

The Global Competitiveness Index 2011–2012: Setting the Foundations for Strong Productivity

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The Global Competitiveness Report 2011–2012 is coming out at a time of re-emerging uncertainty in the global economy. At the beginning of the year, worldwide recovery appeared fairly certain, with economic growth for 2011 and 2012 projected by the International Monetary Fund (IMF) at 4.3 percent and 4.5 percent, respectively. However, the middle of the year saw uncertainties regarding the future economic outlook re-emerge, as growth figures for many economies had to be adjusted downward and the political wrangling in the United States and Europe undermined confidence in the ability of governments to take the necessary steps to restore growth.

Recent developments reinforce the observation that economic growth is unequally distributed and highlight the shift of balance of economic activity. On the one hand, emerging markets and developing economies, particularly in Asia, have seen relatively strong economic growth—estimated at 6.6 and 6.4 percent for 2011 and 2012, respectively, and attracting increasing financial flows. On the other hand, the United States, Japan, and Europe are experiencing slow and decelerating growth with persistent high unemployment and continued financial vulnerability, particularly in some European economies. GDP growth rates for advanced economies in 2011 are expected to remain at levels that, for most countries, are not strong enough to reduce the unemployment built up during the recession.

In this context, policymakers across all regions are facing difficult economic management challenges. After closing the output gap and reducing the excess capacity generated during the crisis, emerging and developing countries are benefitting from buoyant internal demand, although they are now facing inflationary pressures caused by rising commodity prices. In advanced economies, the devastating earthquake in Japan and doubts about the sustainability of public debt in Europe, the United States, and Japan—issues that could further burden the still-fragile banking sectors in these countries—are undermining investor and business confidence and casting a shadow of uncertainty over the short-term economic outlook. Particularly worrisome is the situation in some peripheral economies of the euro zone, where—in spite of the adoption of recovery plans—high public deficit and debt levels, coupled with anemic growth, have led to an increased vulnerability of the economy and much distress in financial markets, as fears of default continue to spread. This complex situation in turn encumbers the fiscal consolidation that will reduce debt burdens to the more manageable levels necessary to support longer-term economic performance.

Meeting the economic policy challenges resulting from this two-speed recovery requires not losing sight of long-term competitiveness fundamentals amid numerous short-term political pressures in industrialized and emerging economies alike. Many of the current difficulties experienced by advanced economies, notably

in the peripheral euro zone, are closely related to modest competitiveness performances that limit long-term productivity growth. Efforts to stabilize fiscal positions and reduce debt burdens must therefore be complemented by competitiveness-enhancing reforms aimed at improving the potential for growth in the medium-to-longer run. In emerging markets, high growth rates provide a propitious environment for enhancing competitiveness through structural reforms and growth-enhancing investments in order to make economic development more sustainable. Competitive economies have in place elements driving the productivity enhancements that support high incomes and that, at the same time, ensure that the mechanisms enabling solid economic performance going into the future are in position.

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 on the best strategies and policies to overcome the obstacles to improved competitiveness. In the current challenging economic environment, our work is a critical reminder of the importance of taking into account the consequences of our present actions on future prosperity based on 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.¹

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 earned 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 to investment, which is one of the key factors explaining an economy's *growth potential*.

The 12 pillars of competitiveness

There are many determinants driving 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,² 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.³

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 became even more apparent during the economic crisis and is especially important for 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.⁴ 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.⁵

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,⁶ overregulation, corruption, dishonesty in dealing with public contracts, lack of transparency and trustworthiness, 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 to 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 in the process of creating wealth. The recent 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.⁷ Private-sector transparency is indispensable to business, and 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.⁸

Second pillar: Infrastructure

Extensive and efficient infrastructure is critical for ensuring the effective functioning of the economy, as it is an important factor determining the location of economic activity and the kinds of activities or sectors that can develop in a particular instance. 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.⁹ A well-developed transport and communications infrastructure network is a prerequisite for the access of 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 of 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 important for the overall competitiveness of a country.¹⁰ 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 recently. 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 has captured the attention of the public most recently when some European countries needed the support of the IMF and other euro zone countries to prevent sovereign default, as their public debt reached unsustainable levels. Box 1 discusses the potential impact of high

indebtedness on competitiveness, a topic of particular relevance given the growing concerns about the potential sovereign defaults in Europe, Japan, and the United States, which, if not prevented, could endanger the still-fragile recovery worldwide.

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.¹¹

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, 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. Lack of basic education can therefore 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.

For the longer term, it will be essential to avoid significant reductions in resource allocation to these critical areas, in spite of the fact that many government budgets will need to be cut to reduce the fiscal burden built up over the past years.

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.¹² In particular, today's globalizing economy requires countries to nurture pools of well-educated workers who are able to 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 the business community. 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.

Box 1: The link between public debt and competitiveness

The average of public debt as a percentage of GDP for the G-7 countries crossed the 100 percent mark in 2010 (see Table 1 for details). Indeed, for the first time in 60 years, some advanced economies face the threat of sovereign default. Interventions to avoid default in some countries in peripheral Europe, as well as political brinkmanship over the debt ceiling in the United States and the ensuing downgrade of the US credit rating by Standard & Poor's, have raised questions about the sustainability of debt in a number of countries. These questions are particularly acute in the concerned euro zone economies, where a combination of low competitiveness and a cautious growth outlook calls the ability of governments to repay their debt into question.

In the short term, sovereign defaults in advanced economies could push the world into recession, notably by triggering another wave of failures of still-fragile banking systems. Further, higher public debt levels generally bring about higher interest rates across the economy, which in turn raise the cost of finance for businesses, crowding out the private investment that is so crucial for growth. Moreover, as public debt levels rise, governments are under pressure to raise taxes, which may be distortive or can further stifle business activity.

Table 1: Public debt levels in G-7 economies

Country	Public debt as percent of GDP
Japan	220.3
Italy	119.0
United States	91.6
France	84.3
Canada	84.0
Germany	80.0
United Kingdom	77.2
<i>Average</i>	<i>101.3</i>

In addition to these relatively short-term effects, high public debt can impact competitiveness and the future growth performance of an economy in the longer term. In general, the impact of public debt on competitiveness depends to a large extent on how it is spent. The accrual of public debt can enhance competitiveness if it is used to finance investments that raise productivity, such as upgrading schools or supporting research. However, if debt is used to finance present consumption, it burdens the economy in the long run with little tangible benefit. Indeed, in addition to crowding out private investment, which may also reduce growth, higher debt implies that interest payments and debt service will take up a bigger share of the government budget, forcing a reduction in public spending in other areas.

In OECD countries, where public debt is expected to rise on average from 73 percent of GDP in 2007 to over 100 percent in 2012, governments' interest payments will grow from 1.7 to 2.2 percent of GDP.¹ A consensus is emerging that the present levels of debt in many advanced economies are so high that

fiscal consolidation is required. Reducing public debt to pre-crisis levels will constrain government expenditures for at least a decade.²

Public spending cuts may have an adverse effect on competitiveness, especially if investments in growth-enhancing areas are affected. There is no doubt that reducing public investments for health, education, research and development (R&D), or the upkeep of infrastructure will erode competitiveness over the medium to longer term. R&D and education especially are among the areas that matter most for the competitiveness of advanced economies. Investments in these areas should therefore be preserved as much as possible.

Although it is still too early to judge the effects of the present debt crisis on different categories of public expenditure, a recent survey in European countries shows that, over the next years, fiscal pressures may lead to a reduction of R&D investment in only four EU countries out of eighteen that were surveyed, while nine countries plan to increase public spending in this category.³ In the United States, however, although overall government spending rose between 2007 and 2009, the share spent on education declined from 16.8 to 15.8 percent of the total.⁴

Given the importance of public investment in the competitiveness-enhancing areas such as education or innovation for future competitiveness, policymakers must measure very carefully the effects of reducing such investments, as this may endanger future growth and prosperity. This would have the unfortunate effect of converting short-term financial difficulties into longer-term competitiveness weaknesses. Policymakers should therefore focus on measures to enhance competitiveness that would strengthen their countries' growth potential and thus improve the budgetary situation. In peripheral European economies that have accumulated debt over the past years while their competitiveness has not improved, competitiveness-enhancing reforms would support economic growth and thus create a virtuous cycle that could make high debt burdens more sustainable.

Notes

- 1 OECD *Economic Outlook*, May 2011.
- 2 For example, by one estimate public indebtedness in OECD countries can be reduced to its 2007 level by 2023 only provided that no new debt is created after 2014, and that growth rates of 4 percent annually are achieved. See Bofinger 2011.
- 3 European Commission 2011.
- 4 However, the absolute public spending on education increased. See OECD.stat, Dataset 11: Government spending by function. Available at <http://stats.oecd.org/Index.aspx> (retrieved on August 12, 2011).

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 impediments to business activity through government intervention. For example, competitiveness is hindered by distortionary or burdensome taxes and by restrictive and discriminatory rules on foreign direct investment (FDI)—limiting foreign ownership—as well as on international trade. The recent economic crisis has highlighted the 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 efficient use in the economy and provided with 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.¹³ The importance of the latter has been dramatically highlighted by the recent events in Arab countries, where high youth unemployment sparked social unrest in Tunisia that spread across the region.

Efficient labor markets must also ensure a clear relationship between worker incentives and their 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 recent 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 (ICT) in daily activities and production processes for increased efficiency and competitiveness.¹⁴ ICT has evolved into the “general purpose technology” of our time,¹⁵ given the critical spillovers to the 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 use them. Among the main sources of foreign technology, FDI often plays a key role. 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 innovate and 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. There is vast empirical evidence showing 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.¹⁶

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.¹⁷ 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

The final pillar of competitiveness is technological innovation. Although substantial gains can be obtained by improving institutions, building infrastructure, reducing macroeconomic instability, or improving human capital, all these factors eventually seem to 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 enhanced only by technological innovation. Innovation is particularly important for economies as they approach the frontiers of knowledge and the possibility of integrating and adapting exogenous technologies tends to disappear.¹⁸

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 and develop cutting-edge products and processes to maintain a competitive edge. This progression requires an environment that is conducive to innovative activity, 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; extensive collaboration in research between universities and industry; and the protection of intellectual property. 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

While 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 on other areas. 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.

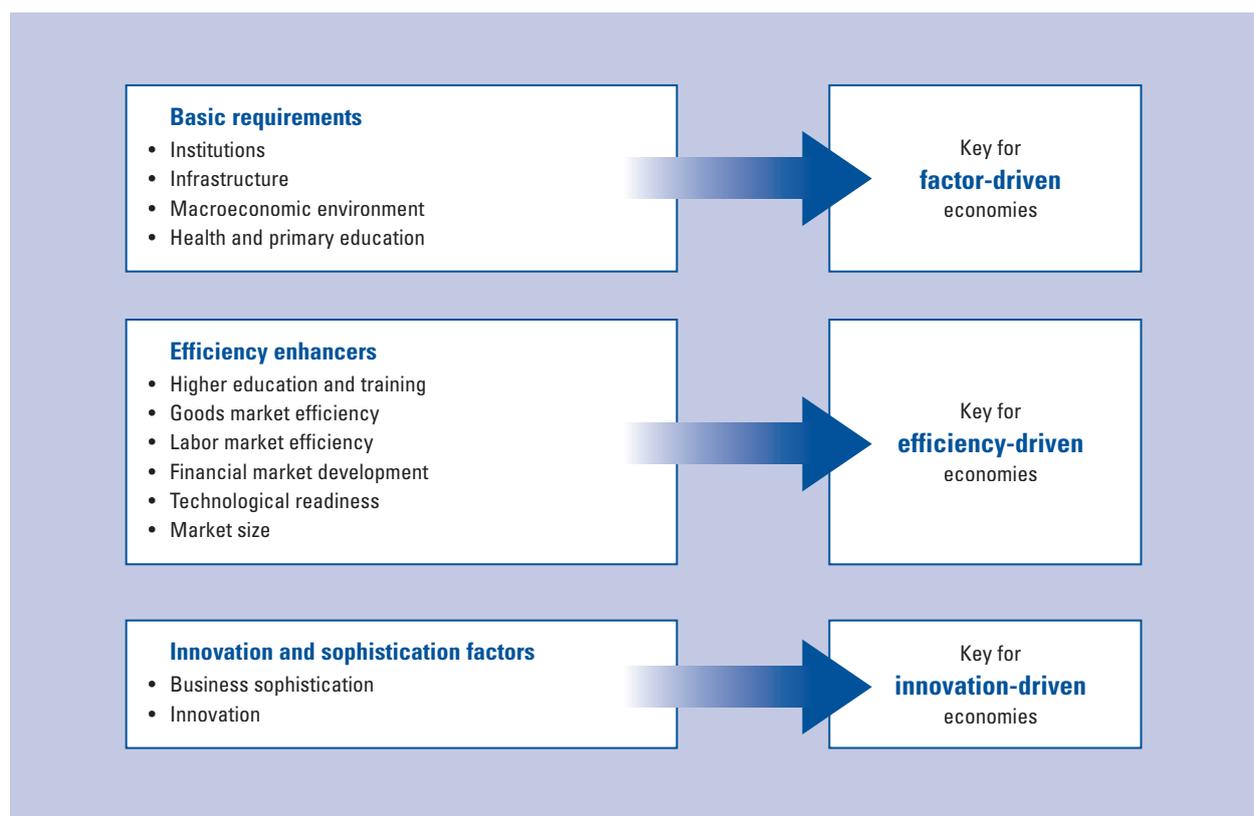
The appendix describes the exact composition of the GCI and technical details of its construction.

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 Vietnam to improve its competitiveness is not the same as the best way for Canada to do so. This is because Vietnam and Canada are in different stages of development: as countries move along the development path, wages tend to increase and, in order to sustain this higher income, labor productivity must increase.

In line with the 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.¹⁹ 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

Figure 1: The 12 pillars of competitiveness



a healthy workforce that has received at least a basic education (pillar 4).

Yet 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 GDP per capita was run against each subindex for past years, allowing for different coefficients for each stage of development.²⁰ The rounding of these econometric estimates led to the choice of weights displayed in Table 1.

Implementation of stages of development: Smooth transitions

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

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 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.

comparable data on wages are not available for all countries covered. The thresholds used are also shown in Table 1. A second criterion measures the extent to which countries are factor driven. This is measured by the share of exports of mineral goods in total exports (goods and services), assuming that countries that export more than 70 percent of mineral resources (measured using a five-year average) are to a large extent factor driven.²¹

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 United Nations Educational, Scientific and Cultural Organization (UNESCO), the IMF, 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 (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 process and the statistical treatment of data are described in detail in Chapter 1.3 of this *Report*.

Adjustments to the GCI

This year the GCI drops one variable: within the *financial market development* pillar (8th), the measurement of restrictions on capital flows had to be removed from the Index as this information is no longer collected. In addition, the sources for some variables changed this year; these are discussed in detail in Box 2.

Country coverage

A number of new countries have been added to the GCI sample this year. These include Belize, Haiti, and Yemen. Additionally, Suriname, which had to be dropped in the last edition because of a lack of Survey data, has been reinstated this year. At the same time, it was not possible to cover Libya because of the social unrest in the country at the time the Survey was carried out. Overall, these changes have led to an increase in coverage to a record number of 142 economies this year.

The Global Competitiveness Index 2011–2012 rankings

Tables 3 through 7 provide the detailed rankings of this year’s GCI. The following sections discuss the findings of the GCI 2011–2012 for the top performers globally, as well as for a number of selected economies in each of the five following regions: Europe and North America, Asia and the Pacific, Latin America and the Caribbean, the Middle East and North Africa, and sub-Saharan Africa.²² An overview of the recent main trends in competitiveness is provided in Box 3.

Top 10

As in previous years, this year’s top 10 remain dominated by a number of European countries, with Sweden, Finland, Denmark, Germany, and the Netherlands confirming their place among the most competitive economies. Singapore continues its upward trend to become the second-most competitive economy in the world, overtaking Sweden, while the United Kingdom returns to the top 10 as it recovers from the crisis.

Table 2: Countries/economies at each stage of development

Stage 1: Factor-driven (37 economies)	Transition from stage 1 to stage 2 (24 economies)	Stage 2: Efficiency-driven (28 economies)	Transition from stage 2 to stage 3 (18 economies)	Stage 3: Innovation-driven (35 economies)
Bangladesh	Algeria	Albania	Argentina	Australia
Benin	Angola	Belize	Barbados	Austria
Bolivia	Armenia	Bosnia and Herzegovina	Brazil	Bahrain
Burkina Faso	Azerbaijan	Bulgaria	Chile	Belgium
Burundi	Botswana	Cape Verde	Croatia	Canada
Cambodia	Brunei Darussalam	China	Estonia	Cyprus
Cameroon	Egypt	Colombia	Hungary	Czech Republic
Chad	Georgia	Costa Rica	Latvia	Denmark
Côte d'Ivoire	Guatemala	Dominican Republic	Lebanon	Finland
Ethiopia	Guyana	Ecuador	Lithuania	France
Gambia, The	Honduras	El Salvador	Mexico	Germany
Ghana	Iran, Islamic Rep.	Indonesia	Oman	Greece
Haiti	Jamaica	Jordan	Poland	Hong Kong SAR
India	Kazakhstan	Macedonia, FYR	Russian Federation	Iceland
Kenya	Kuwait	Malaysia	Slovak Republic	Ireland
Kyrgyz Republic	Mongolia	Mauritius	Trinidad and Tobago	Israel
Lesotho	Paraguay	Montenegro	Turkey	Italy
Madagascar	Philippines	Morocco	Uruguay	Japan
Malawi	Qatar	Namibia		Korea, Rep.
Mali	Saudi Arabia	Panama		Luxembourg
Mauritania	Sri Lanka	Peru		Malta
Moldova	Syria	Romania		Netherlands
Mozambique	Ukraine	Serbia		New Zealand
Nepal	Venezuela	South Africa		Norway
Nicaragua		Suriname		Portugal
Nigeria		Swaziland		Puerto Rico
Pakistan		Thailand		Singapore
Rwanda		Tunisia		Slovenia
Senegal				Spain
Tajikistan				Sweden
Tanzania				Switzerland
Timor-Leste				Taiwan, China
Uganda				United Arab Emirates
Vietnam				United Kingdom
Yemen				United States
Zambia				
Zimbabwe				

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, technological readiness, and labor market efficiency, where it tops the GCI rankings. Switzerland's 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 R&D, ensures that much of this research is translated into marketable products and processes that are reinforced by strong intellectual property protection. This robust innovative capacity is captured by its high rate of patenting, for which Switzerland ranks 7th worldwide. Productivity is further enhanced by a business sector and a population that are proactive at adapting latest technologies, as well as by labor markets that balance employee protection with the interests of employers. Moreover, public institutions in Switzerland are among the most effective and transparent in the world (7th). 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 (5th), well-functioning goods markets (5th), and highly developed financial markets (7th), which benefit from a sounder banking sector than seen in last year's assessment. 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 49.4 percent, which continues to lag behind that of many other high-innovation countries.

Singapore moves up by one place to 2nd position, maintaining the lead among Asian economies. The country's institutions continue to be assessed as the best in the world, ranked 1st for both their lack of corruption and government efficiency. Singapore places 1st and 2nd, respectively, for the efficiency of its

Box 2: Macroeconomic indicators

The collection of data is a critical phase in the computation of the Global Competitiveness Index (GCI). The GCI itself comprises 113 indicators, and additional variables are used to compute countries' stages of development, the validation of other data points, and for empirical analysis. In total, about 20,000 data points are collected each year for the purpose of calculating the GCI. About 12,000 data points are drawn from the Forum's Executive Opinion Survey, and the remainder are derived from external sources.

One guiding principle in this process is that we always use, to the extent possible, the most well respected international institution in each particular issue area as the data provider for each indicator. Indeed, comparability across countries and quality of the data are paramount. Cross-country and inter-year comparisons are meaningful only if, for any given indicator, all the data points capture the same concept over the same period. Of course, given the extensive country coverage of the GCI—a record 142 economies this year—it is not always possible to obtain all the data points for an indicator from a unique source. In order to address missing data points, which can also lead to less reliable results, sometimes other sources are used and/or previous years' data are taken, assuming that the time-sensitivity of the particular indicator is not too great. The Forum's Partner Institutes assist with data collection. Thanks to their local presence, they have access to data from national statistical offices, ministries, and government agencies. As a result of these efforts, the percentage of missing data points is usually below 0.5 percent.

The collection of several indicators composing the macroeconomic environment pillar of the GCI, including government debt and budget balance, has proven challenging in past years because there is no one central source for these data. The International Monetary Fund (IMF) has always been the prime source for all macroeconomic data. One of the IMF's flagship publications, the *World Economic Outlook* (WEO), provides time-series data for dozens of financial and economic indicators for

up to 183 economies. Although almost all countries are covered for GDP and price-related data, data coverage for savings, government debt, and budget data had until this year included only few, mainly advanced, economies. For those indicators, we therefore were required to rely on a variety of sources, including the IMF's *International Financial Statistics* and Country Reports (Article IV consultations); regional development banks' statistical publications; central banks and ministries; and the Economist Intelligence Unit, an economic research firm.

In its April 2011 edition of the WEO database, the IMF significantly expanded its country coverage for the indicators in question. It now reports budgetary, debt, and savings data for a vast majority of the 142 economies included in the GCI (see Table 1). In accordance with the principle of using a central source to the degree possible, we have decided to use the WEO as the main source for all macroeconomic indicators with the exception of the country credit rating measure, which is not covered by the IMF.¹ For the many countries with data not previously obtained from the IMF, this change in source creates a break in the time series and results in variations for some countries that are larger than the year-on-year change that would have been observed had the same source been used again this year. Readers should therefore be careful when drawing comparisons between this year's and last year's macroeconomic data, as part of the difference can be attributed to this change in source. For the newly published indicators, the WEO reports time-series data going back several years, thus allowing the evolution in a country's situation as assessed by the IMF to be tracked.

Moving to a single source with a common definition contributes to ensuring comparability across countries. And because the IMF is, because of its expertise, arguably the best source of macroeconomic data internationally, this year's change in source for these data ensures a more accurate, timely, and ultimately better assessment of the fiscal situation of the countries going forward.²

(Cont'd.)

goods and labor markets and leads the world in terms of financial market development, ensuring the proper allocation of these factors to their best use. Singapore also has world-class infrastructure (3rd), with excellent roads, ports, and air transport facilities. In addition, the country's competitiveness is reinforced by a strong focus on education, providing individuals with the skills needed for a rapidly changing global economy. In order to strengthen its competitiveness further, Singapore could encourage even stronger adoption of the latest technologies (10th) as well as measures that support the sophistication of its companies (15th).

Sweden, overtaken by Singapore, falls one place to 3rd position. Like Switzerland, the country has been placing significant emphasis on creating the conditions

for innovation-led growth. The quality of its public institutions is first-rate, with a very high degree of efficiency, trust, and transparency. Private institutions also receive excellent marks (3rd), with firms that demonstrate the highest ethical behavior (3rd), supported by strong auditing and reporting standards (2nd) and well-functioning corporate boards (1st). Goods and financial markets are also very efficient, although the labor market could be more flexible (25th). Combined with a strong focus on education over the years (2nd for higher education and training) and a high level of technological adoption (2nd), Sweden has developed a very sophisticated business culture (2nd) and is one of the world's leading innovators (2nd). Last but not least, the country boasts a stable macroeconomic environment

Box 2: Macroeconomic indicators (cont'd.)

Table 1: Description of selected GCI macroeconomic indicators

Indicator title	WEO coverage/142* Exceptions	Period	Alternative sources (if any)	General definition	
Macroeconomic indicators primarily obtained from the <i>World Economic Outlook</i> (April 2011)					
3.01	Government budget balance, % GDP	139 <i>Malawi;</i> <i>Puerto Rico;</i> <i>Rwanda</i>	2010	African Development Bank, <i>African Statistical Yearbook 2011</i> ; AfricanEconomicOutlook.org (accessed July 1, 2011); national sources	Net lending (+)/ borrowing (–) is calculated as general government revenue minus total expenditure. This is a core Government Finance Statistics (GFS) balance that measures the extent to which general government is either putting financial resources at the disposal of other sectors in the economy and nonresidents (net lending), or utilizing the financial resources generated by other sectors and nonresidents (net borrowing).
3.02	Gross national savings, % GDP	137 <i>Brunei</i> <i>Darussalam;</i> <i>Puerto Rico;</i> <i>Switzerland;</i> <i>Timor-Leste;</i> <i>Zimbabwe</i>	2010 or most recent year available	IMF, <i>Public Information Notices</i> (various issues); national sources	<i>Aggregate national savings</i> is defined as public- and private-sector savings as a percentage of nominal GDP. National savings equals gross domestic investment plus the current-account balance.
3.03	Inflation, annual % change	141 <i>Puerto Rico</i>	2010	National sources	Annual percent change in year average consumer price index.
3.05	General government debt, % GDP	136 <i>Algeria;</i> <i>Bangladesh;</i> <i>Mongolia;</i> <i>Puerto Rico;</i> <i>Sri Lanka;</i> <i>Timor-Leste</i>	2010	IMF, <i>Public Information Notices</i> (various issues); Asian Development Bank, <i>Asian Development Outlook 2011</i> ; Economist Intelligence Unit, <i>CountryData Database</i> (accessed 17 July 2011); national sources	<i>Gross debt</i> consists of all liabilities that require payment or payments of interest and/or principal by the debtor to the creditor at a date or dates in the future. This includes debt liabilities in the form of special drawing rights, currency and deposits, debt securities, loans, insurance, pensions and standardized guarantee schemes, and other accounts payable. Thus, all liabilities in the <i>Government Finance Statistics Manual 2001</i> system are debt, except for equity and investment fund shares and financial derivatives and employee stock options.
0.01	GDP (US\$ billions)	141 <i>Puerto Rico</i>	2010	National source	GDP values are based upon GDP in the current national currency and US dollar exchange rate projections. According to the System of National Accounts 2008, the valuation of output should be carried out at basic prices.
0.03	GDP per capita (US\$)	139 <i>Montenegro;</i> <i>Puerto Rico;</i> <i>Trinidad and Tobago</i>	2010	Authors' calculation; national source	GDP per capita is derived by first converting GDP in national currency to US dollars and then dividing it by total population.

(Cont'd.)

Box 2: Macroeconomic indicators (cont'd.)**Table 1: Description of selected GCI macroeconomic indicators (cont'd.)**

	Indicator title	WEO coverage/142* Exceptions	Period	Alternative sources (if any)	General definition
Macroeconomic indicators obtained from a different source					
3.04	Interest rate spread, %	Not applicable	2010 or most recent year available	IMF, <i>International Financial Statistics</i> database (accessed July 17, 2011) and country tables (July 2011); Economist Intelligence Unit, <i>CountryData Database</i> (accessed July 17, 2011)	This indicator measures the difference between the typical short-term lending and deposit rates.
3.06	Country credit rating, 0–100 (best)	Not applicable	March 2011	Institutional Investor	Country credit ratings developed by Institutional Investor are based on information provided by senior economists and sovereign-debt analysts at leading global banks and money management and security firms. Twice a year, the respondents grade each country on a scale of 0 to 100, with 100 representing the least chance of default.

* Number of economies for which the IMF's *World Economic Outlook* (WEO) database was used. Economies for which data were obtained from a different provider appear in italics.

Notes

- 1 Most of the data on lending and deposit interest rates used to compute the interest spread (indicator 3.04) are from the *International Financial Statistics* database, a statistical database maintained by the IMF.
- 2 It must be noted that although the IMF does provide a general definition for the indicators, country analysts make adjustments when accounting for expenses and revenues (government balance), as well as liabilities and assets (government debt).

(13th), with an almost balanced budget and manageable public debt levels. These characteristics come together to make Sweden one of the most productive and competitive economies in the world.

Finland moves up three places since last year to reach 4th position. Similar to other countries in the region, the country boasts well-functioning and highly transparent public institutions (3rd), topping several indicators included in this category. It also occupies the top position in 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 technological adoption and innovation. Finland is one of the innovation powerhouses in Europe, ranking 3rd, behind only Switzerland and Singapore, on the related pillar. Finland's macroeconomic environment remains fairly

healthy, despite a small increase in the government's budget deficit.

The **United States** continues the decline that began three years ago, falling one more position to 5th place. While many structural features continue to make its economy extremely productive, a number of escalating weaknesses have lowered the US ranking in recent years. 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, there are some weaknesses in particular areas that have deepened since past assessments. The business community continues to be critical toward public and private institutions (39th).

Table 3: The Global Competitiveness Index 2011–2012 rankings and 2010–2011 comparisons

Country/Economy	GCI 2011–2012		GCI 2011–2012 rank among 2010 countries	GCI 2010–2011 rank	Country/Economy	GCI 2011–2012		GCI 2011–2012 rank among 2010 countries	GCI 2010–2011 rank
	Rank/142	Score				Rank/142	Score		
Switzerland	1	5.74	1	1	Kazakhstan	72	4.18	72	72
Singapore	2	5.63	2	3	Morocco	73	4.16	73	75
Sweden	3	5.61	3	2	Bulgaria	74	4.16	74	71
Finland	4	5.47	4	7	Philippines	75	4.08	75	85
United States	5	5.43	5	4	Croatia	76	4.08	76	77
Germany	6	5.41	6	5	Romania	77	4.08	77	67
Netherlands	7	5.41	7	8	Albania	78	4.06	78	88
Denmark	8	5.40	8	9	Macedonia, FYR	79	4.05	79	79
Japan	9	5.40	9	6	Botswana	80	4.05	80	76
United Kingdom	10	5.39	10	12	Trinidad and Tobago	81	4.00	81	84
Hong Kong SAR	11	5.36	11	11	Ukraine	82	4.00	82	89
Canada	12	5.33	12	10	Namibia	83	4.00	83	74
Taiwan, China	13	5.26	13	13	Guatemala	84	4.00	84	78
Qatar	14	5.24	14	17	Argentina	85	3.99	85	87
Belgium	15	5.20	15	19	Honduras	86	3.98	86	91
Norway	16	5.18	16	14	Algeria	87	3.96	87	86
Saudi Arabia	17	5.17	17	21	Georgia	88	3.95	88	93
France	18	5.14	18	15	Lebanon	89	3.95	89	92
Austria	19	5.14	19	18	Greece	90	3.92	90	83
Australia	20	5.11	20	16	El Salvador	91	3.89	91	82
Malaysia	21	5.08	21	26	Armenia	92	3.89	92	98
Israel	22	5.07	22	24	Moldova	93	3.89	93	94
Luxembourg	23	5.03	23	20	Egypt	94	3.88	94	81
Korea, Rep.	24	5.02	24	22	Serbia	95	3.88	95	96
New Zealand	25	4.93	25	23	Mongolia	96	3.86	96	99
China	26	4.90	26	27	Cambodia	97	3.85	97	109
United Arab Emirates	27	4.89	27	25	Syria	98	3.85	98	97
Brunei Darussalam	28	4.78	28	28	Gambia, The	99	3.84	99	90
Ireland	29	4.77	29	29	Bosnia and Herzegovina	100	3.83	100	102
Iceland	30	4.75	30	31	Ecuador	101	3.82	101	105
Chile	31	4.70	31	30	Kenya	102	3.82	102	106
Oman	32	4.64	32	34	Bolivia	103	3.82	103	108
Estonia	33	4.62	33	33	Benin	104	3.78	104	103
Kuwait	34	4.62	34	35	Tajikistan	105	3.77	105	116
Puerto Rico	35	4.58	35	41	Ethiopia	106	3.76	106	119
Spain	36	4.54	36	42	Jamaica	107	3.76	107	95
Bahrain	37	4.54	37	37	Bangladesh	108	3.73	108	107
Czech Republic	38	4.52	38	36	Guyana	109	3.73	109	110
Thailand	39	4.52	39	38	Dominican Republic	110	3.73	110	101
Tunisia	40	4.47	40	32	Senegal	111	3.70	111	104
Poland	41	4.46	41	39	Suriname	112	3.67	n/a	n/a
Barbados	42	4.44	42	43	Zambia	113	3.67	112	115
Italy	43	4.43	43	48	Ghana	114	3.65	113	114
Lithuania	44	4.41	44	47	Nicaragua	115	3.61	114	112
Portugal	45	4.40	45	46	Cameroon	116	3.61	115	111
Indonesia	46	4.38	46	44	Malawi	117	3.58	116	125
Cyprus	47	4.36	47	40	Pakistan	118	3.58	117	123
Hungary	48	4.36	48	52	Cape Verde	119	3.58	118	117
Panama	49	4.35	49	53	Tanzania	120	3.56	119	113
South Africa	50	4.34	50	54	Uganda	121	3.56	120	118
Malta	51	4.33	51	50	Paraguay	122	3.53	121	120
Sri Lanka	52	4.33	52	62	Belize	123	3.52	n/a	n/a
Brazil	53	4.32	53	58	Venezuela	124	3.51	122	122
Mauritius	54	4.31	54	55	Nepal	125	3.47	123	130
Azerbaijan	55	4.31	55	57	Kyrgyz Republic	126	3.45	124	121
India	56	4.30	56	51	Nigeria	127	3.45	125	127
Slovenia	57	4.30	57	45	Mali	128	3.39	126	132
Mexico	58	4.29	58	66	Côte d'Ivoire	129	3.37	127	129
Turkey	59	4.28	59	61	Madagascar	130	3.36	128	124
Montenegro	60	4.27	60	49	Timor-Leste	131	3.35	129	133
Costa Rica	61	4.27	61	56	Zimbabwe	132	3.33	130	136
Iran, Islamic Rep.	62	4.26	62	69	Mozambique	133	3.31	131	131
Uruguay	63	4.25	63	64	Swaziland	134	3.30	132	126
Latvia	64	4.24	64	70	Lesotho	135	3.26	133	128
Vietnam	65	4.24	65	59	Burkina Faso	136	3.25	134	134
Russian Federation	66	4.21	66	63	Mauritania	137	3.20	135	135
Peru	67	4.21	67	73	Yemen	138	3.06	n/a	n/a
Colombia	68	4.20	68	68	Angola	139	2.96	136	138
Slovak Republic	69	4.19	69	60	Burundi	140	2.95	137	137
Rwanda	70	4.19	70	80	Haiti	141	2.90	n/a	n/a
Jordan	71	4.19	71	65	Chad	142	2.87	138	139

Table 4: The Global Competitiveness Index 2011–2012

Country/Economy	SUBINDEXES							
	OVERALL INDEX		Basic requirements		Efficiency enhancers		Innovation and sophistication factors	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Switzerland	1	5.74	3	6.18	2	5.53	1	5.79
Singapore	2	5.63	1	6.33	1	5.58	11	5.23
Sweden	3	5.61	4	6.06	7	5.33	2	5.79
Finland	4	5.47	5	6.02	10	5.19	4	5.56
United States	5	5.43	36	5.21	3	5.49	6	5.46
Germany	6	5.41	11	5.83	13	5.18	5	5.53
Netherlands	7	5.41	7	5.88	8	5.29	9	5.30
Denmark	8	5.40	8	5.86	9	5.27	8	5.31
Japan	9	5.40	28	5.40	11	5.19	3	5.75
United Kingdom	10	5.39	21	5.60	5	5.43	12	5.17
Hong Kong SAR	11	5.36	2	6.21	4	5.48	25	4.58
Canada	12	5.33	13	5.77	6	5.36	15	4.99
Taiwan, China	13	5.26	15	5.69	16	5.10	10	5.25
Qatar	14	5.24	12	5.81	27	4.68	16	4.98
Belgium	15	5.20	22	5.58	15	5.13	14	5.06
Norway	16	5.18	9	5.85	14	5.15	19	4.78
Saudi Arabia	17	5.17	16	5.66	24	4.82	24	4.64
France	18	5.14	23	5.57	17	5.09	17	4.93
Austria	19	5.14	18	5.65	19	4.94	13	5.12
Australia	20	5.11	14	5.74	12	5.18	26	4.57
Malaysia	21	5.08	25	5.45	20	4.88	22	4.65
Israel	22	5.07	35	5.23	21	4.86	7	5.32
Luxembourg	23	5.03	6	5.90	23	4.86	20	4.75
Korea, Rep.	24	5.02	19	5.65	22	4.86	18	4.87
New Zealand	25	4.93	17	5.66	18	4.99	28	4.34
China	26	4.90	30	5.33	26	4.70	31	4.15
United Arab Emirates	27	4.89	10	5.84	25	4.78	27	4.43
Brunei Darussalam	28	4.78	24	5.48	71	4.03	73	3.45
Ireland	29	4.77	37	5.20	28	4.67	23	4.65
Iceland	30	4.75	31	5.31	33	4.57	21	4.67
Chile	31	4.70	29	5.37	34	4.54	42	3.88
Oman	32	4.64	20	5.62	45	4.33	44	3.87
Estonia	33	4.62	27	5.41	36	4.52	37	3.98
Kuwait	34	4.62	34	5.25	67	4.05	66	3.51
Puerto Rico	35	4.58	41	5.09	35	4.53	29	4.32
Spain	36	4.54	38	5.18	32	4.58	33	4.03
Bahrain	37	4.54	26	5.42	31	4.59	46	3.86
Czech Republic	38	4.52	45	4.90	29	4.63	32	4.09
Thailand	39	4.52	46	4.88	43	4.38	51	3.75
Tunisia	40	4.47	42	5.08	58	4.11	43	3.87
Poland	41	4.46	56	4.70	30	4.61	57	3.64
Barbados	42	4.44	33	5.25	49	4.28	47	3.86
Italy	43	4.43	47	4.84	40	4.41	30	4.18
Lithuania	44	4.41	49	4.82	48	4.31	50	3.78
Portugal	45	4.40	44	5.00	39	4.42	38	3.98
Indonesia	46	4.38	53	4.74	56	4.18	41	3.90
Cyprus	47	4.36	32	5.26	46	4.32	48	3.83
Hungary	48	4.36	55	4.72	42	4.39	52	3.75
Panama	49	4.35	50	4.81	57	4.13	54	3.68
South Africa	50	4.34	85	4.32	38	4.44	39	3.93
Malta	51	4.33	40	5.12	47	4.32	49	3.83
Sri Lanka	52	4.33	65	4.61	69	4.03	34	4.03
Brazil	53	4.32	83	4.33	41	4.40	35	4.02
Mauritius	54	4.31	48	4.83	68	4.04	60	3.62
Azerbaijan	55	4.31	59	4.68	77	3.99	67	3.51
India	56	4.30	91	4.25	37	4.46	40	3.92
Slovenia	57	4.30	39	5.12	51	4.23	45	3.87
Mexico	58	4.29	67	4.59	53	4.21	55	3.65
Turkey	59	4.28	64	4.61	52	4.22	58	3.62
Montenegro	60	4.27	57	4.69	63	4.07	59	3.62
Costa Rica	61	4.27	70	4.54	61	4.09	36	4.02
Iran, Islamic Rep.	62	4.26	51	4.80	88	3.76	83	3.37
Uruguay	63	4.25	43	5.04	75	4.00	65	3.51
Latvia	64	4.24	66	4.60	54	4.20	64	3.53
Vietnam	65	4.24	76	4.41	66	4.05	75	3.44
Russian Federation	66	4.21	63	4.61	55	4.19	97	3.24
Peru	67	4.21	78	4.38	50	4.25	89	3.32
Colombia	68	4.20	73	4.47	60	4.10	56	3.65
Slovak Republic	69	4.19	60	4.66	44	4.38	71	3.46
Rwanda	70	4.19	72	4.53	95	3.71	68	3.51
Jordan	71	4.19	61	4.65	78	3.95	70	3.48

(Cont'd.)

Table 4: The Global Competitiveness Index 2011–2012 (cont'd.)

Country/Economy	SUBINDEXES							
	OVERALL INDEX		Basic requirements		Efficiency enhancers		Innovation and sophistication factors	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Kazakhstan	72	4.18	62	4.64	76	4.00	114	3.04
Morocco	73	4.16	54	4.74	83	3.86	79	3.40
Bulgaria	74	4.16	74	4.46	59	4.10	96	3.24
Philippines	75	4.08	100	4.17	70	4.03	74	3.45
Croatia	76	4.08	52	4.76	72	4.01	82	3.37
Romania	77	4.08	89	4.28	62	4.09	99	3.20
Albania	78	4.06	71	4.53	82	3.87	102	3.18
Macedonia, FYR	79	4.05	69	4.55	87	3.83	104	3.14
Botswana	80	4.05	81	4.35	86	3.83	94	3.26
Trinidad and Tobago	81	4.00	58	4.68	79	3.89	76	3.44
Ukraine	82	4.00	98	4.18	74	4.00	93	3.29
Namibia	83	4.00	68	4.56	97	3.70	95	3.25
Guatemala	84	4.00	93	4.24	81	3.87	63	3.53
Argentina	85	3.99	84	4.33	84	3.85	77	3.43
Honduras	86	3.98	90	4.25	104	3.60	90	3.31
Algeria	87	3.96	75	4.44	122	3.35	136	2.65
Georgia	88	3.95	86	4.32	89	3.74	117	3.01
Lebanon	89	3.95	109	3.97	64	4.06	78	3.43
Greece	90	3.92	80	4.36	65	4.06	81	3.39
El Salvador	91	3.89	87	4.31	96	3.71	106	3.14
Armenia	92	3.89	94	4.24	91	3.73	110	3.09
Moldova	93	3.89	102	4.13	103	3.62	127	2.86
Egypt	94	3.88	99	4.17	94	3.71	86	3.33
Serbia	95	3.88	88	4.28	90	3.73	118	2.99
Mongolia	96	3.86	101	4.16	105	3.56	112	3.04
Cambodia	97	3.85	108	3.99	98	3.69	91	3.31
Syria	98	3.85	77	4.41	109	3.51	111	3.06
Gambia, The	99	3.84	103	4.08	111	3.48	61	3.55
Bosnia and Herzegovina	100	3.83	92	4.25	102	3.63	108	3.13
Ecuador	101	3.82	82	4.35	107	3.53	103	3.17
Kenya	102	3.82	118	3.72	73	4.01	53	3.72
Bolivia	103	3.82	95	4.21	125	3.24	107	3.13
Benin	104	3.78	107	4.02	117	3.43	88	3.33
Tajikistan	105	3.77	106	4.03	118	3.42	100	3.19
Ethiopia	106	3.76	105	4.06	121	3.37	120	2.92
Jamaica	107	3.76	116	3.76	85	3.84	84	3.36
Bangladesh	108	3.73	112	3.81	99	3.69	113	3.04
Guyana	109	3.73	104	4.07	110	3.50	87	3.33
Dominican Republic	110	3.73	110	3.90	93	3.71	109	3.12
Senegal	111	3.70	113	3.81	108	3.53	62	3.54
Suriname	112	3.67	79	4.37	124	3.27	122	2.91
Zambia	113	3.67	115	3.77	106	3.54	80	3.40
Ghana	114	3.65	122	3.64	92	3.72	98	3.20
Nicaragua	115	3.61	111	3.85	123	3.31	129	2.81
Cameroon	116	3.61	114	3.78	120	3.37	101	3.19
Malawi	117	3.58	120	3.68	116	3.43	85	3.35
Pakistan	118	3.58	130	3.53	100	3.68	72	3.45
Cape Verde	119	3.58	96	4.19	126	3.22	124	2.87
Tanzania	120	3.56	123	3.64	113	3.47	92	3.29
Uganda	121	3.56	127	3.55	101	3.64	105	3.14
Paraguay	122	3.53	117	3.75	114	3.47	125	2.86
Belize	123	3.52	97	4.18	130	3.14	131	2.78
Venezuela	124	3.51	125	3.62	112	3.48	128	2.82
Nepal	125	3.47	121	3.67	127	3.22	132	2.73
Kyrgyz Republic	126	3.45	131	3.52	115	3.44	138	2.57
Nigeria	127	3.45	139	3.19	80	3.88	69	3.49
Mali	128	3.39	126	3.59	134	3.10	116	3.02
Côte d'Ivoire	129	3.37	135	3.41	119	3.38	121	2.92
Madagascar	130	3.36	128	3.53	131	3.14	123	2.90
Timor-Leste	131	3.35	119	3.70	138	2.88	137	2.59
Zimbabwe	132	3.33	132	3.49	133	3.10	119	2.93
Mozambique	133	3.31	133	3.43	129	3.16	115	3.02
Swaziland	134	3.30	124	3.63	128	3.17	134	2.67
Lesotho	135	3.26	134	3.42	135	3.08	133	2.69
Burkina Faso	136	3.25	136	3.37	132	3.12	126	2.86
Mauritania	137	3.20	129	3.53	141	2.71	135	2.67
Yemen	138	3.06	138	3.21	137	2.91	141	2.33
Angola	139	2.96	141	2.98	136	3.04	142	2.23
Burundi	140	2.95	137	3.25	142	2.51	140	2.44
Haiti	141	2.90	140	3.03	140	2.76	139	2.44
Chad	142	2.87	142	2.88	139	2.87	130	2.81

Table 5: The Global Competitiveness Index 2011–2012: 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	71	4.53	57	4.01	72	3.87	86	4.53	65	5.73
Algeria	75	4.44	127	3.11	93	3.43	19	5.72	82	5.50
Angola	141	2.98	135	2.91	140	1.89	110	4.23	142	2.89
Argentina	84	4.33	134	2.93	81	3.70	62	4.88	56	5.80
Armenia	94	4.24	83	3.65	77	3.75	114	4.19	94	5.37
Australia	14	5.74	13	5.39	24	5.43	26	5.62	10	6.51
Austria	18	5.65	20	5.24	18	5.64	33	5.39	19	6.32
Azerbaijan	59	4.68	68	3.84	73	3.87	16	5.89	105	5.12
Bahrain	26	5.42	17	5.29	30	5.08	45	5.15	31	6.17
Bangladesh	112	3.81	112	3.31	134	2.24	75	4.70	108	5.01
Barbados	33	5.25	18	5.29	22	5.49	126	3.88	17	6.35
Belgium	22	5.58	27	5.03	17	5.65	60	4.90	2	6.75
Belize	97	4.18	120	3.21	100	3.21	88	4.50	53	5.81
Benin	107	4.02	92	3.58	119	2.69	58	4.92	110	4.89
Bolivia	95	4.21	123	3.14	104	3.10	32	5.39	103	5.20
Bosnia and Herzegovina	92	4.25	109	3.32	99	3.24	78	4.65	58	5.79
Botswana	81	4.35	32	4.87	92	3.48	82	4.60	120	4.46
Brazil	83	4.33	77	3.72	64	3.99	115	4.16	87	5.45
Brunei Darussalam	24	5.48	34	4.80	56	4.23	1	6.70	30	6.17
Bulgaria	74	4.46	110	3.32	87	3.62	46	5.13	57	5.80
Burkina Faso	136	3.37	91	3.58	137	2.12	104	4.30	136	3.46
Burundi	137	3.25	139	2.70	136	2.17	123	3.93	126	4.20
Cambodia	108	3.99	79	3.69	107	3.01	101	4.42	111	4.86
Cameroon	114	3.78	104	3.43	129	2.47	77	4.68	116	4.54
Canada	13	5.77	11	5.57	11	5.88	49	5.06	6	6.58
Cape Verde	96	4.19	54	4.11	109	2.91	102	4.40	95	5.36
Chad	142	2.88	138	2.83	139	2.00	133	3.71	141	2.96
Chile	29	5.37	26	5.06	41	4.67	14	6.07	71	5.68
China	30	5.33	48	4.32	44	4.63	10	6.22	32	6.16
Colombia	73	4.47	100	3.47	85	3.66	42	5.17	78	5.58
Costa Rica	70	4.54	53	4.13	83	3.70	109	4.26	39	6.08
Côte d'Ivoire	135	3.41	137	2.87	108	2.97	98	4.43	138	3.35
Croatia	52	4.76	90	3.59	39	4.73	70	4.75	48	5.96
Cyprus	32	5.26	36	4.76	31	5.01	64	4.81	13	6.45
Czech Republic	45	4.90	84	3.65	36	4.87	43	5.17	51	5.91
Denmark	8	5.86	5	5.94	10	5.89	31	5.39	28	6.24
Dominican Republic	110	3.90	126	3.11	106	3.03	96	4.45	109	5.00
Ecuador	82	4.35	125	3.11	94	3.39	40	5.21	70	5.68
Egypt	99	4.17	74	3.78	75	3.81	132	3.74	96	5.36
El Salvador	87	4.31	118	3.21	65	3.98	80	4.61	90	5.42
Estonia	27	5.41	29	4.99	40	4.71	21	5.71	26	6.26
Ethiopia	105	4.06	58	4.00	120	2.64	47	5.13	117	4.50
Finland	5	6.02	4	5.98	19	5.62	20	5.71	1	6.76
France	23	5.57	28	5.00	4	6.30	83	4.60	16	6.37
Gambia, The	103	4.08	37	4.69	80	3.73	135	3.67	125	4.21
Georgia	86	4.32	60	3.97	68	3.95	137	3.65	67	5.70
Germany	11	5.83	19	5.27	2	6.35	30	5.43	23	6.27
Ghana	122	3.64	61	3.96	110	2.84	139	3.49	124	4.29
Greece	80	4.36	96	3.52	45	4.54	140	3.29	37	6.09
Guatemala	93	4.24	129	3.08	70	3.91	76	4.70	100	5.28
Guyana	104	4.07	93	3.55	102	3.12	119	4.00	76	5.62
Haiti	140	3.03	141	2.46	142	1.62	71	4.72	139	3.32
Honduras	90	4.25	102	3.44	91	3.53	81	4.61	89	5.43
Hong Kong SAR	2	6.21	9	5.63	1	6.71	8	6.26	27	6.25
Hungary	55	4.72	73	3.79	46	4.52	67	4.77	54	5.81
Iceland	31	5.31	25	5.16	14	5.70	131	3.78	5	6.59
India	91	4.25	69	3.84	89	3.60	105	4.30	101	5.25
Indonesia	53	4.74	71	3.81	76	3.77	23	5.66	64	5.74
Iran, Islamic Rep.	51	4.80	72	3.79	67	3.96	27	5.56	50	5.91
Ireland	37	5.20	23	5.19	29	5.12	118	4.01	12	6.49
Israel	35	5.23	33	4.81	33	4.98	53	5.00	36	6.11
Italy	47	4.84	88	3.61	32	5.01	92	4.47	20	6.28
Jamaica	116	3.76	86	3.63	79	3.74	142	2.55	106	5.11
Japan	28	5.40	24	5.18	15	5.69	113	4.20	9	6.52
Jordan	61	4.65	45	4.38	59	4.13	97	4.43	72	5.67
Kazakhstan	62	4.64	94	3.54	82	3.70	18	5.86	85	5.46
Kenya	118	3.72	114	3.30	103	3.10	117	4.02	118	4.46
Korea, Rep.	19	5.65	65	3.89	9	5.94	6	6.37	15	6.38
Kuwait	34	5.25	47	4.35	50	4.45	2	6.59	77	5.60
Kyrgyz Republic	131	3.52	136	2.91	114	2.77	141	3.27	104	5.15
Latvia	66	4.60	66	3.87	61	4.12	93	4.46	49	5.94

(Cont'd.)

Table 5: The Global Competitiveness Index 2011–2012: 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	109	3.97	115	3.26	121	2.62	125	3.89	35	6.12
Lesotho	134	3.42	113	3.31	124	2.55	107	4.29	135	3.53
Lithuania	49	4.82	62	3.94	43	4.64	73	4.71	46	5.99
Luxembourg	6	5.90	8	5.67	21	5.61	15	6.04	25	6.26
Macedonia, FYR	69	4.55	81	3.68	86	3.66	37	5.34	80	5.53
Madagascar	128	3.53	133	2.93	133	2.25	134	3.70	102	5.24
Malawi	120	3.68	56	4.05	131	2.27	108	4.28	128	4.13
Malaysia	25	5.45	30	4.94	26	5.22	29	5.50	33	6.14
Mali	126	3.59	108	3.36	113	2.78	66	4.77	137	3.44
Malta	40	5.12	38	4.69	47	4.52	51	5.04	29	6.22
Mauritania	129	3.53	122	3.14	126	2.49	95	4.45	129	4.03
Mauritius	48	4.83	40	4.54	54	4.33	79	4.64	55	5.81
Mexico	67	4.59	103	3.44	66	3.98	39	5.25	69	5.69
Moldova	102	4.13	106	3.38	96	3.32	103	4.34	86	5.46
Mongolia	101	4.16	119	3.21	118	2.72	34	5.35	98	5.35
Montenegro	57	4.69	42	4.53	63	4.01	94	4.45	59	5.79
Morocco	54	4.74	59	3.98	69	3.95	25	5.65	93	5.38
Mozambique	133	3.43	105	3.39	123	2.57	122	3.94	132	3.81
Namibia	68	4.56	43	4.50	58	4.22	63	4.86	114	4.64
Nepal	121	3.67	124	3.12	141	1.87	50	5.05	115	4.64
Netherlands	7	5.88	10	5.61	7	6.02	36	5.34	7	6.54
New Zealand	17	5.66	3	5.98	34	4.97	48	5.07	4	6.61
Nicaragua	111	3.85	130	3.06	116	2.75	106	4.30	99	5.30
Nigeria	139	3.19	111	3.31	135	2.21	121	3.96	140	3.28
Norway	9	5.85	7	5.74	35	4.95	4	6.45	21	6.28
Oman	20	5.62	16	5.33	28	5.16	3	6.48	81	5.52
Pakistan	130	3.53	107	3.36	115	2.77	138	3.62	121	4.36
Panama	50	4.81	75	3.76	38	4.74	41	5.18	79	5.55
Paraguay	117	3.75	132	2.96	125	2.53	100	4.42	107	5.10
Peru	78	4.38	95	3.54	88	3.62	52	5.02	97	5.36
Philippines	100	4.17	117	3.22	105	3.09	54	4.99	92	5.38
Poland	56	4.70	52	4.17	74	3.87	74	4.71	40	6.06
Portugal	44	5.00	51	4.20	23	5.48	111	4.21	34	6.12
Puerto Rico	41	5.09	44	4.44	55	4.26	17	5.88	63	5.76
Qatar	12	5.81	14	5.39	27	5.17	5	6.40	22	6.28
Romania	89	4.28	99	3.49	95	3.37	87	4.52	66	5.72
Russian Federation	63	4.61	128	3.08	48	4.52	44	5.16	68	5.70
Rwanda	72	4.53	21	5.23	101	3.20	61	4.89	112	4.78
Saudi Arabia	16	5.66	12	5.47	25	5.31	12	6.09	61	5.78
Senegal	113	3.81	78	3.70	122	2.57	89	4.50	119	4.46
Serbia	88	4.28	121	3.15	84	3.67	91	4.48	52	5.82
Singapore	1	6.33	1	6.11	3	6.33	9	6.22	3	6.65
Slovak Republic	60	4.66	101	3.46	57	4.23	56	4.92	43	6.04
Slovenia	39	5.12	55	4.08	37	4.81	35	5.34	24	6.26
South Africa	85	4.32	46	4.36	62	4.02	55	4.96	131	3.96
Spain	38	5.18	49	4.27	12	5.83	84	4.60	44	6.04
Sri Lanka	65	4.61	50	4.23	60	4.13	116	4.08	45	6.00
Suriname	79	4.37	89	3.59	78	3.74	72	4.71	88	5.44
Swaziland	124	3.63	76	3.73	98	3.26	124	3.90	134	3.61
Sweden	4	6.06	2	6.06	13	5.74	13	6.08	18	6.35
Switzerland	3	6.18	6	5.78	5	6.15	7	6.28	8	6.53
Syria	77	4.41	70	3.82	97	3.31	68	4.76	62	5.77
Taiwan, China	15	5.69	31	4.94	20	5.62	22	5.70	11	6.51
Tajikistan	106	4.03	63	3.93	111	2.84	120	3.97	91	5.39
Tanzania	123	3.64	85	3.63	130	2.41	129	3.85	113	4.67
Thailand	46	4.88	67	3.85	42	4.65	28	5.52	83	5.49
Timor-Leste	119	3.70	116	3.25	138	2.07	24	5.65	133	3.81
Trinidad and Tobago	58	4.68	82	3.67	53	4.36	57	4.92	60	5.79
Tunisia	42	5.08	41	4.54	52	4.36	38	5.33	38	6.09
Turkey	64	4.61	80	3.69	51	4.39	69	4.76	75	5.62
Uganda	127	3.55	98	3.50	128	2.49	127	3.87	122	4.33
Ukraine	98	4.18	131	2.98	71	3.87	112	4.21	74	5.64
United Arab Emirates	10	5.84	22	5.21	8	5.97	11	6.14	41	6.06
United Kingdom	21	5.60	15	5.34	6	6.09	85	4.54	14	6.42
United States	36	5.21	39	4.64	16	5.68	90	4.49	42	6.05
Uruguay	43	5.04	35	4.80	49	4.46	59	4.90	47	5.98
Venezuela	125	3.62	142	2.42	117	2.72	128	3.85	84	5.48
Vietnam	76	4.41	87	3.63	90	3.59	65	4.78	73	5.66
Yemen	138	3.21	140	2.58	132	2.26	130	3.83	127	4.15
Zambia	115	3.77	64	3.90	112	2.78	99	4.43	130	3.97
Zimbabwe	132	3.49	97	3.50	127	2.49	136	3.67	123	4.29

Table 6: The Global Competitiveness Index 2011–2012: 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	82	3.87	82	3.97	43	4.46	49	4.57	107	3.59	62	3.76	101	2.86
Algeria	122	3.35	101	3.51	134	3.38	137	3.41	137	2.64	120	2.83	47	4.35
Angola	136	3.04	142	1.91	138	3.21	109	3.96	136	2.67	129	2.65	62	3.83
Argentina	84	3.85	54	4.48	137	3.23	131	3.52	126	3.26	64	3.71	24	4.88
Armenia	91	3.73	76	4.01	108	3.88	34	4.71	95	3.76	88	3.43	115	2.57
Australia	12	5.18	11	5.62	22	4.84	13	5.04	6	5.38	22	5.11	19	5.10
Austria	19	4.94	18	5.38	20	4.89	29	4.76	31	4.64	15	5.40	35	4.58
Azerbaijan	77	3.99	75	4.01	79	4.12	14	4.95	94	3.76	74	3.60	75	3.50
Bahrain	31	4.59	28	5.00	6	5.24	19	4.87	14	5.12	39	4.48	104	2.83
Bangladesh	99	3.69	126	2.81	81	4.09	100	4.02	67	4.07	122	2.82	49	4.32
Barbados	49	4.28	25	5.08	56	4.31	35	4.69	29	4.70	29	4.93	134	1.94
Belgium	15	5.13	5	5.75	14	5.06	44	4.61	28	4.76	11	5.80	26	4.78
Belize	130	3.14	112	3.20	121	3.73	82	4.19	111	3.49	118	2.86	140	1.40
Benin	117	3.43	111	3.24	101	3.93	63	4.42	98	3.71	119	2.85	123	2.41
Bolivia	125	3.24	95	3.68	136	3.27	140	3.29	122	3.29	125	2.70	84	3.22
Bosnia and Herzegovina	102	3.63	86	3.91	115	3.81	85	4.15	124	3.27	73	3.62	97	3.03
Botswana	86	3.83	93	3.72	68	4.22	52	4.55	44	4.44	101	3.12	99	2.95
Brazil	41	4.40	57	4.35	113	3.81	83	4.19	43	4.47	54	3.98	10	5.61
Brunei Darussalam	71	4.03	61	4.25	82	4.08	9	5.25	57	4.21	57	3.86	121	2.50
Bulgaria	59	4.10	70	4.16	86	4.08	56	4.49	75	3.99	50	4.11	64	3.80
Burkina Faso	132	3.12	135	2.52	127	3.61	78	4.27	131	3.15	132	2.59	116	2.55
Burundi	142	2.51	140	1.99	141	3.02	77	4.28	141	2.29	142	2.16	141	1.32
Cambodia	98	3.69	120	3.07	58	4.30	38	4.64	74	4.00	110	3.03	93	3.07
Cameroon	120	3.37	115	3.16	97	3.95	93	4.08	130	3.17	123	2.73	90	3.14
Canada	6	5.36	12	5.59	12	5.12	5	5.43	13	5.20	16	5.40	14	5.44
Cape Verde	126	3.22	102	3.48	106	3.89	124	3.77	109	3.53	81	3.49	142	1.19
Chad	139	2.87	137	2.38	139	3.07	97	4.04	135	2.77	141	2.28	112	2.68
Chile	34	4.54	43	4.67	25	4.79	39	4.64	37	4.56	45	4.26	46	4.35
China	26	4.70	58	4.34	45	4.42	36	4.68	48	4.42	77	3.57	2	6.77
Colombia	60	4.10	60	4.27	99	3.94	88	4.12	68	4.07	75	3.60	32	4.59
Costa Rica	61	4.09	47	4.65	57	4.31	55	4.51	91	3.83	56	3.94	83	3.31
Côte d'Ivoire	119	3.38	124	2.96	126	3.70	84	4.16	118	3.33	108	3.06	94	3.06
Croatia	72	4.01	56	4.41	114	3.81	116	3.89	87	3.87	38	4.50	72	3.57
Cyprus	46	4.32	39	4.70	27	4.78	60	4.44	25	4.83	41	4.36	103	2.83
Czech Republic	29	4.63	30	4.95	36	4.58	42	4.62	53	4.31	31	4.82	40	4.48
Denmark	9	5.27	6	5.75	16	5.06	6	5.39	17	5.01	4	6.20	53	4.21
Dominican Republic	93	3.71	99	3.56	111	3.85	104	3.98	103	3.61	70	3.65	69	3.62
Ecuador	107	3.53	90	3.85	131	3.57	138	3.37	112	3.47	103	3.10	60	3.84
Egypt	94	3.71	107	3.44	118	3.75	141	3.19	92	3.78	95	3.31	27	4.77
El Salvador	96	3.71	105	3.46	69	4.22	108	3.96	72	4.01	90	3.37	86	3.21
Estonia	36	4.52	23	5.15	29	4.74	16	4.92	41	4.51	27	4.95	100	2.89
Ethiopia	121	3.37	132	2.68	100	3.94	69	4.36	125	3.27	138	2.43	74	3.53
Finland	10	5.19	1	6.09	21	4.89	15	4.94	9	5.34	12	5.75	54	4.15
France	17	5.09	20	5.24	38	4.56	68	4.38	18	5.00	13	5.63	7	5.74
Gambia, The	111	3.48	97	3.62	90	4.03	27	4.79	81	3.95	107	3.07	139	1.44
Georgia	89	3.74	88	3.87	74	4.16	32	4.74	99	3.68	100	3.23	106	2.80
Germany	13	5.18	7	5.73	26	4.79	64	4.41	39	4.54	14	5.61	5	6.00
Ghana	92	3.72	109	3.35	72	4.20	79	4.25	61	4.16	113	2.97	81	3.42
Greece	65	4.06	46	4.66	107	3.88	126	3.63	110	3.52	47	4.21	42	4.42
Guatemala	81	3.87	100	3.52	65	4.24	98	4.03	46	4.44	80	3.50	76	3.50
Guyana	110	3.50	79	3.99	94	3.99	91	4.10	93	3.77	97	3.26	135	1.92
Haiti	140	2.76	141	1.98	140	3.04	89	4.11	140	2.52	134	2.56	126	2.33
Honduras	104	3.60	108	3.36	85	4.08	135	3.48	56	4.23	91	3.37	91	3.12
Hong Kong SAR	4	5.48	24	5.13	3	5.41	3	5.67	2	5.78	6	6.11	28	4.76
Hungary	42	4.39	45	4.66	55	4.32	66	4.38	63	4.15	36	4.55	52	4.24
Iceland	33	4.57	9	5.65	40	4.49	10	5.19	108	3.58	3	6.21	128	2.32
India	37	4.46	87	3.88	70	4.21	81	4.20	21	4.93	93	3.36	3	6.16
Indonesia	56	4.18	69	4.16	67	4.23	94	4.06	69	4.06	94	3.33	15	5.22
Iran, Islamic Rep.	88	3.76	89	3.86	103	3.91	139	3.34	123	3.28	104	3.09	21	5.06
Ireland	28	4.67	22	5.15	13	5.10	17	4.90	115	3.44	17	5.34	56	4.12
Israel	21	4.86	27	5.03	33	4.65	24	4.82	10	5.30	21	5.12	51	4.25
Italy	40	4.41	41	4.69	59	4.30	123	3.77	97	3.73	42	4.34	9	5.62
Jamaica	85	3.84	85	3.92	78	4.12	80	4.22	52	4.33	72	3.63	102	2.83
Japan	11	5.19	19	5.27	18	4.98	12	5.04	32	4.64	25	5.06	4	6.12
Jordan	78	3.95	59	4.33	54	4.33	107	3.97	65	4.12	59	3.81	88	3.17
Kazakhstan	76	4.00	65	4.18	87	4.07	21	4.86	121	3.30	87	3.44	55	4.12
Kenya	73	4.01	94	3.72	80	4.09	37	4.67	26	4.83	98	3.26	77	3.48
Korea, Rep.	22	4.86	17	5.44	37	4.57	76	4.30	80	3.95	18	5.33	11	5.57
Kuwait	67	4.05	91	3.83	53	4.34	62	4.44	59	4.17	65	3.69	61	3.84
Kyrgyz Republic	115	3.44	92	3.76	119	3.74	53	4.55	113	3.47	131	2.60	118	2.53
Latvia	54	4.20	34	4.84	60	4.28	47	4.59	60	4.17	46	4.26	95	3.05

(Cont'd.)

Table 6: The Global Competitiveness Index 2011–2012: 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	64	4.06	49	4.63	35	4.60	110	3.96	58	4.18	89	3.39	71	3.58
Lesotho	135	3.08	130	2.74	95	3.97	86	4.14	120	3.32	133	2.56	136	1.76
Lithuania	48	4.31	26	5.08	64	4.25	54	4.53	89	3.86	34	4.70	79	3.46
Luxembourg	23	4.86	40	4.69	2	5.44	41	4.63	8	5.34	9	6.00	96	3.04
Macedonia, FYR	87	3.83	80	3.98	63	4.26	72	4.33	82	3.94	67	3.67	107	2.79
Madagascar	131	3.14	133	2.66	122	3.72	74	4.32	134	2.93	136	2.54	113	2.67
Malawi	116	3.43	123	2.99	91	4.02	51	4.56	77	3.98	124	2.70	125	2.36
Malaysia	20	4.88	38	4.76	15	5.06	20	4.87	3	5.53	44	4.29	29	4.75
Mali	134	3.10	128	2.79	120	3.73	121	3.79	133	3.04	127	2.69	117	2.55
Malta	47	4.32	37	4.81	34	4.61	103	3.99	15	5.11	26	5.05	127	2.33
Mauritania	141	2.71	139	2.09	135	3.31	125	3.71	138	2.61	137	2.51	131	2.03
Mauritius	68	4.04	68	4.17	28	4.75	67	4.38	42	4.49	61	3.76	110	2.71
Mexico	53	4.21	72	4.07	84	4.08	114	3.92	83	3.92	63	3.75	12	5.55
Moldova	103	3.62	83	3.93	98	3.94	75	4.31	105	3.60	78	3.52	122	2.43
Mongolia	105	3.56	84	3.93	92	4.02	31	4.74	129	3.19	102	3.10	124	2.37
Montenegro	63	4.07	48	4.65	39	4.50	45	4.60	35	4.57	53	4.02	130	2.05
Morocco	83	3.86	98	3.62	76	4.15	132	3.52	62	4.16	66	3.69	57	4.03
Mozambique	129	3.16	136	2.52	116	3.80	120	3.79	128	3.20	117	2.86	108	2.76
Namibia	97	3.70	113	3.19	71	4.21	57	4.48	36	4.57	99	3.25	120	2.51
Nepal	127	3.22	129	2.74	125	3.70	128	3.60	100	3.67	130	2.65	98	2.98
Netherlands	8	5.29	8	5.66	9	5.17	23	4.84	23	4.86	5	6.13	18	5.10
New Zealand	18	4.99	14	5.53	8	5.18	11	5.11	12	5.21	23	5.10	65	3.80
Nicaragua	123	3.31	117	3.13	123	3.71	96	4.05	114	3.45	121	2.82	109	2.73
Nigeria	80	3.88	114	3.18	73	4.18	70	4.36	86	3.89	106	3.08	34	4.59
Norway	14	5.15	15	5.49	31	4.69	18	4.89	5	5.46	7	6.08	50	4.30
Oman	45	4.33	63	4.24	23	4.81	40	4.63	30	4.66	51	4.08	73	3.56
Pakistan	100	3.68	122	3.01	93	4.00	136	3.47	70	4.03	115	2.94	30	4.67
Panama	57	4.13	78	3.99	46	4.40	115	3.91	27	4.79	40	4.44	85	3.22
Paraguay	114	3.47	116	3.16	83	4.08	127	3.63	88	3.86	112	2.99	92	3.09
Peru	50	4.25	77	4.00	50	4.37	43	4.62	38	4.54	69	3.65	48	4.34
Philippines	70	4.03	71	4.13	88	4.05	113	3.92	71	4.02	83	3.47	36	4.57
Poland	30	4.61	31	4.95	52	4.36	58	4.48	34	4.60	48	4.18	20	5.08
Portugal	39	4.42	35	4.82	62	4.27	122	3.79	78	3.98	19	5.31	45	4.35
Puerto Rico	35	4.53	29	4.97	30	4.71	48	4.58	40	4.51	35	4.67	68	3.72
Qatar	27	4.68	50	4.62	17	5.04	22	4.86	19	4.96	33	4.74	59	3.86
Romania	62	4.09	55	4.42	96	3.96	92	4.10	84	3.91	60	3.76	44	4.39
Russian Federation	55	4.19	52	4.54	128	3.60	65	4.40	127	3.21	68	3.66	8	5.73
Rwanda	95	3.71	119	3.09	49	4.37	8	5.25	54	4.26	109	3.05	129	2.21
Saudi Arabia	24	4.82	36	4.81	4	5.25	50	4.57	16	5.06	43	4.33	23	4.92
Senegal	108	3.53	110	3.27	89	4.05	99	4.02	106	3.59	86	3.45	105	2.81
Serbia	90	3.73	81	3.98	132	3.49	112	3.94	96	3.74	71	3.63	70	3.61
Singapore	1	5.58	4	5.77	1	5.57	2	5.86	1	5.84	10	5.90	37	4.56
Slovak Republic	44	4.38	53	4.50	51	4.36	59	4.47	47	4.44	37	4.54	58	3.99
Slovenia	51	4.23	21	5.16	48	4.37	102	4.00	102	3.62	32	4.76	80	3.44
South Africa	38	4.44	73	4.03	32	4.66	95	4.06	4	5.48	76	3.60	25	4.81
Spain	32	4.58	32	4.90	66	4.23	119	3.84	64	4.14	28	4.95	13	5.44
Sri Lanka	69	4.03	66	4.18	41	4.48	117	3.89	45	4.44	85	3.46	67	3.73
Suriname	124	3.27	104	3.46	130	3.58	101	4.01	101	3.66	96	3.29	138	1.64
Swaziland	128	3.17	127	2.80	109	3.87	111	3.94	90	3.85	135	2.54	132	2.00
Sweden	7	5.33	2	5.81	7	5.21	25	4.82	11	5.24	2	6.29	31	4.59
Switzerland	2	5.53	3	5.80	5	5.24	1	5.95	7	5.35	1	6.30	39	4.51
Syria	109	3.51	106	3.45	102	3.92	134	3.49	117	3.35	105	3.09	66	3.76
Taiwan, China	16	5.10	10	5.64	11	5.13	33	4.71	24	4.84	24	5.08	16	5.21
Tajikistan	118	3.42	96	3.64	117	3.78	71	4.33	119	3.32	116	2.90	119	2.53
Tanzania	113	3.47	131	2.69	112	3.82	73	4.33	85	3.89	126	2.70	82	3.39
Thailand	43	4.38	62	4.25	42	4.47	30	4.75	50	4.35	84	3.47	22	5.02
Timor-Leste	138	2.88	134	2.63	110	3.87	90	4.11	139	2.58	140	2.40	137	1.65
Trinidad and Tobago	79	3.89	64	4.20	104	3.91	87	4.12	49	4.39	52	4.04	111	2.70
Tunisia	58	4.11	44	4.67	44	4.42	106	3.97	76	3.99	58	3.82	63	3.81
Turkey	52	4.22	74	4.02	47	4.38	133	3.51	55	4.26	55	3.95	17	5.19
Uganda	101	3.64	125	2.86	105	3.89	26	4.80	66	4.12	111	3.00	89	3.16
Ukraine	74	4.00	51	4.58	129	3.58	61	4.44	116	3.39	82	3.47	38	4.54
United Arab Emirates	25	4.78	33	4.84	10	5.17	28	4.79	33	4.61	30	4.88	43	4.42
United Kingdom	5	5.43	16	5.47	19	4.97	7	5.36	20	4.94	8	6.08	6	5.77
United States	3	5.49	13	5.57	24	4.80	4	5.57	22	4.87	20	5.23	1	6.92
Uruguay	75	4.00	42	4.69	77	4.15	118	3.84	79	3.97	49	4.18	87	3.17
Venezuela	112	3.48	67	4.17	142	2.89	142	2.88	132	3.11	92	3.36	41	4.46
Vietnam	66	4.05	103	3.47	75	4.16	46	4.60	73	4.00	79	3.51	33	4.59
Yemen	137	2.91	138	2.30	133	3.47	129	3.59	142	2.22	139	2.41	78	3.46
Zambia	106	3.54	121	3.03	61	4.27	105	3.97	51	4.34	114	2.96	114	2.64
Zimbabwe	133	3.10	118	3.12	124	3.70	130	3.56	104	3.60	128	2.69	133	1.97

Table 7: The Global Competitiveness Index 2011–2012: Innovation and sophistication factors

Country/Economy	INNOVATION AND SOPHISTICATION FACTORS		PILLARS			
	Rank	Score	11. Business sophistication		12. Innovation	
			Rank	Score	Rank	Score
Albania	102	3.18	78	3.78	123	2.58
Algeria	136	2.65	135	2.93	132	2.37
Angola	142	2.23	142	2.42	140	2.05
Argentina	77	3.43	79	3.78	78	3.08
Armenia	110	3.09	107	3.43	112	2.74
Australia	26	4.57	29	4.67	22	4.48
Austria	13	5.12	7	5.46	16	4.79
Azerbaijan	67	3.51	73	3.81	60	3.20
Bahrain	46	3.86	33	4.51	61	3.20
Bangladesh	113	3.04	98	3.51	124	2.57
Barbados	47	3.86	41	4.29	49	3.42
Belgium	14	5.06	11	5.30	15	4.83
Belize	131	2.78	116	3.30	135	2.26
Benin	88	3.33	100	3.49	67	3.16
Bolivia	107	3.13	106	3.45	106	2.81
Bosnia and Herzegovina	108	3.13	108	3.42	104	2.84
Botswana	94	3.26	101	3.49	79	3.04
Brazil	35	4.02	31	4.54	44	3.50
Brunei Darussalam	73	3.45	85	3.75	68	3.15
Bulgaria	96	3.24	96	3.55	93	2.94
Burkina Faso	126	2.86	139	2.86	100	2.86
Burundi	140	2.44	141	2.68	138	2.19
Cambodia	91	3.31	90	3.63	85	3.00
Cameroon	101	3.19	113	3.37	81	3.02
Canada	15	4.99	24	4.91	11	5.07
Cape Verde	124	2.87	126	3.14	119	2.61
Chad	130	2.81	136	2.93	114	2.69
Chile	42	3.88	39	4.32	46	3.45
China	31	4.15	37	4.37	29	3.92
Colombia	56	3.65	61	4.04	57	3.26
Costa Rica	36	4.02	35	4.42	35	3.61
Côte d'Ivoire	121	2.92	122	3.23	120	2.60
Croatia	82	3.37	88	3.66	76	3.09
Cyprus	48	3.83	48	4.19	45	3.48
Czech Republic	32	4.09	36	4.42	33	3.77
Denmark	8	5.31	6	5.53	10	5.10
Dominican Republic	109	3.12	89	3.65	122	2.59
Ecuador	103	3.17	93	3.57	110	2.77
Egypt	86	3.33	72	3.82	103	2.84
El Salvador	106	3.14	74	3.81	127	2.46
Estonia	37	3.98	53	4.16	30	3.81
Ethiopia	120	2.92	129	3.09	111	2.76
Finland	4	5.56	9	5.40	3	5.72
France	17	4.93	14	5.14	17	4.72
Gambia, The	61	3.55	66	3.90	62	3.20
Georgia	117	3.01	110	3.39	118	2.62
Germany	5	5.53	4	5.66	7	5.39
Ghana	98	3.20	99	3.51	98	2.89
Greece	81	3.39	77	3.79	88	2.98
Guatemala	63	3.53	55	4.12	91	2.94
Guyana	87	3.33	82	3.77	99	2.89
Haiti	139	2.44	140	2.78	139	2.09
Honduras	90	3.31	81	3.77	101	2.86
Hong Kong SAR	25	4.58	19	4.99	25	4.18
Hungary	52	3.75	69	3.88	34	3.62
Iceland	21	4.67	28	4.69	19	4.65
India	40	3.92	43	4.27	38	3.58
Indonesia	41	3.90	45	4.22	36	3.59
Iran, Islamic Rep.	83	3.37	92	3.59	70	3.15
Ireland	23	4.65	22	4.93	23	4.37
Israel	7	5.32	16	5.11	6	5.53
Italy	30	4.18	26	4.85	43	3.51
Jamaica	84	3.36	75	3.81	94	2.92
Japan	3	5.75	1	5.91	4	5.59
Jordan	70	3.48	68	3.88	77	3.08
Kazakhstan	114	3.04	109	3.42	116	2.67
Kenya	53	3.72	59	4.07	52	3.37
Korea, Rep.	18	4.87	25	4.86	14	4.89
Kuwait	66	3.51	62	4.02	84	3.00
Kyrgyz Republic	138	2.57	127	3.13	141	2.01
Latvia	64	3.53	71	3.84	59	3.21
Lebanon	78	3.43	51	4.17	115	2.68
Lesotho	133	2.69	133	3.00	131	2.38
Lithuania	50	3.78	54	4.13	48	3.43
Luxembourg	20	4.75	21	4.98	21	4.52
Macedonia, FYR	104	3.14	105	3.47	105	2.81
Madagascar	123	2.90	132	3.03	109	2.78
Malawi	85	3.35	97	3.54	65	3.17
Malaysia	22	4.65	20	4.99	24	4.32
Mali	116	3.02	131	3.06	87	2.98
Malta	49	3.83	42	4.28	51	3.38
Mauritania	135	2.67	137	2.93	129	2.41
Mauritius	60	3.62	44	4.27	89	2.96
Mexico	55	3.65	56	4.11	63	3.19
Moldova	127	2.86	117	3.27	128	2.44
Mongolia	112	3.04	119	3.24	102	2.85
Montenegro	59	3.62	70	3.85	50	3.39
Morocco	79	3.40	80	3.78	80	3.02
Mozambique	115	3.02	118	3.26	107	2.79
Namibia	95	3.25	95	3.56	92	2.94
Nepal	132	2.73	125	3.15	134	2.32
Netherlands	9	5.30	5	5.58	12	5.03
New Zealand	28	4.34	30	4.62	27	4.05
Nicaragua	129	2.81	123	3.21	130	2.40
Nigeria	69	3.49	64	3.96	82	3.01
Norway	19	4.78	18	5.04	20	4.53
Oman	44	3.87	40	4.30	47	3.44
Pakistan	72	3.45	76	3.80	75	3.10
Panama	54	3.68	46	4.21	72	3.14
Paraguay	125	2.86	111	3.39	133	2.34
Peru	89	3.32	65	3.93	113	2.72
Philippines	74	3.45	57	4.11	108	2.79
Poland	57	3.64	60	4.06	58	3.23
Portugal	38	3.98	50	4.19	32	3.77
Puerto Rico	29	4.32	27	4.85	31	3.80
Qatar	16	4.98	12	5.27	18	4.69
Romania	99	3.20	102	3.48	95	2.91
Russian Federation	97	3.24	114	3.34	71	3.14
Rwanda	68	3.51	84	3.75	56	3.26
Saudi Arabia	24	4.64	17	5.11	26	4.16
Senegal	62	3.54	86	3.72	53	3.35
Serbia	118	2.99	130	3.08	97	2.90
Singapore	11	5.23	15	5.13	8	5.33
Slovak Republic	71	3.46	63	4.00	96	2.91
Slovenia	45	3.87	49	4.19	40	3.55
South Africa	39	3.93	38	4.32	41	3.53
Spain	33	4.03	34	4.51	39	3.55
Sri Lanka	34	4.03	32	4.54	42	3.52
Suriname	122	2.91	121	3.24	121	2.59
Swaziland	134	2.67	128	3.12	137	2.22
Sweden	2	5.79	2	5.83	2	5.76
Switzerland	1	5.79	3	5.82	1	5.77
Syria	111	3.06	94	3.57	125	2.55
Taiwan, China	10	5.25	13	5.23	9	5.27
Tajikistan	100	3.19	112	3.38	83	3.01
Tanzania	92	3.29	104	3.48	73	3.11
Thailand	51	3.75	47	4.20	54	3.30
Timor-Leste	137	2.59	138	2.92	136	2.26
Trinidad and Tobago	76	3.44	67	3.89	86	2.99
Tunisia	43	3.87	52	4.16	37	3.58
Turkey	58	3.62	58	4.09	69	3.15
Uganda	105	3.14	115	3.33	90	2.95
Ukraine	93	3.29	103	3.48	74	3.11
United Arab Emirates	27	4.43	23	4.91	28	3.96
United Kingdom	12	5.17	8	5.41	13	4.94
United States	6	5.46	10	5.35	5	5.57
Uruguay	65	3.51	83	3.76	55	3.27
Venezuela	128	2.82	124	3.15	126	2.50
Vietnam	75	3.44	87	3.72	66	3.16
Yemen	141	2.33	134	2.98	142	1.68
Zambia	80	3.40	91	3.61	64	3.18
Zimbabwe	119	2.93	120	3.24	117	2.63

(Cont'd.)

Box 3: Trends in competitiveness: An analysis

Launched in 2005, the Global Competitiveness Index (GCI) is now in its seventh edition. Although the drivers of competitiveness are many and complex and their factors are complicated and evolve only slowly, some trends are emerging. The past few years have witnessed a shift of economic power toward the emerging and developing nations, a trend accentuated by the recent global economic crisis. This shift is also reflected to a certain extent in the competitiveness trends observed in different regions of the world.

The emerging and developing economies seem to be catching up, albeit gradually. The weighted average overall GCI score of the 80 emerging and developing countries included since 2005 has improved from 4.1 in 2005 to 4.4 in 2011 on a 1-to-7 scale.¹ Meanwhile, the weighted average of the 33 advanced economies in the constant sample has decreased from 5.4 to 5.2. As a result, since 2005 the point spread between the two groups has narrowed from 1.3 down to 0.8 (see Figure 1).

Within the developing and emerging world, only sub-Saharan Africa fails to improve, thus losing ground to other regions. Developing Asia, on the other hand, has advanced the most of all the regions, with a gain of 0.4 points. Central and Eastern Europe (+0.3), Latin America (+0.2), the Middle East and North Africa (+0.2), and the Commonwealth of Independent States (+0.1) all progress, though from different bases and at different paces. This convergence is not surprising given that efficiency gains are easier to realize for countries in lower stages of development. The group performance of the

developing world is boosted by the strong dynamics of some of the largest economies, including China (+0.5), Brazil (+0.2), India (+0.1), and Indonesia (+0.3).

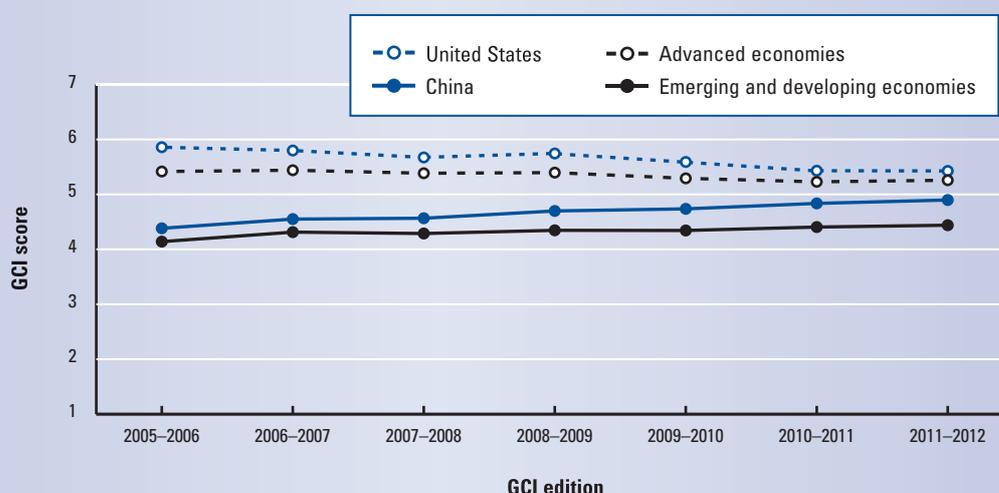
By contrast, the United States has experienced an erosion of its competitive edge. Ranked 1st overall in 2005, the country is now 5th. Rank-wise this remains a strong performance. However, the 0.4 point drop in its GCI score is the largest among the 113 economies covered in this analysis. As a result, the spread with fast-improving China has been reduced by a full point to just 0.5 in 2011. The diametrically opposed trends of the world's two largest economies partly explain the reduction of the gap between the emerging and advanced blocks.

Indeed, four of the five countries with the largest score loss belong to the group of advanced economies: the United States (–0.4); and Greece, Ireland, and Iceland (–0.2 each). The fifth is Nigeria (–0.3). However, countries such as leading Switzerland and third-ranked Sweden have gained 0.3 points since 2005, demonstrating that stagnation or decline for advanced economies is by no means inevitable.

Note

- The analysis is based on a constant sample composed of the 113 economies already covered in 2005. Group averages take into account only countries included then. Country classification is derived from the International Monetary Fund (IMF) and reflects the situation as of April 2011. Weights for the computation of group weighted averages are based on each economy's share of GDP in its group. Data are taken from the April 2011 edition of the IMF's *World Economic Outlook*.

Figure 1: Competitiveness trends, 2005–11



In particular, its trust in politicians is not strong (50th), it remains concerned about the government's ability to maintain arms-length relationships with the private sector (50th), and it considers that the government spends its resources relatively wastefully (66th). In comparison with last year, policymaking is assessed as less transparent (50th) and regulation as more burdensome (58th).

A lack of macroeconomic stability continues to be the United States' greatest area of weakness (90th). Over the past decade, the country has been running repeated fiscal deficits, leading to burgeoning levels of public indebtedness that are likely to weigh heavily on the country's future growth. On a more positive note, after having declined for two years in a row, measures of financial market development are showing a hesitant recovery, improving from 31st last year to 22nd overall this year in that pillar.

Germany is ranked 6th this year, a decline of one place but with a slight increase in score. Since our last assessment, the quality of its public institutions as well as the efficiency of its goods markets have deteriorated slightly; in other areas, Germany either improves or maintains its performance. The country is ranked an excellent 2nd for the quality of its infrastructure, boasting in particular first-rate facilities across all modes of transport. Despite the slight drop in rankings, the goods market is quite efficient, characterized by intense local competition (9th) and low market dominance by large companies (3rd). Germany's business sector is highly sophisticated, especially when it comes to production processes and distribution channels, and German companies are among the most innovative in the world, spending heavily on R&D (5th) and displaying a strong capacity for innovation (3rd)—traits that are complemented by the country's well-developed ability to absorb the latest technologies at the firm level (14th). 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. On a less positive note and despite some efforts, Germany's labor market remains rigid (125th for the labor market flexibility sub-pillar), where a lack of flexibility in wage determination and the high cost of firing present a hindrance to job creation. At the same time, the deteriorating availability of scientists and engineers (down from 27th to 41st this year) may erode the country's major competitive advantage in innovation if it remains unaddressed.

The Netherlands improves one rank to 7th this year, reflecting a modest strengthening of its institutional framework as well as the efficiency and stability of its financial markets. Overall, Dutch businesses are highly sophisticated (5th) and innovative (12th), and the country is rapidly and aggressively harnessing new technologies for productivity improvements (5th). Its excellent educational system (8th in the two related categories) and efficient markets—especially its goods market (9th)—are highly supportive of business activity.

And although the country registered a fiscal deficit in 2010 (5.18 percent of GDP), its macroeconomic environment is more stable than that of a number of other advanced economies (36th). Last but not least, the quality of its infrastructure is among the best in the world, reflecting excellent facilities for maritime, railroad, and air transport, ranked 2nd, 6th, and 5th, respectively.

Denmark moves up one position to 8th place. Similar to its Nordic neighbors, the country benefits from what is one of the best-functioning and most transparent institutional frameworks in the world (5th) and an excellent infrastructure for transport as well as electricity and telephony. Denmark also continues to receive a first-rate assessment for its higher education and training system, the positive result of a strong focus on education over recent decades. This has provided the Danish workforce with the skills needed to reach high levels of technological adoption and innovation. A marked difference with regard to the other Nordic countries relates to labor market flexibility, where Denmark (6th) continues to distinguish itself as having one of the most efficient labor markets internationally, with more flexibility in setting wages, firing, and therefore hiring workers than in the other Nordics and in most countries more generally.

Japan falls three places to rank 9th, with a performance similar to last year's.²³ The country continues to enjoy a major competitive edge in business sophistication and innovation, ranking 1st and 4th, respectively, in these two pillars. Company spending on R&D remains high and Japan benefits from the availability of many scientists and engineers, buttressing a strong capacity for innovation. Indeed, in terms of innovation output, this pays off with the second-highest number of patents per capita. Further, companies operate at the highest end of the value chain, producing high-value-added goods and services. The country's overall competitive performance, however, continues to be dragged down by severe macroeconomic weaknesses (113th), with high budget deficits over several years (135th), which have led to the highest public debt levels in the entire sample by far (over 220 percent of GDP in 2010).

The **United Kingdom** (10th) continues to make up lost ground in the rankings this year, rising by two more places and now moving back to the top 10 for the first time since 2007. The country improves its performance across the board, benefitting from clear strengths such as the efficiency of its labor market (7th), in sharp contrast to the rigidity of those of many other European countries. The United Kingdom continues to have sophisticated (8th) and innovative (13th) 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). All these characteristics are important for spurring productivity enhancements. On the other hand, although improved

since last year, the country's macroeconomic environment (85th) represents the greatest drag on its competitiveness, with a double-digit fiscal deficit in 2010 (placing the country 138th) that must be reined in to provide a more sustainable economic footing going into the future. The situation is made worse by the mounting public debt (77 percent of GDP in 2010, 120th) and a comparatively low national savings rate (12.3 percent of GDP in 2010, 119th).

Europe and North America

European economies have faced a number of challenges in the past few years. After weathering the significant difficulties brought about by the global economic crisis, a tentative recovery is being threatened by rising concerns about the sustainability of sovereign debt in Greece and a number of other European countries, raising questions about the very viability of the euro. Despite these challenges, several European countries continue to feature prominently among the most competitive regions in the world. As described above, seven of them are among the top 10. In total, eleven are among the top 20, as follows: Switzerland (1st), Sweden (3rd), Finland (4th), Germany (6th), the Netherlands (7th), Denmark (8th), the United Kingdom (10th), Belgium (15th), Norway (16th), France (18th), and Austria (19th). However, Europe is also a region with significant disparities in competitiveness, with several countries from the region significantly lower in the rankings. As in previous years, the two countries from North America feature among the most competitive economies worldwide, with the United States occupying the 5th position and Canada the 12th.

Canada has dropped two positions this year to 12th place, with a slight improvement in score. Canada continues to benefit from highly efficient markets (with its goods, labor, and financial markets ranked 12th, 5th, and 13th, respectively), well-functioning and transparent institutions (11th), and excellent infrastructure (11th). In addition, the country has been successful in nurturing its human resources: it is ranked 6th for health and primary education and 12th for higher education and training. As we have noted in recent years, improving the sophistication and innovative potential of the private sector, with greater R&D spending and producing goods and services higher on the value chain, would enhance Canada's competitiveness and productive potential going into the future.

Belgium is ranked 15th, up four spots since 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, with excellent math and science education, top-notch management schools, and a strong propensity for on-the-job training. 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. On the other hand, there are some concerns about government inefficiency (56th), and its macroeconomic environment is burdened by persistent deficit spending and high public debt, although overall the country has seen some marginal improvements here since the last assessment (advancing from 72nd to 60th place in the macroeconomic environment pillar) and remains better assessed in this area than many other European countries.

Norway is ranked 16th this year, down two places since last year but with a slight improvement in score. Similar to the other Nordic countries, Norway is 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 goods, labor, and financial markets ranked 31st, 18th, and 5th, respectively. Productivity is also boosted by a high uptake of new technologies, ranked 7th overall for technological readiness. Moreover, Norway's macroeconomic environment is ranked an impressive 4th out of all countries, driven by windfall oil revenues combined with prudent fiscal management. On the other hand, Norway's competitiveness would be further enhanced by upgrading its infrastructure (35th) and encouraging more innovative businesses (20th).

France is ranked 18th, down three places from last year but with a relatively stable score. The country's infrastructure 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 clear strengths (ranked 16th for health and primary education and 20th 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 (it is ranked 13th for technological readiness). In addition, the sophistication of the country's business culture (14th in the business sophistication pillar) and its leadership in the area of innovation (17th in the innovation pillar), bolstered by a highly developed financial market (18th) and a large market (7th), are important attributes that have helped 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 113th both because of the strict rules on firing and hiring and the rather conflict-ridden labor-employer relations in the country.

After declining in rank over the past two editions of the *Report*, **Ireland** remains stable at 29th position this year. The country continues to benefit from a number of strengths, including its excellent health and primary education (10th) and strong higher education and training (22nd), along with its well-functioning

goods and labor markets, ranked 13th and 17th, respectively. These attributes have fostered a sophisticated and innovative business culture (ranked 22nd for business sophistication and 23rd for innovation). Yet the country's macroeconomic environment continues to raise significant concern (118th), with its budget deficit of more than 32 percent in 2010, following the government's bailout of the banking sector, placing Ireland last out of all 142 countries in the sample. Of related and continuing concern is also Ireland's financial market (with a precipitous drop from 7th place three years ago to 115th this year in this pillar).

After falling 11 positions over the past two years, **Iceland** reverses the trend this year and moves up one to 30th place. Despite recent difficulties, 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 (5th and 9th in the health and primary education and higher education and training pillars, respectively) coupled with an innovative business sector (19th) that is highly adept at adopting new technologies for productivity enhancements (3rd). Business activity is further supported by an extremely flexible labor market (10th) and well-developed infrastructure (14th). On the other hand, persisting macroeconomic weaknesses (131st) and weakened financial markets (108th) continue to be areas of concern.

Estonia and the **Czech Republic** remain the best performers within Eastern Europe, ranking 33rd and 38th, respectively. As in previous years, the countries' competitive strengths are based on a number of common features. They rely on excellent education and highly efficient and well-developed goods, labor, and financial markets, as well as their strong commitment to advancing technological readiness, particularly in the case of Estonia. In addition, Estonia's 33rd rank reflects solid institutions and well-managed public finances.

Spain regains some ground to place 36th this year, after two years of sharp decline that led it to fall from 29th place in 2008–09 to 42nd place last year. This year's progress can be attributed to slight improvements in several areas measured by the Index, as well as a deterioration in the performance of other economies that previously ranked ahead of Spain. Despite a sluggish economic recovery and an important weakening of its macroeconomic stability (falling from 66th to 84th position), the country has managed to improve its performance thanks to a greater use of ICT (up from 29th to 24th) and its resilience in terms of R&D investment and innovation capacity. Further improvement of these growth-enhancing factors will be crucial for its future recovery and a much-needed economic transformation. Overall, Spain's competitive edge is hampered by its macroeconomic imbalances. Its very high and increasing public deficit (134th), its high level of public debt (108th), and its enduring very low national savings rate

(83rd) have caused a great deal of distress in its financial markets and are asphyxiating access to financial resources—both in equity investment (85th) and in access to loans (99th)—thus jeopardizing future investment plans.

Regaining macroeconomic stability not only by decreasing the public deficit but also by adopting the necessary reforms to boost growth should be a priority in the short run. The rigidities in the labor market (134th)—both in terms of hiring and firing practices (137th) and in the disconnect between wage setting and productivity levels (126th) that eroded much international competitiveness in the past decade—are worrisome. These rigidities have not allowed it to adjust rapidly after the economic crisis and the bursting of the construction bubble, and have left a substantial share of the labor force out of work. Moreover, despite high educational enrollment rates (Spain ranks 3rd at secondary and 18th at university levels), the inadequate educational system seems to fail to provide a large share of the population with the skills necessary for participating in an increasingly knowledge-driven economy. While Spain can still leverage its large market size (13th) and its world-class infrastructure (12th), addressing these structural weaknesses and further developing its innovation performance will be crucial for the country's sustainable economic growth.

After having moved up by six positions last year, **Poland** drops back two places to 41st. The country displays 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 (17th). The financial sector is well developed (34th) and Poland's increased trustworthiness (16th) has contributed to its very good performance in this domain. Indeed, banks are assessed as more sound than they were only two years ago, although additional strengthening will be necessary given the country's still mediocre 60th rank on this indicator. Further enhancing competitiveness will require a significant upgrading of transport infrastructure, which trails international standards by a considerable margin (111th). While some progress has been made in this area since last year, it is not sufficient to increase its ranking. The quality of roads in Poland continues to be assessed particularly poorly (134th). And although the improvements to some aspects of the institutional framework, such as the transparency of government policymaking and physical security, are notable, the business sector remains very concerned about the burden of government regulation (124th). As Poland transitions to the innovation-driven stage of development, it will have to focus more strongly on developing capacities in innovation and business sophistication. Stronger clusters, more R&D orientation of companies, and intensified collaboration between universities and the private sector

would help the country to move toward a more future-oriented development path.

Italy moves up by five places to 43rd position this year, although it remains the lowest-ranked of the G-7 countries. Italy continues to do well in more complex areas measured by the GCI, particularly the sophistication of its businesses, where it is ranked 26th, 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 9th 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, ranked 123rd for its labor market efficiency, hindering employment creation. Financial markets are not sufficiently developed to provide needed finance for business development (97th). 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 88th overall for its institutional environment.

Despite the country's critical financial situation, which led to a recovery plan earlier in the year—and notwithstanding the negative economic forecasts for the next two years as the consolidation plans start to reduce public spending—**Portugal** improves its competitiveness performance slightly and moves up one position to 45th place. This positive development is largely led by an increase in ICT use throughout the economy (18th) and an improvement in the quality of its overall infrastructure (12th), especially of roads (5th). Despite this slight progress, the country still holds one of the poorest competitive positions among advanced economies and suffers from serious weaknesses. In addition to the well-documented macroeconomic difficulties of a national savings rate below 10 percent (128th), a high deficit (122nd), and high public debt (128th) that hinder the availability of financial resources for local companies, the economy suffers from rigidities in its labor market (136th) and a disconnect between salaries and productivity (112th) that have hampered Portugal's capacity to remain internationally competitive. Moreover, the traditional lag in company R&D (41st) and other innovation-oriented investments have prevented it from moving toward higher-value-added activities, so it suffers the consequences of fierce competition from cheaper production sites, such as Eastern Europe and China. Addressing these weaknesses by adopting the necessary reforms and preserving growth-enhancing investments will be crucial to boost the competitive edge of the economy and set the national economy on a path of growth after a decade of stagnation.

Turkey moves up by two places this year to 59th position. The country benefits from its large market (17th), which is characterized by intense local

competition (13th). Turkey also benefits from its reasonably developed infrastructure (51st), particularly roads and air transport, although ports and the electricity supply require upgrading. In order to further enhance its competitiveness, Turkey must focus on improving its human resources base through better primary education and healthcare (75th) and higher education and training (74th), increasing the efficiency of its labor market (133rd), and reinforcing the efficiency and transparency of its public institutions (86th).

The **Russian Federation** drops three ranks to 66th position this year. The drop reflects the fact that an improvement in macroeconomic stability was outweighed by deterioration in other areas, notably the quality of institutions, labor market efficiency, business sophistication, and innovation. The lack of progress with respect to the institutional framework is of particular concern, as this area is likely to be among the most significant constraints to Russia's competitiveness. Strengthening the rule of law and the protection of property rights, improving the functioning of the judiciary, and raising security levels across the country would greatly benefit the economy and would provide for spillover effects into other areas. In addition to its weak institutional framework, Russia's competitiveness remains negatively affected by the low efficiency of its goods market. Competition, both domestic as well as foreign, is stifled by market structures dominated by a few large firms, inefficient anti-monopoly policies, and restrictions on trade and foreign ownership. And despite many efforts, its financial markets remain unstable, with banks assessed very poorly (129th). Taken together, these challenges reduce the country's ability to take advantage of some of its strengths—particularly its high innovation potential (38th for capacity for innovation), its large and growing market size (8th), and its solid performance in higher education and training (27th for the quantity of education).

After falling 16 places over the last two years—one of the steepest declines of all countries, which reflects the many economic and political challenges the country has faced in recent years—**Ukraine** reverses the trend and moves up 7 positions this year. The country continues to demonstrate a number of competitive strengths. A well-educated population, flexible and efficient labor markets, and a large market size continue to set a good base for the country's future growth performance. On the other hand, despite its impressive reform agenda, no real improvements have been measured in the country's weak institutional framework (131st) or in its highly inefficient markets for goods and services (129th), which stifle competition and prevent entrepreneurship from flourishing. In this context, it is hoped that the country's accession to the World Trade Organization (WTO) will further contribute to intensifying competition in the country by reducing both trade barriers and domestic obstacles. Priority should also be given

to continuing the stabilization and development of its financial sector (116th), building on recent reforms.

This year **Greece** falls another seven places in the rankings to 90th, remaining the lowest-ranked country of the European Union. In the context of the ongoing sovereign debt crisis, Greece continues to fall precipitously in the macroeconomic environment pillar, dropping to 140th position this year. Similarly, Greece's financial markets are assessed more poorly than in the past, at 110th this year, showing particularly low confidence on the part of investors. The evaluation of public institutions (e.g., government efficiency, corruption, undue influence) continues to suffer and is ranked a low 89th overall. Another major area of concern is the country's inefficient labor market (126th), which continues to constrain Greece's ability to emerge from the crisis, demonstrating the importance of recent efforts to increase the retirement age and increase labor market flexibility. In working to overcome the present difficulties, Greece has a number of strengths to build upon, including a reasonably well educated workforce that is adept at adopting new technologies for productivity enhancements.

Asia and the Pacific

Asia's rise to economic prominence has been accompanied by a remarkable dynamism in terms of competitiveness. Over the past five years, several countries in the region—including China, Indonesia, Vietnam, and Sri Lanka—have made important strides in the GCI rankings. Yet the disparities in terms of competitiveness within the region are unique, ranging from Singapore at 2nd place to Timor-Leste at 131st. Two of the region's largest economies, Bangladesh (108th) and Pakistan (118th), continue to rank very low, while a number of Asian emerging economies enter the top 30.

As the third-placed Asian economy behind Singapore (2nd) and Japan (9th), **Hong Kong SAR** maintains its 11th position while slightly improving its score. Although absent from the overall top 10, it features in the top 3 of four individual pillars and in the top 10 of three others. Among the highlights of this consistent performance, Hong Kong tops the infrastructure pillar with the outstanding quality of its facilities across all modes of transportation and its telephony infrastructure. The dynamism and efficiency of its goods market (3rd), labor market (3rd), and financial market (2nd) also contribute to the economy's very good overall positioning. In order to enhance its competitiveness and move it up into the top 10, continued improvements in two areas—higher education and innovation—will be necessary. Although the quality of education in Hong Kong is good (14th), participation remains below levels found in other economies (53rd). Improving educational outcomes will also help boost Hong Kong's innovative capacity (25th), which remains

constrained by the limited availability of scientists and engineers (43rd), among other things.

Taiwan, China remains stable in 13th position, with its competitiveness profile essentially unchanged from last year. Taiwan displays a consistent performance across the pillars of the GCI, although it enters the top 10 in only two of them. Its prowess in innovation is undeniable. Ranked 9th in the innovation pillar, Taiwan boasts the largest number of United States Patent and Trademark Office (USPTO)–granted patents on a per capita basis, more than the United States. In addition, the quality and presence of business clusters in high-end manufacturing, along with its first-class R&D, earns Taiwan the top spot on the related indicator. The economy's capacity for innovation is further supported by an excellent educational system, which is characterized at all levels by high enrollment rates and first-rate quality. Specifically, Taiwan ranks 10th in higher education and training. The economy can also rely on a high level of technological readiness (24th) and well-developed infrastructure, with the exception of air transport (51st). Among the country's relative weaknesses, its labor market is characterized by much rigidity (98th); the situation has been deteriorating over the past two years (it now ranks 33rd, down nine places in two years). Room for improvement also exists in public and private institutions (31st), although consistent advances have been achieved in this area since 2008.

With an unchanged score, **Australia** drops four spots to 20th place as other countries move ahead. Among the country's most notable advantages are its efficient financial system (6th), supported by a banking sector that counts among the most stable and sound in the world, ranked 4th. Also noteworthy is its very good—and improving—performance in education: Australia ranks 11th in both the health and primary education subpillar and the higher education and training pillar. Australia's macroeconomic situation is satisfactory in the current context (26th), especially when considering the difficulties many other economies face in this area. Despite repeated budget deficits in recent years, its government debt, at 22.3 percent of GDP, is the second lowest among the advanced economies behind Luxembourg. Finally, Australia's public and private institutions are transparent and efficient, ranked 17th and 8th, respectively, and physical security is assured (19th), although business leaders continue to be concerned about the burden of government regulation (75th).

On a less positive note, Australia still lags behind the top performers of the GCI when it comes to innovation (22nd) and business sophistication (29th), two critical drivers of competitiveness for advanced economies. Finally, because of intensifying trade in commodities, the country's transport infrastructure, particularly seaports, has been increasingly strained in recent years and it lags behind the world's best.

Malaysia gains five ranks to reach 21st position, registering improvements across the board. The country's progress is particularly noteworthy in the institutions and macroeconomic environment pillars, as well as in several measures of market efficiency. Among the prominent advantages of this strong and consistent performance are its efficient and sound financial sector—which places among the world's most developed, just behind Singapore and Hong Kong—and its highly efficient goods market, ranked 15th. In addition, its macroeconomic situation has improved markedly over the past year to reach 29th place, even though the country continues to run a budget deficit of about 5 percent of GDP. As it moves toward becoming more innovation driven, Malaysia will need to improve its performance in education and technological readiness. In the latter dimension, the country places a low 44th, with room for improvement in technological adoption by both businesses and the population at large. In terms of higher education and training (38th), improving access remains a priority in light of low enrollment rates of 69 percent (101st) and 36 percent (66th) for secondary and tertiary education, respectively.

The **Republic of Korea** improves its score but falls by two places to 24th. Korea's performance is very uneven across the 12 pillars of competitiveness. The country's outstanding infrastructure (9th) and stable macroeconomic environment (6th) are among its key competitive strengths. Furthermore, primary education (15th) and higher education (17th) are accessible and of high quality. These factors, combined with the country's high degree of technological readiness (18th), are among the building blocks of its remarkable capacity for innovation (14th). On the other hand, considerable room for improvement remains with respect to the quality of its institutions (65th) and its rigid labor market (76th), as well as its largely inefficient financial market (80th). Improvements across these dimensions would help the country to raise its competitiveness and ranking in the GCI after three years of decline or static performance.

China continues its steady progression in the rankings, rising by one rank to 26th. Indeed, it has improved its score and rank each year since 2005. The world's most populous country continues to lead the BRICS economies by a significant margin, with South Africa—second among the BRICS—placing 50th.²⁴ China's performance improves in most pillars of the GCI and is stable in the remaining ones.

As in previous years, its macroeconomic situation is again very favorable (10th), despite a prolonged episode of high inflation. China is one of the world's least indebted countries, boasts a savings rate of some 53 percent of GDP, and runs only moderate budget deficits. These factors, combined with good economic prospects, contribute to an improvement of the quality of its sovereign debt far greater than that of the other

BRICS. China also achieves relatively high standards in terms of health and basic education (32nd), with positive trends in health indicators and nearly universal access to primary education, which is well assessed in terms of quality. Turning to the more sophisticated areas of competitiveness, China ranks high in business sophistication (37th) and innovation (29th), particularly when considering its level of development.

On a less positive note, a number of challenges persist in the areas of corruption and judicial independence within the institutions pillar (48th). Moreover, the sentiment among businesses is that the country has become less safe over the past three years, resulting in higher costs for protection against diverse forms of crime and violence. Finally, standards of business ethics (57th) and corporate accountability (66th) are below those found in a number of other economies.

As in previous years, China's fairly poor results in the financial market development and technological readiness pillars pull down the economy's overall competitiveness performance. However, the country improves markedly in the first of these (48th, up nine spots), thanks to an increased availability and affordability of financial services and better access to credit. It also makes strides in the technological readiness pillar (77th, up one), largely because of double-digit growth in the penetration rates of Internet use and mobile telephony.

Although dropping one more rank, **Thailand** (39th) maintains its score and appears to be stabilizing after its eroding performance of the previous four years. The improved macroeconomic environment (28th, up 18 places) represents the most positive aspect of Thailand's accomplishment in this year's assessment. Its public deficit has been reined in and brought to a more manageable level, and the efficiency of its labor market also stands out positively (30th). Moreover, labor markets are flexible (44th) and allow for an efficient allocation of talent (34th). However, many challenges will need to be addressed to make Thailand more competitive. One of the biggest areas of concern is the efficiency of its public institutions (74th), which has been deteriorating over the past three years. Property rights for intellectual as well as physical and financial goods remain underprotected (101st), and the worrying security situation imposes a high cost on business (91st). It remains to be seen what impact the new political landscape will have on the economy and whether the new government will succeed in restoring the trust and confidence of the business community.

India ranks 56th in this year's assessment. The country drops five places and demonstrates only minor changes in its competitiveness performance since last year.²⁵ Among the BRICS, India continues to rank on a par with South Africa (50th) and Brazil (53rd) and ahead of Russia (66th), but its gap with China is widening: the score difference between the two economies

has increased sixfold between 2006 and today, the gap expanding from less than 0.1 to 0.6 points.

India continues to be penalized for its mediocre accomplishments in the areas considered to be the basic factors underpinning competitiveness. The country's supply of transport, ICT, and energy infrastructure remains largely insufficient and ill-adapted to the needs of business (89th). Indeed, the Indian business community continues to cite infrastructure as the single biggest hindrance to doing business in the country. It must be noted, however, that the situation has been slowly improving since 2006, although this does not translate into a higher ranking because other countries have been improving faster. The picture is similar in the health and basic education pillar (101st). Despite improvements across the board over the past few years, public health and education quality remain a prime cause of concern.

While we observe some encouraging trends in these two areas, the same cannot be said of the country's institutions and macroeconomic environment, the other two dimensions comprising the basic requirements component of the GCI. In the past five years, discontent in the business community about the lack of reforms and the apparent inability of the government to provide a more conducive environment for business has been growing. Corruption (99th) and burdensome regulation (96th) certainly fuel this discontent. Since 2006, India's score in the institutions pillar has plunged from 4.5 to 3.8. Once ranked a satisfactory 37th in this dimension, India now ranks 69th, having dropped 11 places this year alone. Meanwhile, the macroeconomic environment (105th) continues to be characterized by large and repeated public deficits and the highest debt-to-GDP ratio among the BRICS. More recently, the stability of the country's macroeconomic environment is being undermined by high inflation, near or above 10 percent. As a result, India has been hovering around the 100 mark in this pillar for the past five years.

Despite these considerable challenges, India does possess a number of remarkable strengths in the more advanced and complex drivers of competitiveness. This "reversed" pattern of development is characteristic of India. The country boasts a vast domestic market that allows for economies of scale and attracts investors. It can rely on a well-developed and sophisticated financial market (21st) that can channel financial resources to good use, and it boasts reasonably sophisticated (43rd) and innovative (38th) businesses.

Indonesia drops two places this year to 46th, following an impressive improvement of 11 places over the past two years. Indonesia remains one of the best-performing countries within the developing Asia region, behind Malaysia and China yet ahead of India, Vietnam, and the Philippines. The macroeconomic environment (23rd, up 12 places) continues to improve despite rising fears of inflation. Sound fiscal management has brought the budget deficit and public debt down to very low

levels, attributes that contribute to further upgrading the country's credit rating and to raising the country's ranking on the macroeconomic environment pillar to 23rd this year (up from 89th in 2007). The situation is also improving, albeit from a much lower base, in the area of physical infrastructure (76th, up six places), yet the quality of port facilities remains alarming and shows no sign of progress (103rd, down seven places, with a score of 3.6) and the electricity supply continues to be unreliable and scarce (98th). The assessment of public institutions continues to deteriorate, with a 10-place drop in the related pillar (71st), even though Indonesia does relatively well on selected components. Despite efforts to tackle the issue, corruption and bribery remain pervasive and are singled out by business executives as the most problematic factor for doing business in the country. Security, or the lack thereof, is again becoming a concern, and the business community assessed this indicator at levels similar to those seen in 2005 (91st).

Because it is now close to entering the efficiency-driven stage of development, according to the GCI classification, Indonesia's competitiveness increasingly depends on more complex elements, such as market efficiency. Addressing the many rigidities (120th) and inefficiencies of the labor market (94th) would ensure a more efficient allocation of labor. Additional productivity gains could be reaped by boosting technological readiness (94th), which remains very low, with slow and scant adoption of ICT by businesses and the population at large.

Vietnam's competitiveness assessment declines in this edition, dropping six places to 65th. The country loses ground in 10 of the 12 pillars of the GCI and only a significant improvement in the macroeconomic environment (65th, up 20 places) limits its fall in the rankings. Despite this considerable improvement, some macroeconomic challenges remain. The 2010 budget deficit was still too large, at 6 percent of GDP, and inflation moved back to near double-digit levels after having briefly receded the year before. Going forward, Vietnam will have to build on its strengths while addressing the economy's numerous challenges. Among its competitive strengths are its fairly efficient labor market (46th) and its innovation potential (66th) given its stage of development, including its relatively large market size (33rd), which benefits from a particularly large export market.

However, the challenges going forward are numerous and significant. Infrastructure, strained by rapid economic growth, remains a major challenge for the country despite some improvement in recent years, with particular concerns about the quality of roads (123rd) and ports (111th). And although education appears to be satisfactory in terms of quality, enrollment rates at all levels remain low (64th, 103rd, and 110th for primary, secondary, and tertiary enrollments, respectively). In order to further improve its competitiveness,

Vietnam must also continue to strengthen its institutional environment. Regulation is perceived as burdensome (113rd), with the number of procedures (9, 94th) and time (44 days, 119th) required to start a business making this a cumbersome process. In addition, there are concerns regarding the level of intellectual property protection (127th) and, to a lesser extent, the respect of property rights (98th). Finally, corruption is considered frequent and pervasive (104th).

Up 10 places to 75th, the **Philippines** posts one of the largest improvements in this year's rankings. The vast majority of individual indicators composing the GCI improve, sometimes markedly. Yet the challenges are many, especially in the areas at the foundation of any competitive economy, even at an early stage of development.

The quality of the country's public institutions continues to be assessed as poor: the Philippines ranks beyond the 100 mark on each of the 16 related indicators. Issues of corruption and physical security appear particularly acute (127th and 117th, respectively). The state of its infrastructure is improving marginally, but not nearly fast enough to meet the needs of the business sector. The country ranks a mediocre 113th for the overall state of its infrastructure, with particularly low marks for the quality of its seaport (123rd) and airport infrastructure (115th). Finally, despite an enrollment rate of around 90 percent, primary education is characterized by low-quality standards (110th). Against such weaknesses, the macroeconomic situation of the Philippines is more positive: the country is up 14 places to 54th in the macroeconomic environment pillar, thanks to slightly lower public deficit and debt, an improved country credit rating, and inflation that remains under control.

In the other, more complex pillars of the Index, the Philippines continues to have a vast opportunity for improvement. In particular, the largely inflexible and inefficient labor market (113th) has shown very little progress over the past four years. On a more positive note, the country ranks a good 57th in the business sophistication category, thanks to a large quantity of local suppliers, the existence of numerous and well-developed clusters, and an increased presence of Filipino businesses in the higher segments of the value chain. Finally, the sheer size of the domestic market (36th) confers a notable competitive advantage.

Up five places, **Pakistan** (118th) partially bounces back from last year's significant drop in rank. Yet, in several categories, it remains one of the poorest performers of the developing Asia region, and indeed of the entire sample of economies. It is particularly worrisome that Pakistan earns its lowest marks, with no sign of improvement, in the most basic areas of competitiveness, namely institutions (107th), infrastructure (115th), health and primary education (121st), and the macroeconomic environment (138th). In order to benefit

from the scale advantages associated with its significant market size (30th), Pakistan will have to decrease regulatory rigidities in the labor market (now ranked 136th) and reduce barriers to domestic and foreign competition in order to render the markets for goods and services more efficient (93rd). Last but not least, boosting the technological adoption of firms and the public at large would allow for considerable productivity increases in the country.

Latin America and the Caribbean

The economic outlook for Latin America shows a relatively rosy picture for the coming years, notwithstanding some uncertainty linked to a possible slowdown in Europe and the United States, both important trading partners. Despite a decrease in GDP of 1.8 percent in 2009, the region has managed to weather the global recession relatively well and has been growing steadily ever since. With a growth rate of around 6 percent in 2010 and expected rates of 4.75 percent in 2011 and 4.25 percent in 2012, the region has closed the output gap and the excess of capacity generated during the recession years, outperforming most advanced economies. However, in some commodity-exporting countries—such as Chile and Brazil, where economic growth is forecasted to reach 6.5 percent and 4.1 percent, respectively, in 2011—some signals of overheating with inflationary pressures have already started to accrue and are becoming increasingly worrisome.

The region's overall positive performance is linked both to an improvement in some competitiveness fundamentals, such as sounder fiscal and monetary policies and buoyant internal demand, and to favorable external conditions, including a robust demand for commodities from China and the progressive recovery of importing economies, notably the United States.

In terms of competitiveness, many countries have experienced significant improvements. Mexico (up eight positions), Peru (up six), Bolivia (up five), and Brazil (also up five) register the largest improvements, while Panama (up four), Ecuador (up four), Argentina (up two), Barbados (up one), and Uruguay (also up one) have seen more moderate progress. The rest of the countries in the region have either remained stable like Colombia, or have slightly declined. The highest drops in the region have been experienced in some countries of Central America—for example, in Costa Rica, Guatemala, El Salvador, Nicaragua, and Jamaica—mainly due to a deterioration of the security conditions.

In order to keep the positive momentum going, Latin America and the Caribbean will need to address some of the persistent challenges that constrain its competitiveness. While the region is vast and heterogeneous as a whole, four main key challenges that affect each country differently can be highlighted: (1) weak institutions with high costs associated with a lack of physical security; (2) poor development of infrastructure;

(3) an inefficient allocation of production and human resources; and, increasingly, (4) a lag in innovation vis-à-vis more developed, but also emerging, economies, as discussed in Box 4. Addressing these challenges in the next decade will be crucial to ensure the economic and social progress of the region.

Chile, at 31st—one position down but with a slight improvement in its score this year—remains the most competitive economy in the region. A solid institutional framework (26th) with a high level of trust in the rule of law and transparent public governance mechanisms, coupled with a sound and traditionally counter-cyclical macroeconomic policy (14th), have set solid foundations that have allowed Chile to grow at a steady pace since the early 1990s and benefit from one of the highest per capita incomes in the region. Early measures to open and liberalize its markets by introducing high levels of domestic (24th) and foreign (17th) competition, a relatively flexible labor market (49th), and one of the most sophisticated and efficient financial markets (21st) have also helped the country to maintain its long-term growth prospects in the past decades. Moreover, in recent years, the increase in international prices of commodities such as copper has provided Chile with an important source of revenue that has boosted the economic prospects of the country: GDP growth forecasts are at 6.5 percent for 2011 and 5.1 percent for 2012. This source of growth should provide the government with enough financial muscle to undertake the reconstruction needed after the 2009 earthquake without jeopardizing public finances, and to invest in those areas where the country depicts a weaker performance.

As Chile moves quickly toward higher levels of rent and the next stage of development, the solid basic requirements and efficiency enhancers that have paved the way for the economic success of the country thus far will give way to innovation, a pillar where at present Chile is lagging behind. Companies with low investment in R&D (60th) and a weak capacity for innovation (66th) act in an innovation environment characterized by relatively low-quality scientific research institutions (51st) and weak university-industry collaboration in R&D (44th). Moreover, the perceived poor quality of the overall educational system (87th)—especially of primary education (123rd), along with poor results in math and science (124th)—hinder the capacity of the economy to generate, diffuse, and use knowledge that can be brought into the market in the shape of new products or services. Making sufficient progress on this front is the major challenge that Chile will face in the next decade.

Barbados, at 42nd place, moves up one position in the rankings despite a severe deterioration of its macroeconomic stability. The decline in tourism resulting from the economic downturn has had a serious negative impact on the island's general economy as well

as its public finances in recent years. A large and rising government debt coupled with persistent budget deficits and a low national savings rate highlight some significant weaknesses that can affect the future capacity of the country to undertake the necessary investments to boost its competitiveness performance. Notwithstanding these weaknesses, Barbados can still leverage its strengths in terms of its stable, transparent, and reliable institutions (18th), high-quality infrastructures (22nd), and excellent educational system (ranked 5th in terms of primary education quality, 15th for the entire system, and 10th for the quality of math and science education).

Panama, for the second consecutive year, depicts the strongest competitive position in Central America and is the only country in the isthmus that manages to improve its performance, entering the top 50 at 49th position. The country has remained relatively stable in most competitiveness drivers. Overall, it benefits from important strengths in its efficient financial market (16th), solid transport infrastructures (39th), and very good technological adoption (12th), especially through FDI, where it is ranked 4th. In dynamic terms, it is important to highlight the progress the country has made in the quality of its port and air transport infrastructure (5th and 15th, respectively) and its fostering of stronger domestic competition (43rd). Notwithstanding these advantages, the country still faces important weaknesses in terms of education, where it demonstrates a relatively low level of secondary education enrollment (99th) and an overall poor quality of its educational system (131st). Panama also struggles with rigidities in its labor market (109th), low levels of public trust of politicians (109th), insufficient judicial independence (133rd), and favoritism in the decisions of government officials (120th)—a situation that has deteriorated in the past years.

Brazil improves five places to rank 53rd overall. The country benefits from several competitive strengths, including one of the world's largest internal markets (10th) and a sophisticated business environment (31st), thus allowing for important economies of scale and scope. Moreover, the country has one of the most efficient financial markets (40th) and one of the highest rates of technological adoption (47th) and innovation (44th) in the region. On a less positive note, Brazil still suffers from weaknesses that hinder its capacity to fulfill its tremendous competitive potential. The lagging quality of its overall infrastructure (104th) despite its Growth Acceleration Programme (PAC), its macroeconomic imbalances (115th), the poor overall quality of its educational system (115th), the rigidities in its labor market (121st), and insufficient progress to boost competition (132nd) are areas of increasing concern.

With one of the highest improvements in the regional rankings, moving up eight spots, **Mexico** occupies 58th position this year. The country's efforts to boost competition—although it remains an important weakness (103rd)—and its regulatory improvements

that facilitate entrepreneurial dynamism by reducing the number of procedures (34th) and the time (35th) required to start a business seem to be paying off, contributing to an improvement of the overall business environment. This development, coupled with the country's traditional competitive strengths such as its large internal market size (12th), fairly good transport infrastructure (47th), sound macroeconomic policies (39th), and strong levels of technological adoption (58th) have led Mexico to improve its competitive edge.

However, the country still suffers from important weaknesses that are holding back its capacity to further enhance competitiveness. Not much progress has been made in addressing the flaws in the public institutional framework (109th). Despite many efforts to fight organized crime, security concerns still exact a high price from the business community (139th). Adopting and implementing policies to boost domestic competition (107th), especially in strategic sectors such as ICT, energy, and retailing, along with additional reforms to render the labor market more efficient (114th) are still needed to increase the efficiency of the Mexican economy. Moreover, as the country continues to grow and move toward a higher stage of development and production costs rise, sustainable growth and higher wages will increasingly call for further reforms and investment to improve the educational and innovation systems. The current overall poor quality of the educational system (107th), insufficient company spending in R&D (79th), and limited innovation capacity (76th) can jeopardize the future ability of the country to compete internationally in higher-value-added sectors.

Costa Rica, at 61st position, declines slightly in this year's rankings. The main reasons for this drop are the perceived deterioration in the country's sense of security (97th)—a common feature of almost all Central American economies—and the lack of improvement to its transport infrastructure (121st), caused by insufficient maintenance and investment. These two areas, in addition to the macroeconomic imbalances seen in its high budget deficit (103rd) and inflation (100th), the excessive red tape that makes it cumbersome and time consuming to start a new business, and a scarcity of financial resources for the private sector—be it through equity finance (121st) or loans (119th)—are the most important constraints to the country's competitive potential. With solid economic growth over the past two years and fairly rosy forecasts of around 4.5 percent GDP growth rates for the coming years, the country should use this window of opportunity to address these challenges and leverage its many important strengths.

Notwithstanding these challenges, Costa Rica still depicts a fairly strong overall position in the region thanks to its friendly policies toward trade, with low trade tariffs (44th) and few constraints on FDI, and its strong educational system—both in terms of

pre-university enrollment rates and overall quality (23th). Moreover, the country presents strong levels of technological adoption (44th) with many companies in high-tech industries, as well as solid business sophistication (35th) and innovation (35th). All these factors facilitate the creation, diffusion, and adoption of new knowledge that, if properly brought into the market, can generate significant benefits.

With a stable performance, **Uruguay** moves up one place to 63rd position. The country leverages its traditional competitiveness strengths: its transparent and well-functioning public institutions (35th), its high rates of education enrollment (16th for primary education and 25th for tertiary education), and its stable policies that encourage FDI (6th) allow the country to gain access to technology transfers (9th). Moreover, its rapid economic growth of the past years—with annual growth rates of around 6.5 percent since 2004, 2.9 percent in 2009 (a result of the global downturn), and 8.5 percent in 2010—has allowed the country to regain a greater macroeconomic stability, climbing from 107th to 59th place. Economic growth has been led by private consumption and rising international commodity prices, which in the last year has allowed a reduction of the government deficit and the overall level of public debt. However, despite this progress, inflationary pressures (110th) and the reduction of the national savings rate (84th) hint to an overheating of the economy, which can bring about significant macroeconomic distress if not properly tackled. Moreover, as Uruguay keeps growing and moves steadily toward a higher stage of development, policies to increase domestic competition (today ranked 92nd) that would incentivize higher business-sector investment in R&D (56th) and innovation capacity (65th) will become increasingly important.

As in recent editions, **Peru** at 67th place continues to move upward in the rankings. Its improvements in macroeconomic stability (52nd), thanks to a better control of inflation and a reduction of the government deficit and debt, coupled with a friendlier environment for entrepreneurship with fewer procedures (34th) and less time (91st) needed to start a business, have contributed to strengthening the country's competitive edge. Moreover, the consolidation of the efficiency gains in both the labor (43rd) and financial (38th) markets, the relatively large size of the domestic market (43rd), and the country's openness to international trade and FDI have also contributed to sustaining Peru's competitiveness progress in the past four years.

Notwithstanding these past improvements, Peru's economy still faces a number of important challenges that hamper its competitiveness potential. A relatively weak public institutional environment (103rd), an insufficiently developed transport infrastructure network (93rd), an educational system in need of higher quality (128th), and the very low level of innovation (113th) are areas for further effort. The impressive economic

Box 4: The innovation challenge for Latin America

The rapid and robust recovery of Latin America from the global economic downturn has demonstrated the economic and financial strength of the region. Efforts to maintain a stable macroeconomic framework coupled with a buoyant international demand for commodities and strong internal consumption have paved the way for this good result and for positive forecasts for its future economic growth. This optimistic outlook has led many to speak about a “Latin American decade” to describe the expectations of economic progress for the region, similar to that experienced in many Asian economies in the past decade.

Notwithstanding past improvements and positive prospects, the persistence of low productivity rates casts some doubt about the capacity of the region to sustain this recent economic growth in the long run.¹ Overall, the region still suffers from important bottlenecks that hamper competitiveness. Among these are physical insecurity, a weak institutional framework, poor infrastructure, and, in some cases, low levels of competition and rigid labor markets.

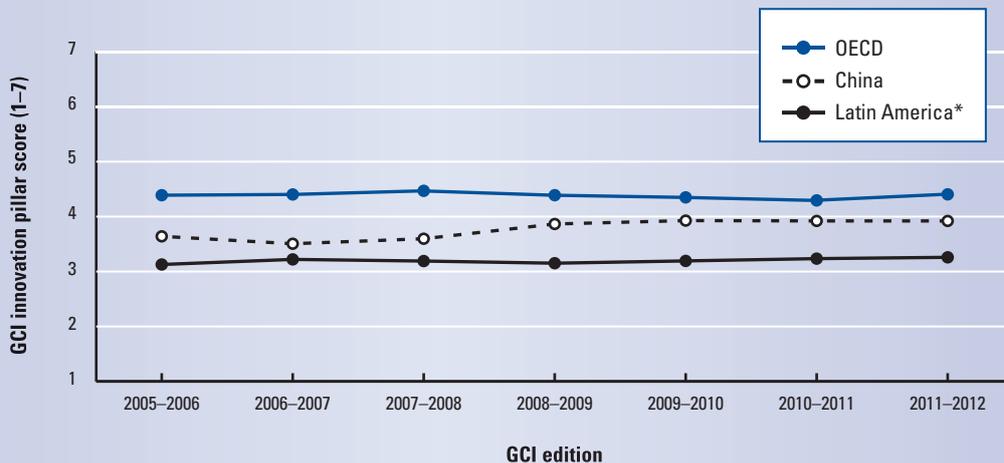
Moreover, as several countries steadily move toward higher stages of development, a new challenge gains increasing importance: the need to boost innovation. Innovation is widely recognized as one of the most important engines behind productivity gains and societal progress. Innovation, defined broadly as the capacity to bring new ideas into the market,

allows companies—and countries—to shift toward higher-value-added activities, secure higher-paid jobs, and address important societal challenges such as climate change, pollution, and poor health.

Traditionally, innovation has been dominated by developed economies. However, the global landscape of innovation is rapidly changing with the appearance of new players. In the past decade, emerging economies such as China have boosted their innovation performance, becoming important centers of R&D investment, publications, and patent applications.² While innovation is a broader concept than technological development, these indicators show the sharp rise of the capacity of the new players to generate new knowledge.

In this changing context, Latin America seems to trail many other countries. The Global Competitiveness Index includes several indicators that measure the conditions and performance of innovation. As Figure 1 shows, on average, Latin America has had a relatively stable innovation performance in recent years, although it is still lagging substantially behind Organisation for Economic Co-operation and Development (OECD) economies. Moreover, while some countries such as China have started to catch up with advanced economies, Latin America has not managed to start converging yet.

Figure 1: Trends in the GCI innovation pillar score, 2005–11



* The Latin American average includes Argentina, Barbados, Brazil, Chile, Colombia, Mexico, Panama, Costa Rica, Mexico, Panama, Peru, Puerto Rico, and Uruguay. Together these countries represent more than 90 percent of the regional GDP.

(Cont'd.)

Box 4: The innovation challenge for Latin America (cont'd.)

While innovation performance is not homogeneous across the region, with some countries (such as Brazil and Chile) performing better than others (such as Argentina and Peru), all countries in the region underperform vis-à-vis the OECD average and rapidly emerging economies such as China.

In order to boost their innovation potential, countries in Latin America will have to invest more and better in innovation as well as develop environments that are more conducive to it. Higher investment in innovation will require a larger allocation of public and private resources toward education and training activities and R&D. In order to enhance the efficiency of these investments, countries will need to identify those areas where they can reach a meaningful critical mass to achieve competitive advantages. Moreover, better enabling environments for innovation will require boosting competition so that firms engage in innovation activities to differentiate their product or service offering; reforming the educational and training systems in the country to improve their quality and ensure a better alignment with the changing requirements of firms; and incentivizing the use of information and communication technologies throughout the economy. In addition, governments will also have to ensure sufficient access to financial resources

to undertake risk-taking initiatives, develop a better protection of intellectual property rights, and engage in more active innovation-led procurement policies in order to accelerate the creation of new markets for innovative products and services.

In recent years, the region has become increasingly aware of the need to boost innovation in order to facilitate the transition toward higher productivity models. While several countries, such as Chile, have designed and implemented pro-innovation policies, more effort should be made to strengthen the innovation systems in the region. The current positive economic outlook provides a very good opportunity to adopt the required reforms and investments needed and to start bridging the productivity gap.

Notes

- 1 IADB 2010.
- 2 European Commission 2011.

Table 1: Innovation investment, conditions, and performance

	OECD		China		Brazil		Chile		Colombia		Mexico		Argentina		Peru	
	Score	Rank	Score	Rank												
INNOVATION PILLAR	4.4	29	3.9	44	3.5	46	3.5	57	3.3	63	3.2	78	3.1	113	2.7	
Enabling environment																
Competition	4.8	66	4.3	132	3.6	23	4.9	128	3.7	103	4.0	141	3.0	59	4.4	
Quality of math and science education	4.6	31	4.7	127	2.7	87	2.8	83	3.7	126	2.7	113	3.2	135	2.4	
Quality of education system	4.4	54	4.0	115	3.0	124	3.4	72	3.7	107	3.1	86	3.4	128	2.6	
ICT use	4.9	74	2.5	63	2.7	56	3.0	78	2.5	73	2.5	55	3.0	82	2.3	
Gov't procurement of advanced tech products	3.9	16	4.4	52	3.9	47	4.0	45	4.0	75	3.6	127	2.8	98	3.3	
Intellectual property protection	4.9	47	4.0	84	3.2	63	3.6	86	3.2	85	3.2	128	2.5	122	2.5	
Venture capital availability	3.1	22	3.5	52	2.8	34	3.1	49	2.9	78	2.5	129	1.9	38	3.0	
Investment																
Company spending on R&D	4.2	23	4.2	30	3.8	60	3.1	76	3.0	79	2.9	72	3.0	118	2.6	
Quality of scientific research institutions	5.0	38	4.3	42	4.1	51	4.0	69	3.6	54	3.9	41	4.2	109	2.9	
University-industry collaboration in R&D	4.7	29	4.5	38	4.2	44	4.1	43	4.1	45	4.0	48	3.9	103	3.2	
Availability of scientists and engineers	4.8	33	4.6	91	3.8	29	4.7	77	4.0	86	3.9	75	4.0	102	3.5	
Performance																
Capacity for innovation	4.3	23	4.2	31	3.8	66	3.0	59	3.2	76	2.9	77	2.9	99	2.7	
Utility patents per million population	89.8	46	2.0	60	0.9	53	1.3	76	0.1	58	0.9	55	1.1	83	0.0	

Note: The score on the innovation pillar is composed of a subset of the variables that appear in the table above.

outlook for the next years, with GDP growth rates forecasted at 7.5 percent for 2011 and 5.8 percent for 2012 thanks to high mineral prices, provides a good opportunity to undertake the necessary investments and reforms to address its pending competitive limitations.

In the same position as last year, **Colombia** at 68th place experiences an improvement in its overall score, which goes up from 4.14 last year to 4.20. The competitive strengths of the country cluster around a sound and stable macroeconomic environment (42nd) characterized by a low inflation rate and manageable levels of public debt and deficit; an improving educational system with a high level of enrollment and, although still a challenge, rising quality (72nd); and a large domestic market (28th). On the other hand, despite the sustained efforts of the government to improve social pacification and eradicate organized crime, security concerns (138th) remain very high on the list of factors dragging down its competitive potential. In addition, improved regulation to foster domestic competition (124th) and facilitate a more efficient allocation of resources, as well as further investments to improve the transport infrastructure (105th), are needed.

Argentina remains fairly stable this year at 85th, rising two positions in the rankings. The extraordinary competitive potential of the country that benefits from a large domestic market size (22nd) and a population that has a fairly high level of education, with one of the highest tertiary education enrollment rates in the region (21st), remains unfulfilled because of both a lack of trust in its institutions (134th) and the large inefficiencies in its allocation of goods (137th), as well as labor (131st) and financial (126th) resources. More precisely, the country's low public trust of politicians (138th), the uncertainties and favoritism in the decisions of government officials (139th), and the poor assessment of government efficiency (138th) contribute to weakening the foundations of the country's institutional framework. Excessive red tape (131st) that benefits the expansion of the informal economy, enduring distortions of domestic competition (140th), and high barriers to trade (142nd) bring about an inefficient allocation of resources in the goods market. Moreover, a lack of confidence in the financial system (116th) hinders the economy's capacity to mobilize and channel financial resources in an efficient manner. The result is that businesses in the country face difficulties in accessing equity through local markets (114th), loans (134th), or venture capital (129th) to finance their investment decisions. Finally, the progressive deterioration of the country's macroeconomic stability (62nd), which was firmly controlled after the 2001 crisis with the adoption of pro-cyclical policies and a two-digit inflation rate, casts additional worrisome uncertainties about the sustainability of its economic growth. Unless these weaknesses are addressed and structural reforms introduced, the high growth that the economy has experienced since 2003

is unlikely to continue, especially once favorable international conditions and high food prices start to fade. This could lead the economy back into the erratic fluctuations of the past, characterized by high expansionary periods followed by deep recessions.

This edition of the GCR analyzes the competitiveness of **Belize** for the first time. The country ranks 123rd, due to weak institutions (120th), especially in terms of lack of security (122nd), poor infrastructure, and an insufficient level of competition that hinders efficient allocation of resources in the goods market. Moreover, while the country scores well in terms of primary education enrollment with virtually universal schooling, the rate of people attending higher education is very low (105th), as is the quality of the overall educational system (126th). Policies addressing these weaknesses will help boosting the competitive edge of the country.

Venezuela (124th) continues to fall in the rankings, despite a slight improvement in its overall score. The poor quality of the country's public institutions is ranked the worst in the sample at 142nd place. This dismal showing, coupled with severe weaknesses in its markets efficiency—especially for its goods and labor markets, where the country repeats as the worst performer—and a deterioration in the macroeconomic stability have led Venezuela to feature at the bottom of the region and among the least competitive countries in the world. Despite being at the forefront in of its tertiary education enrollment rate (8th), the overall quality of the educational system is weak (121st). This, added to a lack of sophisticated businesses (124th) and poor innovation potential (126th), critically constrain the competitiveness performance of the country.

Haiti is included in the analysis for the first time and comes in at 141st place. The country suffers from important weaknesses in many areas and is still recovering from the consequences of the devastating earthquake of 2010. Nevertheless, some positive aspects of its macroeconomic environment, its openness to trade, and its flexible labor market bode well for the country's future and could provide a fruitful basis for future reforms. We hope that Haiti's inclusion in the GCR will help guide and define the strategic agenda for its reconstruction, putting its economy on a more solid footing and contributing to eradicating poverty in the country.

Middle East and North Africa

Over the past year, the Middle East and North Africa (MENA) region has been affected by a great deal of turbulence that will have an impact on national competitiveness and might further exacerbate the competitiveness gap between the Gulf economies and the rest of the region. This trend is reflected in this year's GCI results, where most Gulf countries continue to move up in the rankings, while the competitiveness of many countries from North Africa and the Levant stagnates

or deteriorates. Box 5 further analyzes how the Arab Spring could influence competitiveness in the region. One country, Yemen, has been added to the sample this year and enters at 138th position.

Qatar reaffirms its position as the most competitive economy in the region by moving up three places to 14th position, sustained by improvements in its macroeconomic environment, business sophistication, and innovation. Its strong performance in terms of competitiveness rests on solid foundations made up of a high-quality institutional framework where it ranks 14th overall, a stable macroeconomic environment (5th), and an efficient goods market (17th). Low levels of corruption and undue influence on government decisions, high efficiency of government institutions, and high levels of security are the cornerstones of the country's very solid institutional framework. These institutional attributes provide good foundations for 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. Despite efforts to strengthen the financial sector, its trustworthiness and confidence and the soundness of banks are assessed as low by the business community (80th) and legal rights of borrowers and lenders are seen as underprotected (105th). Given its high wage level, diversification into other sectors will require the country to raise productivity by continuing to promote a greater use of the latest technologies (33rd) and by fostering more openness to foreign competition, currently ranked at 53rd—reflecting barriers to international trade and investment.

Saudi Arabia maintains the second-best place in the region and moves up by four ranks to reach 17th position. The country has seen a number of improvements to its competitiveness in recent years, which have resulted in a solid institutional framework, efficient markets, and sophisticated businesses. Improvements to the institutional framework (up by nine places)—in particular, a better assessment of the security situation by business (4th) and stronger private institutions (17th), as well as better macroeconomic results—have contributed to a better positioning in this year's GCI. The macroeconomic environment benefitted from rising energy prices, which buoyed the budget balance into surplus in 2010, although it still remained significantly below pre-crisis levels. Additionally, the country's largest stimulus package among the G-20 contributed to improving infrastructure in the country.

As much as the recent developments are commendable, the country faces important challenges going forward. Health and education do not reach the standards of other countries at similar income levels. While some progress is visible in health outcomes and the quality of education is increasing quickly, improvements are taking place from a low level. As a result,

Box 5: Arab Spring and the GCI competitiveness assessment

The events now being called the *Arab Spring* began sweeping across the region in early 2011, bringing about political change and creating expectations of increased prosperity over time. *The Global Competitiveness Report* covers a number of countries that were affected by these events and notes shifts in the competitiveness performance of some economies. However, the full extent of the impact of the Arab Spring could not be captured this year because of lags in data.

Statistical data used in the Global Competitive Index (GCI), which accounts for about one third of the variables, dates back to 2010 and in some cases earlier, and therefore does not capture the changing situation. The Executive Opinion Survey (Survey), which includes the remaining data, was carried out between February and May 2011 and captures the turbulence and political change in the region to varying degrees. In one case, Libya, social unrest was so disruptive that the data could not be collected, making the inclusion of the country not possible in this year's edition of the *Report*. Tunisia and Egypt, where the events peaked in mid January and mid February with the resignation of their respective presidents, are the only countries where the Survey data captured the situation in the wake of the political change. For both countries, the GCI ranking drops considerably—by 13 places for Egypt and 8 for Tunisia. In both countries, the drop likely reflects increased uncertainty regarding the future direction of economic policy as well as higher public awareness of the countries' structural weaknesses, resulting mainly in poorer assessments of different aspects of public and private institutions and, to a lesser degree, also deteriorating goods and labor markets efficiency. Similar developments can be observed in some other countries from North Africa and the Levant, notably Jordan, Lebanon, and Algeria.

The extent to which competitiveness is affected varies across countries and is impossible to quantify at this early stage. The full impact of political change on national competitiveness will thus be captured only in the next iteration of this *Report*.

the country continues to occupy low ranks in the health and primary education pillar (61st), and room for improvement remains on the higher education and training pillar (36th). Boosting these areas, in addition to fostering a more efficient labor market (50th), are of great significance to Saudi Arabia given the growing numbers of its young people who will enter the labor market over the next years. More efficient use of talent 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, the use of the latest technologies can be enhanced (43rd); this is an

area where Saudi Arabia continues to lag behind other Gulf economies.

Israel ranks 22nd in this year's GCI, gaining ground for the second year in a row after having previously declined in the rankings. The country's main strengths remain its world-class capacity for innovation (6th), which rests on highly innovative businesses that benefit from the presence of the world's best research institutions, geared toward the needs of the business sector. The excellent innovation capacity, which is additionally supported by the government's public procurement policies, is reflected in the country's high number of patents (4th). Its favorable financial environment (10th), particularly the solid availability of venture capital (2nd), has further contributed to making Israel an innovation powerhouse; these elements have become stronger in the course of the past year. Challenges to maintaining and improving national competitiveness relate to the need for continued upgrading of institutions (33rd) and a renewed focus on raising the bar in terms of the quality of education. If not addressed, poor educational outcomes, in particular in the area of math and science (79th), could undermine the country's innovation-driven competitiveness strategy over the longer term. As in previous years, the security situation remains fragile and imposes a high cost on business (74th). Room for improvement also remains with respect to the macroeconomic environment (53rd), where increased budgetary discipline with a view to reducing debt levels would help the country maintain stability and support economic growth going into the future.

For the second year in a row, the **United Arab Emirates** loses two places in the GCI to take the 27th position. The drop reflects deterioration in a number of areas, but the most striking is the country's loss of its ability to harness the latest technologies for productivity improvements. The country's overall competitiveness reflects the high quality of its infrastructure, where it ranks a very good 8th, as well as its highly efficient goods markets (10th). Strong macroeconomic stability (11th) and some positive aspects of the country's institutions—such as an improving public trust in politicians (8th) and high government efficiency (5th)—round up the list of competitive advantages. However, over recent years, we have observed a lower assessment of institutions overall—an assessment that was probably affected by the particular severity of the country's economic crisis. The resulting reorientation of the country's development model will demand solid foundations in competitiveness and a continuation of competitiveness-enhancing structural reforms to reduce the risk of asset bubbles and put economic development on a more stable footing. Priorities in this context should include further investment to boost health and educational outcomes. 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 incentivizing the population to attend schools at the primary and secondary levels.

Tunisia, the country where the Arab Spring began, drops by eight positions to 40th place overall, likely reflecting instability of the business environment during the uprising (see also Box 5) as well as a heightened awareness of a number of challenges the country is facing. These include a less favorable assessment of the quality of public and private institutions, which drops from 23rd last year to 41st this year. The institutional framework is perceived as more prone to corruption and government favoritism, and the judiciary as less independent, than in previous years. Not surprisingly, the security situation—one of the country's main competitive advantages in the past—takes a much higher toll on business activity in this year's GCI, dropping from 14th to 47th.

However, the fact that the events have not affected two of the country's core competitive strengths bodes well for the future. First, Tunisia continues to display solid educational outcomes, which remain significantly above the North African average not only in terms of quality (33rd), but also for participation at the primary and secondary levels. And second, a healthy macroeconomic environment was maintained so the country's new government will benefit from manageable levels of public debt and a low budget deficit. Despite these strengths, the future economic agenda is challenging. It will require that political leaders not lose sight of the long-term picture by resisting public pressures that might take the focus off competitiveness-enhancing reforms and investments. Providing the country's youth with employment opportunities in the future will require not only more efficient and flexible labor markets and a more meritocratic business culture, but also business activity must be unleashed by creating a business environment that is more conducive to vibrant and healthy competition, notably by reducing domestic barriers to market entry—presently constrained by red tape and high taxes—and by lowering import tariffs.

Similar to Tunisia, **Egypt** drops 13 places to 94th in this year's GCI rankings. Recent events brought to light the country's numerous challenges, a number of which are among the root causes of the uprising. The country's new political leadership will need to address several competitive challenges, starting with a reform of the labor market, which suffers from an inefficient use of available talent, rigid labor regulations, and little cooperation between labor and employers. Yet unleashing job creation will also necessitate boosting demand for labor by establishing a framework that would allow for more vibrant domestic competition and greater openness to trade and FDI. Combined with the country's large market size and its potential for increasing exports given its proximity to the large European market, competitiveness-enhancing reforms could efficiently enhance business activity in the shorter to medium term. A longer-term issue that remains to be tackled

is the overhaul of the educational system, which needs to gear educational outcomes more strongly toward the needs of the business community and ensure high enrollment. Contrary to Tunisia, the macroeconomic situation in Egypt is less favorable than the country's other indicators. Although public debt has been reduced in the past, the fiscal deficit and inflation continue to burden the economy. Going forward, providing Egypt's population with opportunities and prosperity in the future will require putting the country on a higher and more sustainable growth path. This can be achieved only by resisting pressures against the reform process in these challenging times and focusing on a competitiveness-enhancing agenda that will raise the economy's productivity levels.

The regional rankings close with **Yemen**, which enters the GCI sample for the first time at 138th place. The low ranking reflects the numerous challenges the country faces in order to improve competitiveness and enhance economic growth. Among the limitations to be addressed on a priority basis, given the country's factor-driven stage of development, are its weak institutional framework (140th) as it relates to both public-sector and private-sector governance and its poor educational and health outcomes (127th), as well as its underdeveloped infrastructure (132nd). Tackling these challenges would enable the country to experience some productivity improvements, building on strengths such as its market size, the economy's openness to trade, and its flexible labor markets.

Sub-Saharan Africa

Sub-Saharan Africa has grown impressively over the last 15 years. It has bounced back rapidly from the global economic crisis, and its growth rates continue to exceed the global average. Indeed, some African countries improve with respect to national competitiveness this year. South Africa and Mauritius remain in the top half of the rankings, having advanced since last year. There have also been measurable improvements across specific areas in a number of other African countries. On the other hand, some significant declines have registered in countries that were previously striding ahead. More generally, sub-Saharan Africa as a whole lags behind 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. For a discussion of the recent trends in competitiveness of the sub-Saharan African countries, see Box 6.

South Africa moves up by four places to attain 50th position this year, remaining the highest-ranked country in sub-Saharan Africa and the second-placed among the BRICS economies. The country benefits from the large size of its economy, particularly by regional standards (it is ranked 25th in the market size pillar). It also does well on measures of the quality of institutions and factor allocation, such as intellectual

property protection (30th), property rights (30th), the accountability of its private institutions (3rd), and its goods market efficiency (32nd). Particularly impressive is the country's financial market development (4th), indicating high confidence in South Africa's financial markets at a time when trust is returning only slowly in many other parts of the world. South Africa also does reasonably well in more complex areas such as business sophistication (38th) and innovation (41st), benefiting from good scientific research institutions (30th) and strong collaboration between universities and the business sector in innovation (26th).

These combined attributes make South Africa the most competitive economy in the region. However, in order to further enhance its competitiveness the country will need to address some weaknesses. South Africa ranks 95th in labor market efficiency, with rigid hiring and firing practices (139th), a lack of flexibility in wage determination by companies (138th), and significant tensions in labor-employer relations (138th). Efforts must also be made to increase the university enrollment rate of only 15 percent, which places the country 97th overall, in order to better develop its innovation potential. In addition, South Africa's infrastructure, although good by regional standards, requires upgrading (62nd). The poor security situation remains another important obstacle to doing business in South Africa. The business costs of crime and violence (136th) and the sense that the police are unable to provide protection from crime (95th) do not contribute to an environment that fosters competitiveness. Another major concern remains the health of the workforce, which is ranked 129th out of 142 economies—the result of high rates of communicable diseases and poor health indicators more generally.

Mauritius is ranked 54th this year, up one place since last year, the second-highest ranked country in the region after South Africa. The country benefits from strong and transparent public institutions, with clear property rights, strong judicial independence, and an efficient government. Private institutions are rated as highly accountable (19th), with effective auditing and accounting standards and strong investor protection. The country's infrastructure is well developed by regional standards, particularly its ports, air transport, and fixed telephony. Its health standards are also impressive compared with those of other sub-Saharan African countries. Further, its goods markets are efficient (28th).

However, efforts continue to be required in the area of education. Educational enrollment rates remain low at all levels, and its educational system gets only mediocre marks for quality. Beyond its educational weaknesses, its labor markets could be made more efficient—it has stringent hiring and firing laws (82nd) and wages that are not flexibly determined (107th), reducing the incentive for job creation in the country.

Rwanda moves up by 10 places this year to 70th position, placing third in the sub-Saharan African

Box 6: Is Sub-Saharan Africa's competitiveness improving?

Sub-Saharan Africa has seen an economic resurgence over the past decade. According to the International Monetary Fund, GDP growth on the continent averaged 5.5 percent annually between 2000 and 2010; the same rate is also expected in 2011. This is higher than the global average of 4.4 percent, and well above the projected advanced economy growth rate of 2.4 percent. Although the region experienced a small dip in growth in 2009 to below 3 percent, it is notable that Africa's growth remained positive while the global economy actually contracted. Africa has clearly weathered the global economic crisis better than many other parts of the world.

Given Africa's recent impressive economic performance, the question of whether the growth can be expected to continue into the future remains. Future growth would require that the recent growth surge be based on improvements in competitiveness and productivity. There is no doubt that the key driver of the recent growth surge was the increase in commodity prices, which does not necessarily translate into higher productivity unless it is accompanied by appropriate measures and policies. It has also been argued that one of the main reasons Africa has been less affected by the global economic crisis than some other regions, notably many advanced economies, was not its strong productivity fundamentals but the limited integration of most of the region's economies, especially their financial markets, into the global economy. Although this fact sheltered African economies over the shorter term, it will hold back their development over the longer term.

The Global Competitiveness Index (GCI) provides a useful diagnostic of how African countries are faring in terms of putting into place the fundamentals that will keep them growing quickly—indeed, that will get them onto the higher growth trajectory needed to ensure the rapid increases in living standards seen in other developing regions, such as much of emerging Asia.

It is clear from the discussion in the chapter that much remains to be achieved across most of Africa in order to make the region more competitive. Only two African economies, South Africa and Mauritius, are in the top half of the GCI rankings; in fact, among the bottom 20 economies, 13 hail from the region. However, given recent achievements, a pertinent question is whether Africa is going in the right direction. In other words, have African countries been improving their competitiveness?

In order to get a sense of the progress that has been made and the extent of the region's convergence with other countries, Figure 1 shows the trend in Africa's average GCI scores, based on the constant sample of African countries that have been included since the GCI was introduced in 2005. Africa's average performance is compared with that of the Organisation

for Economic Co-operation and Development (OECD) average, providing a sense of how Africa's competitiveness has compared over the period with that of the world's most advanced economies.

As the figure shows, over the seven-year period there has been mild convergence in terms of score with that of the OECD. Specifically, the average score for the OECD remained stable at 4.9 (out of a maximum of 7) over the period, whereas the average score for the sub-Saharan African countries improved by 0.3, going up from 3.4 in 2005 to 3.7 in 2011. Since 2005, therefore, the results show that African countries have made some improvements in their competitiveness fundamentals. African countries have introduced more sustainable fiscal policies, better managed inflation, and reduced their debt (often in the context of international efforts on Least Developed Countries' debt reduction). Some have gone further, addressing fundamental structural rigidities by divesting from private-sector activity, opening up some publicly dominated sectors—such as telecommunications—and improving market efficiency, particularly labor markets.

This trend is accompanied by a more optimistic outlook for the future. Figure 2 shows the responses to a question in the Executive Opinion Survey, which asks business leaders about the likelihood of a recession over the next year in economy in which they operate. As the figure indicates, since 2005, when business leaders from the OECD were only slightly more optimistic about their countries' economic prospects, those from sub-Saharan Africa have been measurably more positive, particularly over the past two years. Recently they have also been getting closer to the understandably high comparative optimism of business leaders operating in China.

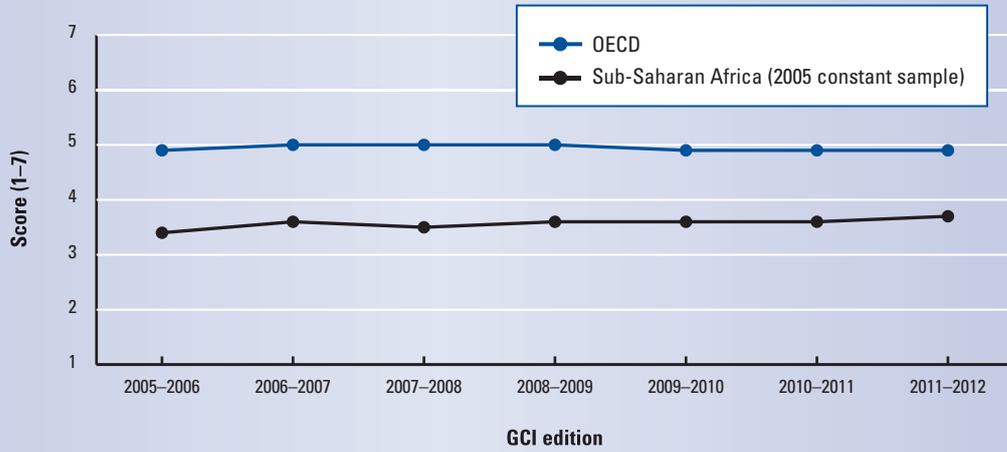
Yet despite recent positive trends and perspectives, Figure 1 also shows that Africa's competitiveness continues to lag significantly behind those of more advanced economies. It is therefore clear that much remains to be achieved to ensure that the recent strong growth continues into the future. The GCI results indicate that among the areas most in need of improvement are upgrading infrastructure, improving educational systems, and developing the more solid institutional structures required to support rapid economic development.

Indeed, to complement the analysis in the chapter, Figure 3 shows the most problematic factors for African countries from the perspective of Africa's business leaders. As the figure illustrates, access to financing, corruption, and an inadequate supply of infrastructure are seen to be significant hindrances to doing business in Africa. These are issues that must be tackled in order to facilitate the wealth and job creation that is still so needed in the region.

(Cont'd.)

Box 6: Is Sub-Saharan Africa's competitiveness improving? (cont'd.)

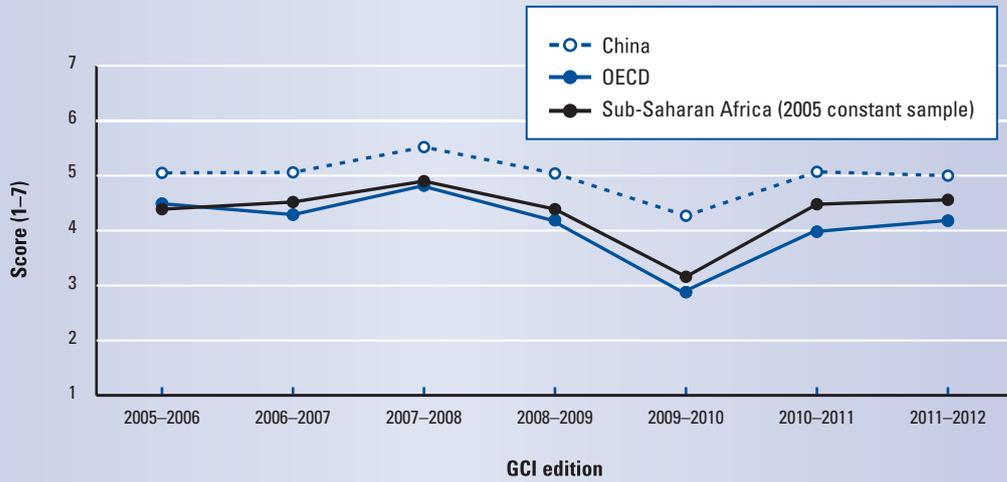
Figure 1: Trends in GCI scores, 2005–11



Source: Authors' calculations based on the World Economic Forum's *Global Competitiveness Reports*, various years.

Note: Seventeen sub-Saharan countries are included in the constant sample average: namely Benin, Botswana, Cameroon, Chad, Ethiopia, Gambia, Kenya, Madagascar, Mali, Mauritius, Mozambique, Namibia, Nigeria, South Africa, Tanzania, Uganda, and Zimbabwe.

Figure 2: Recession expectations in the business community, 2005–11



Source: World Economic Forum, Executive Opinion Survey (various years).

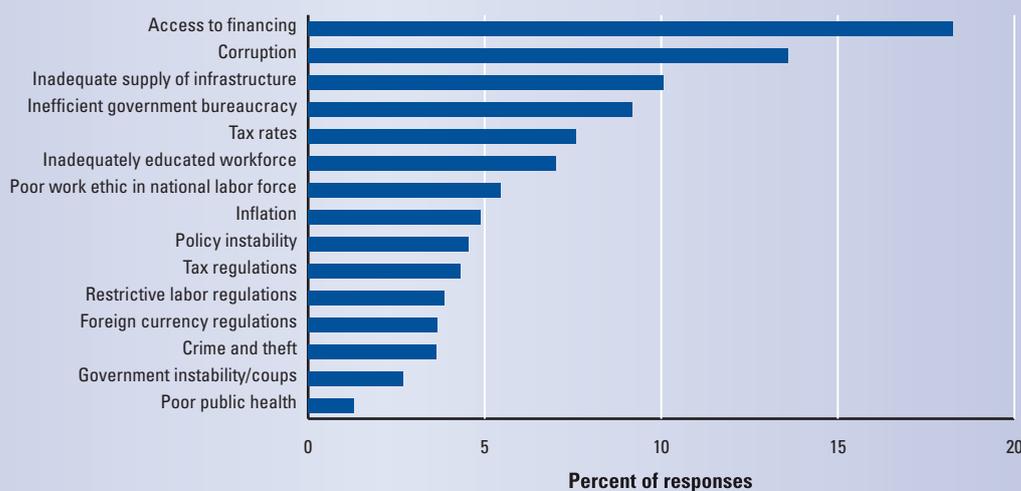
(Cont'd.)

Box 6: Is Sub-Saharan Africa's competitiveness improving? (cont'd.)

The results provide cause for cautious optimism. Africa's competitiveness has been improving in recent years in specific areas. However, looking forward, to better enable African economies to ensure a solid future economic performance, they must continue to make efforts to develop economic environments that are based on productivity enhancements. This

means keeping a clear focus on strengthening the institutional, physical, and human capital prerequisites for a strong and competitive private-sector led development. Only in this way will Africa be able to sustain and even accelerate its progress in the positive direction that it has taken over the past decade.

Figure 3: The most problematic factors for doing business: Sub-Saharan African average



region. As do the other comparatively successful African countries, Rwanda benefits from strong and well-functioning institutions, with very low levels of corruption (an outcome that is certainly related to the government's non-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.

Although **Botswana** falls four places to 80th rank, it remains one of the four most competitive economies in the region. Among the country's strengths are its reliable and legitimate institutions (32nd), with efficient government spending, strong public trust of politicians, and low levels of corruption. While it is still better rated than a number of industrialized countries, Botswana's macroeconomic environment has deteriorated, dropping

from 41st place two years ago to 82nd this year.

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 remain very high despite some improvements in recent years.

Namibia falls nine places this year to 83rd place, with a particular weakening of the macroeconomic environment since last year, caused in large part by a significant government budget deficit in 2010. The country continues to benefit from a solid institutional environment (43rd), with well-protected property rights, an independent judiciary, and strong public trust of politicians. The country's transport infrastructure is also good by regional standards (40th) and its labor market (57th) functions fairly well. Financial markets are well developed by international standards (36th),

along with a solid confidence in financial institutions. With regard to weaknesses, as in much of the region, Namibia's health and education indicators are worrisome. The country is ranked a low 116th on the health subpillar, 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, ranked 127th. In addition, Namibia could do more to harness new technologies to improve its productivity levels; it currently shows low penetration rates of new technologies such as mobile phones and the Internet.

Kenya moves up four places to rank 102nd this year. 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 52nd, 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 fairly good marks for quality (51st) as well as for on-the-job training (54th). The economy is also supported by financial markets that are well developed by international standards (26th) and a relatively efficient labor market (37th). On the other hand, Kenya's overall competitiveness is held back by a number of factors. Health is an area of serious concern (122nd), with a high prevalence of communicable diseases contributing to the low life expectancy of less than 55 years and reducing the productivity of the workforce. The security situation in Kenya is also worrisome (129th). It is hoped that the reforms in the context of the new constitution will bring about improvements in several of these areas.

Ghana is ranked 114th this year, the same as last year, although it gains one position in a constant sample. The country continues to display strong public institutions and governance indicators with relatively high government efficiency, particularly in regional comparison. Some aspects of its infrastructure are also good by regional standards, particularly the state of its ports (66th). Financial markets are also relatively well developed (61st). On the other hand, education levels continue to lag behind international standards at all levels, labor markets continue to be characterized by inefficiencies, and the country is not harnessing new technologies for productivity enhancements (ICT adoption rates are very low). Finally, Ghana suffers from macroeconomic instability (it is ranked a low 139th in this pillar), with the government running high fiscal deficits and building up significant debt; the country is also experiencing high, albeit improving, inflation.

Tanzania is ranked 120th, falling by six positions in a constant sample of economies included last year.

The country's performance remains quite stable and the change in rank is mainly the result of other countries improving more quickly. Tanzania benefits from public institutions characterized by a reasonable public trust of politicians (53rd) and relative evenhandedness in the government's dealings with the private sector (49th). In addition, some aspects of the labor markets lend themselves to efficiency, such as a high female participation in the labor force (5th) and reasonable redundancy costs. On the other hand, infrastructure in the country is underdeveloped (130th), with poor-quality roads and ports, unreliable electricity supply, and few telephone lines. 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 (132nd and 139th, respectively). In addition, the quality of the educational system needs upgrading. A related area of concern is the low level of technological readiness in Tanzania (126th), with very low uptake of ICTs such as the Internet and mobile telephony. In addition, the basic health of its workforce is also a serious concern; the country is ranked 123rd in this area, with poor health indicators and high levels of diseases.

After falling in the rankings over recent years, **Nigeria** retains the same 127th place this year; this represents an improvement by two ranks in a constant sample of economies since last year. The country has a number of strengths on which to build, including its relatively large market (34th), which provides its companies with opportunities for economies of scale. Nigeria's businesses are also sophisticated by regional standards (64th), with some cluster development, companies that tend to hire professional managers, and a willingness to delegate decision-making authority within the organization. On the other hand, despite a slight improvement since last year, the institutional environment does not support a competitive economy because of concerns about the protection of property rights, ethics and corruption, undue influence, and government inefficiencies. The security situation in the country continues to be dire (128th). Additionally, Nigeria receives poor assessments for its infrastructure (135th) as well as its health and primary education levels (140th). In addition, the country is not harnessing the latest technologies for productivity enhancements, as demonstrated by its low rates of ICT penetration.

After falling in the rankings for many years, **Zimbabwe** tentatively reverses the trend this year for the first time, moving up to 132nd place, an improvement of six places in a constant sample. The assessment of public institutions, while still weak, has improved measurably, increasing from 125th two years ago to 107th this year. Specific areas of improvement are ethics and corruption and government inefficiency, although significant room for improvement remains. On the other hand, some major concerns linger with regard

to the protection of property rights (140th), where Zimbabwe is second-to-last, 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—the situation continues to be bad enough to place Zimbabwe among the lowest-ranked countries in this pillar (136th), demonstrating the extent of efforts still needed to ensure its macroeconomic stability. Weaknesses in other areas include health (137th in the health subpillar), low educational enrollment rates, and official markets that continue to function with difficulty (particularly with regard to goods and labor markets, ranked 124th and 130th, respectively).

Conclusions

This chapter has discussed the results of the Global Competitiveness Index, covering 142 economies from all of the world's regions. The GCI aims to capture the complexity of the phenomenon of national competitiveness, which can be improved only through an array of reforms in different areas that affect the longer-term productivity of a country.

Since its introduction in 2005, the GCI has been used by an increasing 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 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.

While the GCI has thus proved extremely useful over the years, the World Economic Forum has been exploring the relationship between competitiveness and sustainability in an effort to identify those drivers of competitiveness that are of particular importance for productivity over the longer term. The work carried out to date on this additional aspect of competitiveness is described in Chapter 1.2.

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 are 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.
- 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 Sala-i-Martin et al. 2007 (Chapter 1.1 of *The Global Competitiveness Report 2007–2008*) 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 The reader should note that, as in any benchmarking exercise of this nature, the data are necessarily subject to a time lag and do not fully capture economic circumstances at the time of publication. However, this does not significantly hinder our ability to assess competitiveness, given its medium- to long-term nature.
- 23 It has to be noted, however, that the devastating earthquake and the ensuing economic consequences are not fully reflected in the assessment, because of the time lag in hard data and because the Survey data were partly collected before these events.

- 24 The BRICS countries are Brazil, Russia, India, China, and South Africa.
- 25 It is important to mention that part of the loss is the result of the change of data source for some macroeconomic indicators, as explained in Box 2.

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This appendix presents the structure of the Global Competitiveness Index 2011–2012 (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 mentioned otherwise, we use an arithmetic mean to aggregate individual variables within a category.^a For the higher aggregation levels, we use the percentage shown next to each category. This percentage represents the category’s weight within its immediate parent category. Reported percentages are rounded to the nearest integer, but exact figures are used in the calculation of the GCI. For example, the score a country achieves in the 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.^b For instance, in the case of Burundi—a country in the first stage of development—the score in the *basic requirements* subindex accounts for 65 percent of its overall GCI score, while it represents just 20 percent of the overall GCI score of Norway, 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 percent, 36 percent, and 5 percent, respectively, as reported in Algeria’s profile on page 94.

Variables that are not derived from the Executive Opinion Survey (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 transformed onto a 1-to-7 scale in order to align them with the Survey results. We apply a min-max transformation, which preserves the order of, and the relative distance between, country scores.^c

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

Weight (%) within immediate parent category

BASIC REQUIREMENTS

1st pillar: Institutions.....	25%
A. Public institutions.....	75%
1. Property rights.....	20%
1.01 Property rights	
1.02 Intellectual property protection ^{1/2}	
2. Ethics and corruption.....	20%
1.03 Diversion of public funds	
1.04 Public trust of 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 inefficiency.....	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	
2.04 Quality of port infrastructure	
2.05 Quality of air transport infrastructure	
2.06 Available seat kilometers*	
B. Energy and telephony infrastructure.....	50%
2.07 Quality of electricity supply	
2.08 Fixed telephone lines* ^{1/2}	
2.09 Mobile telephone subscriptions* ^{1/2}	
3rd pillar: Macroeconomic environment.....	25%
3.01 Government budget balance*	
3.02 National savings rate*	
3.03 Inflation* ^e	
3.04 Interest rate spread*	
3.05 Government debt*	
3.06 Country credit rating*	

Appendix: Computation and structure of the Global Competitiveness Index 2011–2012 (cont'd.)

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

A. Health	50%
4.01 Business impact of malaria ^f	
4.02 Malaria incidence* ^f	
4.03 Business impact of tuberculosis ^f	
4.04 Tuberculosis incidence* ^f	
4.05 Business impact of HIV/AIDS ^f	
4.06 HIV prevalence* ^f	
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 ^g
6.01 Intensity of local competition	
6.02 Extent of market dominance	
6.03 Effectiveness of anti-monopoly policy	
6.04 Extent and effect of taxation ^{1/2}	
6.05 Total tax rate*	
6.06 Number of procedures required to start a business* ^h	
6.07 Time required to start a business* ^h	
6.08 Agricultural policy costs	
2. Foreign competition.....	variable ^g
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* ⁱ	
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 Rigidity of employment*	
7.04 Hiring and firing practices	
7.05 Redundancy costs*	
6.04 Extent and effect of taxation ^{1/2}	
B. Efficient use of talent	50%
7.06 Pay and productivity	
7.07 Reliance on professional management ^{1/2}	
7.08 Brain drain	
7.09 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*	
2.08 Fixed telephone lines* ^{1/2}	
2.09 Mobile telephone subscriptions* ^{1/2}	

10th pillar: Market size 17%

A. Domestic market size	75%
10.01 Domestic market size index* ⁱ	
B. Foreign market size	25%
10.02 Foreign market size index* ^k	

INNOVATION AND SOPHISTICATED 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 ^{1/2}	

12th pillar: 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 Utility patents*
- 1.02 Intellectual property protection 1/2

NOTES

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

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

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

Stage of development				
Factor-driven stage (1)	Transition from stage 1 to stage 2	Efficiency-driven stage (2)	Transition from stage 2 to stage 3	Innovation-driven stage (3)
GDP per capita (US\$) thresholds*				
<2,000	2,000–2,999	3,000–8,999	9,000–17,000	>17,000
Weight for basic requirements 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:

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

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:

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

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 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.

f 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.

g 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*.

h Variables 6.06 and 6.07 combine to form one single variable.

i For variable 6.14, imports as a percentage of GDP, we first apply a log-transformation and then a min-max transformation. This indicator was formerly numbered 10.04. It still enters the computation of the market size indexes (see note j).

j 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 10.05).

k 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.

