

Insight Report

# The Global Competitiveness Report 2013–2014

Klaus Schwab, World Economic Forum





Insight Report

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# The Global Competitiveness Report 2013–2014

Full Data Edition

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The terms *country* and *nation* as used in this *Report* do not in all cases refer to a territorial entity that is a state as understood by international law and practice. The terms cover well-defined, geographically self-contained economic areas that may not be states but for which statistical data are maintained on a separate and independent basis.

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# Contents

<b>Partner Institutes</b>	<b>v</b>	<b>Part 2: Data Presentation</b>	<b>93</b>
<b>Preface</b>	<b>xiii</b>	<b>2.1 Country/Economy Profiles</b>	<b>95</b>
by Klaus Schwab		How to Read the Country/Economy Profiles .....	97
		Index of Countries/Economies .....	99
		Country/Economy Profiles .....	100
<b>Part 1: Measuring Competitiveness</b>	<b>1</b>	<b>2.2 Data Tables</b>	<b>397</b>
<b>1.1 The Global Competitiveness Index 2013–2014: Sustaining Growth, Building Resilience</b>	<b>3</b>	How to Read the Data Tables .....	399
by Xavier Sala-i-Martin, Beñat Bilbao-Osorio, Jennifer Blanke, Margareta Drzeniek Hanouz, Thierry Geiger, and Caroline Ko		Index of Data Tables .....	401
		Data Tables .....	403
<b>1.2 Assessing the Sustainable Competitiveness of Nations</b>	<b>53</b>	<b>Technical Notes and Sources</b>	<b>541</b>
by Beñat Bilbao-Osorio, Jennifer Blanke, Edoardo Campanella, Roberto Crotti, Margareta Drzeniek Hanouz, and Cecilia Serin		<b>About the Authors</b>	<b>547</b>
<b>1.3 The Executive Opinion Survey: The Voice of the Business Community</b>	<b>83</b>	<b>Acknowledgment</b>	<b>551</b>
by Ciara Browne, Thierry Geiger, and Tania Gutknecht			



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# Preface

**KLAUS SCHWAB**

Executive Chairman, World Economic Forum

*The Global Competitiveness Report 2013–2014* is being released at a time when the world economy is undergoing significant shifts. The global financial crisis and the ensuing developments have heightened the role of emerging economies in the global context. This has accelerated the major economic transformations already underway, which have fueled rapid growth and lifted millions of people out of poverty. Yet, although the global economy's prospects are more positive than they were when we released last year's *Report*, growth has begun to slow across many emerging economies, and advanced economies in Europe and elsewhere continue to struggle.

In the current context, policymakers must avoid complacency and press ahead with the structural reforms and critical investments required to ensure that their countries can provide a prosperous environment and employment for their citizens. They must identify and strengthen the transformative forces that will drive future economic growth. Particularly important will be the ability of economies to create new value-added products, processes, and business models through innovation. Going forward, this means that the traditional distinction between countries being “developed” or “developing” will become less relevant and we will instead differentiate among countries based on whether they are “innovation rich” or “innovation poor.” It is therefore vital that leaders from business, government, and civil society work collaboratively to create enabling environments to foster innovation and, in particular, to create appropriate educational systems.

For more than three decades, the World Economic Forum has played a facilitating role in this process by providing detailed assessments of the productive potential of nations worldwide. *The Report* contributes to an understanding of the key factors that determine economic growth, helps to explain why some countries are more successful than others in raising income levels and providing opportunities for their respective populations, and offers policymakers and business leaders an important tool for formulating improved economic policies and institutional reforms. Going forward, the World Economic Forum will continue these efforts by collecting and curating public-private practices that have proven useful in increasing competitiveness in countries around the world.

In addition, political leaders increasingly recognize the importance of qualitative as well as quantitative aspects of growth, integrating such concepts as social and environmental sustainability into economic decision making. To advance thinking on these issues, the Forum has continued its research into how sustainability relates to competitiveness and economic performance. Chapter 1.2 of this *Report* presents our evolving analysis of how country competitiveness can be assessed once issues of social and environmental sustainability are taken into account.

This year's *Report* features a record number of 148 economies, and thus continues to be the most comprehensive assessment of its kind. It contains a detailed profile for each of the economies included in the study, as well as an extensive section of data tables with global rankings covering over 100 indicators. This *Report* remains the flagship publication within the Forum's Global Competitiveness and Benchmarking Network, which produces a number of related research studies aimed at supporting countries in their transformation efforts.

*The Global Competitiveness Report 2013–2014* could not have been put together without the thought leadership of Professor Xavier Sala-i-Martin at Columbia University, who has provided ongoing intellectual support for our competitiveness research. Further, this *Report* would have not been possible without the commitment and enthusiasm of our network of over 160 Partner Institutes worldwide. The Partner Institutes are instrumental in carrying out the Executive Opinion Survey that provides the foundation data of this *Report* as well as imparting the results of the *Report* at the national level. We would also like to convey our sincere gratitude to all the business executives around the world who took the time to participate in our Executive Opinion Survey.

We are also grateful to the members of our Advisory Board on Competitiveness and Sustainability, who have provided their valuable time and knowledge to help us develop the framework on sustainability and competitiveness presented in this *Report*: James Cameron, Chairman, Climate Change Capital; Dan Esty, Commissioner, Connecticut Department of Energy and Environmental Protection; Clément Gignac, Chief Economist and Senior Vice-President, Industrial Alliance Insurance and Financial Services; Jeni Klugman, Director

for Gender, The World Bank; Marc A. Levy, Deputy Director, CIESIN, Columbia University; John McArthur, Senior Fellow, United Nations Foundation; Kevin X. Murphy, President and Chief Executive Officer, J.E. Austin Associates Inc.; Mari Elka Pangestu, Minister of Tourism and Creative Economy of Indonesia; Mark Spelman, Global Head of Strategy, Accenture; and Simon Zadek, Senior Visiting Fellow, Global Green Growth Institute.

Appreciation also goes to Børge Brende, Managing Director at the Forum, and Jennifer Blanke, Chief Economist and Head of The Global Competitiveness and Benchmarking Network, as well as team members Beñat Bilbao-Osorio, Ciara Browne, Edoardo Campanella, Gemma Corrigan, Roberto Crotti, Margareta Drzeniek Hanouz, Thierry Geiger, Tania Gutknecht, Caroline Ko, and Cecilia Serin.

By providing decision makers with a basis from which to reinforce strengths and eliminate weaknesses, we hope to make a contribution in the spirit of our mission—committed to improving the state of the world.



# Part 1

## Measuring Competitiveness



# The Global Competitiveness Index 2013–2014: Sustaining Growth, Building Resilience

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At the time this *Report* is being released, the world economy continues to emerge slowly from the most serious economic crisis of the post–World War II period—one that has deeply transformed the global economy and highlighted the increasingly important role that emerging markets and developing economies play in the global economy. As advanced economies are searching for ways to speed up their economic engines, emerging and developing countries have been important drivers of the global economic recovery. As a result, the nature of the relationship between advanced economies and emerging ones has evolved, and emerging and developing countries have created stronger ties among themselves. Among the advanced economies, two patterns seem to emerge: the United States, Canada, and Japan are expected to grow at a gentle pace, while the prospects for the euro zone are more uncertain, especially as tight credit conditions continue to limit domestic demand. More generally, the new global economic landscape raises questions as to the very distinction between advanced and emerging economies, particularly when it comes to growth and competitiveness.

Against this background, the past year has seen some progress in rebuilding global confidence, so recovery looks more assured today than it did just one year ago. Many of the tail risks that concerned us in the last edition have not come to pass, in particular in the United States, which did not fall off the “fiscal cliff”; in Europe, where the breakup of the euro zone was avoided and where sovereign bond differentials have drastically narrowed; and in China, where fears of a hard landing have receded for the time being.

Despite this more positive global outlook, some uncertainty remains. In advanced economies, the potential consequences of a tapering and eventual halt of quantitative easing in the United States, the aggressive yet still incomplete financial and structural measures adopted in Japan, and the persistent unemployment and economic recovery challenges in Europe are factors that could put future economic performance at risk. In emerging markets, it is uncertain how protests in Brazil and Turkey, the credit crunch in China, and the potentially volatile capital flows to emerging and developing markets will affect growth in these economies. And critical challenges remain: policymakers around the globe need to ensure that public finances are sustainable in the longer term, where the pains of deleveraging will be particularly felt by advanced economies.

Around the world, unemployment or the threat of it remains one of the main challenges to long-term social sustainability. Indeed, the experience of recent years has underscored social sustainability as key to longer-term competitiveness, and thus to sustainable growth. Against this challenge, one of the elements gaining in importance

in fostering countries' competitiveness is education. A perception is growing that educational systems in many countries could better respond to the needs of labor markets, help economies to avoid skills gaps, and ensure that adequately trained human capital is available to support business activity as well as to develop innovative capacity and entrepreneurship. It is therefore to be expected that, over the coming years, a series of major systemic reviews of educational frameworks at the national level will be necessary in many countries across all stages of development. Overall, although there are indications that economic policies and measures are shifting in the right direction, efforts must be sustained in order to safeguard the progress achieved and to keep the global economy on a sustainable growth path going forward.

Encouraging, sustaining, and enhancing growth will require decisive action by leaders in order to boost their countries' competitiveness and future economic outlook. Reforms and the right set of investments to enhance competitiveness will be crucial for the economic transformations that can lead to sustained higher growth over the longer term. It is therefore imperative that competitiveness features high on the economic reform agenda of both advanced and emerging and developing economies.

For more than three decades, the World Economic Forum's annual *Global Competitiveness Reports* have studied and benchmarked the many factors underpinning national competitiveness. From the onset, the goal has been to provide insight and stimulate discussion among all stakeholders about the best strategies and policies to help countries to overcome the obstacles to improved competitiveness. In the current challenging economic environment, our work is a critical reminder of the importance of sound structural economic fundamentals for sustained growth.

Since 2005, the World Economic Forum has based its competitiveness analysis on the Global Competitiveness Index (GCI), a comprehensive tool that measures the microeconomic and macroeconomic foundations of national competitiveness.<sup>1</sup>

More recently, in order to better place the discussion of competitiveness in the societal and environmental context, the World Economic Forum has begun exploring the complex relationship between competitiveness and sustainability as measured by its social and environmental dimension. The work carried out to date on these important aspects of human and economic development is described in Chapter 1.2.

Going forward, the World Economic Forum will further support countries in their quest for higher competitiveness by compiling and publishing a repository of public-private practices that countries have implemented in order to improve their competitiveness. Together with the Index results, these practices will

inform a series of structured multi-stakeholder dialogues (see Box 1) that will be piloted over the coming year. We hope that this new initiative will support transformations toward higher competitiveness at regional and national levels.

## THE 12 PILLARS OF COMPETITIVENESS

We define *competitiveness* as *the set of institutions, policies, and factors that determine the level of productivity of a country*. The level of productivity, in turn, sets the level of prosperity that can be reached by an economy. The productivity level also determines the rates of return obtained by investments in an economy, which in turn are the fundamental drivers of its growth rates. In other words, a more competitive economy is one that is likely to grow faster over time.

The concept of competitiveness thus involves static and dynamic components. Although the productivity of a country determines its ability to sustain a high *level* of income, it is also one of the central determinants of its returns on investment, which is one of the key factors explaining an economy's *growth potential*.

Many determinants drive productivity and competitiveness. Understanding the factors behind this process has occupied the minds of economists for hundreds of years, engendering theories ranging from Adam Smith's focus on specialization and the division of labor to neoclassical economists' emphasis on investment in physical capital and infrastructure,<sup>2</sup> and, more recently, to interest in other mechanisms such as education and training, technological progress, macroeconomic stability, good governance, firm sophistication, and market efficiency, among others. While all of these factors are likely to be important for competitiveness and growth, they are not mutually exclusive—two or more of them can be significant at the same time, and in fact that is what has been shown in the economic literature.<sup>3</sup>

This open-endedness is captured within the GCI by including a weighted average of many different components, each measuring a different aspect of competitiveness. These components are grouped into 12 pillars of competitiveness:

### First pillar: Institutions

The institutional environment is determined by the legal and administrative framework within which individuals, firms, and governments interact to generate wealth. The importance of a sound and fair institutional environment has become all the more apparent during the recent economic and financial crisis and is especially crucial for further solidifying the fragile recovery, given the increasing role played by the state at the international level and for the economies of many countries.

The quality of institutions has a strong bearing on competitiveness and growth.<sup>4</sup> It influences investment

decisions and the organization of production and plays a key role in the ways in which societies distribute the benefits and bear the costs of development strategies and policies. For example, owners of land, corporate shares, or intellectual property are unwilling to invest in the improvement and upkeep of their property if their rights as owners are not protected.<sup>5</sup>

The role of institutions goes beyond the legal framework. Government attitudes toward markets and freedoms and the efficiency of its operations are also very important: excessive bureaucracy and red tape,<sup>6</sup> overregulation, corruption, dishonesty in dealing with public contracts, lack of transparency and trustworthiness, inability to provide appropriate services for the business sector, and political dependence of the judicial system impose significant economic costs to businesses and slow the process of economic development.

In addition, the proper management of public finances is also critical for ensuring trust in the national business environment. Indicators capturing the quality of government management of public finances are therefore included here to complement the measures of macroeconomic stability captured in pillar 3 below.

Although the economic literature has focused mainly on public institutions, private institutions are also an important element of the process of creating wealth. The global financial crisis, along with numerous corporate scandals, have highlighted the relevance of accounting and reporting standards and transparency for preventing fraud and mismanagement, ensuring good governance, and maintaining investor and consumer confidence. An economy is well served by businesses that are run honestly, where managers abide by strong ethical practices in their dealings with the government, other firms, and the public at large.<sup>7</sup> Private-sector transparency is indispensable to business; it can be brought about through the use of standards as well as auditing and accounting practices that ensure access to information in a timely manner.<sup>8</sup>

**Second pillar: Infrastructure**

Extensive and efficient infrastructure is critical for ensuring the effective functioning of the economy, as it is an important factor in determining the location of economic activity and the kinds of activities or sectors that can develop within a country. Well-developed infrastructure reduces the effect of distance between regions, integrating the national market and connecting it at low cost to markets in other countries and regions. In addition, the quality and extensiveness of infrastructure networks significantly impact economic growth and reduce income inequalities and poverty in a variety of ways.<sup>9</sup> A well-developed transport and communications infrastructure network is a prerequisite for the access of

**Box 1: The Competitiveness Lab and Competitiveness Practices Repository**

A country's competitiveness is widely accepted as the key driver for sustaining prosperity and raising the well-being of its citizens. Enhancing competitiveness is a long-term process that requires improvement across many areas as well as long-lasting commitments from relevant stakeholders to mobilize resources, time, and effort. Accordingly, to make the right decisions, these stakeholders need information and data.

For more than 30 years, the World Economic Forum has studied and benchmarked competitiveness. From the outset, our goal has been to provide insight and stimulate discussion among all stakeholders to determine the best strategies, policies, and activities for overcoming the obstacles to improving competitiveness. Against this backdrop, the Forum is taking the next step and will embark on two new initiatives—the **Competitiveness Lab and Competitiveness Practices Repository**—to orchestrate an informed multi-stakeholder process for better understanding and shaping the competitiveness agenda of a country or region. The Competitiveness Lab will create a safe space for sustained dialogue in order to encourage better decision making and to help define an action plan with priorities that supports the competitiveness transformation of a country or region.

As part of this initiative, and in order to provide additional knowledge inputs into the dialogue, the Forum is also building a **repository of competitiveness practices**. Given the crucial importance of supporting the coordinated efforts of different agents to improve competitiveness, the Forum's expertise in building public-private strategic collaborations, and the relative knowledge gap in this area, the repository will focus on providing information about competitiveness-driven public-private collaborations. The information covered in this repository will include a definition of specific contexts and competitiveness challenges that have been faced by a particular country or region, a description of the actions that were adopted, and the implementation process of those actions, including the identification of key barriers and enablers that allow the practice to succeed. The objective of compiling this information is to support cross-country learning and to help stakeholders better assess the possibility of scaling up and replicating any specific practice in their own country or region.

less-developed communities to core economic activities and services.

Effective modes of transport—including quality roads, railroads, ports, and air transport—enable entrepreneurs to get their goods and services to market in a secure and timely manner and facilitate the movement of workers to the most suitable jobs. Economies also depend on electricity supplies that are free from interruptions and shortages so that businesses and factories can work unimpeded. Finally, a solid and extensive telecommunications network allows for a rapid and free flow of information, which increases

overall economic efficiency by helping to ensure that businesses can communicate and decisions are made by economic actors taking into account all available relevant information.

### Third pillar: Macroeconomic environment

The stability of the macroeconomic environment is important for business and, therefore, is significant for the overall competitiveness of a country.<sup>10</sup> Although it is certainly true that macroeconomic stability alone cannot increase the productivity of a nation, it is also recognized that macroeconomic disarray harms the economy, as we have seen in recent years, notably in the European context. The government cannot provide services efficiently if it has to make high-interest payments on its past debts. Running fiscal deficits limits the government's future ability to react to business cycles. Firms cannot operate efficiently when inflation rates are out of hand. In sum, the economy cannot grow in a sustainable manner unless the macro environment is stable. Macroeconomic stability captured the attention of the public most recently when some advanced economies, notably the United States and some European countries, needed to take urgent action to prevent macroeconomic instability when their public debt reached unsustainable levels in the wake of the global financial crisis.

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 institutions pillar described above.

### Fourth pillar: Health and primary education

A healthy workforce is vital to a country's competitiveness and productivity. Workers who are ill cannot function to their potential and will be less productive. Poor health leads to significant costs to business, as sick workers are often absent or operate at lower levels of efficiency. Investment in the provision of health services is thus critical for clear economic, as well as moral, considerations.<sup>11</sup>

In addition to health, this pillar takes into account the quantity and quality of the basic education received by the population, which is increasingly important in today's economy. Basic education increases the efficiency of each individual worker. Moreover, often workers who have received little formal education can carry out only simple manual tasks and find it much more difficult to adapt to more advanced production processes and techniques, and therefore contribute less to devising or executing innovations. In other words, lack of basic education can become a constraint on business development, with firms finding it difficult to move up the

value chain by producing more sophisticated or value-intensive products.

### Fifth pillar: Higher education and training

Quality higher education and training is crucial for economies that want to move up the value chain beyond simple production processes and products.<sup>12</sup> Box 2 outlines the linkages between fostering cross-border value chains and competitiveness in more detail. In particular, today's globalizing economy requires countries to nurture pools of well-educated workers who are able to perform complex tasks and adapt rapidly to their changing environment and the evolving needs of the production system. This pillar measures secondary and tertiary enrollment rates as well as the quality of education as evaluated by business leaders. The extent of staff training is also taken into consideration because of the importance of vocational and continuous on-the-job training—which is neglected in many economies—for ensuring a constant upgrading of workers' skills.

### Sixth pillar: Goods market efficiency

Countries with efficient goods markets are well positioned to produce the right mix of products and services given their particular supply-and-demand conditions, as well as to ensure that these goods can be most effectively traded in the economy. Healthy market competition, both domestic and foreign, is important in driving market efficiency, and thus business productivity, by ensuring that the most efficient firms, producing goods demanded by the market, are those that thrive. The best possible environment for the exchange of goods requires a minimum of government intervention that impedes business activity. For example, competitiveness is hindered by distortionary or burdensome taxes and by restrictive and discriminatory rules on foreign direct investment (FDI)—which limit foreign ownership—as well as on international trade. The recent economic crisis has highlighted the high degree of interdependence of economies worldwide and the degree to which growth depends on open markets. Protectionist measures are counterproductive as they reduce aggregate economic activity.

Market efficiency also depends on demand conditions such as customer orientation and buyer sophistication. For cultural or historical reasons, customers may be more demanding in some countries than in others. This can create an important competitive advantage, as it forces companies to be more innovative and customer-oriented and thus imposes the discipline necessary for efficiency to be achieved in the market.

### Seventh pillar: Labor market efficiency

The efficiency and flexibility of the labor market are critical for ensuring that workers are allocated to their most effective use in the economy and provided with

**Box 2: Benefiting from globalizing value chains by raising competitiveness**

As the relevance of international value chains continues to grow within the global economy, international trade is increasingly taking place within the production networks of multinational corporations. According to estimates from the Organisation for Economic Co-operation and Development (OECD), imported intermediate inputs account for about one-quarter of OECD members' exports. For China, this share is about 30 percent; it is about twice that for India and Brazil. From a national perspective, participation in value-chain trade has many benefits. Beyond export revenue, these include employment and indirect spillovers in areas such as management, technical know-how, and access to new technologies.

The rise of cross-border value chains has important implications for countries' economic and trade policies as well as for development efforts. One consequence is that cross-border trade in goods has become increasingly intertwined with trade in services and cross-border investment flows, as well as with the international movement of labor. For countries at more basic stages of development, the key question is not so much how to enter the value chain at the lowest level, but how to move up to more advanced steps of production. So what can countries do to benefit from this changing pattern of trade?

As intermediate products may cross borders many times before being assembled into the final good, trade facilitation and other measures that reduce the transaction costs of trade—especially the cost of logistics—are key for production location. Participating successfully in international value chains requires ease in importing, which in many countries is still constrained by tariffs and other, more practical barriers such as customs procedures or high transport costs.

Whether a country can participate in cross-border value chains crucially depends on a number of factors that include its productivity and, therefore, the factors that determine competitiveness as captured by the Global Competitiveness Index (GCI). Among these factors are the availability of healthy and educated workforce, robust infrastructure, deep penetration of information and communication technologies, a solid and efficient institutional framework, and efficient labor markets. Although all these factors are needed to enter the value chain, they rise in importance as the country wishes to move up. The higher a country moves up the value chain, the greater the importance of efficiency enhancers and innovation and sophistication factors.

A specific feature of value-added trade is its strong link with services trade. Transactional services—such as logistics to transport the good to destination or telecommunications to stay in touch and obtain information—must be available for a country to enter and move up the value chain. Making these services available necessitates a dynamic and open business environment that benefits from healthy levels of domestic competition and openness to international trade and investment, issues that are captured by the goods markets efficiency pillar of the GCI.

Overall, from a national policy perspective, the fact that most global trade is now increasingly taking place in value chains strengthens the link between trade and competitiveness policies and raises the stakes for competitiveness-enhancing measures even further. Competitiveness-enhancing policies are particularly important for countries to move up the value chain. In other words, by implementing competitiveness-enhancing policies, countries can reap higher benefits that will result in economic development and employment opportunities.

incentives to give their best effort in their jobs. Labor markets must therefore have the flexibility to shift workers from one economic activity to another rapidly and at low cost, and to allow for wage fluctuations without much social disruption.<sup>13</sup> The importance of the latter has been dramatically highlighted by events in Arab countries, where rigid labor markets were an important cause of high youth unemployment, sparking social unrest in Tunisia that then spread across the region. Youth unemployment is also high in a number of European countries, where important barriers to entry into the labor market remain in place.

Efficient labor markets must also ensure clear strong incentives for employees and efforts to promote meritocracy at the workplace, and they must provide equity in the business environment between women and men. Taken together these factors have a positive effect on worker performance and the attractiveness of the country for talent, two aspects that are growing more important as talent shortages loom on the horizon.

**Eighth pillar: Financial market development**

The financial and economic crisis has highlighted the central role of a sound and well-functioning financial sector for economic activities. An efficient financial sector allocates the resources saved by a nation's citizens, as well as those entering the economy from abroad, to their most productive uses. It channels resources to those entrepreneurial or investment projects with the highest expected rates of return rather than to the politically connected. A thorough and proper assessment of risk is therefore a key ingredient of a sound financial market.

Business investment is also critical to productivity. Therefore economies require sophisticated financial markets that can make capital available for private-sector investment from such sources as loans from a sound banking sector, well-regulated securities exchanges, venture capital, and other financial products. In order to fulfill all those functions, the banking sector needs to be trustworthy and transparent, and—as has been made so clear recently—financial markets need appropriate regulation to protect investors and other actors in the economy at large.



### Ninth pillar: Technological readiness

In today's globalized world, technology is increasingly essential for firms to compete and prosper. The technological readiness pillar measures the agility with which an economy adopts existing technologies to enhance the productivity of its industries, with specific emphasis on its capacity to fully leverage information and communication technologies (ICTs) in daily activities and production processes for increased efficiency and enabling innovation for competitiveness.<sup>14</sup> ICTs have evolved into the “general purpose technology” of our time,<sup>15</sup> given their critical spillovers to other economic sectors and their role as industry-wide enabling infrastructure. Therefore ICT access and usage are key enablers of countries' overall technological readiness.

Whether the technology used has or has not been developed within national borders is irrelevant for its ability to enhance productivity. The central point is that the firms operating in the country need to have access to advanced products and blueprints and the ability to absorb and use them. Among the main sources of foreign technology, FDI often plays a key role, especially for countries at a less advanced stage of technological development. It is important to note that, in this context, the level of technology available to firms in a country needs to be distinguished from the country's ability to conduct blue-sky research and develop new technologies for innovation that expand the frontiers of knowledge. That is why we separate technological readiness from innovation, captured in the 12th pillar, described below.

### Tenth pillar: Market size

The size of the market affects productivity since large markets allow firms to exploit economies of scale. Traditionally, the markets available to firms have been constrained by national borders. In the era of globalization, international markets have become a substitute for domestic markets, especially for small countries. Vast empirical evidence shows that trade openness is positively associated with growth. Even if some recent research casts doubts on the robustness of this relationship, there is a general sense that trade has a positive effect on growth, especially for countries with small domestic markets.<sup>16</sup>

Thus exports can be thought of as a substitute for domestic demand in determining the size of the market for the firms of a country.<sup>17</sup> By including both domestic and foreign markets in our measure of market size, we give credit to export-driven economies and geographic areas (such as the European Union) that are divided into many countries but have a single common market.

### Eleventh pillar: Business sophistication

There is no doubt that sophisticated business practices are conducive to higher efficiency in the production of

goods and services. Business sophistication concerns two elements that are intricately linked: the quality of a country's overall business networks and the quality of individual firms' operations and strategies. These factors are particularly important for countries at an advanced stage of development when, to a large extent, the more basic sources of productivity improvements have been exhausted. The quality of a country's business networks and supporting industries, as measured by the quantity and quality of local suppliers and the extent of their interaction, is important for a variety of reasons. When companies and suppliers from a particular sector are interconnected in geographically proximate groups, called *clusters*, efficiency is heightened, greater opportunities for innovation in processes and products are created, and barriers to entry for new firms are reduced. Individual firms' advanced operations and strategies (branding, marketing, distribution, advanced production processes, and the production of unique and sophisticated products) spill over into the economy and lead to sophisticated and modern business processes across the country's business sectors.

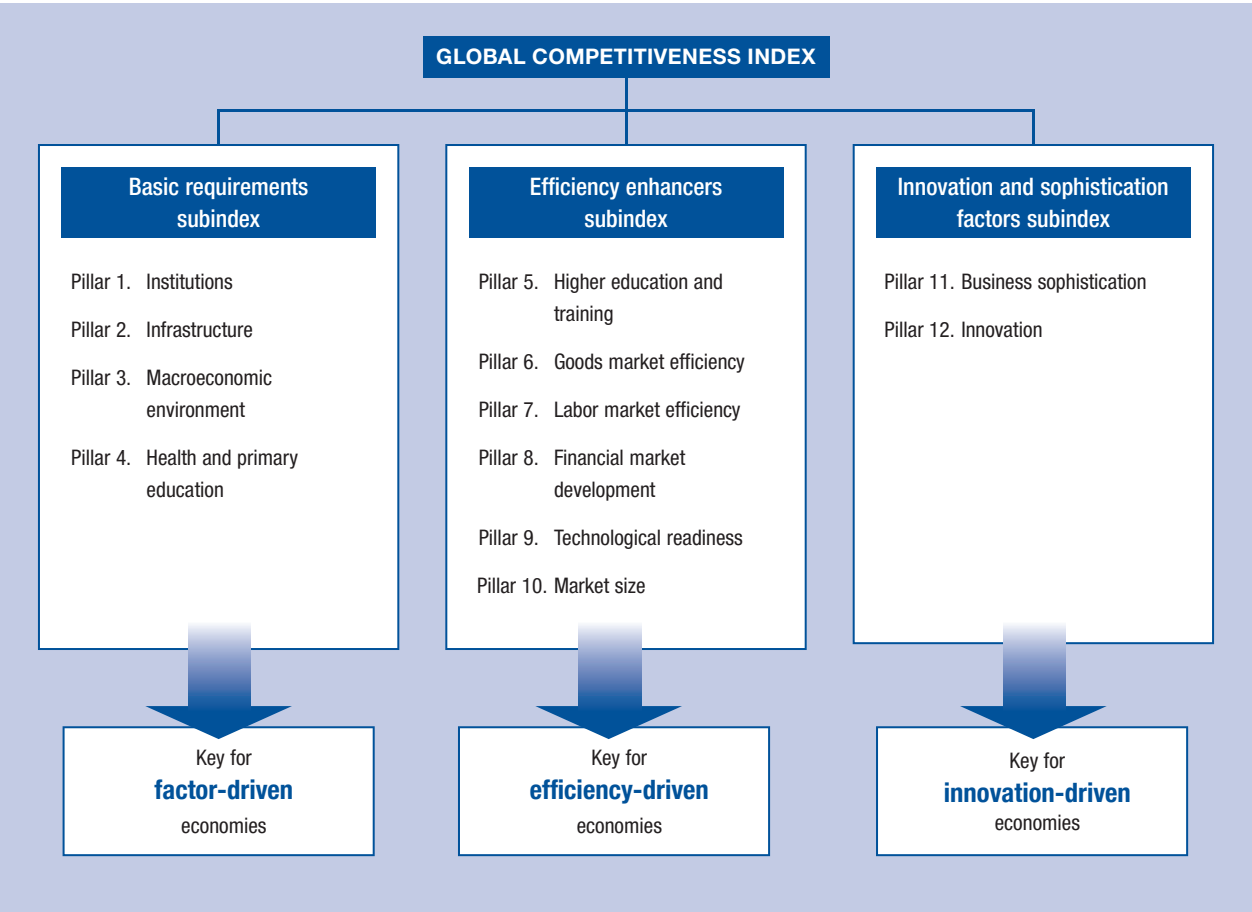
### Twelfth pillar: Innovation

Innovation can emerge from new technological and non-technological knowledge. Non-technological innovations are closely related to the know-how, skills, and working conditions that are embedded in organizations and are therefore largely covered by the eleventh pillar of the GCI. The final pillar of competitiveness focuses on technological innovation. Although substantial gains can be obtained by improving institutions, building infrastructure, reducing macroeconomic instability, or improving human capital, all these factors eventually run into diminishing returns. The same is true for the efficiency of the labor, financial, and goods markets. In the long run, standards of living can be largely enhanced by technological innovation. Technological breakthroughs have been at the basis of many of the productivity gains that our economies have historically experienced. These range from the industrial revolution in the 18th century and the invention of the steam engine and the generation of electricity to the more recent digital revolution. The latter is not only transforming the way things are being done, but also opening a wider range of new possibilities in terms of products and services. Innovation is particularly important for economies as they approach the frontiers of knowledge and the possibility of generating more value by only integrating and adapting exogenous technologies tends to disappear.<sup>18</sup>

Although less-advanced countries can still improve their productivity by adopting existing technologies or making incremental improvements in other areas, for those that have reached the innovation stage of development this is no longer sufficient for increasing productivity. Firms in these countries must design



Figure 1: The Global Competitiveness Index framework



Note: See the appendix for the detailed structure of the GCI.

and develop cutting-edge products and processes to maintain a competitive edge and move toward even higher value-added activities. This progression requires an environment that is conducive to innovative activity and supported by both the public and the private sectors. In particular, it means sufficient investment in research and development (R&D), especially by the private sector; the presence of high-quality scientific research institutions that can generate the basic knowledge needed to build the new technologies; extensive collaboration in research and technological developments between universities and industry; and the protection of intellectual property, in addition to high levels of competition and access to venture capital and financing that are analyzed in other pillars of the Index. In light of the recent sluggish recovery and rising fiscal pressures faced by advanced economies, it is important that public and private sectors resist pressures to cut back on the R&D spending that will be so critical for sustainable growth going into the future.

**The interrelation of the 12 pillars**

Although we report the results of the 12 pillars of competitiveness separately, it is important to keep in mind that they are not independent: they tend to

reinforce each other, and a weakness in one area often has a negative impact in others. For example, a strong innovation capacity (pillar 12) will be very difficult to achieve without a healthy, well-educated and trained workforce (pillars 4 and 5) that is adept at absorbing new technologies (pillar 9), and without sufficient financing (pillar 8) for R&D or an efficient goods market that makes it possible to take new innovations to market (pillar 6). Although the pillars are aggregated into a single index, measures are reported for the 12 pillars separately because such details provide a sense of the specific areas in which a particular country needs to improve.

The appendix describes the exact composition of the GCI and technical details of its construction.

**STAGES OF DEVELOPMENT AND THE WEIGHTED INDEX**

While all of the pillars described above will matter to a certain extent for all economies, it is clear that they will affect them in different ways: the best way for Cambodia to improve its competitiveness is not the same as the best way for France to do so. This is because Cambodia and France are in different stages of development: as countries move along the development path, wages tend

Table 1: Subindex weights and income thresholds for stages of development

	STAGES OF DEVELOPMENT				
	Stage 1: Factor-driven	Transition from stage 1 to stage 2	Stage 2: Efficiency-driven	Transition from stage 2 to stage 3	Stage 3: Innovation-driven
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 subindex	60%	40–60%	40%	20–40%	20%
Weight for efficiency enhancers subindex	35%	35–50%	50%	50%	50%
Weight for innovation and sophistication factors	5%	5–10%	10%	10–30%	30%

Note: See individual country/economy profiles for the exact applied weights.  
\* 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.

to increase and, in order to sustain this higher income, labor productivity must improve.

In line with well-known economic theory of stages of development, the GCI assumes that, in the first stage, the economy is *factor-driven* and countries compete based on their factor endowments—primarily unskilled labor and natural resources.<sup>19</sup> Companies compete on the basis of price and sell basic products or commodities, with their low productivity reflected in low wages. Maintaining competitiveness at this stage of development hinges primarily on well-functioning public and private institutions (pillar 1), a well-developed infrastructure (pillar 2), a stable macroeconomic environment (pillar 3), and a healthy workforce that has received at least a basic education (pillar 4).

As a country becomes more competitive, productivity will increase and wages will rise with advancing development. Countries will then move into the *efficiency-driven* stage of development, when they must begin to develop more efficient production processes and increase product quality because wages have risen and they cannot increase prices. At this point, competitiveness is increasingly driven by higher education and training (pillar 5), efficient goods markets (pillar 6), well-functioning labor markets (pillar 7), developed financial markets (pillar 8), the ability to harness the benefits of existing technologies (pillar 9), and a large domestic or foreign market (pillar 10).

Finally, as countries move into the *innovation-driven* stage, wages will have risen by so much that they are able to sustain those higher wages and the associated standard of living 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 using the most sophisticated production processes (pillar 11) and by innovating new ones (pillar 12).

The GCI takes the stages of development into account by attributing higher relative weights to those pillars that are more relevant for an economy given its particular stage of development. That is, although all 12 pillars matter to a certain extent for all countries, the relative importance of each one depends on a country's particular stage of development. To

implement this concept, the pillars are organized into three subindexes, each critical to a particular stage of development.

The *basic requirements subindex* groups those pillars most critical for countries in the factor-driven stage. The *efficiency enhancers subindex* includes those pillars critical for countries in the efficiency-driven stage. And the *innovation and sophistication factors subindex* includes the pillars critical to countries in the innovation-driven stage. The three subindexes are shown in Figure 1.

The weights attributed to each subindex in every stage of development are shown in Table 1. To obtain the weights shown in the table, a maximum likelihood regression of gross domestic product (GDP) per capita was run against each subindex for past years, allowing for different coefficients for each stage of development.<sup>20</sup> The rounding of these econometric estimates led to the choice of weights displayed in Table 1.

Implementation of stages of development

Two criteria are used to allocate countries into stages of development. The first is the level of GDP per capita at market exchange rates. This widely available measure is used as a proxy for wages because internationally comparable data on wages are not available for all countries covered. The thresholds used are also shown in Table 1. A second criterion is used to adjust for countries that, based on income, would have moved beyond stage 1, but where prosperity is based on the extraction of resources. This is measured by the share of exports of mineral goods in total exports (goods and services), and assumes that countries that export more than 70 percent mineral products (measured using a five-year average) are to a large extent factor driven.<sup>21</sup> However, for some resource-based economies that have reached very high levels of income, the capacity to increase the productivity of any other sector beyond mineral production will be based on the country's capacity to boost innovation, as adopting technology from abroad is not sufficient to increase productivity to a degree that can sustain their high wage levels. At the same time these countries can afford to invest

Table 2: Countries/economies at each stage of development

Stage 1: Factor-driven (38 economies)	Transition from stage 1 to stage 2 (20 economies)	Stage 2: Efficiency-driven (31 economies)	Transition from stage 2 to stage 3 (22 economies)	Stage 3: Innovation-driven (37 economies)
Bangladesh	Algeria	Albania	Argentina	Australia
Benin	Angola	Bosnia and Herzegovina	Barbados	Austria
Burkina Faso	Armenia	Bulgaria	Brazil	Bahrain
Burundi	Azerbaijan	Cape Verde	Chile	Belgium
Cambodia	Bhutan	China	Costa Rica	Canada
Cameroon	Bolivia	Colombia	Croatia	Cyprus
Chad	Botswana	Dominican Republic	Estonia	Czech Republic
Côte d'Ivoire	Brunei Darussalam	Ecuador	Hungary	Denmark
Ethiopia	Gabon	Egypt	Kazakhstan	Finland
Gambia, The	Honduras	El Salvador	Latvia	France
Ghana	Iran, Islamic Rep.	Georgia	Lebanon	Germany
Guinea	Kuwait	Guatemala	Lithuania	Greece
Haiti	Libya	Guyana	Malaysia	Hong Kong SAR
India	Moldova	Indonesia	Mexico	Iceland
Kenya	Mongolia	Jamaica	Oman	Ireland
Kyrgyz Republic	Morocco	Jordan	Panama	Israel
Lao PDR	Philippines	Macedonia, FYR	Poland	Italy
Lesotho	Saudi Arabia	Mauritius	Russian Federation	Japan
Liberia	Sri Lanka	Montenegro	Seychelles	Korea, Rep.
Madagascar	Venezuela	Namibia	Slovak Republic	Luxembourg
Malawi		Paraguay	Turkey	Malta
Mali		Peru	Uruguay	Netherlands
Mauritania		Romania		New Zealand
Mozambique		Serbia		Norway
Myanmar		South Africa		Portugal
Nepal		Suriname		Puerto Rico
Nicaragua		Swaziland		Qatar
Nigeria		Thailand		Singapore
Pakistan		Timor-Leste		Slovenia
Rwanda		Tunisia		Spain
Senegal		Ukraine		Sweden
Sierra Leone				Switzerland
Tanzania				Taiwan, China
Uganda				Trinidad and Tobago
Vietnam				United Arab Emirates
Yemen				United Kingdom
Zambia				United States
Zimbabwe				

in innovation, given their high income. Consequently, countries that are resource driven and significantly wealthier than economies at the technological frontier are classified in the innovation-driven stage.<sup>22</sup>

Any countries falling in between two of the three stages are considered to be “in transition.” For these countries, the weights change smoothly as a country develops, reflecting the smooth transition from one stage of development to another. This allows us to place increasingly more weight on those areas that are becoming more important for the country’s competitiveness as the country develops, ensuring that the GCI can gradually “penalize” those countries that are not preparing for the next stage. The classification of countries into stages of development is shown in Table 2.

DATA SOURCES

To measure these concepts, the GCI uses statistical data such as enrollment rates, government debt, budget deficit, and life expectancy, which are obtained from internationally recognized agencies, notably the World Bank, the International Monetary Fund (IMF), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the World Health Organization (WHO). The descriptions and data sources of all these statistical variables are summarized in the Technical Notes and Sources at the end of this Report. Furthermore, the GCI uses data from the World Economic Forum’s annual Executive Opinion Survey (the Survey) to capture concepts that require a more qualitative assessment or for which internationally comparable statistical data are not available for the entire set of economies. The Survey administration and computation of the Survey results used in the GCI are further described in Chapter 1.3 of this Report.

## ADJUSTMENTS TO THE GCI

The composition of the GCI 2013–2014 is detailed in the appendix of this chapter. This year only minor adjustments were made to the Index, following a thorough review of the Survey instrument in late 2012. The following changes were made:

- From the first pillar, we removed the indicator *Government services for improved business performance*.
- We replaced the indicator *Effect of taxation on incentives to work and invest* (indicator 6.04 in the GCI 2012–2013) with two new indicators derived from the Survey: the first captures the effect of taxation on incentives to invest and is included in the sixth pillar as indicator 6.04; the second measures the effect of taxation on incentives to work and enters the seventh pillar as indicator 7.05.
- We replaced the indicator *Brain drain* (indicator 7.07 in the GCI 2012–2013) with two new indicators derived from the Survey, measuring the capacity of a country to *retain* talent (indicator 7.08) and to *attract* talent (indicator 7.09), respectively. Both are part of the seventh pillar.

## COUNTRY COVERAGE

The coverage this year has increased from 144 to 148 economies. The newly covered countries are Myanmar, Bhutan, and Lao PDR. We have also re-instated Tunisia and Angola into the Index, two countries that were not included in last year's edition. Tajikistan is not covered in this year's *Report* as Survey data could not be collected this year.

## THE GLOBAL COMPETITIVENESS INDEX 2013–2014 RANKINGS

Tables 3 through 7 provide the detailed rankings of this year's GCI. The following sections discuss the findings of the GCI 2013–2014 for the top performers globally, as well as for a number of selected economies in each of the five following regions: North America, Europe, and Eurasia; Asia and the Pacific; Latin America and the Caribbean; the Middle East and North Africa; and sub-Saharan Africa.<sup>23</sup>

### Top 10

As in previous years, this year's top 10 remain dominated by a number of European countries, with Switzerland, Finland, Germany, Sweden, the Netherlands, and the United Kingdom confirming their places among the most competitive economies. Three Asian countries also figure in top 10, with Singapore remaining the second-most competitive economy in the world, and Hong Kong SAR and Japan placing 7th and 9th. It is worth noting that a

vast majority of the top 10 most competitive economies share strengths in innovation and a strong institutional framework.

**Switzerland** retains its 1st place position again this year as a result of its continuing strong performance across the board. The country's most notable strengths are related to innovation and labor market efficiency as well as the sophistication of its business sector (ranking 2nd in all three). Switzerland's top-notch scientific research institutions, along with other factors, make the country a top innovator. Productivity is further enhanced by a business sector that offers excellent on-the-job-training opportunities, both citizens and private companies that are proactive at adapting the latest technologies, and labor markets that balance employee protection with business efficiency. Moreover, public institutions in Switzerland are among the most effective and transparent in the world (5th). Governance structures ensure a level playing field, enhancing business confidence: these include an independent judiciary, a strong rule of law, and a highly accountable public sector. Competitiveness is also buttressed by excellent infrastructure (6th) and highly developed financial markets (11th). Finally, Switzerland's macroeconomic environment is among the most stable in the world (11th) at a time when many neighboring economies continue to struggle in this area. While Switzerland demonstrates many competitive strengths, maintaining its innovative capacity will require boosting the university enrollment rate of 56.8 percent, and also increasing the participation rate of women in the economy (86 percent) which continue to trail many other high-innovation countries. A more detailed analysis of Switzerland's competitiveness is presented in Box 3.

**Singapore** ranks 2nd overall for the third consecutive year, owing to an outstanding performance across all the dimensions of the GCI. Again this year, it is the only economy to feature in the top 3 of seven out of the 12 pillars of the GCI; it also appears in the top 10 of two others. It dominates the goods market efficiency pillar and the labor market efficiency pillar, and places 2nd in the financial market development pillar. Furthermore, the city-state boasts one of the world's best institutional frameworks (3rd), even though it loses the top spot to Finland in the related pillar. Singapore also possesses world-class infrastructure (2nd), with excellent roads, ports, and air transport facilities. Its economy can also rely on a sound macroeconomic environment and fiscal management (18th)—the budget surplus amounted to 5.7 percent of GDP in 2012. Singapore's competitiveness is further enhanced by its strong focus on education, which has translated into a steady improvement of its ranking in the higher education and training pillar, where it comes in 2nd, behind Finland. Singapore's private sector is also becoming increasingly sophisticated (17th) and more innovative (9th), although

Box 3: Switzerland: Five years at the top of the competitiveness rankings

This year marks Switzerland’s fifth year at the top of the Global Competitiveness Index (GCI) rankings. *The Global Competitiveness Report* has long singled out Switzerland for its extraordinary competitiveness levels. What is the formula that makes this small European country so successful?

Amid the travails of the euro area in recent years, Switzerland has displayed an impressive growth performance. Switzerland’s macroeconomic environment is among the most stable in the world at a time when many neighboring economies continue to struggle in this area. The successful implementation of the “debt brake” a decade ago—overwhelmingly supported by a large part of the population—has been one of many steps taken toward a stable macroeconomic environment. Yet, despite Switzerland’s decision to remain outside the European Union (EU), its economy is in fact highly integrated with other European markets, notably through the bilateral agreements that are in place. Exports to the European Union make up well above 50 percent of total exports,<sup>1</sup> and the effects of the sovereign debt crisis in Europe on Switzerland’s monetary policy have highlighted just how highly connected the Swiss economy is to that of its European neighbors.

Three of the most important drivers of Swiss competitiveness are being highlighted here: its excellent institutions, the dynamism of its markets, and its capacity for innovation. However, many qualities drive Switzerland’s excellent economic performance and one cannot point to a single factor that has brought about success.

Institutions and decision making

Overall, public institutions in Switzerland are among the most effective and transparent in the world (ranked 5th; see Table 1). One thing that sets the country apart from any other is its unique governance structure. In addition to its highly decentralized form of federalism, seven members of the Federal Council act as a collective head of state.<sup>2</sup> The political system ensures cohesive and inclusive leadership across political boundaries, which enables the country to implement a long-term economic agenda. Also important is the

country’s strong collaborative culture among stakeholders. Government, business, and civil society work together in a coherent way to find solutions for the country. This effort is facilitated by the strong involvement of its population, which votes on major decisions directly. Governance structures—including an independent judiciary, a strong rule of law, and a highly accountable public sector—ensure a level playing field, enhancing business confidence and thus reinforcing competitiveness.

However, one should note that private institutions face a number of challenges. Although corporate ethics are very strong (4th) and the strength of auditing and reporting standards quite good (21st), shareholder interests are noticeably less well protected than in other advanced economies (the country ranks a low 134th rank on the World Bank’s strength of investor protection index).<sup>3</sup>

**A good environment for business to thrive**

Productivity is further enhanced by a highly sophisticated business environment supported by well-functioning labor and financial markets. Swiss companies offer high-quality products (1st) and compete across a very sophisticated product range (1st). Indeed, their highly diversified and wide-ranging product and service offerings—which extend from financial and insurance services and watches to industrial machines and pharmaceuticals—has helped alleviate the adverse effects of the strong appreciation of the Swiss franc, with the market share of Swiss goods having remained largely stable.<sup>4</sup> Yet the country’s goods market features characteristics of a dual nature. Its very outward-looking, export-led economy that relies on highly sophisticated products and management practices stands in contrast to an inward-looking, protective agricultural policy. Switzerland ranks 75th on agricultural policy costs (the net impact of subsidies adds over 70 percent to value-added at producer prices, compared with the EU average of 33.9 percent).<sup>5</sup> In addition, the country’s well-managed natural resources make it a major tourist attraction, as highlighted by the country’s

Table 1: Institutions and decision making: Switzerland in international comparison, GCI 2013–2014 rank

Country/Economy	SUBPILLAR A: PUBLIC INSTITUTIONS							SUBPILLAR B: PRIVATE INSTITUTIONS		
	PILLAR 1: INSTITUTIONS	Public institutions overall rank	Components					Private institutions overall rank	Components	
			Property rights	Ethics and corruption	Undue influence	Government efficiency	Security		Corporate ethics	Accountability
Finland	1	1	1	4	2	2	2	3	2	6
New Zealand	2	4	8	2	1	5	6	1	1	1
Singapore	3	3	2	3	7	1	9	2	3	3
Sweden	5	6	15	7	3	8	20	5	6	10
Norway	6	9	12	6	6	13	17	4	5	5
Switzerland	7	5	3	9	8	6	14	15	4	53
Netherlands	8	8	10	10	4	11	13	10	9	20
Hong Kong SAR	9	11	6	13	16	4	22	6	16	4
Luxembourg	10	10	5	8	17	12	7	13	10	19
United Kingdom	12	13	4	16	11	15	35	9	12	11

(Cont’d.)



Box 3: Switzerland: Five years at the top of the competitiveness rankings (cont'd.)

1st place ranking in every edition of *The Travel & Tourism Competitiveness Report* since it was first released in 2007.<sup>6</sup>

Against the current high unemployment in Europe and other parts of the world, Switzerland compares extremely well: it boasted an unemployment rate of just 4.2 percent in 2012.<sup>7</sup> The country has a top-notch labor market that is both flexible and efficient in deploying its talent (see Table 2). Employee protection and the interest of employers are well aligned, with strong employer-employee relations (ranking 1st), and with conflict resolution resting on social dialogue rather than responding with strikes. Further, the educational system, also 1st, is perceived as outstanding, producing a highly skilled labor force that continues to receive important on-the-job training.<sup>8</sup> Unlike many other countries, Switzerland's labor force is growing, thanks to the migration of particularly skilled labor, boosted by the bilateral agreements on free circulation with the European Union that entered into force in 2002. Finding ways to integrate more women into the labor force will be important for enhancing the country's talent pool further.

The financial market in Switzerland also functions well and has bounced back to 11th place since the financial crisis. The findings point to signs of a restoration of confidence in the banking sector, suggesting that markets are adapting quickly to the changing reality: the sector itself is diversifying and still managing to attract a significant client base. Swiss regulatory authorities have been making progress in regulating the financial sector and overhauling requirements to formulate contingency recovery plans. Yet risks remain. The global crisis has also highlighted the strong interdependence of the Swiss financial sector with that of the rest of the world, and its major banks are considered “too big to fail” not only for Switzerland but also globally.<sup>9</sup> Repercussions elsewhere in the world impact the Swiss economy, as evidenced by the historically low interest rates in Switzerland, giving rise to high mortgage lending. Disputes about tax evasion and continued pressure from other countries are ushering the end of the country's bank secrecy, which may require further adjustments.

Innovation

Innovation is not just about coming up with new products—it is also about doing things differently. For this to happen, the entire innovation ecosystem, which consists of a set of closely intertwined and reinforcing factors, is critical. In the case of Switzerland, an excellent innovation ecosystem has been a significant part of making the country an attractive place to work for highly qualified people. Its well-functioning labor market and excellent educational system provide the fundamentals for innovation to prosper, instigating the close relationships among enterprises, universities, and research institutes that have made the country a top innovator. Its scientific research institutions are among the world's best, and the strong collaboration between its academic and business sectors, combined with high company spending on research and development, ensures that much of this research is translated into marketable products and processes reinforced by strong intellectual property protection. This robust innovative capacity is captured by its high rate of patenting per capita, for which Switzerland ranks 2nd.

Table 2: Labor market efficiency: Switzerland in international comparison, GCI 2013–2014 rank

Country/Economy	PILLAR 7: LABOR MARKET EFFICIENCY		
	Labor market efficiency overall rank	Subpillar A: Flexibility	Subpillar B: Efficient use of talent
Switzerland	2	4	1
United Kingdom	5	10	3
Denmark	13	17	18
Sweden	18	57	9
Finland	20	74	8
Netherlands	21	50	15
Germany	41	113	11
France	71	116	46
Spain	115	123	95
Greece	127	125	114
Italy	137	135	134

Outlook for the future

Going forward, it will be important for Switzerland to resist drifting toward complacency. It is clear that, at present, it is a magnet for global talent and an excellent innovator. Its banking sector is, however, under scrutiny, and this traditional economic engine is necessarily undergoing great change. In the future, it will be important for the country to continue to build on its competitive strengths and resist overregulation and protectionism.

Notes

- 1 For information about Swiss exports, see <http://stat.wto.org/CountryProfile/WSDBCountryPFView.aspx?Language=E&Country=CH>.
- 2 A president is nominated each year from among the seven federal councillors. The president takes on largely representative functions but has no additional power.
- 3 The strength of investor protection index is the average of the World Bank's Doing Business: Extent of disclosure index, the Extent of director liability index, and the Ease of shareholder suits index. See technical notes at the end of the *Report* for more detailed information.
- 4 See IMF 2013b.
- 5 See Eurostat, [http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php?title=File:Subsidies\\_and\\_taxes\\_in\\_the\\_agricultural\\_sector,\\_2001-2011.png&filetimestamp=20121030183458](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Subsidies_and_taxes_in_the_agricultural_sector,_2001-2011.png&filetimestamp=20121030183458).
- 6 See World Economic Forum 2013.
- 7 See Bundesamt für Statistik, [http://www.bfs.admin.ch/bfs/portal/de/index/themen/03/03/blank/data/01.html#parsys\\_80922](http://www.bfs.admin.ch/bfs/portal/de/index/themen/03/03/blank/data/01.html#parsys_80922).
- 8 The country has a long tradition of vocational and on-the-job training.
- 9 For further discussion of this issue, see the FINMA press release available at <http://www.finma.ch/e/aktuell/Pages/mm-schlussbericht-exko-tbtf-20101004.aspx>, as well as IMF 2013b.

Table 3: The Global Competitiveness Index 2013–2014 rankings and 2012–2013 comparisons

Country/Economy	GCI 2013–2014				GCI 2012–2013
	Rank (out of 148)	Score (1–7)	Rank among 2012–2013 economies*		
Switzerland	1	5.67	1		1
Singapore	2	5.61	2		2
Finland	3	5.54	3		3
Germany	4	5.51	4		6
United States	5	5.48	5		7
Sweden	6	5.48	6		4
Hong Kong SAR	7	5.47	7		9
Netherlands	8	5.42	8		5
Japan	9	5.40	9		10
United Kingdom	10	5.37	10		8
Norway	11	5.33	11		15
Taiwan, China	12	5.29	12		13
Qatar	13	5.24	13		11
Canada	14	5.20	14		14
Denmark	15	5.18	15		12
Austria	16	5.15	16		16
Belgium	17	5.13	17		17
New Zealand	18	5.11	18		23
United Arab Emirates	19	5.11	19		24
Saudi Arabia	20	5.10	20		18
Australia	21	5.09	21		20
Luxembourg	22	5.09	22		22
France	23	5.05	23		21
Malaysia	24	5.03	24		25
Korea, Rep.	25	5.01	25		19
Brunei Darussalam	26	4.95	26		28
Israel	27	4.94	27		26
Ireland	28	4.92	28		27
China	29	4.84	29		29
Puerto Rico	30	4.67	30		31
Iceland	31	4.66	31		30
Estonia	32	4.65	32		34
Oman	33	4.64	33		32
Chile	34	4.61	34		33
Spain	35	4.57	35		36
Kuwait	36	4.56	36		37
Thailand	37	4.54	37		38
Indonesia	38	4.53	38		50
Azerbaijan	39	4.51	39		46
Panama	40	4.50	40		40
Malta	41	4.50	41		47
Poland	42	4.46	42		41
Bahrain	43	4.45	43		35
Turkey	44	4.45	44		43
Mauritius	45	4.45	45		54
Czech Republic	46	4.43	46		39
Barbados	47	4.42	47		44
Lithuania	48	4.41	48		45
Italy	49	4.41	49		42
Kazakhstan	50	4.41	50		51
Portugal	51	4.40	51		49
Latvia	52	4.40	52		55
South Africa	53	4.37	53		52
Costa Rica	54	4.35	54		57
Mexico	55	4.34	55		53
Brazil	56	4.33	56		48
Bulgaria	57	4.31	57		62
Cyprus	58	4.30	58		58
Philippines	59	4.29	59		65
India	60	4.28	60		59
Peru	61	4.25	61		61
Slovenia	62	4.25	62		56
Hungary	63	4.25	63		60
Russian Federation	64	4.25	64		67
Sri Lanka	65	4.22	65		68
Rwanda	66	4.21	66		63
Montenegro	67	4.20	67		72
Jordan	68	4.20	68		64
Colombia	69	4.19	69		69
Vietnam	70	4.18	70		75
Ecuador	71	4.18	71		86
Georgia	72	4.15	72		77
Macedonia, FYR	73	4.14	73		80
Botswana	74	4.13	74		79

Country/Economy	GCI 2013–2014				GCI 2012–2013
	Rank (out of 148)	Score (1–7)	Rank among 2012–2013 economies*		
Croatia	75	4.13	75		81
Romania	76	4.13	76		78
Morocco	77	4.11	77		70
Slovak Republic	78	4.10	78		71
Armenia	79	4.10	79		82
Seychelles	80	4.10	80		76
Lao PDR	81	4.08	n/a		n/a
Iran, Islamic Rep.	82	4.07	81		66
Tunisia	83	4.06	n/a		n/a
Ukraine	84	4.05	82		73
Uruguay	85	4.05	83		74
Guatemala	86	4.04	84		83
Bosnia and Herzegovina	87	4.02	85		88
Cambodia	88	4.01	86		85
Moldova	89	3.94	87		87
Namibia	90	3.93	88		92
Greece	91	3.93	89		96
Trinidad and Tobago	92	3.91	90		84
Zambia	93	3.86	91		102
Jamaica	94	3.86	92		97
Albania	95	3.85	93		89
Kenya	96	3.85	94		106
El Salvador	97	3.84	95		101
Bolivia	98	3.84	96		104
Nicaragua	99	3.84	97		108
Algeria	100	3.79	98		110
Serbia	101	3.77	99		95
Guyana	102	3.77	100		109
Lebanon	103	3.77	101		91
Argentina	104	3.76	102		94
Dominican Republic	105	3.76	103		105
Suriname	106	3.75	104		114
Mongolia	107	3.75	105		93
Libya	108	3.73	106		113
Bhutan	109	3.73	n/a		n/a
Bangladesh	110	3.71	107		118
Honduras	111	3.70	108		90
Gabon	112	3.70	109		99
Senegal	113	3.70	110		117
Ghana	114	3.69	111		103
Cameroon	115	3.68	112		112
Gambia, The	116	3.67	113		98
Nepal	117	3.66	114		125
Egypt	118	3.63	115		107
Paraguay	119	3.61	116		116
Nigeria	120	3.57	117		115
Kyrgyz Republic	121	3.57	118		127
Cape Verde	122	3.53	119		122
Lesotho	123	3.52	120		137
Swaziland	124	3.52	121		135
Tanzania	125	3.50	122		120
Côte d'Ivoire	126	3.50	123		131
Ethiopia	127	3.50	124		121
Liberia	128	3.45	125		111
Uganda	129	3.45	126		123
Benin	130	3.45	127		119
Zimbabwe	131	3.44	128		132
Madagascar	132	3.42	129		130
Pakistan	133	3.41	130		124
Venezuela	134	3.35	131		126
Mali	135	3.33	132		128
Malawi	136	3.32	133		129
Mozambique	137	3.30	134		138
Timor-Leste	138	3.25	135		136
Myanmar	139	3.23	n/a		n/a
Burkina Faso	140	3.21	136		133
Mauritania	141	3.19	137		134
Angola	142	3.15	n/a		n/a
Haiti	143	3.11	138		142
Sierra Leone	144	3.01	139		143
Yemen	145	2.98	140		140
Burundi	146	2.92	141		144
Guinea	147	2.91	142		141
Chad	148	2.85	143		139

\* This column shows the rank of each economy based on last year's sample of 144 economies.

Table 4: The Global Competitiveness Index 2013–2014

Country/Economy	OVERALL INDEX		SUBINDEXES					
			Basic requirements		Efficiency enhancers		Innovation and sophistication factors	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Switzerland	1	5.67	3	6.15	5	5.44	1	5.72
Singapore	2	5.61	1	6.30	2	5.63	13	5.14
Finland	3	5.54	7	5.97	9	5.30	2	5.65
Germany	4	5.51	9	5.90	8	5.31	4	5.59
United States	5	5.48	36	5.12	1	5.66	6	5.43
Sweden	6	5.48	8	5.95	7	5.31	5	5.46
Hong Kong SAR	7	5.47	2	6.15	3	5.57	19	4.83
Netherlands	8	5.42	10	5.89	11	5.27	7	5.36
Japan	9	5.40	28	5.37	10	5.27	3	5.62
United Kingdom	10	5.37	24	5.48	4	5.45	10	5.15
Norway	11	5.33	6	5.98	12	5.22	16	5.07
Taiwan, China	12	5.29	16	5.70	15	5.16	9	5.22
Qatar	13	5.24	5	6.01	18	5.02	14	5.08
Canada	14	5.20	15	5.71	6	5.33	25	4.64
Denmark	15	5.18	21	5.55	16	5.05	11	5.14
Austria	16	5.15	19	5.63	21	4.97	12	5.14
Belgium	17	5.13	22	5.51	17	5.03	15	5.07
New Zealand	18	5.11	12	5.78	14	5.17	27	4.55
United Arab Emirates	19	5.11	4	6.04	20	5.00	24	4.67
Saudi Arabia	20	5.10	14	5.73	27	4.69	29	4.33
Australia	21	5.09	17	5.69	13	5.18	26	4.56
Luxembourg	22	5.09	11	5.87	22	4.92	17	4.84
France	23	5.05	23	5.50	19	5.00	18	4.84
Malaysia	24	5.03	27	5.37	25	4.86	23	4.70
Korea, Rep.	25	5.01	20	5.60	23	4.89	20	4.82
Brunei Darussalam	26	4.95	18	5.64	65	4.09	54	3.81
Israel	27	4.94	39	5.05	26	4.73	8	5.23
Ireland	28	4.92	33	5.18	24	4.89	21	4.81
China	29	4.84	31	5.28	31	4.63	34	4.10
Puerto Rico	30	4.67	54	4.82	33	4.58	22	4.71
Iceland	31	4.66	29	5.29	35	4.53	28	4.48
Estonia	32	4.65	26	5.43	30	4.64	35	4.08
Oman	33	4.64	13	5.77	39	4.45	39	4.05
Chile	34	4.61	30	5.28	29	4.64	45	3.92
Spain	35	4.57	38	5.05	28	4.64	32	4.14
Kuwait	36	4.56	32	5.22	77	3.95	101	3.34
Thailand	37	4.54	49	4.86	40	4.43	52	3.83
Indonesia	38	4.53	45	4.90	52	4.32	33	4.13
Azerbaijan	39	4.51	44	4.90	66	4.09	60	3.71
Panama	40	4.50	46	4.89	50	4.33	43	3.99
Malta	41	4.50	34	5.17	36	4.52	40	4.03
Poland	42	4.46	59	4.72	32	4.60	65	3.65
Bahrain	43	4.45	25	5.46	38	4.50	59	3.71
Turkey	44	4.45	56	4.75	45	4.38	47	3.91
Mauritius	45	4.45	42	4.97	61	4.18	57	3.76
Czech Republic	46	4.43	55	4.80	37	4.51	36	4.07
Barbados	47	4.42	35	5.14	43	4.39	48	3.91
Lithuania	48	4.41	43	4.91	47	4.35	44	3.93
Italy	49	4.41	50	4.85	48	4.34	30	4.22
Kazakhstan	50	4.41	48	4.86	53	4.30	87	3.41
Portugal	51	4.40	41	4.98	46	4.38	38	4.06
Latvia	52	4.40	40	5.00	41	4.41	68	3.61
South Africa	53	4.37	95	4.24	34	4.54	37	4.06
Costa Rica	54	4.35	64	4.62	59	4.18	31	4.14
Mexico	55	4.34	63	4.63	55	4.27	55	3.79
Brazil	56	4.33	79	4.45	44	4.39	46	3.92
Bulgaria	57	4.31	58	4.73	60	4.18	108	3.28
Cyprus	58	4.30	51	4.84	49	4.34	50	3.87
Philippines	59	4.29	78	4.46	58	4.20	58	3.75
India	60	4.28	96	4.23	42	4.41	41	4.00
Peru	61	4.25	72	4.53	57	4.20	97	3.35
Slovenia	62	4.25	37	5.06	62	4.14	49	3.88
Hungary	63	4.25	65	4.61	54	4.28	71	3.60
Russian Federation	64	4.25	47	4.88	51	4.32	99	3.35
Sri Lanka	65	4.22	77	4.48	69	4.03	42	4.00
Rwanda	66	4.21	71	4.55	96	3.73	66	3.65
Montenegro	67	4.20	68	4.59	72	4.01	70	3.61
Jordan	68	4.20	76	4.51	70	4.01	51	3.87
Colombia	69	4.19	80	4.44	64	4.11	69	3.61
Vietnam	70	4.18	86	4.36	74	3.98	85	3.41
Ecuador	71	4.18	62	4.64	81	3.90	63	3.69
Georgia	72	4.15	57	4.74	86	3.89	122	3.08
Macedonia, FYR	73	4.14	70	4.55	76	3.96	94	3.37
Botswana	74	4.13	66	4.60	93	3.77	106	3.30

(Cont'd.)



Table 4: The Global Competitiveness Index 2013–2014 (cont'd.)

Country/Economy	OVERALL INDEX		SUBINDEXES					
			Basic requirements		Efficiency enhancers		Innovation and sophistication factors	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Croatia	75	4.13	61	4.69	68	4.05	80	3.46
Romania	76	4.13	87	4.32	63	4.13	103	3.32
Morocco	77	4.11	69	4.58	84	3.90	100	3.34
Slovak Republic	78	4.10	67	4.60	56	4.27	77	3.49
Armenia	79	4.10	73	4.53	85	3.90	88	3.40
Seychelles	80	4.10	52	4.83	95	3.73	62	3.69
Lao PDR	81	4.08	83	4.41	107	3.60	74	3.54
Iran, Islamic Rep.	82	4.07	75	4.51	98	3.70	86	3.41
Tunisia	83	4.06	74	4.52	88	3.81	79	3.47
Ukraine	84	4.05	91	4.27	71	4.01	95	3.36
Uruguay	85	4.05	53	4.82	78	3.95	84	3.43
Guatemala	86	4.04	89	4.29	80	3.91	64	3.66
Bosnia and Herzegovina	87	4.02	81	4.44	89	3.80	89	3.40
Cambodia	88	4.01	99	4.18	91	3.79	83	3.44
Moldova	89	3.94	97	4.20	102	3.66	133	2.87
Namibia	90	3.93	85	4.38	99	3.69	102	3.34
Greece	91	3.93	88	4.30	67	4.06	81	3.46
Trinidad and Tobago	92	3.91	60	4.70	82	3.90	92	3.39
Zambia	93	3.86	104	3.98	101	3.67	61	3.71
Jamaica	94	3.86	111	3.86	79	3.92	75	3.53
Albania	95	3.85	94	4.24	100	3.68	119	3.12
Kenya	96	3.85	121	3.76	73	4.00	53	3.83
El Salvador	97	3.84	98	4.20	106	3.62	73	3.56
Bolivia	98	3.84	90	4.28	120	3.41	93	3.38
Nicaragua	99	3.84	101	4.12	116	3.44	113	3.25
Algeria	100	3.79	92	4.27	133	3.18	143	2.63
Serbia	101	3.77	106	3.96	92	3.78	125	3.01
Guyana	102	3.77	107	3.92	103	3.65	56	3.76
Lebanon	103	3.77	126	3.63	75	3.97	90	3.40
Argentina	104	3.76	102	4.06	97	3.70	98	3.35
Dominican Republic	105	3.76	116	3.81	90	3.79	91	3.40
Suriname	106	3.75	82	4.43	121	3.34	120	3.10
Mongolia	107	3.75	108	3.89	94	3.73	121	3.08
Libya	108	3.73	93	4.24	139	3.11	141	2.71
Bhutan	109	3.73	84	4.39	125	3.30	117	3.16
Bangladesh	110	3.71	113	3.83	108	3.59	124	3.03
Honduras	111	3.70	109	3.88	114	3.51	112	3.26
Gabon	112	3.70	100	4.18	124	3.31	137	2.78
Senegal	113	3.70	120	3.76	105	3.62	76	3.51
Ghana	114	3.69	128	3.62	87	3.85	72	3.56
Cameroon	115	3.68	117	3.80	113	3.52	96	3.35
Gambia, The	116	3.67	115	3.82	117	3.43	67	3.61
Nepal	117	3.66	105	3.97	128	3.25	132	2.91
Egypt	118	3.63	118	3.78	109	3.57	104	3.31
Paraguay	119	3.61	112	3.84	110	3.55	128	2.97
Nigeria	120	3.57	136	3.40	83	3.90	82	3.44
Kyrgyz Republic	121	3.57	122	3.73	118	3.42	140	2.72
Cape Verde	122	3.53	103	4.02	130	3.22	118	3.13
Lesotho	123	3.52	119	3.77	132	3.18	135	2.84
Swaziland	124	3.52	114	3.82	123	3.32	110	3.27
Tanzania	125	3.50	129	3.53	115	3.49	109	3.28
Côte d'Ivoire	126	3.50	131	3.50	112	3.54	116	3.18
Ethiopia	127	3.50	123	3.67	126	3.27	127	2.98
Liberia	128	3.45	127	3.62	131	3.21	114	3.22
Uganda	129	3.45	134	3.40	111	3.55	107	3.29
Benin	130	3.45	125	3.65	134	3.15	123	3.03
Zimbabwe	131	3.44	124	3.66	138	3.11	126	2.99
Madagascar	132	3.42	130	3.51	127	3.27	105	3.31
Pakistan	133	3.41	142	3.27	104	3.64	78	3.48
Venezuela	134	3.35	138	3.37	119	3.41	136	2.83
Mali	135	3.33	137	3.39	129	3.23	111	3.26
Malawi	136	3.32	140	3.33	122	3.33	115	3.20
Mozambique	137	3.30	133	3.42	135	3.13	131	2.91
Timor-Leste	138	3.25	110	3.88	145	2.85	138	2.76
Myanmar	139	3.23	135	3.40	140	3.03	146	2.55
Burkina Faso	140	3.21	141	3.28	137	3.11	130	2.92
Mauritania	141	3.19	132	3.49	147	2.71	134	2.84
Angola	142	3.15	139	3.35	143	2.91	148	2.52
Haiti	143	3.11	143	3.25	142	2.94	147	2.55
Sierra Leone	144	3.01	146	2.95	136	3.12	129	2.93
Yemen	145	2.98	145	3.05	144	2.90	139	2.73
Burundi	146	2.92	144	3.14	148	2.58	145	2.56
Guinea	147	2.91	148	2.87	141	3.01	142	2.69
Chad	148	2.85	147	2.95	146	2.72	144	2.61

Note: Ranks out of 148 economies and scores measured on a 1-to-7 scale.

Table 5: The Global Competitiveness Index 2013–2014: Basic requirements

Country/Economy	PILLARS									
	BASIC REQUIREMENTS		1. Institutions		2. Infrastructure		3. Macroeconomic environment		4. Health and primary education	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Albania	94	4.24	118	3.32	99	3.33	94	4.41	56	5.90
Algeria	92	4.27	135	3.04	106	3.14	34	5.48	92	5.40
Angola	139	3.35	145	2.76	145	1.92	54	5.03	137	3.69
Argentina	102	4.06	143	2.79	89	3.52	111	4.07	61	5.84
Armenia	73	4.53	65	3.98	80	3.81	64	4.88	85	5.46
Australia	17	5.69	23	5.04	18	5.60	25	5.75	22	6.36
Austria	19	5.63	21	5.07	16	5.72	37	5.37	19	6.37
Azerbaijan	44	4.90	59	4.06	69	4.06	8	6.42	109	5.07
Bahrain	25	5.46	32	4.77	30	5.18	21	5.90	44	6.00
Bangladesh	113	3.83	131	3.08	132	2.37	79	4.58	104	5.30
Barbados	35	5.14	30	4.80	24	5.52	121	3.89	20	6.36
Belgium	22	5.51	24	5.00	19	5.60	69	4.71	3	6.72
Benin	125	3.65	108	3.36	129	2.40	99	4.31	117	4.53
Bhutan	84	4.39	44	4.40	87	3.61	109	4.15	91	5.42
Bolivia	90	4.28	105	3.40	111	2.98	28	5.66	108	5.09
Bosnia and Herzegovina	81	4.44	71	3.87	83	3.67	104	4.23	46	5.99
Botswana	66	4.60	34	4.67	94	3.43	24	5.76	115	4.55
Brazil	79	4.45	80	3.73	71	4.02	75	4.63	89	5.43
Brunei Darussalam	18	5.64	25	4.96	58	4.29	1	7.00	23	6.33
Bulgaria	58	4.73	107	3.38	75	3.93	30	5.61	45	6.00
Burkina Faso	141	3.28	115	3.34	140	2.13	88	4.44	143	3.24
Burundi	144	3.14	144	2.78	146	1.92	129	3.67	130	4.21
Cambodia	99	4.18	91	3.61	101	3.26	83	4.53	99	5.32
Cameroon	117	3.80	112	3.35	128	2.49	60	4.92	124	4.43
Canada	15	5.71	14	5.38	12	5.80	50	5.08	7	6.55
Cape Verde	103	4.02	69	3.93	116	2.79	128	3.67	75	5.68
Chad	147	2.95	147	2.54	148	1.71	56	4.95	148	2.58
Chile	30	5.28	28	4.88	46	4.54	17	6.02	74	5.68
China	31	5.28	47	4.24	48	4.51	10	6.29	40	6.06
Colombia	80	4.44	110	3.35	92	3.50	33	5.59	98	5.32
Costa Rica	64	4.62	50	4.20	76	3.92	80	4.56	64	5.81
Côte d'Ivoire	131	3.50	104	3.40	107	3.13	106	4.21	142	3.25
Croatia	61	4.69	93	3.60	42	4.66	68	4.71	66	5.80
Cyprus	51	4.84	42	4.47	44	4.63	126	3.73	8	6.54
Czech Republic	55	4.80	86	3.64	39	4.71	55	5.01	60	5.84
Denmark	21	5.55	18	5.21	23	5.53	42	5.28	32	6.17
Dominican Republic	116	3.81	124	3.23	110	3.02	119	3.91	110	5.07
Ecuador	62	4.64	92	3.61	79	3.81	44	5.24	54	5.91
Egypt	118	3.78	117	3.33	98	3.34	140	3.15	100	5.32
El Salvador	98	4.20	130	3.08	72	4.01	102	4.25	86	5.46
Estonia	26	5.43	27	4.90	40	4.70	22	5.89	29	6.22
Ethiopia	123	3.67	95	3.58	124	2.61	123	3.81	113	4.67
Finland	7	5.97	1	6.10	21	5.55	36	5.42	1	6.82
France	23	5.50	31	4.79	4	6.21	73	4.65	24	6.33
Gabon	100	4.18	81	3.72	114	2.83	13	6.09	132	4.08
Gambia, The	115	3.82	43	4.42	95	3.43	135	3.49	134	3.95
Georgia	57	4.74	64	4.00	56	4.31	61	4.91	70	5.75
Germany	9	5.90	15	5.30	3	6.24	27	5.68	21	6.36
Ghana	128	3.62	70	3.89	109	3.02	144	3.08	122	4.48
Greece	88	4.30	103	3.49	38	4.79	147	2.82	35	6.10
Guatemala	89	4.29	111	3.35	78	3.83	71	4.67	101	5.31
Guinea	148	2.87	132	3.06	147	1.73	142	3.11	139	3.59
Guyana	107	3.92	87	3.64	112	2.91	122	3.84	103	5.30
Haiti	143	3.25	146	2.75	142	1.98	105	4.21	133	4.06
Honduras	109	3.88	134	3.05	115	2.81	103	4.25	90	5.42
Hong Kong SAR	2	6.15	9	5.61	1	6.74	12	6.09	31	6.18
Hungary	65	4.61	84	3.67	51	4.37	84	4.51	57	5.88
Iceland	29	5.29	22	5.05	17	5.61	118	3.94	9	6.54
India	96	4.23	72	3.86	85	3.65	110	4.10	102	5.30
Indonesia	45	4.90	67	3.97	61	4.17	26	5.75	72	5.71
Iran, Islamic Rep.	75	4.51	83	3.68	65	4.14	100	4.27	51	5.97
Ireland	33	5.18	16	5.27	26	5.27	134	3.57	6	6.60
Israel	39	5.05	40	4.56	35	4.92	72	4.65	38	6.07
Italy	50	4.85	102	3.50	25	5.35	101	4.26	26	6.29
Jamaica	111	3.86	85	3.66	93	3.49	141	3.14	106	5.16
Japan	28	5.37	17	5.25	9	6.03	127	3.68	10	6.50
Jordan	76	4.51	38	4.60	54	4.33	138	3.31	65	5.80
Kazakhstan	48	4.86	55	4.09	62	4.17	23	5.87	97	5.33
Kenya	121	3.76	88	3.62	102	3.24	132	3.64	119	4.52
Korea, Rep.	20	5.60	74	3.84	11	5.85	9	6.32	18	6.37
Kuwait	32	5.22	49	4.21	53	4.37	3	6.70	77	5.62
Kyrgyz Republic	122	3.73	133	3.05	122	2.68	113	4.03	107	5.15
Lao PDR	83	4.41	63	4.00	84	3.66	93	4.41	80	5.56
Latvia	40	5.00	57	4.08	59	4.24	29	5.63	41	6.05

(Cont'd.)

Table 5: The Global Competitiveness Index 2013–2014: Basic requirements (*cont'd.*)

Country/Economy	PILLARS									
	BASIC REQUIREMENTS		1. Institutions		2. Infrastructure		3. Macroeconomic environment		4. Health and primary education	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Lebanon	126	3.63	138	2.98	119	2.73	148	2.55	28	6.27
Lesotho	119	3.77	90	3.61	127	2.56	39	5.35	141	3.56
Liberia	127	3.62	77	3.80	131	2.38	51	5.08	144	3.22
Libya	93	4.24	125	3.22	103	3.21	16	6.03	120	4.52
Lithuania	43	4.91	61	4.04	41	4.69	58	4.94	50	5.97
Luxembourg	11	5.87	10	5.59	13	5.79	15	6.04	36	6.08
Macedonia, FYR	70	4.55	60	4.05	86	3.63	59	4.94	79	5.60
Madagascar	130	3.51	128	3.09	136	2.26	108	4.18	118	4.52
Malawi	140	3.33	76	3.81	137	2.21	146	2.85	123	4.43
Malaysia	27	5.37	29	4.85	29	5.19	38	5.35	33	6.10
Mali	137	3.39	136	3.02	108	3.05	86	4.44	145	3.05
Malta	34	5.17	37	4.61	34	5.02	74	4.64	15	6.39
Mauritania	132	3.49	139	2.95	120	2.71	78	4.59	136	3.72
Mauritius	42	4.97	39	4.58	50	4.44	67	4.82	43	6.01
Mexico	63	4.63	96	3.56	64	4.14	49	5.11	73	5.69
Moldova	97	4.20	122	3.24	88	3.57	77	4.62	93	5.38
Mongolia	108	3.89	113	3.34	113	2.90	130	3.65	76	5.65
Montenegro	68	4.59	52	4.16	70	4.04	112	4.07	37	6.07
Morocco	69	4.58	53	4.12	57	4.30	90	4.42	82	5.48
Mozambique	133	3.42	120	3.30	130	2.38	98	4.34	138	3.67
Myanmar	135	3.40	141	2.80	141	2.01	125	3.74	111	5.05
Namibia	85	4.38	48	4.22	60	4.20	70	4.67	125	4.43
Nepal	105	3.97	127	3.19	144	1.93	41	5.30	88	5.44
Netherlands	10	5.89	8	5.62	7	6.13	45	5.22	4	6.61
New Zealand	12	5.78	2	6.07	27	5.21	43	5.25	5	6.60
Nicaragua	101	4.12	100	3.52	105	3.14	97	4.36	87	5.46
Nigeria	136	3.40	129	3.08	135	2.29	46	5.17	146	3.04
Norway	6	5.98	6	5.70	33	5.02	2	6.80	14	6.41
Oman	13	5.77	13	5.39	32	5.08	5	6.64	48	5.97
Pakistan	142	3.27	123	3.23	121	2.70	145	2.89	128	4.26
Panama	46	4.89	66	3.97	37	4.89	57	4.95	68	5.76
Paraguay	112	3.84	140	2.91	123	2.66	63	4.89	112	4.89
Peru	72	4.53	109	3.36	91	3.50	20	5.91	95	5.36
Philippines	78	4.46	79	3.76	96	3.40	40	5.34	96	5.33
Poland	59	4.72	62	4.01	74	3.96	65	4.88	42	6.03
Portugal	41	4.98	46	4.32	22	5.55	124	3.75	27	6.28
Puerto Rico	54	4.82	33	4.70	63	4.17	48	5.12	105	5.28
Qatar	5	6.01	4	5.95	28	5.20	6	6.58	25	6.32
Romania	87	4.32	114	3.34	100	3.33	47	5.14	84	5.47
Russian Federation	47	4.88	121	3.28	45	4.61	19	5.93	71	5.71
Rwanda	71	4.55	19	5.20	104	3.20	92	4.41	94	5.37
Saudi Arabia	14	5.73	20	5.13	31	5.18	4	6.69	53	5.92
Seychelles	52	4.83	45	4.33	43	4.64	89	4.43	55	5.90
Senegal	120	3.76	82	3.69	117	2.78	91	4.41	131	4.17
Serbia	106	3.96	126	3.20	90	3.51	136	3.36	69	5.75
Sierra Leone	146	2.95	89	3.62	139	2.13	137	3.32	147	2.74
Singapore	1	6.30	3	6.04	2	6.41	18	6.01	2	6.72
Slovak Republic	67	4.60	119	3.32	67	4.12	62	4.91	39	6.07
Slovenia	37	5.06	68	3.94	36	4.91	53	5.03	17	6.38
South Africa	95	4.24	41	4.53	66	4.13	95	4.39	135	3.89
Spain	38	5.05	58	4.07	10	5.97	116	3.97	30	6.21
Sri Lanka	77	4.48	54	4.09	73	4.00	120	3.90	52	5.94
Suriname	82	4.43	99	3.54	81	3.69	66	4.87	78	5.60
Swaziland	114	3.82	75	3.83	97	3.34	82	4.54	140	3.57
Sweden	8	5.95	5	5.72	20	5.60	14	6.05	13	6.45
Switzerland	3	6.15	7	5.63	6	6.20	11	6.29	12	6.48
Taiwan, China	16	5.70	26	4.95	14	5.77	32	5.60	11	6.49
Tanzania	129	3.53	97	3.55	134	2.30	131	3.65	114	4.64
Thailand	49	4.86	78	3.79	47	4.53	31	5.61	81	5.52
Timor-Leste	110	3.88	106	3.39	138	2.18	35	5.43	121	4.51
Trinidad and Tobago	60	4.70	94	3.58	52	4.37	52	5.06	63	5.81
Tunisia	74	4.52	73	3.85	77	3.90	96	4.37	47	5.98
Turkey	56	4.75	56	4.08	49	4.45	76	4.62	59	5.86
Uganda	134	3.40	116	3.33	133	2.31	133	3.64	127	4.35
Ukraine	91	4.27	137	2.99	68	4.07	107	4.20	62	5.84
United Arab Emirates	4	6.04	11	5.55	5	6.20	7	6.42	49	5.97
United Kingdom	24	5.48	12	5.43	8	6.12	115	3.98	16	6.39
United States	36	5.12	35	4.64	15	5.77	117	3.95	34	6.10
Uruguay	53	4.82	36	4.62	55	4.31	85	4.49	58	5.88
Venezuela	138	3.37	148	2.27	125	2.61	143	3.10	83	5.48
Vietnam	86	4.36	98	3.54	82	3.69	87	4.44	67	5.78
Yemen	145	3.05	142	2.80	143	1.94	139	3.25	129	4.22
Zambia	104	3.98	51	4.20	118	2.76	81	4.56	126	4.41
Zimbabwe	124	3.66	101	3.50	126	2.59	114	4.01	116	4.55

Note: Ranks out of 148 economies and scores measured on a 1-to-7 scale.

Table 6: The Global Competitiveness Index 2013–2014: Efficiency enhancers

Country/Economy	PILLARS													
	EFFICIENCY ENHANCERS		5. Higher education and training		6. Goods market efficiency		7. Labor market efficiency		8. Financial market development		9. Technological readiness		10. Market size	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Albania	100	3.68	78	4.17	97	4.06	67	4.33	128	3.27	92	3.33	107	2.92
Algeria	133	3.18	101	3.55	142	3.20	147	2.91	143	2.61	136	2.48	48	4.35
Angola	143	2.91	147	2.07	146	3.03	134	3.66	145	2.40	138	2.47	65	3.84
Argentina	97	3.70	49	4.62	145	3.06	144	3.15	133	3.05	88	3.38	24	4.95
Armenia	85	3.90	77	4.18	58	4.34	50	4.49	76	3.91	72	3.74	117	2.73
Australia	13	5.18	15	5.51	31	4.72	54	4.45	7	5.41	12	5.82	18	5.15
Austria	21	4.97	13	5.57	23	4.88	42	4.56	37	4.56	20	5.59	37	4.63
Azerbaijan	66	4.09	87	4.00	71	4.27	30	4.72	88	3.80	50	4.17	72	3.60
Bahrain	38	4.50	53	4.52	19	4.96	19	4.87	25	4.75	32	4.95	106	2.93
Bangladesh	108	3.59	127	2.83	89	4.10	124	3.80	102	3.68	127	2.69	45	4.44
Barbados	43	4.39	20	5.29	75	4.25	24	4.79	28	4.71	25	5.26	138	2.06
Belgium	17	5.03	5	5.83	13	5.08	64	4.34	44	4.48	18	5.61	28	4.82
Benin	134	3.15	123	2.95	139	3.47	94	4.11	125	3.33	134	2.55	125	2.51
Bhutan	125	3.30	107	3.44	121	3.85	29	4.73	123	3.35	132	2.57	143	1.83
Bolivia	120	3.41	93	3.79	138	3.50	131	3.70	120	3.39	122	2.77	86	3.33
Bosnia and Herzegovina	89	3.80	63	4.30	104	3.98	88	4.15	113	3.53	73	3.74	98	3.09
Botswana	93	3.77	99	3.56	92	4.10	47	4.51	53	4.34	104	3.11	101	3.03
Brazil	44	4.39	72	4.22	123	3.82	92	4.13	50	4.40	55	4.14	9	5.65
Brunei Darussalam	65	4.09	55	4.52	42	4.52	10	5.06	56	4.29	71	3.75	131	2.42
Bulgaria	60	4.18	69	4.25	81	4.19	61	4.36	73	3.95	44	4.45	63	3.87
Burkina Faso	137	3.11	141	2.39	129	3.73	83	4.19	131	3.17	143	2.41	113	2.79
Burundi	148	2.58	148	2.03	140	3.39	123	3.84	146	2.33	146	2.20	144	1.71
Cambodia	91	3.79	116	3.12	55	4.35	27	4.76	65	4.04	97	3.22	92	3.23
Cameroon	113	3.52	112	3.25	100	4.03	82	4.19	107	3.59	121	2.80	91	3.26
Canada	6	5.33	16	5.46	17	5.00	7	5.26	12	5.21	21	5.58	13	5.49
Cape Verde	130	3.22	94	3.71	112	3.91	129	3.74	127	3.32	91	3.34	148	1.30
Chad	146	2.72	145	2.09	147	2.83	128	3.76	139	2.78	147	2.09	115	2.77
Chile	29	4.64	38	4.87	36	4.64	45	4.53	20	4.83	42	4.48	42	4.49
China	31	4.63	70	4.23	61	4.32	34	4.63	54	4.32	85	3.44	2	6.85
Colombia	64	4.11	60	4.33	102	4.01	87	4.16	63	4.08	87	3.39	31	4.70
Costa Rica	59	4.18	33	5.01	65	4.30	53	4.48	96	3.75	53	4.16	84	3.41
Côte d'Ivoire	112	3.54	121	3.03	113	3.91	68	4.32	94	3.76	110	3.03	96	3.17
Croatia	68	4.05	51	4.53	111	3.92	114	3.94	78	3.90	45	4.41	74	3.59
Cyprus	49	4.34	32	5.01	29	4.74	36	4.62	64	4.07	36	4.78	110	2.83
Czech Republic	37	4.51	39	4.85	48	4.41	81	4.20	58	4.20	34	4.88	41	4.50
Denmark	16	5.05	14	5.54	24	4.87	13	5.03	36	4.57	5	6.05	53	4.24
Dominican Republic	90	3.79	96	3.65	99	4.03	118	3.92	86	3.85	76	3.61	68	3.71
Ecuador	81	3.90	71	4.22	106	3.97	111	3.96	89	3.78	82	3.49	59	4.01
Egypt	109	3.57	118	3.08	119	3.88	146	3.00	119	3.41	100	3.21	29	4.82
El Salvador	106	3.62	100	3.55	77	4.23	121	3.88	101	3.71	109	3.05	90	3.28
Estonia	30	4.64	23	5.22	30	4.73	12	5.03	35	4.59	29	5.20	99	3.06
Ethiopia	126	3.27	137	2.55	136	3.56	108	3.99	126	3.32	139	2.47	67	3.74
Finland	9	5.30	1	6.27	15	5.03	20	4.85	5	5.57	11	5.89	55	4.20
France	19	5.00	24	5.21	45	4.43	71	4.31	33	4.61	17	5.69	8	5.76
Gabon	124	3.31	135	2.62	131	3.65	73	4.31	108	3.58	114	2.97	118	2.72
Gambia, The	117	3.43	106	3.48	95	4.07	46	4.53	84	3.86	106	3.09	145	1.55
Georgia	86	3.89	92	3.79	67	4.29	40	4.59	75	3.91	68	3.83	103	2.96
Germany	8	5.31	3	5.90	21	4.92	41	4.57	29	4.69	14	5.72	5	6.02
Ghana	87	3.85	108	3.42	70	4.28	91	4.14	52	4.36	99	3.21	70	3.67
Greece	67	4.06	41	4.81	108	3.93	127	3.77	138	2.86	39	4.62	47	4.37
Guatemala	80	3.91	105	3.51	66	4.30	90	4.15	43	4.48	84	3.45	76	3.59
Guinea	141	3.01	140	2.42	137	3.54	74	4.28	136	2.97	142	2.43	129	2.44
Guyana	103	3.65	81	4.10	73	4.26	63	4.34	82	3.88	96	3.24	137	2.09
Haiti	142	2.94	128	2.77	144	3.07	77	4.23	142	2.69	135	2.50	132	2.38
Honduras	114	3.51	110	3.32	114	3.91	142	3.34	61	4.17	103	3.12	94	3.22
Hong Kong SAR	3	5.57	22	5.24	2	5.57	3	5.74	1	6.02	6	6.03	27	4.84
Hungary	54	4.28	44	4.72	78	4.23	85	4.18	74	3.93	46	4.35	52	4.26
Iceland	35	4.53	12	5.58	46	4.43	17	4.91	80	3.89	10	5.91	130	2.43
India	42	4.41	91	3.88	85	4.18	99	4.08	19	4.83	98	3.22	3	6.25
Indonesia	52	4.32	64	4.30	50	4.40	103	4.04	60	4.18	75	3.66	15	5.32
Iran, Islamic Rep.	98	3.70	88	3.99	110	3.93	145	3.02	130	3.17	116	2.95	19	5.14
Ireland	24	4.89	18	5.43	11	5.21	16	4.93	85	3.86	13	5.75	57	4.15
Israel	26	4.73	34	5.00	68	4.28	57	4.39	22	4.81	23	5.56	49	4.35
Italy	48	4.34	42	4.75	87	4.17	137	3.48	124	3.33	37	4.71	10	5.61
Jamaica	79	3.92	80	4.11	84	4.18	66	4.33	47	4.42	79	3.55	108	2.91
Japan	10	5.27	21	5.28	16	5.01	23	4.82	23	4.80	19	5.59	4	6.14
Jordan	70	4.01	56	4.50	39	4.55	101	4.07	79	3.89	70	3.78	87	3.29
Kazakhstan	53	4.30	54	4.52	56	4.34	15	4.98	103	3.67	57	4.10	54	4.21
Kenya	73	4.00	103	3.54	80	4.21	35	4.62	31	4.68	89	3.36	77	3.58
Korea, Rep.	23	4.89	19	5.41	33	4.68	78	4.21	81	3.89	22	5.57	12	5.61
Kuwait	77	3.95	84	4.04	90	4.10	105	4.01	70	3.96	69	3.80	66	3.80
Kyrgyz Republic	118	3.42	97	3.64	116	3.89	96	4.09	112	3.54	129	2.67	120	2.68
Lao PDR	107	3.60	111	3.31	54	4.36	44	4.55	91	3.77	113	2.98	122	2.63
Latvia	41	4.41	40	4.84	40	4.53	26	4.76	45	4.46	38	4.70	95	3.18

(Cont'd.)

Table 6: The Global Competitiveness Index 2013–2014: Efficiency enhancers (cont'd.)

Country/Economy	PILLARS													
	EFFICIENCY ENHANCERS		5. Higher education and training		6. Goods market efficiency		7. Labor market efficiency		8. Financial market development		9. Technological readiness		10. Market size	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Lebanon	75	3.97	45	4.69	51	4.39	120	3.90	100	3.71	81	3.52	71	3.61
Lesotho	132	3.18	125	2.88	79	4.22	86	4.17	118	3.43	140	2.45	141	1.94
Liberia	131	3.21	126	2.86	47	4.42	60	4.37	106	3.60	141	2.43	146	1.55
Libya	139	3.11	104	3.52	143	3.13	136	3.53	147	2.30	128	2.68	80	3.51
Lithuania	47	4.35	27	5.15	49	4.40	69	4.31	87	3.82	35	4.81	78	3.58
Luxembourg	22	4.92	36	4.89	5	5.33	22	4.83	14	5.14	2	6.19	97	3.14
Macedonia, FYR	76	3.96	76	4.18	44	4.47	79	4.21	62	4.15	67	3.84	109	2.90
Madagascar	127	3.27	132	2.66	94	4.07	37	4.60	137	2.93	131	2.63	116	2.73
Malawi	122	3.33	133	2.65	115	3.90	39	4.59	71	3.96	144	2.40	126	2.50
Malaysia	25	4.86	46	4.68	10	5.23	25	4.79	6	5.45	51	4.17	26	4.87
Mali	129	3.23	136	2.55	109	3.93	112	3.96	122	3.38	117	2.91	123	2.63
Malta	36	4.52	31	5.04	32	4.72	43	4.56	34	4.61	16	5.71	127	2.46
Mauritania	147	2.71	146	2.07	141	3.38	143	3.23	140	2.71	125	2.71	134	2.16
Mauritius	61	4.18	61	4.32	25	4.85	55	4.45	26	4.73	63	3.90	112	2.80
Mexico	55	4.27	85	4.03	83	4.19	113	3.94	59	4.19	74	3.66	11	5.61
Moldova	102	3.66	90	3.88	107	3.93	95	4.09	105	3.60	64	3.89	124	2.55
Mongolia	94	3.73	82	4.07	96	4.07	51	4.49	129	3.23	66	3.85	119	2.69
Montenegro	72	4.01	50	4.61	64	4.31	58	4.39	49	4.40	49	4.22	135	2.14
Morocco	84	3.90	102	3.54	69	4.28	122	3.86	69	4.01	80	3.53	56	4.16
Mozambique	135	3.13	143	2.34	125	3.80	125	3.80	132	3.13	123	2.77	104	2.96
Myanmar	140	3.03	139	2.52	135	3.57	98	4.09	144	2.41	148	2.03	79	3.57
Namibia	99	3.69	115	3.12	91	4.10	59	4.39	39	4.51	90	3.34	121	2.66
Nepal	128	3.25	130	2.73	127	3.74	133	3.66	95	3.75	133	2.55	100	3.05
Netherlands	11	5.27	6	5.78	8	5.25	21	4.84	30	4.68	8	5.97	21	5.11
New Zealand	14	5.17	9	5.68	9	5.24	8	5.23	4	5.61	24	5.40	62	3.88
Nicaragua	116	3.44	109	3.36	122	3.85	107	3.99	104	3.61	119	2.85	102	2.98
Nigeria	83	3.90	120	3.03	93	4.09	52	4.48	66	4.04	108	3.08	32	4.66
Norway	12	5.22	10	5.67	22	4.89	14	5.02	9	5.31	3	6.08	51	4.34
Oman	39	4.45	57	4.46	18	4.99	28	4.73	21	4.82	56	4.11	73	3.60
Pakistan	104	3.64	129	2.76	103	3.99	138	3.46	67	4.04	118	2.90	30	4.70
Panama	50	4.33	68	4.26	35	4.65	75	4.25	16	5.00	47	4.35	81	3.50
Paraguay	110	3.55	113	3.20	86	4.18	117	3.92	92	3.76	111	3.00	93	3.23
Peru	57	4.20	86	4.01	52	4.37	48	4.50	40	4.50	86	3.39	43	4.46
Philippines	58	4.20	67	4.28	82	4.19	100	4.08	48	4.41	77	3.58	33	4.66
Poland	32	4.60	37	4.88	57	4.34	80	4.20	38	4.54	43	4.47	20	5.14
Portugal	46	4.38	28	5.15	72	4.26	126	3.79	114	3.50	27	5.24	50	4.34
Puerto Rico	33	4.58	30	5.09	26	4.83	38	4.59	18	4.86	40	4.60	82	3.49
Qatar	18	5.02	29	5.11	3	5.49	6	5.29	13	5.19	31	5.10	60	3.96
Romania	63	4.13	59	4.41	117	3.89	110	3.96	72	3.95	54	4.14	46	4.44
Russian Federation	51	4.32	47	4.66	126	3.80	72	4.31	121	3.39	59	3.97	7	5.78
Rwanda	96	3.73	122	3.00	41	4.52	11	5.06	57	4.23	105	3.10	128	2.46
Saudi Arabia	27	4.69	48	4.65	27	4.79	70	4.31	27	4.71	41	4.60	23	5.07
Seychelles	95	3.73	79	4.13	53	4.36	31	4.69	83	3.87	65	3.87	147	1.46
Senegal	105	3.62	114	3.14	59	4.33	65	4.33	98	3.72	95	3.26	105	2.94
Serbia	92	3.78	83	4.05	132	3.64	119	3.90	115	3.48	60	3.94	69	3.68
Sierra Leone	136	3.12	142	2.36	105	3.97	97	4.09	116	3.46	130	2.65	133	2.19
Singapore	2	5.63	2	5.91	1	5.59	1	5.77	2	5.82	7	6.01	34	4.66
Slovak Republic	56	4.27	58	4.44	76	4.24	76	4.24	42	4.49	52	4.16	58	4.03
Slovenia	62	4.14	25	5.21	62	4.32	106	4.00	134	2.98	33	4.90	83	3.46
South Africa	34	4.54	89	3.94	28	4.75	116	3.93	3	5.80	62	3.92	25	4.89
Spain	28	4.64	26	5.19	63	4.32	115	3.93	97	3.72	26	5.26	14	5.45
Sri Lanka	69	4.03	62	4.31	37	4.63	135	3.53	41	4.49	93	3.30	61	3.90
Suriname	121	3.34	98	3.59	128	3.73	102	4.04	111	3.55	101	3.19	140	1.95
Swaziland	123	3.32	117	3.09	98	4.05	104	4.01	68	4.03	124	2.72	139	2.03
Sweden	7	5.31	8	5.69	12	5.10	18	4.88	8	5.32	1	6.22	35	4.64
Switzerland	5	5.44	4	5.88	6	5.26	2	5.76	11	5.23	9	5.93	40	4.56
Taiwan, China	15	5.16	11	5.65	7	5.26	33	4.67	17	4.95	30	5.19	17	5.24
Tanzania	115	3.49	138	2.54	118	3.89	49	4.49	99	3.72	126	2.70	75	3.59
Thailand	40	4.43	66	4.29	34	4.67	62	4.35	32	4.61	78	3.56	22	5.10
Timor-Leste	145	2.85	134	2.63	134	3.58	109	3.98	141	2.70	145	2.33	142	1.86
Trinidad and Tobago	82	3.90	75	4.21	101	4.03	89	4.15	55	4.32	61	3.93	114	2.78
Tunisia	88	3.81	73	4.22	88	4.10	132	3.67	110	3.56	83	3.47	64	3.86
Turkey	45	4.38	65	4.29	43	4.52	130	3.74	51	4.40	58	4.05	16	5.30
Uganda	111	3.55	131	2.72	120	3.88	32	4.69	77	3.90	120	2.82	89	3.28
Ukraine	71	4.01	43	4.75	124	3.81	84	4.18	117	3.46	94	3.28	38	4.60
United Arab Emirates	20	5.00	35	4.93	4	5.39	9	5.20	24	4.79	28	5.22	44	4.44
United Kingdom	4	5.45	17	5.45	14	5.05	5	5.35	15	5.00	4	6.06	6	5.80
United States	1	5.66	7	5.75	20	4.93	4	5.37	10	5.26	15	5.72	1	6.94
Uruguay	78	3.95	52	4.53	60	4.33	139	3.44	90	3.77	48	4.33	88	3.28
Venezuela	119	3.41	74	4.21	148	2.80	148	2.85	135	2.97	107	3.09	39	4.57
Vietnam	74	3.98	95	3.69	74	4.25	56	4.40	93	3.76	102	3.14	36	4.64
Yemen	144	2.90	144	2.31	133	3.61	141	3.36	148	2.26	137	2.48	85	3.38
Zambia	101	3.67	119	3.05	38	4.61	93	4.12	46	4.45	115	2.97	111	2.80
Zimbabwe	138	3.11	124	2.95	130	3.66	140	3.40	109	3.56	112	2.98	136	2.12

Note: Ranks out of 148 economies and scores measured on a 1-to-7 scale.

Table 7: The Global Competitiveness Index 2013–2014: Innovation and sophistication factors

Country/Economy	PILLARS					
	INNOVATION AND SOPHISTICATION FACTORS		11. Business sophistication		12. Innovation	
	Rank	Score	Rank	Score	Rank	Score
Albania	119	3.12	122	3.44	119	2.80
Algeria	143	2.63	144	2.89	141	2.38
Angola	148	2.52	143	2.89	147	2.15
Argentina	98	3.35	95	3.71	104	2.99
Armenia	88	3.40	87	3.82	103	2.99
Australia	26	4.56	30	4.66	22	4.45
Austria	12	5.14	8	5.46	15	4.82
Azerbaijan	60	3.71	70	3.97	51	3.45
Bahrain	59	3.71	53	4.25	73	3.17
Bangladesh	124	3.03	113	3.51	131	2.54
Barbados	48	3.91	46	4.30	48	3.51
Belgium	15	5.07	12	5.27	14	4.87
Benin	123	3.03	132	3.23	113	2.84
Bhutan	117	3.16	117	3.50	114	2.83
Bolivia	93	3.38	103	3.61	75	3.15
Bosnia and Herzegovina	89	3.40	110	3.53	63	3.28
Botswana	106	3.30	102	3.61	102	2.99
Brazil	46	3.92	39	4.42	55	3.42
Brunei Darussalam	54	3.81	56	4.23	59	3.38
Bulgaria	108	3.28	106	3.59	105	2.97
Burkina Faso	130	2.92	142	2.97	111	2.86
Burundi	145	2.56	148	2.80	142	2.31
Cambodia	83	3.44	86	3.83	91	3.05
Cameroon	96	3.35	105	3.60	80	3.11
Canada	25	4.64	25	4.80	21	4.47
Cape Verde	118	3.13	121	3.44	116	2.83
Chad	144	2.61	147	2.81	139	2.41
Chile	45	3.92	54	4.25	43	3.60
China	34	4.10	45	4.31	32	3.89
Colombia	69	3.61	63	4.06	74	3.16
Costa Rica	31	4.14	31	4.54	35	3.74
Côte d'Ivoire	116	3.18	123	3.37	101	3.00
Croatia	80	3.46	88	3.81	79	3.12
Cyprus	50	3.87	44	4.34	56	3.41
Czech Republic	36	4.07	38	4.43	37	3.70
Denmark	11	5.14	11	5.29	11	4.99
Dominican Republic	91	3.40	71	3.96	115	2.83
Ecuador	63	3.69	69	3.97	58	3.40
Egypt	104	3.31	84	3.83	120	2.79
El Salvador	73	3.56	60	4.10	96	3.01
Estonia	35	4.08	51	4.26	31	3.89
Ethiopia	127	2.98	133	3.21	121	2.76
Finland	2	5.65	5	5.51	1	5.79
France	18	4.84	21	5.00	19	4.68
Gabon	137	2.78	139	3.04	132	2.51
Gambia, The	67	3.61	68	4.00	67	3.22
Georgia	122	3.08	120	3.47	126	2.68
Germany	4	5.59	3	5.68	4	5.50
Ghana	72	3.56	81	3.85	64	3.27
Greece	81	3.46	83	3.84	87	3.08
Guatemala	64	3.66	50	4.27	90	3.05
Guinea	142	2.69	141	2.97	140	2.40
Guyana	56	3.76	59	4.12	57	3.41
Haiti	147	2.55	145	2.87	144	2.22
Honduras	112	3.26	90	3.76	123	2.76
Hong Kong SAR	19	4.83	14	5.22	23	4.44
Hungary	71	3.60	96	3.69	47	3.51
Iceland	28	4.48	29	4.68	27	4.28
India	41	4.00	42	4.38	41	3.62
Indonesia	33	4.13	37	4.44	33	3.82
Iran, Islamic Rep.	86	3.41	104	3.60	71	3.21
Ireland	21	4.81	18	5.04	20	4.58
Israel	8	5.23	23	4.88	3	5.58
Italy	30	4.22	27	4.74	38	3.69
Jamaica	75	3.53	72	3.95	83	3.11
Japan	3	5.62	1	5.75	5	5.49
Jordan	51	3.87	47	4.30	53	3.44
Kazakhstan	87	3.41	94	3.72	84	3.10
Kenya	53	3.83	61	4.09	46	3.56
Korea, Rep.	20	4.82	24	4.86	17	4.78
Kuwait	101	3.34	77	3.88	118	2.81
Kyrgyz Republic	140	2.72	130	3.24	145	2.20
Lao PDR	74	3.54	78	3.86	68	3.22
Latvia	68	3.61	67	4.01	70	3.21
Lebanon	90	3.40	62	4.07	124	2.73
Lesotho	135	2.84	136	3.20	135	2.47
Liberia	114	3.22	108	3.56	110	2.88
Libya	141	2.71	131	3.23	146	2.19
Lithuania	44	3.93	48	4.29	44	3.58
Luxembourg	17	4.84	22	4.98	18	4.70
Macedonia, FYR	94	3.37	100	3.65	86	3.09
Madagascar	105	3.31	111	3.53	85	3.09
Malawi	115	3.20	114	3.50	108	2.90
Malaysia	23	4.70	20	5.02	25	4.39
Mali	111	3.26	112	3.52	98	3.00
Malta	40	4.03	36	4.44	42	3.61
Mauritania	134	2.84	138	3.18	133	2.50
Mauritius	57	3.76	41	4.40	81	3.11
Mexico	55	3.79	55	4.24	61	3.35
Moldova	133	2.87	125	3.32	138	2.42
Mongolia	121	3.08	128	3.26	109	2.89
Montenegro	70	3.61	89	3.79	54	3.42
Morocco	100	3.34	92	3.75	106	2.94
Mozambique	131	2.91	135	3.20	128	2.63
Myanmar	146	2.55	146	2.87	143	2.24
Namibia	102	3.34	99	3.65	94	3.02
Nepal	132	2.91	129	3.25	129	2.56
Netherlands	7	5.36	4	5.56	10	5.16
New Zealand	27	4.55	26	4.75	26	4.34
Nicaragua	113	3.25	115	3.50	99	3.00
Nigeria	82	3.44	75	3.89	100	3.00
Norway	16	5.07	13	5.24	13	4.90
Oman	39	4.05	32	4.54	45	3.57
Pakistan	78	3.48	85	3.83	77	3.13
Panama	43	3.99	52	4.26	36	3.72
Paraguay	128	2.97	119	3.49	136	2.45
Peru	97	3.35	74	3.95	122	2.76
Philippines	58	3.75	49	4.29	69	3.21
Poland	65	3.65	65	4.06	65	3.24
Portugal	38	4.06	57	4.18	29	3.93
Puerto Rico	22	4.71	19	5.03	24	4.39
Qatar	14	5.08	10	5.36	16	4.80
Romania	103	3.32	101	3.62	97	3.01
Russian Federation	99	3.35	107	3.56	78	3.13
Rwanda	66	3.65	80	3.86	52	3.44
Saudi Arabia	29	4.33	28	4.74	30	3.93
Seychelles	62	3.69	64	4.06	62	3.32
Senegal	76	3.51	82	3.85	72	3.18
Serbia	125	3.01	137	3.18	112	2.85
Sierra Leone	129	2.93	127	3.30	130	2.56
Singapore	13	5.14	17	5.08	9	5.19
Slovak Republic	77	3.49	73	3.95	95	3.02
Slovenia	49	3.88	58	4.14	40	3.63
South Africa	37	4.06	35	4.49	39	3.64
Spain	32	4.14	33	4.52	34	3.75
Sri Lanka	42	4.00	34	4.51	49	3.49
Suriname	120	3.10	118	3.49	125	2.70
Swaziland	110	3.27	93	3.72	117	2.83
Sweden	5	5.46	7	5.48	6	5.43
Switzerland	1	5.72	2	5.75	2	5.70
Taiwan, China	9	5.22	15	5.20	8	5.25
Tanzania	109	3.28	116	3.50	89	3.06
Thailand	52	3.83	40	4.42	66	3.24
Timor-Leste	138	2.76	140	3.03	134	2.49
Trinidad and Tobago	92	3.39	79	3.86	107	2.92
Tunisia	79	3.47	76	3.89	88	3.06
Turkey	47	3.91	43	4.36	50	3.47
Uganda	107	3.29	109	3.55	92	3.04
Ukraine	95	3.36	97	3.68	93	3.03
United Arab Emirates	24	4.67	16	5.13	28	4.22
United Kingdom	10	5.15	9	5.40	12	4.90
United States	6	5.43	6	5.49	7	5.37
Uruguay	84	3.43	91	3.75	82	3.11
Venezuela	136	2.83	134	3.21	137	2.45
Vietnam	85	3.41	98	3.68	76	3.14
Yemen	139	2.73	124	3.35	148	2.12
Zambia	61	3.71	66	4.05	60	3.36
Zimbabwe	126	2.99	126	3.30	127	2.68

Note: Ranks out of 148 economies and scores measured on a 1-to-7 scale.



room for improvement exists in both areas, which are the keys to Singapore's future prosperity.

**Finland** retains its 3rd position. Similar to other countries in the region, the country boasts well-functioning and highly transparent public institutions (1st), topping several indicators included in this category. Its private institutions, ranked 3rd overall, are also seen to be among the best run and most ethical in the world. Finland also occupies the top position both in the health and primary education pillar and the higher education and training pillar, the result of a strong focus on education over recent decades. This has provided the workforce with the skills needed to adapt rapidly to a changing environment and has laid the groundwork for high levels of innovation, allowing Finland to become a highly innovative economy. Improving the country's capacity to adopt the latest technologies (ranked 18th) could lead to important synergies that could, in turn, further reinforce the country's competitive position going forward. Finland's macroeconomic environment has weakened slightly on the back of rising inflation (above 3 percent), but it fares comparatively well when contrasted with other euro-zone economies.

**Germany** moves up by two notches to 4th place this year. The country is ranked an excellent 3rd for the quality of its infrastructure, boasting in particular first-rate facilities across all modes of transport. The goods market is quite efficient and is characterized by intense local competition (10th) and low market dominance by large companies (2nd). Germany's business sector is very sophisticated, especially when it comes to production processes and distribution channels. German companies are among the most innovative in the world, spending heavily on R&D (4th) and displaying a high capacity for innovation (3rd)—traits that are complemented by the country's well-developed ability to absorb the latest technologies at the firm level (16th). Research institutions are assessed as being of higher quality than in previous years, and scientists and engineers appear to be more readily available. All these attributes allow Germany to benefit greatly from its significant market size (5th), which is based on both its large domestic market and its strong exports.

Some shortcomings remain with respect to labor markets and the educational system. Despite some improvement (from 53rd to 41st), Germany's labor market remains rigid (113th for the labor market flexibility subpillar), where a lack of flexibility in wage determination and the high cost of firing hinder job creation, particularly during business cycle downturns. To maintain Germany's competitiveness, the quality of the educational system—where, at 23rd place, the country continues to trail most of its top 10 peers—needs to be improved further. But the country has already registered an improvement across all educational quality indicators in the GCI, an important basis for sustained innovation-led growth.

After having declined for four consecutive years in the ranking, the **United States** reverses its downward trend, rising by two positions to take 5th place this year and overtaking the Netherlands and Sweden. While the economy is getting back on track, the deleveraging process in the banking sector continues to show positive effects on the stability and efficiency of the country's financial markets, improving from 31st three years ago to 10th this year in that pillar. At the same time, the assessment of public institutions is slightly more positive, which is a hopeful outcome after a number of years of weakening confidence in this area.

Overall, many structural features continue to make the US economy extremely productive. US companies are highly sophisticated and innovative, supported by an excellent university system that collaborates admirably with the business sector in R&D. Combined with flexible labor markets and the scale opportunities afforded by the sheer size of its domestic economy—the largest in the world by far—these qualities continue to make the United States very competitive. On the other hand, some weaknesses in particular areas remain. Although the assessment of institutions improves this year, the business community continues to be rather critical, with trust in politicians still somewhat weak (50th), concerns about the government's ability to maintain arms-length relationships with the private sector (54th), and a general perception that the government spends its resources relatively wastefully (76th). The macroeconomic environment continues to be the country's greatest area of weakness (117th), although the deficit is narrowing for the first time since the onset of the financial crisis.

**Sweden** falls two places to 6th position. Like Switzerland, the country has been placing significant emphasis on creating the conditions for innovation-led growth. Although the assessment has deteriorated slightly over the past year—mainly due to a somewhat weaker macroeconomic environment—the quality of Sweden's public institutions remains first rate, with a very high degree of efficiency, trust, and transparency. Private institutions also receive excellent marks, with firms that demonstrate highly ethical behavior. Additional strengths include goods and financial markets that are very efficient, although the labor market could be more flexible (Sweden ranks 57th on the flexibility subpillar). Combined with a strong focus on education over the years and a high level of technological readiness (1st), Sweden has developed a very sophisticated business culture (7th) and is one of the world's leading innovators (6th). These characteristics come together to make Sweden one of the most productive and competitive economies in the world.

**Hong Kong SAR** further consolidates its position among the 10 most competitive economies, advancing a further two places to 7th, thanks to a consistently strong performance. In particular, Hong Kong tops the

infrastructure pillar for the fourth consecutive edition, reflecting the outstanding quality of its facilities across all modes of transportation. It also dominates the financial market development pillar, owing to the high level of efficiency, trustworthiness, and stability of the system. As in the case of Singapore, the dynamism and efficiency of Hong Kong's goods market (2nd) and labor market (3rd) further contribute to its excellent overall positioning. In order to enhance its competitiveness, Hong Kong must improve on higher education (22nd) and innovation (23rd, up three). In the latter category, the quality of research institutions (31st) and the limited availability of scientists and engineers (32nd) remain the two key issues to be addressed.

After having moved up in the rankings in the last edition, the **Netherlands** loses three places and slips to 8th place this year. The drop mainly reflects weakening financial markets and, in particular, rising concerns regarding the stability of banks. Overall, the economy is highly productive due to some pronounced strengths. Dutch businesses are highly sophisticated (4th) and innovative (10th), and the country is rapidly and aggressively harnessing new technologies for productivity improvements (8th). Its excellent educational system (ranked 4th for health and primary education and 6th for its higher education and training) and efficient markets—especially its goods market (8th)—are highly supportive of business activity. And although the country has registered fiscal deficits in recent years (4.15 percent of GDP in 2012), its macroeconomic environment is stronger than that of a number of other advanced economies. Last but not least, the quality of its infrastructure is among the best in the world, reflecting excellent facilities for maritime, air, and railroad transport, which are ranked 1st, 4th, and 11th, respectively.

Up one position, **Japan** now ranks 9th with a score almost unchanged since last year. The country continues to enjoy a major competitive edge in business sophistication (1st for the fifth consecutive year) and in innovation (5th). High R&D spending (2nd), availability of talent (4th), world-class research institutions (9th), and capacity to innovate (6th) are among Japan's strengths. Indeed, in terms of innovation output, this pays off: the country has the fourth-highest number of patent applications per capita in the world. Further, companies operate at the highest end of the value chain, producing high-value-added goods and services. However, the country's overall competitive performance continues to be dragged down by severe macroeconomic weaknesses (127th). For the past four years, the budget deficit has been hovering around 10 percent of GDP, one of the highest ratios in the world, while the public debt reached record levels, representing almost 240 percent of Japan's GDP. It is unlikely that the coming year will see a reversal in these trends in light of the country's aggressive monetary policy and various

stimulus packages. In addition, the labor market (23rd, down three) is characterized by persisting rigidities and inefficiencies, including the lack of female participation in the labor force (90th overall, the fifth lowest ratio among the member states of the Organisation for Economic Co-operation and Development, or OECD). Burdensome regulation, notably for business creation; high taxation; various trade barriers (111th); and a relative isolation, resulting in low foreign investment and ownership and a weak capacity to attract talent (80th), represent Japan's major competitive weaknesses. It remains to be seen whether the government will deliver on its promise to address those structural issues as part of its strategy to revitalize Japan's economy.

The **United Kingdom** (10th) rounds out the top 10, falling by two places in this year's assessment. The country deteriorates slightly in several areas, most notably its macroeconomic environment and its financial markets. Overall, the United Kingdom benefits from clear strengths such as the efficiency of its labor market (5th), in sharp contrast to the rigidity of those of many other European countries. The country continues to have sophisticated (9th) and innovative (12th) businesses that are highly adept at harnessing the latest technologies for productivity improvements and operating in a very large market (it is ranked 6th for market size). The highly developed financial market also remains a strength overall, despite some weakening since last year. All these characteristics are important for spurring productivity enhancements. On the other hand, the country's macroeconomic environment (115th, down from 85th two years ago) represents the greatest drag on its competitiveness, with a fiscal deficit above 8 percent in 2012, an increase of over 7 percentage points in public debt amounting to 90.3 percent of GDP in 2012 (136th), and a comparatively low national savings rate (10.8 percent of GDP in 2012, 122nd).

### North America, Europe, and Eurasia

Throughout the past year, much of Europe has continued to struggle with financial and structural challenges. Far-reaching actions were taken in Europe to avoid the breakup of the euro zone and bring the region onto a more dynamic growth path, mainly through macroeconomic measures and, to some extent, through structural reforms especially in peripheral euro zone countries. Although measures to improve competitiveness in some countries seem to have started bearing fruit, low global and regional demand continues to constrain growth, and several core countries still must reform their own economies in order to once again become engines of growth. See also Box 4 on regional competitiveness in the European Union.

Despite these challenges, several European countries continue to feature prominently among the most competitive economies in the world. As described



Box 4: The European Union’s Regional Competitiveness Index

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To measure the different dimensions of competitiveness at the regional level, the European Commission has developed the Regional Competitiveness Index (RCI), which was inspired by the structure of the Global Competitiveness Index. The RCI was published in 2010 and again in 2013 through a coordinated effort of the European Commission’s Joint Research Centre and the Directorate-General for Regional Policy. The regional dimension is important because many of the factors of competitiveness are influenced or even determined by regional and city authorities. The trend toward more decentralization in Europe makes the role of cities and regions even more important. The strong regional dimension of competitiveness, with more variation between regions than between countries, confirms the influence and role of regions and cities.

Main results

The RCI highlights the competitive strengths and weaknesses of each of the European Union (EU)’s regions.<sup>1</sup> It can provide a guide to what each region should focus on, taking into account its specific situation and its overall level of development. This is particularly important for the preparation of the EU Cohesion Policy programs for 2014–20. The European Union will provide 325 billion euros to co-finance these seven-year programs. The programs are implemented by the countries, regions, or cities following an agreed strategy. These programs can improve transport or Internet access, boost innovation, encourage entrepreneurship, invest in energy efficiency, and enhance education and skills.

The objective of the Cohesion Policy is to reduce regional disparities by investing in job creation, competitiveness, economic growth, improved quality of life and sustainable development. Funding is provided to all

regions, but more is provided to less developed ones. These investments also support the Europe 2020 strategy.

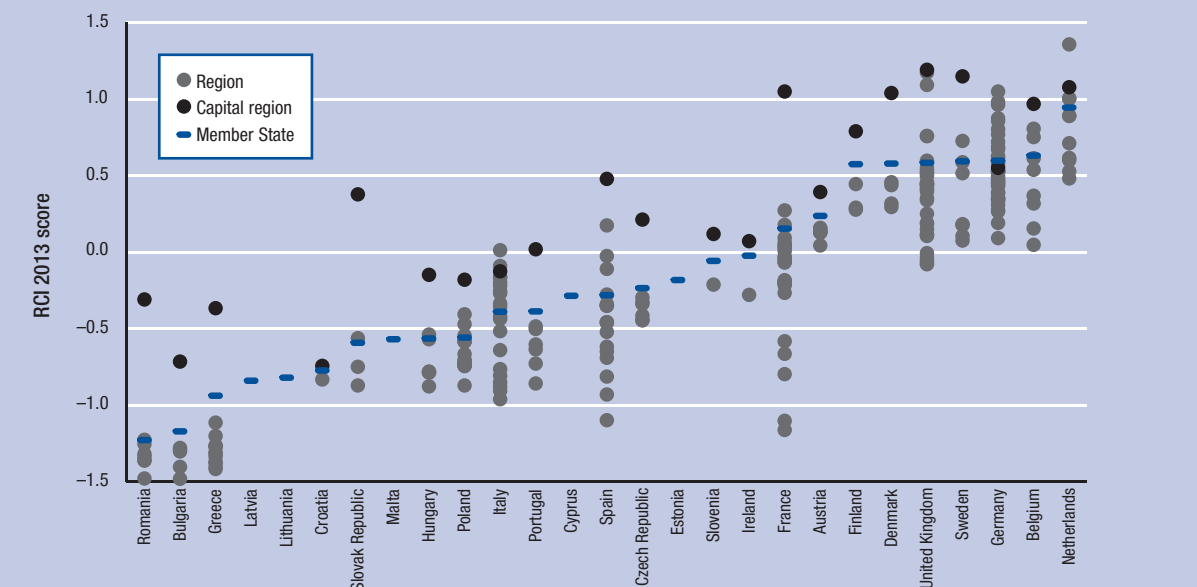
The RCI also can be a useful tool for EU countries with a large gap in the competitiveness of their regions. EU countries with a large gap or high variation in regional competitiveness should consider to what extent these gaps are harmful for their national competitiveness and whether they can be reduced, possibly with the support of Cohesion Policy. For example, in Romania, the Slovak Republic, and France the gap between the capital region and the second most competitive region is very wide, while regional competitiveness in Germany shows no large differences.

The 2010 edition of the RCI had already noted the lack of regional spillovers, particularly around the capitals of some of the less-developed EU countries. Although the economic crisis may have limited the potential growth of regional spillovers, in the medium term such spillovers should be strengthened. The overall competitiveness of a country depends on the performance of all its regions, not of its capital region alone.

The RCI reveals substantial differences in competitiveness within some countries (see Figure 1). In France, Spain, the United Kingdom, the Slovak Republic, Romania, Sweden, and Greece, the level of variability across regions is particularly high, with the capital region always being the best performer, except for Italy, the Netherlands, and Germany, where the capital region is not the most competitive.

Earlier territorial research highlighted the existence of the “blue banana” corridor of urbanization that linked the region of greater London all the way to Lombardy, passing through the Benelux countries and Bavaria, or a pentagon linking London,

Figure 1: Regional Competitiveness Index 2013: Results across EU Member States



Source: Annoni and Dijkstra 2013.

(Cont’d.)

Box 4: The European Union’s Regional Competitiveness Index (cont’d.)

Table 1: RCI 2013: Top 10 regions

Region	NUTS 2 code	RCI 2013 (standardized scores)
Utrecht	NL31	100
London (functional economic area)	UKH2, HKH3, UKI1 and UKI2	94
Berkshire, Buckinghamshire and Oxfordshire	UKJ1	94
Stockholm	SE11	93
Surrey, East and West Sussex	UKJ2	91
Amsterdam (functional economic area)	NL23 and NL32	90
Darmstadt (includes Frankfurt)	DE71	89
Île de France (includes Paris)	FR10	89
Hovedstaden (includes Copenhagen)	DK01	89
Zuid-Holland (includes Rotterdam and The Hague)	NL33	88

Paris, Milan, Munich, and Hamburg. These areas were seen as having the highest concentrations of economic activity. This line of research emphasized a strong core-periphery pattern of economic activity in Europe.

The RCI, however, shows a more polycentric pattern, with strong capital and metropolitan regions in many parts of Europe. For example, the regions that include Stockholm, Copenhagen, Helsinki, Prague, Bratislava, and Madrid all have a high level of competitiveness (see Figure 2).<sup>2</sup> With the right policies and investments, regions outside the core of Europe can also become highly competitive.

Eight out of the top 10 regions in the 2013 RCI confirm their position with respect to 2010. The most competitive region in both editions is Utrecht. Also present in the top 10 in 2010 were the London functional economic region; the group comprising Berkshire, Buckinghamshire, and Oxfordshire; the Amsterdam functional economic region;<sup>3</sup> Zuid-Holland; the Danish region Hovedstaden (includes Copenhagen); Stockholm; and Île de France (includes Paris) (see Table 1).

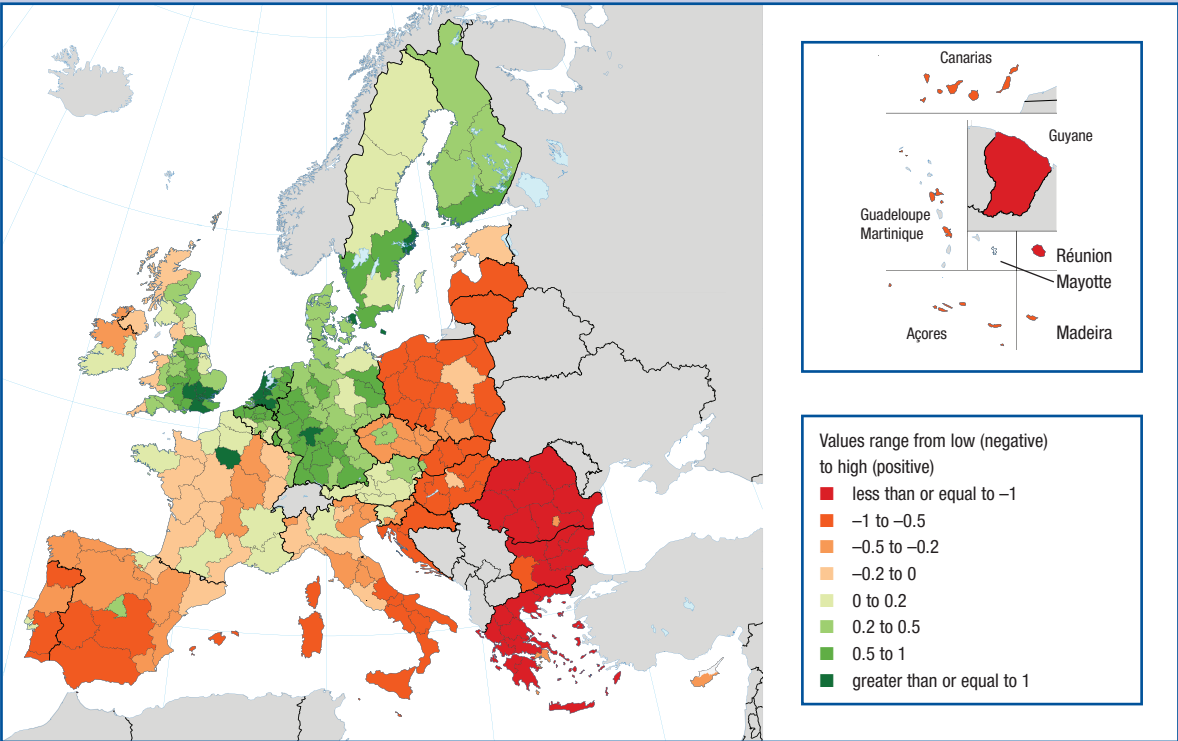
The new entries in the 2013 top 10 are Darmstadt (includes Frankfurt) in Germany and Surrey, East and West Sussex in the United Kingdom. It is striking that eight out of the top 10 are either capital regions or regions that include large cities.

At the other end of the competitiveness scale, we find some regions that are, unfortunately, consistently the least competitive. These are the Bulgarian region Severozapaden, the Greek region Notio Aigaio, and the two southern Romanian regions Sud-Est and Sud-Vest Oltenia. Figure 2 shows the results for all regions assessed.

Methodology

The RCI is built on a broad definition of regional competitiveness that can be summarized as “the ability to offer an attractive and sustainable environment for firms

Figure 2: RCI 2013 results



Source: Joint Research Centre and DG for Regional and Urban Policy, © EuroGeographics Association for the administrative boundaries.

(Cont’d.)

Box 4: The European Union’s Regional Competitiveness Index (cont’d.)

and residents to live and work.” This definition focuses on the close link between competitiveness and prosperity, characterizing competitive regions not only in output-related terms but also by overall socioeconomic performance and potential.

The RCI was first published in 2010 and included 69 indicators. It builds on the methodology developed by the World Economic Forum for the Global Competitiveness Index, and has proved to be a robust way to summarize many different indicators in one index. The index covers a wide range of issues, and includes innovation, quality of institutions, availability and usage of infrastructure (comprising digital networks), and measures of health and human capital. It has been used in many regions in the European Union and has sparked similar initiatives in Australia and South Africa.

The RCI 2013 is the second edition of the index and takes in updated and improved data together with method refinements. Croatia has been included in the 2013 edition, as it joined the European Union on July 1, 2013. The RCI 2013 is based on a set of 73 indicators and follows the same framework and structure of the 2010 edition. Data for all the indicators mainly span the period between 2009 and 2011. As for the previous version, the index is based on 11 pillars describing both inputs and outputs of territorial competitiveness. Pillars are grouped into three sets describing basic, efficiency, and innovative factors of competitiveness. The pillar groups are weighted differently according to the region’s development stage in terms of gross domestic product per capita.

The basic pillars represent the basic drivers of all economies. They include (1) Institutions, (2) Macroeconomic

Stability, (3) Infrastructure, (4) Health, and (5) Basic Education. These pillars are most important for less-developed regions.

The efficiency pillars are (6) Higher Education and Lifelong Learning, (7) Labor Market Efficiency, and (8) Market Size.

The innovation pillars, which are particularly important for the most advanced regional economies, include (9) Technological Readiness, (10) Business Sophistication, and (11) Innovation. This group plays a more important role for intermediate and especially for highly developed regions.

Overall, the RCI framework is designed to capture short- as well as long-term capabilities of the regions. Further information about the RCI 2013 is available at [www.easu.jrc.ec.europa.eu](http://www.easu.jrc.ec.europa.eu) or [www.ec.europa.eu/regional\\_policy](http://www.ec.europa.eu/regional_policy).

Notes

- 1 The RCI uses NUTS 2 regions, which are the basic territorial units for the application of regional policies. They are defined by the Commission regulation on nomenclature of territorial units for statistics (from the French Nomenclature des Unités Territoriales Statistiques, or NUTS). *NUTS level 2* refers to regions with an average population size between 800,000 and 3 million.
- 2 The RCI does not include northern Italy, Wallonia, or eastern France among the most competitive EU regions, which were included in the core-periphery analyses.
- 3 To ensure that the regional competitiveness index does not break up functional economic areas, the capital regions of Belgium, the Czech Republic, Germany, the Netherlands, Austria, and the United Kingdom were combined with one or more of the neighboring regions to better capture the functional metropolitan region. This ensures a good match between the workplace-based indicators such as research and development and the residence-based indicators such as educational attainment.

above, six of them are among the top 10. In total, 10 are among the top 20, as follows: Switzerland (1st), Finland (3rd), Germany (4th), Sweden (6th), the Netherlands (8th), the United Kingdom (10th), Norway (11th), Denmark (15th), Austria (16th), and Belgium (17th). However, Europe is also a region with significant disparities in competitiveness, with several countries from the region significantly lower in the rankings (with Spain at 35th, Italy at 49th, Portugal at 51st, and Greece at 91st). As in previous years, North American countries feature among the most competitive economies worldwide, with the United States occupying the 5th position and Canada the 14th.

**Norway** rises by four places in the rankings to a remarkable 11th this year, with progress in a number of areas. Specifically, the country features a notable improvement in the uptake of ICTs, particularly increasing Internet bandwidth and greater penetration of mobile broadband. Similar to the other Nordic countries, Norway is further characterized by well-functioning and transparent public institutions; private institutions also get

admirable marks for ethics and accountability. Markets in the country are efficient, with labor and financial markets ranked 14th and 9th, respectively. Productivity is also boosted by a good uptake of new technologies, ranked an excellent 3rd overall for technological readiness, up 10 places in this area since last year. Moreover, Norway’s macroeconomic environment is ranked an impressive 2nd out of all countries (up from 3rd last year, and continuing an upward trend over the last several years), driven by windfall oil revenues combined with prudent fiscal management. On the other hand, Norway’s competitiveness would be further enhanced by continuing to upgrade its infrastructure (33rd), fostering greater goods market efficiency and competition (22nd), and further improving its environment for R&D.

**Canada** remains stable at 14th place. The country continues to benefit from highly efficient markets (with its goods, labor, and financial markets are ranked 17th, 7th, and 12th, respectively), well-functioning and transparent institutions (14th), and excellent infrastructure (12th). Canada is also successfully nurturing its human

resources compared with other advanced economies (ranking 7th for health and primary education and 16th for higher education and training), providing the workforce with the skills needed to succeed in a competitive economy. Canada's competitiveness would be further enhanced by improvements in its innovation ecosystem such as increased company-level spending on R&D and government procurement of advanced research products.

**Denmark** loses three positions this year at 15th, placing just behind Canada, with a weakening in its macroeconomic environment. Similar to its Nordic neighbors, the country continues to benefit from one of the best functioning and most transparent institutional frameworks in the world (18th). Denmark also continues to receive a first-rate assessment for its higher education and training system (14th), which has provided the Danish workforce with the skills needed to adapt rapidly to a changing environment and has laid the ground for high levels of technological adoption and innovation. A continued strong focus on education would help to reverse the downward trend in the country's ranking and to maintain the skill levels needed to provide the basis for sustained innovation-led growth. A marked difference from the other Nordic countries relates to labor market flexibility, where Denmark (13th) continues to distinguish itself as having one of the most efficient labor markets internationally, with more flexibility in setting wages, firing, and therefore hiring, along with a greater number of workers than seen in the other Nordics and most European countries more generally.

**Austria** is ranked 16th this year, demonstrating a stable performance since last year. The country benefits from excellent infrastructure (16th) and sophisticated businesses (8th) that are highly innovative (15th). This is buttressed by an education and training system that does a good job of preparing the workforce, particularly through a strong focus on on-the-job training (5th). Austria's competitiveness would be further enhanced by greater flexibility in its labor market (the country is ranked 88th in this subpillar), and by continuing to improve its already-excellent educational system.

**Belgium** is ranked 17th, retaining the same place as last year. The country has outstanding health indicators and a primary education system that is among the best in the world (2nd). Belgium also boasts an exceptional higher education and training system (5th), with excellent math and science education, top-notch management schools, and a strong propensity for on-the-job training that contribute to a relatively high capacity to innovate (14th). Its goods market is characterized by high levels of competition and an environment that facilitates new business creation. Business operations are also distinguished by high levels of sophistication and professional management processes. On the other hand, there are some concerns about government inefficiency

(56th) and its highly distortionary tax system, which particularly reduces the incentives to work (142nd). Moreover, its macroeconomic environment continues to be burdened by persistent deficit spending and high public debt.

**France** is ranked 23rd, down two places from last year. The decline comes on the back of increasing concerns among business leaders about the health of the financial sector. France retains a number of clear competitive advantages, including the country's infrastructure, which is among the best in the world (4th), with outstanding transport links, energy infrastructure, and communications. The health of the workforce and the quality and quantity of education are other strengths (ranked 24th for health and primary education and 24th for higher education and training). These elements have provided the basis for a business sector that is aggressive in adopting new technologies for productivity enhancements (France is ranked 17th for technological readiness). In addition, the country's business culture is highly professional and sophisticated (21st in the business sophistication pillar), buttressing its good position in innovation (19th in the innovation pillar, particularly in certain science-based sectors) and bolstered by a large market (8th), all of which help to boost the country's growth potential. On the other hand, France's competitiveness would be enhanced by injecting more flexibility into its labor market, which is ranked a low 116th both because of the strict rules on firing and hiring and the rather conflict-ridden labor-employer relations in the country. Its tax regime is also perceived as highly distortive to decisions to work (127th). Tentative efforts being made in these areas, if implemented with rigor, would provide an important boost to France's economic performance going forward.

**Ireland** is ranked 28th this year with a relatively stable performance. The country continues to benefit from its excellent health and primary education system (6th) and strong higher education and training (18th), along with its well-functioning goods and labor markets, ranked 11th and 16th, respectively. These attributes have fostered a sophisticated and innovative business culture (ranked 18th for business sophistication and 20th for innovation), buttressed by excellent technological adoption in the country (13th). Yet the country's macroeconomic environment continues to raise significant concern (134th), showing little improvement since last year. Of related and continuing concern is also Ireland's financial market (85th), although this seems to be tentatively recovering since the trauma faced in recent years, and confidence is slowly being restored.

**Iceland** is ranked at 31st position this year. Despite significant difficulties in recent years, Iceland continues to benefit from a number of clear competitive strengths in moving to a more sustainable economic situation. These include the country's top-notch educational

system at all levels (9th and 12th in the health and primary education and higher education and training pillars, respectively) coupled with a relatively innovative business sector (27th) that is highly adept at adopting new technologies for productivity enhancements (10th). Business activity is further supported by an efficient labor market (17th) and well-developed infrastructure (17th). On the other hand, a weakened macroeconomic environment (118th) and financial markets (80th) remain areas of concern, although these have measurably improved since last year.

**Estonia** remains the best performer within Eastern Europe, up two places this year to 32nd. The country has an excellent educational system and highly efficient and well-developed goods and financial markets, as well as a strong commitment to advancing technological readiness. In addition, Estonia's 22nd rank in macroeconomic stability reflects its relatively well managed public finances. The country's margin ahead of the rest of the region also reflects its more flexible and efficient labor markets (12th), which continue to be rigid in other countries throughout much of Europe as a whole.

Despite the current difficult conditions, **Spain** goes up one notch in the rankings to 35th place. The country continues to leverage its traditional competitiveness strengths in terms of a world-class transport infrastructure (6th), a good use of ICTs (23rd), and—despite the high unemployment rate—a large and skilled labor force, thanks to one of the highest tertiary education enrollment rates in the world (8th). Moreover, the country has started to address some of its most pressing challenges. In the past year, Spain undertook sharp public budget cuts that will help improve its still-weak macroeconomic situation; it also implemented a series of structural reforms to improve the functioning of its goods, labor, and financial markets. The liberalization of certain services, the implementation of a labor market reform to mitigate the rigidities of a dual labor market, and the restructuring of the banking system are all measures aimed at improving the efficiency in the allocation of resources, whose full effects are likely to become more visible in the medium term. As a result of these and other measures at the European level, the country has obtained access to international financing markets at a more affordable cost than it had at the time the previous edition of this *Report* was released. However, this situation has not translated in an improvement in access to financing for local firms—which still suffer from an important credit crunch—to upgrade or transform their production facilities. Access to financing is regarded as the most problematic factor for doing business, and the country ranks very low in terms of the ease of accessing loans (138th) or other sources of financing, either through equity markets (101th) or venture capital (105th). In addition,

the reduction of both public and private budgets for research and innovation could hamper the capacity of local firms to innovate (57th) and contribute to the economic transformation of the country. Addressing these weaknesses will be crucial in order to bridge the competitiveness gap with Northern European economies the country continues to suffer.

**Poland** is ranked 42nd, with a relatively stable performance since last year and a fairly even performance across all 12 pillars of competitiveness. Notable strengths include its large market size (20th) and high educational standards, in particular its high enrollment rates (it is ranked 18th on the quantity of higher education subpillar). The financial sector is well developed (38th), and banks are assessed as more sound than they were only four years ago, although additional strengthening will be necessary, given the country's still mediocre 54th rank on this indicator. Further enhancing competitiveness will require a significant upgrading of transport infrastructure, which trails international standards by a considerable margin (ranked 92nd). Although some progress has been made over the past few years in this area in the context of the European Football Championships in 2012, it is not sufficient to create the step change necessary to better connect the different parts of the country. The business sector remains very concerned about some aspects of the institutional framework, including the government inefficiencies (121st)—in particular the high burden of government regulation (133rd). As Poland transitions to the innovation-driven stage of development, it will have to focus more strongly on developing capacities in R&D and business sophistication. Stronger R&D orientation of companies, easier access to venture capital, and intensified collaboration between universities and the private sector would help the country to move toward a more future-oriented development path.

**Turkey** falls by one position to 44th, following its significant improvement last year. The macroeconomic environment has deteriorated slightly, with a rising fiscal deficit and inflation nearing double digits, although the situation remains better than in many other European economies. Turkey's vibrant business sector derives important efficiency gains from its large domestic market (ranked 16th), which is characterized by intense local competition (15th). Turkey also benefits from its reasonably developed infrastructure (49th), particularly roads and air transport, although ports and the electricity supply require additional upgrading. In order to further enhance its competitiveness, Turkey must focus on building up its human resources base through better primary education and healthcare (59th) and higher education and training (65th), increasing the efficiency of its labor market (130th), and reinforcing the efficiency and transparency of its public institutions (58th).



**The Czech Republic** falls by seven places this year to 46th position. Concerns remain about the quality of the country's public institutions, with public trust in politicians ranked an extremely low 146th, ahead of only Argentina and Lebanon globally. The macroeconomic environment has worsened slightly with rising deficits and debt, although (at 55th) it remains more stable than in much of the rest of Europe. Czech businesses are relatively sophisticated and innovative, buttressed by a strong uptake of new technologies. The country's competitiveness would be further enhanced by improvements to the educational system and by injecting greater flexibility into the labor market.

After a slight improvement last year, **Italy** falls back seven places to 49th position this year, with a deterioration across the board and with the lack of clear political direction over the past year increasing business uncertainty and weighing down on the country's competitiveness. Italy continues to do well in some of the more complex areas measured by the GCI, particularly the sophistication of its businesses, where it is ranked 27th, producing goods high on the value chain with one of the world's best business clusters (2nd). Italy also benefits from its large market size—the 10th largest in the world—which allows for significant economies of scale. However, Italy's overall competitiveness performance continues to be hampered by some critical structural weaknesses in its economy. Its labor market remains extremely rigid—it is ranked 137th for its labor market efficiency, hindering employment creation. Italy's financial markets are not sufficiently developed to provide needed finance for business development (124th). Other institutional weaknesses include high levels of corruption and organized crime and a perceived lack of independence within the judicial system, which increase business costs and undermine investor confidence—Italy is ranked 102nd overall for its institutional environment. Greater political stability in the country and stronger efforts to address structural rigidities are critical for boosting the country's competitiveness. The institutional reforms that are presently being proposed by the government would be an important step toward addressing some of these challenges.

**Kazakhstan** improves by one position to rank 50th this year. The country benefits from a flexible and efficient labor market (15th) and a stable macroeconomic environment (23rd) at a time when many countries are struggling in these areas. Kazakhstan's main challenges relate to its health and primary education systems (97th), its lack of business sophistication (94th), and its low innovation (84th).

**Portugal** continues to fall in the rankings, coming in at 51st place, two places down since last year. An unstable macroeconomic environment (124th), similar to other Southern European economies; a certain loss of trust in politicians (77th) and in government efficiency

(116th); and, above all, increasing difficulties in accessing financing—either through the equity market (108th) or loans (121st)—have contributed to this drop. Despite this slight decline, the country is striving to regain productivity and competitiveness by increasing liberalization of the markets and labor market reforms. These are expected to bear fruit in the medium term, helping the country bridge the competitiveness divide with other European economies. In this effort, Portugal will be able to leverage its world-class transport infrastructure (19th) and its well-prepared labor force thanks to high levels of university education (26th), although it must be said that the quality of this education (58th) is not always in line with the productive needs of the country. In addition to the recently undertaken reforms, the country should not neglect strengthening its innovation potential through efficient investments in science, technology, and other intangible assets, such as advanced management techniques. These factors will be crucial in allowing the Portuguese economy to move toward higher-value-added activities.

The **Russian Federation**, at 64th place, improves by three positions since last year. The country's macroeconomic environment has continued to improve—up from 44th two years ago to 19th this year because of low government debt and a government budget that has maintained a surplus. Other strengths include its high level of education enrollment, especially at the tertiary level; its fairly good infrastructure; and its large domestic market (8th), all of which represent areas that can be leveraged to improve Russia's competitiveness. On the other hand, the country continues to receive a poor assessment of its public institutions (118th) and shows a lack of innovation capacity (78th). Russia suffers from inefficiencies in the goods (126th), labor (72nd), and financial (121st) markets. The weak level of competition (135th)—caused by inefficient anti-monopoly policies (116th) and high restrictions on trade and foreign ownership as well as a lack of trust in the financial system (132nd)—contributes to this inefficient allocation of Russia's vast resources, hampering higher levels of productivity in the economy. Moreover, as the country moves toward a more advanced stage of economic development, its lack of business sophistication (107th) and low rates of technological adoption (127th) will become increasingly important challenges for its sustained progress.

After improving somewhat last year, **Ukraine** falls back by 11 places to 84th position in this year's GCI. Overall, Ukraine maintains its competitive strengths. These result from its large market size (38th) and a solid educational system that provides easy access to all levels of education (ranked 43rd on higher education and training and 57th on primary education). Putting economic growth on a more stable footing in future will require Ukraine to address important challenges.

Arguably, the country's most important challenge is the needed overhaul of its institutional framework, which suffers from red tape, a lack of transparency, and favoritism. Ukraine could realize further efficiency gains from instilling more competition into its goods and services markets (124th) and continuing the reform of its financial and banking sector (117th).

This year **Greece**, after falling over the past several years, improves in the rankings to 91st place. Although it remains the lowest-ranked country of the European Union and the results in the macroeconomic environment pillar continue to raise concern (second to last at 147th position this year), Greece has started to show improvements in a number of other areas, perhaps indicating that the reform efforts are beginning to bear fruit. Slight improvements are seen in the country's institutional environment, the efficiency of its labor markets, and technological adoption, although continued efforts in these areas are still needed. Although some progress is being made, public institutions (e.g., government efficiency, corruption, undue influence) continue to receive a poor evaluation (102nd) and confidence has not returned to financial markets in the country (138th). The country's inefficient labor market (127th) continues to constrain Greece's ability to emerge from the crisis, although this has improved somewhat since last year, perhaps reflecting recent efforts to increase both the retirement age and labor market flexibility. In working to overcome its present difficulties, Greece has a number of strengths on which it can build, including a reasonably well educated workforce that is adept at adopting new technologies for productivity enhancements. With continued efforts toward growth-enhancing reforms, there is every reason to believe that Greece will continue to improve its competitiveness in the coming years.

### Asia and the Pacific

The competitiveness landscape in Asia and the Pacific remains very mixed. The region is home to some of the most competitive nations, including three members of the top 10 (Singapore, Hong Kong SAR, and Japan) and some of the most dynamic and rapidly improving economies in terms of competitiveness, such as Indonesia and the Philippines. On the other hand, a number of Asian countries, including Pakistan and Timor-Leste, have been unable to improve their competitiveness. This year, we cover three new Asian countries: Bhutan (109th), Lao PDR (81st), and Myanmar (139th). With the latter two additions, the GCI now offers a full coverage of the Association of Southeast Nations (ASEAN) and its 10 members. Box 5 discusses ASEAN's competitiveness landscape and trends and the impact the region's deep competitiveness divide may have on the planned ASEAN Economic Community.

Advancing one position, **Taiwan (China)** ranks 12th this year with a score of 5.3. Its performance has been very stable and consistently strong over the past five years. Notable strengths include the capacity of Taiwanese businesses to innovate (8th), its highly efficient goods markets (7th), and its world-class primary education (9th) and higher education (11th). In order to enhance its competitiveness, Taiwan will need to further strengthen its institutional framework (26th), whose quality is undermined by some inefficiency within the government (28th) and various forms of corruption (30th), and will also need to address some inefficiencies and rigidities in its labor market (33rd).

This edition marks the first time that **Australia** (21st, down one) exits the top 20 and is overtaken by **New Zealand** (18th), which jumps five places. Australia delivers a consistent—and essentially unchanged—performance across the board, the highlight of which is its 7th rank in the financial market development pillar, the only pillar where it features in the top 10. The country also earns very good marks for higher education and training, placing 15th. Australia's favorable macroeconomic situation is improving further (25th, up one place). Its budget deficit was reduced in 2012 and inflation brought to under 2 percent, while the public debt-to-GDP ratio, though on the rise, is the third lowest among advanced economies, behind only Estonia and Luxembourg. The main area of concern for Australia is the rigidity of its labor market (54th, down 12), where the situation has deteriorated further. Australia ranks 137th for the rigidity of the hiring and firing practices and 135th for the rigidity of wage setting. The quality of Australia's public institutions is excellent except when it comes to the burden of government regulation, where the country ranks a poor 128th. Indeed, the business community cites labor regulations and bureaucratic red tape as being, respectively, the first and second most problematic factor for doing business in their country.

**Malaysia** advances one position to 24th. Second among ASEAN countries, behind Singapore, Malaysia ranks no lower than 51st in any of the 12 pillars of the GCI and features in the top 10 of two of them. Its most notable advantages are its efficient and competitive market for goods and services (10th), its well-developed and sound financial market (6th), and its business-friendly institutional framework (29th). In a region plagued by corruption and red tape, Malaysia stands out as one of the very few countries that have been relatively successful at tackling these two issues, as part of its economic and government transformation programs. The country, for instance, ranks an impressive 8th for the burden of government regulation, although the score differential with the leader, Singapore, remains large. Malaysia ranks a satisfactory 33rd in the ethics and corruption component of the Index, but room for improvement remains. Furthermore, Malaysia ranks 15th



Box 5: ASEAN’s competitiveness landscape: A mixed picture with encouraging trends

To any observer of the region, the developmental gap within the Association of Southeast Asian Nations (ASEAN) is striking. No other regional integration initiative has deeper disparities among participating members. Founded in 1967 by Indonesia, Malaysia, Singapore, Thailand, and the Philippines, the subsequent accession of Brunei Darussalam, Vietnam, Lao PDR, Myanmar, and Cambodia have made ASEAN’s developmental landscape even more disparate. For example, Singapore is 80 times richer than Myanmar, where infant mortality rate is 25 times higher. Singapore’s population also lives 20 years longer than Cambodia’s.

Despite this diversity, ASEAN has embarked on an ambitious journey toward regional integration. The ASEAN Economic Community (AEC) is one of the three pillars of this integration effort, alongside the ASEAN Political-Security Community and the ASEAN Socio-Cultural Community. The AEC vision is for ASEAN to become, by 2015, a single market and production base, a highly competitive economic region, a region of equitable economic development, and a region fully integrated into the global economy. Progress is real. By its own account, ASEAN has implemented nearly 80 percent of the measures set out in the AEC Blueprint of 2007.<sup>1</sup>

Although it remains to be seen whether the AEC vision will be fully realized by 2015, the fast-approaching deadline should motivate ASEAN leaders, and boosting competitiveness should be a priority. Competitiveness will foster economic development, which in turn will reduce disparities and accelerate regional and global integration—the other goals of the AEC.

This year for the first time, with the inclusion of Lao PDR and Myanmar, the Global Competitiveness Index (GCI) offers a complete picture of ASEAN’s competitiveness landscape, and it is a landscape that demonstrates much greater contrast than exhibited in earlier GCI editions. Lao PDR comes in 81st and Myanmar ranks 139th, some 50 places behind Cambodia, which at 88th place is ranked second lowest in ASEAN. Table 1 allows for a more granular analysis of the GCI results by reporting the rank achieved by ASEAN Member States in the overall GCI and its 12 pillars. The different shadings allow for a ready identification of strengths and weaknesses and of regional patterns. Plain white and dark blue colors correspond to the 1st and 148th rank, respectively.

The table reveals that Singapore is in a league of its own. Malaysia performs consistently well, although room for improvement remains. Myanmar is ASEAN’s lowest ranked nation on all the pillars except market size. In technological readiness, it even ranks last among the 148 economies studied. The table also reveals that the competitiveness of most ASEAN countries is still impeded by poor transport, inadequate energy and communication infrastructures, low enrollment rates and/or mediocre quality in education, and low levels of technological readiness. With the exception of Singapore and Myanmar, performance tends to be inconsistent across the different pillars of the Index. Finally, the macroeconomic environment (3rd pillar) is rather sound in a majority of ASEAN countries, much more so than in many troubled advanced economies. In fact, Brunei Darussalam—an oil-rich economy—tops this pillar. More prudent and sustainable macroeconomic management is probably one of

the positive consequences of the 1997 Asian financial crisis, which created havoc across ASEAN nations and inspired reforms.

All in all, the assessment is very mixed. Much remains to be done for ASEAN to become a more competitive, prosperous, and harmonious group. Although ASEAN economies have enjoyed brisk economic growth over the past decade, the foundations remain relatively shaky for a number of countries. Yet there is reason for optimism.

First, since the 2006–2007 edition of the GCI, the competitiveness trends for ASEAN have been overwhelmingly positive, as seen in Figure 1, which depicts the evolution in rank of selected developing Asian countries within a constant sample of 118 economies.<sup>2</sup> The seven ASEAN members (identified by solid blue lines) covered since 2006 have either improved or maintained their standing over the eight-year period to 2013.<sup>3</sup> Cambodia has leapfrogged 23 ranks, the fourth largest gain within the entire sample. Indonesia and the Philippines each progress 19 places. Indonesia posts the biggest progression among the group of 20 major economies (G20). It is all the more encouraging that these two nations are also the most populous in ASEAN, accounting for more than half of the group’s population. Furthermore, Singapore has improved steadily from 8th in 2006 to 2nd in 2011—behind Switzerland—and has retained its rank since then. Malaysia and Thailand have slightly declined, losing four and five places, respectively, but they have done so from a relatively high base and both countries have progressed in the last year. Meanwhile, Vietnam has seen important improvements followed by similar declines—partly reflecting the fragility of its economy—and now sits just one notch below its 2006 rank.

Second, in terms of competitiveness levels and trends, the ASEAN nations fare much better than most developing Asian nations, especially when compared with South Asian Association for Regional Cooperation (SAARC) countries (identified by solid black lines in Figure 1). With the notable exception of Sri Lanka, which has gained 19 ranks, the historical performance of other SAARC countries is disappointing. India has lost 15 places since 2006. The Philippines, once 40 places behind, is now ahead of India, and its rank differential with China—the other BRIC in the region—is 29, up from just 8 in 2006. Meanwhile Pakistan, the second largest country in South Asia, has slumped 28 positions, the fourth biggest decline out of all economies in the sample, over the 2006–2013 period. Mongolia, like Vietnam, exhibits erratic trends, owing to an unstable macroeconomic environment and investment climate, and posts a net loss of six places over the period.

Third, the fact that ASEAN membership spans the entire development ladder and includes competitiveness champions can benefit the less competitive countries in the group. Indeed, there are many stories of member countries successfully addressing key competitiveness issues in ways that could be emulated by others. For instance, Singapore is a competitiveness champion. Its administration is one of the world’s least corrupt and most efficient. Malaysia has been tackling excessive regulation as part of its Government Transformation Programme, and the Philippines—where a national competitiveness council was set up in 2006—has made significant strides against corruption. Furthermore, a

(Cont’d.)

Box 5: ASEAN’s competitiveness landscape: A mixed picture with encouraging trends (cont'd.)

Table 1: Performance of ASEAN members in the 2013–14 GCI and the 12 composing pillars, rank out of 148 economies

Country/economy	GLOBAL COMPETITIVENESS INDEX	BASIC REQUIREMENTS				EFFICIENCY ENHANCERS						INNOVATION AND SOPHISTICATION FACTORS	
		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	10th pillar: Market size	11th pillar: Business sophistication	12th pillar: Innovation
Singapore	2	3	2	18	2	2	1	1	2	7	34	17	9
Malaysia	24	29	29	38	33	46	10	25	6	51	26	20	25
Brunei Darussalam	26	25	58	1	23	55	42	10	56	71	131	56	59
Thailand	37	78	47	31	81	66	34	62	32	78	22	40	66
Indonesia	38	67	61	26	72	64	50	103	60	75	15	37	33
Philippines	59	79	96	40	96	67	82	100	48	77	33	49	69
Vietnam	70	98	82	87	67	95	74	56	93	102	36	98	76
Lao PDR	81	63	84	93	80	111	54	44	91	113	122	78	68
Cambodia	88	91	101	83	99	116	55	27	65	97	92	86	91
Myanmar	139	141	141	125	111	139	135	98	144	148	79	146	143

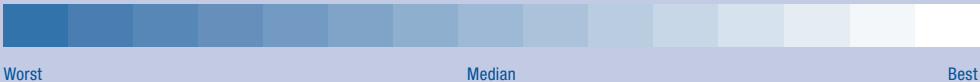
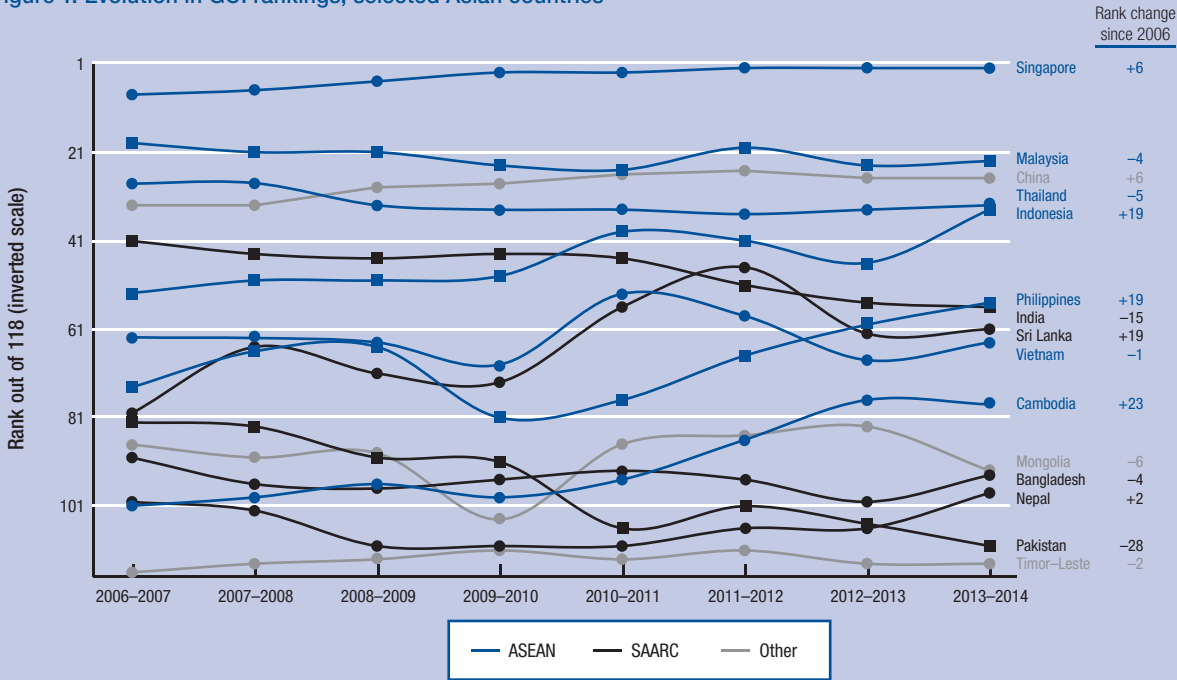


Figure 1: Evolution in GCI rankings, selected Asian countries



Source: World Economic Forum, *The Global Competitiveness Report*, various years.  
Notes: The ranks are among the 118 countries covered in every edition since 2006–2007. SAARC = South Asian Association for Regional Cooperation.

(Cont'd.)

Box 5: ASEAN’s competitiveness landscape: A mixed picture with encouraging trends (cont’d.)

number of regional initiatives, launched in the 1990s following the accession of less developed members and aimed at reducing the developmental gap, have proven quite effective. These include the Initiative for ASEAN Integration and the Master Plan on ASEAN connectivity.

Although the responsibility for addressing the structural issues described above lies primarily with national actors, regional cooperation is critical. Efforts at the country and regional levels are complementary and reinforce each other. They enable Member States to leverage growth opportunities and strengthen their respective competitive advantages to

move up the value chain, thus reducing the intra-ASEAN developmental gap.

Notes

- 1 See ASEAN 2013
- 2 The ranking based on the constant sample of 118 countries differs from the ranking of the 2013–2014 edition of the GCI, which comprises 148 economies.
- 3 For the sake of readability, we refer only to the first year (e.g., 2006 instead of 2006–2007) of the Index edition that corresponds to the release year.

for the quality of its transport infrastructure, a remarkable feat in this part of the world, where insufficient infrastructure and poor connectivity are major obstacles to development for many countries. Finally, Malaysia’s private sector is highly sophisticated (20th) and already fairly innovative (25th). All this bodes well for a country that aims to become a high-income, knowledge-based economy by the end of the decade. Amid this largely positive assessment, the government budget deficit, which represented 4.3 percent of GDP in 2012 (103rd); the low level of female participation in the workforce (121st); and the still comparatively low technological readiness (51st) stand out as some of Malaysia’s major competitive weaknesses.

The **Republic of Korea** drops six positions to 25th. Its performance is uneven across the different dimensions of the Index. Korea possesses a remarkably sound macroeconomic environment (9th, second only to Norway among OECD countries). The country also boasts excellent infrastructure (11th) and educational systems. Enrollment rates at all levels of education are among the highest in the world (Korea has the highest tertiary enrollment in the sample, with a 103 percent gross rate of enrollment). These factors, combined with the country’s high degree of technological adoption (22nd) and relatively strong business sophistication (24th), contribute to explaining the country’s remarkable capacity for innovation (17th). However, Korea’s assessment is considerably weakened by the average quality of its public and private institutions (74th, down 12 positions), the extreme rigidity and the inefficiencies of its labor market (78th), and its poorly functioning financial market (81st). Korea falls sharply in those three areas, and without tackling these issues decisively, the country will not be able to close the competitiveness gap with the three other Asian Tigers.<sup>24</sup>

**China** remains stable at 29th position this year. The country posts small gains in certain areas of the Index but loses ground in others, resulting in an overall

performance virtually unchanged since last year. China leads the BRICS economies by a wide margin, well ahead of South Africa (53rd), Brazil (56th), India (60th), and Russia (64th).<sup>25</sup> The Chinese institutional framework is improving slightly (47th), but weaknesses—including corruption (68th), security issues (75th), and low levels of accountability (82nd) and ethical standards (54th) among businesses—remain. In addition, problems endure in those areas that are becoming increasingly important for China as it becomes wealthier and can no longer rely on cheap labor: its financial market (54th) is undermined by the relative fragility of the banking sector; technological adoption by firms (86th) and by the population at large (79th) remains very low; and the efficiency of its goods market (61st) is seriously undermined by various barriers to entry and investment rules, which greatly limit competition.

On a more positive note, China’s macroeconomic situation remains favorable (10th). Inflation was back down to below 3 percent in 2012 (from 5.4 percent the previous year), the budget deficit is moderate, China’s public debt-to-GDP ratio at 22.9 percent is among the lowest in the world, and the gross savings rate represents a staggering 50 percent of GDP. However, this rate is probably too high in light of the need for China to rebalance its economy away from investment and toward more consumption. Although China receives good marks in health and basic education (40th), the assessment is more negative when it comes to higher education (70th) because of China’s low tertiary education enrollment, the average quality of teaching, and an apparent disconnect between educational content and business needs (54th). Finally, China’s innovation capacity has been improving recently, but much remains done for it to become an innovation powerhouse.

Posting a one-notch gain for the second year in a row, **Thailand** ranks 37th as a result of a very small improvement in its performance, but the competitiveness

challenges remain considerable. Political and policy instability, excessive red tape, omnipresent corruption and clientelism, security concerns, low reliability and high uncertainty around property rights protection seriously undermine the quality of Thai public institutions (85th). Poor public health (74th) and education, two other critical building blocks of competitiveness, require urgent attention. For instance, Thailand displays one of the highest HIV prevalence rates outside Africa, while enrollment in and the quality of higher education remain abnormally low.

Turning to more sophisticated areas, which are just as important given Thailand's stage of development, technological readiness remains low (78th) when considering technologies beyond mobile telephony. Only a quarter of the population accesses the Internet on a regular basis, and only a small fraction does so at broadband speeds, but the growth is rapid. On a more positive note, Thailand ranks high on the macroeconomic environment pillar (31st, its best showing among the 12 pillars) owing to a very favorable fiscal situation, its high savings rate, an inflation rate under control at around 3 percent, and—in international comparison—a relatively good debt-to-GDP ratio of about 44 percent in 2012. In addition, the country continues to improve in the financial development (32nd) and the market efficiency pillars (34th), having progressed 17 and 10 places, respectively, in the past four years. Room for improvement remains, however, especially when it comes to promoting domestic competition (60th).

After three years of gradual decline, **Indonesia** (38th) bounces back, posting one of the largest improvements in this year's rankings. This positive development will contribute to sustaining Indonesia's impressive growth momentum—GDP grew by 5.2 percent annually over the past decade. The country progresses in 10 of the 12 pillars of the Index, but its overall performance remains uneven. Indonesia improves the most in the infrastructure pillar, where it leapfrogs 17 places to 61st. After years of neglect, Indonesia has been boosting infrastructure spending to upgrade roads, ports, water facilities, and power plants, and our results suggest that these improvements have started to bear fruit. The efficiency of its labor market (103rd) has also improved considerably, although from a very low base. Rigidities in terms of wage setting and hiring and firing procedures, along with the weak participation of women in the workforce (115th), continue to undermine Indonesia's performance in this pillar. But the quality of public and private institutions is improving (67th, up 5), with all indicators pointing in the right direction in this category. In particular, Indonesia ranks a satisfactory 45th in government efficiency and 54th for undue influence. The two main dark spots in this pillar remain bribery (106th) and security (104th). The country's macroeconomic environment (26th) is characterized by

a very small deficit (equivalent to 1.3 percent of GDP) and gross government debt representing 24 percent of GDP (30th), an inflation rate that is low by historical standards, and a savings rate exceeding 30 percent of GDP. Turning to the more sophisticated drivers of competitiveness, Indonesia's technological readiness is also improving (75th, up 10), led by the private sector, which is increasingly aggressive in adopting the latest technologies (51st, up 13). The use of ICTs by the population at large remains comparatively low, but this is spreading rapidly (84th, up seven). One of the few areas where the situation has deteriorated is health (103rd). In particular, the incidence of communicable diseases and infant mortality rate are among the highest outside sub-Saharan Africa.

Advancing six positions, the **Philippines** ranks 59th overall. The trends are positive across most dimensions of the Index. In the institutions pillar (79th), the Philippines has leapfrogged over the past years. The current government, which came into power in 2010, has made the fight against corruption an absolute priority; corruption had historically been one of the country's biggest drags on competitiveness. There are signs that these efforts are producing results: in the ethics and corruption category, the country has jumped from 135th in 2010 to 87th this year. A similar trend has been observed in the government efficiency category (75th) and elsewhere in the Index. But improvements are coming from such a low base that the country cannot afford to be complacent. For instance, transport infrastructure has improved but remains in a dire state (84th), especially with respect to airport (113th) and seaport facilities (116th). Similarly, the labor market has become more flexible and efficient over the years, but the Philippines still ranks a low 100th. The recent successes of the government in tackling some of the most pressing structural issues are encouraging and proof that bold reforms and measures can yield positive results.

Down one position, **India** now ranks 60th, continuing its downward trend that began in 2009. With a GCI score essentially unchanged since then, India has been overtaken by a number of countries. Once ahead of Brazil and South Africa, it now trails them by several places and is behind China by a margin of 31 positions, while Russia (64th) has almost closed the gap. India continues to be penalized for its very disappointing performance in the basic drivers underpinning competitiveness, the very ones that matter the most for India given its stage of development. The country's supply of transport, ICTs, and energy infrastructure remains largely insufficient and ill-adapted to the needs of the economy (85th), despite the steady improvement that has been made since 2006. The Indian business community repeatedly cites infrastructure as the single biggest hindrance to doing business, ahead of corruption

and cumbersome bureaucracy. Notwithstanding improvements across the board over the past few years, very poor public health and education levels (102nd) remain a prime cause of India's low productivity. The quality of higher education is better, but enrollment rates at that level remain very low, even by developing-country standards. Turning to the country's institutions (72nd, down two places), discontent within the business community remains high about the lack of reforms and the perceived inability of the government to push them through. Public trust in politicians has been eroding since 2009 and has now reached an all-time low at 115th, while bribery remains deeply rooted (110th). Indeed, India has lost almost 30 ranks on this indicator since 2010. Meanwhile, the situation has deteriorated further on the macroeconomic front, with India now 110th in this pillar. The inflation rate and public deficit-to-GDP ratio were dangerously close to double digits in 2012, and the debt-to-GDP ratio is the second highest among the BRICS. Indeed, a March 2013 survey of sovereign debt analysts reveals an increased risk of sovereign debt default over the previous year. Another major concern is the country's low level of technological readiness (98th). Although businesses adopt new technologies relatively promptly (47th), penetration rates of fixed and mobile Internet and telephony among the population remain among the lowest in developing Asia. Furthermore, the situation has worsened in terms of labor market efficiency (99th), where the most salient problem remains the dismally low participation of women in the workforce. With a ratio women-to-men of 0.36 (137th), India has the lowest percentage of working women outside the Arab world.

Up five positions, **Vietnam** ranks 70th, regaining half of the ground it lost last year. This progression is mainly the result of a slightly better macroeconomic environment (87th, up 19 positions)—after jumping to almost 20 percent, inflation was back to single-digit levels in 2012—and improvements to the quality of transport and energy infrastructures, albeit from a very low base (82nd, up 13). Vietnam also advances in the goods market efficiency pillar (74th, up 17), thanks to lower trade barriers and a less heavy tax rate on businesses. Despite these encouraging developments, the foundation of Vietnam's economy and prosperity remain fragile. The country ranks no higher than 57th in any of the pillars except the market size pillar (36th). It loses ground in several areas of the Index, including labor market efficiency (56th, down five) and financial market development (93rd, down five). Another area of concern is technological readiness (102nd, down four): although new technologies are spreading among the population, Vietnamese businesses are particularly slow to adopt the latest technologies for their business use (128th), thus forfeiting significant productivity gains through technological transfer.

**Mongolia** falls to 107th position this year, almost entirely the result of a significant deterioration of its macroeconomic environment (130th) as captured by data from the IMF. In 2012, Mongolia's budget deficit doubled to 7 percent of GDP, inflation surged to 15 percent, the gross savings rate plummeted to 28 percent of GDP, and public debt increased slightly. The country's performance in most other dimensions of the Index remains stable, suggesting that a great deal remains to be done for Mongolia to live up to its significant economic potential. In order to create opportunities for its citizens and build up the confidence of businesses and investors, the country must urgently upgrade its institutional framework (113th), develop its transport and energy infrastructure (113th), improve the functioning and efficiency of its goods markets (96th), establish clear rules for foreign investment, and develop its fledgling financial sector (129th).

Dropping a further nine places, **Pakistan** ranks 133th overall. Its performance continues to deteriorate in some of the most critical and basic areas of competitiveness. Pakistan's public institutions (126th) are crippled by inefficiencies, corruption, patronage, and lack of property rights protection. The security situation, already alarming, is worsening, with violence and terrorism taking a huge toll not only on the population, but also on businesses. The macroeconomic situation is also worrisome (145th). In 2012, the public deficit widened to near 10 percent of GDP, inflation remains in double-digit territory, and the savings rate dwindled to just 10 percent of GDP. Pakistan's infrastructure (121st)—particularly for electricity (135th)—remains in a dire state. Moreover, the country displays some of the lowest education enrollment rates in the world and basic education is poor (137th). Pakistan's competitiveness is further penalized by the many rigidities and inefficiencies of its labor market (138th, down eight), with female participation in the labor force among the lowest in the world (144th). Finally, the potential of ICTs is not sufficiently leveraged in Pakistan, where access to ICTs remains the privilege of a few (118th). On a slightly more positive note, Pakistan does comparatively better in the more advanced areas captured by the GCI. It ranks 67th in the financial development pillar, 85th business sophistication pillar, and 77th in innovation.

**Myanmar** enters the rankings at 139th among 148 economies, right behind Timor-Leste (138th). After decades of political and economic isolation, the March 2011 elections have brought profound changes to the country. The government has embarked on an ambitious process of reforms to improve the country's economic landscape and prospects, notably by leveraging Myanmar's extraordinary assets, which include an abundance of natural resources, very favorable demographics, and a strategic location at the heart of Asia. Competitiveness is at the core of this strategy.



Indeed, the government's *Framework for Economic and Social Reforms*, which sets the policy priorities through 2015, mirrors the 12 pillars of the GCI, thus making the Index a useful tool to monitor progress.

The country's performance in the GCI confirms that it is starting from a very low base and that the road toward prosperity will be long and dauntingly arduous. Myanmar owes its presence at the very bottom of the GCI rankings to major weaknesses across the board. The country ranks 111th or worse in 10 of the 12 pillars of the Index, and is among the 10 worst performers in seven pillars. The two exceptions are the market size pillar (79th) and labor market efficiency pillar (98th). Given the extent of the task ahead, and in order to have the biggest impact in creating a more conducive environment for business to flourish, Myanmar needs to focus on the basic determinants of its competitiveness, namely the institutional framework (141st), transport, energy, and communication infrastructures (141st), health and primary education (111th), and the banking sector, as well as access to technology. Myanmar is among the world's least connected countries and ranks last (148th) in the technological readiness pillar of the Index. There are just 11 mobile subscriptions for every 100 population, compared with 80 for developing Asia; only 1 percent of the population accesses the Internet on a regular basis; broadband access is almost nonexistent; and firms are extremely slow at adopting technologies for doing business (148th).

### Latin America and the Caribbean

In 2012, Latin America and the Caribbean grew by 3 percent, a slower pace than in previous years. Despite this moderate deceleration, the region has exhibited resilience with a projected growth rate of 3 percent for 2013 and 3.4 percent for 2014, outperforming other regions in the world, especially advanced economies. A recovery in several export markets and robust internal demand based on fairly good access to financing are driving this growth.

Notwithstanding this positive economic outlook, the region continues to suffer from low levels of productivity and slow productivity growth rates.<sup>26</sup> Overall, after a few years of general improvement, the results of this edition of *The Global Competitiveness Report* show that most countries are stagnating in their competitiveness performance. These results point to a certain exhaustion of the traditional sources of competitiveness gains utilized by several countries in past years. These gains were based on sound macroeconomic management, improvements in credit conditions, and, in certain cases, better functioning of the goods, labor, and financial markets.

In order to support the transition of Latin America toward higher productivity levels, urgent actions will be needed to improve the functioning of the institutions;

the quality of infrastructure; the allocation of production factors through enhanced competition; and, very importantly, the skills, technology, and innovation base. This will require a series of overdue reforms that have been repeatedly postponed, along with significant and sustained investments to support the rapid economic growth of the past years.

**Chile**, at 34th, one position down from last year, remains the most competitive economy in Latin America. The country owes this privileged position to its traditional strengths: a strong institutional setup (28th) with low levels of corruption (26th) and an efficient government (18th); solid macroeconomic stability (17th) with a balanced public budget and low levels of public debt; and well-functioning markets with high levels of domestic competition (32nd) and openness to foreign trade (29th), which allows for an efficient allocation of available resources. In addition, Chile has made great efforts to develop ICTs, almost doubling its international Internet bandwidth capacity from 20 to 40 kb/s per user (43rd) over the past year and expanding its number of Internet users (45th). Notwithstanding these strengths, the lack of substantive progress in the recent GCI rankings suggests a certain stagnation in the country's competitiveness model and the need to tap into new sources of productivity gains in order to diversify its economy and move toward higher-value-added activities. Important weaknesses in the educational system, notably in terms of its quality (74th)—especially in math and science (107th)—do not provide companies with a workforce with the necessary skills to upgrade their production or embark on innovative projects. This, linked to low innovation investments, especially in the private sector (58th), result in an overall poor innovation capacity (63rd), which can jeopardize Chile's necessary transition toward a knowledge-based economy.

After three years of sharp rises in the competitiveness rankings, **Panama** consolidates its position at 40th place as the most competitive economy in Central America, and second in Latin America, behind Chile. In the past year, Panama has continued to improve its competitiveness edge by reinforcing its strengths. The country has been relentlessly improving its infrastructure (37th), with one of the best port (6th) and airport (5th) networks, closely aligning with its overall economic development strategy of becoming a major transport hub for the region. Its financial market (16th) and an assessment of its technological adoption (11th) are also persistently improving, especially via foreign multinational corporations setting up operations in the country. In addition, Panama has also made progress in addressing some of its most pressing challenges, notably in terms of improving the quality of education, where it has moved to 75th place from 112th last year. Notwithstanding these positive dynamics, the country still faces important challenges in terms of strengthening the functioning

of its institutions (66th), fighting corruption (80th) and crime (115th), and improving trust in politicians (94th) and the independence of the judiciary system (118th). Also important will be to continue improving the quality of education, notably in terms of math and science (114th), which will be necessary in order to better develop local technological capacity.

Despite a slight improvement in score, **Barbados** falls three positions in the rankings to 47th place. This drop is driven by the persistence of the credit crunch that is hindering the capacity of local businesses to finance their activities by raising new equity (92nd), loans (89th), or venture capital (98th) to support innovative projects. In addition, and closely related to this concern, macroeconomic conditions (121st), although slowly improving, are still worrisome, and the capacity to innovate remains low (81st). On a more positive note, Barbados continues to benefit from a fairly skilled labor force thanks to a high-quality educational system (6th) and high enrollment rates in secondary (23rd) and tertiary education (33rd), well-functioning institutions (30th), and solid infrastructure (24th).

**Costa Rica** continues to rise in the rankings this year, improving three positions to 54th place. Although the competitiveness profile of the country remains fairly stable, slight improvements in its innovation capacity (37th) have driven this progress. Overall, the country continues to benefit from a fairly open economy (44th) and strong institutions (50th), despite rising concerns about the wastefulness of government spending (114th) and fairly high costs associated with crime and violence (106th). It also has a high-quality educational system (20th) that provides a skilled labor force, as well as a relatively high rate of technological adoption (36th) and business sophistication (31st). Notwithstanding these strengths, Costa Rica still suffers from poor transport infrastructure (110th); difficulty in accessing finance, either through equity (118th) or loans (106th), and from an only moderate capacity to innovate (37th), which will be crucial for the country's economy to move up toward higher-value-added activities.

**Mexico** depicts a stable competitiveness profile this year, and is ranked 55th overall. The country continues to benefit from a relatively stable macroeconomic environment (49th), a sound banking system (30th), a large and deep internal market allowing for important economies of scale (11th), reasonably good transport infrastructure (39th), and a number of sophisticated businesses (55th), particularly for a country at its stage of development. At the same time, under the political consensus achieved through the *Pacto for Mexico* agreements, the country has started to undertake some important and long-overdue reforms in the labor market and education. Moreover, further reforms in the goods and service market intended to increase levels of competition in key strategic sectors, notably in the

energy sector, are foreseen before the end of the year. A full and efficient implementation of these reforms after a period of political transition is expected to improve some of the most pressing challenges the country currently faces in terms of domestic competition (100th), a skills gap due to a poor-quality educational system (119th), and labor market rigidities (99th). In addition, the competitiveness agenda for Mexico must include actions oriented toward strengthening the functioning of its institutions, notably in the fight against corruption (99th), and increasing the level of security (135th). To support its transition toward higher-value-added economic activities, it will be critical to foster the use of ICTs (83rd) and boost its innovation capacity (75th), which remain low.

**Brazil** comes in at 56th place this year. A slight deterioration in some of the macroeconomic indicators (75th), a tightening of access to financing, and the lack of sufficient progress in some of the most pressing challenges the country faces has driven this drop. More precisely, the functioning of institutions (80th), with increasing concerns about government efficiency (124th), corruption (114th), and low trust in politicians (136th) persist as a source of concern. Moreover, the lack of progress in improving the quality of overall infrastructure (114th) and education (121st), coupled with an economy fairly closed to foreign competition (144th), also hinder Brazil's competitive edge. Notwithstanding these challenges, the country still benefits from important strengths, especially its large market size and its fairly sophisticated business community (39th), with pockets of innovation excellence (36th) in many research-driven, high-value-added activities. Going forward, Brazil should not delay the necessary reforms to boost its competitiveness, and should further leverage its numerous and important strengths.

**Peru** remains stable at 61st place following a strongly positive trend that led the country up in the rankings more than 20 places in recent years. The results suggest a consolidation of the competitiveness profile of the country and a certain exhaustion of the sources of competitiveness gains of the past years: a very strong macroeconomic performance (20th) and high levels of efficiency in the goods (52nd), financial (40th), and labor (48th) markets, despite some rigidity in the hiring and firing practices (129th). In order to move forward and continue advancing up the rankings, Peru will have to address some of its most long-lasting challenges by strengthening the robustness of its public institutions (124th) by increasing government efficiency (107th), fighting corruption (109th), and improving infrastructure (91st). In addition, poor educational quality (134th) has generated a deep skills gap in the economy. Coupled with a low capacity to innovate (106th) caused by limited R&D investment (124th) and a weak scientific research system (119th), this hinders Peru's capacity to



diversify its economy and move up toward new, more knowledge-rich activities.

As in the past two years, **Colombia**, at 69th place, presents a very stable competitiveness profile with results similar to those of previous editions of this *Report* across all dimensions. The country continues to exhibit very positive macroeconomic conditions (33rd), with a balanced public budget, low levels of public debt and inflation that is under control at around 3 percent, financial services that are relatively sophisticated by regional standards (52nd), a considerable market size (31st), and fairly high levels of education enrollment compared with those of other countries in the region. Notwithstanding these strengths, Colombia continues to suffer from weak institutions (110th) and considerable corruption. The country's low-quality transport infrastructure (111th) is largely the result of a complex topography. Moreover, despite the rapid economic growth from high oil revenues in recent years, the need to diversify its economy will require improving the quality of the educational system (86th), which does not yet respond to the productive needs of an increasingly sophisticated business environment, and its innovation capacity (83rd), which is pulled down by low private R&D investment (73rd) and the poor quality of scientific research institutions (95th).

Close behind Colombia, **Ecuador** at 71st place improves by 15 places in the ranking. Major advances in infrastructure development (79th), education quality (62nd), and innovation (58th) have resulted in this positive result, although these areas remain challenging. In addition, despite a low country credit rating (121st), Ecuador benefits from stable macroeconomic conditions (44th) that has facilitated access to finance through equity (54th) and loans (31st), allowing local companies to undertake investment projects. In spite of this positive trend, the country still faces significant challenges that are hindering its competitiveness potential. Notably, the functioning of institutions is still weak (92nd): concerns about a lack of independence within the judicial system (100th) create mistrust in the overall legal framework. The inefficient functioning of the goods (106th), labor (111th), and financial (89th) markets because of insufficient competition, as well as high rigidities and mistrust in the banking system, remain problematic.

In the bottom half of the rankings, we find a series of Central and South American economies. In Central America, **Guatemala** (86th) follows Panama and Costa Rica in the subregional rankings. Despite fairly well-functioning goods (66th) and financial (43rd) markets, thanks to its openness to trade and a sound banking system (17th), the country continues to suffer from security-related and corruption costs that hinder the functioning of institutions. In addition, the combination of a poorly performing educational system (35th) and a scientific (107th) and digital gap (106th),

even with increasing efforts to raise the information technology profile of the country, persist in hindering the national capacity to move toward higher-value-added activities. **El Salvador** (96th) and **Nicaragua** (99th), rising four and nine positions, respectively, thanks to some improvements in their innovation capacity, albeit from a low base, follow Guatemala, while **Honduras** plummets 21 positions to 111th place.

In South America, **Bolivia** improves its competitiveness performance by six notches to 98th place, while Uruguay, Argentina, **Paraguay** (119th), and Venezuela drop in this edition of the rankings.

**Uruguay** drops 11 positions to 85th place, the result of a combined series factors that include a deterioration in macroeconomic conditions (85th), with a high inflation rate that is affecting the access to financing in the country, restrictive labor conditions (139th), and weaknesses in the quality of education (120th) and capacity to innovate (88th). These latter factors are gaining importance in Uruguay as the country moves toward more advanced stages of development, where the need for a skilled labor force and higher innovation capacity become more crucial for increasing the productivity of the national economy. Notwithstanding these weaknesses, Uruguay continues to leverage its strong and transparent institutional setup (36th) and its fairly high degree of digital connectivity (46th), thanks to the continued efforts to narrow the digital divide with more advanced economies.

Continuing its fall of previous years, **Argentina** drops 10 positions to 104th place. A persistent deterioration across the board—notably in the macroeconomic conditions (111th) that affect access to financing (143rd) and in the institutional framework, with one of the lowest scores in terms of corruption (145th), government inefficiency (147th), and government favoritism (146th)—have contributed to this disappointing result. These factors, coupled with inefficient goods (145th), labor (144th), and financial (133rd) markets offsets the enormous potential the country has to offer. More precisely, its relatively large market size (24th), with the potential for important economies of scale and scope, its decent digital readiness (62nd), and high university enrollment (15th) of 75 percent are not being fully utilized amid the negative framework conditions that hinder the potential of the Argentine economy.

**Venezuela**, immersed in a deep macroeconomic (143rd) and institutional (148th) crisis, drops eight positions to 134th place. The country's continued deterioration in most of the dimensions analyzed—notably the macroeconomic conditions, with a large public deficit and inflation rates and very weak institutions, with the poorest evaluation of government efficiency, corruption, and judicial independence among all countries—do not provide the right conditions for companies to develop their economic activity. In

**Box 6: Mineral resource abundance: Blessing or curse?**

The availability of abundant natural resources, especially minerals such as oil, gas, copper, and gold, has traditionally been regarded as an important input into economic growth and higher levels of prosperity in many economies. Many oil- and gas-rich countries in the Middle East have benefited from some of the highest gross domestic product per capita in the world, for example. More recently, several Latin American economies—including Chile, Colombia, and Peru—have experienced rapid economic growth thanks to robust demand for their mineral resources, even in a global context of uncertainty.

However, an abundance of mineral resources does not necessarily directly equate with higher rates of sustained productivity and overall competitiveness, and thus with rising prosperity in the long term. From the 17th century, when a resource-poor Netherlands managed to flourish in sharp contrast to gold- and silver-abundant Spain, to more recent cases—such as the rapid economic development of mineral-poor newly industrialized countries of Southeast Asia, which stand in contrast to some oil-rich nations such as Venezuela—history is full of examples where mineral endowments have not proved to be a blessing for long-term economic growth. Instead, such endowments have been a curse that has held countries back from making investments to support future, long-term economic development.

In the end, the relationship between mineral abundance and levels of prosperity depends on the use that nations make of the revenues accruing from mineral exports. Those countries that use such revenues for current spending rather than on productive investments will most likely not

benefit from high growth rates in the long run. In those countries, national investments are driven toward mineral-extraction activities that affect the level of productivity of other activities, such as manufacturing and services. This leads to an increase in the country's exposure to fluctuations of mineral prices in international markets. In order to avoid these negative effects, known in the academic literature as the "Dutch disease," countries should invest their mineral revenues carefully in productive activities such as infrastructure, education, and innovation. By doing so, they will enhance their overall productivity and support a progressive diversification of their economies, becoming more resilient and ensuring more sustainable patterns of economic growth.

One crucial factor that allows countries to effectively channel mineral revenues toward productive investments is the presence of strong, transparent, and efficient institutions. The absence of corruption, along with high levels of transparency and accountability and a strong commitment to a long-term economic agenda that is based on steady productivity gains and independent from the political cycle, are necessary, if not always sufficient, conditions to ensure that natural resources support long-term growth. Chile, Norway, and the United Arab Emirates are examples of countries that are managing their mineral revenues smartly. These countries are creating national funds that avoid overheating their economies and that invest in growth-enhancing activities related to education and innovation, thus supporting more diversification and preparing the ground for longer-lasting and more sustainable economic growth.

addition, poorly functioning goods (148th), labor (148th), and financial (135th) markets result in sub-optimal allocation of available resources and hinder the strong potential of a country with the particularly high university enrollment (13th) of 78 percent.

**The Middle East and North Africa**

The Middle East and North African region continues to be affected by political turbulence that has impacted individual countries' competitiveness. Economies that are significantly affected by unrest and political transformation within their own borders or those of neighboring countries tend to drop or stagnate in terms of national competitiveness. At the same time, some small, energy-rich economies in the region perform well in the rankings (see Box 6 on mineral resource abundance). This underlines the fact that, contrary to the situation found in previous energy price booms, these countries have managed to contain the effects of rising energy prices on their economies and have used the window of opportunity to embark on structural reforms and invest in competitiveness-enhancing measures.

**Qatar** reaffirms once again its position as the most competitive economy in the region at 13th position.<sup>27</sup> The country's strong performance in terms of competitiveness rests on solid foundations made up of a high-quality institutional framework (4th), a stable macroeconomic environment (6th), and an efficient goods market (3rd). Low levels of corruption and undue influence on government decisions, high efficiency of government institutions, and strong security are the cornerstones of the country's solid institutional framework, which provides a good basis for heightening efficiency. Going forward, as noted in previous editions of this *Report*, reducing the country's vulnerability to commodity price fluctuations will require diversification into other sectors of the economy and reinforcing some areas of competitiveness. As a high-income economy, Qatar will have to continue to pay significant attention to developing into a knowledge- and innovation-driven economy. The country's patenting activity remains low by international standards, at 60th, although some elements that could contribute to fostering innovation are in place. The government drives innovation by procuring high-technology products, universities collaborate with

the private sector, and scientists and engineers are readily available. To become a truly innovative economy, Qatar will have to continue to promote a greater use of the latest technologies (31st), ensure universal primary education, and foster more openness to foreign competition—currently ranked at 30th, a ranking that reflects barriers to international trade and investment and red tape when starting a business.

The **United Arab Emirates** moves up in the rankings to take second place in the region at 19th. Higher oil prices have buoyed the budget surplus and allowed the country to reduce public debt and raise the savings rate. The country has also been aggressive at adopting technologies and in particular using ICTs, which contributes to enhancing the country's productivity. Overall, the country's competitiveness reflects the high quality of its infrastructure, where it ranks a solid 5th, as well as its highly efficient goods markets (4th). Strong macroeconomic stability (7th) and some positive aspects of the country's institutions—such as strong public trust in politicians (3rd) and high government efficiency (9th)—round up the list of competitive advantages. Going forward, putting the country on a more stable development path will require further investment to boost health and educational outcomes (49th on the health and primary education pillar). Raising the bar with respect to education will require not only measures to improve the quality of teaching and the relevance of curricula, but also measures to provide incentives for the population to attend schools at the primary and secondary levels.

**Saudi Arabia** remains rather stable with a small drop of two places to 20th position overall. The country has seen a number of improvements to its competitiveness in recent years that have resulted in more efficient markets and sophisticated businesses. High macroeconomic stability (4th) and strong, albeit falling, use of ICTs for productivity improvements contribute to maintaining Saudi Arabia's strong position in the GCI. As much as the recent developments are commendable, the country faces important challenges going forward. Health and education do not meet the standards of other countries at similar income levels. Although some progress is visible in health and primary education, improvements are being made from a low level. As a result, the country continues to occupy low ranks in the health and primary education pillar (53rd). Room for improvement also remains on the higher education and training pillar (48th), where the assessment has weakened over the past year. Labor market efficiency also declines, to a low 70th position, in this edition. Reform in this area will be of great significance to Saudi Arabia given the growing number of young people who will enter the labor market over the next several years. More efficient use of talent—in particular, enabling the increasing share of educated women to work—and better education outcomes will

increase in importance as global talent shortages loom on the horizon and the country attempts to diversify its economy, which will require a more skilled and educated workforce. Last but not least, although some progress has been recorded recently, the use of the latest technologies can be enhanced further (41st), especially as this is an area where Saudi Arabia continues to trail other Gulf economies.

**Israel** drops by one to place 27th in this year's GCI. The country's main strengths remain its world-class capacity for innovation (3rd), which rests on highly innovative businesses that benefit from the presence of some of the world's best research institutions geared toward the needs of the business sector. Israel's excellent innovation capacity, supported by the government's public procurement policies, is reflected in the country's large number of patents (6th). Its favorable financial environment, particularly evident in the ease of access to venture capital (8th), contributes to making Israel an innovation powerhouse. Challenges to maintaining and improving national competitiveness relate to the need for the continued upgrading of institutions (40th) and a renewed focus on raising the bar in terms of the quality of education. If not addressed, poor educational outcomes—particularly in math and science (78th)—could undermine the country's innovation-driven competitiveness strategy over the longer term. As in previous years, the security situation remains fragile and imposes an increasingly high cost on business (83rd). Room for improvement also remains with respect to the macroeconomic environment (72nd), where increased budgetary discipline with a view to reducing debt levels (123rd) would help the country maintain stability and support economic growth going into the future.

**Jordan** loses four positions to 68th rank after a significant improvement in the previous year. The drop mainly reflects the country's macroeconomic challenges. The economic crisis resulted in wider fiscal deficits and higher public debt levels that will undermine growth over the medium term if they remain unaddressed. Boosting growth over the longer term to levels that would result in sustainable job creation will require Jordan's policymakers to address a number of challenges. Stabilizing the macroeconomic environment should be accompanied by growth-enhancing structural reforms. According to the GCI, there is significant room for improvement in boosting labor market efficiency (101st), and the full potential of ICTs for improving productivity has not yet been exploited (90th). Jordan could also benefit from more openness to international trade and investment, which would trigger efficiency gains in the domestic economy as well as the transfer of knowledge and technology. Tariff barriers remain high in international comparison (108th) and regulatory barriers to FDI remain in place (72nd). And although financing appears to

be more easily available than in many other countries (Jordan comes in at 34th on ease of access to loans) efforts to further stabilize the banking sector should be continued (114th).

**Tunisia** places 83rd in this year's *Report*. The country's positioning reflects the important challenges Tunisia will have to tackle in order to put its economy onto a sustainable growth path and resolve its daunting unemployment problem. The country's macroeconomic fundamentals need to be brought back on track by narrowing the budget deficit and further reducing inflation. Ensuring that the labor market contributes to more efficiently using talent is crucial to raising competitiveness. The country currently ranks very low at 132nd overall on the labor market efficiency pillar. At the same time, financial markets do not efficiently fulfill their role in providing the business sector with financial means to grow. Moreover, the banking system needs to be stabilized further to build trust and confidence, which at present is ranked a low 129th.

**Egypt** drops by 11 positions to reach 118th place in this year's GCI. This assessment is likely influenced by the country's continued transition since the events of the Arab Spring. The deteriorating security situation and tenacious political instability are undermining the country's competitiveness and its growth potential going forward. Although resolving political friction needs to remain the priority as this *Report* goes to print, many of the underlying factors that will be decisive about the sustainability of the country and the cohesion of the society over the medium to longer term are economic in nature. Establishing confidence through a credible and far-reaching reform program will be vital to the country's future and to realizing the considerable potential of the country's large market size and proximity to key global markets. According to the GCI, three areas are of particular importance. First, the macroeconomic environment has deteriorated over recent years to reach 140th position mainly because of widening fiscal deficit, rising public indebtedness, and persisting inflationary pressures. A credible fiscal consolidation plan, accompanied by structural reforms, will be necessary in order to maintain macroeconomic stability in the country. This may prove difficult in times of rising energy prices, as energy subsidies account for a considerable share of public expenditure. However, better targeting of subsidies could allow for fiscal consolidation while protecting the most vulnerable. Second, measures to intensify domestic competition would result in efficiency gains and contribute to energizing the economy by providing access to new entrants. This, in turn, would make the country's private sector more dynamic, thereby contributing to job creation. And third, making labor markets flexible (141st) and more efficient (145th) would allow the country to increase employment in the medium term.

## Sub-Saharan Africa

Sub-Saharan Africa continues its impressive growth rate of close to 5 percent in 2012 (with similar projections for the next two years), providing something of a silver lining in an otherwise uncertain global economy. Indeed, only emerging Asia registers higher growth. Growth has largely taken place on the backs of strong investment, favorable commodity prices, and a prudent macroeconomic stance.

There are, however, some regional variations, and in fact, in terms of underlying competitiveness, sub-Saharan Africa continues to reflect one of significant regional variations in the GCI, ranging from Mauritius (overtaking South Africa and coming in at 45th this year) to the lowest ranked Chad at 148th. Economies with closer ties to advanced economies, such as South Africa, have not yet returned to pre-crisis growth rates. More generally, sub-Saharan Africa as a whole trails the rest of the world in competitiveness, requiring efforts across many areas to place the region on a firmly sustainable growth and development path going forward: the region continues to register a profound infrastructure deficit. In addition, sub-Saharan Africa overall continues to underperform significantly in providing health and basic education (only Mauritius and Seychelles rank in the upper half of the rankings). Higher education and training also need to be further developed. The region's poor performance across all basic requirements for competitiveness stands in stark contrast to its comparatively stronger performance in market efficiency, where particularly the region's middle-income economies fare relatively well (South Africa, Mauritius, and Kenya rank in the top 20 percent in financial market development). Moving forward, technological uptake continues to remain weak, with only three economies (South Africa, Mauritius, and Seychelles) featuring in the top half of the overall GCI rankings on this pillar.

**Mauritius** moves up by nine places this year to 45th place, becoming the highest ranked country in the region. The country benefits from relatively strong and transparent public institutions (39th), with clear property rights, strong judicial independence, and an efficient government (29th). Private institutions are rated as highly accountable (14th), with effective auditing and accounting standards and strong investor protection. The country's infrastructure is well developed by regional standards (50th), particularly its ports, air transport, and roads. Furthermore, notable improvements have taken place in the areas of market efficiency. Financial markets have deepened, lifting Mauritius' rank up to 26th on the back of improved access to different modes of financing and financial services. This is further reflected in company spending on R&D—which seems to be increasing, albeit from low levels—thus somewhat enhancing Mauritius' innovative capacity. Furthermore, the country boasts an efficient goods market (25th) driven by greater foreign



prevalence and more competition. The labor market is relatively flexible (55th), although the country does not deploy its talent efficiently: Mauritius ranks 92nd in its capacity to retain talent, and the share of women in the labor force remains low at 118th. This is further reflected in the low availability of scientists and engineers (102nd).

**South Africa** is ranked 53rd this year, overtaking Brazil to place second among the BRICS. South Africa does well on measures of the quality of its institutions (41st), including intellectual property protection (18th), property rights (20th), and in the efficiency of the legal framework in challenging and settling disputes (13th and 12th, respectively). The high accountability of its private institutions (2nd) further supports the institutional framework. Furthermore, South Africa's financial market development remains impressive at 3rd place. The country also has an efficient market for goods and services (28th), and it does reasonably well in more complex areas such as business sophistication (35th) and innovation (39th). But the country's strong ties to advanced economies, notably the euro area, make it more vulnerable to their economic slowdown and likely have contributed to the deterioration of fiscal indicators: its performance in the macroeconomic environment has dropped sharply (from 69th to 95th). Low scores for the diversion of public funds (99th), the perceived wastefulness of government spending (79th), and a more general lack of public trust in politicians (98th) remain worrisome, and security continues to be a major area of concern for doing business (at 109th). Building a skilled labor force and creating sufficient employment also present considerable challenges. The health of the workforce is ranked 133rd out of 148 economies—the result of high rates of communicable diseases and poor health indicators more generally. The quality of the educational system is very poor (146th), with low primary and tertiary enrollment rates. Labor market efficiency is poor (116th), hiring and firing practices are extremely rigid (147th), companies cannot set wages flexibly (144th), and significant tensions in labor-employer relations exist (148th). Raising educational standards and making the labor market more efficient will thus be critical in view of the country's high unemployment rate of over 20 percent, with the rate of youth unemployment estimated at close to 50 percent.

**Rwanda** is ranked 66th this year, retaining its third place in the sub-Saharan African region. As do the other comparatively successful African countries, Rwanda benefits from strong and relatively well-functioning institutions, with very low levels of corruption (an outcome that is certainly related to the government's no-tolerance policy, and a good security environment. Its labor markets are efficient, its financial markets are relatively well developed, and Rwanda is characterized by a capacity for innovation that is quite good for a country at its stage of development.

The greatest challenges facing Rwanda in improving its competitiveness are the state of the country's infrastructure, its low secondary and university enrollment rates, and the poor health of its workforce.

**Botswana** moves up five places to 74th, taking fourth spot in the region. Improvements are driven in large part by a sounder macroeconomic environment. Among the country's strengths are its relatively reliable and transparent institutions (34th), with efficient government spending, strong public trust in politicians, and low levels of corruption. Botswana's primary weaknesses continue to be related to its human resources base. Educational enrollment rates at all levels remain low by international standards, and the quality of the educational system receives mediocre marks. Yet it is clear that by far the biggest obstacle facing Botswana in its efforts to improve its competitiveness remains its health situation. The rates of disease in the country remain very high, and health outcomes are poor despite improvements in recent years. For a middle-income country in transition to an efficiency-driven economy, the goods market must become more efficient (92nd). Going forward, combined efforts across all areas will be needed if the country was to reduce its heavy dependence on the mining sector and to set its economy on a more diversified growth path.

**Seychelles** ranks 80th overall, rounding out the top five countries in the region. The country registers a solid performance in the basic requirements for competitiveness: It benefits from strong and well-functioning institutions by regional standards (45th), with strong public trust in politicians (32nd) and a government that is seen as efficient (37th). Infrastructure is also relatively well developed (43rd) and the Seychelles do well in regional comparison when it comes to health and primary education (55th). As the country is now approaching the innovation-driven stage of development, it needs to lay the fundamentals for higher-value added growth. This will require improvements in higher education and training (79th) particularly in view of its very low tertiary enrollment rates (2.6 percent), its weak math and science education and limited availability of research and training services (93rd).

**Namibia** reverses its downward trend of recent years slightly, improving by two places to reach 90th place. The country continues to benefit from a relatively well-functioning institutional environment (48th), with well-protected property rights, an independent judiciary, and reasonably strong public trust in politicians. The country's transport infrastructure is also good by regional standards (47th). Financial markets are reasonably developed (39th) and buttressed by solid confidence in financial institutions (21st), although their overall assessment has weakened for three years in a row. In order to improve its competitiveness, as in much of the region, Namibia must improve its health and educational

systems. The country is ranked a low 123rd on the health subpillar (down five places), with high infant mortality and low life expectancy—the result, in large part, of the high rates of communicable diseases. On the educational side, enrollment rates remain low and the quality of the educational system remains poor (124th). In addition, Namibia could do more to harness new technologies to improve its productivity levels (90th).

**Kenya** moves up by an impressive 10 places and is ranked 96th this year on the back of greater confidence in institutions (88th). The country's strengths continue to be found in the more complex areas measured by the GCI. Kenya's innovative capacity is ranked an impressive 46th, with high company spending on R&D and good scientific research institutions that collaborate well with the business sector in research activities. Supporting this innovative potential is an educational system that—although educating a relatively small proportion of the population compared with most other countries—gets relatively good marks for quality (44th) as well as for on-the-job training (49th). The economy is also supported by financial markets that are well developed by international standards (31st) and a relatively efficient labor market (35th). On the other hand, Kenya's overall competitiveness is held back by a number of factors. Health remains an area of serious concern (121st), with a high prevalence of communicable diseases contributing to the low life expectancy of fewer than 58 years and reducing the productivity of the workforce. The security situation in Kenya also remains worrisome (131st).

**Senegal** comes in at 113th place this year. Although the country's institutions rank still relatively low at 82nd, our data suggest an improvement across a range of indicators since the 2012 elections, albeit from low levels. Senegal also benefits from relatively efficient goods and labor markets (59th and 65th, respectively), red tape to start a business is low even in international comparison, FDI faces relatively few barriers, and labor-employer relations are reasonably good (57th). Moreover, Senegal hosts good ports (47th), although all other modes of transport require significant upgrades (95th overall). The country's competitiveness is further pulled down by the poor health and basic education of its population (131st). Indeed, only three out of four children receive primary education, which is very low compared with its middle-income peers, and communicable diseases continue to erode at the health of the general population.

**Ghana** declines this year to 114th in large as a result of a deterioration in its macroeconomic indicators (reversing last year's trend). With regard to strengths, the country seems to be improving its public institutions, which are already somewhat strong by regional standards (up by five places to 70th), with relatively high government efficiency (57th). In addition, some aspects of its infrastructure are good for the region, particularly the state of its ports, and its financial

and goods markets are also relatively well developed (52nd and 70th, respectively). On the other hand, Ghana must do much more to develop and deploy talent in the country. Education levels continue to trail international standards at all levels, labor markets are characterized by inefficiencies, and the country is not sufficiently harnessing new technologies for productivity enhancements (ICT adoption rates continue to be very low).

**Nigeria** is ranked 120th this year. The country continues to benefit from its relatively large market size (32nd), which has the potential for significant economies of scale and is an important factor for attracting investment. Nigeria also benefits from an efficient labor market, and the financial market has been recovering gradually from the 2009 crisis. Yet efforts need to be taken to diversify its economy into the non-oil sector and increase long-term competitiveness. Institutions remain weak (129th) with insufficiently protected property rights, high corruption, and undue influence. The security situation in the country, already seriously worrisome, continues last year's downward trend to 142nd. Additionally, Nigeria must continue to upgrade its infrastructure (135th) as well as improve health and primary education (146th). Furthermore, the country is not harnessing the latest technologies for productivity enhancements, as demonstrated by its low rates of ICT penetration.

**Tanzania** is ranked 125th this year. Its institutions have been deteriorating over the past years—although government regulation is not seen as overly burdensome (53rd), corruption has been worsening (106th) and policymaking has become less transparent. In addition, some aspects of the labor market—such as the country's strong female participation in the labor force (5th) and reasonable redundancy costs—lend themselves to efficiency. On the other hand, infrastructure in Tanzania is underdeveloped (134th), with poor roads and ports and an unreliable electricity supply (131st). And although primary education enrollment is commendably high, providing universal access, enrollment rates at the secondary and university levels are among the lowest in the world (at 134th and 138th place, respectively), while the quality of the educational system needs upgrading. A related area of concern is the country's low level of technological readiness (126th), with very low uptake of ICTs such as the Internet and mobile telephony. The basic health of its workforce is also a serious concern: the country is ranked 125th in this area, with poor health indicators and high levels of communicable diseases.

**Côte d'Ivoire** is ranked 126th this year. Like many of its sub-Saharan peers, the country's labor market is relatively efficient (68th), a ranking that is primarily driven by its high flexibility (36th). Furthermore, the country does well in attracting FDI—prevalence of foreign ownership is perceived as very high by the business

community. Going forward, however, critical challenges remain. Institutions remain low (104th) despite a gradual improvement over recent years, and infrastructure is underdeveloped (107th). Moreover, the country does not meet primary needs in terms of health and basic education (142nd), ranking among the lowest 10 countries worldwide on the related pillar. Only 60 percent of all children are enrolled in primary education, and the burden of communicable diseases—particularly the high incidence of malaria and HIV—weighs heavily on the workforce. Furthermore, technological adoption is very low across private users and the business sector, with only 2 percent of the population using the Internet.

**Ethiopia** falls six places to 127th this year, facing challenges across all pillars. The country ranks above 100th only for its market size (67th) and the quality of its institutions (95th), although it should be noted that the assessment of institutions has been falling over recent years across almost all indicators, including property rights, ethics and corruption, undue influence, and government efficiency. Furthermore, the country's goods (136th) and labor markets (108th) seem to be deteriorating, with more procedures and time required to start a business along with increasing concerns about the quality of labor-employer relations (121st), hiring and firing practices (99th), and the alignment between pay and productivity (125th). Ethiopia also requires significant improvements in the areas of infrastructure (124th), higher education and training (137th), and technological readiness (139th). On a more positive note, security—ranked 55th—is better than in many of its sub-Saharan peers, primary education with a net enrollment rate of 87 percent is comparatively good (although the quality of primary education is very low), and women account for a high percentage of the country's labor force.

**Liberia** ranks 128th in this year's GCI. The country features a well-developed goods and labor market by regional standards (47th and 60th, respectively), with few procedures and low cost to start a business in the country, and a taxation regime that is not overly distortive to economic decision making. In order to enhance its competitiveness, Liberia must focus on improving its physical infrastructure (131st) and enhancing human resources by improving the health and education levels of its workforce (144th).

**Zimbabwe** remains relatively stable at 131st position. Public institutions continue to receive a weak assessment, particularly related to corruption, security, and government favoritism, although overall the assessment of this pillar has improved somewhat since a few years ago. Yet major concerns remain with regard to the protection of property rights (137th), where Zimbabwe is among the lowest-ranked countries, reducing the incentive for businesses to invest. And despite efforts to improve its macroeconomic environment—including the dollarization of its economy

in early 2009, which brought down inflation and interest rates—Zimbabwe still receives a low rank in this pillar (114th), demonstrating the extent of efforts still needed to ensure its macroeconomic stability. Weaknesses in other areas include health (132nd in the health subpillar), low education enrollment rates, and formal markets that continue to function with difficulty (particularly with regard to goods and labor markets, ranked 130th and 140th, respectively).

**Mozambique** ranks 137th this year, with efforts required across many areas to lift the economy onto a sustainable growth and development path, particularly in view of its natural resource potential. The country's public institutions receive a weak assessment on the basis of low public trust in politicians, significant red tape faced by companies in their business dealings, and the perceived wastefulness of government spending. Macroeconomic stability is still weak (98th) although recent efforts seem to be bearing some fruit in containing price rises (inflation is down to 2 percent from double-digits last year). Looking ahead, significant reform will be needed to advance the country's long-term competitiveness, including making critical investments across all modes of infrastructure (ranked 130th), establishing a regulatory framework that encourages competition to foster economic diversification, and developing a sound financial market (132nd). Also critical, in view of the country's rapidly growing population and high unemployment, are investing in the healthcare system and primary education (138th) as well as higher education and training (143rd).

**Angola** re-enters the GCI this year at 142nd place. As with its oil-exporting peers, a positive fiscal balance and low public debt contribute to a comparatively stable macroeconomic environment (54th), but much remains to be done across the board to build out the country's competitiveness. Given its favorable fiscal stance, the country has a unique opportunity to invest revenues in competitiveness-enhancing measures. In this context, its poor performance across all governance indicators is worrisome: Both public and private institutions are characterized by widespread corruption, and inefficient government spending casts doubt on the country's ability to spend resource receipts in the most important areas. Furthermore, the country's infrastructure is one of the least developed globally (145th), and its population would be well served by improvements in the educational and health systems (137th).

## CONCLUSIONS

This chapter has presented and analyzed the results of Global Competitiveness Index 2013–2014, a tool that assesses the competitiveness of 148 economies across all geographies and stages of development. The GCI aims to capture the complexity of the phenomenon of national competitiveness, which can be improved only



through an array of efforts in different areas that affect the longer-term productivity of a country, which is the key factor affecting economic growth performance of economies.

Against the backdrop of the cautious and still-fragile global recovery, the results this year stress the importance of competitiveness as a key dimension of economic policymaking across all regions and stages of development. The top 10 of the overall CGI rankings are dominated by economies that display strong institutions and ample innovative capacity, reflecting the paramount importance of these elements. However, with the rise of emerging markets, the distinction between advanced and emerging economies is becoming more and more blurred, as demonstrated by several emerging markets that are higher in the rankings than advanced economies.

Since its introduction in 2005, the GCI has been used by a growing number of countries and institutions to benchmark national competitiveness. The clear and intuitive structure of the GCI framework is useful for prioritizing policy reforms because it allows each country to identify the strengths and weaknesses of its national competitiveness environment and pinpoint those factors most constraining its economic development. More specifically, the GCI provides a platform for dialogue among government, business, and civil society that can serve as a catalyst for productivity-improving reforms, with the aim of boosting the living standards of the world's citizens. Over the years, the GCI has proved to be a very useful tool for advancing competitiveness across countries.

## NOTES

- 1 The first version of the Global Competitiveness Index was published in 2004. See Sala-i-Martin and Artadi 2004.
- 2 Schumpeter 1942; Solow 1956; and Swan 1956.
- 3 See, for example, Sala-i-Martin et al. 2004 for an extensive list of potential robust determinants of economic growth.
- 4 See Easterly and Levine 1997; Acemoglu et al. 2001, 2002; Rodrik et al. 2002; and Sala-i-Martin and Subramanian 2003.
- 5 See de Soto 2000.
- 6 See de Soto and Abbot 1990.
- 7 See Shleifer and Vishny 1997; Zingales 1998.
- 8 See Kaufmann and Vishwanath 2001.
- 9 See Aschauer 1989; Canning et al. 1994; Gramlich 1994; and Easterly 2002.
- 10 See Fischer 1993.
- 11 See Sachs 2001.
- 12 See Schultz 1961; Lucas 1988; Becker 1993; and Kremer 1993.
- 13 See Almeida and Carneiro 2009; Amin 2009; and Kaplan 2009 for country studies demonstrating the importance of flexible labor markets for higher employment rates and, therefore, economic performance.
- 14 See Aghion and Howitt 1992 and Barro and Sala-i-Martin 2003 for a technical exposition of technology-based growth theories.
- 15 A general purpose technology (GPT), according to Trajtenberg (2005), is one that, in any given period, gives a particular contribution to an overall economy's growth thanks to its ability to transform the methods of production in a wide array of industries. Examples of GPTs have been the invention of the steam engine and the electric dynamo.
- 16 See Sachs and Warner 1995; Frenkel and Romer 1999; Rodrik and Rodriguez 1999; Alesina et al. 2005; and Feyrer 2009. The case of the European Union illustrates the importance of the market size for competitiveness. Although the reduction of trade barriers and the harmonization of standards within the European Union have contributed to raising exports within the region, many barriers to a true single market, in particular in services, remain in place and lead to important border effects. Therefore we continue to use the size of the national domestic and foreign market in the Index.
- 17 This is particularly important in a world in which economic borders are not as clearly delineated as political ones. In other words, when Belgium sells goods to the Netherlands, the national accounts register the transaction as an export (so the Netherlands is a foreign market for Belgium), but when California sells the same kind of output to Nevada, the national accounts register the transaction as domestic (so Nevada is a domestic market for California).
- 18 See Romer 1990; Grossman and Helpman 1991; and Aghion and Howitt 1992.
- 19 Probably the most famous theory of stages of development was developed by the American historian W. W. Rostow in the 1960s (see Rostow 1960). Here we adapt Michael Porter's theory of stages (see Porter 1990). Please see Chapter 1.1 of *The Global Competitiveness Report 2007–2008* (Sala-i-Martin et al. 2007) for a complete description of how we have adapted Michael Porter's theory for the present application.
- 20 Some restrictions were imposed on the coefficients estimated. For example, the three coefficients for each stage had to add up to one, and all the weights had to be non-negative.
- 21 In order to capture the resource intensity of the 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 also contains all metal ores and other minerals as well as petroleum products, liquefied gas, coal, and precious stones. The data used cover the years 2005 through 2009. Further information on these data can be found at <http://www.intracen.org/menus/countries.htm>.  
All countries that export more than 70 percent 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 minerals 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).
- 22 In practice, this applies to countries where the GDP per capita at current market prices has, for the past five years, been above an average of that of economies at the technology frontier. Countries at the technology frontier are the 10 countries with the highest per capita patenting activity according to Patent Cooperation Treaty data.
- 23 We have retained the geographical classifications used in past editions of the *Report* while changing the groupings in the country/economy profiles. The groupings in the profiles are based on IMF data, and use the IMF classifications.
- 24 The four Asian Tigers are Hong Kong SAR, Singapore, the Republic of Korea, and Taiwan (China).
- 25 The BRICS countries are Brazil, Russia, India, China, and South Africa.
- 26 Busso et al. 2012.

- 27 Qatar ranked 11th in the GCR 2012–2013. The drop in the rankings reflects the higher weight put on innovation and business sophistication this year, as Qatar is being assessed as an innovation-driven economy. See methodology section of this chapter for a description of the new criteria introduced.

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Appendix:  
Computation and structure of the Global Competitiveness Index 2013–2014

This appendix presents the structure of the Global Competitiveness Index 2013–2014 (GCI). The numbering of the variables matches the numbering of the data tables. The number preceding the period indicates to which pillar the variable belongs (e.g., variable 1.11 belongs to the 1st pillar and variable 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 variables within a category.<sup>a</sup> 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 9th pillar accounts for 17 percent of this country’s score in the *efficiency enhancers* subindex, irrespective of the country’s stage of development. Similarly, the score achieved on the subpillar *transport infrastructure* 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.<sup>b</sup> 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 Algeria, currently in transition from stage 1 to stage 2, the weight on each subindex is 59.1 percent, 35.7 percent, and 5.2 percent, respectively, as reported in the country profile on page 102.

Variables 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 these indicators. To make the aggregation possible, these variables 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.<sup>c</sup>

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.<sup>d</sup>

Weight (%) within  
immediate parent category

BASIC REQUIREMENTS

1st pillar: Institutions.....	25%
A. Public institutions .....	75%
1. Property rights.....	20%
1.01 Property rights	
1.02 Intellectual property protection <sup>1/2</sup>	
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<sup>o</sup>
- 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\*<sup>1/2</sup>
- 2.09 Fixed telephone lines\*<sup>1/2</sup>

**3rd pillar: Macroeconomic environment .....25%**

- 3.01 Government budget balance\*
- 3.02 Gross national savings\*
- 3.03 Inflation\*<sup>f</sup>
- 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<sup>o</sup>
- 4.02 Malaria incidence\*<sup>o</sup>
- 4.03 Business impact of tuberculosis<sup>o</sup>
- 4.04 Tuberculosis incidence\*<sup>o</sup>
- 4.05 Business impact of HIV/AIDS<sup>o</sup>
- 4.06 HIV prevalence\*<sup>o</sup>
- 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****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 educational 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<sup>h</sup>**

- 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\*<sup>i</sup>
- 6.07 Time required to start a business\*<sup>i</sup>
- 6.08 Agricultural policy costs

**2. Foreign competition .....variable<sup>h</sup>**

- 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\*<sup>i</sup>

**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<sup>1/2</sup>
- 7.08 Country capacity to attract talent
- 7.09 Country capacity to retain 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\*<sup>1/2</sup>
- 2.09 Fixed telephone lines\*<sup>1/2</sup>



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

A. Domestic market size .....75%

10.01 Domestic market size index\*<sup>k</sup>

B. Foreign market size .....25%

10.02 Foreign market size index\*<sup>l</sup>

INNOVATION AND SOPHISTICATION FACTORS

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<sup>1/2</sup>

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<sup>1/2</sup>

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 subindex				
60%	40–60%	40%	20–40%	20%
Weight for efficiency enhancers subindex				
35%	35–50%	50%	50%	50%
Weight for innovation and sophistication factors subindex				
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 the railroad network totals less than 50 kilometers.

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 they have been classified as non-endemic by the World Health Organization (WHO).

h The *competition* subpillar is the weighted average of two components: *domestic competition* and *foreign competition*. In both components, the included variables 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 Variables 6.06 and 6.07 combine to form one single variable.

j For variable 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.





# Assessing the Sustainable Competitiveness of Nations

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The concept of competitiveness aims at capturing the economic development process as a necessary condition for improved living standards. During most of the post–World War II period, economic growth was accompanied by an improvement in living conditions for large parts of the world’s population. More recently, toward the end of the last century, economic growth in developing and emerging markets has helped millions of people escape poverty.

Recent projections and studies point out that the rates of progress seen in the past may not be sustainable going forward.<sup>1</sup> As income levels have risen and more and more emerging markets have entered rapid growth paths, pressures on the environment have become more palpable and concerns over the distribution of the benefits of economic progress within countries have grown. This has led many to question whether the prevalent growth model is sustainable over time.

The perception that economic growth is not translating into the desired results for society at large was given further support by the recent financial crisis and the ensuing economic slowdown, which brought social tensions to light. These manifested themselves in multiple ways, including the events related to the Arab Spring; the rise of unemployment in many Western economies, particularly in segments of the population such as the young and the less skilled; and increasing inequalities of income and socioeconomic opportunities in both Western countries and fast-growing Asian economies. Diminishing economic prospects, sometimes combined with demand for more political participation, have also sparked protests in several countries including, for example, the recent events in Brazil and Turkey.

At the same time, pressures on the natural environment resulting from economic activity have grown over recent decades. Pollution has increased and the loss of biodiversity is more and more problematic, while climate change and its unpredictable consequences raise concerns. The world is also facing a progressive scarcity of water, energy, and mineral resources, for which demand continues to climb. Despite some efforts to address these issues, the undesirable environmental consequences of human activity are leading to a less habitable world.

As a result, social and environmental sustainability increasingly influence economic policy decisions and can have an impact on economic performance. At the same time, these challenges bring into question whether well-established ideas and models that take a narrow view of economic growth and do not take into account the use of natural resources or social concerns can still provide adequate solutions. The relationships between these challenges need to be better understood and measured in order to inform policies that will set and achieve the desired objectives, and in order to better track progress toward higher levels of sustainable prosperity.

Box 1: Public-private collaboration to achieve sustainable competitiveness

The World Economic Forum is taking an important step forward to inform the discussion on competitiveness by creating a Competitiveness Repository. This new initiative aims at bridging a knowledge gap in the current literature by compiling relevant information about the content and process of building public-private collaboration practices that have improved competitiveness.

Public private collaborations have also been used to reinforce environmental and social sustainability over the last 20 years to achieve enduring results. For example, areas such as health and education—two crucial pillars of competitiveness and also of social sustainability—have long been areas of multi-stakeholder collaboration. As early as 1993, the World Health Organization recognized that achieving health for all would require partnerships with the private sector and civil society, and subsequently made such partnerships part of the organization's strategy.<sup>1</sup> Nowadays, most international organizations systematically include the private sector in their strategies. This approach was evident at the latest United Nations Conference on Sustainable Development, where heads of state recognized that "[Sustainable Development] can only be achieved with a broad alliance of people, governments, civil society and the private sector, all working together to secure the future we want for present and future generations."<sup>2</sup>

Achieving sustainable competitiveness requires funding and expertise that cannot come from the public sector alone—especially in the context of cash-strapped governments and austerity measures. Involving the private sector in a collaborative way (through shared visions and deep engagement in planning and decision making) can have many benefits:

1. Typically, the most obvious reason for involving the private sector in environmental and social sustainability national projects has been **financial**: it is a way for governments to add investment to underfunded projects in public infrastructure and services. For instance, the Green Growth Action Alliance is a group that supports the scaling-up in green infrastructure investment through the collaboration of more than 50 leading financial institutions, corporations, governments, and nongovernmental organizations.<sup>3</sup> In Vietnam, the Alliance will support the government's efforts to transform the country's agricultural sector with the goal of delivering a 20 percent reduction in emissions, a 20 percent reduction in poverty, and a 20 percent increase in growth.
2. In some sectors of the economy, initiatives can also greatly benefit from the **skills and expertise of the private sector**, which the public sector may lack. For instance, in the context of water management (which, beyond being an infrastructure matter, also has a strong social and environmental impact), the responsibility of providing water often rests solely with the Ministry of Agriculture or a similar department. However, key industries—such as food and beverage, mining and metals, and energy—have developed skills and expertise that can be used to ensure a more equitable and sustainable use of water resources. The Water Resource Group is an example of an innovative public-private platform for collaboration that mobilizes stakeholders from the public and private sectors, civil society, centers of academic expertise, and financing institutions to help governments manage the water sector sustainably in support of their economic growth plans.<sup>4</sup> In South Africa, the Water Resource Group has led to improvement in

(Cont'd.)

COMPETITIVENESS AND SUSTAINABILITY

The relationship between some aspects of sustainability and economic growth has been studied extensively by academics, policy practitioners, and international organizations.<sup>2</sup> Public interest in sustainable development has also increased over the past few decades, driven by influential work such as the report *Our Common Future*, which was published under the auspices of the United Nations by the Brundtland Commission in 1987. In this seminal report, sustainable development was defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."<sup>3</sup> The breadth of the definition was meant to capture the several dimensions of development that go beyond the usual boundaries of economic growth in order to include both the tangible and intangible necessities of life. This initial concept mainly focused on environmental aspects of development. However, it has evolved significantly over time and today it is widely

accepted that sustainability also includes an economic and a social dimension.

Despite mounting interest in sustainable development, the relationship between environmental or social sustainability and national competitiveness has been only marginally explored. So far, economists have devoted most of their efforts to trying to understand the way economic growth impacts the quality of the environment or income distribution within a country and vice versa. However, little is known about how these aspects of sustainability relate to competitiveness and productivity.

Against this background, the World Economic Forum has engaged in a series of activities to expand our knowledge about sustainability and its relationship to competitiveness. More precisely, the Forum has been at the forefront of the discussion on environmental sustainability, working to shape the agenda by catalyzing public-private platforms that help governments draw on private-sector expertise to identify and implement

**Box 1: Public-private collaboration to achieve sustainable competitiveness** (*cont'd.*)

effluent and wastewater management, water efficiency and leakage reduction, and agriculture and supply chains.

3. Public-private collaboration might also allow the public sector to **reach remote communities**. A recent paper from the International Institute for Sustainable Development highlights the importance of public-private collaboration for sustainable development. Indeed, the private sector's involvement can help "deliver a range of essential public services to even the most remote areas and marginalized communities."<sup>5</sup> For instance, in Nepal the Public Private Partnership for Urban Environment (PPUE)<sup>6</sup>—a collaboration among the Federation of Nepalese Chambers of Commerce & Industry, the Municipal Association of Nepal, the United Nations Development Programme, and the Asian Development Bank—aims to boost the coverage and quality of basic urban services to the urban poor while increasing the participation of the local population in the process of service delivery. The project has already supported its partner municipalities to implement 88 projects that demonstrate this way of providing services and developing infrastructure. In 2010 and 2011, most of the projects were in solid waste management, mobile toilets, sewage-attached biogas, solar street lighting, the management of recreational areas and city markets, and building and operating slaughterhouses. Most of these initiatives are improving the urban environment and services for urban dwellers as well as providing new employment for local residents by hiring them for the new projects.
4. Finally, and very importantly, public-private collaboration may contribute to **long-term acceptance**, especially

in the context of environmental regulations. Indeed, by studying a series of examples, researchers from Harvard University's Kennedy School came to the conclusion that regulations on environmental policies that are negotiated with industries and citizens are more likely to be successful in the long term.<sup>7</sup>

The Competitiveness Repository will continue to highlight cases of public-private collaboration in the domain of social and environmental sustainability and bring them into the multi-stakeholder discussions that the World Economic Forum regularly organizes at global and regional summits and at targeted roundtables. The purpose of these discussions is to catalyze action and commitment from different stakeholders.

**Notes**

- 1 Buse and Waxman 2001.
- 2 United Nations Sustainable Development Knowledge Platform. Future We Want: Outcome document, I. Our common vision, Item 13. Available at <http://sustainabledevelopment.un.org/futurewewant.html>.
- 3 For more information about the Green Growth Action Alliance, see [www.weforum.org/issues/climate-change-and-green-growth](http://www.weforum.org/issues/climate-change-and-green-growth).
- 4 For further information about the 2030 Water Resources Group, see [www.2030wrg.org](http://www.2030wrg.org).
- 5 Colverson and Perera 2012, p. 21.
- 6 For information about the organization Public-Private Partnerships for Urban Environment, see [www.pppue.org.np](http://www.pppue.org.np).
- 7 Pande et al. 2012.

solutions to the most pressing issues. As a key convening platform for the international community, national policymakers, and business leaders, the World Economic Forum has found itself at the center of the discussion on the nature of the relationship between competitiveness and sustainability. Issues of economic, social, and environmental sustainability have been showcased and discussed at many of the Forum's regional and annual meetings and, more recently, the Forum has embarked on a new initiative to identify and showcase public-private collaborations that can support sustainable competitiveness, as described in Box 1.

In addition, the World Economic Forum—in collaboration with a multi-stakeholder Advisory Board of international experts (Box 2)—embarked on an effort to integrate the concept of sustainability into its competitiveness work. The results of our preliminary work were released in last two editions of *The Global Competitiveness Report*.

In this edition, we continue our ongoing efforts to build a more robust narrative of the concept of sustainable competitiveness. These efforts aim to better understand the complex relationship between competitiveness and sustainability and to provide a working definition of the concept, thereby contributing to the intellectual debate. The chapter also updates the results for the preliminary measurement of sustainable competitiveness, the sustainability-adjusted Global Competitiveness Index, which was introduced for discussion in last year's edition of this *Report*.

The sections that follow explore the relationships among competitiveness, environmental sustainability, and social sustainability. The discussion will provide the building blocks to explain how we have arrived at the overall definition of *sustainable competitiveness*, which is *the set of institutions, policies and factors that make a nation remain productive over the longer term while ensuring social and environmental sustainability*.

Box 2: Consultation with external experts

The Advisory Board on Sustainability and Competitiveness advises the World Economic Forum on integrating the concept of sustainability more fully into its competitiveness work. Members are drawn from the network of Global Agenda Councils, the World Economic Forum’s knowledge backbone. They represent voices from key business sectors, government, and civil society.

The members of the Advisory Board are:

- James Cameron**, Chairman, Climate Change Capital, United Kingdom
- Dan Esty**, Commissioner, Connecticut Department of Energy and Environmental Protection, USA
- Clément Gignac**, Chief Economist and Senior Vice-President, Industrial Alliance Insurance and Financial Services, Canada
- Jeni Klugman**, Director for Gender, The World Bank, USA
- Marc A. Levy**, Deputy Director, Center for International Earth Science Information Network, Columbia University, USA
- John W. McArthur**, Senior Fellow, UN Foundation & Nonresident Senior Fellow, Brookings Institution
- Kevin X. Murphy**, President and Chief Executive Officer, J.E. Austin Associates Inc., USA
- Mari Elka Pangestu**, Minister of Tourism and Creative Economy, Indonesia
- Xavier Sala-i-Martin**, Professor, Economics Department, Columbia University, USA
- Mark Spelman**, Global Head, Strategy, Accenture, United Kingdom
- Simon Zadek**, Senior Visiting Fellow, Global Green Growth Institute (GGGI), Switzerland

Two new members joined the Advisory Board in the course of the past year:

- Lindene Patton**, Chief Climate Product Officer, Zurich Financial Services, Switzerland
- Anthony O’Sullivan**, Head Private Sector Development, Organisation for Economic Co-operation and Development (OECD), France

In addition to frequent consultations with the Advisory Board (including a face-to-face meeting in Dubai in November 2012 during the Summit on the Global Agenda), The Global Competitiveness and Benchmarking Network team regularly consults with international experts in order to ensure that our work on sustainable competitiveness remains at the forefront of the research in this domain. Accordingly, in the last 18 months, three workshops were organized to:

1. Define sustainable competitiveness and review the rationale for the social pillar. This workshop was held in Geneva in April 2012 with experts from the World Health Organization, the United Nations Economic Commission for Europe, the International Labour Organization, and the International Organization for Migration.
2. Review the concept of environmental sustainability and discuss how it can be measured in our context. This workshop was held in New York in September 2012 with experts from the Center for International Earth Science Information Network at Columbia University, the United Nations Sustainable Development Department, the World Bank, and Zurich Insurance.
3. Discuss the impact that social and environmental sustainability have on one another. This workshop was held in Geneva in April 2013 with experts from the World Health Organization, the International Labour Organization, the United Nations Development Programme, the United Nations Environment Programme, the United Nations Research Institute for Social Development, the Overseas Development Institute, the Organisation for Economic Co-operation and Development, Deloitte, and KPMG.

In the upcoming year, The Global Competitiveness and Benchmarking Network team will hold further multi-stakeholder consultations in order to strengthen the relevance of the Sustainable Competitiveness Project.

Competitiveness and environmental sustainability

For decades, economists, strategists, and business leaders were skeptical about the compatibility between environmental goals and industrial competitiveness.<sup>4</sup> In most of the macroeconomic literature,<sup>5</sup> nature has traditionally been regarded as a constraint. Because natural resources on the planet are either limited or they renew at a specific physical rate, they are usually viewed as a major source of “limits to growth.”<sup>6</sup> Consequently, natural resources are modeled as an additional input in the production process or as an additional cost that must be incurred to abate unwanted byproducts such

as pollution. Another limitation to growth, according to this strand of literature, can be traced back to nature’s decreasing ability to dissipate waste from production as pollution accumulates. Once pollution reaches a critical limit, ecosystems will not be able to function properly and cannot absorb additional waste from production.

Although environmental limitations to growth are important, empirical evidence of development dynamics shows that the state of the environment tends to worsen at the initial stages of industrialization but to then improve as income increases—a concept known in the literature as the *Environmental Kuznets Curve*.<sup>7</sup> Many advanced

economies have adopted pollution control measures that have improved the state of the natural environment, yet this should not lead to the conclusion that environmental sustainability will be automatically achieved at a certain income level.<sup>8</sup> In order to preserve future generations' ability to benefit from nature's resources and services and increase standards of living, policies and measures that ensure an efficient use of natural resources as well as the adoption of clean industrial processes are significant.<sup>9</sup>

Taking into account all aspects described above, it emerges that the relationship between environmental sustainability and competitiveness is multifaceted and affects an economy in different ways. Multiple channels support a positive relationship between environmentally sustainable practices and productivity gains. Here we identify and describe the main ones:

- **Efficient use of natural resources.** The efficient use of natural resources includes both managing exhaustible raw materials and using renewable resources within their regenerative capacity in order to minimize production costs, ensure the legacy for future generations, and reduce pollution. As described by the literature on public goods, welfare increases once the negative externality generated by pollution is corrected.<sup>10</sup> It follows that environmental sustainability can bring about a better economic outcome if it is associated with formal or informal institutions that define property rights and result in the adoption of sustainable processes over the use of scarce resources.
- **Improved health.** A high-quality natural environment improves the productivity of the workforce by reducing health damage caused by pollution or environmental degradation. According to some studies,<sup>11</sup> in the Asia Pacific region alone about 2.5 million people die every year because of air pollution, unsafe water, and poor sanitation, creating a vicious circle of poverty, low-quality environmental conditions, and dismal economic performance. Since health affects productivity and pollution affects health, efforts to reduce pollution may be interpreted as an investment in human capital. Recent empirical evidence has indicated that, in the United States, ozone levels below federal air quality standards have a positive impact on productivity (a 10 parts per billion decrease in ozone concentrations raises worker productivity by 4.2 percent).<sup>12</sup> Finally, environment-driven health problems lead to resource misallocation, forcing governments to fund additional, and otherwise unnecessary, health programs and diverting resources that would otherwise go into productivity-enhancing investments in, for example, education or innovation.

- **Biodiversity for innovation.** Ultimately, environmental degradation can impact the way ecosystems work and reduce biodiversity. Biodiversity supports the productivity of the workforce by providing food, fiber, shelter, and natural medicines, and it regulates the water supply and air quality. According to the Convention on Biodiversity,<sup>13</sup> more than 1.3 billion people in the world depend on biodiversity and on basic ecosystem goods for their livelihoods. Biodiversity losses caused by deforestation or significant land-use changes—which today are estimated to be 100 to 1,000 times greater than is considered to occur naturally—increase the vulnerability of terrestrial and aquatic ecosystems and induce changes in climate and ocean acidity.<sup>14</sup> Biodiversity is also a key driver of economic growth, especially in developing countries, because it provides the basis for many innovations in areas such as pharmaceutical or cosmetic products. At the same time, interfering with ecosystems may make living conditions for humans more difficult and perhaps engender additional costs. Last but not least, biodiversity restoration and protection can create profitable business opportunities, incentivizing the development of new technologies and products for their utilization, in still-unexplored markets.<sup>15</sup>

In addition to these general sources of potential competitiveness gains for an economy, environmental sustainability can have more marked impacts in particular economic sectors such as agriculture,<sup>16</sup> fishery, and forestry. More precisely, in the absence of any technological change, a reduction in the cultivable area for staple crops would lead to a decrease in overall production, an increase in the price of staples, a fall in consumption, and widespread malnutrition. According to United Nations Environment Programme (UNEP)'s *Green Economy Report*, green agriculture is capable of nourishing a growing world population at higher nutritional levels, switching from today's 2,800 Kcal availability per-person per-day to around 3,200 Kcal by 2050. Furthermore, investing in the greening of tourism can reduce the cost of energy, water, and waste and thus enhance the value of biodiversity, ecosystems, and cultural heritage.<sup>17</sup> A degraded environment would reduce tourist inflows, which increasingly depend on the quality of a country's environment.<sup>18</sup>

Finally, human activities that are respectful of the environment help to reduce the likelihood of extreme weather events such as floods, windstorms, and droughts. Natural disasters negatively affect the competitiveness of an economy by impacting the life and health of the local workforce and by diverting available resources from productivity-enhancing investments, such as education or innovation, for rescue and



reconstruction purposes. At the same time, disasters destroy tangible assets such as infrastructure, public facilities, and industrial stocks, and they interrupt the regular flows of goods and services both within and between countries. According to an estimate of the 2007/2008 UN *Human Development Report*, to reach the Millennium Development Goals by 2015, the additional cost associated with coping with more a hostile climate will amount to approximately US\$85 billion per year. An example is the unprecedented floods in Thailand in 2011, which, according to the World Bank, cost its economy US\$45 billion and triggered the disruption of many global supply chains.<sup>19</sup> Also in 2011, China experienced its worst drought in 50 years, with over 4 million farmers facing severe water shortages. And recent floods in the Philippines have claimed at least 1,500 lives, with corresponding negative impacts to infrastructure and land.

In terms of empirical evidence, a body of research supporting the positive relationship between competitiveness and environmental sustainability is slowly emerging. Jaffe and Palmer (1997) suggest a positive relationship between the intensity of environmental regulation and innovation as measured by the amount of R&D expenditure,<sup>20</sup> which contributes to productivity, at a country level. In the *Green Economy Report*,<sup>21</sup> the UNEP argues that a green economy, which invests a considerable amount of resources in the preservation of the environment and in the restoration of natural capital, tends to grow faster than a brown economy, which underinvests in natural capital and overinvests in activities that cause its degradation. Moreover, over the longer term, the green growth path starts off lower than the brown one but eventually surpasses it, when environmental damage begins to constrain growth. In this context, green growth leads to higher energy and resource efficiency, reduces greenhouse gas emissions, enhances ecosystem services, and creates additional jobs in the medium term.

At the firm level, the impact of environmental standards on productivity has become more and more controversial. Some recent studies suggest that the relationship between higher environmental standards and productivity could be positive, contrary to the traditional analysis that finds this relationship to be negative. For instance, refineries in the Los Angeles area of California, where environmental regulation tended to be stricter than in other US states, have enjoyed higher productivity than refineries located elsewhere in the country. Other studies on the Mexican food-processing industry have found that productivity is positively correlated with the intensity of environmental regulation.<sup>22</sup>

Based on the analysis and the relationship between different elements of environmental sustainability and competitiveness, we define *environmentally sustainable competitiveness as the institutions, policies, and factors*

*that ensure an efficient management of resources to enable prosperity for present and future generations.*

### Competitiveness and social sustainability

The body of research on social sustainability is growing, but remains limited. Because of the sometimes intangible nature of the social dimension of growth that is often the result of deliberate political choice, the concept of social sustainability tends to be under-theorized.<sup>23</sup> The social dimension of development, which had been considered in works such as the recommendations from the Stiglitz-Sen-Fitoussi Commission and by the *Brundtland Report*, has only recently gained greater recognition both in academic and policymaking circles.

Overall, there is no widely accepted definition of social sustainability. Each branch of social science tends to approach it from a different perspective, applying different criteria. However, it is possible to identify recurring themes in the different definitions that have been proposed so far. Human rights, equity, and social justice are among the most relevant.

Both the theoretical underpinnings of the relationship between social sustainability and development and empirical evidence to support such a theory remain somewhat unclear, although a series of recent events in different parts of the world seems to suggest that an unbalanced social model can undermine the stability of the growth process for both current and future generations. The recent wave of protests in Brazil, the several chapters of social revolts in the Arab World, and the Occupy Wall-Street Movement in the United States are some examples of how, if economic benefits are perceived to be unevenly redistributed within a society, riots or social discontent can affect the capacity of individuals to contribute to and benefit from higher rates of economic growth.

In what follows, we will individually analyze those dimensions of social sustainability that are likely to fuel productivity and long-term prosperity while at the same time preserving social stability. Our aim is to unbundle the most relevant elements, even if they are often interrelated and not always clearly distinct:

- **Inclusion.** An inclusive social system ensures that all citizens contribute to and benefit from the economic prosperity of their country. Inclusion is a prerequisite for social cohesion because, if some members of the community are marginalized, the society will lack the necessary coherence of goals to accomplish common purposes. Typical examples of social exclusion that have a considerable negative impact on the competitiveness of a nation are the lack of access to basic necessities, discrimination according to gender, youth marginalization, and extreme polarization of income. Any type of social exclusion that prevents people from



fully participating in the labor market reduces the availability of talent to a country's firms and organizations, thereby reducing competitiveness. Lack of access to sanitation, drinkable water, or healthcare can dramatically impair labor productivity, reducing the ability of the economy to compete globally. At the same time, when young people are marginalized by the labor market and have access only to short-term and highly volatile jobs, they remain vulnerable, especially during downturns. These workers usually receive less on-the-job training than their counterparts in stable positions, with a reduction in the overall level of human capital. Finally, the participation and empowerment of women is key to ensuring a large talent pool and tends to bring about other positive effects, such as reducing infant mortality, reducing poverty, improving the management of scarce resources, reducing conflict, and guaranteeing food security.<sup>24</sup>

- **Equity and cohesion.** An equitable society guarantees the same opportunities to its members, rewarding them according to their talents and fairly redistributing the benefits of growing wealth,<sup>25</sup> creating a cohesive society with no excessive income disparities across different groups. Inequality is a multidimensional concept. For the purposes of this *Report* we are mainly interested in income inequality, which certainly represents one of the biggest challenges for policymakers globally and which is highly correlated with access to other opportunities. According to the literature,<sup>26</sup> some of the main arguments suggesting that inequality may be harmful for growth are, first, that it can potentially distort the political process; second, it could suppress aggregate demand; third, it requires more redistributive efforts, thus potentially introducing more market distortions; and, finally, it may trigger economically harmful social tensions, especially in the context of a weak institutional setup. Persistent inequalities tend to limit upward social mobility, preventing gifted and hard-working individuals from being rewarded according to their talents. However, it can be argued that some degree of disparity—provided it is not driven by rent positions—is actually beneficial for growth because it incentivizes people to invest in education, work harder, and be more innovative and productive.
- **Resilience.** A social system is resilient when it can absorb temporary or permanent shocks and adapt to quickly changing conditions without compromising its stability. Formal or informal institutions usually perform the role of shock absorber, reducing the vulnerability of the society as a whole. In advanced economies, welfare states promote the economic and social well-being of the

society by protecting its members from excessive loss of income during old age and during periods of unemployment or illness. Although welfare systems represent a source of stability for the economy, they can turn into a hurdle for its competitiveness since overly generous social security programs increase labor costs, can undermine the stability of public finances and limit macro-stabilization policies, and can hamper the incentives to work, innovate, and excel. In order to be sustainable, a social protection system needs to be well balanced and affordable.

The resilience of a social system also depends on the features of its labor market and on the extent of the black economy. When workers have access only to short-term contracts or vulnerable employment, they are exposed to negative shocks and to all the costs associated with unemployment. Moreover, a widespread black economy may affect the resilience of a social system, since informal workers are more vulnerable to concerns related to job loss, old age, maternity, disability, or illness.

Based on the above analysis, our definition of *social sustainability* is *the institutions, policies, and factors that enable all members of society to experience the best possible health, participation, and security; and that maximize their potential to contribute to and benefit from the economic prosperity of the country in which they live.*

### Relationship between environmental and social sustainability

The third and final relationship we would like to explore is the one between environmental and social sustainability. The quality of the environment and the structure of a society are strictly correlated. On the one hand, well-managed natural resources increase the quality of life, reduce tensions within and between generations, provide better opportunities to the whole community, and improve the resilience of the society. Moreover, the management of natural resources might translate into “in-kind” income distribution, as resource scarcity may leave the poorest of the population unable to access basic necessities. On the other hand, widespread prosperity, which facilitates a high quality of life, requires a functioning economy that, by definition, uses natural resources. For this reason, although the academic literature tends to focus on these two dimensions individually, the World Economic Forum is interested in exploring the way environmental and social sustainability interact with one another. In this chapter, we focus on selected channels that have been extensively highlighted by the literature:

- **Health and environmental degradation.** As discussed in the previous section, a degraded environment negatively affects the health, and thus the productivity, of the workforce. It also reduces

the overall quality of life of members of the society. Each year, air pollution, unsafe drinking water, and exposure to chemical products contribute to a number of often-lethal diseases both in the developed and developing world. According to the Organisation for Economic Co-operation and Development (OECD),<sup>27</sup> unsafe water supplies, lack of sanitation, and poor hygiene are responsible for 3 percent of all deaths worldwide, of which 90 percent are children. An unhealthy environment dampens economic opportunities, prevents people from participating in the life of the community, diverts resources from productive uses, and contributes to urban decline.

- **Demography, poverty, and the environment.**

The relationship between demography and environmental/social sustainability is extremely intricate. Rapidly growing populations might be a source of environmental stress, leading to greenhouse gas emissions, high rates of soil erosion, and the extinction of species. If rapid population growth is not accompanied by environmental management, it can give rise to tensions between groups for the control of scarce resources and can therefore be a source of further social instability, creating a vicious circle. Persistent poverty may also affect the environment and may lead to massive unplanned urbanization, such as slums, where large segments of the population are without access to basic services. Such living conditions can have significant repercussions on the environment, including damage via deforestation and the pollution of water resources as a result of a lack of waste management.

- **Energy and social stability.** The consumption of carbon-based fuel is one of the major causes of global warming. According to the International Energy Agency,<sup>28</sup> in order to limit the rise of global temperature to 2°C, a number of measures need to be adopted to limit greenhouse gas emissions; these measures would consequently reduce the demand and therefore also the price of oil and gas. A study by HSBC estimates that a drop in demand of fossil fuel could cause the price of oil to remain below US\$50 per barrel.<sup>29</sup> This would mean that only a third of current fossil fuel reserves would be burned before 2050 because the cost of extraction would outweigh the associated value. Reduced volumes and lower values for fossil fuel would impact the stock value of extractive companies and tax revenues from fossil fuel-related levies. Consequently, public revenues would be reduced, putting pressure on the affordability of several social programs. For energy-driven countries, a stark reduction in revenues from mineral resources may

pose particular challenges to their welfare systems.

An additional link between energy, environment, and social sustainability is the use of alternative energy sources, such as ethanol and biodiesel. Although these energy sources help to reduce CO<sub>2</sub> emissions, they also use wide land areas, contributing to the increase in food prices that led to a food crisis in 2008. Moreover, these alternatives also have significant environmental impact in the form of additional pressure on water resources, for example.<sup>30</sup>

- **Climate change, food security and conflict.**<sup>31</sup>

In the future, rising sea levels and more extreme weather conditions may force millions of people to migrate, adding pressure on the use of natural resources—especially water—in the destination areas. Rising competition over these resources could eventually result in military conflict. Adverse changes in temperature and precipitation are likely to influence the capacity of many areas to produce food, thus increasing the vulnerability of the population. According to some studies, at present 1.7 billion people live in water-stressed countries. Industrialization and demographic forces are likely to further aggravate the situation, and climate change may exacerbate the situation even more by decreasing stream-flow and groundwater recharge.

Pressure on water resources and land, combined with a growing world population and rising poverty in some regions, may also aggravate food security concerns, which already represent a major problem today.<sup>32</sup> At present, in the developing world there are at least 800 million individuals without sufficient access to food. In less-developed countries, decreasing crop yields may lead to further exploiting degraded land, while globally, changing environmental conditions are reducing crop productivity. This constellation of pressures may increase food insecurity in the long term, even in areas where food availability is relatively secure today.

- **Climate change and women's empowerment.**<sup>33</sup>

According to a growing body of research, climate change is not gender neutral. In many rural and traditional societies in Africa, women are responsible for securing water, food, and energy for cooking and heating. But the effects of climate change such as droughts, heat waves, infections encouraged by rising temperatures, deforestation, and uncertain rainfall make it harder for these women to secure the resources they need. This, in turn, further weakens their position in society and reduces opportunities to better their lives and that of their families.

## DEFINITION OF SUSTAINABLE COMPETITIVENESS

Given all these forces and interrelationships, and as already mentioned at the beginning of the chapter, we define *sustainable competitiveness* as *the set of institutions, policies, and factors that make a nation remain productive over the longer term while ensuring social and environmental sustainability*.

Fundamental to this concept is the notion that, although competitiveness can be equated with productivity and economic performance, sustainable competitiveness can be linked to a broader concept that focuses on aspects that go beyond mere economic well-being to include other important elements that render societies sustainably prosperous by ensuring high-quality growth. Another way of looking at the concept of sustainable competitiveness is that it aims to gauge not only whether a country has the potential to grow over the medium and long term, but whether the national development process is producing the kind of society in which we want to live.

## THE MEASUREMENT OF SUSTAINABLE COMPETITIVENESS

In order to assess where we stand today and to provide meaningful insights about how we want to proceed on these inter-related issues, we need to be able to measure sustainability. The following sections lay out the key existing approaches to measuring sustainability and describe the methodology of the sustainability-adjusted Global Competitiveness Index, which is the World Economic Forum's ongoing contribution to these efforts.

### Efforts to measure sustainability

Over recent decades, significant efforts have been made to devise methods and metrics for capturing the concept of sustainability. For example, the concept of *triple bottom line accounting*, which emerged in the 1980s, was a major attempt at expanding the traditional reporting framework for companies and countries to take into account environmental and social performance as well as financial and economic performance.

The work of the Stiglitz-Sen-Fitoussi Commission in 2009 also reflects a remarkable attempt to expand the measurement of prosperity in societies “beyond measures of market activity to measure wellbeing.” International organizations have also embraced these efforts. The European Commission, for example, has integrated sustainability objectives into its growth strategy: “The Europe 2020 Strategy, for smart, inclusive and sustainable growth.”<sup>34</sup> The OECD is undertaking the Better Life Initiative, measured by the Better Life Index,<sup>35</sup> which includes social and environmental sustainability metrics; and, finally, the United Nations Development Programme (UNDP) has also included the concepts of environmental sustainability and equity in its human development assessment.<sup>36</sup>

All these efforts to better integrate environmental and social sustainability metrics into mainstream development thinking have been possible thanks to the ongoing attempts to improve the indicators in these fields, which are still not widely available. In terms of metrics on environmental sustainability, the Environmental Performance Index (EPI) and its predecessor the Environmental Sustainability Index, developed by researchers at Yale and Columbia universities;<sup>37</sup> the Ecological Footprint,<sup>38</sup> developed by the Global Footprint Network; and the Global Adaptation Index,<sup>39</sup> created by the Global Adaptation Institute, have been pioneers in measuring the ecological resource use and resource capacity of countries.

For social sustainability, fewer attempts have been made. Among others are the World Bank's *Worldwide Governance Indicators Framework*, which measures different aspects of governance such as political instability, voice, and accountability;<sup>40</sup> and the International Labour Organization's Decent Work initiative, which aims at measuring various elements relevant for labor conditions.<sup>41</sup>

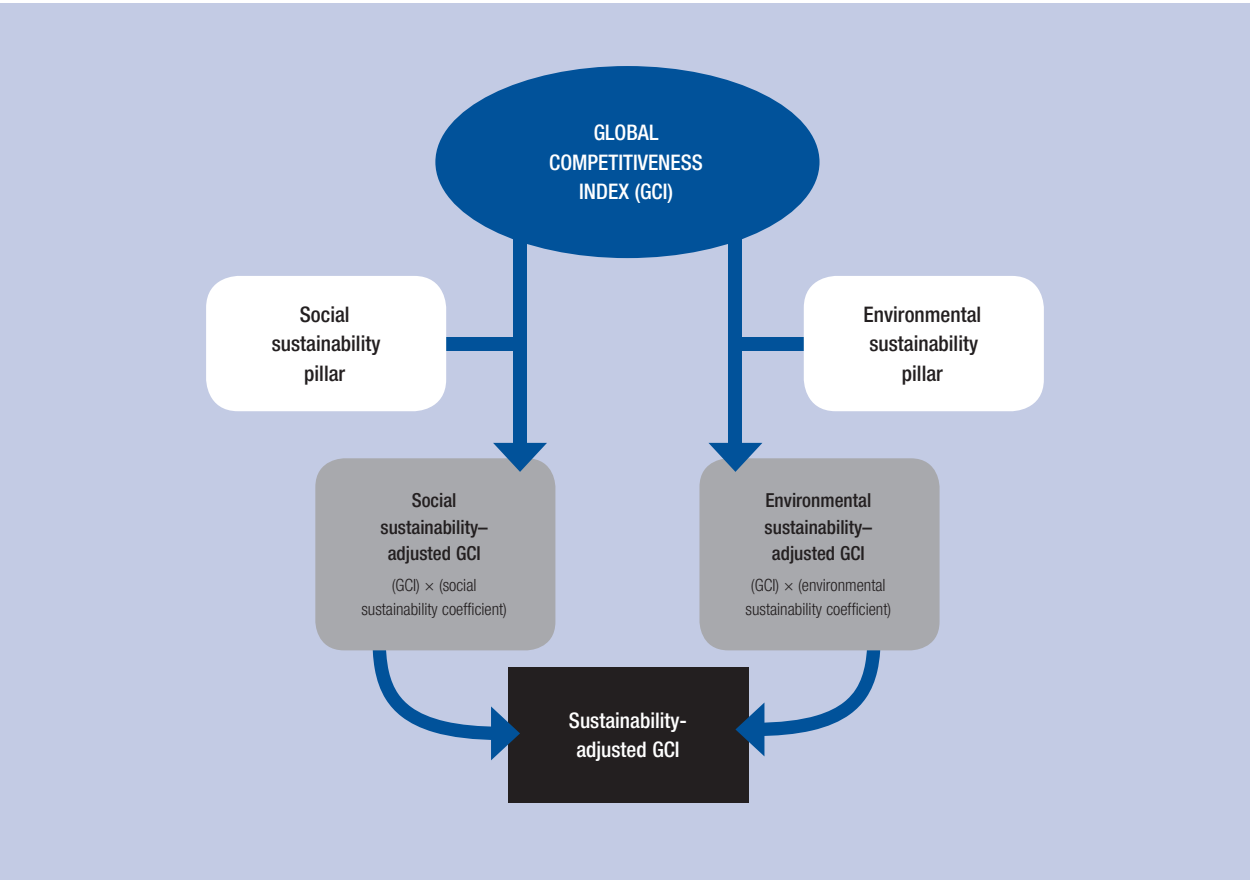
Despite this progress, a generalized lack of high-quality data that would allow countries to fully understand how they fare in these critical areas persists. Without an improvement in the quality and availability of key data on social and environmental sustainability, countries will continue to have trouble assessing the situation and monitoring their evolution in key dimensions. It will therefore be difficult for them to determine and implement appropriate policies and measures to ensure that their development model leads to the desired outcomes.

### Sustainable competitiveness: The analytical framework

Based on our definition of sustainable competitiveness, we have developed a framework that aims to create a common ground to develop policies that balance economic prosperity with social inclusion and environmental stewardship. This conceptual model is represented in Figure 1, which presents a framework where the Forum's index for measuring competitiveness, the Global Competitiveness Index (GCI), is adjusted by factors that encompass social and environmental sustainability.

This framework highlights the central position of competitiveness as the key driver of prosperity in society. High levels of competitiveness are crucial to sustained prosperity. The GCI measures the level of competitiveness of an economy, as discussed in Chapter 1.1, defined as *the set of institutions, policies, and factors that determine the level of productivity of an economy*. The GCI is a comprehensive index that takes into account 12 pillars or drivers: institutions, infrastructure, macroeconomic environment, health and primary

Figure 1: The structure of the sustainability-adjusted GCI



Note: Refer to appendix A for a detail explanation of the methodology.

education, higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size, business sophistication, and innovation. The variables that are analyzed in each of these 12 pillars are well known and benefit from more than 30 years of ongoing work on competitiveness at the World Economic Forum as well as a rich literature on growth and development.

However, the framework presented in Figure 1 indicates that competitiveness on its own may not lead to sustainable levels of prosperity. While the attainment of a certain level of economic prosperity is essential for achieving high standards of living, within this exercise, countries are assessed also for their ability to generate this long-lasting prosperity for their citizens in a sustainable way. In other words, competitiveness is a necessary but not sufficient condition for continued prosperity—hence the need for social sustainability-adjusted and environmental sustainability-adjusted measures of competitiveness.

As described in the first half of this chapter, defining the functional relationship between competitiveness and sustainability and identifying and measuring the pillars and variables that are driving environmental and social sustainability are complex tasks from both a conceptual and a measurement point of view. Sufficient

evidence does not yet exist that would lead to a solid functional relationship among them; we therefore opt for the simple approach of defining a linear relationship among the three dimensions. As a result, the final overall sustainability-adjusted Global Competitiveness Index is an average of the two sustainability-adjusted indexes: the social sustainability-adjusted GCI and the environmental sustainability-adjusted GCI.<sup>42</sup>

**Social sustainability pillar**

For **social sustainability**, the Forum identifies three conceptual elements (Figure 2). The first category aims to assess a *population’s access to basic necessities*.<sup>43</sup> It includes three indicators: *Access to sanitation*, *Access to improved drinking water*, and *Access to healthcare services*. This category is thus a measure of inclusion as well as a measure of the fulfillment of basic physical needs. Other indicators that we would have liked to incorporate but could not because of the lack of data include access to decent housing and food security. A population with poor access to water, food, shelter, healthcare, and sanitation cannot develop to its full capacity.

The second category is linked to the concept of perceived economic security. Hence it aims to evaluate a *population’s vulnerability to economic exclusion*.

Figure 2: Summary of indicators for social sustainability

<b>Access to basic necessities</b> <ul style="list-style-type: none"><li>• Access to sanitation</li><li>• Access to improved drinking water</li><li>• Access to healthcare</li></ul>	<b>Vulnerability to shocks</b> <ul style="list-style-type: none"><li>• Vulnerable employment</li><li>• Extent of informal economy</li><li>• Social safety net protection</li></ul>	<b>Social cohesion</b> <ul style="list-style-type: none"><li>• Income Gini index</li><li>• Social mobility</li><li>• Youth unemployment</li></ul>
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Figure 3: Summary of indicators for environmental sustainability

<b>Environmental policy</b> <ul style="list-style-type: none"><li>• Environmental regulations (stringency and enforcement)</li><li>• Number of ratified international environmental treaties</li><li>• Terrestrial biome protection</li></ul>	<b>Use of renewable resources</b> <ul style="list-style-type: none"><li>• Agricultural water intensity</li><li>• Forest cover change</li><li>• Fish stocks' overexploitation</li></ul>	<b>Degradation of the environment</b> <ul style="list-style-type: none"><li>• Level of particulate matter concentration</li><li>• CO<sub>2</sub> intensity</li><li>• Quality of the natural environment</li></ul>
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Three indicators have been chosen for this evaluation: *Vulnerable employment as a percentage of total employment*, *The extent of informal economy*, and *Social safety net protection*. The vulnerable employment indicator measures the percentage of people who are self-employed in a small business or are in a small family business that may provide income levels insufficient to meet the living standards of the country of residence and can prove unstable in times of economic difficulties. The extent of the informal economy provides a sense of how well integrated the workforce is into official structures. A workforce that is less integrated leaves workers more vulnerable to concerns related to job loss, old age, maternity, disability, or illness. Third, the social safety net is a complementary measure of protection: in times of financial and economic instability, it helps households to maintain their access to basic needs and weather crises without falling into poverty traps. Providing protection also leads to a sense of financial security that enables individuals to undertake investments and entrepreneurial risk, which can in turn translate into the creation of new jobs and innovative ideas, thus benefitting the economy.

A third category can be thought of as an assessment of *social cohesion* including the following indicators: the *Income Gini index*, *Social mobility*, and *Youth unemployment*. We include the income Gini index as a measure of income inequality, but keeping in mind that—from a normative approach—excessive inequality may hide relative poverty that would prevent lower-income families from accessing the same opportunities as those with incomes at the high end of the range in the society. Linked to this idea, we include an indicator on social mobility, which was introduced last year into the World Economic Forum’s Executive Opinion Survey.<sup>44</sup> In

the context of sustainable competitiveness, it is crucial that subsequent generations can improve their condition regardless of the socioeconomic status of their parents. From a purely economic perspective, the absence of such social mobility can be detrimental to human capital development because talented individuals, in a society that does not allow them to access education and move ahead, will not be leveraged for economic advancement and they may leave the country to pursue opportunities abroad. Additionally, low expectations for the future in a context of high unemployment and persistent inequality can spark political instability. On a broader conceptual level, social mobility is also a direct measure of the freedom to pursue human development. Finally, high youth unemployment can reduce social cohesion and incur significant economic and social costs. It depresses lifetime earnings for unemployed workers, taking a toll on their health and reducing the potential of the next generation to succeed. From an economic standpoint, high youth unemployment reflects a failure to mobilize existing resources and build productive skills.

**Environmental sustainability pillar**

To develop the **environmental sustainability** pillar, the Forum has worked closely with experts at Yale’s Center for Environmental Law and Policy (YCELP) and with the Center for International Earth Science Information Network (CIESIN) at Columbia University’s Earth Institute to define the best existing indicators to use in this area and to understand the shortcomings of these data. The measures captured here and presented in the environmental sustainability pillar are meant to complement the analysis carried out through the Environmental Performance Index (EPI) produced by these two organizations, which provides



a much more comprehensive indication of national performance on a variety of environmental indicators.

In this pillar, indicators have been selected according to three categories (see Figure 3) aimed at covering the most relevant aspects of environmental sustainability.

The first area measured in the environmental sustainability pillar is *environmental policy*, which is composed of a gauge of the stringency and enforcement of environmental regulations along with the extent to which land areas are protected, providing an assessment of a country's commitment to protecting natural capital. We also include a measure of the number of key international environmental treaties, out of a total of 25, in which the country is a participant. This variable demonstrates the country's level of engagement with environmental issues and thus its willingness to become involved in international efforts toward addressing global environmental challenges. Together these variables capture to some extent the political will of countries to respond to environmental issues in a structured and consistent way and indicate their importance in the government agenda.

The second area relates to the *use of renewable resources*. These indicators comprise measures of water withdrawal intensity of agriculture in an economy, which considers the extent to which the agriculture sector is efficient in its use of water; forest cover change, which takes into account reported information about the percentage of total land area that is deforested (or afforested) over time; and the exploitation of fishing grounds. A diminishing regeneration capacity is one of the major environmental issues for which a simple solution is not easily identified. Although the data in this area are among the most difficult to collect and interpret, it is crucial for a country to manage these resources in order to ensure that they remain available for future generations.

The third area takes into consideration the *degradation of the environment*, which can cause serious damage to human health while destroying the ecosystem. The specific indicators used to measure this concept are the level of particulate matter concentration, the quality of the natural environment, and CO<sub>2</sub> intensity. Particulate matter concentration is a proxy for air pollution, which has proven negative effects on human health and is monitored by local authorities in many countries. The quality of the natural environment is a perception-based assessment of the local status of the environment that measures the observation of local business leaders on the ground. CO<sub>2</sub> intensity is a measure of the efficiency of energy use in relation to the emissions it produces. It is important to note that, although CO<sub>2</sub> intensity also provides a sense of national contributions to climate change, at present, the decision was taken not to include climate change as a specific

factor in this pillar. This is because there is currently no agreement on how to attribute emission responsibilities to particular countries. For example, in a world of globalized markets, should emissions be allocated to the country producing the goods that created the emissions, or to the consuming country? Also it is not yet clear what impact countries' contributions to climate change would have on national competitiveness, particularly in the absence of an international agreement that would impose costs on large emitters.

While the variables described in this and the previous sections capture a number of important aspects of social and environmental sustainability, additional variables would be needed to obtain a more complete measure of the concept. These indicators include measurements of social participation and respect for core human rights, as well as discrimination and the treatment of minority populations and additional environmental indicators. However, as noted in Box 3, because of the lack of quality indicators in these areas we are unable to include them for the time being.

### Calculation of the sustainability-adjusted GCI

The two areas of sustainability—social and environmental—are treated as independent adjustments to each country's performance in the GCI. The details behind the aggregation are described in Appendix A; Appendix B provides detailed notes and sources for each indicator. The aggregation leads to three outcomes: an environmental sustainability-adjusted GCI, a social sustainability-adjusted GCI, and an overall sustainability-adjusted GCI that combines the two effects.

Lacking clear theoretical guidelines in assigning weights to the individual elements, each indicator has been given an equal weight within each pillar. As described in detail in Appendix A, each pillar is converted into an "adjustment coefficient" with a range from 0.8 to 1.2, which is then used to adjust the GCI score upward or downward within this range. This result is an adjusted score of a maximum of 20 percent lower or 20 percent higher than the underlying GCI score.

The single indicators are aggregated using a simple average. Although this aggregation method is transparent and simple to replicate, its limitation is that it allows for compensation across the different sustainability dimensions. This needs to be kept in mind when interpreting the results, especially on environmental sustainability. For example, Brazil performs well on a number of environmental indicators but ranks poor in terms of deforestation. By construction, the poor performance on the forest cover change indicator is compensated for by the good results in other areas; consequently Brazil attains an above-average performance for environmental sustainability despite deforestation.



### Box 3: Data limitations and a plea for better sustainability data

High-quality data on the social and the environmental dimensions of sustainability are critical for international benchmarking, tracking progress, and analyzing relationships between the different dimensions. Yet, despite the great effort of many organizations to assess some aspects of sustainability, data availability is not satisfactory and the lack of a complete, high-quality global dataset represents a relevant and severe limitation to the ability to compare data across countries and benchmark progress over time.

Even when data are available, they are in many cases not collected on a regular basis, measure concepts that are either too broad or too narrow, or are not calculated with a consistent methodology across countries. For example, youth unemployment is not measured according to the same methodology across countries and the related datasets are not updated regularly. As a result, figures are in some cases more than five years old and hence are incapable of reflecting the rapidly changing reality on the ground, for example following the most recent financial crisis. Using out-of-date figures can be misleading for policymakers, who require statistics that accurately reflect the current situation in order to gain a sense of the effectiveness of their reform efforts.

At the same time, for a number of key concepts of sustainability, indicators are simply not available. The absence of such indicators is reflected in our assessment of sustainable competitiveness: a number of measures that we recognize as relevant and would like to include in our methodology are missing, and hence the results reflect an “omitted variables” bias.

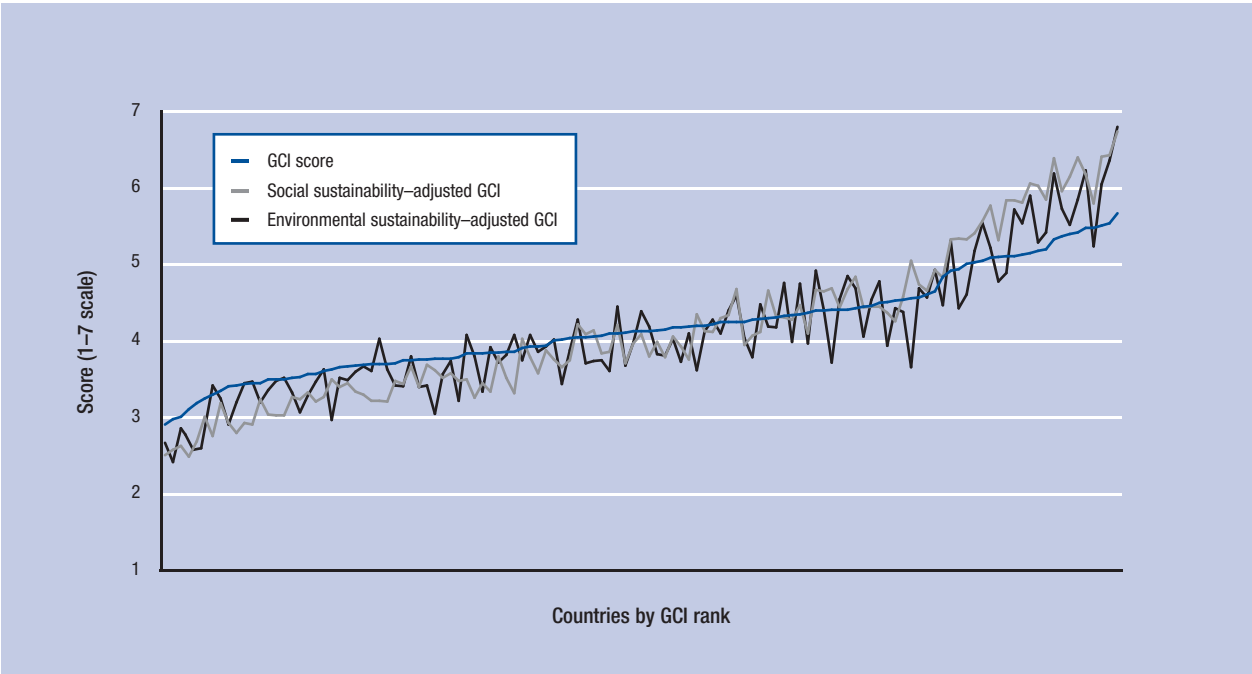
Some of the most relevant missing indicators include:

- *Inclusion of minorities.* A measure of how homogenous and how well integrated the social fabric is would provide a relevant component of social sustainability. Although there is no evidence that the exclusion of minorities can cause instability, it is widely recognized that this can be a source of tensions and political polarization.
- *Civil and political rights.* Political and civil rights, such as freedom of speech and freedom of association, facilitate higher levels of transparency and support a system of checks and balances. They generally result in more inclusive governance systems that ensure that the benefits of progress are distributed more widely within the society. Although some indicators in this domain exist, the intangible nature of the topic does not easily allow for a quantitative assessment of the level of political rights present in a country.
- *Real purchasing power of households.* In the context of social sustainability, it is desirable to ensure that salaries allow for a sufficient and secure income and full participation in the country's prosperity and opportunities. Although several studies at the local level highlight the erosion of the purchasing power of households in several advanced economies, this phenomenon does not emerge in our analysis because it cannot be captured by the indicators used in our methodology. Despite the efforts of the International Labour Organization, which has published statistics on labor rights and productive work, the data available cover only a limited number of economies. Until such data are available for a wide range of countries, they cannot be considered for a global assessment.

- *Welfare schemes.* Although preferences for the generosity of welfare schemes may differ across countries, these schemes should be affordable in the long run without placing a major burden on public finance. A measure of the financial sustainability of social protection for a large number of countries would allow us to better assess the balance of social protection and public finance.
- *Water stress.* As water is one of the most critical resources for human life as well as for economic activity, sound water indicators are of primary importance. Currently such indicators are not available for a large number of countries because their measurement is very complex. One challenge comes from the fact that water is unevenly distributed on the planet, it flows through national borders, and it can be used for more than one purpose. Another difficulty originates from the fact that water is used differently according to its availability. For example, agricultural products change in different climates: water-intensive products such as paddy rice are most likely produced in areas with abundant water. Consequently, a relevant indicator should measure the actual level of net water available compared with the needs of the population and businesses. The Forum is in contact with the World Research Institute (Aqueduct) program to develop a water stress indicator to be included in the sustainable competitiveness framework in future iterations.
- *Water pollution.* The availability of clean water determines the health of the population and indirectly affects migration patterns. Managing water efficiently requires minimizing water use as well as keeping the water tables fully usable. Internationally comparable data on water quality could contribute to further highlighting the issue.
- *Recycling.* Being able to re-use material is critical to the ability to continue producing new goods without depleting the mineral and natural resources available. An assessment of how much of the material incorporated in consumer goods is actually re-used would constitute a good benchmark for countries' exposure to resource scarcity.
- *Waste management.* Directly linked to recycling, managing waste is essential for establishing a culture of recycling as well as for avoiding the careless disposal of dangerous materials that affect the health of the population. Unfortunately, cross-country data that can measure the management of waste are not yet available.

In order to bridge the gap in measuring sustainability, a wider international effort is required. This challenge can be met by pooling resources to produce and collect the data and by defining global measurement standards. To contribute to data production and collection, in 2012 the World Economic Forum created the Global Agenda Council on Measuring Sustainability. One of the main objectives of the Council is to create a platform to enable and incentivize data collection from different sources and make them available for researchers and the public at large. Additionally, the Council aims to bring scientists and policymakers together to develop new sustainability indicators.

Figure 4: Country performance on the GCI and the components of the sustainability-adjusted GCI



Notwithstanding extensive research efforts, we were not able to identify new metrics of appropriate quality to be included in the index. At the same time, based on a detailed review of the structure of the two pillars, the indicator *Forest loss* has been dropped because of its overlap with the indicator *Forest cover change*.

In this year's Sustainable Competitiveness exercise, we are able to increase the country coverage to 121 economies, up from 79 in the previous edition of the *Report*. This significant increase in coverage is mainly the result of dropping the indicator *Forest loss*, which was not available for a number of countries. Yet coverage remains lower than for the GCI, which includes 148 economies this year.

Results of the sustainability-adjusted GCI analysis

In this section, the results from the sustainability-adjusted GCI analysis are presented. Table 1 shows how the GCI score is adjusted once sustainability indicators are taken into account. An upward arrow shows that sustainability results drive a better score than the GCI itself; a downward arrow points to a situation of vulnerability in terms of social and/or environmental sustainability that lowers the GCI score. A “flat” arrow indicates that GCI results do not change substantially once sustainability aspects are taken into account.

As Figure 4 shows, the results indicate that there is no clear trade-off between being competitive and being sustainable. Countries attain results on the two elements of sustainability that are above or below the

competitiveness score at all levels of competitiveness. However, countries in the top half of the competitiveness rankings tend to perform better on sustainability as well. This is particularly true for the social sustainability dimension, which is, not surprisingly, highly correlated with the level of development. Developed economies tend to have more mature institutions that ensure that citizens have access to basic infrastructure, health, and welfare. At the same time, countries that face challenges related to their competitiveness fare even more poorly in terms of social sustainability.

In terms of environmental sustainability, the picture is more complex. Countries toward the lower end of the competitiveness scale tend to fare better than advanced economies in terms of emissions such as CO<sub>2</sub>, as well as manufacturing-related pollution such as waste and by-products of industrial processes.<sup>45</sup> However, these economies are currently facing problems that advanced economies have already experienced in their own earlier stages of development, such as biodiversity loss caused by deforestation, urbanization, and the expansion of agricultural land as well as air pollution (measured here through particulate matter, or PM<sub>2.5</sub>, emissions) triggered by the use of older combustion technologies, especially in the transport sector. Therefore, not surprisingly, cities in countries such as Bangladesh, Brazil, China, India, and Nigeria are among some of the most polluted areas on the planet.

## RESULTS FOR SELECTED ECONOMIES

**Switzerland** remains at top of the sustainability-adjusted GCI and shows a high level of sustainability on both the social and environmental dimensions of the index. Low unemployment combined with relatively good social protection enables Switzerland to perform well on the social dimension. In terms of environmental sustainability, although results are positive in comparison with other countries, the treatment of chemicals and air pollutant emissions appear to be areas for improvement. The performance of Switzerland demonstrates that there is no necessary trade-off between being environmentally and socially sustainable on the one hand and being competitive on the other. In general terms, countries that are close to the innovation frontier can innovate and manage their resources effectively, and in fact these countries are often keener to monitor possible sustainability concerns and to put in place policies to address them. Although Switzerland does not yet attain the maximum possible score, indicating there are still areas for improvement, the country's leadership and population are certainly aware of the pressures on environmental resources and social issues and do much to address them.

Similarly, **Nordic** countries perform well in terms of sustainability. **Norway** is the only other country (besides Switzerland) that attains very strong results in both aspects of sustainability, being the only country in the Nordics with youth unemployment below 10 percent and wide-ranging social protection combined with low emissions and good land management on the environmental side. One area for improvement is Norway's depleting fish stock. **Finland** attains a similar performance, scoring well especially on the social dimension with a high level of social protection and universal access to healthcare; however, these good results are partially offset by a relatively high youth unemployment figure (20.3 percent). In terms of environmental sustainability, Finland is also relatively sustainable with strict regulations, low water stress, and low emissions. However, little protected land area and some pressure on fish stocks prevent the country from attaining an even better result. **Sweden** also performs well both in terms of social and environmental sustainability, but at a lower level than other Nordic countries, especially on the social pillar where the country's persistently high youth unemployment rate continues to weigh heavily. In terms of environmental sustainability, Sweden attains a result similar to Finland, with generally responsible management of resources; limitations are seen, however, in some concerns over depleting fish stocks and very little protected land area.

**Germany** performs relatively well on both aspects of sustainability. On the social sustainability pillar, relatively low youth unemployment, wide access to healthcare, and the presence of a social safety net are the main

drivers of the positive assessment. Some emerging social difficulties, such as the increasing number of employed people who rely on the welfare state, may put the country's social sustainability at risk.<sup>46</sup> Environmental sustainability is also relatively positive. Stringent and well-enforced regulations and the existence of a large amount of protected land indicate Germany's particular attention to environmental issues. However, despite the country's efforts, some areas for improvement remain. CO<sub>2</sub> intensity is still relatively high, although slowly diminishing, and fish stocks appear somewhat overexploited.

The performance of the **United States** in terms of sustainable competitiveness is, as in the previous edition, modest, with somewhat better results for social than environmental sustainability. The country's social sustainability score is somewhat lower than that of other advanced economies because of high income inequality and relatively high youth unemployment (17.3 percent). According to the 2012 assessment from the US Census Bureau, more than 16 percent of the population lived in poverty in the United States—a worse result than the 14.3 percent of 2009 and a sign of increasing polarization within the income structure. In terms of environmental sustainability, the below-par performance of the United States is the consequence of several factors that include the country's lack of commitment to joining international treaties, its limited political will to firmly improve on critical environmental issues, the high pressure on its water resources for agriculture, its relatively high CO<sub>2</sub> emissions, and limited protected land area. This aligns with the concerns highlighted by the US Environmental Protection Agency (EPA) on the need to protect habitats, especially on the coasts where urbanization is moving faster. The EPA recognizes that the loss of open land and forest because of its conversion to urban areas or agricultural uses is a significant threat to natural habitats.<sup>47</sup> On a more positive note, air quality is improving somewhat in several areas in the country.

**Japan** receives a relatively positive assessment in the social sustainability component, performing better than other economies thanks to low youth unemployment, a small informal economy, and a sound social safety net. However, the country also displays a relatively high level of income inequality. On the environmental side, Japan's performance is more mixed. The country is doing well in terms of environmental policies (with high commitment to ensuring that regulations and standards are in place), yet it continues to face a high level of CO<sub>2</sub> emissions and it faces some pressure on water resources and on fish stocks.

Among other countries performing well in terms of environmental sustainability, **New Zealand** emerges as an economy with a strongly articulated political commitment to environmental stewardship. It performs

Table 1: Adjustment to the GCI scores by sustainability indicators

Country/Economy	GCI 2013–2014		Social sustainability-adjusted GCI†		Environmental sustainability-adjusted GCI‡		Sustainability-adjusted GCI†‡	
	Rank*	Score	Score	Direction	Score	Direction	Score	Direction
Switzerland	1	5.67	6.74	↑	6.80	↑	6.77	↑
Finland	3	5.54	6.43	↑	6.36	↗	6.40	↑
Germany	4	5.51	6.41	↑	6.05	↗	6.23	↗
United States	5	5.48	5.80	↗	5.24	⇒	5.52	⇒
Sweden	6	5.48	6.18	↗	6.23	↗	6.21	↗
Netherlands	8	5.42	6.40	↑	5.85	↗	6.13	↗
Japan	9	5.40	6.15	↗	5.52	⇒	5.83	↗
United Kingdom	10	5.37	5.96	↗	5.73	↗	5.85	↗
Norway	11	5.33	6.39	↑	6.19	↑	6.29	↑
Canada	14	5.20	5.85	↗	5.42	⇒	5.64	↗
Denmark	15	5.18	6.03	↑	5.29	⇒	5.66	↗
Austria	16	5.15	6.06	↑	5.90	↗	5.98	↑
Belgium	17	5.13	5.81	↗	5.54	↗	5.67	↗
New Zealand	18	5.11	5.84	↗	5.72	↗	5.78	↗
United Arab Emirates	19	5.11	5.84	↗	4.89	⇒	5.37	⇒
Saudi Arabia	20	5.10	5.32	⇒	4.78	↘	5.05	⇒
Australia	21	5.09	5.77	↗	5.22	⇒	5.50	↗
France	23	5.05	5.57	↗	5.54	↗	5.56	↗
Malaysia	24	5.03	5.41	↗	5.18	⇒	5.29	⇒
Korea, Rep.	25	5.01	5.33	↗	4.61	↘	4.97	⇒
Israel	27	4.94	5.34	↗	4.43	↘	4.89	⇒
Ireland	28	4.92	5.33	↗	5.31	↗	5.32	↗
China	29	4.84	4.83	⇒	4.47	↘	4.65	⇒
Estonia	32	4.65	4.93	↗	4.93	↗	4.93	↗
Chile	34	4.61	4.66	⇒	4.57	⇒	4.61	⇒
Spain	35	4.57	4.74	⇒	4.69	⇒	4.71	⇒
Kuwait	36	4.56	5.05	↗	3.66	↓	4.36	⇒
Thailand	37	4.54	4.58	⇒	4.38	⇒	4.48	⇒
Indonesia	38	4.53	4.26	↘	4.43	⇒	4.35	⇒
Azerbaijan	39	4.51	4.37	⇒	3.94	↘	4.15	↘
Panama	40	4.50	4.45	⇒	4.78	↗	4.62	⇒
Poland	42	4.46	4.45	⇒	4.54	⇒	4.50	⇒
Turkey	44	4.45	4.44	⇒	4.06	↘	4.25	⇒
Czech Republic	46	4.43	4.84	↗	4.69	↗	4.77	↗
Lithuania	48	4.41	4.68	↗	4.85	↗	4.76	↗
Italy	49	4.41	4.44	⇒	4.55	⇒	4.50	⇒
Kazakhstan	50	4.41	4.69	↗	3.72	↓	4.20	⇒
Portugal	51	4.40	4.65	↗	4.41	⇒	4.53	⇒
Latvia	52	4.40	4.67	↗	4.92	↗	4.80	↗
South Africa	53	4.37	4.10	↘	3.97	↘	4.03	↘
Costa Rica	54	4.35	4.47	⇒	4.75	↗	4.61	↗
Mexico	55	4.34	4.28	⇒	3.99	↘	4.13	⇒
Brazil	56	4.33	4.31	⇒	4.76	↗	4.53	⇒
Bulgaria	57	4.31	4.32	⇒	4.18	⇒	4.25	⇒
Cyprus	58	4.30	4.66	↗	4.19	⇒	4.42	⇒
Philippines	59	4.29	4.12	⇒	4.48	⇒	4.30	⇒
India	60	4.28	4.07	⇒	3.79	↘	3.93	↘
Peru	61	4.25	3.95	↘	4.04	⇒	4.00	↘
Slovenia	62	4.25	4.68	↗	4.60	↗	4.64	↗
Hungary	63	4.25	4.34	⇒	4.40	⇒	4.37	⇒
Russian Federation	64	4.25	4.30	⇒	4.10	⇒	4.20	⇒
Sri Lanka	65	4.22	4.12	⇒	4.28	⇒	4.20	⇒
Montenegro	67	4.20	4.13	⇒	4.13	⇒	4.13	⇒
Jordan	68	4.20	4.35	⇒	3.62	↘	3.98	⇒
Colombia	69	4.19	3.76	↘	4.10	⇒	3.93	↘
Vietnam	70	4.18	3.93	↘	3.73	↘	3.83	↘
Ecuador	71	4.18	4.06	⇒	4.03	⇒	4.05	⇒
Georgia	72	4.15	3.79	↘	3.81	↘	3.80	↘
Macedonia, FYR	73	4.14	3.99	⇒	3.83	↘	3.91	⇒
Botswana	74	4.13	3.80	↘	4.19	⇒	3.99	⇒
Croatia	75	4.13	4.09	⇒	4.39	↗	4.24	⇒

(Cont'd.)

Table 1: Adjustment to the GCI scores by sustainability indicators (cont'd.)

Country/Economy	GCI 2013–2014		Social sustainability-adjusted GCI†		Environmental sustainability-adjusted GCI‡		Sustainability-adjusted GCI‡‡	
	Rank*	Score	Score	Direction	Score	Direction	Score	Direction
Romania	76	4.13	3.97	⇒	3.98	⇒	3.97	⇒
Morocco	77	4.11	3.71	↘	3.68	↘	3.70	↘
Slovak Republic	78	4.10	4.21	⇒	4.45	↗	4.33	↗
Armenia	79	4.10	3.86	↘	3.61	↘	3.74	↘
Iran, Islamic rep.	82	4.07	3.84	↘	3.75	↘	3.80	↘
Tunisia	83	4.06	4.14	⇒	3.74	↘	3.94	⇒
Ukraine	84	4.05	4.09	⇒	3.71	↘	3.90	⇒
Uruguay	85	4.05	4.22	⇒	4.28	↗	4.25	⇒
Guatemala	86	4.04	3.75	↘	3.88	⇒	3.82	↘
Bosnia and Herzegovina	87	4.02	3.66	↘	3.44	↘	3.55	↘
Cambodia	88	4.01	3.76	↘	4.02	⇒	3.89	⇒
Moldova	89	3.94	3.88	⇒	3.93	⇒	3.91	⇒
Namibia	90	3.93	3.58	↘	3.86	⇒	3.72	⇒
Greece	91	3.93	3.79	⇒	4.08	⇒	3.94	⇒
Trinidad and Tobago	92	3.91	4.03	⇒	3.75	⇒	3.89	⇒
Zambia	93	3.86	3.32	↘	4.08	↗	3.70	⇒
Jamaica	94	3.86	3.52	↘	3.82	⇒	3.67	⇒
Albania	95	3.85	3.80	⇒	3.72	⇒	3.76	⇒
Kenya	96	3.85	3.34	↘	3.92	⇒	3.63	↘
El Salvador	97	3.84	3.45	↘	3.34	↘	3.40	↘
Bolivia	98	3.84	3.26	↓	3.80	⇒	3.53	↘
Nicaragua	99	3.84	3.50	↘	4.08	↗	3.79	⇒
Algeria	100	3.79	3.48	↘	3.22	↓	3.35	↘
Serbia	101	3.77	3.58	↘	3.74	⇒	3.66	⇒
Guyana	102	3.77	3.52	↘	3.57	↘	3.54	↘
Lebanon	103	3.77	3.62	⇒	3.05	↓	3.34	↘
Argentina	104	3.76	3.69	⇒	3.42	↘	3.55	↘
Dominican Republic	105	3.76	3.40	↘	3.40	↘	3.40	↘
Suriname	106	3.75	3.67	⇒	3.80	⇒	3.74	⇒
Mongolia	107	3.75	3.44	↘	3.41	↘	3.43	↘
Bangladesh	110	3.71	3.48	↘	3.42	↘	3.45	↘
Honduras	111	3.70	3.21	↘	3.63	⇒	3.42	↘
Gabon	112	3.70	3.22	↘	4.03	↗	3.62	⇒
Senegal	113	3.70	3.22	↘	3.61	⇒	3.41	↘
Ghana	114	3.69	3.30	↘	3.67	⇒	3.48	↘
Cameroon	115	3.68	3.34	↘	3.60	⇒	3.47	↘
Gambia, The	116	3.67	3.45	↘	3.49	↘	3.47	↘
Nepal	117	3.66	3.40	↘	3.52	⇒	3.46	↘
Egypt	118	3.63	3.50	⇒	2.97	↓	3.23	↘
Paraguay	119	3.61	3.27	↘	3.63	⇒	3.45	⇒
Nigeria	120	3.57	3.21	↘	3.47	⇒	3.34	↘
Kyrgyz Republic	121	3.57	3.33	↘	3.29	↘	3.31	↘
Cape Verde	122	3.53	3.24	↘	3.07	↘	3.15	↘
Swaziland	124	3.52	3.27	↘	3.33	↘	3.30	↘
Tanzania	125	3.50	3.03	↘	3.52	⇒	3.27	↘
Côte d'Ivoire	126	3.50	3.03	↘	3.48	⇒	3.25	↘
Ethiopia	127	3.50	3.04	↘	3.36	⇒	3.20	↘
Liberia	128	3.45	3.24	↘	3.20	↘	3.22	↘
Benin	130	3.45	2.91	↓	3.47	⇒	3.19	↘
Zimbabwe	131	3.44	2.93	↘	3.45	⇒	3.19	↘
Madagascar	132	3.42	2.80	↓	3.20	↘	3.00	↘
Pakistan	133	3.41	2.93	↘	2.91	↘	2.92	↘
Venezuela	134	3.35	3.19	⇒	3.25	⇒	3.22	⇒
Mozambique	137	3.30	2.76	↓	3.42	⇒	3.09	↘
Timor-Leste	138	3.25	3.01	↘	2.60	↓	2.81	↘
Mauritania	141	3.19	2.69	↓	2.58	↓	2.63	↓
Haiti	143	3.11	2.49	↓	2.78	↘	2.63	↓
Sierra Leone	144	3.01	2.63	↘	2.86	↘	2.74	↘
Yemen	145	2.98	2.58	↘	2.42	↓	2.50	↓
Guinea	147	2.91	2.51	↘	2.67	↘	2.59	↘

\* This is the GCI rank, as presented in Chapter 1.1. Only the 121 countries covered by this exercise are included in the table.

† This is the score obtained by multiplying the GCI score by the social sustainability coefficient.

‡ This is the score obtained by multiplying the GCI score by the environmental sustainability coefficient.

‡‡ This is the average of social sustainability-adjusted GCI and environmental sustainability-adjusted GCI scores.

Please refer to the technical appendix of this chapter for a description of how the coefficients are calculated. All the underlying indicators are available at <http://www.weforum.org/content/pages/sustainable-competitiveness>.

#### Key

- ↑ GCI score changes by > +15% to +20%
- ↗ GCI score changes by +5% to +15%
- ⇒ GCI score remains stable between +5% and –5%
- ↘ GCI score changes by –5% to –15%
- ↓ GCI score changes by < –15% to –20%

better than neighboring **Australia**. The main differences between the two countries lie in the lower level of air pollution in New Zealand and the country's efforts to set aside protected land areas. Both countries receive strong assessments for their social sustainability as well.

The **United Arab Emirates** emerges as somewhat socially sustainable, although its environmental performance shows some weaknesses. Low youth unemployment and wide access to basic necessities (sanitation and drinking water) drive these fairly positive results. In terms of environmental sustainability, however, high pressure on water resources (partially the result of geographic conditions) and a high concentration of particulate matter lead to an overall below-par performance. In addition, the country is signatory to fewer international environmental treaties than most countries, and CO<sub>2</sub> emissions, although decreasing, are also relatively high.

**China's** competitiveness is overall less positive once the sustainability measures are taken into account. The environmental sustainability component particularly is less positive. In terms of social sustainability, China's performance is comparable to its overall competitiveness score, although this may be affected by the fact that the country does not report data related to youth unemployment or vulnerable employment. Access to improved drinking water and sanitation are improving slightly, as is the perceived access to healthcare, and there is some access to a social safety net. However, the fraction of the population covered by the welfare system is still relatively small and is restricted mainly to full-time urban workers, and 35 percent of the population still does not have access to improved sanitation facilities. Additionally, income inequality is high, with stark differences across different geographical areas but also within cities; this situation has driven the government to consider raising the national minimum wage to 40 percent of average urban salaries by 2015.

It is, however, the environmental sustainability dimension in which China's competitiveness may encounter the most important challenges. The level of emissions (both CO<sub>2</sub> and PM<sub>2.5</sub> particles) continues to rise, and air pollution is worsening in several cities. The agricultural sector places a great deal of pressure on the environment (e.g., China's water intensity is very high). Water pollution is also pervasive, with the ecosystem of water streams severely damaged. Rapid industrialization has taken a heavy toll on the Chinese natural environment, especially in terms of pollution, and—according to a study from the Beijing-based Chinese Academy for Environmental Planning—this has also resulted in productivity loss. Health issues, crop degradation, and losses from pollution-related accidents have reduced China's productivity, with the total cost arising from pollution estimated at 3.1 percent of GDP.<sup>48</sup> The tangible deterioration of natural capital has induced

the government to plan changes to the way resource use is taxed: according to the Chinese press,<sup>49</sup> the government envisages changing the taxation of coal in a way that would increase coal prices and discourage the use of this fuel. Additionally China may introduce a tax on water use. The Chinese leadership's growing focus on the natural environment will be important for placing the country on a more sustainable path over the next few years.

**Indonesia's** assessment on sustainable competitiveness brings down the country's GCI result. In terms of social sustainability, the primary area of concern is the significant share of the population in vulnerable employment. Additionally, access to sanitation remains low (40 percent of the population does not have regular access to sanitation facilities) and access to healthcare services is inadequate. From an environmental perspective, sustainability is threatened by the high rate of deforestation, which is depleting the country's forests and destroying the habitat of a highly biodiverse ecosystem. Logging and agriculture are taking the highest toll on Indonesia's forests, which could be protected by stricter enforcement of environmental regulations. In addition to deforestation, Indonesia's environmental issues include a rising level of CO<sub>2</sub> emissions and the relatively high intensity of water use for agriculture. Beyond the assessment of this framework, marine pollution is also reported to be severely damaging Indonesia's coral reefs.<sup>50</sup>

**Turkey** attains a middling score on the social sustainability dimension and a lower score in the environmental sustainability-adjusted GCI than it does in the GCI itself. In terms of social sustainability, the country's relatively high youth unemployment, its large informal sector, and its limited social protection continue to represent its main challenges. In terms of environmental sustainability, high CO<sub>2</sub> emissions, intensive water use for agriculture, and limited protected land area together with a lack of commitment to international environmental agreements contribute to diminishing the sustainability of long-term competitiveness.

**South Africa's** social sustainability is undermined by high income inequality and youth unemployment. In addition, the country has not yet achieved universal access to sanitation. On a more positive note, the share of the population in vulnerable employment is relatively low and social mobility is somewhat better than it is in many other countries at a similar stage of development. From an environmental point of view, South Africa's performance is weakened mainly by increasing CO<sub>2</sub> emissions and strained water and fish stock resources. Soil erosion and practices connected with commercial farming, such as the use of pesticides, add to the pressures on the environment.



**Brazil's** results on sustainable competitiveness are in line with its GCI score, and it has a somewhat more positive assessment on environmental sustainability. The size of the country and the richness of its natural assets result in relatively positive aggregate results in areas such as emissions and air quality. In addition, environmental regulation has become stricter following recent efforts to undo the damage inflicted on the natural environment that occurred in the process of industrialization. However, some issues—such as the country's long-running deforestation—do not seem to be improving. The Brazilian government disclosed figures earlier this year pointing toward further deforestation in the Amazon, undoing recent progress in preserving the rainforest.<sup>51</sup> In terms of social sustainability, the population's high income inequality and poor access to health and sanitation is damaging the country's capacity to sustain its competitiveness. Protests recently took place in several of Brazil's cities, and although the causes are complex, some of the country's socioeconomic intricacies play a key role. Inefficient and expensive public transport, rising prices compared to the level of salaries, and poor access to credit, combined with strong income disparities, are undermining social sustainability in the country.

**India's** sustainable competitiveness is also characterized by concerns in both areas of sustainability. On the social sustainability side, India's performance is hindered by lack of access to basic sanitation and health services for many of its citizens (only 35 percent of the population has access to improved sanitation). Also, despite the introduction of the National Social Assistance Programmes (NSAP) in 1995, the share of population covered by the social safety net is still relatively small. This issue, combined with a large informal sector and a high share of the workforce in vulnerable employment, makes it difficult to manage the country's growing income inequality. Altogether these structural issues make India's competitiveness vulnerable to shocks. India's environmental performance also hinders the achievement of sustainable competitiveness. A high level of emissions (especially in terms of particulate matter concentration) and few protected areas are wearing down the quality of the natural environment. Additionally, high agricultural water-use intensity is depleting water tables because usage is above their regenerative capacity. According to the Ministry of Water Resources, "68% of the country is prone to drought in varying degrees of which 33% is chronically drought prone."<sup>52</sup> Agriculture use, industrial use, increasing population, infrastructure gaps, and contamination exacerbate the water scarcity issue. The Ministry of Water Resources reports that: "high incidence of fluoride, arsenic, iron & heavy metals has been found in isolated pockets" in several states.<sup>53</sup>

**Peru's** competitiveness is also reduced once sustainability measures are taken into account in both the social and environmental areas. Regarding social sustainability, Peru is characterized by high income inequality, which is worsened by a large informal economy that leaves many people unprotected. Although the country's strong growth contributes to slowly reducing unemployment, and although measures to improve primary education, nutrition, and childcare have been taken by the government, a weak social safety net exposes workers to shocks and access to healthcare is far from being universal. On the environmental sustainability front, although a high share of Peru's surface is forested—partially thanks to the creation of several protected land areas—the enforcement of environmental regulations is quite lax, to the detriment of efforts to preserve the environment. For example, illegal logging is a menace as authorities struggle to fight the phenomenon effectively. In addition, the level of CO<sub>2</sub> emissions is on the rise, spurred by an increased level of industrial activity, while the fishery sector, one of the key export areas for the country, is registering a depletion of fish stock. Another environmental issue is the pollution of water resources, especially in areas with strong mining development, which has recently spurred several local protests in the country.

The **Russian Federation** attains an intermediate performance with a sustainability score in line with its GCI results across both pillars, although some important challenges may undermine the country's sustainability going forward. In terms of social sustainability, the Russian Federation is characterized by a relatively weak social safety net, high and increasing inequality, and limited social mobility. In terms of environmental sustainability, its lax environmental regulations, resource depletion, and the slowly degrading quality of its natural environment emerge as the most important challenges for the country's leadership. The Russian Federation is endowed with rich natural resources—including some of the largest water reserves in the world and widespread forests. The consequence is that the country still performs relatively well on several environmental indicators in international comparison, despite the depletion of those resources.

**Colombia's** competitiveness is pulled down once sustainability is taken into account. In terms of social sustainability, income inequality is high, over 20 percent of households still do not have access to improved sanitation, and access to healthcare services is fraught with difficulties. Additionally, despite efforts by the government, the social safety net is still not very strong in a country where over 30 percent of the population lives in poverty, although it should be noted that poverty is declining. The difficult economic situation of many households hinders social mobility, which reinforces persistent income inequality. This inequality is further

exacerbated by—according to the OECD—the country’s high unemployment and the fact that the majority of those working are employed in informal, and often low-productivity, jobs, which in turn cements labor market segmentation. In terms of environmental sustainability, Colombia’s performance is comparable with its competitiveness results. Colombia is one of the most biologically diverse countries on the planet, has little pressure on its water tables, and has several protected land areas. However, a number of factors threaten the country’s unique biodiversity. First, the somewhat weak enforcement of environmental regulations limits the effect of establishing protected areas and fails to abate pollution. Additionally, deforestation is occurring because of the country’s growing population, infrastructure development, illegal logging in coastal tropical rainforests, small-scale agricultural activities, mining, and the cocaine trade. According to international studies,<sup>54</sup> each year Colombia loses nearly 200,000 hectares of natural forest. According to the World Bank, a 2006 study found that the costs of environmental degradation—including air pollution and inadequate water, sanitation, and hygiene—amounted to 3.7 percent of Colombia’s GDP,<sup>55</sup> limiting Colombia’s long-term sustainable competitiveness.

**Vietnam’s** GCI performance is weakened once sustainability measures are considered. In terms of social sustainability, the main issues are the country’s lack of access to healthcare services, its insufficient social mobility, and the large segments of its population in vulnerable employment. Although Vietnam’s social sustainability is not very strong, the challenges are even more significant in the environmental domain. First, regulations are assessed as lax and not well enforced, an attitude that is also reflected in the country’s low level of commitment to international treaties. In addition, Vietnam has a high level of particulate matter concentration and CO<sub>2</sub> emissions. Moreover, the pressure on water resources and fish stocks is relatively high. Overall, the rapid industrialization of the country is having a strong negative impact on the environment, including air and water pollution (not fully measured by this framework), which together may put the country’s long-term competitiveness and the living conditions of the citizens in jeopardy if more sustainable processes are not adopted.

**Zambia’s** competitiveness is weakened especially by social sustainability issues, while on the environmental front, despite some ongoing concerns, its performance is in line with its competitiveness. Access to sanitation, improved drinking water, and healthcare services are still very limited, which—together with the large portion of the population working in vulnerable employment—explains the negative performance on the social dimension. In addition, income is unevenly distributed, and the country has one of the highest income Gini coefficients

in the world. In terms of environmental sustainability, Zambia protects a large portion of its land, has relatively stringent regulations, and manages to keep the level of CO<sub>2</sub> emissions low, which together contribute to its above-average performance on this dimension. However, issues such as the net loss of forests and water pollution connected especially with the lead processing and mining industry still need to be addressed. Because of high levels of lead in some areas, Zambian children average a lead concentration in their blood that is between five and ten times greater than what is considered safe by the US Environmental Protection Agency. The World Bank has allocated approximately US\$40 million toward a clean-up project in these areas.<sup>56</sup>

**Kenya’s** sustainable competitiveness is similarly weakened especially by the social dimension, while environmental sustainability is not presently affecting its score. The data point to a need for developing certain areas of social sustainability. Access to improved drinking water, healthcare services, and sanitation facilities are limited (the latter are available for less than 30 percent of the population). A significant share of the population still relies on vulnerable employment, and widespread poverty is exacerbated by a lack of social mobility. In terms of environmental sustainability, Kenya has put into place a relatively well enforced regulatory framework, is committed to international treaties, and has created several protected land areas. In addition, in line with its position in the industrialization process, the country’s level of emissions (both CO<sub>2</sub> and particulate matter) is low, limiting such damage to the natural environment. Yet protection of forests and habitats remains an issue, with logging related to timber production and agriculture reducing the stock of forests faster than their natural regenerative capacity. Water scarcity also needs to be addressed, as intense agriculture use and pollution are limiting the availability of water to the population.

In **Senegal**, the main areas of vulnerability are found in social sustainability. Although somewhat better than other sub-Saharan African countries, access to improved sanitation is limited (only 51 percent of the population has access) while access to improved drinking water is broader (73.4 percent), yet still needs to be improved. In addition, large portions of the population do not have access to healthcare services and are not protected by a social safety net. This is partly the result of the large informal economy and the fact that almost 80 percent of the total employed population works in vulnerable employment. On a more positive note, Senegal appears to be somewhat less unequal than some rapidly growing economies. Its income Gini coefficient is 40.3 (a level similar to that of Turkey)—better, for example, than those of Ghana or Kenya. The environmental sustainability pillar, despite an overall performance that is in line with the GCI, also presents some areas of concern.

Overexploited fish stocks, deforestation, and air and water pollution are the main problems that Senegalese authorities need to manage. These issues, which emerge from the indicators assessed in the sustainable competitiveness framework, are also mentioned by the World Wildlife Fund (WWF)—with the addition of water pollution and overgrazing—as being among the most prominent environmental problems in Senegal.<sup>57</sup> However, the country is attempting to protect the environment by, for example, creating several protected land areas and committing to most of the international environment treaties. Additionally, and partly because of its level of development, its CO<sub>2</sub> emissions are relatively low. By focusing on these dimensions, Senegal could achieve a more sustainable development path.

Ghana's sustainability assessment unveils particular pressures on the social sustainability pillar where, despite continued growth, access to improved sanitation is still very low and the development process has not yet benefitted large portions of the population that have vulnerable jobs or work in the informal economy and do not have access to social security. Additionally, and partially as a result of this structure, income inequality is relatively high and on the rise,<sup>58</sup> highlighting the non-inclusive economic growth in the country. This in turn could lead to social tensions in the longer term. In terms of environmental sustainability, Ghana attains a better result with low CO<sub>2</sub> emissions and relatively sustainable fishing practices. However, some concerns remain. First, deforestation is depleting natural resources at a rapid rate. According to the WWF,<sup>59</sup> Ghana can sustainably produce about 1 million cubic meters of timber from its forest reserves and agricultural lands; however, it is currently producing much more, and reached a peak in 2002 when the harvested timber was about four times the regenerating capacity. In addition to logging, commercial agriculture is damaging the country's forest by clearing the land by means of burning and cutting wooded areas. Second, mining activity and the use of agricultural pesticide impacts groundwater by polluting water streams and aquifers. Third, the pressure on water resources in areas where the population is growing quickly is high, while water is not steadily available throughout the year. This results in water rationing, and in some cases creates tensions for water access among citizens. More efficient resource management would enable Ghana to preserve its natural wealth and improve the living conditions of its citizens.

## CONCLUSIONS AND NEXT STEPS

Sustainable competitiveness is a nascent area of research. Our initial work has shown that progress on the conceptual side as well as advances with respect to data for measuring key concepts will be necessary to better inform decisions that have implications for the economic, social, and environmental dimensions of sustainable

competitiveness. In an effort to proceed toward a better understanding of sustainable competitiveness, this chapter develops further the conceptual framework for sustainable competitiveness introduced by the World Economic Forum in 2011. By combining social and environmental indicators with the GCI, we have been able to develop a preliminary framework for measuring the concept and to carry out a preliminary analysis of national sustainable competitiveness.

The most important finding of this analysis is that there is no necessary trade-off between being competitive and being sustainable. Many countries at the top of the competitiveness rankings are also the best performers in many areas of sustainability. Going forward, economies that are able to balance economic progress with social inclusion and good and effective environmental stewardship will most likely experience higher rates of human progress and prosperity.

Given the complexity of the issue at hand and important gaps in data to measure key elements of sustainable competitiveness, the endeavor to measure sustainable competitiveness has been designed as a multi-year process. The World Economic Forum will continue to serve the international community by providing a neutral multi-stakeholder platform to advance the understanding and analysis of this important concept.

One crucial element of this strand of work will focus on obtaining more and better metrics to fully assess sustainable competitiveness, as a number of key concepts still cannot be captured. The World Economic Forum's Global Agenda Council on Measuring Sustainability will work to develop better and more complete datasets. And as in previous years, the Advisory Board on Sustainability and Competitiveness will contribute to improving the conceptual foundations of sustainable competitiveness and the measurement methodology going forward.

## NOTES

- 1 See UNDP 2011 for an overview of trends and patterns related to growth and social and environmental sustainability.
- 2 References to studies on growth and environment are provided in note 6 and for studies on growth and inequality in note 26.
- 3 This definition is from the World Commission on Environment and Development's (the Brundtland Commission) report *Our Common Future*. This report is commonly known as "the Brundtland Report."
- 4 Porter and van der Linde 1995.
- 5 Brock and Taylor 2004; Nordhaus 2002; Bovenberg and Smulders 1996; and Acemoglu 2009.
- 6 Nordhaus 1992.
- 7 See, for example, Barbier 1997 and Yandle et al. 2000.

8 This conclusion would be misleading for at least three reasons: (1) the cumulated level of damage and resource scarcity may reach a critical point before the economy cleans up without interventions, (2) early damage to the environment might not be reversible and is not completely neutralized in any case, and (3) a higher level of income may not be achievable because of a lack of environmental sustainability.

9 World Bank 2012.

10 Luenberger 1995.

11 See, for example, Worldwatch Institute 2006, issue xxiv.

12 Zivin and Neidell 2011.

13 Information on the Convention on Biological Diversity is available at <https://www.cbd.int/development/>.

14 See Rockström 2009.

15 Brink et al. 2012.

16 See, for example, Marshal et al. 1997.

17 UNEP 2011.

18 Gross and Ringbeck 2008.

19 World Bank News 2011.

20 Jaffe and Palmer 1997.

21 UNEP 2011.

22 Alpay et al. 2002.

23 For an exhaustive review of the issue, see Colantonio 2011.

24 World Economic Forum 2013.

25 For an overview on the income inequality problem, see OECD 2011; Mankiw 2013; and Stiglitz 2012.

26 See, for example, Perotti 1993; Bertola 1993; Alesina and Rodrik 1994; Persson and Tabellini 1994; and Green et al. 2006.

27 OECD 2012.

28 IEA 2012.

29 Spedding et al. 2013.

30 Sexton et al. 2008.

31 See Raleigh and Urdal 2009 for further discussion of this topic.

32 UNCTAD 2011b.

33 See Bähge 2010 for further discussion of climate change and women's empowerment.

34 See the World Economic Forum 2012b for an assessment of how Europe is faring in meeting these goals.

35 For more information on this index, see [www.oecdbetterlifeindex.org/](http://www.oecdbetterlifeindex.org/).

36 See <http://hdr.undp.org/en/>.

37 For more information on the EPI, see <http://www.epi.yale.edu/>.

38 See <http://www footprintnetwork.org/en/index.php/GFN/page/methodology/> for information about information about the Global Footprint Network.

39 Information about the Global Adaptation Index is available at <http://index.gain.org/>.

40 The World Bank's *Worldwide Governance Indicators Framework* is available at <http://info.worldbank.org/governance/wgi/index.asp>.

41 Information about the Decent Work initiative is available at <http://www.ilo.org/integration/themes/mdw/lang--en/index.htm>.

42 The lack of some additional indicators, especially in the social sustainability dimension, constrains the model and does not allow for a comprehensive measurement of sustainability. For example, Germany performs well on the social sustainability pillar despite an existing trend of decreasing wages in Germany where, according to the Federal Employment Agency, over the past four years the number of individuals who require state support to get by despite full- or part-time jobs has increased steadily. Similarly, in Italy, the Italian National Institute of Statistics (Istat) disseminates the relative and absolute poverty estimations for households in the country, based on 2012 Households Budget Survey data. In 2012 the relative poverty incidence was equal to 12.7 percent, whereas the absolute poverty rate was 6.8 percent. These dimensions, although measured at country level in advanced economies, are not measured worldwide. Additionally, because poverty thresholds change from country to country, it is difficult to establish a cross-country comparison. The Gini index variable does not yet capture similar phenomena in the assessed countries.

43 The lack of access to basic necessities indicates a state of poverty.

44 For more information about the Executive Opinion Survey, please see Chapter 1.3 of this *Report*.

45 These are not covered by this framework; see Box 3.

46 This aspect of social sustainability is not fully reflected in the quantitative measurements because of a lack of available data.

47 See US Environmental Protection Agency, [http://www.epa.gov/owow\\_keep/estuaries/pivot/habitat/problem.htm](http://www.epa.gov/owow_keep/estuaries/pivot/habitat/problem.htm).

48 Wang et al. 2004.

49 English.news.cn, China. 2013. "China to Introduce Carbon Tax: Official." February 19. Available at [http://news.xinhuanet.com/english/china/2013-02/19/c\\_132178898.htm](http://news.xinhuanet.com/english/china/2013-02/19/c_132178898.htm).

50 See World Resources Institute 2002.

51 Another problematic area contributing to environmental degradation is the lack of waste management, which, because of a lack of data, is not captured in the pillars. As landfills are still the most common way to dispose of waste, growing population and growing consumption are leading to an increase in the size of landfills. This in turn hinders natural areas from being able to sustain life.

52 See the Government of India, Ministry of Home Affairs, available at <http://mha.nic.in/par2013/par2013-pdfs/rs-080513/592.pdf>; this is based on the Manual for Drought Management published by Department of Agriculture and Cooperation, Ministry of Agriculture, available at <http://mha.nic.in/par2013/par2013-pdfs/rs-080513/592.pdf>.

53 See the Government of India, Ministry of Water Resources 2010.

54 Calvani 2007.

55 World Bank 2013.

56 See SCGH (Sierra Club GreenHome), "The Cleanest and Most Polluted Cities in the World." Available at <http://www.sierraclubgreenhome.com/green-news/the-cleanest-and-the-most-polluted-cities/#sthash.LFwWAd6b.dpuf>.

57 See WWF (World Wildlife Fund). "Environmental Problems in Senegal: Fished Out and Running Dry." Available at [http://wwf.panda.org/who\\_we\\_are/wwf\\_offices/senegal/environmental\\_problems\\_\\_in\\_senegal/](http://wwf.panda.org/who_we_are/wwf_offices/senegal/environmental_problems__in_senegal/).

58 Ghana Business News 2011.

59 See [http://wwf.panda.org/who\\_we\\_are/wwf\\_offices/ghana/problems/](http://wwf.panda.org/who_we_are/wwf_offices/ghana/problems/).

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Appendix A:  
Calculation of the sustainability-adjusted GCI

As described in the text, the two areas of sustainability—social and environmental—are treated as independent adjustments to each country’s performance in the Global Competitiveness Index (GCI). The adjustment is calculated according to the following steps.

AGGREGATION

In the first step, the individual indicators in each area are normalized on a 1-to-7 scale and aggregated by averaging the normalized scores, such that a social sustainability score and an environmental sustainability score are calculated for each country.

In the second step, these scores are normalized again on a 0.8-to-1.2 scale,<sup>a</sup> which is based on the distribution of each of the two sustainability components. The purpose of this methodology is to reward the countries attaining a relatively good performance on the two sustainability components while penalizing those that register a poor performance. Applying this methodology corresponds to transforming actual averages into coefficients ranging from 0.8 to 1.2. For example, the worst performer on the social sustainability pillar obtains a score of 0.8 and the best performer a 1.2. The same calculation is conducted for the environmental sustainability pillar.

Normalizing on a 0.8-to-1.2 scale and using the actual sample maximum and minimum are corroborated by the statistical distribution of the data, so as to ensure that the final data are not skewed. In the absence of empirical evidence, the selection of the impact limits (0.8–1.2) relies on the best judgment of the authors and is based on the assumption that countries can experience either an opportunity if they manage their resources well or a weakness if they do not.

The selection of this methodology is not intended to be scientific, but it represents a normative approach aimed at stimulating discussions on policy priorities and possibly stimulating scientific research in this field.

In the third step, the GCI score of each country is multiplied twice: once by its social sustainability coefficient and once by its environmental sustainability coefficient, to obtain two separate sustainability-adjusted GCI scores. Finally, an average of the two scores provides an overall measure of the sustainability adjustment.

STRUCTURE OF THE SUSTAINABILITY PILLARS

The computation of the sustainability components is based on an arithmetic mean aggregation of scores from the indicator level.<sup>b</sup>

Variables that are not derived from the Executive Opinion Survey (the Survey) are identified by an asterisk (\*) in the following pages. To make the aggregation possible, these variables are transformed into 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.<sup>c</sup>

Indicators marked with a “(log)” subscript are transformed applying the logarithm (base 10) to the raw score.

Social sustainability pillar

- S01 Income Gini index\*
- S02 Youth unemployment\*
- S03 Access to sanitation\*<sub>(log)</sub>
- S04 Access to improved drinking water\*<sup>d</sup>
- S05 Access to healthcare<sup>d</sup>
- S06 Social safety net protection
- S07 Extent of informal economy
- S08 Social mobility
- S09 Vulnerable employment\*

Environmental sustainability pillar

- S10 Stringency of environmental regulation<sup>e</sup>
- S11 Enforcement of environmental regulation<sup>e</sup>
- S12 Terrestrial biome protection\*
- S13 No. of ratified international environmental treaties\*
- S14 Agricultural water intensity\*
- S15 CO<sub>2</sub> intensity\*<sub>(log)</sub>
- S16 Fish stocks overexploited\*<sub>(log)</sub>
- S17 Forest cover change\*
- S18 Particulate matter (2.5) concentration\*<sub>(log)</sub>
- S19 Quality of the natural environment

NOTES

a Formally we have

$$0.4 \times \left( \frac{\text{country score} - \text{sample minimum}}{\text{sample maximum} - \text{sample minimum}} \right) + 0.8$$

The *sample minimum* and *sample maximum* are, respectively, the lowest and highest country scores in the sample of economies covered by the sustainability-adjusted GCI in each pillar.

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

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

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 sustainability-adjusted 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., CO<sub>2</sub> emission, income Gini index), the transformation formula takes the following form, thus ensuring that 1 and 7 still corresponds to the worst and best possible outcomes, best possible outcomes, respectively:

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

d Variables S03, S04, and S05 are combined to form one single variable.

e Variables S10 and S11 are combined to form one single variable.

# Appendix B:

## Technical notes and sources for sustainability indicators

The data in this *Report* represent the best available estimates from various national authorities, international agencies, and private sources at the time the *Report* was prepared. It is possible that some data will have been revised or updated by the sources after publication. Throughout the *Report*, “n/a” denotes that the value is not available or that the available data are unreasonably outdated or do not come from a reliable source. For each indicator, the title appears on the first line, preceded by its number to allow for quick reference. The numbering is the same as the one used in Appendix A. Below is a description of each indicator or, in the case of Executive Opinion Survey data, the full question and associated answers. If necessary, additional information is provided underneath.

**S01 Income Gini coefficient**

Measure of income inequality (0 = perfect equality; 100 = perfect inequality) | 2011 or most recent available

This indicator measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.

Sources: The World Bank, *World Development Indicators Online* (retrieved May 27, 2013); US Central Intelligence Agency, *The World Factbook* (retrieved June 6, 2013); national sources

**S02 Youth unemployment**

Percent of total unemployed youth to total labor force aged 15–24 | 2010 or most recent available

Youth unemployment refers to the share of the labor force aged 15–24 without work but available for and seeking employment.

Sources: International Labour Organization, *Key Indicators of the Labour Markets Net* (retrieved June 5, 2013) ;The World Bank, *World Development Indicators Online* (retrieved May 27, 2013); national sources

**S03 Access to sanitation**

Percent of total population using improved sanitation facilities | 2011 or most recent available

Share of the population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection. To be effective, facilities must be correctly constructed and properly maintained.

Source: World Health Organization, *World Health Statistics 2013* (online database, retrieved June 5, 2013)

**S04 Access to improved drinking water**

Percent of the population with access to improved drinking water | 2011 or most recent available

Share of the population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, or rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. Reasonable access is defined as the availability of at least 20 liters per person per day from a source within 1 kilometer of the dwelling.

Source: World Health Organization, *World Health Statistics 2013* (online database retrieved June 5, 2013)

**S05 Accessibility of healthcare services**

How accessible is healthcare in your country? [1 = limited, only the privileged have access; 7 = universal, all citizens have access to healthcare] | 2012–2013 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2012 and 2013 editions

**S06 Social safety net protection**

In your country, does a formal social safety net provide protection from economic insecurity due to job loss or disability? [1 = not at all; 7 = fully] | 2012–2013 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2012 and 2013 editions

**S07 Extent of informal economy**

How much economic activity in your country would you estimate to be undeclared or unregistered? [1 = most economic activity is undeclared or unregistered; 7 = most economic activity is declared or registered] | 2012–2013 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2012 and 2013 editions

**S08 Social mobility**

To what extent do individuals in your country have the opportunity to improve their economic situation through their personal efforts regardless of the socioeconomic status of their parents? [1 = little opportunity exists to improve one's economic situation; 7 = significant opportunity exists to improve one's economic situation] | 2012–2013 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2012 and 2013 editions

**S09 Vulnerable employment**

[Proportion of own-account and contributing family workers in total employment | 2011 or most recent year available](#)

*Vulnerable employment* refers to unpaid family workers and own-account workers as a percentage of total employment—that is, the share of own-account and contributing family workers in total employment. A *contributing family worker* is a person who is self-employed in a market-oriented establishment operated by a related person living in the same household, and who cannot be regarded as a partner because of the degree of his or her commitment to the operation of the establishment, in terms of the working time or other factors to be determined by national circumstances, is not at a level comparable with that of the head of the establishment.

Source: The World Bank, *World Development Indicators Online* (retrieved May 26, 2013)

**S10 Stringency of environmental regulations**

[How would you assess the stringency of your country's environmental regulations? \[1 = very lax ; 7 = among the world's most stringent\] | 2012–2013 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey, 2012 and 2013 editions

**S11 Enforcement of environmental regulations**

[How would you assess the enforcement of environmental regulations in your country? \[1 = very lax ; 7 = among the world's most rigorous\] | 2012–2013 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey, 2012 and 2013 editions

**S12 Terrestrial biome protection**

[Degree to which a country achieves the target of protecting 17 percent of each terrestrial biome within its borders | 2010 or most recent year available](#)

This indicator is calculated by CIESIN (Columbia University's Center for International Earth Science Information Network) by overlaying the protected area mask on terrestrial biome data developed by the World Wildlife Fund (WWF)'s Terrestrial Ecoregions of the World for each country. A *biome* is defined as a major regional or global biotic community, such as a grassland or desert, characterized chiefly by the dominant forms of plant life and the prevailing climate. Scores are capped at 17 percent per biome such that higher levels of protection of some biomes cannot be used to offset lower levels of protection of other biomes, hence the maximum level of protection a country can achieve is 17 percent. CIESIN uses time series of the World Database on Protected Areas (WDPA) developed by the United Nations Environment Programme (UNEP) World Conservation Monitoring Centre (WCMC) in 2011, which provides a spatial time series of protected area coverage from 1990 to 2010. The WCMC considers all nationally designated protected areas whose location and extent is known. Boundaries were defined by polygons where available, and where they were not available protected area centroids were buffered to create a circle in accordance with the protected area size. The WCMC removed all overlaps between different protected areas by dissolving the boundaries to create a protected areas mask.

Source: Yale University and Columbia University, Environmental Performance Index (EPI) 2012 edition based on WWF World Wildlife Fund USA and UNEP World Conservation Centre data

**S13 No. of ratified international environmental treaties**

[Total number of ratified environmental treaties | 2012](#)

This variable measures the total number of international treaties from a set of 25 for which a state is a participant. A state is acknowledged as a "participant" whenever its status for each treaty appears as "Ratified," "Accession," or "In Force." The treaties included are: the International Convention for the Regulation of Whaling, 1948 Washington; the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended in 1962 and 1969, 1954 London; the Convention on Wetlands of International Importance especially as Waterfowl Habitat, 1971 Ramsar; the Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972 Paris; the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 London, Mexico City, Moscow, Washington; the Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1973 Washington; the International Convention for the Prevention of Pollution from Ships (MARPOL) as modified by the Protocol of 1978, 1978 London; the Convention on the Conservation of Migratory Species of Wild Animals, 1979 Bonn; the United Nations Convention on the Law of the Sea, 1982 Montego Bay; the Convention on the Protection of the Ozone Layer, 1985 Vienna; the Protocol on Substances that Deplete the Ozone Layer, 1987 Montreal; the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989 Basel; the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 London; the United Nations Framework Convention on Climate Change, 1992 New York; the Convention on Biological Diversity, 1992 Rio de Janeiro; the International Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly Africa, 1994 Paris; the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, 1994 New York; the Agreement relating to the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 1995 New York; the Kyoto Protocol to the United Nations Framework Convention on the Climate Change, Kyoto 1997; the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, 1998 Rotterdam; the Cartagena Protocol of Biosafety to the Convention on Biological Diversity, 2000 Montreal; the Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000 London; the Stockholm Convention on Persistent Organic Pollutants, 2001 Stockholm; the International Treaty on Plant Genetic Resources for Food and Agriculture, 2001 Rome; the International Tropical Timber Agreement, 2006 Geneva.

Source: The International Union for Conservation of Nature (IUCN) Environmental Law Centre ELIS Treaty Database

**S14 Agricultural water intensity**

[Agricultural water withdrawal as a percent of total renewable water resources | 2009 or most recent year available](#)

Agricultural water withdrawal as a percent of total renewable water resources is calculated as:  $100 \times \text{agricultural water withdrawal} / \text{total renewable water resources}$ . In turn,  $\text{total renewable} = \text{surface renewable water} + \text{renewable water resources groundwater} - \text{overlap between surface and groundwater}$ . Where available, this indicator includes water resources coming from desalination used for agriculture (as in Kuwait, Saudi Arabia, the United Arab Emirates, Qatar, Bahrain, and Spain).

Source: FAO AQUASTAT database, available at <http://www.fao.org/nr/water/aquastat/main/index.stm> (retrieved May 24, 2013)

**S15 CO<sub>2</sub> intensity**

[CO<sub>2</sub> intensity \(kg of CO<sub>2</sub> per kg of oil equivalent energy use\) | 2009](#)

Carbon dioxide (CO<sub>2</sub>) emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include CO<sub>2</sub> produced during consumption of solid, liquid, and gas fuels and gas flaring. Energy use refers to use of primary energy before transformation to other end-use fuels, which is equal to indigenous production plus imports and stock changes, minus exports and fuels supplied to ships and aircraft engaged in international transport. A logarithm transformation is applied to the ratio of these statistics in order to spread the data distribution.

Source: The World Bank, *World Development Indicators Online* (retrieved May 27, 2013)

**S16 Fish stocks overexploited**

[Fraction of country's exclusive economic zone with overexploited and collapsed stocks | 2006](#)

The See Around Us (SAU) project's Stock Status Plots (SSPs) are created in four steps (Kleisner and Pauly, 2011). In the first step, SAU defines a *stock* as a taxon (at the species, genus, or family level of taxonomic assignment) that occurs in the catch records for at least 5 consecutive years, over a minimum span of 10 years, and that has a total catch in an area of at least 1,000 tonnes over the time span. In the second step, SAU assesses the status of the stock for every year relative to the peak catch. SAU defines five states of stock status for a catch time series. This definition is assigned to every taxon that meets the definition of a stock for a particular spatial area (e.g., exclusive economic zones, or EEZs). These states are: (1) Developing—before the year of peak catch and less than 50 percent of the peak catch; (2) Exploited—before or after the year of peak catch and more than 50 percent of the peak catch; (3) Overexploited—after the year of peak catch and less than 50 percent but more than 10 percent of the peak catch; (4) Collapsed—after the year of peak catch and less than 10 percent of the peak catch; and (5) Rebuilding—after the year of peak catch and after the stock has collapsed, when catch has recovered to between 10 percent and 50 percent of the peak. In the third step, SAU graphs the number of stocks by status in a given year by tallying the number of stocks in a particular state and presenting these as percentages. In the final step, the cumulative catch of stock by status in a given year is summed over all stocks and presented as a percentage in the catch by stock status graph. The combination of these two figures represents the complete Stock Status Plot. The numbers for this indicator are taken from the overexploited and collapsed numbers of stocks over total numbers of stocks per EEZ. A logarithm transformation is applied to these statistics in order to spread the data distribution.

Source: Yale University and Columbia University, Environmental Performance Index (EPI) 2012 edition based on Sea Around Us data

**S17 Forest cover change**

[Average percent change in forest area per year between 1990 and 2010 | 2010](#)

This measure represents the percent change in forest area, applying a 10 percent crown cover as the definition of forested areas, between time periods. We used total forest extent rather than the extent of primary forest only. The change measure is calculated from forest area data in 1995, 2000, 2005, and 2010. The data are reported by national governments, and therefore methods and data sources may vary from country to country. Positive values indicate afforestation or reforestation, and negative values represent deforestation.

Source: Yale University and Columbia University, Environmental Performance Index (EPI) 2012 edition based on FAO data

**S18 Particulate Matter (2.5) concentration**

[Population-weighted exposure to PM<sub>2.5</sub> in micro-grams per cubic meter, based on satellite data | 2009](#)

This indicator is based on satellite data that are then converted to ground-level concentrations using the GEOS-Chem global chemical transport model to account for the meteorological and chemical factors that influence the spatially and temporally varying relationship between column and surface concentrations. The 0.1 × 0.1 resolution aerosol optical depth (AOD) values for 2001–05 are derived from the NASA Terra MODIS and MISR sensors, averaged to get a six-year mean AOD for each grid cell, and then population-weighted to better represent human exposure by country. PM<sub>2.5</sub> concentrations were averaged over the period 2001–05 and the grid was resampled to match the Global Rural-Urban Mapping Project 1 kilometer population grid. The weighted average of the values in each grid cell was used to derive a country total exposure to PM<sub>2.5</sub> in micrograms per cubic meter. A logarithm transformation is applied to these statistics in order to spread the data distribution.

Source: Yale University and Columbia University, Environmental Performance Index (EPI) 2012 edition based on NASA MODIS and MISR data (van Donkelaar et al. 2010), Battelle, and CIESIN

**S19 Quality of natural environment**

[How would you assess the quality of the natural environment in your country? \[1 = extremely poor; 7 = among the world's most pristine\] | 2012–2013 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey, 2012 and 2013 editions



# The Executive Opinion Survey: The Voice of the Business Community

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World Economic Forum

*The Global Competitiveness Report* continues to be a highly respected assessment of national competitiveness. To conduct this work, the World Economic Forum relies on a large set of data sourced from various international organizations and from its own annual Executive Opinion Survey (the Survey).

The Survey, administered each year in over 140 economies, captures valuable information on a broad range of factors that are critical for a country's competitiveness and sustainable development, and for which data sources are scarce or, frequently, nonexistent on a global scale. Among several examples of otherwise-unavailable data are the quality of the educational system, indicators measuring business sophistication, and labor market variables such as flexibility in wage determination.

The Survey results are used in the calculation of the Global Competitiveness Index (GCI) and other Forum indexes, including the Networked Readiness Index, the Enabling Trade Index, the Travel & Tourism Competitiveness Index, the Financial Development Index, and the Gender Gap Index, as well as in regional studies.<sup>1</sup> A truly unique source of information, the Survey data have also long served a number of international and national organizations, government bodies, and academia as well as the private sector to inform policy work, strategies, and investment decisions. For example, Transparency International uses the Survey data for the elaboration of their Corruption Perceptions Index and the Bribe Payers Index. Institutions such as the Organisation for Economic Co-operation and Development, the World Bank, and the International Monetary Fund also refer to these data in their publications, as do a number of academic publications. Finally, an increasing number of national competitiveness reports also draw on or refer to the Survey data.

## THE SURVEY IN NUMBERS

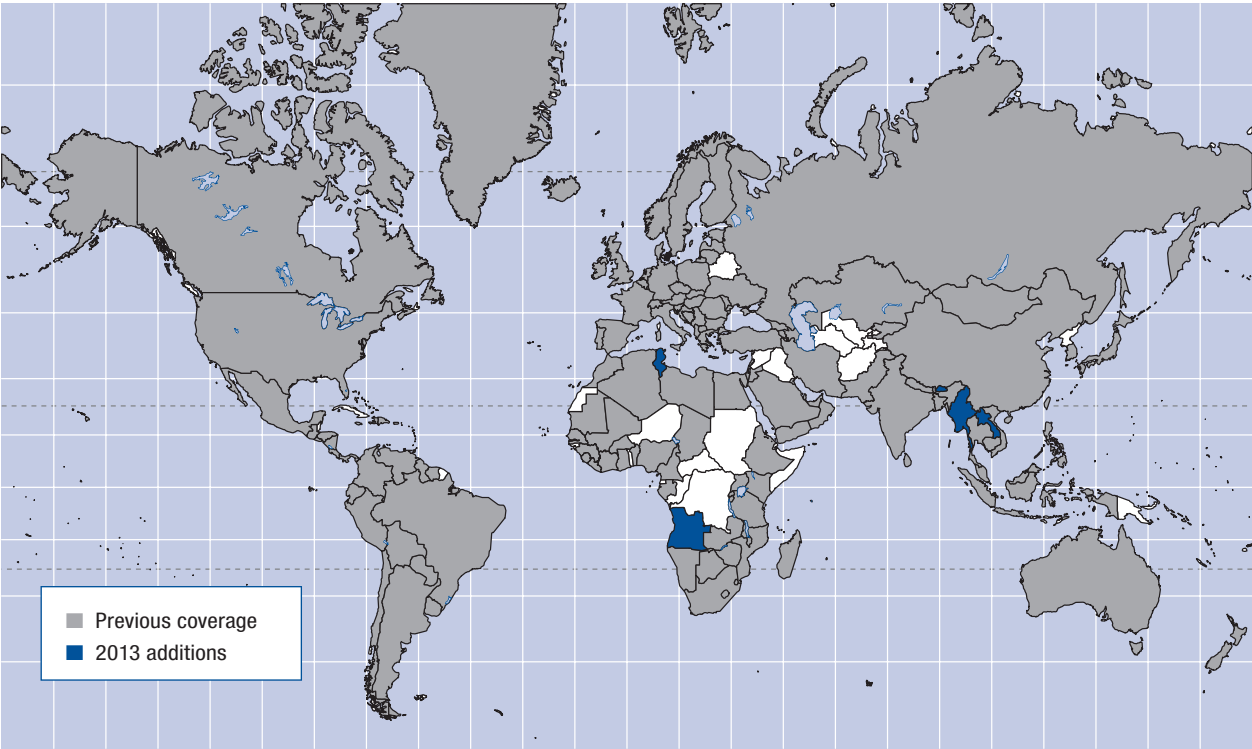
The World Economic Forum has conducted its annual Survey for over 30 years, making it the longest-running and most extensive survey of its kind. This year's Survey captured the opinions of over 13,000 business leaders in 148 economies between January and May 2013.

Following the data-editing process (see below), a total of 13,638 surveys were retained for 144 countries.<sup>2</sup> This represents an average of 94.7 respondents per country, while the median country sample size is 85.5 responses. Given the extent of the Survey's country coverage and in order to maximize its outreach, it is available in 41 languages.<sup>3</sup>

## Geographic expansion

Since the first edition of the World Economic Forum report on competitiveness in 1979, country coverage has expanded from 16 European countries to 148 economies worldwide for this edition, together accounting for over

Figure 1: Country/economy coverage of the Executive Opinion Survey 2013



**Box 1: Example of a typical Survey question**

In your country, how strong is the protection of intellectual property, including anti-counterfeiting measures?

Extremely weak < 1 2 3 4 5 6 7 > Extremely strong

- Circling 1...** means you agree completely with the answer on the left-hand side
- Circling 2...** means you largely agree with the left-hand side
- Circling 3...** means you somewhat agree with the left-hand side
- Circling 4...** means your opinion is indifferent between the two answers
- Circling 5...** means you somewhat agree with the right-hand side
- Circling 6...** means you largely agree with the right-hand side
- Circling 7...** means you agree completely with the answer on the right-hand side

99 percent of the world's gross domestic product (GDP; see Figure 1). In the 2013 edition, three additional economies are included: Bhutan, Lao PDR, and Myanmar. Furthermore, Angola and Tunisia have been

reinstated following a year of non-inclusion. Tajikistan and Syria, however, are not included in this year's edition owing to the inability to conduct a survey in these two countries.<sup>4</sup> The Forum's Global Competitiveness and Benchmarking Network continues its efforts to increase country coverage year on year.

**SURVEY STRUCTURE, ADMINISTRATION, AND METHODOLOGY**

The Survey is divided into 14 sections:

- I. About Your Company
- II. Overall Perceptions of Your Economy
- III. Infrastructure
- IV. Innovation and Technology Infrastructure
- V. Financial Environment
- VI. Foreign Trade and Investment
- VII. Domestic Competition
- VIII. Company Operations and Strategy
- IX. Government and Public Institutions
- X. Education and Human Capital
- XI. Corruption, Ethics and Social Responsibility
- XII. Travel & Tourism
- XIII. Environment
- XIV. Health

Most questions in the Survey ask respondents to evaluate, on a scale of 1 to 7, one particular aspect of their operating environment. At one end of the scale, 1

represents the worst possible situation; at the other end of the scale, 7 represents the best (see Box 1 for an example).

The administration of the Survey could not be carried out without the network of over 160 Partner Institutes worldwide. Partner Institutes are recognized research or academic institutes, business organizations, national competitiveness councils, or other renowned professional entities and, in some cases, survey consultancies (for the full list, see the Partner Institutes section at the beginning of the *Report*).<sup>5</sup> They are selected on the basis of their capacity to reach out to the business community, their reputation, and their commitment to the issue of competitiveness.

In administering the Survey, Partner Institutes are asked to follow detailed sampling guidelines to ensure that the sample of respondents is the most representative and comparable across the globe and in a specific timeframe. The sampling guidelines have evolved over time and are based on best practices in the field of survey administration and on discussion with survey experts. The Survey sampling guidelines specify that the Partner Institute should build a “sample frame”—that is, a list of potential business executives from small- and medium-sized enterprises and large companies—from the various sectors of activity as stated below. It then applies a dual stratification procedure based on these two criteria of company size and sector. More specifically, the Partner Institutes are asked to carry out the following steps:

1. Prepare a sample frame, or large list of potential respondents, which includes firms representing the main sectors of the economy (agriculture, manufacturing industry, non-manufacturing industry, and services).
2. Separate the frame into two lists: one that includes only large firms, and a second list that includes all other firms (both lists representing the various economic sectors).<sup>6</sup>
3. Based on these lists, and in view of reducing survey bias, choose a random selection of these firms from both lists to receive the Survey.

Furthermore, the sampling guidelines specify that the Partner Institute should aim to collect a combination of random respondents with some repeat respondents for further comparative analysis.<sup>7</sup> Partner Institutes are asked to collect between 80 and 100 surveys, although generally accepted practice in sampling as well as recommendations received from Gallup has led to a cut-off of a minimum of 30 surveys per country. We are working closely with the Partner Institutes to increase the sample size for countries that have collected a number

of surveys just above the cut-off. The administration of the Survey may take a variety of formats, including face-to-face interviews with business executives and mailed or telephone interviews, with an online survey option as an alternative.

For energy, time, and cost considerations, the Forum encourages the use of the online survey tool, which was available this year in 20 languages. The share of online participation has significantly increased over the years and has now reached almost 40 percent of all responses, up by 10 percent in just two years. This year, the Survey was administered entirely via the online tool in 19 economies (Argentina, Barbados, Belgium, Bolivia, the Czech Republic, El Salvador, Estonia, Finland, Georgia, Iceland, Iran, Ireland, Israel, Latvia, Malta, Norway, Puerto Rico, Switzerland, and Venezuela), while the use of the online tool exceeded 90 percent in 18 further economies (see Table 1).

The Partner Institutes also take an active and essential role in disseminating the findings of *The Global Competitiveness Report* and other reports published by The Global Competitiveness and Benchmarking Network by holding press events and workshops to highlight the results at the national level to the business community, the public sector, and other stakeholders.

Following an initial external audit by a team of survey experts from Gallup in 2008, a second review was conducted by Gallup in 2012, during which the Survey instrument, the sampling guidelines, and the administration process underwent a thorough inspection. After five years of implementing the recommendations from the first audit, it was time to take a further twofold approach by analyzing the recommendations and their impact on the process as well as keeping up to date on best practices in the field of surveying.

Overall, the outcome of the review regarding the implementation of the 2008 recommendations was commended. The audit determined that the Executive Opinion Survey process follows best practices and has made the recommended improvements to the Survey tool and translations, as well as to the sampling quality. The 2012 audit addressed an important aspect related to the impact of national culture—the so-called cultural bias—that may impact interviewee responses. The Global Competitiveness and Benchmarking Network recognizes this as a possibility; nonetheless, following international best practices and upon Gallup's recommendation, it was decided not to re-weight the data using anchoring mechanisms because of the limited effectiveness of such a procedure and to prevent adding further noise to the data. However, and as a step to follow best practices to help minimize possible language-based biases found in data collected via a single language survey, the number of languages for the Executive Opinion Survey is ever increasing, reaching 41 for this edition.

Table 1: Executive Opinion Survey: Descriptive statistics and weightings

Country/Economy	First component*			Second component: 2013 edition*		
	Survey edition	No. of respondents	Weight (%)*	No. of respondents	Online (%)	Weight (%)*
Albania	2012	81	45.0	81	0.0	55.0
Algeria	2012	33	36.8	65	0.0	63.2
Angola†‡§	—	—	—	35	40.0	100.0
Argentina	2012	99	42.4	122	100.0	57.6
Armenia	2012	80	45.6	76	1.3	54.4
Australia	2012	68	47.2	57	50.9	52.8
Austria	2012	105	45.7	99	47.5	54.3
Azerbaijan	2012	95	46.4	85	1.2	53.6
Bahrain	2012	65	50.7	41	97.6	49.3
Bangladesh	2012	86	47.4	71	0.0	52.6
Barbados	2012	72	49.3	51	100.0	50.7
Belgium	2012	83	44.6	86	100.0	55.4
Benin	2012	90	43.6	101	0.0	56.4
Bhutan††	—	—	—	85	0.0	100.0
Bolivia	2012	72	44.7	74	100.0	55.3
Bosnia and Herzegovina‡	2012	100	100.0	—	—	—
Botswana	2012	80	44.0	87	41.4	56.0
Brazil	2012	143	49.7	98	82.7	50.3
Brunei Darussalam	2012	44	48.2	34	94.1	51.8
Bulgaria	2012	120	49.9	81	0.0	50.1
Burkina Faso	2012	41	40.9	57	0.0	59.1
Burundi	2012	92	42.8	110	0.0	57.2
Cambodia	2012	77	42.6	93	0.0	57.4
Cameroon	2012	62	41.7	81	0.0	58.3
Canada	2012	103	41.8	133	97.0	58.2
Cape Verde	2012	108	48.7	80	13.8	51.3
Chad	2012	105	45.4	102	0.0	54.6
Chile	2012	78	38.8	130	58.5	61.3
China	2012	371	45.2	364	0.0	54.8
Colombia	2012	286	49.2	204	57.8	50.8
Costa Rica	2012	94	43.0	110	97.3	57.0
Côte d'Ivoire	2012	92	46.6	81	0.0	53.4
Croatia	2012	107	48.6	80	28.8	51.4
Cyprus	2012	79	47.8	63	0.0	52.2
Czech Republic	2012	163	58.3	50	100.0	41.7
Denmark	2012	128	41.3	173	0.0	58.7
Dominican Republic	2012	91	51.0	56	5.4	49.0
Ecuador†	2011	134	46.6	118	72.9	53.4
Egypt	2012	73	47.4	60	0.0	52.6
El Salvador	2012	34	41.8	44	100.0	58.2
Estonia	2012	85	44.0	92	100.0	56.0
Ethiopia	2012	60	39.0	98	0.0	61.0
Finland	2012	36	43.7	40	100.0	56.3
France	2012	129	50.9	80	3.8	49.1
Gabon	2012	48	42.4	59	0.0	57.6
Gambia, The	2012	87	46.7	76	0.0	53.3
Georgia†	2011	95	48.1	74	100.0	51.9
Germany	2012	127	41.4	170	85.9	58.6
Ghana	2012	79	46.5	70	4.3	53.5
Greece	2012	83	43.9	91	90.1	56.1
Guatemala	2012	83	44.6	86	1.2	55.4
Guinea	2012	60	45.9	56	0.0	54.1
Guyana	2012	89	44.6	92	0.0	55.4
Haiti	2012	67	38.2	117	0.0	61.8
Honduras	2012	86	50.5	55	0.0	49.5
Hong Kong SAR	2012	69	46.7	60	63.3	53.3
Hungary	2012	103	47.0	88	63.6	53.0
Iceland	2012	93	45.3	91	100.0	54.7
India	2012	122	49.5	85	90.6	50.5
Indonesia	2012	88	45.1	87	0.0	54.9
Iran, Islamic Rep.	2012	585	61.4	121	100.0	38.6
Ireland	2012	62	46.5	55	100.0	53.5
Israel	2012	51	43.0	60	100.0	57.0
Italy	2012	87	45.3	85	4.7	54.7
Jamaica	2012	75	47.6	61	0.0	52.4
Japan	2012	111	44.6	115	6.1	55.4
Jordan‡	2012	156	100.0	—	—	—
Kazakhstan	2012	103	44.5	107	0.0	55.5
Kenya	2012	112	46.4	100	0.0	53.6
Korea, Rep.	2012	98	47.4	81	0.0	52.6
Kuwait§	2012	38	45.7	36	47.2	54.3
Kyrgyz Republic	2012	99	44.8	101	0.0	55.3
Lao PDR††	—	—	—	62	0.0	100.0
Latvia	2012	98	45.1	97	100.0	54.9
Lebanon§	2012	38	44.7	39	94.9	55.3

(Cont'd.)

Table 1: Executive Opinion Survey: Descriptive statistics and weightings (cont'd.)

Country/Economy	First component*			Second component: 2013 edition*		
	Survey edition	No. of respondents	Weight (%)*	No. of respondents	Online (%)	Weight (%)*
Lesotho	2012	89	43.9	97	0.0	56.1
Liberia	2012	85	43.0	100	0.0	57.0
Libya	2012	72	46.7	63	23.8	53.3
Lithuania	2012	153	46.0	141	62.4	54.0
Luxembourg	2012	45	42.1	57	98.2	57.9
Macedonia, FYR	2012	89	46.0	82	0.0	54.0
Madagascar	2012	92	38.5	157	0.0	61.5
Malawi	2012	61	46.3	55	10.9	53.7
Malaysia	2012	79	41.4	106	38.7	58.6
Mali	2012	102	46.0	94	0.0	54.0
Malta	2012	58	49.0	42	100.0	51.0
Mauritania	2012	82	44.1	88	0.0	55.9
Mauritius	2012	91	47.1	77	90.9	52.9
Mexico	2012	278	43.2	320	87.8	56.8
Moldova	2012	112	43.9	122	0.0	56.1
Mongolia	2012	85	44.9	86	0.0	55.1
Montenegro	2012	76	44.7	78	0.0	55.3
Morocco	2012	40	36.4	82	1.2	63.6
Mozambique	2012	91	45.6	87	1.1	54.4
Myanmar <sup>††</sup>	—	—	—	79	0.0	100.0
Namibia	2012	82	45.5	79	0.0	54.5
Nepal	2012	93	45.0	93	4.3	55.0
Netherlands	2012	82	44.3	87	96.6	55.7
New Zealand <sup>§</sup>	2012	55	49.9	37	100.0	50.1
Nicaragua	2012	77	46.4	69	98.6	53.6
Nigeria	2012	104	44.4	109	1.8	55.6
Norway	2012	75	46.2	68	100.0	53.8
Oman <sup>†</sup>	2012	78	100.0	—	—	—
Pakistan	2012	110	42.9	130	14.6	57.1
Panama	2012	133	45.3	130	72.3	54.7
Paraguay	2012	80	49.0	58	0.0	51.0
Peru	2012	83	45.6	79	22.8	54.4
Philippines	2012	132	49.1	95	1.1	50.9
Poland	2012	206	44.9	208	99.0	55.1
Portugal	2012	115	46.7	100	60.0	53.3
Puerto Rico	2012	71	47.7	57	100.0	52.3
Qatar	2012	123	46.9	106	6.6	53.1
Romania	2012	98	44.4	103	0.0	55.6
Russian Federation	2012	414	49.2	294	4.8	50.8
Rwanda <sup>†</sup>	2011	40	36.5	81	0.0	63.5
Saudi Arabia	2012	95	40.3	139	59.0	59.7
Senegal	2012	94	44.5	98	0.0	55.5
Serbia	2012	99	44.9	100	0.0	55.1
Seychelles <sup>§</sup>	2012	32	45.4	31	0.0	54.6
Sierra Leone	2012	99	45.0	99	0.0	55.0
Singapore	2012	178	47.1	150	63.3	52.9
Slovak Republic	2012	68	38.7	114	78.1	61.3
Slovenia	2012	110	46.4	98	0.0	53.6
South Africa	2012	45	44.5	47	85.1	55.5
Spain	2012	91	46.0	84	69.0	54.0
Sri Lanka <sup>†</sup>	2011	105	45.6	100	0.0	54.4
Suriname	2012	37	41.3	50	0.0	58.7
Swaziland <sup>§</sup>	2012	51	50.7	32	34.4	49.3
Sweden	2012	77	51.6	45	95.6	48.4
Switzerland	2012	79	46.3	71	100.0	53.7
Taiwan, China	2012	70	44.8	71	59.2	55.2
Tanzania	2012	99	45.9	92	0.0	54.1
Thailand	2012	75	43.3	86	97.7	56.7
Timor-Leste <sup>§</sup>	2012	35	45.4	34	0.0	54.6
Trinidad and Tobago	2012	151	46.7	132	92.4	53.3
Tunisia	2012	83	44.9	84	38.1	55.1
Turkey	2012	85	43.7	94	39.4	56.3
Uganda	2012	90	44.6	93	0.0	55.4
Ukraine	2012	109	45.1	108	2.8	54.9
United Arab Emirates <sup>†</sup>	2012	169	100.0	—	—	—
United Kingdom	2012	102	43.2	118	98.3	56.8
United States	2012	397	39.9	598	99.3	60.1
Uruguay	2012	81	43.4	92	42.4	56.6
Venezuela	2012	39	41.0	54	100.0	59.0
Vietnam	2012	96	43.4	109	0.0	56.6
Yemen	2012	53	41.2	72	0.0	58.8
Zambia	2012	94	46.3	85	0.0	53.7
Zimbabwe	2012	64	46.4	57	42.1	53.6
Grand total/Average				13,638	39.1	

Note: All statistics were computed following the editing process. See text for details. \* The table reports the information about the two Survey editions used in the computation of the two-year weighted average score. See Box 2 for explanation. <sup>§</sup> For these countries, we are working closely with Partner Institutes to increase the sample size. Survey edition(s) used for the computation of country scores are as follows: <sup>†</sup> 2011 and 2013; <sup>‡</sup> 2012; <sup>††</sup> 2013. See Box 2 for details about exceptions.

With the aim of continually improving the Survey tool and processes, and following expert recommendations, the Survey was made shorter and the terminology simplified. An Executive Opinion Survey administration manual is also being developed for the Partner Institutes.

With such ongoing efforts in the realm of survey administration best practice, The Global Competitiveness and Benchmarking Network team continues to improve processes to achieve greater data quality and heightened comparability across economies.

DATA TREATMENT AND SCORE COMPUTATION

This section details the process whereby individual responses are edited and aggregated in order to produce the scores of each economy on each individual question of the Survey. These results, together with other indicators obtained from other sources, feed into the GCI and other projects.<sup>8</sup>

Data editing

Prior to aggregation, the respondent-level data are subjected to a careful editing process. The first editing rule consists of excluding those surveys with a completion rate inferior to 50 percent.<sup>9</sup> This is because a partially completed survey probably demonstrates a lack of sufficient focus on the part of the respondent. In a second step, a multivariate outlier analysis is applied to the data using the Mahalanobis distance technique. This test assesses whether each individual survey is representative, given the overall sample of survey responses in the specific country, and allows for the deletion of clear outliers.

More specifically, the Mahalanobis distance test estimates the likelihood that one particular point of  $N$  dimensions belongs to a set of such points. One single survey made up of  $N$  answers can be viewed as the point of  $N$  dimensions, while a particular country sample  $c$  is the set of points. The Mahalanobis distance is used to compute the probability that any survey  $i$  does not belong to the sample  $c$ . If the probability is high enough—we use 99.9 percent as the threshold—we conclude that the survey is a clear outlier and does not “belong” to the sample. The implementation of this test requires that the number of responses in a country be greater than the number of answers,  $N$ , used in the test. The test uses 65 questions, selected by their relevance and placement in the Survey instrument.

A univariate outlier test is then applied at the country level for each question of each survey. We use the standardized score—or “z-score”—method, which indicates by how many standard deviations any one individual answer deviates from the mean of the country sample. Individual answers with a standardized score  $Z_{i,q,c}$  greater than 3 are dropped.

Data weighting: Sector-weighted country averages

Once the data have been edited, individual answers are aggregated at the country level. We compute sector-weighted country averages to obtain a more representative average that takes into account the structure of a country’s economy. The structure is defined by the estimated contributions to a country’s GDP of each of the four main economic sectors: agriculture, manufacturing industry, non-manufacturing industry, and services (see Table 2).<sup>10</sup>

An additional step is taken to prevent individual responses within a sample from receiving excessive weight when the structure of the sample and the underlying economy differ greatly. As an extreme example, imagine the case of a country where just 3 percent of responses come from the services sector, but that sector actually represents 90 percent of the country’s economy. By applying the above sector-weighting scheme, we would be giving a very high weight to a very few surveys. This is avoided by “trimming” the sector weights. When, for a particular country, the ratio of the weight of one sector in the economy to the percentage of surveys from that sector in the country sample exceeds 5, the sector weight used for the weighted average is capped to five times the percentage of surveys from that sector in the sample. The weights of the other sectors are then adjusted proportionally to their weight in the country’s GDP.

Formally, the sector-weighted average of a Survey indicator  $i$  for country  $c$ , denoted  $q_{i,c}$ , is computed as follows:

$$q_{i,c} = \sum_s w_{s,c} \times q_{i,s,c}$$

with

$$q_{i,s,c} = \sum_j \frac{q_{ij,s,c}}{N_{s,c}}$$

where

- $w_{s,c}$  is sector  $s$ ’s contribution to the economy of country  $c$ ;
- $q_{i,s,c}$  is the mean of the answers to question  $i$  from sector  $s$  in country  $c$ ;
- $q_{ij,s,c}$  is the answer to question  $i$  from respondent  $j$  in sector  $s$  in country  $c$ ; and
- $N_{s,c}$  is the number of responses from sector  $s$  in country  $c$ .

When, for a given country, the sample size is too small or the sectoral representation of the sample is too different from the actual structure in the economy, the mechanism described above might not be sufficient to prevent an individual response from receiving a disproportionate weight.<sup>11</sup> In such a case the economic sector stratification average is abandoned and a simple average of the surveys is applied, where all individual responses contribute equally to the country score



Table 2: Sectoral value-added as a share (%) of GDP, most recent year available

Country/Economy	Agriculture	Manu- facturing industry	Non- manufactur- ing industry	Services
Albania	20	19*		61
Algeria	7	7	56	31
Angola	10	6	54	30
Argentina	9	18	9	65
Armenia	21	11	27	42
Australia	2	9	10	78
Austria	2	19	10	69
Azerbaijan	6	6	61	27
Bahrain	0	15	30	54
Bangladesh	18	18	10	53
Barbados	3	7	16	74
Belgium	1	14	8	78
Benin	32	8	6	54
Bhutan	16	9	35	40
Bolivia	12	13	21	54
Bosnia and Herzegovina†	8	13	16	63
Botswana	2	4	43	51
Brazil	5	15	13	67
Brunei Darussalam	1	12	55	32
Bulgaria	5	17	14	63
Burkina Faso	33	14	9	44
Burundi	35	10	9	46
Cambodia	36	16	8	41
Cameroon	19	17	14	50
Canada	2	12	20	66
Cape Verde	10	9	9	72
Chad	14	7	42	38
Chile	3	12	27	57
China	10	30	17	43
Colombia	7	15	17	62
Costa Rica	7	18	9	66
Côte d'Ivoire	24	21	9	45
Croatia	5	18	9	67
Cyprus	2	8	12	78
Czech Republic	2	31	8	60
Denmark	1	12	10	77
Dominican Republic	6	25	8	61
Ecuador	7	11	30	52
Egypt	14	15	22	49
El Salvador	13	20	7	60
Estonia	4	18	12	65
Ethiopia	42	5	8	46
Finland	3	19	10	68
France	2	11	8	79
Gabon	4	3	58	36
Gambia, The	30	4	7	58
Georgia	7	10	8	75
Germany	1	21	7	71
Ghana	27	6	19	47
Greece	6	10	6	79
Guatemala	41	20	10	30
Guinea	13	5	42	39
Guyana	21	4	29	46
Haiti	26	8	11	55
Honduras	12	18	8	61
Hong Kong SAR	0	2	6	93
Hungary	4	23	8	65
Iceland	7	15	10	68
India	17	14	13	56
Indonesia	17	11	34	38
Iran, Islamic Rep.	10	11	34	45
Ireland	1	24	8	67
Israel	3	22	9	67
Italy	2	17	9	73
Jamaica	6	9	12	73
Japan	1	19	8	71
Jordan†	3	19	11	66
Kazakhstan	5	13	32	50
Kenya	23	11	8	58
Korea, Rep.	3	31	9	58
Kuwait	0	2	49	49
Kyrgyz Republic	20	18	11	51
Lao PDR	31	8	27	35
Latvia	4	12	10	74
Lebanon	6	8	13	72
Lesotho	8	12	22	59
Liberia	77	5*		18
Libya	2	4	74	20
Lithuania	4	23	5	68
Luxembourg	0	7	6	86
Macedonia, FYR	11	18	10	61
Madagascar	29	14	2	55
Malawi	31	10	6	53
Malaysia	11	26	18	45
Mali	37	3	21	39
Malta	2	13	19	65
Mauritania	16	4	43	37
Mauritius	4	18	9	70
Mexico	4	18	16	62
Moldova	13	12	0	74
Mongolia	15	8	28	48
Montenegro	10	6	14	70
Morocco	15	15	14	55
Mozambique	32	13	12	44
Myanmar	48	12	5	35
Namibia	7	8	12	73
Nepal	38	6	9	47
Netherlands	2	13	11	74
New Zealand	6	15	10	70
Nicaragua	21	20	11	47
Nigeria	33	4	36	27
Norway	2	9	31	58
Oman†	2	8	47	43
Pakistan	22	15	11	53
Panama	4	6	11	79
Paraguay	22	11	8	59
Peru	8	16	17	58
Philippines	13	19	11	57
Poland	4	18	13	65
Portugal	2	13	10	75
Puerto Rico	1	46	4	49
Qatar	0	4	71	25
Romania	7	21	4	68
Russian Federation	4	16	20	59
Rwanda	32	7	8	53
Saudi Arabia	2	10	50	38
Senegal	18	14	10	58
Serbia	9	16	11	64
Seychelles	2	11	7	80
Sierra Leone	44	4	15	37
Singapore	0	21	6	73
Slovak Republic	4	21	14	61
Slovenia	2	21	11	66
South Africa	2	13	17	67
Spain	3	13	13	71
Sri Lanka	14	17	11	58
Suriname	11	23	15	51
Swaziland	8	41	5	46
Sweden	2	16	10	72
Switzerland	1	19	8	72
Taiwan, China	1	32	4	62
Tanzania	27	10	17	46
Thailand	12	39	5	44
Timor-Leste	27	3	15	56
Trinidad and Tobago	1	5	47	47
Tunisia	8	18	16	58
Turkey	9	18	9	64
Uganda	23	8	17	51
Ukraine	8	18	14	60
United Arab Emirates†	2	12	48	38
United Kingdom	1	11	10	78
United States	1	13	7	79
Uruguay	10	13	12	65
Venezuela	4	15	40	42
Vietnam	20	19	22	40
Yemen	8	6	23	63
Zambia	21	9	28	42
Zimbabwe	13	11	12	64

Sources: World Bank, *World Development Indicators* (accessed December 12, 2012); Economist Intelligence Unit, *CountryData database* (accessed December 13, 2012); US Central Intelligence Agency, *The World Factbook* (accessed December 13, 2012)

\* Combined share of manufacturing and non-manufacturing sectors.

† Figures were collected in December 2011 used for the computation of the 2012 Survey results.

Box 2: Country score calculation

This box presents the method applied to compute the country scores in *The Global Competitiveness Report 2013–2014*.

For any given Survey question  $i$ , country  $c$ 's final score,  $q_{ic}^{2012-13}$ , is given by:

$$q_{ic}^{2012-13} = w_c^{2012} \times q_{ic}^{2012} + w_c^{2013} \times q_{ic}^{2013} \tag{1}$$

where

$q_{ic}^t$  is country  $c$ 's score on question  $i$  in year  $t$ , with  $t = 2012, 2013$ , as computed following the approach described in the text;

$q_{ic}^t$  is respondent  $n$ 's response (on a 1–7 scale) to question  $i$  in year  $t$ ; and

$w_c^t$  is the weight applied to country  $c$ 's score in year  $t$  (see below).

The weights for each year are determined as follows:

$$w_c^{2012} = \frac{(1-\alpha) + \frac{N_c^{2012}}{N_c^{2012} + N_c^{2013}}}{2} \tag{2a} \quad \text{and} \quad w_c^{2013} = \frac{\alpha + \frac{N_c^{2013}}{N_c^{2012} + N_c^{2013}}}{2} \tag{2b}$$

where  $N_c^t$  is the sample size (i.e., the number of respondents) for country  $c$  in year  $t$ , with  $t = 2012, 2013$ .

Plugging Equations (2a) and (2b) into (1) and rearranging yields:

$$q_{ic}^{2012-13} = \frac{1}{2} \times \underbrace{\left[ (1-\alpha) \times q_{ic}^{2012} + \alpha \times q_{ic}^{2013} \right]}_{\text{discounted-past weighted average}} + \frac{1}{2} \times \underbrace{\left[ \frac{N_c^{2012}}{N_c^{2012} + N_c^{2013}} \times q_{ic}^{2012} + \frac{N_c^{2013}}{N_c^{2012} + N_c^{2013}} \times q_{ic}^{2013} \right]}_{\text{sample-size weighted average}}. \tag{3}$$

In Equation (3), the first component of the weighting scheme is the discounted-past weighted average. The second component is the sample size-weighted average. The two components are given half-weight each. The value for  $\alpha$  is 0.6, which corresponds to a discount factor of 2/3. That is, the 2012 score of country  $c$  is given 2/3 of the weight given to the 2013 score. One additional characteristic of this approach is that it prevents a country sample that is much larger in one year from overwhelming the smaller sample from the other year.

The formula is easily generalized. For any two consecutive editions  $t_1$  and  $t_2$  of the Survey, country  $c$ 's final score on question  $i$  is computed as follows:

$$q_{ic}^{t_1-t_2} = \frac{1}{2} \times \left[ (1-\alpha) \times q_{ic}^{t_1} + \alpha \times q_{ic}^{t_2} \right] + \frac{1}{2} \times \left[ \frac{N_c^{t_1}}{N_c^{t_1} + N_c^{t_2}} \times q_{ic}^{t_1} + \frac{N_c^{t_2}}{N_c^{t_1} + N_c^{t_2}} \times q_{ic}^{t_2} \right]. \tag{4}$$

Exceptions

As described in the text, there are a number of exceptions to the approach described above. In describing them below, we use actual years—rather than letters—in equations for the sake of concreteness.

In the case of Survey questions that were introduced in 2013, where, by definition, no past data exist, the weight applied is  $w_c^{2012} = 0$  and  $w_c^{2013} = 1$ . Equation (1) simply is  $q_{ic}^{2012-13} = q_{ic}^{2013}$ . The same is true for those countries that are newly covered (Bhutan, Lao PDR, and Myanmar) and reinstated (Angola and Tunisia) in 2013. For these countries too we use  $q_{ic}^{2012-13} = q_{ic}^{2013}$ .

In the case of countries that failed the inter-year robustness check, the weight applied is  $w_c^{2012} = 1$  and  $w_c^{2013} = 0$ , so that Equation (1) simply becomes  $q_{ic}^{2012-13} = q_{ic}^{2012}$ . In the case of countries that failed the inter-year robustness check last year and for which the 2012 data were discarded, we use the Survey data from 2011 instead, and combine them with those of 2013 to compute the scores. Equation (1) then becomes  $q_{ic}^{2011,2013} = w_c^{2011} \times q_{ic}^{2011} + w_c^{2013} \times q_{ic}^{2013}$ .

Example

For this example, we compute the score of Panama for indicator 7.03 *Hiring and firing practices*, which is derived from the following Survey question: “In your country, how would you characterize the hiring and firing of workers? [1 = heavily impeded by regulations; 7 = extremely flexible].” This question is *not* a new question, and Panama did not fail the inter-year robustness test either this year or last year. Therefore, the general case of Equation (1) applies. Panama's score was 3.57 in 2012 and 3.82 in 2013. The weighting scheme described above indicates how the two scores are combined. In Panama, the size of the sample was 133 in 2012 and 130 in 2013. Using  $\alpha = 0.6$  and applying Equations (2a) and (2b) yields weights of 45.3 percent for 2012 and 54.7 percent for 2013 (see Table 1). The final country score for this question is given by Equation (1):

(Cont'd.)

Box 2: Country score calculation (cont'd.)

$$\underbrace{0.453 \times 3.57}_{2012} + \underbrace{0.547 \times 3.82}_{2013} = 3.71.$$

This is the final score used in the computation of the GCI and reported in Table 7.03 (see page 490). Although numbers are rounded to two decimal places in this example and to one decimal place in the data tables, exact figures are used in all calculations.

regardless of the sector of activity of the respondents' companies. In 2013, this was the case for seven countries: Angola, Bahrain, El Salvador, Finland, Kuwait, Seychelles, and Venezuela.

Data weighting: Moving average

As a final step, the sector-weighted country averages for 2013 are combined with the 2012 averages to produce the country scores that are used for the computation of the GCI 2013–2014 and for other projects.

This moving average technique, introduced in 2008, consists of taking a weighted average of the most recent year's Survey results together with a discounted average of the previous year. There are several reasons for doing this. First, it makes results less sensitive to the specific point in time when the Survey is administered. Second, it increases the amount of available information by providing a larger sample size. Additionally, because the Survey is carried out during the first quarter of the year, the average of the responses in the first quarter of 2012 and first quarter of 2013 better aligns the Survey data with many of the data indicators from sources other than the Survey, which are often year-average data.

For newly introduced questions, for which no time series exists, the final country score corresponds to the country score in 2013. This year, this is the case for indicators 6.04 *Effect of taxation on incentives to invest*, 7.05 *Effect of taxation on the incentive to work*, 7.08 *Country capacity to retain talent*, and 7.09 *Country capacity to attract talent*, which are derived from four Survey questions introduced in 2013 to replace two double-barreled questions on the capacity to attract and retain talent and on the effect of taxation on incentives to invest and work, respectively.

To calculate the moving average, we use a weighting scheme composed of two overlapping elements. On one hand, we want to give each response an equal weight and, therefore, place more weight on the year with the larger sample size. At the same time, we would like to give more weight to the most recent responses because they contain more updated information. That is, we also "discount the past." Table 1 reports the exact weights

used in the computation of the scores of each country, while Box 2 details the methodology and provides a clarifying example.

Inter-year robustness test and trend analysis

The two tests described above address variability issues among individual responses in a country. Yet they were not designed to track the evolution of country scores across time. We therefore carry out an analysis to assess the reliability and consistency of the Survey data over time. As part of this analysis, we run an inter-quartile range test, or IQR test, to identify large swings—positive and negative—in the country scores. More specifically, for each country we compute *c* as the average difference in country scores across all the Survey questions. We then compute the inter-quartile range (i.e., the difference between the 25th percentile and the 75th percentile), denoted *iq*, of the sample of 148 economies. Any value *c* lying outside the range bounded by the 25th percentile minus 1.5 times *iq* and the 75th percentile plus 1.5 times *iq* is identified as a potential outlier. Formally, we have:

$$\begin{cases} \text{lower bound} = Q1 - 1.5 \times IQR \\ \text{upper bound} = Q3 + 1.5 \times IQR \end{cases}$$

where  
Q1 and Q3 correspond to the 25th and 75th percentiles of the sample, respectively, and  
*IQR* is the difference between these two values.

In addition to this test, we conduct an analysis of the evolution in the results over the past five editions and also consider the latest developments in all countries displaying large swings.

Based on this quantitative and qualitative analyses, the 2013 Survey data collected in Bosnia and Herzegovina, Jordan, Oman, and the United Arab Emirates appear to deviate significantly from the historical trends, and recent developments in these countries do not seem to provide enough justification for the large swings observed. For these four countries, therefore, we use only the 2012 Survey data in the computation of this year's GCI. Although this remains

a remedial measure, we will continue to investigate the situation over the coming months in an effort to improve the representativeness of the Survey data in these countries. Last year, the same analysis resulted in the Survey data of four countries—Ecuador, Georgia, Rwanda, and Sri Lanka—being removed. This year, as an intermediate step toward the re-establishment of the standard computation method, we used a weighted average of the Survey data of 2011 for these countries—that is, the edition preceding the problematic one—and 2013.

CONCLUSION

The World Economic Forum's Executive Opinion Survey remains the largest poll of its kind, capturing the insight of more than 13,000 executives into critical drivers of their respective countries' development. This scale could not be achieved without the tremendous efforts of the Forum's network of over 160 Partner Institutes in carrying out the Survey at a national level. It gathers valuable information on a broad range of variables for which data sources are scarce or nonexistent. For this reason, and for the integrity of our publication and related research, sampling and comparability across the globe remain an essential and ongoing endeavor of The Global Competitiveness and Benchmarking Network.

NOTES

- 1 For Forum competitiveness publications, please see <http://www.weforum.org/content/pages/competitiveness-library>.
- 2 For a number of countries, 2013 data were not used. Please see the data-editing section for further details.
- 3 The Executive Opinion Survey 2013 is available in the following 41 languages—13 more than last year: Albanian, Arabic, Armenian, Azeri, Bosnian, Brazilian Portuguese, Bulgarian, Burmese, Chinese, Croatian, Czech, Danish, Estonian, English, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Khmer, Korean, Lao, Latvian, Lithuanian, Macedonian, Mongolian, Montenegrin, Persian, Polish, Portuguese, Romanian, Russian, Serbian, Slovak, Slovenian, Spanish, Turkish, Urdu, and Vietnamese.
- 4 In the case of Tajikistan, the Survey was not conducted because of a lack of clearance for its administration.
- 5 The World Economic Forum's Global Competitiveness and Benchmarking Network would like to acknowledge e-Rewards Market Research for carrying out the Executive Opinion Survey 2013 in the United States, collecting over 670 surveys following the detailed sampling guidelines. Furthermore, e-Rewards supplemented a sample of 128 in Germany as well as 71 in India.
- 6 *Company size* is defined as the number of employees of the firm in the country of the Survey respondent. The company size value used for delineating the large and small company sample frames varies across countries. The size value tracks closely with the overall size of the economy. Adjustments were made to the value based on searches in company directories and data gathered through the administration of the Survey in past years.
- 7 In order to reach the required number of surveys in each country (80 for most economies and 300 for the BRICs countries and the United States), a Partner Institute uses the response rate from previous years.
- 8 The *results* are the *scores* obtained by each economy in the various questions of the Survey. The two terms are used interchangeably throughout the text.

- 9 The *completion rate* is the proportion of answered questions among the 131 questions in the survey instrument used in the computation of the indexes.
- 10 In some cases, the information about the company's sector of activity is missing. In these cases, for any given country when the sample includes at least one survey without sector information, the average response values across the surveys are apportioned to the other sectors according to the sample sizes in those other sectors. This has the effect of including these surveys on a one-for-one basis as they occur in the sample—that is, with no adjustment for sector.
- 11 Following the computation of the sector-weighted country scores, for each country we compute the weight of each individual response in the sample. For any given country, if the individual weight of a response exceeds 10 percent, we abandon the sector-weighted approach and apply a simple average across all responses.

# Part 2

## Data Presentation





# 2.1

## Country/Economy Profiles



# How to Read the Country/Economy Profiles

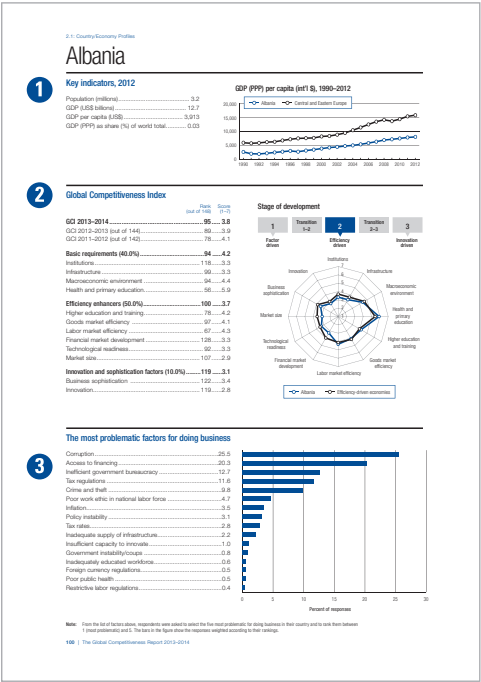
The Country/Economy Profiles section presents a two-page profile for each of the 148 economies covered in *The Global Competitiveness Report 2013–2014*.

PAGE 1

1 Key indicators

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

- Population figures are from The World Bank, *World Development Indicators* (April 2013 edition). The population figure for Taiwan (China) is sourced from Taiwan’s national statistics.
- Gross domestic product (GDP) data come from the April 2013 edition of the International Monetary Fund (IMF)’s *World Economic Outlook (WEO) Database*, with the exception of Puerto Rico, for which figures are sourced from Puerto Rico’s national statistics. Reported GDP and GDP per capita are valued at current prices.
- The chart on the upper right-hand side displays the evolution of GDP per capita at purchasing power parity (PPP) from 1990 through 2012 (or the period for which data are available) for the economy under review (blue line). The black 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 used in the April 2013 edition of *WEO*), which divides the world into six regions: *Central and Eastern Europe; the Commonwealth of Independent States (CIS)*, which includes Georgia although it is not a CIS member; *Developing Asia*, which now includes Mongolia; the newly created *Middle East, North Africa, Afghanistan, and Pakistan region (MENAP)*; *Sub-Saharan Africa*; and *Latin America and the Caribbean*. The last group comprises *advanced economies*. GDP figures come from the WEO database. For more information regarding the classification and the data, visit [www.imf.org/weo](http://www.imf.org/weo). Note that no data are available for Puerto Rico.



2 Global Competitiveness Index

This section details the economy’s performance on the main components of the Global Competitiveness Index (GCI). The first column shows the country’s rank among the 148 economies, while the second column presents the score. The percentage contribution to the overall GCI score of each subindex score 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 in the same stage of development (black line).

3 The most problematic factors for doing business

This chart summarizes those factors seen by business executives as the most problematic for doing business in their economy. The information is drawn from the 2013 edition of the World Economic Forum’s Executive Opinion Survey (the Survey). 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. For Bosnia and Herzegovina, Jordan, Oman, and the United Arab Emirates we use data from the 2012 edition of the Survey. See Chapter 1.3 for details.

PAGE 2

4 The Global Competitiveness Index in detail

This page details the country's performance on each of the indicators entering the composition of the 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/148:** This column reports the country's position among the 148 economies covered by the GCI 2013–2014. The ranks of those indicators that constitute a notable competitive advantage are highlighted in blue bold typeface (except for inflation). Competitive advantages are defined as follows:
  - For those economies ranked in the top 10 in the overall GCI, individual indicators ranked from 1 through 10 are considered to be advantages. For instance, in the case of Germany—which is ranked 4th overall—its 2nd rank on indicator 5.07 *Availability of research and training services* makes this indicator a competitive advantage.
  - For those economies ranked from 11 through 50 in the overall GCI, variables ranked higher than the economy's own rank are considered to be advantages. In the case of Iceland, ranked 31st overall, its rank of 13 on indicator 7.10 *Female participation in labor force* makes this indicator a competitive advantage.
  - For those economies ranked lower than 50th in the overall GCI, any individual indicators with a rank of 50 or better are considered to

2.1 Country Comparative Profiles

Albania

4

The Global Competitiveness Index in detail

	VALUE	UNIT	RANK/148		VALUE	UNIT	RANK/148
<b>1st pillar: Institutions</b>							
1.01	Perceived quality of institutions	2.8	127	8.08	Large rights index, 0-10 (best)	9	112
1.02	Industrial property protection	2.9	114	8.07	Pay for what a business* <sup>1</sup>	4.4	148
1.03	Government quality index	2.5	132	8.06	Pay for what a business* <sup>2</sup>	4.4	148
1.04	Public trust in politicians	2.5	136	8.05	Presence of trade barriers	4.1	149
1.05	Integrity payments and bribes	3.1	118	8.04	Trade policy, 1-10 (best)	2.7	139
1.06	Investment dispute resolution	2.5	134	8.01	Presence of trade barriers	3.6	148
1.07	Resolution of disputes of government officials	2.7	122	8.00	Presence of trade barriers	3.6	148
1.08	Effectiveness of government contracting	2.5	132	7.10	Country capacity to attract talent	5.6	103
1.09	Effectiveness of legal framework in settling disputes	2.5	132	7.09	Country capacity to retain talent	5.5	105
1.10	Effectiveness of legal framework in challenging legal	2.5	132	7.08	Effect of hiring practices on exit	4.4	140
1.11	Transparency of government public spending	4.5	72	7.07	Pay and productivity	4.5	139
1.12	Business costs of bankruptcy	6.2	32	7.06	Balance of professional management	5.9	105
1.13	Business costs of crime and violence	4.5	82	7.05	Country capacity to attract talent	5.6	103
1.14	Regulatory quality	4.4	88	7.04	Country capacity to retain talent	5.5	105
1.15	Reliability of public services	5.7	109	7.03	Female labor force, ratio to male*	0.79	52
1.16	Efficient delivery of services	5.5	114	7.02	Flexibility of wage determination	4.5	139
1.17	Strength of auditing and reporting standards	5.8	103	7.01	Costs of labor market entry	4.7	139
1.18	Effectiveness of corporate finance	4.4	88	7.00	Flexibility of wage determination	4.5	139
1.19	Protection of minority shareholders' interests	5.8	103	6.09	Trade policy, 1-10 (best)	2.7	139
1.20	Strength of investor protection (G-10 best)	7.2	47	6.08	Trade policy, 1-10 (best)	2.7	139
<b>2nd pillar: Infrastructure</b>							
2.01	Quality of overall infrastructure	5.8	103	6.07	Trade policy, 1-10 (best)	2.7	139
2.02	Quality of road infrastructure	5.9	98	6.06	Trade policy, 1-10 (best)	2.7	139
2.03	Quality of rail infrastructure	5.2	116	6.05	Trade policy, 1-10 (best)	2.7	139
2.04	Quality of port infrastructure	5.5	109	6.04	Trade policy, 1-10 (best)	2.7	139
2.05	Quality of air transport infrastructure	4.5	127	6.03	Trade policy, 1-10 (best)	2.7	139
2.06	Available airway miles, million	24.2	119	6.02	Trade policy, 1-10 (best)	2.7	139
2.07	Quality of electricity supply	4.5	126	6.01	Trade policy, 1-10 (best)	2.7	139
2.08	Mobile telephone subscriptions/100 pop.*	108.4	75	6.00	Trade policy, 1-10 (best)	2.7	139
2.09	Fixed telephone lines/100 pop.*	37	84	5.99	Trade policy, 1-10 (best)	2.7	139
<b>3rd pillar: Macroeconomic environment</b>							
3.01	Government budget balance, % GDP*	-1.1	81	5.98	Trade policy, 1-10 (best)	2.7	139
3.02	General account balance, % GDP*	-13.8	104	5.97	Trade policy, 1-10 (best)	2.7	139
3.03	Inflation, annual % change	0.0	8	5.96	Trade policy, 1-10 (best)	2.7	139
3.04	General government debt, % GDP*	88.2	132	5.95	Trade policy, 1-10 (best)	2.7	139
3.05	Current account balance, % GDP*	-27	138	5.94	Trade policy, 1-10 (best)	2.7	139
<b>4th pillar: Health and primary education</b>							
4.01	Business impact of malaria	N/A	9	5.93	Trade policy, 1-10 (best)	2.7	139
4.02	Malaria incidence/100,000 pop.	262	1	5.92	Trade policy, 1-10 (best)	2.7	139
4.03	Business impact of tuberculosis	6.3	34	5.91	Trade policy, 1-10 (best)	2.7	139
4.04	Tuberculosis cases/100,000 pop.	121	32	5.90	Trade policy, 1-10 (best)	2.7	139
4.05	Business impact of HIV/AIDS	6.3	35	5.89	Trade policy, 1-10 (best)	2.7	139
4.06	HIV prevalence, % adult pop.*	0.1	1	5.88	Trade policy, 1-10 (best)	2.7	139
4.07	Infant mortality, deaths/1,000 live births*	12.8	37	5.87	Trade policy, 1-10 (best)	2.7	139
4.08	Life expectancy, years*	77.5	38	5.86	Trade policy, 1-10 (best)	2.7	139
4.09	Primary education enrollment, net %	100.0	83	5.85	Trade policy, 1-10 (best)	2.7	139
4.10	Primary education enrollment, net %	100.0	83	5.84	Trade policy, 1-10 (best)	2.7	139
<b>5th pillar: Higher education and training</b>							
5.01	Secondary education enrollment, gross %	79.2	35	5.83	Trade policy, 1-10 (best)	2.7	139
5.02	Tertiary education enrollment, gross %	43.0	37	5.82	Trade policy, 1-10 (best)	2.7	139
5.03	Quality of the educational system	4.5	132	5.81	Trade policy, 1-10 (best)	2.7	139
5.04	Quality of math and science education	4.3	134	5.80	Trade policy, 1-10 (best)	2.7	139
5.05	Quality of management education	4.1	141	5.79	Trade policy, 1-10 (best)	2.7	139
5.06	Internet access in schools	4.2	135	5.78	Trade policy, 1-10 (best)	2.7	139
5.07	Availability of research and training services	5.8	103	5.77	Trade policy, 1-10 (best)	2.7	139
5.08	Research and training	4.4	136	5.76	Trade policy, 1-10 (best)	2.7	139
<b>6th pillar: Goods market efficiency</b>							
6.01	Intensity of trade competition	5.4	144	5.75	Trade policy, 1-10 (best)	2.7	139
6.02	Cost of trade transportation	5.0	151	5.74	Trade policy, 1-10 (best)	2.7	139
6.03	Dischamberment of anti-monopoly policy	5.4	145	5.73	Trade policy, 1-10 (best)	2.7	139
6.04	Effect of taxation on incentives to invest	3.7	175	5.72	Trade policy, 1-10 (best)	2.7	139
6.05	Total tax rate, % profit*	38.7	74	5.71	Trade policy, 1-10 (best)	2.7	139
<b>7th pillar: Labor market efficiency</b>							
7.01	Costs of labor market entry	4.7	139	5.70	Trade policy, 1-10 (best)	2.7	139
7.02	Flexibility of wage determination	4.5	139	5.69	Trade policy, 1-10 (best)	2.7	139
7.03	Effect of hiring practices on entry	4.4	140	5.68	Trade policy, 1-10 (best)	2.7	139
7.04	Effect of hiring practices on exit	4.4	140	5.67	Trade policy, 1-10 (best)	2.7	139
7.05	Effect of taxation on incentives to work	3.7	175	5.66	Trade policy, 1-10 (best)	2.7	139
7.06	Pay and productivity	4.5	139	5.65	Trade policy, 1-10 (best)	2.7	139
7.07	Balance of professional management	5.9	105	5.64	Trade policy, 1-10 (best)	2.7	139
7.08	Country capacity to retain talent	5.5	105	5.63	Trade policy, 1-10 (best)	2.7	139
7.09	Country capacity to attract talent	5.6	103	5.62	Trade policy, 1-10 (best)	2.7	139
7.10	Female labor force, ratio to male*	0.79	52	5.61	Trade policy, 1-10 (best)	2.7	139
<b>8th pillar: Financial market development</b>							
8.01	Availability of financial services	5.5	125	5.60	Trade policy, 1-10 (best)	2.7	139
8.02	Affordability of financial services	5.4	127	5.59	Trade policy, 1-10 (best)	2.7	139
8.03	Financial literacy index, %	5.7	146	5.58	Trade policy, 1-10 (best)	2.7	139
8.04	Cost of access to loans	1.6	126	5.57	Trade policy, 1-10 (best)	2.7	139
8.05	Interest rate liberalization	1.6	126	5.56	Trade policy, 1-10 (best)	2.7	139
8.06	Soundness of banks	5.9	105	5.55	Trade policy, 1-10 (best)	2.7	139
8.07	Regulation of securities exchanges	1.6	146	5.54	Trade policy, 1-10 (best)	2.7	139
8.08	Large rights index, 0-10 (best)	9	112	5.53	Trade policy, 1-10 (best)	2.7	139
<b>9th pillar: Technological readiness</b>							
9.01	Availability of internet services	4.1	151	5.52	Trade policy, 1-10 (best)	2.7	139
9.02	Fixed-line technology adoption	4.2	149	5.51	Trade policy, 1-10 (best)	2.7	139
9.03	Fixed-line technology adoption	4.4	147	5.50	Trade policy, 1-10 (best)	2.7	139
9.04	Mobile broadband subscriptions/100 pop.*	16.4	71	5.49	Trade policy, 1-10 (best)	2.7	139
9.05	Fixed broadband subscriptions/100 pop.*	16.4	71	5.48	Trade policy, 1-10 (best)	2.7	139
9.06	Fixed broadband subscriptions/100 pop.*	16.4	71	5.47	Trade policy, 1-10 (best)	2.7	139
9.07	Mobile broadband subscriptions/100 pop.*	16.4	71	5.46	Trade policy, 1-10 (best)	2.7	139
<b>10th pillar: Market size</b>							
10.01	Domestic market size index, 1-7 (best)	5.7	125	5.45	Trade policy, 1-10 (best)	2.7	139
10.02	Foreign market size index, 1-7 (best)	5.5	133	5.44	Trade policy, 1-10 (best)	2.7	139
10.03	GDP PPP/100 pop.*	34.1	81	5.43	Trade policy, 1-10 (best)	2.7	139
10.04	Exports as a percentage of GDP*	31.6	82	5.42	Trade policy, 1-10 (best)	2.7	139
<b>11th pillar: Business sophistication</b>							
11.01	Local supplier quality	5.7	125	5.41	Trade policy, 1-10 (best)	2.7	139
11.02	State of labor development	5.5	133	5.40	Trade policy, 1-10 (best)	2.7	139
11.03	Market of competitive advantage	5.5	133	5.39	Trade policy, 1-10 (best)	2.7	139
11.04	State of labor development	5.5	133	5.38	Trade policy, 1-10 (best)	2.7	139
11.05	Value chain benefits	5.6	147	5.37	Trade policy, 1-10 (best)	2.7	139
11.06	Control of intellectual property	4.0	174	5.36	Trade policy, 1-10 (best)	2.7	139
11.07	Production process sophistication	5.7	123	5.35	Trade policy, 1-10 (best)	2.7	139
11.08	Export of manufacturing	4.0	174	5.34	Trade policy, 1-10 (best)	2.7	139
11.09	Willingness to outsource authority	5.6	147	5.33	Trade policy, 1-10 (best)	2.7	139
<b>12th pillar: Innovation</b>							
12.01	Capacity for innovation	5.0	151	5.32	Trade policy, 1-10 (best)	2.7	139
12.02	Costs of research and development	5.6	145	5.31	Trade policy, 1-10 (best)	2.7	139
12.03	Company spending on R&D	5.0	151	5.30	Trade policy, 1-10 (best)	2.7	139
12.04	Industry research and development	5.6	145	5.29	Trade policy, 1-10 (best)	2.7	139
12.05	Gov't investment of advanced tech products	5.7	143	5.28	Trade policy, 1-10 (best)	2.7	139
12.06	Availability of scientific and engineering	5.5	148	5.27	Trade policy, 1-10 (best)	2.7	139
12.07	Patent patents, applications/100 pop.*	0.2	181	5.26	Trade policy, 1-10 (best)	2.7	139

Notes: Values are 1-100, with 100 representing relative performance with respect to 148 other countries. For further details on indicators, please refer to the section "Notes to Tables".  
 \* Data are not available for "Private" pillar of GCI.

The Global Competitiveness Report 2013-2014 | 158

be advantages. For the Philippines, ranked 59th overall, indicator 8.02 *Affordability of financial services*, where the country ranks 31st, constitutes a competitive advantage.

This year, two indicators derived from the Survey were revised. The former indicator 7.07 *Brain drain* was split into two indicators, namely 7.08 *Country capacity to retain talent* and 7.09 *Country capacity to attract talent*. The former indicator 6.04 *Extent and effect of taxation* was split into two new indicators, namely 6.04 *Effect of taxation on incentives to invest* and 7.05 *Effect of taxation on incentives to work*. For those countries for which we discarded the 2013 Survey data (i.e., Bosnia and Herzegovina, Jordan, Oman, and the United Arab Emirates), the 2012 results derived from the Survey questions on brain drain and on the extent and effect of taxation are used in the calculation and reported in the country profiles.

For further analysis, the data tables in the following section of the *Report* provide ranks, values, and the period of each data point, indicator by indicator.

ONLINE DATA PORTAL

In addition to the analysis presented in this *Report*, an interactive data platform can be accessed via [www.weforum.org/gcr](http://www.weforum.org/gcr). The platform offers a number of analytical and visualization tools, including sortable rankings, scatter plots, bar charts, and maps, as well as the possibility of downloading portions of the GCI data set.

# Index of Country/Economy Profiles

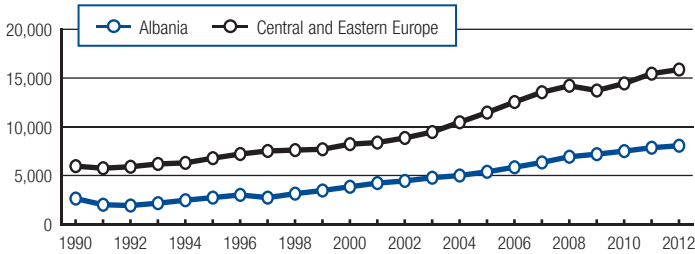
Country/Economy	Page	Country/Economy	Page	Country/Economy	Page
Albania	100	Guatemala	200	Nigeria	300
Algeria	102	Guinea	202	Norway	302
Angola	104	Guyana	204	Oman	304
Argentina	106	Haiti	206	Pakistan	306
Armenia	108	Honduras	208	Panama	308
Australia	110	Hong Kong SAR	210	Paraguay	310
Austria	112	Hungary	212	Peru	312
Azerbaijan	114	Iceland	214	Philippines	314
Bahrain	116	India	216	Poland	316
Bangladesh	118	Indonesia	218	Portugal	318
Barbados	120	Iran, Islamic Rep.	220	Puerto Rico	320
Belgium	122	Ireland	222	Qatar	322
Benin	124	Israel	224	Romania	324
Bhutan	126	Italy	226	Russian Federation	326
Bolivia	128	Jamaica	228	Rwanda	328
Bosnia and Herzegovina	130	Japan	230	Saudi Arabia	330
Botswana	132	Jordan	232	Senegal	332
Brazil	134	Kazakhstan	234	Serbia	334
Brunei Darussalam	136	Kenya	236	Seychelles	336
Bulgaria	138	Korea, Rep.	238	Sierra Leone	338
Burkina Faso	140	Kuwait	240	Singapore	340
Burundi	142	Kyrgyz Republic	242	Slovak Republic	342
Cambodia	144	Lao PDR	244	Slovenia	344
Cameroon	146	Latvia	246	South Africa	346
Canada	148	Lebanon	248	Spain	348
Cape Verde	150	Lesotho	250	Sri Lanka	350
Chad	152	Liberia	252	Suriname	352
Chile	154	Libya	254	Swaziland	354
China	156	Lithuania	256	Sweden	356
Colombia	158	Luxembourg	258	Switzerland	358
Costa Rica	160	Macedonia, FYR	260	Taiwan, China	360
Côte d'Ivoire	162	Madagascar	262	Tanzania	362
Croatia	164	Malawi	264	Thailand	364
Cyprus	166	Malaysia	266	Timor-Leste	366
Czech Republic	168	Mali	268	Trinidad and Tobago	368
Denmark	170	Malta	270	Tunisia	370
Dominican Republic	172	Mauritania	272	Turkey	372
Ecuador	174	Mauritius	274	Uganda	374
Egypt	176	Mexico	276	Ukraine	376
El Salvador	178	Moldova	278	United Arab Emirates	378
Estonia	180	Mongolia	280	United Kingdom	380
Ethiopia	182	Montenegro	282	United States	382
Finland	184	Morocco	284	Uruguay	384
France	186	Mozambique	286	Venezuela	386
Gabon	188	Myanmar	288	Vietnam	388
Gambia, The	190	Namibia	290	Yemen	390
Georgia	192	Nepal	292	Zambia	392
Germany	194	Netherlands	294	Zimbabwe	394
Ghana	196	New Zealand	296		
Greece	198	Nicaragua	298		

# Albania

## Key indicators, 2012

Population (millions)	3.2
GDP (US\$ billions)	12.7
GDP per capita (US\$)	3,913
GDP (PPP) as share (%) of world total	0.03

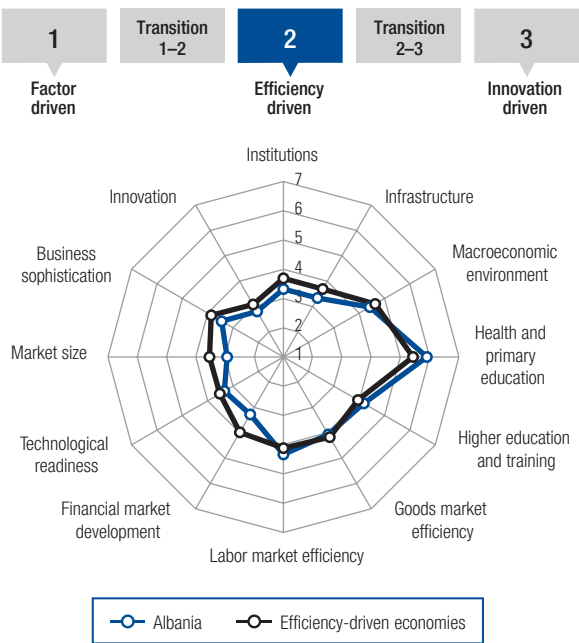
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

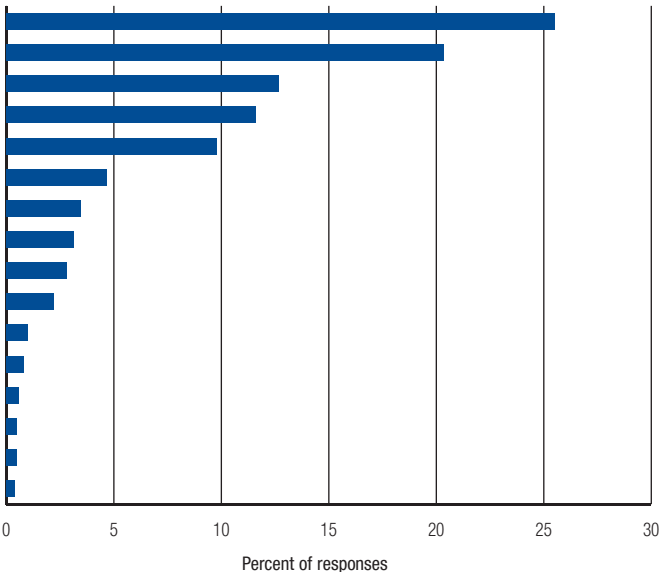
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>95</b>	<b>3.8</b>
GCI 2012–2013 (out of 144)	89	3.9
GCI 2011–2012 (out of 142)	78	4.1
<b>Basic requirements (40.0%)</b>	<b>94</b>	<b>4.2</b>
Institutions	118	3.3
Infrastructure	99	3.3
Macroeconomic environment	94	4.4
Health and primary education	56	5.9
<b>Efficiency enhancers (50.0%)</b>	<b>100</b>	<b>3.7</b>
Higher education and training	78	4.2
Goods market efficiency	97	4.1
Labor market efficiency	67	4.3
Financial market development	128	3.3
Technological readiness	92	3.3
Market size	107	2.9
<b>Innovation and sophistication factors (10.0%)</b>	<b>119</b>	<b>3.1</b>
Business sophistication	122	3.4
Innovation	119	2.8

### Stage of development



## The most problematic factors for doing business

Corruption	25.5
Access to financing	20.3
Inefficient government bureaucracy	12.7
Tax regulations	11.6
Crime and theft	9.8
Poor work ethic in national labor force	4.7
Inflation	3.5
Policy instability	3.1
Tax rates	2.8
Inadequate supply of infrastructure	2.2
Insufficient capacity to innovate	1.0
Government instability/coups	0.8
Inadequately educated workforce	0.6
Foreign currency regulations	0.5
Poor public health	0.5
Restrictive labor 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.



## Albania

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148	INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>			<b>6th pillar: Goods market efficiency (cont'd.)</b>		
1.01 Property rights .....	2.8	137	6.06 No. procedures to start a business* .....	4	20
1.02 Intellectual property protection .....	2.9	114	6.07 No. days to start a business* .....	4	8
1.03 Diversion of public funds .....	2.5	112	6.08 Agricultural policy costs .....	3.4	115
1.04 Public trust in politicians .....	2.4	99	6.09 Prevalence of trade barriers .....	4.1	99
1.05 Irregular payments and bribes .....	3.1	118	6.10 Trade tariffs, % duty* .....	2.7	39
1.06 Judicial independence .....	2.3	134	6.11 Prevalence of foreign ownership .....	3.6	128
1.07 Favoritism in decisions of government officials .....	2.7	102	6.12 Business impact of rules on FDI .....	4.5	81
1.08 Wastefulness of government spending .....	3.1	77	6.13 Burden of customs procedures .....	3.3	117
1.09 Burden of government regulation .....	3.9	33	6.14 Imports as a percentage of GDP* .....	52.6	60
1.10 Efficiency of legal framework in settling disputes .....	3.0	120	6.15 Degree of customer orientation .....	4.5	77
1.11 Efficiency of legal framework in challenging regs. ....	2.9	113	6.16 Buyer sophistication .....	3.2	89
1.12 Transparency of government policymaking .....	4.1	72			
1.13 Business costs of terrorism .....	5.2	92	<b>7th pillar: Labor market efficiency</b>		
1.14 Business costs of crime and violence .....	4.3	92	7.01 Cooperation in labor-employer relations .....	4.7	39
1.15 Organized crime .....	4.4	108	7.02 Flexibility of wage determination .....	4.3	123
1.16 Reliability of police services .....	3.7	101	7.03 Hiring and firing practices .....	4.4	29
1.17 Ethical behavior of firms .....	3.3	129	7.04 Redundancy costs, weeks of salary* .....	20.8	99
1.18 Strength of auditing and reporting standards .....	3.8	123	7.05 Effect of taxation on incentives to work .....	3.7	69
1.19 Efficacy of corporate boards .....	4.4	89	7.06 Pay and productivity .....	4.5	24
1.20 Protection of minority shareholders' interests .....	3.8	95	7.07 Reliance on professional management .....	3.9	95
1.21 Strength of investor protection, 0–10 (best)* .....	7.3	17	7.08 Country capacity to retain talent .....	3.5	60
			7.09 Country capacity to attract talent .....	3.6	63
<b>2nd pillar: Infrastructure</b>			7.10 Women in labor force, ratio to men* .....	0.72	95
2.01 Quality of overall infrastructure .....	3.8	92			
2.02 Quality of roads .....	3.9	76	<b>8th pillar: Financial market development</b>		
2.03 Quality of railroad infrastructure .....	1.2	118	8.01 Availability of financial services .....	3.5	129
2.04 Quality of port infrastructure .....	3.5	109	8.02 Affordability of financial services .....	3.4	127
2.05 Quality of air transport infrastructure .....	4.3	77	8.03 Financing through local equity market .....	1.7	146
2.06 Available airline seat km/week, millions* .....	24.2	119	8.04 Ease of access to loans .....	1.9	135
2.07 Quality of electricity supply .....	4.5	85	8.05 Venture capital availability .....	1.9	136
2.08 Mobile telephone subscriptions/100 pop.* .....	108.4	75	8.06 Soundness of banks .....	3.9	129
2.09 Fixed telephone lines/100 pop.* .....	9.7	94	8.07 Regulation of securities exchanges .....	1.9	146
			8.08 Legal rights index, 0–10 (best)* .....	9	12
<b>3rd pillar: Macroeconomic environment</b>					
3.01 Government budget balance, % GDP* .....	-3.1	81	<b>9th pillar: Technological readiness</b>		
3.02 Gross national savings, % GDP* .....	13.9	105	9.01 Availability of latest technologies .....	4.1	119
3.03 Inflation, annual % change* .....	2.0	1	9.02 Firm-level technology absorption .....	4.2	108
3.04 General government debt, % GDP* .....	60.6	112	9.03 FDI and technology transfer .....	4.4	91
3.05 Country credit rating, 0–100 (best)* .....	37.3	88	9.04 Individuals using Internet, %* .....	54.7	58
			9.05 Fixed broadband Internet subscriptions/100 pop.* .....	5.0	78
<b>4th pillar: Health and primary education</b>			9.06 Int'l Internet bandwidth, kb/s per user* .....	17.0	75
4.01 Business impact of malaria .....	N/Apl.	1	9.07 Mobile broadband subscriptions/100 pop.* .....	18.4	70
4.02 Malaria cases/100,000 pop.* .....	(NE)	1			
4.03 Business impact of tuberculosis .....	6.3	34	<b>10th pillar: Market size</b>		
4.04 Tuberculosis cases/100,000 pop.* .....	13.0	32	10.01 Domestic market size index, 1–7 (best)* .....	2.7	105
4.05 Business impact of HIV/AIDS .....	6.3	23	10.02 Foreign market size index, 1–7 (best)* .....	3.5	113
4.06 HIV prevalence, % adult pop.* .....	<0.1	1	10.03 GDP (PPP\$ billions)* .....	26.1	108
4.07 Infant mortality, deaths/1,000 live births* .....	12.8	67	10.04 Exports as a percentage of GDP* .....	31.8	92
4.08 Life expectancy, years* .....	77.0	38			
4.09 Quality of primary education .....	4.3	53	<b>11th pillar: Business sophistication</b>		
4.10 Primary education enrollment, net %* .....	93.0	83	11.01 Local supplier quantity .....	3.7	135
			11.02 Local supplier quality .....	3.7	127
<b>5th pillar: Higher education and training</b>			11.03 State of cluster development .....	2.5	145
5.01 Secondary education enrollment, gross %* .....	78.2	95	11.04 Nature of competitive advantage .....	2.8	129
5.02 Tertiary education enrollment, gross %* .....	43.9	57	11.05 Value chain breadth .....	2.6	147
5.03 Quality of the educational system .....	4.0	52	11.06 Control of international distribution .....	4.0	74
5.04 Quality of math and science education .....	4.3	54	11.07 Production process sophistication .....	3.7	73
5.05 Quality of management schools .....	4.1	84	11.08 Extent of marketing .....	4.0	81
5.06 Internet access in schools .....	4.2	73	11.09 Willingness to delegate authority .....	3.8	71
5.07 Availability of research and training services .....	3.6	113			
5.08 Extent of staff training .....	4.4	36	<b>12th pillar: Innovation</b>		
<b>6th pillar: Goods market efficiency</b>			12.01 Capacity for innovation .....	3.0	121
6.01 Intensity of local competition .....	3.4	144	12.02 Quality of scientific research institutions .....	2.8	121
6.02 Extent of market dominance .....	3.0	131	12.03 Company spending on R&D .....	3.0	82
6.03 Effectiveness of anti-monopoly policy .....	3.4	125	12.04 University-industry collaboration in R&D .....	2.6	135
6.04 Effect of taxation on incentives to invest .....	3.7	75	12.05 Gov't procurement of advanced tech products .....	3.7	52
6.05 Total tax rate, % profits* .....	38.7	74	12.06 Availability of scientists and engineers .....	3.5	106
			12.07 PCT patents, applications/million pop.* .....	0.2	91

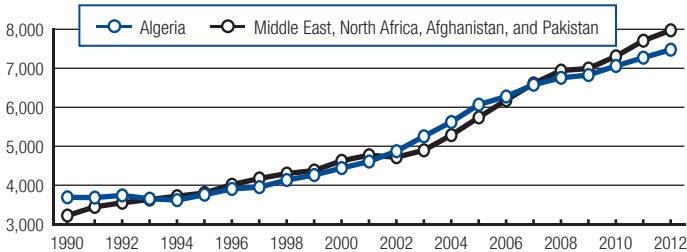
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Algeria

## Key indicators, 2012

Population (millions)	36.0
GDP (US\$ billions)	207.8
GDP per capita (US\$)	5,694
GDP (PPP) as share (%) of world total	0.33

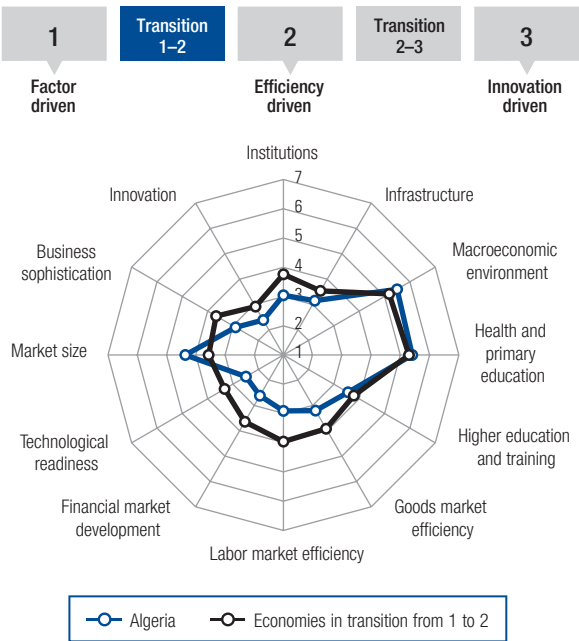
GDP (PPP) per capita (int'l \$), 1990–2012



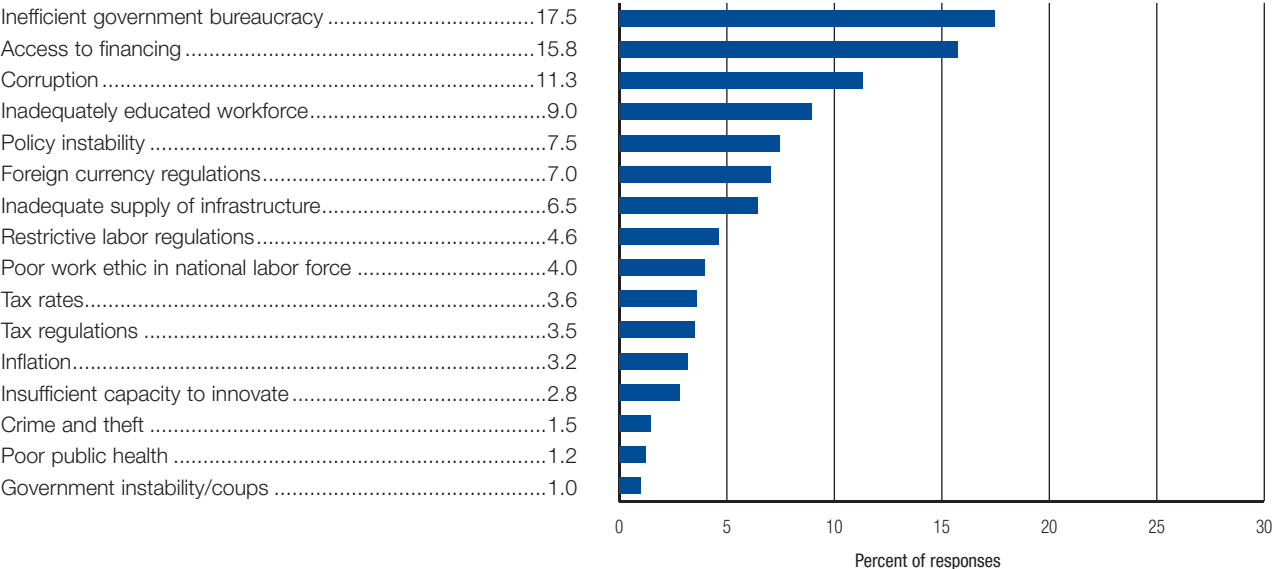
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>100</b>	<b>3.8</b>
GCI 2012–2013 (out of 144)	110	3.7
GCI 2011–2012 (out of 142)	87	4.0
<b>Basic requirements (59.1%)</b>	<b>92</b>	<b>4.3</b>
Institutions	135	3.0
Infrastructure	106	3.1
Macroeconomic environment	34	5.5
Health and primary education	92	5.4
<b>Efficiency enhancers (35.7%)</b>	<b>133</b>	<b>3.2</b>
Higher education and training	101	3.5
Goods market efficiency	142	3.2
Labor market efficiency	147	2.9
Financial market development	143	2.6
Technological readiness	136	2.5
Market size	48	4.4
<b>Innovation and sophistication factors (5.2%)</b>	<b>143</b>	<b>2.6</b>
Business sophistication	144	2.9
Innovation	141	2.4

### Stage of development



## The most problematic factors for doing business



**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/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	3.2	128
1.02 Intellectual property protection .....	2.2	145
1.03 Diversion of public funds .....	2.3	131
1.04 Public trust in politicians.....	2.3	108
1.05 Irregular payments and bribes.....	2.6	133
1.06 Judicial independence.....	3.2	95
1.07 Favoritism in decisions of government officials .....	2.6	110
1.08 Wastefulness of government spending .....	2.8	101
1.09 Burden of government regulation .....	2.5	138
1.10 Efficiency of legal framework in settling disputes.....	3.1	116
1.11 Efficiency of legal framework in challenging regs. ....	2.3	139
1.12 Transparency of government policymaking.....	3.4	133
1.13 Business costs of terrorism .....	3.7	138
1.14 Business costs of crime and violence.....	4.1	102
1.15 Organized crime.....	3.8	131
1.16 Reliability of police services .....	3.7	97
1.17 Ethical behavior of firms .....	3.1	138
1.18 Strength of auditing and reporting standards .....	3.0	141
1.19 Efficacy of corporate boards .....	3.5	143
1.20 Protection of minority shareholders' interests .....	3.0	138
1.21 Strength of investor protection, 0–10 (best)* .....	5.3	69
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	3.8	89
2.02 Quality of roads.....	3.3	99
2.03 Quality of railroad infrastructure.....	2.3	83
2.04 Quality of port infrastructure.....	2.7	132
2.05 Quality of air transport infrastructure.....	3.0	132
2.06 Available airline seat km/week, millions* .....	183.9	65
2.07 Quality of electricity supply .....	4.2	90
2.08 Mobile telephone subscriptions/100 pop.* .....	103.3	86
2.09 Fixed telephone lines/100 pop.* .....	8.8	98
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	-2.7	71
3.02 Gross national savings, % GDP* .....	42.4	<b>11</b>
3.03 Inflation, annual % change* .....	8.9	124
3.04 General government debt, % GDP* .....	9.9	<b>8</b>
3.05 Country credit rating, 0–100 (best)* .....	50.0	68
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	5.1	105
4.02 Malaria cases/100,000 pop.* .....	0.1	75
4.03 Business impact of tuberculosis.....	4.3	115
4.04 Tuberculosis cases/100,000 pop.* .....	90.0	92
4.05 Business impact of HIV/AIDS .....	4.3	118
4.06 HIV prevalence, % adult pop.* .....	0.10	<b>11</b>
4.07 Infant mortality, deaths/1,000 live births* .....	25.6	100
4.08 Life expectancy, years* .....	73.1	85
4.09 Quality of primary education.....	2.5	131
4.10 Primary education enrollment, net %* .....	96.2	53
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	101.6	<b>31</b>
5.02 Tertiary education enrollment, gross %* .....	32.1	76
5.03 Quality of the educational system.....	2.7	133
5.04 Quality of math and science education .....	2.7	132
5.05 Quality of management schools.....	3.0	135
5.06 Internet access in schools.....	2.2	138
5.07 Availability of research and training services .....	3.1	136
5.08 Extent of staff training .....	3.0	139
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	3.6	141
6.02 Extent of market dominance .....	3.1	130
6.03 Effectiveness of anti-monopoly policy.....	3.1	136
6.04 Effect of taxation on incentives to invest.....	3.6	84
6.05 Total tax rate, % profits* .....	72.0	141

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	14	140
6.07 No. days to start a business* .....	25	97
6.08 Agricultural policy costs.....	3.2	123
6.09 Prevalence of trade barriers .....	3.4	143
6.10 Trade tariffs, % duty* .....	14.4	134
6.11 Prevalence of foreign ownership.....	3.2	135
6.12 Business impact of rules on FDI.....	3.3	134
6.13 Burden of customs procedures .....	2.7	143
6.14 Imports as a percentage of GDP* .....	29.8	123
6.15 Degree of customer orientation .....	3.1	144
6.16 Buyer sophistication .....	2.8	119
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	3.4	137
7.02 Flexibility of wage determination.....	4.4	116
7.03 Hiring and firing practices.....	2.7	142
7.04 Redundancy costs, weeks of salary* .....	17.3	85
7.05 Effect of taxation on incentives to work .....	3.3	107
7.06 Pay and productivity.....	2.8	140
7.07 Reliance on professional management .....	2.3	145
7.08 Country capacity to retain talent.....	2.1	137
7.09 Country capacity to attract talent .....	2.0	139
7.10 Women in labor force, ratio to men* .....	0.21	148
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	3.0	141
8.02 Affordability of financial services .....	2.7	144
8.03 Financing through local equity market.....	2.1	138
8.04 Ease of access to loans .....	2.7	86
8.05 Venture capital availability.....	2.0	123
8.06 Soundness of banks .....	3.3	140
8.07 Regulation of securities exchanges .....	2.0	142
8.08 Legal rights index, 0–10 (best)* .....	3	118
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	3.2	144
9.02 Firm-level technology absorption.....	3.2	147
9.03 FDI and technology transfer .....	3.6	128
9.04 Individuals using Internet, %* .....	15.2	114
9.05 Fixed broadband Internet subscriptions/100 pop.* .....	3.0	90
9.06 Int'l Internet bandwidth, kb/s per user* .....	8.1	100
9.07 Mobile broadband subscriptions/100 pop.* .....	0.0	136
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	4.1	<b>49</b>
10.02 Foreign market size index, 1–7 (best)* .....	5.0	<b>49</b>
10.03 GDP (PPP\$ billions)* .....	272.9	<b>48</b>
10.04 Exports as a percentage of GDP* .....	38.8	76
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.0	123
11.02 Local supplier quality.....	3.3	140
11.03 State of cluster development.....	3.2	119
11.04 Nature of competitive advantage.....	2.7	132
11.05 Value chain breadth.....	2.6	145
11.06 Control of international distribution .....	3.0	146
11.07 Production process sophistication.....	2.5	142
11.08 Extent of marketing.....	2.4	146
11.09 Willingness to delegate authority .....	2.6	144
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	2.3	147
12.02 Quality of scientific research institutions .....	2.5	133
12.03 Company spending on R&D.....	2.0	147
12.04 University-industry collaboration in R&D .....	2.1	146
12.05 Gov't procurement of advanced tech products.....	2.7	127
12.06 Availability of scientists and engineers .....	4.1	68
12.07 PCT patents, applications/million pop.* .....	0.1	99

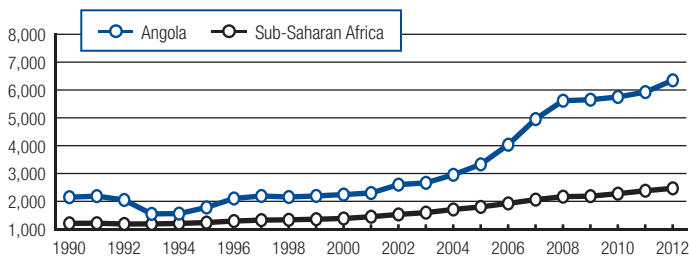
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Angola

## Key indicators, 2012

Population (millions)	19.6
GDP (US\$ billions)	118.7
GDP per capita (US\$)	5,873
GDP (PPP) as share (%) of world total	0.15

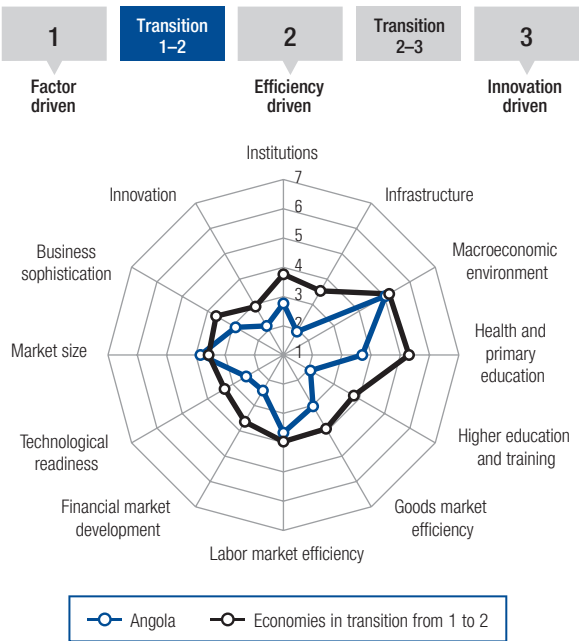
GDP (PPP) per capita (int'l \$), 1990–2012



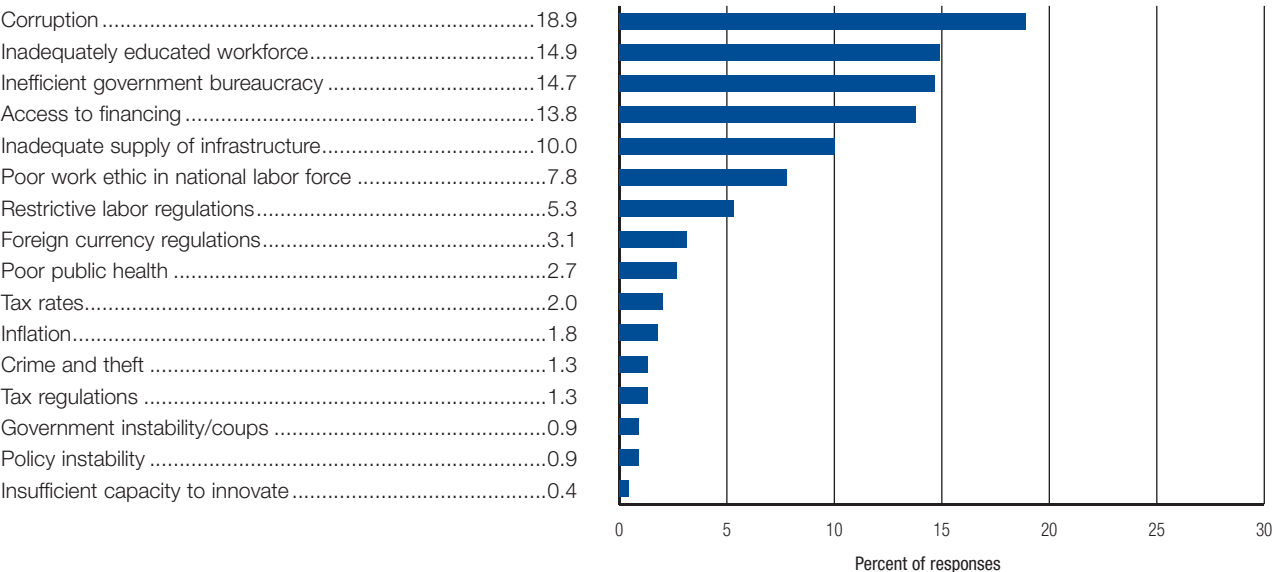
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>142</b>	<b>3.1</b>
GCI 2012–2013 (out of 144)	n/a	n/a
GCI 2011–2012 (out of 142)	139	3.0
<b>Basic requirements (58.7%)</b>	<b>139</b>	<b>3.4</b>
Institutions	145	2.8
Infrastructure	145	1.9
Macroeconomic environment	54	5.0
Health and primary education	137	3.7
<b>Efficiency enhancers (36.0%)</b>	<b>143</b>	<b>2.9</b>
Higher education and training	147	2.1
Goods market efficiency	146	3.0
Labor market efficiency	134	3.7
Financial market development	145	2.4
Technological readiness	138	2.5
Market size	65	3.8
<b>Innovation and sophistication factors (5.3%)</b>	<b>148</b>	<b>2.5</b>
Business sophistication	143	2.9
Innovation	147	2.1

### Stage of development



## The most problematic factors for doing business



**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/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	2.8	140
1.02 Intellectual property protection .....	2.4	137
1.03 Diversion of public funds .....	2.2	137
1.04 Public trust in politicians.....	2.1	123
1.05 Irregular payments and bribes.....	2.4	141
1.06 Judicial independence.....	2.4	127
1.07 Favoritism in decisions of government officials .....	2.2	140
1.08 Wastefulness of government spending .....	2.4	120
1.09 Burden of government regulation .....	2.8	129
1.10 Efficiency of legal framework in settling disputes.....	2.7	129
1.11 Efficiency of legal framework in challenging regs. ....	2.2	144
1.12 Transparency of government policymaking.....	2.9	144
1.13 Business costs of terrorism .....	4.7	115
1.14 Business costs of crime and violence.....	3.4	125
1.15 Organized crime.....	3.9	128
1.16 Reliability of police services .....	3.0	127
1.17 Ethical behavior of firms .....	2.8	145
1.18 Strength of auditing and reporting standards .....	2.3	147
1.19 Efficacy of corporate boards .....	2.6	148
1.20 Protection of minority shareholders' interests .....	2.7	145
1.21 Strength of investor protection, 0–10 (best)* .....	5.7	57
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	2.0	148
2.02 Quality of roads.....	2.4	139
2.03 Quality of railroad infrastructure.....	1.7	107
2.04 Quality of port infrastructure.....	2.9	125
2.05 Quality of air transport infrastructure.....	3.4	118
2.06 Available airline seat km/week, millions* .....	117.8	78
2.07 Quality of electricity supply .....	1.7	143
2.08 Mobile telephone subscriptions/100 pop.* .....	48.6	138
2.09 Fixed telephone lines/100 pop.* .....	1.5	124
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	8.5	9
3.02 Gross national savings, % GDP* .....	23.1	57
3.03 Inflation, annual % change* .....	10.3	134
3.04 General government debt, % GDP* .....	29.3	39
3.05 Country credit rating, 0–100 (best)* .....	36.2	89
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	1.8	148
4.02 Malaria cases/100,000 pop.* .....	19,796.1	129
4.03 Business impact of tuberculosis.....	3.2	146
4.04 Tuberculosis cases/100,000 pop.* .....	310.0	134
4.05 Business impact of HIV/AIDS .....	3.0	141
4.06 HIV prevalence, % adult pop.* .....	2.10	128
4.07 Infant mortality, deaths/1,000 live births* .....	96.4	145
4.08 Life expectancy, years* .....	51.1	141
4.09 Quality of primary education.....	2.1	144
4.10 Primary education enrollment, net %* .....	85.7	120
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	31.3	138
5.02 Tertiary education enrollment, gross %* .....	3.7	140
5.03 Quality of the educational system.....	2.2	144
5.04 Quality of math and science education .....	2.1	147
5.05 Quality of management schools.....	2.2	148
5.06 Internet access in schools.....	2.6	127
5.07 Availability of research and training services .....	2.5	146
5.08 Extent of staff training .....	3.3	124
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	2.8	148
6.02 Extent of market dominance .....	2.0	148
6.03 Effectiveness of anti-monopoly policy.....	2.2	148
6.04 Effect of taxation on incentives to invest.....	3.9	55
6.05 Total tax rate, % profits* .....	53.2	123

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	8	88
6.07 No. days to start a business* .....	68	137
6.08 Agricultural policy costs.....	3.7	85
6.09 Prevalence of trade barriers .....	3.7	130
6.10 Trade tariffs, % duty* .....	8.9	97
6.11 Prevalence of foreign ownership.....	3.6	129
6.12 Business impact of rules on FDI.....	2.5	145
6.13 Burden of customs procedures .....	2.2	146
6.14 Imports as a percentage of GDP* .....	40.9	87
6.15 Degree of customer orientation .....	2.4	148
6.16 Buyer sophistication .....	2.7	127
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	3.1	145
7.02 Flexibility of wage determination.....	4.3	121
7.03 Hiring and firing practices.....	2.9	133
7.04 Redundancy costs, weeks of salary* .....	31.0	132
7.05 Effect of taxation on incentives to work .....	4.1	37
7.06 Pay and productivity.....	2.9	136
7.07 Reliance on professional management .....	2.2	147
7.08 Country capacity to retain talent.....	3.5	67
7.09 Country capacity to attract talent .....	3.8	47
7.10 Women in labor force, ratio to men* .....	0.82	66
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	2.4	148
8.02 Affordability of financial services .....	3.1	137
8.03 Financing through local equity market.....	1.4	148
8.04 Ease of access to loans .....	1.7	140
8.05 Venture capital availability.....	2.1	119
8.06 Soundness of banks .....	3.9	128
8.07 Regulation of securities exchanges .....	1.3	148
8.08 Legal rights index, 0–10 (best)* .....	3	118
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	3.5	139
9.02 Firm-level technology absorption.....	3.3	145
9.03 FDI and technology transfer .....	4.3	95
9.04 Individuals using Internet, %* .....	16.9	110
9.05 Fixed broadband Internet subscriptions/100 pop.* .....	0.2	126
9.06 Int'l Internet bandwidth, kb/s per user* .....	0.6	142
9.07 Mobile broadband subscriptions/100 pop.* .....	1.5	115
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	3.5	67
10.02 Foreign market size index, 1–7 (best)* .....	4.9	55
10.03 GDP (PPP\$ billions)* .....	128.3	63
10.04 Exports as a percentage of GDP* .....	65.1	30
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	3.0	147
11.02 Local supplier quality.....	2.8	148
11.03 State of cluster development.....	3.1	123
11.04 Nature of competitive advantage.....	3.0	111
11.05 Value chain breadth.....	2.7	144
11.06 Control of international distribution .....	3.2	138
11.07 Production process sophistication.....	2.7	138
11.08 Extent of marketing.....	3.2	127
11.09 Willingness to delegate authority .....	2.7	140
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	2.5	146
12.02 Quality of scientific research institutions .....	2.1	146
12.03 Company spending on R&D.....	2.0	145
12.04 University-industry collaboration in R&D .....	2.2	144
12.05 Gov't procurement of advanced tech products.....	2.6	133
12.06 Availability of scientists and engineers .....	2.5	148
12.07 PCT patents, applications/million pop.* .....	0.0	119

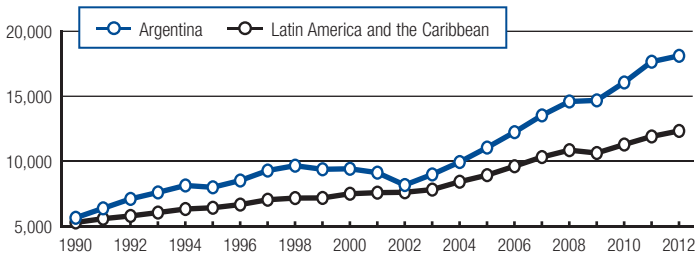
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Argentina

## Key indicators, 2012

Population (millions)	40.8
GDP (US\$ billions)	475.0
GDP per capita (US\$)	11,576
GDP (PPP) as share (%) of world total	0.89

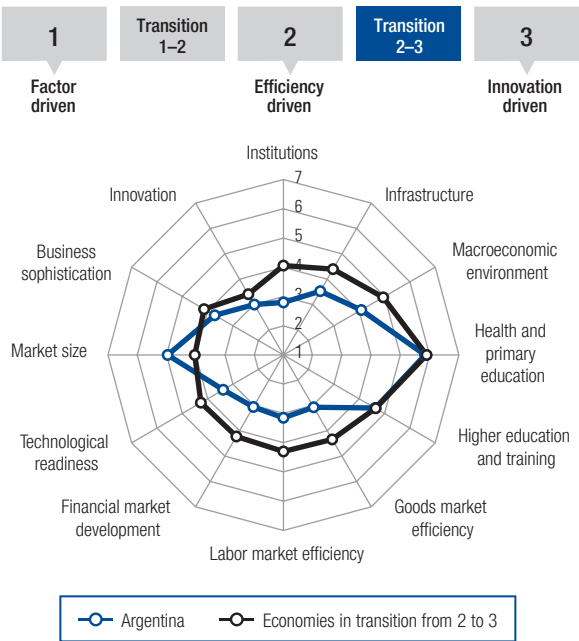
GDP (PPP) per capita (int'l \$), 1990–2012



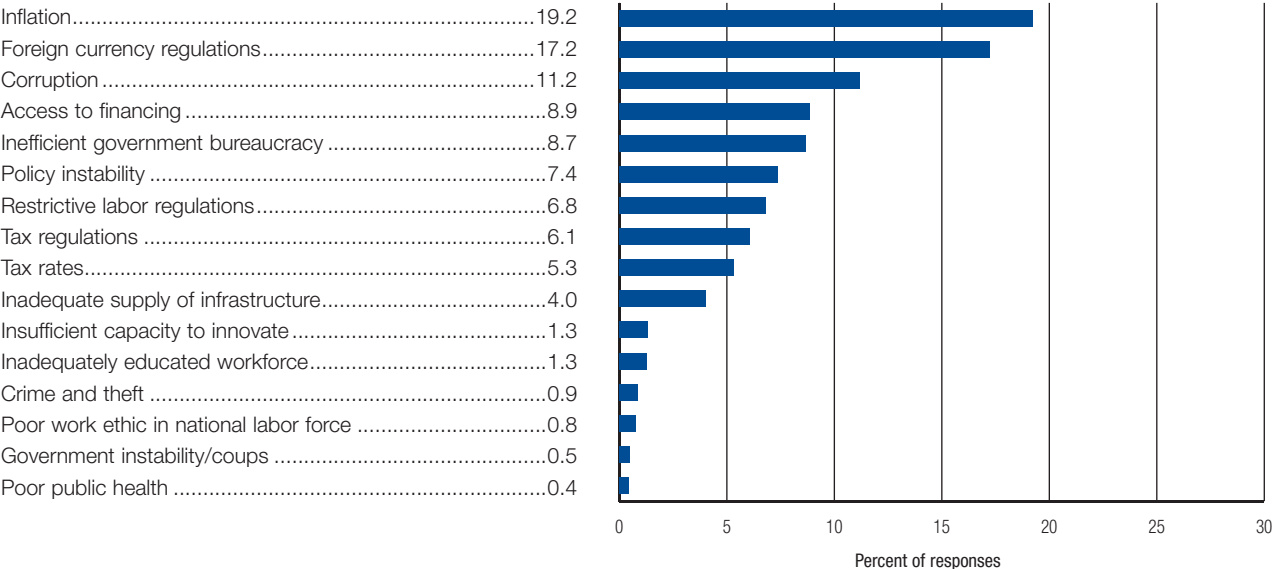
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>104</b>	<b>3.8</b>
GCI 2012–2013 (out of 144)	94	3.9
GCI 2011–2012 (out of 142)	85	4.0
<b>Basic requirements (33.6%)</b>	<b>102</b>	<b>4.1</b>
Institutions	143	2.8
Infrastructure	89	3.5
Macroeconomic environment	111	4.1
Health and primary education	61	5.8
<b>Efficiency enhancers (50.0%)</b>	<b>97</b>	<b>3.7</b>
Higher education and training	49	4.6
Goods market efficiency	145	3.1
Labor market efficiency	144	3.1
Financial market development	133	3.1
Technological readiness	88	3.4
Market size	24	5.0
<b>Innovation and sophistication factors (16.4%)</b>	<b>98</b>	<b>3.4</b>
Business sophistication	95	3.7
Innovation	104	3.0

### Stage of development



## The most problematic factors for doing business



**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.



# Argentina

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	2.5	145
1.02 Intellectual property protection .....	2.3	139
1.03 Diversion of public funds .....	1.8	145
1.04 Public trust in politicians.....	1.5	147
1.05 Irregular payments and bribes.....	2.8	127
1.06 Judicial independence.....	2.4	132
1.07 Favoritism in decisions of government officials .....	1.8	146
1.08 Wastefulness of government spending .....	1.7	147
1.09 Burden of government regulation .....	2.3	141
1.10 Efficiency of legal framework in settling disputes.....	2.6	133
1.11 Efficiency of legal framework in challenging regs. ....	1.9	147
1.12 Transparency of government policymaking.....	3.0	141
1.13 Business costs of terrorism .....	6.2	<b>24</b>
1.14 Business costs of crime and violence.....	3.6	118
1.15 Organized crime.....	4.4	107
1.16 Reliability of police services .....	2.8	139
1.17 Ethical behavior of firms .....	2.9	143
1.18 Strength of auditing and reporting standards .....	3.8	126
1.19 Efficacy of corporate boards .....	4.1	118
1.20 Protection of minority shareholders' interests .....	3.3	129
1.21 Strength of investor protection, 0–10 (best)* .....	4.7	100
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	3.2	120
2.02 Quality of roads.....	3.1	103
2.03 Quality of railroad infrastructure.....	1.7	106
2.04 Quality of port infrastructure.....	3.7	99
2.05 Quality of air transport infrastructure.....	3.6	111
2.06 Available airline seat km/week, millions* .....	808.3	<b>30</b>
2.07 Quality of electricity supply .....	3.1	116
2.08 Mobile telephone subscriptions/100 pop.* .....	142.5	<b>26</b>
2.09 Fixed telephone lines/100 pop.* .....	24.3	<b>48</b>
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	-4.3	104
3.02 Gross national savings, % GDP* .....	21.8	62
3.03 Inflation, annual % change* .....	10.0	133
3.04 General government debt, % GDP* .....	44.9	82
3.05 Country credit rating, 0–100 (best)* .....	29.8	105
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	6.7	74
4.02 Malaria cases/100,000 pop.* .....	0.2	78
4.03 Business impact of tuberculosis.....	6.3	<b>33</b>
4.04 Tuberculosis cases/100,000 pop.* .....	26.0	56
4.05 Business impact of HIV/AIDS .....	5.6	67
4.06 HIV prevalence, % adult pop.* .....	0.40	78
4.07 Infant mortality, deaths/1,000 live births* .....	12.6	65
4.08 Life expectancy, years* .....	75.8	<b>48</b>
4.09 Quality of primary education.....	3.3	102
4.10 Primary education enrollment, net %* .....	99.1	<b>19</b>
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	90.2	69
5.02 Tertiary education enrollment, gross %* .....	74.8	<b>15</b>
5.03 Quality of the educational system.....	3.2	104
5.04 Quality of math and science education .....	3.2	116
5.05 Quality of management schools.....	4.9	<b>33</b>
5.06 Internet access in schools.....	4.0	79
5.07 Availability of research and training services .....	4.4	60
5.08 Extent of staff training .....	3.7	100
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	4.0	134
6.02 Extent of market dominance .....	3.2	123
6.03 Effectiveness of anti-monopoly policy.....	3.0	142
6.04 Effect of taxation on incentives to invest.....	2.1	147
6.05 Total tax rate, % profits* .....	108.3	145

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	14	140
6.07 No. days to start a business* .....	26	99
6.08 Agricultural policy costs.....	2.9	140
6.09 Prevalence of trade barriers .....	2.5	148
6.10 Trade tariffs, % duty* .....	10.6	117
6.11 Prevalence of foreign ownership.....	4.6	77
6.12 Business impact of rules on FDI.....	2.0	147
6.13 Burden of customs procedures.....	2.1	147
6.14 Imports as a percentage of GDP* .....	18.1	144
6.15 Degree of customer orientation .....	3.6	138
6.16 Buyer sophistication .....	3.3	77
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	3.3	140
7.02 Flexibility of wage determination.....	2.7	145
7.03 Hiring and firing practices.....	2.7	140
7.04 Redundancy costs, weeks of salary* .....	30.3	129
7.05 Effect of taxation on incentives to work .....	2.1	147
7.06 Pay and productivity.....	2.8	144
7.07 Reliance on professional management.....	4.4	63
7.08 Country capacity to retain talent.....	3.2	84
7.09 Country capacity to attract talent .....	2.4	125
7.10 Women in labor force, ratio to men* .....	0.67	103
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	3.1	136
8.02 Affordability of financial services .....	2.9	142
8.03 Financing through local equity market.....	2.3	130
8.04 Ease of access to loans .....	1.7	143
8.05 Venture capital availability.....	1.7	142
8.06 Soundness of banks .....	4.4	99
8.07 Regulation of securities exchanges .....	3.5	112
8.08 Legal rights index, 0–10 (best)* .....	4	101
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	4.0	123
9.02 Firm-level technology absorption.....	4.1	115
9.03 FDI and technology transfer .....	3.1	147
9.04 Individuals using Internet, %* .....	55.8	54
9.05 Fixed broadband Internet subscriptions/100 pop.* ..	10.9	57
9.06 Int'l Internet bandwidth, kb/s per user* .....	22.0	68
9.07 Mobile broadband subscriptions/100 pop.* .....	12.4	80
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	4.9	<b>21</b>
10.02 Foreign market size index, 1–7 (best)* .....	5.2	<b>39</b>
10.03 GDP (PPP\$ billions)* .....	743.1	<b>22</b>
10.04 Exports as a percentage of GDP* .....	20.1	132
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.2	112
11.02 Local supplier quality.....	3.9	112
11.03 State of cluster development.....	3.2	117
11.04 Nature of competitive advantage.....	2.6	134
11.05 Value chain breadth.....	3.5	93
11.06 Control of international distribution .....	3.9	86
11.07 Production process sophistication.....	3.8	69
11.08 Extent of marketing.....	4.4	53
11.09 Willingness to delegate authority .....	3.5	91
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	3.3	91
12.02 Quality of scientific research institutions .....	4.0	<b>49</b>
12.03 Company spending on R&D.....	2.8	105
12.04 University-industry collaboration in R&D.....	3.7	61
12.05 Gov't procurement of advanced tech products.....	2.5	140
12.06 Availability of scientists and engineers .....	3.9	83
12.07 PCT patents, applications/million pop.* .....	1.2	66

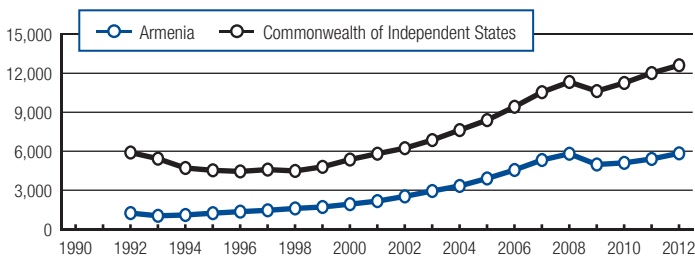
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Armenia

## Key indicators, 2012

Population (millions)	3.1
GDP (US\$ billions)	10.1
GDP per capita (US\$)	2,991
GDP (PPP) as share (%) of world total	0.02

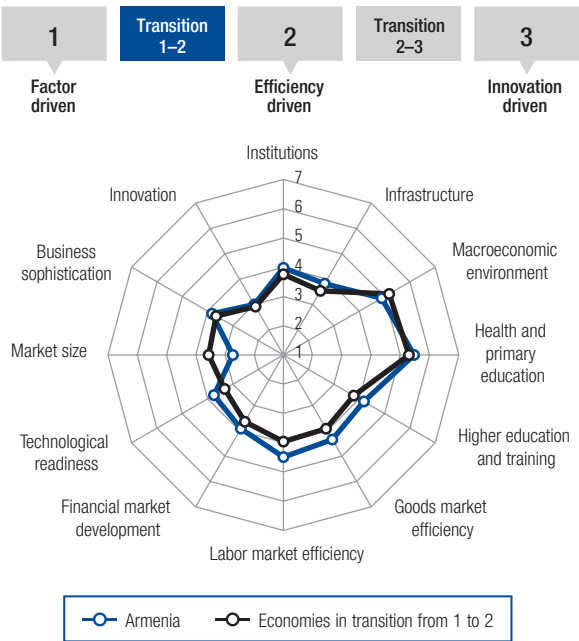
GDP (PPP) per capita (int'l \$), 1990–2012



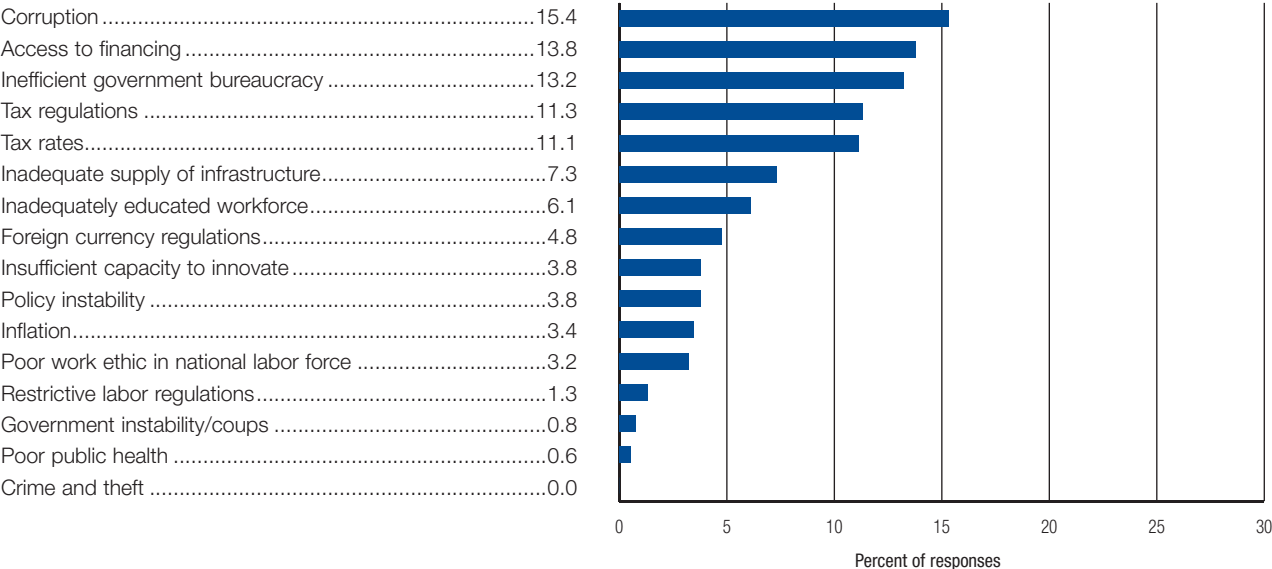
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>79</b>	<b>4.1</b>
GCI 2012–2013 (out of 144)	82	4.0
GCI 2011–2012 (out of 142)	92	3.9
<b>Basic requirements (40.2%)</b>	<b>73</b>	<b>4.5</b>
Institutions	65	4.0
Infrastructure	80	3.8
Macroeconomic environment	64	4.9
Health and primary education	85	5.5
<b>Efficiency enhancers (49.9%)</b>	<b>85</b>	<b>3.9</b>
Higher education and training	77	4.2
Goods market efficiency	58	4.3
Labor market efficiency	50	4.5
Financial market development	76	3.9
Technological readiness	72	3.7
Market size	117	2.7
<b>Innovation and sophistication factors (10.0%)</b>	<b>88</b>	<b>3.4</b>
Business sophistication	87	3.8
Innovation	103	3.0

## Stage of development



## The most problematic factors for doing business



**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.

# Armenia

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	4.6	54
1.02 Intellectual property protection .....	3.6	75
1.03 Diversion of public funds .....	3.1	84
1.04 Public trust in politicians .....	3.0	71
1.05 Irregular payments and bribes .....	3.8	75
1.06 Judicial independence .....	3.0	110
1.07 Favoritism in decisions of government officials .....	3.1	68
1.08 Wastefulness of government spending .....	3.4	60
1.09 Burden of government regulation .....	3.9	34
1.10 Efficiency of legal framework in settling disputes .....	3.7	74
1.11 Efficiency of legal framework in challenging regs. ....	3.4	76
1.12 Transparency of government policymaking .....	5.0	24
1.13 Business costs of terrorism .....	6.1	38
1.14 Business costs of crime and violence .....	5.7	20
1.15 Organized crime .....	5.4	57
1.16 Reliability of police services .....	4.0	76
1.17 Ethical behavior of firms .....	3.8	81
1.18 Strength of auditing and reporting standards .....	4.4	87
1.19 Efficacy of corporate boards .....	4.3	96
1.20 Protection of minority shareholders' interests .....	3.8	100
1.21 Strength of investor protection, 0–10 (best)* .....	6.7	25
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	4.4	67
2.02 Quality of roads .....	3.7	82
2.03 Quality of railroad infrastructure .....	2.6	69
2.04 Quality of port infrastructure .....	3.0	122
2.05 Quality of air transport infrastructure .....	4.5	66
2.06 Available airline seat km/week, millions* .....	43.4	106
2.07 Quality of electricity supply .....	5.2	60
2.08 Mobile telephone subscriptions/100 pop.* .....	106.9	80
2.09 Fixed telephone lines/100 pop.* .....	18.8	65
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	-1.5	50
3.02 Gross national savings, % GDP* .....	17.3	84
3.03 Inflation, annual % change* .....	2.5	1
3.04 General government debt, % GDP* .....	39.5	66
3.05 Country credit rating, 0–100 (best)* .....	34.5	95
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	N/Apl.	1
4.02 Malaria cases/100,000 pop.* .....	0.0	1
4.03 Business impact of tuberculosis .....	5.4	76
4.04 Tuberculosis cases/100,000 pop.* .....	55.0	76
4.05 Business impact of HIV/AIDS .....	5.8	50
4.06 HIV prevalence, % adult pop.* .....	0.20	45
4.07 Infant mortality, deaths/1,000 live births* .....	15.6	78
4.08 Life expectancy, years* .....	73.9	71
4.09 Quality of primary education .....	3.8	77
4.10 Primary education enrollment, net %* .....	87.1	115
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	92.0	61
5.02 Tertiary education enrollment, gross %* .....	48.9	51
5.03 Quality of the educational system .....	3.7	69
5.04 Quality of math and science education .....	4.2	67
5.05 Quality of management schools .....	3.4	120
5.06 Internet access in schools .....	4.0	78
5.07 Availability of research and training services .....	3.5	119
5.08 Extent of staff training .....	3.6	114
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	4.6	102
6.02 Extent of market dominance .....	3.7	75
6.03 Effectiveness of anti-monopoly policy .....	3.8	97
6.04 Effect of taxation on incentives to invest .....	3.5	96
6.05 Total tax rate, % profits* .....	38.8	76

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	3	10
6.07 No. days to start a business* .....	8	34
6.08 Agricultural policy costs .....	4.1	45
6.09 Prevalence of trade barriers .....	4.1	94
6.10 Trade tariffs, % duty* .....	2.8	40
6.11 Prevalence of foreign ownership .....	4.4	89
6.12 Business impact of rules on FDI .....	4.3	94
6.13 Burden of customs procedures .....	3.3	123
6.14 Imports as a percentage of GDP* .....	53.3	59
6.15 Degree of customer orientation .....	4.6	63
6.16 Buyer sophistication .....	3.5	69
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	4.8	35
7.02 Flexibility of wage determination .....	5.4	38
7.03 Hiring and firing practices .....	4.8	12
7.04 Redundancy costs, weeks of salary* .....	11.0	47
7.05 Effect of taxation on incentives to work .....	3.6	78
7.06 Pay and productivity .....	4.3	36
7.07 Reliance on professional management .....	3.9	96
7.08 Country capacity to retain talent .....	2.6	121
7.09 Country capacity to attract talent .....	2.6	116
7.10 Women in labor force, ratio to men* .....	0.74	91
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	4.6	63
8.02 Affordability of financial services .....	4.4	50
8.03 Financing through local equity market .....	2.5	115
8.04 Ease of access to loans .....	2.6	88
8.05 Venture capital availability .....	2.4	93
8.06 Soundness of banks .....	5.3	53
8.07 Regulation of securities exchanges .....	3.5	110
8.08 Legal rights index, 0–10 (best)* .....	6	65
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	4.5	97
9.02 Firm-level technology absorption .....	4.4	98
9.03 FDI and technology transfer .....	4.9	50
9.04 Individuals using Internet, %* .....	39.2	84
9.05 Fixed broadband Internet subscriptions/100 pop.* ..	6.6	74
9.06 Int'l Internet bandwidth, kb/s per user* .....	38.6	47
9.07 Mobile broadband subscriptions/100 pop.* .....	27.6	57
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	2.6	110
10.02 Foreign market size index, 1–7 (best)* .....	3.2	127
10.03 GDP (PPP\$ billions)* .....	19.6	119
10.04 Exports as a percentage of GDP* .....	22.1	130
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.7	74
11.02 Local supplier quality .....	4.2	85
11.03 State of cluster development .....	3.6	84
11.04 Nature of competitive advantage .....	3.8	55
11.05 Value chain breadth .....	3.6	88
11.06 Control of international distribution .....	3.9	85
11.07 Production process sophistication .....	3.5	92
11.08 Extent of marketing .....	3.8	100
11.09 Willingness to delegate authority .....	3.3	115
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation .....	3.4	77
12.02 Quality of scientific research institutions .....	3.1	106
12.03 Company spending on R&D .....	2.8	109
12.04 University-industry collaboration in R&D .....	3.2	107
12.05 Gov't procurement of advanced tech products .....	3.0	111
12.06 Availability of scientists and engineers .....	4.0	74
12.07 PCT patents, applications/million pop.* .....	1.7	58

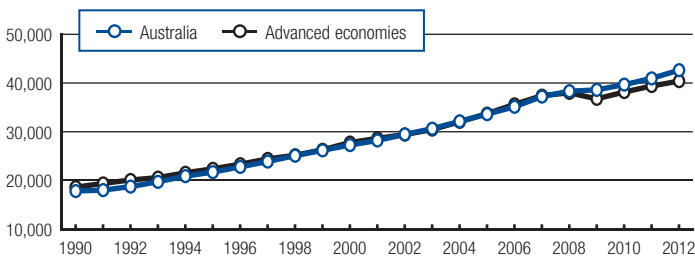
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Australia

## Key indicators, 2012

Population (millions)	22.3
GDP (US\$ billions)	1,541.8
GDP per capita (US\$)	67,723
GDP (PPP) as share (%) of world total	1.17

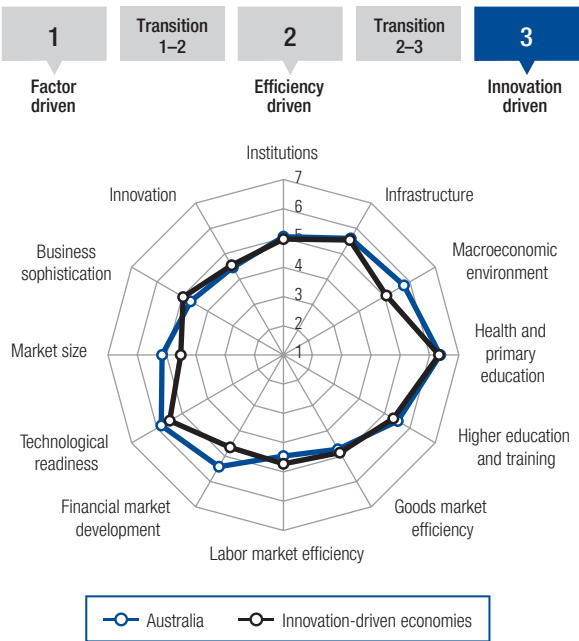
GDP (PPP) per capita (int'l \$), 1990–2012



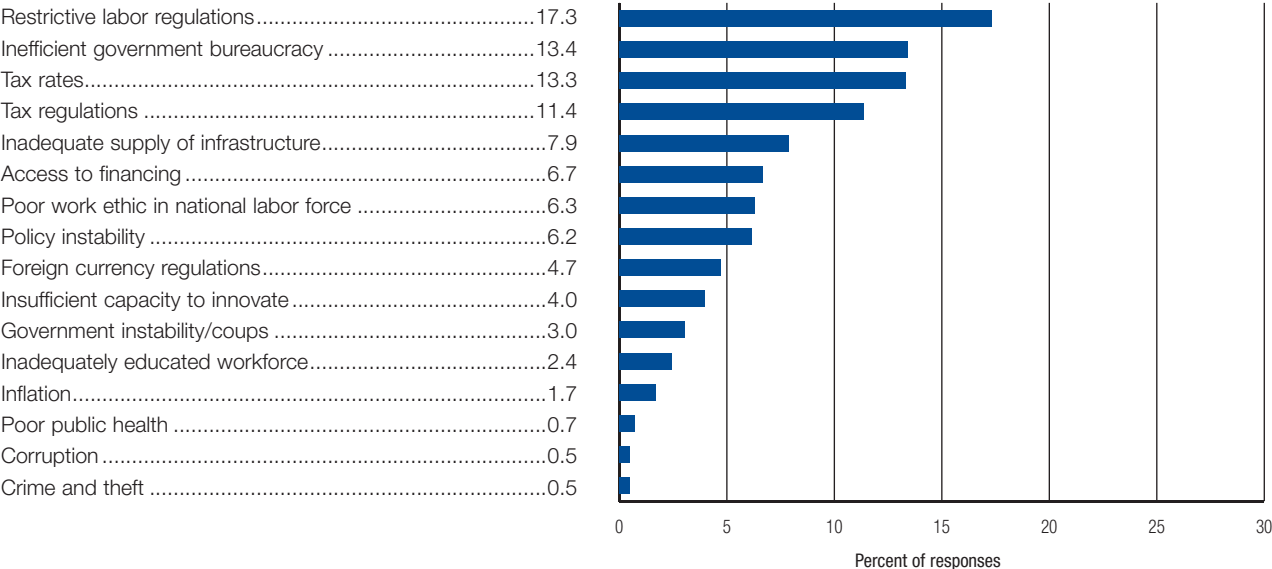
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>21</b>	<b>5.1</b>
GCI 2012–2013 (out of 144)	20	5.1
GCI 2011–2012 (out of 142)	20	5.1
<b>Basic requirements (20.0%)</b>	<b>17</b>	<b>5.7</b>
Institutions	23	5.0
Infrastructure	18	5.6
Macroeconomic environment	25	5.8
Health and primary education	22	6.4
<b>Efficiency enhancers (50.0%)</b>	<b>13</b>	<b>5.2</b>
Higher education and training	15	5.5
Goods market efficiency	31	4.7
Labor market efficiency	54	4.5
Financial market development	7	5.4
Technological readiness	12	5.8
Market size	18	5.1
<b>Innovation and sophistication factors (30.0%)</b>	<b>26</b>	<b>4.6</b>
Business sophistication	30	4.7
Innovation	22	4.5

### Stage of development



## The most problematic factors for doing business



**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.

# Australia

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	5.2	30
1.02 Intellectual property protection .....	5.3	21
1.03 Diversion of public funds .....	5.2	21
1.04 Public trust in politicians .....	3.8	36
1.05 Irregular payments and bribes .....	5.7	20
1.06 Judicial independence .....	5.7	16
1.07 Favoritism in decisions of government officials .....	4.0	27
1.08 Wastefulness of government spending .....	3.4	56
1.09 Burden of government regulation .....	2.8	128
1.10 Efficiency of legal framework in settling disputes .....	4.6	30
1.11 Efficiency of legal framework in challenging regs. ....	4.3	30
1.12 Transparency of government policymaking .....	4.4	51
1.13 Business costs of terrorism .....	5.9	46
1.14 Business costs of crime and violence .....	5.4	37
1.15 Organized crime .....	5.9	27
1.16 Reliability of police services .....	6.0	16
1.17 Ethical behavior of firms .....	5.5	19
1.18 Strength of auditing and reporting standards .....	5.8	14
1.19 Efficacy of corporate boards .....	5.5	7
1.20 Protection of minority shareholders' interests .....	4.9	24
1.21 Strength of investor protection, 0–10 (best)* .....	5.7	57
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	5.2	34
2.02 Quality of roads .....	4.9	40
2.03 Quality of railroad infrastructure .....	4.1	33
2.04 Quality of port infrastructure .....	5.0	42
2.05 Quality of air transport infrastructure .....	5.6	30
2.06 Available airline seat km/week, millions* .....	4,334.3	6
2.07 Quality of electricity supply .....	6.2	29
2.08 Mobile telephone subscriptions/100 pop.* .....	106.2	82
2.09 Fixed telephone lines/100 pop.* .....	45.7	16
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	-2.9	75
3.02 Gross national savings, % GDP* .....	25.2	45
3.03 Inflation, annual % change* .....	1.8	1
3.04 General government debt, % GDP* .....	27.2	34
3.05 Country credit rating, 0–100 (best)* .....	90.2	10
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	N/Apl.	1
4.02 Malaria cases/100,000 pop.* .....	(NE)	1
4.03 Business impact of tuberculosis .....	6.5	24
4.04 Tuberculosis cases/100,000 pop.* .....	6.0	16
4.05 Business impact of HIV/AIDS .....	6.1	33
4.06 HIV prevalence, % adult pop.* .....	0.20	45
4.07 Infant mortality, deaths/1,000 live births* .....	4.1	26
4.08 Life expectancy, years* .....	81.8	9
4.09 Quality of primary education .....	5.0	22
4.10 Primary education enrollment, net %* .....	97.1	44
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	131.3	1
5.02 Tertiary education enrollment, gross %* .....	79.9	11
5.03 Quality of the educational system .....	4.8	23
5.04 Quality of math and science education .....	4.6	37
5.05 Quality of management schools .....	5.1	29
5.06 Internet access in schools .....	5.9	17
5.07 Availability of research and training services .....	5.1	23
5.08 Extent of staff training .....	4.5	30
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	5.8	13
6.02 Extent of market dominance .....	4.3	36
6.03 Effectiveness of anti-monopoly policy .....	4.6	33
6.04 Effect of taxation on incentives to invest .....	3.7	80
6.05 Total tax rate, % profits* .....	47.5	109

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	2	3
6.07 No. days to start a business* .....	2	2
6.08 Agricultural policy costs .....	4.5	20
6.09 Prevalence of trade barriers .....	4.8	25
6.10 Trade tariffs, % duty* .....	4.1	53
6.11 Prevalence of foreign ownership .....	5.8	8
6.12 Business impact of rules on FDI .....	4.9	41
6.13 Burden of customs procedures .....	5.2	16
6.14 Imports as a percentage of GDP* .....	21.2	140
6.15 Degree of customer orientation .....	5.1	36
6.16 Buyer sophistication .....	3.8	40
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	4.0	103
7.02 Flexibility of wage determination .....	3.7	135
7.03 Hiring and firing practices .....	2.8	137
7.04 Redundancy costs, weeks of salary* .....	11.3	49
7.05 Effect of taxation on incentives to work .....	3.8	59
7.06 Pay and productivity .....	3.5	113
7.07 Reliance on professional management .....	5.7	11
7.08 Country capacity to retain talent .....	4.1	37
7.09 Country capacity to attract talent .....	4.7	17
7.10 Women in labor force, ratio to men* .....	0.84	60
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	5.6	21
8.02 Affordability of financial services .....	4.9	36
8.03 Financing through local equity market .....	5.0	38
8.04 Ease of access to loans .....	3.5	28
8.05 Venture capital availability .....	3.6	19
8.06 Soundness of banks .....	6.4	9
8.07 Regulation of securities exchanges .....	5.5	11
8.08 Legal rights index, 0–10 (best)* .....	10	1
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	6.1	23
9.02 Firm-level technology absorption .....	5.8	14
9.03 FDI and technology transfer .....	5.2	17
9.04 Individuals using Internet, %* .....	82.3	18
9.05 Fixed broadband Internet subscriptions/100 pop.* .....	25.1	23
9.06 Int'l Internet bandwidth, kb/s per user* .....	69.5	34
9.07 Mobile broadband subscriptions/100 pop.* .....	96.2	6
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	5.1	17
10.02 Foreign market size index, 1–7 (best)* .....	5.4	32
10.03 GDP (PPP\$ billions)* .....	970.8	18
10.04 Exports as a percentage of GDP* .....	20.1	133
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.7	72
11.02 Local supplier quality .....	5.3	22
11.03 State of cluster development .....	4.3	37
11.04 Nature of competitive advantage .....	4.2	34
11.05 Value chain breadth .....	3.4	105
11.06 Control of international distribution .....	4.2	55
11.07 Production process sophistication .....	5.1	24
11.08 Extent of marketing .....	5.4	14
11.09 Willingness to delegate authority .....	4.9	15
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation .....	4.5	23
12.02 Quality of scientific research institutions .....	5.7	8
12.03 Company spending on R&D .....	3.8	30
12.04 University-industry collaboration in R&D .....	5.1	15
12.05 Gov't procurement of advanced tech products .....	3.6	57
12.06 Availability of scientists and engineers .....	4.6	34
12.07 PCT patents, applications/million pop.* .....	81.7	19

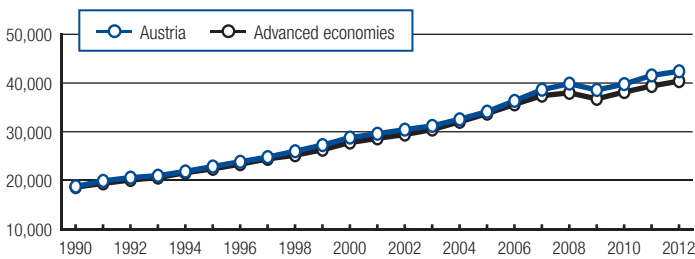
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Austria

## Key indicators, 2012

Population (millions)	8.4
GDP (US\$ billions)	398.6
GDP per capita (US\$)	47,083
GDP (PPP) as share (%) of world total	0.43

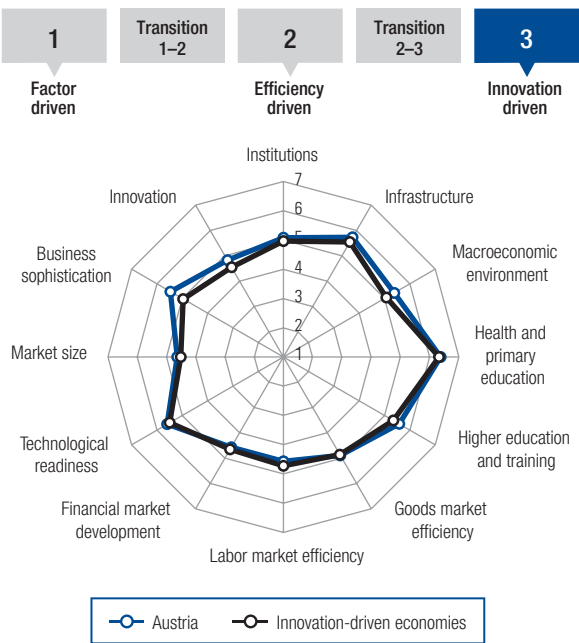
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

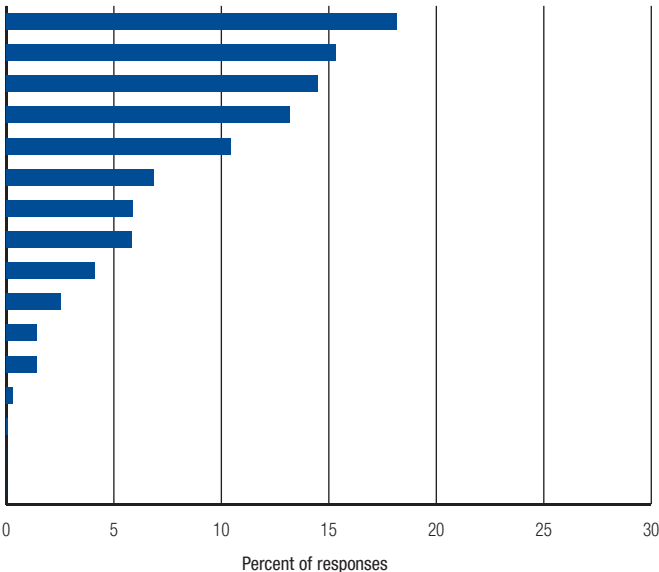
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>16</b>	<b>5.2</b>
GCI 2012–2013 (out of 144)	16	5.2
GCI 2011–2012 (out of 142)	19	5.1
<b>Basic requirements (20.0%)</b>	<b>19</b>	<b>5.6</b>
Institutions	21	5.1
Infrastructure	16	5.7
Macroeconomic environment	37	5.4
Health and primary education	19	6.4
<b>Efficiency enhancers (50.0%)</b>	<b>21</b>	<b>5.0</b>
Higher education and training	13	5.6
Goods market efficiency	23	4.9
Labor market efficiency	42	4.6
Financial market development	37	4.6
Technological readiness	20	5.6
Market size	37	4.6
<b>Innovation and sophistication factors (30.0%)</b>	<b>12</b>	<b>5.1</b>
Business sophistication	8	5.5
Innovation	15	4.8

### Stage of development



## The most problematic factors for doing business

Restrictive labor regulations	18.1
Tax rates	15.3
Tax regulations	14.5
Inefficient government bureaucracy	13.2
Inadequately educated workforce	10.4
Access to financing	6.8
Insufficient capacity to innovate	5.9
Policy instability	5.8
Poor work ethic in national labor force	4.1
Corruption	2.5
Inadequate supply of infrastructure	1.4
Inflation	1.4
Poor public health	0.3
Foreign currency regulations	0.1
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.



## Austria

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	5.9	13
1.02 Intellectual property protection .....	5.5	17
1.03 Diversion of public funds .....	4.5	37
1.04 Public trust in politicians.....	3.3	49
1.05 Irregular payments and bribes.....	5.4	31
1.06 Judicial independence.....	5.1	30
1.07 Favoritism in decisions of government officials .....	3.9	33
1.08 Wastefulness of government spending .....	3.6	48
1.09 Burden of government regulation .....	3.4	88
1.10 Efficiency of legal framework in settling disputes.....	4.8	24
1.11 Efficiency of legal framework in challenging regs. ....	4.4	25
1.12 Transparency of government policymaking.....	5.0	18
1.13 Business costs of terrorism .....	6.6	6
1.14 Business costs of crime and violence.....	6.0	10
1.15 Organized crime.....	6.5	9
1.16 Reliability of police services .....	5.9	20
1.17 Ethical behavior of firms .....	5.6	17
1.18 Strength of auditing and reporting standards .....	5.7	17
1.19 Efficacy of corporate boards .....	5.0	37
1.20 Protection of minority shareholders' interests .....	5.0	22
1.21 Strength of investor protection, 0–10 (best)* .....	5.0	84
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	6.2	8
2.02 Quality of roads.....	6.2	6
2.03 Quality of railroad infrastructure.....	5.2	12
2.04 Quality of port infrastructure.....	4.7	48
2.05 Quality of air transport infrastructure.....	5.4	39
2.06 Available airline seat km/week, millions* .....	416.1	45
2.07 Quality of electricity supply .....	6.7	4
2.08 Mobile telephone subscriptions/100 pop.* .....	161.2	13
2.09 Fixed telephone lines/100 pop.* .....	39.6	27
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP*.....	-2.5	67
3.02 Gross national savings, % GDP* .....	24.8	48
3.03 Inflation, annual % change* .....	2.6	1
3.04 General government debt, % GDP* .....	73.7	122
3.05 Country credit rating, 0–100 (best)* .....	88.6	13
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	N/Apl.	1
4.02 Malaria cases/100,000 pop.* .....	(NE)	1
4.03 Business impact of tuberculosis.....	6.7	7
4.04 Tuberculosis cases/100,000 pop.* .....	3.7	5
4.05 Business impact of HIV/AIDS.....	6.6	6
4.06 HIV prevalence, % adult pop.* .....	0.40	78
4.07 Infant mortality, deaths/1,000 live births* .....	3.5	20
4.08 Life expectancy, years* .....	81.0	15
4.09 Quality of primary education.....	4.9	28
4.10 Primary education enrollment, net %* .....	98.4	30
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	98.3	42
5.02 Tertiary education enrollment, gross %* .....	70.5	23
5.03 Quality of the educational system.....	4.8	24
5.04 Quality of math and science education .....	4.6	39
5.05 Quality of management schools.....	4.7	40
5.06 Internet access in schools.....	5.7	25
5.07 Availability of research and training services .....	6.1	4
5.08 Extent of staff training .....	4.9	16
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	5.8	11
6.02 Extent of market dominance .....	5.5	5
6.03 Effectiveness of anti-monopoly policy.....	4.7	28
6.04 Effect of taxation on incentives to invest.....	3.9	65
6.05 Total tax rate, % profits* .....	53.1	122

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	8	88
6.07 No. days to start a business* .....	25	97
6.08 Agricultural policy costs.....	4.2	38
6.09 Prevalence of trade barriers .....	4.8	27
6.10 Trade tariffs, % duty* .....	0.8	4
6.11 Prevalence of foreign ownership.....	5.0	53
6.12 Business impact of rules on FDI.....	4.7	59
6.13 Burden of customs procedures.....	5.2	17
6.14 Imports as a percentage of GDP* .....	55.6	50
6.15 Degree of customer orientation .....	5.8	5
6.16 Buyer sophistication .....	4.0	31
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	5.5	10
7.02 Flexibility of wage determination.....	2.4	147
7.03 Hiring and firing practices.....	3.3	115
7.04 Redundancy costs, weeks of salary* .....	2.0	5
7.05 Effect of taxation on incentives to work .....	3.2	112
7.06 Pay and productivity.....	3.9	69
7.07 Reliance on professional management.....	5.4	22
7.08 Country capacity to retain talent.....	4.5	23
7.09 Country capacity to attract talent .....	4.2	30
7.10 Women in labor force, ratio to men*.....	0.86	51
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	5.7	16
8.02 Affordability of financial services .....	5.3	21
8.03 Financing through local equity market.....	3.9	45
8.04 Ease of access to loans .....	3.0	53
8.05 Venture capital availability.....	2.8	55
8.06 Soundness of banks .....	5.2	60
8.07 Regulation of securities exchanges .....	4.5	47
8.08 Legal rights index, 0–10 (best)* .....	7	42
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	6.1	24
9.02 Firm-level technology absorption.....	5.8	17
9.03 FDI and technology transfer .....	4.7	63
9.04 Individuals using Internet, %* .....	81.0	21
9.05 Fixed broadband Internet subscriptions/100 pop.* .....	25.2	22
9.06 Int'l Internet bandwidth, kb/s per user* .....	108.5	17
9.07 Mobile broadband subscriptions/100 pop.* .....	55.5	23
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)*.....	4.4	37
10.02 Foreign market size index, 1–7 (best)*.....	5.4	31
10.03 GDP (PPP\$ billions)* .....	359.0	37
10.04 Exports as a percentage of GDP* .....	57.0	36
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	5.5	6
11.02 Local supplier quality.....	6.1	3
11.03 State of cluster development.....	4.8	17
11.04 Nature of competitive advantage.....	6.0	7
11.05 Value chain breadth.....	5.7	3
11.06 Control of international distribution .....	5.0	8
11.07 Production process sophistication.....	5.9	6
11.08 Extent of marketing.....	5.5	12
11.09 Willingness to delegate authority .....	4.6	25
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	5.0	14
12.02 Quality of scientific research institutions .....	5.0	23
12.03 Company spending on R&D.....	4.7	14
12.04 University-industry collaboration in R&D.....	4.8	23
12.05 Gov't procurement of advanced tech products.....	3.7	47
12.06 Availability of scientists and engineers .....	4.4	47
12.07 PCT patents, applications/million pop.* .....	157.7	10

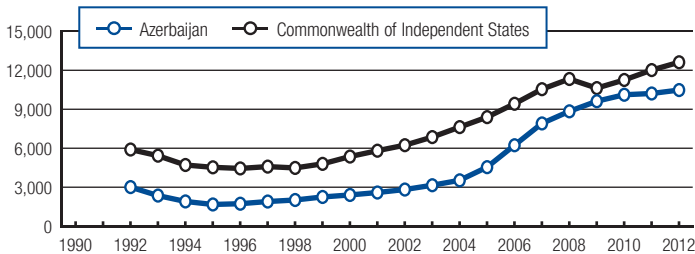
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Azerbaijan

## Key indicators, 2012

Population (millions)	9.2
GDP (US\$ billions)	68.8
GDP per capita (US\$)	7,450
GDP (PPP) as share (%) of world total	0.12

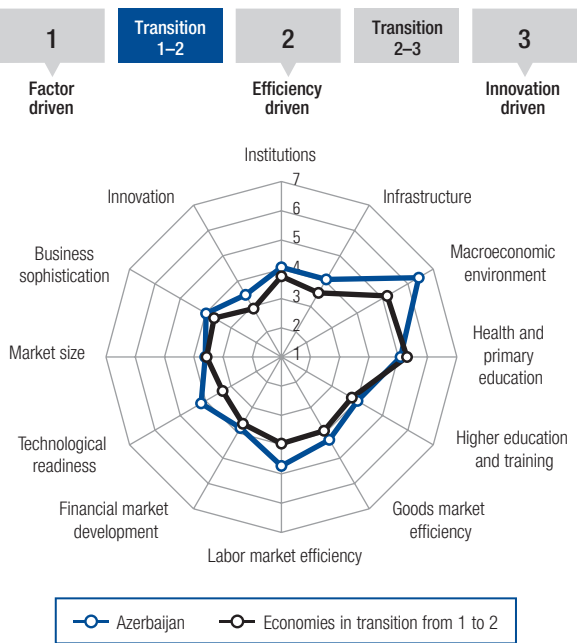
GDP (PPP) per capita (int'l \$), 1990–2012



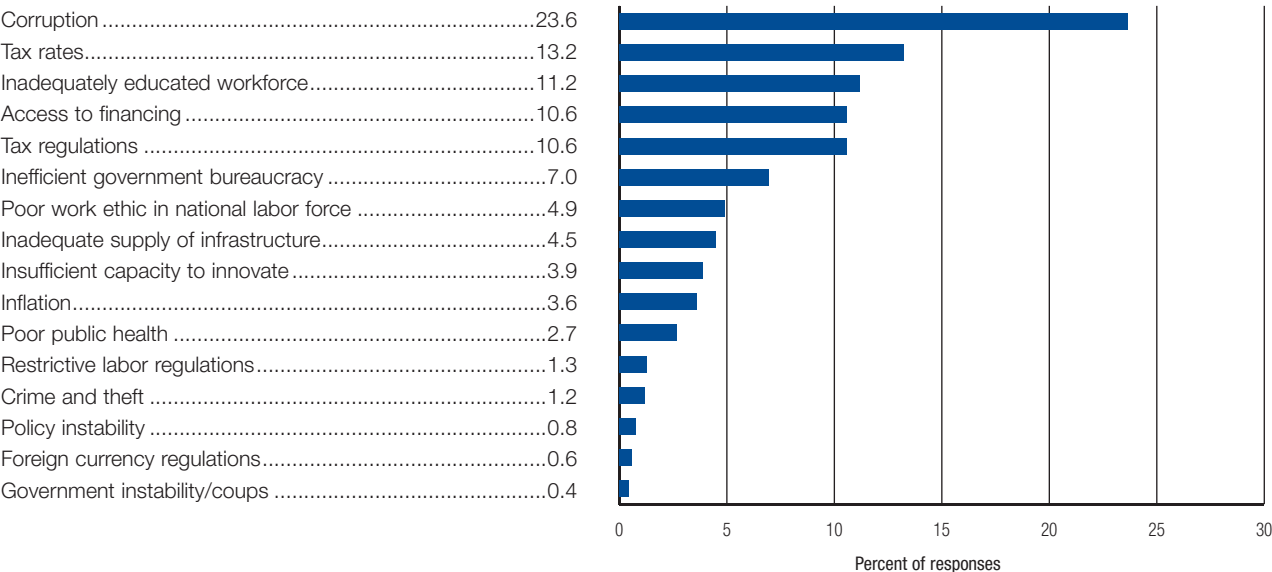
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>39</b>	<b>4.5</b>
GCI 2012–2013 (out of 144)	46	4.4
GCI 2011–2012 (out of 142)	55	4.3
<b>Basic requirements (54.9%)</b>	<b>44</b>	<b>4.9</b>
Institutions	59	4.1
Infrastructure	69	4.1
Macroeconomic environment	8	6.4
Health and primary education	109	5.1
<b>Efficiency enhancers (38.8%)</b>	<b>66</b>	<b>4.1</b>
Higher education and training	87	4.0
Goods market efficiency	71	4.3
Labor market efficiency	30	4.7
Financial market development	88	3.8
Technological readiness	50	4.2
Market size	72	3.6
<b>Innovation and sophistication factors (6.3%)</b>	<b>60</b>	<b>3.7</b>
Business sophistication	70	4.0
Innovation	51	3.5

## Stage of development



## The most problematic factors for doing business



**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.

# Azerbaijan

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148	INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>			<b>6th pillar: Goods market efficiency</b> <i>(cont'd.)</i>		
1.01 Property rights .....	4.0	81	6.06 No. procedures to start a business* .....	6	47
1.02 Intellectual property protection .....	3.7	69	6.07 No. days to start a business* .....	8	34
1.03 Diversion of public funds .....	3.1	83	6.08 Agricultural policy costs .....	4.1	49
1.04 Public trust in politicians .....	3.4	43	6.09 Prevalence of trade barriers .....	4.3	81
1.05 Irregular payments and bribes .....	3.6	87	6.10 Trade tariffs, % duty* .....	7.5	86
1.06 Judicial independence .....	3.3	93	6.11 Prevalence of foreign ownership .....	3.9	116
1.07 Favoritism in decisions of government officials .....	3.6	41	6.12 Business impact of rules on FDI .....	4.6	68
1.08 Wastefulness of government spending .....	3.7	41	6.13 Burden of customs procedures .....	3.3	119
1.09 Burden of government regulation .....	4.2	21	6.14 Imports as a percentage of GDP* .....	26.0	133
1.10 Efficiency of legal framework in settling disputes .....	3.8	64	6.15 Degree of customer orientation .....	4.7	59
1.11 Efficiency of legal framework in challenging regs. ....	3.7	53	6.16 Buyer sophistication .....	4.1	26
1.12 Transparency of government policymaking .....	4.5	43			
1.13 Business costs of terrorism .....	5.8	53	<b>7th pillar: Labor market efficiency</b>		
1.14 Business costs of crime and violence .....	5.7	21	7.01 Cooperation in labor-employer relations .....	4.6	48
1.15 Organized crime .....	5.6	47	7.02 Flexibility of wage determination .....	5.4	36
1.16 Reliability of police services .....	4.3	65	7.03 Hiring and firing practices .....	4.9	8
1.17 Ethical behavior of firms .....	4.0	66	7.04 Redundancy costs, weeks of salary* .....	21.7	101
1.18 Strength of auditing and reporting standards .....	4.2	99	7.05 Effect of taxation on incentives to work .....	3.7	70
1.19 Efficacy of corporate boards .....	4.6	66	7.06 Pay and productivity .....	4.6	23
1.20 Protection of minority shareholders' interests .....	3.9	84	7.07 Reliance on professional management .....	3.9	100
1.21 Strength of investor protection, 0–10 (best)* .....	6.7	25	7.08 Country capacity to retain talent .....	3.5	64
			7.09 Country capacity to attract talent .....	4.1	34
<b>2nd pillar: Infrastructure</b>			7.10 Women in labor force, ratio to men* .....	0.92	23
2.01 Quality of overall infrastructure .....	4.7	55			
2.02 Quality of roads .....	4.0	74	<b>8th pillar: Financial market development</b>		
2.03 Quality of railroad infrastructure .....	3.9	36	8.01 Availability of financial services .....	3.8	108
2.04 Quality of port infrastructure .....	4.5	60	8.02 Affordability of financial services .....	4.1	73
2.05 Quality of air transport infrastructure .....	5.1	48	8.03 Financing through local equity market .....	3.4	78
2.06 Available airline seat km/week, millions* .....	88.4	84	8.04 Ease of access to loans .....	3.0	54
2.07 Quality of electricity supply .....	4.8	75	8.05 Venture capital availability .....	2.9	52
2.08 Mobile telephone subscriptions/100 pop.* .....	107.5	78	8.06 Soundness of banks .....	4.2	112
2.09 Fixed telephone lines/100 pop.* .....	18.4	67	8.07 Regulation of securities exchanges .....	3.7	98
			8.08 Legal rights index, 0–10 (best)* .....	6	65
<b>3rd pillar: Macroeconomic environment</b>					
3.01 Government budget balance, % GDP* .....	3.1	15	<b>9th pillar: Technological readiness</b>		
3.02 Gross national savings, % GDP* .....	43.2	10	9.01 Availability of latest technologies .....	5.0	65
3.03 Inflation, annual % change* .....	1.1	1	9.02 Firm-level technology absorption .....	4.9	59
3.04 General government debt, % GDP* .....	11.6	13	9.03 FDI and technology transfer .....	4.7	65
3.05 Country credit rating, 0–100 (best)* .....	51.3	65	9.04 Individuals using Internet, %* .....	54.2	59
			9.05 Fixed broadband Internet subscriptions/100 pop.* ..	13.8	47
<b>4th pillar: Health and primary education</b>			9.06 Int'l Internet bandwidth, kb/s per user* .....	40.1	45
4.01 Business impact of malaria .....	6.1	83	9.07 Mobile broadband subscriptions/100 pop.* .....	33.3	50
4.02 Malaria cases/100,000 pop.* .....	0.6	81			
4.03 Business impact of tuberculosis .....	5.2	85	<b>10th pillar: Market size</b>		
4.04 Tuberculosis cases/100,000 pop.* .....	113.0	100	10.01 Domestic market size index, 1–7 (best)* .....	3.3	77
4.05 Business impact of HIV/AIDS .....	6.0	38	10.02 Foreign market size index, 1–7 (best)* .....	4.6	66
4.06 HIV prevalence, % adult pop.* .....	0.10	11	10.03 GDP (PPP\$ billions)* .....	96.8	69
4.07 Infant mortality, deaths/1,000 live births* .....	38.5	111	10.04 Exports as a percentage of GDP* .....	52.3	46
4.08 Life expectancy, years* .....	70.7	94			
4.09 Quality of primary education .....	3.0	111	<b>11th pillar: Business sophistication</b>		
4.10 Primary education enrollment, net %* .....	86.6	117	11.01 Local supplier quantity .....	4.6	88
			11.02 Local supplier quality .....	4.2	94
<b>5th pillar: Higher education and training</b>			11.03 State of cluster development .....	3.8	75
5.01 Secondary education enrollment, gross %* .....	99.5	39	11.04 Nature of competitive advantage .....	3.4	75
5.02 Tertiary education enrollment, gross %* .....	19.6	93	11.05 Value chain breadth .....	3.7	69
5.03 Quality of the educational system .....	3.1	114	11.06 Control of international distribution .....	4.2	56
5.04 Quality of math and science education .....	3.3	110	11.07 Production process sophistication .....	4.1	50
5.05 Quality of management schools .....	3.1	134	11.08 Extent of marketing .....	4.1	68
5.06 Internet access in schools .....	4.2	72	11.09 Willingness to delegate authority .....	3.7	77
5.07 Availability of research and training services .....	4.2	69			
5.08 Extent of staff training .....	3.9	80	<b>12th pillar: Innovation</b>		
			12.01 Capacity for innovation .....	4.1	35
<b>6th pillar: Goods market efficiency</b>			12.02 Quality of scientific research institutions .....	3.6	78
6.01 Intensity of local competition .....	4.2	128	12.03 Company spending on R&D .....	3.3	56
6.02 Extent of market dominance .....	3.6	83	12.04 University-industry collaboration in R&D .....	3.4	84
6.03 Effectiveness of anti-monopoly policy .....	3.3	127	12.05 Gov't procurement of advanced tech products .....	4.4	14
6.04 Effect of taxation on incentives to invest .....	3.7	76	12.06 Availability of scientists and engineers .....	4.4	49
6.05 Total tax rate, % profits* .....	40.0	78	12.07 PCT patents, applications/million pop.* .....	0.4	79

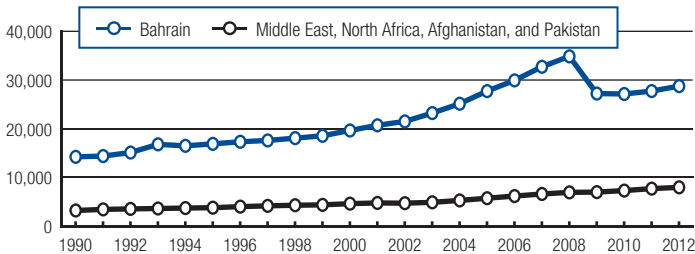
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Bahrain

## Key indicators, 2012

Population (millions)	1.3
GDP (US\$ billions)	27.0
GDP per capita (US\$)	23,477
GDP (PPP) as share (%) of world total	0.04

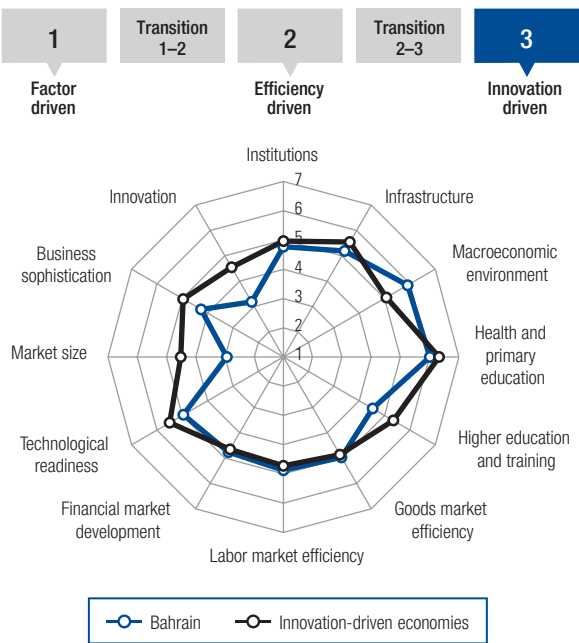
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

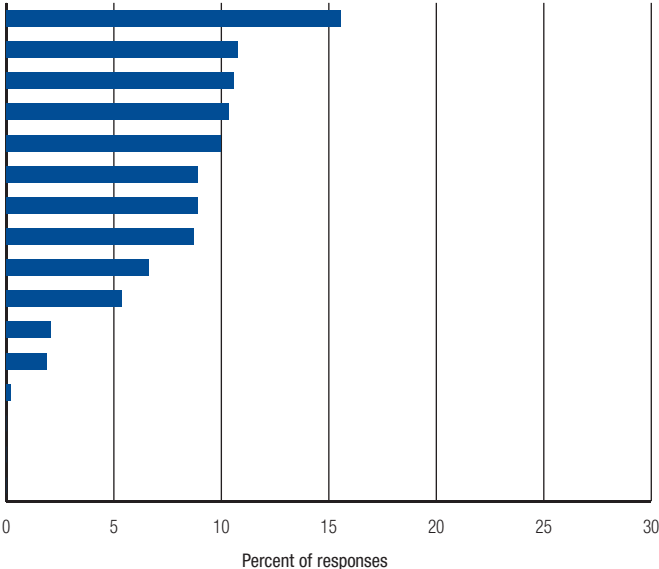
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>43</b>	<b>4.5</b>
GCI 2012–2013 (out of 144)	35	4.6
GCI 2011–2012 (out of 142)	37	4.5
<b>Basic requirements (20.0%)</b>	<b>25</b>	<b>5.5</b>
Institutions	32	4.8
Infrastructure	30	5.2
Macroeconomic environment	21	5.9
Health and primary education	44	6.0
<b>Efficiency enhancers (50.0%)</b>	<b>38</b>	<b>4.5</b>
Higher education and training	53	4.5
Goods market efficiency	19	5.0
Labor market efficiency	19	4.9
Financial market development	25	4.8
Technological readiness	32	4.9
Market size	106	2.9
<b>Innovation and sophistication factors (30.0%)</b>	<b>59</b>	<b>3.7</b>
Business sophistication	53	4.2
Innovation	73	3.2

### Stage of development



## The most problematic factors for doing business

Inefficient government bureaucracy	15.6
Insufficient capacity to innovate	10.8
Poor work ethic in national labor force	10.6
Policy instability	10.4
Inadequately educated workforce	10.0
Inadequate supply of infrastructure	8.9
Restrictive labor regulations	8.9
Access to financing	8.7
Corruption	6.6
Government instability/coups	5.4
Inflation	2.1
Crime and theft	1.9
Poor public health	0.2
Foreign currency regulations	0.0
Tax rates	0.0
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.

# Bahrain

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148	INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>			<b>6th pillar: Goods market efficiency</b> <i>(cont'd.)</i>		
1.01 Property rights .....	5.5	23	6.06 No. procedures to start a business* .....	7	74
1.02 Intellectual property protection .....	4.8	32	6.07 No. days to start a business* .....	9	43
1.03 Diversion of public funds .....	4.5	32	6.08 Agricultural policy costs .....	4.2	37
1.04 Public trust in politicians .....	3.8	31	6.09 Prevalence of trade barriers .....	4.9	19
1.05 Irregular payments and bribes .....	5.5	29	6.10 Trade tariffs, % duty* .....	4.6	61
1.06 Judicial independence .....	4.5	46	6.11 Prevalence of foreign ownership .....	5.5	20
1.07 Favoritism in decisions of government officials .....	4.0	28	6.12 Business impact of rules on FDI .....	5.7	6
1.08 Wastefulness of government spending .....	4.3	19	6.13 Burden of customs procedures .....	4.9	29
1.09 Burden of government regulation .....	4.4	9	6.14 Imports as a percentage of GDP* .....	56.1	49
1.10 Efficiency of legal framework in settling disputes .....	4.2	41	6.15 Degree of customer orientation .....	4.6	69
1.11 Efficiency of legal framework in challenging regs. ....	3.9	43	6.16 Buyer sophistication .....	4.2	24
1.12 Transparency of government policymaking .....	5.0	22	<b>7th pillar: Labor market efficiency</b>		
1.13 Business costs of terrorism .....	4.4	125	7.01 Cooperation in labor-employer relations .....	4.9	30
1.14 Business costs of crime and violence .....	4.5	84	7.02 Flexibility of wage determination .....	5.9	8
1.15 Organized crime .....	6.2	19	7.03 Hiring and firing practices .....	4.3	40
1.16 Reliability of police services .....	5.0	39	7.04 Redundancy costs, weeks of salary* .....	4.3	9
1.17 Ethical behavior of firms .....	5.0	31	7.05 Effect of taxation on incentives to work .....	6.2	2
1.18 Strength of auditing and reporting standards .....	5.8	15	7.06 Pay and productivity .....	4.3	37
1.19 Efficacy of corporate boards .....	4.7	56	7.07 Reliance on professional management .....	4.5	49
1.20 Protection of minority shareholders' interests .....	5.2	17	7.08 Country capacity to retain talent .....	4.6	22
1.21 Strength of investor protection, 0–10 (best)* .....	5.3	69	7.09 Country capacity to attract talent .....	5.0	13
<b>2nd pillar: Infrastructure</b>			7.10 Women in labor force, ratio to men* .....	0.46	133
2.01 Quality of overall infrastructure .....	5.7	20	<b>8th pillar: Financial market development</b>		
2.02 Quality of roads .....	5.4	24	8.01 Availability of financial services .....	5.7	19
2.03 Quality of railroad infrastructure .....	N/Apl.	n/a	8.02 Affordability of financial services .....	5.6	9
2.04 Quality of port infrastructure .....	5.8	11	8.03 Financing through local equity market .....	4.3	32
2.05 Quality of air transport infrastructure .....	5.6	25	8.04 Ease of access to loans .....	4.4	7
2.06 Available airline seat km/week, millions* .....	174.8	68	8.05 Venture capital availability .....	3.8	15
2.07 Quality of electricity supply .....	6.3	27	8.06 Soundness of banks .....	5.6	44
2.08 Mobile telephone subscriptions/100 pop.* .....	156.2	16	8.07 Regulation of securities exchanges .....	5.3	21
2.09 Fixed telephone lines/100 pop.* .....	21.3	54	8.08 Legal rights index, 0–10 (best)* .....	4	101
<b>3rd pillar: Macroeconomic environment</b>			<b>9th pillar: Technological readiness</b>		
3.01 Government budget balance, % GDP* .....	-2.6	68	9.01 Availability of latest technologies .....	6.0	26
3.02 Gross national savings, % GDP* .....	42.0	12	9.02 Firm-level technology absorption .....	5.5	30
3.03 Inflation, annual % change* .....	1.2	1	9.03 FDI and technology transfer .....	5.3	10
3.04 General government debt, % GDP* .....	33.7	51	9.04 Individuals using Internet, %* .....	88.0	10
3.05 Country credit rating, 0–100 (best)* .....	58.3	49	9.05 Fixed broadband Internet subscriptions/100 pop.* ..	12.7	50
<b>4th pillar: Health and primary education</b>			9.06 Int'l Internet bandwidth, kb/s per user* .....	17.6	73
4.01 Business impact of malaria .....	N/Apl.	1	9.07 Mobile broadband subscriptions/100 pop.* .....	67.1	16
4.02 Malaria cases/100,000 pop.* .....	(NE)	1	<b>10th pillar: Market size</b>		
4.03 Business impact of tuberculosis .....	5.9	54	10.01 Domestic market size index, 1–7 (best)* .....	2.5	116
4.04 Tuberculosis cases/100,000 pop.* .....	18.0	42	10.02 Foreign market size index, 1–7 (best)* .....	4.3	78
4.05 Business impact of HIV/AIDS .....	5.9	49	10.03 GDP (PPP\$ billions)* .....	33.1	99
4.06 HIV prevalence, % adult pop.* .....	<0.1	1	10.04 Exports as a percentage of GDP* .....	87.7	14
4.07 Infant mortality, deaths/1,000 live births* .....	8.6	51	<b>11th pillar: Business sophistication</b>		
4.08 Life expectancy, years* .....	75.2	51	11.01 Local supplier quantity .....	4.9	38
4.09 Quality of primary education .....	4.0	64	11.02 Local supplier quality .....	4.6	57
4.10 Primary education enrollment, net %* .....	97.8	36	11.03 State of cluster development .....	4.3	32
<b>5th pillar: Higher education and training</b>			11.04 Nature of competitive advantage .....	3.5	69
5.01 Secondary education enrollment, gross %* .....	103.1	25	11.05 Value chain breadth .....	3.9	53
5.02 Tertiary education enrollment, gross %* .....	29.8	78	11.06 Control of international distribution .....	4.5	33
5.03 Quality of the educational system .....	4.1	48	11.07 Production process sophistication .....	4.2	44
5.04 Quality of math and science education .....	4.0	77	11.08 Extent of marketing .....	4.3	61
5.05 Quality of management schools .....	4.1	85	11.09 Willingness to delegate authority .....	3.8	67
5.06 Internet access in schools .....	5.0	45	<b>12th pillar: Innovation</b>		
5.07 Availability of research and training services .....	4.4	52	12.01 Capacity for innovation .....	3.4	82
5.08 Extent of staff training .....	4.3	41	12.02 Quality of scientific research institutions .....	3.0	114
<b>6th pillar: Goods market efficiency</b>			12.03 Company spending on R&D .....	2.9	99
6.01 Intensity of local competition .....	5.3	40	12.04 University-industry collaboration in R&D .....	2.9	121
6.02 Extent of market dominance .....	3.8	65	12.05 Gov't procurement of advanced tech products .....	4.1	24
6.03 Effectiveness of anti-monopoly policy .....	4.6	35	12.06 Availability of scientists and engineers .....	4.1	69
6.04 Effect of taxation on incentives to invest .....	6.4	1	12.07 PCT patents, applications/million pop.* .....	1.9	56
6.05 Total tax rate, % profits* .....	13.9	4			

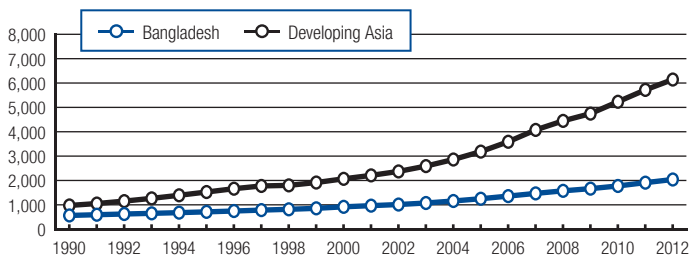
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Bangladesh

## Key indicators, 2012

Population (millions)	150.5
GDP (US\$ billions)	122.7
GDP per capita (US\$)	818
GDP (PPP) as share (%) of world total	0.37

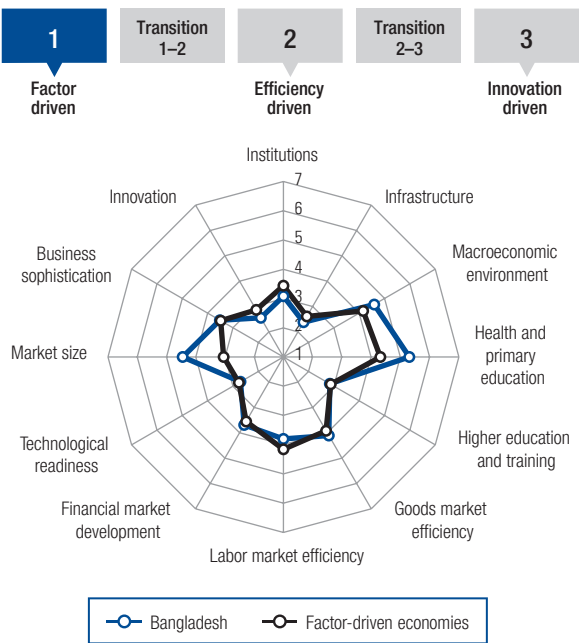
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

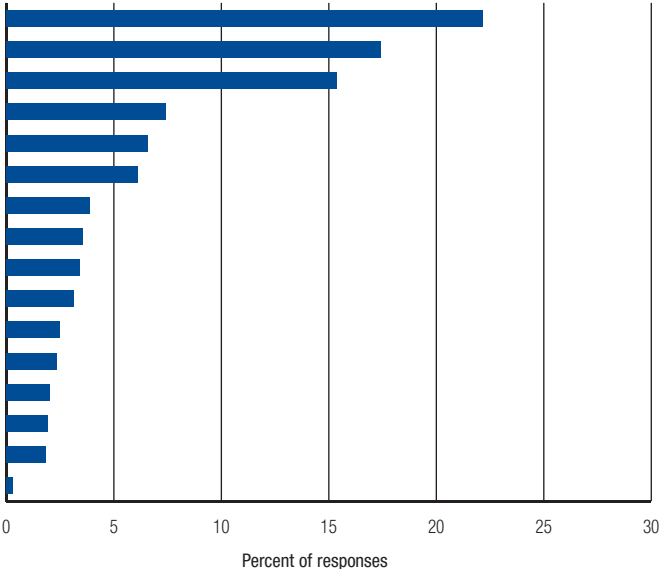
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>110</b>	<b>3.7</b>
GCI 2012–2013 (out of 144)	118	3.6
GCI 2011–2012 (out of 142)	108	3.7
<b>Basic requirements (60.0%)</b>	<b>113</b>	<b>3.8</b>
Institutions	131	3.1
Infrastructure	132	2.4
Macroeconomic environment	79	4.6
Health and primary education	104	5.3
<b>Efficiency enhancers (35.0%)</b>	<b>108</b>	<b>3.6</b>
Higher education and training	127	2.8
Goods market efficiency	89	4.1
Labor market efficiency	124	3.8
Financial market development	102	3.7
Technological readiness	127	2.7
Market size	45	4.4
<b>Innovation and sophistication factors (5.0%)</b>	<b>124</b>	<b>3.0</b>
Business sophistication	113	3.5
Innovation	131	2.5

## Stage of development



## The most problematic factors for doing business

Corruption	22.2
Inadequate supply of infrastructure	17.4
Inefficient government bureaucracy	15.4
Access to financing	7.4
Government instability/coups	6.6
Inadequately educated workforce	6.1
Foreign currency regulations	3.9
Policy instability	3.5
Tax regulations	3.4
Poor work ethic in national labor force	3.1
Inflation	2.5
Tax rates	2.4
Insufficient capacity to innovate	2.0
Crime and theft	1.9
Restrictive labor regulations	1.8
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.



# Bangladesh

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	3.4	122
1.02 Intellectual property protection .....	2.6	130
1.03 Diversion of public funds .....	2.7	107
1.04 Public trust in politicians.....	1.9	132
1.05 Irregular payments and bribes.....	2.2	146
1.06 Judicial independence.....	2.4	129
1.07 Favoritism in decisions of government officials .....	2.2	134
1.08 Wastefulness of government spending .....	2.9	92
1.09 Burden of government regulation .....	3.2	97
1.10 Efficiency of legal framework in settling disputes.....	3.1	114
1.11 Efficiency of legal framework in challenging regs. ....	3.3	81
1.12 Transparency of government policymaking.....	3.9	95
1.13 Business costs of terrorism .....	4.6	118
1.14 Business costs of crime and violence.....	3.9	110
1.15 Organized crime.....	4.4	103
1.16 Reliability of police services .....	2.6	141
1.17 Ethical behavior of firms .....	2.8	146
1.18 Strength of auditing and reporting standards .....	3.6	133
1.19 Efficacy of corporate boards .....	3.9	134
1.20 Protection of minority shareholders' interests .....	3.1	135
1.21 Strength of investor protection, 0–10 (best)* .....	6.7	<b>25</b>
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	2.8	134
2.02 Quality of roads.....	2.8	118
2.03 Quality of railroad infrastructure.....	2.4	78
2.04 Quality of port infrastructure.....	3.5	104
2.05 Quality of air transport infrastructure.....	3.2	125
2.06 Available airline seat km/week, millions* .....	203.2	62
2.07 Quality of electricity supply .....	2.2	133
2.08 Mobile telephone subscriptions/100 pop.* .....	63.8	128
2.09 Fixed telephone lines/100 pop.* .....	0.6	135
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP*.....	-3.4	88
3.02 Gross national savings, % GDP* .....	29.9	<b>27</b>
3.03 Inflation, annual % change* .....	8.7	123
3.04 General government debt, % GDP* .....	42.9	74
3.05 Country credit rating, 0–100 (best)* .....	29.2	107
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	5.6	92
4.02 Malaria cases/100,000 pop.* .....	392.0	110
4.03 Business impact of tuberculosis.....	5.6	69
4.04 Tuberculosis cases/100,000 pop.* .....	225.0	125
4.05 Business impact of HIV/AIDS.....	6.0	<b>41</b>
4.06 HIV prevalence, % adult pop.* .....	0.10	<b>11</b>
4.07 Infant mortality, deaths/1,000 live births* .....	36.7	109
4.08 Life expectancy, years* .....	68.9	102
4.09 Quality of primary education.....	2.9	115
4.10 Primary education enrollment, net %* .....	94.4	70
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	51.9	118
5.02 Tertiary education enrollment, gross %* .....	13.6	107
5.03 Quality of the educational system.....	3.3	98
5.04 Quality of math and science education .....	3.3	112
5.05 Quality of management schools.....	3.7	105
5.06 Internet access in schools.....	2.8	122
5.07 Availability of research and training services .....	3.2	132
5.08 Extent of staff training .....	3.1	137
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	4.9	74
6.02 Extent of market dominance .....	3.3	116
6.03 Effectiveness of anti-monopoly policy.....	3.8	99
6.04 Effect of taxation on incentives to invest.....	3.6	92
6.05 Total tax rate, % profits* .....	35.0	61

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	7	74
6.07 No. days to start a business* .....	19	82
6.08 Agricultural policy costs.....	4.5	<b>18</b>
6.09 Prevalence of trade barriers .....	4.4	62
6.10 Trade tariffs, % duty* .....	13.5	132
6.11 Prevalence of foreign ownership.....	3.7	123
6.12 Business impact of rules on FDI.....	4.9	<b>44</b>
6.13 Burden of customs procedures.....	3.4	113
6.14 Imports as a percentage of GDP* .....	32.0	117
6.15 Degree of customer orientation .....	4.2	109
6.16 Buyer sophistication .....	3.3	81
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	4.1	96
7.02 Flexibility of wage determination.....	4.8	95
7.03 Hiring and firing practices.....	4.5	<b>25</b>
7.04 Redundancy costs, weeks of salary* .....	31.0	131
7.05 Effect of taxation on incentives to work .....	3.6	74
7.06 Pay and productivity.....	3.6	101
7.07 Reliance on professional management.....	3.6	118
7.08 Country capacity to retain talent.....	2.6	124
7.09 Country capacity to attract talent .....	2.4	123
7.10 Women in labor force, ratio to men*.....	0.69	100
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	3.9	101
8.02 Affordability of financial services .....	3.7	109
8.03 Financing through local equity market.....	3.9	<b>41</b>
8.04 Ease of access to loans .....	2.3	114
8.05 Venture capital availability.....	2.0	125
8.06 Soundness of banks .....	4.3	103
8.07 Regulation of securities exchanges .....	3.0	125
8.08 Legal rights index, 0–10 (best)* .....	7	<b>42</b>
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	4.4	101
9.02 Firm-level technology absorption.....	4.2	111
9.03 FDI and technology transfer .....	3.9	119
9.04 Individuals using Internet, %* .....	6.3	129
9.05 Fixed broadband Internet subscriptions/100 pop.* .....	0.3	117
9.06 Int'l Internet bandwidth, kb/s per user* .....	2.9	128
9.07 Mobile broadband subscriptions/100 pop.* .....	0.2	128
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)*.....	4.3	<b>38</b>
10.02 Foreign market size index, 1–7 (best)*.....	4.7	61
10.03 GDP (PPP\$ billions)* .....	306.0	<b>43</b>
10.04 Exports as a percentage of GDP* .....	21.7	131
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.7	76
11.02 Local supplier quality.....	4.1	95
11.03 State of cluster development.....	3.9	66
11.04 Nature of competitive advantage.....	2.3	147
11.05 Value chain breadth.....	3.3	106
11.06 Control of international distribution .....	3.8	89
11.07 Production process sophistication.....	3.3	110
11.08 Extent of marketing.....	3.4	119
11.09 Willingness to delegate authority .....	2.7	142
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	3.0	120
12.02 Quality of scientific research institutions .....	2.6	130
12.03 Company spending on R&D.....	2.4	134
12.04 University-industry collaboration in R&D.....	2.6	134
12.05 Gov't procurement of advanced tech products.....	2.4	142
12.06 Availability of scientists and engineers .....	3.8	91
12.07 PCT patents, applications/million pop.* .....	0.0	120

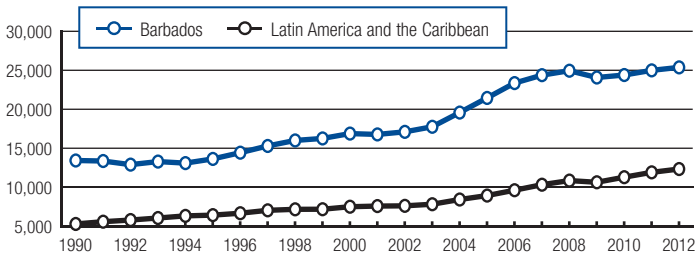
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Barbados

## Key indicators, 2012

Population (millions)	0.3
GDP (US\$ billions)	4.5
GDP per capita (US\$)	16,152
GDP (PPP) as share (%) of world total	0.01

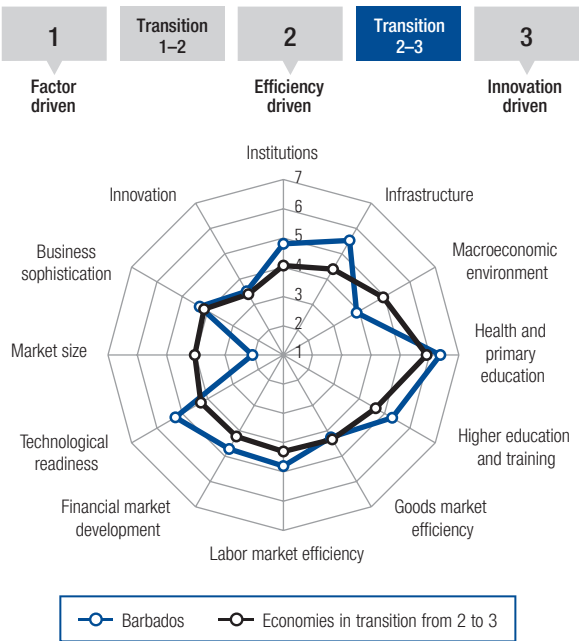
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

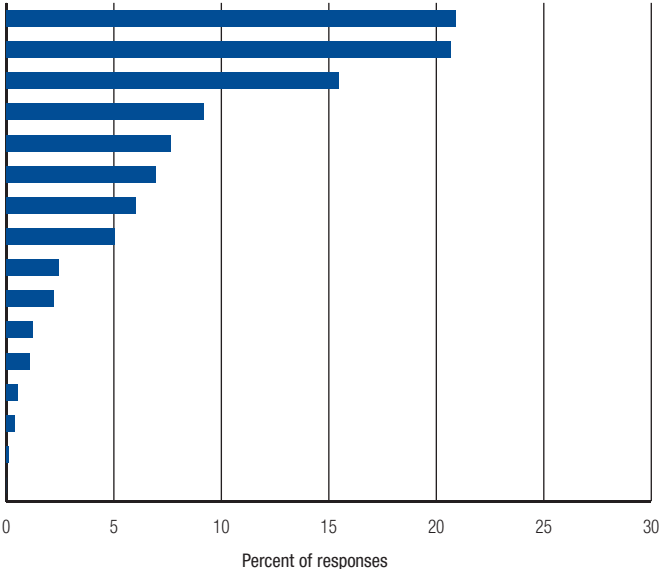
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>47</b>	<b>4.4</b>
GCI 2012–2013 (out of 144)	44	4.4
GCI 2011–2012 (out of 142)	42	4.4
<b>Basic requirements (22.1%)</b>	<b>35</b>	<b>5.1</b>
Institutions	30	4.8
Infrastructure	24	5.5
Macroeconomic environment	121	3.9
Health and primary education	20	6.4
<b>Efficiency enhancers (50.0%)</b>	<b>43</b>	<b>4.4</b>
Higher education and training	20	5.3
Goods market efficiency	75	4.2
Labor market efficiency	24	4.8
Financial market development	28	4.7
Technological readiness	25	5.3
Market size	138	2.1
<b>Innovation and sophistication factors (27.9%)</b>	<b>48</b>	<b>3.9</b>
Business sophistication	46	4.3
Innovation	48	3.5

### Stage of development



## The most problematic factors for doing business

Access to financing	20.9
Inefficient government bureaucracy	20.7
Poor work ethic in national labor force	15.5
Insufficient capacity to innovate	9.2
Restrictive labor regulations	7.7
Tax rates	7.0
Foreign currency regulations	6.0
Inflation	5.1
Inadequate supply of infrastructure	2.5
Tax regulations	2.2
Inadequately educated workforce	1.2
Crime and theft	1.1
Policy instability	0.5
Corruption	0.4
Poor public health	0.1
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.

# Barbados

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	5.0	<b>38</b>
1.02 Intellectual property protection .....	4.5	<b>37</b>
1.03 Diversion of public funds .....	4.8	<b>28</b>
1.04 Public trust in politicians.....	4.2	<b>21</b>
1.05 Irregular payments and bribes.....	5.1	<b>35</b>
1.06 Judicial independence.....	5.5	<b>21</b>
1.07 Favoritism in decisions of government officials .....	3.6	<b>42</b>
1.08 Wastefulness of government spending .....	3.9	<b>28</b>
1.09 Burden of government regulation .....	4.2	<b>19</b>
1.10 Efficiency of legal framework in settling disputes.....	4.5	<b>34</b>
1.11 Efficiency of legal framework in challenging regs. ....	4.2	<b>32</b>
1.12 Transparency of government policymaking.....	4.7	<b>28</b>
1.13 Business costs of terrorism .....	6.0	<b>42</b>
1.14 Business costs of crime and violence.....	4.4	85
1.15 Organized crime.....	6.2	<b>17</b>
1.16 Reliability of police services .....	5.7	<b>25</b>
1.17 Ethical behavior of firms .....	5.1	<b>25</b>
1.18 Strength of auditing and reporting standards .....	5.6	<b>18</b>
1.19 Efficacy of corporate boards .....	5.0	<b>32</b>
1.20 Protection of minority shareholders' interests .....	4.6	<b>39</b>
1.21 Strength of investor protection, 0–10 (best)* .....	3.0	134
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	5.6	<b>24</b>
2.02 Quality of roads.....	5.1	<b>33</b>
2.03 Quality of railroad infrastructure.....	N/Apl.	n/a
2.04 Quality of port infrastructure.....	5.6	<b>18</b>
2.05 Quality of air transport infrastructure.....	6.0	<b>15</b>
2.06 Available airline seat km/week, millions* .....	71.4	91
2.07 Quality of electricity supply .....	6.3	<b>26</b>
2.08 Mobile telephone subscriptions/100 pop.* .....	126.4	<b>44</b>
2.09 Fixed telephone lines/100 pop.* .....	52.5	<b>10</b>
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP*.....	-6.2	129
3.02 Gross national savings, % GDP* .....	10.6	125
3.03 Inflation, annual % change* .....	4.6	85
3.04 General government debt, % GDP* .....	72.6	121
3.05 Country credit rating, 0–100 (best)* .....	57.3	52
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	N/Apl.	<b>1</b>
4.02 Malaria cases/100,000 pop.* .....	(NE)	<b>1</b>
4.03 Business impact of tuberculosis.....	5.8	58
4.04 Tuberculosis cases/100,000 pop.* .....	1.2	<b>2</b>
4.05 Business impact of HIV/AIDS.....	4.1	122
4.06 HIV prevalence, % adult pop.* .....	0.90	106
4.07 Infant mortality, deaths/1,000 live births* .....	17.7	82
4.08 Life expectancy, years* .....	76.7	<b>43</b>
4.09 Quality of primary education.....	6.0	<b>4</b>
4.10 Primary education enrollment, net %* .....	95.0	63
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	103.7	<b>23</b>
5.02 Tertiary education enrollment, gross %* .....	61.8	<b>33</b>
5.03 Quality of the educational system.....	5.3	<b>6</b>
5.04 Quality of math and science education .....	5.5	<b>9</b>
5.05 Quality of management schools.....	5.1	<b>26</b>
5.06 Internet access in schools.....	5.1	<b>38</b>
5.07 Availability of research and training services .....	4.7	<b>41</b>
5.08 Extent of staff training .....	4.5	<b>32</b>
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	5.2	50
6.02 Extent of market dominance .....	3.5	91
6.03 Effectiveness of anti-monopoly policy.....	4.2	62
6.04 Effect of taxation on incentives to invest.....	3.8	68
6.05 Total tax rate, % profits* .....	45.4	103

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	8	88
6.07 No. days to start a business* .....	18	78
6.08 Agricultural policy costs.....	4.1	51
6.09 Prevalence of trade barriers .....	4.8	<b>31</b>
6.10 Trade tariffs, % duty* .....	26.4	146
6.11 Prevalence of foreign ownership.....	5.6	<b>15</b>
6.12 Business impact of rules on FDI.....	5.0	<b>34</b>
6.13 Burden of customs procedures.....	4.2	64
6.14 Imports as a percentage of GDP* .....	54.2	57
6.15 Degree of customer orientation .....	4.5	82
6.16 Buyer sophistication .....	3.7	51
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	5.2	<b>20</b>
7.02 Flexibility of wage determination.....	4.9	90
7.03 Hiring and firing practices.....	4.1	60
7.04 Redundancy costs, weeks of salary* .....	16.0	80
7.05 Effect of taxation on incentives to work .....	4.1	<b>35</b>
7.06 Pay and productivity.....	3.5	104
7.07 Reliance on professional management.....	5.0	<b>29</b>
7.08 Country capacity to retain talent.....	4.3	<b>30</b>
7.09 Country capacity to attract talent .....	4.7	<b>21</b>
7.10 Women in labor force, ratio to men*.....	0.90	<b>30</b>
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	4.9	50
8.02 Affordability of financial services .....	4.4	54
8.03 Financing through local equity market.....	3.1	92
8.04 Ease of access to loans .....	2.6	89
8.05 Venture capital availability.....	2.4	98
8.06 Soundness of banks .....	6.3	<b>11</b>
8.07 Regulation of securities exchanges .....	5.2	<b>25</b>
8.08 Legal rights index, 0–10 (best)* .....	9	<b>12</b>
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	5.9	<b>28</b>
9.02 Firm-level technology absorption.....	5.2	<b>44</b>
9.03 FDI and technology transfer .....	5.0	<b>35</b>
9.04 Individuals using Internet, %* .....	73.3	<b>32</b>
9.05 Fixed broadband Internet subscriptions/100 pop.* .....	23.8	<b>27</b>
9.06 Int'l Internet bandwidth, kb/s per user* .....	69.5	<b>33</b>
9.07 Mobile broadband subscriptions/100 pop.* .....	36.4	<b>44</b>
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)*.....	1.7	139
10.02 Foreign market size index, 1–7 (best)*.....	3.0	135
10.03 GDP (PPP\$ billions)* .....	7.1	138
10.04 Exports as a percentage of GDP* .....	46.3	60
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.6	83
11.02 Local supplier quality.....	4.8	<b>45</b>
11.03 State of cluster development.....	3.8	76
11.04 Nature of competitive advantage.....	4.9	<b>23</b>
11.05 Value chain breadth.....	3.9	56
11.06 Control of international distribution .....	4.1	68
11.07 Production process sophistication.....	4.0	61
11.08 Extent of marketing.....	4.3	58
11.09 Willingness to delegate authority .....	4.0	<b>43</b>
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	3.4	81
12.02 Quality of scientific research institutions .....	4.2	<b>45</b>
12.03 Company spending on R&D.....	3.0	78
12.04 University-industry collaboration in R&D.....	4.3	<b>39</b>
12.05 Gov't procurement of advanced tech products.....	3.6	54
12.06 Availability of scientists and engineers.....	4.3	63
12.07 PCT patents, applications/million pop.* .....	11.3	<b>32</b>

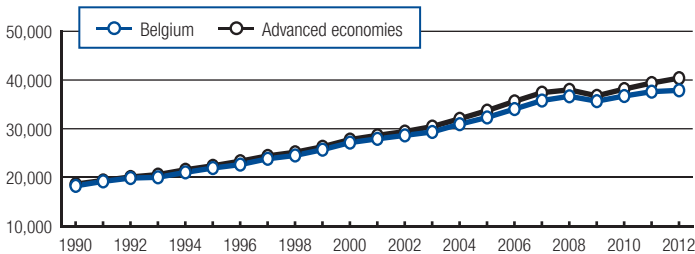
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Belgium

## Key indicators, 2012

Population (millions)	11.0
GDP (US\$ billions)	484.7
GDP per capita (US\$)	43,686
GDP (PPP) as share (%) of world total	0.51

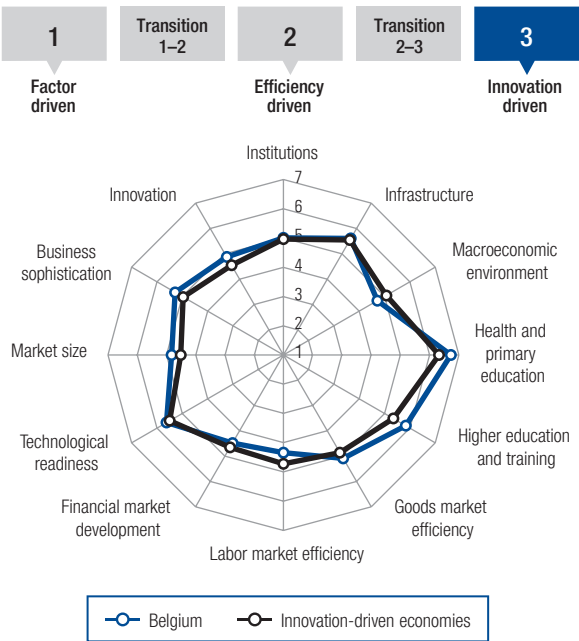
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

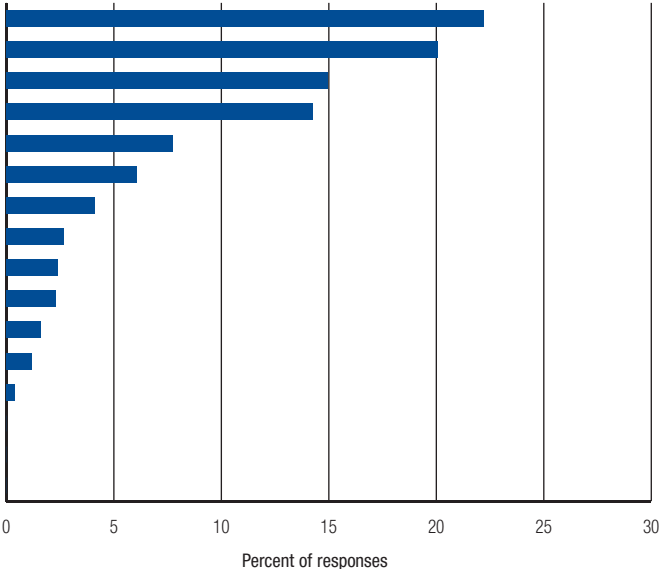
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>17</b>	<b>5.1</b>
GCI 2012–2013 (out of 144)	17	5.2
GCI 2011–2012 (out of 142)	15	5.2
<b>Basic requirements (20.0%)</b>	<b>22</b>	<b>5.5</b>
Institutions	24	5.0
Infrastructure	19	5.6
Macroeconomic environment	69	4.7
Health and primary education	3	6.7
<b>Efficiency enhancers (50.0%)</b>	<b>17</b>	<b>5.0</b>
Higher education and training	5	5.8
Goods market efficiency	13	5.1
Labor market efficiency	64	4.3
Financial market development	44	4.5
Technological readiness	18	5.6
Market size	28	4.8
<b>Innovation and sophistication factors (30.0%)</b>	<b>15</b>	<b>5.1</b>
Business sophistication	12	5.3
Innovation	14	4.9

### Stage of development



## The most problematic factors for doing business

Restrictive labor regulations	22.2
Tax rates	20.1
Inefficient government bureaucracy	15.0
Tax regulations	14.2
Access to financing	7.8
Policy instability	6.1
Insufficient capacity to innovate	4.1
Inflation	2.7
Poor work ethic in national labor force	2.4
Inadequately educated workforce	2.3
Government instability/coups	1.6
Inadequate supply of infrastructure	1.2
Corruption	0.4
Crime and theft	0.0
Foreign currency regulations	0.0
Poor public health	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.

# Belgium

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	5.4	25
1.02 Intellectual property protection .....	5.2	22
1.03 Diversion of public funds .....	5.2	20
1.04 Public trust in politicians .....	3.9	29
1.05 Irregular payments and bribes .....	5.6	23
1.06 Judicial independence .....	5.4	24
1.07 Favoritism in decisions of government officials .....	4.0	26
1.08 Wastefulness of government spending .....	3.5	51
1.09 Burden of government regulation .....	2.6	134
1.10 Efficiency of legal framework in settling disputes .....	4.2	40
1.11 Efficiency of legal framework in challenging regs. ....	4.0	36
1.12 Transparency of government policymaking .....	4.3	57
1.13 Business costs of terrorism .....	6.1	33
1.14 Business costs of crime and violence .....	5.5	27
1.15 Organized crime .....	6.0	24
1.16 Reliability of police services .....	5.6	27
1.17 Ethical behavior of firms .....	5.3	22
1.18 Strength of auditing and reporting standards .....	5.4	29
1.19 Efficacy of corporate boards .....	5.3	<b>16</b>
1.20 Protection of minority shareholders' interests .....	4.8	30
1.21 Strength of investor protection, 0–10 (best)* .....	7.0	19
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	5.8	<b>16</b>
2.02 Quality of roads .....	5.4	26
2.03 Quality of railroad infrastructure .....	5.0	<b>15</b>
2.04 Quality of port infrastructure .....	6.3	<b>7</b>
2.05 Quality of air transport infrastructure .....	6.0	<b>16</b>
2.06 Available airline seat km/week, millions* .....	557.0	37
2.07 Quality of electricity supply .....	6.4	21
2.08 Mobile telephone subscriptions/100 pop.* .....	119.4	53
2.09 Fixed telephone lines/100 pop.* .....	42.9	21
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	-4.0	99
3.02 Gross national savings, % GDP* .....	20.8	69
3.03 Inflation, annual % change* .....	2.6	<b>1</b>
3.04 General government debt, % GDP* .....	99.6	138
3.05 Country credit rating, 0–100 (best)* .....	80.1	19
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	N/Apl.	<b>1</b>
4.02 Malaria cases/100,000 pop.* .....	(NE)	<b>1</b>
4.03 Business impact of tuberculosis .....	6.5	20
4.04 Tuberculosis cases/100,000 pop.* .....	8.1	28
4.05 Business impact of HIV/AIDS .....	6.1	31
4.06 HIV prevalence, % adult pop.* .....	0.30	60
4.07 Infant mortality, deaths/1,000 live births* .....	3.5	20
4.08 Life expectancy, years* .....	80.5	25
4.09 Quality of primary education .....	6.3	<b>2</b>
4.10 Primary education enrollment, net %* .....	98.9	24
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	110.5	<b>11</b>
5.02 Tertiary education enrollment, gross %* .....	70.6	22
5.03 Quality of the educational system .....	5.3	<b>7</b>
5.04 Quality of math and science education .....	6.0	<b>3</b>
5.05 Quality of management schools .....	6.0	<b>2</b>
5.06 Internet access in schools .....	5.7	26
5.07 Availability of research and training services .....	5.9	<b>5</b>
5.08 Extent of staff training .....	4.9	19
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	6.0	<b>6</b>
6.02 Extent of market dominance .....	5.3	<b>8</b>
6.03 Effectiveness of anti-monopoly policy .....	5.1	<b>13</b>
6.04 Effect of taxation on incentives to invest .....	3.3	110
6.05 Total tax rate, % profits* .....	57.7	127

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	3	<b>10</b>
6.07 No. days to start a business* .....	4	<b>8</b>
6.08 Agricultural policy costs .....	4.2	35
6.09 Prevalence of trade barriers .....	5.0	<b>12</b>
6.10 Trade tariffs, % duty* .....	0.8	<b>4</b>
6.11 Prevalence of foreign ownership .....	5.5	18
6.12 Business impact of rules on FDI .....	5.1	27
6.13 Burden of customs procedures .....	5.1	21
6.14 Imports as a percentage of GDP* .....	108.3	<b>6</b>
6.15 Degree of customer orientation .....	5.5	<b>12</b>
6.16 Buyer sophistication .....	4.4	18
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	4.2	79
7.02 Flexibility of wage determination .....	3.8	134
7.03 Hiring and firing practices .....	2.8	139
7.04 Redundancy costs, weeks of salary* .....	7.2	20
7.05 Effect of taxation on incentives to work .....	2.3	142
7.06 Pay and productivity .....	3.7	92
7.07 Reliance on professional management .....	5.5	20
7.08 Country capacity to retain talent .....	4.4	26
7.09 Country capacity to attract talent .....	3.9	46
7.10 Women in labor force, ratio to men* .....	0.84	62
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	5.8	<b>15</b>
8.02 Affordability of financial services .....	5.3	19
8.03 Financing through local equity market .....	3.9	47
8.04 Ease of access to loans .....	3.5	29
8.05 Venture capital availability .....	3.3	26
8.06 Soundness of banks .....	4.3	109
8.07 Regulation of securities exchanges .....	4.9	32
8.08 Legal rights index, 0–10 (best)* .....	6	65
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	6.3	<b>12</b>
9.02 Firm-level technology absorption .....	5.6	26
9.03 FDI and technology transfer .....	5.1	24
9.04 Individuals using Internet, %* .....	82.0	19
9.05 Fixed broadband Internet subscriptions/100 pop.* .....	34.1	<b>8</b>
9.06 Int'l Internet bandwidth, kb/s per user* .....	184.9	<b>11</b>
9.07 Mobile broadband subscriptions/100 pop.* .....	33.7	48
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	4.5	31
10.02 Foreign market size index, 1–7 (best)* .....	5.9	18
10.03 GDP (PPP\$ billions)* .....	420.3	32
10.04 Exports as a percentage of GDP* .....	111.4	<b>4</b>
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	5.6	<b>4</b>
11.02 Local supplier quality .....	5.8	<b>5</b>
11.03 State of cluster development .....	4.8	20
11.04 Nature of competitive advantage .....	5.9	<b>10</b>
11.05 Value chain breadth .....	5.0	<b>13</b>
11.06 Control of international distribution .....	4.3	49
11.07 Production process sophistication .....	5.8	<b>12</b>
11.08 Extent of marketing .....	5.3	20
11.09 Willingness to delegate authority .....	4.8	17
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation .....	5.1	<b>10</b>
12.02 Quality of scientific research institutions .....	6.0	<b>4</b>
12.03 Company spending on R&D .....	4.6	<b>16</b>
12.04 University-industry collaboration in R&D .....	5.5	<b>6</b>
12.05 Gov't procurement of advanced tech products .....	3.7	45
12.06 Availability of scientists and engineers .....	4.6	30
12.07 PCT patents, applications/million pop.* .....	109.6	<b>14</b>

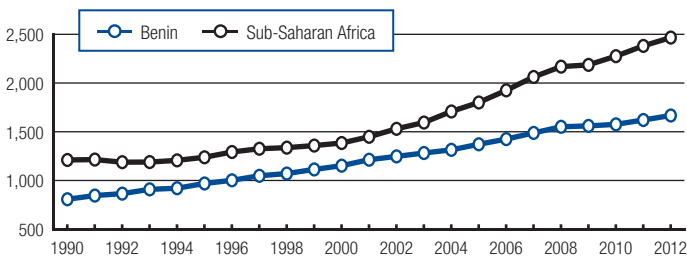
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Benin

## Key indicators, 2012

Population (millions)	9.1
GDP (US\$ billions)	7.4
GDP per capita (US\$)	794
GDP (PPP) as share (%) of world total	0.02

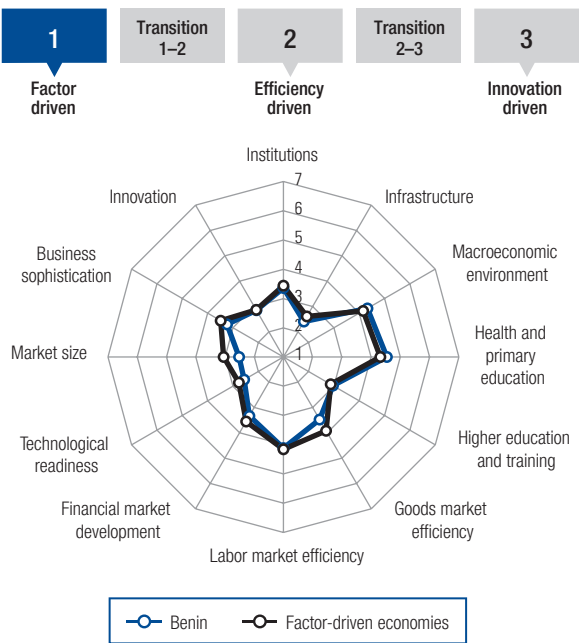
GDP (PPP) per capita (int'l \$), 1990–2012



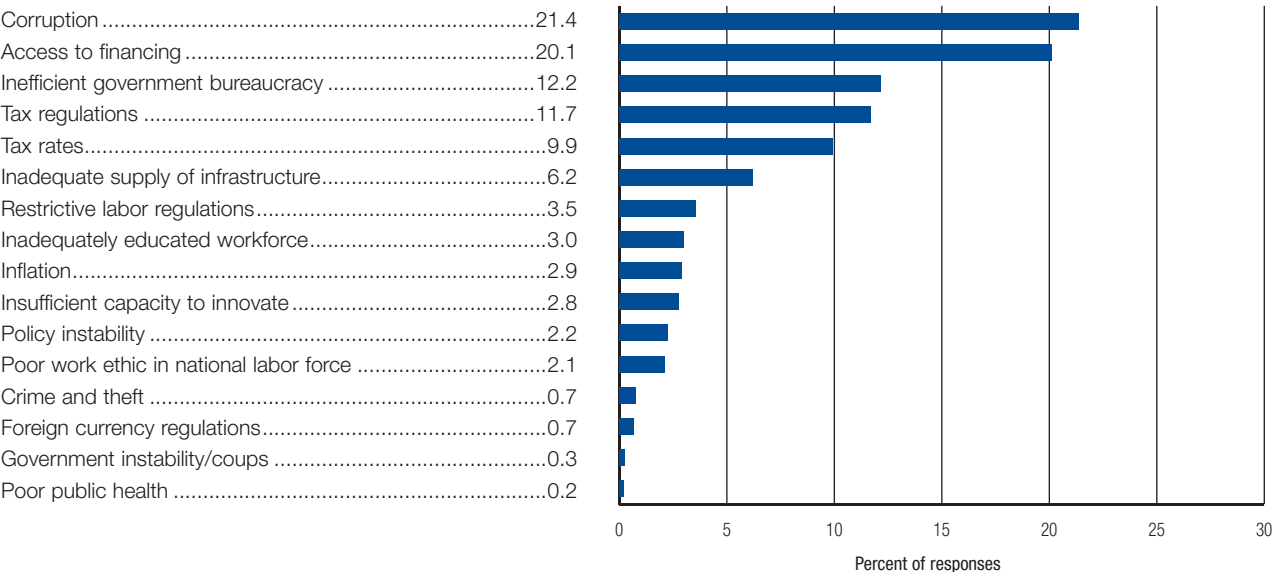
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>130</b>	<b>3.4</b>
GCI 2012–2013 (out of 144)	119	3.6
GCI 2011–2012 (out of 142)	104	3.8
<b>Basic requirements (60.0%)</b>	<b>125</b>	<b>3.7</b>
Institutions	108	3.4
Infrastructure	129	2.4
Macroeconomic environment	99	4.3
Health and primary education	117	4.5
<b>Efficiency enhancers (35.0%)</b>	<b>134</b>	<b>3.2</b>
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
<b>Innovation and sophistication factors (5.0%)</b>	<b>123</b>	<b>3.0</b>
Business sophistication	132	3.2
Innovation	113	2.8

### Stage of development



## The most problematic factors for doing business



**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

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
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
<b>2nd pillar: Infrastructure</b>		
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
<b>3rd pillar: Macroeconomic environment</b>		
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
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	3.4	132
4.02 Malaria cases/100,000 pop.* .....	28,228.7	141
4.03 Business impact of tuberculosis .....	3.9	130
4.04 Tuberculosis cases/100,000 pop.* .....	70.0	84
4.05 Business impact of HIV/AIDS .....	3.9	129
4.06 HIV prevalence, % adult pop.* .....	1.20	116
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
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	51.4	119
5.02 Tertiary education enrollment, gross %* .....	10.6	115
5.03 Quality of the educational 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
<b>6th pillar: Goods market efficiency</b>		
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/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	5	30
6.07 No. days to start a business* .....	26	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
<b>7th pillar: Labor market efficiency</b>		
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
<b>8th pillar: Financial market development</b>		
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
<b>9th pillar: Technological readiness</b>		
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
<b>10th pillar: Market size</b>		
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
<b>11th pillar: Business sophistication</b>		
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
<b>12th pillar: Innovation</b>		
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

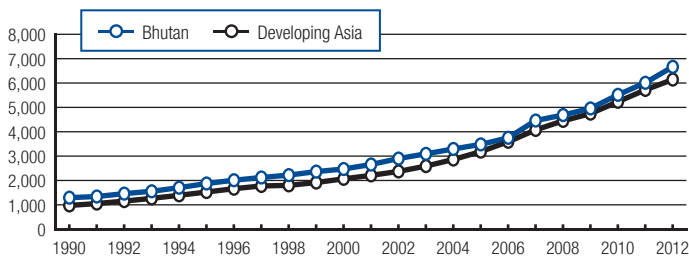
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Bhutan

## Key indicators, 2012

Population (millions)	0.7
GDP (US\$ billions)	2.2
GDP per capita (US\$)	2,954
GDP (PPP) as share (%) of world total	0.01

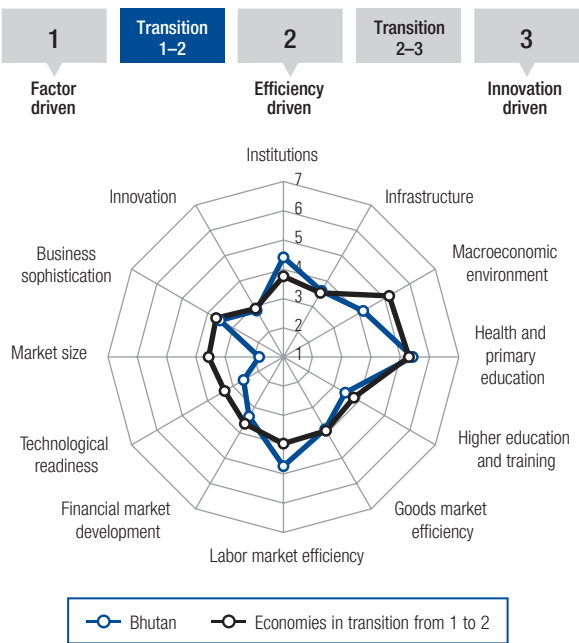
GDP (PPP) per capita (int'l \$), 1990–2012



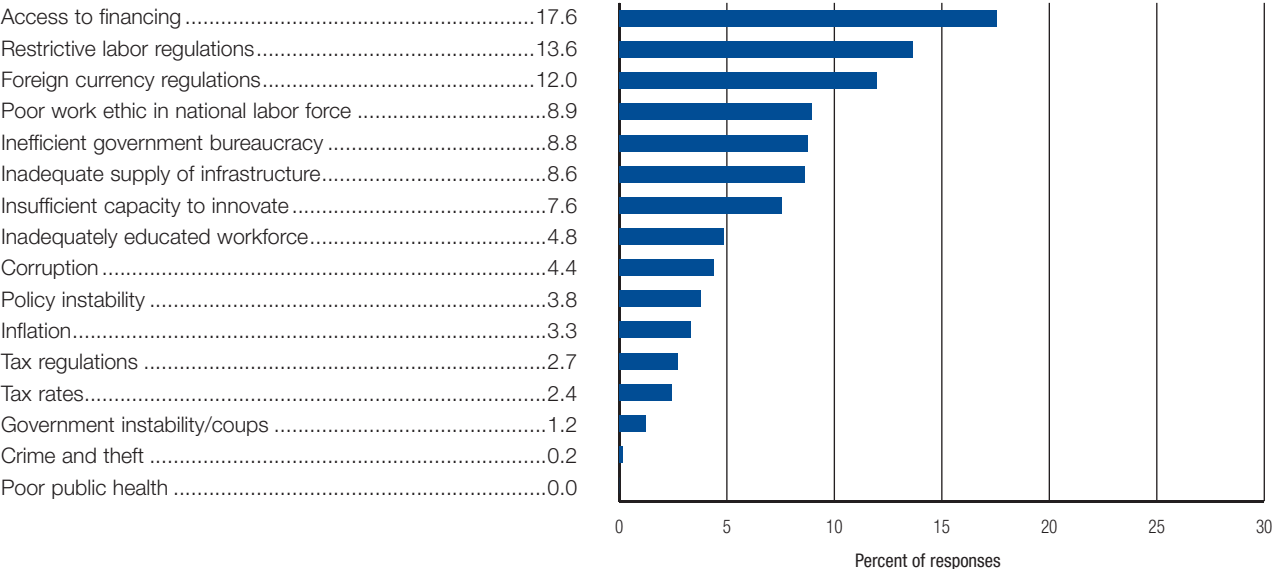
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>109</b>	<b>3.7</b>
GCI 2012–2013 (out of 144)	n/a	n/a
GCI 2011–2012 (out of 142)	n/a	n/a
<b>Basic requirements (40.9%)</b>	<b>84</b>	<b>4.4</b>
Institutions	44	4.4
Infrastructure	87	3.6
Macroeconomic environment	109	4.1
Health and primary education	91	5.4
<b>Efficiency enhancers (49.3%)</b>	<b>125</b>	<b>3.3</b>
Higher education and training	107	3.4
Goods market efficiency	121	3.9
Labor market efficiency	29	4.7
Financial market development	123	3.3
Technological readiness	132	2.6
Market size	143	1.8
<b>Innovation and sophistication factors (9.8%)</b>	<b>117</b>	<b>3.2</b>
Business sophistication	117	3.5
Innovation	114	2.8

### Stage of development



## The most problematic factors for doing business



**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.

# Bhutan

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148	INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>			<b>6th pillar: Goods market efficiency</b> <i>(cont'd.)</i>		
1.01 Property rights .....	4.3	63	6.06 No. procedures to start a business* .....	8	88
1.02 Intellectual property protection .....	4.1	44	6.07 No. days to start a business* .....	36	118
1.03 Diversion of public funds .....	4.5	36	6.08 Agricultural policy costs .....	4.3	28
1.04 Public trust in politicians .....	4.2	24	6.09 Prevalence of trade barriers .....	4.0	103
1.05 Irregular payments and bribes .....	4.6	48	6.10 Trade tariffs, % duty* .....	22.3	145
1.06 Judicial independence .....	4.8	38	6.11 Prevalence of foreign ownership .....	2.7	146
1.07 Favoritism in decisions of government officials .....	3.9	32	6.12 Business impact of rules on FDI .....	4.4	85
1.08 Wastefulness of government spending .....	4.5	16	6.13 Burden of customs procedures .....	4.3	56
1.09 Burden of government regulation .....	3.5	65	6.14 Imports as a percentage of GDP* .....	52.5	62
1.10 Efficiency of legal framework in settling disputes .....	4.0	51	6.15 Degree of customer orientation .....	4.0	119
1.11 Efficiency of legal framework in challenging regs. ....	3.3	87	6.16 Buyer sophistication .....	2.7	126
1.12 Transparency of government policymaking .....	3.7	107	<b>7th pillar: Labor market efficiency</b>		
1.13 Business costs of terrorism .....	5.4	73	7.01 Cooperation in labor-employer relations .....	4.2	75
1.14 Business costs of crime and violence .....	5.2	42	7.02 Flexibility of wage determination .....	5.2	66
1.15 Organized crime .....	5.9	35	7.03 Hiring and firing practices .....	3.9	78
1.16 Reliability of police services .....	4.9	41	7.04 Redundancy costs, weeks of salary* .....	8.3	25
1.17 Ethical behavior of firms .....	4.4	44	7.05 Effect of taxation on incentives to work .....	4.0	45
1.18 Strength of auditing and reporting standards .....	4.7	67	7.06 Pay and productivity .....	4.2	51
1.19 Efficacy of corporate boards .....	4.7	57	7.07 Reliance on professional management .....	4.0	88
1.20 Protection of minority shareholders' interests .....	4.1	72	7.08 Country capacity to retain talent .....	4.2	35
1.21 Strength of investor protection, 0–10 (best)* .....	3.7	123	7.09 Country capacity to attract talent .....	3.7	58
<b>2nd pillar: Infrastructure</b>			7.10 Women in labor force, ratio to men* .....	0.88	40
2.01 Quality of overall infrastructure .....	4.9	47	<b>8th pillar: Financial market development</b>		
2.02 Quality of roads .....	4.3	57	8.01 Availability of financial services .....	3.8	115
2.03 Quality of railroad infrastructure .....	N/Apl.	n/a	8.02 Affordability of financial services .....	3.9	92
2.04 Quality of port infrastructure .....	2.2	146	8.03 Financing through local equity market .....	3.3	80
2.05 Quality of air transport infrastructure .....	3.5	115	8.04 Ease of access to loans .....	2.5	95
2.06 Available airline seat km/week, millions* .....	2.2	146	8.05 Venture capital availability .....	2.2	107
2.07 Quality of electricity supply .....	5.9	35	8.06 Soundness of banks .....	4.3	107
2.08 Mobile telephone subscriptions/100 pop.* .....	74.7	120	8.07 Regulation of securities exchanges .....	3.6	106
2.09 Fixed telephone lines/100 pop.* .....	3.6	113	8.08 Legal rights index, 0–10 (best)* .....	3	118
<b>3rd pillar: Macroeconomic environment</b>			<b>9th pillar: Technological readiness</b>		
3.01 Government budget balance, % GDP* .....	-4.0	98	9.01 Availability of latest technologies .....	3.7	135
3.02 Gross national savings, % GDP* .....	29.1	29	9.02 Firm-level technology absorption .....	3.7	138
3.03 Inflation, annual % change* .....	9.7	132	9.03 FDI and technology transfer .....	3.5	139
3.04 General government debt, % GDP* .....	72.1	119	9.04 Individuals using Internet, %* .....	25.4	100
3.05 Country credit rating, 0–100 (best)* .....	28.2	112	9.05 Fixed broadband Internet subscriptions/100 pop.* ..	2.2	96
<b>4th pillar: Health and primary education</b>			9.06 Int'l Internet bandwidth, kb/s per user* .....	3.2	126
4.01 Business impact of malaria .....	4.4	116	9.07 Mobile broadband subscriptions/100 pop.* .....	2.5	110
4.02 Malaria cases/100,000 pop.* .....	102.5	100	<b>10th pillar: Market size</b>		
4.03 Business impact of tuberculosis .....	4.3	118	10.01 Domestic market size index, 1–7 (best)* .....	1.6	143
4.04 Tuberculosis cases/100,000 pop.* .....	192.0	119	10.02 Foreign market size index, 1–7 (best)* .....	2.6	142
4.05 Business impact of HIV/AIDS .....	4.4	114	10.03 GDP (PPP\$ billions)* .....	5.0	143
4.06 HIV prevalence, % adult pop.* .....	0.30	60	10.04 Exports as a percentage of GDP* .....	31.3	95
4.07 Infant mortality, deaths/1,000 live births* .....	42.0	114	<b>11th pillar: Business sophistication</b>		
4.08 Life expectancy, years* .....	67.3	108	11.01 Local supplier quantity .....	3.6	138
4.09 Quality of primary education .....	4.5	48	11.02 Local supplier quality .....	3.7	126
4.10 Primary education enrollment, net %* .....	89.0	104	11.03 State of cluster development .....	3.5	97
<b>5th pillar: Higher education and training</b>			11.04 Nature of competitive advantage .....	4.0	42
5.01 Secondary education enrollment, gross %* .....	75.3	99	11.05 Value chain breadth .....	3.2	108
5.02 Tertiary education enrollment, gross %* .....	8.8	120	11.06 Control of international distribution .....	3.4	127
5.03 Quality of the educational system .....	4.3	41	11.07 Production process sophistication .....	3.1	121
5.04 Quality of math and science education .....	4.1	71	11.08 Extent of marketing .....	3.2	129
5.05 Quality of management schools .....	3.6	111	11.09 Willingness to delegate authority .....	3.6	89
5.06 Internet access in schools .....	3.8	88	<b>12th pillar: Innovation</b>		
5.07 Availability of research and training services .....	3.3	126	12.01 Capacity for innovation .....	3.4	78
5.08 Extent of staff training .....	3.4	119	12.02 Quality of scientific research institutions .....	2.6	131
<b>6th pillar: Goods market efficiency</b>			12.03 Company spending on R&D .....	2.8	106
6.01 Intensity of local competition .....	4.7	96	12.04 University-industry collaboration in R&D .....	2.7	130
6.02 Extent of market dominance .....	3.2	121	12.05 Gov't procurement of advanced tech products .....	3.7	48
6.03 Effectiveness of anti-monopoly policy .....	4.2	60	12.06 Availability of scientists and engineers .....	3.0	138
6.04 Effect of taxation on incentives to invest .....	3.9	59	12.07 PCT patents, applications/million pop.* .....	0.4	80
6.05 Total tax rate, % profits* .....	40.8	83			

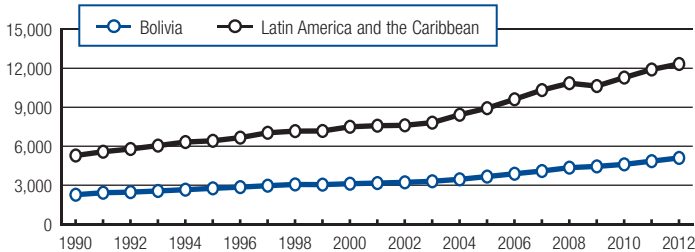
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Bolivia

## Key indicators, 2012

Population (millions)	10.1
GDP (US\$ billions)	27.4
GDP per capita (US\$)	2,532
GDP (PPP) as share (%) of world total	0.07

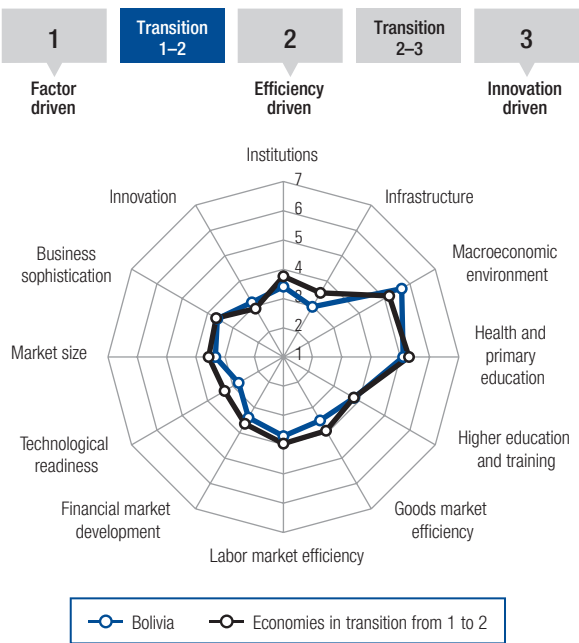
GDP (PPP) per capita (int'l \$), 1990–2012



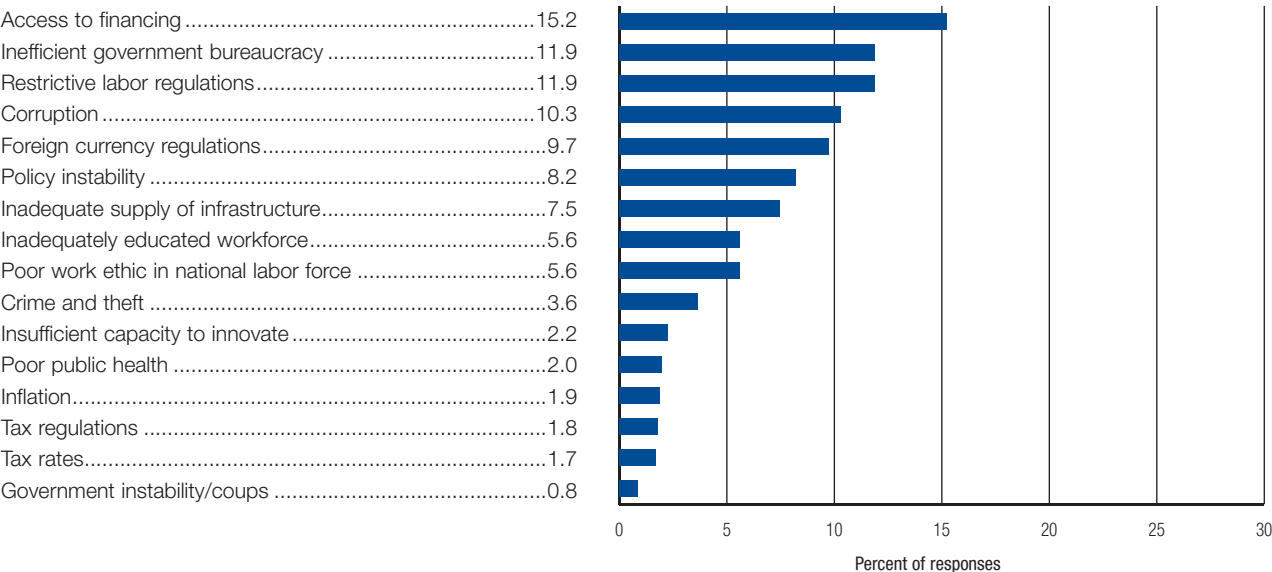
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>98</b>	<b>3.8</b>
GCI 2012–2013 (out of 144)	104	3.8
GCI 2011–2012 (out of 142)	103	3.8
<b>Basic requirements (49.6%)</b>	<b>90</b>	<b>4.3</b>
Institutions	105	3.4
Infrastructure	111	3.0
Macroeconomic environment	28	5.7
Health and primary education	108	5.1
<b>Efficiency enhancers (42.8%)</b>	<b>120</b>	<b>3.4</b>
Higher education and training	93	3.8
Goods market efficiency	138	3.5
Labor market efficiency	131	3.7
Financial market development	120	3.4
Technological readiness	122	2.8
Market size	86	3.3
<b>Innovation and sophistication factors (7.6%)</b>	<b>93</b>	<b>3.4</b>
Business sophistication	103	3.6
Innovation	75	3.2

## Stage of development



## The most problematic factors for doing business



**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.

## Bolivia

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148	INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>			<b>6th pillar: Goods market efficiency</b> <i>(cont'd.)</i>		
1.01 Property rights .....	3.2	129	6.06 No. procedures to start a business* .....	15	142
1.02 Intellectual property protection .....	3.2	98	6.07 No. days to start a business* .....	50	129
1.03 Diversion of public funds .....	3.2	72	6.08 Agricultural policy costs .....	3.6	94
1.04 Public trust in politicians .....	3.2	57	6.09 Prevalence of trade barriers .....	3.6	140
1.05 Irregular payments and bribes .....	2.4	142	6.10 Trade tariffs, % duty* .....	8.5	94
1.06 Judicial independence .....	3.1	102	6.11 Prevalence of foreign ownership .....	3.6	126
1.07 Favoritism in decisions of government officials .....	3.4	45	6.12 Business impact of rules on FDI .....	3.5	125
1.08 Wastefulness of government spending .....	3.2	69	6.13 Burden of customs procedures .....	3.7	93
1.09 Burden of government regulation .....	3.6	57	6.14 Imports as a percentage of GDP* .....	35.7	100
1.10 Efficiency of legal framework in settling disputes .....	3.6	82	6.15 Degree of customer orientation .....	3.5	141
1.11 Efficiency of legal framework in challenging regs. ....	3.3	88	6.16 Buyer sophistication .....	3.7	48
1.12 Transparency of government policymaking .....	3.5	127	<b>7th pillar: Labor market efficiency</b>		
1.13 Business costs of terrorism .....	4.1	130	7.01 Cooperation in labor-employer relations .....	3.9	115
1.14 Business costs of crime and violence .....	3.8	113	7.02 Flexibility of wage determination .....	4.0	130
1.15 Organized crime .....	3.7	132	7.03 Hiring and firing practices .....	3.6	100
1.16 Reliability of police services .....	3.2	117	7.04 Redundancy costs, weeks of salary* .....	not possible	145
1.17 Ethical behavior of firms .....	3.6	104	7.05 Effect of taxation on incentives to work .....	3.5	86
1.18 Strength of auditing and reporting standards .....	3.7	131	7.06 Pay and productivity .....	3.8	83
1.19 Efficacy of corporate boards .....	4.1	111	7.07 Reliance on professional management .....	3.8	106
1.20 Protection of minority shareholders' interests .....	3.9	94	7.08 Country capacity to retain talent .....	3.9	45
1.21 Strength of investor protection, 0–10 (best)* .....	4.0	116	7.09 Country capacity to attract talent .....	3.3	82
<b>2nd pillar: Infrastructure</b>			7.10 Women in labor force, ratio to men* .....	0.80	75
2.01 Quality of overall infrastructure .....	3.4	107	<b>8th pillar: Financial market development</b>		
2.02 Quality of roads .....	3.4	92	8.01 Availability of financial services .....	3.7	117
2.03 Quality of railroad infrastructure .....	2.8	61	8.02 Affordability of financial services .....	3.8	93
2.04 Quality of port infrastructure .....	2.5	142	8.03 Financing through local equity market .....	3.5	66
2.05 Quality of air transport infrastructure .....	3.5	117	8.04 Ease of access to loans .....	3.8	19
2.06 Available airline seat km/week, millions* .....	70.4	92	8.05 Venture capital availability .....	3.2	32
2.07 Quality of electricity supply .....	3.8	102	8.06 Soundness of banks .....	4.0	126
2.08 Mobile telephone subscriptions/100 pop.* .....	92.6	104	8.07 Regulation of securities exchanges .....	3.9	86
2.09 Fixed telephone lines/100 pop.* .....	8.6	99	8.08 Legal rights index, 0–10 (best)* .....	1	145
<b>3rd pillar: Macroeconomic environment</b>			<b>9th pillar: Technological readiness</b>		
3.01 Government budget balance, % GDP* .....	1.8	20	9.01 Availability of latest technologies .....	3.8	130
3.02 Gross national savings, % GDP* .....	30.0	26	9.02 Firm-level technology absorption .....	3.9	125
3.03 Inflation, annual % change* .....	4.5	83	9.03 FDI and technology transfer .....	3.6	133
3.04 General government debt, % GDP* .....	33.1	46	9.04 Individuals using Internet, %* .....	34.2	92
3.05 Country credit rating, 0–100 (best)* .....	37.7	86	9.05 Fixed broadband Internet subscriptions/100 pop.* ...	1.1	108
<b>4th pillar: Health and primary education</b>			9.06 Int'l Internet bandwidth, kb/s per user* .....	5.3	112
4.01 Business impact of malaria .....	3.9	125	9.07 Mobile broadband subscriptions/100 pop.* .....	6.7	92
4.02 Malaria cases/100,000 pop.* .....	197.2	104	<b>10th pillar: Market size</b>		
4.03 Business impact of tuberculosis .....	3.2	145	10.01 Domestic market size index, 1–7 (best)* .....	3.1	91
4.04 Tuberculosis cases/100,000 pop.* .....	131.0	106	10.02 Foreign market size index, 1–7 (best)* .....	4.1	84
4.05 Business impact of HIV/AIDS .....	3.1	140	10.03 GDP (PPP\$ billions)* .....	55.2	86
4.06 HIV prevalence, % adult pop.* .....	0.30	60	10.04 Exports as a percentage of GDP* .....	42.7	65
4.07 Infant mortality, deaths/1,000 live births* .....	39.3	113	<b>11th pillar: Business sophistication</b>		
4.08 Life expectancy, years* .....	66.6	110	11.01 Local supplier quantity .....	3.8	133
4.09 Quality of primary education .....	3.3	101	11.02 Local supplier quality .....	3.8	119
4.10 Primary education enrollment, net %* .....	88.0	110	11.03 State of cluster development .....	3.5	89
<b>5th pillar: Higher education and training</b>			11.04 Nature of competitive advantage .....	3.3	86
5.01 Secondary education enrollment, gross %* .....	81.0	91	11.05 Value chain breadth .....	3.6	90
5.02 Tertiary education enrollment, gross %* .....	38.6	67	11.06 Control of international distribution .....	3.8	99
5.03 Quality of the educational system .....	3.4	89	11.07 Production process sophistication .....	3.4	99
5.04 Quality of math and science education .....	3.6	98	11.08 Extent of marketing .....	3.6	114
5.05 Quality of management schools .....	3.3	126	11.09 Willingness to delegate authority .....	3.7	80
5.06 Internet access in schools .....	3.5	100	<b>12th pillar: Innovation</b>		
5.07 Availability of research and training services .....	3.6	110	12.01 Capacity for innovation .....	3.5	70
5.08 Extent of staff training .....	3.6	112	12.02 Quality of scientific research institutions .....	3.3	97
<b>6th pillar: Goods market efficiency</b>			12.03 Company spending on R&D .....	3.5	44
6.01 Intensity of local competition .....	3.8	137	12.04 University-industry collaboration in R&D .....	3.5	71
6.02 Extent of market dominance .....	3.8	72	12.05 Gov't procurement of advanced tech products .....	3.5	74
6.03 Effectiveness of anti-monopoly policy .....	3.4	121	12.06 Availability of scientists and engineers .....	3.8	93
6.04 Effect of taxation on incentives to invest .....	3.7	79	12.07 PCT patents, applications/million pop.* .....	0.1	100
6.05 Total tax rate, % profits* .....	83.4	144			

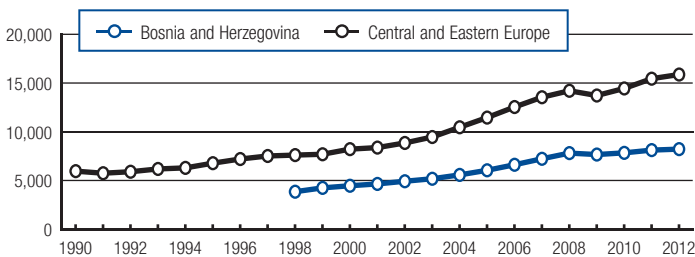
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Bosnia and Herzegovina

## Key indicators, 2012

Population (millions)	3.8
GDP (US\$ billions)	17.3
GDP per capita (US\$)	4,461
GDP (PPP) as share (%) of world total	0.04

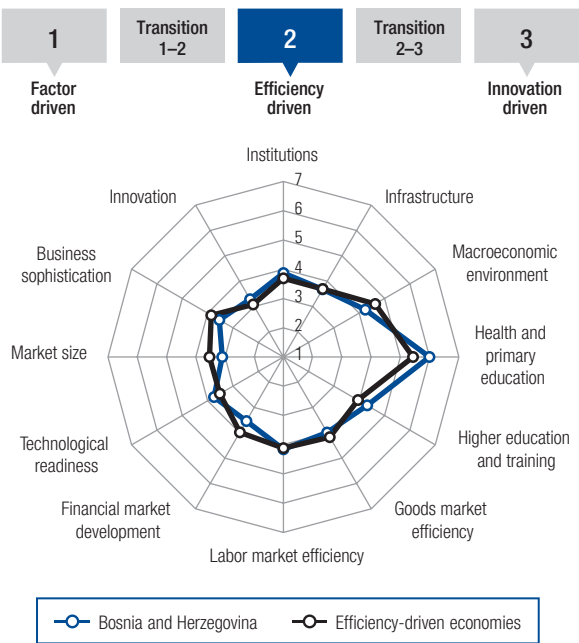
GDP (PPP) per capita (int'l \$), 1990–2012



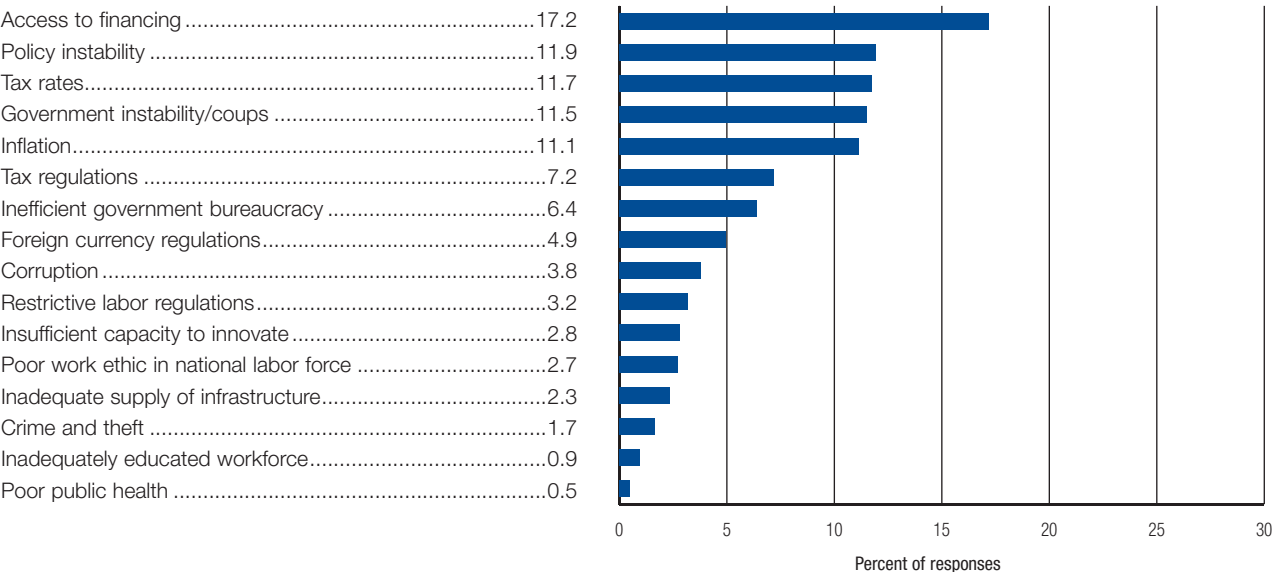
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>87</b>	<b>4.0</b>
GCI 2012–2013 (out of 144)	88	3.9
GCI 2011–2012 (out of 142)	100	3.8
<b>Basic requirements (40.0%)</b>	<b>81</b>	<b>4.4</b>
Institutions	71	3.9
Infrastructure	83	3.7
Macroeconomic environment	104	4.2
Health and primary education	46	6.0
<b>Efficiency enhancers (50.0%)</b>	<b>89</b>	<b>3.8</b>
Higher education and training	63	4.3
Goods market efficiency	104	4.0
Labor market efficiency	88	4.2
Financial market development	113	3.5
Technological readiness	73	3.7
Market size	98	3.1
<b>Innovation and sophistication factors (10.0%)</b>	<b>89</b>	<b>3.4</b>
Business sophistication	110	3.5
Innovation	63	3.3

## Stage of development



## The most problematic factors for doing business



**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.



# Bosnia and Herzegovina

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148	INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>			<b>6th pillar: Goods market efficiency</b> <i>(cont'd.)</i>		
1.01 Property rights .....	3.7	105	6.06 No. procedures to start a business* .....	11	126
1.02 Intellectual property protection .....	2.5	135	6.07 No. days to start a business* .....	37	120
1.03 Diversion of public funds .....	3.9	<b>47</b>	6.08 Agricultural policy costs .....	3.8	76
1.04 Public trust in politicians .....	2.6	85	6.09 Prevalence of trade barriers .....	4.0	107
1.05 Irregular payments and bribes .....	4.5	52	6.10 Trade tariffs, % duty* .....	4.9	67
1.06 Judicial independence .....	3.9	64	6.11 Prevalence of foreign ownership .....	4.4	88
1.07 Favoritism in decisions of government officials .....	3.1	73	6.12 Business impact of rules on FDI .....	4.3	92
1.08 Wastefulness of government spending .....	1.7	146	6.13 Burden of customs procedures .....	4.3	55
1.09 Burden of government regulation .....	3.6	61	6.14 Imports as a percentage of GDP* .....	60.8	<b>41</b>
1.10 Efficiency of legal framework in settling disputes .....	3.5	85	6.15 Degree of customer orientation .....	4.6	67
1.11 Efficiency of legal framework in challenging regs. ....	3.7	54	6.16 Buyer sophistication .....	2.5	139
1.12 Transparency of government policymaking .....	4.2	64	<b>7th pillar: Labor market efficiency</b>		
1.13 Business costs of terrorism .....	6.5	<b>8</b>	7.01 Cooperation in labor-employer relations .....	4.6	<b>46</b>
1.14 Business costs of crime and violence .....	6.2	<b>7</b>	7.02 Flexibility of wage determination .....	4.4	118
1.15 Organized crime .....	6.0	<b>22</b>	7.03 Hiring and firing practices .....	4.3	<b>34</b>
1.16 Reliability of police services .....	5.4	<b>30</b>	7.04 Redundancy costs, weeks of salary* .....	9.2	<b>34</b>
1.17 Ethical behavior of firms .....	3.2	135	7.05 Effect of taxation on incentives to work .....	3.1	116
1.18 Strength of auditing and reporting standards .....	3.9	115	7.06 Pay and productivity .....	3.9	70
1.19 Efficacy of corporate boards .....	4.7	59	7.07 Reliance on professional management .....	4.4	61
1.20 Protection of minority shareholders' interests .....	3.3	130	7.08 Country capacity to retain talent .....	1.9	143
1.21 Strength of investor protection, 0–10 (best)* .....	5.0	84	7.09 Country capacity to attract talent .....	1.9	140
<b>2nd pillar: Infrastructure</b>			7.10 Women in labor force, ratio to men* .....	0.63	112
2.01 Quality of overall infrastructure .....	3.1	127	<b>8th pillar: Financial market development</b>		
2.02 Quality of roads .....	3.1	104	8.01 Availability of financial services .....	3.8	110
2.03 Quality of railroad infrastructure .....	3.0	55	8.02 Affordability of financial services .....	3.7	105
2.04 Quality of port infrastructure .....	1.8	147	8.03 Financing through local equity market .....	3.4	77
2.05 Quality of air transport infrastructure .....	2.0	148	8.04 Ease of access to loans .....	2.0	125
2.06 Available airline seat km/week, millions* .....	7.6	140	8.05 Venture capital availability .....	1.9	131
2.07 Quality of electricity supply .....	6.5	<b>15</b>	8.06 Soundness of banks .....	4.6	93
2.08 Mobile telephone subscriptions/100 pop.* .....	89.5	109	8.07 Regulation of securities exchanges .....	3.7	97
2.09 Fixed telephone lines/100 pop.* .....	23.5	<b>50</b>	8.08 Legal rights index, 0–10 (best)* .....	5	89
<b>3rd pillar: Macroeconomic environment</b>			<b>9th pillar: Technological readiness</b>		
3.01 Government budget balance, % GDP* .....	-2.8	73	9.01 Availability of latest technologies .....	4.9	76
3.02 Gross national savings, % GDP* .....	6.5	139	9.02 Firm-level technology absorption .....	4.4	93
3.03 Inflation, annual % change* .....	2.0	<b>1</b>	9.03 FDI and technology transfer .....	4.5	82
3.04 General government debt, % GDP* .....	44.3	79	9.04 Individuals using Internet, %* .....	65.4	<b>40</b>
3.05 Country credit rating, 0–100 (best)* .....	29.0	110	9.05 Fixed broadband Internet subscriptions/100 pop.* ..	10.8	58
<b>4th pillar: Health and primary education</b>			9.06 Int'l Internet bandwidth, kb/s per user* .....	24.5	64
4.01 Business impact of malaria .....	N/Apl.	<b>1</b>	9.07 Mobile broadband subscriptions/100 pop.* .....	10.9	82
4.02 Malaria cases/100,000 pop.* .....	(NE)	<b>1</b>	<b>10th pillar: Market size</b>		
4.03 Business impact of tuberculosis .....	6.8	<b>4</b>	10.01 Domestic market size index, 1–7 (best)* .....	2.9	96
4.04 Tuberculosis cases/100,000 pop.* .....	49.0	75	10.02 Foreign market size index, 1–7 (best)* .....	3.7	102
4.05 Business impact of HIV/AIDS .....	6.9	<b>1</b>	10.03 GDP (PPP\$ billions)* .....	31.9	100
4.06 HIV prevalence, % adult pop.* .....	<0.1	<b>1</b>	10.04 Exports as a percentage of GDP* .....	36.2	82
4.07 Infant mortality, deaths/1,000 live births* .....	6.7	<b>45</b>	<b>11th pillar: Business sophistication</b>		
4.08 Life expectancy, years* .....	75.6	<b>50</b>	11.01 Local supplier quantity .....	4.7	77
4.09 Quality of primary education .....	5.4	<b>16</b>	11.02 Local supplier quality .....	4.6	61
4.10 Primary education enrollment, net %* .....	88.4	107	11.03 State of cluster development .....	2.0	148
<b>5th pillar: Higher education and training</b>			11.04 Nature of competitive advantage .....	2.4	146
5.01 Secondary education enrollment, gross %* .....	89.3	73	11.05 Value chain breadth .....	2.9	136
5.02 Tertiary education enrollment, gross %* .....	38.1	69	11.06 Control of international distribution .....	3.7	112
5.03 Quality of the educational system .....	2.7	132	11.07 Production process sophistication .....	3.8	68
5.04 Quality of math and science education .....	5.4	<b>13</b>	11.08 Extent of marketing .....	3.9	91
5.05 Quality of management schools .....	4.7	<b>41</b>	11.09 Willingness to delegate authority .....	3.6	88
5.06 Internet access in schools .....	4.5	61	<b>12th pillar: Innovation</b>		
5.07 Availability of research and training services .....	3.7	100	12.01 Capacity for innovation .....	3.1	108
5.08 Extent of staff training .....	4.1	58	12.02 Quality of scientific research institutions .....	3.9	59
<b>6th pillar: Goods market efficiency</b>			12.03 Company spending on R&D .....	3.0	86
6.01 Intensity of local competition .....	3.4	143	12.04 University-industry collaboration in R&D .....	4.3	<b>37</b>
6.02 Extent of market dominance .....	3.3	111	12.05 Gov't procurement of advanced tech products .....	3.4	89
6.03 Effectiveness of anti-monopoly policy .....	4.1	68	12.06 Availability of scientists and engineers .....	4.7	<b>27</b>
6.04 Effect of taxation on incentives to invest .....	3.1	119	12.07 PCT patents, applications/million pop.* .....	2.0	54
6.05 Total tax rate, % profits* .....	24.1	<b>19</b>			

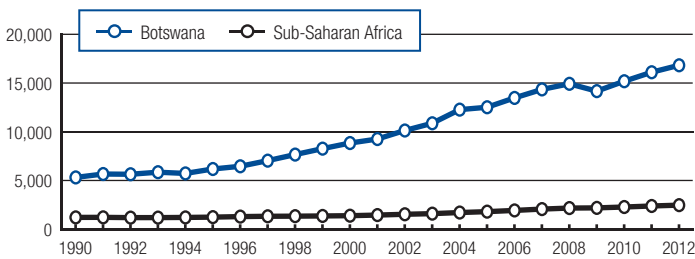
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Botswana

## Key indicators, 2012

Population (millions)	2.0
GDP (US\$ billions)	17.6
GDP per capita (US\$)	9,398
GDP (PPP) as share (%) of world total	0.04

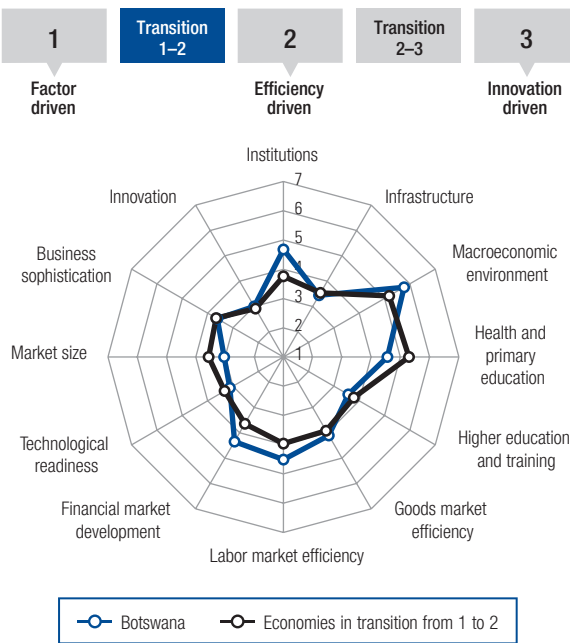
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

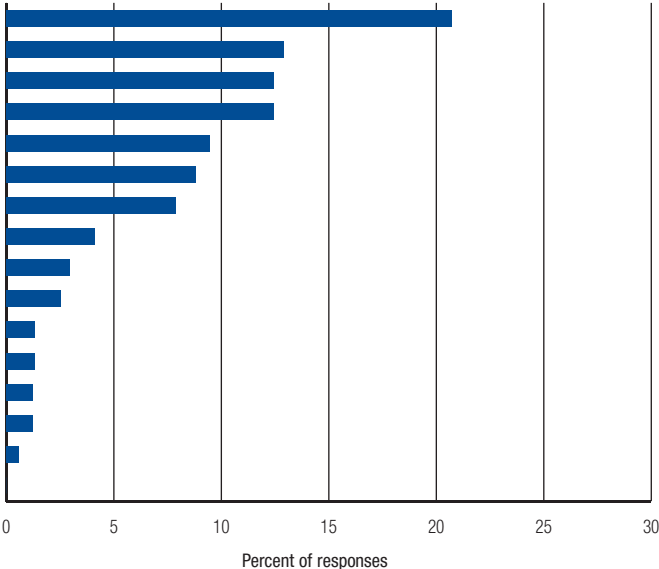
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>74</b>	<b>4.1</b>
GCI 2012–2013 (out of 144)	79	4.1
GCI 2011–2012 (out of 142)	80	4.0
<b>Basic requirements (47.9%)</b>	<b>66</b>	<b>4.6</b>
Institutions	34	4.7
Infrastructure	94	3.4
Macroeconomic environment	24	5.8
Health and primary education	115	4.6
<b>Efficiency enhancers (44.1%)</b>	<b>93</b>	<b>3.8</b>
Higher education and training	99	3.6
Goods market efficiency	92	4.1
Labor market efficiency	47	4.5
Financial market development	53	4.3
Technological readiness	104	3.1
Market size	101	3.0
<b>Innovation and sophistication factors (8.0%)</b>	<b>106</b>	<b>3.3</b>
Business sophistication	102	3.6
Innovation	102	3.0

### Stage of development



## The most problematic factors for doing business

Poor work ethic in national labor force	20.7
Inefficient government bureaucracy	12.9
Access to financing	12.4
Inadequately educated workforce	12.4
Restrictive labor regulations	9.5
Inadequate supply of infrastructure	8.8
Insufficient capacity to innovate	7.9
Corruption	4.1
Inflation	3.0
Poor public health	2.6
Policy instability	1.3
Tax rates	1.3
Crime and theft	1.2
Tax regulations	1.2
Foreign currency regulations	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.

# Botswana

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148	INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>			<b>6th pillar: Goods market efficiency</b> (cont'd.)		
1.01 Property rights .....	4.9	41	6.06 No. procedures to start a business* .....	10	116
1.02 Intellectual property protection .....	4.1	47	6.07 No. days to start a business* .....	61	134
1.03 Diversion of public funds .....	4.5	30	6.08 Agricultural policy costs .....	4.3	32
1.04 Public trust in politicians .....	3.9	30	6.09 Prevalence of trade barriers .....	4.6	39
1.05 Irregular payments and bribes .....	5.0	37	6.10 Trade tariffs, % duty* .....	6.1	77
1.06 Judicial independence .....	5.3	26	6.11 Prevalence of foreign ownership .....	5.3	28
1.07 Favoritism in decisions of government officials .....	3.8	37	6.12 Business impact of rules on FDI .....	4.4	90
1.08 Wastefulness of government spending .....	4.3	22	6.13 Burden of customs procedures .....	4.2	65
1.09 Burden of government regulation .....	3.8	39	6.14 Imports as a percentage of GDP* .....	47.4	68
1.10 Efficiency of legal framework in settling disputes .....	4.8	25	6.15 Degree of customer orientation .....	3.9	121
1.11 Efficiency of legal framework in challenging regs. ....	4.4	23	6.16 Buyer sophistication .....	2.8	118
1.12 Transparency of government policymaking .....	4.5	44	<b>7th pillar: Labor market efficiency</b>		
1.13 Business costs of terrorism .....	6.3	21	7.01 Cooperation in labor-employer relations .....	4.0	108
1.14 Business costs of crime and violence .....	4.7	67	7.02 Flexibility of wage determination .....	5.3	55
1.15 Organized crime .....	6.1	20	7.03 Hiring and firing practices .....	3.5	106
1.16 Reliability of police services .....	4.4	58	7.04 Redundancy costs, weeks of salary* .....	21.7	103
1.17 Ethical behavior of firms .....	4.6	39	7.05 Effect of taxation on incentives to work .....	4.6	17
1.18 Strength of auditing and reporting standards .....	5.0	48	7.06 Pay and productivity .....	3.9	73
1.19 Efficacy of corporate boards .....	4.8	50	7.07 Reliance on professional management .....	5.0	30
1.20 Protection of minority shareholders' interests .....	4.5	50	7.08 Country capacity to retain talent .....	3.6	55
1.21 Strength of investor protection, 0–10 (best)* .....	6.0	41	7.09 Country capacity to attract talent .....	3.3	77
<b>2nd pillar: Infrastructure</b>			7.10 Women in labor force, ratio to men* .....	0.90	29
2.01 Quality of overall infrastructure .....	4.2	78	<b>8th pillar: Financial market development</b>		
2.02 Quality of roads .....	4.3	59	8.01 Availability of financial services .....	4.4	78
2.03 Quality of railroad infrastructure .....	2.9	59	8.02 Affordability of financial services .....	4.1	70
2.04 Quality of port infrastructure .....	3.6	102	8.03 Financing through local equity market .....	3.8	49
2.05 Quality of air transport infrastructure .....	4.0	94	8.04 Ease of access to loans .....	3.2	43
2.06 Available airline seat km/week, millions* .....	6.9	141	8.05 Venture capital availability .....	2.8	57
2.07 Quality of electricity supply .....	3.1	113	8.06 Soundness of banks .....	5.5	46
2.08 Mobile telephone subscriptions/100 pop.* .....	150.1	20	8.07 Regulation of securities exchanges .....	4.3	62
2.09 Fixed telephone lines/100 pop.* .....	7.8	101	8.08 Legal rights index, 0–10 (best)* .....	7	42
<b>3rd pillar: Macroeconomic environment</b>			<b>9th pillar: Technological readiness</b>		
3.01 Government budget balance, % GDP* .....	0.3	25	9.01 Availability of latest technologies .....	4.6	91
3.02 Gross national savings, % GDP* .....	30.7	23	9.02 Firm-level technology absorption .....	4.3	101
3.03 Inflation, annual % change* .....	7.5	116	9.03 FDI and technology transfer .....	4.1	102
3.04 General government debt, % GDP* .....	14.9	16	9.04 Individuals using Internet, %* .....	11.5	122
3.05 Country credit rating, 0–100 (best)* .....	60.9	45	9.05 Fixed broadband Internet subscriptions/100 pop.* ..	0.8	110
<b>4th pillar: Health and primary education</b>			9.06 Int'l Internet bandwidth, kb/s per user* .....	6.4	105
4.01 Business impact of malaria .....	5.2	101	9.07 Mobile broadband subscriptions/100 pop.* .....	16.6	72
4.02 Malaria cases/100,000 pop.* .....	192.7	103	<b>10th pillar: Market size</b>		
4.03 Business impact of tuberculosis .....	3.7	134	10.01 Domestic market size index, 1–7 (best)* .....	2.8	100
4.04 Tuberculosis cases/100,000 pop.* .....	455.0	140	10.02 Foreign market size index, 1–7 (best)* .....	3.7	106
4.05 Business impact of HIV/AIDS .....	3.0	142	10.03 GDP (PPP\$ billions)* .....	31.5	101
4.06 HIV prevalence, % adult pop.* .....	23.40	146	10.04 Exports as a percentage of GDP* .....	35.8	83
4.07 Infant mortality, deaths/1,000 live births* .....	20.3	91	<b>11th pillar: Business sophistication</b>		
4.08 Life expectancy, years* .....	53.0	135	11.01 Local supplier quantity .....	3.9	130
4.09 Quality of primary education .....	4.0	67	11.02 Local supplier quality .....	3.7	124
4.10 Primary education enrollment, net %* .....	87.1	114	11.03 State of cluster development .....	3.6	88
<b>5th pillar: Higher education and training</b>			11.04 Nature of competitive advantage .....	3.5	68
5.01 Secondary education enrollment, gross %* .....	82.1	88	11.05 Value chain breadth .....	3.2	110
5.02 Tertiary education enrollment, gross %* .....	7.4	125	11.06 Control of international distribution .....	3.5	122
5.03 Quality of the educational system .....	3.7	65	11.07 Production process sophistication .....	3.2	117
5.04 Quality of math and science education .....	3.8	92	11.08 Extent of marketing .....	3.4	121
5.05 Quality of management schools .....	3.8	97	11.09 Willingness to delegate authority .....	3.8	69
5.06 Internet access in schools .....	3.4	104	<b>12th pillar: Innovation</b>		
5.07 Availability of research and training services .....	3.6	108	12.01 Capacity for innovation .....	3.2	102
5.08 Extent of staff training .....	3.8	87	12.02 Quality of scientific research institutions .....	3.3	98
<b>6th pillar: Goods market efficiency</b>			12.03 Company spending on R&D .....	2.9	92
6.01 Intensity of local competition .....	4.7	93	12.04 University-industry collaboration in R&D .....	3.2	101
6.02 Extent of market dominance .....	3.4	97	12.05 Gov't procurement of advanced tech products .....	3.5	67
6.03 Effectiveness of anti-monopoly policy .....	4.0	79	12.06 Availability of scientists and engineers .....	3.3	120
6.04 Effect of taxation on incentives to invest .....	4.7	14	12.07 PCT patents, applications/million pop.* .....	0.0	108
6.05 Total tax rate, % profits* .....	25.3	22			

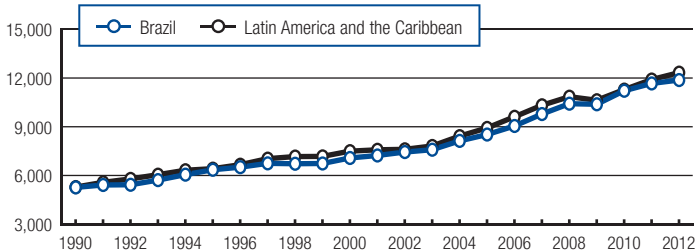
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Brazil

## Key indicators, 2012

Population (millions)	196.7
GDP (US\$ billions)	2,396.0
GDP per capita (US\$)	12,079
GDP (PPP) as share (%) of world total	2.83

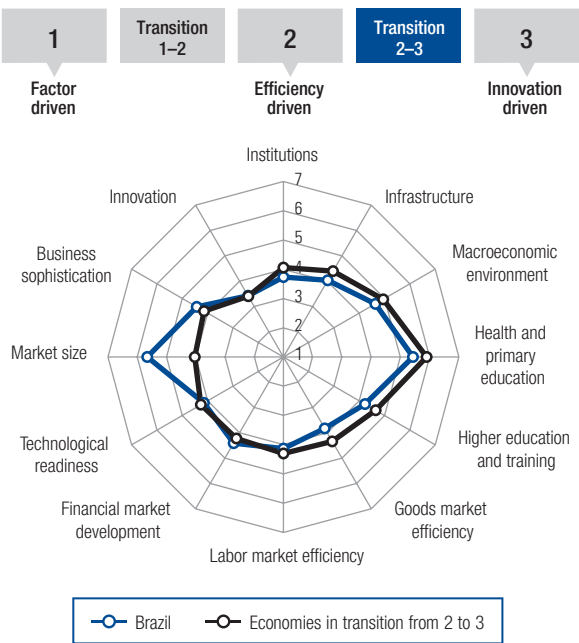
GDP (PPP) per capita (int'l \$), 1990–2012



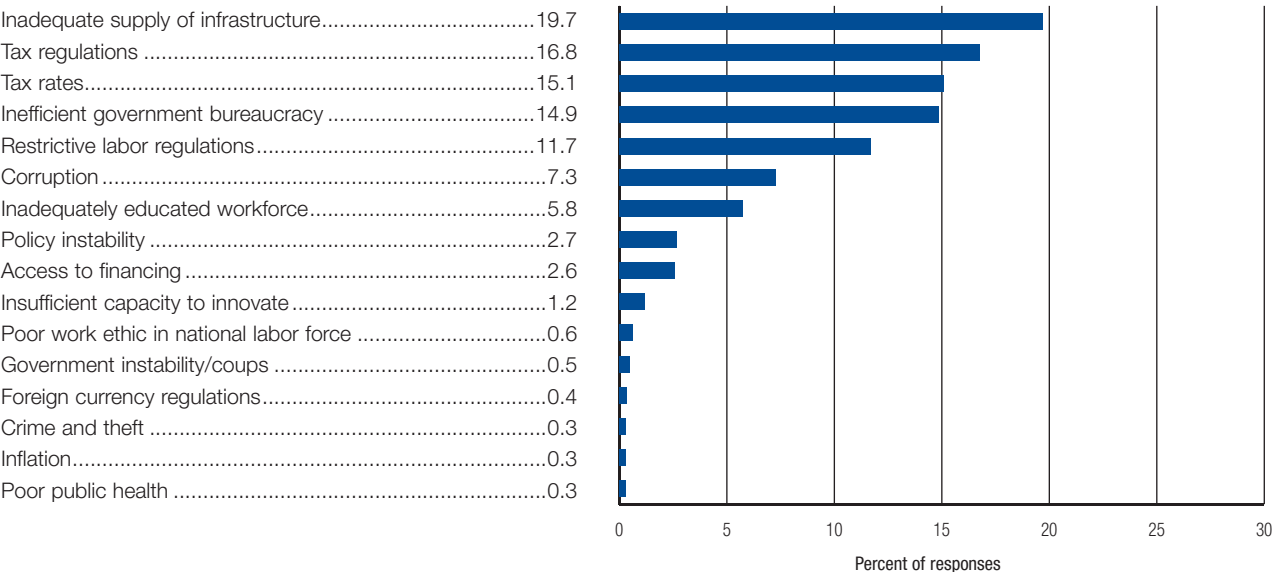
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>56</b>	<b>4.3</b>
GCI 2012–2013 (out of 144)	48	4.4
GCI 2011–2012 (out of 142)	53	4.3
<b>Basic requirements (32.3%)</b>	<b>79</b>	<b>4.5</b>
Institutions	80	3.7
Infrastructure	71	4.0
Macroeconomic environment	75	4.6
Health and primary education	89	5.4
<b>Efficiency enhancers (50.0%)</b>	<b>44</b>	<b>4.4</b>
Higher education and training	72	4.2
Goods market efficiency	123	3.8
Labor market efficiency	92	4.1
Financial market development	50	4.4
Technological readiness	55	4.1
Market size	9	5.7
<b>Innovation and sophistication factors (17.7%)</b>	<b>46</b>	<b>3.9</b>
Business sophistication	39	4.4
Innovation	55	3.4

### Stage of development



## The most problematic factors for doing business



**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.

## Brazil

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148	INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>			<b>6th pillar: Goods market efficiency</b> (cont'd.)		
1.01 Property rights .....	4.6	51	6.06 No. procedures to start a business* .....	13	135
1.02 Intellectual property protection .....	3.5	80	6.07 No. days to start a business* .....	119	144
1.03 Diversion of public funds .....	2.3	133	6.08 Agricultural policy costs .....	4.4	23
1.04 Public trust in politicians .....	1.9	136	6.09 Prevalence of trade barriers .....	3.9	116
1.05 Irregular payments and bribes .....	3.9	72	6.10 Trade tariffs, % duty* .....	11.3	126
1.06 Judicial independence .....	3.9	65	6.11 Prevalence of foreign ownership .....	4.5	84
1.07 Favoritism in decisions of government officials .....	2.9	89	6.12 Business impact of rules on FDI .....	4.3	97
1.08 Wastefulness of government spending .....	2.2	132	6.13 Burden of customs procedures .....	3.0	139
1.09 Burden of government regulation .....	2.0	147	6.14 Imports as a percentage of GDP* .....	13.0	148
1.10 Efficiency of legal framework in settling disputes .....	3.3	101	6.15 Degree of customer orientation .....	4.8	55
1.11 Efficiency of legal framework in challenging regs. ....	3.5	68	6.16 Buyer sophistication .....	3.6	58
1.12 Transparency of government policymaking .....	3.7	112	<b>7th pillar: Labor market efficiency</b>		
1.13 Business costs of terrorism .....	6.3	22	7.01 Cooperation in labor-employer relations .....	4.1	87
1.14 Business costs of crime and violence .....	3.4	124	7.02 Flexibility of wage determination .....	4.1	127
1.15 Organized crime .....	4.0	126	7.03 Hiring and firing practices .....	3.2	127
1.16 Reliability of police services .....	4.3	64	7.04 Redundancy costs, weeks of salary* .....	15.4	75
1.17 Ethical behavior of firms .....	3.7	87	7.05 Effect of taxation on incentives to work .....	2.5	138
1.18 Strength of auditing and reporting standards .....	5.3	31	7.06 Pay and productivity .....	3.6	99
1.19 Efficacy of corporate boards .....	4.8	44	7.07 Reliance on professional management .....	4.8	38
1.20 Protection of minority shareholders' interests .....	4.9	26	7.08 Country capacity to retain talent .....	4.1	38
1.21 Strength of investor protection, 0–10 (best)* .....	5.3	69	7.09 Country capacity to attract talent .....	3.7	53
<b>2nd pillar: Infrastructure</b>			7.10 Women in labor force, ratio to men* .....	0.76	86
2.01 Quality of overall infrastructure .....	3.4	114	<b>8th pillar: Financial market development</b>		
2.02 Quality of roads .....	2.8	120	8.01 Availability of financial services .....	5.3	30
2.03 Quality of railroad infrastructure .....	1.8	103	8.02 Affordability of financial services .....	4.5	48
2.04 Quality of port infrastructure .....	2.7	131	8.03 Financing through local equity market .....	3.8	48
2.05 Quality of air transport infrastructure .....	3.3	123	8.04 Ease of access to loans .....	2.9	64
2.06 Available airline seat km/week, millions* .....	3,780.6	9	8.05 Venture capital availability .....	2.7	61
2.07 Quality of electricity supply .....	4.8	76	8.06 Soundness of banks .....	6.3	12
2.08 Mobile telephone subscriptions/100 pop.* .....	125.2	45	8.07 Regulation of securities exchanges .....	5.8	7
2.09 Fixed telephone lines/100 pop.* .....	22.3	52	8.08 Legal rights index, 0–10 (best)* .....	3	118
<b>3rd pillar: Macroeconomic environment</b>			<b>9th pillar: Technological readiness</b>		
3.01 Government budget balance, % GDP* .....	-2.8	72	9.01 Availability of latest technologies .....	5.1	63
3.02 Gross national savings, % GDP* .....	15.4	93	9.02 Firm-level technology absorption .....	5.0	51
3.03 Inflation, annual % change* .....	5.4	98	9.03 FDI and technology transfer .....	5.1	25
3.04 General government debt, % GDP* .....	68.5	117	9.04 Individuals using Internet, %* .....	49.8	65
3.05 Country credit rating, 0–100 (best)* .....	68.0	38	9.05 Fixed broadband Internet subscriptions/100 pop.* .....	9.2	64
<b>4th pillar: Health and primary education</b>			9.06 Int'l Internet bandwidth, kb/s per user* .....	25.1	61
4.01 Business impact of malaria .....	6.2	82	9.07 Mobile broadband subscriptions/100 pop.* .....	36.6	43
4.02 Malaria cases/100,000 pop.* .....	219.6	107	<b>10th pillar: Market size</b>		
4.03 Business impact of tuberculosis .....	6.0	50	10.01 Domestic market size index, 1–7 (best)* .....	5.7	7
4.04 Tuberculosis cases/100,000 pop.* .....	42.0	68	10.02 Foreign market size index, 1–7 (best)* .....	5.6	26
4.05 Business impact of HIV/AIDS .....	5.5	75	10.03 GDP (PPP\$ billions)* .....	2,355.6	7
4.06 HIV prevalence, % adult pop.* .....	0.30	60	10.04 Exports as a percentage of GDP* .....	11.7	145
4.07 Infant mortality, deaths/1,000 live births* .....	13.9	74	<b>11th pillar: Business sophistication</b>		
4.08 Life expectancy, years* .....	73.4	78	11.01 Local supplier quantity .....	5.3	16
4.09 Quality of primary education .....	2.5	129	11.02 Local supplier quality .....	4.8	49
4.10 Primary education enrollment, net %* .....	94.4	69	11.03 State of cluster development .....	4.5	26
<b>5th pillar: Higher education and training</b>			11.04 Nature of competitive advantage .....	3.0	108
5.01 Secondary education enrollment, gross %* .....	105.8	20	11.05 Value chain breadth .....	3.7	68
5.02 Tertiary education enrollment, gross %* .....	25.6	85	11.06 Control of international distribution .....	4.3	47
5.03 Quality of the educational system .....	3.0	121	11.07 Production process sophistication .....	4.5	35
5.04 Quality of math and science education .....	2.6	136	11.08 Extent of marketing .....	5.1	29
5.05 Quality of management schools .....	4.5	49	11.09 Willingness to delegate authority .....	4.3	34
5.06 Internet access in schools .....	3.6	98	<b>12th pillar: Innovation</b>		
5.07 Availability of research and training services .....	4.7	38	12.01 Capacity for innovation .....	4.0	36
5.08 Extent of staff training .....	4.3	44	12.02 Quality of scientific research institutions .....	4.3	42
<b>6th pillar: Goods market efficiency</b>			12.03 Company spending on R&D .....	3.6	37
6.01 Intensity of local competition .....	5.0	70	12.04 University-industry collaboration in R&D .....	4.0	49
6.02 Extent of market dominance .....	4.4	28	12.05 Gov't procurement of advanced tech products .....	3.5	69
6.03 Effectiveness of anti-monopoly policy .....	4.5	40	12.06 Availability of scientists and engineers .....	3.4	112
6.04 Effect of taxation on incentives to invest .....	2.5	140	12.07 PCT patents, applications/million pop.* .....	2.9	51
6.05 Total tax rate, % profits* .....	69.3	140			

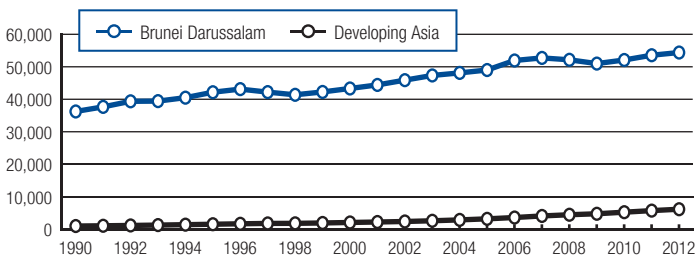
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Brunei Darussalam

## Key indicators, 2012

Population (millions)	0.4
GDP (US\$ billions)	16.6
GDP per capita (US\$)	41,703
GDP (PPP) as share (%) of world total	0.03

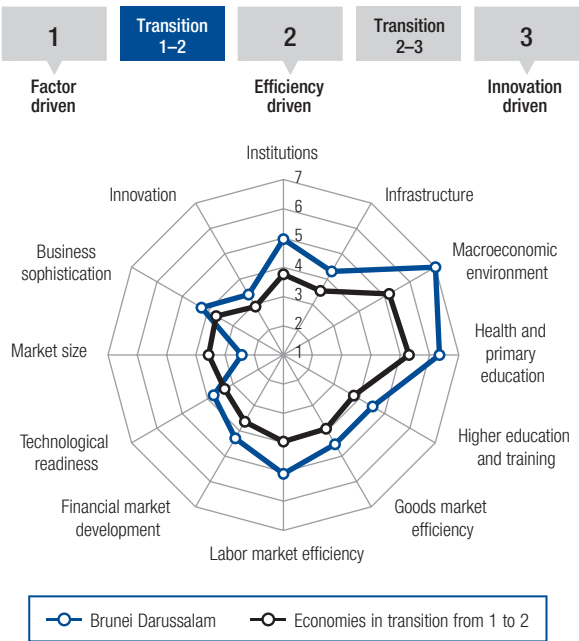
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

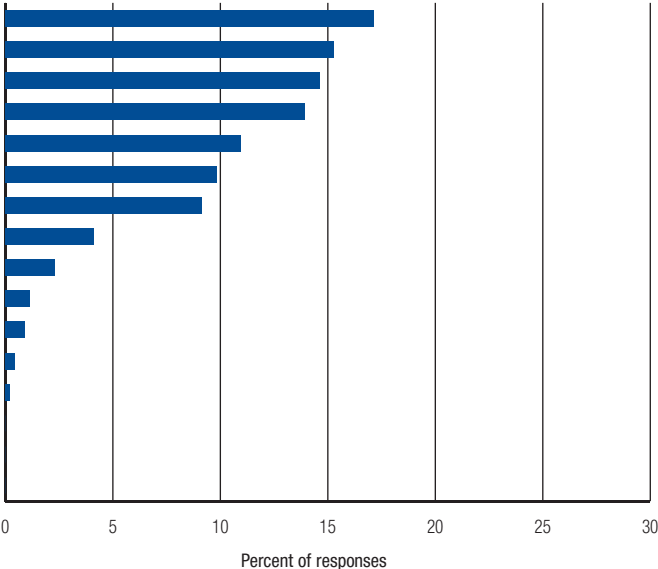
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>26</b>	<b>4.9</b>
GCI 2012–2013 (out of 144)	28	4.9
GCI 2011–2012 (out of 142)	28	4.8
<b>Basic requirements (56.2%)</b>	<b>18</b>	<b>5.6</b>
Institutions	25	5.0
Infrastructure	58	4.3
Macroeconomic environment	1	7.0
Health and primary education	23	6.3
<b>Efficiency enhancers (37.8%)</b>	<b>65</b>	<b>4.1</b>
Higher education and training	55	4.5
Goods market efficiency	42	4.5
Labor market efficiency	10	5.1
Financial market development	56	4.3
Technological readiness	71	3.8
Market size	131	2.4
<b>Innovation and sophistication factors (5.9%)</b>	<b>54</b>	<b>3.8</b>
Business sophistication	56	4.2
Innovation	59	3.4

## Stage of development



## The most problematic factors for doing business

Access to financing	17.1
Poor work ethic in national labor force	15.3
Restrictive labor regulations	14.6
Inefficient government bureaucracy	13.9
Insufficient capacity to innovate	11.0
Inadequate supply of infrastructure	9.8
Inadequately educated workforce	9.1
Foreign currency regulations	4.1
Policy instability	2.3
Corruption	1.1
Crime and theft	0.9
Tax regulations	0.5
Tax rates	0.2
Government instability/coups	0.0
Inflation	0.0
Poor public health	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.



# Brunei Darussalam

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	4.6	52
1.02 Intellectual property protection .....	4.4	39
1.03 Diversion of public funds .....	5.4	<b>18</b>
1.04 Public trust in politicians.....	4.9	<b>14</b>
1.05 Irregular payments and bribes.....	5.8	<b>19</b>
1.06 Judicial independence.....	5.0	34
1.07 Favoritism in decisions of government officials .....	4.4	<b>15</b>
1.08 Wastefulness of government spending .....	4.6	<b>14</b>
1.09 Burden of government regulation .....	4.3	<b>16</b>
1.10 Efficiency of legal framework in settling disputes.....	5.0	<b>19</b>
1.11 Efficiency of legal framework in challenging regs. ....	3.3	80
1.12 Transparency of government policymaking.....	4.4	50
1.13 Business costs of terrorism .....	6.5	<b>9</b>
1.14 Business costs of crime and violence.....	6.2	<b>8</b>
1.15 Organized crime.....	6.5	<b>8</b>
1.16 Reliability of police services .....	5.3	31
1.17 Ethical behavior of firms .....	5.0	29
1.18 Strength of auditing and reporting standards .....	5.0	47
1.19 Efficacy of corporate boards .....	4.9	38
1.20 Protection of minority shareholders' interests .....	4.7	36
1.21 Strength of investor protection, 0–10 (best)* .....	4.7	100
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	5.1	39
2.02 Quality of roads.....	5.0	35
2.03 Quality of railroad infrastructure.....	N/Apl.	n/a
2.04 Quality of port infrastructure.....	4.7	49
2.05 Quality of air transport infrastructure.....	4.8	55
2.06 Available airline seat km/week, millions* .....	47.2	100
2.07 Quality of electricity supply .....	5.2	59
2.08 Mobile telephone subscriptions/100 pop.* .....	113.8	64
2.09 Fixed telephone lines/100 pop.* .....	17.2	72
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	26.4	<b>3</b>
3.02 Gross national savings, % GDP* .....	n/a	n/a
3.03 Inflation, annual % change* .....	0.5	47
3.04 General government debt, % GDP* .....	2.4	<b>3</b>
3.05 Country credit rating, 0–100 (best)* .....	n/a	n/a
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	N/Apl.	<b>1</b>
4.02 Malaria cases/100,000 pop.* .....	(NE)	<b>1</b>
4.03 Business impact of tuberculosis.....	5.4	78
4.04 Tuberculosis cases/100,000 pop.* .....	70.0	84
4.05 Business impact of HIV/AIDS .....	5.8	52
4.06 HIV prevalence, % adult pop.* .....	0.01	<b>1</b>
4.07 Infant mortality, deaths/1,000 live births* .....	5.6	<b>37</b>
4.08 Life expectancy, years* .....	78.1	36
4.09 Quality of primary education.....	5.3	<b>17</b>
4.10 Primary education enrollment, net %* .....	96.9	47
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	111.8	<b>9</b>
5.02 Tertiary education enrollment, gross %* .....	19.6	94
5.03 Quality of the educational system.....	4.4	32
5.04 Quality of math and science education .....	4.8	29
5.05 Quality of management schools.....	4.5	52
5.06 Internet access in schools.....	5.5	32
5.07 Availability of research and training services .....	3.9	87
5.08 Extent of staff training .....	4.6	26
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	5.1	62
6.02 Extent of market dominance .....	4.4	32
6.03 Effectiveness of anti-monopoly policy.....	4.6	36
6.04 Effect of taxation on incentives to invest.....	5.7	<b>5</b>
6.05 Total tax rate, % profits* .....	16.8	<b>11</b>

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	15	142
6.07 No. days to start a business* .....	101	142
6.08 Agricultural policy costs.....	4.7	<b>7</b>
6.09 Prevalence of trade barriers .....	4.3	70
6.10 Trade tariffs, % duty* .....	3.6	47
6.11 Prevalence of foreign ownership.....	4.4	87
6.12 Business impact of rules on FDI.....	4.7	60
6.13 Burden of customs procedures.....	4.7	41
6.14 Imports as a percentage of GDP* .....	27.8	129
6.15 Degree of customer orientation .....	5.4	<b>19</b>
6.16 Buyer sophistication .....	3.4	73
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	5.1	<b>24</b>
7.02 Flexibility of wage determination.....	5.8	<b>14</b>
7.03 Hiring and firing practices.....	4.1	56
7.04 Redundancy costs, weeks of salary* .....	3.0	<b>6</b>
7.05 Effect of taxation on incentives to work .....	5.3	<b>7</b>
7.06 Pay and productivity.....	4.6	<b>18</b>
7.07 Reliance on professional management.....	4.4	64
7.08 Country capacity to retain talent.....	4.7	<b>17</b>
7.09 Country capacity to attract talent .....	4.4	27
7.10 Women in labor force, ratio to men* .....	0.73	93
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	4.8	57
8.02 Affordability of financial services .....	4.7	40
8.03 Financing through local equity market.....	2.4	124
8.04 Ease of access to loans .....	3.8	<b>18</b>
8.05 Venture capital availability.....	3.4	<b>24</b>
8.06 Soundness of banks .....	5.5	47
8.07 Regulation of securities exchanges .....	3.5	108
8.08 Legal rights index, 0–10 (best)* .....	7	42
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	5.2	50
9.02 Firm-level technology absorption.....	4.8	63
9.03 FDI and technology transfer .....	3.9	121
9.04 Individuals using Internet, %* .....	60.3	48
9.05 Fixed broadband Internet subscriptions/100 pop.* .....	4.8	80
9.06 Int'l Internet bandwidth, kb/s per user* .....	39.9	46
9.07 Mobile broadband subscriptions/100 pop.* .....	7.6	89
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	1.9	134
10.02 Foreign market size index, 1–7 (best)* .....	4.0	92
10.03 GDP (PPP\$ billions)* .....	21.7	115
10.04 Exports as a percentage of GDP* .....	83.7	<b>18</b>
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.8	56
11.02 Local supplier quality.....	4.5	67
11.03 State of cluster development.....	4.2	39
11.04 Nature of competitive advantage.....	4.0	39
11.05 Value chain breadth.....	4.0	46
11.06 Control of international distribution .....	4.6	<b>25</b>
11.07 Production process sophistication.....	3.7	72
11.08 Extent of marketing.....	4.2	67
11.09 Willingness to delegate authority .....	4.0	42
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	3.5	67
12.02 Quality of scientific research institutions .....	3.5	81
12.03 Company spending on R&D.....	3.1	67
12.04 University-industry collaboration in R&D.....	3.6	65
12.05 Gov't procurement of advanced tech products.....	4.5	<b>10</b>
12.06 Availability of scientists and engineers .....	3.8	86
12.07 PCT patents, applications/million pop.* .....	3.1	50

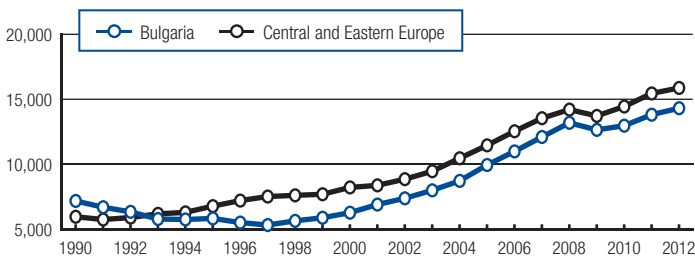
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Bulgaria

## Key indicators, 2012

Population (millions)	7.3
GDP (US\$ billions)	51.0
GDP per capita (US\$)	7,033
GDP (PPP) as share (%) of world total	0.13

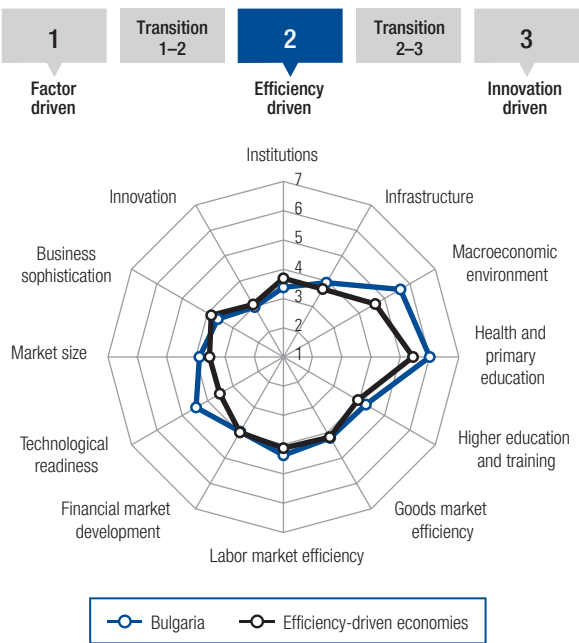
GDP (PPP) per capita (int'l \$), 1990–2012



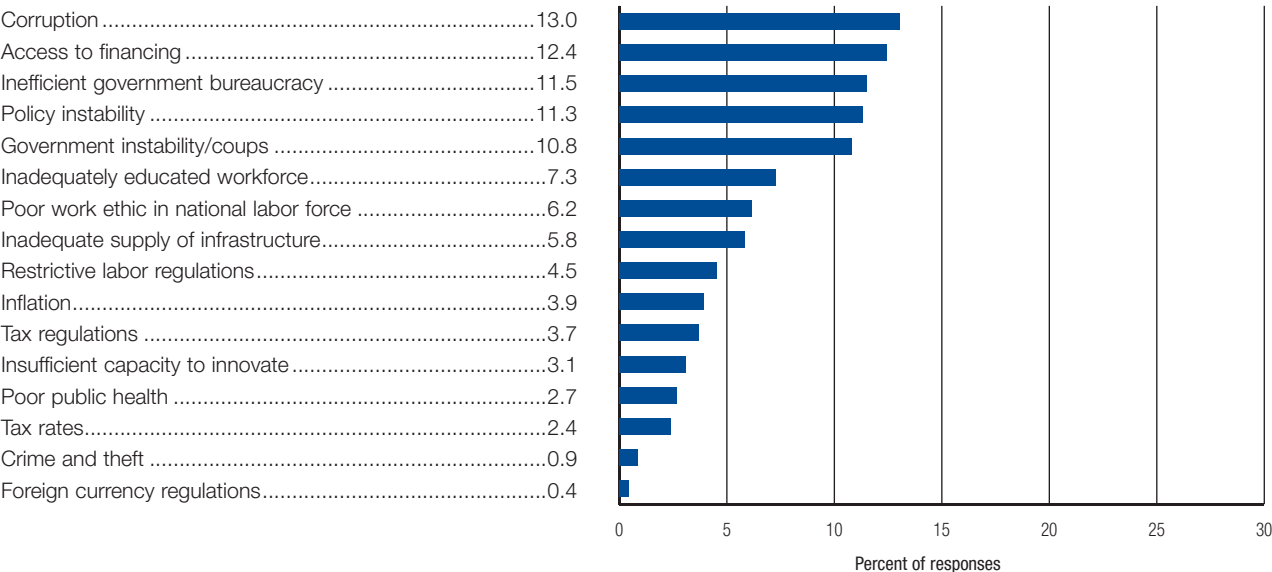
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>57</b>	<b>4.3</b>
GCI 2012–2013 (out of 144)	62	4.3
GCI 2011–2012 (out of 142)	74	4.2
<b>Basic requirements (40.0%)</b>	<b>58</b>	<b>4.7</b>
Institutions	107	3.4
Infrastructure	75	3.9
Macroeconomic environment	30	5.6
Health and primary education	45	6.0
<b>Efficiency enhancers (50.0%)</b>	<b>60</b>	<b>4.2</b>
Higher education and training	69	4.3
Goods market efficiency	81	4.2
Labor market efficiency	61	4.4
Financial market development	73	3.9
Technological readiness	44	4.4
Market size	63	3.9
<b>Innovation and sophistication factors (10.0%)</b>	<b>108</b>	<b>3.3</b>
Business sophistication	106	3.6
Innovation	105	3.0

## Stage of development



## The most problematic factors for doing business



**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.

# Bulgaria

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	3.5	111
1.02 Intellectual property protection .....	3.0	104
1.03 Diversion of public funds .....	2.7	106
1.04 Public trust in politicians .....	2.4	97
1.05 Irregular payments and bribes .....	4.1	63
1.06 Judicial independence .....	2.6	123
1.07 Favoritism in decisions of government officials .....	2.5	117
1.08 Wastefulness of government spending .....	3.0	86
1.09 Burden of government regulation .....	3.1	105
1.10 Efficiency of legal framework in settling disputes .....	2.9	125
1.11 Efficiency of legal framework in challenging regs. ....	2.8	122
1.12 Transparency of government policymaking .....	3.6	124
1.13 Business costs of terrorism .....	4.9	107
1.14 Business costs of crime and violence .....	3.9	108
1.15 Organized crime .....	3.8	130
1.16 Reliability of police services .....	3.4	113
1.17 Ethical behavior of firms .....	3.6	110
1.18 Strength of auditing and reporting standards .....	4.5	77
1.19 Efficacy of corporate boards .....	4.0	127
1.20 Protection of minority shareholders' interests .....	3.8	99
1.21 Strength of investor protection, 0–10 (best)* .....	6.0	41
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	3.5	102
2.02 Quality of roads .....	2.9	112
2.03 Quality of railroad infrastructure .....	3.1	54
2.04 Quality of port infrastructure .....	3.9	85
2.05 Quality of air transport infrastructure .....	4.2	83
2.06 Available airline seat km/week, millions* .....	104.0	80
2.07 Quality of electricity supply .....	4.0	94
2.08 Mobile telephone subscriptions/100 pop.* .....	145.7	24
2.09 Fixed telephone lines/100 pop.* .....	30.4	36
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	-0.5	33
3.02 Gross national savings, % GDP* .....	23.2	56
3.03 Inflation, annual % change* .....	2.4	1
3.04 General government debt, % GDP* .....	18.5	20
3.05 Country credit rating, 0–100 (best)* .....	52.3	63
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	N/Apl.	1
4.02 Malaria cases/100,000 pop.* .....	(NE)	1
4.03 Business impact of tuberculosis .....	5.8	59
4.04 Tuberculosis cases/100,000 pop.* .....	35.0	62
4.05 Business impact of HIV/AIDS .....	5.9	45
4.06 HIV prevalence, % adult pop.* .....	0.10	11
4.07 Infant mortality, deaths/1,000 live births* .....	10.6	60
4.08 Life expectancy, years* .....	74.2	64
4.09 Quality of primary education .....	4.1	60
4.10 Primary education enrollment, net %* .....	98.0	34
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	88.9	74
5.02 Tertiary education enrollment, gross %* .....	56.9	44
5.03 Quality of the educational system .....	3.4	90
5.04 Quality of math and science education .....	4.3	59
5.05 Quality of management schools .....	3.6	112
5.06 Internet access in schools .....	4.7	51
5.07 Availability of research and training services .....	3.6	109
5.08 Extent of staff training .....	3.2	127
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	4.6	101
6.02 Extent of market dominance .....	3.2	120
6.03 Effectiveness of anti-monopoly policy .....	3.3	126
6.04 Effect of taxation on incentives to invest .....	3.4	103
6.05 Total tax rate, % profits* .....	28.7	34

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	4	20
6.07 No. days to start a business* .....	18	78
6.08 Agricultural policy costs .....	3.4	116
6.09 Prevalence of trade barriers .....	3.8	123
6.10 Trade tariffs, % duty* .....	0.8	4
6.11 Prevalence of foreign ownership .....	4.0	111
6.12 Business impact of rules on FDI .....	3.7	118
6.13 Burden of customs procedures .....	3.9	78
6.14 Imports as a percentage of GDP* .....	72.0	31
6.15 Degree of customer orientation .....	4.8	51
6.16 Buyer sophistication .....	2.9	112
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	4.1	99
7.02 Flexibility of wage determination .....	5.3	49
7.03 Hiring and firing practices .....	4.0	70
7.04 Redundancy costs, weeks of salary* .....	7.5	22
7.05 Effect of taxation on incentives to work .....	3.3	109
7.06 Pay and productivity .....	4.2	48
7.07 Reliance on professional management .....	3.7	112
7.08 Country capacity to retain talent .....	1.9	142
7.09 Country capacity to attract talent .....	1.9	144
7.10 Women in labor force, ratio to men* .....	0.88	39
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	3.8	107
8.02 Affordability of financial services .....	3.5	124
8.03 Financing through local equity market .....	3.0	94
8.04 Ease of access to loans .....	3.3	39
8.05 Venture capital availability .....	2.7	65
8.06 Soundness of banks .....	4.8	86
8.07 Regulation of securities exchanges .....	3.4	116
8.08 Legal rights index, 0–10 (best)* .....	8	28
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	4.4	99
9.02 Firm-level technology absorption .....	4.2	113
9.03 FDI and technology transfer .....	4.1	107
9.04 Individuals using Internet, %* .....	55.1	55
9.05 Fixed broadband Internet subscriptions/100 pop.* ..	17.6	38
9.06 Int'l Internet bandwidth, kb/s per user* .....	94.4	22
9.07 Mobile broadband subscriptions/100 pop.* .....	40.3	40
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	3.6	64
10.02 Foreign market size index, 1–7 (best)* .....	4.8	59
10.03 GDP (PPP\$ billions)* .....	103.8	66
10.04 Exports as a percentage of GDP* .....	66.4	28
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.3	108
11.02 Local supplier quality .....	4.4	72
11.03 State of cluster development .....	3.3	108
11.04 Nature of competitive advantage .....	3.0	113
11.05 Value chain breadth .....	3.2	116
11.06 Control of international distribution .....	3.8	95
11.07 Production process sophistication .....	3.4	101
11.08 Extent of marketing .....	3.7	106
11.09 Willingness to delegate authority .....	3.2	123
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation .....	3.2	103
12.02 Quality of scientific research institutions .....	3.6	68
12.03 Company spending on R&D .....	2.8	107
12.04 University-industry collaboration in R&D .....	3.0	117
12.05 Gov't procurement of advanced tech products .....	3.3	90
12.06 Availability of scientists and engineers .....	3.7	96
12.07 PCT patents, applications/million pop.* .....	3.7	47

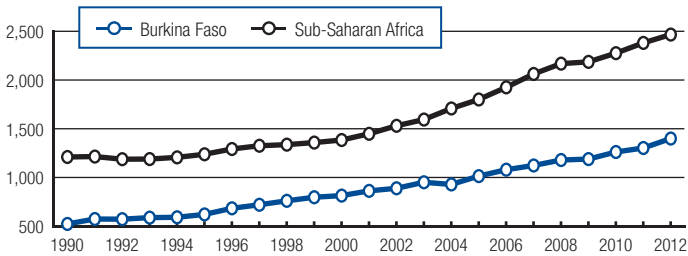
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Burkina Faso

## Key indicators, 2012

Population (millions)	17.0
GDP (US\$ billions)	10.5
GDP per capita (US\$)	603
GDP (PPP) as share (%) of world total	0.03

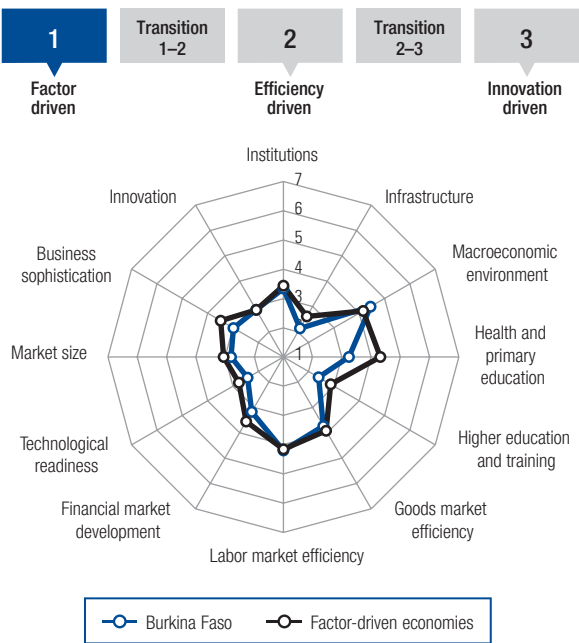
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

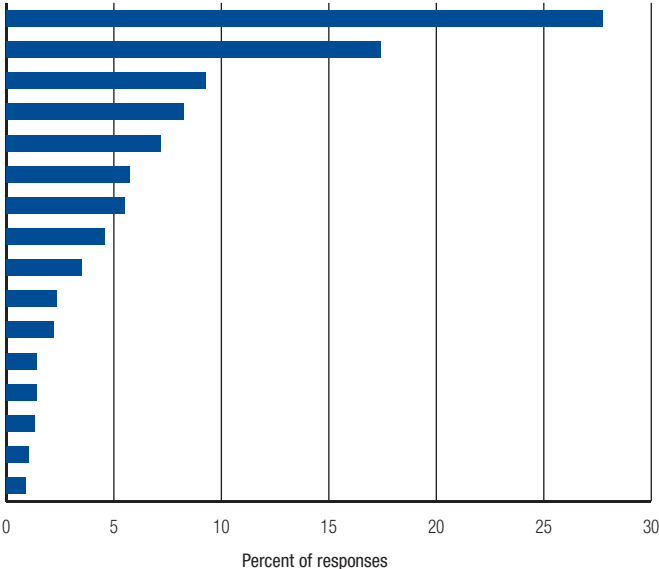
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>140</b>	<b>3.2</b>
GCI 2012–2013 (out of 144)	133	3.3
GCI 2011–2012 (out of 142)	136	3.3
<b>Basic requirements (60.0%)</b>	<b>141</b>	<b>3.3</b>
Institutions	115	3.3
Infrastructure	140	2.1
Macroeconomic environment	88	4.4
Health and primary education	143	3.2
<b>Efficiency enhancers (35.0%)</b>	<b>137</b>	<b>3.1</b>
Higher education and training	141	2.4
Goods market efficiency	129	3.7
Labor market efficiency	83	4.2
Financial market development	131	3.2
Technological readiness	143	2.4
Market size	113	2.8
<b>Innovation and sophistication factors (5.0%)</b>	<b>130</b>	<b>2.9</b>
Business sophistication	142	3.0
Innovation	111	2.9

## Stage of development



## The most problematic factors for doing business

Access to financing	27.7
Corruption	17.4
Inadequate supply of infrastructure	9.3
Tax rates	8.2
Inadequately educated workforce	7.2
Tax regulations	5.8
Restrictive labor regulations	5.5
Insufficient capacity to innovate	4.6
Policy instability	3.5
Inefficient government bureaucracy	2.4
Foreign currency regulations	2.2
Inflation	1.4
Poor work ethic in national labor force	1.4
Government instability/coups	1.3
Poor public health	1.0
Crime and theft	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.

# Burkina Faso

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	3.7	106
1.02 Intellectual property protection .....	3.4	88
1.03 Diversion of public funds .....	2.1	139
1.04 Public trust in politicians.....	2.4	96
1.05 Irregular payments and bribes.....	2.9	125
1.06 Judicial independence.....	2.1	142
1.07 Favoritism in decisions of government officials .....	2.8	95
1.08 Wastefulness of government spending .....	2.8	98
1.09 Burden of government regulation .....	3.7	47
1.10 Efficiency of legal framework in settling disputes.....	3.3	103
1.11 Efficiency of legal framework in challenging regs. ....	3.0	106
1.12 Transparency of government policymaking.....	3.7	114
1.13 Business costs of terrorism .....	4.4	126
1.14 Business costs of crime and violence.....	3.9	107
1.15 Organized crime.....	4.6	93
1.16 Reliability of police services .....	4.1	75
1.17 Ethical behavior of firms .....	3.6	106
1.18 Strength of auditing and reporting standards .....	4.1	100
1.19 Efficacy of corporate boards .....	4.6	64
1.20 Protection of minority shareholders' interests .....	3.6	116
1.21 Strength of investor protection, 0–10 (best)* .....	3.7	123
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	2.5	140
2.02 Quality of roads.....	2.6	131
2.03 Quality of railroad infrastructure.....	1.8	100
2.04 Quality of port infrastructure.....	3.5	106
2.05 Quality of air transport infrastructure.....	3.1	129
2.06 Available airline seat km/week, millions* .....	17.9	129
2.07 Quality of electricity supply .....	2.0	136
2.08 Mobile telephone subscriptions/100 pop.* .....	57.1	132
2.09 Fixed telephone lines/100 pop.* .....	0.8	132
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	-3.1	83
3.02 Gross national savings, % GDP* .....	13.7	107
3.03 Inflation, annual % change* .....	3.6	65
3.04 General government debt, % GDP* .....	27.7	35
3.05 Country credit rating, 0–100 (best)* .....	21.7	129
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	3.1	137
4.02 Malaria cases/100,000 pop.* .....	31,924.2	145
4.03 Business impact of tuberculosis.....	4.5	109
4.04 Tuberculosis cases/100,000 pop.* .....	57.0	77
4.05 Business impact of HIV/AIDS .....	4.5	111
4.06 HIV prevalence, % adult pop.* .....	1.10	112
4.07 Infant mortality, deaths/1,000 live births* .....	81.6	143
4.08 Life expectancy, years* .....	55.4	131
4.09 Quality of primary education.....	2.9	121
4.10 Primary education enrollment, net %* .....	64.1	140
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	24.7	147
5.02 Tertiary education enrollment, gross %* .....	3.9	139
5.03 Quality of the educational system.....	2.7	127
5.04 Quality of math and science education .....	3.7	97
5.05 Quality of management schools.....	3.6	110
5.06 Internet access in schools.....	1.6	147
5.07 Availability of research and training services .....	3.6	112
5.08 Extent of staff training .....	2.9	142
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	4.4	116
6.02 Extent of market dominance .....	2.7	140
6.03 Effectiveness of anti-monopoly policy.....	3.6	110
6.04 Effect of taxation on incentives to invest.....	3.0	123
6.05 Total tax rate, % profits* .....	43.6	95

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	3	10
6.07 No. days to start a business* .....	13	63
6.08 Agricultural policy costs.....	3.6	96
6.09 Prevalence of trade barriers .....	4.3	78
6.10 Trade tariffs, % duty* .....	10.5	114
6.11 Prevalence of foreign ownership.....	4.1	103
6.12 Business impact of rules on FDI.....	4.6	63
6.13 Burden of customs procedures.....	3.6	96
6.14 Imports as a percentage of GDP* .....	33.9	106
6.15 Degree of customer orientation .....	4.1	112
6.16 Buyer sophistication .....	2.0	147
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	4.0	110
7.02 Flexibility of wage determination.....	5.2	62
7.03 Hiring and firing practices.....	3.9	83
7.04 Redundancy costs, weeks of salary* .....	10.5	44
7.05 Effect of taxation on incentives to work .....	3.5	89
7.06 Pay and productivity.....	3.1	133
7.07 Reliance on professional management.....	3.3	130
7.08 Country capacity to retain talent.....	2.6	120
7.09 Country capacity to attract talent .....	2.2	128
7.10 Women in labor force, ratio to men* .....	0.88	38
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	3.2	135
8.02 Affordability of financial services .....	3.0	141
8.03 Financing through local equity market.....	2.7	111
8.04 Ease of access to loans .....	1.6	144
8.05 Venture capital availability.....	1.7	147
8.06 Soundness of banks .....	4.1	123
8.07 Regulation of securities exchanges .....	3.0	128
8.08 Legal rights index, 0–10 (best)* .....	6	65
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	3.2	145
9.02 Firm-level technology absorption.....	3.7	140
9.03 FDI and technology transfer .....	4.2	99
9.04 Individuals using Internet, %* .....	3.7	138
9.05 Fixed broadband Internet subscriptions/100 pop.* ...	0.1	132
9.06 Int'l Internet bandwidth, kb/s per user* .....	1.7	138
9.07 Mobile broadband subscriptions/100 pop.* .....	0.0	136
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	2.6	109
10.02 Foreign market size index, 1–7 (best)* .....	3.4	120
10.03 GDP (PPP\$ billions)* .....	24.3	111
10.04 Exports as a percentage of GDP* .....	26.6	113
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.1	118
11.02 Local supplier quality.....	4.0	105
11.03 State of cluster development.....	2.9	137
11.04 Nature of competitive advantage.....	2.5	142
11.05 Value chain breadth.....	2.6	146
11.06 Control of international distribution .....	3.0	143
11.07 Production process sophistication.....	2.3	145
11.08 Extent of marketing.....	3.1	131
11.09 Willingness to delegate authority .....	2.0	148
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	3.0	119
12.02 Quality of scientific research institutions .....	3.3	96
12.03 Company spending on R&D.....	2.6	120
12.04 University-industry collaboration in R&D.....	3.2	99
12.05 Gov't procurement of advanced tech products.....	3.2	94
12.06 Availability of scientists and engineers .....	3.4	115
12.07 PCT patents, applications/million pop.* .....	0.0	115

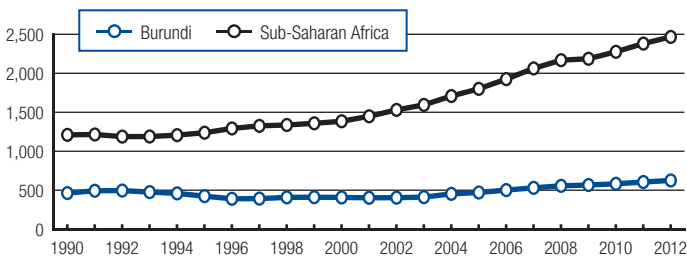
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Burundi

## Key indicators, 2012

Population (millions)	8.6
GDP (US\$ billions)	2.5
GDP per capita (US\$)	282
GDP (PPP) as share (%) of world total	0.01

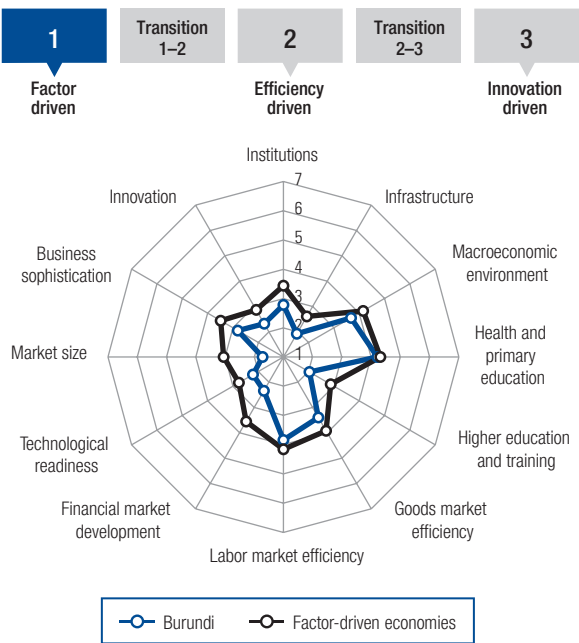
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

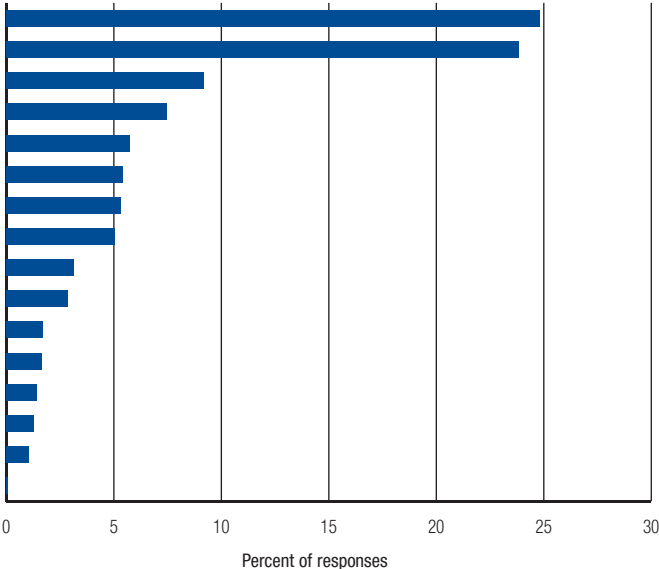
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>146</b>	<b>2.9</b>
GCI 2012–2013 (out of 144)	144	2.8
GCI 2011–2012 (out of 142)	140	2.9
<b>Basic requirements (60.0%)</b>	<b>144</b>	<b>3.1</b>
Institutions	144	2.8
Infrastructure	146	1.9
Macroeconomic environment	129	3.7
Health and primary education	130	4.2
<b>Efficiency enhancers (35.0%)</b>	<b>148</b>	<b>2.6</b>
Higher education and training	148	2.0
Goods market efficiency	140	3.4
Labor market efficiency	123	3.8
Financial market development	146	2.3
Technological readiness	146	2.2
Market size	144	1.7
<b>Innovation and sophistication factors (5.0%)</b>	<b>145</b>	<b>2.6</b>
Business sophistication	148	2.8
Innovation	142	2.3

## Stage of development



## The most problematic factors for doing business

Access to financing	24.8
Corruption	23.8
Tax rates	9.2
Inflation	7.5
Foreign currency regulations	5.8
Inadequate supply of infrastructure	5.4
Policy instability	5.3
Insufficient capacity to innovate	5.0
Inefficient government bureaucracy	3.1
Inadequately educated workforce	2.8
Poor work ethic in national labor force	1.7
Crime and theft	1.6
Restrictive labor regulations	1.4
Tax regulations	1.3
Government instability/coups	1.1
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/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	2.7	141
1.02 Intellectual property protection .....	2.3	142
1.03 Diversion of public funds .....	2.2	135
1.04 Public trust in politicians.....	2.3	106
1.05 Irregular payments and bribes.....	2.5	137
1.06 Judicial independence.....	1.7	147
1.07 Favoritism in decisions of government officials .....	2.4	124
1.08 Wastefulness of government spending .....	2.2	131
1.09 Burden of government regulation .....	2.9	117
1.10 Efficiency of legal framework in settling disputes.....	2.6	136
1.11 Efficiency of legal framework in challenging regs. ....	2.5	135
1.12 Transparency of government policymaking.....	3.3	138
1.13 Business costs of terrorism .....	4.4	123
1.14 Business costs of crime and violence.....	3.8	114
1.15 Organized crime.....	4.0	125
1.16 Reliability of police services .....	2.1	147
1.17 Ethical behavior of firms .....	2.8	147
1.18 Strength of auditing and reporting standards .....	2.9	142
1.19 Efficacy of corporate boards .....	3.9	132
1.20 Protection of minority shareholders' interests .....	3.0	141
1.21 Strength of investor protection, 0–10 (best)* .....	6.0	<b>41</b>
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	2.5	141
2.02 Quality of roads.....	3.0	108
2.03 Quality of railroad infrastructure.....	N/Apl.	n/a
2.04 Quality of port infrastructure.....	2.8	130
2.05 Quality of air transport infrastructure.....	2.7	142
2.06 Available airline seat km/week, millions* .....	2.6	145
2.07 Quality of electricity supply .....	1.8	140
2.08 Mobile telephone subscriptions/100 pop.* .....	25.7	146
2.09 Fixed telephone lines/100 pop.* .....	0.2	146
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	-1.7	52
3.02 Gross national savings, % GDP* .....	4.4	142
3.03 Inflation, annual % change* .....	11.8	137
3.04 General government debt, % GDP* .....	32.0	<b>40</b>
3.05 Country credit rating, 0–100 (best)* .....	13.0	143
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	2.8	142
4.02 Malaria cases/100,000 pop.* .....	9,688.3	125
4.03 Business impact of tuberculosis.....	3.3	144
4.04 Tuberculosis cases/100,000 pop.* .....	139.0	108
4.05 Business impact of HIV/AIDS .....	3.3	137
4.06 HIV prevalence, % adult pop.* .....	1.30	118
4.07 Infant mortality, deaths/1,000 live births* .....	86.3	144
4.08 Life expectancy, years* .....	50.3	142
4.09 Quality of primary education.....	2.2	138
4.10 Primary education enrollment, net %* .....	89.7	100
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	28.0	142
5.02 Tertiary education enrollment, gross %* .....	3.2	142
5.03 Quality of the educational system.....	2.3	143
5.04 Quality of math and science education .....	3.4	103
5.05 Quality of management schools.....	2.6	142
5.06 Internet access in schools.....	1.8	144
5.07 Availability of research and training services .....	2.5	147
5.08 Extent of staff training .....	2.6	147
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	3.3	146
6.02 Extent of market dominance .....	3.3	113
6.03 Effectiveness of anti-monopoly policy.....	3.1	139
6.04 Effect of taxation on incentives to invest.....	2.6	138
6.05 Total tax rate, % profits* .....	53.0	120

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	4	<b>20</b>
6.07 No. days to start a business* .....	8	<b>34</b>
6.08 Agricultural policy costs.....	3.1	133
6.09 Prevalence of trade barriers .....	3.4	145
6.10 Trade tariffs, % duty* .....	9.3	100
6.11 Prevalence of foreign ownership.....	2.8	144
6.12 Business impact of rules on FDI.....	3.2	137
6.13 Burden of customs procedures .....	2.7	142
6.14 Imports as a percentage of GDP* .....	40.0	90
6.15 Degree of customer orientation .....	3.7	134
6.16 Buyer sophistication .....	2.1	145
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	3.2	143
7.02 Flexibility of wage determination.....	5.1	67
7.03 Hiring and firing practices.....	3.4	111
7.04 Redundancy costs, weeks of salary* .....	15.9	78
7.05 Effect of taxation on incentives to work .....	2.8	129
7.06 Pay and productivity.....	2.5	147
7.07 Reliance on professional management .....	2.5	144
7.08 Country capacity to retain talent.....	1.9	141
7.09 Country capacity to attract talent .....	1.9	142
7.10 Women in labor force, ratio to men* .....	1.03	<b>3</b>
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	2.5	146
8.02 Affordability of financial services .....	2.6	147
8.03 Financing through local equity market.....	1.8	144
8.04 Ease of access to loans .....	1.7	141
8.05 Venture capital availability.....	1.9	137
8.06 Soundness of banks .....	3.0	144
8.07 Regulation of securities exchanges .....	1.9	145
8.08 Legal rights index, 0–10 (best)* .....	3	118
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	3.2	143
9.02 Firm-level technology absorption.....	3.5	143
9.03 FDI and technology transfer .....	3.4	142
9.04 Individuals using Internet, %* .....	1.2	146
9.05 Fixed broadband Internet subscriptions/100 pop.* .....	0.0	146
9.06 Int'l Internet bandwidth, kb/s per user* .....	3.9	120
9.07 Mobile broadband subscriptions/100 pop.* .....	0.0	136
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	1.7	140
10.02 Foreign market size index, 1–7 (best)* .....	1.7	147
10.03 GDP (PPP\$ billions)* .....	5.5	142
10.04 Exports as a percentage of GDP* .....	6.1	147
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	3.2	145
11.02 Local supplier quality.....	2.9	147
11.03 State of cluster development.....	2.8	141
11.04 Nature of competitive advantage.....	2.9	121
11.05 Value chain breadth.....	3.0	129
11.06 Control of international distribution .....	3.1	140
11.07 Production process sophistication.....	2.3	148
11.08 Extent of marketing.....	2.3	148
11.09 Willingness to delegate authority .....	2.8	139
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	2.2	148
12.02 Quality of scientific research institutions .....	2.4	138
12.03 Company spending on R&D.....	2.2	139
12.04 University-industry collaboration in R&D .....	2.5	136
12.05 Gov't procurement of advanced tech products.....	2.6	138
12.06 Availability of scientists and engineers .....	3.3	119
12.07 PCT patents, applications/million pop.* .....	0.0	126

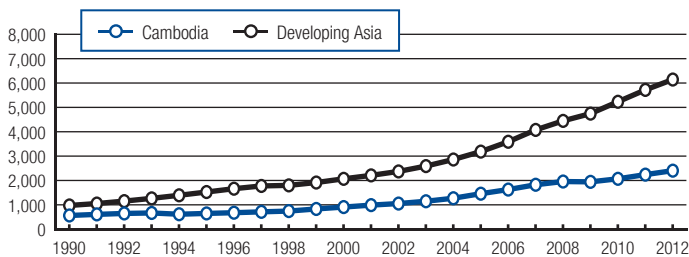
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Cambodia

## Key indicators, 2012

Population (millions)	14.3
GDP (US\$ billions)	14.2
GDP per capita (US\$)	934
GDP (PPP) as share (%) of world total	0.04

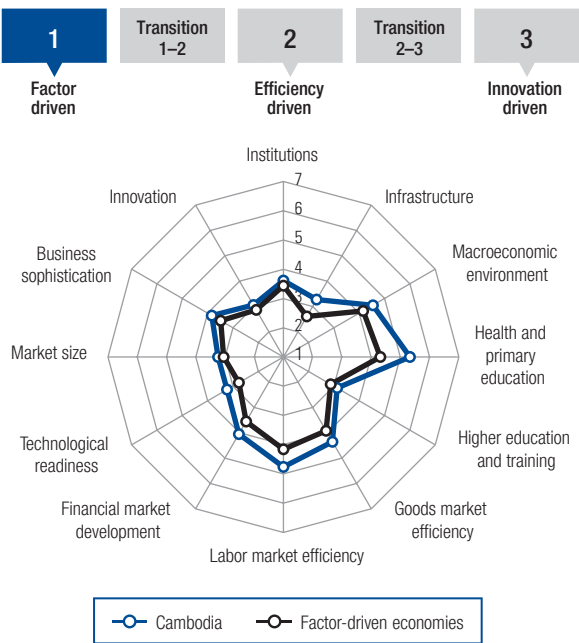
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

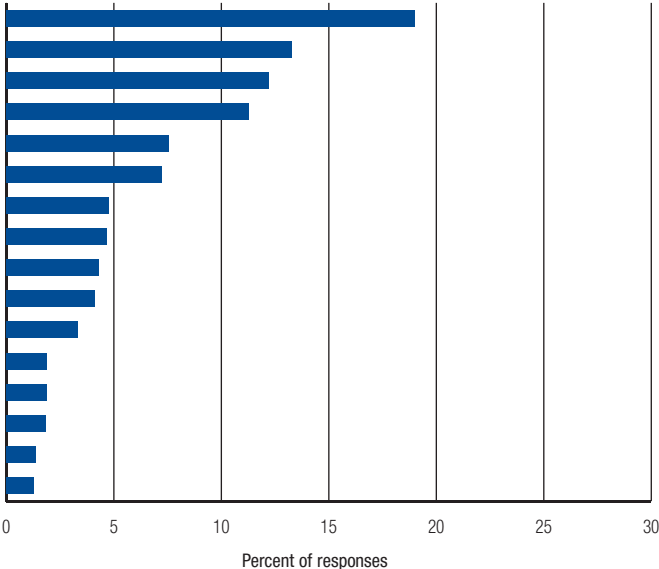
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>88</b>	<b>4.0</b>
GCI 2012–2013 (out of 144)	85	4.0
GCI 2011–2012 (out of 142)	97	3.9
<b>Basic requirements (60.0%)</b>	<b>99</b>	<b>4.2</b>
Institutions	91	3.6
Infrastructure	101	3.3
Macroeconomic environment	83	4.5
Health and primary education	99	5.3
<b>Efficiency enhancers (35.0%)</b>	<b>91</b>	<b>3.8</b>
Higher education and training	116	3.1
Goods market efficiency	55	4.3
Labor market efficiency	27	4.8
Financial market development	65	4.0
Technological readiness	97	3.2
Market size	92	3.2
<b>Innovation and sophistication factors (5.0%)</b>	<b>83</b>	<b>3.4</b>
Business sophistication	86	3.8
Innovation	91	3.0

## Stage of development



## The most problematic factors for doing business

Corruption	19.0
Inefficient government bureaucracy	13.3
Inadequately educated workforce	12.2
Inadequate supply of infrastructure	11.3
Policy instability	7.5
Access to financing	7.2
Tax regulations	4.8
Insufficient capacity to innovate	4.7
Poor work ethic in national labor force	4.3
Poor public health	4.1
Inflation	3.3
Foreign currency regulations	1.9
Tax rates	1.9
Crime and theft	1.8
Restrictive labor regulations	1.4
Government instability/coups	1.3



**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.

# Cambodia

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148	INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>			<b>6th pillar: Goods market efficiency</b> <i>(cont'd.)</i>		
1.01 Property rights .....	3.6	108	6.06 No. procedures to start a business* .....	9	104
1.02 Intellectual property protection .....	3.2	99	6.07 No. days to start a business* .....	85	138
1.03 Diversion of public funds .....	3.1	81	6.08 Agricultural policy costs .....	4.0	57
1.04 Public trust in politicians .....	3.1	61	6.09 Prevalence of trade barriers .....	4.3	80
1.05 Irregular payments and bribes .....	2.9	124	6.10 Trade tariffs, % duty* .....	9.7	105
1.06 Judicial independence .....	2.8	115	6.11 Prevalence of foreign ownership .....	4.6	75
1.07 Favoritism in decisions of government officials .....	3.1	70	6.12 Business impact of rules on FDI .....	5.0	30
1.08 Wastefulness of government spending .....	3.2	73	6.13 Burden of customs procedures .....	3.5	101
1.09 Burden of government regulation .....	3.5	70	6.14 Imports as a percentage of GDP* .....	88.0	13
1.10 Efficiency of legal framework in settling disputes .....	3.5	83	6.15 Degree of customer orientation .....	4.6	61
1.11 Efficiency of legal framework in challenging regs. ....	3.5	72	6.16 Buyer sophistication .....	3.5	62
1.12 Transparency of government policymaking .....	3.6	119	<b>7th pillar: Labor market efficiency</b>		
1.13 Business costs of terrorism .....	5.3	87	7.01 Cooperation in labor-employer relations .....	4.3	68
1.14 Business costs of crime and violence .....	4.5	78	7.02 Flexibility of wage determination .....	5.1	71
1.15 Organized crime .....	5.1	69	7.03 Hiring and firing practices .....	4.7	15
1.16 Reliability of police services .....	3.3	115	7.04 Redundancy costs, weeks of salary* .....	19.4	93
1.17 Ethical behavior of firms .....	3.8	80	7.05 Effect of taxation on incentives to work .....	4.2	30
1.18 Strength of auditing and reporting standards .....	3.9	116	7.06 Pay and productivity .....	4.4	32
1.19 Efficacy of corporate boards .....	4.5	73	7.07 Reliance on professional management .....	4.1	78
1.20 Protection of minority shareholders' interests .....	3.9	86	7.08 Country capacity to retain talent .....	3.9	44
1.21 Strength of investor protection, 0–10 (best)* .....	5.3	69	7.09 Country capacity to attract talent .....	3.8	51
<b>2nd pillar: Infrastructure</b>			7.10 Women in labor force, ratio to men* .....	0.93	16
2.01 Quality of overall infrastructure .....	3.9	86	<b>8th pillar: Financial market development</b>		
2.02 Quality of roads .....	3.7	80	8.01 Availability of financial services .....	4.3	81
2.03 Quality of railroad infrastructure .....	2.0	91	8.02 Affordability of financial services .....	4.1	71
2.04 Quality of port infrastructure .....	4.0	81	8.03 Financing through local equity market .....	2.6	113
2.05 Quality of air transport infrastructure .....	4.1	90	8.04 Ease of access to loans .....	3.0	56
2.06 Available airline seat km/week, millions* .....	75.4	88	8.05 Venture capital availability .....	3.0	43
2.07 Quality of electricity supply .....	3.2	112	8.06 Soundness of banks .....	4.8	84
2.08 Mobile telephone subscriptions/100 pop.* .....	132.0	38	8.07 Regulation of securities exchanges .....	3.5	113
2.09 Fixed telephone lines/100 pop.* .....	4.0	110	8.08 Legal rights index, 0–10 (best)* .....	8	28
<b>3rd pillar: Macroeconomic environment</b>			<b>9th pillar: Technological readiness</b>		
3.01 Government budget balance, % GDP* .....	-3.2	85	9.01 Availability of latest technologies .....	4.7	82
3.02 Gross national savings, % GDP* .....	13.5	109	9.02 Firm-level technology absorption .....	4.6	82
3.03 Inflation, annual % change* .....	2.9	44	9.03 FDI and technology transfer .....	4.9	44
3.04 General government debt, % GDP* .....	28.5	37	9.04 Individuals using Internet, %* .....	4.9	132
3.05 Country credit rating, 0–100 (best)* .....	27.8	115	9.05 Fixed broadband Internet subscriptions/100 pop.* .....	0.2	122
<b>4th pillar: Health and primary education</b>			9.06 Int'l Internet bandwidth, kb/s per user* .....	14.0	86
4.01 Business impact of malaria .....	4.6	111	9.07 Mobile broadband subscriptions/100 pop.* .....	6.9	91
4.02 Malaria cases/100,000 pop.* .....	1,337.4	114	<b>10th pillar: Market size</b>		
4.03 Business impact of tuberculosis .....	4.4	113	10.01 Domestic market size index, 1–7 (best)* .....	2.9	95
4.04 Tuberculosis cases/100,000 pop.* .....	424.0	137	10.02 Foreign market size index, 1–7 (best)* .....	4.2	81
4.05 Business impact of HIV/AIDS .....	4.6	105	10.03 GDP (PPP\$ billions)* .....	36.6	98
4.06 HIV prevalence, % adult pop.* .....	0.60	92	10.04 Exports as a percentage of GDP* .....	76.2	20
4.07 Infant mortality, deaths/1,000 live births* .....	36.2	108	<b>11th pillar: Business sophistication</b>		
4.08 Life expectancy, years* .....	63.0	116	11.01 Local supplier quantity .....	4.2	111
4.09 Quality of primary education .....	3.2	106	11.02 Local supplier quality .....	3.9	113
4.10 Primary education enrollment, net %* .....	98.2	31	11.03 State of cluster development .....	4.1	44
<b>5th pillar: Higher education and training</b>			11.04 Nature of competitive advantage .....	3.2	97
5.01 Secondary education enrollment, gross %* .....	44.4	125	11.05 Value chain breadth .....	3.7	71
5.02 Tertiary education enrollment, gross %* .....	14.5	104	11.06 Control of international distribution .....	3.9	80
5.03 Quality of the educational system .....	3.6	76	11.07 Production process sophistication .....	3.5	95
5.04 Quality of math and science education .....	3.5	102	11.08 Extent of marketing .....	4.0	79
5.05 Quality of management schools .....	3.7	108	11.09 Willingness to delegate authority .....	3.7	73
5.06 Internet access in schools .....	3.8	89	<b>12th pillar: Innovation</b>		
5.07 Availability of research and training services .....	3.9	90	12.01 Capacity for innovation .....	3.5	71
5.08 Extent of staff training .....	4.0	66	12.02 Quality of scientific research institutions .....	3.2	101
<b>6th pillar: Goods market efficiency</b>			12.03 Company spending on R&D .....	3.2	57
6.01 Intensity of local competition .....	4.9	78	12.04 University-industry collaboration in R&D .....	3.2	105
6.02 Extent of market dominance .....	3.8	71	12.05 Gov't procurement of advanced tech products .....	3.7	46
6.03 Effectiveness of anti-monopoly policy .....	4.3	53	12.06 Availability of scientists and engineers .....	3.4	110
6.04 Effect of taxation on incentives to invest .....	4.4	25	12.07 PCT patents, applications/million pop.* .....	0.0	126
6.05 Total tax rate, % profits* .....	22.5	15			

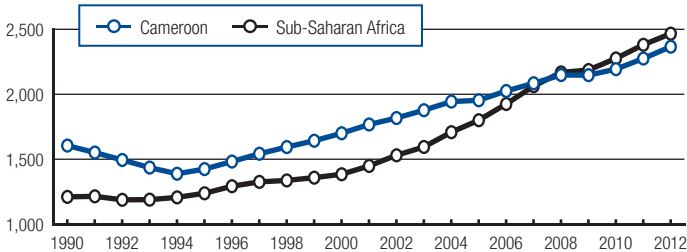
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Cameroon

## Key indicators, 2012

Population (millions)	20.0
GDP (US\$ billions)	25.0
GDP per capita (US\$)	1,165
GDP (PPP) as share (%) of world total	0.06

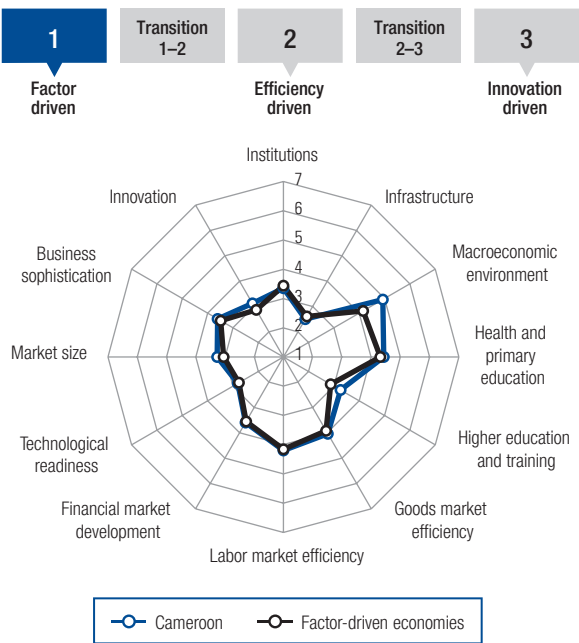
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

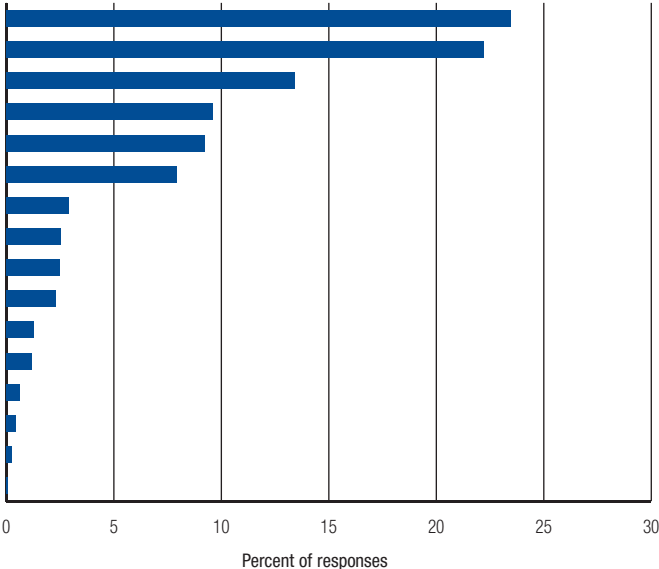
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>115</b>	<b>3.7</b>
GCI 2012–2013 (out of 144)	112	3.7
GCI 2011–2012 (out of 142)	116	3.6
<b>Basic requirements (60.0%)</b>	<b>117</b>	<b>3.8</b>
Institutions	112	3.3
Infrastructure	128	2.5
Macroeconomic environment	60	4.9
Health and primary education	124	4.4
<b>Efficiency enhancers (35.0%)</b>	<b>113</b>	<b>3.5</b>
Higher education and training	112	3.3
Goods market efficiency	100	4.0
Labor market efficiency	82	4.2
Financial market development	107	3.6
Technological readiness	121	2.8
Market size	91	3.3
<b>Innovation and sophistication factors (5.0%)</b>	<b>96</b>	<b>3.4</b>
Business sophistication	105	3.6
Innovation	80	3.1

## Stage of development



## The most problematic factors for doing business

Corruption	23.5
Access to financing	22.2
Inadequate supply of infrastructure	13.4
Tax regulations	9.6
Inefficient government bureaucracy	9.2
Tax rates	7.9
Poor work ethic in national labor force	2.9
Insufficient capacity to innovate	2.6
Crime and theft	2.5
Restrictive labor regulations	2.3
Foreign currency regulations	1.3
Inflation	1.2
Inadequately educated workforce	0.6
Poor public health	0.5
Policy instability	0.3
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.

# Cameroon

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	3.8	91
1.02 Intellectual property protection .....	3.2	100
1.03 Diversion of public funds .....	2.0	140
1.04 Public trust in politicians.....	2.1	122
1.05 Irregular payments and bribes.....	2.8	131
1.06 Judicial independence.....	2.3	136
1.07 Favoritism in decisions of government officials .....	2.4	121
1.08 Wastefulness of government spending .....	2.4	121
1.09 Burden of government regulation .....	3.4	77
1.10 Efficiency of legal framework in settling disputes.....	3.3	102
1.11 Efficiency of legal framework in challenging regs. ....	3.0	103
1.12 Transparency of government policymaking.....	4.3	55
1.13 Business costs of terrorism .....	5.0	99
1.14 Business costs of crime and violence.....	4.3	91
1.15 Organized crime.....	4.6	97
1.16 Reliability of police services .....	4.3	69
1.17 Ethical behavior of firms .....	3.5	116
1.18 Strength of auditing and reporting standards .....	3.7	132
1.19 Efficacy of corporate boards .....	4.8	55
1.20 Protection of minority shareholders' interests .....	4.0	81
1.21 Strength of investor protection, 0–10 (best)* .....	4.3	107
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	3.1	128
2.02 Quality of roads.....	2.8	116
2.03 Quality of railroad infrastructure.....	2.5	77
2.04 Quality of port infrastructure.....	3.7	100
2.05 Quality of air transport infrastructure.....	3.5	112
2.06 Available airline seat km/week, millions* .....	50.2	98
2.07 Quality of electricity supply .....	2.6	124
2.08 Mobile telephone subscriptions/100 pop.* .....	64.0	127
2.09 Fixed telephone lines/100 pop.* .....	3.6	112
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	-0.9	40
3.02 Gross national savings, % GDP* .....	15.3	95
3.03 Inflation, annual % change* .....	3.0	49
3.04 General government debt, % GDP* .....	14.9	15
3.05 Country credit rating, 0–100 (best)* .....	23.9	122
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	3.4	128
4.02 Malaria cases/100,000 pop.* .....	24,202.5	134
4.03 Business impact of tuberculosis.....	4.1	123
4.04 Tuberculosis cases/100,000 pop.* .....	243.0	128
4.05 Business impact of HIV/AIDS .....	4.0	124
4.06 HIV prevalence, % adult pop.* .....	4.60	134
4.07 Infant mortality, deaths/1,000 live births* .....	79.2	141
4.08 Life expectancy, years* .....	51.6	138
4.09 Quality of primary education.....	3.6	88
4.10 Primary education enrollment, net %* .....	91.9	93
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	51.3	120
5.02 Tertiary education enrollment, gross %* .....	12.4	108
5.03 Quality of the educational system.....	3.9	60
5.04 Quality of math and science education .....	4.1	72
5.05 Quality of management schools.....	4.6	48
5.06 Internet access in schools.....	2.3	135
5.07 Availability of research and training services .....	4.1	75
5.08 Extent of staff training .....	3.9	78
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	4.7	92
6.02 Extent of market dominance .....	4.2	42
6.03 Effectiveness of anti-monopoly policy.....	4.3	54
6.04 Effect of taxation on incentives to invest.....	3.1	120
6.05 Total tax rate, % profits* .....	49.1	111

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	5	30
6.07 No. days to start a business* .....	15	70
6.08 Agricultural policy costs.....	3.7	88
6.09 Prevalence of trade barriers .....	4.2	86
6.10 Trade tariffs, % duty* .....	14.9	136
6.11 Prevalence of foreign ownership.....	5.4	24
6.12 Business impact of rules on FDI.....	4.9	40
6.13 Burden of customs procedures.....	4.0	77
6.14 Imports as a percentage of GDP* .....	32.5	114
6.15 Degree of customer orientation .....	4.1	117
6.16 Buyer sophistication .....	3.0	108
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	3.7	126
7.02 Flexibility of wage determination.....	4.5	107
7.03 Hiring and firing practices.....	4.7	18
7.04 Redundancy costs, weeks of salary* .....	15.3	74
7.05 Effect of taxation on incentives to work .....	3.3	103
7.06 Pay and productivity.....	3.3	124
7.07 Reliance on professional management .....	3.9	93
7.08 Country capacity to retain talent.....	2.9	106
7.09 Country capacity to attract talent .....	2.8	104
7.10 Women in labor force, ratio to men* .....	0.85	56
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	3.9	103
8.02 Affordability of financial services .....	3.7	107
8.03 Financing through local equity market.....	3.0	96
8.04 Ease of access to loans .....	2.4	101
8.05 Venture capital availability.....	2.2	112
8.06 Soundness of banks .....	4.8	81
8.07 Regulation of securities exchanges .....	3.0	126
8.08 Legal rights index, 0–10 (best)* .....	6	65
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	4.2	111
9.02 Firm-level technology absorption.....	4.4	94
9.03 FDI and technology transfer .....	4.6	69
9.04 Individuals using Internet, %* .....	5.7	130
9.05 Fixed broadband Internet subscriptions/100 pop.* ...	0.0	145
9.06 Int'l Internet bandwidth, kb/s per user* .....	0.3	146
9.07 Mobile broadband subscriptions/100 pop.* .....	0.0	136
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	3.1	86
10.02 Foreign market size index, 1–7 (best)* .....	3.7	104
10.03 GDP (PPP\$ billions)* .....	50.8	88
10.04 Exports as a percentage of GDP* .....	22.5	128
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.4	97
11.02 Local supplier quality.....	3.9	110
11.03 State of cluster development.....	3.5	93
11.04 Nature of competitive advantage.....	2.8	125
11.05 Value chain breadth.....	3.8	65
11.06 Control of international distribution .....	3.3	131
11.07 Production process sophistication.....	3.3	104
11.08 Extent of marketing.....	3.6	111
11.09 Willingness to delegate authority .....	3.4	97
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	3.1	105
12.02 Quality of scientific research institutions .....	3.3	93
12.03 Company spending on R&D.....	2.9	89
12.04 University-industry collaboration in R&D.....	3.0	115
12.05 Gov't procurement of advanced tech products.....	3.9	38
12.06 Availability of scientists and engineers .....	4.4	51
12.07 PCT patents, applications/million pop.* .....	0.2	89

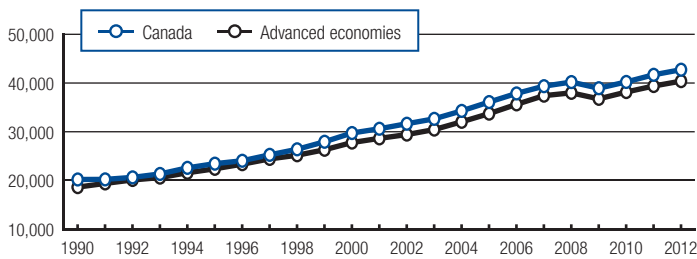
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Canada

## Key indicators, 2012

Population (millions)	34.5
GDP (US\$ billions)	1,819.1
GDP per capita (US\$)	52,232
GDP (PPP) as share (%) of world total	1.79

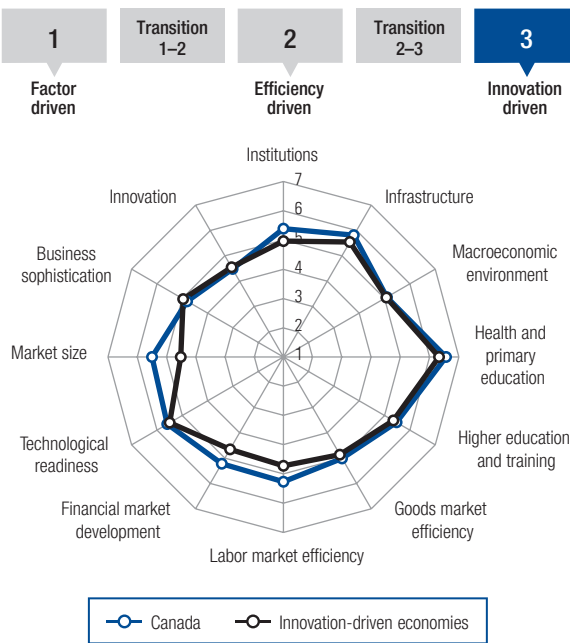
GDP (PPP) per capita (int'l \$), 1990–2012



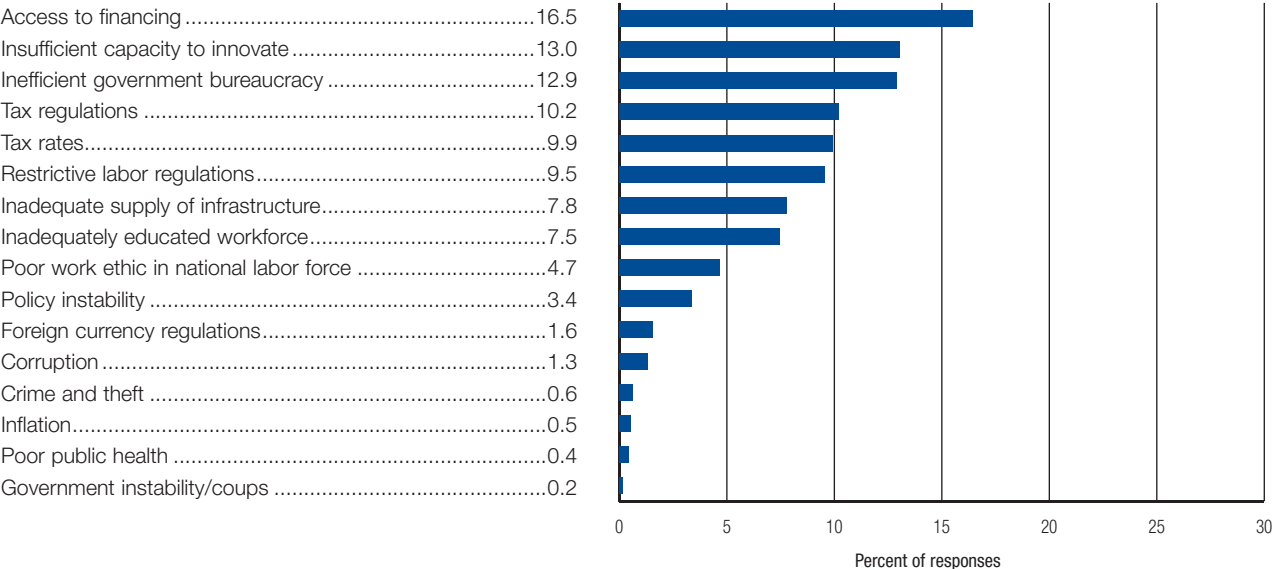
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>14</b>	<b>5.2</b>
GCI 2012–2013 (out of 144)	14	5.3
GCI 2011–2012 (out of 142)	12	5.3
<b>Basic requirements (20.0%)</b>	<b>15</b>	<b>5.7</b>
Institutions	14	5.4
Infrastructure	12	5.8
Macroeconomic environment	50	5.1
Health and primary education	7	6.6
<b>Efficiency enhancers (50.0%)</b>	<b>6</b>	<b>5.3</b>
Higher education and training	16	5.5
Goods market efficiency	17	5.0
Labor market efficiency	7	5.3
Financial market development	12	5.2
Technological readiness	21	5.6
Market size	13	5.5
<b>Innovation and sophistication factors (30.0%)</b>	<b>25</b>	<b>4.6</b>
Business sophistication	25	4.8
Innovation	21	4.5

### Stage of development



## The most problematic factors for doing business



**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.



# Canada

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148	INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>			<b>6th pillar: Goods market efficiency (cont'd.)</b>		
1.01 Property rights .....	6.0	6	6.06 No. procedures to start a business* .....	1	1
1.02 Intellectual property protection .....	5.6	13	6.07 No. days to start a business* .....	5	10
1.03 Diversion of public funds .....	5.3	19	6.08 Agricultural policy costs .....	4.1	43
1.04 Public trust in politicians .....	4.5	15	6.09 Prevalence of trade barriers .....	4.4	65
1.05 Irregular payments and bribes .....	5.8	18	6.10 Trade tariffs, % duty* .....	2.6	38
1.06 Judicial independence .....	6.2	10	6.11 Prevalence of foreign ownership .....	5.6	12
1.07 Favoritism in decisions of government officials .....	4.2	20	6.12 Business impact of rules on FDI .....	4.7	58
1.08 Wastefulness of government spending .....	4.1	24	6.13 Burden of customs procedures .....	4.8	36
1.09 Burden of government regulation .....	3.7	52	6.14 Imports as a percentage of GDP* .....	31.9	118
1.10 Efficiency of legal framework in settling disputes .....	5.4	11	6.15 Degree of customer orientation .....	5.3	28
1.11 Efficiency of legal framework in challenging regs. ....	4.8	15	6.16 Buyer sophistication .....	4.4	15
1.12 Transparency of government policymaking .....	5.1	16	<b>7th pillar: Labor market efficiency</b>		
1.13 Business costs of terrorism .....	5.2	88	7.01 Cooperation in labor-employer relations .....	4.9	31
1.14 Business costs of crime and violence .....	5.3	40	7.02 Flexibility of wage determination .....	5.5	30
1.15 Organized crime .....	5.5	53	7.03 Hiring and firing practices .....	4.7	16
1.16 Reliability of police services .....	6.0	14	7.04 Redundancy costs, weeks of salary* .....	10.0	39
1.17 Ethical behavior of firms .....	5.7	13	7.05 Effect of taxation on incentives to work .....	4.3	28
1.18 Strength of auditing and reporting standards .....	6.0	9	7.06 Pay and productivity .....	4.5	28
1.19 Efficacy of corporate boards .....	5.3	14	7.07 Reliance on professional management .....	5.9	10
1.20 Protection of minority shareholders' interests .....	5.2	16	7.08 Country capacity to retain talent .....	4.6	19
1.21 Strength of investor protection, 0–10 (best)* .....	8.7	4	7.09 Country capacity to attract talent .....	5.1	9
<b>2nd pillar: Infrastructure</b>			7.10 Women in labor force, ratio to men* .....	0.91	27
2.01 Quality of overall infrastructure .....	5.8	15	<b>8th pillar: Financial market development</b>		
2.02 Quality of roads .....	5.6	19	8.01 Availability of financial services .....	6.1	9
2.03 Quality of railroad infrastructure .....	5.0	16	8.02 Affordability of financial services .....	5.6	11
2.04 Quality of port infrastructure .....	5.5	20	8.03 Financing through local equity market .....	4.7	15
2.05 Quality of air transport infrastructure .....	5.9	19	8.04 Ease of access to loans .....	3.6	26
2.06 Available airline seat km/week, millions* .....	3,364.6	12	8.05 Venture capital availability .....	3.4	23
2.07 Quality of electricity supply .....	6.5	16	8.06 Soundness of banks .....	6.7	1
2.08 Mobile telephone subscriptions/100 pop.* .....	75.7	119	8.07 Regulation of securities exchanges .....	5.4	16
2.09 Fixed telephone lines/100 pop.* .....	51.9	11	8.08 Legal rights index, 0–10 (best)* .....	7	42
<b>3rd pillar: Macroeconomic environment</b>			<b>9th pillar: Technological readiness</b>		
3.01 Government budget balance, % GDP* .....	-3.2	86	9.01 Availability of latest technologies .....	6.1	19
3.02 Gross national savings, % GDP* .....	20.8	67	9.02 Firm-level technology absorption .....	5.4	34
3.03 Inflation, annual % change* .....	1.5	1	9.03 FDI and technology transfer .....	4.8	52
3.04 General government debt, % GDP* .....	85.6	133	9.04 Individuals using Internet, %* .....	86.8	12
3.05 Country credit rating, 0–100 (best)* .....	92.4	5	9.05 Fixed broadband Internet subscriptions/100 pop.* .....	32.9	11
<b>4th pillar: Health and primary education</b>			9.06 Int'l Internet bandwidth, kb/s per user* .....	101.0	18
4.01 Business impact of malaria .....	N/Apl.	1	9.07 Mobile broadband subscriptions/100 pop.* .....	50.0	31
4.02 Malaria cases/100,000 pop.* .....	(NE)	1	<b>10th pillar: Market size</b>		
4.03 Business impact of tuberculosis .....	6.5	17	10.01 Domestic market size index, 1–7 (best)* .....	5.4	13
4.04 Tuberculosis cases/100,000 pop.* .....	4.5	11	10.02 Foreign market size index, 1–7 (best)* .....	5.8	21
4.05 Business impact of HIV/AIDS .....	6.1	29	10.03 GDP (PPP\$ billions)* .....	1,488.3	13
4.06 HIV prevalence, % adult pop.* .....	0.30	60	10.04 Exports as a percentage of GDP* .....	29.3	100
4.07 Infant mortality, deaths/1,000 live births* .....	4.9	33	<b>11th pillar: Business sophistication</b>		
4.08 Life expectancy, years* .....	80.9	17	11.01 Local supplier quantity .....	5.0	36
4.09 Quality of primary education .....	5.5	13	11.02 Local supplier quality .....	5.5	12
4.10 Primary education enrollment, net %* .....	99.8	3	11.03 State of cluster development .....	4.8	18
<b>5th pillar: Higher education and training</b>			11.04 Nature of competitive advantage .....	3.8	52
5.01 Secondary education enrollment, gross %* .....	101.5	32	11.05 Value chain breadth .....	3.9	57
5.02 Tertiary education enrollment, gross %* .....	59.3	38	11.06 Control of international distribution .....	4.3	44
5.03 Quality of the educational system .....	5.2	10	11.07 Production process sophistication .....	5.1	23
5.04 Quality of math and science education .....	5.2	17	11.08 Extent of marketing .....	5.2	23
5.05 Quality of management schools .....	5.7	7	11.09 Willingness to delegate authority .....	5.0	11
5.06 Internet access in schools .....	6.1	11	<b>12th pillar: Innovation</b>		
5.07 Availability of research and training services .....	5.4	18	12.01 Capacity for innovation .....	4.3	27
5.08 Extent of staff training .....	4.5	34	12.02 Quality of scientific research institutions .....	5.5	16
<b>6th pillar: Goods market efficiency</b>			12.03 Company spending on R&D .....	3.8	29
6.01 Intensity of local competition .....	5.4	33	12.04 University-industry collaboration in R&D .....	4.9	18
6.02 Extent of market dominance .....	4.7	20	12.05 Gov't procurement of advanced tech products .....	3.6	55
6.03 Effectiveness of anti-monopoly policy .....	4.5	39	12.06 Availability of scientists and engineers .....	5.2	9
6.04 Effect of taxation on incentives to invest .....	4.4	26	12.07 PCT patents, applications/million pop.* .....	81.3	20
6.05 Total tax rate, % profits* .....	26.9	25			

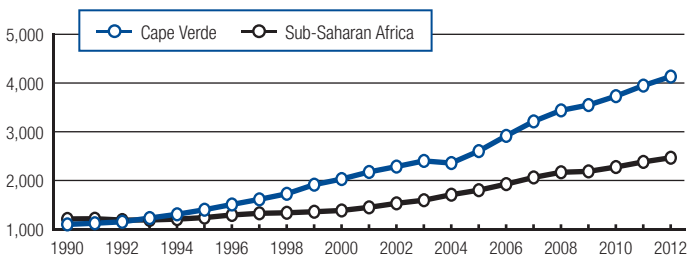
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Cape Verde

## Key indicators, 2012

Population (millions)	0.5
GDP (US\$ billions)	1.9
GDP per capita (US\$)	3,604
GDP (PPP) as share (%) of world total	0.00

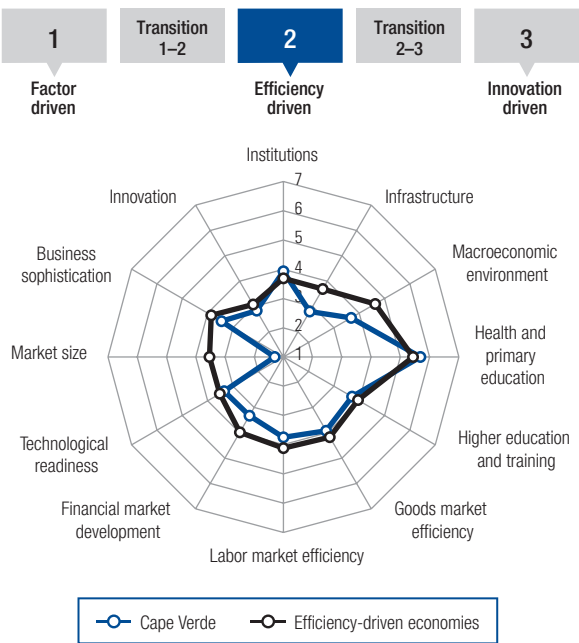
GDP (PPP) per capita (int'l \$), 1990–2012



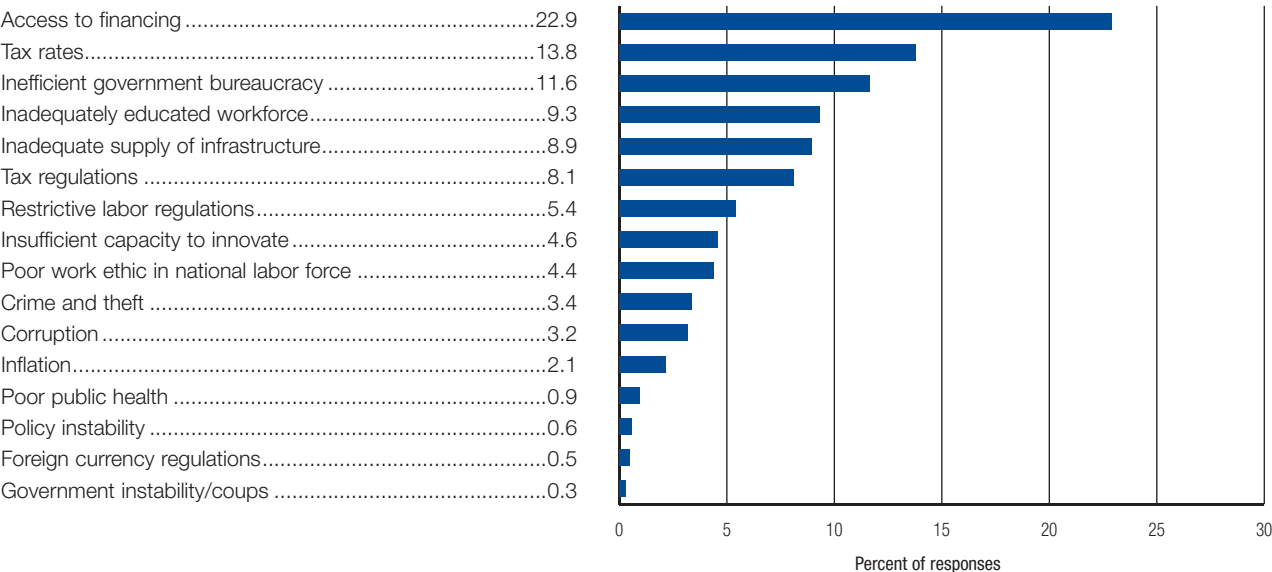
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>122</b>	<b>3.5</b>
GCI 2012–2013 (out of 144)	122	3.5
GCI 2011–2012 (out of 142)	119	3.6
<b>Basic requirements (40.0%)</b>	<b>103</b>	<b>4.0</b>
Institutions	69	3.9
Infrastructure	116	2.8
Macroeconomic environment	128	3.7
Health and primary education	75	5.7
<b>Efficiency enhancers (50.0%)</b>	<b>130</b>	<b>3.2</b>
Higher education and training	94	3.7
Goods market efficiency	112	3.9
Labor market efficiency	129	3.7
Financial market development	127	3.3
Technological readiness	91	3.3
Market size	148	1.3
<b>Innovation and sophistication factors (10.0%)</b>	<b>118</b>	<b>3.1</b>
Business sophistication	121	3.4
Innovation	116	2.8

### Stage of development



## The most problematic factors for doing business



**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/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	3.9	90
1.02 Intellectual property protection .....	3.0	105
1.03 Diversion of public funds .....	3.9	<b>45</b>
1.04 Public trust in politicians.....	3.6	<b>38</b>
1.05 Irregular payments and bribes.....	4.6	<b>46</b>
1.06 Judicial independence.....	4.1	53
1.07 Favoritism in decisions of government officials .....	3.3	57
1.08 Wastefulness of government spending .....	3.4	61
1.09 Burden of government regulation .....	3.7	<b>46</b>
1.10 Efficiency of legal framework in settling disputes.....	3.7	72
1.11 Efficiency of legal framework in challenging regs. ....	3.5	64
1.12 Transparency of government policymaking.....	4.2	68
1.13 Business costs of terrorism .....	5.5	72
1.14 Business costs of crime and violence.....	3.9	109
1.15 Organized crime.....	4.4	104
1.16 Reliability of police services .....	4.4	63
1.17 Ethical behavior of firms .....	4.2	52
1.18 Strength of auditing and reporting standards .....	3.8	119
1.19 Efficacy of corporate boards .....	4.0	121
1.20 Protection of minority shareholders' interests .....	3.8	98
1.21 Strength of investor protection, 0–10 (best)* .....	4.0	116
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	3.6	100
2.02 Quality of roads.....	4.1	68
2.03 Quality of railroad infrastructure.....	N/Apl.	n/a
2.04 Quality of port infrastructure.....	3.8	91
2.05 Quality of air transport infrastructure.....	4.0	95
2.06 Available airline seat km/week, millions* .....	40.4	107
2.07 Quality of electricity supply .....	1.9	139
2.08 Mobile telephone subscriptions/100 pop.* .....	84.2	113
2.09 Fixed telephone lines/100 pop.* .....	13.9	83
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	-7.5	136
3.02 Gross national savings, % GDP* .....	21.8	61
3.03 Inflation, annual % change* .....	2.5	<b>1</b>
3.04 General government debt, % GDP* .....	103.4	139
3.05 Country credit rating, 0–100 (best)* .....	31.8	102
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	5.4	95
4.02 Malaria cases/100,000 pop.* .....	28.0	91
4.03 Business impact of tuberculosis.....	5.1	90
4.04 Tuberculosis cases/100,000 pop.* .....	145.0	109
4.05 Business impact of HIV/AIDS .....	5.1	87
4.06 HIV prevalence, % adult pop.* .....	1.00	107
4.07 Infant mortality, deaths/1,000 live births* .....	18.2	85
4.08 Life expectancy, years* .....	73.9	70
4.09 Quality of primary education.....	3.9	73
4.10 Primary education enrollment, net %* .....	93.5	78
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	89.7	72
5.02 Tertiary education enrollment, gross %* .....	20.4	92
5.03 Quality of the educational system.....	3.9	61
5.04 Quality of math and science education .....	3.5	100
5.05 Quality of management schools.....	3.5	116
5.06 Internet access in schools.....	3.8	91
5.07 Availability of research and training services .....	3.4	124
5.08 Extent of staff training .....	3.4	118
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	4.3	122
6.02 Extent of market dominance .....	3.9	63
6.03 Effectiveness of anti-monopoly policy.....	3.7	102
6.04 Effect of taxation on incentives to invest.....	3.3	109
6.05 Total tax rate, % profits* .....	37.2	72

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	8	88
6.07 No. days to start a business* .....	11	54
6.08 Agricultural policy costs.....	3.9	68
6.09 Prevalence of trade barriers .....	3.8	127
6.10 Trade tariffs, % duty* .....	10.1	107
6.11 Prevalence of foreign ownership.....	4.5	81
6.12 Business impact of rules on FDI.....	4.4	87
6.13 Burden of customs procedures.....	3.3	120
6.14 Imports as a percentage of GDP* .....	55.4	52
6.15 Degree of customer orientation .....	3.6	139
6.16 Buyer sophistication .....	2.9	111
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	3.8	118
7.02 Flexibility of wage determination.....	5.2	57
7.03 Hiring and firing practices.....	3.5	104
7.04 Redundancy costs, weeks of salary* .....	29.5	127
7.05 Effect of taxation on incentives to work .....	3.4	97
7.06 Pay and productivity.....	3.2	128
7.07 Reliance on professional management .....	3.5	124
7.08 Country capacity to retain talent.....	3.6	59
7.09 Country capacity to attract talent .....	3.5	71
7.10 Women in labor force, ratio to men* .....	0.64	110
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	3.7	122
8.02 Affordability of financial services .....	3.6	117
8.03 Financing through local equity market.....	3.0	97
8.04 Ease of access to loans .....	2.3	115
8.05 Venture capital availability.....	2.3	100
8.06 Soundness of banks .....	4.6	92
8.07 Regulation of securities exchanges .....	3.6	103
8.08 Legal rights index, 0–10 (best)* .....	3	118
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	4.8	78
9.02 Firm-level technology absorption.....	4.5	85
9.03 FDI and technology transfer .....	4.7	62
9.04 Individuals using Internet, %* .....	34.7	89
9.05 Fixed broadband Internet subscriptions/100 pop.* .....	3.8	88
9.06 Int'l Internet bandwidth, kb/s per user* .....	6.2	106
9.07 Mobile broadband subscriptions/100 pop.* .....	22.5	64
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	1.0	147
10.02 Foreign market size index, 1–7 (best)* .....	2.1	146
10.03 GDP (PPP\$ billions)* .....	2.2	148
10.04 Exports as a percentage of GDP* .....	33.3	87
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	3.9	131
11.02 Local supplier quality.....	3.8	118
11.03 State of cluster development.....	3.3	112
11.04 Nature of competitive advantage.....	3.6	62
11.05 Value chain breadth.....	3.1	123
11.06 Control of international distribution .....	3.3	130
11.07 Production process sophistication.....	3.3	109
11.08 Extent of marketing.....	3.5	115
11.09 Willingness to delegate authority .....	3.3	116
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	2.9	126
12.02 Quality of scientific research institutions .....	3.0	115
12.03 Company spending on R&D.....	2.6	121
12.04 University-industry collaboration in R&D .....	3.2	103
12.05 Gov't procurement of advanced tech products.....	3.8	<b>41</b>
12.06 Availability of scientists and engineers .....	3.3	122
12.07 PCT patents, applications/million pop.* .....	0.0	126

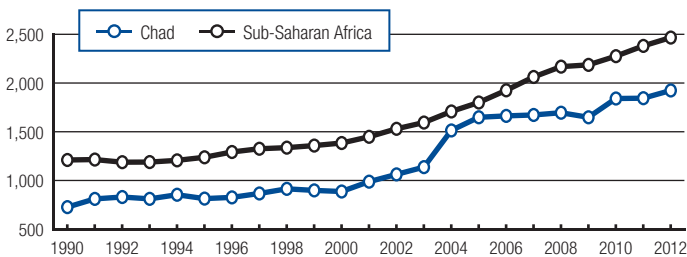
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Chad

## Key indicators, 2012

Population (millions)	11.5
GDP (US\$ billions)	10.8
GDP per capita (US\$)	1,006
GDP (PPP) as share (%) of world total	0.03

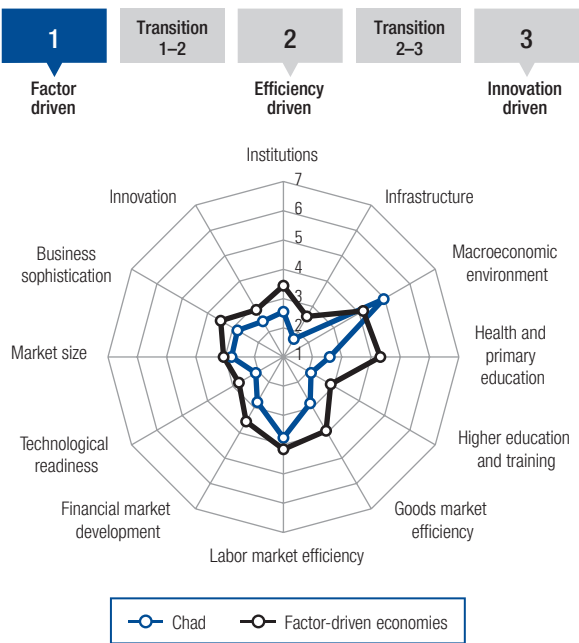
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

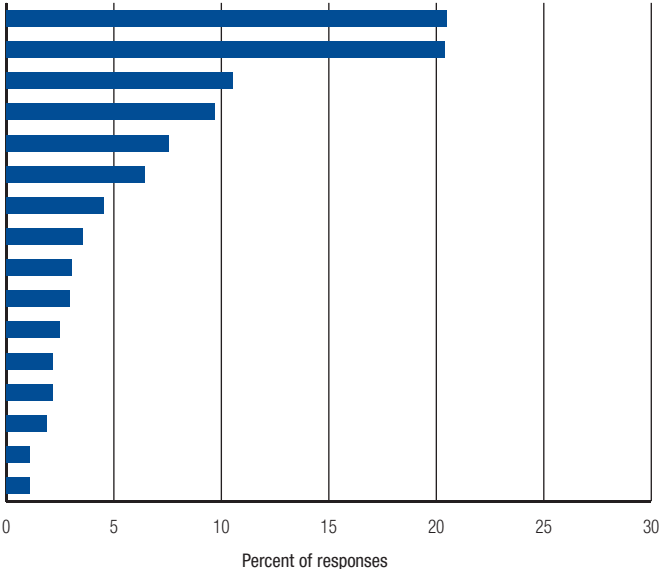
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>148</b>	<b>2.9</b>
GCI 2012–2013 (out of 144)	139	3.1
GCI 2011–2012 (out of 142)	142	2.9
<b>Basic requirements (60.0%)</b>	<b>147</b>	<b>2.9</b>
Institutions	147	2.5
Infrastructure	148	1.7
Macroeconomic environment	56	5.0
Health and primary education	148	2.6
<b>Efficiency enhancers (35.0%)</b>	<b>146</b>	<b>2.7</b>
Higher education and training	145	2.1
Goods market efficiency	147	2.8
Labor market efficiency	128	3.8
Financial market development	139	2.8
Technological readiness	147	2.1
Market size	115	2.8
<b>Innovation and sophistication factors (5.0%)</b>	<b>144</b>	<b>2.6</b>
Business sophistication	147	2.8
Innovation	139	2.4

### Stage of development



## The most problematic factors for doing business

Access to financing	20.5
Corruption	20.4
Inadequate supply of infrastructure	10.5
Tax rates	9.7
Inadequately educated workforce	7.6
Tax regulations	6.4
Inefficient government bureaucracy	4.5
Poor work ethic in national labor force	3.5
Crime and theft	3.0
Policy instability	3.0
Government instability/coups	2.5
Inflation	2.1
Restrictive labor regulations	2.1
Insufficient capacity to innovate	1.9
Foreign currency regulations	1.1
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.

## Chad

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	2.4	146
1.02 Intellectual property protection .....	2.2	144
1.03 Diversion of public funds .....	1.8	146
1.04 Public trust in politicians.....	2.2	116
1.05 Irregular payments and bribes.....	2.2	148
1.06 Judicial independence.....	2.0	144
1.07 Favoritism in decisions of government officials .....	2.2	139
1.08 Wastefulness of government spending .....	2.1	136
1.09 Burden of government regulation .....	3.0	108
1.10 Efficiency of legal framework in settling disputes.....	2.4	142
1.11 Efficiency of legal framework in challenging regs. ....	2.2	145
1.12 Transparency of government policymaking.....	2.8	146
1.13 Business costs of terrorism .....	3.6	139
1.14 Business costs of crime and violence.....	3.1	133
1.15 Organized crime.....	3.3	139
1.16 Reliability of police services .....	2.3	144
1.17 Ethical behavior of firms .....	2.9	144
1.18 Strength of auditing and reporting standards .....	3.2	137
1.19 Efficacy of corporate boards .....	3.2	146
1.20 Protection of minority shareholders' interests .....	2.6	148
1.21 Strength of investor protection, 0–10 (best)* .....	3.3	129
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	2.3	143
2.02 Quality of roads.....	2.5	135
2.03 Quality of railroad infrastructure.....	N/Apl.	n/a
2.04 Quality of port infrastructure.....	2.5	143
2.05 Quality of air transport infrastructure.....	2.1	147
2.06 Available airline seat km/week, millions* .....	7.7	139
2.07 Quality of electricity supply .....	1.6	145
2.08 Mobile telephone subscriptions/100 pop.* .....	35.5	143
2.09 Fixed telephone lines/100 pop.* .....	0.3	144
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP*.....	-1.4	48
3.02 Gross national savings, % GDP* .....	33.0	17
3.03 Inflation, annual % change* .....	7.7	118
3.04 General government debt, % GDP* .....	34.5	53
3.05 Country credit rating, 0–100 (best)* .....	15.9	142
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	2.5	147
4.02 Malaria cases/100,000 pop.* .....	36,280.1	147
4.03 Business impact of tuberculosis.....	3.0	147
4.04 Tuberculosis cases/100,000 pop.* .....	151.0	110
4.05 Business impact of HIV/AIDS.....	2.8	147
4.06 HIV prevalence, % adult pop.* .....	3.10	132
4.07 Infant mortality, deaths/1,000 live births* .....	97.1	146
4.08 Life expectancy, years* .....	49.5	144
4.09 Quality of primary education.....	2.1	145
4.10 Primary education enrollment, net %* .....	62.3	142
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	25.4	146
5.02 Tertiary education enrollment, gross %* .....	2.3	145
5.03 Quality of the educational system.....	2.7	131
5.04 Quality of math and science education .....	2.9	127
5.05 Quality of management schools.....	2.7	140
5.06 Internet access in schools.....	1.3	148
5.07 Availability of research and training services .....	3.0	139
5.08 Extent of staff training .....	2.8	145
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	3.3	145
6.02 Extent of market dominance .....	2.6	145
6.03 Effectiveness of anti-monopoly policy.....	2.7	145
6.04 Effect of taxation on incentives to invest.....	1.9	148
6.05 Total tax rate, % profits* .....	65.4	133

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	9	104
6.07 No. days to start a business* .....	62	135
6.08 Agricultural policy costs.....	3.4	118
6.09 Prevalence of trade barriers .....	3.1	147
6.10 Trade tariffs, % duty* .....	14.9	137
6.11 Prevalence of foreign ownership.....	3.4	133
6.12 Business impact of rules on FDI.....	3.4	130
6.13 Burden of customs procedures.....	2.2	145
6.14 Imports as a percentage of GDP* .....	54.2	56
6.15 Degree of customer orientation .....	2.6	147
6.16 Buyer sophistication .....	2.0	146
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	3.3	141
7.02 Flexibility of wage determination.....	5.1	70
7.03 Hiring and firing practices.....	3.8	87
7.04 Redundancy costs, weeks of salary* .....	13.0	59
7.05 Effect of taxation on incentives to work .....	2.2	144
7.06 Pay and productivity.....	2.9	137
7.07 Reliance on professional management.....	2.1	148
7.08 Country capacity to retain talent.....	2.2	135
7.09 Country capacity to attract talent .....	2.7	108
7.10 Women in labor force, ratio to men*.....	0.81	70
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	2.6	145
8.02 Affordability of financial services .....	2.7	145
8.03 Financing through local equity market.....	2.1	137
8.04 Ease of access to loans .....	1.9	131
8.05 Venture capital availability.....	1.7	143
8.06 Soundness of banks .....	3.4	139
8.07 Regulation of securities exchanges .....	2.1	141
8.08 Legal rights index, 0–10 (best)* .....	6	65
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	2.9	147
9.02 Firm-level technology absorption.....	3.4	144
9.03 FDI and technology transfer .....	3.2	146
9.04 Individuals using Internet, %* .....	2.1	141
9.05 Fixed broadband Internet subscriptions/100 pop.* ...	0.2	125
9.06 Int'l Internet bandwidth, kb/s per user* .....	0.5	144
9.07 Mobile broadband subscriptions/100 pop.* .....	0.0	136
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)*.....	2.5	113
10.02 Foreign market size index, 1–7 (best)*.....	3.6	110
10.03 GDP (PPP\$ billions)* .....	20.7	117
10.04 Exports as a percentage of GDP* .....	42.7	64
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.5	93
11.02 Local supplier quality.....	3.0	146
11.03 State of cluster development.....	2.9	135
11.04 Nature of competitive advantage.....	2.5	139
11.05 Value chain breadth.....	3.0	132
11.06 Control of international distribution .....	2.9	147
11.07 Production process sophistication.....	2.3	146
11.08 Extent of marketing.....	2.4	147
11.09 Willingness to delegate authority .....	2.3	147
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	2.6	139
12.02 Quality of scientific research institutions .....	2.2	142
12.03 Company spending on R&D.....	2.6	119
12.04 University-industry collaboration in R&D.....	2.5	138
12.05 Gov't procurement of advanced tech products.....	2.8	126
12.06 Availability of scientists and engineers.....	3.3	118
12.07 PCT patents, applications/million pop.* .....	0.0	109

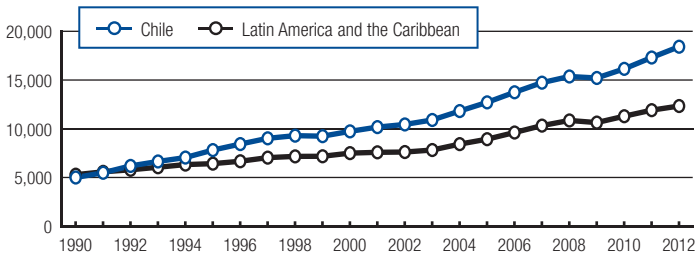
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Chile

## Key indicators, 2012

Population (millions)	17.3
GDP (US\$ billions)	268.2
GDP per capita (US\$)	15,410
GDP (PPP) as share (%) of world total	0.39

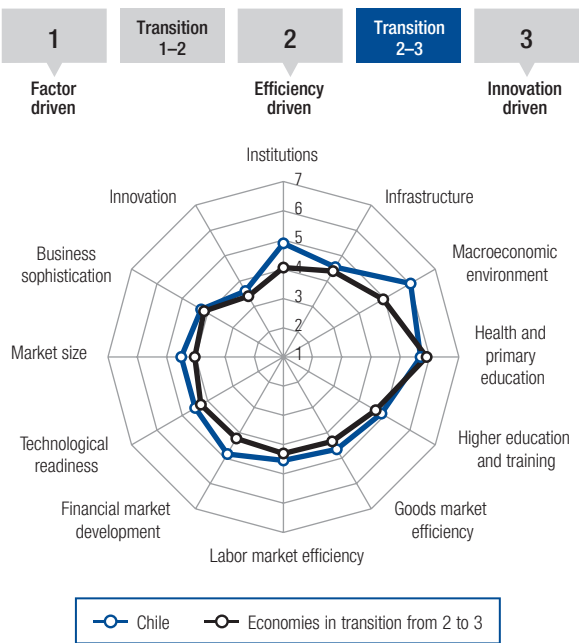
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

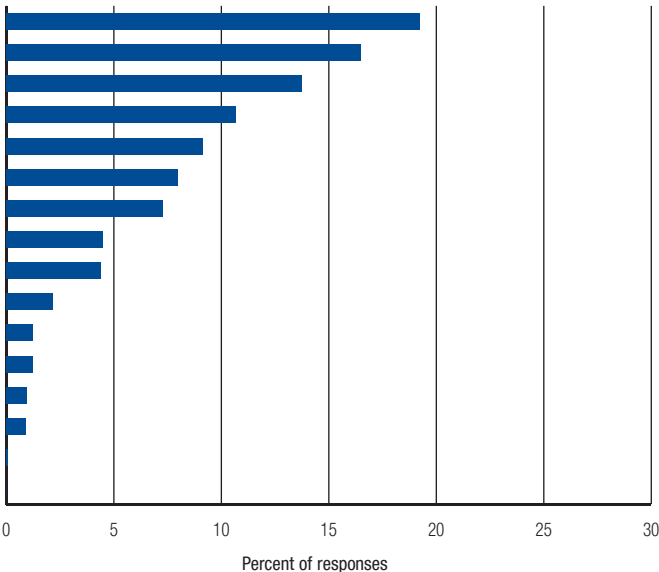
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>34</b>	<b>4.6</b>
GCI 2012–2013 (out of 144)	33	4.6
GCI 2011–2012 (out of 142)	31	4.7
<b>Basic requirements (24.0%)</b>	<b>30</b>	<b>5.3</b>
Institutions	28	4.9
Infrastructure	46	4.5
Macroeconomic environment	17	6.0
Health and primary education	74	5.7
<b>Efficiency enhancers (50.0%)</b>	<b>29</b>	<b>4.6</b>
Higher education and training	38	4.9
Goods market efficiency	36	4.6
Labor market efficiency	45	4.5
Financial market development	20	4.8
Technological readiness	42	4.5
Market size	42	4.5
<b>Innovation and sophistication factors (26.0%)</b>	<b>45</b>	<b>3.9</b>
Business sophistication	54	4.2
Innovation	43	3.6

## Stage of development



## The most problematic factors for doing business

Restrictive labor regulations	19.2
Inadequately educated workforce	16.5
Inefficient government bureaucracy	13.8
Insufficient capacity to innovate	10.7
Tax regulations	9.2
Access to financing	8.0
Inadequate supply of infrastructure	7.3
Tax rates	4.5
Poor work ethic in national labor force	4.4
Poor public health	2.2
Corruption	1.2
Foreign currency regulations	1.2
Policy instability	1.0
Crime and theft	0.9
Inflation	0.1
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.



## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148	INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>			<b>6th pillar: Goods market efficiency (cont'd.)</b>		
1.01 Property rights .....	5.1	35	6.06 No. procedures to start a business* .....	7	74
1.02 Intellectual property protection .....	3.8	60	6.07 No. days to start a business* .....	8	34
1.03 Diversion of public funds .....	5.1	23	6.08 Agricultural policy costs .....	4.5	15
1.04 Public trust in politicians .....	3.8	34	6.09 Prevalence of trade barriers .....	4.8	28
1.05 Irregular payments and bribes .....	5.7	22	6.10 Trade tariffs, % duty* .....	4.7	64
1.06 Judicial independence .....	5.3	27	6.11 Prevalence of foreign ownership .....	5.6	13
1.07 Favoritism in decisions of government officials .....	4.1	22	6.12 Business impact of rules on FDI .....	5.5	10
1.08 Wastefulness of government spending .....	4.6	13	6.13 Burden of customs procedures .....	4.9	27
1.09 Burden of government regulation .....	4.1	26	6.14 Imports as a percentage of GDP* .....	34.7	103
1.10 Efficiency of legal framework in settling disputes .....	4.7	29	6.15 Degree of customer orientation .....	4.4	85
1.11 Efficiency of legal framework in challenging regs. ....	4.4	24	6.16 Buyer sophistication .....	4.0	30
1.12 Transparency of government policymaking .....	5.1	15	<b>7th pillar: Labor market efficiency</b>		
1.13 Business costs of terrorism .....	5.6	68	7.01 Cooperation in labor-employer relations .....	4.6	43
1.14 Business costs of crime and violence .....	4.7	66	7.02 Flexibility of wage determination .....	5.6	19
1.15 Organized crime .....	5.4	54	7.03 Hiring and firing practices .....	4.0	74
1.16 Reliability of police services .....	6.2	7	7.04 Redundancy costs, weeks of salary* .....	27.4	120
1.17 Ethical behavior of firms .....	5.1	27	7.05 Effect of taxation on incentives to work .....	4.6	16
1.18 Strength of auditing and reporting standards .....	5.0	46	7.06 Pay and productivity .....	4.4	33
1.19 Efficacy of corporate boards .....	5.0	27	7.07 Reliance on professional management .....	4.8	36
1.20 Protection of minority shareholders' interests .....	4.5	49	7.08 Country capacity to retain talent .....	5.0	12
1.21 Strength of investor protection, 0–10 (best)* .....	6.3	31	7.09 Country capacity to attract talent .....	4.5	24
<b>2nd pillar: Infrastructure</b>			7.10 Women in labor force, ratio to men* .....	0.66	106
2.01 Quality of overall infrastructure .....	5.0	45	<b>8th pillar: Financial market development</b>		
2.02 Quality of roads .....	5.4	27	8.01 Availability of financial services .....	5.6	20
2.03 Quality of railroad infrastructure .....	2.7	65	8.02 Affordability of financial services .....	5.0	30
2.04 Quality of port infrastructure .....	5.2	32	8.03 Financing through local equity market .....	4.5	24
2.05 Quality of air transport infrastructure .....	5.2	46	8.04 Ease of access to loans .....	3.6	21
2.06 Available airline seat km/week, millions* .....	570.8	35	8.05 Venture capital availability .....	3.3	31
2.07 Quality of electricity supply .....	5.2	65	8.06 Soundness of banks .....	6.3	10
2.08 Mobile telephone subscriptions/100 pop.* .....	138.5	30	8.07 Regulation of securities exchanges .....	4.9	36
2.09 Fixed telephone lines/100 pop.* .....	18.8	64	8.08 Legal rights index, 0–10 (best)* .....	6	65
<b>3rd pillar: Macroeconomic environment</b>			<b>9th pillar: Technological readiness</b>		
3.01 Government budget balance, % GDP* .....	0.6	22	9.01 Availability of latest technologies .....	5.8	34
3.02 Gross national savings, % GDP* .....	21.4	65	9.02 Firm-level technology absorption .....	5.1	45
3.03 Inflation, annual % change* .....	3.0	51	9.03 FDI and technology transfer .....	5.2	20
3.04 General government debt, % GDP* .....	11.2	11	9.04 Individuals using Internet, %* .....	61.4	45
3.05 Country credit rating, 0–100 (best)* .....	80.0	21	9.05 Fixed broadband Internet subscriptions/100 pop.* ..	12.4	51
<b>4th pillar: Health and primary education</b>			9.06 Int'l Internet bandwidth, kb/s per user* .....	40.6	43
4.01 Business impact of malaria .....	N/Apl.	1	9.07 Mobile broadband subscriptions/100 pop.* .....	28.0	56
4.02 Malaria cases/100,000 pop.* .....	(NE)	1	<b>10th pillar: Market size</b>		
4.03 Business impact of tuberculosis .....	6.2	36	10.01 Domestic market size index, 1–7 (best)* .....	4.3	41
4.04 Tuberculosis cases/100,000 pop.* .....	18.0	42	10.02 Foreign market size index, 1–7 (best)* .....	5.0	46
4.05 Business impact of HIV/AIDS .....	5.8	56	10.03 GDP (PPP\$ billions)* .....	320.5	42
4.06 HIV prevalence, % adult pop.* .....	0.50	88	10.04 Exports as a percentage of GDP* .....	34.1	86
4.07 Infant mortality, deaths/1,000 live births* .....	7.7	48	<b>11th pillar: Business sophistication</b>		
4.08 Life expectancy, years* .....	79.0	33	11.01 Local supplier quantity .....	4.6	80
4.09 Quality of primary education .....	3.2	107	11.02 Local supplier quality .....	4.8	44
4.10 Primary education enrollment, net %* .....	93.3	81	11.03 State of cluster development .....	4.1	50
<b>5th pillar: Higher education and training</b>			11.04 Nature of competitive advantage .....	3.3	90
5.01 Secondary education enrollment, gross %* .....	90.1	70	11.05 Value chain breadth .....	3.8	59
5.02 Tertiary education enrollment, gross %* .....	70.7	21	11.06 Control of international distribution .....	4.3	42
5.03 Quality of the educational system .....	3.6	74	11.07 Production process sophistication .....	4.4	39
5.04 Quality of math and science education .....	3.4	107	11.08 Extent of marketing .....	4.8	35
5.05 Quality of management schools .....	5.3	16	11.09 Willingness to delegate authority .....	3.8	66
5.06 Internet access in schools .....	4.9	48	<b>12th pillar: Innovation</b>		
5.07 Availability of research and training services .....	4.6	42	12.01 Capacity for innovation .....	3.5	63
5.08 Extent of staff training .....	4.3	46	12.02 Quality of scientific research institutions .....	4.1	47
<b>6th pillar: Goods market efficiency</b>			12.03 Company spending on R&D .....	3.2	58
6.01 Intensity of local competition .....	5.4	37	12.04 University-industry collaboration in R&D .....	4.3	40
6.02 Extent of market dominance .....	2.9	134	12.05 Gov't procurement of advanced tech products .....	4.0	27
6.03 Effectiveness of anti-monopoly policy .....	4.6	32	12.06 Availability of scientists and engineers .....	4.7	25
6.04 Effect of taxation on incentives to invest .....	4.7	15	12.07 PCT patents, applications/million pop.* .....	5.7	44
6.05 Total tax rate, % profits* .....	28.1	30			

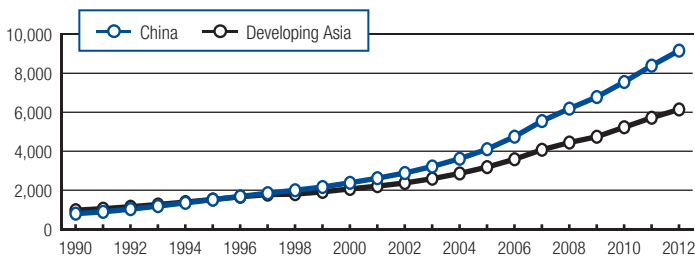
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# China

## Key indicators, 2012

Population (millions)	1,344.1
GDP (US\$ billions)	8,227.0
GDP per capita (US\$)	6,076
GDP (PPP) as share (%) of world total	14.92

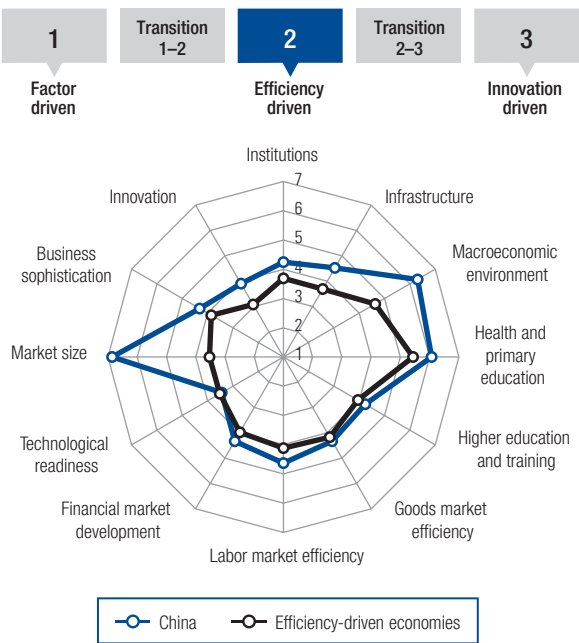
GDP (PPP) per capita (int'l \$), 1990–2012



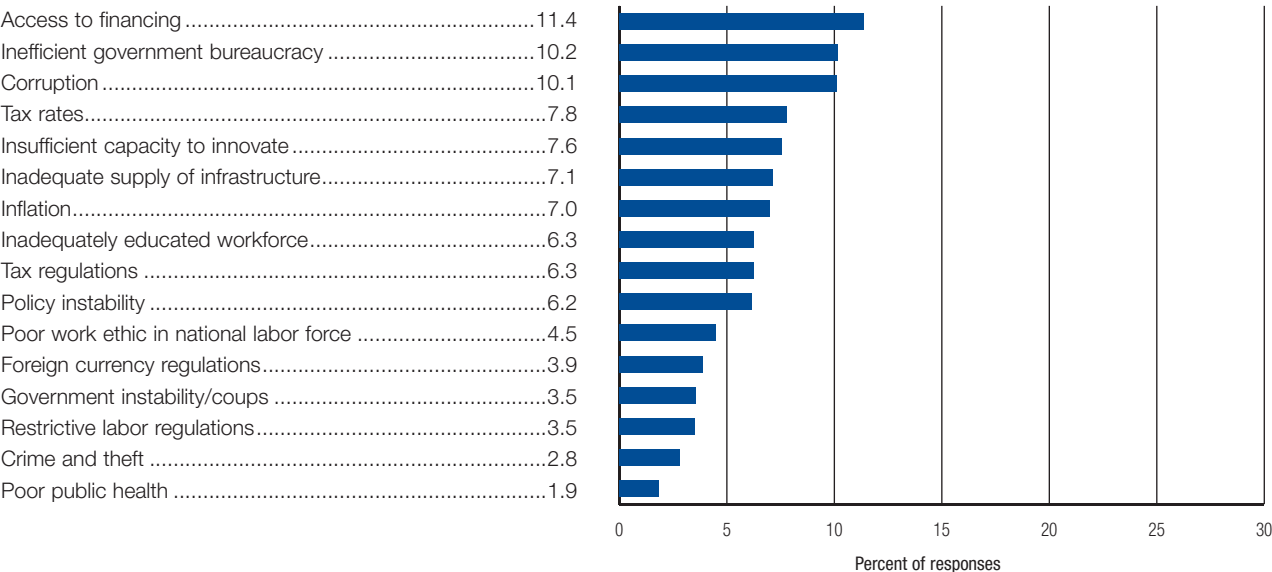
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>29</b>	<b>4.8</b>
GCI 2012–2013 (out of 144)	29	4.8
GCI 2011–2012 (out of 142)	26	4.9
<b>Basic requirements (40.0%)</b>	<b>31</b>	<b>5.3</b>
Institutions	47	4.2
Infrastructure	48	4.5
Macroeconomic environment	10	6.3
Health and primary education	40	6.1
<b>Efficiency enhancers (50.0%)</b>	<b>31</b>	<b>4.6</b>
Higher education and training	70	4.2
Goods market efficiency	61	4.3
Labor market efficiency	34	4.6
Financial market development	54	4.3
Technological readiness	85	3.4
Market size	2	6.9
<b>Innovation and sophistication factors (10.0%)</b>	<b>34</b>	<b>4.1</b>
Business sophistication	45	4.3
Innovation	32	3.9

### Stage of development



## The most problematic factors for doing business



**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.

# China

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	4.6	50
1.02 Intellectual property protection .....	3.9	53
1.03 Diversion of public funds .....	3.9	44
1.04 Public trust in politicians.....	4.1	<b>26</b>
1.05 Irregular payments and bribes.....	4.0	68
1.06 Judicial independence.....	4.0	57
1.07 Favoritism in decisions of government officials .....	4.0	29
1.08 Wastefulness of government spending .....	3.9	29
1.09 Burden of government regulation .....	4.3	<b>14</b>
1.10 Efficiency of legal framework in settling disputes.....	4.2	43
1.11 Efficiency of legal framework in challenging regs. ....	3.8	47
1.12 Transparency of government policymaking.....	4.4	46
1.13 Business costs of terrorism .....	5.0	98
1.14 Business costs of crime and violence.....	4.8	62
1.15 Organized crime.....	4.7	88
1.16 Reliability of police services .....	4.4	59
1.17 Ethical behavior of firms .....	4.2	54
1.18 Strength of auditing and reporting standards .....	4.5	80
1.19 Efficacy of corporate boards .....	4.4	84
1.20 Protection of minority shareholders' interests .....	4.1	75
1.21 Strength of investor protection, 0–10 (best)* .....	5.0	84
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	4.3	74
2.02 Quality of roads.....	4.5	54
2.03 Quality of railroad infrastructure.....	4.7	<b>20</b>
2.04 Quality of port infrastructure.....	4.5	59
2.05 Quality of air transport infrastructure.....	4.5	65
2.06 Available airline seat km/week, millions* .....	12,672.0	<b>2</b>
2.07 Quality of electricity supply .....	5.1	67
2.08 Mobile telephone subscriptions/100 pop.* .....	81.3	116
2.09 Fixed telephone lines/100 pop.* .....	20.6	58
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP*.....	-2.2	61
3.02 Gross national savings, % GDP* .....	49.5	<b>6</b>
3.03 Inflation, annual % change* .....	2.7	<b>1</b>
3.04 General government debt, % GDP* .....	22.8	<b>28</b>
3.05 Country credit rating, 0–100 (best)* .....	78.9	<b>23</b>
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	5.3	97
4.02 Malaria cases/100,000 pop.* .....	0.9	82
4.03 Business impact of tuberculosis.....	5.1	92
4.04 Tuberculosis cases/100,000 pop.* .....	75.0	87
4.05 Business impact of HIV/AIDS.....	5.1	85
4.06 HIV prevalence, % adult pop.* .....	0.10	<b>11</b>
4.07 Infant mortality, deaths/1,000 live births* .....	12.6	65
4.08 Life expectancy, years* .....	73.5	75
4.09 Quality of primary education.....	4.3	56
4.10 Primary education enrollment, net %* .....	99.8	<b>4</b>
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	81.4	90
5.02 Tertiary education enrollment, gross %* .....	26.8	83
5.03 Quality of the educational system.....	4.0	54
5.04 Quality of math and science education .....	4.4	48
5.05 Quality of management schools.....	4.1	83
5.06 Internet access in schools.....	5.3	35
5.07 Availability of research and training services .....	4.4	62
5.08 Extent of staff training .....	4.3	48
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	5.3	46
6.02 Extent of market dominance .....	4.6	<b>23</b>
6.03 Effectiveness of anti-monopoly policy.....	4.3	55
6.04 Effect of taxation on incentives to invest.....	4.1	41
6.05 Total tax rate, % profits* .....	63.7	131

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	13	135
6.07 No. days to start a business* .....	33	112
6.08 Agricultural policy costs.....	4.6	<b>14</b>
6.09 Prevalence of trade barriers .....	4.3	76
6.10 Trade tariffs, % duty* .....	11.0	123
6.11 Prevalence of foreign ownership.....	4.4	91
6.12 Business impact of rules on FDI.....	4.8	45
6.13 Burden of customs procedures.....	4.2	60
6.14 Imports as a percentage of GDP* .....	25.5	135
6.15 Degree of customer orientation .....	4.5	76
6.16 Buyer sophistication .....	4.4	<b>16</b>
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	4.4	60
7.02 Flexibility of wage determination.....	4.8	94
7.03 Hiring and firing practices.....	4.4	<b>28</b>
7.04 Redundancy costs, weeks of salary* .....	27.4	120
7.05 Effect of taxation on incentives to work .....	4.0	42
7.06 Pay and productivity.....	4.7	<b>17</b>
7.07 Reliance on professional management .....	4.6	44
7.08 Country capacity to retain talent.....	4.3	31
7.09 Country capacity to attract talent .....	4.4	<b>26</b>
7.10 Women in labor force, ratio to men*.....	0.88	36
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	4.5	70
8.02 Affordability of financial services .....	4.4	51
8.03 Financing through local equity market.....	4.0	38
8.04 Ease of access to loans .....	3.4	32
8.05 Venture capital availability.....	3.8	<b>16</b>
8.06 Soundness of banks .....	5.0	72
8.07 Regulation of securities exchanges .....	4.3	63
8.08 Legal rights index, 0–10 (best)* .....	6	65
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	4.4	105
9.02 Firm-level technology absorption.....	4.7	71
9.03 FDI and technology transfer .....	4.5	78
9.04 Individuals using Internet, %* .....	42.3	78
9.05 Fixed broadband Internet subscriptions/100 pop.* ..	13.0	49
9.06 Int'l Internet bandwidth, kb/s per user* .....	4.2	118
9.07 Mobile broadband subscriptions/100 pop.* .....	17.2	71
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)*.....	6.8	<b>2</b>
10.02 Foreign market size index, 1–7 (best)*.....	7.0	<b>1</b>
10.03 GDP (PPP\$ billions)* .....	12,405.7	<b>2</b>
10.04 Exports as a percentage of GDP* .....	27.2	111
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	5.0	31
11.02 Local supplier quality.....	4.5	69
11.03 State of cluster development.....	4.6	<b>24</b>
11.04 Nature of competitive advantage.....	3.8	53
11.05 Value chain breadth.....	4.1	43
11.06 Control of international distribution .....	4.3	48
11.07 Production process sophistication.....	4.0	58
11.08 Extent of marketing.....	4.4	50
11.09 Willingness to delegate authority .....	3.9	60
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	4.2	30
12.02 Quality of scientific research institutions .....	4.3	41
12.03 Company spending on R&D.....	4.2	<b>22</b>
12.04 University-industry collaboration in R&D.....	4.4	33
12.05 Gov't procurement of advanced tech products.....	4.4	<b>13</b>
12.06 Availability of scientists and engineers .....	4.5	44
12.07 PCT patents, applications/million pop.* .....	9.2	36

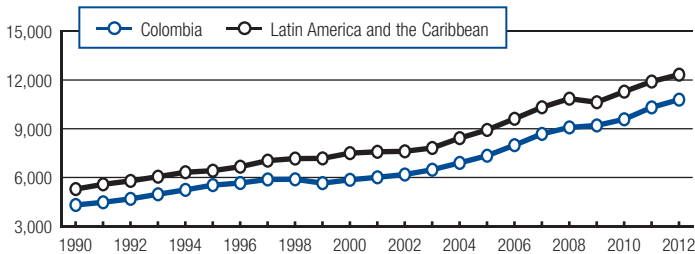
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Colombia

## Key indicators, 2012

Population (millions)	46.9
GDP (US\$ billions)	366.0
GDP per capita (US\$)	7,855
GDP (PPP) as share (%) of world total	0.61

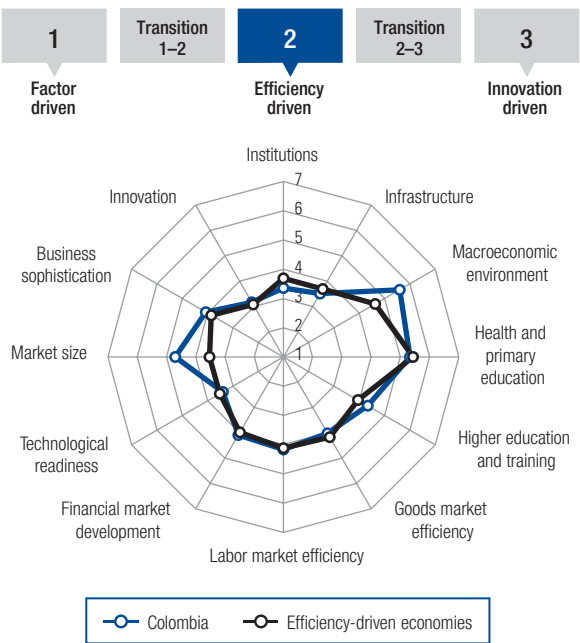
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

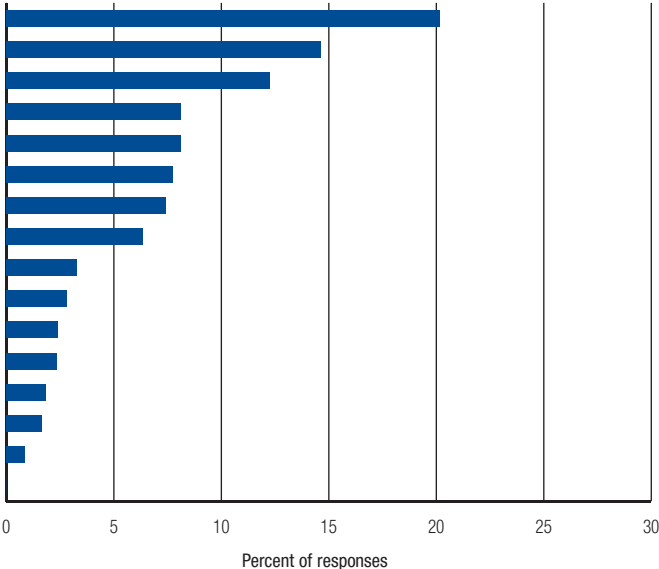
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>69</b>	<b>4.2</b>
GCI 2012–2013 (out of 144)	69	4.2
GCI 2011–2012 (out of 142)	68	4.2
<b>Basic requirements (40.0%)</b>	<b>80</b>	<b>4.4</b>
Institutions	110	3.4
Infrastructure	92	3.5
Macroeconomic environment	33	5.6
Health and primary education	98	5.3
<b>Efficiency enhancers (50.0%)</b>	<b>64</b>	<b>4.1</b>
Higher education and training	60	4.3
Goods market efficiency	102	4.0
Labor market efficiency	87	4.2
Financial market development	63	4.1
Technological readiness	87	3.4
Market size	31	4.7
<b>Innovation and sophistication factors (10.0%)</b>	<b>69</b>	<b>3.6</b>
Business sophistication	63	4.1
Innovation	74	3.2

### Stage of development



## The most problematic factors for doing business

Corruption	20.2
Inadequate supply of infrastructure	14.6
Inefficient government bureaucracy	12.2
Access to financing	8.1
Crime and theft	8.1
Tax rates	7.7
Tax regulations	7.4
Restrictive labor regulations	6.3
Inadequately educated workforce	3.3
Insufficient capacity to innovate	2.8
Poor work ethic in national labor force	2.4
Poor public health	2.3
Policy instability	1.8
Foreign currency regulations	1.7
Inflation	0.9
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.

## Colombia

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	3.8	92
1.02 Intellectual property protection .....	3.2	95
1.03 Diversion of public funds .....	2.3	129
1.04 Public trust in politicians .....	2.0	125
1.05 Irregular payments and bribes .....	3.4	97
1.06 Judicial independence .....	3.0	106
1.07 Favoritism in decisions of government officials .....	2.6	109
1.08 Wastefulness of government spending .....	2.7	106
1.09 Burden of government regulation .....	2.9	114
1.10 Efficiency of legal framework in settling disputes .....	3.4	95
1.11 Efficiency of legal framework in challenging regs. ....	3.2	93
1.12 Transparency of government policymaking .....	4.1	75
1.13 Business costs of terrorism .....	2.7	147
1.14 Business costs of crime and violence .....	2.7	140
1.15 Organized crime .....	2.8	144
1.16 Reliability of police services .....	4.2	73
1.17 Ethical behavior of firms .....	3.6	107
1.18 Strength of auditing and reporting standards .....	4.5	82
1.19 Efficacy of corporate boards .....	4.8	54
1.20 Protection of minority shareholders' interests .....	4.1	76
1.21 Strength of investor protection, 0–10 (best)* .....	8.3	<b>6</b>
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	3.3	117
2.02 Quality of roads .....	2.6	130
2.03 Quality of railroad infrastructure .....	1.5	113
2.04 Quality of port infrastructure .....	3.5	110
2.05 Quality of air transport infrastructure .....	4.0	96
2.06 Available airline seat km/week, millions* .....	527.6	<b>39</b>
2.07 Quality of electricity supply .....	5.2	63
2.08 Mobile telephone subscriptions/100 pop.* .....	103.2	87
2.09 Fixed telephone lines/100 pop.* .....	13.2	84
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	0.2	<b>27</b>
3.02 Gross national savings, % GDP* .....	20.2	72
3.03 Inflation, annual % change* .....	3.2	57
3.04 General government debt, % GDP* .....	32.8	<b>45</b>
3.05 Country credit rating, 0–100 (best)* .....	62.8	<b>42</b>
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	5.2	102
4.02 Malaria cases/100,000 pop.* .....	405.6	111
4.03 Business impact of tuberculosis .....	5.0	94
4.04 Tuberculosis cases/100,000 pop.* .....	34.0	61
4.05 Business impact of HIV/AIDS .....	4.8	98
4.06 HIV prevalence, % adult pop.* .....	0.50	88
4.07 Infant mortality, deaths/1,000 live births* .....	15.4	77
4.08 Life expectancy, years* .....	73.6	72
4.09 Quality of primary education .....	3.3	104
4.10 Primary education enrollment, net %* .....	87.1	113
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	97.5	<b>44</b>
5.02 Tertiary education enrollment, gross %* .....	42.9	61
5.03 Quality of the educational system .....	3.5	86
5.04 Quality of math and science education .....	3.4	108
5.05 Quality of management schools .....	4.3	70
5.06 Internet access in schools .....	3.9	82
5.07 Availability of research and training services .....	4.2	68
5.08 Extent of staff training .....	3.7	93
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	5.1	64
6.02 Extent of market dominance .....	3.4	99
6.03 Effectiveness of anti-monopoly policy .....	4.0	78
6.04 Effect of taxation on incentives to invest .....	3.2	113
6.05 Total tax rate, % profits* .....	74.4	143

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	8	88
6.07 No. days to start a business* .....	13	63
6.08 Agricultural policy costs .....	3.2	122
6.09 Prevalence of trade barriers .....	3.7	131
6.10 Trade tariffs, % duty* .....	6.6	82
6.11 Prevalence of foreign ownership .....	4.4	86
6.12 Business impact of rules on FDI .....	4.5	73
6.13 Burden of customs procedures .....	3.7	90
6.14 Imports as a percentage of GDP* .....	19.0	143
6.15 Degree of customer orientation .....	5.1	<b>33</b>
6.16 Buyer sophistication .....	3.5	65
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	4.5	56
7.02 Flexibility of wage determination .....	5.1	77
7.03 Hiring and firing practices .....	3.8	88
7.04 Redundancy costs, weeks of salary* .....	16.7	82
7.05 Effect of taxation on incentives to work .....	2.9	123
7.06 Pay and productivity .....	3.6	102
7.07 Reliance on professional management .....	4.3	69
7.08 Country capacity to retain talent .....	3.5	63
7.09 Country capacity to attract talent .....	3.1	91
7.10 Women in labor force, ratio to men* .....	0.72	98
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	4.9	52
8.02 Affordability of financial services .....	3.8	101
8.03 Financing through local equity market .....	3.7	55
8.04 Ease of access to loans .....	2.8	71
8.05 Venture capital availability .....	2.6	75
8.06 Soundness of banks .....	5.9	<b>26</b>
8.07 Regulation of securities exchanges .....	4.0	74
8.08 Legal rights index, 0–10 (best)* .....	5	89
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	4.5	96
9.02 Firm-level technology absorption .....	4.4	97
9.03 FDI and technology transfer .....	4.6	72
9.04 Individuals using Internet, %* .....	49.0	66
9.05 Fixed broadband Internet subscriptions/100 pop.* ..	8.4	67
9.06 Int'l Internet bandwidth, kb/s per user* .....	12.2	89
9.07 Mobile broadband subscriptions/100 pop.* .....	4.9	98
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	4.6	<b>28</b>
10.02 Foreign market size index, 1–7 (best)* .....	4.9	54
10.03 GDP (PPP\$ billions)* .....	502.9	<b>28</b>
10.04 Exports as a percentage of GDP* .....	18.0	137
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	5.0	<b>33</b>
11.02 Local supplier quality .....	4.9	<b>38</b>
11.03 State of cluster development .....	3.8	74
11.04 Nature of competitive advantage .....	3.4	77
11.05 Value chain breadth .....	3.7	74
11.06 Control of international distribution .....	4.1	64
11.07 Production process sophistication .....	3.6	77
11.08 Extent of marketing .....	4.0	87
11.09 Willingness to delegate authority .....	3.9	53
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation .....	3.4	83
12.02 Quality of scientific research institutions .....	3.3	95
12.03 Company spending on R&D .....	3.1	73
12.04 University-industry collaboration in R&D .....	3.8	53
12.05 Gov't procurement of advanced tech products .....	3.7	<b>49</b>
12.06 Availability of scientists and engineers .....	3.7	97
12.07 PCT patents, applications/million pop.* .....	1.1	70

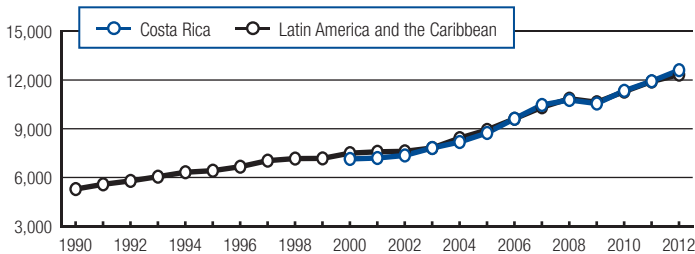
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Costa Rica

## Key indicators, 2012

Population (millions)	4.7
GDP (US\$ billions)	45.1
GDP per capita (US\$)	9,673
GDP (PPP) as share (%) of world total	0.07

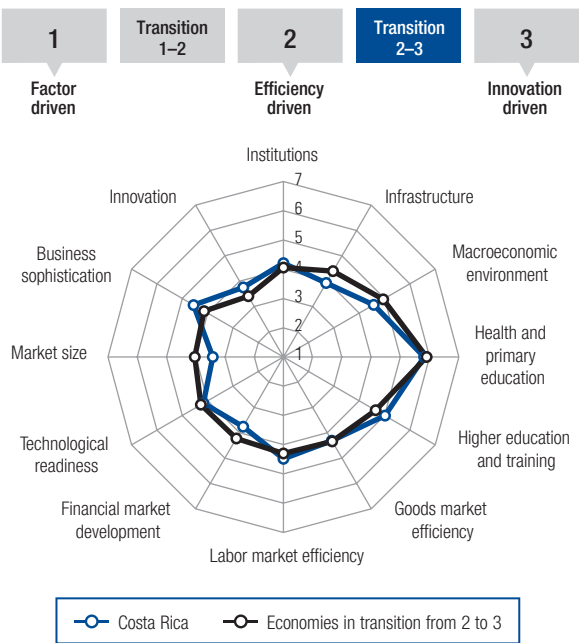
GDP (PPP) per capita (int'l \$), 1990–2012



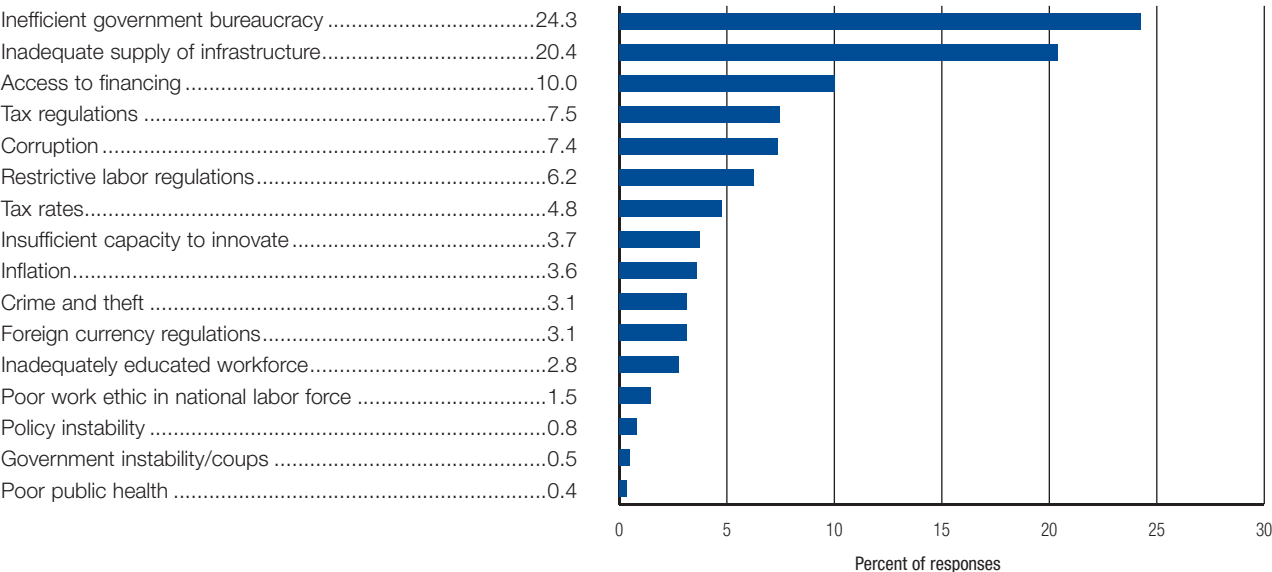
## Global Competitiveness Index

	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>54</b>	<b>4.3</b>
GCI 2012–2013 (out of 144)	57	4.3
GCI 2011–2012 (out of 142)	61	4.3
<b>Basic requirements (38.3%)</b>	<b>64</b>	<b>4.6</b>
Institutions	50	4.2
Infrastructure	76	3.9
Macroeconomic environment	80	4.6
Health and primary education	64	5.8
<b>Efficiency enhancers (50.0%)</b>	<b>59</b>	<b>4.2</b>
Higher education and training	33	5.0
Goods market efficiency	65	4.3
Labor market efficiency	53	4.5
Financial market development	96	3.8
Technological readiness	53	4.2
Market size	84	3.4
<b>Innovation and sophistication factors (11.7%)</b>	<b>31</b>	<b>4.1</b>
Business sophistication	31	4.5
Innovation	35	3.7

## Stage of development



## The most problematic factors for doing business



**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.



# Costa Rica

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	4.6	53
1.02 Intellectual property protection .....	3.8	59
1.03 Diversion of public funds .....	3.7	55
1.04 Public trust in politicians .....	2.8	79
1.05 Irregular payments and bribes .....	4.4	56
1.06 Judicial independence .....	4.8	37
1.07 Favoritism in decisions of government officials .....	3.4	51
1.08 Wastefulness of government spending .....	2.5	114
1.09 Burden of government regulation .....	3.3	94
1.10 Efficiency of legal framework in settling disputes .....	3.7	68
1.11 Efficiency of legal framework in challenging regs. ....	4.0	37
1.12 Transparency of government policymaking .....	4.4	49
1.13 Business costs of terrorism .....	6.1	35
1.14 Business costs of crime and violence .....	3.9	106
1.15 Organized crime .....	5.3	61
1.16 Reliability of police services .....	4.9	43
1.17 Ethical behavior of firms .....	4.5	40
1.18 Strength of auditing and reporting standards .....	5.0	44
1.19 Efficacy of corporate boards .....	4.8	47
1.20 Protection of minority shareholders' interests .....	4.6	38
1.21 Strength of investor protection, 0–10 (best)* .....	3.0	134
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	3.8	97
2.02 Quality of roads .....	2.7	125
2.03 Quality of railroad infrastructure .....	1.7	105
2.04 Quality of port infrastructure .....	2.9	128
2.05 Quality of air transport infrastructure .....	4.8	57
2.06 Available airline seat km/week, millions* .....	136.3	75
2.07 Quality of electricity supply .....	5.6	44
2.08 Mobile telephone subscriptions/100 pop.* .....	128.3	42
2.09 Fixed telephone lines/100 pop.* .....	21.2	55
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	-4.6	110
3.02 Gross national savings, % GDP* .....	15.4	94
3.03 Inflation, annual % change* .....	4.5	82
3.04 General government debt, % GDP* .....	34.8	56
3.05 Country credit rating, 0–100 (best)* .....	53.7	61
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	6.4	77
4.02 Malaria cases/100,000 pop.* .....	2.8	84
4.03 Business impact of tuberculosis .....	6.3	31
4.04 Tuberculosis cases/100,000 pop.* .....	12.0	31
4.05 Business impact of HIV/AIDS .....	5.7	57
4.06 HIV prevalence, % adult pop.* .....	0.30	60
4.07 Infant mortality, deaths/1,000 live births* .....	8.6	51
4.08 Life expectancy, years* .....	79.3	30
4.09 Quality of primary education .....	4.8	32
4.10 Primary education enrollment, net %* .....	n/a	n/a
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	101.5	33
5.02 Tertiary education enrollment, gross %* .....	43.0	60
5.03 Quality of the educational system .....	4.9	20
5.04 Quality of math and science education .....	4.5	45
5.05 Quality of management schools .....	5.3	17
5.06 Internet access in schools .....	4.6	58
5.07 Availability of research and training services .....	5.0	25
5.08 Extent of staff training .....	4.7	23
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	5.2	52
6.02 Extent of market dominance .....	4.3	33
6.03 Effectiveness of anti-monopoly policy .....	4.3	52
6.04 Effect of taxation on incentives to invest .....	3.7	74
6.05 Total tax rate, % profits* .....	55.0	125

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	12	129
6.07 No. days to start a business* .....	60	133
6.08 Agricultural policy costs .....	3.8	81
6.09 Prevalence of trade barriers .....	3.8	119
6.10 Trade tariffs, % duty* .....	3.6	48
6.11 Prevalence of foreign ownership .....	5.5	19
6.12 Business impact of rules on FDI .....	5.1	25
6.13 Burden of customs procedures .....	4.0	72
6.14 Imports as a percentage of GDP* .....	43.1	79
6.15 Degree of customer orientation .....	5.0	39
6.16 Buyer sophistication .....	3.8	38
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	5.3	14
7.02 Flexibility of wage determination .....	5.0	78
7.03 Hiring and firing practices .....	4.2	44
7.04 Redundancy costs, weeks of salary* .....	18.7	90
7.05 Effect of taxation on incentives to work .....	3.8	62
7.06 Pay and productivity .....	4.1	53
7.07 Reliance on professional management .....	4.7	41
7.08 Country capacity to retain talent .....	4.8	15
7.09 Country capacity to attract talent .....	4.0	38
7.10 Women in labor force, ratio to men* .....	0.60	119
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	4.4	74
8.02 Affordability of financial services .....	4.2	62
8.03 Financing through local equity market .....	2.5	118
8.04 Ease of access to loans .....	2.4	106
8.05 Venture capital availability .....	2.3	103
8.06 Soundness of banks .....	5.9	24
8.07 Regulation of securities exchanges .....	4.3	59
8.08 Legal rights index, 0–10 (best)* .....	3	118
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	5.3	49
9.02 Firm-level technology absorption .....	5.2	43
9.03 FDI and technology transfer .....	5.7	6
9.04 Individuals using Internet, %* .....	47.5	68
9.05 Fixed broadband Internet subscriptions/100 pop.* .....	10.0	62
9.06 Int'l Internet bandwidth, kb/s per user* .....	30.0	57
9.07 Mobile broadband subscriptions/100 pop.* .....	14.5	77
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	3.2	82
10.02 Foreign market size index, 1–7 (best)* .....	4.1	85
10.03 GDP (PPP\$ billions)* .....	58.8	83
10.04 Exports as a percentage of GDP* .....	37.5	81
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.7	66
11.02 Local supplier quality .....	4.9	43
11.03 State of cluster development .....	4.1	47
11.04 Nature of competitive advantage .....	4.5	28
11.05 Value chain breadth .....	4.6	25
11.06 Control of international distribution .....	4.1	58
11.07 Production process sophistication .....	4.7	31
11.08 Extent of marketing .....	4.6	42
11.09 Willingness to delegate authority .....	4.5	27
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation .....	4.0	37
12.02 Quality of scientific research institutions .....	4.8	33
12.03 Company spending on R&D .....	3.5	41
12.04 University-industry collaboration in R&D .....	4.4	34
12.05 Gov't procurement of advanced tech products .....	3.5	66
12.06 Availability of scientists and engineers .....	4.8	21
12.07 PCT patents, applications/million pop.* .....	1.7	59

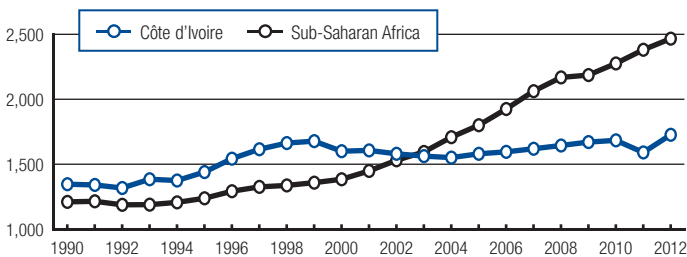
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Côte d'Ivoire

## Key indicators, 2012

Population (millions)	20.2
GDP (US\$ billions)	24.6
GDP per capita (US\$)	1,054
GDP (PPP) as share (%) of world total	0.05

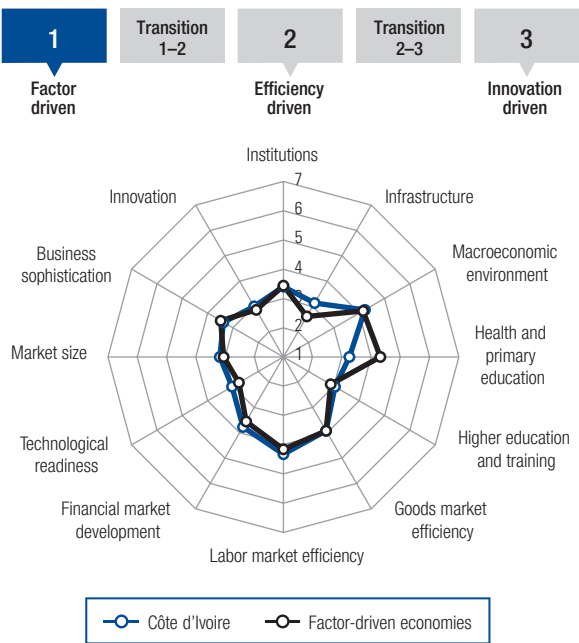
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

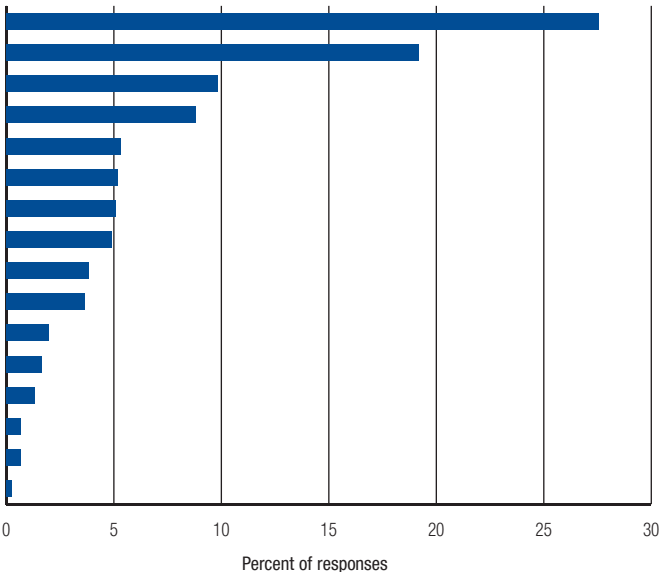
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>126</b>	<b>3.5</b>
GCI 2012–2013 (out of 144)	131	3.4
GCI 2011–2012 (out of 142)	129	3.4
<b>Basic requirements (60.0%)</b>	<b>131</b>	<b>3.5</b>
Institutions	104	3.4
Infrastructure	107	3.1
Macroeconomic environment	106	4.2
Health and primary education	142	3.3
<b>Efficiency enhancers (35.0%)</b>	<b>112</b>	<b>3.5</b>
Higher education and training	121	3.0
Goods market efficiency	113	3.9
Labor market efficiency	68	4.3
Financial market development	94	3.8
Technological readiness	110	3.0
Market size	96	3.2
<b>Innovation and sophistication factors (5.0%)</b>	<b>116</b>	<b>3.2</b>
Business sophistication	123	3.4
Innovation	101	3.0

### Stage of development



## The most problematic factors for doing business

Access to financing	27.6
Corruption	19.2
Tax rates	9.8
Inefficient government bureaucracy	8.8
Government instability/coups	5.3
Crime and theft	5.2
Inadequately educated workforce	5.1
Inadequate supply of infrastructure	4.9
Tax regulations	3.8
Policy instability	3.7
Insufficient capacity to innovate	2.0
Poor work ethic in national labor force	1.7
Inflation	1.3
Foreign currency regulations	0.7
Restrictive labor regulations	0.7
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.

## Côte d'Ivoire

## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/148
<b>1st pillar: Institutions</b>		
1.01 Property rights .....	3.4	119
1.02 Intellectual property protection .....	2.7	123
1.03 Diversion of public funds .....	2.6	109
1.04 Public trust in politicians.....	2.6	86
1.05 Irregular payments and bribes.....	3.4	98
1.06 Judicial independence.....	2.4	128
1.07 Favoritism in decisions of government officials .....	2.9	81
1.08 Wastefulness of government spending .....	3.4	59
1.09 Burden of government regulation .....	3.8	44
1.10 Efficiency of legal framework in settling disputes.....	3.4	90
1.11 Efficiency of legal framework in challenging regs. ....	3.2	95
1.12 Transparency of government policymaking.....	3.9	85
1.13 Business costs of terrorism .....	5.1	94
1.14 Business costs of crime and violence.....	3.2	130
1.15 Organized crime.....	4.0	124
1.16 Reliability of police services .....	3.3	114
1.17 Ethical behavior of firms .....	3.7	95
1.18 Strength of auditing and reporting standards .....	4.3	94
1.19 Efficacy of corporate boards .....	4.8	46
1.20 Protection of minority shareholders' interests .....	4.2	69
1.21 Strength of investor protection, 0–10 (best)* .....	3.3	129
<b>2nd pillar: Infrastructure</b>		
2.01 Quality of overall infrastructure .....	3.8	96
2.02 Quality of roads.....	3.2	101
2.03 Quality of railroad infrastructure.....	2.1	85
2.04 Quality of port infrastructure.....	4.5	54
2.05 Quality of air transport infrastructure.....	4.1	91
2.06 Available airline seat km/week, millions* .....	44.2	102
2.07 Quality of electricity supply .....	3.6	104
2.08 Mobile telephone subscriptions/100 pop.* .....	96.3	99
2.09 Fixed telephone lines/100 pop.* .....	1.3	126
<b>3rd pillar: Macroeconomic environment</b>		
3.01 Government budget balance, % GDP* .....	3.4	89
3.02 Gross national savings, % GDP* .....	11.9	118
3.03 Inflation, annual % change* .....	1.3	1
3.04 General government debt, % GDP* .....	49.1	89
3.05 Country credit rating, 0–100 (best)* .....	23.2	124
<b>4th pillar: Health and primary education</b>		
4.01 Business impact of malaria .....	4.0	122
4.02 Malaria cases/100,000 pop.* .....	34,429.1	146
4.03 Business impact of tuberculosis.....	4.9	100
4.04 Tuberculosis cases/100,000 pop.* .....	191.0	117
4.05 Business impact of HIV/AIDS .....	4.9	94
4.06 HIV prevalence, % adult pop.* .....	3.00	130
4.07 Infant mortality, deaths/1,000 live births* .....	81.2	142
4.08 Life expectancy, years* .....	55.4	129
4.09 Quality of primary education.....	3.4	98
4.10 Primary education enrollment, net %* .....	61.5	143
<b>5th pillar: Higher education and training</b>		
5.01 Secondary education enrollment, gross %* .....	27.1	143
5.02 Tertiary education enrollment, gross %* .....	8.3	122
5.03 Quality of the educational system.....	3.5	83
5.04 Quality of math and science education .....	4.3	60
5.05 Quality of management schools.....	4.3	62
5.06 Internet access in schools.....	2.3	134
5.07 Availability of research and training services .....	4.4	57
5.08 Extent of staff training .....	4.3	40
<b>6th pillar: Goods market efficiency</b>		
6.01 Intensity of local competition .....	5.0	72
6.02 Extent of market dominance .....	3.2	122
6.03 Effectiveness of anti-monopoly policy.....	4.0	80
6.04 Effect of taxation on incentives to invest.....	2.8	131
6.05 Total tax rate, % profits* .....	39.5	77

INDICATOR	VALUE	RANK/148
<b>6th pillar: Goods market efficiency (cont'd.)</b>		
6.06 No. procedures to start a business* .....	10	116
6.07 No. days to start a business* .....	32	108
6.08 Agricultural policy costs.....	4.0	55
6.09 Prevalence of trade barriers .....	3.9	112
6.10 Trade tariffs, % duty* .....	10.5	116
6.11 Prevalence of foreign ownership.....	5.4	22
6.12 Business impact of rules on FDI.....	5.0	36
6.13 Burden of customs procedures.....	3.4	110
6.14 Imports as a percentage of GDP* .....	50.5	63
6.15 Degree of customer orientation .....	4.3	96
6.16 Buyer sophistication .....	2.5	134
<b>7th pillar: Labor market efficiency</b>		
7.01 Cooperation in labor-employer relations .....	4.8	36
7.02 Flexibility of wage determination.....	5.2	58
7.03 Hiring and firing practices.....	4.6	22
7.04 Redundancy costs, weeks of salary* .....	13.1	62
7.05 Effect of taxation on incentives to work .....	3.5	87
7.06 Pay and productivity.....	3.6	100
7.07 Reliance on professional management .....	4.2	72
7.08 Country capacity to retain talent.....	3.1	88
7.09 Country capacity to attract talent .....	3.5	70
7.10 Women in labor force, ratio to men* .....	0.64	109
<b>8th pillar: Financial market development</b>		
8.01 Availability of financial services .....	3.6	125
8.02 Affordability of financial services .....	3.3	128
8.03 Financing through local equity market.....	3.5	67
8.04 Ease of access to loans .....	2.4	102
8.05 Venture capital availability.....	2.1	116
8.06 Soundness of banks .....	5.3	57
8.07 Regulation of securities exchanges .....	3.8	95
8.08 Legal rights index, 0–10 (best)* .....	6	65
<b>9th pillar: Technological readiness</b>		
9.01 Availability of latest technologies .....	4.5	94
9.02 Firm-level technology absorption.....	4.7	67
9.03 FDI and technology transfer .....	4.2	98
9.04 Individuals using Internet, %* .....	2.4	139
9.05 Fixed broadband Internet subscriptions/100 pop.* .....	0.2	121
9.06 Int'l Internet bandwidth, kb/s per user* .....	16.3	78
9.07 Mobile broadband subscriptions/100 pop.* .....	0.0	136
<b>10th pillar: Market size</b>		
10.01 Domestic market size index, 1–7 (best)* .....	2.9	97
10.02 Foreign market size index, 1–7 (best)* .....	4.1	86
10.03 GDP (PPP\$ billions)* .....	40.3	94
10.04 Exports as a percentage of GDP* .....	53.6	43
<b>11th pillar: Business sophistication</b>		
11.01 Local supplier quantity .....	4.4	100
11.02 Local supplier quality.....	4.1	97
11.03 State of cluster development.....	2.9	132
11.04 Nature of competitive advantage.....	2.6	138
11.05 Value chain breadth.....	3.0	128
11.06 Control of international distribution .....	3.2	137
11.07 Production process sophistication.....	2.9	127
11.08 Extent of marketing.....	3.7	103
11.09 Willingness to delegate authority .....	3.1	125
<b>12th pillar: Innovation</b>		
12.01 Capacity for innovation.....	2.9	127
12.02 Quality of scientific research institutions .....	3.4	84
12.03 Company spending on R&D.....	2.7	116
12.04 University-industry collaboration in R&D .....	2.8	124
12.05 Gov't procurement of advanced tech products.....	3.8	43
12.06 Availability of scientists and engineers .....	4.5	38
12.07 PCT patents, applications/million pop.* .....	0.0	113

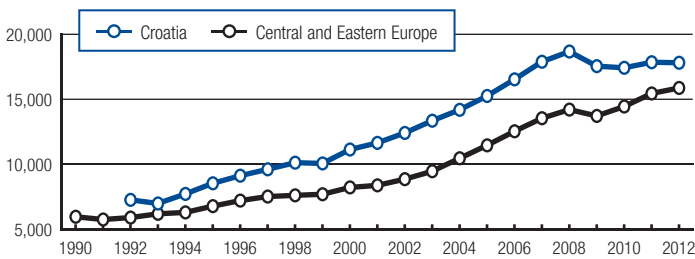
**Notes:** Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 97.

# Croatia

## Key indicators, 2012

Population (millions)	4.4
GDP (US\$ billions)	57.1
GDP per capita (US\$)	12,972
GDP (PPP) as share (%) of world total	0.09

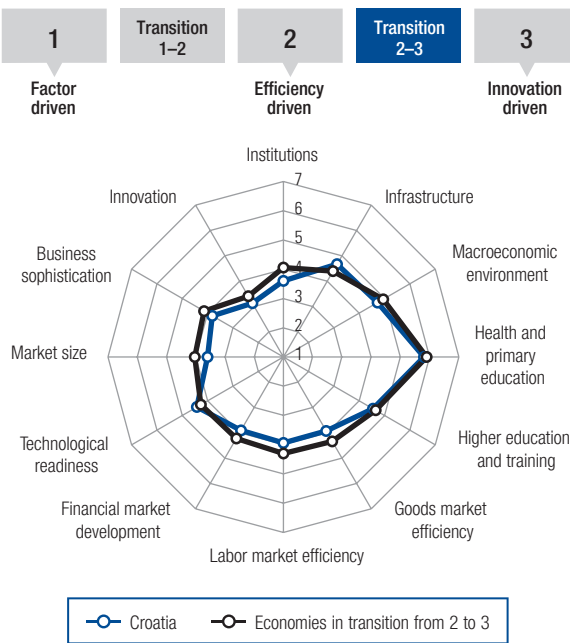
GDP (PPP) per capita (int'l \$), 1990–2012



## Global Competitiveness Index

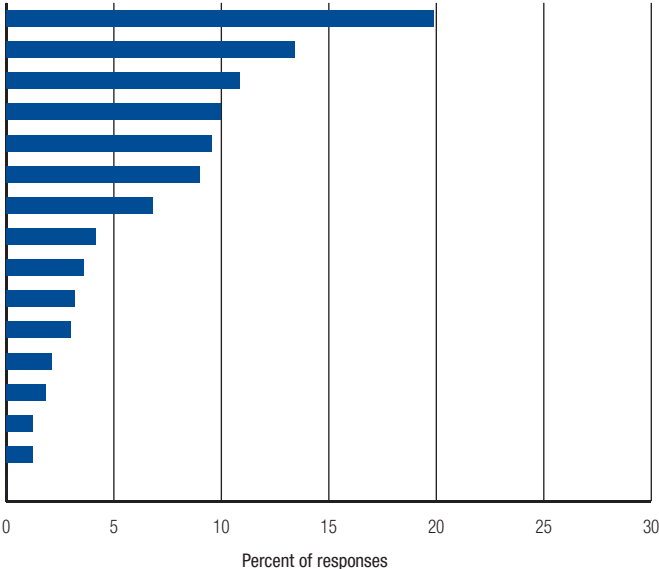
	Rank (out of 148)	Score (1–7)
<b>GCI 2013–2014</b>	<b>75</b>	<b>4.1</b>
GCI 2012–2013 (out of 144)	81	4.0
GCI 2011–2012 (out of 142)	76	4.1
<b>Basic requirements (30.1%)</b>	<b>61</b>	<b>4.7</b>
Institutions	93	3.6
Infrastructure	42	4.7
Macroeconomic environment	68	4.7
Health and primary education	66	5.8
<b>Efficiency enhancers (50.0%)</b>	<b>68</b>	<b>4.0</b>
Higher education and training	51	4.5
Goods market efficiency	111	3.9
Labor market efficiency	114	3.9
Financial market development	78	3.9
Technological readiness	45	4.4
Market size	74	3.6
<b>Innovation and sophistication factors (19.9%)</b>	<b>80</b>	<b>3.5</b>
Business sophistication	88	3.8
Innovation	79	3.1

### Stage of development



## The most problematic factors for doing business

Inefficient government bureaucracy	19.9
Policy instability	13.4
Corruption	10.9
Tax rates	10.0
Restrictive labor regulations	9.5
Access to financing	9.0
Tax regulations	6.8
Poor work ethic in national labor force	4.2
Crime and theft	3.6
Insufficient capacity to innovate	3.2
Government instability/coups	3.0
Inadequately educated workforce	2.1
Inadequate supply of infrastructure	1.9
Foreign currency regulations	1.2
Inflation	1.2
Poor public health	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.