacturing (D); construction (F); utilities (E); business services (J,K); trade services (G,H); transport and communication services (I); government services (L,M,N); personal services (O,P). For Bolivia, Chile, Colombia, Peru, Venezuela, and Singapore, data on personal services (O,P) also include data on government services (L,M,N).

Morocco), and two comparator regions—the Association of Southeast Asian Nations (ASEAN) and Latin America. The GGDC 10 sector database allows for a more granular analysis of value-added.[9] For sub-Saharan Africa, the data show that although the agricultural value-added share in GDP has significantly decreased in the past 40 years (from close to 34 percent in 1965 down to 21 percent in 2010), the share of the service sector has experienced an increase and in 2010 accounted for close to 60 percent of GDP of the 11 economies in the sample, most notably in the areas of trade (including hotels and restaurants, wholesale and retail), transport and communications, and business services. Today the share of services in the economy in sub-Saharan countries is similar to the services share in ASEAN countries, although market services—in particular business services—are playing a smaller role. For North Africa, the data show a similar picture: the share of value-added in agriculture decreased by half over the past 40 years, from 30 to 15 percent, while the share of the service sector rose to 55 percent in 2010 from 35 percent four decades ago. Similarly, we see a fall in manufacturing value-added, which has dropped from 18 percent in 1965 to 15 percent in 2010. What differs

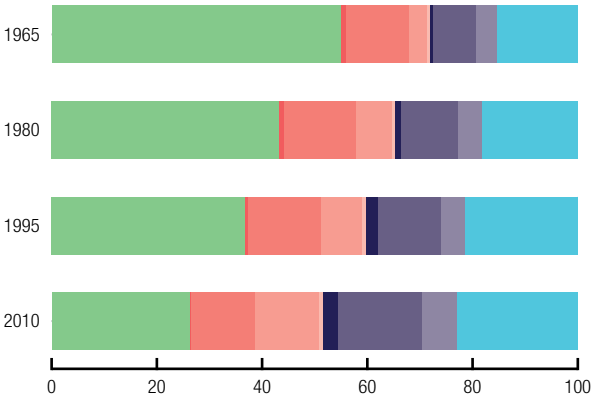
Figure 4: Employment share, 1965–2010 (% total employment)

4a: Sub-Saharan Africa



Note: The **sub-Saharan Africa** sample includes Botswana, Ethiopia, Ghana, Kenya (1969 data have been used for 1965), Malawi (1966 for 1965), Mauritius (1970 for 1965), Nigeria, Senegal (1970 for 1965), South Africa, Tanzania, and Zambia.

4b: North Africa



Note: The **North Africa** sample includes Egypt and Morocco.

Source: Timmer et al., 2014.

Note: The 10 economic sectors are grouped following the ISIC Rev. 3.1 classification as follows: agriculture (ISIC Rev. 3.1: A,B); mining (C); manufacturing (D); construction (F); utilities (E); business services (J,K); trade services (G,H); transport and communication services (I); government services (L,M,N); personal services (O,P). For Zambia, data on personal services (O,P) also include data on government services (L,M,N). For Egypt and Morocco, data on government services (L,M,N) also include personal services (O,P).

in North Africa from sub-Saharan Africa is that business services, in terms of value-added, are close to those in the ASEAN economies. Chapter 2.2 further discusses the role of service exports in Africa and their forward and backward linkages to the domestic economy.

The data also show the well-documented stalling of manufacturing in sub-Saharan Africa compared with developments in the ASEAN economies. Currently, manufacturing accounts for just 11 percent of overall value-added in the sub-Saharan Africa region—a share that has remained stable over the past decades—much lower than the close to 30 percent of the ASEAN economies. But where has employment shifted?

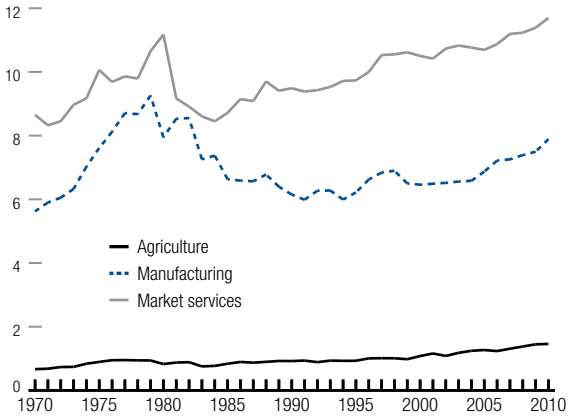
About half of employment in sub-Saharan Africa continues to take place in the agriculture sector, although labor has primarily been moving out of agriculture into the service sector, "bypassing" the manufacturing sector. Figure 4 shows the employment shares for 11 sub-Saharan economies and two North African economies across agriculture, industry, and services. The more disaggregated level allows for a more comprehensive analysis of structural transformation.

There are a few interesting observations: in 2010, agriculture still accounted for half of the employment, on average, despite a declining share both in employment and value-added (see Chapter 2.1 for an in-depth discussion of the agriculture sector). In terms of labor mobility, between 1965 and 1980 the share of value-added in manufacturing increased from 9.3 to 12.1 percent and the corresponding employment share from 4.8 to 7.2 percent. These data indicate that, after their independence, African economies developed and workers moved out of agriculture to be absorbed in manufacturing. For the following decade, however, industrialization stalled. The charts of Figures 3 and 4 illustrate what is commonly known as the de-industrializing phase between 1995 and 2010, which is characterized by a stable employment share but a falling share of manufacturing value-added. Indeed, the data suggest that during the same years workers have shifted away from both agriculture and manufacturing into the market service sector—most notably retail, distribution, and other trade services—where the employment share increased by 50 percent. Furthermore, the figure indicates the fact that the mining sector provides only a negligible fraction of employment. A similar pattern can be observed in the sample of North African economies, Morocco and Egypt.

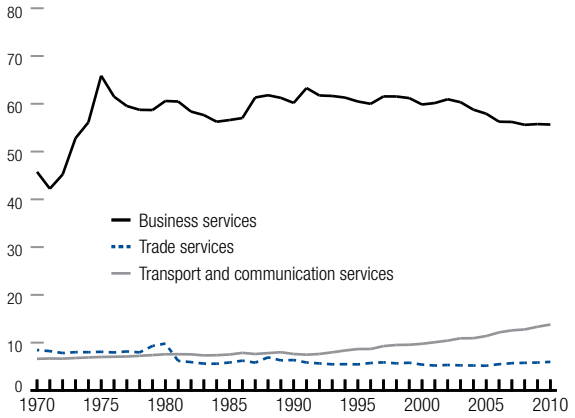
However, labor productivity both in agriculture and trade service sectors—where most employment has shifted—remains low. Figure 5a shows the comparatively low (though gradually increasing) labor productivity in the agriculture sector,[10] as further explored in Chapter 2.1. Figure 5b breaks down productivity into different market services. As seen above, trade services has absorbed most of labor in the

Figure 5: Labor productivity per worker, sub-Saharan Africa (US$ thousands, PPP-adjusted, 2005 prices)

5a: Selected sectors



5b: Within market services



Source: de Vries et al., 2013; Timmer et al., 2014.

Notes: The 10 economic sectors are grouped following the ISIC Rev. 3.1 classification as follows: agriculture (ISIC Rev. 3.1: A,B); mining (C); manufacturing (D); construction (F); utilities (E); business services (J,K); trade services (G,H); transport and communication services (I); government services (L,M,N); personal services (O,P).

Agriculture and manufacturing include ISIC Rev. 3.1 categories A and B, and D respectively. Market services correspond to the sum of business services (J,K), trade services (G,H), and transport and communication services (I). Numbers correspond to un-weighted average productivity per employee for the following countries: Botswana, Ethiopia, Ghana, Kenya, Malawi, Mauritius, Nigeria, Senegal, South Africa, Tanzania, and Zambia. For each country, productivity per employee has been calculated using value-added data in 2005 constant local currency sourced from the GGDC 10-sector Database and converted into 2005 constant PPP-adjusted US dollars using 2005 exchange rates and 2005 sector-specific PPPs sourced from the GGDC Africa Sector Database.[11]

past decades, yet it is this sector that also exhibits the lowest and declining labor productivity. This observation is confirmed by Figures 6a–6d, which show the relative productivity levels of different sectors in sub-Saharan Africa—that is, the ratio of specific sectors' labor productivity level to the total economy productivity at five-year intervals, beginning in 1965. Relative productivity appears higher in business services, but it has nonetheless also been declining in this sector. The transport and communication service sectors, together with the construction and utilities sectors, appear to be the main drivers of productivity growth since 2000. Today, together with mining and business services, these sectors boast the highest relative productivities. However, as discussed in Chapter 2.2, transport services on the continent—while presenting a significant percentage of total services exports across most African economies—have only weak links to other domestic sectors' exports.

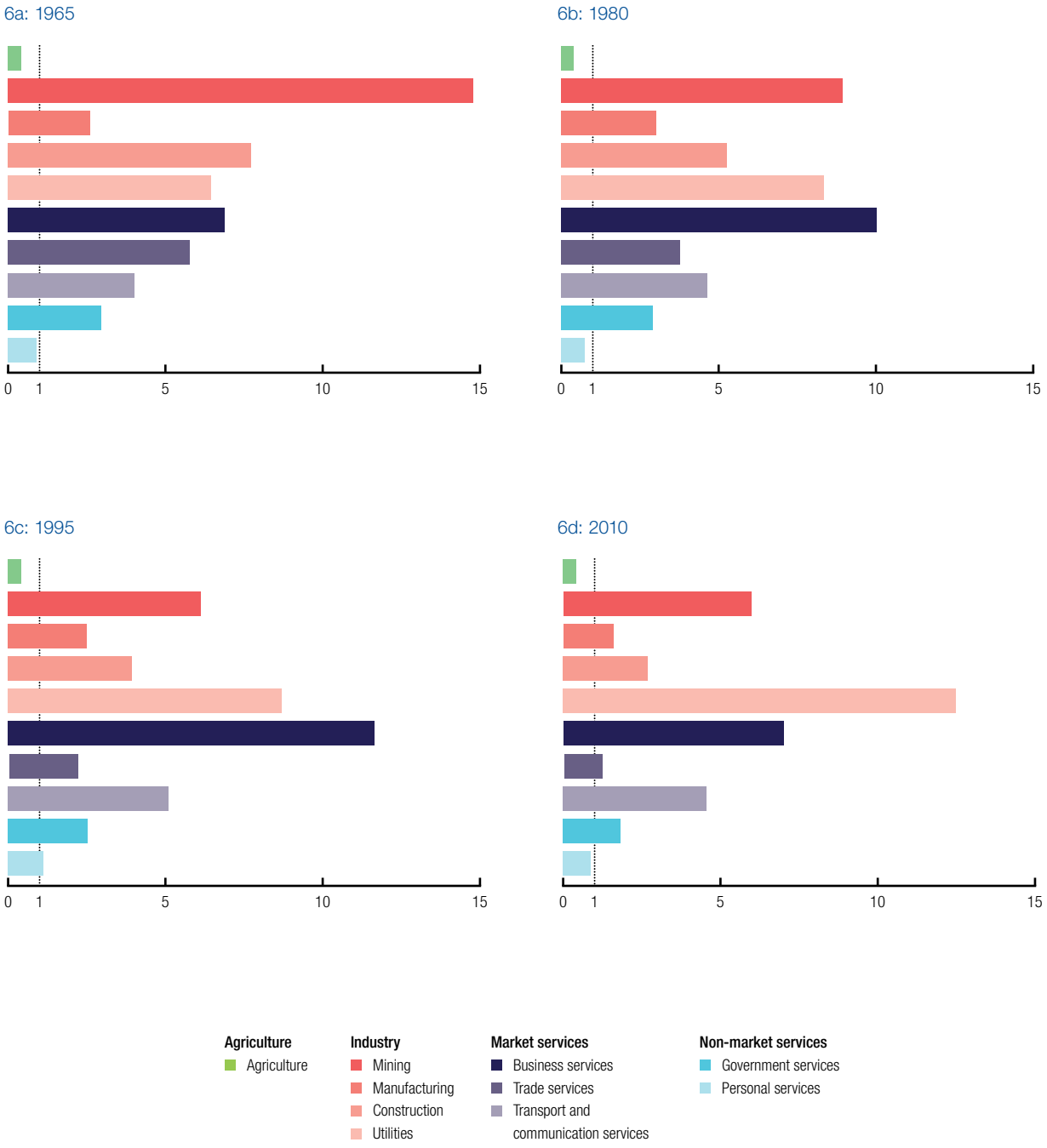
Overall, evidence suggests that although workers shifted from agriculture to services, most of them moved into the least productive jobs in retail and distribution services (including small shops, hotels, and restaurants). For the service sector to be a viable alternative to manufacturing on the path to economic structural change, focus must be on high-productivity jobs in business services.

What does this mean for Africa? The prevailing wisdom has emphasized industrialization as the driving force of economic development. This perception has been corroborated by the rapid industrial-led developments of East and Southeast Asia since the 1960s, among other observations. Some commentators, however, have argued that it may be possible to bypass manufacturing and shift into high-productivity services, citing the example of India.[12] Others doubt that a similar route is viable for Africa in view of the continent's large catch-up requirements and small share of employment in the business services (shown in Figure 4). They point to the fact that even in India manufacturing still represents almost 20 percent of overall value-added, compared with 11 percent in sub-Saharan Africa.[13] Moreover, highly productive business services constitute a significant share of value-added and employment in only a handful of advanced economies. For such services to prosper, countries need long-term investments in widespread and well-developed higher education and training systems. They also need to create an enabling environment for foreign direct investment and technology transfer; both these things together will support building regional value and tap into global value chains (see Chapter 2.3). Going forward, Africa will need broad-based productivity increases to create shared prosperity.

Identifying the drivers of productivity needed to ensure sustained economic growth is the goal of the Global Competitiveness Index (GCI), which defines *competitiveness* as *the set of institutions, policies, and factors that determine the level of productivity of a country.* The current and future levels of productivity, in turn, set the sustainable level of prosperity that can be earned by an economy in the medium to long term.

The measurement of competitiveness is a complex undertaking. To address this complexity, the idea that many different factors matter for competitiveness is reflected by the 12 distinct pillars of the Index:[14] institutions (public and private), infrastructure, the macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size,

Figure 6: Relative sector productivity, sub-Saharan Africa (relative sector productivity, 1 = total economy productivity)



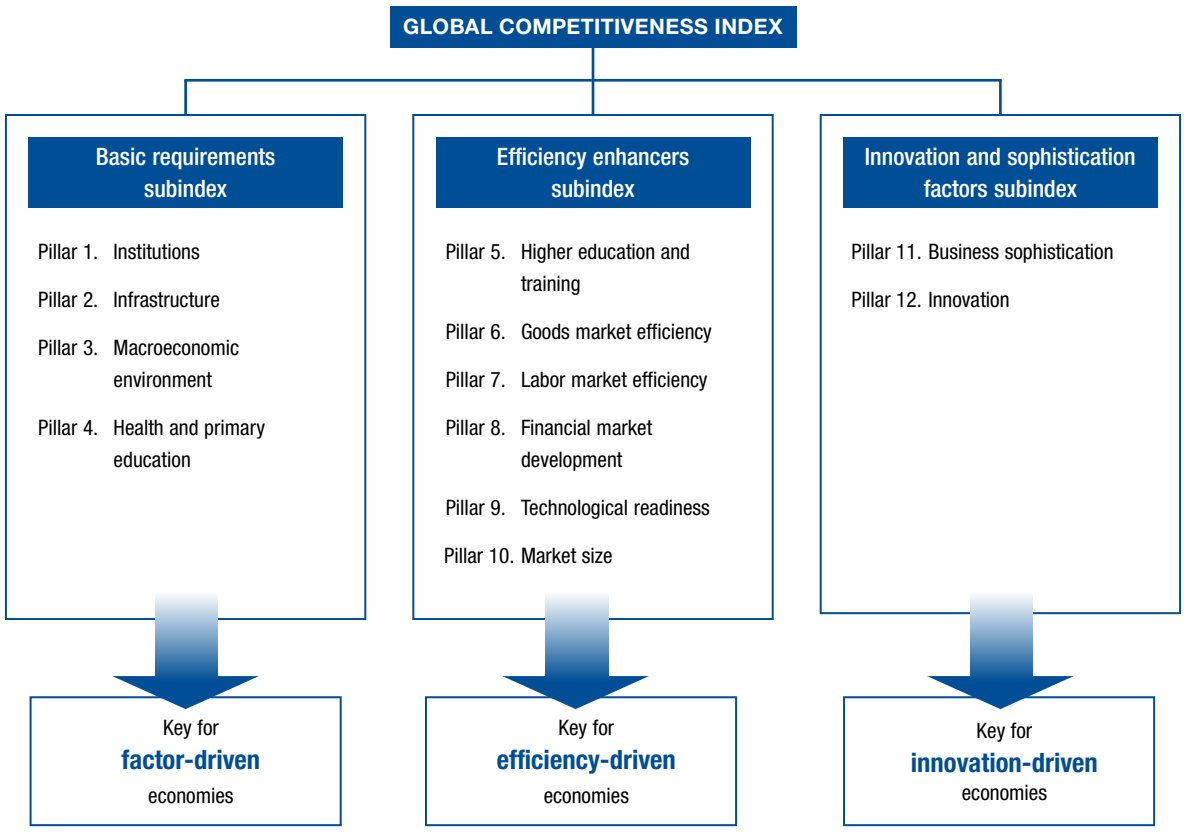
Source: Timmer et al., 2014.

Notes: The 10 economic sectors are grouped following the ISIC Rev. 3.1 classification as follows: agriculture (ISIC Rev. 3.1: A,B), mining (C), manufacturing (D), construction (F), utilities (E), business services (J,K), trade services (G,H), transport and communication services (I), government services (L,M,N), personal services (O,P). The **sub-Saharan Africa** sample includes Botswana, Ethiopia, Ghana, Kenya (1969 data have been used for 1965), Malawi (1966 for 1965), Mauritius (1970 for 1965), Senegal (1970 for 1965), South Africa, Tanzania, and Zambia. Nigeria has been excluded because the country represents a clear outlier as a result of the extremely high productivity in the mining sector.

business sophistication, and innovation (see Figure 7). Improving competitiveness across the 12 GCI pillars would be important for meeting Africa's sustainable growth challenge.

The GCI takes into account the fact that countries around the world are at different stages of economic development and offers guidance on the priority areas for reforms. Specifically, the GCI distinguishes three stages of development. In their first stage, economies are *factor-driven* and their competitiveness is based on their factor endowments—primarily unskilled labor and natural resources. Maintaining competitiveness in this stage depends relatively more on well-functioning public and private institutions (pillar 1), well-developed infrastructure (pillar 2), a stable macroeconomic environment (pillar 3), and a healthy and literate workforce (pillar 4). As wages rise with advancing development, countries move into the second, *efficiency-driven* stage of development, when they must begin to develop more efficient production processes and

Figure 7: The Global Competitiveness Index framework



Source: World Economic Forum, 2014a.

increase product quality. At this stage, competitiveness depends more on higher education and training (pillar 5), an efficient goods and services market (pillar 6), frictionless labor markets (pillar 7), developed financial markets (pillar 8), the ability to make use of latest technological developments (pillar 9), and the size of the domestic and foreign markets available to the country's companies (pillar 10). Finally, as countries move into the third, *innovation-driven* stage, they are able to sustain higher wages and the associated level of productivity only if their businesses are able to compete with new and unique products. At this stage, companies must compete by producing new and different goods or services using the most sophisticated management methods (pillar 11) and innovation (pillar 12).

The GCI classifies most African countries as factor-driven economies (see Table 1).[15] It suggests that a competitiveness agenda for most African countries should prioritize building out the basic fundamentals as their first critical step toward improving productivity and competitiveness. That is, these economies should prioritize providing sound institutions and macroeconomic policies, adequate infrastructure, and the means for ensuring a healthy and educated workforce. This is particularly important for the five countries (Algeria, Angola, Botswana, Gabon, and Libya) that are currently transitioning to the second—efficiency-driven—stage of development, which will require them to move into higher level of efficiencies to maintain growth.[16] Seven other African economies are currently in the efficiency-driven stage of the GCI, where higher education and market efficiencies (goods, labor, and financial) take a more prominent role. Along with Seychelles, Mauritius is currently transitioning to the innovation-driven stage. To increase their competitiveness, these small open economies need to do more to put into place a skilled workforce and a business environment that is supportive for innovation and adaptive to new technologies. It is important to bear in mind that the priorities proposed by the GCI serve as guidelines rather than carved-in-stone policies, and a holistic competitiveness agenda needs to consider the country-specific context and unique challenges.

The next section will assess and analyze the overall competitiveness of Africa. To get a sense of the region's performance in international comparison, it also compares the performance of relevant regions and countries (Southeast Asia, Latin America and the Caribbean, and the BRIC economies).[17]

Country coverage

As in the previous *Africa Competitiveness Report,* this year's *Report* features 38 African economies that were covered by the GCR 2014–2015. The sample has changed slightly from the last report: two countries—Angola and Tunisia—were re-instated in the GCI, and

Table 1: African countries by stage of development

Stage	African countries	Other countries in this stage	Important areas for competitiveness
Stage 1 (factor-driven) GDP per capita < US$2,000	Benin,* Burkina Faso, Burundi, Cameroon, Chad, Côte d'Ivoire, Ethiopia, Gambia, Ghana, Guinea, Kenya, Lesotho, Liberia,* Madagascar, Malawi, Mali, Mauritania, Mozambique, Nigeria, Rwanda, Senegal, Sierra Leone, Tanzania, Uganda, Zambia, Zimbabwe	Bangladesh, Nicaragua, Pakistan, Vietnam, Yemen	Basic requirements (60%) and efficiency enhancers (35%)
Transition from 1 to 2 GDP per capita US$2,000 to US$3,000	Algeria, Angola, Botswana, Gabon, Libya	Azerbaijan, Bolivia, Brunei Darussalam, Iran, Islamic Rep., Venezuela	Basic requirements (between 40% and 60%) and efficiency enhancers (between 35% and 50%)*
Stage 2 (efficiency-driven) GDP per capita US$3,000 to US$9,000	Cape Verde, Egypt, Morocco, Namibia, South Africa, Swaziland, Tunisia	Albania, Belize, China, Colombia, Indonesia, Jordan, Peru, South Africa	Basic requirements (40%) and efficiency enhancers (50%)
Transition from 2 to 3 GDP per capita US$9,000 to US$17,000	Mauritius, Seychelles	Argentina, Brazil, Chile, Croatia, Malaysia, Mexico, Russian Federation, Turkey	Basic requirements (between 20% and 40%) and efficiency enhancers (50%) Innovation factors (10% to 30%)*
Stage 3 (innovation-driven) GDP per capita > US$17,000		Germany, Korea, Rep, Norway, Spain, United Kingdom, United States	Basic requirements (20%) and efficiency enhancers (50%) Innovation factors (30%)*

Sources: World Economic Forum 2014a, 2013b (Benin and Liberia).
Note: Countries with a share of mineral exports in their total exports higher than 70 percent are moved toward a lower stage of development. See endnote 15 for more details.
* Based on the GCI 2014–2015.

two previously covered countries—Benin and Liberia—were not included in 2014–2015 because sufficient Executive Opinion Survey data could not be collected. For the sake of completeness, their competitiveness profiles are presented using 2013–2014 data, marked by an asterisk in Part 3.[18]

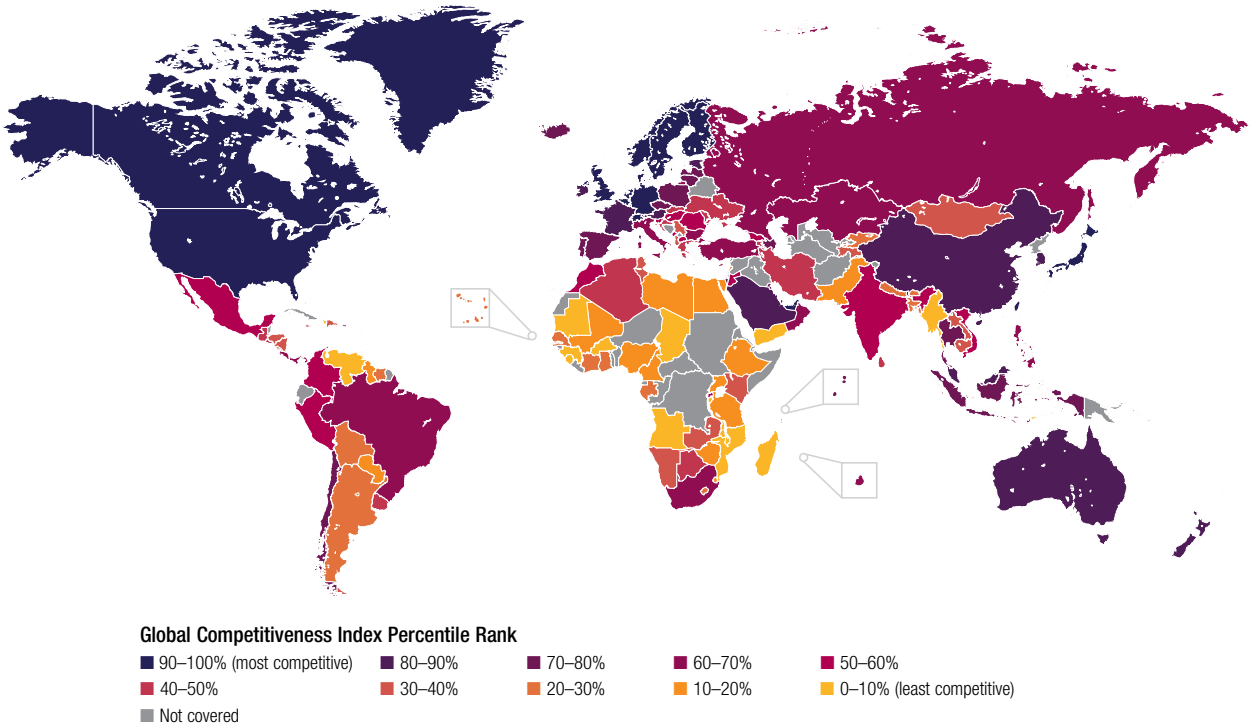
Africa's performance in an international context

Despite recent rapid growth, African economies on average trail the rest of the world in competitiveness: 15 out of the 20 least competitive economies in the GCI sample that forms the basis of this *Report* are from Africa. Figure 8 identifies competitiveness "hotspots" and the regions or countries that exhibit weak performances in the GCI. The 10 best-performing countries are shaded in dark blue. The remaining countries are shaded in increasingly warmer tones, moving from a dark purple (the second-best-performing group) through shades of purple-red, dark orange, orange, and finally yellow; this last color identifies the least-competitive nations according to the GCI. As shown on the map, a vast majority of African countries covered in this *Report* fall into the group of least-competitive economies (orange to yellow). Outside of Africa, only four Latin American countries (Guyana, Haiti, Paraguay, and Venezuela), three Asian economies (Myanmar, Pakistan, and Timor-Leste), and one country from the Middle East (Yemen) perform similarly. However, within Africa, Mauritius, Rwanda, and South Africa (burgundy red), and Botswana and Morocco (lighter red) are relatively more competitive.

Despite high and persistent growth rates experienced in the region for over a decade, Africa's overall competitiveness has remained stagnant—a message that the *Africa Competitiveness Report* series has been highlighting since it began in 1998. Figure 9 compares 24 African economies that have been included in the GCI since 2006. Their performance is benchmarked against that of the OECD average, providing a sense of how these regions compare with a group of the world's more advanced economies; it is also measured against the performance of Southeast Asia and Latin America, which provide more comparable benchmarks in terms of stages of development. For instance, although both Africa and Southeast Asia had approximately the same levels of GDP per capita in the 1960s, Southeast Asia's GDP per capita has since risen considerably more rapidly than sub-Saharan Africa (see also Figure 1). This is reflected in their competitiveness performance, which shows a stagnation of Africa's competitiveness overall and a widening gap with Southeast Asia (Figure 9).

Overall, Africa is lagging other regions in establishing the basic requirements for competitiveness, but does comparatively well in the GCI assessment of goods, labor, and financial market efficiency. Comparing Africa's performance with other, more advanced regions helps to identify the region's overall strengths and weaknesses. To this end, Figure 10 compares the performance of this year's sample of 38 African economies with that of regional comparators out of a total sample of

Figure 8: The Global Competitiveness Index 2014–2015

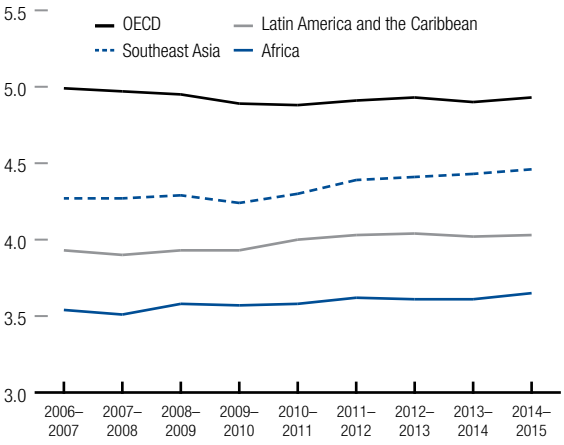


Source: World Economic Forum, 2014a.

144 economies in the 12 pillars of competitiveness. African economies consistently underperform the Southeast Asian average across all the pillars. The most critical gaps continue to be seen in the areas of basic requirements of competitiveness: institutions, infrastructure, and education and skills.[19] This is troubling because the majority of African economies are classified as factor-driven economies (see Table 1), so these areas are currently the most critical areas for the competitiveness of these countries. On a more positive note, Africa's financial, goods, and labor markets function comparatively well (on par, or nearly on par, with Latin America). However, ease of entry and exit from low-wage, low-productivity jobs will not lead to improved competitiveness. It will be important to build upon the region's comparatively efficient markets by investing in other competitiveness-enhancing reforms.

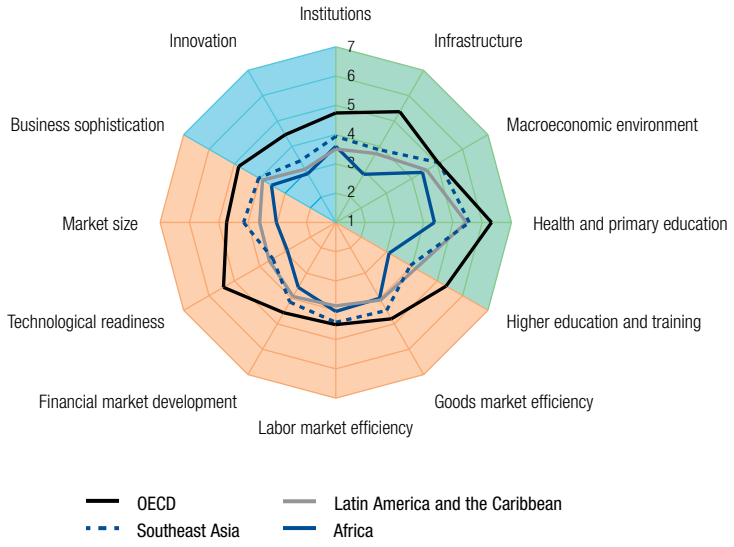
A particular point of concern is the continent's weak institutions. Although Africa's performance is similar to that of Southeast Asia and Latin America and the Caribbean in this pillar, the institutions in all three regions receive scores below 4 out of 7. This suggests that more effort should be made to increase the capacity of the institutional framework, as it provides a critical foundation for the other dimensions of competitiveness. Indeed, the quality of institutions has actually been deteriorating in both OECD and African economies according to the GCI. This might explain in part why Africa's competitiveness seems to have stagnated in comparison to OECD economies (see Figure 11a). In Africa, a decline in security and government efficiency—two components of the public institutions subpillar—would appear to be at the core of this decline. Sound public institutions and governance are an important prerequisite for economic development;

Figure 9: Trends in the GCI, 2006–14
GCI scores (1–7)



Source: World Economic Forum, 2014a.
Note: **Africa** (2006 constant sample) includes Algeria, Egypt, Morocco, Botswana, Burkina Faso, Burundi, Cameroon, Chad, Ethiopia, Gambia, Kenya, Lesotho, Madagascar, Mali, Mauritania, Mauritius, Mozambique, Namibia, Nigeria, South Africa, Tanzania, Uganda, Zambia, Zimbabwe; **Latin America and the Caribbean** (2006 constant sample) includes Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, Venezuela; **Southeast Asia** (2006 constant sample) includes Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, Timor-Leste, Vietnam; **OECD countries** include Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Rep., Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States.

Figure 10: Africa's performance in regional comparison, 2014–2015
GCI scores (1–7)



BASIC REQUIREMENTS PILLAR	
OECD	5.37
Southeast Asia	4.62
Latin America and the Caribbean	4.32
Africa	3.82

EFFICIENCY ENHANCERS PILLAR	
OECD	4.89
Southeast Asia	4.10
Latin America and the Caribbean	3.87
Africa	3.44

INNOVATION AND SOPHISTICATION FACTORS PILLAR	
OECD	4.65
Southeast Asia	3.74
Latin America and the Caribbean	3.49
Africa	3.23

Source: World Economic Forum, 2014a.
Note: **Africa** includes Algeria, Angola, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Chad, Côte d'Ivoire, Egypt, Ethiopia, Gabon, Gambia, Ghana, Guinea, Kenya, Lesotho, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, South Africa, Swaziland, Tanzania, Tunisia, Uganda, Zambia, Zimbabwe; **Latin America and the Caribbean** includes Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, Venezuela; **Southeast Asia** includes Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, Vietnam; **OECD countries** include Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Rep., Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States.

against this backdrop, their weakening—as indicated by the data—raises questions about whether the fundamentals are in position that will put growth on a sustainable footing.

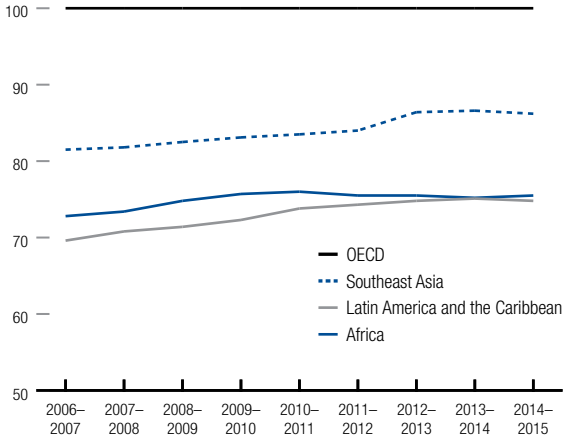
Africa suffers from a persistent infrastructure deficit. The GCI data confirm once more the region's pronounced infrastructure deficit—a critical bottleneck to reaping the benefits from increased regional integration, a topic explored in the 2013 *Africa Competitiveness Report.*[20] Connecting Africa's markets will be a critical driver for the region in boosting intra-African trade. Data suggest that, to date, only 11.3 percent of trade in Africa is intra-regional,[21] and that total exports remain heavily skewed toward exports of raw minerals. In addition, major bottlenecks—such as the unreliable electricity supply—are hampering the continent's transition to higher-value-added activities. Africa—based on a sample of 48 economies—generates roughly the same power as Spain, although Africa's population is nearing 1.1 billion while there are 49 million people in Spain.[22]

The years between 2006 and 2009 were promising and seemed to usher in a gradual convergence in the region's performance in terms of the quality of infrastructure compared with that of OECD economies, but the past six years show a divergence (Figure 11b). This is particularly worrisome given that, for the time being, Africa's performance in infrastructure stands at just little over half of that of the OECD.[23] Estimates suggest that the annual infrastructure and maintenance needs for sub-Saharan Africa stand at 10 percent of GDP.[24] The Priority Action Plan of the Programme for Infrastructure Development in Africa (PIDA PAP) alone encompasses an investment need of US$68 billion between 2012 and 2020, incorporating 51 programs of regional importance in the transport, water, energy, and information and communication technologies (ICT) sectors.[25] Africa's stagnation with respect to infrastructure stands in stark contrast to the regions of Southeast Asia and Latin America and the Caribbean, where infrastructure investments have managed to reduce the infrastructure gap with OECD economies. Southeast Asia, for instance, has narrowed the gap from 70 percent in 2006 to 80 percent in 2014 (see Figure 11b). One of the main challenges going forward will be to balance public finance and infrastructure investment needs. A recent IMF study, however, finds that the lack of financing is not always the primary cause of infrastructure underinvestment; in many countries, insufficient regulatory and implementation capacity seem to be the main constraints.[26]

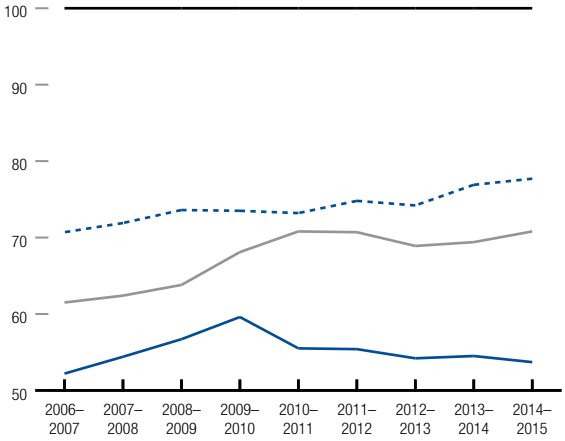
Most worryingly, Africa is not benefitting from its human capital potential. The entire region is underperforming significantly in education and public health (see Figures 11c and 11d). Communicable diseases are not under control in parts of the region; child mortality is over twice that of Latin

Figure 11: Africa's performance in selected pillars against comparators (relative performance, 100 = OECD)

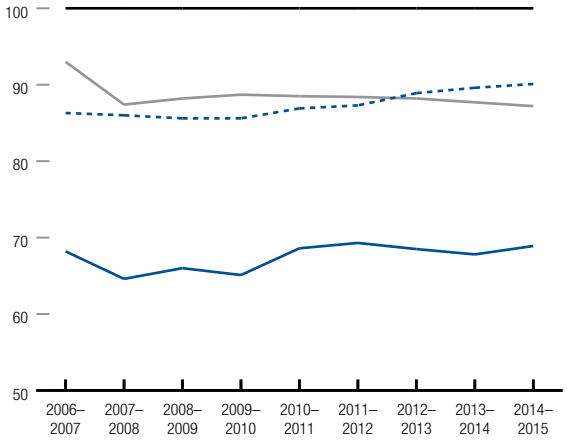
11a: Institutions pillar



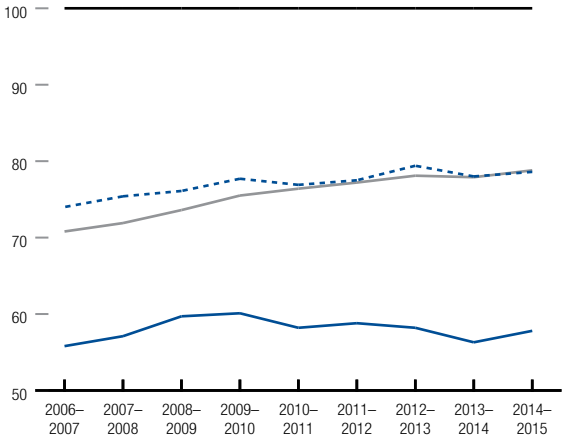
11b: Infrastructure pillar



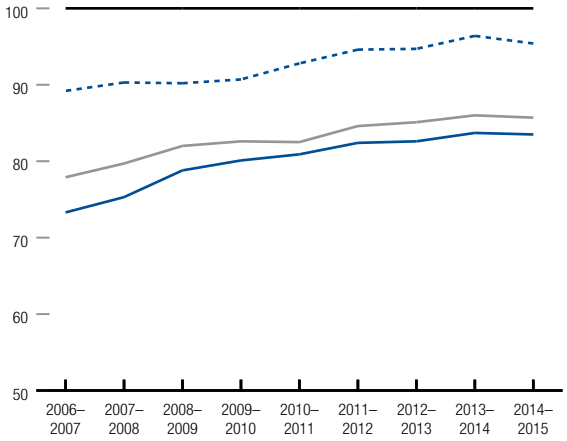
11c: Health and primary education pillar



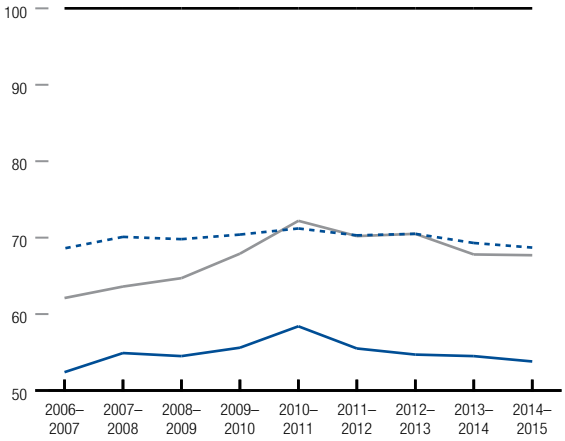
11d: Higher education and training pillar



11e: Goods market efficiency pillar



11f: Technological readiness pillar



Sources: World Economic Forum, *The Global Competitiveness Report*, (various editions).

Note: **Africa** (2006 constant sample) includes Algeria, Egypt, Morocco, Botswana, Burkina Faso, Burundi, Cameroon, Chad, Ethiopia, Gambia, Kenya, Lesotho, Madagascar, Mali, Mauritania, Mauritius, Mozambique, Namibia, Nigeria, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe; **Latin America and the Caribbean** (2006 constant sample) includes Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, and Venezuela; **Southeast Asia** (2006 constant sample) includes Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, Timor-Leste, and Vietnam; **OECD countries** include Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Rep., Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States.

America and the Caribbean and Southeast Asia; and life expectancy amounts to just 50 years on average, compared with over 70 years in both comparator regions. Similarly, only every second child on the African continent receives a secondary education and just a tenth of the age cohort goes on to enroll in tertiary institutions, compared with over a third in the comparator regions.

Low education levels are a pressing concern in view of the region's youth unemployment challenge and its potentially detrimental consequences. Events such as the Arab Spring have highlighted the tensions that can arise from a growing population without accompanying economic and social progress that ensures decent living standards, employment, and fair opportunities to better people's lives.[27] Already Africa is home to the youngest population worldwide; by 2020 half its population is projected to be under 25 years of age. A World Bank report estimates that each year between 2015 and 2035 there will be half a million more 15-year-olds in Africa than in the previous year.[28] To absorb this growing labor force, it is estimated that 18 million jobs will need to be created per year until 2035.[29]

A well-educated workforce will be the single most important enabler for transforming Africa's economies and allowing them to benefit from a demographic dividend. In the short term, absorbing the large number of new labor-market entrants will require the development of job-intensive sectors (see Chapter 2.1). In the longer term, moving up the value chain into more advanced manufacturing and service sectors while increasing these sectors' productivity will require significant and immediate investment in education if the workforce is to move beyond simple production processes. Africa's underperformance in educating its workforce and upgrading skills is particularly worrying given the shift of workers into the service sector, with its large share of value-added and its low (labor) productivity, as explored earlier in this chapter. What is more, high unemployment rates among youth with secondary and tertiary education even in countries that do well on educational attainment, such as Mauritius and Tunisia, indicate a mismatch between the education system and the needs of employers. Surveys among employers confirm these trends: 54 percent of African employers state that job seekers' skills do not match their needs and 41 percent that the unemployed lack skills in general.[30] Education can play an even more prominent role by ensuring knowledge spillovers from the natural resource sector to the domestic economy. This will happen only through skills and training efforts (see Box 1), because the adoption of new technologies and strengthening innovation will become more important to ensure that the continent remains competitive going forward.

Despite Africa's mobile revolution, the region as a whole is not keeping up with the rapid technological improvements elsewhere. The GCI's technological readiness pillar measures the agility with which an economy adopts existing technologies to enhance the productivity of its industries, with a specific emphasis on its capacity to fully leverage ICTs. This is especially important in view of the changing role of ICTs. Indeed, they have become critical tools in today's economy, accounting for a significant share of value-added and employment in advanced economies, supporting efficiency gains, and enabling transformative innovation. For developing economies, for instance, a 10 percent increase in the penetration rates of mobile phones has been associated with a 0.8 percent increase in GDP per capita, while the same increase in broadband networks could add a further 1.4 percent to overall economic growth.[31]

Africa's rate of mobile subscriptions per 100 population has increased dramatically in our sample: just one-tenth of the population held a subscription in 2006, while over four-fifths held one in 2014, representing a more rapid increase than either of the comparator regions. However, ICTs generally remain a moving target. Figure 11f shows that Africa continues to perform at 50 percent of OECD economies in the pillar on technological readiness. A similar stagnation compared with advanced economies is observed in Latin America and the Caribbean and in Southeast Asia. The situation is even less positive when considering ICT use, one of the two subpillars of the technological readiness pillar (see Appendix A), where Africa's performance remains just 30 percent of that of OECD economies. Going forward, African economies need not only to make the types of investment necessary to build out their ICT infrastructure, but also to create an enabling environment to fully leverage ICT uptake to boost economic and social impacts.[32]

In particular, increasing competition in ICT markets will be vital for increasing affordability, improving the provision of services, and accelerating uptake. Almost one out three countries in sub-Saharan Africa have already fully liberalized their ICT markets. This group of reformers includes not only region leaders such as Kenya, Mauritius, and Nigeria, but also fragile and least-developed countries such as Burkina Faso, Madagascar, and Uganda. Competitive markets are low-hanging fruits that can increase ICT use and connectivity across the country. In this year's sample of 38 African economies, less than 20 percent of the population has access to the Internet, compared with close to 30 percent in Southeast Asia and 50 percent in Latin America. Although the region has shown its capacity for innovative ICT business models, such as the widely known M-PESA system, connecting more of its population to the Internet and closing the gap with other fast-moving economies will be critical for its future, particularly in view of the shift

Box 1: The Africa Skills Initiative

Addressing Africa's unemployment challenge and its growing skills mismatch will require the concerted efforts of all stakeholders. Although it is governments that must create the enabling environment that promotes the creation of quality employment overall and secures access to quality education, it is critical that business, civil society, and the education and training sector are engaged in identifying and implementing solutions.

Under the umbrella of the World Economic Forum's Global Challenge on Employment, Skills & Human Capital,[1] the Africa Skills Initiative convenes the Forum's multi-stakeholder communities in an effort to understand the present and future needs of this challenge and identify potential solutions. The initiative uses a set of analytical tools that includes the Human Capital Index, which measures and benchmarks countries on their human capital endowment; the Future of Jobs analysis, which provides sector-level diagnostics on key trends and disruptions to the job market and their effects on employment and skills; and the Disrupting Unemployment portal, which consolidates information on business-led solutions for addressing skills gaps, fostering entrepreneurship, and facilitating the talent market. Leveraging this knowledge, the initiative aims to identify what can be done today to disrupt the employment crisis now while at the same time preparing for the future. Led by the Africa Business Council, the initiative calls on businesses to make public commitments to creating jobs and improving skills over a period of two years.

Some vital lessons emerge from existing solutions and best practices. First and foremost, partnerships between different sectors are an indispensable component of finding scalable solutions. Across the most successful initiatives an explicit partnership arrangement between multiple sectors of society is crucial to tackling the magnitude of the current situation.

Second, in an environment of ongoing disruption, interventions are most effective if they are sustainably designed for the long term rather than reactive or based only on past successes. For example, efforts to place unemployed youth in apprenticeships in traditional job categories may not provide a high return on investment for the company or the individuals involved if those job categories are likely to be obsolete in five years' time. Instead there may be greater opportunity in entirely new high-growth occupations for which new forms of apprenticeships may need to be created.

This approach can be seen in Digital Jobs Africa by the Rockefeller Foundation, which responds to the current disruptions by catalyzing sustainable information communication technology (ICT)-enabled employment opportunities and skills training for African youth.[2] Partnering with actors from the private sector, government, civil society, and the development community, the initiative gives youth access to digital job opportunities while building and refining transferable skills that make them resilient in the future economy.

Third, technology is a key enabler to reach scale. Cisco's Networking Academy,[3] for example, partners with education institutes and local nongovernmental organizations in more than 170 countries to deliver an ICT training program that combines on- and offline modules and is tailored to different regions.

Fourth, initiatives that tap into core business processes and match the public good with private interest are often very successful and demonstrate sustainable results. 5by20,[4] for example, is an initiative by the Coca-Cola Company that enables women entrepreneurs in Coke's value chain by breaking down the barriers they face. The offered programs include business skills training courses as well as access to financial services and support networks of peers or mentors.

Notes

1 Information about the Employment, Skills & Human Capital Initiative is available at http://www.weforum.org/projects/employment-skills-and-human-capital.

2 Information about the Digital Jobs Africa is available at http://reports.weforum.org/disrupting-unemployment/digital-jobs-africa/.

3 Information about Cisco's Networking Academy is available at http://reports.weforum.org/disrupting-unemployment/networking-academy/.

4 Information about 5by20 is available at http://reports.weforum.org/disrupting-unemployment/5by20/.

of African economies toward services. As described earlier in this chapter, data show that the transport and communication sector (including ICTs) has experienced one of the highest productivity gains in sub-Saharan Africa since 2000. Once again, a skilled and educated workforce will be needed to scale up, multiply successful ICT businesses, and facilitate the shift toward a higher-value-added service-based economy.[33]

On the upside, macroeconomic stability in the region has been improving since the last *Report*, as countries have been reining in inflation and government debt has been stable at around 40 percent of GDP on average. But the region needs to remain vigilant with regard to its macroeconomic stability.[34] Important downside risks remain—for example, a slowdown in growth in key emerging markets that have been a driving force for Africa's economies would present severe difficulties; economies that have benefitted from capital inflows could feel the effects of rising interest rates in the United States; and energy-exporting countries could suffer from the four-year low in oil prices. Africa's limited integration into the global economy has helped to prevent spillovers from the global economic crisis to the continent (with the exception of South Africa). And although integrating into the global economy more fully provides opportunities, it also renders the region more vulnerable to external shocks. Recent work by the IMF suggests that higher growth in advanced or emerging markets translates one-to-one into higher growth in sub-Saharan Africa and vice versa.[35] Enhancing competitiveness will be critical for attracting sustained investment, and hence sustainable growth.

Table 2: The Global Competitiveness Index 2014–2015: Africa and selected comparators

	GCI 2014–2015			GCI 2013–2014
Economy	Rank/144	Direction	Score	Rank/148
China	28	↑	4.9	29
Mauritius	39	↑	4.5	45
Russian Federation	53	↑	4.4	64
South Africa	56	↓	4.4	53
Brazil	57	↓	4.3	56
Southeast Asian average			**4.3**	
Rwanda	62	↑	4.3	66
India	71	↓	4.2	60
Morocco	72	↑	4.2	77
Botswana	74	→	4.2	74
Algeria	79	↑	4.1	100
Latin America and the Caribbean average			**4.0**	
Tunisia	87	↓	4.0	83
Namibia	88	↑	4.0	90
Kenya	90	↑	3.9	96
Seychelles	92	↓	3.9	80
North African average			**3.9**	
Zambia	96	↓	3.9	93
Gabon	106	↑	3.7	112
Lesotho	107	↑	3.7	123
Ghana	111	↑	3.7	114
Senegal	112	↑	3.7	113
Cape Verde	114	↑	3.7	122
Côte d'Ivoire	115	↑	3.7	126
Cameroon	116	↓	3.7	115
Ethiopia	118	↑	3.6	127
Egypt	119	↓	3.6	118
Sub-Saharan African average			**3.6**	
Tanzania	121	↑	3.6	125
Uganda	122	↑	3.6	129
Swaziland	123	↑	3.6	124
Zimbabwe	124	↑	3.5	131
Gambia, The	125	↓	3.5	116
Libya	126	↓	3.5	108
Nigeria	127	↓	3.4	120
Mali	128	↑	3.4	135
Madagascar	130	↑	3.4	132
Malawi	132	↑	3.2	136
Mozambique	133	↑	3.2	137
Burkina Faso	135	↑	3.2	140
Sierra Leone	138	↑	3.1	144
Burundi	139	↑	3.1	146
Angola	140	↑	3.0	142
Mauritania	141	→	3.0	141
Chad	143	↑	2.8	148
Guinea	144	↑	2.8	147

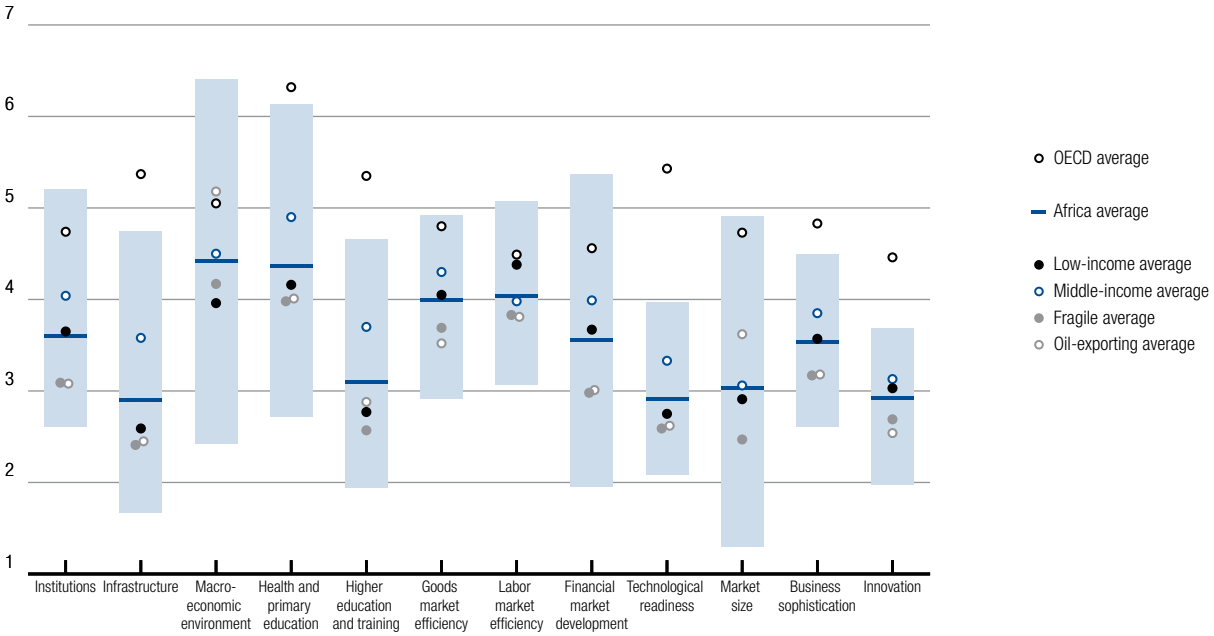
Sources: World Economic Forum 2013b, 2014a.

Finally, improvements in goods market efficiency have been remarkable, primarily on the back of improvements in domestic competition (see Figure 11e). Among the *Report*'s constant sample of 24 economies, the number of days to start a business, for instance, has halved from about two months in 2006 to below one month in 2014. A recent World Bank report finds that sub-Saharan Africa had the highest number of business regulatory reforms in 2013, with over three-fourths of the region's economies improving their business regulations for local entrepreneurs.[36] A strong business environment is critical, as it will set the operating framework for a strong private sector and, hence, for employment creation; it will also facilitate foreign direct investment. At a time when international investment flows were stalling elsewhere, foreign direct investment into the region reached US$57 billion in 2013. In particular, investors have focused on infrastructure development both in the transport and in the utilities sectors. The potential of a large domestic market with an increasing middle class has also gained the interest of consumer-oriented service sectors, such as ICTs, finance, tourism, and retail. In contrast, according to the *World Investment Report 2014*, the share of foreign direct investment directed to the primary sector has been gradually declining in Africa, while that of the greenfield projects service sector has increased significantly.[37]

Africa's competitiveness divide

Aggregate numbers mask big differences among African economies, which range from the region's best-performing economy Mauritius (39th) to the its worst-performing economy, Guinea (144th), indicating that the region is far from a homogeneous entity in terms of competitiveness. Table 2 shows the GCI performance of all African economies covered and comparator regions and countries. Mauritius and South Africa, ranked 39th and 56th, respectively, are the continent's top performers and come in above the Southeast Asian average—an improvement since the last *Report* when they ranked below that comparator region. They also rank above the emerging market economies of Brazil and India. They are followed by a second cluster of countries—Rwanda (62nd), Morocco (72nd), Botswana (74th), and Algeria (79th)—which are more competitive than Latin America and the Caribbean on average. A third group of African economies—Tunisia, Namibia, Kenya, and Seychelles—cluster between the Latin American and North African averages. Egypt (119th) and Libya (126th) do less well than the North African average, while a number of countries—Zambia, Gabon, Lesotho, Ghana, Senegal, Cape Verde, Côte d'Ivoire, Cameroon, and Ethiopia—do better than the sub-Saharan average.

Figure 12: GCI score dispersion among groups of African economies, OECD comparison
GCI Score (1–7)



Source: World Economic Forum, 2014a.

Note: The length of each bar is determined by the score of the best- and worst-performing economy in the Africa 2015 sample. **Low-income countries** include Burkina Faso, Ethiopia, The Gambia, Kenya, Malawi, Mali, Mozambique, Rwanda, Sierra Leone, Tanzania, and Uganda; **Middle-income countries** include Botswana, Cape Verde, Egypt, Ghana, Lesotho, Mauritius, Morocco, Namibia, Senegal, Seychelles, South Africa, Swaziland, Tunisia, and Zambia; **Oil-exporting countries** include Algeria, Angola, Cameroon, Chad, Gabon, Libya, and Nigeria; **Fragile countries** include Burundi, Côte d'Ivoire, Guinea, Madagascar, Mauritania, and Zimbabwe. **OECD countries** include Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Rep., Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, the United States.

These wide differences in the overall performance of African countries demonstrate that countries and country groups are at very different levels in terms of competitiveness, and that there is no one-size-fits-all blueprint for improving competitiveness. Following the IMF's classification, the following paragraphs group countries into four distinct groups of African economies: oil exporters, middle-income economies, non-fragile low-income economies, and fragile economies.[38] Figure 12 underscores the divergence within the region across the 12 pillars of competitiveness, showing the average performance of the OECD as an international benchmark (shown by a black circle) and the African average (shown by a blue bar). To complement the analysis further, Table 3 shows the score performance at an individual country level. The aim of this classification is to facilitate discussion and draw some general conclusions about the strengths and weaknesses of these country groups. Yet it is important to note the limitations of such a general analysis, which would need to be complemented by an in-depth country analysis of the specific challenges and priorities (see individual country profiles in Part 3).[39]

Two basic requirements for competitiveness—infrastructure (pillar 2) and health and primary education (pillar 4)—suffer from the largest competitiveness gaps with other regions ("between" regions). They are also cause of the largest divides within the region, where the differences between the best- and worst-performing economies account for more than three points on the scale of 1–7 (see Figure 12). More positively, this means that some pockets of quality exist that can measure up to other regions. The performance of a few select economies in the area of health and primary education, for instance, is encouraging, where—as previously seen—the region otherwise underperforms other comparator regions by a wide margin. These are the small open economies of Mauritius, Seychelles, and Cape Verde, which score around 6 on the scale of 1–7, as well as four out of five North African economies, which all score above 5 (see Table 3). In these countries, people can expect to live to more than 70 years and enrollment in primary education is well above 90 percent. Figure 12 and Table 3 provide additional information on the similar divergence in these countries' performance in infrastructure. Although Mauritius receives the region's best assessment (42nd), followed by Seychelles (53rd), Morocco (55th), and South Africa (60th), the majority of countries in the sample score lower than 3 (out of 7). Some countries, such as Chad and Guinea, score under 2, further illustrating the immense infrastructure challenge on the continent.

The data also point to a large divide within the region in the areas of macroeconomic and financial market performance. Africa boasts some economies with efficient financial markets: most prominent is South

Table 3: The Global Competitiveness Index 2014–2015, selected pillars: Score dispersion among African economies
(GCI score 1–7)

			BASIC REQUIREMENTS				EFFICIENCY ENHANCERS*				
	Country/Economy	Global Competitiveness Index	1st pillar: Institutions	2nd pillar: Infrastructure	3rd pillar: Macroeconomic environment	4th pillar: Health and primary education	5th pillar: Higher education and training	6th pillar: Goods market efficiency	7th pillar: Labor market efficiency	8th pillar: Financial market development	9th pillar: Technological readiness
Middle-income	Mauritius	4.52	4.60	4.74	4.66	6.14	4.66	4.92	4.33	4.74	3.97
	South Africa	4.35	4.50	4.29	4.45	3.96	4.04	4.71	3.80	5.37	3.86
	Morocco	4.21	4.21	4.38	4.72	5.66	3.56	4.41	3.81	4.02	3.57
	Botswana	4.15	4.47	3.19	6.30	4.14	3.59	4.12	4.56	4.22	3.58
	Tunisia	3.96	3.70	3.80	4.03	6.00	4.28	4.03	3.51	3.35	3.38
	Namibia	3.96	4.19	4.17	4.62	4.63	3.23	4.13	4.31	4.43	3.42
	Seychelles	3.91	4.04	4.50	4.89	5.98	4.04	4.18	4.44	3.65	3.73
	Zambia	3.86	4.12	2.67	4.16	4.56	4.16	4.65	4.06	4.37	2.99
	Lesotho	3.73	3.86	2.77	5.69	4.03	3.23	4.24	4.16	3.27	2.37
	Ghana	3.71	3.85	3.03	3.38	4.46	3.46	4.34	3.94	4.15	3.11
	Senegal	3.70	3.81	2.93	4.29	3.96	3.18	4.34	4.23	3.80	3.21
	Cape Verde	3.68	3.89	3.14	4.11	5.96	3.91	4.01	3.59	3.36	3.54
	Egypt	3.60	3.41	3.20	2.96	5.37	3.27	3.95	3.08	3.19	3.21
	Swaziland	3.55	3.94	3.26	4.79	3.69	3.18	4.09	3.86	4.00	2.66
Low-income	Rwanda	4.27	5.21	3.14	4.62	5.52	2.98	4.62	5.08	4.26	3.14
	Kenya	3.93	3.73	3.27	3.73	4.55	3.77	4.40	4.68	4.77	3.48
	Ethiopia	3.60	3.46	2.49	4.36	4.82	2.63	3.84	4.15	3.33	2.46
	Tanzania	3.57	3.49	2.26	4.06	4.86	2.45	3.90	4.39	3.72	2.51
	Uganda	3.56	3.29	2.28	4.36	4.45	2.68	3.95	4.66	3.81	2.78
	The Gambia	3.53	4.29	3.27	2.96	3.88	3.45	4.00	4.54	3.74	3.02
	Mali	3.43	3.18	3.15	4.48	3.33	2.70	4.07	3.89	3.32	2.86
	Malawi	3.25	3.74	2.21	2.42	4.42	2.57	4.03	4.63	3.82	2.41
	Mozambique	3.24	3.16	2.36	4.06	3.58	2.39	3.99	3.88	3.14	2.71
	Burkina Faso	3.21	3.28	2.01	4.55	3.18	2.42	3.81	4.22	3.14	2.49
	Sierra Leone	3.10	3.37	2.07	3.94	3.18	2.39	3.98	4.01	3.36	2.36
Fragile	Côte d'Ivoire	3.67	3.64	3.41	4.70	3.25	3.12	4.23	4.21	3.86	2.81
	Zimbabwe	3.54	3.31	2.54	4.48	4.99	3.18	3.58	3.25	3.44	2.95
	Madagascar	3.41	3.13	2.10	4.60	4.26	2.64	4.08	4.53	2.85	2.63
	Burundi	3.09	2.92	2.01	4.02	4.64	2.14	3.49	3.89	2.37	2.10
	Mauritania	3.00	2.76	2.59	4.00	3.48	2.16	3.35	3.07	2.50	2.71
	Guinea	2.79	2.81	1.78	3.20	3.25	2.19	3.40	4.05	2.85	2.35
Oil-exporting	Algeria	4.08	3.41	3.12	6.41	5.61	3.69	3.48	3.15	2.72	2.59
	Gabon	3.74	3.72	2.86	6.03	4.01	2.78	3.81	4.23	3.57	2.95
	Cameroon	3.66	3.53	2.47	4.45	4.70	3.22	3.99	4.11	3.51	2.76
	Libya	3.48	2.62	2.88	5.36	4.55	3.59	3.32	3.41	1.95	2.56
	Nigeria	3.44	3.01	2.13	4.62	2.97	2.88	4.19	4.53	4.06	3.02
	Angola	3.04	2.61	2.01	4.70	3.54	1.94	2.92	3.52	2.50	2.34
	Chad	2.85	2.66	1.67	4.68	2.72	2.05	2.94	3.72	2.74	2.09

[1.67–2.33[[2.33–3.00[[3.00–3.67[[3.67–4.35[[4.35–5.04[[5.04–5.72[[5.72–6.41]

Source: World Economic Forum, 2014a.
Note: Color coding follows maximum and minimum scores of the sample. The interval [x,y[is inclusive of x but exclusive of y.
* Excluding the 10th pillar, Market size.

Africa, which ranks 7th globally, followed by Kenya and Mauritius. This good performance stands, however, in stark contrast to many economies characterized by rudimentary financial markets, including two North African economies: Algeria at 137th and Libya at 144th. The problem of inefficient financial markets is illustrated later in this chapter by the fact that the majority of business executives consider the lack of access to finance to be the most problematic factor for doing business on the continent (Figure 14). The inability to allocate savings to their most productive investments constitutes an important barrier for the region, preventing it from fully leveraging its growth potential. The divergence in terms of macroeconomic performance is

largely fueled by the fact that resource-rich economies—for example, Algeria (11th), Botswana (13th), and Gabon (18th)—perform well on the related indicators. This good performance is largely attributable to the better fiscal position resulting from strong resource revenues at the time data were collected.[40] The decline in world oil prices of more 50 percent—from US$115 a barrel in June 2014 to less than US$50 at the time of writing—will have significant consequences for some resource-rich economies because it can expose budget weaknesses. At the same time, it offers an opportunity for energy-importing countries to remove subsidies or use political momentum to gather support for competitiveness-enhancing reforms.

The competitiveness analysis suggests that oil- and gas-exporting economies are a long way from establishing the fundamentals for a competitive economy. Because Africa's high growth rates are to some extent rooted in oil- and gas-abundance, whether or not growth will be sustainable moving forward has been subject to much debate. On average, Africa's oil- and gas-rich economies perform as poorly as fragile economies do in eight out of the twelve competitiveness pillars. In particular, these economies are characterized by weak institutions, poor quality or absent infrastructure, a volatile macroeconomic environment, a low level of human capital, and poorly functioning factors and goods markets. Although the poor quality of institutions is somewhat expected in fragile economies, the fact that institutions are weak reveals important insights into the functioning of oil-exporting economies. Although Gabon fares comparatively well in the quality of institutions (79th), its peers mostly populate the lower end of the rankings in this pillar: Chad at 140th, Libya at 142nd, and Angola at 143rd have rankings similar to those of the fragile economies of Burundi (132nd), Guinea (134th), and Mauritania (138th) (see Appendix C). This poor performance raises doubts about their efficient management of resource revenues and their ability to re-allocate revenue proceeds elsewhere in the economy to lay the foundations for more diversified growth while avoiding boom-bust cycles that could jeopardize macroeconomic stability.

In addition to institutional challenges, infrastructure is inadequate in all oil exporters, with all countries in this group ranking below 100. Furthermore, the majority of oil-exporting economies are very poorly assessed in the Inequality-adjusted Human Development Index.[41] This is worrisome because these economies will need to diversify growth to ensure that resource wealth spreads to all parts of the population in order to make growth overall more sustainable in the long run (see Box 3 for a discussion on inclusive growth). To diversify, a skilled workforce is needed. However, the rankings show that all oil exporters perform very poorly in providing education and skills—indeed, Chad ranks last (144th) on health and primary education and, with a score of 2.1, just 143rd on the higher education pillar. Finally, inefficiencies in goods and labor markets are prevalent. Strikingly, for instance, despite the strides Africa has made in goods market efficiency that has garnered recognition, the region's oil- and gas-exporting economies largely remain among the bottom 30 performers globally.

Box 2 expands the analysis to all natural resource–rich countries on the continent that record a poor GCI score because there are numerous mineral-rich African countries that are low income as well as fragile and face competitiveness challenges similar to those of the oil- and gas-rich countries. The IMF categorizes *resource-rich countries* as those countries with energy exports accounting for 30 percent and mineral exports accounting for 25 percent of total exports, or those with revenue from natural resources accounting for more than 20 percent of government revenue. Based on this threshold, Africa counts 22 resource-rich countries (20 in sub-Saharan Africa and 2 in North Africa). The McKinsey Global Institute defines *resource-driven countries* as countries that meet at least one of three criteria: (1) resource exports accounted for 20 percent or more of total exports in 2011; (2) resources on average accounted for more than 20 percent of government revenue from 2006 to 2010; and (3) resource rents were more than 10 percent of GDP in 2010 or the most recent year for which data are available.[42] This definition adds eight more countries to the list of African resource-rich economies. Among the top 20 resource-rich countries in sub-Saharan Africa, nine are classified as low income, with GDP per capita below US$1,025, while only Equatorial Guinea is considered high income; a few others, including Botswana, Namibia, and South Africa, are upper-middle income.[43]

Overall, low-income economies have registered improvements in their competitiveness since the GCI 2013–2014. Non-fragile low-income economies are dispersed throughout the middle to the bottom of the rankings, ranging from Rwanda at 62nd to Sierra Leone at 138th. This is a diverse group of countries that includes all low-income countries not classified as oil-exporting or fragile, and where "economic development can be explained by reference to more conventional economic factors."[44] Overall, this group performs better than both oil-exporting and fragile economies across most pillars. The difference between these groups and low-income economies is particularly pronounced in the quality of institutions and goods, labor, and financial market efficiencies. Kenya (ranked 24th) and Rwanda (ranked 55th) boast more efficient financial markets than their peers. Similarly, Rwanda and Gambia have relatively good institutional environments, ranking 18th and 44th, respectively, in this pillar and pulling up the average for this group, which closes with Mali at 126th. A majority in this group have relatively efficient labor markets. As indicated in Table 3, Rwanda, Kenya, and Uganda lead African economies in this pillar, and more than two-thirds

Box 2: How to make resource-rich economies in the bottom 20 of the GCI ranking more competitive

Despite having higher GDP growth on average than those that are resource-scarce, Africa's resource-rich economies fare poorly and therefore feature prominently in the bottom 20 in the Global Competitiveness Index (GCI) 2014–2015. The bottom 20 takes in several resource-rich African countries, including four oil-exporters (Angola 140th, Chad 143rd, Libya 126th, and Nigeria 127th) and six mineral exporters (Guinea 144th, Mali 128th, Mauritania 141st, Mozambique 133rd, Sierra Leone 138th, and Zimbabwe 124th), two of these mineral exporters (Guinea and Mauritania) being fragile states. The poor performance of resource-rich economies indicates that they have not been able to effectively channel their natural resource revenues to enhance their competitiveness. Indeed, although the resource-rich economies have had the opportunity to enhance their competitive prospects in the wake of commodity-price booms, the data show no notable improvement in their competitiveness and the chapter points to myriad remaining challenges.

The absence of solid institutions has left these economies open to corruption and rent-seeking, which negatively affects their overall competitiveness. More investment and maintenance of infrastructure are needed to reduce indirect costs to businesses and make them more competitive. The business environment would be more efficient with less bureaucracy and enhanced financial development. Overall, these countries have suffered from the "Dutch Disease" syndrome, with real exchange rate appreciations and wages increasingly driving out export and import-competing industries. Taking this into account, governments should support the development of the traded sector and non-natural-resource traded goods.

Currently the commodity price shocks present additional challenges that have magnified the macroeconomic vulnerabilities of these economies and undermined their ability to undertake competitiveness-enhancing investments. For oil-exporters, the recent oil price plunge of more than 50 percent between September 2014 and February 2015, tipping below US$50 per barrel in January 2015, has significantly reduced oil-rich countries' revenues and magnified their macroeconomic vulnerabilities.[1] Other commodity exports have seen similar declines; for example, the price of iron ore dropped by 51 percent between January 2014 and February 2015. The resulting declines in revenues have deteriorated countries' fiscal and external positions, with concomitant adverse consequences on government spending capacity, thereby limiting their ability to invest in competitiveness-enhancing programs.

Going forward, it will be imperative for these resource-rich countries to put in place the fundamentals for enhanced competitiveness and broad-based economic development. As argued by McKinsey, resource-rich countries "should reframe their economic strategies around three key imperatives: effectively developing their resource sector, capturing value from it, and transforming that value into long-term prosperity."[2] This reframing will include building the resource sector's institutions and governance, developing infrastructure, ensuring robust fiscal policy and competitiveness, supporting local content, deciding how to spend resource windfalls wisely, and transforming resource wealth into broader based economic development.

Notes

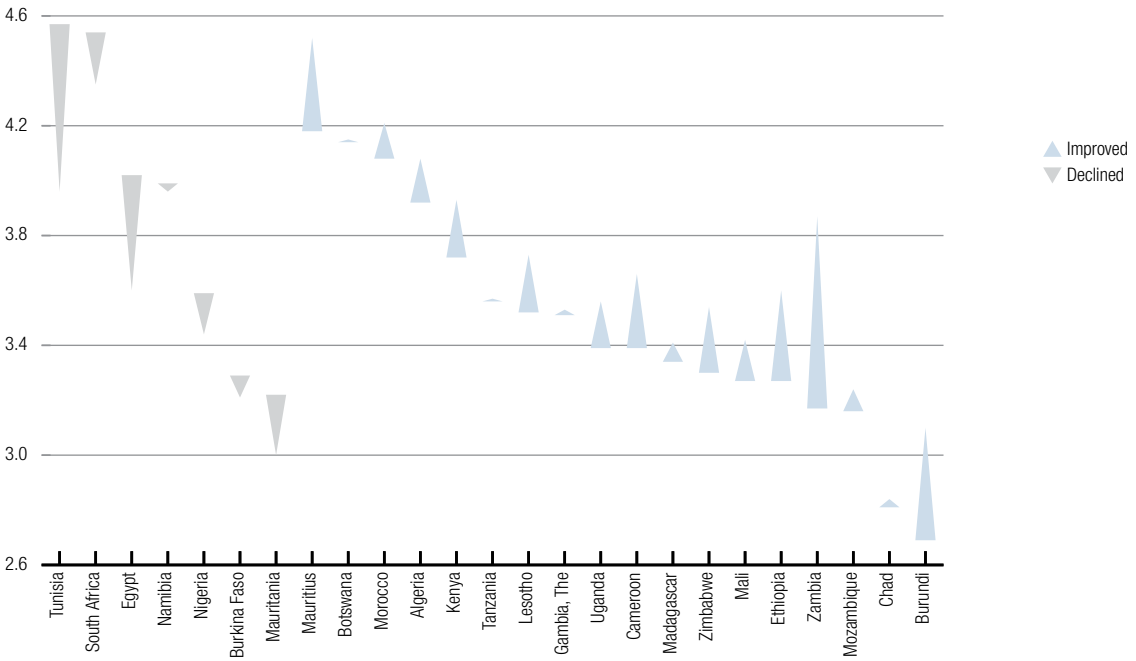
1 AfDB 2014.

2 Dobbs et al. 2013, p. 26.

of these economies are in the upper half of the global rankings. On the other hand, a majority of low-income African economies perform poorly in the areas of infrastructure, education, and technological readiness, placing them in the bottom third of the global rankings in these areas.[45]

Africa's middle-income economies on average compare well with other regions, such as Latin America and the Caribbean, having put in place the basic requirements of competitiveness. Africa's middle-income economies face a more complex and diverse set of competitiveness challenges than all other groups. Having entered the middle-income group, these countries will need to put into place the fundamentals that will allow them to transition to higher-value-added activities. In this light, some important variations in performance are evident, and middle-income African economies range from Mauritius at 39th to Swaziland at 123rd. Although middle-income economies outperform on average their regional peers in institutional quality, they barely reach the middle score of this pillar (4 on a scale of 1–7). As described earlier, these countries generally have already built a better infrastructure than their peers (with the exception of Zambia, Lesotho, and Senegal, which score below 3 on a scale of 1–7) and have particularly well-functioning goods and financial markets. To progress, business will require a talent pool on which to draw, and this is an area where most middle-income economies have reached a bottleneck. With a few exceptions, most of them place somewhere in the lower half of the rankings of the pillars that gauge a country's ability to fully leverage its human resource potential. South Africa, for example, ranks just 113th in the labor market efficiency pillar and has a university enrollment rate of just 19 percent, compared with 94 percent in the United States and 99 percent in the Republic of Korea.[46] Going forward, increasing education attainment rates and adapting education to match the skills needed by the private sector as well as making the labor market more flexible will be critical for the required structural transformation.

Figure 13: Change in the performance of African economies
GCI score (1–7), ACR 2007 compared with ACR 2015



Source: Data sourced from the GCR 2006–2007 (World Economic Forum, 2006) and the GCR 2014–2015 (World Economic Forum, 2014a).

Africa's competitiveness then and now: Re-visiting Africa's competitiveness over the past decade

Figure 13 provides a view of competitiveness improvements at two points in time: 2006 and 2014. To complement this analysis, Appendix D shows the evolution in performance of all 24 African economies in the constant sample grouped into fragile, middle-and low-income, and oil-exporting economies.[47]

Africa's middle-income and oil-exporting economies exhibit a mixed picture when it comes to improvements in competitiveness compared to nine years ago. Mauritius and Zambia register the largest improvements in competitiveness, but South Africa, Egypt, and Tunisia show declines, the latter two following the events of the Arab Spring. The data suggest that the region's current best-performing economy, Mauritius (at 39th, replacing South Africa two years ago), has made impressive strides toward improved competitiveness on the back of the wide-ranging structural reforms that began in 2006. This improvement has been particularly visible in its creation of an enabling environment in its financial, goods, and labor markets. Similarly, Zambia has made the most progress in the region, particularly upgrading the quality of its institutions and improving goods market efficiencies, now ranked 96th.

These countries stand in contrast to the performance of South Africa, which has been experiencing a gradual but steady decline in its competitiveness since 2006 and ranks 56th in this year's *Report,* down from 35th in 2006. The country continues to benefit from strong private institutions, such as auditing and reporting standards, good transport infrastructure (by regional standards), and efficient goods and financial markets as well as its relatively innovative companies. However, its Achilles' heel remains opaque public institutions, poor health and education, and an extremely rigid labor market. Other middle-income economies, such as Botswana and Namibia, have maintained a relatively stable performance across the years. Both benefit from comparatively good institutions but critically neglect their human resource base, both in terms of health and education. Of the North African middle-income group, Egypt and Tunisia have not succeeded in putting their economies on a more stable footing since the Arab Spring, although the fact that these economies are slowly stabilizing and starting to focus on economic reforms holds promise for the future. Conversely, we see that Morocco (72nd)—the most competitive economy in North Africa—has been registering a gradual upward trend, reflecting efforts made over the years to develop its business environment. Oil-exporting economies demonstrate a mixed performance over the past nine years: Cameroon has seen slight improvements because its public institutions are developing, although this is reflected in its score in this pillar but not in the rankings, as other countries have been doing relatively better. At the same time, countries such as Chad and Nigeria are stagnating in their overall performance of competitiveness.

The majority of fragile and low-income economies register slight improvements. On the upside, we see improvement in competitiveness, albeit from a very low base, in the majority of fragile economies. This progress is most notable in Burundi:

Box 3: Measuring inclusive growth

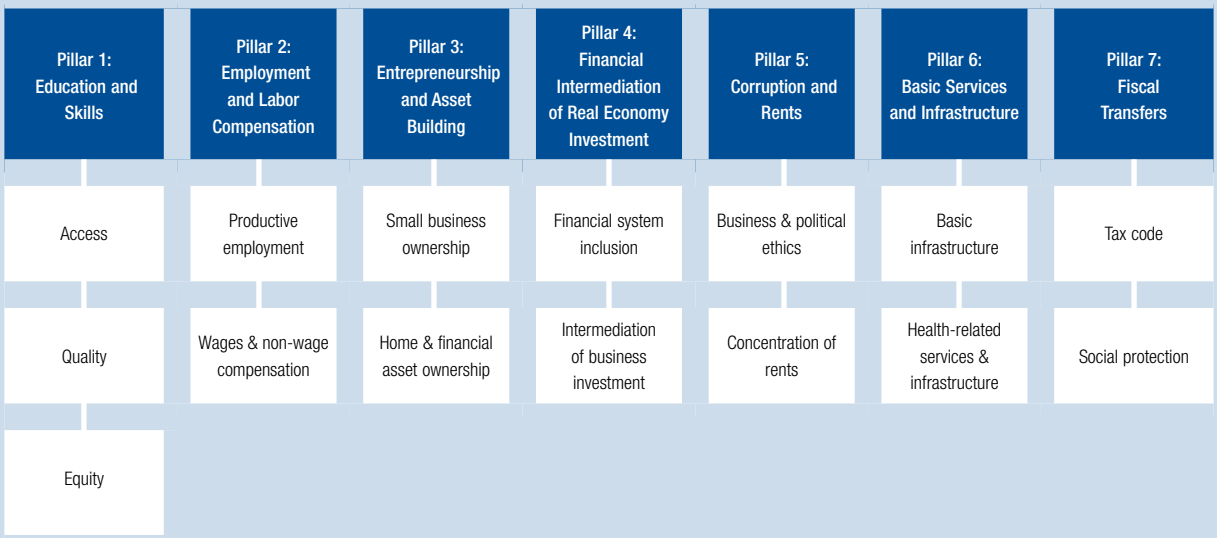
Africa has enjoyed a significant increase in economic growth over the past decade, yet unequal distribution of its benefits has limited the ability of that growth to reduce poverty and improve living standards. Instead, in many countries in the region, the gap between rich and poor is widening, youth unemployment is rising, and access to basic services remains restricted to a small share of the population. The share of wealth held by the top decile has increased over the last several years and concentration of wealth on the continent is the second highest of all regions in the world.[1] Against this background is a growing need for analytical frameworks and evidence-based solutions to tackle these challenges and ensure that growth translates into improved living standards and benefits the population at large.

The international community has made significant progress in defining inclusive growth, building on the work of the Organisation for Economic Co-operation and Development (OECD), World Bank, and regional development banks. One widely accepted definition of *inclusive growth* involves output growth that is sustained over decades, is broad-based across economic sectors, creates productive employment opportunities for the majority of the country's population, and reduces poverty.[2] Reductions in excessive income inequality have also emerged as a prerequisite for growth; this concept is supported by mounting evidence that inequality undermines growth.[3] In summary, inclusive growth is about both the pace and pattern of economic growth.[4]

The World Economic Forum's workstream on inclusive growth aims to mobilize a better response to the challenge of inequality by assembling a comparative analysis of the extent to which countries make use of the wide spectrum of policy incentives and institutional mechanisms that influence the pattern and pace of broad-based progress in living standards. Consisting of six policy domains and thirteen subdomains, the Forum's Inclusive Growth and Development framework (Figure A) identifies a range of policy incentives and institutional mechanisms that have a bearing on the inclusivity of growth. This multidimensional framework includes areas such as creating an enabling environment for human capital formation, reinforcing the wage and productivity growth link, fostering entrepreneurship and investment, reinforcing business and political ethics, promoting gender parity, reviewing fiscal policy (tax code and social protection), and providing improved public services and infrastructure.

A beta version of the benchmarking tool and related analysis will be released by early fall 2015 as part of a series of public-private dialogues with key experts and decision makers from multiple policy domains and countries in a structured series of evidence-based discussions. The objective is to contribute to a better appreciation within societies of how the desire for a more inclusive model of economic growth and development can be translated into a practical national or regional strategy. An important element of this undertaking is working in conjunction with the *Report*'s partner organizations: the World Bank's country strategies support programs that primarily target the bottom 40 percent of the population as part of achieving the organization's twin goals of inclusive growth by 2030 (the other being reducing the percent of people living in extreme poverty (<$1.25 PPP) to 3 percent of the world's population). Under the umbrella of its 10-year strategy 2013–22, the African Development Bank's first and overarching objective is to promote growth that is more inclusive, leading not just to equality of treatment and opportunity but to deep reductions in poverty and a corresponding large increase in jobs. Toward achieving this end, the African Development Bank pays special attention to fragile states, agriculture and food security as well as gender.[5]

Figure A: Inclusive Growth and Development benchmarking framework



Source: World Economic Forum 2015d, forthcoming.

Notes

1 Credit Suisse Research Institute 2014.

2 Commission on Growth and Development 2008; Ianchovichina and Lundstrom 2009.

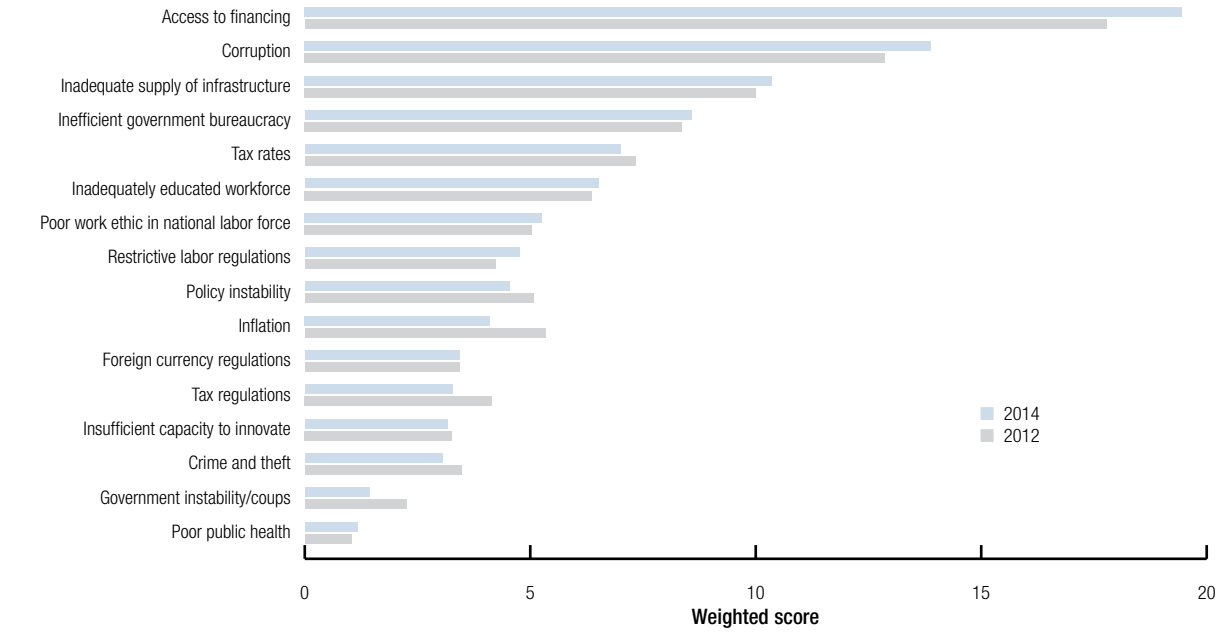
3 Berg and Ostry 2011; Ostry et al. 2014.

4 Ianchovichina and Lundstrom Gable 2012.

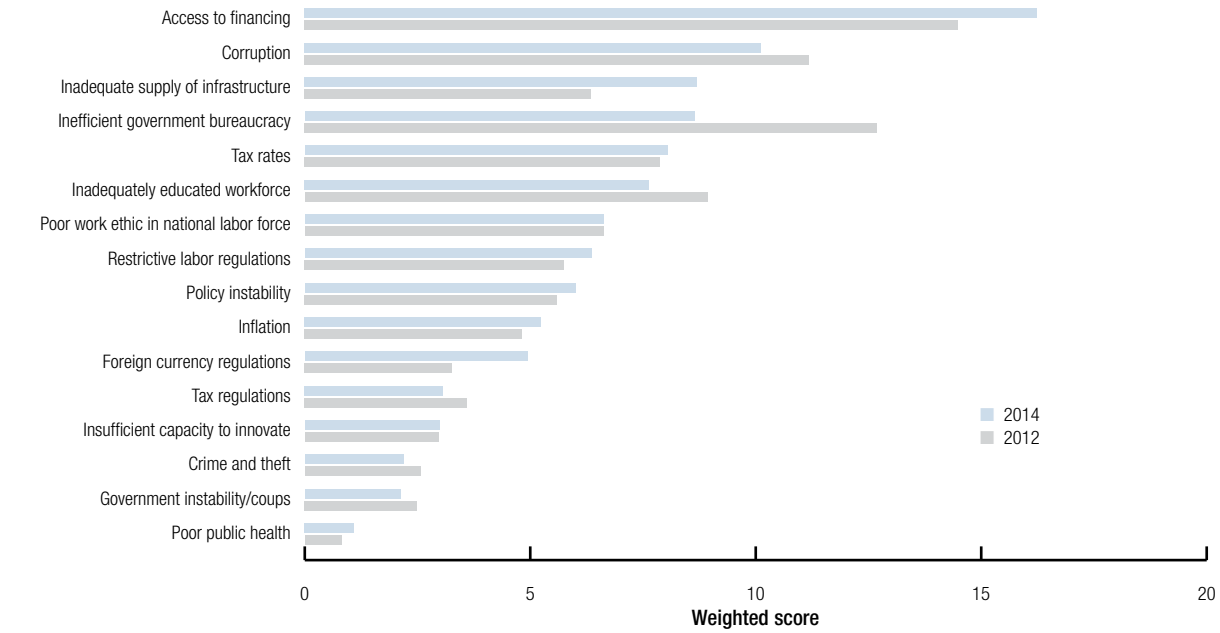
5 AfDB 2013. The Strategy also outlines the five following operational priorities to improve Africa's quality of growth: (1) infrastructure development, (2) regional economic integration, (3) private-sector development, (4) governance and accountability, and (5) skills and technology.

Figure 14: Most problematic factors for doing business (2012 and 2014 scores compared)

14a: Sub-Saharan Africa



14b: North Africa



Source: World Economic Forum Executive Opinion Survey, 2012, 2014.
Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figures show the responses weighted according to their rankings.

although ranked a low 139th, the country has shown a steady improvement since the 2013 *Report.* Zimbabwe likewise has been showing gradual improvement since its nadir in performance in 2009. In contrast, Madagascar—another fragile economy in our sample—has been stagnating, while Mauritania has declined to 141st place. When it comes to low-income economies, Figure 13 suggests a small but positive development in six out of seven economies in our 2006 constant sample. Among these, Ethiopia and Kenya register the largest improvements while only Burkina Faso has seen a slight decline in competitiveness.

The most problematic factors for doing business in Africa

The results of the GCI provide a sense of the many factors that are holding back Africa's competitiveness. To complement this analysis, each year the World Economic Forum collects the perspective of top executives about the main bottlenecks to doing business in their countries. From a list of 16 factors, respondents are asked to select the five most problematic among them and rank them from 1 (most problematic) to 5. Figure 14 shows that this year, similar to the 2013 *Report,* access to financing, corruption, and the inadequate supply of infrastructure

not only remain the most important hindrances to doing business in sub-Saharan countries, but are considered to be so by a larger share of respondents. These factors also represent the most important barriers to doing business in North Africa. While in the last *Report* inefficient government bureaucracy was considered the second most important barrier in North Africa, concerns about this factor have been somewhat alleviated. Interestingly, business leaders across the region are concerned about an inadequately educated workforce, indicating an insufficient education and, in some of the more advanced economies, also a skills mismatch in the region,[48] as well as poor work ethic.

However, businesses in both subregions are concerned about somewhat different challenges in regard to all other most problematic factors. For instance, government instability coupled with policy uncertainty continue to be a worry for business leaders in North African countries, whereas inflation is a greater concern in sub-Saharan countries. It is interesting to note that, similar to the findings of the 2013 *Report,* public health receives little attention from business leaders. This is somewhat counterintuitive given the continent's major health challenges, which culminated in the recent Ebola pandemic.

CONCLUSIONS

This chapter has provided input into the debate of what it would take for Africa to transform its economies to reach a higher level of competitiveness by analyzing the results of 38 African economies in the Global Competitiveness Index 2014–2015. Although high and persistent economic growth rates characterize Africa's past decade, the same cannot be said for the region's overall performance in competitiveness, which has been stagnating. Most African countries find themselves in a development stage where basic requirements—such as sound institutions and macroeconomic policies, adequate infrastructure, and a healthy and educated workforce—will be necessary to establish a solid basis for sustainable growth. Yet these are the areas that constitute some of the biggest gaps with other regions. The continent's persistent infrastructure deficit and poor education outcomes as well as its difficulties in providing the right set of skills to match the needs of its businesses constitute the most important barriers to transforming African economies. This is particularly significant in view of the shifts of employment toward the service sector over the past two decades and the region's rapidly growing workforce. In this context, investments in public goods ranging from infrastructure to education and health are needed. Relatedly, in view of the potential for a larger value-added share of the service sector to GDP, efforts to foster greater technological adoption among the population and businesses must be made. Undoubtedly, much progress has been achieved on the continent that gave rise to innovative business models. Examples include M-PESA, the service exports in Mauritius, and Kenya's rise as a regional financial, consumer retail, and telecommunications exporter in East Africa. Yet the ICT frontier remains a moving target, and Africa will need to keep up with other regions that are pressing ahead. On the upside, however, the analysis points to the generally improving macroeconomic stability in the region—evident, for example, in lower inflation although, even with this progress, important downside risks to stability remain—and the rapid reforms in the goods market.

A more detailed look at the performance of individual country groups reveals a competitiveness divide across the continent, as demonstrated by wide divergences in performance. As in the past, Mauritius and South Africa continue to perform as well or better than other emerging market economies such as Brazil and India. In particular, Mauritius has been pressing ahead steadily since 2006, and now ranks as the most competitive African economy, ahead of South Africa. A second cluster of countries, including Rwanda, Morocco, Botswana, and Algeria, performs better than the Latin American average, while a third and wider set of countries, including Tunisia, Namibia, Kenya, Seychelles, Zambia, Gabon, Lesotho, Ghana, Senegal, Cape Verde, Côte d'Ivoire, Cameroon, and Ethiopia outperform the sub-Saharan African average; the first four even outperform the North African average.

In view of these divergences, this year's chapter classifies African economies into four specific groups—oil-exporting economies, fragile economies, non-fragile low-income economies, and middle-income economies—continuing the analysis of the *2013 Report.* The analysis suggests that Africa's middle-income economies on average compare well with other regions, such as Latin America and the Caribbean, as they have in place comparatively strong basic requirements. However, oil- and gas-exporting economies are a long way from establishing the fundamentals needed for competitive economies. Low-income economies and selected fragile economies, such as Burundi, Côte d'Ivoire, and Zimbabwe, have made slow but encouraging improvements since the 2013 *Report.*

Having identified the main competitiveness challenges, the following chapters explore in greater detail specific barriers and challenges to transforming Africa's economies. Chapters 2.1 and 2.2 look at agriculture and services, respectively, addressing the two main sectors that account for the largest share of employment. Increasing productivity in these sectors could help unleash Africa's development through productivity enhancements and greater integration into global and regional value chains. Chapter 2.3 brings these together by exploring how Africa could tap the potential of global value chains to transform its economies by developing and expanding new activities and building dynamic and competitive manufacturing, agriculture, and service sectors.

NOTES

1 Estimates suggest that by 2020 more than half of the continent's population will be below the age of 25 (IMF 2014a).

2 The Human Development Index scores are available for each of the countries highlighted in this *Report* in the Country Profiles of Part 3.

3 Lipton 2012.

4 The World Bank's *Doing Business 2015: Going Beyond Efficiency* shows that over the past five years, 11 different sub-Saharan African countries have appeared on the annual list of the 10 global top improvers. Some, such as Burundi, Cape Verde, Côte d'Ivoire, and Rwanda, have done so multiple times.

5 Timmer et al. 2014.

6 Duarte and Restuccia 2010; Herrendorf et al. 2013; McMillan and Harttgen 2014.

7 AfDB, OECD, and UNDP 2013.

8 Part of the difficulty in measuring structural transformation in Africa stems from the lack of updated data on the composition of value-added. As GDP rebasing takes place with some time lag, we might not be capturing part of the changes that have occurred in recent years. For Nigeria, for example, the GGDC 10-sector database does not yet provide a complete value-added time-series consistent with the GDP rebasing carried out in 2014, since full details and potential additional refinements behind the revision have not been published yet. Currently available data may thus underestimate the size of the service and manufacturing sector in Nigeria, assigning disproportionate weight to the agriculture and mining sectors.

9 Alternatively, sector value-added as a percent of GDP can be drawn from the World Bank's World Development Indicators database. Yet this allows only for a breakdown into agriculture, industry, and services. On an aggregate level, the two databases support the same story.

10 This may in part be the result of declining employment in the sector.

11 Also see Inklaar and Timmer 2014.

12 Ghani et al. 2012.

13 AfDB et al. 2013.

14 The 12 pillars are measured using both quantitative data from public sources (such as inflation, Internet penetration, life expectancy, and school enrollment rates) and data from the World Economic Forum's Executive Opinion Survey (the Survey), conducted annually among top executives in all of the countries assessed. The Survey provides crucial data on a number of qualitative issues (e.g., corruption, confidence in the public sector, quality of schools) for which no hard data exist.

15 In order to capture the resource intensity of an economy, we use as a proxy the exports of mineral products as a share of overall exports according to the sector classification developed by the International Trade Centre in their Trade Performance Index. In addition to crude oil and gas, this category contains all metal ores and other minerals as well as petroleum products, liquefied gas, coal, and precious stones. The data used cover the years 2009 through 2013 or the most recent year available. Further information on these data can be found at http://legacy.intracen.org/appli1/TradeCom/Documents/ TradeCompMap-Trade%20Performance%20Index-Technical%20 Notes-EN.pdf.

All countries with more than 70 percent of their exports made up of mineral products are considered to be to some extent factor driven. The stage of development for these countries is adjusted downward smoothly depending on the exact primary export share. The higher the mineral export share, the stronger the adjustment and the closer the country will move to stage 1. For example, a country that exports 95 percent of mineral exports and that, based on the income criteria, would be in stage 3 will be in transition between stages 1 and 2. The income and primary exports criteria are weighted identically. Stages of development are dictated solely by income for countries that export less than 70 percent minerals. Countries that export only primary products would automatically fall into the factor-driven stage (stage 1).

16 The data for Libya derive from the Global Competitiveness Index 2014–2015, which was published in early September 2014. The data, therefore, do not reflect current developments in the country. These are expected to be reflected in the next iteration of the GCI 2015–2016.

17 The BRIC economies are Brazil, the Russian Federation, India, and China; they exclude South Africa.

18 To provide the most complete picture of Africa's competitiveness, Part 3 of this *Report* features a country profile for Benin and Liberia based on the GCI 2013–2014 results. For a detailed description of the Executive Opinions Survey, see Browne et al. 2014.

19 *Education* refers to primary education and health (pillar 4) and higher education and training (pillar 5), although the latter is, strictly speaking, classified as an efficiency enhancer in the Global Competitiveness Index.

20 World Economic Forum 2013a.

21 UNCTAD 2013.

22 World Economic Forum 2013a.

23 Even in developed economies, the infrastructure gap is widening as a result of demographics, lack of public financing, inadequate public-private partnership delivery models, and unplanned operations and maintenance of infrastructure. The OECD benchmark is, therefore, to be seen as a second best.

24 World Economic Forum 2012b.

25 World Economic Forum 2014b.

26 IMF 2014b.

27 And indeed, new data from the Global Risks Perception Survey indicate that Africa stands least prepared to address unemployment and underemployment. See World Economic Forum 2015a, 2015b. See also *The Africa Competitiveness Report 2013,* Chapter 1 (World Economic Forum 2013a) on the youth unemployment challenge.

28 World Bank 2014a.

29 IMF 2015.

30 AfDB et al. 2013.

31 Qiang and Rossotto 2009.

32 See *The Global Information Technology Report 2015* (World Economic Forum 2015c) for a detailed discussion on economic and social impact of ICTs.

33 World Bank and African Development Bank 2012.

34 This pillar consists of quantitative data: (1) government budget balance, (2) gross national savings, (3) inflation, and (4) government debt as well as qualitative data on country credit rating. It is important to note that this pillar evaluates the stability of the macroeconomic environment, so it does not directly take into account the way in which public accounts are managed by the government. This qualitative dimension is captured in the institutional pillar of the GCI.

35 IMF 2014b.

36 World Bank 2014b.

37 UNCTAD 2014, p. 10.

38 We follow the IMF's country classification applied in the *Regional Economic Outlooks* on sub-Saharan Africa based on the most recent data on per capita gross national income (averaged over three years) and the 2013 World Bank's (IDA) Resource Allocation Index (IRAI). Oil-exporting countries are those where oil exports make up more than 30 percent of total exports. Middle-income countries not classified as oil-exporter or fragile countries are those that had had average per capita gross national income in the years 2011–13 of more than US$1,035.00 (calculated by the World Bank using the Atlas method, which reduces the impact of exchange rate fluctuations); and the IRAI (scores higher than 3.2). Low-income countries not classified as fragile or oil exporters had an average income per capita gross national income in the years 2011–13 equal to or lower than US$1,035.00 (World Bank, Atlas method) and IRAI scores higher than 3.2; and fragile countries not classified as oil exporters had IRAI scores of 3.2 or less, with the exception of Malawi—on the basis that it is not classified as "fragile" in the World Bank's harmonized list of fragile states (see IMF's *Regional Economic Outlook* October 2014). The criteria are extended to North African economies.

39 See Appendix C and individual country profiles in Part 3 for more detailed country-level information.

40 This pillar evaluates the stability of the macroeconomic environment, so it does not directly take into account the way in which public accounts are managed by the government. This qualitative dimension is captured in the institutional pillar of the GCI. The data refer to the GCI 2014–2015 and may not reflect the most recent developments in energy prices. These will be reflected in the GCI 2015–2016 that will launch at the end of September, 2015.

41 The Inequality-adjusted Human Development Index is available at http://hdr.undp.org/en/data.

42 Dobbs et al. 2013.

43 Some of these resource-rich countries—such as Equatorial Guinea—are not covered in this chapter because they are not included in the GCI.

44 See IMF 2014b.

45 Technically speaking, Rwanda ranks 86th in the health and primary education pillar, and Kenya 87th in the technological readiness pillar.

46 See World Economic Forum 2014a.

47 In the case of Gambia, the difference between two points in time conceals gradual improvements in its overall competitiveness between 2006 and 2009, which were undone by a decline in the following years (see Appendix D).

48 AfDB et al. 2014.

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Appendix A: Computation and structure of the Global Competitiveness Index 2014–2015

This appendix presents the structure of the Global Competitiveness Index 2014–2015 (GCI). The numbering of the indicator matches the numbering of the data tables. The number preceding the period indicates to which pillar the indicator belongs (e.g., indicator **1**.11 belongs to the 1st pillar and indicator **9**.04 belongs to the 9th pillar).

The computation of the GCI is based on successive aggregations of scores from the indicator level (i.e., the most disaggregated level) all the way up to the overall GCI score. Unless noted otherwise, we use an arithmetic mean to aggregate individual indicators within a category.[a] For the higher aggregation levels, we use the percentage shown next to each category. This percentage represents the category's weight within its immediate parent category. Reported percentages are rounded to the nearest integer, but exact figures are used in the calculation of the GCI. For example, the score a country achieves in the 11th pillar accounts for 50 percent of this country's score in the *innovation and sophistication factors* subindex, irrespective of the country's stage of development. Similarly, the score achieved on the *transport infrastructure* subpillar accounts for 50 percent of the score of the *infrastructure* pillar.

Unlike the case for the lower levels of aggregation, the weight put on each of the three subindexes (*basic requirements*, *efficiency enhancers*, and *innovation and sophistication factors*) is not fixed. Instead, it depends on each country's stage of development, as discussed in the chapter.[b] For instance, in the case of Burundi—a country in the first stage of development—the score in the *basic requirements* subindex accounts for 60 percent of its overall GCI score, while it represents just 20 percent of the overall GCI score of Sweden, a country in the third stage of development. For countries in transition between stages, the weighting applied to each subindex is reported in the corresponding profile at the end of this volume. For instance, in the case of Gabon, currently in transition from stage 1 to stage 2, the weight on each subindex is 51.5 percent, 41.4 percent, and 7.1 percent, respectively, as reported in the country profile on page 126 of *The Global Competitiveness Report 2014–2015*.

Indicators that are not derived from the Executive Opinion Survey (the Survey) are identified by an asterisk (*) in the following pages. The Technical Notes and Sources section at the end of the *Report* provides detailed information about each of these indicators. To make the aggregation possible, the indicators are converted to a 1-to-7 scale in order to align them with the Survey results. We apply a min-max transformation, which preserves the order of, and the relative distance between, country scores.[c]

Indicators that are followed by the designation "1/2" enter the GCI in two different pillars. In order to avoid double counting, we assign a half-weight to each instance.[d]

Weight (%) within immediate parent category

BASIC REQUIREMENTS ..... 20–60%[b]

1st pillar: Institutions 25%

A. Public institutions 75%

1. Property rights 20%
   - 1.01 Property rights
   - 1.02 Intellectual property protection[1/2]

2. Ethics and corruption 20%
   - 1.03 Diversion of public funds
   - 1.04 Public trust in politicians
   - 1.05 Irregular payments and bribes

3. Undue influence 20%
   - 1.06 Judicial independence
   - 1.07 Favoritism in decisions of government officials

4. Government efficiency 20%
   - 1.08 Wastefulness of government spending
   - 1.09 Burden of government regulation
   - 1.10 Efficiency of legal framework in settling disputes
   - 1.11 Efficiency of legal framework in challenging regulations
   - 1.12 Transparency of government policymaking

5. Security 20%
   - 1.13 Business costs of terrorism
   - 1.14 Business costs of crime and violence
   - 1.15 Organized crime
   - 1.16 Reliability of police services

B. Private institutions 25%

1. Corporate ethics 50%
   - 1.17 Ethical behavior of firms

2. Accountability 50%
   - 1.18 Strength of auditing and reporting standards
   - 1.19 Efficacy of corporate boards
   - 1.20 Protection of minority shareholders' interests
   - 1.21 Strength of investor protection*

2nd pillar: Infrastructure....25%

A. Transport infrastructure....50%

2.01 Quality of overall infrastructure
2.02 Quality of roads
2.03 Quality of railroad infrastructure[e]
2.04 Quality of port infrastructure
2.05 Quality of air transport infrastructure
2.06 Available airline seat kilometers*

B. Electricity and telephony infrastructure....50%

2.07 Quality of electricity supply
2.08 Mobile telephone subscriptions*[1/2]
2.09 Fixed telephone lines*[1/2]

3rd pillar: Macroeconomic environment 25%

3.01 Government budget balance*
3.02 Gross national savings*
3.03 Inflation*[f]
3.04 Government debt*
3.05 Country credit rating*

4th pillar: Health and primary education....25%

A. Health....50%

4.01 Business impact of malaria[g]
4.02 Malaria incidence*[g]
4.03 Business impact of tuberculosis[g]
4.04 Tuberculosis incidence*[g]
4.05 Business impact of HIV/AIDS[g]
4.06 HIV prevalence*[g]
4.07 Infant mortality*
4.08 Life expectancy*

B. Primary education....50%

4.09 Quality of primary education
4.10 Primary education enrollment rate*

EFFICIENCY ENHANCERS ....35–50%[b]

5th pillar: Higher education and training....17%

A. Quantity of education....33%

5.01 Secondary education enrollment rate*
5.02 Tertiary education enrollment rate*

B. Quality of education....33%

5.03 Quality of the education system
5.04 Quality of math and science education
5.05 Quality of management schools
5.06 Internet access in schools

C. On-the-job training....33%

5.07 Local availability of specialized research and training services
5.08 Extent of staff training

6th pillar: Goods market efficiency 17%

A. Competition....67%

1. Domestic competition ....variable[h]

6.01 Intensity of local competition
6.02 Extent of market dominance
6.03 Effectiveness of anti-monopoly policy
6.04 Effect of taxation on incentives to invest
6.05 Total tax rate*
6.06 Number of procedures required to start a business*[i]
6.07 Time required to start a business*[i]
6.08 Agricultural policy costs

2. Foreign competition ....variable[h]

6.09 Prevalence of trade barriers
6.10 Trade tariffs*
6.11 Prevalence of foreign ownership
6.12 Business impact of rules on FDI
6.13 Burden of customs procedures
6.14 Imports as a percentage of GDP*[j]

B. Quality of demand conditions 33%

6.15 Degree of customer orientation
6.16 Buyer sophistication

7th pillar: Labor market efficiency 17%

A. Flexibility....50%

7.01 Cooperation in labor-employer relations
7.02 Flexibility of wage determination
7.03 Hiring and firing practices
7.04 Redundancy costs*
7.05 Effect of taxation on incentives to work

B. Efficient use of talent....50%

7.06 Pay and productivity
7.07 Reliance on professional management[1/2]
7.08 Country capacity to retain talent
7.09 Country capacity to attract talent
7.10 Female participation in labor force*

8th pillar: Financial market development....17%

A. Efficiency....50%

8.01 Availability of financial services
8.02 Affordability of financial services
8.03 Financing through local equity market
8.04 Ease of access to loans
8.05 Venture capital availability

B. Trustworthiness and confidence 50%

8.06 Soundness of banks
8.07 Regulation of securities exchanges
8.08 Legal rights index*

9th pillar: Technological readiness....17%

A. Technological adoption....50%

9.01 Availability of latest technologies
9.02 Firm-level technology absorption
9.03 FDI and technology transfer

B. ICT use....50%

9.04 Internet users*
9.05 Broadband Internet subscriptions*
9.06 Internet bandwidth*
9.07 Mobile broadband subscriptions*
2.08 Mobile telephone subscriptions*[1/2]
2.09 Fixed telephone lines*[1/2]

10th pillar: Market size....17%

A. Domestic market size 75%

10.01 Domestic market size index*[k]

B. Foreign market size 25%

10.02 Foreign market size index*[l]

INNOVATION AND SOPHISTICATION FACTORS .....5–30%[b]

11th pillar: Business sophistication 50%

11.01 Local supplier quantity
11.02 Local supplier quality
11.03 State of cluster development
11.04 Nature of competitive advantage
11.05 Value chain breadth
11.06 Control of international distribution
11.07 Production process sophistication
11.08 Extent of marketing
11.09 Willingness to delegate authority
7.07 Reliance on professional management[1/2]

12th pillar: R&D Innovation.....50%

12.01 Capacity for innovation
12.02 Quality of scientific research institutions
12.03 Company spending on R&D
12.04 University-industry collaboration in R&D
12.05 Government procurement of advanced technology products
12.06 Availability of scientists and engineers
12.07 PCT patent applications*
1.02 Intellectual property protection[1/2]

NOTES

a Formally, for a category i composed of K indicators, we have:

$$category_i = \frac{\sum_{k=1}^{K} indicator_k}{K}$$

b As described in the chapter, the weights are as specified below. Refer to Table 2 of the chapter for country classification according to stage of development:

	Stage of development				
	Factor-driven stage (1)	Transition from stage 1 to stage 2	Efficiency-driven stage (2)	Transition from stage 2 to stage 3	Innovation-driven stage (3)
GDP per capita (US$) thresholds*	**<2,000**	**2,000–2,999**	**3,000–8,999**	**9,000–17,000**	**>17,000**
Weight for basic requirements	60%	40–60%	40%	20–40%	20%
Weight for efficiency enhancers	35%	35–50%	50%	50%	50%
Weight for innovation and sophistication factors	5%	5–10%	10%	10–30%	30%

* For economies with a high dependency on mineral resources, GDP per capita is not the sole criterion for the determination of the stage of development. See text for details.

c Formally, we have:

$$6 \times \left(\frac{\text{country score} - \text{sample minimum}}{\text{sample maximum} - \text{sample minimum}} \right) + 1$$

The *sample minimum* and *sample maximum* are, respectively, the lowest and highest country scores in the sample of economies covered by the GCI. In some instances, adjustments were made to account for extreme outliers. For those indicators for which a higher value indicates a worse outcome (e.g., disease incidence, government debt), the transformation formula takes the following form, thus ensuring that 1 and 7 still corresponds to the worst and best possible outcomes, respectively:

$$-6 \times \left(\frac{\text{country score} - \text{sample minimum}}{\text{sample maximum} - \text{sample minimum}} \right) + 7$$

d For those categories that contain one or several half-weight variables, country scores are computed as follows:

$$\frac{(\text{sum of scores on full-weight variables}) + \frac{1}{2} \times (\text{sum of scores on half-weight variables})}{(\text{count of full-weight variables}) + \frac{1}{2} \times (\text{count of half-weight variables})}$$

e "N/Appl." is used for economies where there is no regular train service or where the network covers only a negligible portion of the territory. Assessment of the existence of a network was conducted by the World Economic Forum based on various sources.

f In order to capture the idea that both high inflation and deflation are detrimental, inflation enters the model in a U-shaped manner as follows: for values of inflation between 0.5 and 2.9 percent, a country receives the highest possible score of 7. Outside this range, scores decrease linearly as they move away from these values.

g The impact of malaria, tuberculosis, and HIV/AIDS on competitiveness depends not only on their respective incidence rates but also on how costly they are for business. Therefore, in order to estimate the impact of each of the three diseases, we combine its incidence rate with the Survey question on its perceived cost to businesses. To combine these data we first take the ratio of each country's disease incidence rate relative to the highest incidence rate in the whole sample. The inverse of this ratio is then multiplied by each country's score on the related Survey question. This product is then normalized to a 1-to-7 scale. Note that countries with zero reported incidence receive a 7, regardless of their scores on the related Survey question. In the case of malaria, countries receive a 7 if the World Health Organization (WHO) has classified them as malaria-free countries or included them in the supplementary list of areas where malaria has never existed or has disappeared without specific measures.

h The *competition* subpillar is the weighted average of two components: *domestic competition* and *foreign competition*. In both components, the included indicators provide an indication of the extent to which competition is distorted. The relative importance of these distortions depends on the relative size of domestic versus foreign competition. This interaction between the domestic market and the foreign market is captured by the way we determine the weights of the two components. Domestic competition is the sum of consumption (C), investment (I), government spending (G), and exports (X), while foreign competition is equal to imports (M). Thus we assign a weight of (C + I + G + X)/(C + I + G + X + M) to *domestic competition* and a weight of M/(C + I + G + X + M) to *foreign competition*.

i Indicators 6.06 and 6.07 combine to form one single indicator.

j For indicators 6.14, imports as a percentage of GDP, we first apply a log-transformation and then a min-max transformation.

k The size of the domestic market is constructed by taking the natural log of the sum of the gross domestic product valued at purchased power parity (PPP) plus the total value (PPP estimates) of imports of goods and services, minus the total value (PPP estimates) of exports of goods and services. Data are then normalized on a 1-to-7 scale. PPP estimates of imports and exports are obtained by taking the product of exports as a percentage of GDP and GDP valued at PPP. The underlying data are reported in the data tables section (see Tables 10.03, 6.14, and 10.04).

l The size of the foreign market is estimated as the natural log of the total value (PPP estimates) of exports of goods and services, normalized on a 1-to-7 scale. PPP estimates of exports are obtained by taking the product of exports as a percentage of GDP and GDP valued at PPP. The underlying data are reported in the data tables.

Appendix B:
The Global Competitiveness Index 2014–2015: Africa and comparator economies, by subindex

			SUBINDEXES					
	GCI 2014–2015		Basic requirements		Efficiency enhancers		Innovation and sophistication factors	
Country/region	Rank	Value	Rank	Value	Rank	Value	Rank	Value
NORTH AFRICA								
Morocco	72	4.21	57	4.74	78	3.92	82	3.50
Algeria	79	4.08	65	4.64	125	3.34	133	2.91
Tunisia	87	3.96	85	4.38	94	3.74	93	3.40
Egypt	119	3.60	121	3.73	106	3.58	113	3.18
Libya	126	3.48	111	3.86	137	3.03	143	2.49
North African average		**3.87**		**4.27**		**3.52**		**3.09**
SUB-SAHARAN AFRICA								
Mauritius	39	4.52	38	5.04	59	4.24	53	3.85
South Africa	56	4.35	89	4.30	43	4.45	37	4.07
Rwanda	62	4.27	67	4.62	91	3.77	66	3.64
Botswana	74	4.15	72	4.53	84	3.87	110	3.22
Namibia	88	3.96	81	4.40	97	3.71	91	3.41
Kenya	90	3.93	115	3.82	66	4.12	40	4.03
Seychelles	92	3.91	50	4.85	105	3.58	69	3.62
Zambia	96	3.86	109	3.88	86	3.85	57	3.76
Gabon	106	3.74	95	4.15	119	3.37	131	2.93
Lesotho	107	3.73	102	4.09	130	3.21	117	3.12
Ghana	111	3.71	123	3.68	89	3.78	68	3.62
Senegal	112	3.70	120	3.75	102	3.62	65	3.65
Cape Verde	114	3.68	91	4.27	127	3.29	109	3.23
Côte d'Ivoire	115	3.67	119	3.75	108	3.58	86	3.47
Cameroon	116	3.66	116	3.79	113	3.48	84	3.47
Ethiopia	118	3.60	117	3.78	120	3.37	119	3.09
Tanzania	121	3.57	124	3.67	114	3.43	107	3.26
Uganda	122	3.56	126	3.59	110	3.53	104	3.30
Swaziland	123	3.55	108	3.92	126	3.32	108	3.25
Zimbabwe	124	3.54	114	3.83	133	3.12	127	2.95
Gambia, The	125	3.53	125	3.60	117	3.40	79	3.52
Nigeria	127	3.44	140	3.18	82	3.89	103	3.30
Mali	128	3.43	128	3.54	129	3.25	97	3.36
Madagascar	130	3.41	129	3.52	128	3.25	105	3.27
Malawi	132	3.25	139	3.20	122	3.35	115	3.17
Mozambique	133	3.24	133	3.29	131	3.19	120	3.05
Burkina Faso	135	3.21	135	3.25	132	3.16	128	2.95
Sierra Leone	138	3.10	141	3.14	136	3.06	130	2.93
Burundi	139	3.09	130	3.40	144	2.62	137	2.68
Angola	140	3.04	137	3.21	140	2.84	144	2.36
Mauritania	141	3.00	138	3.21	143	2.69	138	2.63
Chad	143	2.85	143	2.93	142	2.74	141	2.55
Guinea	144	2.79	144	2.76	138	2.88	142	2.55
Sub-Saharan African average		**3.58**		**3.76**		**3.42**		**3.25**
BRICs								
China	28	4.89	28	5.34	30	4.68	33	4.14
Russian Federation	53	4.37	44	4.94	41	4.49	75	3.54
Brazil	57	4.34	83	4.40	42	4.46	56	3.82
India	71	4.21	92	4.25	61	4.19	52	3.86
BRIC average		**4.45**		**4.73**		**4.45**		**3.84**
Latin America and the Caribbean average		**3.97**		**4.32**		**3.87**		**3.49**
Southeast Asian average		**4.29**		**4.62**		**4.10**		**3.74**

Appendix C:
The Global Competitiveness Index 2014–2015: Africa and comparator economies, by pillar

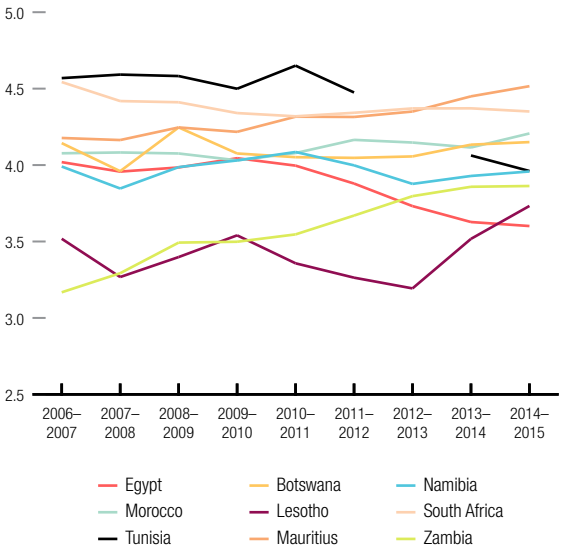
			SUBINDEXES (1st–5th pillars)									
	GCI 2014–2015		1st pillar: Institutions		2nd pillar: Infrastructure		3rd pillar: Macroeconomic environment		4th pillar: Health and primary education		5th pillar: Higher education and training	
Country/Region	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value
NORTH AFRICA												
Morocco	72	4.21	49	4.21	55	4.38	66	4.72	76	5.66	104	3.56
Algeria	79	4.08	101	3.41	106	3.12	11	6.41	81	5.61	98	3.69
Tunisia	87	3.96	81	3.70	79	3.80	111	4.03	53	6.00	73	4.28
Egypt	119	3.60	100	3.41	100	3.20	141	2.96	97	5.37	111	3.27
Libya	126	3.48	142	2.62	113	2.88	41	5.36	119	4.55	102	3.59
North African average		**3.87**		**3.47**		**3.48**		**4.70**		**5.44**		**3.68**
SUB-SAHARAN AFRICA												
Mauritius	39	4.52	35	4.60	42	4.74	74	4.66	42	6.14	54	4.66
South Africa	56	4.35	36	4.50	60	4.29	89	4.45	132	3.96	86	4.04
Rwanda	62	4.27	18	5.21	105	3.14	79	4.62	86	5.52	122	2.98
Botswana	74	4.15	39	4.47	101	3.19	13	6.30	127	4.14	101	3.59
Namibia	88	3.96	50	4.19	66	4.17	78	4.62	115	4.63	115	3.23
Kenya	90	3.93	78	3.73	96	3.27	126	3.73	120	4.55	95	3.77
Seychelles	92	3.91	54	4.04	53	4.50	57	4.89	55	5.98	85	4.04
Zambia	96	3.86	52	4.12	118	2.67	103	4.16	118	4.56	80	4.16
Gabon	106	3.74	79	3.72	114	2.86	18	6.03	130	4.01	126	2.78
Lesotho	107	3.73	68	3.86	116	2.77	28	5.69	128	4.03	116	3.23
Ghana	111	3.71	69	3.85	108	3.03	133	3.38	121	4.46	106	3.46
Senegal	112	3.70	74	3.81	111	2.93	97	4.29	131	3.96	119	3.18
Cape Verde	114	3.68	66	3.89	104	3.14	106	4.11	57	5.96	89	3.91
Côte d'Ivoire	115	3.67	86	3.64	93	3.41	68	4.70	140	3.25	121	3.12
Cameroon	116	3.66	91	3.53	126	2.47	90	4.45	112	4.70	117	3.22
Ethiopia	118	3.60	96	3.46	125	2.49	95	4.36	110	4.82	131	2.63
Tanzania	121	3.57	93	3.49	130	2.26	109	4.06	108	4.86	134	2.45
Uganda	122	3.56	115	3.29	129	2.28	96	4.36	122	4.45	129	2.68
Swaziland	123	3.55	61	3.94	97	3.26	60	4.79	134	3.69	120	3.18
Zimbabwe	124	3.54	113	3.31	124	2.54	87	4.48	106	4.99	118	3.18
Gambia, The	125	3.53	44	4.29	95	3.27	142	2.96	133	3.88	107	3.45
Nigeria	127	3.44	129	3.01	134	2.13	76	4.62	143	2.97	124	2.88
Mali	128	3.43	126	3.18	103	3.15	86	4.48	138	3.33	128	2.70
Madagascar	130	3.41	128	3.13	135	2.10	81	4.60	125	4.26	130	2.64
Malawi	132	3.25	77	3.74	131	2.21	144	2.42	123	4.42	132	2.57
Mozambique	133	3.24	127	3.16	128	2.36	110	4.06	135	3.58	138	2.39
Burkina Faso	135	3.21	117	3.28	141	2.01	83	4.55	141	3.18	136	2.42
Sierra Leone	138	3.10	107	3.37	136	2.07	117	3.94	142	3.18	137	2.39
Burundi	139	3.09	132	2.92	140	2.01	112	4.02	114	4.64	142	2.14
Angola	140	3.04	143	2.61	139	2.01	71	4.70	136	3.54	144	1.94
Mauritania	141	3.00	138	2.76	123	2.59	115	4.00	137	3.48	141	2.16
Chad	143	2.85	140	2.66	144	1.67	73	4.68	144	2.72	143	2.05
Guinea	144	2.79	134	2.81	143	1.78	138	3.20	139	3.25	140	2.19
Sub-Saharan African average		**3.58**		**3.62**		**2.81**		**4.38**		**4.21**		**3.01**
BRICs												
China	28	4.89	47	4.22	46	4.66	10	6.41	46	6.08	65	4.42
Russian Federation	53	4.37	97	3.45	39	4.82	31	5.54	56	5.97	39	4.96
Brazil	57	4.34	94	3.47	76	3.98	85	4.49	77	5.65	41	4.92
India	71	4.21	70	3.84	87	3.58	101	4.22	98	5.35	93	3.86
BRIC average		**4.45**		**3.74**		**4.26**		**5.17**		**5.76**		**4.54**
Latin America and the Caribbean average		**3.97**		**3.51**		**3.72**		**4.58**		**5.46**		**4.15**
Southeast Asian average		**4.29**		**3.94**		**3.88**		**5.08**		**5.56**		**3.94**

	SUBINDEXES (6th–12th pillars)													
	6th pillar: Goods market efficiency		7th pillar: Labor market efficiency		8th pillar: Financial market development		9th pillar: Technological readiness		10th pillar: Market size		11th pillar: Business sophistication		12th pillar: Innovation	
Country/Region	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value
NORTH AFRICA														
Morocco	58	4.41	111	3.81	69	4.02	78	3.57	56	4.17	78	3.88	90	3.11
Algeria	136	3.48	139	3.15	137	2.72	129	2.59	47	4.39	131	3.22	128	2.60
Tunisia	107	4.03	129	3.51	117	3.35	90	3.38	64	3.87	88	3.78	99	3.01
Egypt	118	3.95	140	3.08	125	3.19	95	3.21	29	4.78	95	3.70	124	2.65
Libya	139	3.32	133	3.41	144	1.95	130	2.56	85	3.33	135	3.01	144	1.98
North African average		**3.84**		**3.39**		**3.05**		**3.06**		**4.11**		**3.52**		**2.67**
SUB-SAHARAN AFRICA														
Mauritius	25	4.92	52	4.33	26	4.74	63	3.97	113	2.83	33	4.48	76	3.22
South Africa	32	4.71	113	3.80	7	5.37	66	3.86	25	4.91	31	4.49	43	3.64
Rwanda	42	4.62	9	5.08	55	4.26	98	3.14	125	2.52	84	3.83	53	3.46
Botswana	97	4.12	36	4.56	57	4.22	76	3.58	97	3.12	116	3.47	102	2.97
Namibia	96	4.13	55	4.31	46	4.43	89	3.42	119	2.74	94	3.72	91	3.10
Kenya	62	4.40	25	4.68	24	4.77	87	3.48	74	3.62	44	4.38	38	3.69
Seychelles	88	4.18	44	4.44	103	3.65	70	3.73	143	1.46	66	3.99	73	3.25
Zambia	37	4.65	88	4.06	50	4.37	105	2.99	110	2.88	60	4.10	54	3.42
Gabon	126	3.81	69	4.23	105	3.57	108	2.95	109	2.89	133	3.18	122	2.68
Lesotho	80	4.24	76	4.16	123	3.27	137	2.37	139	2.01	123	3.37	110	2.87
Ghana	67	4.34	98	3.94	62	4.15	100	3.11	69	3.71	70	3.94	63	3.31
Senegal	68	4.34	68	4.23	85	3.80	96	3.21	104	2.96	77	3.90	57	3.39
Cape Verde	110	4.01	126	3.59	115	3.36	80	3.54	144	1.30	114	3.48	101	2.98
Côte d'Ivoire	82	4.23	73	4.21	78	3.86	117	2.81	94	3.23	100	3.66	69	3.28
Cameroon	113	3.99	81	4.11	108	3.51	120	2.76	91	3.30	98	3.68	71	3.27
Ethiopia	124	3.84	78	4.15	120	3.33	133	2.46	66	3.81	127	3.32	109	2.87
Tanzania	122	3.90	47	4.39	96	3.72	131	2.51	75	3.61	112	3.49	98	3.03
Uganda	119	3.95	27	4.66	81	3.81	119	2.78	86	3.32	109	3.53	96	3.06
Swaziland	98	4.09	105	3.86	71	4.00	125	2.66	136	2.09	101	3.63	112	2.86
Zimbabwe	133	3.58	137	3.25	112	3.44	109	2.95	132	2.31	130	3.28	125	2.63
Gambia, The	111	4.00	38	4.54	94	3.74	103	3.02	142	1.65	71	3.93	89	3.11
Nigeria	87	4.19	40	4.53	67	4.06	104	3.02	33	4.70	87	3.78	114	2.82
Mali	104	4.07	102	3.89	122	3.32	112	2.86	122	2.66	102	3.62	92	3.10
Madagascar	102	4.08	39	4.53	132	2.85	127	2.63	114	2.77	117	3.46	94	3.09
Malawi	108	4.03	28	4.63	79	3.82	135	2.41	123	2.63	108	3.54	115	2.80
Mozambique	116	3.99	104	3.88	126	3.14	122	2.71	101	3.07	125	3.34	118	2.76
Burkina Faso	127	3.81	70	4.22	127	3.14	132	2.49	111	2.87	136	3.00	107	2.89
Sierra Leone	117	3.98	95	4.01	116	3.36	138	2.36	133	2.27	128	3.28	130	2.58
Burundi	135	3.49	103	3.89	142	2.37	142	2.10	141	1.74	139	2.91	133	2.46
Angola	143	2.92	128	3.52	140	2.50	140	2.34	65	3.84	144	2.61	142	2.12
Mauritania	138	3.35	141	3.07	141	2.50	123	2.71	131	2.33	142	2.85	136	2.41
Chad	142	2.94	120	3.72	136	2.74	143	2.09	106	2.92	143	2.77	139	2.34
Guinea	137	3.40	89	4.05	134	2.85	139	2.35	127	2.44	141	2.85	141	2.25
Sub-Saharan African average		**4.01**		**4.14**		**3.64**		**2.89**		**2.86**		**3.54**		**2.96**
BRICs														
China	56	4.42	37	4.55	54	4.30	83	3.53	2	6.86	43	4.38	32	3.91
Russian Federation	99	4.09	45	4.42	110	3.50	59	4.19	7	5.77	86	3.79	65	3.29
Brazil	123	3.85	109	3.83	53	4.30	58	4.21	9	5.66	47	4.32	62	3.31
India	95	4.13	112	3.81	51	4.34	121	2.75	3	6.26	57	4.18	49	3.53
BRIC average		**4.12**		**4.15**		**4.11**		**3.67**		**6.14**		**4.17**		**3.51**
Latin America and the Caribbean average		**4.06**		**3.85**		**3.92**		**3.62**		**3.60**		**3.89**		**3.10**
Southeast Asian average		**4.47**		**4.41**		**4.14**		**3.48**		**4.15**		**4.04**		**3.43**

Appendix D: Trends in scores: All African economies, 2006 constant sample

The figures in this appendix show the performance of the 24 economies that have been covered in the Global Competitiveness Index since 2006. So that the trends can be considered by economy type, each category is presented separately; these groupings, which follow the International Monetary Fund's classifications, are discussed in the chapter's "Africa's competitiveness divide" section and shown also in Figure 12.

Figure D1: Middle-income economies
GCI score (1–7)



Note: Data for Tunisia were not collected in 2012–2013.

Figure D2: Low-income economies
GCI score (1–7)

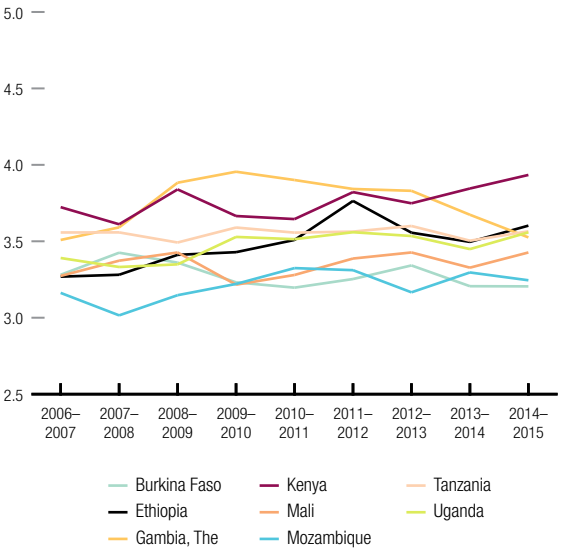


Figure D3: Oil-exporting economies
GCI score (1–7)

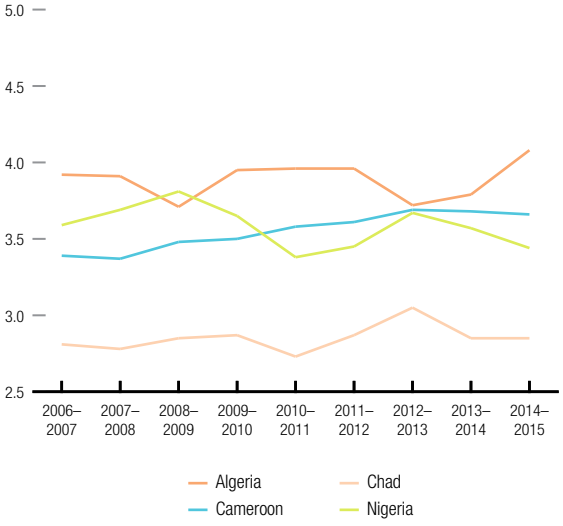
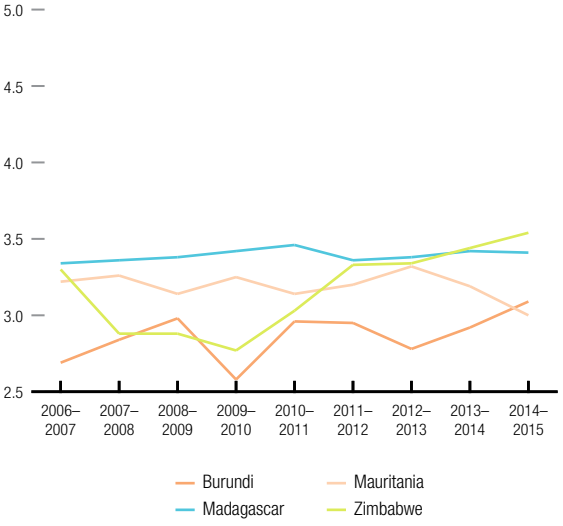


Figure D4: Fragile economies
GCI score (1–7)



Sources: World Economic Forum, 2006–2014.
Note: Only those countries that have been covered without interruption since 2006 are shown, with the exception of Tunisia (not covered in 2012–2013).

Part 2

Transforming Africa's Economies

CHAPTER 2.1

Transforming Africa's Agriculture to Improve Competitiveness

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Agriculture persists as an important sector of the African economy. Although its significance in the economy varies widely across African countries, agriculture remains a vital sector for most countries. It contributes from 2.4 percent of GDP in Equatorial Guinea to 70 percent of GDP in Liberia,[1] providing an average of around 15 percent of GDP for the continent. The declining GDP contribution of agriculture to the economy is a sign of low productivity and limited value addition to agricultural commodities, as the sector provides employment for 50 percent of the labor force (see Chapter 1.1, Figure 4); 47 percent of these workers are women.[2] It is the main source of income for Africa's rural population—estimated to represent 64 percent of the total. Africa's agriculture is dominated by a variety of staple food crops (maize, rice, sorghum, millet, cassava, yams, sweet potatoes, etc.) and a few traditional cash crops (coffee, cotton, cocoa, oil palm, sugar, tea, and tobacco). The sector is also characterized by a high percentage of smallholder farmers (80 percent) cultivating low-yield staple food crops on small plots with a minimal use of inputs. These farms depend on rainwater, thus subjecting production to the vagaries of the weather.

Despite its importance, agricultural productivity remains dismal, undermining Africa's overall productivity and food security. The sector's productivity in Africa considerably lags other developing regions (see Figure 1 for cereal yields; see also Chapter 1.1, Figure 5a) and, unlike other regions, Africa has not benefited from the green revolution.[3] In spite of its vast natural resources, including a huge expanse of arable land, Africa has the highest incidence of undernourishment (estimated at almost one in four persons) worldwide. Africa imports food staples valued at about US$25 billion annually, essentially because food production, supply, and consumption systems are not functioning optimally. The level of value addition and crop processing of agricultural commodities is low and post-harvest losses in sub-Saharan Africa average 30 percent of total production, meaning that the region loses over US$4 billion each year.[4]

Moreover, the poor performance in agriculture undermines poverty reduction and inclusive growth. Despite its fast economic growth in the last two decades, poverty reduction in Africa has remained limited. *The Millennium Development Goals Report* finds that the share of people in sub-Saharan Africa living on less than US$1.25 a day slightly decreased, dropping

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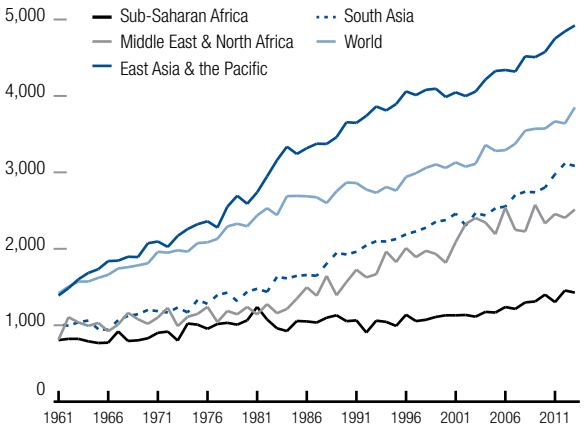
Figure 1: Cereal yields by region, 1961–2013
Kilograms per hectare



Source: World Bank, 2015.

from 56 percent in 1990 to 48 percent in 2010.[5] The limited decrease in poverty is partly the result of the fact that growth has been driven mostly by low labor-intensive sectors such as mining, while agriculture played a minor role. A substantial body of the literature finds that agriculture-led growth has greater impact on poverty reduction than non-agriculture-led growth.[6] The agriculture sector is a key to achieving inclusive growth because, in Africa, it consists mostly of smallholder farmers, the majority of whom are women.[7] With higher agricultural productivity; gender-equal access to land, seed, and fertilizer; and overall better performance in rural economies, growth will reach the most disadvantaged—namely women and youth. However, considerable effort is needed to ensure that institutions and mechanisms for inclusion are put in place, while at the same time pushing toward the development of large commercial farming.

The slow productivity growth in agriculture is also constraining Africa's structural transformation process and economic diversification. As reported in several studies on structural transformation, reliance on subsistence production and weak productivity growth in the agriculture sector prevents the workforce from moving out of this sector into manufacturing and services.[8] Globally, countries that have developed successfully are those that have shifted their resources from agriculture to manufacturing.[9] However, as indicated in Chapter 1.1 Figure 4, this is not the case for Africa, where labor tends to move more into services, in particular trade, rather than into the manufacturing sector. Given the low productivity in services and the prominence of the informal service sector, this current pattern of structural transformation will not yield sustainable income growth for the majority of people nor will it lead to economic development.[10] Inclusive growth and higher income for the majority requires higher productivity in labor-intensive sectors, including agriculture. As outlined in its 10-year strategy 2013–22,[11] the African Development Bank (AfDB)—the first and overarching objective of which is to promote inclusive growth—will pay particular attention to agriculture and food security, to fragile states, and to gender.

This chapter presents the ingredients needed to transform Africa's agriculture in order to make it more competitive. The next section explains the missed green revolution in Africa and draws lessons for the continent from Asia's experience. The following section analyzes the mechanisms for productivity improvements, with a particular focus on the role of information communication technologies (ICTs) in agriculture and the importance of land reforms. It also considers the opportunities and challenges of biotechnology for facilitating a quantum leap in productivity. The next section considers the role of value chains in unlocking markets for smallholders, who make up the bulk of agriculture producers in Africa. It begins with a discussion of Africa's positioning and potential within global and regional value chains and then addresses the means for creating a conducive environment that fosters greater value chain integration. The chapter then outlines the AfDB's recent and planned future support of the agriculture and agribusiness sectors to enhance both inclusiveness and competiveness. Conclusions and policy recommendations are then discussed.

IMPEDIMENTS TO AFRICA'S GREEN REVOLUTION

The green revolution benefited most regions of the world, particularly East Asia, as it resulted in regional food surpluses within 25 years. Asia benefited the most, with significant increases in cereal yields (Figure 1); in East Asia and the Pacific, for instance, cereal yields almost quadrupled between 1960 and 1990. Driven by the political will to make their countries food self-sufficient, Asian countries doubled cereal production between 1970 and 1995, while the total land area cultivated with cereals increased by only 4 percent.[12] Drawing lessons from India's experience, this success has been attributed to several factors.[13] First, the adoption of high-yielding seed varieties resulted in a substantial increase in food grain production, particularly wheat and rice. Second, the use of pesticides positively contributed to increased yields, albeit at the expense of the environment, discussed later in this chapter. Third, the availability and expansion of agricultural infrastructure facilities such as irrigation facilities, machinery, extension services, and broader infrastructure facilities—including transport and communication as well as storage and warehousing facilities—further supported the green revolution. Fourth, the expansion of better crop and soil management techniques, including multiple cropping practices, fostered the advance of the green revolution. Fifth, agricultural credit and land reform were crucial ingredients that enhanced agricultural productivity. Short-term credit facilities were provided by cooperative

banks, while long-term credit was provided by development banks. This was done together with land reforms aimed at consolidating land holdings and giving farmers security of tenure, thereby enabling farmers to access credit facilities.

However, the green revolution is more than a technology fix, and a supportive economic and policy environment remains vital to its success. Addressing the need for functioning markets to handle the surge in production went hand in hand with addressing the need to educate farmers about the new technology and to ensure that they both have access to inputs and receive a fair reward for their investments. In addition, government interventions were crucial to ensure that small farmers were included rather than left behind.[14] For instance, Asian governments formulated various pro-small farms policies including policies relating to credit, incentive prices for crops, and subsidized input prices. Consequently, the green revolution successfully reached poor and remote rural population on the Asian continent.

In contrast, Africa did not benefit from the green revolution. Figure 1 reveals that cereal yields in Africa have been virtually constant during the period 1960–90. This lack of progress—together with factors such as high population growth, policy distortions, weak institutions, poor infrastructure, extreme weather events, and political instability—explains why African countries are still dependent on food imports. While Asian countries largely increased cereal yields per hectare, African countries mainly expanded the area cultivated to enhance production. The increase in the land area cultivated, coupled with poor crop husbandry, resulted in extensive environmental problems such as nutrient mining; desertification; degraded soils; and loss of forests, wetlands, and pastures. Moreover, this poses a challenge to Africa's long-term agricultural productivity and the sustainability of its agricultural production. As a result, in the face of rapid population growth, sub-Saharan Africa imports about US$25 billion of staple foods annually despite the continent's vast agricultural potential, putting a strain on scarce foreign exchange reserves.

This chapter next considers the main reasons for the missed green revolution in Africa, focusing primarily on ecological, technical, policy, and institutional factors before drawing lessons from past green revolution experiences in Asia and adapting them to Africa.

EXPLAINING THE MISSED GREEN REVOLUTION IN AFRICA

With regard to ecological factors, Africa's soils vary by region and are, in general, very different from, and less fertile than, the Asian volcanic soils and alluvial valleys. Weather shocks such as droughts are frequent, and rainfall varies dramatically across Africa, with the northern half of the continent containing large arid areas. These ecological factors are a significant impediment to Africa's agricultural development, given the continent's low use of irrigation and overwhelming dependence on rain-fed agriculture.

International research on high-yield crops did not focus on African staple foods and agro-ecological systems. Although the green revolution in Asia can be attributed to the extended use of irrigation, improved crop varieties, and expanded use of chemical fertilizers, the implementation of similar strategies in Africa has not been successful.[15] According to the World Bank, the heterogeneity of both agro-ecological conditions and crop production (maize, cassava, millet, sorghum, cassava, yams, sweet potatoes, etc.) suggests that "outside" technologies are often not directly transferable to improve the continent's productivity. In other words, the productivity revolution in Africa needs a tailored approach and a more careful contextualization to better fit with Africa's specific agricultural conditions.[16] This includes a focus on the development of technology more suitable for Africa that is aimed not only at increasing productivity of root and tree crop production systems but also at saving labor for cereal production.[17] Likewise, improved varieties have to be developed to take into account the African environment with its specific requirements. This has started happening with the development of NERICA rice (see also Box 2) and high-yielding varieties of cassava.

Inadequate policies have distorted Africa's agriculture sector, thereby constraining technology adoption. In the past, indirect and direct taxes distorted prices and prevented farmers from adopting modern inputs such as fertilizers. In addition, many African governments established agricultural marketing boards that purchased products from farmers at fixed prices and resold the products in domestic and international markets at prevailing market prices, while controlling exchange rate to protect the local market. This scheme served to control prices so as to ensure income stability to the farmers. The implication was a lack of incentive to invest in intermediate inputs such as fertilizers.[18]

Policy and market failures account for the slow adoption of productivity-enhancing inputs such as equipment, fertilizers, and pesticides. Figure 2 shows that fertilizer use is still low in most countries. Voortman argues that several market and institutional factors have discouraged African farmers from using fertilizers.[19] First, underdeveloped markets (low volumes), high prices, and high transport costs have

Box 1: Lessons for Africa from the Asian green revolution

Some important lessons for Africa that can be drawn from the Asian green revolution include:

- **"Double green" the agricultural revolution.** Higher productivity came at the expense of environmental issues in Asia. The environmental effects of increased agricultural productivity in Africa depend heavily on the sources of productivity growth. Water- and soil-saving innovations undoubtedly have positive effects. However, such techniques are often achieved through the intensive use of manufactured inputs such as fertilizers and chemicals with negative externalities. Instead, productivity can be improved with best practices in terms of environmental impact at all levels of the value chain. Resilience to climate change will be an increasingly difficult challenge to tackle.
- **Promote responsible farmers' borrowing.** In Asia, the technological dimension of the green revolution was supplemented by heavy government intervention through subsidies on inputs. However, these massive government expenses were not sufficient to limit farmers' indebtedness. Green revolution packages ended up indebting a large number of smallholder farmers, eventually pushing them into landlessness and poverty.
- **Develop rural non-farm activities to diversify income.** The green revolution in Asia focused on rural farm activities. Kanu et al. highlight the importance of emphasizing rural non-farm activities to diversify income sources, finance on-farm investments, buy food, and stabilize household income during difficult times of drought or price shock.[1] To enhance its sustainability, income has to come from diverse sources.

Note

1 Kanu et al. 2014.

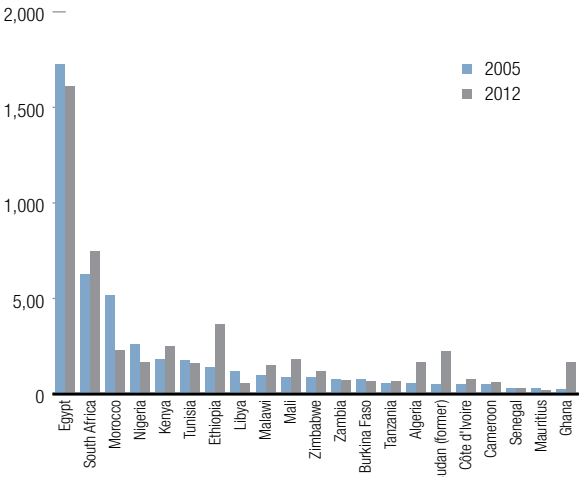
Sources: Based on Lappé et al., second edition, 1998; Kanu et al., 2014.

limited the availability of fertilizers. Indeed, as Chapter 1.1 documents, sub-Saharan Africa's infrastructure deficit (mainly roads and electricity, as well as ICTs) is significant, particularly in small and landlocked countries. This impedes the provision and use of productivity-enhancing inputs. For example, as Gollin and Rogerson argue, poor transportation networks account in large part for the low productivity of Uganda's agriculture.[20] Second and most importantly, fertilizer costs have not been recouped because soil analysis has not been taken into account to determine the appropriate fertilizers. The popular fertilizers (nitrogen and phosphorous) developed for Asian and Latin American soils have had minimal or no effect on yield in Africa.[21] Indeed, the heterogeneity of African soils requires the usage of targeted fertilizer applications.

Despite recognition of the importance of the sector in Africa, investment in agriculture has been neglected by African governments and donors.

Figure 2: Fertilizer consumption in selected African countries, 2005–12

Tons of nutrients (thousands)



Source: AfDB Statistics Department, 2015.

Although official development assistance has increased by about 250 percent between the 1980s and the 2010s, allocation to agriculture has halved. According to the Food and Agriculture Organization of the United Nations (FAO), on average, African governments reduced their spending on agriculture from 4.5 percent of total expenditure in 2001 to 2.5 percent in 2012,[22] despite their 2003 pledge to spend at least 10 percent under the African Union's 2003 Maputo Declaration target. Limited funding has prevented the development of research capability in biotechnology, the provision of adequate support for agricultural research, and private-sector participation in agriculture.

Low investment in agriculture has partly led to overreliance on rain-fed farming with very little irrigation. The irrigated share of Africa's cropland is less than a quarter of the world average.[23] Only 4 percent of crop areas are irrigated in sub-Saharan Africa; in comparison, this represents only a small fraction of the Asian investment in irrigation, where 39 percent of the production area is irrigated in South Asia and 29 percent in East Asia.[24] In contrast, Africa has numerous river systems that are not fully exploited and significant groundwater resources that remain largely untapped. These groundwater resources are unevenly spread over a wide range of agro-ecological zones, especially in Southern Africa and some parts of North Africa. Irrigation on the African continent is also hampered by poor water management, which is one result of underdeveloped institutions. Furthermore, while Asia's green revolution mainly focused on irrigated wheat and rice, sub-Saharan Africa's main staples comprise a much wider variety, including maize, cassava, millet, sorghum, yams, sweet potatoes, and plantains. This wide range of food crops reinforces the argument that Africa's agriculture needs to focus on its specific context, as discussed earlier.

Furthermore, the lack of good governance and economic institutions in Africa, especially in the financial and insurance sectors, has hampered farmers' ability to develop. The general low financial inclusion in Africa is even worse in agriculture, where the production cycle consists of high initial investment, a medium to long period of no cash inflow during the growing season, and large cash windfall after harvest. Many of the products offered by banks and financial intermediaries are inappropriate for smallholder farmers because loan repayment schedules do not take into account crop cycles. Modern financial services—such as microloans, credit registries, and value chain financing—are therefore needed to improve access to credit to smallholder farmers. The challenges of providing acceptable collateral for agricultural lending are enormous. Moreover, most countries lack tailored insurance products. This means that adverse shocks, such as droughts, often lead to famine because farmers are unprepared to respond. In this context, micro-insurance is emerging as a valuable instrument for protecting farmers. Land governance pertaining to land access, distribution, and female ownership will be further discussed below in the section on mechanisms for productivity improvement. In many countries, land ownership is governed by customary laws; this has resulted in high land inequality. Indeed, although women constitute the bulk of the labor force in the continent's agriculture sector, rules governing ownership and transfer of land rights are unfavorable to women in Africa.[25]

The green revolution in Africa is not a lost cause. Africa can gain from productivity improvements with the right set of policies, institutions, and resources, while also drawing from the lessons of the Asian green revolution (Box 1). Today many organizations are working toward this goal. Among them is the Alliance for a Green Revolution in Africa (AGRA), founded through a partnership between the Rockefeller Foundation and the Bill & Melinda Gates Foundation. AGRA is focusing on many of the issues highlighted above, including the development and distribution of high-yield seeds and the improvement of soil health, market access, and financial access. Other research institutions, such as the Africa Rice Center and the International Institute of Tropical Agriculture (IITA), are also working to develop high-yield crops. In general, international research funding and coordination among stakeholders in the agriculture sector have both expanded as the value-added of the green revolution for reducing poverty and eliminating hunger has been increasingly recognized. Some success stories are highlighted in Box 2.

The next section discusses ways to improve agricultural productivity by leveraging technology and reforming land governance.

Box 2: Recent success in the development of high-yield crops in Africa

In recent decades, research efforts have resulted in high-yield crop varieties.

For the second most important staple food in Africa, *cassava,* productivity changed with the introduction of an improved drought-tolerant cassava variety in 1977. Along with continuous improvement in breeding and pest control, the cassava yields have increased by over 40 percent in the past three decades. West Africa has seen up to 60 percent in productivity gains, which has clearly helped to reduce poverty in the region. More recently Malawi and Rwanda have demonstrated rapid production growth; it tripled in Rwanda between 2007 and 2011.[1]

The introduction of modern, high-yielding varieties of *maize* in East and Southern Africa during the 1960s allowed the crop to develop into one of the continent's major sources of calories. Over the last decade, maize production has been particularly significant in West Africa. Nigeria, for instance, has seen its maize yields rise steadily as farmers adopted improved varieties and hybrids, which are drought tolerant. Overall maize production in Africa has increased at an average 5.5 percent per year between 2000 and 2010, while areas harvested remain lower than in 1990, indicating an improvement in production technology.[2]

***Beans* are another major staple in Africa, particularly in East Africa.** Recently, nearly 10 million farmers in the region, especially in Kenya, Tanzania, and Uganda, have intensified production by relying on high-yielding climbing beans, which are more tolerant to warm temperatures. These improved varieties have brought about substantial productivity gains, as yields in Rwanda and Uganda increased 53 percent and 60 percent, respectively.[3] Moreover, in both the Democratic Republic of Congo and Rwanda, bio-fortified beans have been introduced to a wider audience, and by 2014 about one-third of the population in Rwanda farmed and consumed them.

In 1999, the NERICA (New Rice for Africa) rice, especially developed for African conditions, was released to farmers. The NERICA rice—a combination of African and Asian rice varieties—has proven to be drought tolerant, high yielding, early maturing, and resistant to African's major pests and diseases. It is now cultivated on about 200,000 hectares across Africa. The rice yields in sub-Saharan Africa have increased significantly over the last years as yields grew by 30 percent from 2007 and 2012, and with a faster rate than the global average.[4] Efforts to develop other high-yield varieties of rice are underway for other types of soils.[5]

Notes

1 FAO 2013.

2 Cadoni and Angelucci 2013.

3 Pabra 2015.

4 AfricaRice 2015.

5 Kimani et al. 2011; Singh et al. 2013.

MECHANISMS FOR PRODUCTIVITY IMPROVEMENT IN THE CONTEXT OF THE GREEN REVOLUTION: LEVERAGING TECHNOLOGY AND LAND REFORMS

The Comprehensive Africa Agriculture Development Programme (CAADP) is at the heart of the quest for agricultural productivity improvement in Africa. It was established by the African Union and the New Partnership for Africa's Development (NEPAD) in 2003, with the goal of an annual productivity growth rate of at least 6 percent.[26] The program has four pillars: (1) land and water management, (2) market access, (3) food supply and hunger eradication, and (4) agricultural research. Since 2003, agricultural GDP has grown on average by 4 percent. Nin-Pratt et al. estimate that total factor productivity (TFP) for the 2001–10 period grew on average by 2.1 percent.[27] Although this is a considerable improvement over the 1.4 percent growth seen in the 1990s, it is still below expectation. Assuming the same growth rate of inputs as observed in the 1990s, Ludena estimates that a TFP growth rate of 4.4 percent is needed to achieve an output growth rate of 6.2 percent.[28] To bridge this gap, the important factors that contributed to the green revolution (as discussed in the previous section)—including the introduction of high-yield varieties, irrigation, increased and better use of fertilizers—are still pertinent. As aptly put by Hazell, "there is an urgent need to bring the green revolution in an appropriately modified form to Sub-Saharan Africa."[29] Indeed, Africa's agriculture should take advantage of recent developments in ICTs and genetic research, which have the potential to revolutionize the sector. Land redistribution policies are also crucial for improving productivity. Before discussing the role of ICTs and land reforms in these efforts, the chapter summarizes the various factors raised in the earlier discussion of the green revolution that are necessary to transform agriculture in Africa.

The productivity drivers of the green revolution

The introduction and development of high-yield crops is at the heart of Africa's agricultural transformation. This was the most important factor in Asia and will also be the key driver of agricultural productivity in Africa. This development entails increased international and national research of plant breeding, taking into account the different types of soils on the continent. As pointed out above, research focusing on African agricultural conditions has increased, thanks to the work of various organizations, providing new hope for agriculture sector transformation. CGIAR (Consultative Group on International Agricultural Research) and AGRA, for instance, are working intensely to develop high-quality grains for African soils. Investments in research by international organizations and local government are highly beneficial. A US$1 invested by CGIAR is estimated to yield US$6 in benefits, while the same US dollar invested by governments in sub-Saharan Africa leads to US$3 in benefits.[30] However, the discovery of new crop varieties will not lead to transformation if national governments do not increase their efforts to promote the adoption of these crops through effective extension services and the support of local bureaucracies.

With the greater effects of climate change on weather patterns, irrigation has to increase substantially. Using an econometric model and data on 31 countries in sub-Saharan Africa, Fuglie and Rada find that that average yields in irrigated farms are 90 percent higher than the yields of nearby rain-fed farms.[31] You et al. estimate that internal rates of return on irrigation projects in Africa vary between 6.6 and 28.0 percent, depending on the type of irrigation and other conditions.[32] The estimates show a huge potential for irrigation in Africa. Beyond this, weather changes are increasingly unpredictable and Africa is severely hit in this regard. This means that reliance on rain-fed agriculture cannot continue and signals that Africa needs not only an increase in irrigation, but also needs to develop better mechanisms for dealing with climate variability. International organizations and national governments are working toward developing "climate-smart agriculture" to prepare the world to adapt and mitigate the effects of climate change for food security, which will certainly be of great interest to Africa's agriculture.

As soil fertility deteriorates, fertilizer use must increase. As noted earlier, fertilizers are not widely used for a variety of reasons, including market failures. Government interventions are, thus, needed to ensure availability of the right type of fertilizers, at the right price, and at the right times. Subsidies can be helpful,[33] but strong governance and farmer education are both essential for success.[34] Farmer field schools used for education and the provision of agricultural extension services are very beneficial for improving productivity and income. Furthermore, improved knowledge about the use of fertilizers lessens their potential negative impact on the environment. Davis et al. evaluate the impact of these programs in East Africa. They find an average increase of 61 percent in income, with varying degrees of success across countries.[35] In addition to fertilizers, farmers need to protect their crops from insects and pests through the careful use of insecticides and pesticides.

Market access, regulations, and governance need to improve. As shown earlier in the chapter, policy failures have prevented Africa from benefiting from the green revolution, and thus policy needs to improve for the agriculture sector to yield significant benefits. Fuglie and Rada estimate that eliminating policy distortions in agriculture would raise output by 4.7 percent.[36] Improving rural infrastructure such as roads is also crucial to raising productivity.[37] Reducing shipping time and costs would significantly reduce losses in perishable food shipping and make exporters more competitive.

As the next section will discuss, ICTs can enable and complement the above reforms.

The role of ICTs for agricultural productivity improvement

The rapid uptake of ICTs in Africa provides an important opportunity to improve the performance of agricultural value chains (AVCs) from the farm to the market. Indeed, ICTs—including mobile telephony, radios, geographic information systems (GIS), and satellite imagery technologies—have been expanding in Africa. The likely contribution from ICTs can be viewed from the perspectives of potential stakeholders along the value chain: businesses and business organizations, farmers (smallholders, commercial farms, and trade agencies), researchers, and government departments. ICTs in agriculture can also be considered based on their applications along the stages of the production cycle: pre-cultivation, crop cultivation and harvesting, and post-harvest.[38] Several potential avenues are available at each stage for applying ICTs to increase agricultural productivity. The following analysis looks at various ICT applications at each stage of the agricultural production cycle and highlights successes.

At the pre-cultivation stage, ICTs have several uses, ranging from land and crop selection to the development of crop insurance products; they can also enhance land and water management and use. In fact, ICTs can be used for facilitating the process of land registration, allocation, and use for crop selection; taking inventory; obtaining weather information on the planting calendar; and facilitating farmers' access to credit. M-PESA in Kenya is a well-known example of a mobile technology–based payment system that is increasing financial inclusion even in rural areas. ICTs can help to develop crop insurance against adverse weather shocks and crop failures. An example of this is Kilimo Salama,[39] a mobile technology–based insurance on purchased inputs (certified seed, fertilizer, and crop protection products) that protects farmers against bad weather shocks. Mobile phones are used to scan the barcode of products purchased by farmers and M-PESA is used for payout at the end of the growing season in case of bad weather. Moreover, GIS and remote sensing (RS) are increasingly being used to ensure more efficient land use and water management.[40] GIS combined with RS has been used to support the assessment of land capability, soil conditions, crop condition and yield, flood and drought risk, groundwater contamination, and pest infestation.[41] For example, Egypt has developed a soil and terrain database for the Sinai Peninsula and other regions. Satellite imagery data and GIS have also been used in Ethiopia and Mozambique to enable land registration and crop inventories. India has many applications using GIS technology to support sustainable agricultural development. One of those applications is a cropping system analysis that identifies low-productivity areas.[42]

At the crop cultivation and harvesting stage, ICTs also have other uses. ICTs can generate valuable information on land preparation and sowing, crop health, input management—particularly the choice and use of fertilizer—and pest and water management. ICTs can also be used to get information to farmers, particularly smallholder farmers who could otherwise be out of reach. In 2011, the GSMA mAgri Programme, in partnership with the Bill & Melinda Gates Foundation, launched the mFarmer initiative to support the development of mobile agricultural value-added services (Agri VAS) in four countries: India, Kenya, Mali, and Tanzania. The Agri VAS, developed by mobile network operators, is designed to offer information on crop cultivation and market prices to farmers.[43]

As in previous examples, at the post-harvest stage ICTs can provide market information that is crucial to improving market efficiency. A lack of sufficient information—including information on prices and market conditions—along with price information asymmetries make it difficult for farmers to get fair prices for their crops. The uncertainty this causes can also discourage attempts to invest more in inputs and technologies. Efforts are being made on the continent to deal with information generation and dissemination issues within the context of commodity exchanges. For example, the Esoko Ghana commodity exchange (EGCI),[44] operational since 2005, publishes a weekly cash price index of commodities. Esoko has expanded in a dozen countries and provides price and knowledge data to farmers via mobile text messages. An even better known commodity market is the Ethiopia Commodity Exchange (ECX), which addresses the huge market inefficiency that prevented commodity buyers from interacting directly with sellers, and vice versa. Information was also asymmetrical on prices and product quality. The ECX disseminates information on products' grades and prices and facilitates the coordination of buyers and sellers as well as the enforcement of contracts. All farmers in the country, including smallholder farmer cooperatives representing 2.4 million of farmers, are members of the ECX. They have access to price information, which is provided through a call center. Addressing the information asymmetry about the prices of crops in different markets has allowed farmers to have more marketing options and more bargaining power, and to increase their income by 10 to 30 percent.[45]

Other potential contributions of ICTs in agricultural productivity improvement include the traceability of food and animals, which is important for participating in global value chains. Traceability entails displaying the lot number and the production facility name on each case of the product and recording this information on invoices and bills of lading. Data can be recorded and transmitted via different ICT platforms.[46] Recently an application that monitors cattle

and provides valuable information, called iCow, was launched in Kenya. A related application is vetAfrica, which provides veterinary information. In addition, common information systems platforms linking all stakeholders are being set up in several countries as a way to share information and decrease maintenance costs. One example is Kenya's M-Kilimo, which comprises a database containing farmers' information (land size, crop, language, etc.). Farmers can call to report problems and ask questions. Specific responses are tailored to the farmer whose information is already available in the system. Government extension services also use this system to provide farmers with customized solutions.

Another recent scientific and technological innovation in the field of biotechnology and genetic engineering is having a profound impact on global agriculture. Below the potential of this technology for transforming African agriculture is considered.

Opportunities and challenges of genetically modified (GM) crops

The adoption of GM crops in Africa remains limited. In 2014, the AfDB and the International Food Policy Research Institute (IFPRI) published a report titled *GM Agricultural Technologies for Africa: A State of Affairs.*[47] The study examined the current status, issues, constraints, and opportunities presented by GM technologies in Africa. It noted that, although the use of GM crops is increasing in other developing countries, its adoption is very limited in Africa: only four countries (Burkina Faso, Egypt, South Africa, and Sudan) are currently farming some GM crops (cotton and maize). Some other countries—such as Ghana, Kenya, Malawi, Mozambique, Nigeria, and Uganda—are piloting a variety of GM crops (banana, cassava, cowpeas, etc.).

With the continent's rapid population growth and the intensification of the effects of climate change on weather patterns, high-yield GM crops that are resistant to weather shocks represent an opportunity for Africa to address food insecurity. A majority of scientists argue that GM crops are safe to consume, and they also reduce insecticide use, greenhouse gas emissions, and soil-damaging tillage while enhancing farmers' income and farm production without increasing the cultivated area.[48] A meta-analysis of 147 impact studies found that the adoption of GM crops (soybean, maize, and cotton) has, on average, "reduced chemical pesticide use by 37%, increased crop yields by 22%, and increased farmer profits by 68%."[49] A recent survey of members of the American Association for the Advancement of Science found that 89 percent of scientists argue that GM crops are safe to eat.[50] Despite the positive effects, there is still a debate on the safety of GM foods and a resistance to GM crops, especially from Europe. This debate has influenced perceptions in Africa and given way to extensive misinformation. For instance, in the midst of a famine in 2002, Zambia refused food aid that contained GM crops based on precautionary principles.[51]

The positive benefits of GM crops do not mean, however, that they are a panacea for food security in the world. Food security depends not only on production output but also on distribution and availability at the right price. Moreover, yields of GM crops depend on farming conditions, and their benefits may not outweigh their costs under poor conditions. Other farming practices may increase yields as much as GM crops do. Another worry is that the seeds are controlled by a small number of multinationals, which means that farmers will always be dependent on purchased seeds. Adverse consequences of GM crops on biodiversity and gene flow need further research.[52]

The 2014 AfDB-IFPRI report highlights the conditions necessary to increase Africa's adoption of GM crops.[53] These conditions include increased funding for research and development to enhance biotechnology capacity and genetic modification. Regulatory systems also need to boost their capacity to inform decision makers. More outreach and better communication will ensure that Africans are well informed about the risks and benefits of GM crops.

The next section explores how land reforms can address the issue of land access and distribution in Africa to improve agricultural productivity.

Land reform for higher productivity and inclusion

Africa has the highest area of arable uncultivated land (202 million hectares) in the world, yet most farms occupy less than 2 hectares.[54] This situation is a result of poor land governance and ownership that is based mostly on customary laws, which together have resulted in unequal distribution of land and uncertainty of tenure. With the introduction of land markets, land inequality and landlessness are growing in some countries, such as Côte d'Ivoire, Kenya, and Liberia, and in the Southern African region. From the 1998 household survey for Côte d'Ivoire, it is estimated that 5.56 percent of women own land versus 7.14 percent of men, and large land surfaces are concentrated in the hands of public employees.[55] The customary laws that often prevent women from ownership are a constraint to inclusive growth. Byamugisha sees land reforms as a pathway to shared prosperity in Africa.[56]

Land reforms that clearly define property rights, ensure the security of land tenure, and enable land to be used as collateral and to be allocated more efficiently will be necessary in many African countries. Land allocation under customary laws often lacks the security of tenure and prevents owners from using their assets as collateral to access finance for purchasing inputs. Moreover, highly productive farmers may lack sufficient land to expand their production. Depending on the country, land reforms have to

address access to land and distribution of land. Some countries, such as Cameroon, are using GIS systems to first register land before implementing redistribution mechanisms. The reforms should also ensure some form of tenure security that allows farmers to leverage their assets.

Land reforms in African countries where colonial systems have resulted in high levels of inequality have succeeded to varying degrees. In some countries, mostly in Southern Africa, colonial systems expropriated large portions of land from the majority of the population for the benefit of a minority. Most of these countries undertook land reforms to redistribute land and address inequality, but failed. Zimbabwe tried land expropriation from white farmers to redistribute the land to black farmers. This has largely failed because the reforms transformed the country from a food basket and exporter to a food importer. The South African reforms that attempted to avoid those mistakes through a market-based and negotiated approach have, so far, failed to redistribute large areas of land as a result of an inefficient system and insufficient implementation of land transfer, which has left the country with high levels of land inequality and, according to the government, 50 percent of land transfer projects have failed.[57] Using a similar market approach, Namibia has been more successful in reallocating land. Over the last two decades, 8 percent of agricultural land has been transferred to black farmers in South Africa, while Namibia has reallocated 27 percent of its farm land.[58] One big difference in the two systems is that Namibia does not recognize ancestral land rights, and the state has the right of first refusal in any land sale in the country. Byamugisha holds out the land reforms in Malawi as a model of success for other countries to emulate.[59] The model is based on voluntary redistribution of large corporate estates to poor farmer groups with community-based land rights. The farmer groups are provided with funds to buy agricultural inputs in order to use their newly acquired land or diversify their production. The process has, thus far, helped 15,000 households, representing about 0.5 percent of total households, to gain land ownership. However, this success has yet to eliminate land misallocation in the country.

Land redistribution policies should, however, not prevent market mechanisms from supporting the development of commercial large-scale farming. Adamopoulos and Restuccia found that the 1988 land reform in the Philippines, which imposed a ceiling on land holdings and restricted the transfer of distributed land, reduced farm size by 34 percent, and led to a decrease in agricultural productivity by 17 percent.[60] The effect of land misallocation is also found in Malawi. Restuccia and Santaeulalia-Llopis use micro data from the Malawi Integrated Survey on Agriculture collected by the World Bank in 2010–11 to study the link between land allocation and farm productivity.[61] They found that farm size was unrelated to farm productivity and capital, implying a misallocation of land. Overall, 78.3 percent of farmers in Malawi operate on less than 1 hectare and only 0.3 percent of the farms are larger than 5 hectares. The average plot size is 0.83 hectares. Land markets are practically nonexistent in the country, and most of the land is transferred through customary rights. This customary-based ownership and transfer system creates a misallocation of land, preventing more productive farmers from acquiring larger plots. An efficient redistribution of farm land would increase aggregate productivity by a factor of 3.6. This very large increase calls for the establishment of a land market in Malawi.

Going forward, it will be crucial to harness the complementarity between smallholder and large-scale farming to reduce the overreliance on smallholders and expand much-needed commercial large-scale farming. Although a fringe of the latter offers mixed results about the complementarity between large-scale farming and smallholders, recent analyses suggest that there is room to harness such complementarity whereby large-scale farming can achieve better productivity.[62] Successful transformation of agriculture will require a recognition that, as stated by Collier and Dercon, "smallholders are heterogeneous in potential and there is scope for large scale farmers as commercial enterprises, often in interaction with smaller scale farmers using institutional frameworks that encourage vertical integration and scale economies in processing and marketing."[63] If well regulated, large-scale farming could have positive spillover effects on smallholders including job creation, income generation, and the transfer of knowledge and know-how. The out-grower scheme model, where smallholder farmers supply products for a larger firm under pre-agreed mutually beneficial conditions, could be a potential mechanism to ensure such mutual benefits. This complementarity will be explored in the context of value chains, discussed in the next section.

ENHANCING THE INTEGRATION INTO AGRICULTURAL VALUE CHAINS (AVCS)

Increased globalization has created both challenges and opportunities for Africa's agriculture; these notably arise from the continent's greater integration into AVCs. Thanks to globalization, African products can now reach larger markets. However, to take advantage of this potential, African farmers need to deliver higher-quality products at competitive prices and integrate international distribution channels by satisfying the norms and standards set out by their trading partners.[64] This is a serious challenge for smallholder farmers, who supply up to 80 percent of the food in sub-Saharan Africa,[65] but who need to enhance their capacity to meet international standards.

Greater integration into AVCs is expected to boost benefits to small-scale farmers and facilitate the creation of agribusinesses for increased value addition in exported goods. The participation of small-scale farmers in AVCs will enable them to harness the interdependence among the different actors in the value chain, namely the suppliers of inputs and seeds, the farmers, the businesses providing technical support for the farmers such as agricultural machinery, the financiers, the wholesale producers of farm products, the processors, and associated sellers.[66] Consequently, participation in AVCs will facilitate small-scale farmers' access to inputs, financing, and end-markets at the local, national, regional, and international levels, thereby enabling them to have a greater voice in the value chain and enhancing their economic returns. This will, in turn, facilitate the creation of modern integrated agribusiness value chain economies based on specialization.[67] Participation in such AVCs will enable firms to "move up" into higher-value activities, capture a greater share of value in global markets, and thus enhance the sector's competitiveness.[68]

The discussion that follows will explore the potential of value chains to enhance Africa's agricultural competitiveness. It reviews Africa's global positioning as well as its potential integration into the global AVCs, which are both necessary for creating a conducive environment. The AfDB has made significant efforts to enhance the continent's integration into AVCs, as discussed later in this chapter.

Africa's positioning and potential within global and regional value chains

Even though Africa's integration within global AVCs is limited, it offers scope for greater integration within the traditional cash-crop production chain. Africa's general participation in regional and global value chain trade is discussed elsewhere in this *Report* (see Chapter 2.3). Participation in AVCs is even more challenging because international norms and standards keep evolving and are difficult to satisfy. Africa is a large global supplier of traditional cash crops (coffee, cotton, cocoa, sugar, tea, and tobacco) as raw material, which accounts for about 50 percent of Africa's total agricultural exports.[69] These tend to be producer-driven chains with limited scope for functional upgrading, given the tight control by lead producers with higher-value activities—such as processing and manufacturing—that are carried out outside Africa.[70] Nonetheless, some scope exists for product differentiation and quality upgrading within the cash-crop production chains. In fact, product differentiation presents various opportunities for increasing agricultural income from cash crops, through branding and grading specialty coffee and establishing grading systems, for example, as well as by segregating different qualities for export.[71]

The production of non-traditional crops, however, offers more scope for greater integration within the global AVCs. African economies have progressively diversified from the traditional cash crops and are increasingly engaged in the production and global sale of crops such as fruits, vegetables, fish, and flowers that belong to buyer-driven value chains. This has, in part, been the result of the proliferation of supermarkets seeking to consolidate their supply networks in order to exert more control over production processes.[72] Indeed, with Africa's greater urbanization and growing middle class, rising consumption creates more demand for local products.[73] Functional upgrading can occur in such value chains as retailers seek "ready-to-sell" products more and more, thereby advancing processing and packaging activities further along the value chain.[74]

Regional value chains offer great promise in facilitating the integration of Africa's agriculture into global value chains and need to be supported. Meeting the standards required for integrating into global value chains will be a gradual process for Africa's agriculture exporters. In the interim, gains can be made from integrating into regional value chains. Indeed, the agriculture sectors of some African countries—especially Kenya and South Africa, which are major regional exporters of processed food—are increasingly being integrated into regional value chains. For instance, the Kenya fresh vegetable (especially green beans) and dairy export industries grew considerably in size and value-added in the 2000s and are now leading producers in Africa. This success is the result of the sound implementation of new processes and operations by private Kenyan businesses, as well as the support of the public sector. Given the nature of the smallholder-based agriculture in Africa, support will need to be provided to small-scale farmers to be better organized so as to enhance their productivity and ensure the timely off-take of produce from farm to markets. Indeed, the United Nations Economic Commission for Africa (UNECA) underlines the need to support small-scale producers through national and regional cooperatives or other farmer organizations in order to facilitate their access to inputs, financial services, and markets and to enable them to defend their interests in the value chain.[75]

Five keys to a conducive environment for greater AVC integration

This section presents five keys to creating an environment conducive to fostering greater AVC integration.

First, the need to address poor domestic productive capacity and infrastructure in order to enhance Africa's effective participation in value chains cannot be overemphasized. Africa is endowed with vast resources, but its low domestic productive capacity and poor infrastructure, as well as a focus on low-value-added activities, are holding back the continent's effective participation in value chains. Indeed,

Africa's considerable endowments in natural resources and its competitive wages, as well as the significant potential of domestic and regional markets, have been well documented.[76] However, domestic productive capacity, in the form of skills and capital to produce on a large scale and meet required standards, is limited. The performance of the agriculture sector is also hampered by inadequate infrastructure, including unreliable energy, an ineffective urban-rural road network, inefficient ports, and a business and regulatory environment that overall is not conducive to doing business in agriculture make trade more costly. For instance, Bah and Fang show that, on average, Africa's firms lose 25 percent of their output as a result of the poor business environment.[77] A 2009 report by the US international trade commission also shows that poor infrastructure (especially land and maritime transport and energy) is putting African exporters at a competitive disadvantage by increasing costs and compromising the quality of exports.[78] Addressing these shortcomings will be crucial for Africa's beneficial participation in AVCs.

Second, farmers need to be provided with appropriate financing schemes so they can make necessary investments and meet required standards for integration into global value chains. Limited access to finance hinders local farmers from undertaking the requisite investments to increase productive capacity and meet the quality requirements of integration into both regional and global value chains.[79] Aforementioned efforts at land reform, enabling farmers to have security of tenure, will need to be complemented by efforts to ensure that farmers are well organized through cooperatives, farmers' unions, and associations to enhance their bargaining power, allowing them to obtain better financing terms. Improved organizational capacity on the part of farmers will also enable them to cooperate in working to meet the standards required for integration of value chains. Better access to financial facilities will need to be complemented by financial literacy training to avoid the over-indebtedness that accompanied the green revolution in Asia.

Third, efforts should be made to encourage the connection of small-scale farmers with large commercial farmers through mutually beneficial *contract farming* (also called *out-grower schemes*), thus enhancing the sector's inclusiveness. As large-scale farmers become better connected with AVCs, agribusiness initiatives will increasingly seek value additions to agriculture products and there will be a reduction in the export of raw material. In supporting these agribusiness initiatives, special attention should be given to out-grower schemes because they not only assist farmers to meet required production standards within the global value chain, but they also guarantee supply to leading firms. Contract farming usually involves a large agribusiness firm entering into contract with smallholder farmers, providing farmers with inputs on credit and extension in return for a guaranteed delivery of products.[80] Box 3 discusses the AfDB's role in

Box 3: The AfDB's role in supporting the transformation of Africa's agriculture for inclusive growth

The AfDB Group has a long experience, going back to the late 1990s, of supporting African countries in developing their agriculture sectors. The AfDB views agriculture as key to the socioeconomic development of the continent. Between 2006 and 2014, the AfDB committed 198 operations in agriculture and agribusiness, amounting to a total of US$6.33 billion. Prior to 2000, the AfDB endorsed the Integrated Rural Development approach to agriculture. In 2000, the AfDB adopted a new strategic framework embodied in the Agriculture and Rural Development Policy, which focused on addressing the critical bottlenecks of agricultural development, namely: high population growth rates, the poor state of infrastructure, declining trends in agricultural prices, persistent political instability, reliance on rain-fed agriculture, high post-harvest losses, the complex land tenure system, limited human and institutional capacity, and inaccessibility to credit. From 2010, the AfDB's operations in agriculture were guided by its Agriculture Sector Strategy (AgSS), covering the period 2010–14, with its principal objective being to guide the AfDB's operations to contribute to greater agricultural productivity, food security, and poverty reduction. Below are two examples of inclusive agribusiness projects supported by the AfDB.

The Maryland Oil Palm Plantation Project (MOPP) is a US$203 million agribusiness project. The AfDB approved US$20 million for this project in 2013. MOPP entailed a 15,000 hectare greenfield palm oil plantation and milling project in Liberia. The nucleus plantation constituted 9,000 hectares, while 6,000 hectares were to be cultivated by local farmers in an out-grower scheme involving 600 farmers. These farmers are expected to receive financing for their inputs from MOPP, which they will repay once their product is sold. Access to modern inputs such as improved seed varieties and fertilizers, extension services, and access to finance is expected to improve the livelihood of these farmers.

Approved by the AfDB in 2009, ***Agri-Vie*** is a US$100 million private equity fund focusing on small- and medium-sized enterprises in the agribusiness and food sectors. The fund closed in 2010 with 65 percent of the commitments coming from development finance institutions and the rest from the private sector (life insurance, foundations). Agri-Vie has a proactive and collaborative relationship with investees and provides training and technology transfer to out-grower farmers. In terms of results, Agri-Vie has a continuous focus on driving selected impacts per investee in the following sectors: governance (reporting, policies, and controls), workers (employment, training, and development), and community relations and environment (environmental management practices). In terms of development outcomes, by the end of 2012, Agri-Vie Fund had impacted more than 890 small- and medium-sized enterprises, 2,900 farmers, and 312 non-farmer micro-enterprises. One of the feedbacks from the managers of Agri-Vie Fund is that investment in African food and agribusiness remains robust, which is an encouraging sign.

(Cont'd.)

Box 3: The AfDB's role in supporting the transformation of Africa's agriculture for inclusive growth *(cont'd.)*

Going forward, the new AfDB Agriculture Sector Strategy (AgSS) (2015–2019) will seek to build on previous AfDB work in agriculture by bringing the agriculture sector and agribusiness to the front of Africa's structural transformation agenda. The AfDB's interventions within the framework of the AgSS for 2015–19 will be guided by two pillars: (1) agricultural infrastructure and (2) natural resource management.[1] The AgSS will embrace a value-chain approach and support innovative technologies to foster the development of value chains within the agriculture sector and its commercialization. It will promote agricultural commodity exchanges and improve access to finance for agricultural small- and medium-sized enterprises. It will also help to improve capacity building by providing specific vocational training to farmers and agricultural product dealers, for example. It will leverage mobile information services, allowing farmers to collect valuable data. It will promote best practices for investments in land, ensuring that private investments benefit rural communities. It will also pay greater attention to increasing gender mainstreaming in the AfDB's operations and programs.[2] The key features of the AgSS for 2015–19 are highlighted below.

1. **Infrastructure in agriculture:** Supporting regional member countries to develop their infrastructure systems in the agriculture sector, including improving rural infrastructure, rural electrification, irrigation, water management, and leveraging information technology systems for agriculture development;
2. **Agribusiness and innovation:** Supporting the development of agribusiness and innovation, which includes commercializing agriculture by developing the agro-industry and value chains; implementing measures to enhance agricultural trade, including promoting commodity exchange markets in the agriculture sector; and developing low-cost technologies for primary processing that retains essential nutrients; and
3. **Resilience and natural resource management:** Promoting resilience and the sustainable management of natural resources, including managing the environmental impact of agriculture activities.

Notes

1 AfDB 2015, forthcoming.

2 AfDB 2015, forthcoming.

Sources: AfDB, 2010; AfDB 2015, forthcoming. Compiled from the AfDB investment portfolio.

supporting the transformation of Africa's agriculture for inclusive growth. It provides some examples of inclusive AfDB projects in the agribusiness sector, including through private equity.

Fourth, ICTs play a key role in fostering greater integration into value chains. As noted earlier, ICTs can reduce information asymmetry and improve market efficiencies throughout the different phases of the production process as well as in the post-harvest period. These information asymmetries extend beyond the local market into regional and global markets. ICTs can be employed to improve the marketing of agricultural products into regional and global markets, while at the same time being used to receive market information in a timely manner.

Last, state intervention is crucial in supporting greater value chain integration. In the majority of poor development outcomes, coordination failure is one of the main culprits. As previously discussed, better integration into AVCs can be attained by organizing smallholder farmers in cooperatives and groups. African governments can play a vital role in facilitating the formation of those networks. Services can be leveraged for this purpose and provide information on how to better integrate AVCs. Governments should also invest more in infrastructure to improve the business climate, as its current state represents a significant competitive disadvantage for African exporters. International organizations can also help to correct coordination failures by bringing different stakeholders together and by boosting inclusive investments in the agriculture sector (see Box 4).

RECOMMENDATIONS AND CONCLUSIONS

This chapter recalls the main factors that make agriculture in Africa one of the least productive globally while the rest of the world, particularly Asia, greatly benefited from the green revolution. The chapter also discusses the ingredients needed for a more competitive agriculture sector that will lead to faster structural transformation processes across Africa.

Agriculture remains an important source of income for the majority of Africans and represents a large share of economic output in most countries in the continent. The sector consists primarily of small-scale farmers who cultivate a large variety of low-yield crops on small plots of non-irrigated land, using a minimal amount of fertilizers and pesticides. These characteristics make the sector very unproductive, leading to food insecurity and large imports of staple foods. The continent has not benefited from the green revolution that started in the 1960s, and that essentially focused on Asia and Latin America. The African continent was left behind for several reasons: (1) the development of high-yield crops focused on irrigated rice and maize, crops not very suited for African soils and ecological systems; (2) market failures and infrastructure deficits have constrained the availability and access to productivity-enhancing inputs as well as the commercialization of agricultural production in Africa; and (3) policy and institutional factors, characterized by the inefficient involvement of governments that resulted in distorted prices of both agricultural inputs and outputs as well as in low levels of technological innovation and adoption. In contrast to Africa, Asian governments have been heavily involved in the drive to revolutionize their agriculture sectors.

In order to foster Africa's green revolution, it is essential to address the factors above and simultaneously take into account the specificities of African conditions, including the continent's variety of soils and appropriate crops. This will involve increased international and national research to develop and promote high-yield crops suitable for Africa. While international research efforts have greatly increased in recent years, national governments are failing to reach their target of devoting 10 percent of national spending to agriculture as agreed under the terms of the NEPAD-CAADP. Increased national spending should support better water management to intensify irrigation, reduce the continent's dependence on rain-fed agriculture, and increase resilience to climate change. Moreover, governments need to put in a place a sound regulatory and institutional framework to minimize distortions and take advantage of new opportunities provided by the development of science and technology. Innovations in ICTs have several agricultural applications involving different stakeholders at different stages in the production cycle. Diffusion of market information, production knowledge, and geographical information are among the top applications that are being increasingly used in Africa but whose usage could be further enhanced. Since the large majority of scientists believe that GM crops are safe to eat, the technology has the potential to revolutionize Africa's agriculture. Improved yield and resistance to pests can increase farmers' income. However, skills in biotechnology are needed for a wide-scale adoption across the continent, as well as regulatory systems that ensure health and environmental safety and provide accurate information to farmers and customers.

Taking full advantage of these technologies will require a number of countries to improve their land governance systems. Land access based on customary rights that disadvantage women, unequal distribution, and the absence of land markets are preventing the most efficient farmers from the opportunity to increase their production scale. Moreover, insecure land tenure limits farmers' ability to use their land as collateral and thus to access credit markets. Land reforms accompanied with the development of financial instruments suited to the agricultural production cycle will improve the adoption of technology and expand the use of intermediate inputs.

Finally the chapter acknowledges the potential of Africa's agriculture and proposes mechanisms by which it can benefit from integration with regional and global markets. Indeed, integration in AVCs will help small-scale farmers adopt better production processes and garner higher prices for their produce. It also provides them with the opportunity to be linked with large-scale agribusinesses and diversify to higher-value crops, such as fruits, vegetables, fish, and flowers. However, meeting the high-quality standards in world markets is not easy, particularly for small-scale farmers. Thus regional AVCs can provide a stepping-stone that allows farmers to improve their production and marketing processes. This requires small-scale farmers to be better organized, for example in farmers' organizations, and to link up with large-scale agribusinesses through out-grower schemes that establish production contracts between agribusinesses and small-scale farmers. Indeed, this has been promoted by the AfDB as a way to enhance inclusiveness as the sector increases the share of large-scale commercial farming. Strong support from

Box 4: Grow Africa's approach to developing responsible, sustainable, and inclusive private-sector investment

Since its inception in 2011, Grow Africa—a partnership platform created to catalyze investment and growth in African agriculture, founded by the African Union Commission, the NEPAD Agency, and the World Economic Forum—has established itself as a trusted platform for increasing responsible, sustainable, and inclusive private-sector investment in Africa's agriculture. The network collectively works to ensure that investment commitments made by international and domestic companies in partnership with national governments are converted into investment on the ground. These investments are expected to increase farmers' income and create local jobs.

One of the most important aspects of the Grow Africa Secretariat's work is using its convening power at the highest levels to support the development of strong, effective multi-stakeholder structures to enable the public and private sectors to work together to drive investments forward. The creation of a better coordination between private-sector agricultural companies and the public sector is a significant step toward accelerating the execution of investment commitments and bringing them to scale.

Better coordination and alignment is required among different private-sector players, agribusinesses, and smallholder suppliers. Grow Africa is active in exploring, incubating, and disseminating best practice in innovative models for ensuring sustainable supply chains involving smallholder farmers. Agricultural corridors and agri-processing zones that coordinate investments into geographically targeted value-chain clusters can significantly speed up the implementation time for the individual investments within these geographic areas.

To further these efforts and locate them on the global stage, in 2015, the World Economic Forum is introducing a Global Challenge Initiative on Agriculture and Food Security—one of ten institutional initiatives addressing major issues of global concern.[1] The initiative builds on the work of the New Vision for Agriculture,[2] and is intended to strengthen leadership commitment and catalyze country-led action partnerships, such as Grow Africa.

Notes

1 Information about this global challenge is available at http://www.weforum.org/projects/group/agriculture-and-food-security.

2 Information about the New Vision for Agriculture Initiative is available at http://www3.weforum.org/docs/WEF_CO_NVA_Overview.pdf.

Source: Grow Africa Secretariat.

governments and international organizations will minimize coordination failures among stakeholders and ensure that increased integration into AVCs benefits small-scale farmers, particularly women who represent a significant share in the agricultural employment breakdown.

NOTES

1 Equatorial Guinea is not included in the Country Profiles of this *Report* because it did not have sufficient data to be included in the Global Competitiveness Index.

2 AfDB 2014.

3 The *green revolution* refers to the drastic rise in the productivity of global agriculture as a result of chemical advances and the development of high-yield crops, thus making it possible to produce much larger quantities of food and feed the growing population.

4 AfDB 2014.

5 UNDP 2014.

6 See de Janvry and Saddoulet 1996; Gallup et al. 1997; Timmer 1997; Bourguignon and Morrisson 1998; Thirtle et al. 2003; Salami et al. 2010.

7 According to the International Fund for Agricultural Development (IFAD 2010), 70 percent of the poor live in rural areas and are engaged in agriculture. At the same time, the share of urban poor is increasing rapidly with the high rate of urbanization and the slow job creation in African cities.

8 See Berthold et al. 2014 for a survey of the literature on labor reallocation across sectors.

9 Bah 2011.

10 See Bah 2013 for the case of European countries.

11 AfDB 2013. The AfDB's long-term strategy is available at http://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/AfDB_Strategy_for_2013%E2%80%932022_-_At_the_Center_of_Africa%E2%80%99s_Transformation.pdf.

12 World Bank 2008.

13 Mondal, no date.

14 Hazell 2009.

15 Nin-Pratt and McBride 2014; World Bank 2008.

16 Nin-Pratt and McBride 2014; World Bank 2008.

17 Nin-Pratt and McBride 2014.

18 Kayizzi-Mugerwa 1998.

19 Voortman 2013.

20 Gollin and Rogerson 2010.

21 Voortman 2013.

22 FAO 2015.

23 Svendsen et al. 2009.

24 World Bank 2008.

25 NEPAD 2013.

26 It is not clear what type of productivity (land, labor, or total factor productivity) the program is targeting.

27 Nin-Pratt et al. 2012. This estimate is based on the accounting approach.

28 Ludena 2005, cited by FARA 2006.

29 Hazell 2009, p. 23.

30 Fuglie and Rada 2013.

31 Fuglie and Rada 2013.

32 You et al. 2011. Other conditions that affect the internal rates of return on irrigation projects are institutional, agronomic, human, and environmental ones.

33 Africa Progress Panel 2010.

34 Fuglie and Rada 2013.

35 Davis et al. 2010.

36 Fuglie and Rada 2013.

37 Gollin and Rogerson 2010.

38 Deloitte 2012.

39 See https://kilimosalama.wordpress.com/.

40 Remote sensing (RS) is the use of aerial sensor technologies to detect and classify objects on Earth with the help of propagated signals (e.g., electromagnetic radiation).

41 Wilson 2005.

42 Deloitte 2012.

43 GSMA, no date.

44 See http://www.esoko.com.

45 Adewunmi 2012.

46 World Bank 2011.

47 AfDB-IFPRI 2014.

48 Brookes and Barfoot 2014; Nuffield Council on Bioethics 2003.

49 Klümper and Qaim 2014, p. 1.

50 Entine 2015.

51 Lewin 2007.

52 Nuffield Council on Bioethics 2003.

53 AfDB-IFPRI 2014.

54 World Bank's World Development Indicators, 2015.

55 Aka 2007.

56 Byamugisha 2013.

57 The Economist 2013.

58 Moneyweb 2014.

59 Byamugisha 2013.

60 Adamopoulos and Restuccia 2014.

61 Restuccia and Santaeulalia-Llopis 2015.

62 Collier and Dercon 2009.

63 Collier and Dercon 2009, p. 3.

64 AfDB et al. 2014.

65 FAO 2012.

66 UNECA 2012.

67 AfDB 2014.

68 Gereffi et al. 2005 cited in AfDB et al. 2014.

69 Diao and Hazell 2004.

70 AfDB et al. 2014.

71 Diao and Hazell 2004.

72 Lee et al. 2012.

73 Leke et al. 2010.

74 AfDB et al. 2014.

75 UNECA 2012.

76 James 2013.

77 Bah and Fang 2015.

78 United States International Trade Commission 2009.

79 AfDB et al. 2014.

80 AfDB et al. 2014.

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CHAPTER 2.2

Valuing Trade in Services in Africa

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The increasingly important role of services in economies across Africa is challenging long-held theories of economic development. For decades, the typical first steps on the path out of poverty have been increased agricultural productivity followed by growth in the manufacturing sector. A larger share of services in an economy has traditionally been considered a destination far in the future, an area of comparative advantage for more advanced economies. Over the last few years, Africa has been growing along a very different trajectory. Across the region, agriculture's share of gross domestic product (GDP) has declined and manufacturing, rather than growing as theory may have anticipated, has stagnated. Services, in contrast, are increasing as a share of total employment and GDP, driving value addition and providing critical inputs to boost other economic activities.

Today the service sector has not only found its way onto the development agenda, but it has also become an agenda in its own right. Because countries have begun to seize opportunities within and through services, policymakers and economists need to question old assumptions and consider new implications. What is the role of services in structural transformation and overall competitiveness? Can this sector help to reduce poverty? Is it a viable export sector in Africa? At this point, there may be more questions than answers. For decades, the service sector has received scant attention, especially in Africa. Data are scattered, insufficient, and difficult to collect. However, using the best available data and analytical tools, we can begin to seek answers to these questions.

In this context, this chapter examines the performance of services exports in Africa. A deeper analysis of trade statistics for countries in the region shows that service exports are much more significant for Africa than previously thought. The chapter also clearly illustrates the links among services and other sectors of the economy. By disaggregating value-added data, the importance of services as inputs to other export activities becomes much more evident, especially in exports of primary activities, such as agriculture and energy, and in exports of manufacturing. Based on this analysis, the chapter offers some insights to inform policies that can strengthen the competitiveness and export performance of the service sector in Africa. It also identifies how certain service trade policies, such as regulations that limit competition in service markets, have a negative impact on service exports. These findings support the argument that liberalization of the sector can contribute to service trade performance. To maximize potential gains, countries in Africa need to reduce the direct barriers to trade in services as well as the indirect ones that result from poor regulation.

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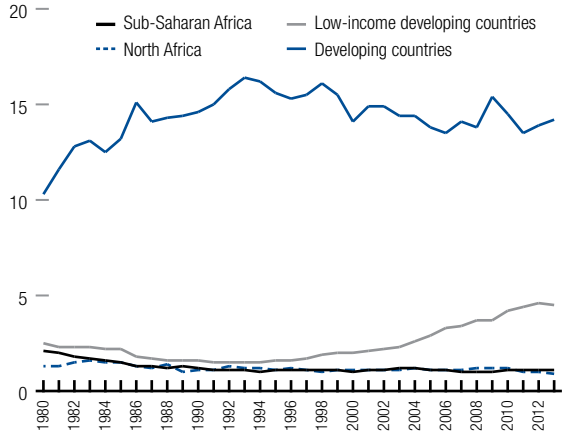
Figure 1: Service exports: Africa compared with other developing countries

Share of global service exports (percent of total exports)



Source: UNCTADStat, http://unctadstat.unctad.org/EN/Index.html.

SERVICES GO GLOBAL

Firms increasingly operate in a context of internationally fragmented production chains, a concept captured in the emerging literature on global value chains. Through this lens, trade is facilitated by flows of goods, services, investment, and knowledge necessary to produce products in multiple locations—giving rise to what has been called the *trade-investment-service-intellectual property (IP) nexus.*[1] Trade in services is one conduit that facilitates and coordinates the connections necessary to increase participation and boost competitiveness within these chains. Enhancing the competitiveness of the service sector—in effect, strengthening a country's bonds with the global economy—is now imperative for Africa's continued economic development.

Over the last few decades, the falling costs of travel, improvements in information and communication technologies (ICTs), and the development of electronic infrastructure have greatly enhanced the ability of services to be produced in one location and consumed in another. As a result, exports of services have picked up for all income groups. The rising share of low-income developing countries' service exports is particularly notable. Their participation in world service exports has increased dramatically, from 1.6 percent in 1990 to 4.5 percent in 2012 (Figure 1). But not all countries have enjoyed the same level of success.

Africa is lagging dramatically in terms of its share of global service exports. The lack of reliable service trade data in Africa presents significant challenges to understanding why this is the case. However, based on the data that are available, certain initial conclusions can be considered. Figure 1 shows that the global shares of service exports from developing countries have risen since 1980. The rising shares of developing and low-income developing countries have been dramatic, fueling much greater interest in this sector. Yet the shares of these exports in African countries have actually declined. Why is this happening and how can we identify solutions? Are some countries or sectors performing better than others? What can we learn from such comparisons? The chapter addresses these issues in subsequent sections.

New datasets and analytical tools have helped to confirm the significance of services in an economy. This importance has been successfully demonstrated through two key elements: (1) services as final exports and (2) the role of services in increasing the competitiveness of other economic activities, such as manufacturing.

Productivity in services plays a critical role as a strategic driver of economic competitiveness. The competitiveness of most exported goods in global markets depends not only on access to raw material inputs, but also on critical services inputs. These include efficient, competitively priced utilities (e.g., ICTs and transport), financial services (e.g., banking and insurance), and other commercial services (e.g., accounting, engineering, consulting, legal services, and marketing). Imported services can serve as a transmission channel for transferring new technologies. These technologies can boost performance in skill-intensive industries and increase the value-added of manufacturing exports.[2] As overall trade in services increases, the productivity of the service sector also tends to rise, further exerting a positive impact on overall productivity and growth over time.[3] Empirical literature on these impacts in Africa, in particular, also finds a significant and positive relationship between firm productivity and service performance, and confirms that inadequate access to essential producer services hurts African firms by undermining their productivity.[4]

Beyond their direct role in the economy, the development of the service sector is crucial for meeting broader poverty reduction and social development goals. For example, many of the Millennium Development Goal targets—such as education, health, and water and sanitation—are services. In addition, a more competitive service sector can contribute to gender equity in Africa (see Box 1).[5] For these reasons, increasing the competitiveness of the service sector can generate broad benefits to a country's its economy and society.

ASSESSING THE VALUE-ADDED OF SERVICES IN TRADE

Trade data are usually measured by transaction values, which is the price actually paid or payable for goods and services. *Transaction values* are gross values, or value-added plus domestic and foreign intermediate inputs. Value-added is measured as the net output of a sector after adding up all outputs and subtracting intermediate inputs. A measure of the direct contribution of services can thus be calculated by adding up the sector's value-added in services sold directly to final consumers (in the domestic economy or as exports).

Box 1: The gender dimensions of trade in services in Africa

Compelling new analysis by Coste and Dihel combines information from existing databases, qualitative evidence, and insights gathered from a business survey on professional services conducted in 17 sub-Saharan African countries to better capture gender participation in service trade.[1] The study shows that the proportion of women employed by service firms in Africa exceeds female employment in manufacturing. Sub-Saharan African countries' shares of female employment in services are also significantly higher than those in the Middle East, North Africa, and South Asia, though slightly lower than those in East Asia, Latin America, and Eastern Europe. Coste and Dihel further find that this female employment is larger than female employment in manufacturing across all regions, with the exception of East Asia where the shares are roughly equal. One possible reason more women work in the service sector than in manufacturing is the predominance of small firms involved in services. Their comparative smaller size makes it easier for women to own their own businesses. In female-managed businesses, the share of full-time female employees is substantially higher than it is in firms managed by men across all regions, though these firms are less likely to engage in export activities. By subsector, hotels and restaurants, along with wholesale and retail trade, have the highest share of female employment, female ownership, and proportion of women in top management positions. As a result, a large proportion of women are employed in highly tradable activities.

Women lack the same opportunities to access the full range of services occupations as men. The latter are overrepresented in managerial occupations, for example. Women represent only 6 percent of the top senior positions and 12 percent of the next-most-senior positions in professional services firms in East and Southern Africa. Moreover, women who work in the same occupation as men have fewer responsibilities, lower pay, and lower status for reasons unrelated to their skill or experience.[2]

Some countries are making progress in integrating women into management positions in the service sector. According to Coste and Dihel, Comoros, Madagascar, Rwanda, Swaziland, and Zambia are among the best performers in balancing gender in management positions of professional firms. Women in these countries represent almost 15 percent of the top management level. Analysis at the sector level shows that women are better represented in management of accounting and legal firms, but almost nonexistent in engineering and architectural firms.

The extent to which trade in services can act as a driver of greater gender economic opportunity for women and eliminate or mitigate barriers to achieving it requires further research. The potential links between service sector employment and gender equity are even more difficult to identify in African countries because of acute information and data gaps. There remains a critical need for more systematic data collection to fill the huge information gaps related to female participation in the service sector across Africa. The importance of improving data will only grow as the share of female employment in these sectors increases. Better data and analysis will allow a deeper understanding of the opportunities for and constraints faced by women seeking higher-skilled service jobs, as well as a further understanding of the factors that affect the trade performance of African service firms more broadly.

Notes

1 Coste and Dihel 2013.

2 ILO 2012; Staritz and Reis 2013.

Source: This box was adapted from the chapter "Services Trade and Gender" by Coste and Dihel in the book *Women and Trade in Africa: Realizing the Potential.* See Brenton et al. 2013.

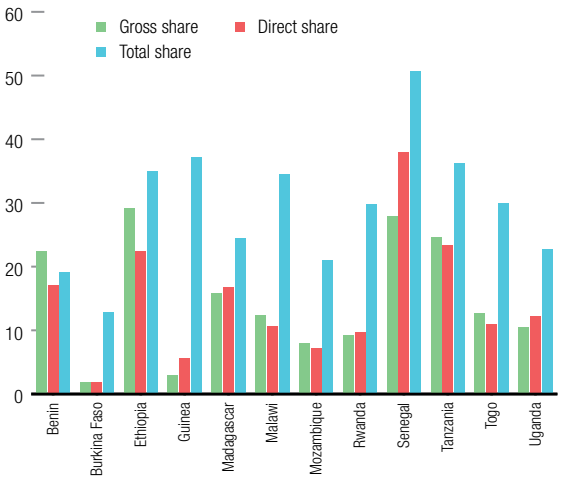
However, this is not a full reflection of the contribution of services' value-added since these services also enter as inputs in the production of products downstream in other sectors. To account for total services' value-added in exports, one needs to measure not only direct services exports but also their forward and backward linkages to other exports. *Forward linkages* are the value-added contributions of a specific sector as inputs to all other downstream sectors. Backward linkages, by contrast, capture value-added inputs demanded from other sectors. These linkages represent the interdependence of sectors of an economy. By not properly accounting for the forward linkages of services embedded as inputs in downstream sectors, gross export measures undervalue services' full contribution to trade.[6]

The importance of services in total African exports

For many countries, direct service exports are a major component of export activity. Figures 2 and 3 provide three different measures of the importance of service exports in Africa.[7] The first bar (in green) represents simply gross exports of services.[8] The second (in red) represents the share of direct service exports when measured by value-added.[9] The third bar (in blue) represents both the direct and indirect (or total) value-added of services in all exports (e.g., including forward linkages).[10] The data make clear that service exports constitute a significant share of total exports in many countries in Africa. Among Africa's least-developed countries, direct service exports comprise more than 20 percent of total exports in Ethiopia, Senegal, and Tanzania (Figure 2). Among the more developed regional economies, they make up more than 30 percent of total exports in Cameroon, Egypt, Kenya, Mauritius, and Tunisia (Figure 3). For other countries in the region, service exports are very low. This is particularly true for Burkina Faso, Guinea, and Mozambique among the least-developed countries, as well as Nigeria.

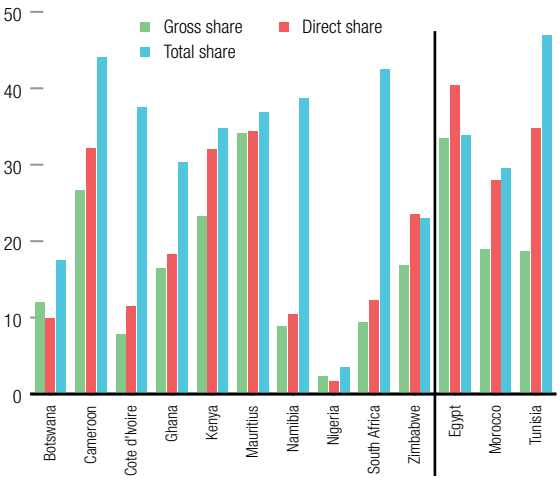
For many countries in Africa, services are an important input to other economic activities. This is illustrated by the importance of total service exports, including forward linkages in the share of total exports (the blue bar in Figures 2 and 3). Except for Egypt and

Figure 2: Africa's least-developed countries: Service export share of total exports, 2011
Percent of total exports



Source: World Bank's *Export Value Added Database*, http://data.worldbank.org/data-catalog/export-value-added.

Figure 3: Selected African countries: Service export share of total exports, 2011
Percent of total exports



Source: World Bank's *Export Value Added Database*, http://data.worldbank.org/data-catalog/export-value-added.

Zimbabwe, the share of total services in overall exports (both goods and services) is significantly higher than the direct share of services in total exports (red bar). The gap between the two indicates that services are supporting other export activities, such as manufacturing and agricultural exports. For example, services account for 83 percent of the final price of Ethiopian roses in the Netherlands. This is a clear indication of the central role that services play in increasing Africa's export competitiveness.

Direct exports of services are relatively more important than their contribution as inputs for other export activities in some countries. For example, the share of service exports in Kenya and Mauritius is 25 and 34 percent, respectively, when trade is measured by gross value. When measured by direct value-added, the share of service exports in total exports reaches 32 and 34 percent, respectively. When forward linkages are included, the total value-added contribution of services to exports in Kenya increases only slightly, to 35 and 37 percent. A similar situation exists in Morocco and Zimbabwe. A small gap between the direct and total measurements suggests that services have not yet developed strong links to other export activities. Overall, most countries have the potential for increasing direct service exports and diversifying their economies through stronger links with downstream sectors.

The significance of services to other economic activities in Africa

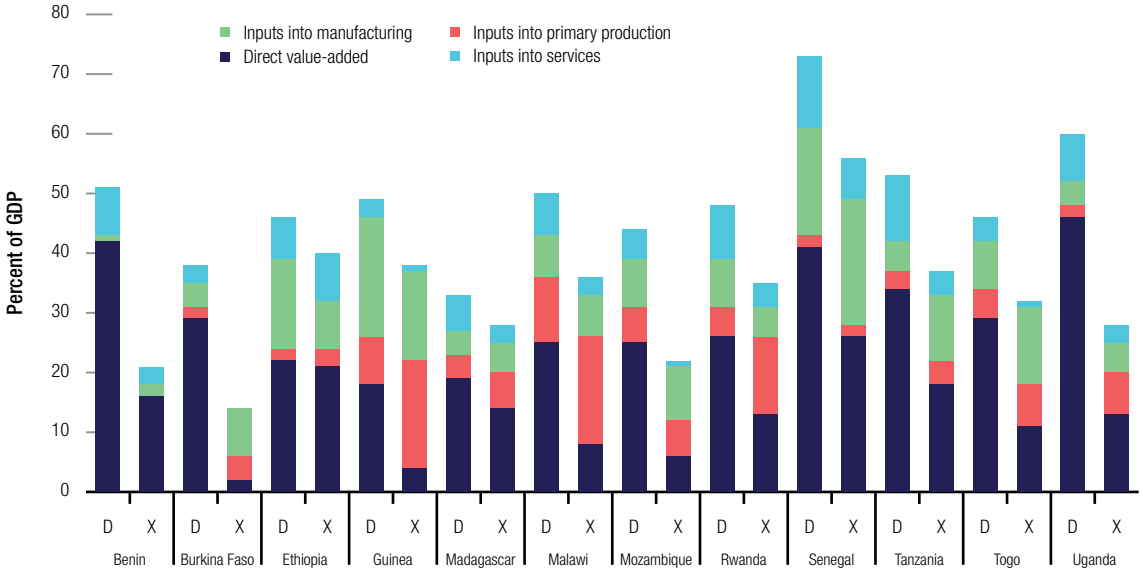
The structure of services and their links to the domestic economy differs from the structure of services and their links to exports activities. For example, the direct contribution of services to domestic value-added is usually much higher than the direct contribution of services to total exports. By contrast, the contribution of services as inputs into other activities such as primary exports and manufacturing exports is much higher for total exports than it is for domestic value-added. Figures 4 and 5 illustrate this point. They show the shares of service contributions to domestic production and exports in 2011. Their contribution as intermediate inputs into primary production (agriculture and energy sectors) and the manufacturing sector represent an important share of domestic production for most of the least-developed countries in Africa, with Benin and Burkina Faso being the only major exceptions. Even so, the contribution of services to export value-added to other sectors remains more important. For Burkina Faso, Guinea, Malawi, Mozambique, Rwanda, Senegal, Togo, and Uganda, for example, the service contribution to inputs in other export activities is higher than their contribution to domestic value-added.

For some countries at a higher level of development in the region, the contribution of services to manufactured exports is more important than their contribution to the domestic manufacturing value-added. This is true in all countries, except for Mauritius, as Figure 5 shows. For Côte d'Ivoire, Morocco, Namibia, South Africa, and Tunisia, the role of services in manufactured exports is especially large. For Cameroon and Côte d'Ivoire, services are an important input to the exports of primary products.

SERVICE EXPORTS FROM AFRICA

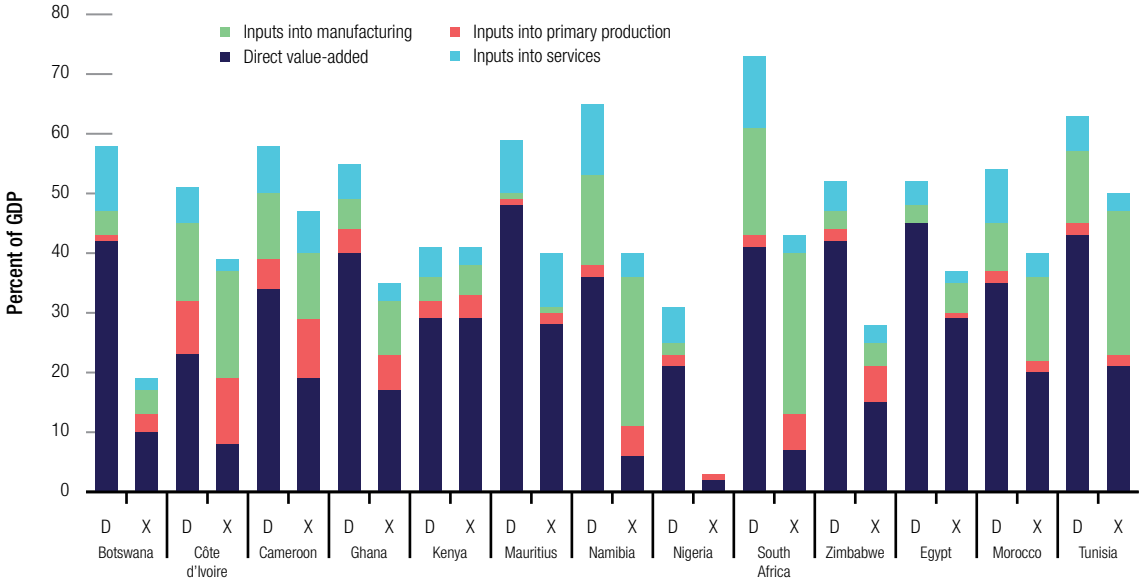
Service exports from African countries are increasing. Many countries in Africa are joining with

Figure 4: Service linkages to other economic activities and to exports: Africa's least-developed countries, 2011



Source: World Bank's *Export Value Added Database*, http://data.worldbank.org/data-catalog/export-value-added.
Note: D = Domestic value-added; X = export value-added.

Figure 5: Service linkages to other economic activities and to exports: Selected countries, 2011

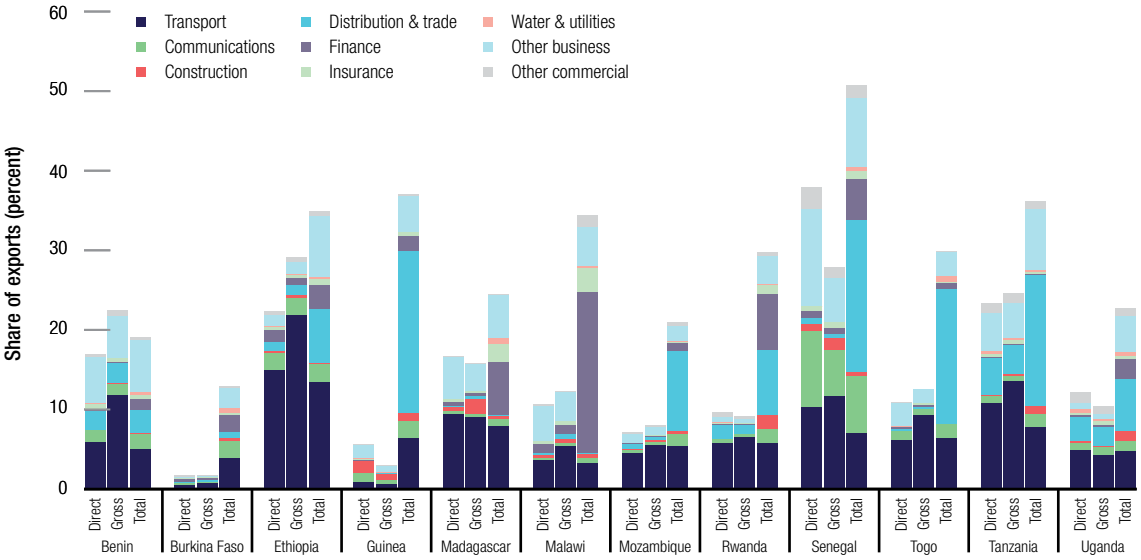


Source: World Bank's *Export Value Added Database,* http://data.worldbank.org/data-catalog/export-value-added.
Note: D = Domestic value-added; X = export value-added.

other developing countries that have demonstrated remarkable success exporting services both regionally and farther abroad to major markets. Atop that list are some of the world's fastest-growing economies, such as India, where service exports account for a significant share of total exports. Although India's success is well known, African countries also are participating in service growth. Today, for example, Kenya, Mauritius, Senegal, and South Africa provide services both regionally and as far away as European markets.[11]

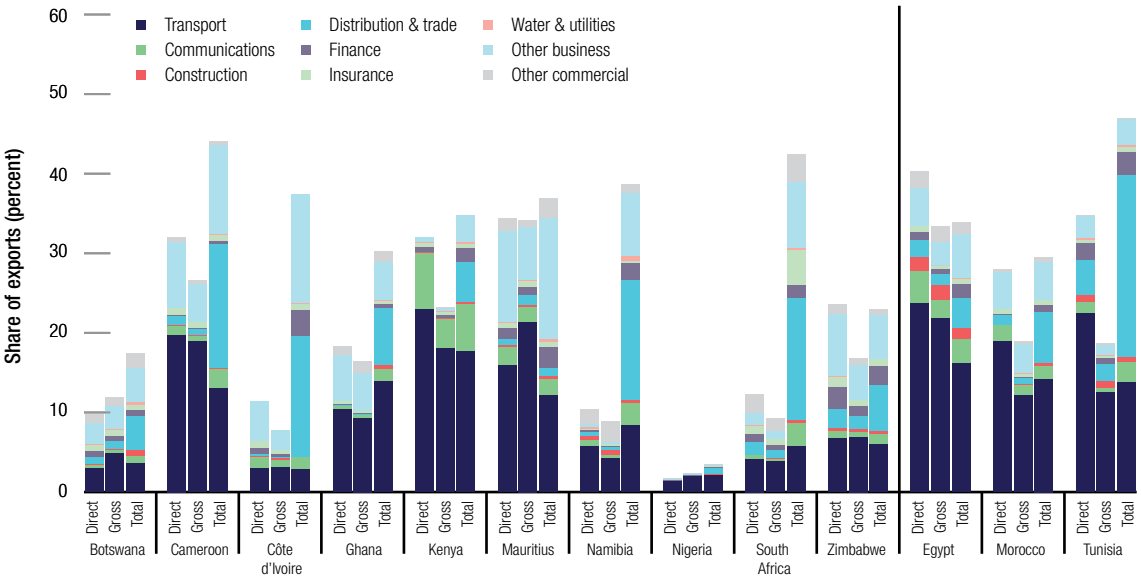
Transport, distribution, trade, and activities categorized as "other business services" are the main service exports of Africa.[12] Figures 6 and 7 show the subsector contributions to total service exports for selected countries in the region (see Appendix B for descriptions of these sectors). The figures make the importance of transport services very clear and represent a significant percentage of total service exports in nearly all countries. However, their importance diminishes when measured in terms of value-added. The decline in the share of value-added indicates weak links

Figure 6: Structure of service exports: Selected least-developed countries, 2011
Percent contribution to value-added in total service exports



Source: World Bank's *Export Value Added Database,* http://data.worldbank.org/data-catalog/export-value-added.

Figure 7: Structure of service exports: Selected countries, 2011
Percent contribution to value-added in total service exports



Source: World Bank's *Export Value Added Database,* http://data.worldbank.org/data-catalog/export-value-added.

between transport and other service sector exports. By contrast, distribution and trade services (which includes hotel and restaurants) and other business services (which includes ICTs and professional services) tend to have stronger links to other export sectors. In the case of Guinea, Senegal, and Tanzania, for example, these shares are much larger when forward linkages are included. This confirms the critical role that these services play in supporting other export activities in these countries and the region as a whole. It is also interesting to note that exports of "other commercial services"—such as personal, cultural, and recreational services—are important exports for several of the region's least-developed countries, including Malawi, Senegal, and Uganda.

Disaggregating service export data also helps in understanding how exactly services contribute to total exports in these countries. Figures 6 and 7 visualize this information. In Kenya, for example, the overall performance of service exports is driven by the direct value-added provided by transport and communication services. In Cameroon, Mauritius, and Senegal, exports of other business services account for a significant share of direct and total exports. Distribution

and trade services in Cameroon, Senegal, and Tunisia are important inputs to other economic activities. In South Africa, and to a lesser extent Namibia, services are mainly an input into other export activities.

SERVICE EXPORTS AND ECONOMIC DEVELOPMENT

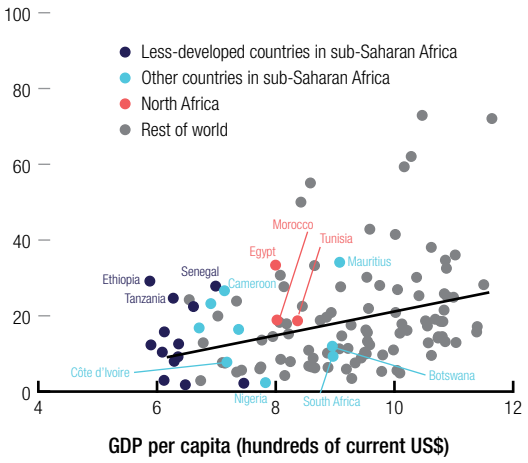
Although service exports already play a significant role—both as final exports and as inputs to other exports—in many economies in the region, increasing their contribution to overall development still has noteworthy potential. Sáez et al. show that the size of the domestic service sector is a robust pre-condition for specialization in service exports in later years,[13] but this relationship has weakened more recently. This weakening suggests that other forces, over time, have contributed to successful patterns of service exports. Goswami et al. review the empirical literature on determinants of services.[14] They point out the importance of countries' endowment of human capital and their electronic infrastructure, institutions, and other geographic and cultural factors. In particular, they found that for industrial and developing countries, the availability of electronic infrastructure and tertiary education enrollment significantly affect service exports. For developing countries only, however, the electronic infrastructure does not seem to have been critical in promoting service exports, whereas the effect of schooling is larger. The ability of large service-exporting firms in developing countries to create their own electronic infrastructure or to get access to dedicated infrastructure may reduce the relevance of economy-wide access indicators. In addition, bilateral goods exports are found to positively affect service exports. The effects of distance, language, and colonial history are significant as well: distance negatively affects service exports whereas common language and colonial history have a positive and statistically significant effect. The negative effect of distance suggests that, despite the growth of electronically delivered services, proximity between suppliers and consumers still matters.

While an initial analysis of the current limited data is not overwhelmingly conclusive, the share of service exports does positively correlate with economic development. This is true for the three different measures of service shares. In Figure 8,[15] one can see the share of direct service exports (Figure 8b) for the majority of least-developed countries in the region (depicted in black) are below what would be expected according to their level of development. Ethiopia, Senegal, and Tanzania are the only exceptions. Services exports in higher-income countries have more heterogeneity. Botswana, Côte d'Ivoire, Nigeria, and South Africa have low service exports relative to their level of development, while service exports from Cameroon, Egypt, Mauritius, Morocco, and Tunisia are above average. Côte d'Ivoire, South Africa, and Tunisia

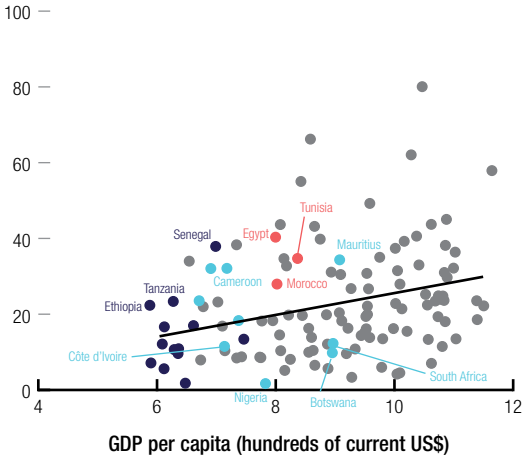
Figure 8: Correlation of service share of total exports and economic development

Total value-added share of total exports (percent)

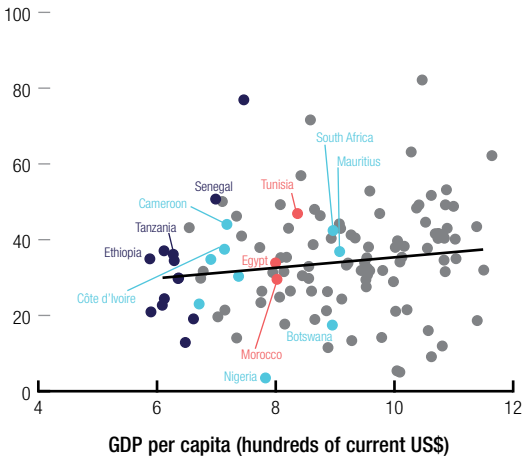
8a: Gross service exports



8b: Direct value-added of service exports



8c: Total value-added of service exports



Note: The total value-added includes an accurate accounting of forward linkages.

Source: World Bank's *Export Value Added Database,* http://data.worldbank.org/data-catalog/export-value-added.

illustrate the importance of services when accurately accounting for forward linkages (Figure 8c). When these are included in the analysis, the share of total services in total exports increases significantly for all three countries, above what would be expected according to their level of development. This, again, highlights the important role services can play as inputs into other export activities. It also confirms that low-cost and high-quality services generate economy-wide benefits.[16]

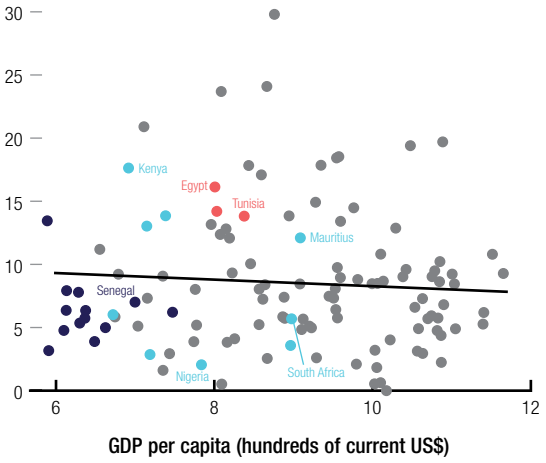
Interesting trends emerge when examining the correlation between total service exports (including forward linkages) for each subsector and the country's level of development. Figure 9 shows these correlations. First, the figure shows that not all service exports are equally correlated with development. As a country's income level rises, some services tend to become more important than others. For instance, transport, distribution and trade, and utilities (water) services tend to be negatively correlated with the level of development. On the other hand, communication, finance, insurance, and other commercial services are positively correlated with development. Other business services have an especially strong and positive correlation with the level of development.

The fact that not all services are positively correlated with economic development reaffirms the importance of taking a country- and sector-specific approach when considering policies to strengthen the competitiveness of service sector exports. To take a few examples, Mauritius has a high share of service exports in transport, other business services, and other commercial services relative to its level of development.[17] This is perhaps not surprising given the government's commitment to developing its service export sectors. Senegal performs well in several service subsectors as well. Nigeria's performance is well below other countries at its level of development for all service sectors.

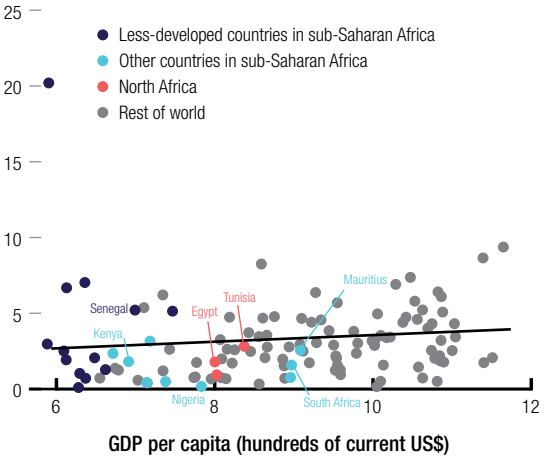
Most countries show a highly uneven performance in service exports. Kenya's share of transport services in total exports is above all other countries in the region, and the country comes in second highest in communication services. In fact, Kenya's shares in these services are above most other countries of similar income per capita. Yet the country's exports in all other subsectors are on par or even below those of comparator countries. Distribution services, which in general are important for trade, is one subsector where Kenya's performance is particularly poor. Likewise, Egypt performs well in transport, communication, and construction exports, but not in any other subsector, while Tunisia is strong in trade and distribution services. Finally, South Africa performs very well in communications, distribution, insurance, and other commercial services, but is average or below average in other subsectors.

Figure 9: Correlation of sectoral service exports and economic development, 2011
Total value-added share of total exports (percent)

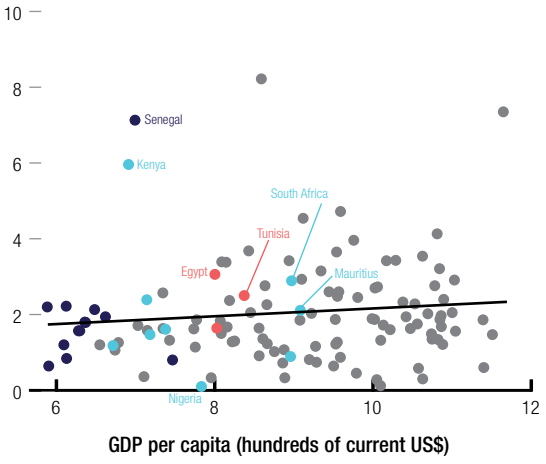
9a: Transport



9b: Finance



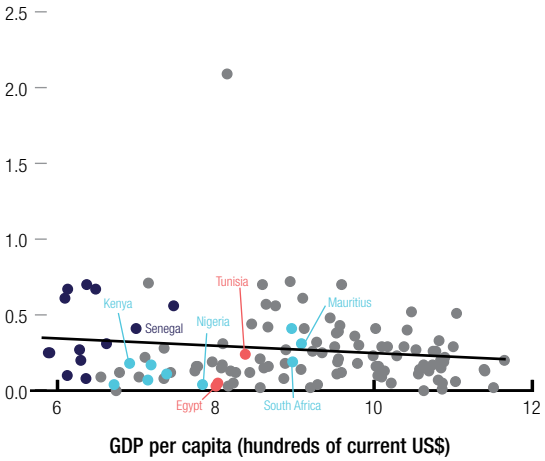
9c: Communication



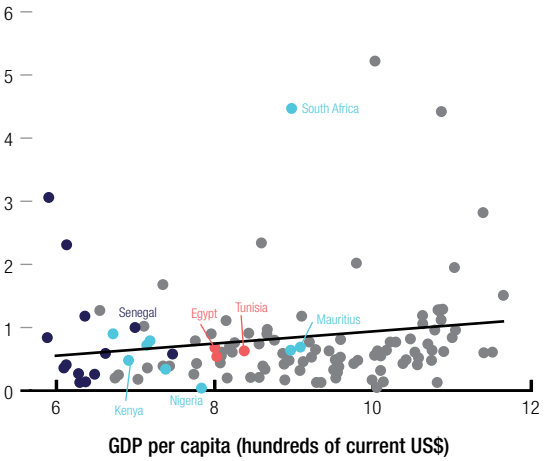
(Cont'd)

Figure 9: Correlation of sectoral service exports and economic development, 2011 *(cont'd)*
Total value-added share of total exports (percent)

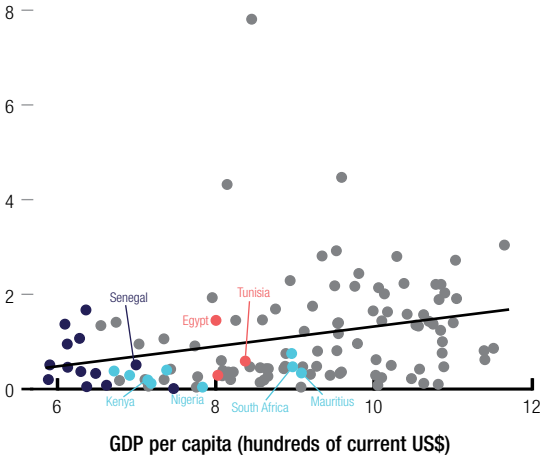
9d: Water and other utilities



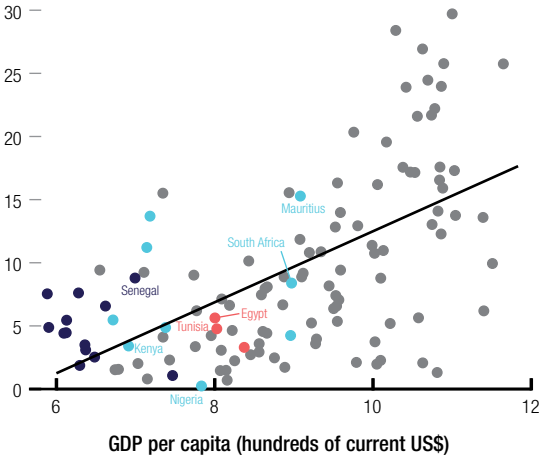
9g: Insurance



9e: Construction

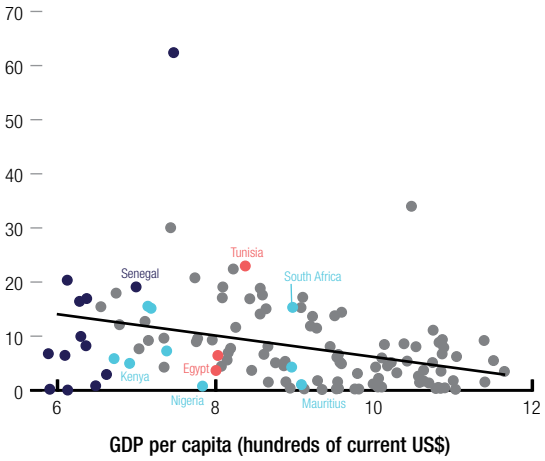


9h: Other business

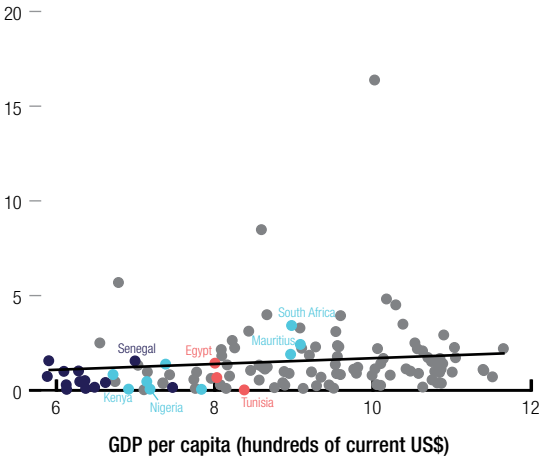


Note: The total value-added includes an accurate accounting of forward linkages.

9f: Trade and distribution



9i: Other commercial



Note: The total value-added includes an accurate accounting of forward linkages.

Source: World Bank's *Export Value Added Database,* http://data.worldbank.org/data-catalog/export-value-added.

Box 2: The effects of restrictiveness on trade in professional services in East Africa

In East Africa, firm-level surveys have shown that a large number of formal-sector firms use professional services.[1] The heterogeneity of professional endowments and the earning differentials across the region indicate substantial scope for increasing trade in these types of services. Yet the market for such services remains widely underdeveloped and fragmented as a result of restrictive policies and disjointed regional regulations.

Domestic regulations on entry into and the operation of professional services have undermined competition and constrained growth across the region. For instance, Kenya, Tanzania, and Uganda impose particularly strict restrictions on entry into engineering and legal services. Each country has strict licensing and educational requirements. Certain activities require exclusive rights granted from the government, in addition to restrictions on prices and fees, advertising, and inter-professional cooperation. These types of restrictions vary regionally—Rwanda being an example of a less restrictive environment—but are still heavy in comparison with other emerging economies and Organisation for Economic Co-operation and Development (OECD) countries.

Explicit trade barriers, regulatory requirements, and immigration policies restricting the movement of persons across national borders further constrain trade in professional services. With the variety of professional endowments across the region, easier movement of foreign professionals and firms could help meet demand in underdeveloped sectors across the region. Again, the examples of Kenya, Tanzania, and Uganda in comparison to Rwanda are enlightening. In the former three countries, foreign professionals represent less than 10 percent of the total number of professionals in accounting and engineering. In Rwanda, however, foreign professionals account for more than 60 percent of the total number of professionals.

In legal services, there are almost no foreign professionals working in East Africa. This is further reflected in terms of commercial presence, where, again, there is a nearly complete absence of foreign legal services providers. Foreign law firms are simply not permitted in Kenya or Tanzania. Accounting and auditing firms also face very strict prohibitions.

These are but a few of the many regulatory limitations and constraints in the region, but they illustrate the necessity of policy reform. Without reform, the professional service sector is unlikely to develop in a dynamic and competitive manner. The World Bank Group's Africa trade team has been particularly active in working to reduce constraints applied by these countries on the movement of people, the establishment of commercial presence, and the cross-border supply of professional services. Much work remains in the implementation of proposed regulatory changes. Regional cooperation will be especially important in this effort to overcome the regulatory heterogeneity of East Africa, and of sub-Saharan Africa as a whole.

Note

1 Dihel et al. 2010.

Source: This box was adapted from the study "Reform and Regional Integration of Professional Services in East Africa." See Dihel et al. 2010.

EXPORT PERFORMANCE AND TRADE POLICIES

How do service trade policies affect service export performance? To assess the impact of specific policies on service export performance, we use the World Bank Group's database on applied service trade policies and regulations.[18] The database provides comparable information on service trade policy measures in five sectors: telecommunications, finance, transportation, retail, and professional services. It is a valuable instrument for facilitating dialogue about, and analysis of, service trade policies. Broadly speaking, service trade confronts two types of barriers: first, barriers that are directly aimed at limiting foreign participation in the provision of services (Box 2); and second, market failures, along with their potential unintended consequences. One finds many of the same market failures in service trade that one would find in any market. These are typically imperfect and asymmetric information, especially in such knowledge-intensive sectors as professional and financial services, and/or a lack of competition or barriers to entry, particularly in sectors with significant network externalities such as communications and transport. Often, however, the very policies and regulations that were designed to correct these distortions create their own unintentional barriers to trade.

Barriers to trade in services are more complex than barriers to trade in goods. Understanding them has required new tools, which is why the World Bank has used its database on applied service trade policies and regulation to build a global *Services Trade Restrictiveness Database* (STRD) of over 100 economies, including 15 least-developed countries and several regions including Africa, the Americas, Asia, and Europe.[19] The STRD allows policymakers and interested parties to evaluate the effects of policies and regulations implemented in ways that have proven economically inefficient or cost-increasing.

The STRD methodology defines five broad categories of policy.[20] These are determined according to their level of restrictiveness and are given an associated score. The scores are on a scale of 0 to 100, with 0 being the best and 100 the worst outcome. The categories, and scores, are as follows:

1. Completely open (0)
2. Virtually open, but with minor restrictions (25)
3. Major restrictions (50)
4. Virtually closed, with limited opportunities to enter and operate (75)
5. Completely closed (100)

Poorly designed regulatory policies can have two potentially negative effects on trade in services: escalating costs and restricting growth. Service trade costs are high relative to those for goods, to a large extent because of the impact of regulations. In

fact, these costs can be as much as twice as high for services as for goods, according to some studies.[21] Evidence also suggests the existence of complex links between policy choices and growth in services. This is the case experienced, for example, in Burkina Faso where the telecommunications sector has been liberalized but its poor regulatory framework impedes its growth.

The poor regulatory environment for service exports in much of Africa may be one explanation for its weak links within sectors and between markets. Countries with more restrictive regulations toward foreign service providers are associated with lower total service exports on a value-added basis. This relationship is not as strong, however, for gross service export shares or direct value-added service export shares, which suggests that the regulatory environment matters more for other sectors seeking to use services as inputs for their exports than it does for direct service exports. One can therefore conclude that a restrictive regulatory framework may likely both reduce service exports (and thus export diversification) and limit the competitiveness of other sectors of the economy (Figure 10).

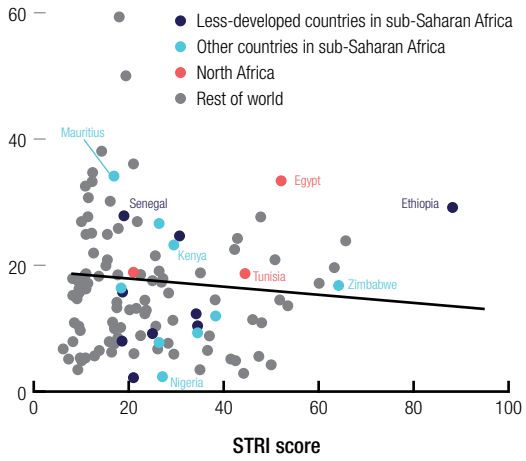
Key sectors such as telecommunications, professional services, and transport services are relatively restricted in many countries.[22] In Ethiopia, for example, telecommunications remains a monopoly. Professional services—a key input for many productive activities—tends to have the highest level of restrictiveness (above 30 percent) of any service subsector in Africa. Scores for transport services are not much better, falling above 25 percent in most countries. Overall, based on the STRD classifications, Ethiopia and Zimbabwe have the highest level of restrictiveness across all sectors (Figure 10). By contrast, nine countries, fall between completely and virtually open.[23]

Are these barriers important?

Research confirms that significant gains accrue from liberalizing trade in services.[24] Based on analysis of the STRD, a study by Borchert et al. finds that restrictions on foreign acquisitions, discrimination in licensing, restrictions on the repatriation of earnings, and inadequate legal recourse all have a significant negative effect on investment inflows into service sectors.[25] Restrictions, according to these authors, can reduce the expected value of sectoral foreign investment by US$2.2 billion over a seven-year period. Jensen et al. estimate that the welfare gains of full reform in Tanzania could amount to 5.3 percent and 16 percent of Tanzanian consumption in the medium and long term, respectively.[26] The medium-term gains derive primarily from the removal of non-discriminatory and inefficient regulatory barriers against services providers, and the removal of regulatory barriers against multinational service providers. Balistreri et al. find significant welfare gains in a similar study for Kenya.[27] They estimate that

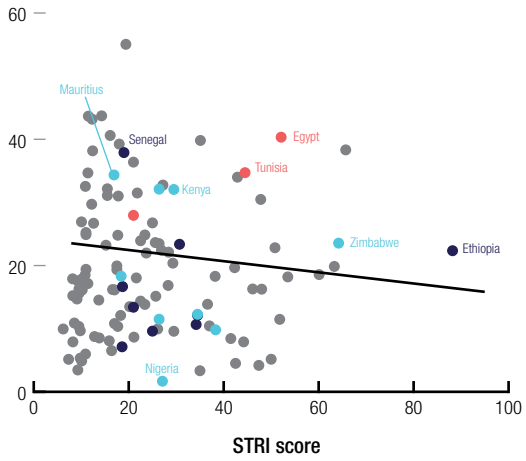
Figure 10: Export performance and service trade policies
Total value-added share of total exports (percent)

10a: Gross service exports



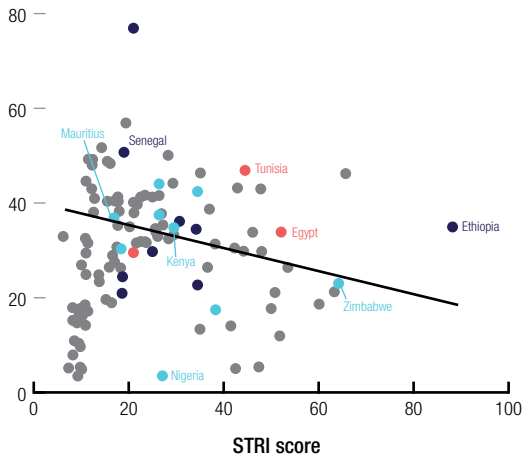
Note: The Services Trade Restrictiveness Index (STRI) scale is 0 to 100.

10b: Direct value-added of service exports



Note: The Services Trade Restrictiveness Index (STRI) scale is 0 to 100.

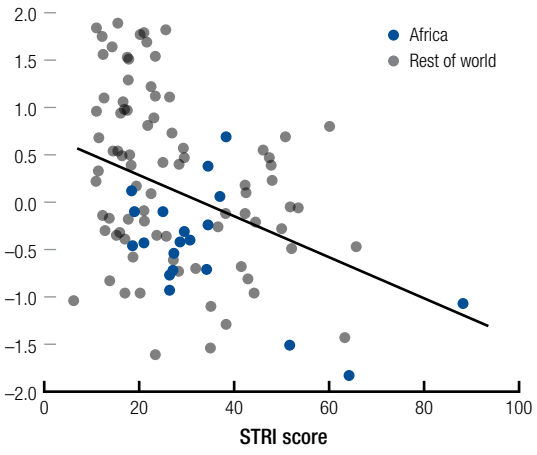
10c: Total value-added of service exports



Notes: The total value-added includes an accurate accounting of forward linkages. The Services Trade Restrictiveness Index (STRI) scale is 0 to 100.

Source: World Bank's *Export Value Added Database,* http://data.worldbank.org/data-catalog/export-value-added.

Figure 11: Services policies and regulatory quality
World Governance Indicators Regulatory Quality score



Sources: Borchert et al., 2012a; Borchert et al., 2012b; World Bank's Worldwide Governance Indicators (WGI), http://info.worldbank.org/governance/wgi/index.aspx#home.
Note: The Services Trade Restrictiveness Index (STRI) scale is 0 to 100. The WGI scale for Regulatory Quality is –2.5 to +2.5.

a 50 percent reduction in non-discriminatory services barriers and unilateral liberalization of all discriminatory service barriers would raise consumption by 10.3 percent.

Although reducing barriers to trade is a necessary condition to promote low-cost and high-quality service markets, it is not sufficient. As discussed above, a poorly regulated sector can also act as *de facto* barrier to export competitiveness. Figure 11 illustrates the relationship between restrictiveness and indicators of regulatory quality. A generally negative correlation exists between the two. However, the figure also shows that a similar level of restrictiveness can occur with a similar level of regulatory quality. In other words, reducing restrictiveness does not necessarily improve regulatory quality. Rather, to fully reap the benefits of liberalization, governments must address both trade policies that impede service exports and those that improve regulatory quality.[28]

A poor regulatory environment may arise from a poor institutional setting.[29] In such instances, government bodies and agencies responsible for regulating services often lack an adequate mandate to enforce policies. Without such authority, they struggle to resist pressures from other government bodies or private interests that seek to block reforms in these areas. Regulatory agencies also often lack adequate resources to fully evaluate the complexity of the market and the impact of regulations. Many limitations on trade and investment in services therefore stem from weak and ineffective governance. Recent regulatory assessments conducted by the World Bank in several developing countries, including Burkina Faso and Liberia, confirm these findings.[30] The lack of public access to laws and regulations, as well as their lack of clarity, is the most frequent problem identified. This applies not only to lower levels of regulation such as ministerial directives and procedural guidelines, but also to decrees and actual laws. In addition, many of these countries do not have standard rule-making guidelines that mandate the publication of a law as a requirement for entry into force, or sufficient publicity mechanisms, such as an official gazette or a digital repository. Mapping regulation and making it publicly available can help bridge important information gaps in the regulatory framework. Qualitative assessments can be especially useful in identifying further policies needed to improve the conditions for service trade.

EXPANDING SERVICE TRADE IN AFRICA

Policymakers across Africa are increasingly aware of the importance of service trade in their economies, and as a result the service agenda has never been higher on the list of government priorities. But identifying strategies for stronger service trade performance requires the consideration of a broad mix of factors.[31] There are certain fundamental determinants to consider. These include a country's basic factor endowments—land, labor, and capital. Human capital, in particular, plays a very important role in the development of services, primarily via skills and entrepreneurial ability. Infrastructure quality is also an important determinant, as it provides and facilitates the delivery of services.

Regulatory policies affecting trade, investment, and labor mobility are also important determinants of service performance. Poor regulations may affect market access and operations of both domestic and foreign suppliers of services and in turn increase the price and/or lower the quality of services provided. Service barriers are more akin to non-tariff barriers than to tariffs, and their impact will depend on how the government regulation is designed and administered. Regulations can affect competitiveness in numerous ways, such those surrounding the creation and establishment of a business, operations of firms, and regulations that are non-discriminatory versus those that are discriminatory.[32] Barriers can also result from a lack of regulations, for instance, when there is a lack of competition or there are no regulations to protect consumers.

The impact of regulatory policies can have far-reaching implications for service exports, especially for foreign investment, the participation of multinationals in service activities, and the movement of individual service providers. The STRD data discussed above show the presence of significant policy restrictions on several service sectors currently in place. This means that, from a policy perspective, there is scope for reforming policies to enhance the performance of services and their contribution to countries' economic development. Many governments, including Ghana, Mauritius, and Rwanda, have implemented proactive policies aimed at creating a more enabling business environment for service providers.

These usually include measures to streamline the regulatory environment, improve access to necessary infrastructure, and provide the private sector—national or foreign—with incentives that promote service trade. But not all of these policies have been successful. Policies typically fail because governments lack the capacity to implement them and/or those that benefit from trade barriers use their influence to keep them in place.

The successful development of service trade requires the adoption of policies at several levels. In many countries, for example, unilateral liberalization of the telecommunications sector has developed not only the use of mobile phones, but also a range of services based on telecommunications infrastructure now offered by the private sector. This expansion has required the development of a policy framework capable of encompassing new and perhaps unforeseen developments in the sector. In Kenya, for example, Safaricom's M-PESA service became a global leader in mobile-based financial services in the span of just a few years.[33] The rapid development of the mobile money platform has expanded access to financial services for millions, especially small traders and rural communities. The mobile money platform has now gone global, operating in countries as widespread as India and Romania, but it began in Kenya and neighboring Tanzania.

Regulatory policies that shape market integration also play a significant role in the development of service trade.[34] Despite the significant progress on regional integration made in Africa in recent years, barriers to service trade are still in place. These continue to limit the expansion of services because service providers are unable to expand their activities to neighboring countries. But, as services such as M-PESA are proving, global markets are providing new opportunities. Professional service providers in Kenya now export to as many as 40 different countries. Distance has never before been as easy an obstacle to overcome—consider the fact that South African professionals now provide health services in Canada, New Zealand, and the United Kingdom.[35]

Evidence shows that in many markets where adequate regulatory reforms were not implemented in a coordinated and complementary manner, service reforms did not produce their expected benefits.[36] For example, in Zambia—despite the liberalization of the telecommunications market—a *de facto* monopoly still exists in fixed-line telephony although there is competition in mobile telephony. In transport, important restrictions still affect international and domestic competition. In the case of the financial sector, the liberalization was not complemented with the strong prudential regulations necessary to maintain the soundness and stability of the financial markets.[37] Such incomplete reforms often occur as a result of the complex political economy of service reforms. Service trade policy reforms usually involve a large number of government agencies and private-sector representatives. Not only does the large number of actors create enormous coordination challenges, it also tends to increase the power of groups opposed to reform.[38] The World Bank Group's Africa trade team has been working on these issues extensively, providing support through analytical tools, technical assistance, and focused interventions (see Box 2).

CONCLUSIONS

Today, trade in services is a critical component of countries' overall trade strategies. As technological advances have facilitated the growth of service tradability, countries are beginning to capitalize on these new opportunities. The performance of service exports from Côte d'Ivoire, Kenya, Mauritius, and Senegal are strong examples of seizing this potential. And as the data presented in this chapter show, the role of services goes well beyond direct exports. Access to low-cost, high-quality services helps countries achieve social development objectives and allows them to effectively participate in local, regional, and global value chains—in effect, a solid service sector helps to connect countries to the global marketplace. As inputs to downstream activities, services also help increase the competitiveness and performance of other economic sectors—especially in agricultural, food processing, and manufacturing activities, such as textile and apparel exports.

More research needs to be done to better evaluate the complex roles that service exports play in African economies. The sector has been understudied and received too little attention in the region. The service agenda must be better defined, and it must also be tailored to meet the social and economic development goals of each country. Doing so will require addressing the very significant gaps in data and analysis, and building on the best available tools and techniques, as evidenced in this chapter. More fully understanding these roles will allow policymakers to design the necessary reforms—both those specific to the service sector and those complementary to it—that can best position a country to increase service trade and boost overall economic competitiveness.

NOTES

1 Baldwin 2011, 2012. See also Feenstra 2010; Grossman and Rossi-Hansberg 2008; Helpman 2011; and Jones 2000 for an analysis of defragmentation, trade in tasks, and offshoring.

2 See Francois and Woerz 2008; for the positive link between trade liberalization of the service sectors and manufacturing productivity, see Arnold et al. 2007; Arnold et al. 2008.

3 van der Marel 2011a, 2011b.

4 See Triplett and Bosworth 2004; Inklaar et al. 2007; Arnold et al. 2008; Inklaar et al. 2008; World Bank 2011; Hoekman and Kostecki 2009.

5 See Brenton et al. 2013.

6 Francois et al. 2013; Francois and Woertz 2008; Sáez et al. 2014; see also Appendix A. The dataset is based on the Global Trade Analysis Project (GTAP). The GTAP database represents the most comprehensive, convenient, and internationally comparable source of sector-specific data across countries. Of the 129 regions in GTAP version 8, 112 represent individual countries and 17 represent composite regions. In the case of individual countries, the social accounting matrix (SAM) for each country relies on the most recent input-output data available from national sources for each country (see the regional input-output data in Aguilar and Walmsley 2012, available at https://www.gtap.agecon.purdue.edu/resources/download/6139.pdf). These are harmonized in the GTAP database to a standard 57-sector format for ease of comparison. Limitations of the GTAP data include the infrequency of updates (the most recent GTAP 9 pre-release takes the data only to 2011) and the fact that some input-output data may be adjusted to provide consistency with merchandise trade and macroeconomic data also used in the SAM. Therefore, results should be interpreted cautiously and should be seen as a first attempt to understand trade performance in developing countries.

7 The data come from the World Bank's *Export of Value Added Database,* which covers only 25 countries in Africa.

8 *Gross exports* is the transaction value of a sector's exports. This captures both the value-added embodied in the production of the export and all domestic and imported intermediate inputs. See Appendix A for more detail.

9 *Direct value-added* of exports measures gross exports less domestic and foreign inputs. This measure captures the true sector-specific value-added contribution of exports. See Appendix A for more detail.

10 *Total value-added* of exports adds the value-added of inputs produced domestically to the direct value-added of exports. It captures the indirect contribution through value chain links with other export activities, expressed as forward or backward linkages. See Appendix A for more detail.

11 Cattaneo et al. 2010; Goswami et al. 2012.

12 Other business services include real estate activities, renting of transport equipment, renting of other machinery and equipment, renting of personal and household goods, computer and related activities, and research and development.

13 Sáez et al. 2014.

14 Goswami et al. 2012.

15 The data for Figures 8, 9, and 10 cover all countries in the *Export of Value Added Database.*

16 Hoekman and Mattoo 2008; Francois and Hoekman 2010.

17 *Other commercial services* include public administration and defense, education, and health and social work; see also Appendix B.

18 The *Services Trade Restrictions Database* of the World Bank's Development Economics Research Group is available at http://iresearch.worldbank.org/servicetrade/aboutData.htm.

19 The policy information to build the STRD was collected in the period 2008–09. The underlying source of the data derives from countries' legal and regulatory structures. Borchert et al. 2012a, 2012b provide an in-depth description of the database.

20 Borchert et al. 2012b.

21 Miroudot et al. 2013.

22 A discussion of the impact of regulations on professional services in East and Southern Africa and their impact on firms' productivity can be found in World Bank 2011.

23 The nine open countries are Burundi, Ghana, Madagascar, Mauritius, Morocco, Mozambique, Rwanda, Senegal, and Zambia. The regulations that explain the level of restrictiveness are available in the STRD for all countries.

24 Francois and Hoekman 2010.

25 Borchert et a. 2012a.

26 Jensen et al. 2008.

27 Balistreri et a. 2009.

28 Molinuevo and Sáez 2014.

29 Molinuevo and Sáez 2014.

30 These assessments followed the methodology outlined in Molinuevo and Sáez 2014.

31 See Goswami et al. 2012 for a more detailed analysis of determinants of trade in services.

32 Molinuevo and Sáez 2014.

33 The Economist 2013.

34 World Bank 2011.

35 Stern 2008; Cattaneo et al. 2010.

36 Mattoo and Payton 2007; World Bank 2011.

37 Mattoo and Payton 2007.

38 Brenton and Hoffman 2015.

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Appendix A: Valuing Services

As mentioned in the chapter, reliable trade data in Africa are lacking. However, the World Bank's *Export Value Added Database* uses input-output data from the Global Trade Analysis Project (GTAP) to construct country-specific measures of the direct and indirect contribution of services to the value-added contained in a given country's domestic production and exports. Specifically, the database contains two matrices: a domestic value-added table and an export value-added table, which together identify the value-added contribution of particular inputs to sectors that either sell the final good to the domestic market or export it. The cross-country database covers about 100 countries and 27 sectors (nine commercial service sectors, three primary sectors, and fourteen manufacturing sectors) spanning intermittent years from 1997 to 2011.

Exports (of both goods and services) can be measured as:

- **Gross exports:** This is the transaction value of a sector's exports. The gross exports measure captures both the value-added embodied in the production of the export along with all domestic and imported intermediate inputs. Gross measures of trade statistics are registered in customs or balance of payments, usually at the transaction value—that is, the price actually paid or payable for the goods and services. For example, a business process outsourcing (BPO) service from India contains telecommunications services, from both local providers and foreign owners of satellites. India's gross exports of BPO services measure their delivery price, which accounts for the value-added generated by BPO exports as well as the cost of telecommunications services inputs.
- **Direct value-added of exports:** This is the amount of a sector's domestic value-added embodied in its own exports, measured as gross exports less domestic and foreign inputs. This measure captures the true sector-specific, or the direct, value-added contribution of exports. To continue with the above example, this measure nets out domestic and foreign inputs and captures the direct value-added generated by BPO exports in India.
- **Total value-added of exports:** This measure adds the value-added of inputs produced domestically to the direct value-added of exports. It captures the indirect contribution through value chain links with other export activities, expressed in terms of forward or backward linkages. This measure is increasingly important in an environment where global production is fragmented across production sharing networks.
- **Forward linkages:** This measures the value-added when considering the contribution of a particular sector as an input to other sectors' exports. This treats that particular sector as an upstream activity. To continue with the above example, this measure captures the value-added contributions of the telecommunications sector to all sectors' exports, including BPO services. In other words, forward linkages show how important telecommunications services are as inputs to other export activities.
- **Backward linkages:** This measures the value-added when considering the contribution of all other sectors to that particular sector's exports. Backward linkages treat the particular sector as a downstream activity. To continue with the above example, this measure captures the value-added contributions of all domestic inputs to the BPO sector's exports, including telecommunications services (but not the value of foreign-owned satellite input). In other words, backward linkages show how important BPO services are to other sectors' value-added exports.

Appendix B: ISIC Mapping of Service Sectors

The International Standard Industrial Classification (ISIC) is the international reference classification of production activities. The list here shows areas of production according to ISIC classification.

Water: Water and Other Utility Services

ISIC 401 Production, collection and distribution of electricity
ISIC 402 Manufacture of gas; distribution of gaseous fuels through mains
ISIC 403 Steam and hot water supply
ISIC 41 Collection, purification and distribution of water

Construction: Construction

ISIC 45 Construction

Distribution: Trade and Distribution Services

ISIC 50 Sales, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel
ISIC 51 Wholesale trade and commission trade, except of motor vehicles and motorcycles
ISIC 521 Non-specialized retail trade in stores
ISIC 522 Retail sale of food, beverages and tobacco in specialized stores
ISIC 523 Other retail trade of new goods in specialized stores
ISIC 524 Retail sale of second-hand goods in stores
ISIC 525 Retail trade not in stores
ISIC 526 Repair of personal and household goods
ISIC 55 Hotels and restaurants

Transport: Transport Services

ISIC 60 Land transport; transport via pipelines
ISIC 63 Supporting and auxiliary transport activities; activities of travel agencies
ISIC 61 Water transport
ISIC 62 Air transport

Communication: Post and Communications Services

ISIC 64 Post and telecommunications

Finance: Financial Services

ISIC 65 Financial intermediation, except insurance and pension funding
ISIC 67 Activities auxiliary to financial intermediation

Insurance: Insurance Services

ISIC 66 Insurance and pension funding, except compulsory social security

OBSICT: Other Business and ICT Services

ISIC 70 Real estate activities
ISIC 711 Renting of transport equipment
ISIC 712 Renting of other machinery and equipment
ISIC 713 Renting of personal and household goods
ISIC 72 Computer and related activities
ISIC 73 Research and development
ISIC 74 Other business activities

Consumer: Other Consumer Services

ISIC 92 Recreational, cultural and sporting activities
ISIC 93 Other service activities
ISIC 95 Private households with employed persons

Other Commercial Services: Public Services, Dwellings

ISIC 75 Public administration and defense; compulsory social security
ISIC 80 Education
ISIC 85 Health and social work
ISIC 90 Sewage and refuse disposal, sanitation and similar activities
ISIC 91 Activities of membership organizations
ISIC 99 Extra-territorial organizations and bodies

Source: United Nations, Department of Economic and Social Affairs, 2008.

CHAPTER 2.3

Tapping the Potential of Global Value Chains for Africa

CARLOS CONDE
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Africa's economic performance over the last 15 years has improved considerably. After two decades of negative per capita growth, GDP growth has averaged 5 percent per year and GDP per capita has increased by 30 percent since 2000. Yet important competitiveness challenges remain—as explored in Chapter 1.1 of this *Report.* African countries would benefit from more intense trade and investment linkages, including higher intra-regional trade. The region's participation in global trade and investment flows remains low when compared with other regions.[1] While the numbers remain low in absolute terms—trade in sub-Saharan Africa stands at 2 percent of total world trade—developments are pointing in a positive direction. At US$60 billion, foreign direct investment (FDI) into the region is five times the level in 2000, and trade flows have expanded by 10 percent per year over that same period.

These positive developments are taking place within a context of expanding participation in global value chains (GVCs).[2] There is growing interest in assessing what determines engagement in GVCs, what the effects of such engagement may be, and what the implications are for policymaking. These questions are particularly relevant for many African countries where business environments are generally less competitive and where policy challenges need to be confronted with more limited public resources. They also highlight the importance of the ongoing debate about the extent and desirability of integrating into regional and GVCs and the benefits associated with wider participation for developing countries.[3]

Recent research shows that many developing countries are increasingly involved in GVCs, and that this participation generally brings economic benefits in terms of enhanced productivity as well as greater sophistication and diversification of exports.[4] Yet the gains from value chain participation vary significantly between countries, and African countries are no exception.

The objectives of this chapter are to assess Africa's progress in connecting to GVCs, to highlight the main challenges to further integration, and to outline ways in which African economies can deepen their integration into GVCs in order to enhance their economic performance and achieve prosperity for their citizens. GVCs offer opportunities to transform Africa's economies by developing and expanding new activities and building dynamic and competitive manufacturing, agriculture, and service sectors. Regional (African) value chains can also play a significant role in offering local producers, including small- and medium-sized enterprises (SMEs), opportunities to access fast-growing and more easily accessible markets across Africa. However, as previous

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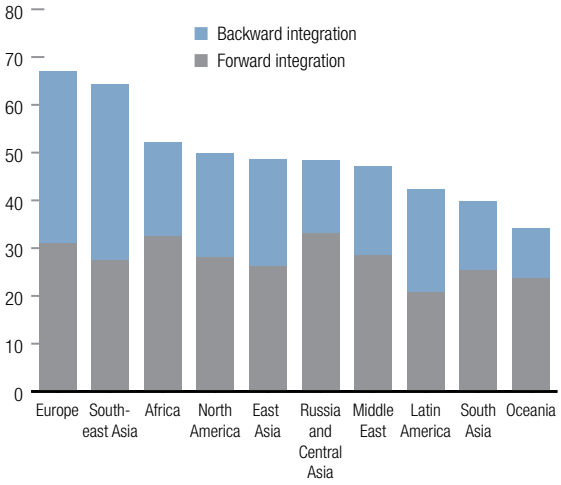
Table 1: Share of global value-added trade by region, percent (1995–2011)

Region	1995	2011
Europe	57.5	50.9
East Asia	14.4	16.2
North America	13.1	11.8
Southeast Asia	6.0	6.8
Latin America	3.2	4.2
Middle East	2.0	3.0
Africa	**1.4**	**2.2**
Russia and Central Asia	0.9	2.0
South Asia	0.7	1.7
Oceania	0.9	1.3

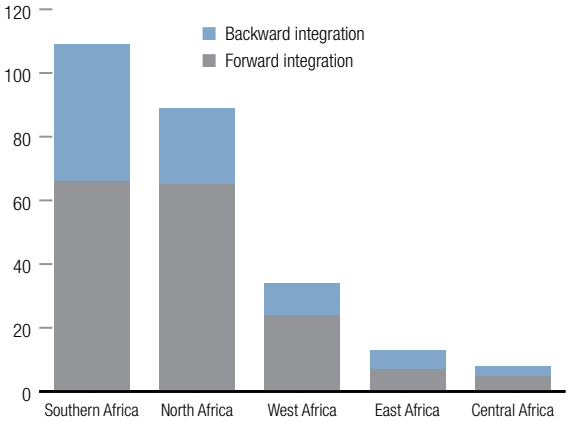
Source: AfDB et al., 2014.

Figure 1: Integration of world regions into GVCs, 2011
Share of total value-added exports (percent)



Source: AfDB et al., 2014.

Figure 2: African integration into GVCs, 2011
US$, billions



Source: AfDB et al., 2014.

chapters have shown, important competitiveness challenges remain and the productivity across all sectors of the region's economy—agriculture, manufacturing, and services—remains low. What is more, in the decades ahead, Africa's unique demographic dynamics will scale up the challenge of transforming the continent. Africa's workforce is expected to increase by 910 million between 2010 and 2050, of which 830 million will be in sub-Saharan Africa.[5] This unprecedented "demographic dividend" also translates into a need for more jobs. Africa's transformation therefore entails the double challenge of productivity growth *and* massive job creation.

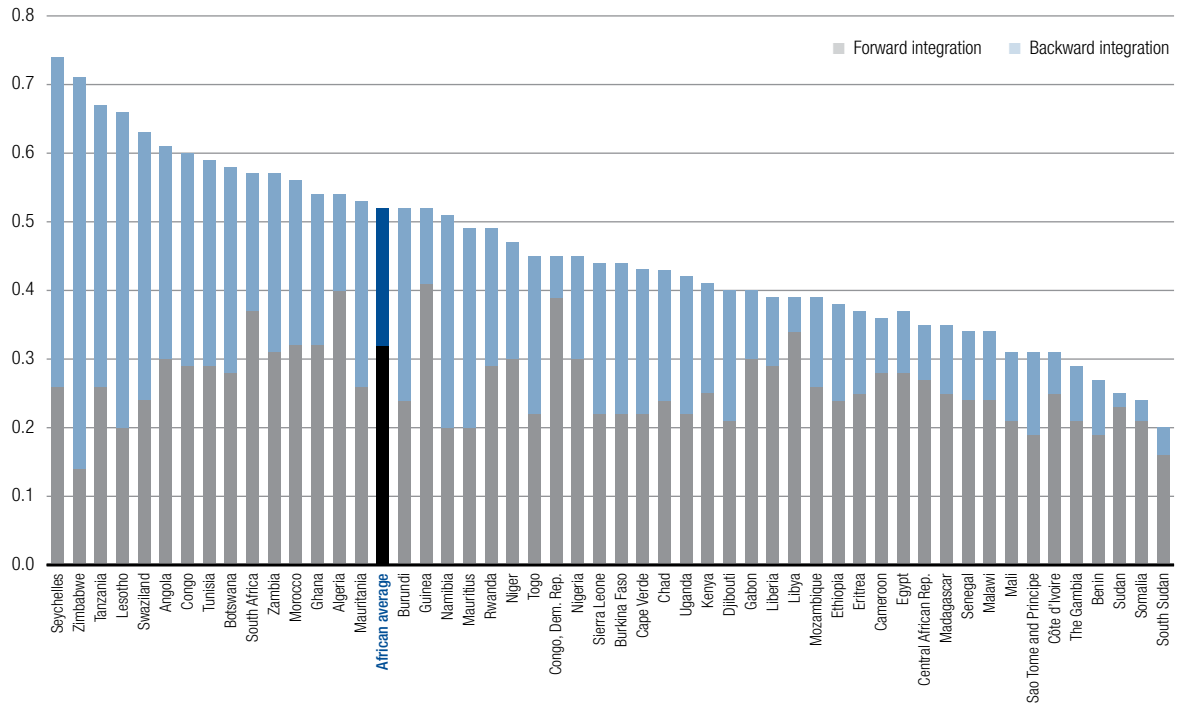
Recommendations on the most desirable form of GVC participation (whether backward or forward participation is preferable in a particular circumstance), how participation influences economic outcomes, and which segments of the value chain will be profitable depend on the characteristics of the production process as well as on countries' and firms' characteristics, such as relative skills and resource endowments. More data and empirical studies are needed to fully assess the extent and determinants of the integration of countries into GVCs, and the consequences these have on development outcomes such as labor gains and other social and environmental outcomes. Given these limitations, the following analysis offers a starting point for policymakers to assess their countries' participation and policy options on ways to increase engagement in GVCs with overall positive outcomes for society.

The first part of this chapter presents data on Africa's participation in GVCs. The second section examines factors driving and hampering African countries' participation in GVCs. The third part discusses policy options for governments to strengthen the integration of their economies into GVCs. The last section stresses the need for broad economic reform agendas to deepen African integration in value chain trade. Priority areas include trade facilitation, business climate, strengthening investment and financial services, regulatory reform, and stronger regional integration.

AFRICA'S GVC PARTICIPATION

The two main types of a country's participation in GVC trade are *backward integration,* when a country sources foreign inputs for its export production, and *forward integration,* when a country provides inputs for another country's export production. Combining backward and forward integration gives a measure of a country's total GVC participation. Although the desirable outcome—boosting productivity and employment creation—is clear, a remaining question is whether participation in both backward and forward integration paves the way to these objectives or if one should be favored over the other. Recent research shows that increasing backward participation leads to higher per capita domestic value-added in exports.[6] In other words, imports of intermediates are a way to access competitive inputs

Figure 3: Global value chain participation in Africa, 2011
Share of total value-added exports (percent)



Source: AfDB et al., 2014.

and thus to enhance productivity and produce goods that are more competitive for export. A higher share of backward participation is also linked to the production of more-sophisticated export bundles and greater diversification of exports over time.[7] The benefits of forward participation are less clear and depend heavily on the type of the forward linkages (e.g., raw materials versus research and design).

Africa captures a small but growing share of global value-added trade and constitutes one of the most integrated regions in GVCs. Today over 70 percent of global trade is in intermediate goods and services and capital goods.[8] Global trade remains strongly clustered in and around the manufacturing hubs in Europe, North America, and East Asia. These three regional blocs accounted for approximately 80 percent of global value-added trade in 2011. Africa captured a small but growing share of this trade in 2011: the continent accounts for 2.2 percent of total GVC trade—an increase of almost 60 percent since 1995 (Table 1).[9]

Despite its low share of total GVC trade, the continent's value chains are among the most integrated in the world in terms of relative share of value-added trade to total trade. More than half of Africa's total exports involve either forward or backward integration. Only Europe and Southeast Asia are more integrated than Africa into GVCs (see Figure 1).[10]

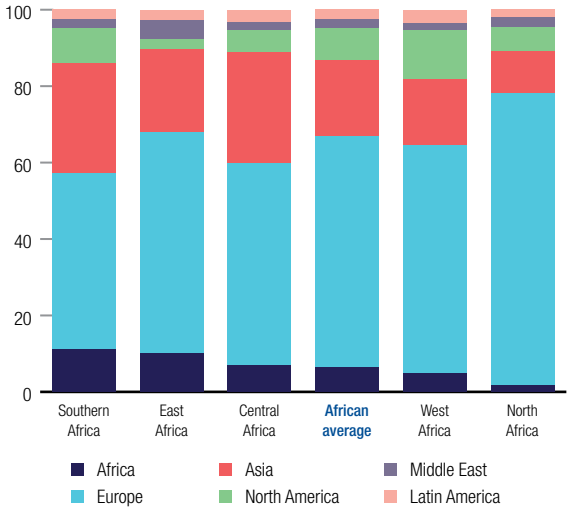
Africa's participation in GVCs is still dominated by forward integration, although backward integration has been growing faster. As seen in Figure 1, Africa's forward integration comprises just over 60 percent of its participation in GVCs. African exports (in North and West Africa in particular) are still concentrated around commodities such as fuel and mineral resources. Only East and Southern Africa record increasing shares of processed intermediate exports. Backward participation, however, has been growing faster than forward participation, increasing by 60 percent between 1995 and 2011.[11] Africa's imports reveal a high concentration in capital goods, suggesting a strong reliance on the foreign technology embedded in imported capital goods. Concerning the imports of processed intermediates, Africa's import intensity is similar to that of other developing regions.[12]

Africa's regional participation in GVCs is driven by Southern and North Africa, which together account for the lion's share of the continent's total value chain trade—78 percent, while West Africa accounts for only 14 percent, East Africa for 5 percent, and Central Africa for 3 percent. Southern Africa and North Africa both account for the continent's largest share of both forward and backward value chain integration (Figure 2). Both regions have important natural resource sectors and a strong export specialization in mining activities. Southern Africa also accounts for 50 percent of the continent's total backward integration, with intermediate inputs sourced mainly from the United States and China.

Large differences both in total participation rates and shares of forward and backward participation rates across African countries prevail. Total participation rates range from 73 percent in Seychelles to 20 percent in South Sudan (Figure 3).[13] The five African countries with the highest

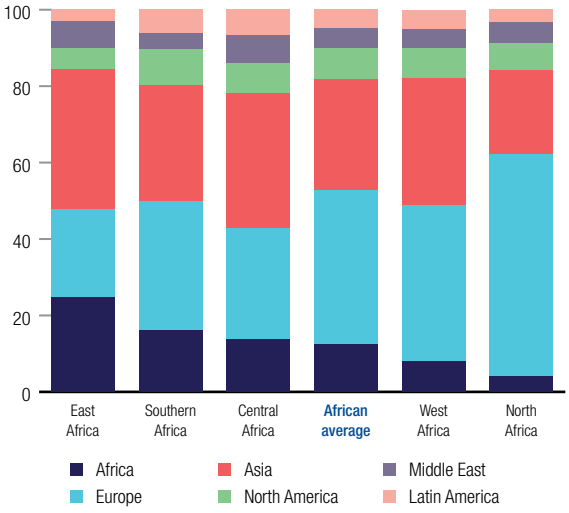
Figure 4: Africa's participation in GVCs, 2011

4a: Destinations of Africa's forward participation (% total forward participation)



Source: AfDB et al., 2014.

4b: Sources of Africa's backward participation (% total backward participation)



Source: AfDB et al., 2014.

level of GVC participation are Lesotho, Seychelles, Swaziland, Tanzania, and Zimbabwe. Guinea, Algeria, the Democratic Republic of Congo, South Africa, and Libya have the highest forward participation rates. Most African countries have seen their forward participation rate increase between 1995 and 2011. South Sudan, Djibouti, South Africa, Niger, Ethiopia, and Congo have witnessed the most important relative increase in forward participation rates (above 40 percent) of all African countries. Overall, forward participation rates have increased by 20 percent in Africa since 1995.[14] The continent's backward participation increased by 60 percent—three times faster—over the same period. The countries with the highest backward participation rate are Zimbabwe, Seychelles, Lesotho, and Tanzania.[15]

The main destinations for African inputs into GVCs (forward integration) are Europe and Asia. Europe absorbs 61 percent of Africa's total forward and 40 percent of its backward integration, followed by Asia, which accounts for 20 percent of forward integration and close to 30 percent of backward integration. Asia is the main source in backward participation in East Africa and Central Africa, accounting for 36 percent and 35 percent of backward integration, respectively (Figures 4a and 4b).

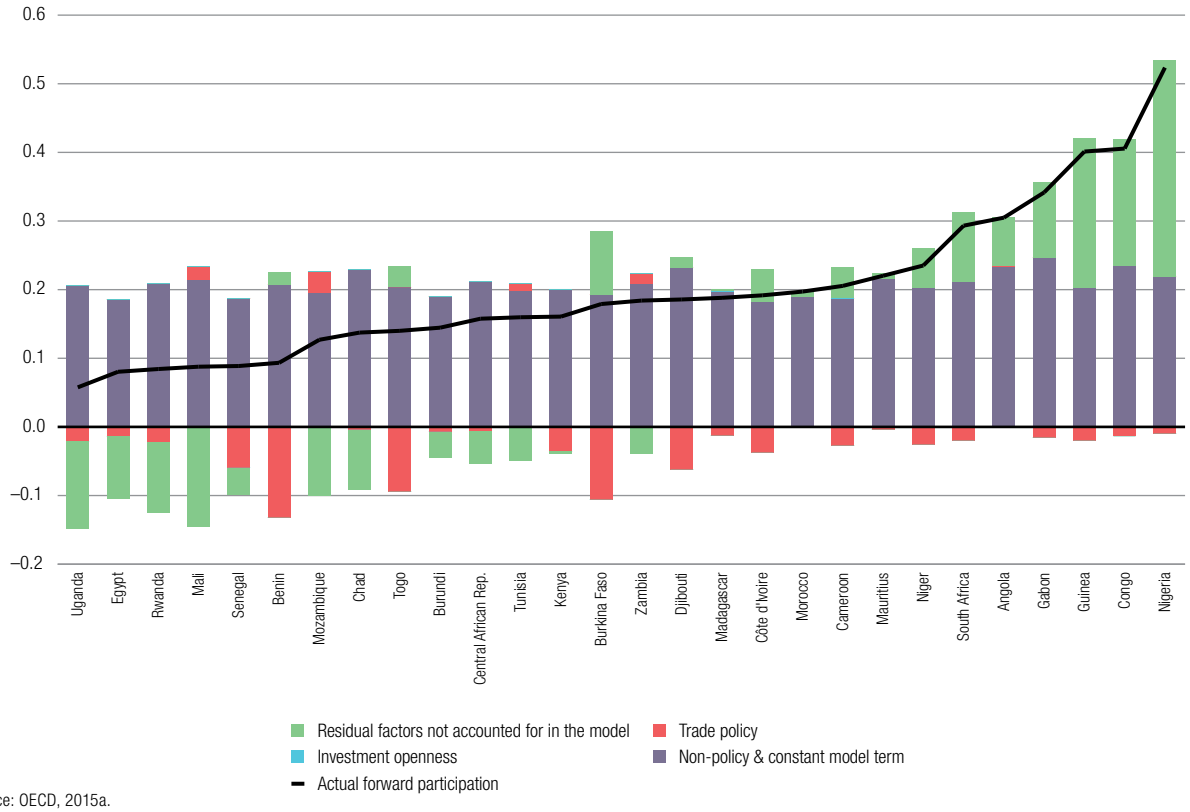
Although the regional component of African value chain trade is low, backward integration is twice as important as forward integration within the continent. Intra-continental trade flows account for only 6 percent of forward integration and 12 percent of backward integration. Inter-regional forward integration shares are highest in Southern Africa, with 11 percent, and backward integration shares are most significant in East Africa and Southern Africa, at 25 percent and 16 percent, respectively. The high intra-African share in value of imported intermediate inputs in Southern Africa can be attributed in part to South Africa's growing role as a "headquarter economy" for countries in the region. Indeed, South Africa's imports of intermediates from other economies in the region increased ninefold between 1995 and 2011, from US$78 million to US$686 million. Its forward participation in other African economies increased fivefold over the same period, from US$675 million to US$3,487 million.[16]

FACTORS DRIVING AFRICA'S GVC PARTICIPATION

Empirical analysis shows that structural factors are the main determinants of a country's participation in GVCs.[17] Understanding what determines GVC participation is crucial to identifying the scope that governments have to influence value chain participation through policy. According to recent empirical analysis by the Organisation for Economic Co-operation and Development (OECD), the role of policy in influencing value chain participation remains limited when compared to structural factors such as the country's domestic market size, distance to manufacturing hubs, level of development, and level of industrialization.[18]

- **Domestic market size (proxied by GDP):** Controlling for other factors, the larger the size of the domestic market, the lower the backward integration of a country and the higher the forward integration. One explanation for this is that countries with larger economies are able to draw on a larger array of domestic intermediate inputs and therefore need to import less. The impact of market size on backward participation is more pronounced in low-income countries than in middle- and high-income countries. In terms of forward participation, the size

Figure 5: Forward GVC participation ratio: Relative contribution of structural and policy factors, 2005
Share of exports



Source: OECD, 2015a.

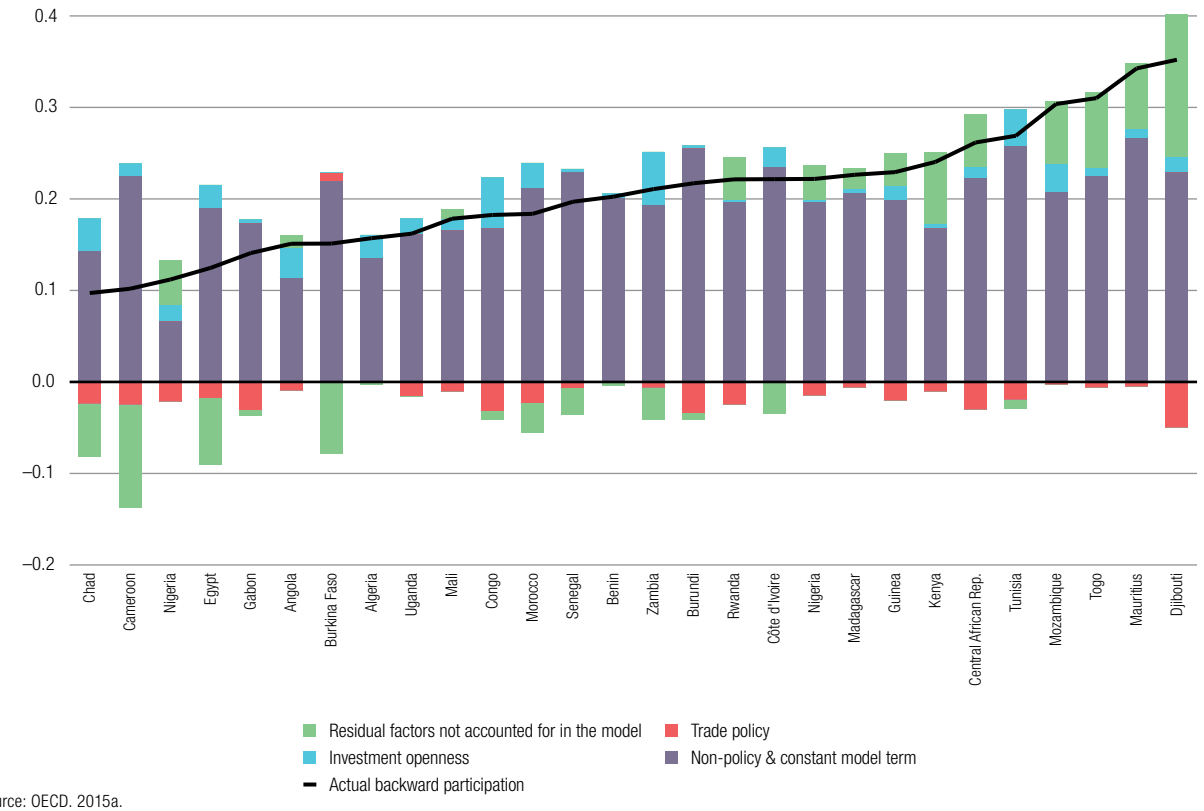
of the market plays a smaller role in low-income countries, probably because of their stronger export concentration in natural resources.

- **Distance to manufacturing hubs:** As mentioned earlier, GVC trade exhibits strong regional concentration around the three main manufacturing hubs of Europe, Asia, and North America. Distance to one of these hubs has a strong impact on backward engagement, signaling that there is a strong benefit of proximity to headquarter economies. This is reinforced by the data, which show North Africa's high share of intermediate imports sourced from Europe (and relative small share from Asia), and Asia's high share in East Africa's backward participation (see Figure 4b). The impact of distance on forward participation is insignificant.

- **Level of industrialization (proxied by share of manufacturing value-added in GDP):** Larger manufacturing sectors are positively related with backward participation and negatively with forward participation. However, the impact of the level of industrialization of the economy is significant only in low-income countries. Backward linkages are strongest in countries that engage in factory-type activities, such as assembly, which dominate in early stages of industrialization. In many African countries, a relatively small manufacturing sector reduces the potential for participation and provides additional incentives for specialization in primary sectors.

Overall, backward participation is better understood than forward participation.[19] Backward participation captures the demand side of value chains and is more closely linked to countries' structural characteristics, such as the size of the country and its level of industrialization (see Figure 6). By contrast, forward participation captures the supply side of value chains and is strongly correlated to a country's natural endowments. For African countries, where forward participation is strongly related to export of natural resources, the ability to predict forward participation based on structural and policy characteristics is more difficult. The residual term in Figures 5 and 6 captures the difference between actual forward participation and predicted participation, based on considered policy and non-policy characteristics.[20] It identifies whether countries are participating above or below what would be predicted by these characteristics as well as the role of unobserved factors. For instance, countries such as Nigeria, Congo, and Guinea participate significantly above the model predicted values, whereas Uganda, Egypt, Rwanda, and Mali participate significantly below (see Figure 5). In contrast, backward participation captures the demand side of value chains and is more closely linked to countries' structural characteristics, such as its size and level of industrialization.

Figure 6: Backward GVC participation ratio: Relative contribution of structural and policy factors, 2005
Share of exports



Source: OECD. 2015a.

Notwithstanding the important role played by structural factors, a range of different policies contribute to GVC participation. In developing countries, institutional and legal frameworks as well as infrastructure are important determinants of the level of GVC participation.[21] These are areas in which the African continent is lagging behind, as shown in Chapter 1.1.

Services play an increasingly central role in the actual operation of GVCs (see Chapter 2.2). The fragmentation of production processes has increased the demand for services to coordinate the production and distribution of goods and services. Services such as transport and infrastructure; logistics and warehousing; trade facilitation; and business services, including telecommunications, banking, insurance, and other professional services are required at every stage of the production process. The share of such services in manufacturing value-added trade is approximately 30 percent, with variations across sectors.[22] Traditional trade policies—consisting mainly of tariffs and border measures—still matter, but tariffs are now much lower, more transparent, and predictable. By contrast, inefficient customs and port procedures, unpredictable delays, and weak infrastructure can be far more costly than tariffs for trade. In sum, the attractiveness of production locations for value chain trade depends strongly on the availability of services and infrastructures that can ensure reliable and efficient movement of goods and services across borders.[23]

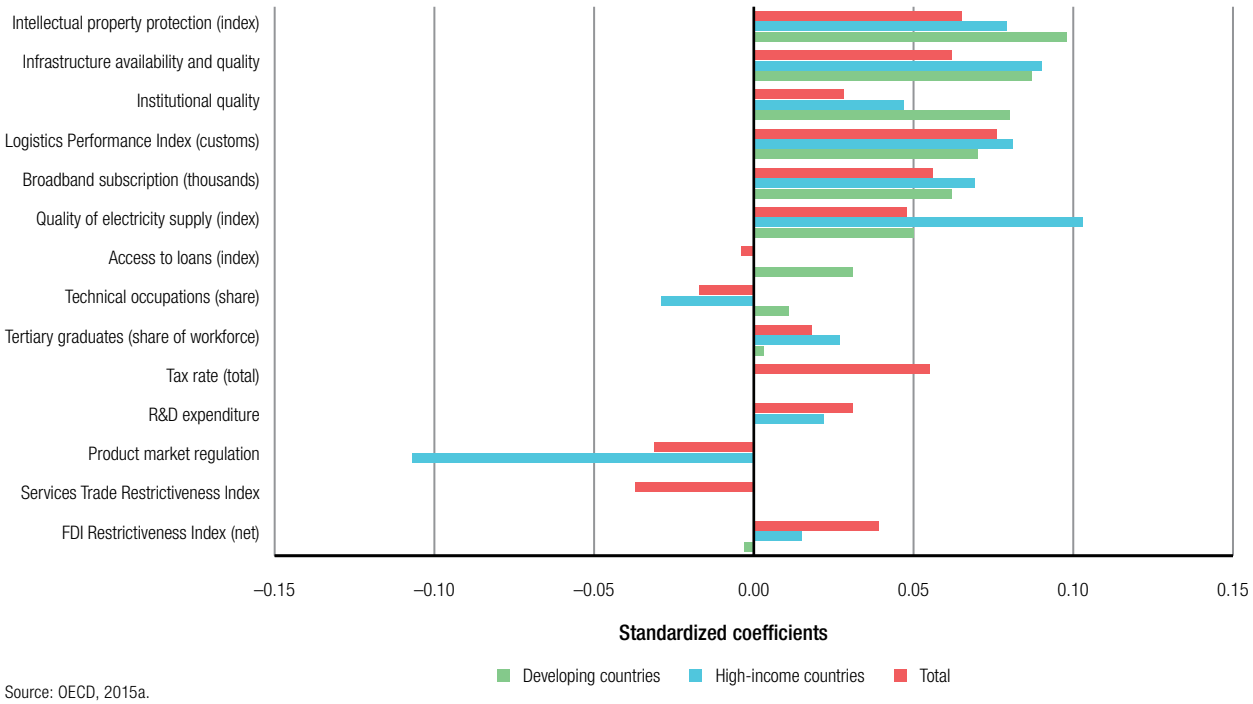
The following section reviews some of the most important policy areas for determining a country's participation in GVCs, including trade and investment policy (including intellectual property rights), logistics and customs procedures, infrastructure, and access to finance (Figure 7).

Trade policy

Although the overall impact of traditional trade policy on GVC participation in many African countries remains low, some countries can reap important benefits by removing tariff barriers to trade. Fragmented production processes inherent in GVC trade imply multiple border crossings, which can amplify the effects of tariffs.[24] In long and complex value chains—such as motor vehicles, basic metals, and textiles, leather, and footwear—these amplification effects can be important.

Free trade agreements and regional trade agreements covering a large share of imports are important to keep tariffs low and promote greater GVC participation. Developing regions such as Southeast Asia, which have comprehensive free trade agreements, also enjoy high levels of intra-regional GVC integration (Figures 8a and 8b).[25] In Africa, although the East African Community and the Southern African Development Community have achieved strong reductions in barriers to trade, tariffs remain relatively high for intra-regional trade, sometimes higher than they are between Africa

Figure 7: The impact of broad policies on GVC integration



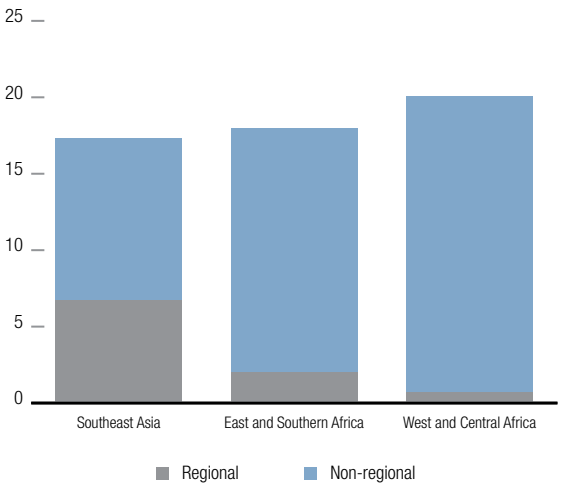
Source: OECD, 2015a.

and the rest of the world. For example, the United Nations Conference on Trade and Development (UNCTAD) estimated that an African firm exporting to markets outside the continent faces an average protection rate of 2.5 percent, while exporting the same good to an African market would face an average applied protection rate of 8.7 percent.[26]

According to OECD estimates, African countries that would benefit most from trade policy reform are the Democratic Republic of Congo, Cameroon, Djibouti, Rwanda, and Nigeria.[27] In North African countries, trade performance is mostly attributed to the relatively high coverage of imports and exports of intermediates by regional trade agreements. Still, Morocco and Tunisia, for example, could boost their GVC participation by 15 percent or more if they further liberalized their trade policies. However, in order to achieve the most impact, the reduction of tariff barriers would need to be

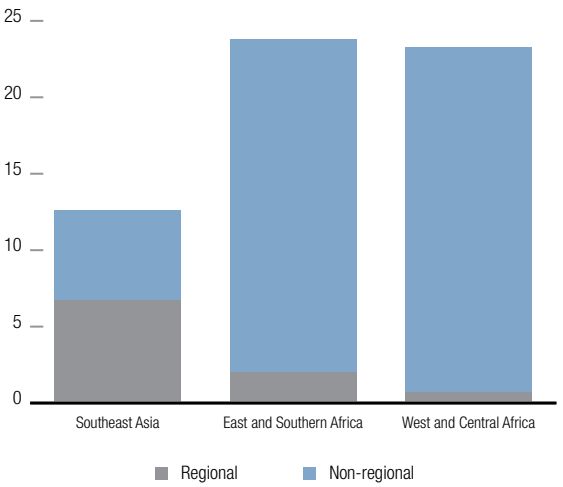
Figure 8: Share of intra-regional participation in GVCs, percent of gross exports, 2011

8a: Backward participation



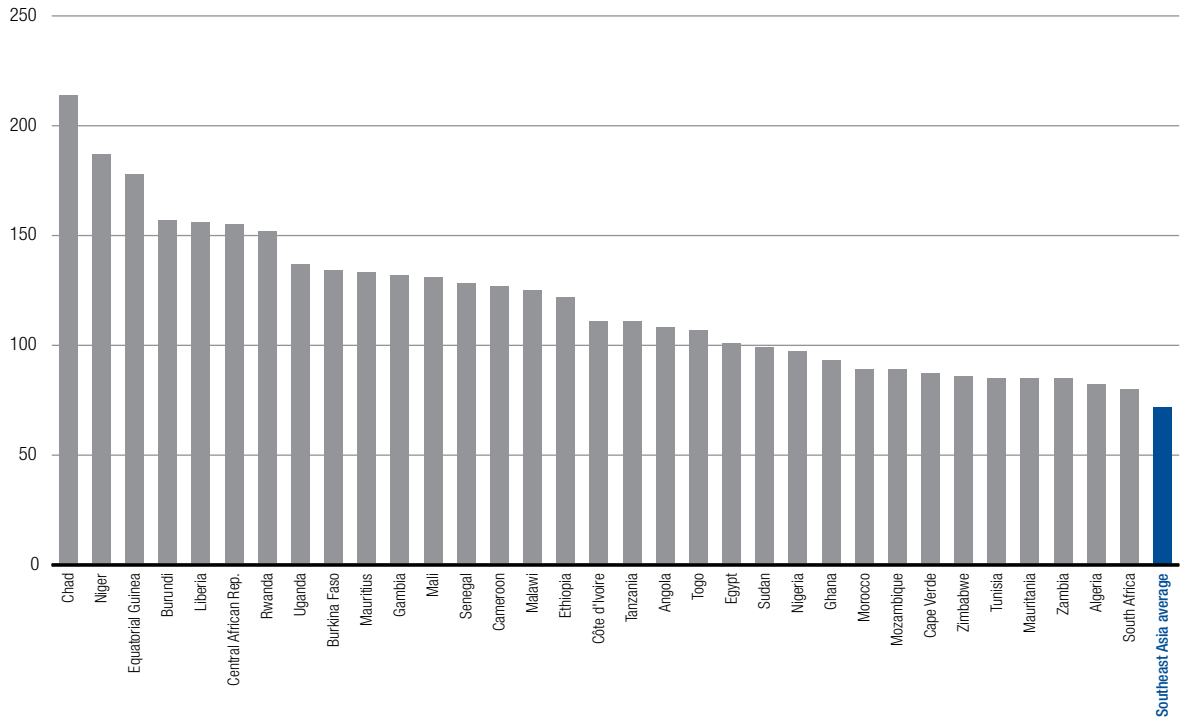
Source: OECD, 2015a.

8b: Forward participation



Source: OECD, 2015a.

Figure 9: Trade costs in Africa, 2010



Source: OECD, 2015a.
Notes: Bars show ad-valorem equivalents of trade costs. Values are trade-weighted values per country. For comparison, the Southeast Asia average is shown at the end of the graph.

accompanied by other policy measures such as trade and investment facilitation, competition policy, and intellectual property protection.

Trade facilitation, logistics, and infrastructure

Trade facilitation—including commercial, transport, regulatory, and financial procedures—complements trade policy as a priority policy direction that can enhance Africa's integration into GVCs. Although tariffs are estimated to account for only 0–10 percent of total trade costs, and physical trade costs another 10–30 percent, the remaining 60–90 percent is comprised of non-tariff–related costs such as trade procedures, maritime connectivity and services, regulatory environment, currency fluctuations, and availability of communication services.[28] The impact of trade facilitation on trade costs is even stronger on products with relatively low value and low value-to-weight ratios, in which some African countries show strong comparative advantage.

The geographic isolation of many African countries is further aggravated by the poor quality and absence of critical infrastructure (see Chapter 1.1). As a result, firms in Africa face some of the highest trade costs in the world. For instance, the cost of exporting a standard 20-foot container is more than twelve times higher in Chad (US$6,600), six times higher in Rwanda (US$3,200), and three times higher in South Africa (US$1,531) than it is in China (US$500).[29] Landlocked countries, such as Chad, Niger, and the Central African Republic, tend to face the highest trade costs (Figure 9).

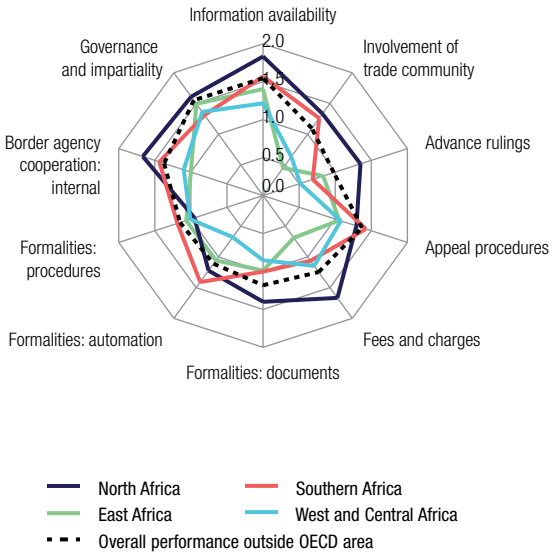
Factors such as road quality, quality of rolling stock, customs and port duties, delays, coordination issues, and bribes all contribute to high transport costs. In addition to the poor quality of transport infrastructure and services, high transport costs in Africa can be explained by the absence of competition and inefficient regulation of the freight logistics sector. This lack of competition contributes to the high profit margins of transporters, which exceed 150 percent along certain corridors. The strong influence of transport cartels on the quality and costs of logistics has been analyzed in West and Central Africa.[30] In addition, delays and unpredictability in GVCs can be just as strong an impediment to participation as costs. Global production networks in many industries rely on just-in-time production and depend on the reliability of supply of intermediate inputs.[31]

OECD analysis shows that sub-Saharan Africa fares worse in trade facilitation performance than the average performance of 107 non-OECD countries surveyed. The continent is weaker in areas such as harmonizing and streamlining documents and advance rulings, as well as appeal procedures and fees and charges.[32] However, Southern Africa stands out from the rest on automation and is on par with the average of countries covered outside the OECD in areas such as information availability, appeal procedures, and internal border agency cooperation (Figure 10). West and Central Africa and East Africa perform uniformly below the overall average, and could draw considerable

benefits in terms of trade volumes and trade costs from improvements in areas covering advance rulings, appeal procedures, fees and charges, harmonization and streamlining of documents, automation, and internal border agency cooperation (Figure 10). African firms are also hampered by inefficiencies of customs and port procedures and by corruption. In many African countries, trading across borders is burdensome and costly, although there is wide variation between countries. According to the World Bank Doing Business indicators, it takes 51 days and requires seven documents to export a container from Zambia, 40 days and ten documents from Angola, and 26 days and six documents from Mali, but only 10 days and four documents from Morocco.[33]

The combined effects of the elements described above (inefficiencies, red tape, and corruption) on trade costs translate into the highest intra-regional trade costs in the world, constraining the scope and depth of regional value chains (Figure 11).[34] Intra-regional connections are still mostly absent. Infrastructure investments, in particular in intra-regional connections, will be of particular importance in increasing participation in GVCs beyond the export of raw material and primary products.

Figure 10: Trade facilitation performance, 2013
Scores (0.0–2.0)



Source: OECD's Trade Facilitation Indicators, available at http://www.oecd.org/tad/facilitation/indicators.htm.
Note: The figure shows the latest available data. The Trade Facilitation Indicators have scores ranging from 0.0 to 2.0 (best).

Investment policy

In addition to trade policy and facilitation, investment policy is another vital factor that determines a country's capacity to participate in—and benefit from—global production networks. FDI is a key building block of GVCs and is driven by multinational enterprises, which are sensitive to FDI restrictions and the protection of intellectual property rights. The exact contribution of investment policy depends on structural country factors, the type of investment, and the nature of links created with the host economy.[35]

West and Central African countries tend to have the lowest FDI to GDP ratios in Africa, apart from a few outliers such as the Republic of the Congo, which is on par with average performers in Southeast Asia. Countries in East and Southern Africa have the highest level of investment openness on the continent, but with important differences between the most open (e.g., Zambia, South Africa) and the most closed (e.g., Rwanda).[36] Overall, the contribution of investment openness to GVC participation in Africa is close to the average contribution of investment openness in Southeast Asia.

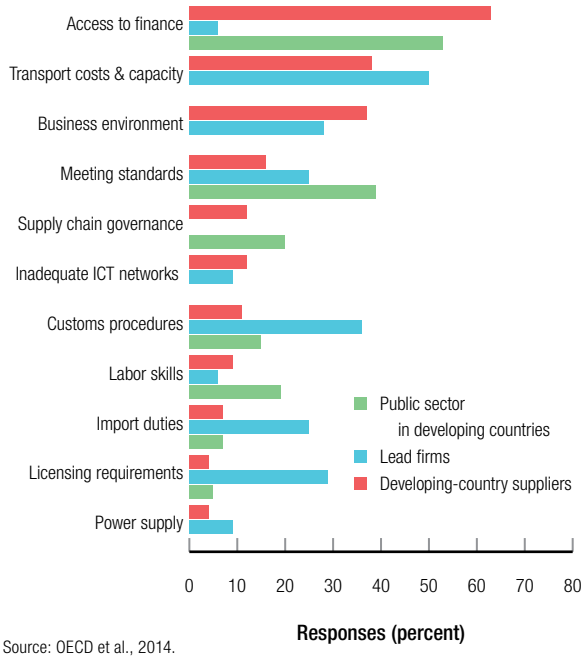
More detailed regional comparisons, as well as comparisons of specific restrictions, can indicate the extent to which participation could be facilitated through appropriate FDI policies.[37] The OECD FDI Regulatory Restrictiveness Index evaluates FDI rules, which are a critical determinant of a country's attractiveness to foreign investors. The index covers four types of measures: (1) foreign equity restrictions, (2) screening and prior approval requirements, (3) rules for key

Figure 11: Region-by-region trade-weighted costs, 2010

Regions	North America	Europe 27	Middle East and North Africa	Southeast Asia	South Asia	East and Southern Africa	West and Central Africa
North America	**15**						
Europe 27	66	**34**					
Middle East and North Africa	72	76	**48**				
Southeast Asia	72	88	69	**69**			
South Asia	89	95	61	104	**92**		
East and Southern Africa	125	112	91	155	162	**104**	
West and Central Africa	105	107	112	162	100	94	**104**

Source: OECD, 2015a.
Notes: Figures show ad-valorem equivalents of trade costs. Data are the trade-weighted average cost of trade by region for the year 2010. Boxes with bolded values are intra-regional.

Figure 12: Barriers to entering value chains: Private- and public-sector views



Source: OECD et al., 2014.

personnel, and (4) other restrictions on the operation of foreign enterprises. Eight African countries are included in the index, with the four best-performing African countries—South Africa, Egypt, Mauritius, and Morocco—showing more open regulatory FDI environments than the OECD average.[38]

Access to finance

Access to finance is one of the main obstacles to doing business in developing countries and is thus an important factor in entering, establishing, or moving up value chains (Figure 12).[39] Although financial systems in Africa have evolved considerably over the past decades, particularly in countries such as South Africa, they are still very limited and costly in a number of countries.[40] African SMEs across all size groups—small, medium, and large[41]—are generally less likely to have access to loans than firms outside Africa, although there are a few exceptions. These include South Africa, Burundi, and Mauritius, where over one-third of firms have formal loans.[42] Further diversification in Africa where firms advance from primary commodity-based value chain participation toward higher value-added manufacturing and service-based participation will require significant investments that will, in many countries, also depend on better-performing financial sectors.

POLICY OPTIONS FOR ENTERING AND EXPANDING PARTICIPATION IN GVCS

GVCs have profoundly transformed global production and are becoming increasingly influential in determining future trade and FDI patterns. Policies need to respond to this new reality and promote business environments that make countries and firms more attractive and competitive for GVCs and facilitate upgrading opportunities.[43] The preceding analysis shows that no single field of policy can offer the entire solution that allows a country's firms to further integrate into global and regional value chains, and that policies are interdependent. Promoting better integration into GVCs will require a broad set of policy reforms, such as trade facilitation including streamlining customs and border procedures; investments in public goods, notably transport infrastructure; improving the business climate, including boosting access to finance and improving investment climate and competition; and deeper regional trade agreements. Many of these areas are part of a broader reform agenda that may lead to economy-wide benefits beyond GVC integration. The OECD can assist governments in some of these areas through policy reviews that inform and guide reforms at national and subregional levels, through promoting adherence to selected instruments and building statistical capacity and by compiling better data.

Trade facilitation focusing on connectivity

Policies should include measures that facilitate access to the most competitive inputs by addressing non-tariff barriers to trade and the quality of logistics and transport services.[44] As we have seen, engagement in value chains depends on the ease, cost, and reliability of international flows of goods and services. African countries that are able to remove the main non-tariff barriers and make trade facilitation processes faster and more reliable, and cost less, will be more successful in entering GVCs.[45] Governments can leverage policy indicators, such as the OECD's trade facilitation indicators, to identify priority areas for action and evaluate the implementation of reforms.

Equally important to non-tariff barriers is the quality of logistics and transport services. Improving the poor performance of the logistics and transport sector in Africa will depend on more efficient regulation in the areas of licensing and standards as well as on increasing competition in the transport sector. Governments should continue to reduce obstacles to the movement of goods and people within countries and across the region. Many regional economic communities in Africa provide for the free movement of people, goods, and capital, but the application of existing legislation has to be better enforced.

Infrastructure provision and financing

The quality and availability of infrastructure is an important factor in determining the attractiveness of a location for GVC investment decisions.[46] Improving transport performance in Africa, especially for intra-regional and coast-hinterland transport, will require large investments in new connections as well as

up-grading existing infrastructure. Most infrastructure projects in Africa today are financed by public sources and development partners; private investment in such projects is limited. Part of the necessary financing could come from more effective tax collection (see Box 1). In addition, the massive upgrading of infrastructure in Africa will require strengthening the regulatory framework for procurement and public-private partnerships in infrastructure as well as building relevant government capacity to manage these infrastructure contracts. Enhancing the economic regulation of transport infrastructure should also include entrusting infrastructure price-setting to independent regulatory agencies, involving competition authorities in any necessary unbundling of infrastructure services, and ensuring a level playing field between public and private operators active in infrastructure markets. When planning and designing infrastructure, particular attention should also be placed on intra-regional connections and spatial planning. Increasing links between countries and between growth poles and growing secondary cities as well as between urban and rural areas will unlock local growth opportunities.[47]

The OECD's *Principles for Public Governance of Public-Private Partnerships* and *Principles for Private Sector Participation in Infrastructure* can be useful tools to support African policymakers in attracting further private investment in infrastructure.[48] The OECD guidelines noted above cover aspects ranging from institutional design, regulation, and competition to budgetary transparency and integrity at all levels of government. They provide concrete guidance on how to enhance countries' enabling environment for infrastructure investment while ensuring that new infrastructure projects will provide value for money and benefits for infrastructure end-users, including businesses aiming to position themselves within GVCs.[49]

Investment and access to finance

Firms in developing countries rank access to finance, in particular trade finance, as the main obstacle preventing them from entering and moving up value chains (see Figure 12). A firm's ability to export and import depends on financial costs. By broadening access and lowering costs, well-functioning financial systems can increase the number of potential trading partners and the volume of trade.[50] Improving access to finance, including export credits and trade finance as well as affordability for African SMEs and entrepreneurs, should be priority components of government reform agendas to boost GVC integration. Financial system development strategies need to encourage further competition in the banking sector and introduce policies that help limit collateral requirements and reduce credit information gaps.[51]

The OECD's work on SMEs and entrepreneurship financing provides some concrete tools that help policymakers design appropriate strategies. For instance, the OECD's *Financing SMEs and Entrepreneurs 2013: An OECD Scoreboard* and the SME Policy Index provide a comparative overview of where countries stand on access to finance outcomes and policies.[52]

Upgrading productive capacities also depends on attracting more and better investment, in particular FDI. For example, OECD Investment Policy Reviews and

Box 1: Public goods provision: Improving taxation, GVCs, BEPS, and developing countries

Global value chains (GVCs) present a particular challenge when it comes to taxation. National tax laws have not always kept pace with the increasing interconnection of global production and the movement of capital, driven by global corporations with aggressive tax planning strategies that exploit gaps in tax rules to shift profits to locations with lower taxes. This phenomenon, known as *base erosion and profit shifting* (BEPS), has been an important area of work for the OECD. Given the central role of multinational enterprises in structuring GVC trade and Africa's strong reliance on corporate income tax, particularly from multinational enterprises, BEPS is of major significance for countries in the region. Forums such as the OECD/G20 BEPS Project brings OECD and non-OECD/G-20 countries and organizations, such as the African Tax Administration Forum, to discuss and develop domestic and international instruments needed to address this challenge.[1]

The result has been the OECD's BEPS Action Plan, published in 2013, which incorporates the specific concerns and context of developing countries in the development of solutions to counter BEPS. These have been taken into account through regional consultations with more than 80 developing countries. These inputs feed directly into the action steps of the BEPS Action Plan with the following priority areas:

- limit base erosion via interest deductions and other financial payments (addressed by Action 4 of the BEPS Action Plan),
- prevent tax treaty abuse and the artificial avoidance of Permanent Establishment status (Actions 6 and 7),
- transfer pricing, in particular base-eroding payments (Actions 8, 9, and 10), and
- transfer pricing documentation and country-by-country reporting (Action 13).

The identified measures will give countries the tools they need to ensure that profits are taxed where economic activities generating the profits are performed and where value is created, while at the same time providing businesses with greater certainty by reducing disputes over the application of international tax rules and standardizing requirements. The OECD, working with other international organizations and regional tax organizations, will also translate the BEPS Action Plan into practical support.

Note

1 OECD 2013e.

Source: OECD, 2013e.

Box 2: Improving trade data: OECD-WTO *TiVA:* A new approach to measuring GVC trade

Global value chains (GVCs) and the sharp increase of trade flows in intermediate inputs are leading to an increasingly distorted view of world trade based on conventional trade statistics. By measuring international trade in gross terms, conventional trade statistics often record intermediate inputs rather than inputs throughout the value chain. Measuring trade in value-added avoids this problem. However, data in trade in value-added have only recently started to be compiled. This work is being done by the joint Organisation for Economic Co-operation and Development-World Trade Organization (OECD-WTO) *Trade in Value-Added (TiVA)* database and the United Nations Conference on Trade and Development (UNCTAD) *EORA* database.

The OECD-WTO *TiVA* database is a statistical approach used to estimate the source(s) of value-added (by country and industry) in producing goods and services for export (and import). Expanding GVCs imply that a country's exports increasingly rely on intermediate imports. For example, a motor vehicle exported by country A may require significant parts, such as engines, seats, and so on produced in other countries. These countries in turn will use intermediate inputs imported from other countries, such as steel, rubber, and so on, to produce the parts exported to country A. The trade in value-added approach traces the value added by each industry and country in the production chain and allocates the value-added to these source industries and countries.

Work is currently underway to increase the geographic coverage of the OECD-WTO *TiVA* database, to improve its timeliness, and to deepen its level of industry detail. Increasingly integrating more African economies would help in better understanding GVCs and development related outcomes.

the OECD Policy Framework for Investment can help identify priority policy reforms to improve the investment climate.[53] These Policy Reviews of African countries have highlighted intellectual property protection, competition, public governance, anti-corruption, and foreign exchange transactions as particularly important in attracting further investment.

Regional trade agreements and regional integration

Different regional economic communities in Africa have contributed to progress toward reducing barriers to trade and boosting intra-regional trade flows.[54] Yet intra-regional trade still suffers from relatively high tariffs, an incompatibility of rules of origin across the different trading blocks, and implementation issues.[55] Comprehensive regional trade agreements with deep integration measures (WTO+), providing for non-tariff barriers to trade—including investment, competition policy, intellectual property protection, and dispute settlement—can support value chain integration, in particular regional value chain integration.[56] Some promising African initiatives in this area, such as the technical working group established by the African Union to assess the compatibility of rules of origin across the three trading blocs (the Common Market for Eastern and Southern Africa, the East African Community, and the Southern African Development Community), should be supported further.[57]

The potential benefits from stronger intra-regional integration appear particularly vital in Africa because of the significance of structural factors in determining GVC participation. Given the strong impact of market size, industrial structure, and level of development on GVC participation, many of the smaller economies with low levels of industrial development are likely to benefit from stronger links with the larger countries in the region.[58]

Regional integration can also be a way of "learning by doing" for many African countries and a preparation for greater competition in global markets.[59] In particular, domestic SMEs are more likely to succeed first in regional markets, where they tend to have better market knowledge, be more familiar with standard requirements, and have better access to lead firms. Competitive pressures on some segments also tend to be lower on regional markets than global markets.

Policy dialogue and better data

Given the complexity and large range of issues policymakers must tackle to promote better integration into the global economy, the success of reform agendas will also depend on active dialogue among key stakeholders through forums such as OECD Committees, OECD Regional Programme Policy Networks, and the OECD Initiative for Policy Dialogue on GVCs, Production Transformation and Development.[60] Such policy dialogue promotes knowledge-sharing and peer learning between countries to share good practices and increase policy impact. Countries advance in their capacity to design and implement policies through trial and error, and learning from the experience of others is an important enhancer of policy learning processes within countries.[61] National and international public-private dialogue mechanisms can also encourage greater transparency and relevance in policy choices.[62]

In addition to effective policy dialogue, better data are needed on African countries if they are to design the right policies for enhanced participation in GVCs. For instance, African countries could participate further in initiatives such as the OECD-WTO *TiVA* database (see Box 2). Including more African countries in other databases relevant to GVCs—such as the *FDI Restrictiveness* database, the *SME and Entrepreneurship Financing Scoreboard* database, and the *Services Trade Restrictiveness Index* database—would certainly help inform better policymaking.

CONCLUSIONS

Participating in GVCs can accelerate African economic transformation, particularly through the gains associated

with enhanced productivity, skills development, and diversification of exports. However, the gains from GVC participation are not automatic. They require a broad set of policies with a particular focus on trade facilitation, investment, transport infrastructure, and access to finance. Many of these policy areas should have economy-wide benefits beyond GVC integration.

Accelerating the harmonization and implementation of regional trade agreements is another priority that should help African firms—in particular SMEs, which face the greatest hurdles to GVC integration—develop a greater capacity to compete on a global scale.

Because the level of GVC integration varies significantly with the level of economic development, market size, factor endowments, and type of sector, policies will need to be specifically tailored for each country. Moreover, to fully capture the implications of GVCs for African countries it will be important to deepen the analysis and understanding of GVCs and their impact on economic development. Further work is needed, in particular on GVC upgrading, on the link of GVCs with jobs and skills, and on the connection between GVCs, investment, and technology transfer.

The OECD's growing partnership with Africa spans many research and policy areas that can help inform policymaking to support Africa tapping the full potential of GVCs. The OECD stands ready to support African countries to further integrate into global and regional value chains through its guidelines and instruments, policy reviews, and comparative datasets. Through OECD Committees, Regional Policy Networks, and other relevant forums, countries can learn from each other to design and implement better policies, which should ultimately translate into higher living standards for the African people.

NOTES

1 See, for instance, *The Africa Competitiveness Report 2013* (World Economic Forum et al. 2013).

2 The interconnected production process that goods and services undergo from conception and design through production, marketing, and distribution is often referred to as a global value chain or an international production network (Gereffi and Fernandez-Stark 2011; OECD 2013b).

3 OECD 2015a.

4 OECD 2015a; AfDB et al. 2014.

5 UN World Population Prospects, the 2012 Revision, available at http://esa.un.org/wpp/.

6 OECD 2015a; AfDB et al. 2014.

7 OECD 2015a.

8 OECD et al. 2014.

9 AfDB et al. 2014.

10 AfDB et al. 2014.

11 AEO 2014.

12 OECD 2015a.

13 Participation rate is calculated as a percentage of gross exports and accounts both for the import content of exports and for exports of domestically produced intermediates used in third countries' exports.

14 AfDB et al. 2014.

15 AfDB et al. 2014.

16 AfDB et al. 2014.

17 This section is based on results of recent work at the OECD, in particular the Trade Policy Paper "Participation of Developing Countries in Global Value Chains: Implications for Trade and Trade-Related Policies" (OECD 2015a).

18 OECD 2015a.

19 OECD 2015a. Country-specific characteristics account for 59 percent of the variation in a country's backward participation compared to 22 percent of a country's forward participation. For the detailed econometric specification and results, refer to OECD 2015a.

20 The explanatory variables considered in the benchmark econometric specification are grouped into three broad categories: (1) non-policy factors: market size; the share of manufacturing in GDP; distance to economic activity and distance to key manufacturing hubs; (2) core trade and investment policy-related factors: import tariffs charged on intermediate imports; import tariffs on intermediates faced in export markets; regional trade agreement coverage of intermediate's imports and exports; revealed openness to inward FDI; (3) other policy-related factors: because of uneven data coverage, the impact of policies such as logistics and border procedures, quality of transport infrastructure, and intellectual property protection is investigated in a separate econometric specification. For a detailed description of the model specification, see OECD 2015a.

21 OECD 2015a; World Bank 2014.

22 OECD 2015a.

23 OECD et al. 2014.

24 The amplification effect can occur via two channels: first, multiple border crossings with intermediate inputs incur tariffs at each border crossing; and second, tariffs are levied on the gross value of imported goods, rather than on the value-added (OECD 2013b).

25 OECD 2015a.

26 UNCTAD 2013. The low tariffs for exporting outside the continent are largely the result of preferential agreements, such as the Everything but Arms initiative between the European Union and least-developed countries and the African Growth and Opportunity Act.

27 OECD 2015a.

28 OECD 2014.

29 World Bank 2015. Asian countries, especially China, are also benefiting from economies of scale in shipping, which lowers trade costs; Asian governments have also invested heavily in infrastructure.

30 Teravaninthorn and Raballand 2008; AfDB 2012; OECD 2013.

31 Djankov et al. 2010.

32 Moïsé et al. 2013.

33 World Bank 2015.

34 OECD 2015a.

35 OECD 2015a.

36 OECD 2015a.

37 OECD 2015a.

38 More information about the OECD FDI Regulatory Restrictiveness Index is available at http://www.oecd.org/investment/fdiindex.htm.

39 Access to finance is also cited as the most problematic factor in doing business more broadly; see Chapter 1.1, Figures 14a and 14b. See also OECD et al. 2014.

40 Beck and Cull 2014.

41 Firms are considered small if they have fewer than 20 employees, medium if they have 20 to 99 employees, and large if they have 100 employees or more.

42 Beck and Cull 2014.

43 OECD et al. 2014.

44 OECD 2015a.

45 OECD/WTO 2014.

46 OECD et al, 2014; World Economic Forum et al. 2013.

47 AfDB et al. 2015.

48 OECD 2007; OECD 2012.

49 OECD 2007; OECD 2012.

50 OECD et.al 2014.

51 OECD et al. 2014.

52 OECD 2013f.

53 The OECD's *Policy Framework on Investment* (PFI) is a comprehensive and systematic approach for improving investment conditions. The PFI provides recommendations in 10 policy areas including investment, competition, tax, corporate governance, anti-corruption, infrastructure, public governance, and other policy domains that affect the business climate. The PFI and Investment Policy Reviews in the context of the OECD-NEPAD Investment Initiative assists African governments and institutions in designing and implementing investment policy reforms.

54 African intra-regional exports are highest in processed intermediate goods, agricultural/food processing, manufacturing, plastics, and rubber.

55 OECD 2015a.

56 OECD et al. 2014; OECD 2015a.

57 OECD 2015a.

58 AfDB 2014.

59 OECD 2015a.

60 OECD et al. 2014.

61 OECD 2013c.

62 For instance, the Business and Industry Advisory Council is an independent international business association devoted to advising government policymakers at the OECD and related forums on the many diversified issues of globalization and the world economy.

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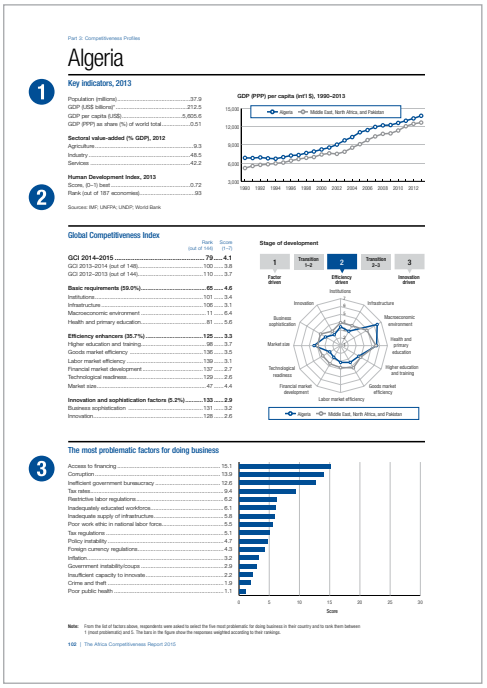
Part 3

Competitiveness Profiles

How to Read the Competitiveness Profiles

The Competitiveness Profiles section of *The Africa Competitiveness Report 2015* presents a two-page profile of the performance in the Global Competitiveness Index (GCI) discussed in Chapter 1.1 for each of the 38 African economies covered in *The Global Competitiveness Report 2014–2015.* To offer the most comprehensive picture of Africa possible, data for Benin and Liberia—based on *The Global Competitiveness Report 2013–2014*—are also shown in these Profiles, although they were not included in the GCI 2014–2015.


Part 3: Competitiveness Profiles

Algeria

1 Key indicators, 2013

Population (millions) 37.9
GDP ($ Bil) billions)* 212.5
GDP per capita ($US) 5,605.6
GDP (PPP) as share (%) of world total 0.51

Sectoral value-added (% GDP), 2012
Agriculture 9.3
Industry 48.5
Services 42.2

Human Development Index, 2013
Score, (0–1) best 0.72
Rank (out of 187 economies) 93

Sources: IMF; UNFPA; UNDP; World Bank

GDP (PPP) per capita (int'l $), 1990–2013

Algeria Middle East, North Africa, and Pakistan

2 Global Competitiveness Index

	Rank (out of 144)	Score (1–7)
GCI 2014–2015	79	4.1
GCI 2013–2014 (out of 148)	100	3.8
GCI 2012–2013 (out of 144)	110	3.7
Basic requirements (59.0%)	65	4.6
Institutions	101	3.4
Infrastructure	106	3.1
Macroeconomic environment	11	6.4
Health and primary education	81	5.6
Efficiency enhancers (35.7%)	125	3.3
Higher education and training	96	3.7
Goods market efficiency	136	3.5
Labor market efficiency	139	3.1
Financial market development	137	2.7
Technological readiness	129	2.6
Market size	47	4.4
Innovation and sophistication factors (5.2%)	133	2.9
Business sophistication	131	3.2
Innovation	128	2.6

Stage of development

1 Factor driven | Transition 1–2 | 2 Efficiency driven | Transition 2–3 | 3 Innovation driven

Institutions, Infrastructure, Macroeconomic environment, Health and primary education, Higher education and training, Goods market efficiency, Labor market efficiency, Financial market development, Technological readiness, Market size, Business sophistication, Innovation

Algeria Middle East, North Africa, and Pakistan

3 The most problematic factors for doing business

Access to financing 15.1
Corruption 13.9
Inefficient government bureaucracy 12.6
Tax rates 9.4
Restrictive labor regulations 6.2
Inadequately educated workforce 6.1
Inadequate supply of infrastructure 5.8
Poor work ethic in national labor force 5.5
Tax regulations 5.1
Policy instability 4.7
Foreign currency regulations 4.3
Inflation 3.2
Government instability/coups 2.9
Insufficient capacity to innovate 2.2
Crime and theft 1.9
Poor public health 1.1

Score

Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

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PAGE 1

1 Key indicators

The first section presents a selection of key indicators for the economy under review:

- Population figures are sourced from the October 2014 edition of the International Monetary Fund (IMF)'s *World Economic Outlook (WEO) Database*.
- Gross domestic product (GDP) data come from the October 2014 edition of the IMF's *WEO Database*. Reported GDP and GDP per capita are valued at current prices.
- The sectoral value-added (% of GDP) data are from the World Bank's *World Development Indicators Online Database* (retrieved on December 15, 2014).
- The Human Development Index (HDI) ranking is computed by the United Nations Development Programme (UNDP), available from the *Human Development Indices: Statistical Update 2014.*
- The graph on the upper right-hand side displays the evolution of GDP per capita at purchasing power parity (PPP) from 1990 through 2013 (or the period for which data are available) for the economy under review (blue line). The gray line plots the GDP-weighted average of GDP per capita of the group of economies to which the economy under review belongs. We draw on the IMF's classification (as defined in the October 2014 edition of the WEO), which divides the world into six regions: *Emerging and Developing Europe; the Commonwealth of Independent States (CIS),* which includes Georgia although it is not a CIS member; *Emerging and Developing Asia; Middle East, North Africa, Afghanistan and Pakistan region (MENAP); Sub-Saharan Africa;* and *Latin America and the Caribbean.* Finally, *advanced economies* form a group of their own. For more information regarding the classification and the data, visit www.imf.org/weo.

2 The Global Competitiveness Index

This section of the profile details the economy's performance on the various components of the GCI. The first column shows the country's rank among the 144 economies covered by the GCI, while the second column presents its score. The percentage contribution to the overall GCI score of each subindex is reported next to the subindex name. These weights vary depending on the country's stage of development. For more information on the methodology of the GCI, refer to Chapter 1.1.

On the right-hand side, a chart shows the country's performance in the 12 pillars of the GCI (blue line) measured against the average scores across all the economies at the same stage of development (gray line).

❸ The most problematic factors for doing business

The bar chart at the bottom of the page summarizes those factors seen by business executives as the most problematic for doing business in their economy. The information is drawn from the 2014 edition of the World Economic Forum's Executive Opinion Survey (the Survey).[1] From a list of 16 factors, respondents were asked to select the five most problematic and rank them from 1 (most problematic) to 5. The results were then tabulated and weighted according to the ranking assigned by respondents.

PAGE 2

❹ The Global Competitiveness Index in detail

This page details the country's performance on each of the indicators entering the composition of the Global Competitiveness Index 2014–2015 (GCI). Indicators are organized by pillar. For indicators entering at the GCI in two different pillars, only the first instance is shown on this page.

- **INDICATOR, UNITS:** This column contains the title of each indicator and, where relevant, the units in which it is measured—for example, "days" or "% GDP." Indicators that are not derived from the Survey are identified by an asterisk (*). Indicators derived from the Survey are always expressed as scores on a 1–7 scale, with 7 being the most desirable outcome.
- **VALUE:** This column reports the country's score on each of the variables that compose the GCI.
- **RANK/144:** This column reports the country's position among the 144 economies covered by the GCI 2014–2015.

The following pages provide additional information and definitions on each of these indicators.


Part 2: Competitiveness Profiles

Algeria

❹ The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/144
1st pillar: Institutions		
1.01 Property rights	3.7	97
1.02 Intellectual property protection	2.9	114
1.03 Diversion of public funds	2.6	112
1.04 Public trust in politicians	2.8	80
1.05 Irregular payments and bribes	2.9	120
1.06 Judicial independence	3.5	85
1.07 Favoritism in decisions of government officials	3.0	77
1.08 Wastefulness of government spending	3.1	74
1.09 Burden of government regulation	3.1	104
1.10 Efficiency of legal framework in settling disputes	3.2	108
1.11 Efficiency of legal framework in challenging regs	2.9	104
1.12 Transparency of government policymaking	3.6	107
1.13 Business costs of terrorism	3.8	129
1.14 Business costs of crime and violence	4.0	93
1.15 Organized crime	4.3	94
1.16 Reliability of police services	4.1	74
1.17 Ethical behavior of firms	3.7	100
1.18 Strength of auditing and reporting standards	3.4	104
1.19 Efficacy of corporate boards	3.5	137
1.20 Protection of minority shareholders' interests	3.5	113
1.21 Strength of investor protection, 0–10 (best)*	5.0	83
2nd pillar: Infrastructure		
2.01 Quality of overall infrastructure	3.6	102
2.02 Quality of roads	3.1	107
2.03 Quality of railroad infrastructure	2.7	65
2.04 Quality of port infrastructure	2.8	117
2.05 Quality of air transport infrastructure	3.0	108
2.06 Available airline seat km/week, millions*	177.3	59
2.07 Quality of electricity supply	4.0	91
2.08 Mobile telephone subscriptions/100 pop.*	102.0	91
2.09 Fixed telephone lines/100 pop.*	8.0	99
3rd pillar: Macroeconomic environment		
3.01 Government budget balance, % GDP*	0.1	20
3.02 Gross national savings, % GDP*	51.1	4
3.03 Inflation, annual % change*	3.3	66
3.04 General government debt, % GDP*	9.2	5
3.05 Country credit rating, 0–100 (best)*	52.6	66
4th pillar: Health and primary education		
4.01 Malaria cases/100,000 pop.*	0.2	10
4.02 Business impact of malaria	4.5	47
4.03 Tuberculosis cases/100,000 pop.*	69.0	88
4.04 Business impact of tuberculosis	4.0	131
4.05 HIV prevalence, % adult pop.*	0.1	1
4.06 Business impact of HIV/AIDS	4.3	118
4.07 Infant mortality, deaths/1,000 live births*	17.2	83
4.08 Life expectancy, years*	70.9	90
4.09 Quality of primary education	2.9	121
4.10 Primary education enrollment, net %*	97.3	41
5th pillar: Higher education and training		
5.01 Secondary education enrollment, gross %*	97.6	46
5.02 Tertiary education enrollment, gross %*	31.5	78
5.03 Quality of the education system	3.0	114
5.04 Quality of math and science education	3.2	113
5.05 Quality of management schools	3.5	115
5.06 Internet access in schools	2.4	133
5.07 Availability of research and training services	3.1	126
5.08 Extent of staff training	3.4	118
6th pillar: Goods market efficiency		
6.01 Intensity of local competition	3.8	136
6.02 Extent of market dominance	3.3	108
6.03 Effectiveness of anti-monopoly policy	3.3	124
6.04 Effect of taxation on incentives to invest	3.5	86
6.05 Total tax rate, % profits*	71.9	137

INDICATOR	VALUE	RANK/144
6th pillar: Goods market efficiency *(cont'd.)*		
6.06 No. procedures to start a business*	14	139
6.07 No. days to start a business*	25.0	101
6.08 Agricultural policy costs	3.3	114
6.09 Prevalence of trade barriers	3.7	135
6.10 Trade tariffs, % duty*	14.5	134
6.11 Prevalence of foreign ownership	3.2	131
6.12 Business impact of rules on FDI	3.3	128
6.13 Burden of customs procedures	2.8	137
6.14 Imports as a percentage of GDP*	31.7	111
6.15 Degree of customer orientation	3.6	125
6.16 Buyer sophistication	3.0	102
7th pillar: Labor market efficiency		
7.01 Cooperation in labor-employer relations	3.6	130
7.02 Flexibility of wage determination	4.6	104
7.03 Hiring and firing practices	3.1	122
7.04 Redundancy costs, weeks of salary*	17.3	83
7.05 Effect of taxation on incentives to work	3.3	97
7.06 Pay and productivity	3.3	103
7.07 Reliance on professional management	2.6	141
7.08 Country capacity to retain talent	2.3	133
7.09 Country capacity to attract talent	2.3	133
7.10 Women in labor force, ratio to men*	0.21	144
8th pillar: Financial market development		
8.01 Availability of financial services	3.0	133
8.02 Affordability of financial services	3.1	135
8.03 Financing through local equity market	2.1	134
8.04 Ease of access to loans	2.9	72
8.05 Venture capital availability	2.2	108
8.06 Soundness of banks	3.4	133
8.07 Regulation of securities exchanges	2.2	136
8.08 Legal rights index, 0–10 (best)*	3	113
9th pillar: Technological readiness		
9.01 Availability of latest technologies	3.4	136
9.02 Firm-level technology absorption	3.4	138
9.03 FDI and technology transfer	3.9	115
9.04 Individuals using Internet, %*	16.5	108
9.05 Fixed broadband Internet subscriptions/100 pop.*	3.3	87
9.06 Int'l Internet bandwidth, kb/s per user*	26.3	72
9.07 Mobile broadband subscriptions/100 pop.*	0.0	133
10th pillar: Market size		
10.01 Domestic market size index, 1–7 (best)*	4.2	45
10.02 Foreign market size index, 1–7 (best)*	4.9	52
10.03 GDP (PPP$ billions)*	285.5	45
10.04 Exports as a percentage of GDP*	33.8	84
11th pillar: Business sophistication		
11.01 Local supplier quantity	4.3	102
11.02 Local supplier quality	3.3	136
11.03 State of cluster development	3.3	105
11.04 Nature of competitive advantage	3.1	104
11.05 Value chain breadth	3.1	126
11.06 Control of international distribution	3.4	127
11.07 Production process sophistication	2.8	131
11.08 Extent of marketing	2.8	139
11.09 Willingness to delegate authority	3.1	125
12th pillar: Innovation		
12.01 Capacity for innovation	2.7	143
12.02 Quality of scientific research institutions	2.6	127
12.03 Company spending on R&D	2.2	138
12.04 University-industry collaboration in R&D	2.3	137
12.05 Gov't procurement of advanced tech products	3.1	99
12.06 Availability of scientists and engineers	4.2	61
12.07 PCT patents, applications/million pop.*	0.2	97

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

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THE ACR 2015 ONLINE

In addition to the analysis presented in this *Report*, the ACR 2015's portal—available at www.weforum.org/acr—offers additional analysis and a number of visualization tools, including sortable rankings, scatter plots, bar charts, and maps. The portal also offers the option of downloading portions of the GCI dataset.

1 For more information regarding the Executive Opinion Survey, see Chapter 1.3 of *The Global Competitiveness Report 2014–2015*.

Technical Notes and Sources

This section provides detailed definitions and sources for all the indicators that enter the Global Competitiveness Index 2014–2015 (GCI). For further information on the GCI, see *The Global Competitiveness Report 2014–2015.*

Two types of data are used in the GCI: Executive Opinion Survey data and data from sources other than the World Economic Forum (national authorities, international agencies, and private sources). The data used represent the best available estimates at the time *The Global Competitiveness Report 2014–2015* was prepared. It is possible that some data will have been updated or revised by the sources after publication.

The title of each indicator appears on the first line, preceded by its number to allow for quick reference. The numbering refers to the data tables section in *The Global Competitiveness Report 2014–2015.* Underneath the indicator number and title is a description of the indicator or, in the case of the Executive Opinion Survey data, the full question and the associated response.

Key indicators

0.01 Gross domestic product

Gross domestic product in billions of current US dollars | 2013

Sources: International Monetary Fund, *World Economic Outlook Database* (October 2014 edition); national sources

0.02 Population

Total population in millions | 2013

Sources: International Monetary Fund, *World Economic Outlook Database* (October 2014 edition); national sources

0.03 GDP per capita

Gross domestic product per capita in current US dollars | 2013

Sources: International Monetary Fund, *World Economic Outlook Database* (October 2014 edition); national sources

0.04 GDP as a share of world GDP

Gross domestic product based on purchasing power parity as a percentage of world GDP | 2013

Sources: International Monetary Fund, *World Economic Outlook Database* (October 2014 edition); national sources

Pillar 1: Institutions

1.01 Property rights

In your country, how strong is the protection of property rights, including financial assets? [1 = extremely weak; 7 = extremely strong] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.02 Intellectual property protection

In your country, how strong is the protection of intellectual property, including anti-counterfeiting measures? [1 = extremely weak; 7 = extremely strong] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.03 Diversion of public funds

In your country, how common is diversion of public funds to companies, individuals, or groups due to corruption? [1 = very commonly occurs; 7 = never occurs] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.04 Public trust in politicians

In your country, how would you rate the ethical standards of politicians? [1 = extremely low; 7 = extremely high] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.05 Irregular payments and bribes

Average score across the five components of the following Executive Opinion Survey question: In your country, how common is it for firms to make undocumented extra payments or bribes connected with (a) imports and exports; (b) public utilities; (c) annual tax payments; (d) awarding of public contracts and licenses; (e) obtaining favorable judicial decisions? In each case, the answer ranges from 1 [very common] to 7 [never occurs] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.06 Judicial independence

In your country, to what extent is the judiciary independent from influences of members of government, citizens, or firms? [1 = heavily influenced; 7 = entirely independent] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.07 Favoritism in decisions of government officials

In your country, to what extent do government officials show favoritism to well-connected firms and individuals when deciding upon policies and contracts? [1 = always show favoritism; 7 = never show favoritism] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.08 Wastefulness of government spending

In your country, how efficiently does the government spend public revenue? [1 = extremely inefficient; 7 = extremely efficient in providing goods and services] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.09 Burden of government regulation

In your country, how burdensome is it for businesses to comply with governmental administrative requirements (e.g., permits, regulations, reporting)? [1 = extremely burdensome; 7 = not burdensome at all] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.10 Efficiency of legal framework in settling disputes

In your country, how efficient is the legal framework for private businesses in settling disputes? [1 = extremely inefficient; 7 = extremely efficient] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.11 Efficiency of legal framework in challenging regulations

In your country, how easy is it for private businesses to challenge government actions and/or regulations through the legal system? [1 = extremely difficult; 7 = extremely easy] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.12 Transparency of government policymaking

In your country, how easy is it for businesses to obtain information about changes in government policies and regulations affecting their activities? [1 = extremely difficult; 7 = extremely easy] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.13 Business costs of terrorism

In your country, to what extent does the threat of terrorism impose costs on businesses? [1 = to a great extent; 7 = not at all] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.14 Business costs of crime and violence

In your country, to what extent does the incidence of crime and violence impose costs on businesses? [1 = to a great extent; 7 = not at all] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.15 Organized crime

In your country, to what extent does organized crime (mafia-oriented racketeering, extortion) impose costs on businesses? [1 = to a great extent; 7 = not at all] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.16 Reliability of police services

In your country, to what extent can police services be relied upon to enforce law and order? [1 = cannot be relied upon at all; 7 = can be completely relied upon] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.17 Ethical behavior of firms

In your country, how would you rate the corporate ethics of companies (ethical behavior in interactions with public officials, politicians, and other firms)? [1 = extremely poor—among the worst in the world; 7 = excellent—among the best in the world] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.18 Strength of auditing and reporting standards

In your country, how strong are financial auditing and reporting standards? [1 = extremely weak; 7 = extremely strong] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.19 Efficacy of corporate boards

In your country, how would you characterize corporate governance by investors and boards of directors? [1 = management has little accountability to investors and boards; 7 = management is highly accountable to investors and boards] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.20 Protection of minority shareholders' interests

In your country, to what extent are the interests of minority shareholders protected by the legal system? [1 = not protected at all; 7 = fully protected] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

1.21 Strength of investor protection

Strength of Investor Protection Index on a 0–10 (best) scale | 2013

This indicator is a combination of the Extent of disclosure index (transparency of transactions), the Extent of director liability index (liability for self-dealing), and the Ease of shareholder suit index (shareholders' ability to sue officers and directors for misconduct). For more details about the methodology employed and the assumptions made to compute this indicator, visit http://www.doingbusiness.org/methodologysurveys/.

Source: World Bank/International Finance Corporation, *Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises*

Pillar 2: Infrastructure

2.01 Quality of overall infrastructure

How would you assess general infrastructure (e.g., transport, telephony, and energy) in your country? [1 = extremely underdeveloped—among the worst in the world; 7 = extensive and efficient—among the best in the world] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

2.02 Quality of roads

In your country, how would you assess the quality of roads? [1 = extremely underdeveloped—among the worst in the world; 7 = extensive and efficient—among the best in the world] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

2.03 Quality of railroad infrastructure

In your country, how would you assess the quality of the railroad system? [1 = extremely underdeveloped—among the worst in the world; 7 = extensive and efficient—among the best in the world] | 2013–14 weighted average.

This indicator does not apply to economies where there is no regular train service or where the network covers only a negligible portion of the territory. Assessment of the existence of a network was conducted by the World Economic Forum based on various sources.

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

2.04 Quality of port infrastructure

In your country, how would you assess the quality of seaports? (For landlocked countries: How accessible are seaport facilities?) [1 = extremely underdeveloped—among the worst in the world; 7 = extensive and efficient—among the best in the world] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

2.05 Quality of air transport infrastructure

In your country, how would you assess the quality of air transport infrastructure? [1 = extremely underdeveloped—among the worst in the world; 7 = extensive and efficient—among the best in the world] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

2.06 Available airline seat kilometers

Airline seat kilometers (in millions) available on all flights (domestic and international service) originating in country per week (year average) | 2014

This indicator measures the total passenger-carrying capacity of all scheduled flights, including domestic flights, originating in a country. It is computed by multiplying the number of seats available on each flight by the flight distance in kilometers and summing the result across all scheduled flights in a week. The final value represents the weekly average for the year (Jan–Dec), taking into account flights scheduled beforehand by airline companies.

Source: International Air Transport Association, SRS Analyser

2.07 Quality of electricity supply

In your country, how would you assess the reliability of the electricity supply (lack of interruptions and lack of voltage fluctuations)? [1 = not reliable at all; 7 = extremely reliable] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

2.08 Mobile telephone subscriptions

Number of mobile telephone subscriptions per 100 population | 2013

A *mobile telephone subscription* refers to a subscription to a public mobile telephone service that provides access to the public switched telephone network (PSTN) using cellular technology, including the number of pre-paid SIM cards active during the last three months of the year under review. This includes both analog and digital cellular systems (IMT-2000, Third Generation, 3G) and 4G subscriptions, but excludes mobile broadband subscriptions via data cards or USB modems. Subscriptions to public mobile data services, private trunked mobile radio, telepoint or radio paging, and telemetry services are also excluded. It includes all mobile cellular subscriptions that offer voice communications.

Source: International Telecommunication Union, *ITU World Telecommunication/ICT Indicators Database 2014* (June 2014 edition)

2.09 Fixed telephone lines

Number of active fixed telephone lines per 100 population | 2013

A *fixed telephone line* is an active line connecting the subscriber's terminal equipment to the public switched telephone network (PSTN) that has a dedicated port in the telephone exchange equipment. Active lines are those that have registered an activity in the last three months of the year under review.

Source: International Telecommunication Union, *ITU World Telecommunication/ICT Indicators Database 2014* (June 2014 edition)

Pillar 3: Macroeconomic environment

3.01 Government budget balance

General government budget balance as a percentage of GDP | 2013

General government budget balance is calculated as general government revenue minus total expenditure. This is a core Government Finance Statistics (GFS) balance that measures the extent to which the general government is either putting financial resources at the disposal of other sectors in the economy and nonresidents (net lending), or utilizing the financial resources generated by other sectors and nonresidents (net borrowing). This balance may be viewed as an indicator of the financial impact of general government activity on the rest of the economy and nonresidents. Revenue consists of taxes, social contributions, grants receivable, and other revenue. Revenue increases a government's net worth, which is the difference between its assets and liabilities. General government total expenditure consists of total expenses and the net acquisition of nonfinancial assets.

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2014 edition); national sources

3.02 Gross national savings

Gross national savings as a percentage of GDP | 2013

Aggregate national savings is defined as public- and private-sector savings as a percentage of nominal GDP. National savings equals gross domestic investment plus the current-account balance.

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2014 edition); World Bank, *At-a-Glance Table*; Organisation for Economic Co-operation and Development (OECD), *Economic Outlook 2014*; national sources

3.03 Inflation

Annual percent change in consumer price index (year average) | 2013

For inflation rates between 0.5 and 2.9 percent, a country receives the highest possible score of 7. Outside this range, scores decrease linearly as they move away from these values.

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2014 edition); national sources

3.04 Government debt

Gross general government debt as a percentage of GDP | 2013

Gross debt consists of all liabilities that require payment or payments of interest and/or principal by the debtor to the creditor at a date or dates in the future. This includes debt liabilities in the form of special drawing rights, currency and deposits, debt securities, loans, insurance, pensions and standardized guarantee schemes, and other accounts payable. Thus, all liabilities in the *Government Finance Statistics Manual (GFSM) 2001* system are debt, except for equity and investment fund shares, financial derivatives, and employee stock options. For Australia, Belgium, Canada, Hong Kong SAR, Iceland, New Zealand, and Sweden, government debt coverage also includes insurance technical reserves, following the GFSM 2001 definition.

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2014 edition) and *Public Information Notices* (various issues); African Development Bank, Organisation for Economic Co-operation and Development (OECD), and United Nations Development Programme, *African Economic Outlook 2014*; national sources.

3.05 Country credit rating

Institutional Investor's Country Credit Ratings™ assessing the probability of sovereign debt default on a 0–100 (lowest probability) scale | March 2014

Institutional Investor's Country Credit Ratings™ developed by Institutional Investor are based on information provided by senior economists and sovereign-debt analysts at leading global banks and money management and security firms. Twice a year, the respondents grade each country on a scale of 0 to 100, with 100 representing the least chance of default.

Source: Institutional Investor

Pillar 4: Health and primary education

4.01 Malaria incidence

Estimated number of malaria cases per 100,000 population | 2012

This indicator refers to the estimated number of new cases of malaria in the economy per 100,000 population. *M.F.* and *S.L.* indicate respectively that the World Health Organization (WHO) has declared the area malaria-free (M.F.) or that it has included it in the supplementary list (S.L.) of areas where malaria has never existed or has disappeared without specific measures. Hong Kong SAR and Puerto Rico have been considered malaria-free (M.F.) following the assessment by the US Centers for Disease Control and Prevention (CDC).

Sources: The World Health Organization, *World Malaria Report 2013*; United States Centers for Disease Control and Prevention (CDC), Malaria Information and Prophylaxis information (accessed July 11, 2014)

4.02 Business impact of malaria

How serious an impact do you consider malaria will have on your company in the next five years (e.g., death, disability, medical and funeral expenses, productivity and absenteeism, recruitment and training expenses, revenues)? [1 = a serious impact; 7 = no impact at all] | 2013–14 weighted average

This indicator does not apply to economies considered free of malaria or included in the World Health Organization's supplementary list of areas where malaria has never existed or has disappeared without specific measures.

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

4.03 Tuberculosis incidence

Estimated number of tuberculosis cases per 100,000 population | 2013

Incidence of tuberculosis is the estimated number of new pulmonary, smear positive, and extra-pulmonary tuberculosis cases.

Sources: The World Bank, *World Development Indicators* (accessed June 18, 2014); national sources

4.04 Business impact of tuberculosis

How serious an impact do you consider tuberculosis will have on your company in the next five years (e.g., death, disability, medical and funeral expenses, productivity and absenteeism, recruitment and training expenses, revenues)? [1 = a serious impact; 7 = no impact at all] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

4.05 HIV prevalence

HIV prevalence as a percentage of adults aged 15–49 years | 2013

HIV prevalence refers to the percentage of people aged 15–49 who are infected with HIV at a particular point in time, no matter when infection occurred. Economies with a prevalence rate equal to or less than 0.2 percent are all ranked first and listed alphabetically.

Sources: The World Bank, *World Development Indicators* (accessed June 18, 2014); UNAIDS, *Global Report on the Global AIDS Epidemic* (2008, 2010, 2012, and 2013 editions); national sources

4.06 Business impact of HIV/AIDS

How serious an impact do you consider HIV/AIDS will have on your company in the next five years (e.g., death, disability, medical and funeral expenses, productivity and absenteeism, recruitment and training expenses, revenues)? [1 = a serious impact; 7 = no impact at all] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

4.07 Infant mortality

Infant (children aged 0–12 months) mortality per 1,000 live births | 2013

Infant mortality rate is the number of infants dying before reaching one year of age per 1,000 live births in a given year.

Sources: The World Bank, *World Development Indicators* (accessed June 18, 2014); national sources

4.08 Life expectancy

Life expectancy at birth (years) | 2013

Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.

Sources: The World Bank, *World Development Indicators* (accessed June 18, 2014); national sources

4.09 Quality of primary education

In your country, how would you assess the quality of primary schools? [1 = extremely poor—among the worst in the world; 7 = excellent—among the best in the world] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

4.10 Primary education enrollment rate

Net primary education enrollment rate | 2012

The reported value corresponds to the ratio of children of official primary school age (as defined by the national education system) who are enrolled in primary school. Primary education (ISCED level 1) provides children with basic reading, writing, and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art, and music.

Sources: UNESCO Institute for Statistics, *Data Centre* (accessed May 21, 2014); Organisation for Economic Co-operation and Development (OECD), *Education at a Glance 2013*; Sistema de Información de tendencias Educativas de América Latina (SITEAL); national sources

Pillar 5: Higher education and training

5.01 Secondary education enrollment rate

Gross secondary education enrollment rate | 2012

The reported value corresponds to the ratio of total secondary enrollment, regardless of age, to the population of the age group that officially corresponds to the secondary education level. Secondary education (ISCED levels 2 and 3) completes the provision of basic education that began at the primary level, and aims to lay the foundations for lifelong learning and human development by offering more subject- or skills-oriented instruction using more specialized teachers.

Sources: UNESCO Institute for Statistics, *Data Centre* (accessed May 21, 2014); Sistema de Información de tendencias Educativas de América Latina (SITEAL); national sources

5.02 Tertiary education enrollment rate

Gross tertiary education enrollment rate | 2012

The reported value corresponds to the ratio of total tertiary enrollment, regardless of age, to the population of the age group that officially corresponds to the tertiary education level. Tertiary education (ISCED levels 5 and 6), whether or not leading to an advanced research qualification, normally requires, as a minimum condition of admission, the successful completion of education at the secondary level.

Sources: UNESCO Institute for Statistics, *Data Centre* (accessed May 21, 2014); national sources

5.03 Quality of the education system

How well does the education system in your country meet the needs of a competitive economy? [1 = not well at all; 7 = extremely well] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

5.04 Quality of math and science education

In your country, how would you assess the quality of math and science education? [1 = extremely poor—among the worst in the world; 7 = excellent—among the best in the world] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

5.05 Quality of management schools

In your country, how would you assess the quality of business schools? [1 = extremely poor—among the worst in the world; 7 = excellent—among the best in the world] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

5.06 Internet access in schools

In your country, how widespread is Internet access in schools? [1 = nonexistent; 7 = extremely widespread] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

5.07 Local availability of specialized research and training services

In your country, to what extent are high-quality, specialized training services available? [1 = not available at all; 7 = widely available] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

5.08 Extent of staff training

In your country, to what extent do companies invest in training and employee development? [1 = not at all; 7 = to a great extent] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

Pillar 6: Goods market efficiency

6.01 Intensity of local competition

In your country, how intense is competition in the local markets? [1 = not intense at all; 7 = extremely intense] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

6.02 Extent of market dominance

In your country, how would you characterize corporate activity? [1 = dominated by a few business groups; 7 = spread among many firms] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

6.03 Effectiveness of anti-monopoly policy

In your country, to what extent does anti-monopoly policy promote competition? [1 = does not promote competition; 7 = effectively promotes competition] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

6.04 Effect of taxation on incentives to invest

In your country, to what extent do taxes reduce the incentive to invest? [1 = significantly reduce the incentive to invest; 7 = do not reduce the incentive to invest at all] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

6.05 Total tax rate

This indicator is a combination of profit tax (% of profits), labor tax and contribution (% of profits), and other taxes (% of profits) | 2013

The total tax rate measures the amount of taxes and mandatory contributions payable by a business in the second year of operation, expressed as a share of commercial profits. The total amount of taxes is the sum of five different types of taxes and contributions payable after accounting for deductions and exemptions: profit or corporate income tax, social contributions and labor taxes paid by the employer, property taxes, turnover taxes, and other small taxes. For more details about the methodology employed and the assumptions made to compute this indicator, visit http://www.doingbusiness.org/methodologysurveys/.

Source: World Bank/International Finance Corporation, *Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises*

6.06 Number of procedures required to start a business

Number of procedures required to start a business | 2013

For details about the methodology employed and the assumptions made to compute this indicator, visit http://www.doingbusiness.org/methodologysurveys/.

Source: World Bank/International Finance Corporation, *Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises*

6.07 Time required to start a business

Number of days required to start a business | 2013

For details about the methodology employed and the assumptions made to compute this indicator, visit http://www.doingbusiness.org/methodologysurveys/.

Source: World Bank/International Finance Corporation, *Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises*

6.08 Agricultural policy costs

In your country, how would you assess the agricultural policy? [1 = excessively burdensome for the economy; 7 = balances well the interests of taxpayers, consumers and producers] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

6.09 Prevalence of trade barriers

In your country, to what extent do non-tariff barriers (e.g., health and product standards, technical and labeling requirements, etc.) limit the ability of imported goods to compete in the domestic market? [1 = strongly limit; 7 = do not limit at all] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

6.10 Trade tariffs

Trade-weighted average tariff rate | 2013

An *applied tariff* is a customs duty that is levied on imports of merchandise goods. This indicator is calculated as a weighted average of all the applied tariff rates, including preferential rates that a country applies to the rest of the world. The weights are the trade patterns of the importing country's reference group (2012 data).

Source: International Trade Centre, Trade Competitiveness Map Data

6.11 Prevalence of foreign ownership

In your country, how prevalent is foreign ownership of companies? [1 = extremely rare; 7 = highly prevalent] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

6.12 Business impact of rules on FDI

In your country, to what extent do rules and regulations encourage or discourage foreign direct investment (FDI)? [1 = strongly discourage FDI; 7 = strongly encourage FDI] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

6.13 Burden of customs procedures

In your country, how efficient are the customs procedures (related to the entry and exit of merchandise)? [1 = not efficient at all; 7 = extremely efficient] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

6.14 Imports as a percentage of GDP

Imports of goods and services as a percentage of gross domestic product | 2013

Total imports is the sum of total imports of merchandise and commercial services.

Sources: World Trade Organization, *Statistical Database: Time Series on Merchandise and Commercial Services* (accessed July 02, 2014); International Monetary Fund, *World Economic Outlook Database* (April 2014 edition); national sources

6.15 Degree of customer orientation

In your country, how well do companies treat customers? [1 = indifferent to customer satisfaction; 7 = highly responsive to customers and seek customer retention] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

6.16 Buyer sophistication

In your country, how do buyers make purchasing decisions? [1 = based solely on the lowest price; 7 = based on a sophisticated analysis of performance attributes] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

Pillar 7: Labor market efficiency

7.01 Cooperation in labor-employer relations

In your country, how would you characterize labor-employer relations? [1 = generally confrontational; 7 = generally cooperative] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

7.02 Flexibility of wage determination

In your country, how are wages generally set? [1 = by a centralized bargaining process; 7 = by each individual company] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

7.03 Hiring and firing practices

In your country, how would you characterize the hiring and firing of workers? [1 = heavily impeded by regulations; 7 = extremely flexible] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

7.04 Redundancy costs

Redundancy costs in weeks of salary | 2013

This indicator estimates the cost of advance notice requirements, severance payments, and penalties due when terminating a redundant worker, expressed in weekly wages. For more details about the methodology employed and the assumptions made to compute this indicator, visit http://www.doingbusiness.org/methodologysurveys/.

Sources: World Bank/International Finance Corporation, *Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises*; World Economic Forum's calculations

7.05 Effect of taxation on incentives to work

In your country, to what extent do taxes reduce the incentive to work? [1 = significantly reduce the incentive to work; 7 = do not reduce incentive to work at all] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

7.06 Pay and productivity

In your country, to what extent is pay related to worker productivity? [1 = not related to worker productivity; 7 = strongly related to worker productivity] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

7.07 Reliance on professional management

In your country, who holds senior management positions? [1 = usually relatives or friends without regard to merit; 7 = mostly professional managers chosen for merit and qualifications] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

7.08 Country capacity to retain talent

Does your country retain talented people? [1 = the best and brightest leave to pursue opportunities in other countries; 7 = the best and brightest stay and pursue opportunities in the country] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

7.09 Country capacity to attract talent

Does your country attract talented people from abroad? [1 = not at all; 7 = attracts the best and brightest from around the world] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

7.10 Female participation in the labor force

Ratio of women to men in the labor force | 2012

This measure is the percentage of women aged 15–64 participating in the labor force divided by the percentage of men aged 15–64 participating in the labor force.

Sources: International Labour Organization, *Key Indicators of the Labour Markets, 8th Edition*; national sources

Pillar 8: Financial market development

8.01 Availability of financial services

In your country, to what extent does the financial sector provide a wide range of financial products and services to businesses? [1 = not at all; 7 = provides a wide variety] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

8.02 Affordability of financial services

In your country, to what extent are financial services affordable for businesses? [1 = not affordable at all; 7 = affordable] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

8.03 Financing through local equity market

In your country, how easy is it for companies to raise money by issuing shares on the stock market? [1 = extremely difficult; 7 = extremely easy] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

8.04 Ease of access to loans

In your country, how easy is it to obtain a bank loan with only a good business plan and no collateral? [1 = extremely difficult; 7 = extremely easy] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

8.05 Venture capital availability

In your country, how easy is it for entrepreneurs with innovative but risky projects to find venture capital? [1 = extremely difficult; 7 = extremely easy] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

8.06 Soundness of banks

In your country, how would you assess the soundness of banks? [1 = extremely low—banks may require recapitalization; 7 = extremely high—banks are generally healthy with sound balance sheets] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

8.07 Regulation of securities exchanges

In your country, how effective are the regulation and supervision of securities exchanges? [1 = not at all effective; 7 = extremely effective] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

8.08 Legal rights index

Degree of legal protection of borrowers' and lenders' rights on a 0–10 (best) scale | 2013

This index measures the degree to which collateral and bankruptcy laws protect borrowers' and lenders' rights and thus facilitate lending. For more details about the methodology employed and the assumptions made to compute this indicator, visit http://www.doingbusiness.org/methodologysurveys/.

Source: World Bank/International Finance Corporation, *Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises*

Pillar 9: Technological readiness

9.01 Availability of latest technologies

In your country, to what extent are the latest technologies available? [1 = not available at all; 7 = widely available] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

9.02 Firm-level technology absorption

In your country, to what extent do businesses adopt new technology? [1 = not at all; 7 = adopt extensively] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

9.03 FDI and technology transfer

To what extent does foreign direct investment (FDI) bring new technology into your country? [1 = not at all; 7 = to a great extent—FDI is a key source of new technology] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

9.04 Internet users

Percentage of individuals using the Internet | 2013

Internet users refers to people using the Internet from any device (including mobile phones) during the year under review. Data are based on surveys generally carried out by national statistical offices or estimated based on the number of Internet subscriptions.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2014* (June 2014 edition)

9.05 Fixed broadband Internet subscriptions

Fixed broadband Internet subscriptions per 100 population | 2013

This refers to total fixed (wired) broadband Internet subscriptions (that is, subscriptions to high-speed access to the public Internet—a TCP/IP connection—at downstream speeds equal to or greater than 256 kb/s).

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2014* (June 2014 edition)

9.06 Internet bandwidth

International Internet bandwidth (kb/s) per Internet user | 2013

International Internet bandwidth is the sum of capacity of all Internet exchanges offering international bandwidth measured in kilobits per second (kb/s).

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2014* (June 2014 edition)

9.07 Mobile broadband subscriptions

Mobile broadband subscriptions per 100 population | 2013 or most recent year available

Mobile broadband subscriptions refers to active SIM cards or, on CDMA networks, connections accessing the Internet at consistent broadband speeds of over 512 kb/s, including cellular technologies such as HSPA, EV-DO, and above. This includes connections being used in any type of device able to access mobile broadband networks, including smartphones, USB modems, mobile hotspots, and other mobile broadband–connected devices.

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators 2014* (June 2014 edition)

Pillar 10: Market size

10.01 Domestic market size index

Sum of gross domestic product plus value of imports of goods and services, minus value of exports of goods and services, normalized on a 1–7 (best) scale | 2013

The size of the domestic market is calculated as the natural log of the sum of the gross domestic product valued at PPP plus the total value (PPP estimates) of imports of goods and services, minus the total value (PPP estimates) of exports of goods and services. Data are then normalized on a 1–7 scale. PPP estimates of imports and exports are obtained by taking the product of exports as a percentage of GDP and GDP valued at PPP.

Source: World Economic Forum's calculations. For more details, refer to Chapter 1.1, Appendix B, of *The Global Competitiveness Report 2014–2015*

10.02 Foreign market size index

Value of exports of goods and services, normalized on a 1–7 (best) scale | 2013

The size of the foreign market is estimated as the natural log of the total value (PPP estimates) of exports of goods and services, normalized on a 1–7 scale. PPP estimates of exports are obtained by taking the product of exports as a percentage of GDP and GDP valued at PPP.

Source: World Economic Forum's calculations. For more details, refer to Chapter 1.1, Appendix B, of *The Global Competitiveness Report 2014–2015*

10.03 GDP (PPP)

Gross domestic product valued at purchasing power parity in billions of international dollars | 2013

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2014 edition); national sources

10.04 Exports as a percentage of GDP

Exports of goods and services as a percentage of gross domestic product | 2013

Total exports is the sum of total exports of merchandise and commercial services.

Sources: World Trade Organization, *Online Statistics Database* (accessed June 18, 2014); International Monetary Fund, *World Economic Outlook Database* (April 2014 edition); national sources

Pillar 11: Business sophistication

11.01 Local supplier quantity

In your country, how numerous are local suppliers? [1 = largely nonexistent; 7 = extremely numerous] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

11.02 Local supplier quality

In your country, how would you assess the quality of local suppliers? [1 = extremely poor quality; 7 = extremely high quality] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

11.03 State of cluster development

In your country, how widespread are well-developed and deep clusters (geographic concentrations of firms, suppliers, producers of related products and services, and specialized institutions in a particular field)? [1 = nonexistent; 7 = widespread in many fields] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

11.04 Nature of competitive advantage

What is the competitive advantage of your country's companies in international markets based upon? [1 = low-cost labor or natural resources; 7 = unique products and processes] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

11.05 Value chain breadth

In your country, do companies have a narrow or broad presence in the value chain? [1 = narrow, primarily involved in individual steps of the value chain (e.g., resource extraction or production); 7 = broad, present across the entire value chain (e.g., including production and marketing, distribution, design, etc.)] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

11.06 Control of international distribution

To what extent are international distribution and marketing from your country owned and controlled by domestic companies? [1 = not at all—they take place through foreign companies; 7 = to a great extent—they are primarily owned and controlled by domestic companies] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

11.07 Production process sophistication

In your country, how sophisticated are production processes? [1 = not at all—production uses labor-intensive processes or old technology; 7 = highly—production uses sophisticated and knowledge-intensive processes] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

11.08 Extent of marketing

In your country, to what extent do companies use sophisticated marketing tools and techniques? [1 = not at all; 7 = to a great extent] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

11.09 Willingness to delegate authority

In your country, how do you assess the willingness to delegate authority to subordinates? [1 = not willing at all—senior management takes all important decisions; 7 = very willing—authority is mostly delegated to business unit heads and other lower-level managers] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

Pillar 12: Innovation

12.01 Capacity for innovation

In your country, to what extent do companies have the capacity to innovate? [1 = not at all; 7 = to a great extent] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

12.02 Quality of scientific research institutions

In your country, how would you assess the quality of scientific research institutions? [1 = extremely poor—among the worst in the world; 7 = extremely good—among the best in the world] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

12.03 Company spending on R&D

In your country, to what extent do companies spend on research and development (R&D)? [1 = do not spend on R&D; 7 = spend heavily on R&D] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

12.04 University-industry collaboration in R&D

In your country, to what extent do business and universities collaborate on research and development (R&D)? [1 = do not collaborate at all; 7 = collaborate extensively] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

12.05 Government procurement of advanced technology products

In your country, to what extent do government purchasing decisions foster innovation? [1 = not at all; 7 = to a great extent] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

12.06 Availability of scientists and engineers

In your country, to what extent are scientists and engineers available? [1 = not at all; 7 = widely available] | 2013–14 weighted average

Source: World Economic Forum, Executive Opinion Survey. For more details, refer to Chapter 1.3 of *The Global Competitiveness Report 2014–2015*

12.07 PCT patent applications

Number of applications filed under the Patent Cooperation Treaty (PCT) per million population | 2010–2011 average

This indicator measures the total count of applications filed under the Patent Cooperation Treaty (PCT), by priority date and inventor nationality, using fractional count if an application is filed by multiple inventors. The average count of applications filed in 2010 and 2011 is divided by population figures for 2011. In the absence of reliable data on PCT applications for Taiwan (China) and Hong Kong SAR, two advanced economies that are not signatories of the Treaty, the number of applications is estimated as follows: first, we compute the average number of all utility patent applications filed with the United States Patents and Trademarks Office (USPTO) for 2010 and 2011. We then compute the average number of PCT applications for 2010 and 2011, before computing the ratio of the two averages (1.59). For the computation of the two averages, only economies with a two-year average number of at least 100 USPTO applications and 50 PCT applications are considered. Taiwan and Hong Kong are excluded in both cases. We then divide the number of USPTO applications filed by residents of Taiwan (19,892) and Hong Kong (1,024), respectively, by the ratio above in order to produce estimates for PCT applications. As a final step, we compute the estimates per million population—that is, 537.2 for Taiwan and 90.3 for Hong Kong. The estimates are used in the computation of the respective Innovation pillar scores of the two economies.

Sources: Organisation for Economic Co-operation and Development (OECD), *Patent Database*, (situation as of June 2014); For population: International Monetary Fund, *World Economic Outlook Database* (April 2014 edition); World Economic Forum's calculations

List of Countries

* Benin and Liberia data are based on the GCI 2013–2014.

Algeria

Key indicators, 2013

Population (millions)	37.9
GDP (US$ billions)*	212.5
GDP per capita (US$)	5,605.6
GDP (PPP) as share (%) of world total	0.51

Sectoral value-added (% GDP), 2012

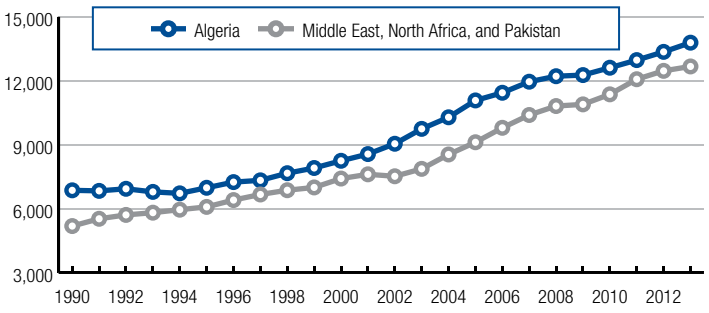
Agriculture	9.3
Industry	48.5
Services	42.2

Human Development Index, 2013

Score, (0–1) best	0.72
Rank (out of 187 economies)	93

Sources: IMF; UNFPA; UNDP; World Bank

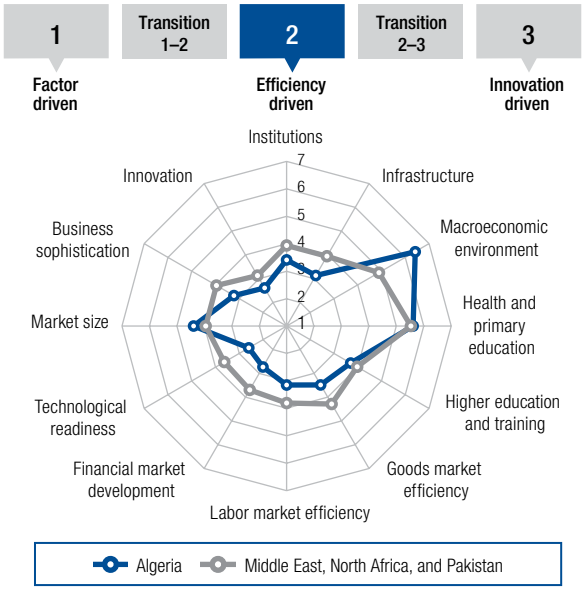
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

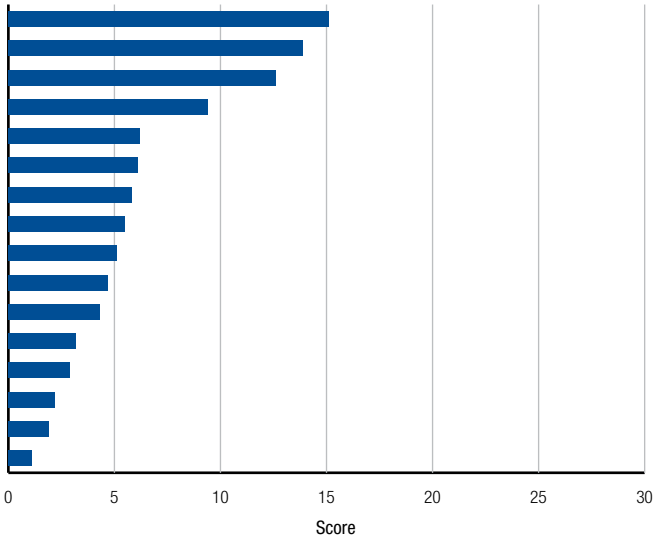
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**79**	**4.1**
GCI 2013–2014 (out of 148)	100	3.8
GCI 2012–2013 (out of 144)	110	3.7
Basic requirements (59.0%)	**65**	**4.6**
Institutions	101	3.4
Infrastructure	106	3.1
Macroeconomic environment	11	6.4
Health and primary education	81	5.6
Efficiency enhancers (35.7%)	**125**	**3.3**
Higher education and training	98	3.7
Goods market efficiency	136	3.5
Labor market efficiency	139	3.1
Financial market development	137	2.7
Technological readiness	129	2.6
Market size	47	4.4
Innovation and sophistication factors (5.2%)	**133**	**2.9**
Business sophistication	131	3.2
Innovation	128	2.6

Stage of development



The most problematic factors for doing business

Access to financing	15.1
Corruption	13.9
Inefficient government bureaucracy	12.6
Tax rates	9.4
Restrictive labor regulations	6.2
Inadequately educated workforce	6.1
Inadequate supply of infrastructure	5.8
Poor work ethic in national labor force	5.5
Tax regulations	5.1
Policy instability	4.7
Foreign currency regulations	4.3
Inflation	3.2
Government instability/coups	2.9
Insufficient capacity to innovate	2.2
Crime and theft	1.9
Poor public health	1.1



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Algeria

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.7	97
1.02	Intellectual property protection	2.9	114
1.03	Diversion of public funds	2.6	112
1.04	Public trust in politicians	2.8	80
1.05	Irregular payments and bribes	2.9	120
1.06	Judicial independence	3.5	85
1.07	Favoritism in decisions of government officials	3.0	77
1.08	Wastefulness of government spending	3.1	74
1.09	Burden of government regulation	3.1	104
1.10	Efficiency of legal framework in settling disputes	3.2	108
1.11	Efficiency of legal framework in challenging regs.	2.9	104
1.12	Transparency of government policymaking	3.6	107
1.13	Business costs of terrorism	3.8	129
1.14	Business costs of crime and violence	4.0	93
1.15	Organized crime	4.3	94
1.16	Reliability of police services	4.1	74
1.17	Ethical behavior of firms	3.7	100
1.18	Strength of auditing and reporting standards	3.4	134
1.19	Efficacy of corporate boards	3.5	137
1.20	Protection of minority shareholders' interests	3.5	113
1.21	Strength of investor protection, 0–10 (best)*	5.0	83
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.6	102
2.02	Quality of roads	3.1	107
2.03	Quality of railroad infrastructure	2.7	65
2.04	Quality of port infrastructure	2.8	117
2.05	Quality of air transport infrastructure	3.0	128
2.06	Available airline seat km/week, millions*	177.3	69
2.07	Quality of electricity supply	4.0	91
2.08	Mobile telephone subscriptions/100 pop.*	102.0	91
2.09	Fixed telephone lines/100 pop.*	8.0	99
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	0.1	20
3.02	Gross national savings, % GDP*	51.1	4
3.03	Inflation, annual % change*	3.3	66
3.04	General government debt, % GDP*	9.2	5
3.05	Country credit rating, 0–100 (best)*	52.6	66
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	0.2	10
4.02	Business impact of malaria	4.5	47
4.03	Tuberculosis cases/100,000 pop.*	89.0	88
4.04	Business impact of tuberculosis	4.0	131
4.05	HIV prevalence, % adult pop.*	0.1	1
4.06	Business impact of HIV/AIDS	4.3	118
4.07	Infant mortality, deaths/1,000 live births*	17.2	83
4.08	Life expectancy, years*	70.9	90
4.09	Quality of primary education	2.8	121
4.10	Primary education enrollment, net %*	97.3	41
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	97.6	46
5.02	Tertiary education enrollment, gross %*	31.5	78
5.03	Quality of the education system	3.0	114
5.04	Quality of math and science education	3.2	113
5.05	Quality of management schools	3.5	115
5.06	Internet access in schools	2.4	133
5.07	Availability of research and training services	3.1	126
5.08	Extent of staff training	3.4	118
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	3.8	136
6.02	Extent of market dominance	3.3	108
6.03	Effectiveness of anti-monopoly policy	3.3	124
6.04	Effect of taxation on incentives to invest	3.5	86
6.05	Total tax rate, % profits*	71.9	137

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	14	139
6.07	No. days to start a business*	25.0	101
6.08	Agricultural policy costs	3.3	114
6.09	Prevalence of trade barriers	3.7	135
6.10	Trade tariffs, % duty*	14.5	134
6.11	Prevalence of foreign ownership	3.2	131
6.12	Business impact of rules on FDI	3.3	128
6.13	Burden of customs procedures	2.8	137
6.14	Imports as a percentage of GDP*	31.7	111
6.15	Degree of customer orientation	3.6	125
6.16	Buyer sophistication	3.0	102
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.6	130
7.02	Flexibility of wage determination	4.6	104
7.03	Hiring and firing practices	3.1	122
7.04	Redundancy costs, weeks of salary*	17.3	83
7.05	Effect of taxation on incentives to work	3.3	97
7.06	Pay and productivity	3.3	123
7.07	Reliance on professional management	2.6	141
7.08	Country capacity to retain talent	2.3	133
7.09	Country capacity to attract talent	2.3	133
7.10	Women in labor force, ratio to men*	0.21	144
	8th pillar: Financial market development		
8.01	Availability of financial services	3.0	133
8.02	Affordability of financial services	3.1	135
8.03	Financing through local equity market	2.1	134
8.04	Ease of access to loans	2.8	72
8.05	Venture capital availability	2.2	108
8.06	Soundness of banks	3.4	133
8.07	Regulation of securities exchanges	2.2	136
8.08	Legal rights index, 0–10 (best)*	3	113
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.4	136
9.02	Firm-level technology absorption	3.4	138
9.03	FDI and technology transfer	3.9	115
9.04	Individuals using Internet, %*	16.5	108
9.05	Fixed broadband Internet subscriptions/100 pop.*	3.3	87
9.06	Int'l Internet bandwidth, kb/s per user*	26.3	72
9.07	Mobile broadband subscriptions/100 pop.*	0.0	133
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	4.2	45
10.02	Foreign market size index, 1–7 (best)*	4.9	52
10.03	GDP (PPP$ billions)*	285.5	45
10.04	Exports as a percentage of GDP*	33.8	84
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.3	102
11.02	Local supplier quality	3.3	136
11.03	State of cluster development	3.3	105
11.04	Nature of competitive advantage	3.1	104
11.05	Value chain breadth	3.1	126
11.06	Control of international distribution	3.4	127
11.07	Production process sophistication	2.8	131
11.08	Extent of marketing	2.8	139
11.09	Willingness to delegate authority	3.1	125
	12th pillar: Innovation		
12.01	Capacity for innovation	2.7	143
12.02	Quality of scientific research institutions	2.6	127
12.03	Company spending on R&D	2.2	138
12.04	University-industry collaboration in R&D	2.3	137
12.05	Gov't procurement of advanced tech products	3.1	99
12.06	Availability of scientists and engineers	4.2	61
12.07	PCT patents, applications/million pop.*	0.2	97

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Angola

Key indicators, 2013

Population (millions)	20.8
GDP (US$ billions)*	124.2
GDP per capita (US$)	5,964.5
GDP (PPP) as share (%) of world total	0.16

Sectoral value-added (% GDP), 2013

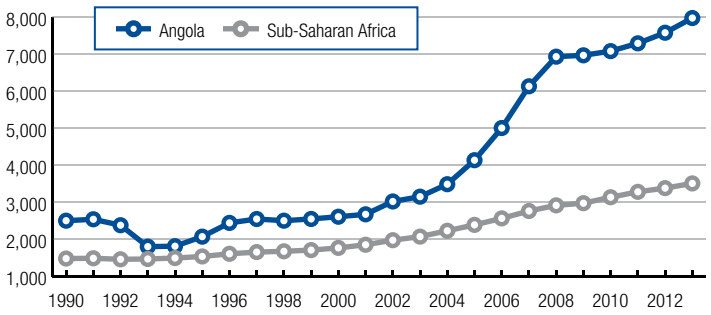
Agriculture	10.8
Industry	57.0
Services	32.2

Human Development Index, 2013

Score, (0–1) best	0.53
Rank (out of 187 economies)	149

Sources: IMF; UNFPA; UNDP; World Bank

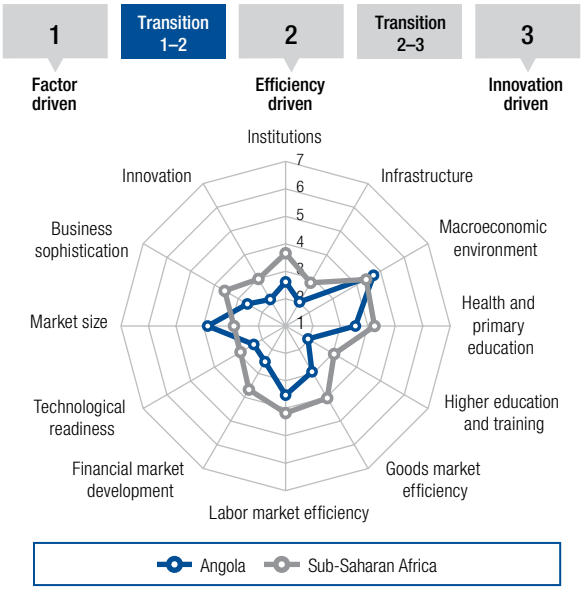
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

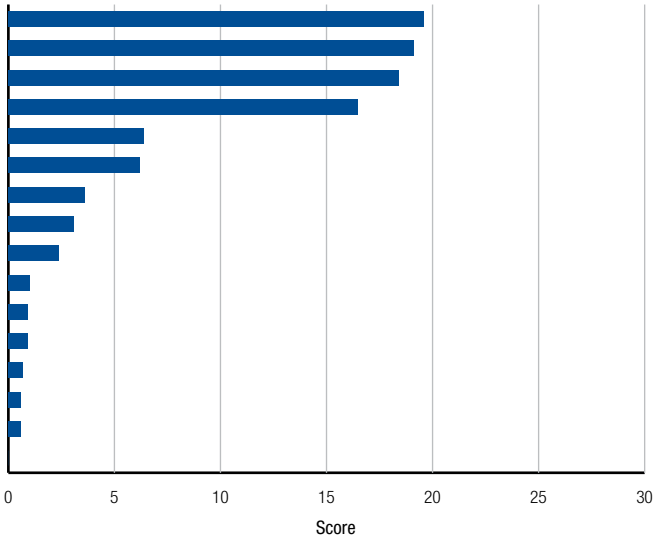
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**140**	**3.0**
GCI 2013–2014 (out of 148)	142	3.1
GCI 2012–2013 (out of 144)	n/a	n/a
Basic requirements (59.3%)	**137**	**3.2**
Institutions	143	2.6
Infrastructure	139	2.0
Macroeconomic environment	71	4.7
Health and primary education	136	3.5
Efficiency enhancers (35.6%)	**140**	**2.8**
Higher education and training	144	1.9
Goods market efficiency	143	2.9
Labor market efficiency	128	3.5
Financial market development	140	2.5
Technological readiness	140	2.3
Market size	65	3.8
Innovation and sophistication factors (5.2%)	**144**	**2.4**
Business sophistication	144	2.6
Innovation	142	2.1

Stage of development



The most problematic factors for doing business

Access to financing	19.6
Inadequately educated workforce	19.1
Inadequate supply of infrastructure	18.4
Corruption	16.5
Poor public health	6.4
Inefficient government bureaucracy	6.2
Poor work ethic in national labor force	3.6
Crime and theft	3.1
Foreign currency regulations	2.4
Inflation	1.0
Government instability/coups	0.9
Insufficient capacity to innovate	0.9
Policy instability	0.7
Restrictive labor regulations	0.6
Tax rates	0.6
Tax regulations	0.0



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Angola

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	2.5	141
1.02	Intellectual property protection	2.3	138
1.03	Diversion of public funds	1.8	139
1.04	Public trust in politicians	1.8	135
1.05	Irregular payments and bribes	2.4	136
1.06	Judicial independence	2.1	137
1.07	Favoritism in decisions of government officials	2.0	140
1.08	Wastefulness of government spending	2.8	93
1.09	Burden of government regulation	2.7	128
1.10	Efficiency of legal framework in settling disputes	2.3	140
1.11	Efficiency of legal framework in challenging regs.	2.0	141
1.12	Transparency of government policymaking	2.9	137
1.13	Business costs of terrorism	4.8	96
1.14	Business costs of crime and violence	3.6	114
1.15	Organized crime	3.5	128
1.16	Reliability of police services	2.8	129
1.17	Ethical behavior of firms	2.6	144
1.18	Strength of auditing and reporting standards	2.6	141
1.19	Efficacy of corporate boards	2.7	143
1.20	Protection of minority shareholders' interests	2.5	142
1.21	Strength of investor protection, 0–10 (best)*	5.3	68
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	2.2	141
2.02	Quality of roads	2.3	138
2.03	Quality of railroad infrastructure	N/Appl.	n/a
2.04	Quality of port infrastructure	2.7	121
2.05	Quality of air transport infrastructure	3.3	117
2.06	Available airline seat km/week, millions*	130.5	74
2.07	Quality of electricity supply	1.7	138
2.08	Mobile telephone subscriptions/100 pop.*	61.9	132
2.09	Fixed telephone lines/100 pop.*	1.0	126
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-1.5	42
3.02	Gross national savings, % GDP*	18.2	80
3.03	Inflation, annual % change*	8.8	130
3.04	General government debt, % GDP*	26.6	29
3.05	Country credit rating, 0–100 (best)*	35.8	91
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	18,251.2	61
4.02	Business impact of malaria	1.4	76
4.03	Tuberculosis cases/100,000 pop.*	316.0	130
4.04	Business impact of tuberculosis	2.8	143
4.05	HIV prevalence, % adult pop.*	2.3	125
4.06	Business impact of HIV/AIDS	2.5	143
4.07	Infant mortality, deaths/1,000 live births*	99.5	143
4.08	Life expectancy, years*	51.5	137
4.09	Quality of primary education	2.0	143
4.10	Primary education enrollment, net %*	85.7	115
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	31.5	135
5.02	Tertiary education enrollment, gross %*	7.5	121
5.03	Quality of the education system	2.1	142
5.04	Quality of math and science education	1.9	143
5.05	Quality of management schools	2.3	140
5.06	Internet access in schools	2.4	132
5.07	Availability of research and training services	2.5	144
5.08	Extent of staff training	2.8	141
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	2.6	144
6.02	Extent of market dominance	2.2	144
6.03	Effectiveness of anti-monopoly policy	2.0	144
6.04	Effect of taxation on incentives to invest	3.5	89
6.05	Total tax rate, % profits*	52.1	120

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	8	93
6.07	No. days to start a business*	66.0	134
6.08	Agricultural policy costs	3.2	118
6.09	Prevalence of trade barriers	2.9	144
6.10	Trade tariffs, % duty*	9.3	100
6.11	Prevalence of foreign ownership	2.9	138
6.12	Business impact of rules on FDI	2.6	141
6.13	Burden of customs procedures	1.8	143
6.14	Imports as a percentage of GDP*	38.9	92
6.15	Degree of customer orientation	2.4	144
6.16	Buyer sophistication	2.3	138
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.2	142
7.02	Flexibility of wage determination	4.1	122
7.03	Hiring and firing practices	2.6	137
7.04	Redundancy costs, weeks of salary*	31.0	132
7.05	Effect of taxation on incentives to work	4.0	41
7.06	Pay and productivity	2.5	141
7.07	Reliance on professional management	2.2	142
7.08	Country capacity to retain talent	3.7	53
7.09	Country capacity to attract talent	3.8	50
7.10	Women in labor force, ratio to men*	0.83	66
	8th pillar: Financial market development		
8.01	Availability of financial services	2.3	143
8.02	Affordability of financial services	3.2	128
8.03	Financing through local equity market	1.4	144
8.04	Ease of access to loans	2.2	122
8.05	Venture capital availability	2.3	98
8.06	Soundness of banks	4.1	115
8.07	Regulation of securities exchanges	1.2	144
8.08	Legal rights index, 0–10 (best)*	3	113
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.2	139
9.02	Firm-level technology absorption	2.9	143
9.03	FDI and technology transfer	3.9	117
9.04	Individuals using Internet, %*	19.1	104
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.2	119
9.06	Int'l Internet bandwidth, kb/s per user*	2.0	140
9.07	Mobile broadband subscriptions/100 pop.*	12.1	94
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	3.5	69
10.02	Foreign market size index, 1–7 (best)*	4.8	56
10.03	GDP (PPP$ billions)*	130.1	63
10.04	Exports as a percentage of GDP*	62.3	32
	11th pillar: Business sophistication		
11.01	Local supplier quantity	2.4	144
11.02	Local supplier quality	2.2	144
11.03	State of cluster development	2.6	141
11.04	Nature of competitive advantage	2.6	135
11.05	Value chain breadth	2.6	144
11.06	Control of international distribution	3.5	118
11.07	Production process sophistication	2.4	137
11.08	Extent of marketing	2.9	135
11.09	Willingness to delegate authority	2.4	142
	12th pillar: Innovation		
12.01	Capacity for innovation	2.7	142
12.02	Quality of scientific research institutions	1.9	142
12.03	Company spending on R&D	2.1	141
12.04	University-industry collaboration in R&D	2.0	142
12.05	Gov't procurement of advanced tech products	2.6	135
12.06	Availability of scientists and engineers	2.5	144
12.07	PCT patents, applications/million pop.*	0.0	119

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Benin*

Key indicators, 2013

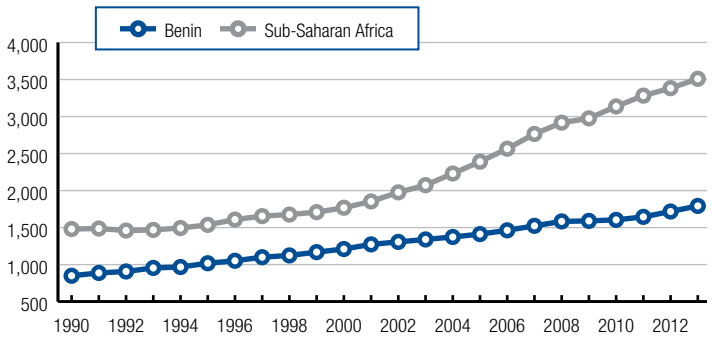
Population (millions) 10.3
GDP (US$ billions)* 8.3
GDP per capita (US$) 805.1
GDP (PPP) as share (%) of world total 0.02

Sectoral value-added (% GDP), 2010
Agriculture 32.4
Industry 13.2
Services 54.3

Human Development Index, 2013
Score, (0–1) best 0.48
Rank (out of 187 economies) 165

Sources: IMF; UNFPA; UNDP; World Bank

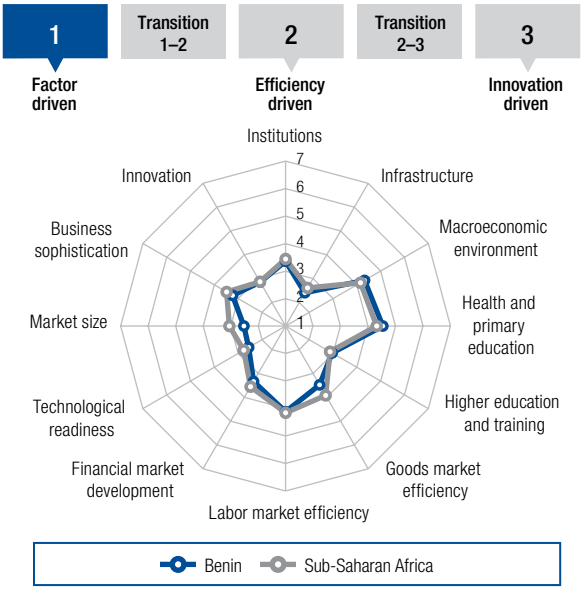
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**n/a**	**n/a**
GCI 2013–2014 (out of 148)	130	3.4
GCI 2012–2013 (out of 144)	119	3.6
Basic requirements (60.0%)	**125**	**3.7**
Institutions	108	3.4
Infrastructure	129	2.4
Macroeconomic environment	99	4.3
Health and primary education	117	4.5
Efficiency enhancers (35.0%)	**134**	**3.2**
Higher education and training	123	3.0
Goods market efficiency	139	3.5
Labor market efficiency	94	4.1
Financial market development	125	3.3
Technological readiness	134	2.5
Market size	125	2.5
Innovation and sophistication factors (5.0%)	**123**	**3.0**
Business sophistication	132	3.2
Innovation	113	2.8

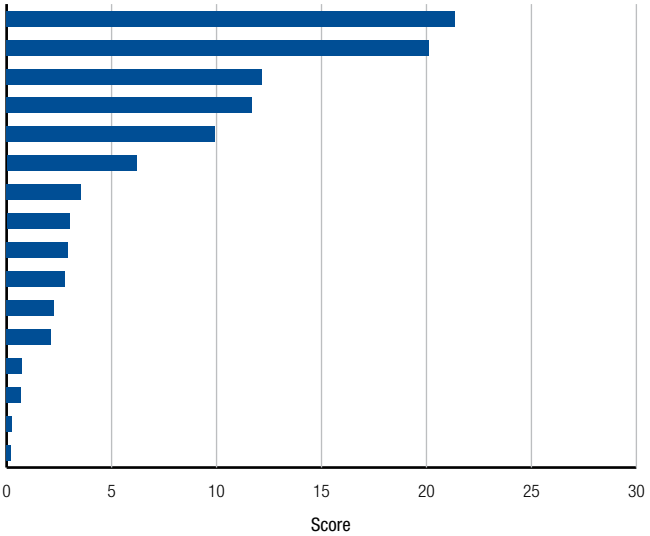
Stage of development



* Benin and Liberia were not included in the GCI 2014–2015. Therefore the data in this section refer to the GCI 2013–2014.

The most problematic factors for doing business

Corruption 21.4
Access to financing 20.1
Inefficient government bureaucracy 12.2
Tax regulations 11.7
Tax rates 9.9
Inadequate supply of infrastructure 6.2
Restrictive labor regulations 3.5
Inadequately educated workforce 3.0
Inflation 2.9
Insufficient capacity to innovate 2.8
Policy instability 2.2
Poor work ethic in national labor force 2.1
Crime and theft 0.7
Foreign currency regulations 0.7
Government instability/coups 0.3
Poor public health 0.2



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings. Benin and Liberia were not included in the GCI 2014–2015. Therefore the most problematic factors for these countries are drawn from the 2013 edition of the World Economic Forum's Executive Opinion Survey.

Benin

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/148
	1st pillar: Institutions		
1.01	Property rights	3.4	118
1.02	Intellectual property protection	3.1	101
1.03	Diversion of public funds	2.4	119
1.04	Public trust in politicians	2.3	107
1.05	Irregular payments and bribes	2.5	140
1.06	Judicial independence	2.7	116
1.07	Favoritism in decisions of government officials	2.8	98
1.08	Wastefulness of government spending	3.2	70
1.09	Burden of government regulation	2.8	124
1.10	Efficiency of legal framework in settling disputes	3.3	104
1.11	Efficiency of legal framework in challenging regs.	3.2	91
1.12	Transparency of government policymaking	3.6	122
1.13	Business costs of terrorism	5.0	103
1.14	Business costs of crime and violence	4.2	98
1.15	Organized crime	4.6	92
1.16	Reliability of police services	4.4	60
1.17	Ethical behavior of firms	3.7	99
1.18	Strength of auditing and reporting standards	3.8	124
1.19	Efficacy of corporate boards	4.5	77
1.20	Protection of minority shareholders' interests	3.4	127
1.21	Strength of investor protection, 0–10 (best)*	3.3	129
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	2.8	135
2.02	Quality of roads	2.8	121
2.03	Quality of railroad infrastructure	1.4	115
2.04	Quality of port infrastructure	3.7	95
2.05	Quality of air transport infrastructure	3.0	133
2.06	Available airline seat km/week, millions*	20.2	127
2.07	Quality of electricity supply	2.2	132
2.08	Mobile telephone subscriptions/100 pop.*	89.9	106
2.09	Fixed telephone lines/100 pop.*	1.7	123
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-0.8	39
3.02	Gross national savings, % GDP*	8.2	135
3.03	Inflation, annual % change*	6.7	110
3.04	General government debt, % GDP*	32.5	43
3.05	Country credit rating, 0–100 (best)*	24.2	120
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	28,228.7	141
4.02	Business impact of malaria	3.4	132
4.03	Tuberculosis cases/100,000 pop.*	70.0	84
4.04	Business impact of tuberculosis	3.9	130
4.05	HIV prevalence, % adult pop.*	1.2	116
4.06	Business impact of HIV/AIDS	3.9	129
4.07	Infant mortality, deaths/1,000 live births*	67.9	135
4.08	Life expectancy, years*	56.0	128
4.09	Quality of primary education	3.3	100
4.10	Primary education enrollment, net %*	92.1	92
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	51.4	119
5.02	Tertiary education enrollment, gross %*	10.6	115
5.03	Quality of the education system	3.2	101
5.04	Quality of math and science education	4.2	66
5.05	Quality of management schools	4.3	73
5.06	Internet access in schools	2.0	140
5.07	Availability of research and training services	3.8	95
5.08	Extent of staff training	3.1	136
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.7	89
6.02	Extent of market dominance	3.4	104
6.03	Effectiveness of anti-monopoly policy	3.2	134
6.04	Effect of taxation on incentives to invest	2.5	141
6.05	Total tax rate, % profits*	65.9	135

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	5	30
6.07	No. days to start a business*	26.0	99
6.08	Agricultural policy costs	2.8	143
6.09	Prevalence of trade barriers	3.4	144
6.10	Trade tariffs, % duty*	10.5	112
6.11	Prevalence of foreign ownership	3.2	138
6.12	Business impact of rules on FDI	3.2	138
6.13	Burden of customs procedures	3.0	138
6.14	Imports as a percentage of GDP*	38.1	96
6.15	Degree of customer orientation	4.2	107
6.16	Buyer sophistication	2.2	144
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.7	127
7.02	Flexibility of wage determination	5.3	46
7.03	Hiring and firing practices	3.7	89
7.04	Redundancy costs, weeks of salary*	11.6	53
7.05	Effect of taxation on incentives to work	3.2	110
7.06	Pay and productivity	3.0	134
7.07	Reliance on professional management	3.1	139
7.08	Country capacity to retain talent	2.5	128
7.09	Country capacity to attract talent	2.6	114
7.10	Women in labor force, ratio to men*	0.87	42
	8th pillar: Financial market development		
8.01	Availability of financial services	3.3	134
8.02	Affordability of financial services	3.2	132
8.03	Financing through local equity market	2.6	114
8.04	Ease of access to loans	2.2	117
8.05	Venture capital availability	2.2	113
8.06	Soundness of banks	4.5	96
8.07	Regulation of securities exchanges	2.7	132
8.08	Legal rights index, 0–10 (best)*	6	65
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.8	131
9.02	Firm-level technology absorption	4.0	122
9.03	FDI and technology transfer	3.6	136
9.04	Individuals using Internet, %*	3.8	136
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.1	133
9.06	Int'l Internet bandwidth, kb/s per user*	3.5	123
9.07	Mobile broadband subscriptions/100 pop.*	0.3	125
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.3	124
10.02	Foreign market size index, 1–7 (best)*	3.1	130
10.03	GDP (PPP$ billions)*	15.6	123
10.04	Exports as a percentage of GDP*	23.8	127
	11th pillar: Business sophistication		
11.01	Local supplier quantity	3.4	142
11.02	Local supplier quality	3.5	132
11.03	State of cluster development	2.9	134
11.04	Nature of competitive advantage	3.1	101
11.05	Value chain breadth	3.6	80
11.06	Control of international distribution	3.0	144
11.07	Production process sophistication	3.3	108
11.08	Extent of marketing	3.2	126
11.09	Willingness to delegate authority	3.1	132
	12th pillar: Innovation		
12.01	Capacity for innovation	3.0	114
12.02	Quality of scientific research institutions	2.9	118
12.03	Company spending on R&D	2.7	118
12.04	University-industry collaboration in R&D	2.7	131
12.05	Gov't procurement of advanced tech products	3.2	100
12.06	Availability of scientists and engineers	4.3	59
12.07	PCT patents, applications/million pop.*	0.0	112

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89. Benin and Liberia were not included in the GCI 2014–2015. Therefore the data in this section refer to the GCI 2013–2014.

Botswana

Key indicators, 2013

Population (millions)	2.1
GDP (US$ billions)*	14.8
GDP per capita (US$)	7,119.9
GDP (PPP) as share (%) of world total	0.03

Sectoral value-added (% GDP), 2013

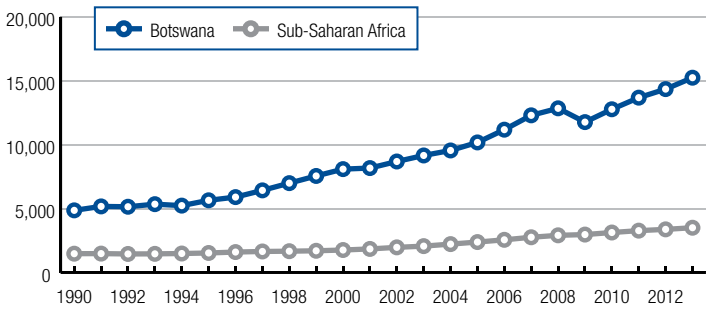
Agriculture	2.5
Industry	36.9
Services	60.6

Human Development Index, 2013

Score, (0–1) best	0.68
Rank (out of 187 economies)	109

Sources: IMF; UNFPA; UNDP; World Bank

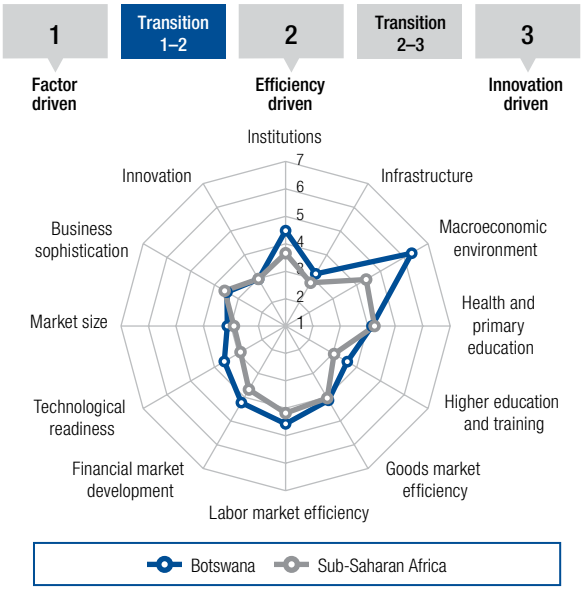
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

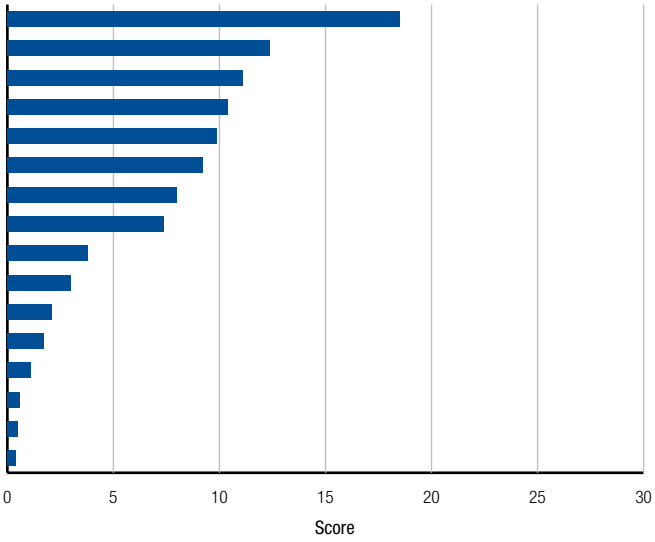
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**74**	**4.2**
GCI 2013–2014 (out of 148)	74	4.1
GCI 2012–2013 (out of 144)	79	4.1
Basic requirements (50.2%)	**72**	**4.5**
Institutions	39	4.5
Infrastructure	101	3.2
Macroeconomic environment	13	6.3
Health and primary education	127	4.1
Efficiency enhancers (42.4%)	**84**	**3.9**
Higher education and training	101	3.6
Goods market efficiency	97	4.1
Labor market efficiency	36	4.6
Financial market development	57	4.2
Technological readiness	76	3.6
Market size	97	3.1
Innovation and sophistication factors (7.5%)	**110**	**3.2**
Business sophistication	116	3.5
Innovation	102	3.0

Stage of development



The most problematic factors for doing business

Poor work ethic in national labor force	18.5
Inadequately educated workforce	12.4
Inefficient government bureaucracy	11.1
Inadequate supply of infrastructure	10.4
Restrictive labor regulations	9.9
Access to financing	9.2
Insufficient capacity to innovate	8.0
Corruption	7.4
Crime and theft	3.8
Inflation	3.0
Poor public health	2.1
Policy instability	1.7
Tax rates	1.1
Foreign currency regulations	0.6
Government instability/coups	0.5
Tax regulations	0.4



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Botswana

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	4.9	39
1.02	Intellectual property protection	4.2	42
1.03	Diversion of public funds	4.3	36
1.04	Public trust in politicians	3.6	39
1.05	Irregular payments and bribes	4.8	40
1.06	Judicial independence	4.9	35
1.07	Favoritism in decisions of government officials	3.5	42
1.08	Wastefulness of government spending	4.1	26
1.09	Burden of government regulation	3.5	67
1.10	Efficiency of legal framework in settling disputes	4.4	32
1.11	Efficiency of legal framework in challenging regs.	3.8	41
1.12	Transparency of government policymaking	4.3	49
1.13	Business costs of terrorism	6.1	20
1.14	Business costs of crime and violence	4.1	90
1.15	Organized crime	5.6	38
1.16	Reliability of police services	4.3	63
1.17	Ethical behavior of firms	4.5	39
1.18	Strength of auditing and reporting standards	5.2	43
1.19	Efficacy of corporate boards	4.8	57
1.20	Protection of minority shareholders' interests	4.6	43
1.21	Strength of investor protection, 0–10 (best)*	6.0	45
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.8	89
2.02	Quality of roads	4.0	67
2.03	Quality of railroad infrastructure	2.8	62
2.04	Quality of port infrastructure	3.0	114
2.05	Quality of air transport infrastructure	3.7	101
2.06	Available airline seat km/week, millions*	6.1	139
2.07	Quality of electricity supply	2.4	127
2.08	Mobile telephone subscriptions/100 pop.*	160.6	11
2.09	Fixed telephone lines/100 pop.*	8.6	95
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	0.2	18
3.02	Gross national savings, % GDP*	38.7	12
3.03	Inflation, annual % change*	5.8	103
3.04	General government debt, % GDP*	15.9	14
3.05	Country credit rating, 0–100 (best)*	62.8	45
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	29.9	26
4.02	Business impact of malaria	4.8	39
4.03	Tuberculosis cases/100,000 pop.*	408.0	133
4.04	Business impact of tuberculosis	3.7	138
4.05	HIV prevalence, % adult pop.*	23.0	141
4.06	Business impact of HIV/AIDS	3.2	139
4.07	Infant mortality, deaths/1,000 live births*	41.0	112
4.08	Life expectancy, years*	47.0	143
4.09	Quality of primary education	3.7	85
4.10	Primary education enrollment, net %*	83.8	122
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	81.7	94
5.02	Tertiary education enrollment, gross %*	7.4	123
5.03	Quality of the education system	3.5	82
5.04	Quality of math and science education	3.6	96
5.05	Quality of management schools	3.6	112
5.06	Internet access in schools	3.4	108
5.07	Availability of research and training services	3.4	114
5.08	Extent of staff training	4.0	68
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.7	95
6.02	Extent of market dominance	3.1	121
6.03	Effectiveness of anti-monopoly policy	3.9	75
6.04	Effect of taxation on incentives to invest	4.7	14
6.05	Total tax rate, % profits*	25.4	22

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	9	106
6.07	No. days to start a business*	60.0	132
6.08	Agricultural policy costs	4.0	48
6.09	Prevalence of trade barriers	4.4	67
6.10	Trade tariffs, % duty*	5.9	75
6.11	Prevalence of foreign ownership	5.5	16
6.12	Business impact of rules on FDI	4.3	83
6.13	Burden of customs procedures	4.2	60
6.14	Imports as a percentage of GDP*	59.5	43
6.15	Degree of customer orientation	3.5	132
6.16	Buyer sophistication	2.9	112
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.3	69
7.02	Flexibility of wage determination	5.4	42
7.03	Hiring and firing practices	3.8	82
7.04	Redundancy costs, weeks of salary*	21.7	103
7.05	Effect of taxation on incentives to work	4.6	14
7.06	Pay and productivity	3.8	82
7.07	Reliance on professional management	4.8	36
7.08	Country capacity to retain talent	3.5	59
7.09	Country capacity to attract talent	3.7	51
7.10	Women in labor force, ratio to men*	0.91	28
	8th pillar: Financial market development		
8.01	Availability of financial services	4.4	72
8.02	Affordability of financial services	4.2	67
8.03	Financing through local equity market	3.6	56
8.04	Ease of access to loans	3.0	54
8.05	Venture capital availability	2.7	67
8.06	Soundness of banks	5.6	43
8.07	Regulation of securities exchanges	4.4	57
8.08	Legal rights index, 0–10 (best)*	6	63
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.4	92
9.02	Firm-level technology absorption	4.3	92
9.03	FDI and technology transfer	4.2	94
9.04	Individuals using Internet, %*	15.0	116
9.05	Fixed broadband Internet subscriptions/100 pop.*	1.1	104
9.06	Int'l Internet bandwidth, kb/s per user*	6.6	109
9.07	Mobile broadband subscriptions/100 pop.*	74.1	19
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.9	97
10.02	Foreign market size index, 1–7 (best)*	3.9	97
10.03	GDP (PPP$ billions)*	34.1	99
10.04	Exports as a percentage of GDP*	42.8	62
	11th pillar: Business sophistication		
11.01	Local supplier quantity	3.8	129
11.02	Local supplier quality	3.5	130
11.03	State of cluster development	3.3	104
11.04	Nature of competitive advantage	3.2	92
11.05	Value chain breadth	3.3	115
11.06	Control of international distribution	3.2	134
11.07	Production process sophistication	3.3	109
11.08	Extent of marketing	3.6	110
11.09	Willingness to delegate authority	3.4	99
	12th pillar: Innovation		
12.01	Capacity for innovation	3.3	106
12.02	Quality of scientific research institutions	3.2	100
12.03	Company spending on R&D	2.6	118
12.04	University-industry collaboration in R&D	3.1	105
12.05	Gov't procurement of advanced tech products	3.7	45
12.06	Availability of scientists and engineers	3.2	120
12.07	PCT patents, applications/million pop.*	0.2	96

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Burkina Faso

Key indicators, 2013

Population (millions)	16.8
GDP (US$ billions)*	12.0
GDP per capita (US$)	711.0
GDP (PPP) as share (%) of world total	0.03

Sectoral value-added (% GDP), 2012

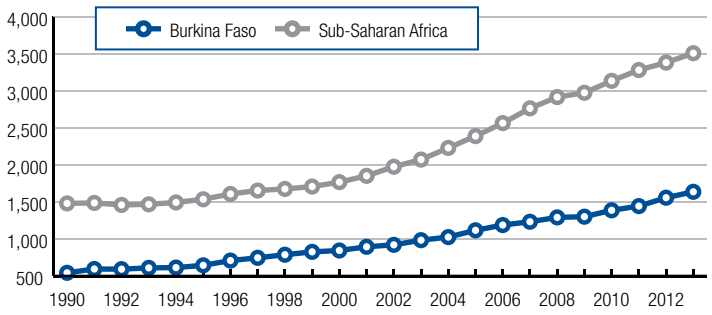
Agriculture	35.3
Industry	26.2
Services	38.5

Human Development Index, 2013

Score, (0–1) best	0.39
Rank (out of 187 economies)	181

Sources: IMF; UNFPA; UNDP; World Bank

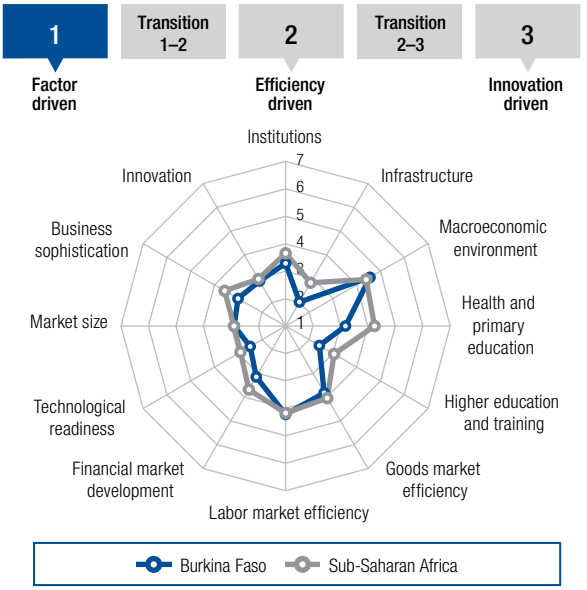
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

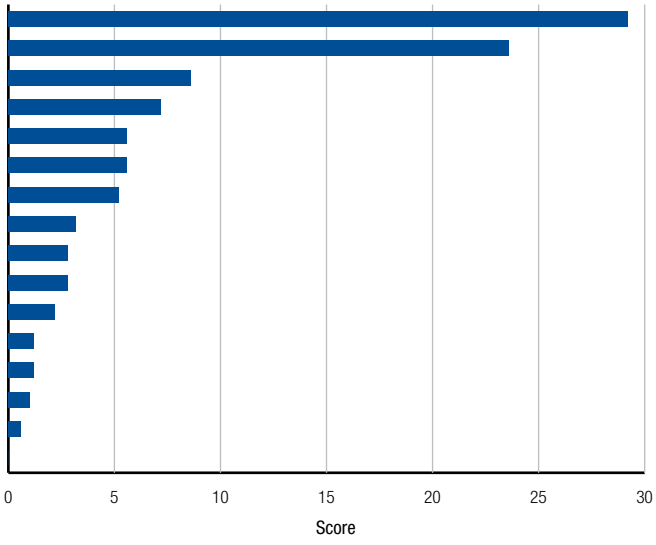
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**135**	**3.2**
GCI 2013–2014 (out of 148)	140	3.2
GCI 2012–2013 (out of 144)	133	3.3
Basic requirements (60.0%)	**135**	**3.3**
Institutions	117	3.3
Infrastructure	141	2.0
Macroeconomic environment	83	4.5
Health and primary education	141	3.2
Efficiency enhancers (35.0%)	**132**	**3.2**
Higher education and training	136	2.4
Goods market efficiency	127	3.8
Labor market efficiency	70	4.2
Financial market development	127	3.1
Technological readiness	132	2.5
Market size	111	2.9
Innovation and sophistication factors (5.0%)	**128**	**2.9**
Business sophistication	136	3.0
Innovation	107	2.9

Stage of development



The most problematic factors for doing business

Access to financing	29.2
Corruption	23.6
Tax rates	8.6
Inadequate supply of infrastructure	7.2
Inefficient government bureaucracy	5.6
Tax regulations	5.6
Inadequately educated workforce	5.2
Policy instability	3.2
Insufficient capacity to innovate	2.8
Poor work ethic in national labor force	2.8
Inflation	2.2
Foreign currency regulations	1.2
Restrictive labor regulations	1.2
Crime and theft	1.0
Poor public health	0.6
Government instability/coups	0.0



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Burkina Faso

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.5	109
1.02	Intellectual property protection	3.4	85
1.03	Diversion of public funds	2.1	131
1.04	Public trust in politicians	2.6	92
1.05	Irregular payments and bribes	2.9	121
1.06	Judicial independence	2.1	136
1.07	Favoritism in decisions of government officials	2.8	85
1.08	Wastefulness of government spending	2.8	91
1.09	Burden of government regulation	3.6	56
1.10	Efficiency of legal framework in settling disputes	3.5	81
1.11	Efficiency of legal framework in challenging regs.	2.8	107
1.12	Transparency of government policymaking	3.3	123
1.13	Business costs of terrorism	3.9	128
1.14	Business costs of crime and violence	3.8	103
1.15	Organized crime	4.6	84
1.16	Reliability of police services	4.0	77
1.17	Ethical behavior of firms	3.4	122
1.18	Strength of auditing and reporting standards	4.3	86
1.19	Efficacy of corporate boards	4.6	65
1.20	Protection of minority shareholders' interests	3.6	102
1.21	Strength of investor protection, 0–10 (best)*	3.7	117
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	2.4	137
2.02	Quality of roads	2.5	132
2.03	Quality of railroad infrastructure	1.8	93
2.04	Quality of port infrastructure	3.1	111
2.05	Quality of air transport infrastructure	3.0	126
2.06	Available airline seat km/week, millions*	15.8	128
2.07	Quality of electricity supply	1.7	139
2.08	Mobile telephone subscriptions/100 pop.*	66.4	129
2.09	Fixed telephone lines/100 pop.*	0.8	127
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-3.0	76
3.02	Gross national savings, % GDP*	15.4	104
3.03	Inflation, annual % change*	2.0	1
3.04	General government debt, % GDP*	33.3	46
3.05	Country credit rating, 0–100 (best)*	21.0	127
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	34,021.6	75
4.02	Business impact of malaria	3.1	70
4.03	Tuberculosis cases/100,000 pop.*	54.0	76
4.04	Business impact of tuberculosis	4.4	107
4.05	HIV prevalence, % adult pop.*	1.0	109
4.06	Business impact of HIV/AIDS	4.3	116
4.07	Infant mortality, deaths/1,000 live births*	65.8	135
4.08	Life expectancy, years*	55.9	130
4.09	Quality of primary education	3.1	109
4.10	Primary education enrollment, net %*	66.4	137
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	25.9	141
5.02	Tertiary education enrollment, gross %*	4.6	130
5.03	Quality of the education system	2.9	120
5.04	Quality of math and science education	3.8	88
5.05	Quality of management schools	3.8	97
5.06	Internet access in schools	1.8	140
5.07	Availability of research and training services	3.5	105
5.08	Extent of staff training	2.8	140
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.6	110
6.02	Extent of market dominance	2.7	138
6.03	Effectiveness of anti-monopoly policy	3.5	113
6.04	Effect of taxation on incentives to invest	3.1	119
6.05	Total tax rate, % profits*	43.9	95

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	3	10
6.07	No. days to start a business*	13.0	67
6.08	Agricultural policy costs	3.7	82
6.09	Prevalence of trade barriers	4.3	83
6.10	Trade tariffs, % duty*	10.8	112
6.11	Prevalence of foreign ownership	4.1	105
6.12	Business impact of rules on FDI	4.6	53
6.13	Burden of customs procedures	3.6	93
6.14	Imports as a percentage of GDP*	39.2	90
6.15	Degree of customer orientation	4.1	101
6.16	Buyer sophistication	1.9	144
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.1	94
7.02	Flexibility of wage determination	5.3	50
7.03	Hiring and firing practices	4.1	53
7.04	Redundancy costs, weeks of salary*	10.5	43
7.05	Effect of taxation on incentives to work	3.7	63
7.06	Pay and productivity	3.1	130
7.07	Reliance on professional management	2.9	136
7.08	Country capacity to retain talent	3.0	99
7.09	Country capacity to attract talent	2.4	125
7.10	Women in labor force, ratio to men*	0.88	39
	8th pillar: Financial market development		
8.01	Availability of financial services	3.4	130
8.02	Affordability of financial services	3.1	134
8.03	Financing through local equity market	2.2	127
8.04	Ease of access to loans	1.6	138
8.05	Venture capital availability	1.5	144
8.06	Soundness of banks	4.1	116
8.07	Regulation of securities exchanges	3.1	122
8.08	Legal rights index, 0–10 (best)*	6	63
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.5	133
9.02	Firm-level technology absorption	3.7	132
9.03	FDI and technology transfer	4.2	92
9.04	Individuals using Internet, %*	4.4	133
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.1	129
9.06	Int'l Internet bandwidth, kb/s per user*	3.1	131
9.07	Mobile broadband subscriptions/100 pop.*	9.0	99
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.7	104
10.02	Foreign market size index, 1–7 (best)*	3.4	119
10.03	GDP (PPP$ billions)*	26.6	108
10.04	Exports as a percentage of GDP*	23.0	121
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.2	105
11.02	Local supplier quality	4.1	85
11.03	State of cluster development	2.9	132
11.04	Nature of competitive advantage	2.0	144
11.05	Value chain breadth	3.0	132
11.06	Control of international distribution	3.0	138
11.07	Production process sophistication	2.4	138
11.08	Extent of marketing	3.1	129
11.09	Willingness to delegate authority	2.1	144
	12th pillar: Innovation		
12.01	Capacity for innovation	3.4	99
12.02	Quality of scientific research institutions	3.4	90
12.03	Company spending on R&D	2.3	128
12.04	University-industry collaboration in R&D	3.2	103
12.05	Gov't procurement of advanced tech products	3.2	96
12.06	Availability of scientists and engineers	3.5	107
12.07	PCT patents, applications/million pop.*	0.0	113

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Burundi

Key indicators, 2013

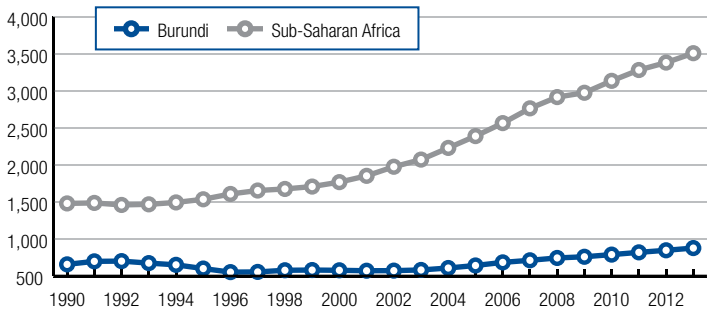
Population (millions) 9.0
GDP (US$ billions)* 2.7
GDP per capita (US$) 303.0
GDP (PPP) as share (%) of world total 0.01

Sectoral value-added (% GDP), 2012
Agriculture 40.6
Industry 16.9
Services 42.5

Human Development Index, 2013
Score, (0–1) best 0.39
Rank (out of 187 economies) 180

Sources: IMF; UNFPA; UNDP; World Bank

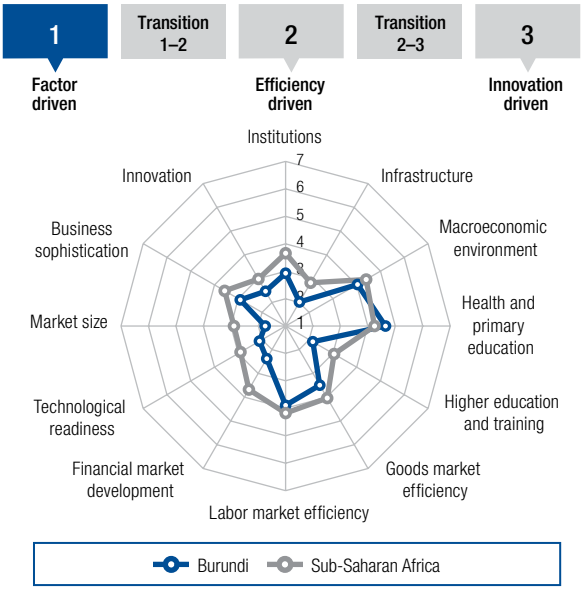
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

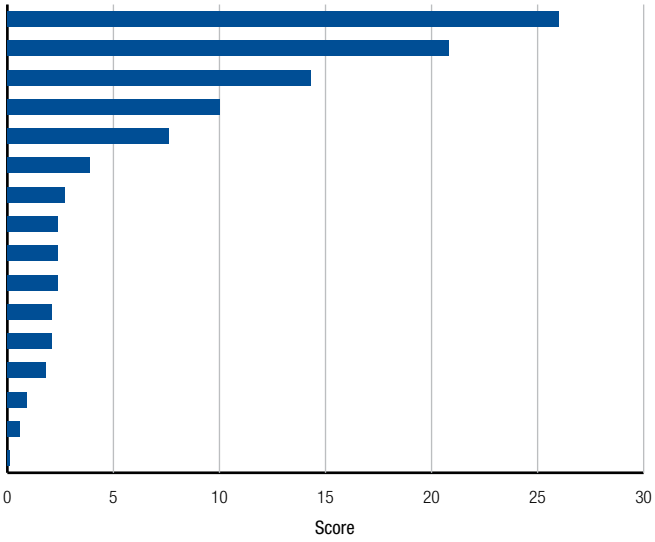
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**139**	**3.1**
GCI 2013–2014 (out of 148)	146	2.9
GCI 2012–2013 (out of 144)	144	2.8
Basic requirements (60.0%)	**130**	**3.4**
Institutions	132	2.9
Infrastructure	140	2.0
Macroeconomic environment	112	4.0
Health and primary education	114	4.6
Efficiency enhancers (35.0%)	**144**	**2.6**
Higher education and training	142	2.1
Goods market efficiency	135	3.5
Labor market efficiency	103	3.9
Financial market development	142	2.4
Technological readiness	142	2.1
Market size	141	1.7
Innovation and sophistication factors (5.0%)	**137**	**2.7**
Business sophistication	139	2.9
Innovation	133	2.5

Stage of development



The most problematic factors for doing business

Corruption 26.0
Access to financing 20.8
Policy instability 14.3
Inflation 10.0
Tax rates 7.6
Inadequate supply of infrastructure 3.9
Insufficient capacity to innovate 2.7
Inefficient government bureaucracy 2.4
Tax regulations 2.4
Inadequately educated workforce 2.4
Foreign currency regulations 2.1
Government instability/coups 2.1
Crime and theft 1.8
Restrictive labor regulations 0.9
Poor work ethic in national labor force 0.6
Poor public health 0.1



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Burundi

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	2.8	134
1.02	Intellectual property protection	2.6	131
1.03	Diversion of public funds	2.2	129
1.04	Public trust in politicians	2.3	104
1.05	Irregular payments and bribes	2.9	125
1.06	Judicial independence	1.6	143
1.07	Favoritism in decisions of government officials	2.4	121
1.08	Wastefulness of government spending	2.3	124
1.09	Burden of government regulation	3.1	97
1.10	Efficiency of legal framework in settling disputes	2.9	121
1.11	Efficiency of legal framework in challenging regs.	2.9	100
1.12	Transparency of government policymaking	3.2	131
1.13	Business costs of terrorism	4.6	106
1.14	Business costs of crime and violence	3.5	115
1.15	Organized crime	3.8	122
1.16	Reliability of police services	2.2	142
1.17	Ethical behavior of firms	3.1	135
1.18	Strength of auditing and reporting standards	3.6	129
1.19	Efficacy of corporate boards	4.3	91
1.20	Protection of minority shareholders' interests	3.1	131
1.21	Strength of investor protection, 0–10 (best)*	6.3	34
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	2.8	131
2.02	Quality of roads	3.2	101
2.03	Quality of railroad infrastructure	N/Appl.	n/a
2.04	Quality of port infrastructure	2.8	119
2.05	Quality of air transport infrastructure	2.6	135
2.06	Available airline seat km/week, millions*	1.8	142
2.07	Quality of electricity supply	2.1	132
2.08	Mobile telephone subscriptions/100 pop.*	25.0	143
2.09	Fixed telephone lines/100 pop.*	0.2	141
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-1.9	52
3.02	Gross national savings, % GDP*	-3.2	142
3.03	Inflation, annual % change*	8.8	131
3.04	General government debt, % GDP*	31.7	40
3.05	Country credit rating, 0–100 (best)*	13.9	139
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	8,528.3	57
4.02	Business impact of malaria	3.3	66
4.03	Tuberculosis cases/100,000 pop.*	130.0	101
4.04	Business impact of tuberculosis	3.9	132
4.05	HIV prevalence, % adult pop.*	1.3	114
4.06	Business impact of HIV/AIDS	3.9	127
4.07	Infant mortality, deaths/1,000 live births*	66.9	136
4.08	Life expectancy, years*	53.6	135
4.09	Quality of primary education	2.5	131
4.10	Primary education enrollment, net %*	94.0	70
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	28.5	137
5.02	Tertiary education enrollment, gross %*	3.2	136
5.03	Quality of the education system	2.6	133
5.04	Quality of math and science education	3.5	100
5.05	Quality of management schools	2.6	138
5.06	Internet access in schools	1.7	142
5.07	Availability of research and training services	2.8	138
5.08	Extent of staff training	2.9	137
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	3.9	134
6.02	Extent of market dominance	3.4	99
6.03	Effectiveness of anti-monopoly policy	3.1	134
6.04	Effect of taxation on incentives to invest	2.6	138
6.05	Total tax rate, % profits*	51.6	118

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	3	10
6.07	No. days to start a business*	5.0	14
6.08	Agricultural policy costs	2.8	136
6.09	Prevalence of trade barriers	3.5	139
6.10	Trade tariffs, % duty*	8.7	95
6.11	Prevalence of foreign ownership	2.8	139
6.12	Business impact of rules on FDI	3.3	129
6.13	Burden of customs procedures	2.9	136
6.14	Imports as a percentage of GDP*	37.4	97
6.15	Degree of customer orientation	3.3	139
6.16	Buyer sophistication	2.2	141
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.4	138
7.02	Flexibility of wage determination	5.1	61
7.03	Hiring and firing practices	3.3	118
7.04	Redundancy costs, weeks of salary*	15.9	76
7.05	Effect of taxation on incentives to work	2.7	133
7.06	Pay and productivity	2.6	137
7.07	Reliance on professional management	2.8	139
7.08	Country capacity to retain talent	2.0	138
7.09	Country capacity to attract talent	1.9	138
7.10	Women in labor force, ratio to men*	1.02	4
	8th pillar: Financial market development		
8.01	Availability of financial services	2.8	140
8.02	Affordability of financial services	2.7	142
8.03	Financing through local equity market	1.8	138
8.04	Ease of access to loans	1.8	131
8.05	Venture capital availability	1.9	129
8.06	Soundness of banks	2.9	140
8.07	Regulation of securities exchanges	1.9	141
8.08	Legal rights index, 0–10 (best)*	3	113
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.1	141
9.02	Firm-level technology absorption	3.2	141
9.03	FDI and technology transfer	3.3	140
9.04	Individuals using Internet, %*	1.3	142
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.0	142
9.06	Int'l Internet bandwidth, kb/s per user*	11.2	95
9.07	Mobile broadband subscriptions/100 pop.*	0.0	132
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	1.8	139
10.02	Foreign market size index, 1–7 (best)*	1.7	143
10.03	GDP (PPP$ billions)*	5.8	139
10.04	Exports as a percentage of GDP*	6.0	143
	11th pillar: Business sophistication		
11.01	Local supplier quantity	3.6	137
11.02	Local supplier quality	3.3	135
11.03	State of cluster development	2.7	138
11.04	Nature of competitive advantage	2.7	122
11.05	Value chain breadth	2.9	136
11.06	Control of international distribution	3.1	135
11.07	Production process sophistication	2.4	140
11.08	Extent of marketing	2.6	142
11.09	Willingness to delegate authority	2.8	137
	12th pillar: Innovation		
12.01	Capacity for innovation	2.8	140
12.02	Quality of scientific research institutions	2.4	134
12.03	Company spending on R&D	2.2	137
12.04	University-industry collaboration in R&D	2.8	122
12.05	Gov't procurement of advanced tech products	2.7	128
12.06	Availability of scientists and engineers	3.3	116
12.07	PCT patents, applications/million pop.*	0.0	124

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Cameroon

Key indicators, 2013

Population (millions)	22.0
GDP (US$ billions)*	29.3
GDP per capita (US$)	1,330.7
GDP (PPP) as share (%) of world total	0.06

Sectoral value-added (% GDP), 2007

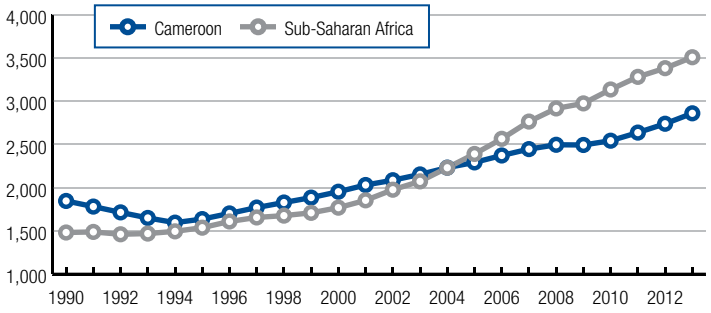
Agriculture	19.7
Industry	31.0
Services	49.3

Human Development Index, 2013

Score, (0–1) best	0.50
Rank (out of 187 economies)	152

Sources: IMF; UNFPA; UNDP; World Bank

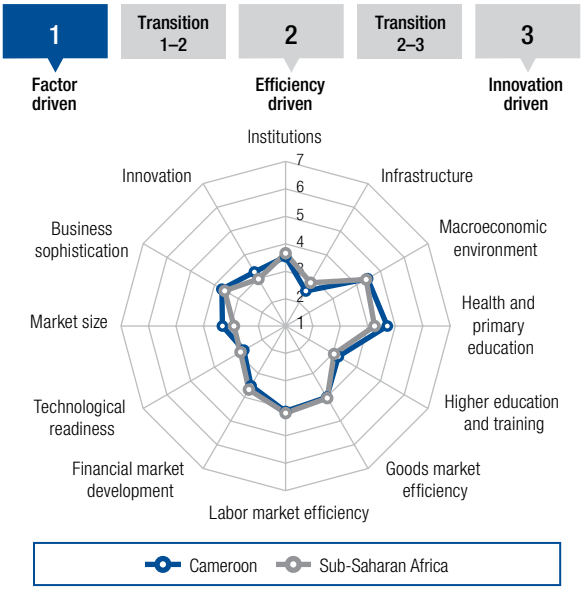
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

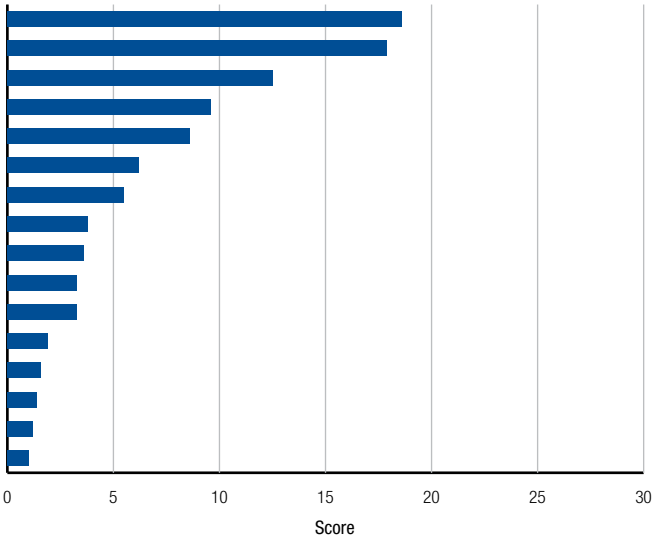
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**116**	**3.7**
GCI 2013–2014 (out of 148)	115	3.7
GCI 2012–2013 (out of 144)	112	3.7
Basic requirements (60.0%)	**116**	**3.8**
Institutions	91	3.5
Infrastructure	126	2.5
Macroeconomic environment	90	4.4
Health and primary education	112	4.7
Efficiency enhancers (35.0%)	**113**	**3.5**
Higher education and training	117	3.2
Goods market efficiency	113	4.0
Labor market efficiency	81	4.1
Financial market development	108	3.5
Technological readiness	120	2.8
Market size	91	3.3
Innovation and sophistication factors (5.0%)	**84**	**3.5**
Business sophistication	98	3.7
Innovation	71	3.3

Stage of development



The most problematic factors for doing business

Corruption	18.6
Access to financing	17.9
Inadequate supply of infrastructure	12.5
Tax regulations	9.6
Tax rates	8.6
Inefficient government bureaucracy	6.2
Poor work ethic in national labor force	5.5
Insufficient capacity to innovate	3.8
Restrictive labor regulations	3.6
Inadequately educated workforce	3.3
Inflation	3.3
Policy instability	1.9
Poor public health	1.6
Foreign currency regulations	1.4
Crime and theft	1.2
Government instability/coups	1.0



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Cameroon

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.6	99
1.02	Intellectual property protection	3.4	87
1.03	Diversion of public funds	2.4	121
1.04	Public trust in politicians	2.6	87
1.05	Irregular payments and bribes	3.1	115
1.06	Judicial independence	2.8	113
1.07	Favoritism in decisions of government officials	2.8	92
1.08	Wastefulness of government spending	2.8	86
1.09	Burden of government regulation	3.4	79
1.10	Efficiency of legal framework in settling disputes	3.5	78
1.11	Efficiency of legal framework in challenging regs.	3.3	74
1.12	Transparency of government policymaking	4.0	62
1.13	Business costs of terrorism	5.0	87
1.14	Business costs of crime and violence	4.4	72
1.15	Organized crime	4.6	79
1.16	Reliability of police services	4.3	62
1.17	Ethical behavior of firms	3.7	97
1.18	Strength of auditing and reporting standards	3.9	115
1.19	Efficacy of corporate boards	4.8	54
1.20	Protection of minority shareholders' interests	3.9	86
1.21	Strength of investor protection, 0–10 (best)*	4.3	105
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.2	116
2.02	Quality of roads	2.9	116
2.03	Quality of railroad infrastructure	2.8	63
2.04	Quality of port infrastructure	3.6	95
2.05	Quality of air transport infrastructure	3.3	118
2.06	Available airline seat km/week, millions*	51.4	99
2.07	Quality of electricity supply	2.4	126
2.08	Mobile telephone subscriptions/100 pop.*	70.4	123
2.09	Fixed telephone lines/100 pop.*	3.6	109
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-4.2	95
3.02	Gross national savings, % GDP*	16.2	96
3.03	Inflation, annual % change*	2.1	1
3.04	General government debt, % GDP*	18.6	16
3.05	Country credit rating, 0–100 (best)*	25.9	118
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	17,051.0	58
4.02	Business impact of malaria	3.8	59
4.03	Tuberculosis cases/100,000 pop.*	238.0	125
4.04	Business impact of tuberculosis	4.1	127
4.05	HIV prevalence, % adult pop.*	4.5	131
4.06	Business impact of HIV/AIDS	4.0	124
4.07	Infant mortality, deaths/1,000 live births*	61.1	131
4.08	Life expectancy, years*	54.6	134
4.09	Quality of primary education	3.7	81
4.10	Primary education enrollment, net %*	91.5	93
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	50.4	121
5.02	Tertiary education enrollment, gross %*	11.9	110
5.03	Quality of the education system	3.8	62
5.04	Quality of math and science education	4.3	65
5.05	Quality of management schools	4.4	58
5.06	Internet access in schools	2.7	127
5.07	Availability of research and training services	4.0	77
5.08	Extent of staff training	4.0	69
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.6	109
6.02	Extent of market dominance	3.8	65
6.03	Effectiveness of anti-monopoly policy	3.9	78
6.04	Effect of taxation on incentives to invest	3.4	98
6.05	Total tax rate, % profits*	48.8	108

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	5	32
6.07	No. days to start a business*	15.0	75
6.08	Agricultural policy costs	3.3	112
6.09	Prevalence of trade barriers	3.9	120
6.10	Trade tariffs, % duty*	14.3	132
6.11	Prevalence of foreign ownership	4.8	61
6.12	Business impact of rules on FDI	4.5	69
6.13	Burden of customs procedures	3.6	90
6.14	Imports as a percentage of GDP*	33.9	104
6.15	Degree of customer orientation	4.2	96
6.16	Buyer sophistication	2.8	123
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.6	128
7.02	Flexibility of wage determination	4.7	98
7.03	Hiring and firing practices	4.2	38
7.04	Redundancy costs, weeks of salary*	15.3	72
7.05	Effect of taxation on incentives to work	3.5	84
7.06	Pay and productivity	3.4	114
7.07	Reliance on professional management	3.6	109
7.08	Country capacity to retain talent	3.0	102
7.09	Country capacity to attract talent	2.9	101
7.10	Women in labor force, ratio to men*	0.85	55
	8th pillar: Financial market development		
8.01	Availability of financial services	3.8	106
8.02	Affordability of financial services	3.7	109
8.03	Financing through local equity market	2.9	101
8.04	Ease of access to loans	2.5	92
8.05	Venture capital availability	2.3	102
8.06	Soundness of banks	4.5	92
8.07	Regulation of securities exchanges	2.9	126
8.08	Legal rights index, 0–10 (best)*	6	63
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.1	112
9.02	Firm-level technology absorption	4.4	84
9.03	FDI and technology transfer	4.4	83
9.04	Individuals using Internet, %*	6.4	127
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.1	130
9.06	Int'l Internet bandwidth, kb/s per user*	3.2	130
9.07	Mobile broadband subscriptions/100 pop.*	0.0	133
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	3.1	85
10.02	Foreign market size index, 1–7 (best)*	3.8	99
10.03	GDP (PPP$ billions)*	53.3	88
10.04	Exports as a percentage of GDP*	23.0	124
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.4	93
11.02	Local supplier quality	3.9	103
11.03	State of cluster development	3.5	87
11.04	Nature of competitive advantage	3.2	97
11.05	Value chain breadth	4.0	48
11.06	Control of international distribution	3.4	125
11.07	Production process sophistication	3.5	93
11.08	Extent of marketing	3.8	98
11.09	Willingness to delegate authority	3.4	108
	12th pillar: Innovation		
12.01	Capacity for innovation	3.8	64
12.02	Quality of scientific research institutions	3.5	83
12.03	Company spending on R&D	3.3	53
12.04	University-industry collaboration in R&D	3.4	82
12.05	Gov't procurement of advanced tech products	3.8	41
12.06	Availability of scientists and engineers	4.1	64
12.07	PCT patents, applications/million pop.*	0.1	107

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Cape Verde

Key indicators, 2013

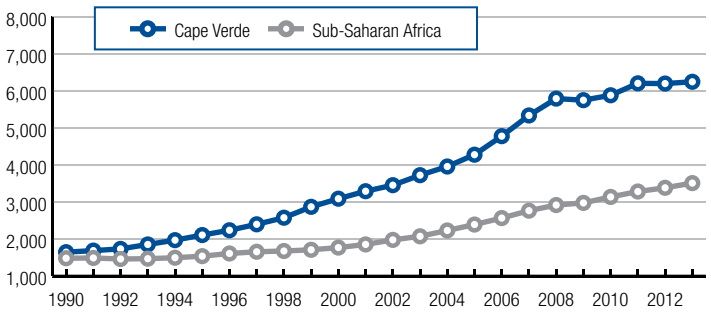
Population (millions) 0.5
GDP (US$ billions)* 1.9
GDP per capita (US$) 3,633.1
GDP (PPP) as share (%) of world total 0.00

Sectoral value-added (% GDP), 2012
Agriculture 8.1
Industry 17.0
Services 74.9

Human Development Index, 2013
Score, (0–1) best 0.64
Rank (out of 187 economies) 123

Sources: IMF; UNFPA; UNDP; World Bank

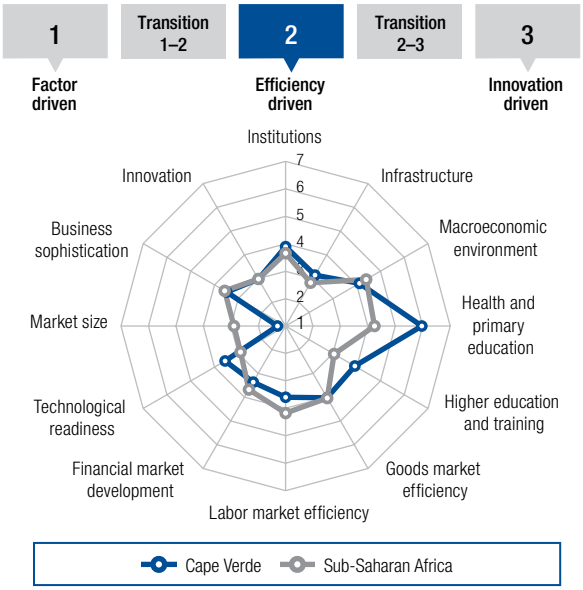
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

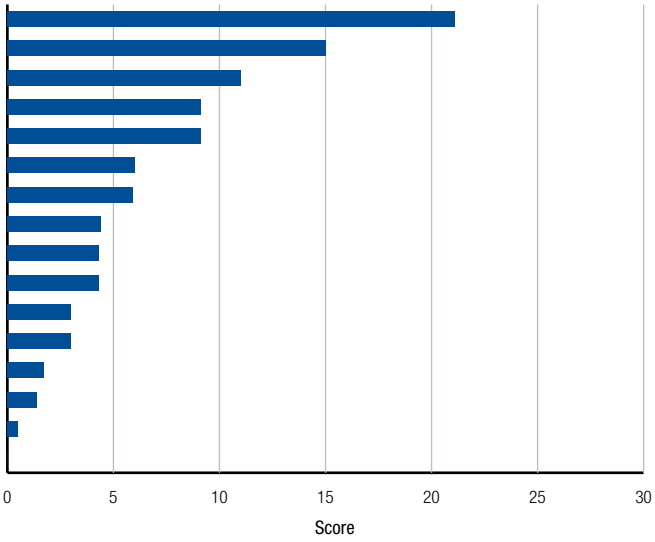
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**114**	**3.7**
GCI 2013–2014 (out of 148)	122	3.5
GCI 2012–2013 (out of 144)	122	3.5
Basic requirements (40.0%)	**91**	**4.3**
Institutions	66	3.9
Infrastructure	104	3.1
Macroeconomic environment	106	4.1
Health and primary education	57	6.0
Efficiency enhancers (50.0%)	**127**	**3.3**
Higher education and training	89	3.9
Goods market efficiency	110	4.0
Labor market efficiency	126	3.6
Financial market development	115	3.4
Technological readiness	80	3.5
Market size	144	1.3
Innovation and sophistication factors (10.0%)	**109**	**3.2**
Business sophistication	114	3.5
Innovation	101	3.0

Stage of development



The most problematic factors for doing business

Access to financing 21.1
Tax rates 15.0
Inefficient government bureaucracy 11.0
Inadequately educated workforce 9.1
Restrictive labor regulations 9.1
Inadequate supply of infrastructure 6.0
Tax regulations 5.9
Poor work ethic in national labor force 4.4
Corruption 4.3
Insufficient capacity to innovate 4.3
Crime and theft 3.0
Inflation 3.0
Poor public health 1.7
Policy instability 1.4
Foreign currency regulations 0.5
Government instability/coups 0.0



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Cape Verde

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.8	93
1.02	Intellectual property protection	3.2	97
1.03	Diversion of public funds	3.8	48
1.04	Public trust in politicians	3.6	40
1.05	Irregular payments and bribes	4.4	51
1.06	Judicial independence	4.2	51
1.07	Favoritism in decisions of government officials	3.4	50
1.08	Wastefulness of government spending	3.6	42
1.09	Burden of government regulation	3.6	49
1.10	Efficiency of legal framework in settling disputes	3.6	77
1.11	Efficiency of legal framework in challenging regs.	3.4	66
1.12	Transparency of government policymaking	4.1	60
1.13	Business costs of terrorism	5.2	75
1.14	Business costs of crime and violence	3.8	101
1.15	Organized crime	4.3	100
1.16	Reliability of police services	4.4	56
1.17	Ethical behavior of firms	4.1	60
1.18	Strength of auditing and reporting standards	3.9	112
1.19	Efficacy of corporate boards	4.1	107
1.20	Protection of minority shareholders' interests	3.7	98
1.21	Strength of investor protection, 0–10 (best)*	4.0	113
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.7	94
2.02	Quality of roads	4.0	64
2.03	Quality of railroad infrastructure	N/Appl.	n/a
2.04	Quality of port infrastructure	3.9	84
2.05	Quality of air transport infrastructure	3.8	95
2.06	Available airline seat km/week, millions*	40.4	106
2.07	Quality of electricity supply	2.7	120
2.08	Mobile telephone subscriptions/100 pop.*	100.1	94
2.09	Fixed telephone lines/100 pop.*	13.3	80
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-7.7	133
3.02	Gross national savings, % GDP*	34.6	16
3.03	Inflation, annual % change*	1.5	1
3.04	General government debt, % GDP*	95.0	131
3.05	Country credit rating, 0–100 (best)*	31.9	102
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	22.2	21
4.02	Business impact of malaria	5.5	20
4.03	Tuberculosis cases/100,000 pop.*	144.0	105
4.04	Business impact of tuberculosis	5.3	82
4.05	HIV prevalence, % adult pop.*	0.2	1
4.06	Business impact of HIV/AIDS	5.4	74
4.07	Infant mortality, deaths/1,000 live births*	18.9	90
4.08	Life expectancy, years*	74.5	63
4.09	Quality of primary education	4.0	68
4.10	Primary education enrollment, net %*	97.2	43
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	92.7	63
5.02	Tertiary education enrollment, gross %*	20.6	90
5.03	Quality of the education system	3.9	57
5.04	Quality of math and science education	3.9	86
5.05	Quality of management schools	3.7	107
5.06	Internet access in schools	3.8	90
5.07	Availability of research and training services	3.5	108
5.08	Extent of staff training	3.7	104
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.5	117
6.02	Extent of market dominance	3.9	53
6.03	Effectiveness of anti-monopoly policy	3.8	88
6.04	Effect of taxation on incentives to invest	3.2	116
6.05	Total tax rate, % profits*	37.2	70

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	7	78
6.07	No. days to start a business*	10.0	52
6.08	Agricultural policy costs	4.0	53
6.09	Prevalence of trade barriers	4.1	101
6.10	Trade tariffs, % duty*	10.3	105
6.11	Prevalence of foreign ownership	4.5	69
6.12	Business impact of rules on FDI	4.3	85
6.13	Burden of customs procedures	3.2	120
6.14	Imports as a percentage of GDP*	51.0	61
6.15	Degree of customer orientation	3.6	129
6.16	Buyer sophistication	2.9	110
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.9	114
7.02	Flexibility of wage determination	4.9	80
7.03	Hiring and firing practices	3.4	111
7.04	Redundancy costs, weeks of salary*	29.5	127
7.05	Effect of taxation on incentives to work	3.4	89
7.06	Pay and productivity	3.3	118
7.07	Reliance on professional management	3.4	121
7.08	Country capacity to retain talent	3.7	54
7.09	Country capacity to attract talent	3.6	62
7.10	Women in labor force, ratio to men*	0.64	108
	8th pillar: Financial market development		
8.01	Availability of financial services	3.7	119
8.02	Affordability of financial services	3.8	100
8.03	Financing through local equity market	3.0	94
8.04	Ease of access to loans	2.5	100
8.05	Venture capital availability	2.5	91
8.06	Soundness of banks	4.4	96
8.07	Regulation of securities exchanges	3.7	96
8.08	Legal rights index, 0–10 (best)*	3	113
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.7	75
9.02	Firm-level technology absorption	4.6	69
9.03	FDI and technology transfer	4.7	61
9.04	Individuals using Internet, %*	37.5	89
9.05	Fixed broadband Internet subscriptions/100 pop.*	4.3	86
9.06	Int'l Internet bandwidth, kb/s per user*	11.6	94
9.07	Mobile broadband subscriptions/100 pop.*	42.6	48
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	1.0	144
10.02	Foreign market size index, 1–7 (best)*	2.2	142
10.03	GDP (PPP$ billions)*	2.2	144
10.04	Exports as a percentage of GDP*	36.5	75
	11th pillar: Business sophistication		
11.01	Local supplier quantity	3.8	128
11.02	Local supplier quality	3.7	117
11.03	State of cluster development	3.4	101
11.04	Nature of competitive advantage	3.3	89
11.05	Value chain breadth	3.3	114
11.06	Control of international distribution	3.3	130
11.07	Production process sophistication	3.5	94
11.08	Extent of marketing	3.7	108
11.09	Willingness to delegate authority	3.3	110
	12th pillar: Innovation		
12.01	Capacity for innovation	3.5	97
12.02	Quality of scientific research institutions	3.1	108
12.03	Company spending on R&D	2.8	107
12.04	University-industry collaboration in R&D	3.2	97
12.05	Gov't procurement of advanced tech products	3.9	36
12.06	Availability of scientists and engineers	3.3	112
12.07	PCT patents, applications/million pop.*	0.0	124

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Chad

Key indicators, 2013

Population (millions)	11.0
GDP (US$ billions)*	13.4
GDP per capita (US$)	1,218.3
GDP (PPP) as share (%) of world total	0.03

Sectoral value-added (% GDP), 2012

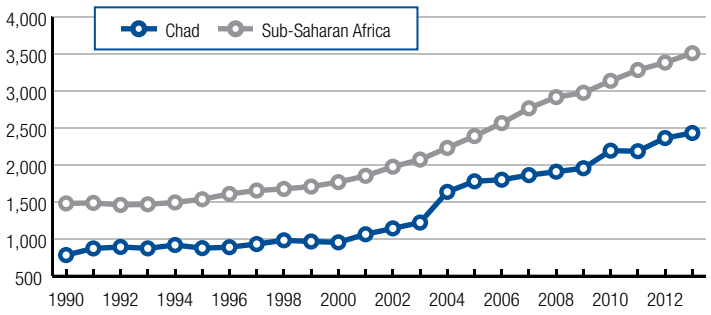
Agriculture	55.8
Industry	12.7
Services	31.5

Human Development Index, 2013

Score, (0–1) best	0.37
Rank (out of 187 economies)	184

Sources: IMF; UNFPA; UNDP; World Bank

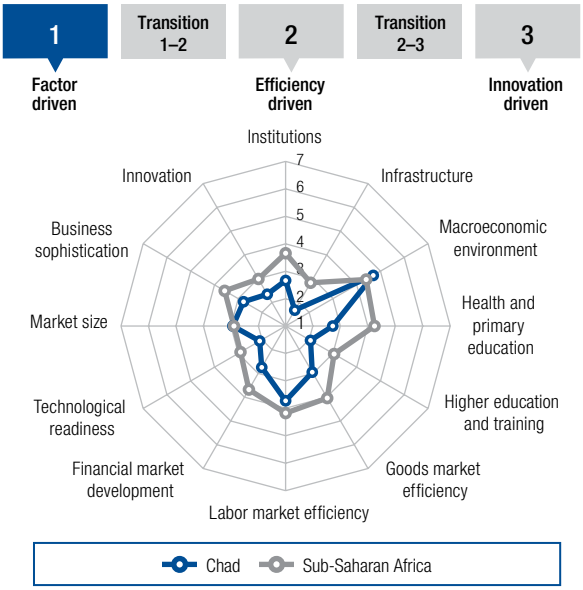
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

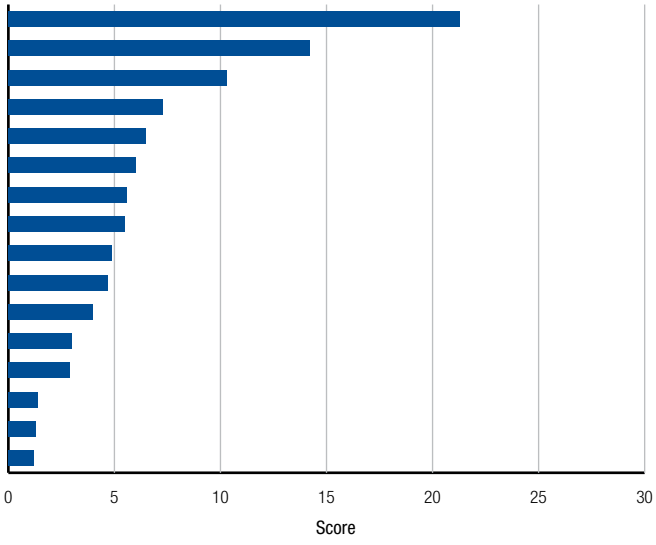
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**143**	**2.8**
GCI 2013–2014 (out of 148)	148	2.9
GCI 2012–2013 (out of 144)	139	3.1
Basic requirements (60.0%)	**143**	**2.9**
Institutions	140	2.7
Infrastructure	144	1.7
Macroeconomic environment	73	4.7
Health and primary education	144	2.7
Efficiency enhancers (35.0%)	**142**	**2.7**
Higher education and training	143	2.0
Goods market efficiency	142	2.9
Labor market efficiency	120	3.7
Financial market development	136	2.7
Technological readiness	143	2.1
Market size	106	2.9
Innovation and sophistication factors (5.0%)	**141**	**2.6**
Business sophistication	143	2.8
Innovation	139	2.3

Stage of development



The most problematic factors for doing business

Access to financing	21.3
Corruption	14.2
Inadequate supply of infrastructure	10.3
Inadequately educated workforce	7.3
Inefficient government bureaucracy	6.5
Tax regulations	6.0
Tax rates	5.6
Policy instability	5.5
Restrictive labor regulations	4.9
Insufficient capacity to innovate	4.7
Poor work ethic in national labor force	4.0
Government instability/coups	3.0
Crime and theft	2.9
Poor public health	1.4
Foreign currency regulations	1.3
Inflation	1.2



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Chad

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	2.5	140
1.02	Intellectual property protection	2.5	134
1.03	Diversion of public funds	1.8	138
1.04	Public trust in politicians	2.4	103
1.05	Irregular payments and bribes	2.3	138
1.06	Judicial independence	2.2	133
1.07	Favoritism in decisions of government officials	2.1	133
1.08	Wastefulness of government spending	2.6	105
1.09	Burden of government regulation	2.9	113
1.10	Efficiency of legal framework in settling disputes	2.5	133
1.11	Efficiency of legal framework in challenging regs.	2.0	142
1.12	Transparency of government policymaking	2.8	140
1.13	Business costs of terrorism	3.2	134
1.14	Business costs of crime and violence	3.0	126
1.15	Organized crime	3.5	131
1.16	Reliability of police services	2.6	134
1.17	Ethical behavior of firms	3.2	134
1.18	Strength of auditing and reporting standards	3.2	136
1.19	Efficacy of corporate boards	3.5	139
1.20	Protection of minority shareholders' interests	2.8	140
1.21	Strength of investor protection, 0–10 (best)*	3.3	123
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	2.3	139
2.02	Quality of roads	2.6	128
2.03	Quality of railroad infrastructure	N/Appl.	n/a
2.04	Quality of port infrastructure	1.8	142
2.05	Quality of air transport infrastructure	2.3	142
2.06	Available airline seat km/week, millions*	10.1	135
2.07	Quality of electricity supply	1.7	140
2.08	Mobile telephone subscriptions/100 pop.*	35.6	140
2.09	Fixed telephone lines/100 pop.*	0.2	140
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-2.4	61
3.02	Gross national savings, % GDP*	18.3	79
3.03	Inflation, annual % change*	0.2	65
3.04	General government debt, % GDP*	30.2	36
3.05	Country credit rating, 0–100 (best)*	15.5	138
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	26,509.9	67
4.02	Business impact of malaria	2.8	75
4.03	Tuberculosis cases/100,000 pop.*	151.0	107
4.04	Business impact of tuberculosis	3.4	140
4.05	HIV prevalence, % adult pop.*	2.7	126
4.06	Business impact of HIV/AIDS	3.4	138
4.07	Infant mortality, deaths/1,000 live births*	89.4	142
4.08	Life expectancy, years*	50.7	138
4.09	Quality of primary education	2.3	134
4.10	Primary education enrollment, net %*	63.1	139
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	22.8	144
5.02	Tertiary education enrollment, gross %*	2.3	138
5.03	Quality of the education system	2.5	135
5.04	Quality of math and science education	2.8	127
5.05	Quality of management schools	2.7	137
5.06	Internet access in schools	1.5	144
5.07	Availability of research and training services	2.7	142
5.08	Extent of staff training	2.8	139
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	3.8	137
6.02	Extent of market dominance	2.7	139
6.03	Effectiveness of anti-monopoly policy	2.7	141
6.04	Effect of taxation on incentives to invest	2.4	140
6.05	Total tax rate, % profits*	73.8	138

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	9	106
6.07	No. days to start a business*	62.0	133
6.08	Agricultural policy costs	3.4	108
6.09	Prevalence of trade barriers	3.2	142
6.10	Trade tariffs, % duty*	14.6	135
6.11	Prevalence of foreign ownership	3.3	128
6.12	Business impact of rules on FDI	3.1	131
6.13	Burden of customs procedures	2.1	141
6.14	Imports as a percentage of GDP*	42.1	81
6.15	Degree of customer orientation	2.8	143
6.16	Buyer sophistication	2.0	142
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.6	127
7.02	Flexibility of wage determination	5.1	66
7.03	Hiring and firing practices	3.3	114
7.04	Redundancy costs, weeks of salary*	13.0	57
7.05	Effect of taxation on incentives to work	2.7	134
7.06	Pay and productivity	2.8	135
7.07	Reliance on professional management	2.1	143
7.08	Country capacity to retain talent	2.4	129
7.09	Country capacity to attract talent	2.9	99
7.10	Women in labor force, ratio to men*	0.82	68
	8th pillar: Financial market development		
8.01	Availability of financial services	2.6	142
8.02	Affordability of financial services	2.9	140
8.03	Financing through local equity market	1.8	139
8.04	Ease of access to loans	2.1	124
8.05	Venture capital availability	1.9	136
8.06	Soundness of banks	3.2	134
8.07	Regulation of securities exchanges	1.8	142
8.08	Legal rights index, 0–10 (best)*	6	63
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	2.9	143
9.02	Firm-level technology absorption	3.3	140
9.03	FDI and technology transfer	3.4	137
9.04	Individuals using Internet, %*	2.3	136
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.1	125
9.06	Int'l Internet bandwidth, kb/s per user*	0.6	142
9.07	Mobile broadband subscriptions/100 pop.*	0.0	133
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.7	108
10.02	Foreign market size index, 1–7 (best)*	3.7	106
10.03	GDP (PPP$ billions)*	28.0	103
10.04	Exports as a percentage of GDP*	37.3	73
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.0	118
11.02	Local supplier quality	2.7	143
11.03	State of cluster development	2.8	136
11.04	Nature of competitive advantage	2.7	127
11.05	Value chain breadth	3.1	125
11.06	Control of international distribution	2.7	144
11.07	Production process sophistication	2.3	143
11.08	Extent of marketing	2.5	144
11.09	Willingness to delegate authority	2.4	140
	12th pillar: Innovation		
12.01	Capacity for innovation	2.8	139
12.02	Quality of scientific research institutions	2.2	139
12.03	Company spending on R&D	2.2	136
12.04	University-industry collaboration in R&D	2.2	139
12.05	Gov't procurement of advanced tech products	2.6	133
12.06	Availability of scientists and engineers	3.2	124
12.07	PCT patents, applications/million pop.*	0.0	124

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Côte d'Ivoire

Key indicators, 2013

Population (millions)	24.1
GDP (US$ billions)*	32.1
GDP per capita (US$)	1,332.1
GDP (PPP) as share (%) of world total	0.06

Sectoral value-added (% GDP), 2012

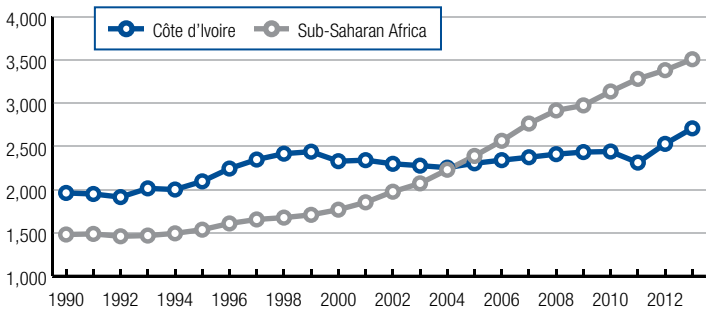
Agriculture	26.9
Industry	25.9
Services	47.2

Human Development Index, 2013

Score, (0–1) best	0.45
Rank (out of 187 economies)	171

Sources: IMF; UNFPA; UNDP; World Bank

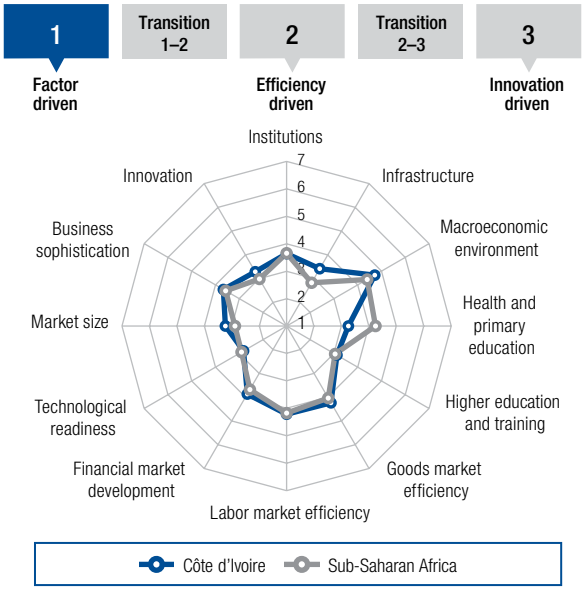
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

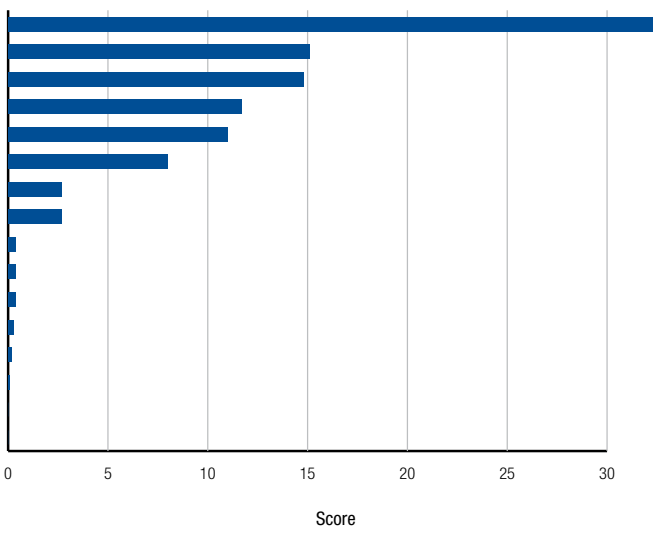
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**115**	**3.7**
GCI 2013–2014 (out of 148)	126	3.5
GCI 2012–2013 (out of 144)	131	3.4
Basic requirements (60.0%)	**119**	**3.7**
Institutions	86	3.6
Infrastructure	93	3.4
Macroeconomic environment	68	4.7
Health and primary education	140	3.2
Efficiency enhancers (35.0%)	**108**	**3.6**
Higher education and training	121	3.1
Goods market efficiency	82	4.2
Labor market efficiency	73	4.2
Financial market development	78	3.9
Technological readiness	117	2.8
Market size	94	3.2
Innovation and sophistication factors (5.0%)	**86**	**3.5**
Business sophistication	100	3.7
Innovation	69	3.3

Stage of development



The most problematic factors for doing business

Access to financing	32.3
Corruption	15.1
Tax rates	14.8
Inefficient government bureaucracy	11.7
Inadequate supply of infrastructure	11.0
Inadequately educated workforce	8.0
Crime and theft	2.7
Poor work ethic in national labor force	2.7
Foreign currency regulations	0.4
Insufficient capacity to innovate	0.4
Policy instability	0.4
Government instability/coups	0.3
Inflation	0.2
Tax regulations	0.1
Poor public health	0.0
Restrictive labor regulations	0.0



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Côte d'Ivoire

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.5	107
1.02	Intellectual property protection	3.1	99
1.03	Diversion of public funds	3.2	70
1.04	Public trust in politicians	3.2	60
1.05	Irregular payments and bribes	3.9	71
1.06	Judicial independence	3.2	95
1.07	Favoritism in decisions of government officials	3.2	56
1.08	Wastefulness of government spending	3.7	38
1.09	Burden of government regulation	3.6	50
1.10	Efficiency of legal framework in settling disputes	3.7	67
1.11	Efficiency of legal framework in challenging regs.	3.6	48
1.12	Transparency of government policymaking	3.8	83
1.13	Business costs of terrorism	4.7	103
1.14	Business costs of crime and violence	3.3	120
1.15	Organized crime	4.2	104
1.16	Reliability of police services	3.8	92
1.17	Ethical behavior of firms	3.7	93
1.18	Strength of auditing and reporting standards	4.5	80
1.19	Efficacy of corporate boards	4.5	72
1.20	Protection of minority shareholders' interests	4.3	65
1.21	Strength of investor protection, 0–10 (best)*	3.3	123
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	4.0	77
2.02	Quality of roads	3.9	73
2.03	Quality of railroad infrastructure	2.8	60
2.04	Quality of port infrastructure	5.1	34
2.05	Quality of air transport infrastructure	4.8	53
2.06	Available airline seat km/week, millions*	48.5	102
2.07	Quality of electricity supply	3.9	96
2.08	Mobile telephone subscriptions/100 pop.*	95.4	103
2.09	Fixed telephone lines/100 pop.*	1.3	121
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-2.5	63
3.02	Gross national savings, % GDP*	16.0	99
3.03	Inflation, annual % change*	2.6	1
3.04	General government debt, % GDP*	43.2	72
3.05	Country credit rating, 0–100 (best)*	27.2	114
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	20,665.6	64
4.02	Business impact of malaria	4.6	41
4.03	Tuberculosis cases/100,000 pop.*	172.0	112
4.04	Business impact of tuberculosis	4.1	125
4.05	HIV prevalence, % adult pop.*	3.2	129
4.06	Business impact of HIV/AIDS	4.5	109
4.07	Infant mortality, deaths/1,000 live births*	76.2	139
4.08	Life expectancy, years*	50.4	139
4.09	Quality of primary education	3.2	103
4.10	Primary education enrollment, net %*	61.9	140
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	24.3	143
5.02	Tertiary education enrollment, gross %*	4.5	131
5.03	Quality of the education system	3.6	80
5.04	Quality of math and science education	5.1	22
5.05	Quality of management schools	4.8	37
5.06	Internet access in schools	3.4	110
5.07	Availability of research and training services	4.3	62
5.08	Extent of staff training	4.0	70
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.6	112
6.02	Extent of market dominance	3.4	97
6.03	Effectiveness of anti-monopoly policy	3.9	82
6.04	Effect of taxation on incentives to invest	3.4	100
6.05	Total tax rate, % profits*	46.4	103

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	5	32
6.07	No. days to start a business*	8.0	39
6.08	Agricultural policy costs	4.2	32
6.09	Prevalence of trade barriers	4.2	92
6.10	Trade tariffs, % duty*	10.8	114
6.11	Prevalence of foreign ownership	4.9	55
6.12	Business impact of rules on FDI	4.6	54
6.13	Burden of customs procedures	3.3	119
6.14	Imports as a percentage of GDP*	50.3	64
6.15	Degree of customer orientation	4.4	86
6.16	Buyer sophistication	3.3	82
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.7	40
7.02	Flexibility of wage determination	4.7	95
7.03	Hiring and firing practices	4.4	29
7.04	Redundancy costs, weeks of salary*	13.1	60
7.05	Effect of taxation on incentives to work	3.7	66
7.06	Pay and productivity	4.1	54
7.07	Reliance on professional management	4.0	83
7.08	Country capacity to retain talent	3.8	49
7.09	Country capacity to attract talent	3.9	41
7.10	Women in labor force, ratio to men*	0.65	107
	8th pillar: Financial market development		
8.01	Availability of financial services	3.7	113
8.02	Affordability of financial services	3.9	93
8.03	Financing through local equity market	3.3	75
8.04	Ease of access to loans	3.1	44
8.05	Venture capital availability	2.8	55
8.06	Soundness of banks	4.8	77
8.07	Regulation of securities exchanges	3.6	100
8.08	Legal rights index, 0–10 (best)*	6	63
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.5	88
9.02	Firm-level technology absorption	4.6	73
9.03	FDI and technology transfer	3.8	120
9.04	Individuals using Internet, %*	2.6	135
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.3	116
9.06	Int'l Internet bandwidth, kb/s per user*	22.7	78
9.07	Mobile broadband subscriptions/100 pop.*	0.0	133
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.9	94
10.02	Foreign market size index, 1–7 (best)*	4.1	85
10.03	GDP (PPP$ billions)*	43.8	91
10.04	Exports as a percentage of GDP*	51.4	45
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.2	104
11.02	Local supplier quality	4.2	79
11.03	State of cluster development	3.3	109
11.04	Nature of competitive advantage	3.1	100
11.05	Value chain breadth	3.5	98
11.06	Control of international distribution	3.4	126
11.07	Production process sophistication	3.4	104
11.08	Extent of marketing	4.0	89
11.09	Willingness to delegate authority	3.6	86
	12th pillar: Innovation		
12.01	Capacity for innovation	3.5	88
12.02	Quality of scientific research institutions	3.9	62
12.03	Company spending on R&D	3.2	57
12.04	University-industry collaboration in R&D	3.3	86
12.05	Gov't procurement of advanced tech products	3.8	38
12.06	Availability of scientists and engineers	4.2	60
12.07	PCT patents, applications/million pop.*	0.0	110

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Egypt

Key indicators, 2013

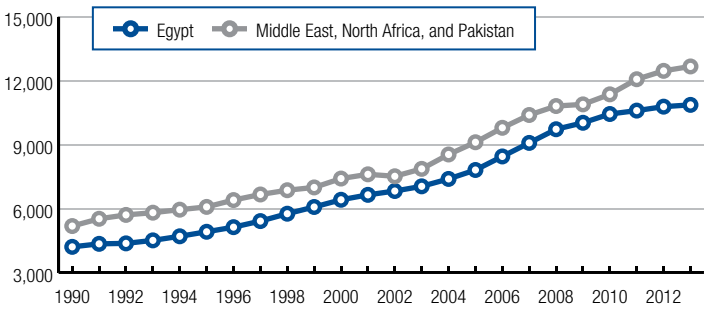
Population (millions) 84.2
GDP (US$ billions)* 271.4
GDP per capita (US$) 3,242.9
GDP (PPP) as share (%) of world total 0.89

Sectoral value-added (% GDP), 2013
Agriculture 14.5
Industry 39.2
Services 46.3

Human Development Index, 2013
Score, (0–1) best 0.68
Rank (out of 187 economies) 110

Sources: IMF; UNFPA; UNDP; World Bank

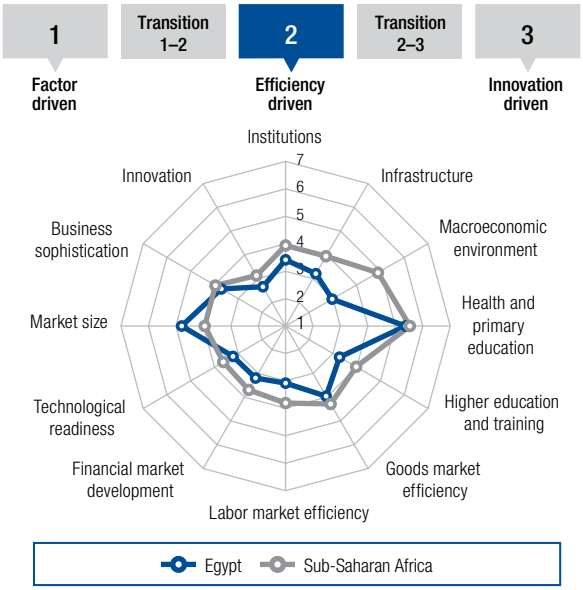
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

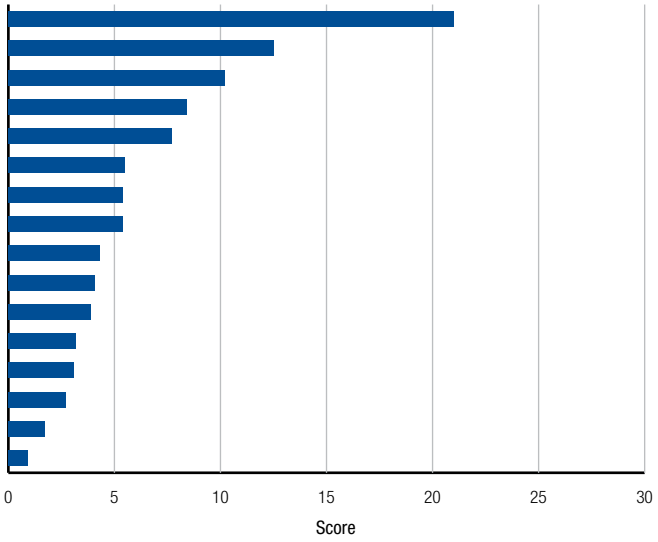
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**119**	**3.6**
GCI 2013–2014 (out of 148)	118	3.6
GCI 2012–2013 (out of 144)	107	3.7
Basic requirements (40.0%)	**121**	**3.7**
Institutions	100	3.4
Infrastructure	100	3.2
Macroeconomic environment	141	3.0
Health and primary education	97	5.4
Efficiency enhancers (50.0%)	**106**	**3.6**
Higher education and training	111	3.3
Goods market efficiency	118	4.0
Labor market efficiency	140	3.1
Financial market development	125	3.2
Technological readiness	95	3.2
Market size	29	4.8
Innovation and sophistication factors (10.0%)	**113**	**3.2**
Business sophistication	95	3.7
Innovation	124	2.7

Stage of development



The most problematic factors for doing business

Policy instability 21.0
Government instability/coups 12.5
Access to financing 10.2
Foreign currency regulations 8.4
Corruption 7.7
Inadequate supply of infrastructure 5.5
Inadequately educated workforce 5.4
Poor work ethic in national labor force 5.4
Crime and theft 4.3
Restrictive labor regulations 4.1
Tax rates 3.9
Inflation 3.2
Tax regulations 3.1
Inefficient government bureaucracy 2.7
Insufficient capacity to innovate 1.7
Poor public health 0.9



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Egypt

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.6	104
1.02	Intellectual property protection	2.9	110
1.03	Diversion of public funds	2.7	101
1.04	Public trust in politicians	2.5	93
1.05	Irregular payments and bribes	4.0	65
1.06	Judicial independence	4.0	57
1.07	Favoritism in decisions of government officials	3.7	36
1.08	Wastefulness of government spending	2.2	130
1.09	Burden of government regulation	3.7	46
1.10	Efficiency of legal framework in settling disputes	3.3	105
1.11	Efficiency of legal framework in challenging regs.	3.2	82
1.12	Transparency of government policymaking	3.9	72
1.13	Business costs of terrorism	2.4	143
1.14	Business costs of crime and violence	2.5	137
1.15	Organized crime	3.5	127
1.16	Reliability of police services	3.3	111
1.17	Ethical behavior of firms	3.9	69
1.18	Strength of auditing and reporting standards	3.8	117
1.19	Efficacy of corporate boards	3.6	136
1.20	Protection of minority shareholders' interests	3.5	109
1.21	Strength of investor protection, 0–10 (best)*	3.7	117
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	2.9	125
2.02	Quality of roads	2.9	118
2.03	Quality of railroad infrastructure	2.4	78
2.04	Quality of port infrastructure	4.2	66
2.05	Quality of air transport infrastructure	4.6	60
2.06	Available airline seat km/week, millions*	654.0	34
2.07	Quality of electricity supply	2.7	121
2.08	Mobile telephone subscriptions/100 pop.*	121.5	55
2.09	Fixed telephone lines/100 pop.*	8.3	97
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-14.1	142
3.02	Gross national savings, % GDP*	12.1	122
3.03	Inflation, annual % change*	6.9	118
3.04	General government debt, % GDP*	89.2	125
3.05	Country credit rating, 0–100 (best)*	28.8	112
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	0.0	1
4.02	Business impact of malaria	6.8	1
4.03	Tuberculosis cases/100,000 pop.*	17.0	40
4.04	Business impact of tuberculosis	6.7	16
4.05	HIV prevalence, % adult pop.*	0.1	1
4.06	Business impact of HIV/AIDS	6.9	1
4.07	Infant mortality, deaths/1,000 live births*	17.9	85
4.08	Life expectancy, years*	70.9	89
4.09	Quality of primary education	2.1	141
4.10	Primary education enrollment, net %*	95.1	64
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	86.3	81
5.02	Tertiary education enrollment, gross %*	30.1	80
5.03	Quality of the education system	2.2	141
5.04	Quality of math and science education	2.4	136
5.05	Quality of management schools	2.0	144
5.06	Internet access in schools	2.5	131
5.07	Availability of research and training services	3.2	124
5.08	Extent of staff training	2.8	142
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.0	133
6.02	Extent of market dominance	3.1	123
6.03	Effectiveness of anti-monopoly policy	3.5	111
6.04	Effect of taxation on incentives to invest	3.6	79
6.05	Total tax rate, % profits*	42.6	90

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	7	78
6.07	No. days to start a business*	8.0	39
6.08	Agricultural policy costs	3.1	123
6.09	Prevalence of trade barriers	3.9	121
6.10	Trade tariffs, % duty*	16.0	136
6.11	Prevalence of foreign ownership	3.3	126
6.12	Business impact of rules on FDI	3.6	124
6.13	Burden of customs procedures	3.8	81
6.14	Imports as a percentage of GDP*	27.5	124
6.15	Degree of customer orientation	5.1	36
6.16	Buyer sophistication	2.6	131
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.0	95
7.02	Flexibility of wage determination	5.1	67
7.03	Hiring and firing practices	3.9	69
7.04	Redundancy costs, weeks of salary*	36.8	134
7.05	Effect of taxation on incentives to work	3.0	117
7.06	Pay and productivity	3.0	131
7.07	Reliance on professional management	3.1	134
7.08	Country capacity to retain talent	2.9	110
7.09	Country capacity to attract talent	2.7	108
7.10	Women in labor force, ratio to men*	0.32	139
	8th pillar: Financial market development		
8.01	Availability of financial services	3.4	129
8.02	Affordability of financial services	3.3	126
8.03	Financing through local equity market	3.6	60
8.04	Ease of access to loans	1.9	129
8.05	Venture capital availability	2.3	103
8.06	Soundness of banks	4.2	110
8.07	Regulation of securities exchanges	3.5	107
8.08	Legal rights index, 0–10 (best)*	3	113
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.8	127
9.02	Firm-level technology absorption	3.8	126
9.03	FDI and technology transfer	4.4	85
9.04	Individuals using Internet, %*	49.6	68
9.05	Fixed broadband Internet subscriptions/100 pop.*	3.3	88
9.06	Int'l Internet bandwidth, kb/s per user*	5.3	115
9.07	Mobile broadband subscriptions/100 pop.*	31.1	66
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	4.7	27
10.02	Foreign market size index, 1–7 (best)*	4.9	51
10.03	GDP (PPP$ billions)*	553.6	27
10.04	Exports as a percentage of GDP*	17.4	134
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.6	68
11.02	Local supplier quality	3.9	106
11.03	State of cluster development	4.3	38
11.04	Nature of competitive advantage	3.2	96
11.05	Value chain breadth	3.7	81
11.06	Control of international distribution	3.3	131
11.07	Production process sophistication	3.1	120
11.08	Extent of marketing	3.5	118
11.09	Willingness to delegate authority	4.2	35
	12th pillar: Innovation		
12.01	Capacity for innovation	2.9	132
12.02	Quality of scientific research institutions	2.4	135
12.03	Company spending on R&D	2.3	133
12.04	University-industry collaboration in R&D	2.4	133
12.05	Gov't procurement of advanced tech products	3.0	113
12.06	Availability of scientists and engineers	4.4	41
12.07	PCT patents, applications/million pop.*	0.6	77

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Ethiopia

Key indicators, 2013

Population (millions)	88.9
GDP (US$ billions)*	46.0
GDP per capita (US$)	517.7
GDP (PPP) as share (%) of world total	0.12

Sectoral value-added (% GDP), 2012

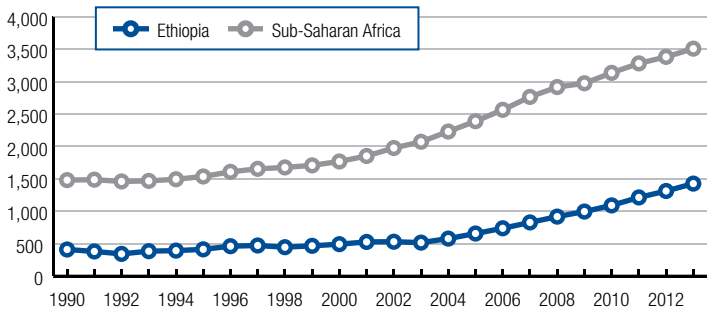
Agriculture	48.6
Industry	10.4
Services	41.0

Human Development Index, 2013

Score, (0–1) best	0.44
Rank (out of 187 economies)	173

Sources: IMF; UNFPA; UNDP; World Bank

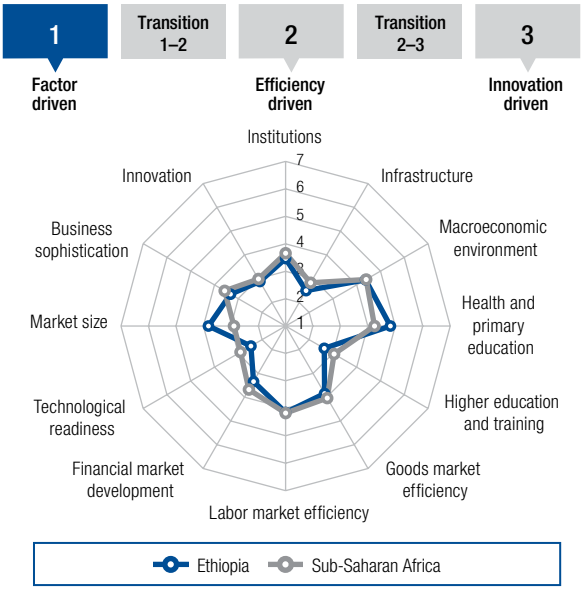
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

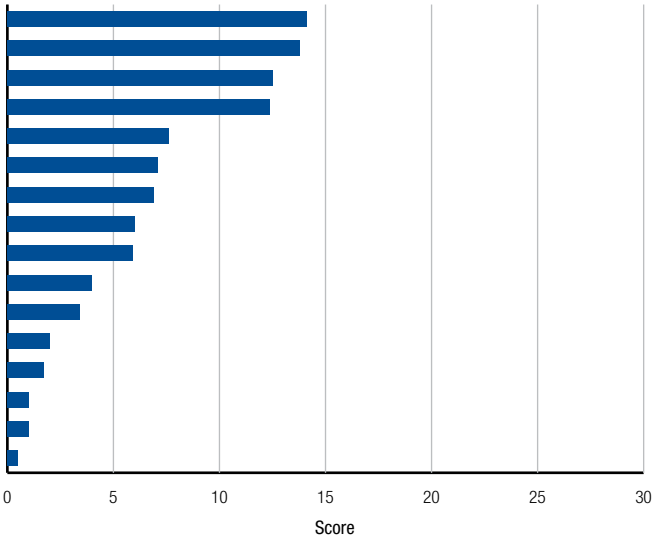
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**118**	**3.6**
GCI 2013–2014 (out of 148)	127	3.5
GCI 2012–2013 (out of 144)	121	3.6
Basic requirements (60.0%)	**117**	**3.8**
Institutions	96	3.5
Infrastructure	125	2.5
Macroeconomic environment	95	4.4
Health and primary education	110	4.8
Efficiency enhancers (35.0%)	**120**	**3.4**
Higher education and training	131	2.6
Goods market efficiency	124	3.8
Labor market efficiency	78	4.1
Financial market development	120	3.3
Technological readiness	133	2.5
Market size	66	3.8
Innovation and sophistication factors (5.0%)	**119**	**3.1**
Business sophistication	127	3.3
Innovation	109	2.9

Stage of development



The most problematic factors for doing business

Inefficient government bureaucracy	14.1
Foreign currency regulations	13.8
Access to financing	12.5
Corruption	12.4
Inadequate supply of infrastructure	7.6
Inflation	7.1
Tax rates	6.9
Poor work ethic in national labor force	6.0
Tax regulations	5.9
Policy instability	4.0
Inadequately educated workforce	3.4
Restrictive labor regulations	2.0
Insufficient capacity to innovate	1.7
Poor public health	1.0
Government instability/coups	1.0
Crime and theft	0.5



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Ethiopia

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.4	115
1.02	Intellectual property protection	3.1	98
1.03	Diversion of public funds	3.2	69
1.04	Public trust in politicians	2.9	77
1.05	Irregular payments and bribes	3.1	112
1.06	Judicial independence	2.9	110
1.07	Favoritism in decisions of government officials	2.8	86
1.08	Wastefulness of government spending	3.4	54
1.09	Burden of government regulation	3.3	90
1.10	Efficiency of legal framework in settling disputes	3.3	97
1.11	Efficiency of legal framework in challenging regs.	2.4	125
1.12	Transparency of government policymaking	3.3	125
1.13	Business costs of terrorism	4.9	90
1.14	Business costs of crime and violence	5.0	44
1.15	Organized crime	5.4	48
1.16	Reliability of police services	3.8	93
1.17	Ethical behavior of firms	3.3	129
1.18	Strength of auditing and reporting standards	4.0	108
1.19	Efficacy of corporate boards	4.0	117
1.20	Protection of minority shareholders' interests	3.9	85
1.21	Strength of investor protection, 0–10 (best)*	3.3	123
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.2	115
2.02	Quality of roads	3.8	77
2.03	Quality of railroad infrastructure	1.6	97
2.04	Quality of port infrastructure	2.6	126
2.05	Quality of air transport infrastructure	5.3	38
2.06	Available airline seat km/week, millions*	288.7	54
2.07	Quality of electricity supply	2.8	118
2.08	Mobile telephone subscriptions/100 pop.*	27.3	142
2.09	Fixed telephone lines/100 pop.*	0.8	128
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-3.4	82
3.02	Gross national savings, % GDP*	22.2	54
3.03	Inflation, annual % change*	8.0	126
3.04	General government debt, % GDP*	22.2	21
3.05	Country credit rating, 0–100 (best)*	18.2	135
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	4,578.7	50
4.02	Business impact of malaria	5.0	33
4.03	Tuberculosis cases/100,000 pop.*	247.0	126
4.04	Business impact of tuberculosis	4.3	119
4.05	HIV prevalence, % adult pop.*	1.3	114
4.06	Business impact of HIV/AIDS	4.2	121
4.07	Infant mortality, deaths/1,000 live births*	46.5	120
4.08	Life expectancy, years*	63.0	118
4.09	Quality of primary education	3.5	95
4.10	Primary education enrollment, net %*	85.4	117
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	28.9	136
5.02	Tertiary education enrollment, gross %*	5.4	127
5.03	Quality of the education system	3.6	74
5.04	Quality of math and science education	3.6	94
5.05	Quality of management schools	3.8	95
5.06	Internet access in schools	3.2	115
5.07	Availability of research and training services	3.3	122
5.08	Extent of staff training	3.4	123
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.5	113
6.02	Extent of market dominance	3.0	128
6.03	Effectiveness of anti-monopoly policy	3.8	91
6.04	Effect of taxation on incentives to invest	3.2	111
6.05	Total tax rate, % profits*	33.4	51

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	9	106
6.07	No. days to start a business*	15.0	75
6.08	Agricultural policy costs	4.1	42
6.09	Prevalence of trade barriers	4.0	113
6.10	Trade tariffs, % duty*	12.7	126
6.11	Prevalence of foreign ownership	3.2	132
6.12	Business impact of rules on FDI	4.2	94
6.13	Burden of customs procedures	2.9	135
6.14	Imports as a percentage of GDP*	36.4	99
6.15	Degree of customer orientation	3.7	124
6.16	Buyer sophistication	2.7	125
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.0	97
7.02	Flexibility of wage determination	5.0	74
7.03	Hiring and firing practices	3.8	78
7.04	Redundancy costs, weeks of salary*	19.1	91
7.05	Effect of taxation on incentives to work	3.2	106
7.06	Pay and productivity	3.6	99
7.07	Reliance on professional management	3.4	124
7.08	Country capacity to retain talent	3.1	88
7.09	Country capacity to attract talent	2.8	105
7.10	Women in labor force, ratio to men*	0.90	33
	8th pillar: Financial market development		
8.01	Availability of financial services	3.7	117
8.02	Affordability of financial services	3.6	112
8.03	Financing through local equity market	3.0	98
8.04	Ease of access to loans	2.1	123
8.05	Venture capital availability	2.2	110
8.06	Soundness of banks	4.3	102
8.07	Regulation of securities exchanges	3.5	105
8.08	Legal rights index, 0–10 (best)*	4	96
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.0	119
9.02	Firm-level technology absorption	3.8	128
9.03	FDI and technology transfer	4.0	111
9.04	Individuals using Internet, %*	1.9	139
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.3	118
9.06	Int'l Internet bandwidth, kb/s per user*	6.7	108
9.07	Mobile broadband subscriptions/100 pop.*	4.8	109
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	3.8	58
10.02	Foreign market size index, 1–7 (best)*	3.9	94
10.03	GDP (PPP$ billions)*	121.4	64
10.04	Exports as a percentage of GDP*	12.9	138
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.1	116
11.02	Local supplier quality	3.7	116
11.03	State of cluster development	3.0	127
11.04	Nature of competitive advantage	2.4	140
11.05	Value chain breadth	3.1	124
11.06	Control of international distribution	4.1	62
11.07	Production process sophistication	3.0	126
11.08	Extent of marketing	3.1	132
11.09	Willingness to delegate authority	3.4	109
	12th pillar: Innovation		
12.01	Capacity for innovation	2.9	134
12.02	Quality of scientific research institutions	3.1	106
12.03	Company spending on R&D	2.6	122
12.04	University-industry collaboration in R&D	3.5	78
12.05	Gov't procurement of advanced tech products	3.7	52
12.06	Availability of scientists and engineers	3.3	117
12.07	PCT patents, applications/million pop.*	0.0	123

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Gabon

Key indicators, 2013

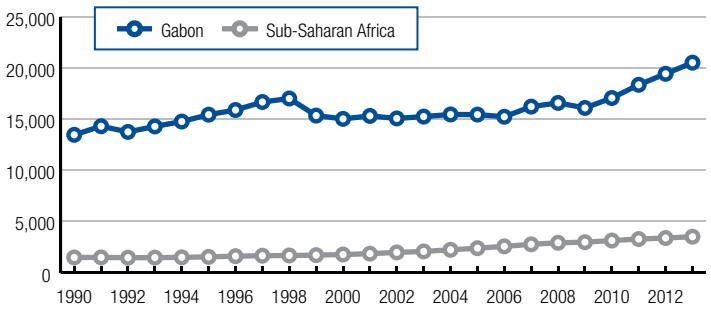
Population (millions) 1.6
GDP (US$ billions)* 19.3
GDP per capita (US$) 12,326.2
GDP (PPP) as share (%) of world total 0.03

Sectoral value-added (% GDP), 2012
Agriculture 4.0
Industry 64.0
Services 32.0

Human Development Index, 2013
Score, (0–1) best 0.67
Rank (out of 187 economies) 112

Sources: IMF; UNFPA; UNDP; World Bank

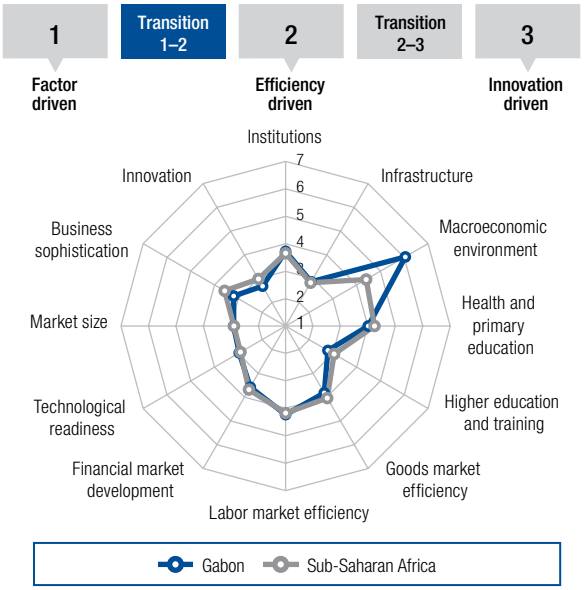
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

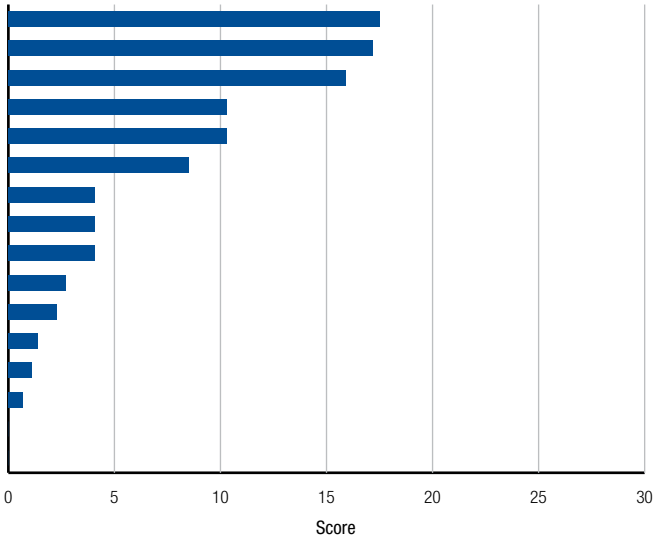
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**106**	**3.7**
GCI 2013–2014 (out of 148)	112	3.7
GCI 2012–2013 (out of 144)	99	3.8
Basic requirements (51.5%)	**95**	**4.2**
Institutions	79	3.7
Infrastructure	114	2.9
Macroeconomic environment	18	6.0
Health and primary education	130	4.0
Efficiency enhancers (41.4%)	**119**	**3.4**
Higher education and training	126	2.8
Goods market efficiency	126	3.8
Labor market efficiency	69	4.2
Financial market development	105	3.6
Technological readiness	108	3.0
Market size	109	2.9
Innovation and sophistication factors (7.1%)	**131**	**2.9**
Business sophistication	133	3.2
Innovation	122	2.7

Stage of development



The most problematic factors for doing business

Access to financing	17.5
Inadequate supply of infrastructure	17.2
Inadequately educated workforce	15.9
Inefficient government bureaucracy	10.3
Restrictive labor regulations	10.3
Corruption	8.5
Insufficient capacity to innovate	4.1
Poor work ethic in national labor force	4.1
Tax regulations	4.1
Inflation	2.7
Foreign currency regulations	2.3
Tax rates	1.4
Poor public health	1.1
Policy instability	0.7
Crime and theft	0.0
Government instability/coups	0.0



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Gabon

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.9	81
1.02	Intellectual property protection	2.8	121
1.03	Diversion of public funds	2.9	87
1.04	Public trust in politicians	3.0	70
1.05	Irregular payments and bribes	4.1	62
1.06	Judicial independence	2.9	111
1.07	Favoritism in decisions of government officials	3.1	65
1.08	Wastefulness of government spending	3.2	65
1.09	Burden of government regulation	3.4	78
1.10	Efficiency of legal framework in settling disputes	3.5	79
1.11	Efficiency of legal framework in challenging regs.	3.0	97
1.12	Transparency of government policymaking	3.7	93
1.13	Business costs of terrorism	5.5	59
1.14	Business costs of crime and violence	4.4	71
1.15	Organized crime	4.6	81
1.16	Reliability of police services	3.5	107
1.17	Ethical behavior of firms	4.3	50
1.18	Strength of auditing and reporting standards	4.6	74
1.19	Efficacy of corporate boards	4.9	44
1.20	Protection of minority shareholders' interests	4.1	70
1.21	Strength of investor protection, 0–10 (best)*	3.3	123
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	2.9	128
2.02	Quality of roads	2.4	135
2.03	Quality of railroad infrastructure	2.4	76
2.04	Quality of port infrastructure	3.1	113
2.05	Quality of air transport infrastructure	3.6	109
2.06	Available airline seat km/week, millions*	29.4	110
2.07	Quality of electricity supply	2.3	129
2.08	Mobile telephone subscriptions/100 pop.*	214.8	2
2.09	Fixed telephone lines/100 pop.*	1.2	122
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-1.7	45
3.02	Gross national savings, % GDP*	41.3	10
3.03	Inflation, annual % change*	0.5	56
3.04	General government debt, % GDP*	22.9	24
3.05	Country credit rating, 0–100 (best)*	43.1	75
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	25,113.7	66
4.02	Business impact of malaria	3.2	69
4.03	Tuberculosis cases/100,000 pop.*	428.0	136
4.04	Business impact of tuberculosis	4.4	110
4.05	HIV prevalence, % adult pop.*	4.0	130
4.06	Business impact of HIV/AIDS	4.1	122
4.07	Infant mortality, deaths/1,000 live births*	42.4	114
4.08	Life expectancy, years*	63.1	117
4.09	Quality of primary education	3.3	96
4.10	Primary education enrollment, net %*	n/a	n/a
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	53.9	117
5.02	Tertiary education enrollment, gross %*	8.5	119
5.03	Quality of the education system	2.9	119
5.04	Quality of math and science education	3.3	110
5.05	Quality of management schools	3.5	117
5.06	Internet access in schools	2.2	136
5.07	Availability of research and training services	3.0	134
5.08	Extent of staff training	3.7	100
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.3	124
6.02	Extent of market dominance	3.1	127
6.03	Effectiveness of anti-monopoly policy	3.5	115
6.04	Effect of taxation on incentives to invest	3.9	58
6.05	Total tax rate, % profits*	43.5	93

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	7	78
6.07	No. days to start a business*	50.0	131
6.08	Agricultural policy costs	3.2	121
6.09	Prevalence of trade barriers	4.3	86
6.10	Trade tariffs, % duty*	14.3	133
6.11	Prevalence of foreign ownership	5.4	20
6.12	Business impact of rules on FDI	4.2	89
6.13	Burden of customs procedures	3.5	101
6.14	Imports as a percentage of GDP*	34.1	103
6.15	Degree of customer orientation	4.0	112
6.16	Buyer sophistication	2.8	119
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.9	113
7.02	Flexibility of wage determination	4.5	111
7.03	Hiring and firing practices	3.4	108
7.04	Redundancy costs, weeks of salary*	14.8	68
7.05	Effect of taxation on incentives to work	4.2	25
7.06	Pay and productivity	3.4	112
7.07	Reliance on professional management	3.8	102
7.08	Country capacity to retain talent	3.4	66
7.09	Country capacity to attract talent	3.6	57
7.10	Women in labor force, ratio to men*	0.86	50
	8th pillar: Financial market development		
8.01	Availability of financial services	3.5	128
8.02	Affordability of financial services	3.3	127
8.03	Financing through local equity market	2.9	103
8.04	Ease of access to loans	2.7	83
8.05	Venture capital availability	2.0	123
8.06	Soundness of banks	4.9	70
8.07	Regulation of securities exchanges	3.3	111
8.08	Legal rights index, 0–10 (best)*	6	63
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.0	117
9.02	Firm-level technology absorption	4.4	86
9.03	FDI and technology transfer	4.3	86
9.04	Individuals using Internet, %*	9.2	124
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.5	114
9.06	Int'l Internet bandwidth, kb/s per user*	18.1	86
9.07	Mobile broadband subscriptions/100 pop.*	0.0	133
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.5	116
10.02	Foreign market size index, 1–7 (best)*	3.9	92
10.03	GDP (PPP$ billions)*	30.4	100
10.04	Exports as a percentage of GDP*	54.9	39
	11th pillar: Business sophistication		
11.01	Local supplier quantity	3.4	141
11.02	Local supplier quality	3.7	121
11.03	State of cluster development	2.8	137
11.04	Nature of competitive advantage	3.1	103
11.05	Value chain breadth	2.9	141
11.06	Control of international distribution	2.9	142
11.07	Production process sophistication	3.3	108
11.08	Extent of marketing	3.3	128
11.09	Willingness to delegate authority	3.2	122
	12th pillar: Innovation		
12.01	Capacity for innovation	3.1	126
12.02	Quality of scientific research institutions	3.2	98
12.03	Company spending on R&D	2.3	132
12.04	University-industry collaboration in R&D	2.6	129
12.05	Gov't procurement of advanced tech products	3.3	85
12.06	Availability of scientists and engineers	3.2	121
12.07	PCT patents, applications/million pop.*	0.3	85

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Gambia, The

Key indicators, 2013

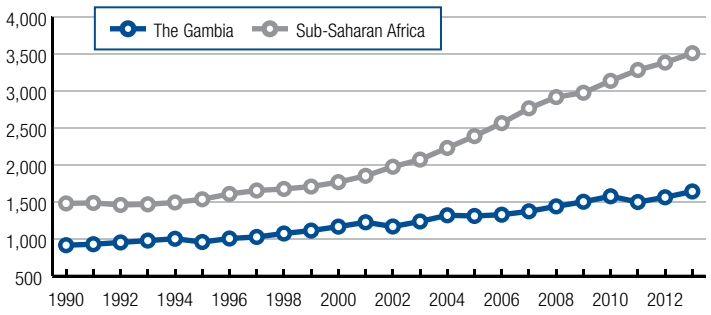
Population (millions) 1.9
GDP (US$ billions)* 0.9
GDP per capita (US$) 453.1
GDP (PPP) as share (%) of world total 0.00

Sectoral value-added (% GDP), 2012
Agriculture 20.3
Industry 12.9
Services 66.8

Human Development Index, 2013
Score, (0–1) best 0.44
Rank (out of 187 economies) 172

Sources: IMF; UNFPA; UNDP; World Bank

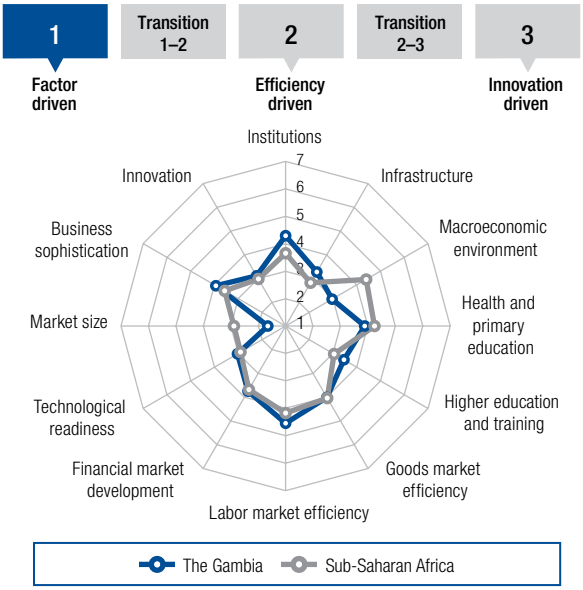
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

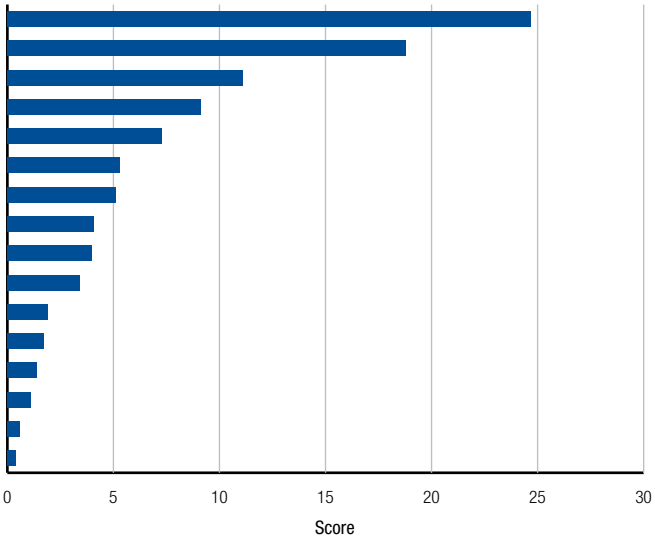
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**125**	**3.5**
GCI 2013–2014 (out of 148)	116	3.7
GCI 2012–2013 (out of 144)	98	3.8
Basic requirements (60.0%)	**125**	**3.6**
Institutions	44	4.3
Infrastructure	95	3.3
Macroeconomic environment	142	3.0
Health and primary education	133	3.9
Efficiency enhancers (35.0%)	**117**	**3.4**
Higher education and training	107	3.5
Goods market efficiency	111	4.0
Labor market efficiency	38	4.5
Financial market development	94	3.7
Technological readiness	103	3.0
Market size	142	1.6
Innovation and sophistication factors (5.0%)	**79**	**3.5**
Business sophistication	71	3.9
Innovation	89	3.1

Stage of development



The most problematic factors for doing business

Access to financing 24.7
Tax rates 18.8
Foreign currency regulations 11.1
Inflation 9.1
Inadequate supply of infrastructure 7.3
Insufficient capacity to innovate 5.3
Poor work ethic in national labor force 5.1
Corruption 4.1
Tax regulations 4.0
Inadequately educated workforce 3.4
Restrictive labor regulations 1.9
Inefficient government bureaucracy 1.7
Crime and theft 1.4
Policy instability 1.1
Poor public health 0.6
Government instability/coups 0.4



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Gambia, The

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	4.2	63
1.02	Intellectual property protection	4.1	46
1.03	Diversion of public funds	4.2	38
1.04	Public trust in politicians	3.8	32
1.05	Irregular payments and bribes	4.1	60
1.06	Judicial independence	3.8	66
1.07	Favoritism in decisions of government officials	3.9	32
1.08	Wastefulness of government spending	4.0	27
1.09	Burden of government regulation	4.0	25
1.10	Efficiency of legal framework in settling disputes	4.4	35
1.11	Efficiency of legal framework in challenging regs.	3.3	76
1.12	Transparency of government policymaking	4.4	41
1.13	Business costs of terrorism	5.8	44
1.14	Business costs of crime and violence	5.2	40
1.15	Organized crime	5.7	32
1.16	Reliability of police services	4.6	49
1.17	Ethical behavior of firms	4.5	40
1.18	Strength of auditing and reporting standards	4.7	71
1.19	Efficacy of corporate boards	4.9	46
1.20	Protection of minority shareholders' interests	4.4	48
1.21	Strength of investor protection, 0–10 (best)*	2.7	138
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	4.2	71
2.02	Quality of roads	4.1	62
2.03	Quality of railroad infrastructure	N/Appl.	n/a
2.04	Quality of port infrastructure	4.2	64
2.05	Quality of air transport infrastructure	4.5	66
2.06	Available airline seat km/week, millions*	7.7	138
2.07	Quality of electricity supply	3.3	106
2.08	Mobile telephone subscriptions/100 pop.*	100.0	95
2.09	Fixed telephone lines/100 pop.*	3.5	112
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-8.2	135
3.02	Gross national savings, % GDP*	1.8	137
3.03	Inflation, annual % change*	5.2	95
3.04	General government debt, % GDP*	82.1	121
3.05	Country credit rating, 0–100 (best)*	18.7	133
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	29,030.4	74
4.02	Business impact of malaria	3.8	58
4.03	Tuberculosis cases/100,000 pop.*	284.0	129
4.04	Business impact of tuberculosis	5.1	88
4.05	HIV prevalence, % adult pop.*	1.3	114
4.06	Business impact of HIV/AIDS	5.3	79
4.07	Infant mortality, deaths/1,000 live births*	49.2	125
4.08	Life expectancy, years*	58.6	126
4.09	Quality of primary education	4.1	63
4.10	Primary education enrollment, net %*	70.9	134
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	57.5	115
5.02	Tertiary education enrollment, gross %*	3.4	135
5.03	Quality of the education system	4.3	39
5.04	Quality of math and science education	3.6	97
5.05	Quality of management schools	4.2	75
5.06	Internet access in schools	3.8	86
5.07	Availability of research and training services	4.0	78
5.08	Extent of staff training	4.3	42
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.9	87
6.02	Extent of market dominance	4.0	51
6.03	Effectiveness of anti-monopoly policy	4.3	53
6.04	Effect of taxation on incentives to invest	3.3	104
6.05	Total tax rate, % profits*	283.2	144

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	8	93
6.07	No. days to start a business*	27.0	106
6.08	Agricultural policy costs	4.8	5
6.09	Prevalence of trade barriers	4.5	49
6.10	Trade tariffs, % duty*	13.7	130
6.11	Prevalence of foreign ownership	5.1	37
6.12	Business impact of rules on FDI	4.7	48
6.13	Burden of customs procedures	4.6	42
6.14	Imports as a percentage of GDP*	53.2	57
6.15	Degree of customer orientation	4.7	53
6.16	Buyer sophistication	3.1	99
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.7	38
7.02	Flexibility of wage determination	5.7	23
7.03	Hiring and firing practices	4.2	37
7.04	Redundancy costs, weeks of salary*	26.0	114
7.05	Effect of taxation on incentives to work	3.6	77
7.06	Pay and productivity	4.3	45
7.07	Reliance on professional management	4.9	30
7.08	Country capacity to retain talent	3.4	70
7.09	Country capacity to attract talent	3.9	42
7.10	Women in labor force, ratio to men*	0.88	38
	8th pillar: Financial market development		
8.01	Availability of financial services	4.1	96
8.02	Affordability of financial services	4.0	87
8.03	Financing through local equity market	3.1	88
8.04	Ease of access to loans	2.5	95
8.05	Venture capital availability	2.4	93
8.06	Soundness of banks	4.9	68
8.07	Regulation of securities exchanges	3.9	81
8.08	Legal rights index, 0–10 (best)*	5	85
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.8	73
9.02	Firm-level technology absorption	4.5	76
9.03	FDI and technology transfer	4.5	80
9.04	Individuals using Internet, %*	14.0	117
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.0	136
9.06	Int'l Internet bandwidth, kb/s per user*	7.2	106
9.07	Mobile broadband subscriptions/100 pop.*	1.2	122
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	1.4	142
10.02	Foreign market size index, 1–7 (best)*	2.3	141
10.03	GDP (PPP$ billions)*	3.7	142
10.04	Exports as a percentage of GDP*	27.7	106
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.5	89
11.02	Local supplier quality	4.3	77
11.03	State of cluster development	3.8	73
11.04	Nature of competitive advantage	3.4	70
11.05	Value chain breadth	3.7	74
11.06	Control of international distribution	3.9	80
11.07	Production process sophistication	3.4	100
11.08	Extent of marketing	3.9	95
11.09	Willingness to delegate authority	3.9	50
	12th pillar: Innovation		
12.01	Capacity for innovation	3.7	78
12.02	Quality of scientific research institutions	3.3	95
12.03	Company spending on R&D	2.9	90
12.04	University-industry collaboration in R&D	3.3	87
12.05	Gov't procurement of advanced tech products	3.9	32
12.06	Availability of scientists and engineers	3.1	129
12.07	PCT patents, applications/million pop.*	0.0	124

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Ghana

Key indicators, 2013

Population (millions)	25.6
GDP (US$ billions)*	47.8
GDP per capita (US$)	1,871.1
GDP (PPP) as share (%) of world total	0.10

Sectoral value-added (% GDP), 2013

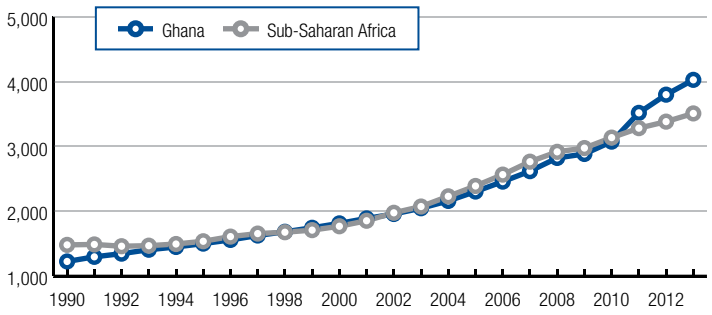
Agriculture	22.0
Industry	28.6
Services	49.5

Human Development Index, 2013

Score, (0–1) best	0.57
Rank (out of 187 economies)	138

Sources: IMF; UNFPA; UNDP; World Bank

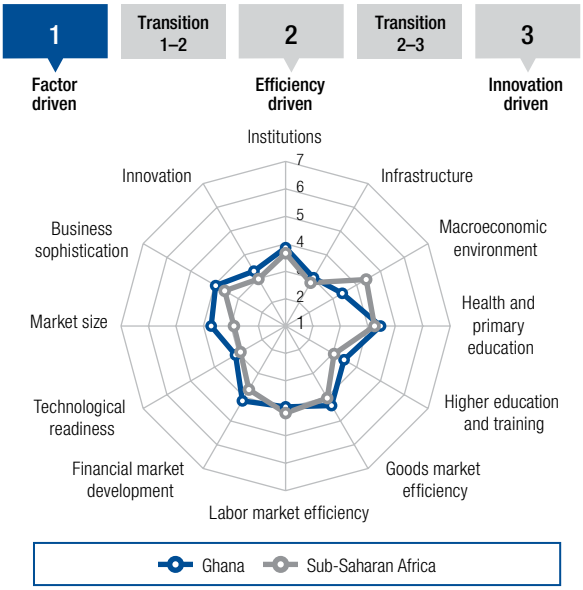
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

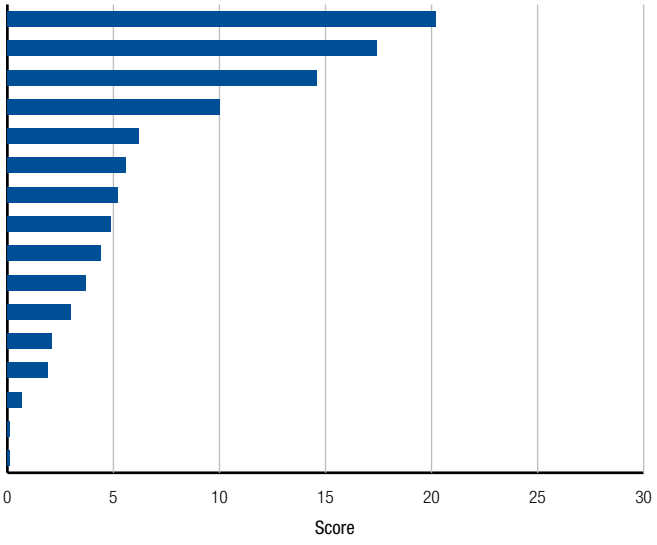
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**111**	**3.7**
GCI 2013–2014 (out of 148)	114	3.7
GCI 2012–2013 (out of 144)	103	3.8
Basic requirements (60.0%)	**123**	**3.7**
Institutions	69	3.9
Infrastructure	108	3.0
Macroeconomic environment	133	3.4
Health and primary education	121	4.5
Efficiency enhancers (35.0%)	**89**	**3.8**
Higher education and training	106	3.5
Goods market efficiency	67	4.3
Labor market efficiency	98	3.9
Financial market development	62	4.1
Technological readiness	100	3.1
Market size	69	3.7
Innovation and sophistication factors (5.0%)	**68**	**3.6**
Business sophistication	70	3.9
Innovation	63	3.3

Stage of development



The most problematic factors for doing business

Access to financing	20.2
Foreign currency regulations	17.4
Tax rates	14.6
Inflation	10.0
Corruption	6.2
Poor work ethic in national labor force	5.6
Inefficient government bureaucracy	5.2
Tax regulations	4.9
Restrictive labor regulations	4.4
Inadequately educated workforce	3.7
Inadequate supply of infrastructure	3.0
Crime and theft	2.1
Policy instability	1.9
Poor public health	0.7
Insufficient capacity to innovate	0.1
Government instability/coups	0.1



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Ghana

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	4.3	60
1.02	Intellectual property protection	4.1	45
1.03	Diversion of public funds	3.4	58
1.04	Public trust in politicians	3.2	55
1.05	Irregular payments and bribes	3.4	98
1.06	Judicial independence	4.4	48
1.07	Favoritism in decisions of government officials	3.0	76
1.08	Wastefulness of government spending	3.5	47
1.09	Burden of government regulation	3.4	74
1.10	Efficiency of legal framework in settling disputes	4.1	45
1.11	Efficiency of legal framework in challenging regs.	3.4	64
1.12	Transparency of government policymaking	3.9	77
1.13	Business costs of terrorism	3.9	126
1.14	Business costs of crime and violence	3.7	104
1.15	Organized crime	3.9	118
1.16	Reliability of police services	4.1	72
1.17	Ethical behavior of firms	3.9	77
1.18	Strength of auditing and reporting standards	4.2	101
1.19	Efficacy of corporate boards	4.2	100
1.20	Protection of minority shareholders' interests	4.0	78
1.21	Strength of investor protection, 0–10 (best)*	6.3	34
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.4	110
2.02	Quality of roads	3.7	79
2.03	Quality of railroad infrastructure	2.7	66
2.04	Quality of port infrastructure	3.7	92
2.05	Quality of air transport infrastructure	4.1	80
2.06	Available airline seat km/week, millions*	124.2	77
2.07	Quality of electricity supply	3.0	112
2.08	Mobile telephone subscriptions/100 pop.*	108.2	76
2.09	Fixed telephone lines/100 pop.*	1.0	124
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-10.8	141
3.02	Gross national savings, % GDP*	20.2	67
3.03	Inflation, annual % change*	11.7	140
3.04	General government debt, % GDP*	60.1	100
3.05	Country credit rating, 0–100 (best)*	35.7	92
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	27,201.3	69
4.02	Business impact of malaria	3.7	60
4.03	Tuberculosis cases/100,000 pop.*	72.0	83
4.04	Business impact of tuberculosis	4.6	103
4.05	HIV prevalence, % adult pop.*	1.4	119
4.06	Business impact of HIV/AIDS	4.9	92
4.07	Infant mortality, deaths/1,000 live births*	48.6	122
4.08	Life expectancy, years*	60.9	123
4.09	Quality of primary education	3.0	112
4.10	Primary education enrollment, net %*	87.1	108
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	61.1	112
5.02	Tertiary education enrollment, gross %*	12.2	106
5.03	Quality of the education system	3.8	59
5.04	Quality of math and science education	4.4	52
5.05	Quality of management schools	4.6	50
5.06	Internet access in schools	3.2	113
5.07	Availability of research and training services	3.8	92
5.08	Extent of staff training	4.1	61
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.4	118
6.02	Extent of market dominance	4.1	42
6.03	Effectiveness of anti-monopoly policy	4.0	70
6.04	Effect of taxation on incentives to invest	4.2	32
6.05	Total tax rate, % profits*	22.9	18

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	8	93
6.07	No. days to start a business*	14.0	69
6.08	Agricultural policy costs	3.6	93
6.09	Prevalence of trade barriers	3.9	127
6.10	Trade tariffs, % duty*	10.4	106
6.11	Prevalence of foreign ownership	4.5	72
6.12	Business impact of rules on FDI	4.2	87
6.13	Burden of customs procedures	3.4	113
6.14	Imports as a percentage of GDP*	50.5	63
6.15	Degree of customer orientation	4.5	73
6.16	Buyer sophistication	3.4	69
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.1	85
7.02	Flexibility of wage determination	3.3	137
7.03	Hiring and firing practices	3.9	72
7.04	Redundancy costs, weeks of salary*	49.8	137
7.05	Effect of taxation on incentives to work	4.0	38
7.06	Pay and productivity	4.0	63
7.07	Reliance on professional management	4.4	58
7.08	Country capacity to retain talent	3.6	57
7.09	Country capacity to attract talent	3.4	69
7.10	Women in labor force, ratio to men*	0.96	10
	8th pillar: Financial market development		
8.01	Availability of financial services	4.0	99
8.02	Affordability of financial services	3.8	97
8.03	Financing through local equity market	4.0	38
8.04	Ease of access to loans	2.9	58
8.05	Venture capital availability	3.2	36
8.06	Soundness of banks	4.4	97
8.07	Regulation of securities exchanges	3.9	80
8.08	Legal rights index, 0–10 (best)*	8	29
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.3	104
9.02	Firm-level technology absorption	4.3	95
9.03	FDI and technology transfer	4.2	100
9.04	Individuals using Internet, %*	12.3	121
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.3	117
9.06	Int'l Internet bandwidth, kb/s per user*	5.2	116
9.07	Mobile broadband subscriptions/100 pop.*	39.9	54
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	3.5	68
10.02	Foreign market size index, 1–7 (best)*	4.3	76
10.03	GDP (PPP$ billions)*	88.5	72
10.04	Exports as a percentage of GDP*	36.7	74
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.2	106
11.02	Local supplier quality	3.9	107
11.03	State of cluster development	3.7	77
11.04	Nature of competitive advantage	3.9	47
11.05	Value chain breadth	3.9	61
11.06	Control of international distribution	4.0	71
11.07	Production process sophistication	3.9	68
11.08	Extent of marketing	4.0	91
11.09	Willingness to delegate authority	3.9	58
	12th pillar: Innovation		
12.01	Capacity for innovation	4.0	49
12.02	Quality of scientific research institutions	3.7	73
12.03	Company spending on R&D	3.5	44
12.04	University-industry collaboration in R&D	3.5	77
12.05	Gov't procurement of advanced tech products	3.5	65
12.06	Availability of scientists and engineers	3.6	95
12.07	PCT patents, applications/million pop.*	0.0	108

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Guinea

Key indicators, 2013

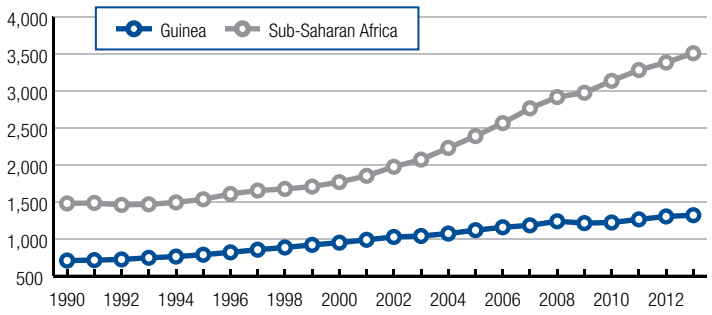
Population (millions) 11.1
GDP (US$ billions)* 6.2
GDP per capita (US$) 560.0
GDP (PPP) as share (%) of world total 0.01

Sectoral value-added (% GDP), 2011
Agriculture 20.2
Industry 44.8
Services 33.1

Human Development Index, 2013
Score, (0–1) best 0.39
Rank (out of 187 economies) 179

Sources: IMF; UNFPA; UNDP; World Bank

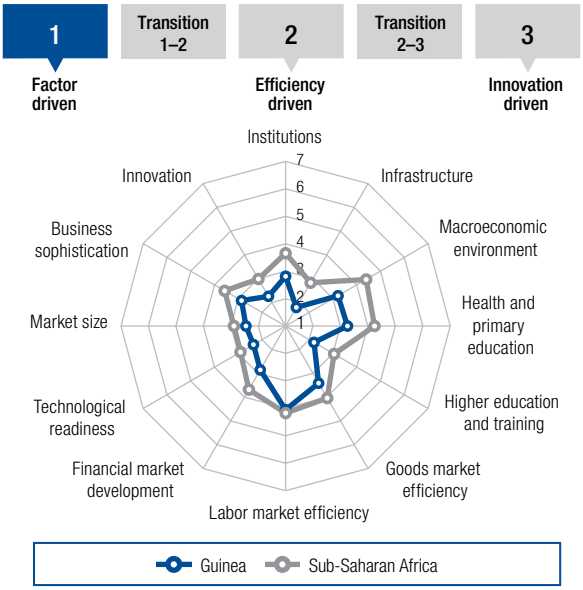
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

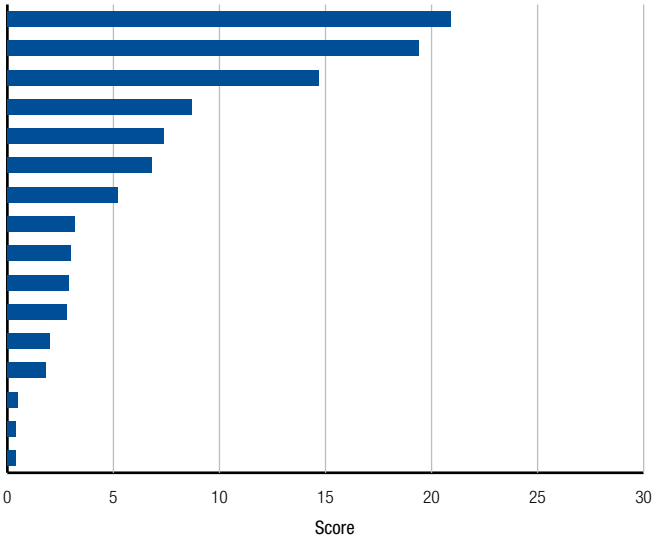
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**144**	**2.8**
GCI 2013–2014 (out of 148)	147	2.9
GCI 2012–2013 (out of 144)	141	2.9
Basic requirements (60.0%)	**144**	**2.8**
Institutions	134	2.8
Infrastructure	143	1.8
Macroeconomic environment	138	3.2
Health and primary education	139	3.3
Efficiency enhancers (35.0%)	**138**	**2.9**
Higher education and training	140	2.2
Goods market efficiency	137	3.4
Labor market efficiency	89	4.0
Financial market development	134	2.8
Technological readiness	139	2.4
Market size	127	2.4
Innovation and sophistication factors (5.0%)	**142**	**2.6**
Business sophistication	141	2.9
Innovation	141	2.2

Stage of development



The most problematic factors for doing business

Access to financing	20.9
Corruption	19.4
Inadequate supply of infrastructure	14.7
Policy instability	8.7
Inadequately educated workforce	7.4
Inefficient government bureaucracy	6.8
Crime and theft	5.2
Foreign currency regulations	3.2
Poor work ethic in national labor force	3.0
Restrictive labor regulations	2.9
Inflation	2.8
Insufficient capacity to innovate	2.0
Government instability/coups	1.8
Tax regulations	0.5
Poor public health	0.4
Tax rates	0.4



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Guinea

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	2.6	137
1.02	Intellectual property protection	2.2	140
1.03	Diversion of public funds	2.0	136
1.04	Public trust in politicians	2.3	107
1.05	Irregular payments and bribes	2.1	143
1.06	Judicial independence	2.0	139
1.07	Favoritism in decisions of government officials	2.0	138
1.08	Wastefulness of government spending	2.6	97
1.09	Burden of government regulation	3.5	68
1.10	Efficiency of legal framework in settling disputes	2.3	142
1.11	Efficiency of legal framework in challenging regs.	2.4	126
1.12	Transparency of government policymaking	3.0	134
1.13	Business costs of terrorism	5.5	61
1.14	Business costs of crime and violence	3.6	109
1.15	Organized crime	4.1	107
1.16	Reliability of police services	3.0	119
1.17	Ethical behavior of firms	3.1	137
1.18	Strength of auditing and reporting standards	3.1	137
1.19	Efficacy of corporate boards	4.2	102
1.20	Protection of minority shareholders' interests	3.0	135
1.21	Strength of investor protection, 0–10 (best)*	2.7	138
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	2.1	143
2.02	Quality of roads	1.9	143
2.03	Quality of railroad infrastructure	N/Appl.	n/a
2.04	Quality of port infrastructure	2.9	116
2.05	Quality of air transport infrastructure	2.5	138
2.06	Available airline seat km/week, millions*	8.6	137
2.07	Quality of electricity supply	1.3	144
2.08	Mobile telephone subscriptions/100 pop.*	63.3	131
2.09	Fixed telephone lines/100 pop.*	0.0	144
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-5.3	111
3.02	Gross national savings, % GDP*	-1.0	141
3.03	Inflation, annual % change*	12.0	141
3.04	General government debt, % GDP*	37.8	57
3.05	Country credit rating, 0–100 (best)*	12.5	140
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	38,423.7	76
4.02	Business impact of malaria	3.2	67
4.03	Tuberculosis cases/100,000 pop.*	178.0	114
4.04	Business impact of tuberculosis	4.5	105
4.05	HIV prevalence, % adult pop.*	1.7	122
4.06	Business impact of HIV/AIDS	4.6	106
4.07	Infant mortality, deaths/1,000 live births*	65.2	134
4.08	Life expectancy, years*	55.8	131
4.09	Quality of primary education	2.3	135
4.10	Primary education enrollment, net %*	74.4	130
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	38.1	129
5.02	Tertiary education enrollment, gross %*	9.9	114
5.03	Quality of the education system	2.4	137
5.04	Quality of math and science education	3.1	115
5.05	Quality of management schools	2.3	141
5.06	Internet access in schools	1.8	139
5.07	Availability of research and training services	2.8	139
5.08	Extent of staff training	3.2	128
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.2	129
6.02	Extent of market dominance	3.3	104
6.03	Effectiveness of anti-monopoly policy	2.9	138
6.04	Effect of taxation on incentives to invest	3.5	87
6.05	Total tax rate, % profits*	91.2	142

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	5	32
6.07	No. days to start a business*	16.0	79
6.08	Agricultural policy costs	3.3	113
6.09	Prevalence of trade barriers	4.0	108
6.10	Trade tariffs, % duty*	11.5	120
6.11	Prevalence of foreign ownership	3.5	119
6.12	Business impact of rules on FDI	3.4	127
6.13	Burden of customs procedures	3.3	117
6.14	Imports as a percentage of GDP*	53.6	55
6.15	Degree of customer orientation	3.4	136
6.16	Buyer sophistication	1.9	143
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.7	124
7.02	Flexibility of wage determination	5.3	47
7.03	Hiring and firing practices	3.4	105
7.04	Redundancy costs, weeks of salary*	7.9	23
7.05	Effect of taxation on incentives to work	3.8	57
7.06	Pay and productivity	2.8	134
7.07	Reliance on professional management	2.8	138
7.08	Country capacity to retain talent	2.5	126
7.09	Country capacity to attract talent	2.7	112
7.10	Women in labor force, ratio to men*	0.84	58
	8th pillar: Financial market development		
8.01	Availability of financial services	2.9	137
8.02	Affordability of financial services	2.8	141
8.03	Financing through local equity market	1.6	142
8.04	Ease of access to loans	2.4	105
8.05	Venture capital availability	1.9	130
8.06	Soundness of banks	3.6	127
8.07	Regulation of securities exchanges	1.9	139
8.08	Legal rights index, 0–10 (best)*	6	63
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.3	137
9.02	Firm-level technology absorption	3.7	133
9.03	FDI and technology transfer	3.8	121
9.04	Individuals using Internet, %*	1.6	141
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.0	141
9.06	Int'l Internet bandwidth, kb/s per user*	2.5	135
9.07	Mobile broadband subscriptions/100 pop.*	0.0	133
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.3	128
10.02	Foreign market size index, 1–7 (best)*	3.0	132
10.03	GDP (PPP$ billions)*	12.5	129
10.04	Exports as a percentage of GDP*	25.9	111
	11th pillar: Business sophistication		
11.01	Local supplier quantity	3.8	131
11.02	Local supplier quality	3.1	137
11.03	State of cluster development	3.0	123
11.04	Nature of competitive advantage	2.6	133
11.05	Value chain breadth	2.9	135
11.06	Control of international distribution	3.0	140
11.07	Production process sophistication	2.3	144
11.08	Extent of marketing	2.7	140
11.09	Willingness to delegate authority	2.3	143
	12th pillar: Innovation		
12.01	Capacity for innovation	2.7	141
12.02	Quality of scientific research institutions	2.3	137
12.03	Company spending on R&D	2.0	142
12.04	University-industry collaboration in R&D	2.2	140
12.05	Gov't procurement of advanced tech products	2.6	131
12.06	Availability of scientists and engineers	2.9	137
12.07	PCT patents, applications/million pop.*	0.0	124

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Kenya

Key indicators, 2013

Population (millions)	44.4
GDP (US$ billions)*	55.0
GDP per capita (US$)	1,315.6
GDP (PPP) as share (%) of world total	0.12

Sectoral value-added (% GDP), 2012

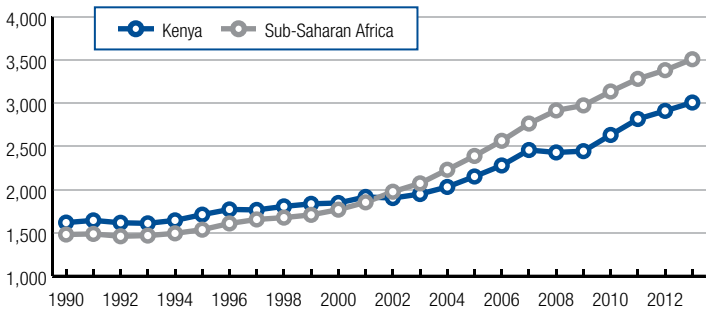
Agriculture	29.9
Industry	17.4
Services	52.7

Human Development Index, 2013

Score, (0–1) best	0.54
Rank (out of 187 economies)	147

Sources: IMF; UNFPA; UNDP; World Bank

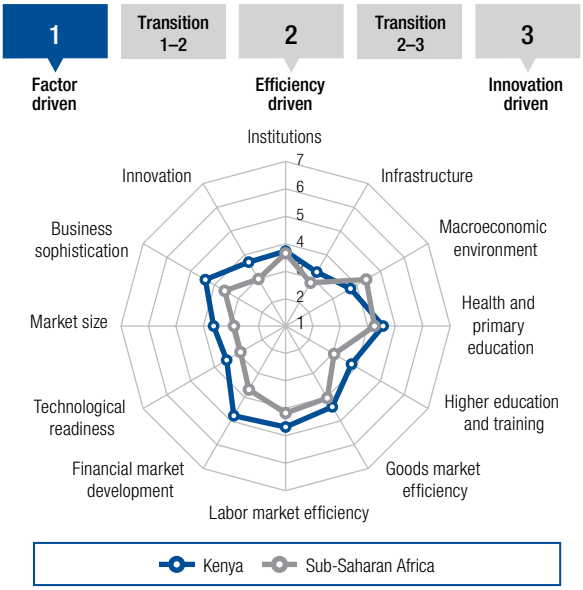
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

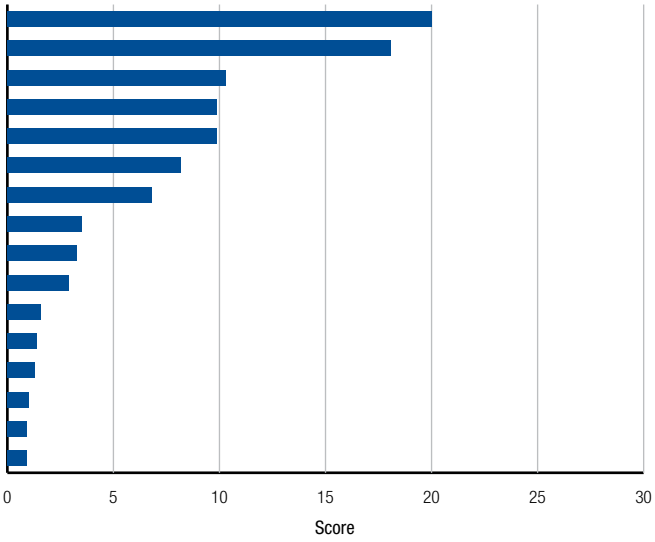
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**90**	**3.9**
GCI 2013–2014 (out of 148)	96	3.8
GCI 2012–2013 (out of 144)	106	3.7
Basic requirements (60.0%)	**115**	**3.8**
Institutions	78	3.7
Infrastructure	96	3.3
Macroeconomic environment	126	3.7
Health and primary education	120	4.6
Efficiency enhancers (35.0%)	**66**	**4.1**
Higher education and training	95	3.8
Goods market efficiency	62	4.4
Labor market efficiency	25	4.7
Financial market development	24	4.8
Technological readiness	87	3.5
Market size	74	3.6
Innovation and sophistication factors (5.0%)	**40**	**4.0**
Business sophistication	44	4.4
Innovation	38	3.7

Stage of development



The most problematic factors for doing business

Corruption	20.0
Access to financing	18.1
Crime and theft	10.3
Inadequate supply of infrastructure	9.9
Tax rates	9.9
Inefficient government bureaucracy	8.2
Inflation	6.8
Policy instability	3.5
Tax regulations	3.3
Restrictive labor regulations	2.9
Insufficient capacity to innovate	1.6
Poor work ethic in national labor force	1.4
Inadequately educated workforce	1.3
Poor public health	1.0
Foreign currency regulations	0.9
Government instability/coups	0.9



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Kenya

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	4.2	65
1.02	Intellectual property protection	3.7	69
1.03	Diversion of public funds	3.0	83
1.04	Public trust in politicians	3.0	69
1.05	Irregular payments and bribes	3.2	108
1.06	Judicial independence	4.1	52
1.07	Favoritism in decisions of government officials	3.0	75
1.08	Wastefulness of government spending	3.3	61
1.09	Burden of government regulation	3.6	48
1.10	Efficiency of legal framework in settling disputes	4.1	47
1.11	Efficiency of legal framework in challenging regs.	3.8	42
1.12	Transparency of government policymaking	4.1	58
1.13	Business costs of terrorism	3.0	135
1.14	Business costs of crime and violence	3.0	129
1.15	Organized crime	3.7	125
1.16	Reliability of police services	3.9	85
1.17	Ethical behavior of firms	3.9	73
1.18	Strength of auditing and reporting standards	4.7	68
1.19	Efficacy of corporate boards	4.8	55
1.20	Protection of minority shareholders' interests	4.3	60
1.21	Strength of investor protection, 0–10 (best)*	5.0	83
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	4.3	65
2.02	Quality of roads	4.2	59
2.03	Quality of railroad infrastructure	2.5	71
2.04	Quality of port infrastructure	4.3	61
2.05	Quality of air transport infrastructure	4.8	54
2.06	Available airline seat km/week, millions*	301.4	53
2.07	Quality of electricity supply	3.9	95
2.08	Mobile telephone subscriptions/100 pop.*	70.6	122
2.09	Fixed telephone lines/100 pop.*	0.5	133
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-6.2	124
3.02	Gross national savings, % GDP*	12.2	121
3.03	Inflation, annual % change*	5.7	100
3.04	General government debt, % GDP*	50.5	88
3.05	Country credit rating, 0–100 (best)*	34.6	94
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	8,106.0	54
4.02	Business impact of malaria	4.5	44
4.03	Tuberculosis cases/100,000 pop.*	272.0	128
4.04	Business impact of tuberculosis	4.6	102
4.05	HIV prevalence, % adult pop.*	6.1	133
4.06	Business impact of HIV/AIDS	4.0	125
4.07	Infant mortality, deaths/1,000 live births*	48.7	123
4.08	Life expectancy, years*	61.1	122
4.09	Quality of primary education	3.8	79
4.10	Primary education enrollment, net %*	81.8	125
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	60.1	113
5.02	Tertiary education enrollment, gross %*	4.0	133
5.03	Quality of the education system	4.5	30
5.04	Quality of math and science education	4.0	76
5.05	Quality of management schools	4.7	44
5.06	Internet access in schools	4.1	79
5.07	Availability of research and training services	4.8	32
5.08	Extent of staff training	4.4	34
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	5.7	21
6.02	Extent of market dominance	4.1	41
6.03	Effectiveness of anti-monopoly policy	4.4	42
6.04	Effect of taxation on incentives to invest	3.6	76
6.05	Total tax rate, % profits*	44.2	98

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	10	118
6.07	No. days to start a business*	32.0	112
6.08	Agricultural policy costs	4.0	50
6.09	Prevalence of trade barriers	4.0	110
6.10	Trade tariffs, % duty*	8.8	98
6.11	Prevalence of foreign ownership	4.5	78
6.12	Business impact of rules on FDI	4.4	70
6.13	Burden of customs procedures	3.6	92
6.14	Imports as a percentage of GDP*	45.5	75
6.15	Degree of customer orientation	5.1	35
6.16	Buyer sophistication	3.2	89
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.3	70
7.02	Flexibility of wage determination	5.0	69
7.03	Hiring and firing practices	4.5	17
7.04	Redundancy costs, weeks of salary*	6.5	17
7.05	Effect of taxation on incentives to work	3.6	75
7.06	Pay and productivity	4.1	56
7.07	Reliance on professional management	4.8	34
7.08	Country capacity to retain talent	3.8	47
7.09	Country capacity to attract talent	3.7	55
7.10	Women in labor force, ratio to men*	0.86	48
	8th pillar: Financial market development		
8.01	Availability of financial services	4.7	56
8.02	Affordability of financial services	4.2	64
8.03	Financing through local equity market	4.3	30
8.04	Ease of access to loans	3.4	33
8.05	Venture capital availability	3.1	43
8.06	Soundness of banks	5.3	54
8.07	Regulation of securities exchanges	4.6	47
8.08	Legal rights index, 0–10 (best)*	10	1
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	5.1	55
9.02	Firm-level technology absorption	4.8	56
9.03	FDI and technology transfer	4.7	59
9.04	Individuals using Internet, %*	39.0	85
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.1	124
9.06	Int'l Internet bandwidth, kb/s per user*	49.9	53
9.07	Mobile broadband subscriptions/100 pop.*	3.0	115
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	3.5	70
10.02	Foreign market size index, 1–7 (best)*	4.0	88
10.03	GDP (PPP$ billions)*	80.4	75
10.04	Exports as a percentage of GDP*	24.5	116
	11th pillar: Business sophistication		
11.01	Local supplier quantity	5.2	19
11.02	Local supplier quality	4.7	47
11.03	State of cluster development	4.2	41
11.04	Nature of competitive advantage	3.8	51
11.05	Value chain breadth	4.3	36
11.06	Control of international distribution	4.4	40
11.07	Production process sophistication	4.1	55
11.08	Extent of marketing	4.4	59
11.09	Willingness to delegate authority	4.1	38
	12th pillar: Innovation		
12.01	Capacity for innovation	4.5	33
12.02	Quality of scientific research institutions	4.2	42
12.03	Company spending on R&D	3.8	28
12.04	University-industry collaboration in R&D	4.2	37
12.05	Gov't procurement of advanced tech products	3.7	49
12.06	Availability of scientists and engineers	4.4	44
12.07	PCT patents, applications/million pop.*	0.2	95

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Lesotho

Key indicators, 2013

Population (millions)	1.9
GDP (US$ billions)*	2.3
GDP per capita (US$)	1,190.0
GDP (PPP) as share (%) of world total	0.01

Sectoral value-added (% GDP), 2012

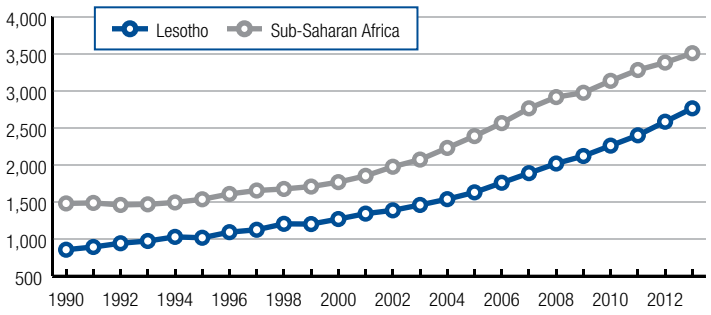
Agriculture	7.8
Industry	36.6
Services	55.6

Human Development Index, 2013

Score, (0–1) best	0.49
Rank (out of 187 economies)	162

Sources: IMF; UNFPA; UNDP; World Bank

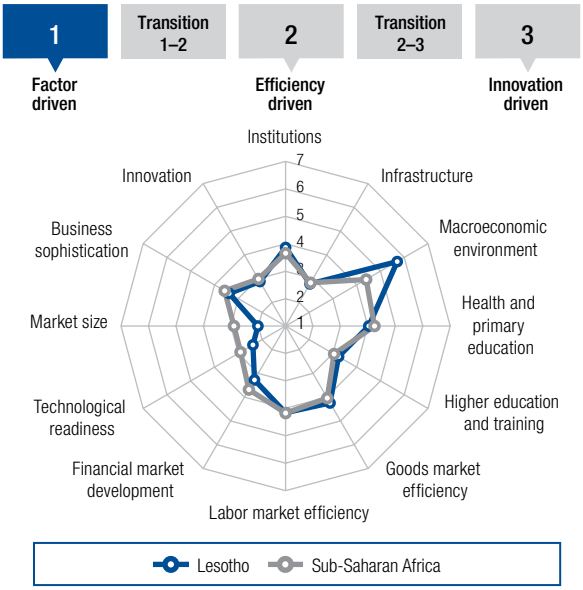
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

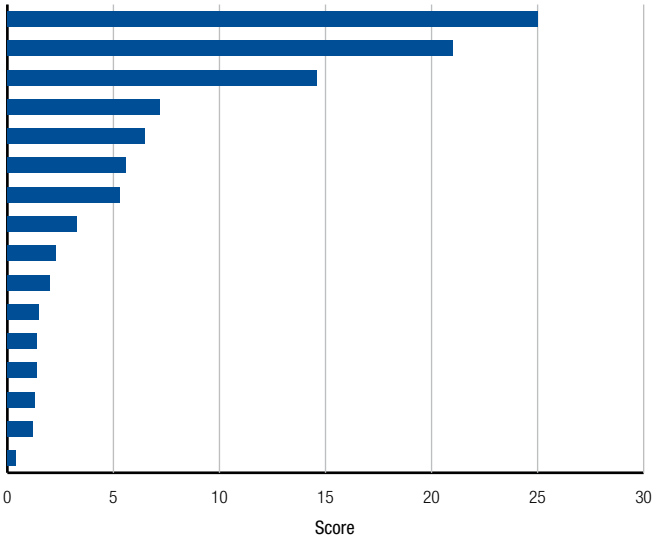
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**107**	**3.7**
GCI 2013–2014 (out of 148)	123	3.5
GCI 2012–2013 (out of 144)	137	3.2
Basic requirements (60.0%)	**102**	**4.1**
Institutions	68	3.9
Infrastructure	116	2.8
Macroeconomic environment	28	5.7
Health and primary education	128	4.0
Efficiency enhancers (35.0%)	**130**	**3.2**
Higher education and training	116	3.2
Goods market efficiency	80	4.2
Labor market efficiency	76	4.2
Financial market development	123	3.3
Technological readiness	137	2.4
Market size	139	2.0
Innovation and sophistication factors (5.0%)	**117**	**3.1**
Business sophistication	123	3.4
Innovation	110	2.9

Stage of development



The most problematic factors for doing business

Access to financing	25.0
Corruption	21.0
Inadequate supply of infrastructure	14.6
Inadequately educated workforce	7.2
Poor work ethic in national labor force	6.5
Inefficient government bureaucracy	5.6
Crime and theft	5.3
Foreign currency regulations	3.3
Government instability/coups	2.3
Tax rates	2.0
Insufficient capacity to innovate	1.5
Policy instability	1.4
Restrictive labor regulations	1.4
Poor public health	1.3
Inflation	1.2
Tax regulations	0.4



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Lesotho

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.6	103
1.02	Intellectual property protection	3.5	81
1.03	Diversion of public funds	3.8	49
1.04	Public trust in politicians	3.4	47
1.05	Irregular payments and bribes	4.2	58
1.06	Judicial independence	4.1	55
1.07	Favoritism in decisions of government officials	3.7	39
1.08	Wastefulness of government spending	3.7	39
1.09	Burden of government regulation	3.9	31
1.10	Efficiency of legal framework in settling disputes	3.7	70
1.11	Efficiency of legal framework in challenging regs.	3.5	62
1.12	Transparency of government policymaking	3.9	71
1.13	Business costs of terrorism	5.2	76
1.14	Business costs of crime and violence	3.9	96
1.15	Organized crime	4.5	85
1.16	Reliability of police services	4.7	45
1.17	Ethical behavior of firms	4.0	63
1.18	Strength of auditing and reporting standards	2.8	139
1.19	Efficacy of corporate boards	3.6	135
1.20	Protection of minority shareholders' interests	3.1	130
1.21	Strength of investor protection, 0–10 (best)*	5.0	83
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.6	98
2.02	Quality of roads	3.3	97
2.03	Quality of railroad infrastructure	N/Appl.	n/a
2.04	Quality of port infrastructure	2.7	120
2.05	Quality of air transport infrastructure	2.1	144
2.06	Available airline seat km/week, millions*	0.3	143
2.07	Quality of electricity supply	3.7	97
2.08	Mobile telephone subscriptions/100 pop.*	86.3	110
2.09	Fixed telephone lines/100 pop.*	2.8	115
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	3.0	10
3.02	Gross national savings, % GDP*	31.7	21
3.03	Inflation, annual % change*	5.3	96
3.04	General government debt, % GDP*	39.6	61
3.05	Country credit rating, 0–100 (best)*	32.7	99
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	S.L.	n/a
4.02	Business impact of malaria	N/Appl.	n/a
4.03	Tuberculosis cases/100,000 pop.*	630.0	140
4.04	Business impact of tuberculosis	5.2	86
4.05	HIV prevalence, % adult pop.*	23.1	142
4.06	Business impact of HIV/AIDS	4.4	113
4.07	Infant mortality, deaths/1,000 live births*	74.2	138
4.08	Life expectancy, years*	48.8	142
4.09	Quality of primary education	4.1	66
4.10	Primary education enrollment, net %*	81.6	126
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	53.3	119
5.02	Tertiary education enrollment, gross %*	10.8	111
5.03	Quality of the education system	4.1	49
5.04	Quality of math and science education	3.8	90
5.05	Quality of management schools	3.9	91
5.06	Internet access in schools	3.2	114
5.07	Availability of research and training services	3.9	82
5.08	Extent of staff training	4.0	75
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.8	93
6.02	Extent of market dominance	3.5	84
6.03	Effectiveness of anti-monopoly policy	3.7	103
6.04	Effect of taxation on incentives to invest	3.8	65
6.05	Total tax rate, % profits*	16.0	9

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	7	78
6.07	No. days to start a business*	29.0	110
6.08	Agricultural policy costs	3.9	61
6.09	Prevalence of trade barriers	3.9	122
6.10	Trade tariffs, % duty*	6.1	77
6.11	Prevalence of foreign ownership	4.0	107
6.12	Business impact of rules on FDI	4.7	47
6.13	Burden of customs procedures	3.4	107
6.14	Imports as a percentage of GDP*	127.4	3
6.15	Degree of customer orientation	3.5	133
6.16	Buyer sophistication	3.6	55
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.0	102
7.02	Flexibility of wage determination	4.0	123
7.03	Hiring and firing practices	3.9	76
7.04	Redundancy costs, weeks of salary*	15.0	70
7.05	Effect of taxation on incentives to work	4.0	40
7.06	Pay and productivity	3.8	84
7.07	Reliance on professional management	3.4	119
7.08	Country capacity to retain talent	3.4	68
7.09	Country capacity to attract talent	3.6	63
7.10	Women in labor force, ratio to men*	0.81	71
	8th pillar: Financial market development		
8.01	Availability of financial services	3.2	131
8.02	Affordability of financial services	3.4	125
8.03	Financing through local equity market	2.7	109
8.04	Ease of access to loans	2.9	63
8.05	Venture capital availability	2.7	72
8.06	Soundness of banks	3.5	130
8.07	Regulation of securities exchanges	2.6	130
8.08	Legal rights index, 0–10 (best)*	6	63
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.5	135
9.02	Firm-level technology absorption	3.5	136
9.03	FDI and technology transfer	3.5	134
9.04	Individuals using Internet, %*	5.0	132
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.1	127
9.06	Int'l Internet bandwidth, kb/s per user*	5.9	112
9.07	Mobile broadband subscriptions/100 pop.*	7.4	103
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	1.8	137
10.02	Foreign market size index, 1–7 (best)*	2.7	138
10.03	GDP (PPP$ billions)*	4.3	141
10.04	Exports as a percentage of GDP*	43.6	57
	11th pillar: Business sophistication		
11.01	Local supplier quantity	3.6	136
11.02	Local supplier quality	3.5	128
11.03	State of cluster development	3.9	65
11.04	Nature of competitive advantage	3.3	87
11.05	Value chain breadth	3.5	101
11.06	Control of international distribution	3.2	133
11.07	Production process sophistication	3.0	125
11.08	Extent of marketing	3.3	126
11.09	Willingness to delegate authority	3.0	129
	12th pillar: Innovation		
12.01	Capacity for innovation	3.1	122
12.02	Quality of scientific research institutions	2.9	114
12.03	Company spending on R&D	2.9	92
12.04	University-industry collaboration in R&D	3.2	99
12.05	Gov't procurement of advanced tech products	3.0	106
12.06	Availability of scientists and engineers	3.6	97
12.07	PCT patents, applications/million pop.*	0.0	124

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Liberia*

Key indicators, 2013

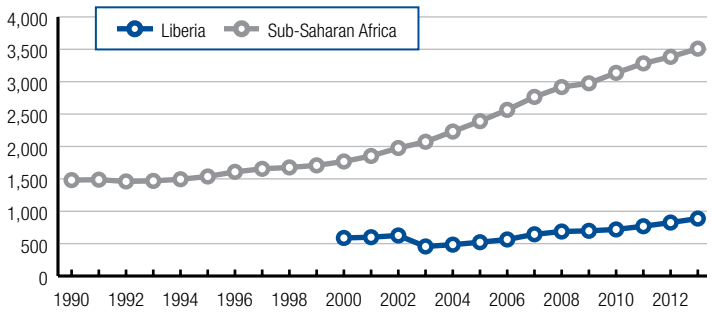
Population (millions) 4.1
GDP (US$ billions)* 2.0
GDP per capita (US$) 479.0
GDP (PPP) as share (%) of world total 0.00

Sectoral value-added (% GDP), 2012
Agriculture 38.8
Industry 16.4
Services 44.7

Human Development Index, 2013
Score, (0–1) best 0.41
Rank (out of 187 economies) 175

Sources: IMF; UNFPA; UNDP; World Bank

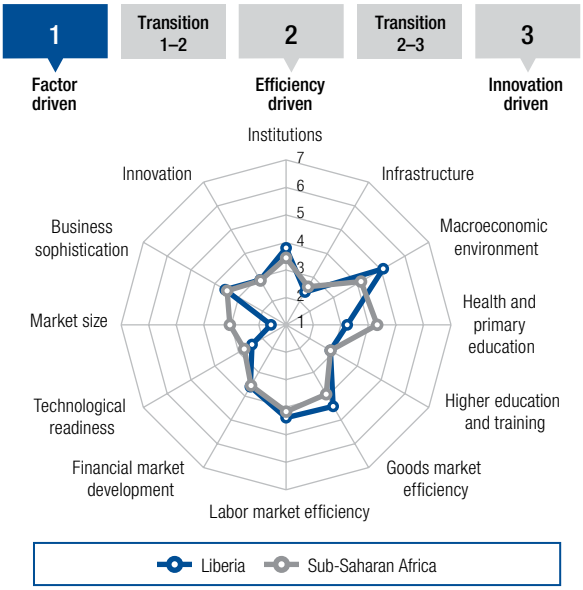
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**n/a**	**n/a**
GCI 2013–2014 (out of 148)	128	3.5
GCI 2012–2013 (out of 144)	111	3.7
Basic requirements (60.0%)	**127**	**3.6**
Institutions	77	3.8
Infrastructure	131	2.4
Macroeconomic environment	51	5.1
Health and primary education	144	3.2
Efficiency enhancers (35.0%)	**131**	**3.2**
Higher education and training	126	2.9
Goods market efficiency	47	4.4
Labor market efficiency	60	4.4
Financial market development	106	3.6
Technological readiness	141	2.4
Market size	146	1.5
Innovation and sophistication factors (5.0%)	**114**	**3.2**
Business sophistication	108	3.6
Innovation	110	2.9

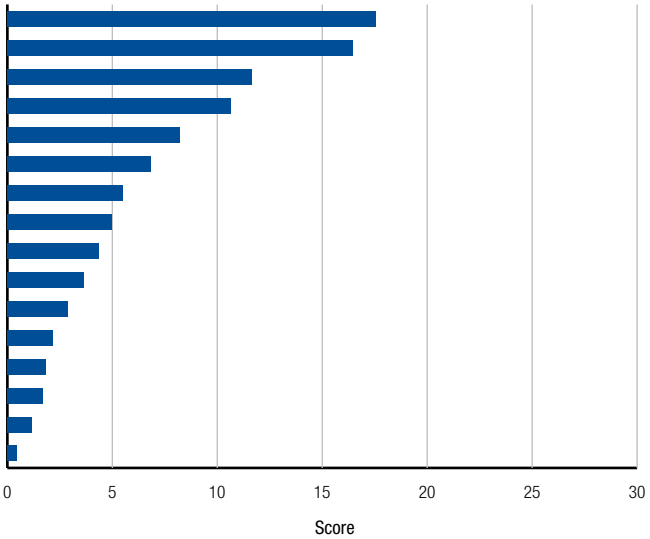
Stage of development



* Benin and Liberia were not included in the GCI 2014–2015. Therefore the data in this section refer to the GCI 2013–2014.

The most problematic factors for doing business

Access to financing 17.6
Corruption 16.4
Crime and theft 11.6
Inefficient government bureaucracy 10.7
Inadequate supply of infrastructure 8.2
Poor work ethic in national labor force 6.8
Inadequately educated workforce 5.5
Tax regulations 5.0
Foreign currency regulations 4.4
Tax rates 3.6
Restrictive labor regulations 2.9
Poor public health 2.1
Insufficient capacity to innovate 1.9
Inflation 1.7
Policy instability 1.2
Government instability/coups 0.4



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings. Benin and Liberia were not included in the GCI 2014–2015. Therefore the most problematic factors for these countries are drawn from the 2013 edition of the World Economic Forum's Executive Opinion Survey.

Liberia

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/148
	1st pillar: Institutions		
1.01	Property rights	3.8	99
1.02	Intellectual property protection	3.7	68
1.03	Diversion of public funds	3.6	57
1.04	Public trust in politicians	3.3	52
1.05	Irregular payments and bribes	3.4	100
1.06	Judicial independence	3.4	83
1.07	Favoritism in decisions of government officials	3.4	49
1.08	Wastefulness of government spending	3.9	30
1.09	Burden of government regulation	4.1	23
1.10	Efficiency of legal framework in settling disputes	3.8	67
1.11	Efficiency of legal framework in challenging regs.	3.7	57
1.12	Transparency of government policymaking	4.3	58
1.13	Business costs of terrorism	5.0	97
1.14	Business costs of crime and violence	4.2	99
1.15	Organized crime	4.7	87
1.16	Reliability of police services	3.7	104
1.17	Ethical behavior of firms	3.8	77
1.18	Strength of auditing and reporting standards	4.0	104
1.19	Efficacy of corporate boards	4.3	99
1.20	Protection of minority shareholders' interests	3.9	85
1.21	Strength of investor protection, 0–10 (best)*	3.7	123
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.5	103
2.02	Quality of roads	2.9	113
2.03	Quality of railroad infrastructure	2.0	96
2.04	Quality of port infrastructure	3.4	117
2.05	Quality of air transport infrastructure	3.1	127
2.06	Available airline seat km/week, millions*	5.0	143
2.07	Quality of electricity supply	2.6	125
2.08	Mobile telephone subscriptions/100 pop.*	56.4	133
2.09	Fixed telephone lines/100 pop.*	0.0	148
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-0.5	34
3.02	Gross national savings, % GDP*	n/a	n/a
3.03	Inflation, annual % change*	6.8	112
3.04	General government debt, % GDP*	29.1	38
3.05	Country credit rating, 0–100 (best)*	18.6	136
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	27,023.2	138
4.02	Business impact of malaria	3.4	129
4.03	Tuberculosis cases/100,000 pop.*	299.0	133
4.04	Business impact of tuberculosis	3.6	140
4.05	HIV prevalence, % adult pop.*	1.0	107
4.06	Business impact of HIV/AIDS	4.5	107
4.07	Infant mortality, deaths/1,000 live births*	58.2	132
4.08	Life expectancy, years*	56.7	127
4.09	Quality of primary education	2.8	123
4.10	Primary education enrollment, net %*	40.8	145
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	44.8	124
5.02	Tertiary education enrollment, gross %*	19.1	95
5.03	Quality of the education system	3.4	96
5.04	Quality of math and science education	2.9	125
5.05	Quality of management schools	3.5	117
5.06	Internet access in schools	2.6	129
5.07	Availability of research and training services	3.4	123
5.08	Extent of staff training	3.7	101
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.6	103
6.02	Extent of market dominance	3.8	68
6.03	Effectiveness of anti-monopoly policy	4.3	56
6.04	Effect of taxation on incentives to invest	4.2	35
6.05	Total tax rate, % profits*	27.4	26

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	4	20
6.07	No. days to start a business*	6.0	16
6.08	Agricultural policy costs	3.5	109
6.09	Prevalence of trade barriers	4.4	63
6.10	Trade tariffs, % duty*	10.7	119
6.11	Prevalence of foreign ownership	5.3	31
6.12	Business impact of rules on FDI	4.4	88
6.13	Burden of customs procedures	3.9	79
6.14	Imports as a percentage of GDP*	85.1	19
6.15	Degree of customer orientation	4.4	90
6.16	Buyer sophistication	3.4	74
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.2	78
7.02	Flexibility of wage determination	4.8	92
7.03	Hiring and firing practices	4.2	47
7.04	Redundancy costs, weeks of salary*	25.7	113
7.05	Effect of taxation on incentives to work	4.3	23
7.06	Pay and productivity	3.8	87
7.07	Reliance on professional management	3.5	122
7.08	Country capacity to retain talent	3.1	89
7.09	Country capacity to attract talent	4.1	36
7.10	Women in labor force, ratio to men*	0.92	25
	8th pillar: Financial market development		
8.01	Availability of financial services	3.8	114
8.02	Affordability of financial services	3.7	108
8.03	Financing through local equity market	2.5	117
8.04	Ease of access to loans	2.5	92
8.05	Venture capital availability	2.7	63
8.06	Soundness of banks	4.6	91
8.07	Regulation of securities exchanges	2.6	134
8.08	Legal rights index, 0–10 (best)*	7	42
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.6	136
9.02	Firm-level technology absorption	3.8	136
9.03	FDI and technology transfer	3.8	122
9.04	Individuals using Internet, %*	3.8	137
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.0	147
9.06	Int'l Internet bandwidth, kb/s per user*	2.0	135
9.07	Mobile broadband subscriptions/100 pop.*	0.0	135
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	1.2	146
10.02	Foreign market size index, 1–7 (best)*	2.5	144
10.03	GDP (PPP$ billions)*	2.7	146
10.04	Exports as a percentage of GDP*	47.6	58
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.1	119
11.02	Local supplier quality	3.9	109
11.03	State of cluster development	3.7	77
11.04	Nature of competitive advantage	3.3	83
11.05	Value chain breadth	3.5	99
11.06	Control of international distribution	3.5	124
11.07	Production process sophistication	3.2	118
11.08	Extent of marketing	3.3	123
11.09	Willingness to delegate authority	3.5	95
	12th pillar: Innovation		
12.01	Capacity for innovation	3.5	68
12.02	Quality of scientific research institutions	2.8	122
12.03	Company spending on R&D	2.9	95
12.04	University-industry collaboration in R&D	2.9	122
12.05	Gov't procurement of advanced tech products	3.8	40
12.06	Availability of scientists and engineers	2.8	142
12.07	PCT patents, applications/million pop.*	0.0	126

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89. Benin and Liberia were not included in the GCI 2014–2015. Therefore the data in this section refer to the GCI 2013–2014.

Libya

Key indicators, 2013

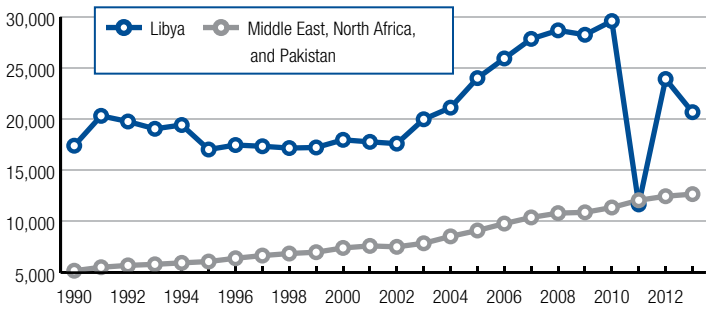
Population (millions) 6.1
GDP (US$ billions)* 65.5
GDP per capita (US$) 10,702.4
GDP (PPP) as share (%) of world total 0.12

Sectoral value-added (% GDP), 2008
Agriculture 1.9
Industry 78.2
Services 19.9

Human Development Index, 2013
Score, (0–1) best 0.78
Rank (out of 187 economies) 55

Sources: IMF; UNFPA; UNDP; World Bank

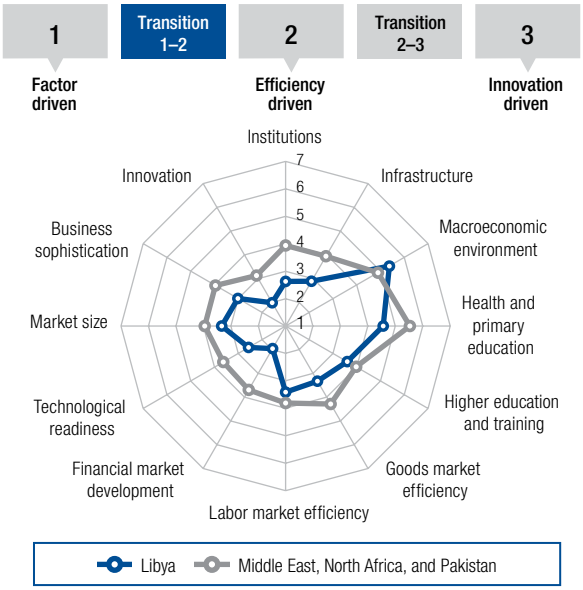
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

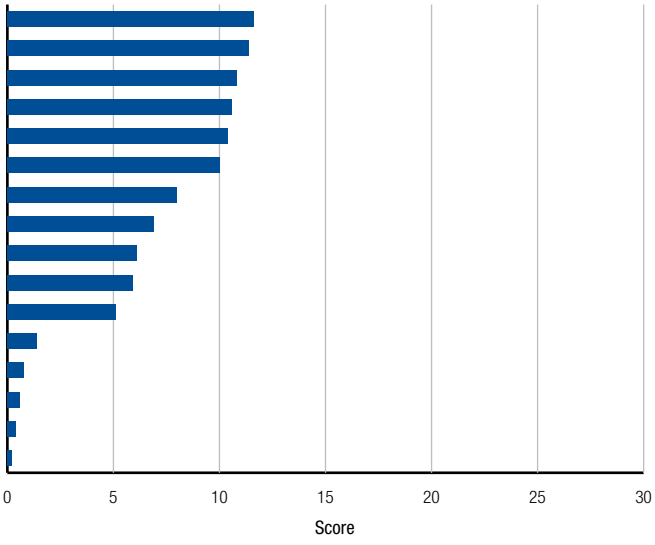
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**126**	**3.5**
GCI 2013–2014 (out of 148)	108	3.7
GCI 2012–2013 (out of 144)	113	3.7
Basic requirements (58.5%)	**111**	**3.9**
Institutions	142	2.6
Infrastructure	113	2.9
Macroeconomic environment	41	5.4
Health and primary education	119	4.6
Efficiency enhancers (36.1%)	**137**	**3.0**
Higher education and training	102	3.6
Goods market efficiency	139	3.3
Labor market efficiency	133	3.4
Financial market development	144	1.9
Technological readiness	130	2.6
Market size	85	3.3
Innovation and sophistication factors (5.4%)	**143**	**2.5**
Business sophistication	135	3.0
Innovation	144	2.0

Stage of development



The most problematic factors for doing business

Government instability/coups 11.6
Access to financing 11.4
Inadequately educated workforce 10.8
Inefficient government bureaucracy 10.6
Policy instability 10.4
Corruption 10.0
Inadequate supply of infrastructure 8.0
Poor work ethic in national labor force 6.9
Foreign currency regulations 6.1
Crime and theft 5.9
Restrictive labor regulations 5.1
Poor public health 1.4
Insufficient capacity to innovate 0.8
Inflation 0.6
Tax regulations 0.4
Tax rates 0.2



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Libya

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.0	131
1.02	Intellectual property protection	1.8	143
1.03	Diversion of public funds	2.1	133
1.04	Public trust in politicians	2.3	112
1.05	Irregular payments and bribes	2.9	122
1.06	Judicial independence	3.0	104
1.07	Favoritism in decisions of government officials	2.3	124
1.08	Wastefulness of government spending	2.0	136
1.09	Burden of government regulation	2.5	134
1.10	Efficiency of legal framework in settling disputes	2.4	135
1.11	Efficiency of legal framework in challenging regs.	2.4	127
1.12	Transparency of government policymaking	2.9	139
1.13	Business costs of terrorism	2.4	142
1.14	Business costs of crime and violence	2.5	138
1.15	Organized crime	4.0	116
1.16	Reliability of police services	2.0	143
1.17	Ethical behavior of firms	3.4	127
1.18	Strength of auditing and reporting standards	2.2	144
1.19	Efficacy of corporate boards	2.4	144
1.20	Protection of minority shareholders' interests	2.4	144
1.21	Strength of investor protection, 0–10 (best)*	1.7	143
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	1.9	144
2.02	Quality of roads	2.1	142
2.03	Quality of railroad infrastructure	N/Appl.	n/a
2.04	Quality of port infrastructure	2.6	131
2.05	Quality of air transport infrastructure	2.4	139
2.06	Available airline seat km/week, millions*	111.2	79
2.07	Quality of electricity supply	2.8	116
2.08	Mobile telephone subscriptions/100 pop.*	165.0	9
2.09	Fixed telephone lines/100 pop.*	12.7	82
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	1.6	12
3.02	Gross national savings, % GDP*	18.4	78
3.03	Inflation, annual % change*	2.6	1
3.04	General government debt, % GDP*	0.0	1
3.05	Country credit rating, 0–100 (best)*	35.6	93
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	S.L.	n/a
4.02	Business impact of malaria	N/Appl.	n/a
4.03	Tuberculosis cases/100,000 pop.*	40.0	65
4.04	Business impact of tuberculosis	5.0	91
4.05	HIV prevalence, % adult pop.*	<0.2	1
4.06	Business impact of HIV/AIDS	4.9	93
4.07	Infant mortality, deaths/1,000 live births*	13.2	68
4.08	Life expectancy, years*	75.2	54
4.09	Quality of primary education	2.5	128
4.10	Primary education enrollment, net %*	n/a	n/a
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	104.3	20
5.02	Tertiary education enrollment, gross %*	60.9	41
5.03	Quality of the education system	1.9	144
5.04	Quality of math and science education	2.9	125
5.05	Quality of management schools	2.3	142
5.06	Internet access in schools	1.6	143
5.07	Availability of research and training services	2.5	143
5.08	Extent of staff training	2.7	143
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	3.7	141
6.02	Extent of market dominance	2.7	137
6.03	Effectiveness of anti-monopoly policy	2.1	143
6.04	Effect of taxation on incentives to invest	3.2	109
6.05	Total tax rate, % profits*	31.6	44

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	10	118
6.07	No. days to start a business*	35.0	119
6.08	Agricultural policy costs	2.1	143
6.09	Prevalence of trade barriers	3.7	132
6.10	Trade tariffs, % duty*	0.0	1
6.11	Prevalence of foreign ownership	2.4	143
6.12	Business impact of rules on FDI	3.0	135
6.13	Burden of customs procedures	2.6	139
6.14	Imports as a percentage of GDP*	34.5	101
6.15	Degree of customer orientation	3.4	137
6.16	Buyer sophistication	2.3	139
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.0	103
7.02	Flexibility of wage determination	4.9	82
7.03	Hiring and firing practices	3.6	95
7.04	Redundancy costs, weeks of salary*	10.3	42
7.05	Effect of taxation on incentives to work	3.8	52
7.06	Pay and productivity	3.0	132
7.07	Reliance on professional management	2.7	140
7.08	Country capacity to retain talent	2.7	118
7.09	Country capacity to attract talent	2.3	132
7.10	Women in labor force, ratio to men*	0.40	131
	8th pillar: Financial market development		
8.01	Availability of financial services	2.1	144
8.02	Affordability of financial services	2.0	144
8.03	Financing through local equity market	1.8	140
8.04	Ease of access to loans	1.5	142
8.05	Venture capital availability	1.6	142
8.06	Soundness of banks	2.7	142
8.07	Regulation of securities exchanges	2.0	137
8.08	Legal rights index, 0–10 (best)*	1	143
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.1	140
9.02	Firm-level technology absorption	3.2	142
9.03	FDI and technology transfer	2.7	144
9.04	Individuals using Internet, %*	16.5	108
9.05	Fixed broadband Internet subscriptions/100 pop.*	1.0	106
9.06	Int'l Internet bandwidth, kb/s per user*	21.5	82
9.07	Mobile broadband subscriptions/100 pop.*	n/a	n/a
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.9	95
10.02	Foreign market size index, 1–7 (best)*	4.6	67
10.03	GDP (PPP$ billions)*	70.4	78
10.04	Exports as a percentage of GDP*	76.1	19
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.7	58
11.02	Local supplier quality	2.8	142
11.03	State of cluster development	2.7	140
11.04	Nature of competitive advantage	2.6	134
11.05	Value chain breadth	2.7	143
11.06	Control of international distribution	3.9	83
11.07	Production process sophistication	2.3	142
11.08	Extent of marketing	2.5	143
11.09	Willingness to delegate authority	3.1	128
	12th pillar: Innovation		
12.01	Capacity for innovation	2.5	144
12.02	Quality of scientific research institutions	1.7	143
12.03	Company spending on R&D	1.8	144
12.04	University-industry collaboration in R&D	1.7	144
12.05	Gov't procurement of advanced tech products	1.9	143
12.06	Availability of scientists and engineers	3.3	119
12.07	PCT patents, applications/million pop.*	0.0	124

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Madagascar

Key indicators, 2013

Population (millions)	23.0
GDP (US$ billions)*	10.6
GDP per capita (US$)	463.4
GDP (PPP) as share (%) of world total	0.03

Sectoral value-added (% GDP), 2009

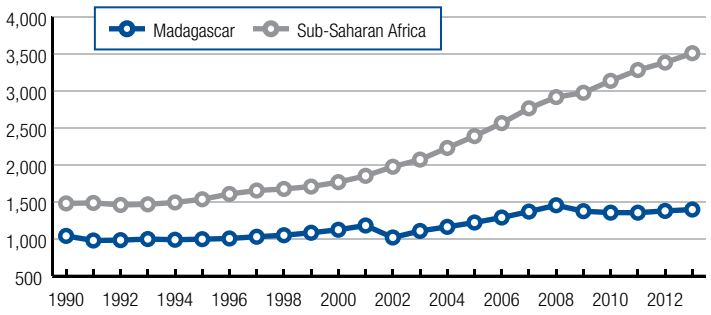
Agriculture	29.1
Industry	16.0
Services	54.9

Human Development Index, 2013

Score, (0–1) best	0.50
Rank (out of 187 economies)	155

Sources: IMF; UNFPA; UNDP; World Bank

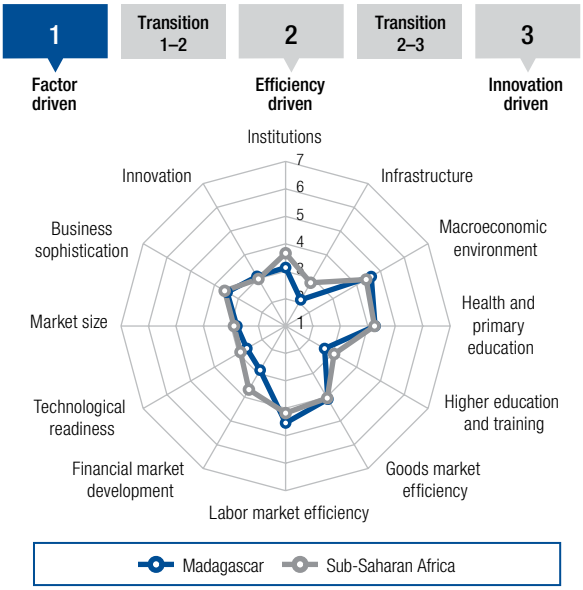
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

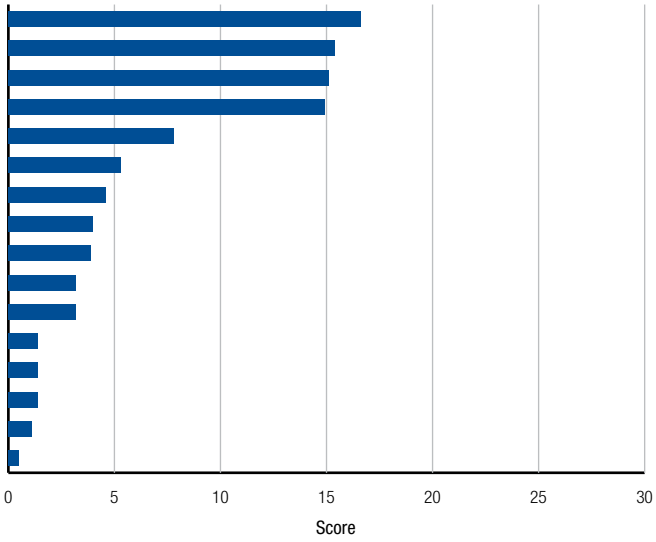
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**130**	**3.4**
GCI 2013–2014 (out of 148)	132	3.4
GCI 2012–2013 (out of 144)	130	3.4
Basic requirements (60.0%)	**129**	**3.5**
Institutions	128	3.1
Infrastructure	135	2.1
Macroeconomic environment	81	4.6
Health and primary education	125	4.3
Efficiency enhancers (35.0%)	**128**	**3.3**
Higher education and training	130	2.6
Goods market efficiency	102	4.1
Labor market efficiency	39	4.5
Financial market development	132	2.9
Technological readiness	127	2.6
Market size	114	2.8
Innovation and sophistication factors (5.0%)	**105**	**3.3**
Business sophistication	117	3.5
Innovation	94	3.1

Stage of development



The most problematic factors for doing business

Government instability/coups	16.6
Policy instability	15.4
Access to financing	15.1
Corruption	14.9
Inadequate supply of infrastructure	7.8
Crime and theft	5.3
Tax rates	4.6
Tax regulations	4.0
Inadequately educated workforce	3.9
Inefficient government bureaucracy	3.2
Inflation	3.2
Foreign currency regulations	1.4
Poor work ethic in national labor force	1.4
Restrictive labor regulations	1.4
Insufficient capacity to innovate	1.1
Poor public health	0.5



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Madagascar

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.1	130
1.02	Intellectual property protection	2.9	115
1.03	Diversion of public funds	2.3	126
1.04	Public trust in politicians	2.1	120
1.05	Irregular payments and bribes	3.0	117
1.06	Judicial independence	2.2	134
1.07	Favoritism in decisions of government officials	2.7	96
1.08	Wastefulness of government spending	2.4	117
1.09	Burden of government regulation	3.5	69
1.10	Efficiency of legal framework in settling disputes	2.9	117
1.11	Efficiency of legal framework in challenging regs.	2.7	117
1.12	Transparency of government policymaking	3.1	132
1.13	Business costs of terrorism	4.5	112
1.14	Business costs of crime and violence	3.7	106
1.15	Organized crime	4.1	110
1.16	Reliability of police services	2.8	130
1.17	Ethical behavior of firms	3.4	120
1.18	Strength of auditing and reporting standards	4.1	104
1.19	Efficacy of corporate boards	4.4	85
1.20	Protection of minority shareholders' interests	3.4	120
1.21	Strength of investor protection, 0–10 (best)*	5.7	57
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.1	122
2.02	Quality of roads	2.6	129
2.03	Quality of railroad infrastructure	1.8	92
2.04	Quality of port infrastructure	3.4	103
2.05	Quality of air transport infrastructure	3.4	114
2.06	Available airline seat km/week, millions*	40.0	107
2.07	Quality of electricity supply	2.3	130
2.08	Mobile telephone subscriptions/100 pop.*	36.1	139
2.09	Fixed telephone lines/100 pop.*	1.1	123
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-1.5	44
3.02	Gross national savings, % GDP*	19.2	74
3.03	Inflation, annual % change*	5.8	106
3.04	General government debt, % GDP*	49.8	86
3.05	Country credit rating, 0–100 (best)*	18.2	136
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	5,831.2	52
4.02	Business impact of malaria	3.4	64
4.03	Tuberculosis cases/100,000 pop.*	234.0	124
4.04	Business impact of tuberculosis	4.4	112
4.05	HIV prevalence, % adult pop.*	0.5	88
4.06	Business impact of HIV/AIDS	5.0	87
4.07	Infant mortality, deaths/1,000 live births*	40.9	111
4.08	Life expectancy, years*	64.2	113
4.09	Quality of primary education	2.6	123
4.10	Primary education enrollment, net %*	77.1	129
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	38.0	130
5.02	Tertiary education enrollment, gross %*	4.2	132
5.03	Quality of the education system	3.0	115
5.04	Quality of math and science education	3.7	93
5.05	Quality of management schools	3.8	93
5.06	Internet access in schools	2.4	135
5.07	Availability of research and training services	3.4	117
5.08	Extent of staff training	3.7	102
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.8	90
6.02	Extent of market dominance	3.3	112
6.03	Effectiveness of anti-monopoly policy	3.4	119
6.04	Effect of taxation on incentives to invest	3.1	125
6.05	Total tax rate, % profits*	35.8	63

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	2	3
6.07	No. days to start a business*	8.0	39
6.08	Agricultural policy costs	3.5	100
6.09	Prevalence of trade barriers	4.0	109
6.10	Trade tariffs, % duty*	7.6	88
6.11	Prevalence of foreign ownership	4.3	96
6.12	Business impact of rules on FDI	4.0	102
6.13	Burden of customs procedures	3.4	114
6.14	Imports as a percentage of GDP*	42.0	82
6.15	Degree of customer orientation	4.5	74
6.16	Buyer sophistication	2.5	133
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.2	77
7.02	Flexibility of wage determination	5.2	57
7.03	Hiring and firing practices	4.2	36
7.04	Redundancy costs, weeks of salary*	12.3	54
7.05	Effect of taxation on incentives to work	3.1	111
7.06	Pay and productivity	3.9	71
7.07	Reliance on professional management	3.9	91
7.08	Country capacity to retain talent	2.9	104
7.09	Country capacity to attract talent	3.0	96
7.10	Women in labor force, ratio to men*	0.97	8
	8th pillar: Financial market development		
8.01	Availability of financial services	3.5	127
8.02	Affordability of financial services	3.1	132
8.03	Financing through local equity market	2.3	125
8.04	Ease of access to loans	2.7	78
8.05	Venture capital availability	2.5	89
8.06	Soundness of banks	4.0	119
8.07	Regulation of securities exchanges	2.5	133
8.08	Legal rights index, 0–10 (best)*	2	137
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.3	103
9.02	Firm-level technology absorption	4.4	87
9.03	FDI and technology transfer	4.2	103
9.04	Individuals using Internet, %*	2.2	138
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.1	135
9.06	Int'l Internet bandwidth, kb/s per user*	0.4	143
9.07	Mobile broadband subscriptions/100 pop.*	0.4	128
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.6	114
10.02	Foreign market size index, 1–7 (best)*	3.4	117
10.03	GDP (PPP$ billions)*	22.3	114
10.04	Exports as a percentage of GDP*	28.8	100
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.4	94
11.02	Local supplier quality	3.9	101
11.03	State of cluster development	2.9	133
11.04	Nature of competitive advantage	2.7	124
11.05	Value chain breadth	3.5	99
11.06	Control of international distribution	3.3	128
11.07	Production process sophistication	3.3	110
11.08	Extent of marketing	3.4	123
11.09	Willingness to delegate authority	3.6	83
	12th pillar: Innovation		
12.01	Capacity for innovation	3.6	83
12.02	Quality of scientific research institutions	3.2	104
12.03	Company spending on R&D	2.9	88
12.04	University-industry collaboration in R&D	3.3	93
12.05	Gov't procurement of advanced tech products	3.3	83
12.06	Availability of scientists and engineers	4.4	38
12.07	PCT patents, applications/million pop.*	0.0	109

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Malawi

Key indicators, 2013

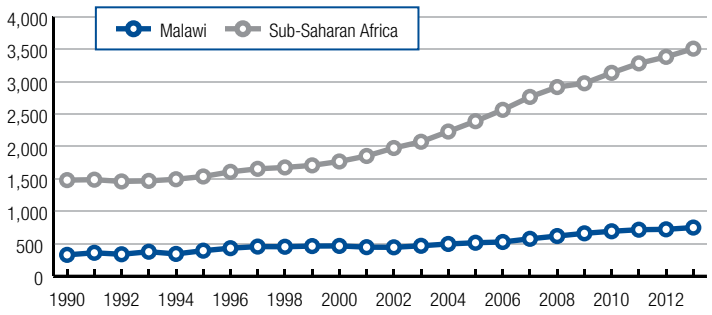
Population (millions) 17.1
GDP (US$ billions)* 3.8
GDP per capita (US$) 223.4
GDP (PPP) as share (%) of world total 0.01

Sectoral value-added (% GDP), 2013
Agriculture 27.0
Industry 18.8
Services 54.2

Human Development Index, 2013
Score, (0–1) best 0.41
Rank (out of 187 economies) 174

Sources: IMF; UNFPA; UNDP; World Bank

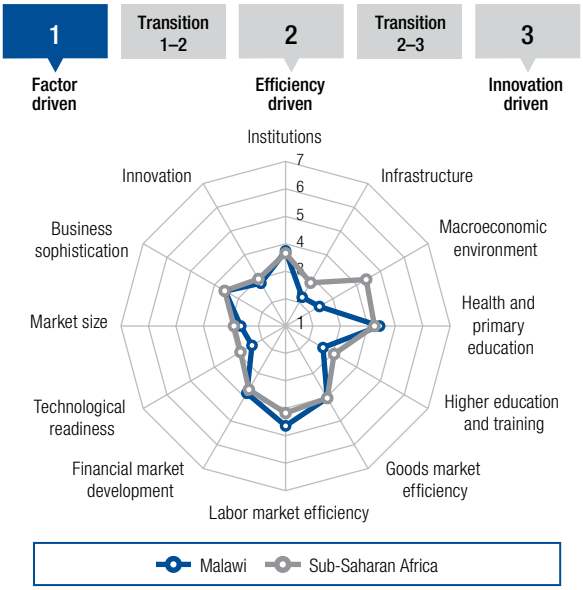
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

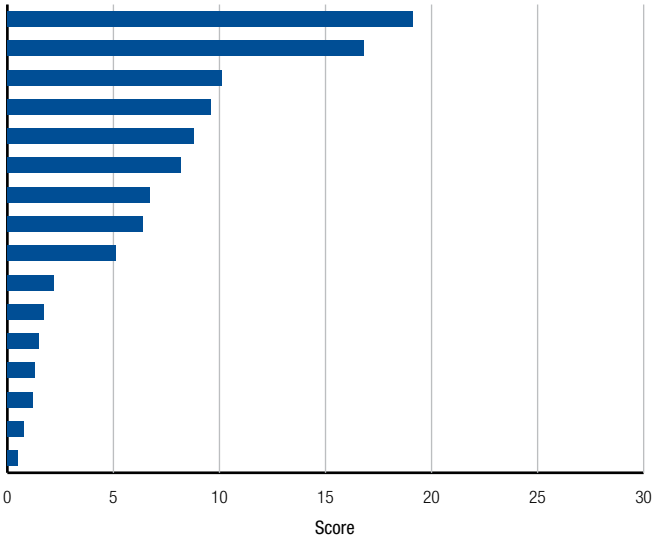
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**132**	**3.2**
GCI 2013–2014 (out of 148)	136	3.3
GCI 2012–2013 (out of 144)	129	3.4
Basic requirements (60.0%)	**139**	**3.2**
Institutions	77	3.7
Infrastructure	131	2.2
Macroeconomic environment	144	2.4
Health and primary education	123	4.4
Efficiency enhancers (35.0%)	**122**	**3.4**
Higher education and training	132	2.6
Goods market efficiency	108	4.0
Labor market efficiency	28	4.6
Financial market development	79	3.8
Technological readiness	135	2.4
Market size	123	2.6
Innovation and sophistication factors (5.0%)	**115**	**3.2**
Business sophistication	108	3.5
Innovation	115	2.8

Stage of development



The most problematic factors for doing business

Access to financing 19.1
Corruption 16.8
Inadequate supply of infrastructure 10.1
Inflation 9.6
Tax rates 8.8
Inefficient government bureaucracy 8.2
Crime and theft 6.7
Foreign currency regulations 6.4
Policy instability 5.1
Inadequately educated workforce 2.2
Tax regulations 1.7
Poor work ethic in national labor force 1.5
Restrictive labor regulations 1.3
Insufficient capacity to innovate 1.2
Poor public health 0.8
Government instability/coups 0.5



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Malawi

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.9	83
1.02	Intellectual property protection	3.1	100
1.03	Diversion of public funds	2.6	107
1.04	Public trust in politicians	2.7	86
1.05	Irregular payments and bribes	3.5	94
1.06	Judicial independence	4.0	59
1.07	Favoritism in decisions of government officials	2.7	97
1.08	Wastefulness of government spending	2.6	106
1.09	Burden of government regulation	3.7	44
1.10	Efficiency of legal framework in settling disputes	3.7	72
1.11	Efficiency of legal framework in challenging regs.	3.6	49
1.12	Transparency of government policymaking	3.6	102
1.13	Business costs of terrorism	5.7	47
1.14	Business costs of crime and violence	3.6	111
1.15	Organized crime	5.1	56
1.16	Reliability of police services	4.0	82
1.17	Ethical behavior of firms	3.9	78
1.18	Strength of auditing and reporting standards	4.7	70
1.19	Efficacy of corporate boards	4.7	58
1.20	Protection of minority shareholders' interests	4.4	50
1.21	Strength of investor protection, 0–10 (best)*	5.3	68
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.1	118
2.02	Quality of roads	3.3	99
2.03	Quality of railroad infrastructure	1.9	89
2.04	Quality of port infrastructure	2.6	132
2.05	Quality of air transport infrastructure	2.8	132
2.06	Available airline seat km/week, millions*	9.3	136
2.07	Quality of electricity supply	2.9	113
2.08	Mobile telephone subscriptions/100 pop.*	32.3	141
2.09	Fixed telephone lines/100 pop.*	0.2	143
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-6.7	125
3.02	Gross national savings, % GDP*	16.9	93
3.03	Inflation, annual % change*	27.7	142
3.04	General government debt, % GDP*	68.9	112
3.05	Country credit rating, 0–100 (best)*	19.7	130
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	27,661.7	70
4.02	Business impact of malaria	3.1	71
4.03	Tuberculosis cases/100,000 pop.*	163.0	109
4.04	Business impact of tuberculosis	3.7	137
4.05	HIV prevalence, % adult pop.*	10.8	135
4.06	Business impact of HIV/AIDS	3.1	142
4.07	Infant mortality, deaths/1,000 live births*	46.0	118
4.08	Life expectancy, years*	54.7	132
4.09	Quality of primary education	2.5	127
4.10	Primary education enrollment, net %*	96.9	46
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	34.2	133
5.02	Tertiary education enrollment, gross %*	0.8	141
5.03	Quality of the education system	3.2	99
5.04	Quality of math and science education	3.0	119
5.05	Quality of management schools	3.2	127
5.06	Internet access in schools	2.7	128
5.07	Availability of research and training services	3.4	113
5.08	Extent of staff training	4.0	65
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.9	76
6.02	Extent of market dominance	3.1	122
6.03	Effectiveness of anti-monopoly policy	3.9	79
6.04	Effect of taxation on incentives to invest	3.3	103
6.05	Total tax rate, % profits*	34.9	57

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	10	118
6.07	No. days to start a business*	40.0	127
6.08	Agricultural policy costs	3.6	91
6.09	Prevalence of trade barriers	4.6	34
6.10	Trade tariffs, % duty*	9.7	103
6.11	Prevalence of foreign ownership	4.6	67
6.12	Business impact of rules on FDI	4.1	99
6.13	Burden of customs procedures	3.8	80
6.14	Imports as a percentage of GDP*	70.2	32
6.15	Degree of customer orientation	4.0	108
6.16	Buyer sophistication	2.9	117
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.3	68
7.02	Flexibility of wage determination	5.3	48
7.03	Hiring and firing practices	3.6	90
7.04	Redundancy costs, weeks of salary*	16.7	80
7.05	Effect of taxation on incentives to work	3.3	100
7.06	Pay and productivity	4.0	61
7.07	Reliance on professional management	4.7	40
7.08	Country capacity to retain talent	3.3	78
7.09	Country capacity to attract talent	3.5	64
7.10	Women in labor force, ratio to men*	1.05	1
	8th pillar: Financial market development		
8.01	Availability of financial services	3.8	112
8.02	Affordability of financial services	3.1	133
8.03	Financing through local equity market	3.5	63
8.04	Ease of access to loans	2.3	114
8.05	Venture capital availability	2.2	112
8.06	Soundness of banks	4.8	74
8.07	Regulation of securities exchanges	4.0	74
8.08	Legal rights index, 0–10 (best)*	7	43
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.8	129
9.02	Firm-level technology absorption	3.8	125
9.03	FDI and technology transfer	3.8	119
9.04	Individuals using Internet, %*	5.4	130
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.0	139
9.06	Int'l Internet bandwidth, kb/s per user*	2.2	138
9.07	Mobile broadband subscriptions/100 pop.*	3.9	112
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.4	122
10.02	Foreign market size index, 1–7 (best)*	3.2	124
10.03	GDP (PPP$ billions)*	15.0	124
10.04	Exports as a percentage of GDP*	30.9	93
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.4	92
11.02	Local supplier quality	3.7	119
11.03	State of cluster development	3.7	79
11.04	Nature of competitive advantage	2.8	120
11.05	Value chain breadth	3.2	119
11.06	Control of international distribution	3.5	116
11.07	Production process sophistication	3.0	127
11.08	Extent of marketing	3.4	122
11.09	Willingness to delegate authority	3.6	87
	12th pillar: Innovation		
12.01	Capacity for innovation	3.2	116
12.02	Quality of scientific research institutions	3.1	110
12.03	Company spending on R&D	2.8	105
12.04	University-industry collaboration in R&D	2.8	120
12.05	Gov't procurement of advanced tech products	3.0	110
12.06	Availability of scientists and engineers	3.5	103
12.07	PCT patents, applications/million pop.*	0.0	122

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Mali

Key indicators, 2013

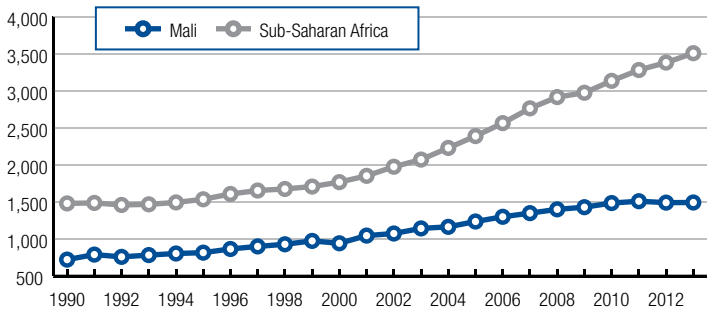
Population (millions) 16.9
GDP (US$ billions)* 10.9
GDP per capita (US$) 645.7
GDP (PPP) as share (%) of world total 0.03

Sectoral value-added (% GDP), 2012
Agriculture 42.3
Industry 22.7
Services 35.0

Human Development Index, 2013
Score, (0–1) best 0.41
Rank (out of 187 economies) 176

Sources: IMF; UNFPA; UNDP; World Bank

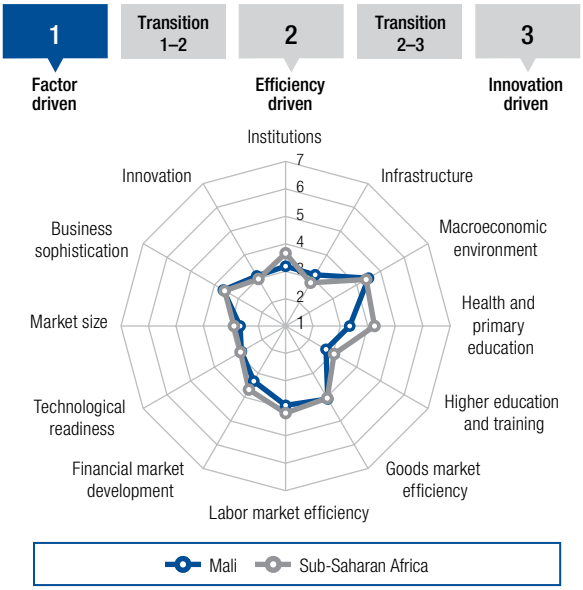
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

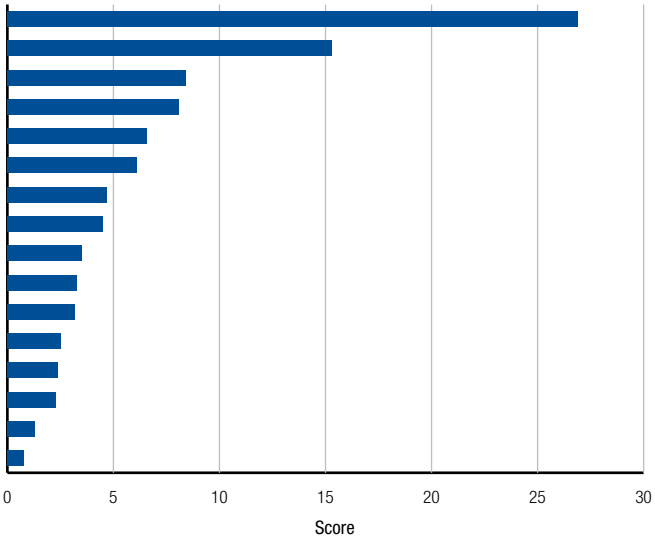
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**128**	**3.4**
GCI 2013–2014 (out of 148)	135	3.3
GCI 2012–2013 (out of 144)	128	3.4
Basic requirements (60.0%)	**128**	**3.5**
Institutions	126	3.2
Infrastructure	103	3.2
Macroeconomic environment	86	4.5
Health and primary education	138	3.3
Efficiency enhancers (35.0%)	**129**	**3.2**
Higher education and training	128	2.7
Goods market efficiency	104	4.1
Labor market efficiency	102	3.9
Financial market development	122	3.3
Technological readiness	112	2.9
Market size	122	2.7
Innovation and sophistication factors (5.0%)	**97**	**3.4**
Business sophistication	102	3.6
Innovation	92	3.1

Stage of development



The most problematic factors for doing business

Access to financing 26.9
Corruption 15.3
Inefficient government bureaucracy 8.4
Inadequate supply of infrastructure 8.1
Inadequately educated workforce 6.6
Policy instability 6.1
Government instability/coups 4.7
Restrictive labor regulations 4.5
Tax regulations 3.5
Poor work ethic in national labor force 3.3
Foreign currency regulations 3.2
Tax rates 2.5
Crime and theft 2.4
Insufficient capacity to innovate 2.3
Poor public health 1.3
Inflation 0.8



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Mali

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.4	114
1.02	Intellectual property protection	3.0	109
1.03	Diversion of public funds	2.5	116
1.04	Public trust in politicians	2.8	82
1.05	Irregular payments and bribes	2.5	134
1.06	Judicial independence	3.1	103
1.07	Favoritism in decisions of government officials	2.7	95
1.08	Wastefulness of government spending	3.2	69
1.09	Burden of government regulation	3.2	95
1.10	Efficiency of legal framework in settling disputes	3.4	87
1.11	Efficiency of legal framework in challenging regs.	3.5	58
1.12	Transparency of government policymaking	3.7	97
1.13	Business costs of terrorism	2.5	141
1.14	Business costs of crime and violence	2.9	131
1.15	Organized crime	3.2	134
1.16	Reliability of police services	3.8	90
1.17	Ethical behavior of firms	3.8	87
1.18	Strength of auditing and reporting standards	3.3	135
1.19	Efficacy of corporate boards	3.5	138
1.20	Protection of minority shareholders' interests	3.6	104
1.21	Strength of investor protection, 0–10 (best)*	3.7	117
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.6	101
2.02	Quality of roads	3.4	94
2.03	Quality of railroad infrastructure	2.1	85
2.04	Quality of port infrastructure	3.1	112
2.05	Quality of air transport infrastructure	3.8	96
2.06	Available airline seat km/week, millions*	28.3	113
2.07	Quality of electricity supply	3.5	101
2.08	Mobile telephone subscriptions/100 pop.*	129.1	44
2.09	Fixed telephone lines/100 pop.*	0.7	130
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-2.7	68
3.02	Gross national savings, % GDP*	14.9	108
3.03	Inflation, annual % change*	-0.6	79
3.04	General government debt, % GDP*	31.5	39
3.05	Country credit rating, 0–100 (best)*	18.5	134
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	20,197.2	63
4.02	Business impact of malaria	3.2	68
4.03	Tuberculosis cases/100,000 pop.*	60.0	78
4.04	Business impact of tuberculosis	4.0	129
4.05	HIV prevalence, % adult pop.*	0.9	106
4.06	Business impact of HIV/AIDS	3.9	128
4.07	Infant mortality, deaths/1,000 live births*	79.6	141
4.08	Life expectancy, years*	54.6	133
4.09	Quality of primary education	2.8	120
4.10	Primary education enrollment, net %*	68.7	136
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	44.5	126
5.02	Tertiary education enrollment, gross %*	7.5	122
5.03	Quality of the education system	3.0	110
5.04	Quality of math and science education	3.1	114
5.05	Quality of management schools	3.4	120
5.06	Internet access in schools	3.4	109
5.07	Availability of research and training services	3.4	115
5.08	Extent of staff training	3.3	126
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.7	97
6.02	Extent of market dominance	4.2	33
6.03	Effectiveness of anti-monopoly policy	4.0	69
6.04	Effect of taxation on incentives to invest	3.2	113
6.05	Total tax rate, % profits*	49.5	112

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	5	32
6.07	No. days to start a business*	11.0	57
6.08	Agricultural policy costs	3.9	59
6.09	Prevalence of trade barriers	3.2	141
6.10	Trade tariffs, % duty*	10.8	111
6.11	Prevalence of foreign ownership	3.5	120
6.12	Business impact of rules on FDI	3.9	109
6.13	Burden of customs procedures	3.2	121
6.14	Imports as a percentage of GDP*	42.3	80
6.15	Degree of customer orientation	4.2	95
6.16	Buyer sophistication	2.9	114
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.5	53
7.02	Flexibility of wage determination	4.7	94
7.03	Hiring and firing practices	4.3	35
7.04	Redundancy costs, weeks of salary*	13.7	63
7.05	Effect of taxation on incentives to work	3.3	96
7.06	Pay and productivity	3.5	106
7.07	Reliance on professional management	2.9	135
7.08	Country capacity to retain talent	3.4	65
7.09	Country capacity to attract talent	3.3	78
7.10	Women in labor force, ratio to men*	0.63	109
	8th pillar: Financial market development		
8.01	Availability of financial services	3.5	126
8.02	Affordability of financial services	3.6	113
8.03	Financing through local equity market	2.4	118
8.04	Ease of access to loans	2.7	84
8.05	Venture capital availability	2.4	94
8.06	Soundness of banks	3.9	123
8.07	Regulation of securities exchanges	2.6	129
8.08	Legal rights index, 0–10 (best)*	6	63
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.2	105
9.02	Firm-level technology absorption	4.1	107
9.03	FDI and technology transfer	4.3	88
9.04	Individuals using Internet, %*	2.3	136
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.0	138
9.06	Int'l Internet bandwidth, kb/s per user*	5.9	113
9.07	Mobile broadband subscriptions/100 pop.*	1.8	119
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.5	121
10.02	Foreign market size index, 1–7 (best)*	3.3	123
10.03	GDP (PPP$ billions)*	18.6	120
10.04	Exports as a percentage of GDP*	27.4	107
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.7	63
11.02	Local supplier quality	4.2	84
11.03	State of cluster development	3.9	56
11.04	Nature of competitive advantage	3.4	78
11.05	Value chain breadth	3.3	111
11.06	Control of international distribution	3.7	107
11.07	Production process sophistication	3.0	128
11.08	Extent of marketing	3.5	112
11.09	Willingness to delegate authority	3.3	114
	12th pillar: Innovation		
12.01	Capacity for innovation	3.3	112
12.02	Quality of scientific research institutions	3.6	79
12.03	Company spending on R&D	2.8	99
12.04	University-industry collaboration in R&D	3.2	100
12.05	Gov't procurement of advanced tech products	3.6	58
12.06	Availability of scientists and engineers	4.3	50
12.07	PCT patents, applications/million pop.*	0.0	124

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Mauritania

Key indicators, 2013

Population (millions)	3.7
GDP (US$ billions)*	4.2
GDP per capita (US$)	1,128.0
GDP (PPP) as share (%) of world total	0.01

Sectoral value-added (% GDP), 2012

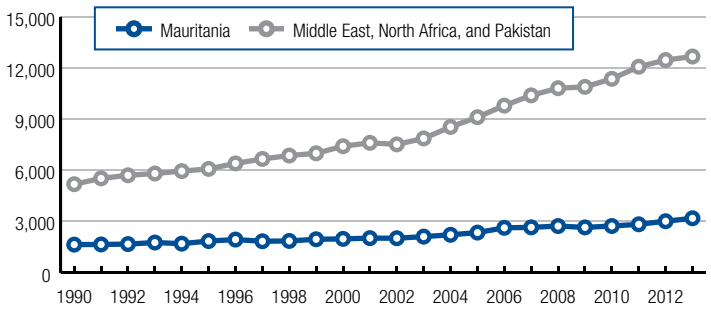
Agriculture	17.0
Industry	46.1
Services	36.9

Human Development Index, 2013

Score, (0–1) best	0.49
Rank (out of 187 economies)	161

Sources: IMF; UNFPA; UNDP; World Bank

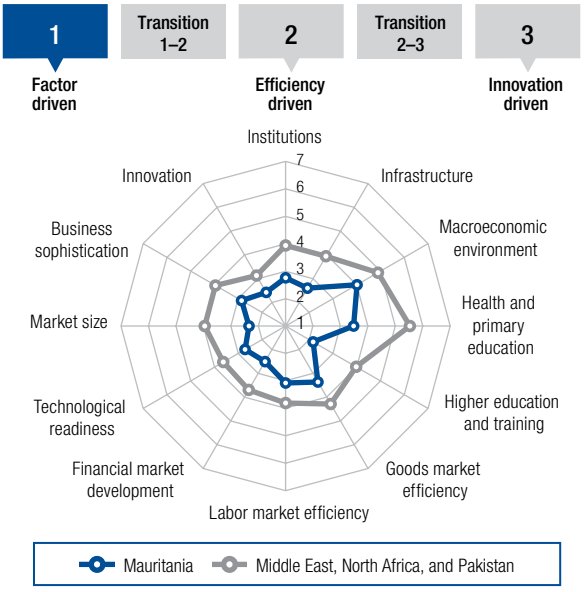
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

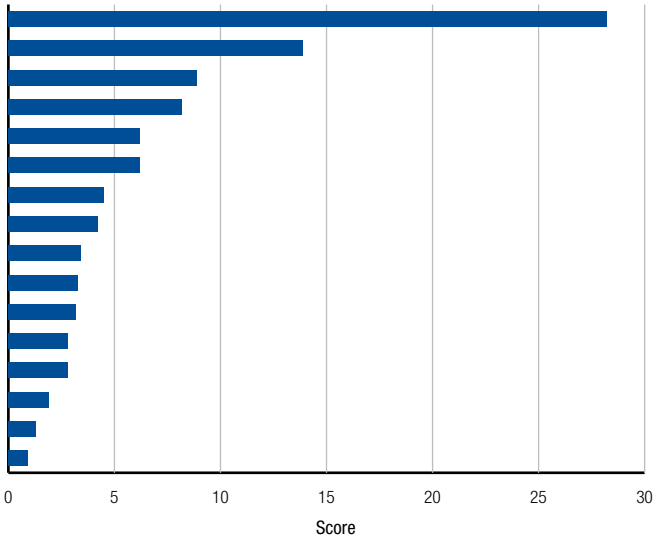
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**141**	**3.0**
GCI 2013–2014 (out of 148)	141	3.2
GCI 2012–2013 (out of 144)	134	3.3
Basic requirements (60.0%)	**138**	**3.2**
Institutions	138	2.8
Infrastructure	123	2.6
Macroeconomic environment	115	4.0
Health and primary education	137	3.5
Efficiency enhancers (35.0%)	**143**	**2.7**
Higher education and training	141	2.2
Goods market efficiency	138	3.4
Labor market efficiency	141	3.1
Financial market development	141	2.5
Technological readiness	123	2.7
Market size	131	2.3
Innovation and sophistication factors (5.0%)	**138**	**2.6**
Business sophistication	142	2.9
Innovation	136	2.4

Stage of development



The most problematic factors for doing business

Access to financing	28.2
Inadequate supply of infrastructure	13.9
Corruption	8.9
Foreign currency regulations	8.2
Government instability/coups	6.2
Restrictive labor regulations	6.2
Inadequately educated workforce	4.5
Poor work ethic in national labor force	4.2
Inefficient government bureaucracy	3.4
Policy instability	3.3
Inflation	3.2
Crime and theft	2.8
Tax rates	2.8
Tax regulations	1.9
Poor public health	1.3
Insufficient capacity to innovate	0.9



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Mauritania

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	2.5	139
1.02	Intellectual property protection	2.2	141
1.03	Diversion of public funds	2.5	115
1.04	Public trust in politicians	2.2	115
1.05	Irregular payments and bribes	2.3	141
1.06	Judicial independence	2.3	125
1.07	Favoritism in decisions of government officials	2.3	128
1.08	Wastefulness of government spending	2.6	100
1.09	Burden of government regulation	3.1	98
1.10	Efficiency of legal framework in settling disputes	2.4	138
1.11	Efficiency of legal framework in challenging regs.	2.1	140
1.12	Transparency of government policymaking	2.6	142
1.13	Business costs of terrorism	4.4	116
1.14	Business costs of crime and violence	4.7	57
1.15	Organized crime	4.9	64
1.16	Reliability of police services	3.0	121
1.17	Ethical behavior of firms	2.7	143
1.18	Strength of auditing and reporting standards	2.6	142
1.19	Efficacy of corporate boards	2.8	142
1.20	Protection of minority shareholders' interests	2.4	143
1.21	Strength of investor protection, 0–10 (best)*	3.7	117
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	2.6	134
2.02	Quality of roads	2.3	137
2.03	Quality of railroad infrastructure	2.4	77
2.04	Quality of port infrastructure	2.4	135
2.05	Quality of air transport infrastructure	2.4	140
2.06	Available airline seat km/week, millions*	11.4	133
2.07	Quality of electricity supply	3.3	105
2.08	Mobile telephone subscriptions/100 pop.*	102.5	90
2.09	Fixed telephone lines/100 pop.*	1.4	120
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-1.1	38
3.02	Gross national savings, % GDP*	10.0	129
3.03	Inflation, annual % change*	4.1	82
3.04	General government debt, % GDP*	87.7	122
3.05	Country credit rating, 0–100 (best)*	21.1	126
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	17,649.5	60
4.02	Business impact of malaria	4.0	54
4.03	Tuberculosis cases/100,000 pop.*	350.0	131
4.04	Business impact of tuberculosis	3.4	141
4.05	HIV prevalence, % adult pop.*	0.4	75
4.06	Business impact of HIV/AIDS	3.7	133
4.07	Infant mortality, deaths/1,000 live births*	64.8	133
4.08	Life expectancy, years*	61.4	121
4.09	Quality of primary education	2.5	129
4.10	Primary education enrollment, net %*	69.6	135
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	26.8	139
5.02	Tertiary education enrollment, gross %*	5.1	128
5.03	Quality of the education system	2.7	128
5.04	Quality of math and science education	2.9	123
5.05	Quality of management schools	2.8	136
5.06	Internet access in schools	2.1	138
5.07	Availability of research and training services	3.1	128
5.08	Extent of staff training	2.6	144
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.1	131
6.02	Extent of market dominance	3.1	126
6.03	Effectiveness of anti-monopoly policy	2.8	139
6.04	Effect of taxation on incentives to invest	3.1	120
6.05	Total tax rate, % profits*	68.2	135

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	9	106
6.07	No. days to start a business*	19.0	90
6.08	Agricultural policy costs	3.0	130
6.09	Prevalence of trade barriers	3.2	140
6.10	Trade tariffs, % duty*	11.1	116
6.11	Prevalence of foreign ownership	2.7	140
6.12	Business impact of rules on FDI	3.1	132
6.13	Burden of customs procedures	3.0	134
6.14	Imports as a percentage of GDP*	102.0	7
6.15	Degree of customer orientation	2.8	142
6.16	Buyer sophistication	2.5	135
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.4	136
7.02	Flexibility of wage determination	4.6	101
7.03	Hiring and firing practices	3.3	117
7.04	Redundancy costs, weeks of salary*	10.5	43
7.05	Effect of taxation on incentives to work	2.8	126
7.06	Pay and productivity	2.5	140
7.07	Reliance on professional management	2.0	144
7.08	Country capacity to retain talent	2.3	131
7.09	Country capacity to attract talent	2.5	123
7.10	Women in labor force, ratio to men*	0.37	132
	8th pillar: Financial market development		
8.01	Availability of financial services	2.9	138
8.02	Affordability of financial services	3.2	129
8.03	Financing through local equity market	2.0	136
8.04	Ease of access to loans	2.0	125
8.05	Venture capital availability	1.9	134
8.06	Soundness of banks	3.1	135
8.07	Regulation of securities exchanges	1.9	138
8.08	Legal rights index, 0–10 (best)*	3	113
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.5	86
9.02	Firm-level technology absorption	4.2	104
9.03	FDI and technology transfer	3.4	135
9.04	Individuals using Internet, %*	6.2	128
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.2	121
9.06	Int'l Internet bandwidth, kb/s per user*	2.6	134
9.07	Mobile broadband subscriptions/100 pop.*	5.4	108
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.0	133
10.02	Foreign market size index, 1–7 (best)*	3.3	121
10.03	GDP (PPP$ billions)*	8.2	133
10.04	Exports as a percentage of GDP*	69.6	28
	11th pillar: Business sophistication		
11.01	Local supplier quantity	3.8	127
11.02	Local supplier quality	2.8	141
11.03	State of cluster development	2.8	135
11.04	Nature of competitive advantage	2.8	116
11.05	Value chain breadth	3.1	130
11.06	Control of international distribution	2.8	143
11.07	Production process sophistication	2.6	134
11.08	Extent of marketing	2.9	138
11.09	Willingness to delegate authority	2.4	141
	12th pillar: Innovation		
12.01	Capacity for innovation	2.9	131
12.02	Quality of scientific research institutions	2.7	124
12.03	Company spending on R&D	2.7	109
12.04	University-industry collaboration in R&D	2.0	141
12.05	Gov't procurement of advanced tech products	2.8	126
12.06	Availability of scientists and engineers	2.9	139
12.07	PCT patents, applications/million pop.*	0.0	124

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Mauritius

Key indicators, 2013

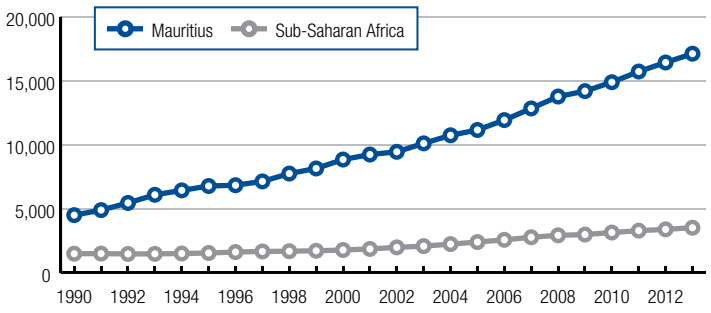
Population (millions) 1.3
GDP (US$ billions)* 11.9
GDP per capita (US$) 9,164.9
GDP (PPP) as share (%) of world total 0.02

Sectoral value-added (% GDP), 2013
Agriculture 3.3
Industry 23.1
Services 73.7

Human Development Index, 2013
Score, (0–1) best 0.77
Rank (out of 187 economies) 63

Sources: IMF; UNFPA; UNDP; World Bank

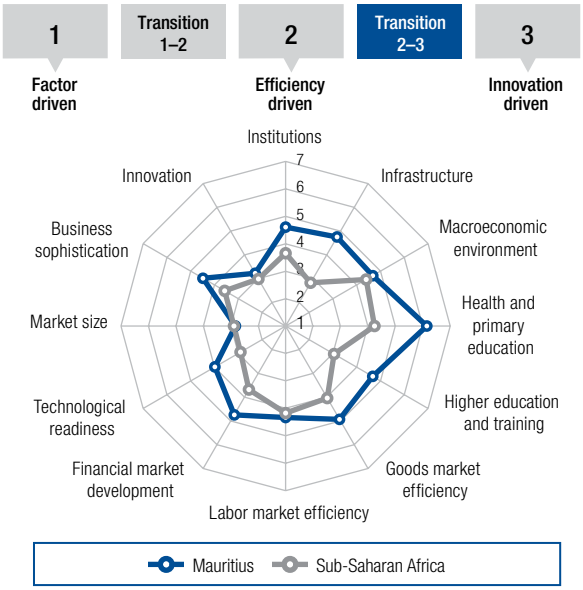
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

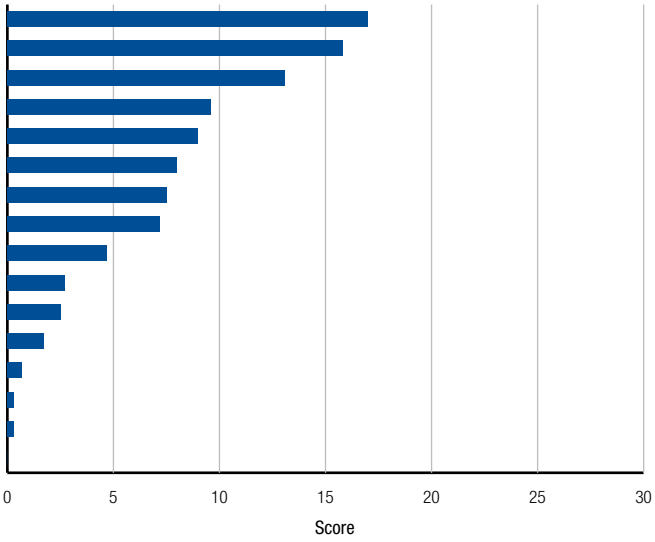
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**39**	**4.5**
GCI 2013–2014 (out of 148)	45	4.4
GCI 2012–2013 (out of 144)	54	4.4
Basic requirements (39.6%)	**38**	**5.0**
Institutions	35	4.6
Infrastructure	42	4.7
Macroeconomic environment	74	4.7
Health and primary education	42	6.1
Efficiency enhancers (50.0%)	**59**	**4.2**
Higher education and training	54	4.7
Goods market efficiency	25	4.9
Labor market efficiency	52	4.3
Financial market development	26	4.7
Technological readiness	63	4.0
Market size	113	2.8
Innovation and sophistication factors (10.4%)	**53**	**3.8**
Business sophistication	33	4.5
Innovation	76	3.2

Stage of development



The most problematic factors for doing business

Inefficient government bureaucracy 17.0
Insufficient capacity to innovate 15.8
Access to financing 13.1
Inadequate supply of infrastructure 9.6
Inadequately educated workforce 9.0
Poor work ethic in national labor force 8.0
Restrictive labor regulations 7.5
Corruption 7.2
Inflation 4.7
Tax rates 2.7
Policy instability 2.5
Tax regulations 1.7
Foreign currency regulations 0.7
Crime and theft 0.3
Poor public health 0.3
Government instability/coups 0.0



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Mauritius

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	5.1	33
1.02	Intellectual property protection	4.2	41
1.03	Diversion of public funds	3.9	46
1.04	Public trust in politicians	3.1	66
1.05	Irregular payments and bribes	4.6	45
1.06	Judicial independence	5.1	31
1.07	Favoritism in decisions of government officials	3.0	73
1.08	Wastefulness of government spending	3.6	44
1.09	Burden of government regulation	3.9	36
1.10	Efficiency of legal framework in settling disputes	4.9	22
1.11	Efficiency of legal framework in challenging regs.	4.1	30
1.12	Transparency of government policymaking	4.5	34
1.13	Business costs of terrorism	6.3	12
1.14	Business costs of crime and violence	5.2	35
1.15	Organized crime	6.0	20
1.16	Reliability of police services	4.5	51
1.17	Ethical behavior of firms	4.6	37
1.18	Strength of auditing and reporting standards	5.5	25
1.19	Efficacy of corporate boards	5.0	39
1.20	Protection of minority shareholders' interests	5.2	18
1.21	Strength of investor protection, 0–10 (best)*	7.7	12
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	4.7	49
2.02	Quality of roads	4.8	42
2.03	Quality of railroad infrastructure	N/Appl.	n/a
2.04	Quality of port infrastructure	5.0	36
2.05	Quality of air transport infrastructure	5.0	46
2.06	Available airline seat km/week, millions*	158.1	70
2.07	Quality of electricity supply	5.5	45
2.08	Mobile telephone subscriptions/100 pop.*	123.2	52
2.09	Fixed telephone lines/100 pop.*	29.2	38
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-3.5	84
3.02	Gross national savings, % GDP*	14.1	113
3.03	Inflation, annual % change*	3.5	71
3.04	General government debt, % GDP*	53.8	89
3.05	Country credit rating, 0–100 (best)*	59.0	52
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	M.F.	n/a
4.02	Business impact of malaria	N/Appl.	n/a
4.03	Tuberculosis cases/100,000 pop.*	21.0	46
4.04	Business impact of tuberculosis	6.0	52
4.05	HIV prevalence, % adult pop.*	1.2	113
4.06	Business impact of HIV/AIDS	5.6	70
4.07	Infant mortality, deaths/1,000 live births*	13.0	66
4.08	Life expectancy, years*	73.6	79
4.09	Quality of primary education	4.5	45
4.10	Primary education enrollment, net %*	97.8	34
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	95.9	52
5.02	Tertiary education enrollment, gross %*	40.3	68
5.03	Quality of the education system	4.2	42
5.04	Quality of math and science education	4.6	40
5.05	Quality of management schools	4.4	55
5.06	Internet access in schools	4.4	65
5.07	Availability of research and training services	4.4	52
5.08	Extent of staff training	4.4	35
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	5.6	24
6.02	Extent of market dominance	3.6	79
6.03	Effectiveness of anti-monopoly policy	4.4	45
6.04	Effect of taxation on incentives to invest	5.3	9
6.05	Total tax rate, % profits*	28.2	32

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	5	32
6.07	No. days to start a business*	6.0	21
6.08	Agricultural policy costs	4.3	26
6.09	Prevalence of trade barriers	4.6	33
6.10	Trade tariffs, % duty*	0.8	4
6.11	Prevalence of foreign ownership	4.7	65
6.12	Business impact of rules on FDI	5.6	7
6.13	Burden of customs procedures	4.7	38
6.14	Imports as a percentage of GDP*	67.1	36
6.15	Degree of customer orientation	4.8	50
6.16	Buyer sophistication	3.8	36
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.9	31
7.02	Flexibility of wage determination	4.7	99
7.03	Hiring and firing practices	4.2	42
7.04	Redundancy costs, weeks of salary*	10.6	45
7.05	Effect of taxation on incentives to work	5.1	9
7.06	Pay and productivity	4.2	47
7.07	Reliance on professional management	4.4	55
7.08	Country capacity to retain talent	3.2	85
7.09	Country capacity to attract talent	3.9	38
7.10	Women in labor force, ratio to men*	0.61	115
	8th pillar: Financial market development		
8.01	Availability of financial services	5.2	34
8.02	Affordability of financial services	4.9	40
8.03	Financing through local equity market	4.2	32
8.04	Ease of access to loans	3.5	31
8.05	Venture capital availability	3.1	41
8.06	Soundness of banks	6.1	15
8.07	Regulation of securities exchanges	5.2	24
8.08	Legal rights index, 0–10 (best)*	6	63
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	5.2	48
9.02	Firm-level technology absorption	5.0	44
9.03	FDI and technology transfer	4.7	57
9.04	Individuals using Internet, %*	39.0	85
9.05	Fixed broadband Internet subscriptions/100 pop.*	12.5	56
9.06	Int'l Internet bandwidth, kb/s per user*	24.4	76
9.07	Mobile broadband subscriptions/100 pop.*	28.8	68
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.5	115
10.02	Foreign market size index, 1–7 (best)*	3.7	104
10.03	GDP (PPP$ billions)*	20.9	116
10.04	Exports as a percentage of GDP*	51.0	46
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.9	35
11.02	Local supplier quality	4.6	53
11.03	State of cluster development	4.3	35
11.04	Nature of competitive advantage	4.1	39
11.05	Value chain breadth	4.6	26
11.06	Control of international distribution	4.7	18
11.07	Production process sophistication	4.5	35
11.08	Extent of marketing	4.6	48
11.09	Willingness to delegate authority	4.1	43
	12th pillar: Innovation		
12.01	Capacity for innovation	4.0	50
12.02	Quality of scientific research institutions	3.4	91
12.03	Company spending on R&D	3.3	54
12.04	University-industry collaboration in R&D	3.2	101
12.05	Gov't procurement of advanced tech products	3.5	66
12.06	Availability of scientists and engineers	3.7	93
12.07	PCT patents, applications/million pop.*	0.2	94

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Morocco

Key indicators, 2013

Population (millions)	32.9
GDP (US$ billions)*	103.8
GDP per capita (US$)	3,160.3
GDP (PPP) as share (%) of world total	0.24

Sectoral value-added (% GDP), 2012

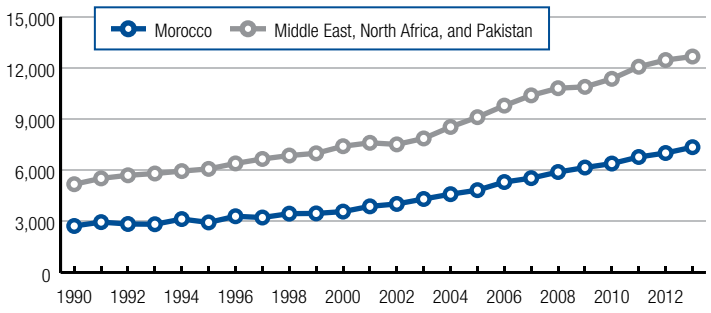
Agriculture	14.6
Industry	29.6
Services	55.8

Human Development Index, 2013

Score, (0–1) best	0.62
Rank (out of 187 economies)	129

Sources: IMF; UNFPA; UNDP; World Bank

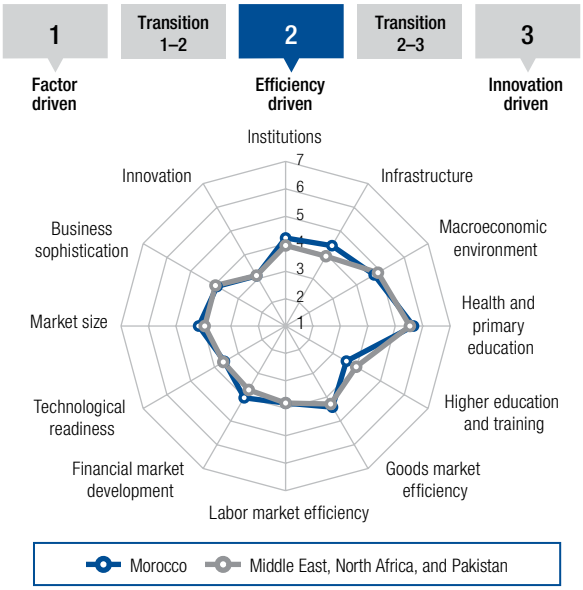
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

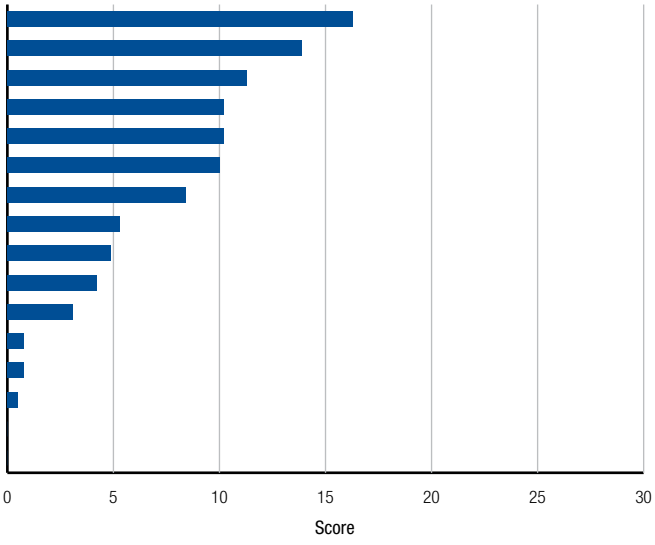
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**72**	**4.2**
GCI 2013–2014 (out of 148)	77	4.1
GCI 2012–2013 (out of 144)	70	4.1
Basic requirements (40.0%)	**57**	**4.7**
Institutions	49	4.2
Infrastructure	55	4.4
Macroeconomic environment	66	4.7
Health and primary education	76	5.7
Efficiency enhancers (50.0%)	**78**	**3.9**
Higher education and training	104	3.6
Goods market efficiency	58	4.4
Labor market efficiency	111	3.8
Financial market development	69	4.0
Technological readiness	78	3.6
Market size	56	4.2
Innovation and sophistication factors (10.0%)	**82**	**3.5**
Business sophistication	78	3.9
Innovation	90	3.1

Stage of development



The most problematic factors for doing business

Access to financing	16.3
Inefficient government bureaucracy	13.9
Inadequately educated workforce	11.3
Inadequate supply of infrastructure	10.2
Restrictive labor regulations	10.2
Corruption	10.0
Tax rates	8.4
Insufficient capacity to innovate	5.3
Tax regulations	4.9
Poor work ethic in national labor force	4.2
Foreign currency regulations	3.1
Policy instability	0.8
Poor public health	0.8
Inflation	0.5
Crime and theft	0.0
Government instability/coups	0.0



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Morocco

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	4.9	41
1.02	Intellectual property protection	3.7	64
1.03	Diversion of public funds	3.8	47
1.04	Public trust in politicians	3.3	53
1.05	Irregular payments and bribes	4.3	53
1.06	Judicial independence	3.5	81
1.07	Favoritism in decisions of government officials	3.5	44
1.08	Wastefulness of government spending	3.6	41
1.09	Burden of government regulation	3.6	53
1.10	Efficiency of legal framework in settling disputes	3.7	73
1.11	Efficiency of legal framework in challenging regs.	3.3	73
1.12	Transparency of government policymaking	4.3	47
1.13	Business costs of terrorism	5.4	67
1.14	Business costs of crime and violence	5.3	28
1.15	Organized crime	5.7	33
1.16	Reliability of police services	4.9	41
1.17	Ethical behavior of firms	4.2	52
1.18	Strength of auditing and reporting standards	5.0	49
1.19	Efficacy of corporate boards	4.8	52
1.20	Protection of minority shareholders' interests	4.3	59
1.21	Strength of investor protection, 0–10 (best)*	4.7	98
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	4.6	55
2.02	Quality of roads	4.5	51
2.03	Quality of railroad infrastructure	3.9	34
2.04	Quality of port infrastructure	4.9	43
2.05	Quality of air transport infrastructure	4.8	51
2.06	Available airline seat km/week, millions*	451.3	46
2.07	Quality of electricity supply	5.4	48
2.08	Mobile telephone subscriptions/100 pop.*	128.5	45
2.09	Fixed telephone lines/100 pop.*	8.9	94
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-5.4	113
3.02	Gross national savings, % GDP*	27.2	32
3.03	Inflation, annual % change*	1.9	1
3.04	General government debt, % GDP*	61.9	101
3.05	Country credit rating, 0–100 (best)*	52.6	67
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	M.F.	n/a
4.02	Business impact of malaria	N/Appl.	n/a
4.03	Tuberculosis cases/100,000 pop.*	103.0	94
4.04	Business impact of tuberculosis	5.7	69
4.05	HIV prevalence, % adult pop.*	0.1	1
4.06	Business impact of HIV/AIDS	5.7	61
4.07	Infant mortality, deaths/1,000 live births*	26.8	99
4.08	Life expectancy, years*	70.6	92
4.09	Quality of primary education	3.1	105
4.10	Primary education enrollment, net %*	97.5	39
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	68.9	105
5.02	Tertiary education enrollment, gross %*	16.2	100
5.03	Quality of the education system	3.2	102
5.04	Quality of math and science education	4.2	68
5.05	Quality of management schools	4.5	54
5.06	Internet access in schools	3.3	112
5.07	Availability of research and training services	4.1	72
5.08	Extent of staff training	3.6	106
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	5.3	48
6.02	Extent of market dominance	4.0	47
6.03	Effectiveness of anti-monopoly policy	4.2	64
6.04	Effect of taxation on incentives to invest	3.9	53
6.05	Total tax rate, % profits*	49.6	113

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	5	32
6.07	No. days to start a business*	11.0	57
6.08	Agricultural policy costs	4.5	15
6.09	Prevalence of trade barriers	4.7	25
6.10	Trade tariffs, % duty*	11.7	122
6.11	Prevalence of foreign ownership	5.1	40
6.12	Business impact of rules on FDI	5.5	10
6.13	Burden of customs procedures	4.3	57
6.14	Imports as a percentage of GDP*	49.1	69
6.15	Degree of customer orientation	4.4	82
6.16	Buyer sophistication	3.1	100
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.2	83
7.02	Flexibility of wage determination	5.4	37
7.03	Hiring and firing practices	3.7	86
7.04	Redundancy costs, weeks of salary*	20.7	97
7.05	Effect of taxation on incentives to work	3.9	42
7.06	Pay and productivity	4.0	65
7.07	Reliance on professional management	4.3	64
7.08	Country capacity to retain talent	3.8	45
7.09	Country capacity to attract talent	3.9	40
7.10	Women in labor force, ratio to men*	0.34	137
	8th pillar: Financial market development		
8.01	Availability of financial services	4.6	59
8.02	Affordability of financial services	4.2	63
8.03	Financing through local equity market	3.8	49
8.04	Ease of access to loans	3.1	46
8.05	Venture capital availability	2.9	49
8.06	Soundness of banks	5.6	42
8.07	Regulation of securities exchanges	4.5	49
8.08	Legal rights index, 0–10 (best)*	3	113
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	5.1	57
9.02	Firm-level technology absorption	4.5	75
9.03	FDI and technology transfer	4.8	45
9.04	Individuals using Internet, %*	56.0	59
9.05	Fixed broadband Internet subscriptions/100 pop.*	2.5	94
9.06	Int'l Internet bandwidth, kb/s per user*	22.3	80
9.07	Mobile broadband subscriptions/100 pop.*	15.0	90
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	4.0	53
10.02	Foreign market size index, 1–7 (best)*	4.7	65
10.03	GDP (PPP$ billions)*	179.2	58
10.04	Exports as a percentage of GDP*	33.3	86
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.8	43
11.02	Local supplier quality	4.4	70
11.03	State of cluster development	3.8	71
11.04	Nature of competitive advantage	3.2	98
11.05	Value chain breadth	3.9	60
11.06	Control of international distribution	4.0	75
11.07	Production process sophistication	3.4	105
11.08	Extent of marketing	3.8	103
11.09	Willingness to delegate authority	3.6	84
	12th pillar: Innovation		
12.01	Capacity for innovation	3.2	118
12.02	Quality of scientific research institutions	3.5	85
12.03	Company spending on R&D	2.6	112
12.04	University-industry collaboration in R&D	3.2	96
12.05	Gov't procurement of advanced tech products	3.4	78
12.06	Availability of scientists and engineers	4.6	34
12.07	PCT patents, applications/million pop.*	0.5	78

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Mozambique

Key indicators, 2013

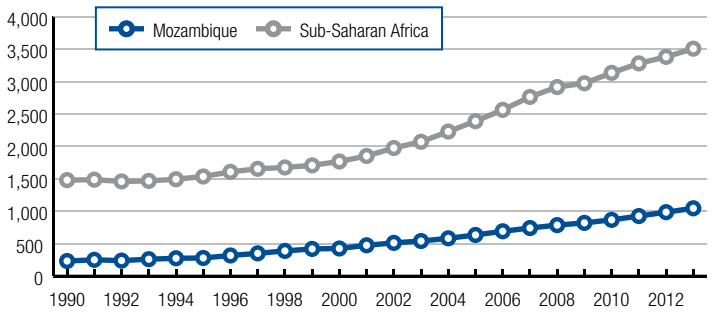
Population (millions) 25.9
GDP (US$ billions)* 15.3
GDP per capita (US$) 592.7
GDP (PPP) as share (%) of world total 0.03

Sectoral value-added (% GDP), 2013
Agriculture 29.3
Industry 23.7
Services 47.1

Human Development Index, 2013
Score, (0–1) best 0.39
Rank (out of 187 economies) 178

Sources: IMF; UNFPA; UNDP; World Bank

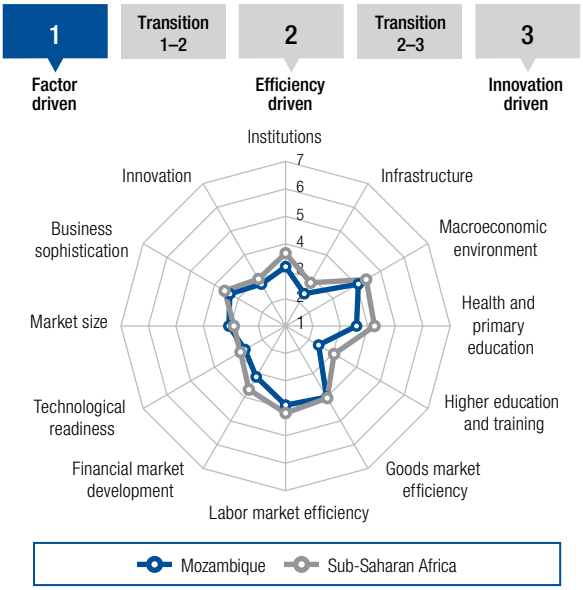
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

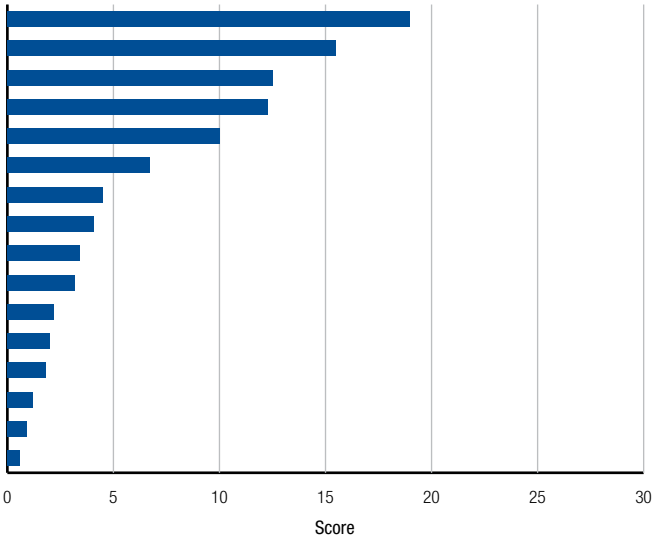
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**133**	**3.2**
GCI 2013–2014 (out of 148)	137	3.3
GCI 2012–2013 (out of 144)	138	3.2
Basic requirements (60.0%)	**133**	**3.3**
Institutions	127	3.2
Infrastructure	128	2.4
Macroeconomic environment	110	4.1
Health and primary education	135	3.6
Efficiency enhancers (35.0%)	**131**	**3.2**
Higher education and training	138	2.4
Goods market efficiency	116	4.0
Labor market efficiency	104	3.9
Financial market development	126	3.1
Technological readiness	122	2.7
Market size	101	3.1
Innovation and sophistication factors (5.0%)	**120**	**3.1**
Business sophistication	125	3.3
Innovation	118	2.8

Stage of development



The most problematic factors for doing business

Access to financing 19.0
Corruption 15.5
Inadequate supply of infrastructure 12.5
Inefficient government bureaucracy 12.3
Inadequately educated workforce 10.0
Crime and theft 6.7
Restrictive labor regulations 4.5
Policy instability 4.1
Poor work ethic in national labor force 3.4
Tax rates 3.2
Foreign currency regulations 2.2
Inflation 2.0
Insufficient capacity to innovate 1.8
Tax regulations 1.2
Poor public health 0.9
Government instability/coups 0.6



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Mozambique

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.4	117
1.02	Intellectual property protection	2.7	122
1.03	Diversion of public funds	2.3	125
1.04	Public trust in politicians	2.4	99
1.05	Irregular payments and bribes	3.1	114
1.06	Judicial independence	2.5	123
1.07	Favoritism in decisions of government officials	2.5	115
1.08	Wastefulness of government spending	2.7	95
1.09	Burden of government regulation	3.5	65
1.10	Efficiency of legal framework in settling disputes	3.3	103
1.11	Efficiency of legal framework in challenging regs.	2.8	112
1.12	Transparency of government policymaking	3.6	112
1.13	Business costs of terrorism	4.4	113
1.14	Business costs of crime and violence	3.4	117
1.15	Organized crime	3.5	130
1.16	Reliability of police services	2.9	125
1.17	Ethical behavior of firms	3.3	130
1.18	Strength of auditing and reporting standards	3.9	110
1.19	Efficacy of corporate boards	4.2	99
1.20	Protection of minority shareholders' interests	3.5	114
1.21	Strength of investor protection, 0–10 (best)*	6.0	45
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.0	124
2.02	Quality of roads	2.1	141
2.03	Quality of railroad infrastructure	2.1	84
2.04	Quality of port infrastructure	3.7	94
2.05	Quality of air transport infrastructure	3.3	119
2.06	Available airline seat km/week, millions*	35.8	109
2.07	Quality of electricity supply	3.1	108
2.08	Mobile telephone subscriptions/100 pop.*	48.0	136
2.09	Fixed telephone lines/100 pop.*	0.3	137
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-4.6	101
3.02	Gross national savings, % GDP*	6.8	132
3.03	Inflation, annual % change*	4.2	83
3.04	General government debt, % GDP*	43.3	73
3.05	Country credit rating, 0–100 (best)*	31.5	106
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	27,774.0	72
4.02	Business impact of malaria	3.6	63
4.03	Tuberculosis cases/100,000 pop.*	552.0	138
4.04	Business impact of tuberculosis	4.1	126
4.05	HIV prevalence, % adult pop.*	11.1	136
4.06	Business impact of HIV/AIDS	3.6	134
4.07	Infant mortality, deaths/1,000 live births*	63.1	132
4.08	Life expectancy, years*	49.8	140
4.09	Quality of primary education	2.2	139
4.10	Primary education enrollment, net %*	86.2	113
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	25.9	142
5.02	Tertiary education enrollment, gross %*	4.9	129
5.03	Quality of the education system	2.8	124
5.04	Quality of math and science education	2.6	133
5.05	Quality of management schools	2.9	134
5.06	Internet access in schools	2.8	123
5.07	Availability of research and training services	3.4	112
5.08	Extent of staff training	3.4	121
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.7	96
6.02	Extent of market dominance	3.3	105
6.03	Effectiveness of anti-monopoly policy	3.4	121
6.04	Effect of taxation on incentives to invest	3.6	84
6.05	Total tax rate, % profits*	37.5	71

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	9	106
6.07	No. days to start a business*	13.0	67
6.08	Agricultural policy costs	3.2	119
6.09	Prevalence of trade barriers	4.5	56
6.10	Trade tariffs, % duty*	7.7	89
6.11	Prevalence of foreign ownership	4.8	56
6.12	Business impact of rules on FDI	4.7	39
6.13	Burden of customs procedures	3.5	104
6.14	Imports as a percentage of GDP*	75.4	28
6.15	Degree of customer orientation	3.7	122
6.16	Buyer sophistication	2.7	129
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.6	131
7.02	Flexibility of wage determination	3.9	128
7.03	Hiring and firing practices	3.4	102
7.04	Redundancy costs, weeks of salary*	37.5	135
7.05	Effect of taxation on incentives to work	3.6	78
7.06	Pay and productivity	2.9	133
7.07	Reliance on professional management	3.4	120
7.08	Country capacity to retain talent	3.4	73
7.09	Country capacity to attract talent	3.6	58
7.10	Women in labor force, ratio to men*	1.04	2
	8th pillar: Financial market development		
8.01	Availability of financial services	3.7	118
8.02	Affordability of financial services	3.6	117
8.03	Financing through local equity market	2.4	119
8.04	Ease of access to loans	1.9	127
8.05	Venture capital availability	2.1	120
8.06	Soundness of banks	4.6	84
8.07	Regulation of securities exchanges	3.2	116
8.08	Legal rights index, 0–10 (best)*	3	113
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.3	102
9.02	Firm-level technology absorption	4.2	99
9.03	FDI and technology transfer	4.6	75
9.04	Individuals using Internet, %*	5.4	130
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.1	133
9.06	Int'l Internet bandwidth, kb/s per user*	2.9	132
9.07	Mobile broadband subscriptions/100 pop.*	1.8	120
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.9	98
10.02	Foreign market size index, 1–7 (best)*	3.7	103
10.03	GDP (PPP$ billions)*	28.2	102
10.04	Exports as a percentage of GDP*	38.4	71
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.1	111
11.02	Local supplier quality	3.4	131
11.03	State of cluster development	3.5	85
11.04	Nature of competitive advantage	2.7	126
11.05	Value chain breadth	3.0	131
11.06	Control of international distribution	3.3	129
11.07	Production process sophistication	3.1	123
11.08	Extent of marketing	3.7	106
11.09	Willingness to delegate authority	3.2	119
	12th pillar: Innovation		
12.01	Capacity for innovation	3.2	114
12.02	Quality of scientific research institutions	2.9	115
12.03	Company spending on R&D	2.6	113
12.04	University-industry collaboration in R&D	3.3	89
12.05	Gov't procurement of advanced tech products	3.3	86
12.06	Availability of scientists and engineers	3.0	132
12.07	PCT patents, applications/million pop.*	0.0	124

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Namibia

Key indicators, 2013

Population (millions)	2.2
GDP (US$ billions)*	12.3
GDP per capita (US$)	5,636.1
GDP (PPP) as share (%) of world total	0.02

Sectoral value-added (% GDP), 2013

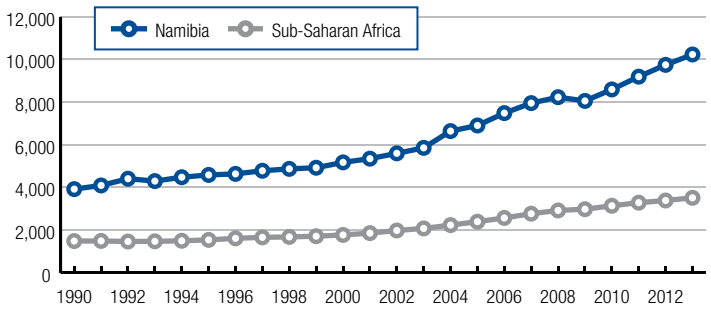
Agriculture	7.1
Industry	29.6
Services	63.3

Human Development Index, 2013

Score, (0–1) best	0.62
Rank (out of 187 economies)	127

Sources: IMF; UNFPA; UNDP; World Bank

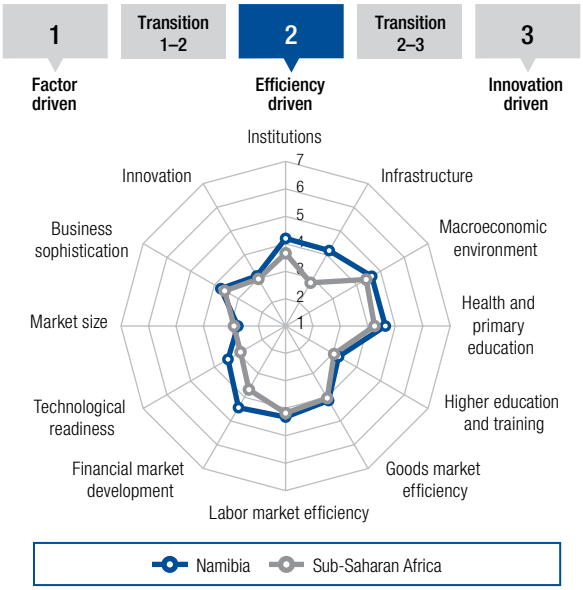
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

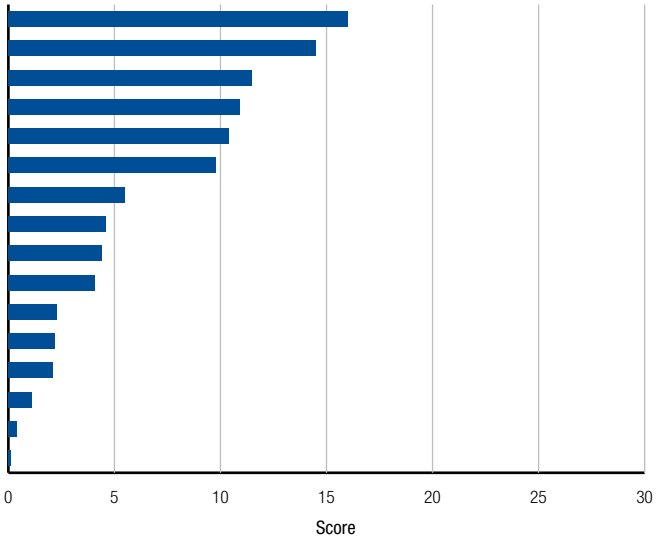
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**88**	**4.0**
GCI 2013–2014 (out of 148)	90	3.9
GCI 2012–2013 (out of 144)	92	3.9
Basic requirements (40.0%)	**81**	**4.4**
Institutions	50	4.2
Infrastructure	66	4.2
Macroeconomic environment	78	4.6
Health and primary education	115	4.6
Efficiency enhancers (50.0%)	**97**	**3.7**
Higher education and training	115	3.2
Goods market efficiency	96	4.1
Labor market efficiency	55	4.3
Financial market development	46	4.4
Technological readiness	89	3.4
Market size	119	2.7
Innovation and sophistication factors (10.0%)	**91**	**3.4**
Business sophistication	94	3.7
Innovation	91	3.1

Stage of development



The most problematic factors for doing business

Inadequately educated workforce	16.0
Access to financing	14.5
Restrictive labor regulations	11.5
Poor work ethic in national labor force	10.9
Corruption	10.4
Inefficient government bureaucracy	9.8
Tax rates	5.5
Inadequate supply of infrastructure	4.6
Crime and theft	4.4
Insufficient capacity to innovate	4.1
Tax regulations	2.3
Inflation	2.2
Foreign currency regulations	2.1
Poor public health	1.1
Policy instability	0.4
Government instability/coups	0.1



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Namibia

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	5.1	35
1.02	Intellectual property protection	4.3	40
1.03	Diversion of public funds	3.2	73
1.04	Public trust in politicians	3.2	59
1.05	Irregular payments and bribes	4.1	61
1.06	Judicial independence	4.7	39
1.07	Favoritism in decisions of government officials	2.9	84
1.08	Wastefulness of government spending	3.2	70
1.09	Burden of government regulation	3.5	72
1.10	Efficiency of legal framework in settling disputes	4.5	29
1.11	Efficiency of legal framework in challenging regs.	3.9	36
1.12	Transparency of government policymaking	3.9	78
1.13	Business costs of terrorism	5.8	39
1.14	Business costs of crime and violence	4.0	94
1.15	Organized crime	4.7	76
1.16	Reliability of police services	3.9	84
1.17	Ethical behavior of firms	4.2	53
1.18	Strength of auditing and reporting standards	5.4	34
1.19	Efficacy of corporate boards	4.6	67
1.20	Protection of minority shareholders' interests	4.8	30
1.21	Strength of investor protection, 0–10 (best)*	5.3	68
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	5.0	42
2.02	Quality of roads	5.2	28
2.03	Quality of railroad infrastructure	3.3	47
2.04	Quality of port infrastructure	5.2	30
2.05	Quality of air transport infrastructure	4.6	62
2.06	Available airline seat km/week, millions*	29.3	111
2.07	Quality of electricity supply	5.4	52
2.08	Mobile telephone subscriptions/100 pop.*	110.2	74
2.09	Fixed telephone lines/100 pop.*	8.0	100
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-4.7	103
3.02	Gross national savings, % GDP*	20.1	68
3.03	Inflation, annual % change*	6.2	109
3.04	General government debt, % GDP*	26.6	28
3.05	Country credit rating, 0–100 (best)*	54.1	62
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	23.0	22
4.02	Business impact of malaria	4.6	42
4.03	Tuberculosis cases/100,000 pop.*	655.0	141
4.04	Business impact of tuberculosis	3.9	133
4.05	HIV prevalence, % adult pop.*	13.3	138
4.06	Business impact of HIV/AIDS	3.4	137
4.07	Infant mortality, deaths/1,000 live births*	28.3	100
4.08	Life expectancy, years*	63.9	114
4.09	Quality of primary education	3.1	107
4.10	Primary education enrollment, net %*	87.7	107
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	64.8	111
5.02	Tertiary education enrollment, gross %*	9.3	117
5.03	Quality of the education system	3.1	107
5.04	Quality of math and science education	2.9	126
5.05	Quality of management schools	3.4	118
5.06	Internet access in schools	3.5	106
5.07	Availability of research and training services	3.6	102
5.08	Extent of staff training	4.1	57
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.6	104
6.02	Extent of market dominance	3.5	90
6.03	Effectiveness of anti-monopoly policy	4.2	59
6.04	Effect of taxation on incentives to invest	4.0	39
6.05	Total tax rate, % profits*	21.8	15

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	10	118
6.07	No. days to start a business*	66.0	134
6.08	Agricultural policy costs	3.9	55
6.09	Prevalence of trade barriers	4.4	64
6.10	Trade tariffs, % duty*	6.1	78
6.11	Prevalence of foreign ownership	5.1	36
6.12	Business impact of rules on FDI	4.2	97
6.13	Burden of customs procedures	4.1	64
6.14	Imports as a percentage of GDP*	68.1	34
6.15	Degree of customer orientation	3.5	134
6.16	Buyer sophistication	3.3	81
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.0	101
7.02	Flexibility of wage determination	4.8	91
7.03	Hiring and firing practices	2.9	128
7.04	Redundancy costs, weeks of salary*	9.7	35
7.05	Effect of taxation on incentives to work	4.0	39
7.06	Pay and productivity	3.5	107
7.07	Reliance on professional management	4.2	69
7.08	Country capacity to retain talent	3.4	72
7.09	Country capacity to attract talent	3.4	71
7.10	Women in labor force, ratio to men*	0.87	46
	8th pillar: Financial market development		
8.01	Availability of financial services	4.7	54
8.02	Affordability of financial services	4.4	49
8.03	Financing through local equity market	3.7	54
8.04	Ease of access to loans	2.8	68
8.05	Venture capital availability	2.5	88
8.06	Soundness of banks	5.7	36
8.07	Regulation of securities exchanges	4.8	37
8.08	Legal rights index, 0–10 (best)*	7	43
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	5.1	54
9.02	Firm-level technology absorption	4.9	54
9.03	FDI and technology transfer	4.7	58
9.04	Individuals using Internet, %*	13.9	118
9.05	Fixed broadband Internet subscriptions/100 pop.*	1.3	102
9.06	Int'l Internet bandwidth, kb/s per user*	3.4	128
9.07	Mobile broadband subscriptions/100 pop.*	34.2	61
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.5	117
10.02	Foreign market size index, 1–7 (best)*	3.4	120
10.03	GDP (PPP$ billions)*	17.8	121
10.04	Exports as a percentage of GDP*	33.8	83
	11th pillar: Business sophistication		
11.01	Local supplier quantity	3.7	132
11.02	Local supplier quality	4.2	82
11.03	State of cluster development	3.8	68
11.04	Nature of competitive advantage	3.5	66
11.05	Value chain breadth	3.2	117
11.06	Control of international distribution	3.6	111
11.07	Production process sophistication	3.7	83
11.08	Extent of marketing	3.9	96
11.09	Willingness to delegate authority	3.6	78
	12th pillar: Innovation		
12.01	Capacity for innovation	3.7	79
12.02	Quality of scientific research institutions	3.5	84
12.03	Company spending on R&D	3.1	69
12.04	University-industry collaboration in R&D	3.5	79
12.05	Gov't procurement of advanced tech products	3.3	82
12.06	Availability of scientists and engineers	3.0	130
12.07	PCT patents, applications/million pop.*	1.7	59

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Nigeria

Key indicators, 2013

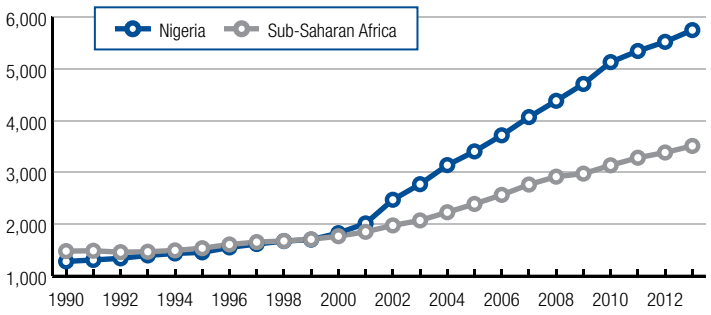
Population (millions) 169.3
GDP (US$ billions)* 521.8
GDP per capita (US$) 3,082.5
GDP (PPP) as share (%) of world total 0.95

Sectoral value-added (% GDP), 2013
Agriculture 21.0
Industry 22.0
Services 57.0

Human Development Index, 2013
Score, (0–1) best 0.50
Rank (out of 187 economies) 152

Sources: IMF; UNFPA; UNDP; World Bank

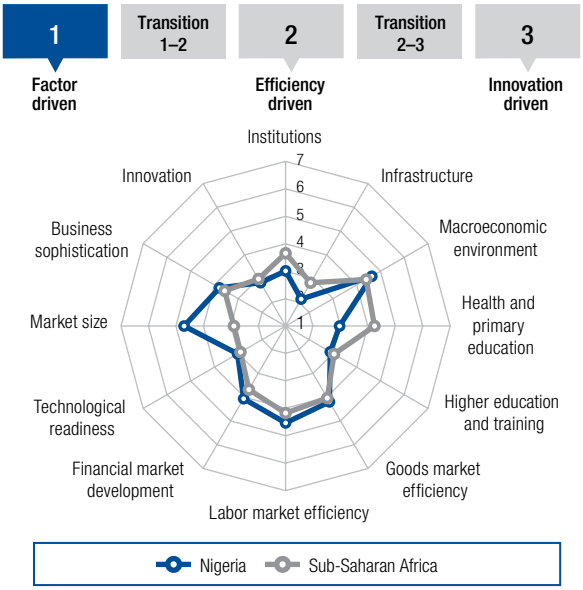
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

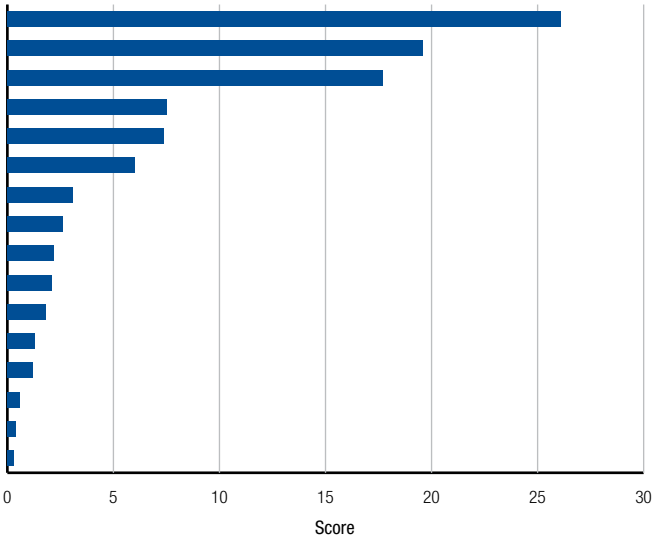
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**127**	**3.4**
GCI 2013–2014 (out of 148)	120	3.6
GCI 2012–2013 (out of 144)	115	3.7
Basic requirements (60.0%)	**140**	**3.2**
Institutions	129	3.0
Infrastructure	134	2.1
Macroeconomic environment	76	4.6
Health and primary education	143	3.0
Efficiency enhancers (35.0%)	**82**	**3.9**
Higher education and training	124	2.9
Goods market efficiency	87	4.2
Labor market efficiency	40	4.5
Financial market development	67	4.1
Technological readiness	104	3.0
Market size	33	4.7
Innovation and sophistication factors (5.0%)	**103**	**3.3**
Business sophistication	87	3.8
Innovation	114	2.8

Stage of development



The most problematic factors for doing business

Inadequate supply of infrastructure 26.1
Corruption 19.6
Access to financing 17.7
Policy instability 7.5
Inefficient government bureaucracy 7.4
Inadequately educated workforce 6.0
Poor work ethic in national labor force 3.1
Crime and theft 2.6
Tax regulations 2.2
Tax rates 2.1
Inflation 1.8
Foreign currency regulations 1.3
Insufficient capacity to innovate 1.2
Government instability/coups 0.6
Restrictive labor regulations 0.4
Poor public health 0.3



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Nigeria

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.4	116
1.02	Intellectual property protection	2.7	126
1.03	Diversion of public funds	1.8	142
1.04	Public trust in politicians	1.8	134
1.05	Irregular payments and bribes	2.5	135
1.06	Judicial independence	3.1	102
1.07	Favoritism in decisions of government officials	2.3	126
1.08	Wastefulness of government spending	2.2	134
1.09	Burden of government regulation	3.1	99
1.10	Efficiency of legal framework in settling disputes	3.3	98
1.11	Efficiency of legal framework in challenging regs.	2.9	105
1.12	Transparency of government policymaking	3.2	126
1.13	Business costs of terrorism	2.8	137
1.14	Business costs of crime and violence	2.9	130
1.15	Organized crime	3.7	124
1.16	Reliability of police services	2.6	136
1.17	Ethical behavior of firms	3.3	132
1.18	Strength of auditing and reporting standards	4.3	88
1.19	Efficacy of corporate boards	4.4	80
1.20	Protection of minority shareholders' interests	3.8	90
1.21	Strength of investor protection, 0–10 (best)*	5.7	57
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	2.7	133
2.02	Quality of roads	2.7	125
2.03	Quality of railroad infrastructure	1.5	100
2.04	Quality of port infrastructure	3.2	110
2.05	Quality of air transport infrastructure	3.2	121
2.06	Available airline seat km/week, millions*	302.6	52
2.07	Quality of electricity supply	1.6	141
2.08	Mobile telephone subscriptions/100 pop.*	73.3	116
2.09	Fixed telephone lines/100 pop.*	0.2	142
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-4.9	106
3.02	Gross national savings, % GDP*	29.3	26
3.03	Inflation, annual % change*	8.5	127
3.04	General government debt, % GDP*	19.4	18
3.05	Country credit rating, 0–100 (best)*	39.7	80
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	28,430.3	73
4.02	Business impact of malaria	3.6	62
4.03	Tuberculosis cases/100,000 pop.*	108.0	95
4.04	Business impact of tuberculosis	5.0	92
4.05	HIV prevalence, % adult pop.*	3.1	128
4.06	Business impact of HIV/AIDS	4.5	108
4.07	Infant mortality, deaths/1,000 live births*	77.8	140
4.08	Life expectancy, years*	52.1	136
4.09	Quality of primary education	2.6	124
4.10	Primary education enrollment, net %*	63.9	138
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	43.8	127
5.02	Tertiary education enrollment, gross %*	10.4	112
5.03	Quality of the education system	2.9	122
5.04	Quality of math and science education	2.6	132
5.05	Quality of management schools	3.8	101
5.06	Internet access in schools	3.4	111
5.07	Availability of research and training services	3.7	95
5.08	Extent of staff training	4.3	48
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	5.3	50
6.02	Extent of market dominance	3.8	63
6.03	Effectiveness of anti-monopoly policy	3.6	110
6.04	Effect of taxation on incentives to invest	4.0	40
6.05	Total tax rate, % profits*	33.8	53

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	8	93
6.07	No. days to start a business*	28.0	109
6.08	Agricultural policy costs	4.2	30
6.09	Prevalence of trade barriers	4.6	42
6.10	Trade tariffs, % duty*	11.4	119
6.11	Prevalence of foreign ownership	4.9	49
6.12	Business impact of rules on FDI	4.7	45
6.13	Burden of customs procedures	3.0	132
6.14	Imports as a percentage of GDP*	27.0	125
6.15	Degree of customer orientation	3.9	113
6.16	Buyer sophistication	3.3	88
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.4	61
7.02	Flexibility of wage determination	5.5	35
7.03	Hiring and firing practices	5.2	7
7.04	Redundancy costs, weeks of salary*	16.2	79
7.05	Effect of taxation on incentives to work	4.3	21
7.06	Pay and productivity	4.2	51
7.07	Reliance on professional management	4.5	52
7.08	Country capacity to retain talent	3.1	92
7.09	Country capacity to attract talent	3.8	47
7.10	Women in labor force, ratio to men*	0.76	85
	8th pillar: Financial market development		
8.01	Availability of financial services	4.1	87
8.02	Affordability of financial services	3.5	122
8.03	Financing through local equity market	3.8	46
8.04	Ease of access to loans	1.6	137
8.05	Venture capital availability	1.9	131
8.06	Soundness of banks	4.8	78
8.07	Regulation of securities exchanges	4.2	65
8.08	Legal rights index, 0–10 (best)*	9	11
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.4	94
9.02	Firm-level technology absorption	4.3	91
9.03	FDI and technology transfer	4.5	77
9.04	Individuals using Internet, %*	38.0	87
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.0	140
9.06	Int'l Internet bandwidth, kb/s per user*	0.8	141
9.07	Mobile broadband subscriptions/100 pop.*	10.1	96
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	4.5	31
10.02	Foreign market size index, 1–7 (best)*	5.3	37
10.03	GDP (PPP$ billions)*	479.3	30
10.04	Exports as a percentage of GDP*	35.6	77
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.8	46
11.02	Local supplier quality	3.9	99
11.03	State of cluster development	3.8	72
11.04	Nature of competitive advantage	2.8	117
11.05	Value chain breadth	3.6	92
11.06	Control of international distribution	3.8	98
11.07	Production process sophistication	3.3	106
11.08	Extent of marketing	4.1	77
11.09	Willingness to delegate authority	3.6	90
	12th pillar: Innovation		
12.01	Capacity for innovation	3.7	73
12.02	Quality of scientific research institutions	2.8	120
12.03	Company spending on R&D	2.8	106
12.04	University-industry collaboration in R&D	2.8	123
12.05	Gov't procurement of advanced tech products	3.0	109
12.06	Availability of scientists and engineers	3.8	89
12.07	PCT patents, applications/million pop.*	0.0	117

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Rwanda

Key indicators, 2013

Population (millions)	10.6
GDP (US$ billions)*	7.6
GDP per capita (US$)	703.8
GDP (PPP) as share (%) of world total	0.02

Sectoral value-added (% GDP), 2013

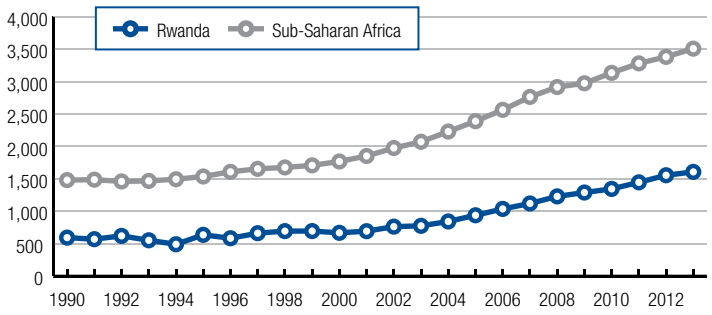
Agriculture	33.3
Industry	14.7
Services	52.0

Human Development Index, 2013

Score, (0–1) best	0.51
Rank (out of 187 economies)	151

Sources: IMF; UNFPA; UNDP; World Bank

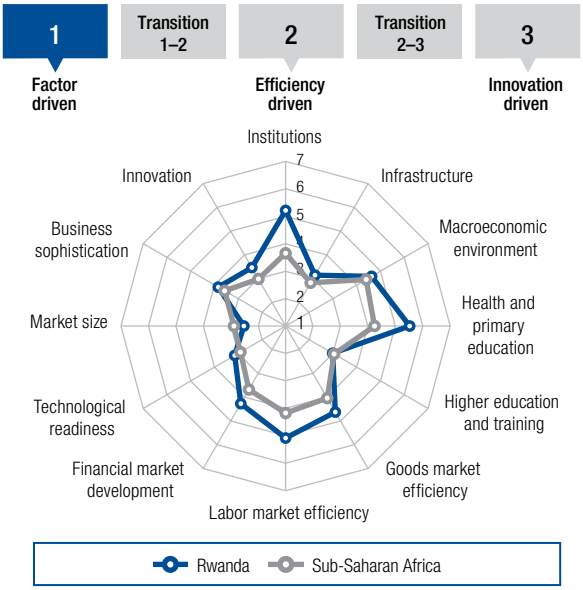
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

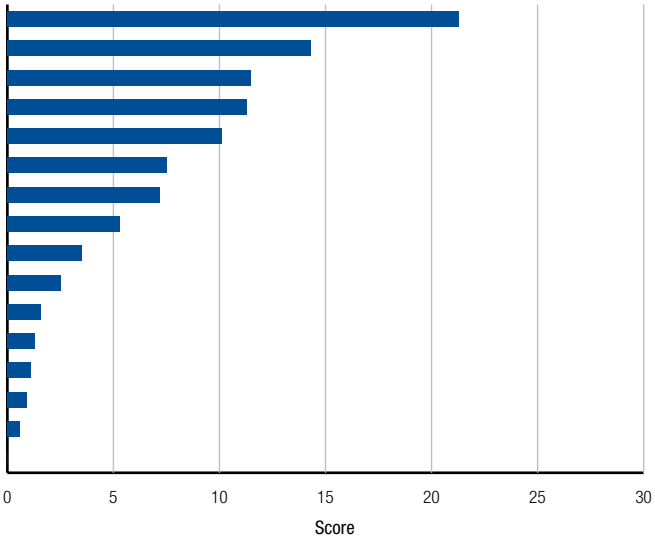
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**62**	**4.3**
GCI 2013–2014 (out of 148)	66	4.2
GCI 2012–2013 (out of 144)	63	4.2
Basic requirements (60.0%)	**67**	**4.6**
Institutions	18	5.2
Infrastructure	105	3.1
Macroeconomic environment	79	4.6
Health and primary education	86	5.5
Efficiency enhancers (35.0%)	**91**	**3.8**
Higher education and training	122	3.0
Goods market efficiency	42	4.6
Labor market efficiency	9	5.1
Financial market development	55	4.3
Technological readiness	98	3.1
Market size	125	2.5
Innovation and sophistication factors (5.0%)	**66**	**3.6**
Business sophistication	84	3.8
Innovation	53	3.5

Stage of development



The most problematic factors for doing business

Access to financing	21.3
Inadequately educated workforce	14.3
Insufficient capacity to innovate	11.5
Inadequate supply of infrastructure	11.3
Tax rates	10.1
Poor work ethic in national labor force	7.5
Tax regulations	7.2
Inflation	5.3
Inefficient government bureaucracy	3.5
Corruption	2.5
Policy instability	1.6
Foreign currency regulations	1.3
Restrictive labor regulations	1.1
Poor public health	0.9
Crime and theft	0.6
Government instability/coups	0.0



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings. For Rwanda, only 2013 responses were used. Please see the GCR 2014–2015, Chapter 1.3, for further information.

Rwanda

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	5.3	28
1.02	Intellectual property protection	4.6	32
1.03	Diversion of public funds	5.3	19
1.04	Public trust in politicians	5.3	10
1.05	Irregular payments and bribes	5.5	27
1.06	Judicial independence	4.9	34
1.07	Favoritism in decisions of government officials	4.5	16
1.08	Wastefulness of government spending	5.7	4
1.09	Burden of government regulation	4.8	6
1.10	Efficiency of legal framework in settling disputes	5.2	16
1.11	Efficiency of legal framework in challenging regs.	4.3	24
1.12	Transparency of government policymaking	5.5	8
1.13	Business costs of terrorism	5.9	37
1.14	Business costs of crime and violence	6.1	6
1.15	Organized crime	6.4	9
1.16	Reliability of police services	5.8	21
1.17	Ethical behavior of firms	5.3	22
1.18	Strength of auditing and reporting standards	4.8	63
1.19	Efficacy of corporate boards	5.0	35
1.20	Protection of minority shareholders' interests	4.7	34
1.21	Strength of investor protection, 0–10 (best)*	6.7	22
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	4.3	68
2.02	Quality of roads	4.7	46
2.03	Quality of railroad infrastructure	N/Appl.	n/a
2.04	Quality of port infrastructure	3.6	98
2.05	Quality of air transport infrastructure	4.3	73
2.06	Available airline seat km/week, millions*	15.7	130
2.07	Quality of electricity supply	4.0	92
2.08	Mobile telephone subscriptions/100 pop.*	56.8	134
2.09	Fixed telephone lines/100 pop.*	0.4	135
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-2.5	62
3.02	Gross national savings, % GDP*	15.7	100
3.03	Inflation, annual % change*	4.2	84
3.04	General government debt, % GDP*	29.4	34
3.05	Country credit rating, 0–100 (best)*	25.2	120
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	5,673.0	51
4.02	Business impact of malaria	4.8	38
4.03	Tuberculosis cases/100,000 pop.*	86.0	87
4.04	Business impact of tuberculosis	5.3	85
4.05	HIV prevalence, % adult pop.*	2.9	127
4.06	Business impact of HIV/AIDS	4.7	98
4.07	Infant mortality, deaths/1,000 live births*	38.8	110
4.08	Life expectancy, years*	63.5	115
4.09	Quality of primary education	3.7	82
4.10	Primary education enrollment, net %*	98.7	16
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	31.8	134
5.02	Tertiary education enrollment, gross %*	7.2	124
5.03	Quality of the education system	4.0	50
5.04	Quality of math and science education	4.1	71
5.05	Quality of management schools	3.8	99
5.06	Internet access in schools	4.3	70
5.07	Availability of research and training services	3.7	96
5.08	Extent of staff training	4.0	66
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.9	78
6.02	Extent of market dominance	4.0	52
6.03	Effectiveness of anti-monopoly policy	4.7	28
6.04	Effect of taxation on incentives to invest	4.3	29
6.05	Total tax rate, % profits*	29.9	38

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	2	3
6.07	No. days to start a business*	2.0	2
6.08	Agricultural policy costs	4.5	18
6.09	Prevalence of trade barriers	4.5	53
6.10	Trade tariffs, % duty*	8.7	96
6.11	Prevalence of foreign ownership	4.4	83
6.12	Business impact of rules on FDI	5.8	5
6.13	Burden of customs procedures	5.2	16
6.14	Imports as a percentage of GDP*	39.9	88
6.15	Degree of customer orientation	4.1	107
6.16	Buyer sophistication	3.5	61
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	5.0	24
7.02	Flexibility of wage determination	5.3	54
7.03	Hiring and firing practices	4.3	31
7.04	Redundancy costs, weeks of salary*	13.0	56
7.05	Effect of taxation on incentives to work	4.5	16
7.06	Pay and productivity	4.0	68
7.07	Reliance on professional management	4.8	35
7.08	Country capacity to retain talent	4.3	27
7.09	Country capacity to attract talent	4.6	20
7.10	Women in labor force, ratio to men*	1.02	3
	8th pillar: Financial market development		
8.01	Availability of financial services	4.4	69
8.02	Affordability of financial services	4.3	56
8.03	Financing through local equity market	3.4	73
8.04	Ease of access to loans	3.2	41
8.05	Venture capital availability	3.1	39
8.06	Soundness of banks	4.7	82
8.07	Regulation of securities exchanges	4.0	73
8.08	Legal rights index, 0–10 (best)*	8	29
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	5.3	46
9.02	Firm-level technology absorption	5.0	49
9.03	FDI and technology transfer	5.1	25
9.04	Individuals using Internet, %*	8.7	125
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.0	137
9.06	Int'l Internet bandwidth, kb/s per user*	9.8	103
9.07	Mobile broadband subscriptions/100 pop.*	5.8	106
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.4	125
10.02	Foreign market size index, 1–7 (best)*	2.8	136
10.03	GDP (PPP$ billions)*	16.4	123
10.04	Exports as a percentage of GDP*	13.4	136
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.2	107
11.02	Local supplier quality	4.0	96
11.03	State of cluster development	3.9	59
11.04	Nature of competitive advantage	3.6	65
11.05	Value chain breadth	3.7	71
11.06	Control of international distribution	4.0	67
11.07	Production process sophistication	3.4	102
11.08	Extent of marketing	3.3	125
11.09	Willingness to delegate authority	3.8	65
	12th pillar: Innovation		
12.01	Capacity for innovation	3.5	86
12.02	Quality of scientific research institutions	3.7	72
12.03	Company spending on R&D	2.9	94
12.04	University-industry collaboration in R&D	3.7	64
12.05	Gov't procurement of advanced tech products	4.8	5
12.06	Availability of scientists and engineers	4.0	74
12.07	PCT patents, applications/million pop.*	0.0	124

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Senegal

Key indicators, 2013

Population (millions)	14.1
GDP (US$ billions)*	14.8
GDP per capita (US$)	1,047.5
GDP (PPP) as share (%) of world total	0.03

Sectoral value-added (% GDP), 2012

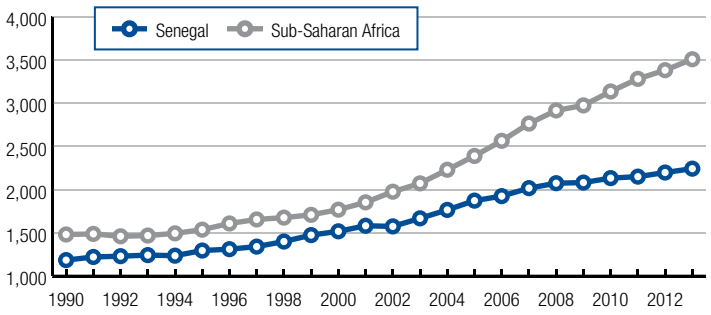
Agriculture	16.7
Industry	24.2
Services	59.0

Human Development Index, 2013

Score, (0–1) best	0.49
Rank (out of 187 economies)	163

Sources: IMF; UNFPA; UNDP; World Bank

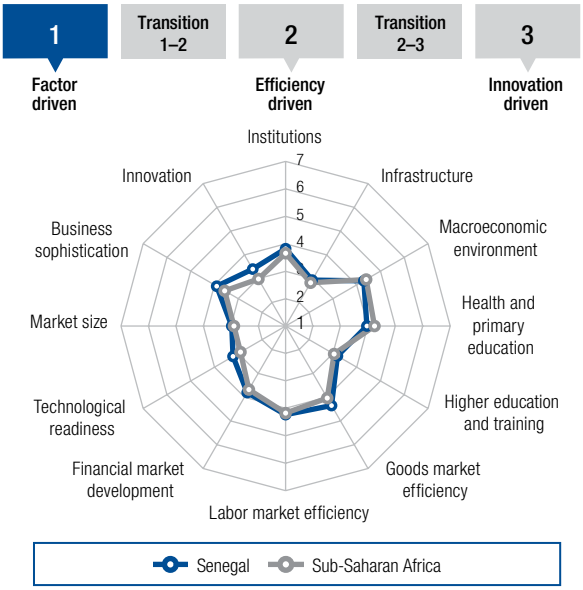
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

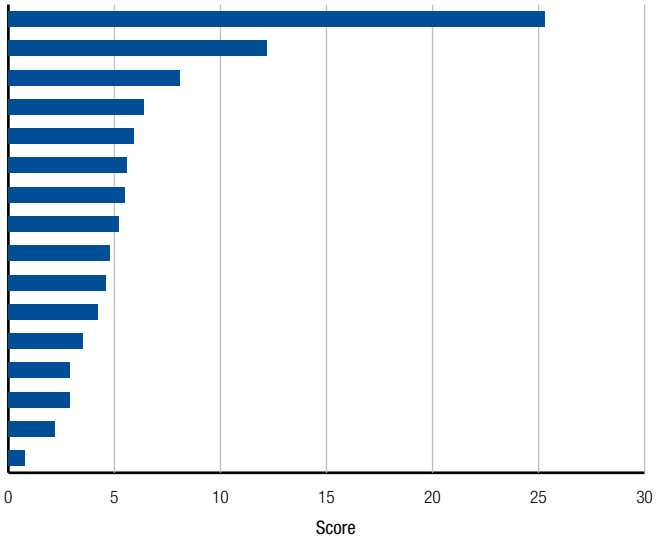
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**112**	**3.7**
GCI 2013–2014 (out of 148)	113	3.7
GCI 2012–2013 (out of 144)	117	3.7
Basic requirements (60.0%)	**120**	**3.7**
Institutions	74	3.8
Infrastructure	111	2.9
Macroeconomic environment	97	4.3
Health and primary education	131	4.0
Efficiency enhancers (35.0%)	**102**	**3.6**
Higher education and training	119	3.2
Goods market efficiency	68	4.3
Labor market efficiency	68	4.2
Financial market development	85	3.8
Technological readiness	96	3.2
Market size	104	3.0
Innovation and sophistication factors (5.0%)	**65**	**3.6**
Business sophistication	77	3.9
Innovation	57	3.4

Stage of development



The most problematic factors for doing business

Access to financing	25.3
Inadequate supply of infrastructure	12.2
Restrictive labor regulations	8.1
Corruption	6.4
Inefficient government bureaucracy	5.9
Tax regulations	5.6
Tax rates	5.5
Inadequately educated workforce	5.2
Foreign currency regulations	4.8
Policy instability	4.6
Poor work ethic in national labor force	4.2
Inflation	3.5
Crime and theft	2.9
Insufficient capacity to innovate	2.9
Poor public health	2.2
Government instability/coups	0.8



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Senegal

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.9	80
1.02	Intellectual property protection	3.4	86
1.03	Diversion of public funds	3.2	72
1.04	Public trust in politicians	3.1	64
1.05	Irregular payments and bribes	3.5	92
1.06	Judicial independence	3.5	80
1.07	Favoritism in decisions of government officials	3.2	58
1.08	Wastefulness of government spending	3.6	45
1.09	Burden of government regulation	4.0	29
1.10	Efficiency of legal framework in settling disputes	3.8	58
1.11	Efficiency of legal framework in challenging regs.	3.7	46
1.12	Transparency of government policymaking	4.1	57
1.13	Business costs of terrorism	4.7	101
1.14	Business costs of crime and violence	4.5	65
1.15	Organized crime	4.3	96
1.16	Reliability of police services	4.6	47
1.17	Ethical behavior of firms	4.0	62
1.18	Strength of auditing and reporting standards	4.5	76
1.19	Efficacy of corporate boards	4.7	59
1.20	Protection of minority shareholders' interests	3.7	95
1.21	Strength of investor protection, 0–10 (best)*	3.0	130
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.6	97
2.02	Quality of roads	3.4	92
2.03	Quality of railroad infrastructure	2.3	79
2.04	Quality of port infrastructure	4.4	58
2.05	Quality of air transport infrastructure	3.8	94
2.06	Available airline seat km/week, millions*	103.4	82
2.07	Quality of electricity supply	3.0	111
2.08	Mobile telephone subscriptions/100 pop.*	92.9	106
2.09	Fixed telephone lines/100 pop.*	2.4	117
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-5.4	112
3.02	Gross national savings, % GDP*	17.5	86
3.03	Inflation, annual % change*	0.8	1
3.04	General government debt, % GDP*	45.9	79
3.05	Country credit rating, 0–100 (best)*	32.5	100
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	27,684.6	71
4.02	Business impact of malaria	3.9	55
4.03	Tuberculosis cases/100,000 pop.*	137.0	102
4.04	Business impact of tuberculosis	4.6	101
4.05	HIV prevalence, % adult pop.*	0.5	88
4.06	Business impact of HIV/AIDS	4.6	104
4.07	Infant mortality, deaths/1,000 live births*	45.2	116
4.08	Life expectancy, years*	63.2	116
4.09	Quality of primary education	3.3	98
4.10	Primary education enrollment, net %*	73.3	131
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	41.0	128
5.02	Tertiary education enrollment, gross %*	7.6	120
5.03	Quality of the education system	3.8	66
5.04	Quality of math and science education	4.0	77
5.05	Quality of management schools	4.6	51
5.06	Internet access in schools	3.9	85
5.07	Availability of research and training services	4.4	56
5.08	Extent of staff training	3.9	78
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.9	81
6.02	Extent of market dominance	3.8	60
6.03	Effectiveness of anti-monopoly policy	4.2	61
6.04	Effect of taxation on incentives to invest	3.8	61
6.05	Total tax rate, % profits*	48.5	107

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	4	22
6.07	No. days to start a business*	6.0	21
6.08	Agricultural policy costs	3.5	97
6.09	Prevalence of trade barriers	4.1	98
6.10	Trade tariffs, % duty*	10.8	113
6.11	Prevalence of foreign ownership	4.5	73
6.12	Business impact of rules on FDI	4.5	68
6.13	Burden of customs procedures	4.3	56
6.14	Imports as a percentage of GDP*	53.7	54
6.15	Degree of customer orientation	4.7	58
6.16	Buyer sophistication	3.2	92
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.4	57
7.02	Flexibility of wage determination	4.5	112
7.03	Hiring and firing practices	4.1	56
7.04	Redundancy costs, weeks of salary*	13.7	64
7.05	Effect of taxation on incentives to work	3.9	44
7.06	Pay and productivity	3.8	90
7.07	Reliance on professional management	4.1	81
7.08	Country capacity to retain talent	3.4	77
7.09	Country capacity to attract talent	3.7	54
7.10	Women in labor force, ratio to men*	0.75	90
	8th pillar: Financial market development		
8.01	Availability of financial services	3.7	114
8.02	Affordability of financial services	3.7	102
8.03	Financing through local equity market	3.3	77
8.04	Ease of access to loans	2.9	61
8.05	Venture capital availability	2.9	53
8.06	Soundness of banks	4.8	79
8.07	Regulation of securities exchanges	3.5	106
8.08	Legal rights index, 0–10 (best)*	6	63
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.9	68
9.02	Firm-level technology absorption	5.0	43
9.03	FDI and technology transfer	4.6	74
9.04	Individuals using Internet, %*	20.9	101
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.8	109
9.06	Int'l Internet bandwidth, kb/s per user*	5.4	114
9.07	Mobile broadband subscriptions/100 pop.*	15.3	88
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.8	100
10.02	Foreign market size index, 1–7 (best)*	3.4	116
10.03	GDP (PPP$ billions)*	27.7	105
10.04	Exports as a percentage of GDP*	24.7	114
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.5	86
11.02	Local supplier quality	4.4	74
11.03	State of cluster development	3.3	103
11.04	Nature of competitive advantage	3.4	74
11.05	Value chain breadth	4.0	55
11.06	Control of international distribution	3.9	85
11.07	Production process sophistication	3.9	69
11.08	Extent of marketing	4.1	73
11.09	Willingness to delegate authority	3.6	89
	12th pillar: Innovation		
12.01	Capacity for innovation	3.9	56
12.02	Quality of scientific research institutions	3.9	66
12.03	Company spending on R&D	3.2	58
12.04	University-industry collaboration in R&D	3.6	65
12.05	Gov't procurement of advanced tech products	4.0	27
12.06	Availability of scientists and engineers	4.1	68
12.07	PCT patents, applications/million pop.*	0.1	104

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Seychelles

Key indicators, 2013

Population (millions)	0.1
GDP (US$ billions)*	1.4
GDP per capita (US$)	14,918.4
GDP (PPP) as share (%) of world total	0.00

Sectoral value-added (% GDP), 2012

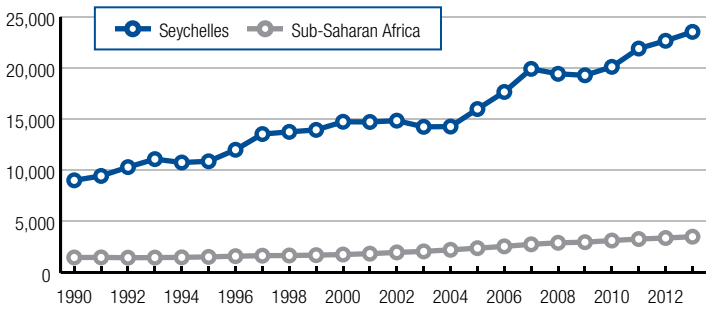
Agriculture	2.1
Industry	15.4
Services	82.5

Human Development Index, 2013

Score, (0–1) best	0.76
Rank (out of 187 economies)	71

Sources: IMF; UNFPA; UNDP; World Bank

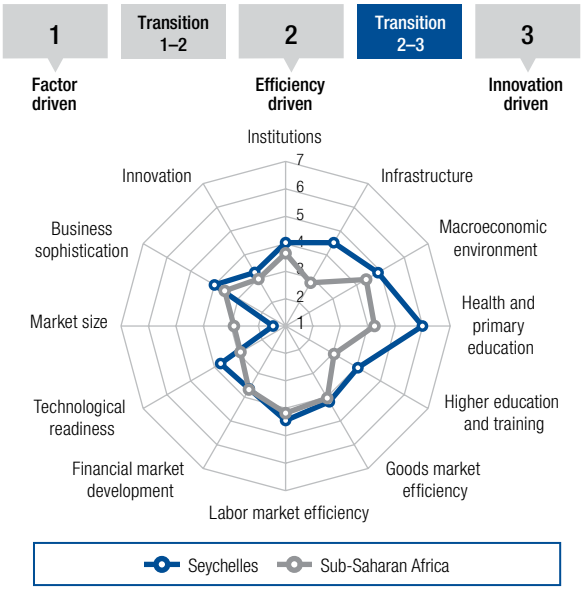
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

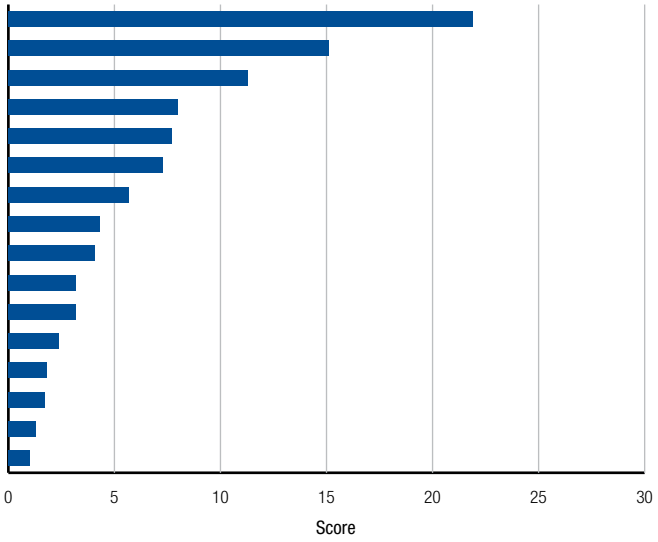
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**92**	**3.9**
GCI 2013–2014 (out of 148)	80	4.1
GCI 2012–2013 (out of 144)	76	4.1
Basic requirements (24.9%)	**50**	**4.9**
Institutions	54	4.0
Infrastructure	53	4.5
Macroeconomic environment	57	4.9
Health and primary education	55	6.0
Efficiency enhancers (50.0%)	**105**	**3.6**
Higher education and training	85	4.0
Goods market efficiency	88	4.2
Labor market efficiency	44	4.4
Financial market development	103	3.6
Technological readiness	70	3.7
Market size	143	1.5
Innovation and sophistication factors (25.1%)	**69**	**3.6**
Business sophistication	66	4.0
Innovation	73	3.3

Stage of development



The most problematic factors for doing business

Access to financing	21.9
Poor work ethic in national labor force	15.1
Inadequately educated workforce	11.3
Inefficient government bureaucracy	8.0
Inadequate supply of infrastructure	7.7
Restrictive labor regulations	7.3
Corruption	5.7
Policy instability	4.3
Foreign currency regulations	4.1
Crime and theft	3.2
Tax rates	3.2
Insufficient capacity to innovate	2.4
Poor public health	1.8
Tax regulations	1.7
Inflation	1.3
Government instability/coups	1.0



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Seychelles

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	4.2	68
1.02	Intellectual property protection	3.8	60
1.03	Diversion of public funds	3.7	53
1.04	Public trust in politicians	3.4	45
1.05	Irregular payments and bribes	4.1	63
1.06	Judicial independence	4.1	53
1.07	Favoritism in decisions of government officials	3.2	57
1.08	Wastefulness of government spending	3.5	48
1.09	Burden of government regulation	4.2	13
1.10	Efficiency of legal framework in settling disputes	4.0	52
1.11	Efficiency of legal framework in challenging regs.	3.4	70
1.12	Transparency of government policymaking	4.1	59
1.13	Business costs of terrorism	4.6	107
1.14	Business costs of crime and violence	4.2	87
1.15	Organized crime	4.9	61
1.16	Reliability of police services	4.1	68
1.17	Ethical behavior of firms	4.1	58
1.18	Strength of auditing and reporting standards	4.3	92
1.19	Efficacy of corporate boards	4.9	48
1.20	Protection of minority shareholders' interests	4.4	52
1.21	Strength of investor protection, 0–10 (best)*	5.7	57
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	4.7	51
2.02	Quality of roads	4.2	60
2.03	Quality of railroad infrastructure	N/Appl.	n/a
2.04	Quality of port infrastructure	5.0	41
2.05	Quality of air transport infrastructure	4.9	49
2.06	Available airline seat km/week, millions*	26.8	116
2.07	Quality of electricity supply	4.8	75
2.08	Mobile telephone subscriptions/100 pop.*	147.3	26
2.09	Fixed telephone lines/100 pop.*	23.4	47
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	1.2	13
3.02	Gross national savings, % GDP*	18.7	77
3.03	Inflation, annual % change*	4.3	87
3.04	General government debt, % GDP*	62.0	103
3.05	Country credit rating, 0–100 (best)*	25.2	122
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	S.L.	n/a
4.02	Business impact of malaria	N/Appl.	n/a
4.03	Tuberculosis cases/100,000 pop.*	30.0	59
4.04	Business impact of tuberculosis	4.4	109
4.05	HIV prevalence, % adult pop.*	0.8	105
4.06	Business impact of HIV/AIDS	4.1	123
4.07	Infant mortality, deaths/1,000 live births*	11.2	60
4.08	Life expectancy, years*	72.7	83
4.09	Quality of primary education	4.6	42
4.10	Primary education enrollment, net %*	93.8	71
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	101.3	28
5.02	Tertiary education enrollment, gross %*	1.4	140
5.03	Quality of the education system	4.3	37
5.04	Quality of math and science education	4.3	57
5.05	Quality of management schools	4.3	63
5.06	Internet access in schools	4.2	74
5.07	Availability of research and training services	3.6	99
5.08	Extent of staff training	4.0	67
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.2	127
6.02	Extent of market dominance	3.9	56
6.03	Effectiveness of anti-monopoly policy	4.1	66
6.04	Effect of taxation on incentives to invest	3.9	47
6.05	Total tax rate, % profits*	25.7	23

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	10	118
6.07	No. days to start a business*	39.0	125
6.08	Agricultural policy costs	3.9	66
6.09	Prevalence of trade barriers	4.4	60
6.10	Trade tariffs, % duty*	16.0	137
6.11	Prevalence of foreign ownership	4.4	87
6.12	Business impact of rules on FDI	4.1	98
6.13	Burden of customs procedures	3.8	79
6.14	Imports as a percentage of GDP*	88.8	13
6.15	Degree of customer orientation	3.9	115
6.16	Buyer sophistication	3.6	57
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.0	99
7.02	Flexibility of wage determination	4.9	83
7.03	Hiring and firing practices	3.6	88
7.04	Redundancy costs, weeks of salary*	13.5	62
7.05	Effect of taxation on incentives to work	3.9	48
7.06	Pay and productivity	3.5	102
7.07	Reliance on professional management	4.4	56
7.08	Country capacity to retain talent	3.1	90
7.09	Country capacity to attract talent	4.0	31
7.10	Women in labor force, ratio to men*	0.91	29
	8th pillar: Financial market development		
8.01	Availability of financial services	3.9	103
8.02	Affordability of financial services	3.9	95
8.03	Financing through local equity market	3.1	89
8.04	Ease of access to loans	3.0	50
8.05	Venture capital availability	2.7	62
8.06	Soundness of banks	4.5	87
8.07	Regulation of securities exchanges	4.0	71
8.08	Legal rights index, 0–10 (best)*	4	96
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.9	65
9.02	Firm-level technology absorption	4.7	63
9.03	FDI and technology transfer	4.2	102
9.04	Individuals using Internet, %*	50.4	66
9.05	Fixed broadband Internet subscriptions/100 pop.*	12.9	54
9.06	Int'l Internet bandwidth, kb/s per user*	23.6	77
9.07	Mobile broadband subscriptions/100 pop.*	9.9	97
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	1.0	143
10.02	Foreign market size index, 1–7 (best)*	2.7	137
10.03	GDP (PPP$ billions)*	2.5	143
10.04	Exports as a percentage of GDP*	82.3	18
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.0	119
11.02	Local supplier quality	3.8	109
11.03	State of cluster development	3.9	63
11.04	Nature of competitive advantage	4.7	27
11.05	Value chain breadth	3.9	58
11.06	Control of international distribution	3.8	90
11.07	Production process sophistication	3.9	67
11.08	Extent of marketing	3.9	92
11.09	Willingness to delegate authority	3.7	71
	12th pillar: Innovation		
12.01	Capacity for innovation	3.9	59
12.02	Quality of scientific research institutions	3.6	76
12.03	Company spending on R&D	3.1	64
12.04	University-industry collaboration in R&D	3.4	80
12.05	Gov't procurement of advanced tech products	3.7	46
12.06	Availability of scientists and engineers	2.8	140
12.07	PCT patents, applications/million pop.*	30.2	28

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Sierra Leone

Key indicators, 2013

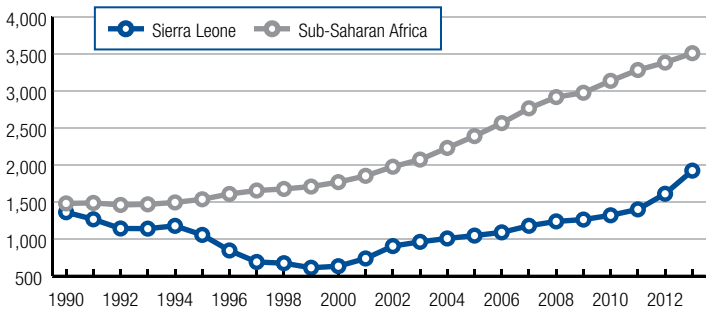
Population (millions) 6.1
GDP (US$ billions)* 4.9
GDP per capita (US$) 805.1
GDP (PPP) as share (%) of world total 0.01

Sectoral value-added (% GDP), 2011
Agriculture 56.7
Industry 8.3
Services 35.0

Human Development Index, 2013
Score, (0–1) best 0.37
Rank (out of 187 economies) 183

Sources: IMF; UNFPA; UNDP; World Bank

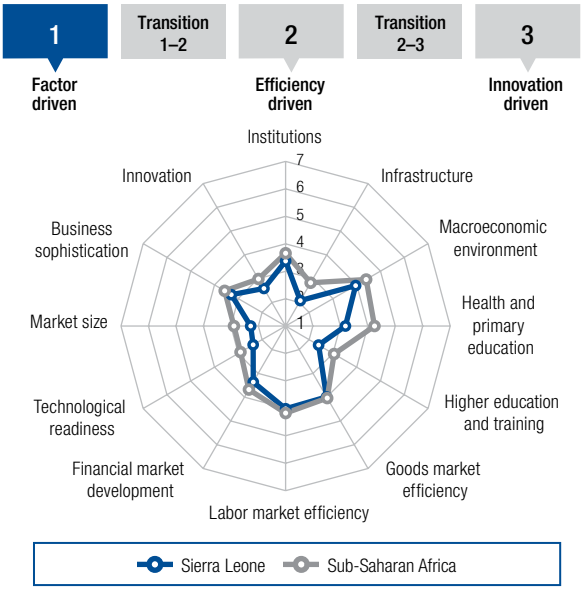
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

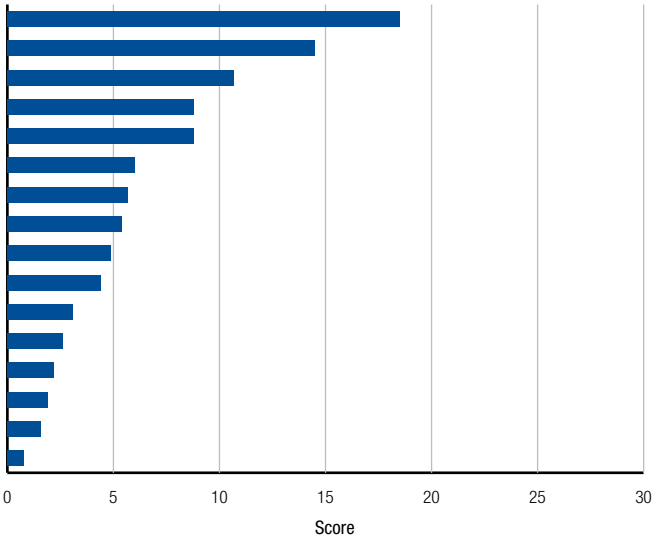
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**138**	**3.1**
GCI 2013–2014 (out of 148)	144	3.0
GCI 2012–2013 (out of 144)	143	2.8
Basic requirements (60.0%)	**141**	**3.1**
Institutions	107	3.4
Infrastructure	136	2.1
Macroeconomic environment	117	3.9
Health and primary education	142	3.2
Efficiency enhancers (35.0%)	**136**	**3.1**
Higher education and training	137	2.4
Goods market efficiency	117	4.0
Labor market efficiency	95	4.0
Financial market development	116	3.4
Technological readiness	138	2.4
Market size	133	2.3
Innovation and sophistication factors (5.0%)	**130**	**2.9**
Business sophistication	128	3.3
Innovation	130	2.6

Stage of development



The most problematic factors for doing business

Access to financing 18.5
Corruption 14.5
Inadequate supply of infrastructure 10.7
Foreign currency regulations 8.8
Tax rates 8.8
Poor work ethic in national labor force 6.0
Inflation 5.7
Inefficient government bureaucracy 5.4
Crime and theft 4.9
Inadequately educated workforce 4.4
Policy instability 3.1
Insufficient capacity to innovate 2.6
Poor public health 2.2
Tax regulations 1.9
Restrictive labor regulations 1.6
Government instability/coups 0.8



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Sierra Leone

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.4	113
1.02	Intellectual property protection	3.2	93
1.03	Diversion of public funds	2.7	100
1.04	Public trust in politicians	2.6	88
1.05	Irregular payments and bribes	2.7	130
1.06	Judicial independence	2.8	115
1.07	Favoritism in decisions of government officials	2.5	118
1.08	Wastefulness of government spending	3.0	75
1.09	Burden of government regulation	3.6	52
1.10	Efficiency of legal framework in settling disputes	3.4	92
1.11	Efficiency of legal framework in challenging regs.	2.3	132
1.12	Transparency of government policymaking	3.8	91
1.13	Business costs of terrorism	5.0	86
1.14	Business costs of crime and violence	3.8	102
1.15	Organized crime	4.0	111
1.16	Reliability of police services	3.4	110
1.17	Ethical behavior of firms	3.5	113
1.18	Strength of auditing and reporting standards	4.1	107
1.19	Efficacy of corporate boards	4.5	69
1.20	Protection of minority shareholders' interests	3.6	103
1.21	Strength of investor protection, 0–10 (best)*	6.7	22
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	2.9	127
2.02	Quality of roads	3.0	111
2.03	Quality of railroad infrastructure	N/Appl.	n/a
2.04	Quality of port infrastructure	3.4	105
2.05	Quality of air transport infrastructure	2.7	134
2.06	Available airline seat km/week, millions*	10.7	134
2.07	Quality of electricity supply	2.0	134
2.08	Mobile telephone subscriptions/100 pop.*	44.1	137
2.09	Fixed telephone lines/100 pop.*	0.3	139
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-2.2	56
3.02	Gross national savings, % GDP*	0.7	140
3.03	Inflation, annual % change*	9.8	135
3.04	General government debt, % GDP*	32.6	44
3.05	Country credit rating, 0–100 (best)*	17.7	137
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	18,398.6	62
4.02	Business impact of malaria	2.9	74
4.03	Tuberculosis cases/100,000 pop.*	674.0	142
4.04	Business impact of tuberculosis	4.2	121
4.05	HIV prevalence, % adult pop.*	1.5	120
4.06	Business impact of HIV/AIDS	4.3	114
4.07	Infant mortality, deaths/1,000 live births*	117.4	144
4.08	Life expectancy, years*	45.3	144
4.09	Quality of primary education	2.9	117
4.10	Primary education enrollment, net %*	n/a	n/a
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	26.4	140
5.02	Tertiary education enrollment, gross %*	2.0	139
5.03	Quality of the education system	3.0	112
5.04	Quality of math and science education	2.5	134
5.05	Quality of management schools	3.1	128
5.06	Internet access in schools	2.4	134
5.07	Availability of research and training services	3.2	125
5.08	Extent of staff training	3.6	107
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.5	116
6.02	Extent of market dominance	3.3	113
6.03	Effectiveness of anti-monopoly policy	3.6	107
6.04	Effect of taxation on incentives to invest	3.6	78
6.05	Total tax rate, % profits*	32.4	47

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	6	57
6.07	No. days to start a business*	12.0	62
6.08	Agricultural policy costs	3.7	78
6.09	Prevalence of trade barriers	4.6	32
6.10	Trade tariffs, % duty*	13.8	131
6.11	Prevalence of foreign ownership	5.1	43
6.12	Business impact of rules on FDI	4.3	80
6.13	Burden of customs procedures	3.4	110
6.14	Imports as a percentage of GDP*	55.3	51
6.15	Degree of customer orientation	3.7	123
6.16	Buyer sophistication	2.6	130
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.1	84
7.02	Flexibility of wage determination	5.0	71
7.03	Hiring and firing practices	4.5	19
7.04	Redundancy costs, weeks of salary*	78.3	141
7.05	Effect of taxation on incentives to work	3.8	54
7.06	Pay and productivity	3.5	105
7.07	Reliance on professional management	4.2	70
7.08	Country capacity to retain talent	2.5	124
7.09	Country capacity to attract talent	3.3	86
7.10	Women in labor force, ratio to men*	0.97	7
	8th pillar: Financial market development		
8.01	Availability of financial services	3.6	124
8.02	Affordability of financial services	3.4	124
8.03	Financing through local equity market	2.3	124
8.04	Ease of access to loans	1.8	130
8.05	Venture capital availability	1.8	137
8.06	Soundness of banks	4.1	117
8.07	Regulation of securities exchanges	3.1	120
8.08	Legal rights index, 0–10 (best)*	7	43
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.5	134
9.02	Firm-level technology absorption	3.5	137
9.03	FDI and technology transfer	4.1	104
9.04	Individuals using Internet, %*	1.7	140
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.0	143
9.06	Int'l Internet bandwidth, kb/s per user*	2.0	139
9.07	Mobile broadband subscriptions/100 pop.*	n/a	n/a
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.0	132
10.02	Foreign market size index, 1–7 (best)*	3.0	134
10.03	GDP (PPP$ billions)*	9.4	132
10.04	Exports as a percentage of GDP*	34.0	81
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.4	97
11.02	Local supplier quality	3.7	122
11.03	State of cluster development	3.2	114
11.04	Nature of competitive advantage	2.7	125
11.05	Value chain breadth	3.0	134
11.06	Control of international distribution	3.0	137
11.07	Production process sophistication	2.8	132
11.08	Extent of marketing	3.0	134
11.09	Willingness to delegate authority	3.3	111
	12th pillar: Innovation		
12.01	Capacity for innovation	3.2	117
12.02	Quality of scientific research institutions	2.5	133
12.03	Company spending on R&D	2.5	124
12.04	University-industry collaboration in R&D	2.4	134
12.05	Gov't procurement of advanced tech products	3.2	94
12.06	Availability of scientists and engineers	3.0	134
12.07	PCT patents, applications/million pop.*	0.0	111

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

South Africa

Key indicators, 2013

Population (millions)	53.0
GDP (US$ billions)*	350.8
GDP per capita (US$)	6,621.1
GDP (PPP) as share (%) of world total	0.65

Sectoral value-added (% GDP), 2013

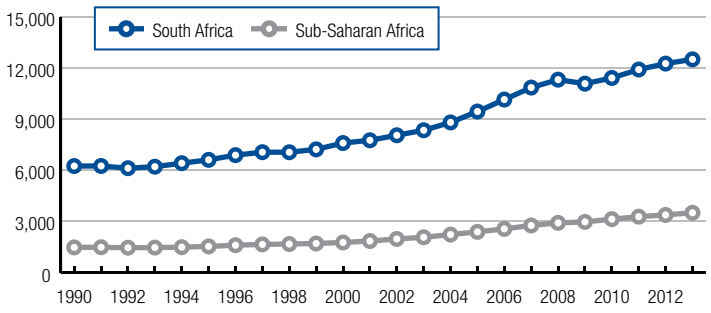
Agriculture	2.4
Industry	27.6
Services	70.0

Human Development Index, 2013

Score, (0–1) best	0.66
Rank (out of 187 economies)	118

Sources: IMF; UNFPA; UNDP; World Bank

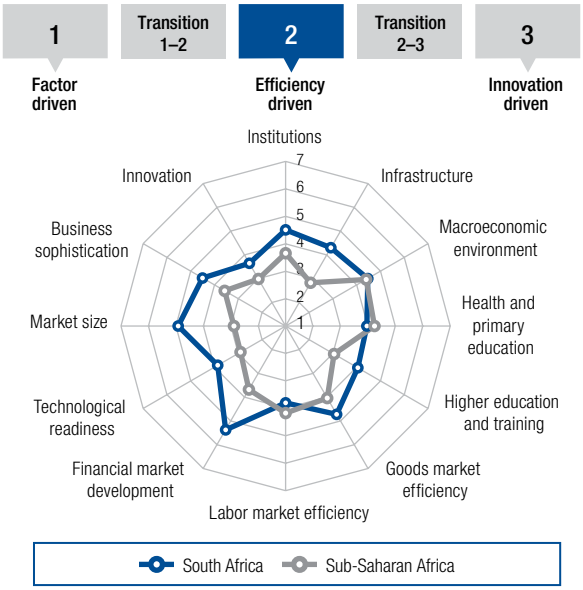
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

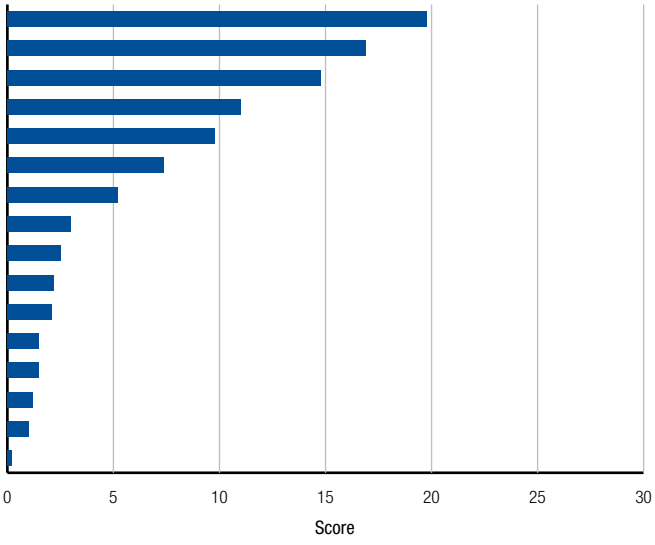
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**56**	**4.4**
GCI 2013–2014 (out of 148)	53	4.4
GCI 2012–2013 (out of 144)	52	4.4
Basic requirements (40.0%)	**89**	**4.3**
Institutions	36	4.5
Infrastructure	60	4.3
Macroeconomic environment	89	4.5
Health and primary education	132	4.0
Efficiency enhancers (50.0%)	**43**	**4.4**
Higher education and training	86	4.0
Goods market efficiency	32	4.7
Labor market efficiency	113	3.8
Financial market development	7	5.4
Technological readiness	66	3.9
Market size	25	4.9
Innovation and sophistication factors (10.0%)	**37**	**4.1**
Business sophistication	31	4.5
Innovation	43	3.6

Stage of development



The most problematic factors for doing business

Restrictive labor regulations	19.8
Inadequately educated workforce	16.9
Inefficient government bureaucracy	14.8
Corruption	11.0
Inadequate supply of infrastructure	9.8
Policy instability	7.4
Poor work ethic in national labor force	5.2
Insufficient capacity to innovate	3.0
Crime and theft	2.5
Access to financing	2.2
Foreign currency regulations	2.1
Inflation	1.5
Tax regulations	1.5
Poor public health	1.2
Tax rates	1.0
Government instability/coups	0.2



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

South Africa

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	5.6	20
1.02	Intellectual property protection	5.3	22
1.03	Diversion of public funds	2.8	96
1.04	Public trust in politicians	2.6	90
1.05	Irregular payments and bribes	4.5	48
1.06	Judicial independence	5.4	24
1.07	Favoritism in decisions of government officials	2.6	104
1.08	Wastefulness of government spending	2.8	89
1.09	Burden of government regulation	2.8	120
1.10	Efficiency of legal framework in settling disputes	5.2	15
1.11	Efficiency of legal framework in challenging regs.	4.9	9
1.12	Transparency of government policymaking	4.5	35
1.13	Business costs of terrorism	6.0	30
1.14	Business costs of crime and violence	2.8	133
1.15	Organized crime	4.3	99
1.16	Reliability of police services	3.6	102
1.17	Ethical behavior of firms	4.7	35
1.18	Strength of auditing and reporting standards	6.7	1
1.19	Efficacy of corporate boards	6.0	3
1.20	Protection of minority shareholders' interests	6.1	2
1.21	Strength of investor protection, 0–10 (best)*	8.0	10
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	4.5	59
2.02	Quality of roads	4.9	37
2.03	Quality of railroad infrastructure	3.4	44
2.04	Quality of port infrastructure	4.9	46
2.05	Quality of air transport infrastructure	6.0	11
2.06	Available airline seat km/week, millions*	1,117.0	28
2.07	Quality of electricity supply	3.6	99
2.08	Mobile telephone subscriptions/100 pop.*	147.5	25
2.09	Fixed telephone lines/100 pop.*	9.2	90
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-4.3	97
3.02	Gross national savings, % GDP*	13.5	119
3.03	Inflation, annual % change*	5.8	102
3.04	General government debt, % GDP*	45.2	77
3.05	Country credit rating, 0–100 (best)*	59.1	51
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	32.5	27
4.02	Business impact of malaria	5.1	30
4.03	Tuberculosis cases/100,000 pop.*	1,003.0	143
4.04	Business impact of tuberculosis	3.7	136
4.05	HIV prevalence, % adult pop.*	17.9	140
4.06	Business impact of HIV/AIDS	3.4	136
4.07	Infant mortality, deaths/1,000 live births*	33.3	105
4.08	Life expectancy, years*	56.1	129
4.09	Quality of primary education	2.4	133
4.10	Primary education enrollment, net %*	85.0	118
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	101.9	24
5.02	Tertiary education enrollment, gross %*	19.2	93
5.03	Quality of the education system	2.2	140
5.04	Quality of math and science education	1.9	144
5.05	Quality of management schools	5.2	24
5.06	Internet access in schools	3.2	117
5.07	Availability of research and training services	4.5	44
5.08	Extent of staff training	4.9	18
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	5.5	36
6.02	Extent of market dominance	4.0	48
6.03	Effectiveness of anti-monopoly policy	5.1	14
6.04	Effect of taxation on incentives to invest	4.3	26
6.05	Total tax rate, % profits*	30.1	41

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	5	32
6.07	No. days to start a business*	19.0	90
6.08	Agricultural policy costs	3.9	65
6.09	Prevalence of trade barriers	4.8	23
6.10	Trade tariffs, % duty*	6.0	76
6.11	Prevalence of foreign ownership	5.1	42
6.12	Business impact of rules on FDI	4.0	104
6.13	Burden of customs procedures	4.1	62
6.14	Imports as a percentage of GDP*	40.7	85
6.15	Degree of customer orientation	4.6	67
6.16	Buyer sophistication	4.0	31
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	2.5	144
7.02	Flexibility of wage determination	2.7	139
7.03	Hiring and firing practices	2.1	143
7.04	Redundancy costs, weeks of salary*	9.3	33
7.05	Effect of taxation on incentives to work	4.5	15
7.06	Pay and productivity	2.7	136
7.07	Reliance on professional management	5.5	21
7.08	Country capacity to retain talent	3.7	50
7.09	Country capacity to attract talent	3.9	39
7.10	Women in labor force, ratio to men*	0.77	84
	8th pillar: Financial market development		
8.01	Availability of financial services	6.1	6
8.02	Affordability of financial services	5.3	21
8.03	Financing through local equity market	5.4	3
8.04	Ease of access to loans	3.5	32
8.05	Venture capital availability	3.2	37
8.06	Soundness of banks	6.5	6
8.07	Regulation of securities exchanges	6.4	1
8.08	Legal rights index, 0–10 (best)*	7	43
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	5.5	39
9.02	Firm-level technology absorption	5.4	29
9.03	FDI and technology transfer	4.8	50
9.04	Individuals using Internet, %*	48.9	69
9.05	Fixed broadband Internet subscriptions/100 pop.*	3.1	89
9.06	Int'l Internet bandwidth, kb/s per user*	3.7	126
9.07	Mobile broadband subscriptions/100 pop.*	25.2	74
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	4.8	24
10.02	Foreign market size index, 1–7 (best)*	5.3	34
10.03	GDP (PPP$ billions)*	596.5	25
10.04	Exports as a percentage of GDP*	31.3	92
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.8	47
11.02	Local supplier quality	4.9	38
11.03	State of cluster development	4.2	44
11.04	Nature of competitive advantage	3.7	62
11.05	Value chain breadth	3.8	68
11.06	Control of international distribution	4.4	35
11.07	Production process sophistication	4.5	38
11.08	Extent of marketing	5.2	24
11.09	Willingness to delegate authority	4.5	27
	12th pillar: Innovation		
12.01	Capacity for innovation	4.3	35
12.02	Quality of scientific research institutions	4.7	34
12.03	Company spending on R&D	3.4	48
12.04	University-industry collaboration in R&D	4.5	31
12.05	Gov't procurement of advanced tech products	3.0	112
12.06	Availability of scientists and engineers	3.5	102
12.07	PCT patents, applications/million pop.*	6.5	45

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Swaziland

Key indicators, 2013

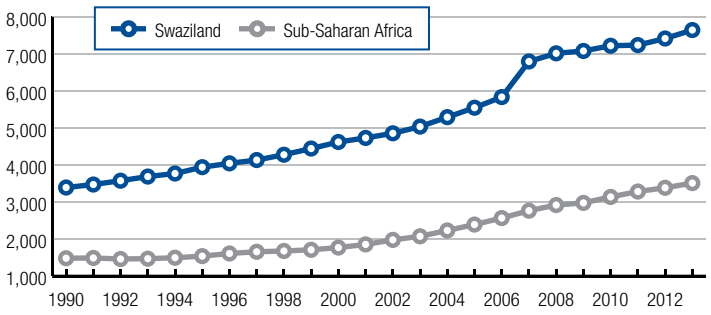
Population (millions) 1.1
GDP (US$ billions)* 3.8
GDP per capita (US$) 3,473.4
GDP (PPP) as share (%) of world total 0.01

Sectoral value-added (% GDP), 2011
Agriculture 7.5
Industry 47.7
Services 44.8

Human Development Index, 2013
Score, (0–1) best 0.53
Rank (out of 187 economies) 148

Sources: IMF; UNFPA; UNDP; World Bank

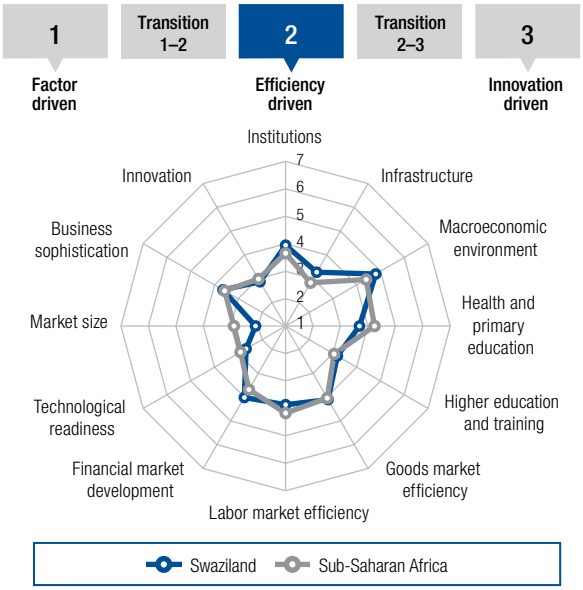
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

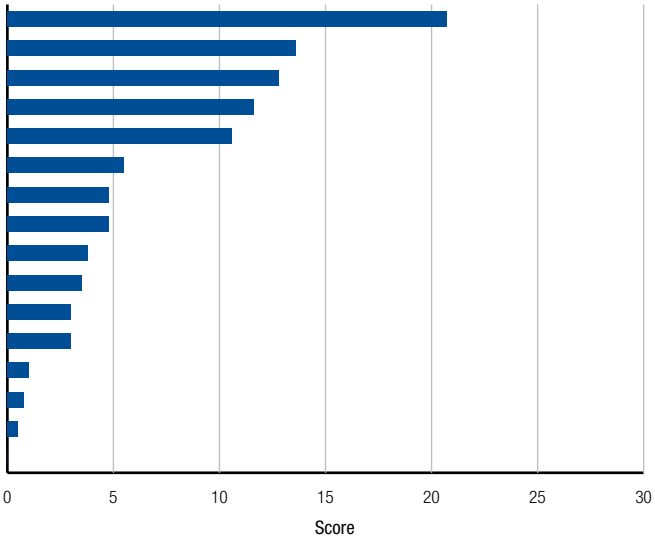
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**123**	**3.6**
GCI 2013–2014 (out of 148)	124	3.5
GCI 2012–2013 (out of 144)	135	3.3
Basic requirements (40.0%)	**108**	**3.9**
Institutions	61	3.9
Infrastructure	97	3.3
Macroeconomic environment	60	4.8
Health and primary education	134	3.7
Efficiency enhancers (50.0%)	**126**	**3.3**
Higher education and training	120	3.2
Goods market efficiency	98	4.1
Labor market efficiency	105	3.9
Financial market development	71	4.0
Technological readiness	125	2.7
Market size	136	2.1
Innovation and sophistication factors (10.0%)	**108**	**3.2**
Business sophistication	101	3.6
Innovation	112	2.9

Stage of development



The most problematic factors for doing business

Access to financing 20.7
Inefficient government bureaucracy 13.6
Corruption 12.8
Tax rates 11.6
Inadequate supply of infrastructure 10.6
Insufficient capacity to innovate 5.5
Inflation 4.8
Poor work ethic in national labor force 4.8
Restrictive labor regulations 3.8
Tax regulations 3.5
Inadequately educated workforce 3.0
Poor public health 3.0
Foreign currency regulations 1.0
Crime and theft 0.8
Government instability/coups 0.5
Policy instability 0.0



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Swaziland

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	4.3	58
1.02	Intellectual property protection	3.8	59
1.03	Diversion of public funds	3.4	62
1.04	Public trust in politicians	3.3	54
1.05	Irregular payments and bribes	3.8	73
1.06	Judicial independence	3.5	83
1.07	Favoritism in decisions of government officials	3.2	64
1.08	Wastefulness of government spending	3.0	81
1.09	Burden of government regulation	3.6	60
1.10	Efficiency of legal framework in settling disputes	3.9	55
1.11	Efficiency of legal framework in challenging regs.	3.5	59
1.12	Transparency of government policymaking	3.9	79
1.13	Business costs of terrorism	5.3	71
1.14	Business costs of crime and violence	4.5	69
1.15	Organized crime	4.8	68
1.16	Reliability of police services	4.6	50
1.17	Ethical behavior of firms	4.1	59
1.18	Strength of auditing and reporting standards	4.8	64
1.19	Efficacy of corporate boards	4.5	75
1.20	Protection of minority shareholders' interests	4.3	56
1.21	Strength of investor protection, 0–10 (best)*	4.3	105
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	4.0	78
2.02	Quality of roads	4.9	41
2.03	Quality of railroad infrastructure	3.5	43
2.04	Quality of port infrastructure	4.0	79
2.05	Quality of air transport infrastructure	4.0	88
2.06	Available airline seat km/week, millions*	0.3	144
2.07	Quality of electricity supply	4.1	90
2.08	Mobile telephone subscriptions/100 pop.*	71.5	119
2.09	Fixed telephone lines/100 pop.*	3.7	108
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-0.7	33
3.02	Gross national savings, % GDP*	15.5	102
3.03	Inflation, annual % change*	5.6	99
3.04	General government debt, % GDP*	18.8	17
3.05	Country credit rating, 0–100 (best)*	22.8	124
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	43.1	30
4.02	Business impact of malaria	4.1	52
4.03	Tuberculosis cases/100,000 pop.*	1,349.0	144
4.04	Business impact of tuberculosis	2.4	144
4.05	HIV prevalence, % adult pop.*	26.5	143
4.06	Business impact of HIV/AIDS	2.1	144
4.07	Infant mortality, deaths/1,000 live births*	55.7	127
4.08	Life expectancy, years*	48.9	141
4.09	Quality of primary education	4.4	49
4.10	Primary education enrollment, net %*	84.7	119
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	59.9	114
5.02	Tertiary education enrollment, gross %*	6.0	125
5.03	Quality of the education system	3.8	64
5.04	Quality of math and science education	4.0	78
5.05	Quality of management schools	3.4	122
5.06	Internet access in schools	3.1	119
5.07	Availability of research and training services	3.3	121
5.08	Extent of staff training	3.9	79
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.5	115
6.02	Extent of market dominance	3.3	111
6.03	Effectiveness of anti-monopoly policy	3.4	116
6.04	Effect of taxation on incentives to invest	3.8	62
6.05	Total tax rate, % profits*	36.5	67

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	12	131
6.07	No. days to start a business*	38.0	124
6.08	Agricultural policy costs	3.6	95
6.09	Prevalence of trade barriers	4.6	36
6.10	Trade tariffs, % duty*	6.1	79
6.11	Prevalence of foreign ownership	4.8	58
6.12	Business impact of rules on FDI	3.9	106
6.13	Burden of customs procedures	3.5	102
6.14	Imports as a percentage of GDP*	68.8	33
6.15	Degree of customer orientation	4.1	104
6.16	Buyer sophistication	3.4	78
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.3	72
7.02	Flexibility of wage determination	4.5	109
7.03	Hiring and firing practices	3.8	81
7.04	Redundancy costs, weeks of salary*	14.6	67
7.05	Effect of taxation on incentives to work	3.6	69
7.06	Pay and productivity	3.7	93
7.07	Reliance on professional management	4.3	62
7.08	Country capacity to retain talent	2.8	114
7.09	Country capacity to attract talent	3.2	87
7.10	Women in labor force, ratio to men*	0.62	110
	8th pillar: Financial market development		
8.01	Availability of financial services	4.4	66
8.02	Affordability of financial services	4.2	60
8.03	Financing through local equity market	3.5	66
8.04	Ease of access to loans	2.7	81
8.05	Venture capital availability	2.7	74
8.06	Soundness of banks	4.9	65
8.07	Regulation of securities exchanges	4.0	77
8.08	Legal rights index, 0–10 (best)*	6	63
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.9	121
9.02	Firm-level technology absorption	3.9	119
9.03	FDI and technology transfer	3.8	118
9.04	Individuals using Internet, %*	24.7	97
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.3	115
9.06	Int'l Internet bandwidth, kb/s per user*	3.2	129
9.07	Mobile broadband subscriptions/100 pop.*	0.7	126
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	1.8	138
10.02	Foreign market size index, 1–7 (best)*	3.1	130
10.03	GDP (PPP$ billions)*	6.8	137
10.04	Exports as a percentage of GDP*	55.8	37
	11th pillar: Business sophistication		
11.01	Local supplier quantity	3.9	125
11.02	Local supplier quality	3.9	102
11.03	State of cluster development	3.4	100
11.04	Nature of competitive advantage	3.3	82
11.05	Value chain breadth	3.3	108
11.06	Control of international distribution	3.5	114
11.07	Production process sophistication	3.6	85
11.08	Extent of marketing	3.6	111
11.09	Willingness to delegate authority	3.8	63
	12th pillar: Innovation		
12.01	Capacity for innovation	3.5	93
12.02	Quality of scientific research institutions	2.9	116
12.03	Company spending on R&D	2.8	104
12.04	University-industry collaboration in R&D	3.3	85
12.05	Gov't procurement of advanced tech products	3.3	87
12.06	Availability of scientists and engineers	2.7	141
12.07	PCT patents, applications/million pop.*	0.2	92

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Tanzania

Key indicators, 2013

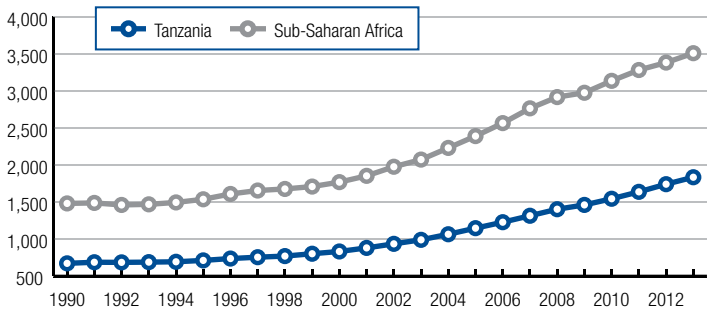
Population (millions) 46.3
GDP (US$ billions)* 33.3
GDP per capita (US$) 719.3
GDP (PPP) as share (%) of world total 0.08

Sectoral value-added (% GDP), 2013
Agriculture 27.0
Industry 25.2
Services 47.8

Human Development Index, 2013
Score, (0–1) best 0.49
Rank (out of 187 economies) 159

Sources: IMF; UNFPA; UNDP; World Bank

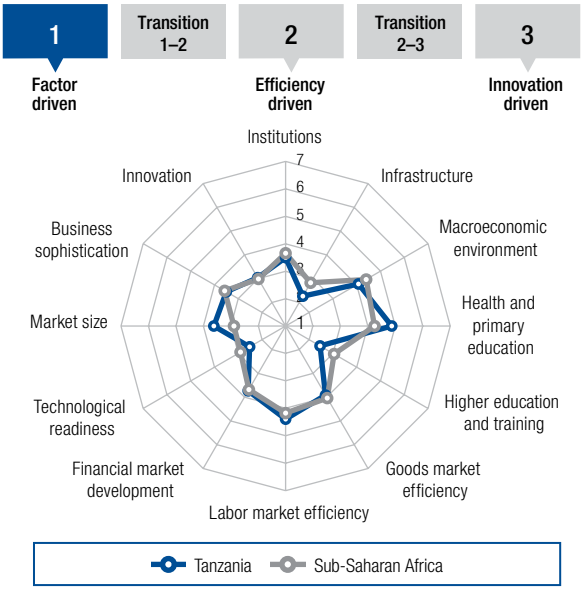
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

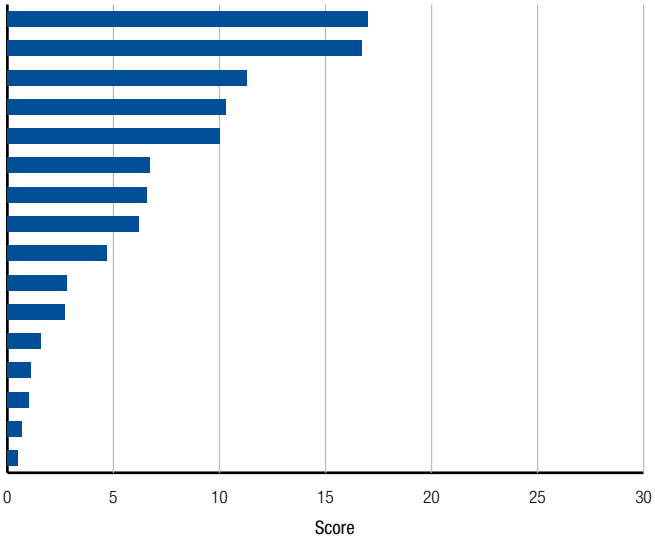
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**121**	**3.6**
GCI 2013–2014 (out of 148)	125	3.5
GCI 2012–2013 (out of 144)	120	3.6
Basic requirements (60.0%)	**124**	**3.7**
Institutions	93	3.5
Infrastructure	130	2.3
Macroeconomic environment	109	4.1
Health and primary education	108	4.9
Efficiency enhancers (35.0%)	**114**	**3.4**
Higher education and training	134	2.4
Goods market efficiency	122	3.9
Labor market efficiency	47	4.4
Financial market development	96	3.7
Technological readiness	131	2.5
Market size	75	3.6
Innovation and sophistication factors (5.0%)	**107**	**3.3**
Business sophistication	112	3.5
Innovation	98	3.0

Stage of development



The most problematic factors for doing business

Corruption 17.0
Access to financing 16.7
Inefficient government bureaucracy 11.3
Tax rates 10.3
Inadequate supply of infrastructure 10.0
Tax regulations 6.7
Inflation 6.6
Inadequately educated workforce 6.2
Poor work ethic in national labor force 4.7
Crime and theft 2.8
Insufficient capacity to innovate 2.7
Restrictive labor regulations 1.6
Poor public health 1.1
Policy instability 1.0
Foreign currency regulations 0.7
Government instability/coups 0.5



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Tanzania

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.5	105
1.02	Intellectual property protection	3.3	91
1.03	Diversion of public funds	2.8	91
1.04	Public trust in politicians	2.9	78
1.05	Irregular payments and bribes	2.9	124
1.06	Judicial independence	3.2	96
1.07	Favoritism in decisions of government officials	3.2	61
1.08	Wastefulness of government spending	2.9	84
1.09	Burden of government regulation	3.6	61
1.10	Efficiency of legal framework in settling disputes	3.7	64
1.11	Efficiency of legal framework in challenging regs.	3.3	78
1.12	Transparency of government policymaking	3.6	111
1.13	Business costs of terrorism	4.7	99
1.14	Business costs of crime and violence	4.1	88
1.15	Organized crime	4.7	77
1.16	Reliability of police services	3.5	108
1.17	Ethical behavior of firms	3.5	116
1.18	Strength of auditing and reporting standards	3.8	119
1.19	Efficacy of corporate boards	4.0	116
1.20	Protection of minority shareholders' interests	3.6	106
1.21	Strength of investor protection, 0–10 (best)*	5.0	83
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.2	117
2.02	Quality of roads	3.0	112
2.03	Quality of railroad infrastructure	2.0	88
2.04	Quality of port infrastructure	3.3	106
2.05	Quality of air transport infrastructure	2.8	131
2.06	Available airline seat km/week, millions*	81.9	87
2.07	Quality of electricity supply	2.5	125
2.08	Mobile telephone subscriptions/100 pop.*	55.7	135
2.09	Fixed telephone lines/100 pop.*	0.3	136
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-5.6	115
3.02	Gross national savings, % GDP*	19.9	69
3.03	Inflation, annual % change*	7.9	125
3.04	General government debt, % GDP*	41.0	65
3.05	Country credit rating, 0–100 (best)*	31.9	103
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	17,370.2	59
4.02	Business impact of malaria	3.0	72
4.03	Tuberculosis cases/100,000 pop.*	165.0	111
4.04	Business impact of tuberculosis	4.2	120
4.05	HIV prevalence, % adult pop.*	5.1	132
4.06	Business impact of HIV/AIDS	3.8	131
4.07	Infant mortality, deaths/1,000 live births*	37.7	109
4.08	Life expectancy, years*	60.8	124
4.09	Quality of primary education	2.5	132
4.10	Primary education enrollment, net %*	97.6	38
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	35.0	132
5.02	Tertiary education enrollment, gross %*	3.9	134
5.03	Quality of the education system	3.0	109
5.04	Quality of math and science education	2.4	137
5.05	Quality of management schools	3.2	126
5.06	Internet access in schools	2.8	124
5.07	Availability of research and training services	3.5	109
5.08	Extent of staff training	3.5	116
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.3	123
6.02	Extent of market dominance	3.5	95
6.03	Effectiveness of anti-monopoly policy	3.8	96
6.04	Effect of taxation on incentives to invest	3.4	96
6.05	Total tax rate, % profits*	44.9	101

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	9	106
6.07	No. days to start a business*	26.0	105
6.08	Agricultural policy costs	3.4	101
6.09	Prevalence of trade barriers	3.9	125
6.10	Trade tariffs, % duty*	9.7	104
6.11	Prevalence of foreign ownership	4.1	104
6.12	Business impact of rules on FDI	4.3	82
6.13	Burden of customs procedures	3.2	123
6.14	Imports as a percentage of GDP*	45.2	76
6.15	Degree of customer orientation	3.9	117
6.16	Buyer sophistication	3.1	101
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.8	117
7.02	Flexibility of wage determination	4.6	105
7.03	Hiring and firing practices	3.9	73
7.04	Redundancy costs, weeks of salary*	9.3	33
7.05	Effect of taxation on incentives to work	3.2	105
7.06	Pay and productivity	3.3	122
7.07	Reliance on professional management	3.7	106
7.08	Country capacity to retain talent	3.0	98
7.09	Country capacity to attract talent	3.3	84
7.10	Women in labor force, ratio to men*	0.99	6
	8th pillar: Financial market development		
8.01	Availability of financial services	3.7	122
8.02	Affordability of financial services	3.6	116
8.03	Financing through local equity market	3.2	82
8.04	Ease of access to loans	2.7	86
8.05	Venture capital availability	2.6	81
8.06	Soundness of banks	4.2	107
8.07	Regulation of securities exchanges	3.5	104
8.08	Legal rights index, 0–10 (best)*	7	43
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	3.8	126
9.02	Firm-level technology absorption	3.8	129
9.03	FDI and technology transfer	4.2	99
9.04	Individuals using Internet, %*	4.4	133
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.1	128
9.06	Int'l Internet bandwidth, kb/s per user*	6.5	111
9.07	Mobile broadband subscriptions/100 pop.*	2.7	117
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	3.5	71
10.02	Foreign market size index, 1–7 (best)*	4.0	89
10.03	GDP (PPP$ billions)*	79.4	76
10.04	Exports as a percentage of GDP*	24.6	115
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.1	115
11.02	Local supplier quality	3.8	112
11.03	State of cluster development	3.4	98
11.04	Nature of competitive advantage	3.0	108
11.05	Value chain breadth	3.5	102
11.06	Control of international distribution	3.5	119
11.07	Production process sophistication	3.2	111
11.08	Extent of marketing	3.5	117
11.09	Willingness to delegate authority	3.4	105
	12th pillar: Innovation		
12.01	Capacity for innovation	3.4	102
12.02	Quality of scientific research institutions	3.6	80
12.03	Company spending on R&D	3.0	86
12.04	University-industry collaboration in R&D	3.4	83
12.05	Gov't procurement of advanced tech products	3.3	84
12.06	Availability of scientists and engineers	3.6	98
12.07	PCT patents, applications/million pop.*	0.0	116

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Tunisia

Key indicators, 2013

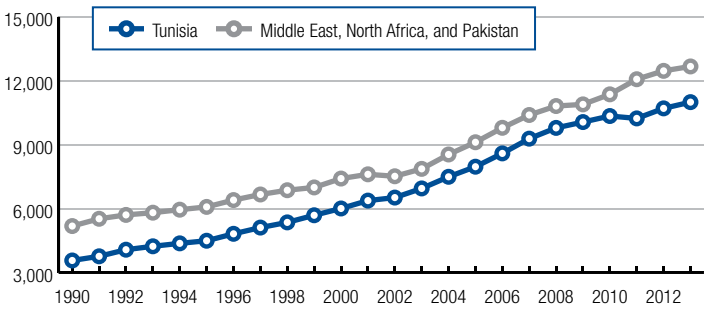
Population (millions) 10.9
GDP (US$ billions)* 47.0
GDP per capita (US$) 4,316.8
GDP (PPP) as share (%) of world total 0.12

Sectoral value-added (% GDP), 2013
Agriculture 8.7
Industry 29.4
Services 61.9

Human Development Index, 2013
Score, (0–1) best 0.72
Rank (out of 187 economies) 90

Sources: IMF; UNFPA; UNDP; World Bank

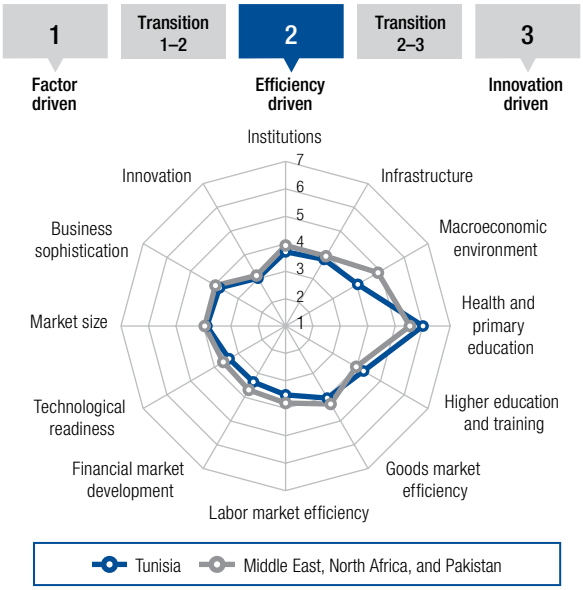
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

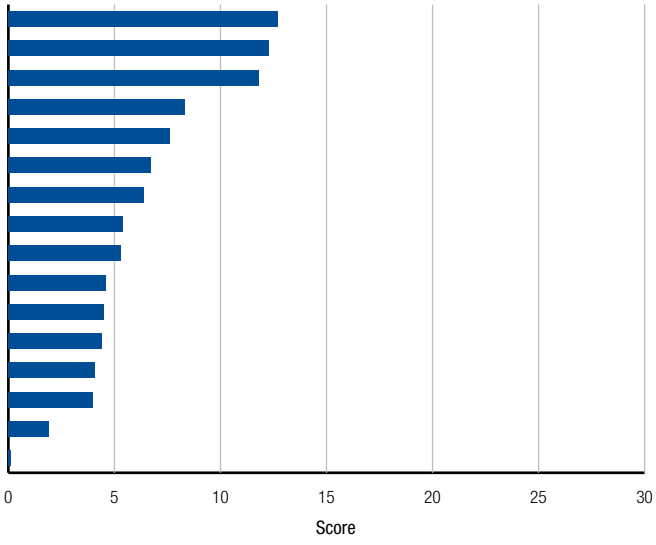
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**87**	**4.0**
GCI 2013–2014 (out of 148)	83	4.1
GCI 2012–2013 (out of 144)	n/a	n/a
Basic requirements (40.0%)	**85**	**4.4**
Institutions	81	3.7
Infrastructure	79	3.8
Macroeconomic environment	111	4.0
Health and primary education	53	6.0
Efficiency enhancers (50.0%)	**94**	**3.7**
Higher education and training	73	4.3
Goods market efficiency	107	4.0
Labor market efficiency	129	3.5
Financial market development	117	3.4
Technological readiness	90	3.4
Market size	64	3.9
Innovation and sophistication factors (10.0%)	**93**	**3.4**
Business sophistication	88	3.8
Innovation	99	3.0

Stage of development



The most problematic factors for doing business

Inefficient government bureaucracy	12.7
Access to financing	12.3
Policy instability	11.8
Restrictive labor regulations	8.3
Inadequate supply of infrastructure	7.6
Corruption	6.7
Poor work ethic in national labor force	6.4
Government instability/coups	5.4
Tax regulations	5.3
Inadequately educated workforce	4.6
Tax rates	4.5
Foreign currency regulations	4.4
Inflation	4.1
Insufficient capacity to innovate	4.0
Crime and theft	1.9
Poor public health	0.1



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Tunisia

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	4.0	76
1.02	Intellectual property protection	3.1	102
1.03	Diversion of public funds	3.5	56
1.04	Public trust in politicians	3.1	63
1.05	Irregular payments and bribes	3.8	77
1.06	Judicial independence	3.6	75
1.07	Favoritism in decisions of government officials	3.2	60
1.08	Wastefulness of government spending	3.3	64
1.09	Burden of government regulation	3.5	66
1.10	Efficiency of legal framework in settling disputes	3.6	75
1.11	Efficiency of legal framework in challenging regs.	3.4	63
1.12	Transparency of government policymaking	3.8	90
1.13	Business costs of terrorism	3.3	133
1.14	Business costs of crime and violence	3.6	107
1.15	Organized crime	4.2	103
1.16	Reliability of police services	4.1	70
1.17	Ethical behavior of firms	3.9	75
1.18	Strength of auditing and reporting standards	4.5	78
1.19	Efficacy of corporate boards	4.1	108
1.20	Protection of minority shareholders' interests	4.0	82
1.21	Strength of investor protection, 0–10 (best)*	6.0	45
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.9	83
2.02	Quality of roads	3.7	83
2.03	Quality of railroad infrastructure	3.3	48
2.04	Quality of port infrastructure	3.9	83
2.05	Quality of air transport infrastructure	4.2	77
2.06	Available airline seat km/week, millions*	190.7	67
2.07	Quality of electricity supply	5.0	65
2.08	Mobile telephone subscriptions/100 pop.*	115.6	63
2.09	Fixed telephone lines/100 pop.*	9.3	89
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-5.9	121
3.02	Gross national savings, % GDP*	14.9	106
3.03	Inflation, annual % change*	6.1	108
3.04	General government debt, % GDP*	44.4	75
3.05	Country credit rating, 0–100 (best)*	44.4	73
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	S.L.	n/a
4.02	Business impact of malaria	N/Appl.	n/a
4.03	Tuberculosis cases/100,000 pop.*	31.0	60
4.04	Business impact of tuberculosis	5.6	73
4.05	HIV prevalence, % adult pop.*	0.1	1
4.06	Business impact of HIV/AIDS	5.7	67
4.07	Infant mortality, deaths/1,000 live births*	13.8	70
4.08	Life expectancy, years*	75.1	56
4.09	Quality of primary education	3.9	72
4.10	Primary education enrollment, net %*	98.9	13
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	91.1	67
5.02	Tertiary education enrollment, gross %*	35.2	73
5.03	Quality of the education system	3.7	68
5.04	Quality of math and science education	4.7	32
5.05	Quality of management schools	4.4	61
5.06	Internet access in schools	3.6	96
5.07	Availability of research and training services	3.8	89
5.08	Extent of staff training	3.7	99
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.8	92
6.02	Extent of market dominance	3.7	77
6.03	Effectiveness of anti-monopoly policy	4.0	71
6.04	Effect of taxation on incentives to invest	3.8	69
6.05	Total tax rate, % profits*	62.4	129

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	10	118
6.07	No. days to start a business*	11.0	57
6.08	Agricultural policy costs	3.4	105
6.09	Prevalence of trade barriers	3.9	124
6.10	Trade tariffs, % duty*	16.3	138
6.11	Prevalence of foreign ownership	4.4	81
6.12	Business impact of rules on FDI	4.6	49
6.13	Burden of customs procedures	3.4	106
6.14	Imports as a percentage of GDP*	58.0	44
6.15	Degree of customer orientation	4.3	89
6.16	Buyer sophistication	3.2	91
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.8	118
7.02	Flexibility of wage determination	4.2	119
7.03	Hiring and firing practices	3.5	97
7.04	Redundancy costs, weeks of salary*	12.1	52
7.05	Effect of taxation on incentives to work	3.6	71
7.06	Pay and productivity	3.6	97
7.07	Reliance on professional management	3.8	94
7.08	Country capacity to retain talent	3.0	95
7.09	Country capacity to attract talent	2.8	104
7.10	Women in labor force, ratio to men*	0.36	134
	8th pillar: Financial market development		
8.01	Availability of financial services	3.7	120
8.02	Affordability of financial services	3.9	91
8.03	Financing through local equity market	3.6	57
8.04	Ease of access to loans	2.8	70
8.05	Venture capital availability	2.7	68
8.06	Soundness of banks	3.5	128
8.07	Regulation of securities exchanges	3.7	90
8.08	Legal rights index, 0–10 (best)*	3	113
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.7	79
9.02	Firm-level technology absorption	4.5	79
9.03	FDI and technology transfer	4.4	84
9.04	Individuals using Internet, %*	43.8	78
9.05	Fixed broadband Internet subscriptions/100 pop.*	4.8	81
9.06	Int'l Internet bandwidth, kb/s per user*	19.1	84
9.07	Mobile broadband subscriptions/100 pop.*	26.1	71
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	3.6	63
10.02	Foreign market size index, 1–7 (best)*	4.6	69
10.03	GDP (PPP$ billions)*	108.4	67
10.04	Exports as a percentage of GDP*	46.5	53
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.6	75
11.02	Local supplier quality	4.1	89
11.03	State of cluster development	3.5	88
11.04	Nature of competitive advantage	3.2	91
11.05	Value chain breadth	3.8	70
11.06	Control of international distribution	4.0	68
11.07	Production process sophistication	3.5	96
11.08	Extent of marketing	3.8	101
11.09	Willingness to delegate authority	3.4	103
	12th pillar: Innovation		
12.01	Capacity for innovation	3.3	107
12.02	Quality of scientific research institutions	3.1	109
12.03	Company spending on R&D	2.9	95
12.04	University-industry collaboration in R&D	2.9	117
12.05	Gov't procurement of advanced tech products	3.1	103
12.06	Availability of scientists and engineers	4.7	26
12.07	PCT patents, applications/million pop.*	1.2	68

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Uganda

Key indicators, 2013

Population (millions)	36.8
GDP (US$ billions)*	22.9
GDP per capita (US$)	622.6
GDP (PPP) as share (%) of world total	0.06

Sectoral value-added (% GDP), 2013

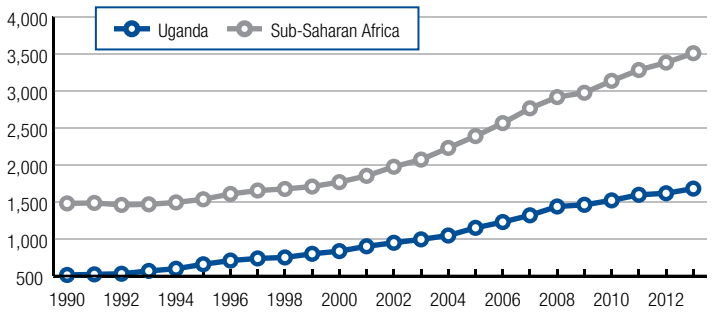
Agriculture	25.0
Industry	28.7
Services	46.2

Human Development Index, 2013

Score, (0–1) best	0.48
Rank (out of 187 economies)	164

Sources: IMF; UNFPA; UNDP; World Bank

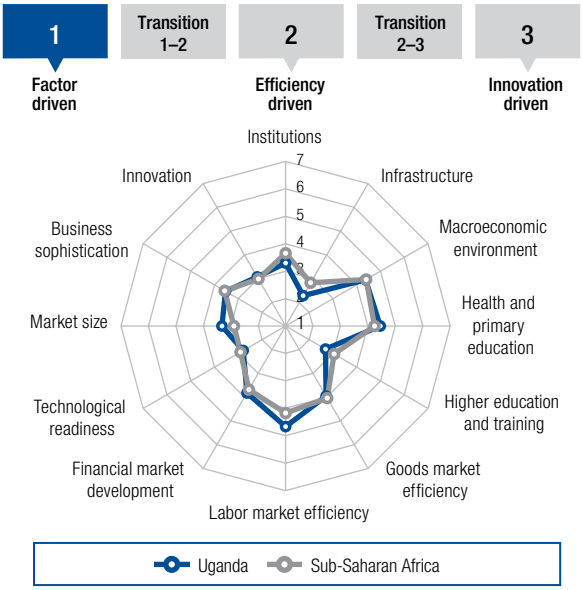
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

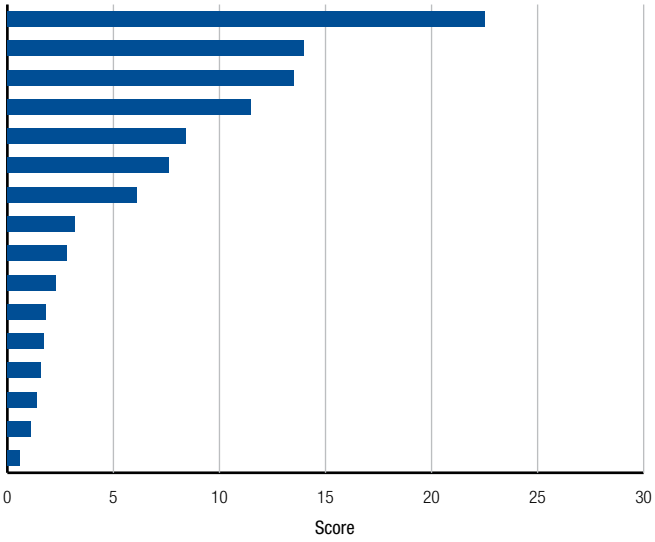
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**122**	**3.6**
GCI 2013–2014 (out of 148)	129	3.4
GCI 2012–2013 (out of 144)	123	3.5
Basic requirements (60.0%)	**126**	**3.6**
Institutions	115	3.3
Infrastructure	129	2.3
Macroeconomic environment	96	4.4
Health and primary education	122	4.4
Efficiency enhancers (35.0%)	**110**	**3.5**
Higher education and training	129	2.7
Goods market efficiency	119	3.9
Labor market efficiency	27	4.7
Financial market development	81	3.8
Technological readiness	119	2.8
Market size	86	3.3
Innovation and sophistication factors (5.0%)	**104**	**3.3**
Business sophistication	109	3.5
Innovation	96	3.1

Stage of development



The most problematic factors for doing business

Corruption	22.5
Access to financing	14.0
Tax rates	13.5
Inadequate supply of infrastructure	11.5
Inflation	8.4
Inefficient government bureaucracy	7.6
Poor work ethic in national labor force	6.1
Tax regulations	3.2
Crime and theft	2.8
Poor public health	2.3
Insufficient capacity to innovate	1.8
Inadequately educated workforce	1.7
Policy instability	1.6
Foreign currency regulations	1.4
Restrictive labor regulations	1.1
Government instability/coups	0.6



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Uganda

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	3.4	112
1.02	Intellectual property protection	2.7	124
1.03	Diversion of public funds	2.0	134
1.04	Public trust in politicians	2.5	94
1.05	Irregular payments and bribes	2.8	128
1.06	Judicial independence	3.0	106
1.07	Favoritism in decisions of government officials	2.6	103
1.08	Wastefulness of government spending	2.5	109
1.09	Burden of government regulation	3.7	42
1.10	Efficiency of legal framework in settling disputes	3.8	61
1.11	Efficiency of legal framework in challenging regs.	3.2	84
1.12	Transparency of government policymaking	3.9	80
1.13	Business costs of terrorism	3.6	131
1.14	Business costs of crime and violence	3.4	118
1.15	Organized crime	4.1	108
1.16	Reliability of police services	3.7	95
1.17	Ethical behavior of firms	3.8	83
1.18	Strength of auditing and reporting standards	3.9	114
1.19	Efficacy of corporate boards	4.6	63
1.20	Protection of minority shareholders' interests	3.4	123
1.21	Strength of investor protection, 0–10 (best)*	4.7	98
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.5	104
2.02	Quality of roads	3.2	105
2.03	Quality of railroad infrastructure	1.5	101
2.04	Quality of port infrastructure	2.8	118
2.05	Quality of air transport infrastructure	3.2	124
2.06	Available airline seat km/week, millions*	49.6	101
2.07	Quality of electricity supply	2.9	114
2.08	Mobile telephone subscriptions/100 pop.*	44.1	138
2.09	Fixed telephone lines/100 pop.*	0.6	132
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-3.7	87
3.02	Gross national savings, % GDP*	14.7	109
3.03	Inflation, annual % change*	5.4	97
3.04	General government debt, % GDP*	33.9	49
3.05	Country credit rating, 0–100 (best)*	32.2	101
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	24,487.0	65
4.02	Business impact of malaria	3.3	65
4.03	Tuberculosis cases/100,000 pop.*	179.0	115
4.04	Business impact of tuberculosis	4.3	115
4.05	HIV prevalence, % adult pop.*	7.2	134
4.06	Business impact of HIV/AIDS	3.1	141
4.07	Infant mortality, deaths/1,000 live births*	45.4	117
4.08	Life expectancy, years*	58.6	125
4.09	Quality of primary education	2.9	115
4.10	Primary education enrollment, net %*	90.9	100
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	27.6	138
5.02	Tertiary education enrollment, gross %*	9.1	118
5.03	Quality of the education system	3.6	78
5.04	Quality of math and science education	3.1	117
5.05	Quality of management schools	3.8	96
5.06	Internet access in schools	3.2	116
5.07	Availability of research and training services	3.7	98
5.08	Extent of staff training	3.6	110
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	5.2	55
6.02	Extent of market dominance	3.1	124
6.03	Effectiveness of anti-monopoly policy	4.5	40
6.04	Effect of taxation on incentives to invest	3.4	94
6.05	Total tax rate, % profits*	36.6	68

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	15	141
6.07	No. days to start a business*	32.0	112
6.08	Agricultural policy costs	3.8	71
6.09	Prevalence of trade barriers	4.4	62
6.10	Trade tariffs, % duty*	9.0	99
6.11	Prevalence of foreign ownership	5.2	33
6.12	Business impact of rules on FDI	4.9	30
6.13	Burden of customs procedures	3.8	84
6.14	Imports as a percentage of GDP*	36.2	100
6.15	Degree of customer orientation	4.1	102
6.16	Buyer sophistication	2.4	136
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.1	91
7.02	Flexibility of wage determination	6.2	2
7.03	Hiring and firing practices	4.9	10
7.04	Redundancy costs, weeks of salary*	8.7	26
7.05	Effect of taxation on incentives to work	3.6	74
7.06	Pay and productivity	3.2	126
7.07	Reliance on professional management	3.9	88
7.08	Country capacity to retain talent	2.8	113
7.09	Country capacity to attract talent	3.0	95
7.10	Women in labor force, ratio to men*	0.96	9
	8th pillar: Financial market development		
8.01	Availability of financial services	4.1	86
8.02	Affordability of financial services	3.5	121
8.03	Financing through local equity market	3.1	85
8.04	Ease of access to loans	2.5	93
8.05	Venture capital availability	2.2	106
8.06	Soundness of banks	4.6	83
8.07	Regulation of securities exchanges	3.7	92
8.08	Legal rights index, 0–10 (best)*	7	43
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.3	98
9.02	Firm-level technology absorption	4.1	110
9.03	FDI and technology transfer	4.7	56
9.04	Individuals using Internet, %*	16.2	110
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.1	126
9.06	Int'l Internet bandwidth, kb/s per user*	4.2	121
9.07	Mobile broadband subscriptions/100 pop.*	7.4	102
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	3.2	82
10.02	Foreign market size index, 1–7 (best)*	3.7	105
10.03	GDP (PPP$ billions)*	54.6	87
10.04	Exports as a percentage of GDP*	19.2	131
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.7	59
11.02	Local supplier quality	3.5	129
11.03	State of cluster development	3.5	86
11.04	Nature of competitive advantage	2.8	121
11.05	Value chain breadth	3.6	93
11.06	Control of international distribution	3.7	100
11.07	Production process sophistication	3.2	115
11.08	Extent of marketing	3.4	119
11.09	Willingness to delegate authority	3.1	124
	12th pillar: Innovation		
12.01	Capacity for innovation	3.5	90
12.02	Quality of scientific research institutions	3.6	78
12.03	Company spending on R&D	2.9	97
12.04	University-industry collaboration in R&D	3.7	62
12.05	Gov't procurement of advanced tech products	3.4	72
12.06	Availability of scientists and engineers	3.5	105
12.07	PCT patents, applications/million pop.*	0.0	112

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Zambia

Key indicators, 2013

Population (millions)	14.5
GDP (US$ billions)*	26.8
GDP per capita (US$)	1,845.4
GDP (PPP) as share (%) of world total	0.06

Sectoral value-added (% GDP), 2013

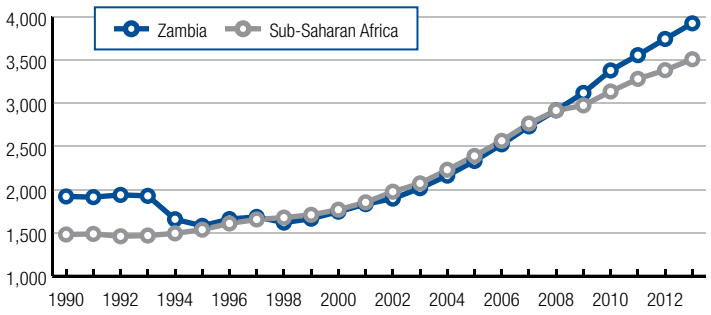
Agriculture	17.7
Industry	37.3
Services	45.1

Human Development Index, 2013

Score, (0–1) best	0.56
Rank (out of 187 economies)	141

Sources: IMF; UNFPA; UNDP; World Bank

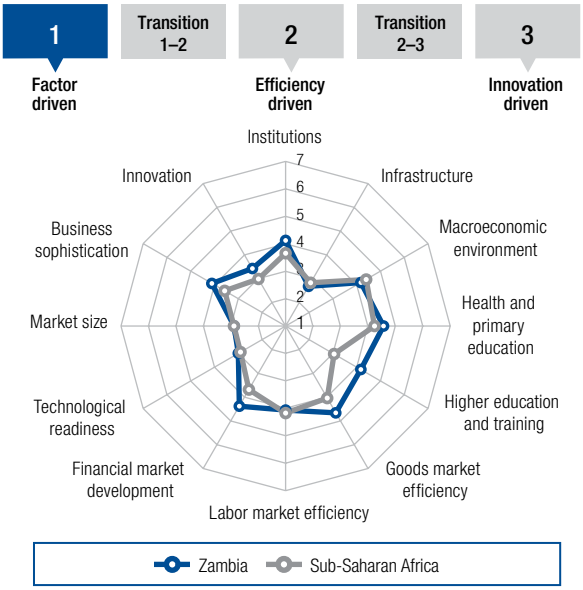
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

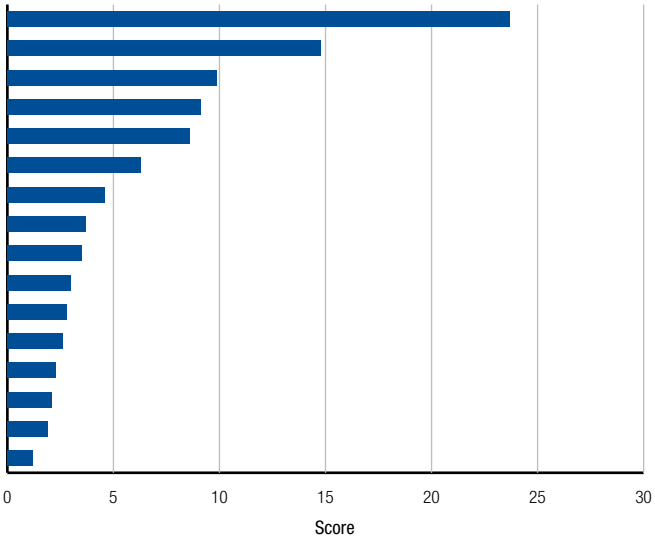
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**96**	**3.9**
GCI 2013–2014 (out of 148)	93	3.9
GCI 2012–2013 (out of 144)	102	3.8
Basic requirements (60.0%)	**109**	**3.9**
Institutions	52	4.1
Infrastructure	118	2.7
Macroeconomic environment	103	4.2
Health and primary education	118	4.6
Efficiency enhancers (35.0%)	**86**	**3.9**
Higher education and training	80	4.2
Goods market efficiency	37	4.6
Labor market efficiency	88	4.1
Financial market development	50	4.4
Technological readiness	105	3.0
Market size	110	2.9
Innovation and sophistication factors (5.0%)	**57**	**3.8**
Business sophistication	60	4.1
Innovation	54	3.4

Stage of development



The most problematic factors for doing business

Access to financing	23.7
Corruption	14.8
Tax rates	9.9
Poor work ethic in national labor force	9.1
Inadequate supply of infrastructure	8.6
Inefficient government bureaucracy	6.3
Inflation	4.6
Policy instability	3.7
Foreign currency regulations	3.5
Insufficient capacity to innovate	3.0
Inadequately educated workforce	2.8
Tax regulations	2.6
Restrictive labor regulations	2.3
Poor public health	2.1
Crime and theft	1.9
Government instability/coups	1.2



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Zambia

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	4.6	44
1.02	Intellectual property protection	4.0	50
1.03	Diversion of public funds	3.3	65
1.04	Public trust in politicians	3.0	73
1.05	Irregular payments and bribes	3.7	83
1.06	Judicial independence	3.7	69
1.07	Favoritism in decisions of government officials	3.4	51
1.08	Wastefulness of government spending	3.6	46
1.09	Burden of government regulation	3.9	35
1.10	Efficiency of legal framework in settling disputes	4.4	33
1.11	Efficiency of legal framework in challenging regs.	3.3	71
1.12	Transparency of government policymaking	4.5	36
1.13	Business costs of terrorism	6.0	29
1.14	Business costs of crime and violence	4.6	62
1.15	Organized crime	5.5	47
1.16	Reliability of police services	4.0	79
1.17	Ethical behavior of firms	4.0	66
1.18	Strength of auditing and reporting standards	4.7	67
1.19	Efficacy of corporate boards	4.9	47
1.20	Protection of minority shareholders' interests	4.7	36
1.21	Strength of investor protection, 0–10 (best)*	5.3	68
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.7	92
2.02	Quality of roads	3.6	86
2.03	Quality of railroad infrastructure	2.0	87
2.04	Quality of port infrastructure	2.7	124
2.05	Quality of air transport infrastructure	3.5	111
2.06	Available airline seat km/week, millions*	37.6	108
2.07	Quality of electricity supply	3.3	104
2.08	Mobile telephone subscriptions/100 pop.*	71.5	118
2.09	Fixed telephone lines/100 pop.*	0.8	129
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-8.6	137
3.02	Gross national savings, % GDP*	25.5	38
3.03	Inflation, annual % change*	7.0	119
3.04	General government debt, % GDP*	35.1	51
3.05	Country credit rating, 0–100 (best)*	35.9	90
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	26,650.2	68
4.02	Business impact of malaria	3.9	57
4.03	Tuberculosis cases/100,000 pop.*	427.0	135
4.04	Business impact of tuberculosis	4.3	116
4.05	HIV prevalence, % adult pop.*	12.7	137
4.06	Business impact of HIV/AIDS	3.9	129
4.07	Infant mortality, deaths/1,000 live births*	56.4	129
4.08	Life expectancy, years*	57.0	128
4.09	Quality of primary education	3.8	77
4.10	Primary education enrollment, net %*	93.7	74
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	100.8	32
5.02	Tertiary education enrollment, gross %*	2.4	137
5.03	Quality of the education system	4.3	36
5.04	Quality of math and science education	4.3	62
5.05	Quality of management schools	4.7	42
5.06	Internet access in schools	3.6	97
5.07	Availability of research and training services	4.4	48
5.08	Extent of staff training	4.1	63
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	5.6	25
6.02	Extent of market dominance	4.2	38
6.03	Effectiveness of anti-monopoly policy	4.5	36
6.04	Effect of taxation on incentives to invest	3.9	56
6.05	Total tax rate, % profits*	15.1	8

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	5	32
6.07	No. days to start a business*	6.5	31
6.08	Agricultural policy costs	4.1	35
6.09	Prevalence of trade barriers	4.5	52
6.10	Trade tariffs, % duty*	10.7	110
6.11	Prevalence of foreign ownership	5.3	26
6.12	Business impact of rules on FDI	5.0	24
6.13	Burden of customs procedures	4.2	59
6.14	Imports as a percentage of GDP*	48.6	70
6.15	Degree of customer orientation	4.7	56
6.16	Buyer sophistication	3.4	74
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	4.4	60
7.02	Flexibility of wage determination	5.1	63
7.03	Hiring and firing practices	4.5	16
7.04	Redundancy costs, weeks of salary*	50.6	138
7.05	Effect of taxation on incentives to work	4.2	26
7.06	Pay and productivity	3.6	96
7.07	Reliance on professional management	4.7	38
7.08	Country capacity to retain talent	3.4	67
7.09	Country capacity to attract talent	3.9	43
7.10	Women in labor force, ratio to men*	0.85	53
	8th pillar: Financial market development		
8.01	Availability of financial services	4.3	74
8.02	Affordability of financial services	3.9	94
8.03	Financing through local equity market	3.7	52
8.04	Ease of access to loans	2.5	99
8.05	Venture capital availability	2.4	95
8.06	Soundness of banks	5.1	59
8.07	Regulation of securities exchanges	4.7	44
8.08	Legal rights index, 0–10 (best)*	9	11
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.6	82
9.02	Firm-level technology absorption	4.7	67
9.03	FDI and technology transfer	4.7	64
9.04	Individuals using Internet, %*	15.4	114
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.1	131
9.06	Int'l Internet bandwidth, kb/s per user*	4.2	122
9.07	Mobile broadband subscriptions/100 pop.*	0.7	125
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.6	113
10.02	Foreign market size index, 1–7 (best)*	3.8	101
10.03	GDP (PPP$ billions)*	25.5	111
10.04	Exports as a percentage of GDP*	47.8	50
	11th pillar: Business sophistication		
11.01	Local supplier quantity	4.9	34
11.02	Local supplier quality	4.2	80
11.03	State of cluster development	4.1	46
11.04	Nature of competitive advantage	3.8	49
11.05	Value chain breadth	3.9	59
11.06	Control of international distribution	3.8	93
11.07	Production process sophistication	3.8	74
11.08	Extent of marketing	4.1	75
11.09	Willingness to delegate authority	4.0	48
	12th pillar: Innovation		
12.01	Capacity for innovation	4.1	45
12.02	Quality of scientific research institutions	3.4	89
12.03	Company spending on R&D	3.4	49
12.04	University-industry collaboration in R&D	3.5	75
12.05	Gov't procurement of advanced tech products	4.0	25
12.06	Availability of scientists and engineers	4.3	51
12.07	PCT patents, applications/million pop.*	0.0	124

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

Zimbabwe

Key indicators, 2013

Population (millions)	13.1
GDP (US$ billions)*	13.2
GDP per capita (US$)	1,006.8
GDP (PPP) as share (%) of world total	0.03

Sectoral value-added (% GDP), 2013

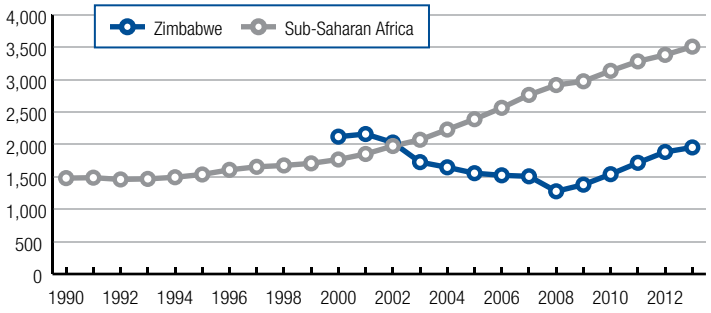
Agriculture	12.4
Industry	31.3
Services	56.3

Human Development Index, 2013

Score, (0–1) best	0.49
Rank (out of 187 economies)	156

Sources: IMF; UNFPA; UNDP; World Bank

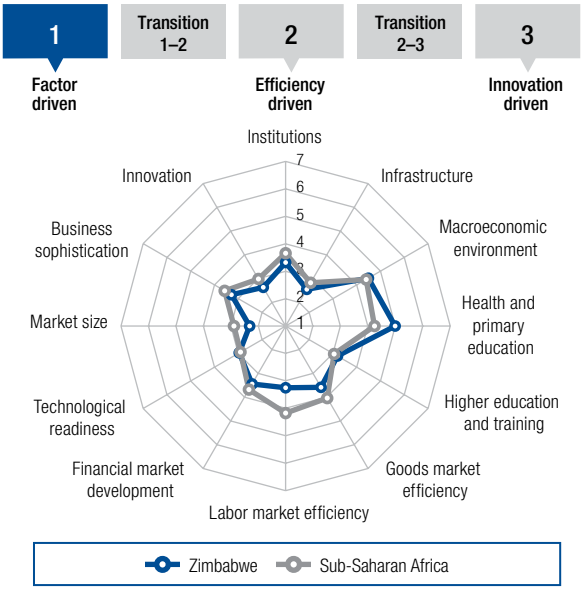
GDP (PPP) per capita (int'l $), 1990–2013



Global Competitiveness Index

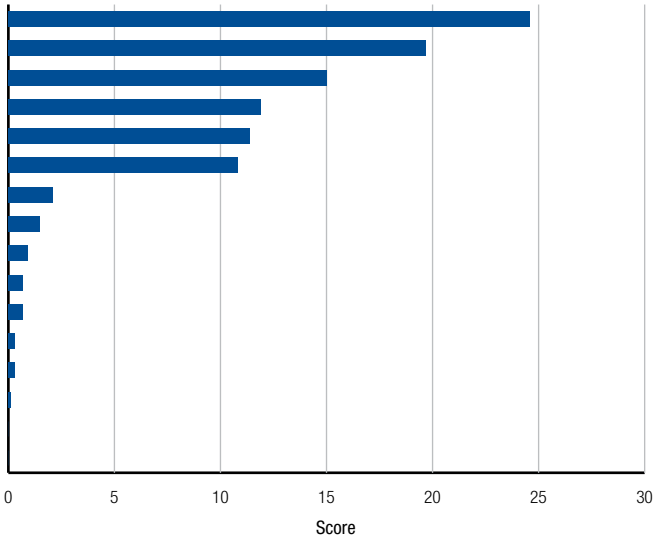
	Rank (out of 144)	Score (1–7)
GCI 2014–2015	**124**	**3.5**
GCI 2013–2014 (out of 148)	131	3.4
GCI 2012–2013 (out of 144)	132	3.3
Basic requirements (60.0%)	**114**	**3.8**
Institutions	113	3.3
Infrastructure	124	2.5
Macroeconomic environment	87	4.5
Health and primary education	106	5.0
Efficiency enhancers (35.0%)	**133**	**3.1**
Higher education and training	118	3.2
Goods market efficiency	133	3.6
Labor market efficiency	137	3.2
Financial market development	112	3.4
Technological readiness	109	2.9
Market size	132	2.3
Innovation and sophistication factors (5.0%)	**127**	**3.0**
Business sophistication	130	3.3
Innovation	125	2.6

Stage of development



The most problematic factors for doing business

Access to financing	24.6
Policy instability	19.7
Inadequate supply of infrastructure	15.0
Inefficient government bureaucracy	11.9
Corruption	11.4
Restrictive labor regulations	10.8
Tax regulations	2.1
Tax rates	1.5
Government instability/coups	0.9
Insufficient capacity to innovate	0.7
Poor work ethic in national labor force	0.7
Crime and theft	0.3
Poor public health	0.3
Inadequately educated workforce	0.1
Foreign currency regulations	0.0
Inflation	0.0



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Zimbabwe

The Global Competitiveness Index in detail

	INDICATOR	VALUE	RANK/144
	1st pillar: Institutions		
1.01	Property rights	2.4	142
1.02	Intellectual property protection	2.9	116
1.03	Diversion of public funds	2.6	109
1.04	Public trust in politicians	1.9	132
1.05	Irregular payments and bribes	3.4	101
1.06	Judicial independence	2.5	120
1.07	Favoritism in decisions of government officials	2.5	117
1.08	Wastefulness of government spending	2.1	135
1.09	Burden of government regulation	2.8	119
1.10	Efficiency of legal framework in settling disputes	3.4	93
1.11	Efficiency of legal framework in challenging regs.	2.5	120
1.12	Transparency of government policymaking	3.5	115
1.13	Business costs of terrorism	6.5	8
1.14	Business costs of crime and violence	4.7	58
1.15	Organized crime	5.7	31
1.16	Reliability of police services	3.0	122
1.17	Ethical behavior of firms	3.6	106
1.18	Strength of auditing and reporting standards	5.2	38
1.19	Efficacy of corporate boards	4.3	88
1.20	Protection of minority shareholders' interests	4.1	74
1.21	Strength of investor protection, 0–10 (best)*	4.3	105
	2nd pillar: Infrastructure		
2.01	Quality of overall infrastructure	3.1	121
2.02	Quality of roads	3.3	100
2.03	Quality of railroad infrastructure	2.2	82
2.04	Quality of port infrastructure	3.6	96
2.05	Quality of air transport infrastructure	3.3	116
2.06	Available airline seat km/week, millions*	19.0	124
2.07	Quality of electricity supply	2.1	131
2.08	Mobile telephone subscriptions/100 pop.*	96.3	99
2.09	Fixed telephone lines/100 pop.*	2.1	119
	3rd pillar: Macroeconomic environment		
3.01	Government budget balance, % GDP*	-0.1	26
3.02	Gross national savings, % GDP*	-5.7	143
3.03	Inflation, annual % change*	1.6	1
3.04	General government debt, % GDP*	54.7	90
3.05	Country credit rating, 0–100 (best)*	6.0	143
	4th pillar: Health and primary education		
4.01	Malaria cases/100,000 pop.*	8,452.6	56
4.02	Business impact of malaria	4.9	36
4.03	Tuberculosis cases/100,000 pop.*	562.0	139
4.04	Business impact of tuberculosis	4.3	118
4.05	HIV prevalence, % adult pop.*	14.7	139
4.06	Business impact of HIV/AIDS	3.9	126
4.07	Infant mortality, deaths/1,000 live births*	55.7	127
4.08	Life expectancy, years*	58.0	127
4.09	Quality of primary education	4.3	54
4.10	Primary education enrollment, net %*	95.6	59
	5th pillar: Higher education and training		
5.01	Secondary education enrollment, gross %*	51.9	120
5.02	Tertiary education enrollment, gross %*	5.9	126
5.03	Quality of the education system	4.2	43
5.04	Quality of math and science education	4.2	66
5.05	Quality of management schools	4.1	80
5.06	Internet access in schools	3.1	118
5.07	Availability of research and training services	3.5	107
5.08	Extent of staff training	3.9	84
	6th pillar: Goods market efficiency		
6.01	Intensity of local competition	4.9	77
6.02	Extent of market dominance	3.3	102
6.03	Effectiveness of anti-monopoly policy	3.7	99
6.04	Effect of taxation on incentives to invest	3.5	88
6.05	Total tax rate, % profits*	35.3	62

	INDICATOR	VALUE	RANK/144
	6th pillar: Goods market efficiency *(cont'd.)*		
6.06	No. procedures to start a business*	9	106
6.07	No. days to start a business*	90.0	137
6.08	Agricultural policy costs	2.5	142
6.09	Prevalence of trade barriers	4.9	17
6.10	Trade tariffs, % duty*	21.0	142
6.11	Prevalence of foreign ownership	4.3	94
6.12	Business impact of rules on FDI	1.8	142
6.13	Burden of customs procedures	3.0	133
6.14	Imports as a percentage of GDP*	50.1	65
6.15	Degree of customer orientation	3.6	127
6.16	Buyer sophistication	2.9	115
	7th pillar: Labor market efficiency		
7.01	Cooperation in labor-employer relations	3.9	112
7.02	Flexibility of wage determination	2.6	141
7.03	Hiring and firing practices	2.2	142
7.04	Redundancy costs, weeks of salary*	82.3	142
7.05	Effect of taxation on incentives to work	3.3	101
7.06	Pay and productivity	2.3	143
7.07	Reliance on professional management	4.7	41
7.08	Country capacity to retain talent	2.7	120
7.09	Country capacity to attract talent	2.8	102
7.10	Women in labor force, ratio to men*	0.93	16
	8th pillar: Financial market development		
8.01	Availability of financial services	3.8	107
8.02	Affordability of financial services	3.1	131
8.03	Financing through local equity market	3.2	80
8.04	Ease of access to loans	1.7	135
8.05	Venture capital availability	1.6	140
8.06	Soundness of banks	3.1	136
8.07	Regulation of securities exchanges	4.3	63
8.08	Legal rights index, 0–10 (best)*	7	43
	9th pillar: Technological readiness		
9.01	Availability of latest technologies	4.3	101
9.02	Firm-level technology absorption	4.1	111
9.03	FDI and technology transfer	3.5	133
9.04	Individuals using Internet, %*	18.5	105
9.05	Fixed broadband Internet subscriptions/100 pop.*	0.7	111
9.06	Int'l Internet bandwidth, kb/s per user*	3.5	127
9.07	Mobile broadband subscriptions/100 pop.*	37.8	56
	10th pillar: Market size		
10.01	Domestic market size index, 1–7 (best)*	2.1	131
10.02	Foreign market size index, 1–7 (best)*	3.1	131
10.03	GDP (PPP$ billions)*	10.3	131
10.04	Exports as a percentage of GDP*	35.1	79
	11th pillar: Business sophistication		
11.01	Local supplier quantity	3.7	133
11.02	Local supplier quality	3.5	126
11.03	State of cluster development	2.9	131
11.04	Nature of competitive advantage	2.5	137
11.05	Value chain breadth	2.9	138
11.06	Control of international distribution	3.7	101
11.07	Production process sophistication	2.5	135
11.08	Extent of marketing	3.4	124
11.09	Willingness to delegate authority	3.6	91
	12th pillar: Innovation		
12.01	Capacity for innovation	3.1	121
12.02	Quality of scientific research institutions	3.0	112
12.03	Company spending on R&D	2.3	129
12.04	University-industry collaboration in R&D	2.8	121
12.05	Gov't procurement of advanced tech products	2.4	140
12.06	Availability of scientists and engineers	3.6	99
12.07	PCT patents, applications/million pop.*	0.1	98

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Competitiveness Profiles" on page 89.

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The publication of this year's *Africa Competitiveness Report* comes out at a promising moment: the continent has shown solid average growth rates of 5 percent over the past 15 years. Vast natural resources and a young and growing population present powerful enablers for sustained growth. Yet growth has not been equitable and broad-based and productivity levels across sectors have remained low. What is more, data suggest that Africa is diverging from the path of development followed by other regions. A large agrarian society employing every second African citizen stands opposite a growing service sector both in terms of GDP and employment, and all the while the role of the manufacturing sector remains minimal. Yet the region's high growth rates are largely driven by resource-rich economies that show the lowest levels of competitiveness.

The aim of this *Report* is to explore viable paths for Africa's development by discussing the challenges and barriers to improving productivity in the agriculture and service sectors. It also investigates the potential of regional and global value chains for helping Arica's economies develop and expand to new activities. In doing so, it aims to inform the debate about Africa's path of development and whether it will be successful in departing from the experience of other regions, where manufacturing played a central role.

Published on a biennial basis, this is the fifth *Report* on areas requiring policy action and investment to ensure that Africa lays the foundation for sustained growth. It leverages the knowledge and expertise of the African Development Bank, the Organisation for Economic Co-operation and Development, the World Bank, and the World Economic Forum, presenting a unified vision that maps out the policy challenges that must be met if Africa is to succeed in boosting its competitiveness and transforming its economies.

Also included are detailed competitiveness profiles for 40 African countries, providing a comprehensive summary of their competitive strengths and weaknesses. *The Africa Competitiveness Report 2015* is an invaluable tool for policymakers, business strategists, development partners, and other key stakeholders, as well as essential reading for all those with an interest in the region.

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