WORLD ECONOMIC FORUM

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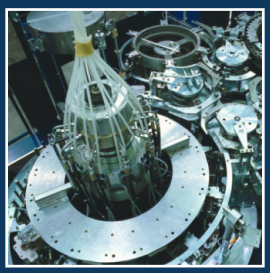
The Russia Competitiveness Report 2011

Laying the Foundation for Sustainable Prosperity






Margareta Drzeniek Hanouz, World Economic Forum
Alexey Prazdnichnykh, Strategy Partners Group, Eurasia Competitiveness Institute
Editors

In collaboration with
Sberbank
Strategy Partners Group

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

Contents

Preface

KLAUS SCHWAB, Executive Chairman, World Economic Forum

The Russia Competitiveness Report 2011 is being released at a time of great promise for the Russian Federation. Almost two decades after transitioning from a planned to a market economy, and following a decade of buoyant growth, the country was hit hard by the financial and economic crisis of 2008 and 2009. Oil prices collapsed and Russia's financial sector suffered greatly from limited international liquidity. The government moved rapidly to protect the economy through stimulus measures and, since then, recovery has been slowly underway.

The economic crisis drew attention to the fragility of Russia's economic growth path, which continues to be based primarily on exploiting natural resources rather than vibrant entrepreneurial industries. It thus underscored the need for a deep transformation of the Russian economy in order to enhance competitiveness and place the country on a more stable and sustainable growth path.

The World Economic Forum has played a facilitating role in promoting the economic growth and development of countries for more than 30 years by providing detailed assessments of the productive potential of nations worldwide through *The Global Competitiveness Report* series. In this context, this *Report*—a collaboration among Sberbank, Strategy Partners Group, and the World Economic Forum—is a contribution to understanding the key factors determining prosperity and economic growth in the Russian Federation, benchmarking it against other countries that have been more successful in raising income levels and providing economic opportunities for their respective populations. It offers Russian policymakers and business leaders an important tool in the formulation of improved economic policies and institutional reforms.

The *Report* analyzes the competitiveness performance of the country with a special focus on innovation. Although some initiatives to modernize and reform the economy are already under-way, efforts must be accelerated to ensure that Russia can take better advantage of its educated workforce, its abundant natural resources, and its favorable geographical location. The *Report* also analyzes Russia's innovation system and suggests measures to enhance the country's considerable potential in this area. In addition to the analysis, the *Report* contains detailed profiles for Russia and the comparator economies, providing an overview of the results on all indicators included in the Global Competitiveness Index.

The Russia Competitiveness Report could not have been put together without the leadership and enthusiasm of its co-editors Alexey Prazdnichnykh from Strategy Partners Group and Margareta Drzeniek Hanouz from the World Economic Forum. I would also like to thank Sberbank, a strategic partner of the Forum, for their contribution and in particular Herman Gref, Chief Executive Officer, for his vision, leadership, and support for the project. Appreciation also goes to the distinguished members of the Advisory Board—Jean-Claude Burgelman, European Commission; Olga Dergunova, JSC VTB Bank; Charles Grant, Centre for European Reform; Chad Evans, US Council on Competitiveness; Phillippe Le Houérou, World Bank; and Heikki Kotilainen, formerly TEKES, the Finnish Funding Agency for Technology and Innovation—for their valuable inputs and intellectual guidance. Members of the Steering Committee—Stephen Kinnock, Jennifer Blanke, and Piers Cumberlege from the World Economic Forum as well as Alexander Idrisov from Strategy Partners Group and Ksenia Yudaeva from Sberbank—provided overall guidance and important support for the project. I am furthermore grateful to members of the competitiveness team Ciara Browne, Thierry Geiger, and Pearl Samandari Massoudi and in particular to Roberto Crotti for their continued support, as well as to Katerina Marandi, Eurasia Competitiveness Institute and Nikita Popov, Strategy Partners Group for their contributions. Finally, I would like to convey my sincere gratitude to all the business executives in Russia and beyond who took the time to participate in our Executive Opinion Survey, and whose valuable feedback made the publication of this *Report* possible.

Foreword

HERMAN GREF, Chairman of the Board and Chief Executive Officer, Sberbank

During the past 18 to 24 months, the Russian economy has turned around and growth is now picking up, although at a disappointing pace. Instead of 6-7 percent, growth will at best attain 4-5 percent, despite the booming oil industry. Furthermore, the country's inflation rate rose again, whereas unemployment and currency rates are back at pre-crisis levels and the budget has returned to deficit compared with the pre-crisis surplus of 6 percent. It is becoming increasingly evident that the current growth model, which is centered on high oil prices and leveraged facilities, is no longer effective. New drivers of growth are needed for Russia to achieve sustainable development in the face of the new challenges that will be faced in the coming decade. And these challenges are no trifle: a demographic decline, and the lingering post-crisis effects on the debt-heavy developed economies against the backdrop of surging growth in the other BRIC states (Brazil, India, and China) and many emerging markets.

Steady economic growth can be sustained in this new environment only through an improved competitive position and the modernization of the Russian economy, which would provide a platform for a gradual transition toward innovation-driven growth. This *Report* analyzes the current strengths and weaknesses of the Russian economy, comparing its areas of competitiveness with those in comparator countries. Unlike the other BRIC states, which are rich either in commodities or in a well-educated workforce, Russia is endowed with both. However, poor institutions, sluggish competition, and weak business competitiveness constrain the potential offered by these advantages. Russia's weaknesses include its system of professional education alongside a still weak and unstable financial system, which does not yet meet the needs of business. This *Report* makes recommendations for ways to overcome these constraints, including suggested institutional reforms and a policy aimed at raising businesses' innovative potential.

Along with institutional and technological modernization, Russia must do more to facilitate additional innovation-driven growth. The country needs to come up with a comprehensive national innovation system. This is a long-term challenge, as explained in a dedicated chapter of the *Report*.

As an optimist, I believe in Russia's future economic successes. I think that this nation has vast economic potential, and I do not see any objective fundamental barriers hindering its development. What is needed here are timely and well-planned efforts by the government and the business community.

I would like to conclude with an acknowledgment to the contributors to this *Report*. It is a unique piece of research—the first to analyze the competitiveness of the Russian economy in a *Report* prepared by the World Economic Forum in cooperation with the Russian company Sberbank, one of the Forum's strategic partners, along with Sberbank's subsidiary, Strategy Partners Group. I would like to thank all the contributors for what I consider to be a very successful first step. I believe such reports could become recurrent, keeping track of challenges and successes as Russia pursues policies that target a better competitive position for its economy. I would also like to express special gratitude to Klaus Schwab, who supported this project. Klaus is an esteemed friend, and I am very grateful for his special interest in Russia, and for the intellectual stimulation that I enjoy so much in our cooperation.

Part 1

Assessing Russian Competitiveness

CHAPTER 1.1

From Redistributing Wealth to Creating Prosperity in the Russian Federation: Findings from the Global Competitiveness Index

MARGARETA DRZENIEK HANOUZ, World Economic Forum
ALEXEY PRAZDNICHNYKH, Strategy Partners Group, Eurasia Competitiveness Institute

The Russian Federation's recent economic history is characterized by tremendous progress that has been accompanied by numerous setbacks. Benefiting from the booming global economy and rising energy prices, the country witnessed high growth rates during the decade prior to the global economic crisis of 2008. In that year, Russia not only faced a lowered demand and falling prices for oil and gas, but also the country's financial sector was on the verge of collapse. Although the government countered the recession using stimulus spending, the downturn highlighted vulnerabilities in the country's competitiveness landscape. More recently, Russia has seen some commitment to modernization from its leadership, which is a welcome and needed development.

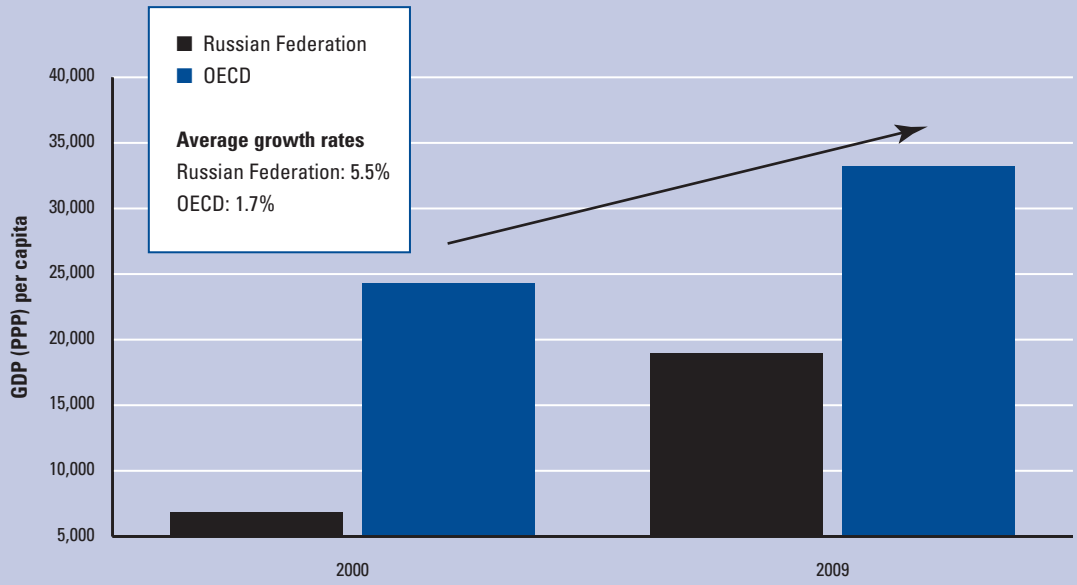
There is no doubt that Russia is a country of great—and unrealized—potential. This chapter aims at shedding light on why Russia, despite its well-educated population, the abundance of its natural resources, and its favorable geographical location has not yet grown at the same pace as many other emerging markets. The analysis uses the World Economic Forum's Global Competitiveness Index (GCI) as its key tool. The objective is to formulate policy recommendations that the country could implement in the short term. We hope that this chapter will contribute to creating a stronger reform momentum in Russia and stimulate discussions between the public and the private sectors on what needs to be done in order to increase productivity in the medium term.

Russian economic performance

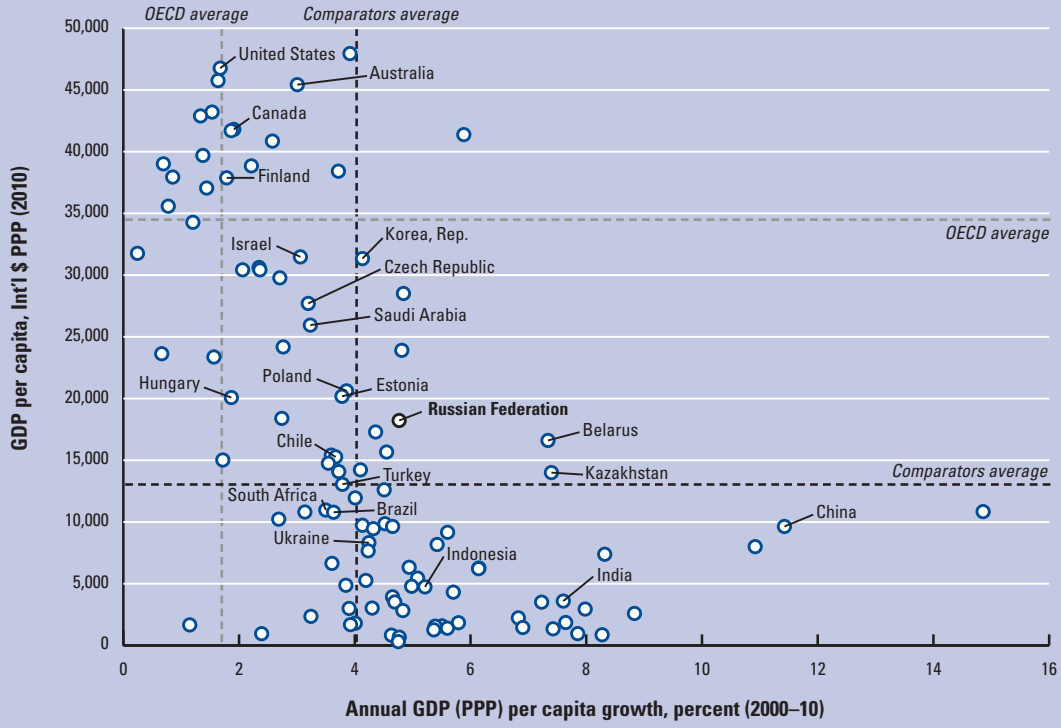
The most important single element explaining a country's medium-term growth performance is productivity. While economic growth can be based on many sources, for example capital accumulation or population growth, it is sustainable only if complemented by an increase in productivity. With a GDP per capita of US$10,521 in 2010 (international $15,806 in purchasing parity terms), over the 2000–09 period Russia achieved a relatively high GDP growth rate of 5.5 percent, which put the country on the path toward convergence with Organisation for Economic Co-operation and Development (OECD) levels (see Figures 1a, b). However, despite this positive development over the past decade, the gap between Russia and OECD economies in terms of GDP per capita remains sizeable, amounting to about 47 percent. Although some structural factors—such as demography, the employment structure, and above all the number of hours worked per person—contribute to closing the gap, the large difference in prosperity can be clearly attributed to differences in labor productivity (see Figure 2). Indeed, labor productivity in Russia is less than half the value achieved by workers in the OECD member states (Box 1).

Figure 1: Evolution of Russian and OECD GDP, 2000 and 2009–10

1a: GDP (PPP) per capita and average growth rate

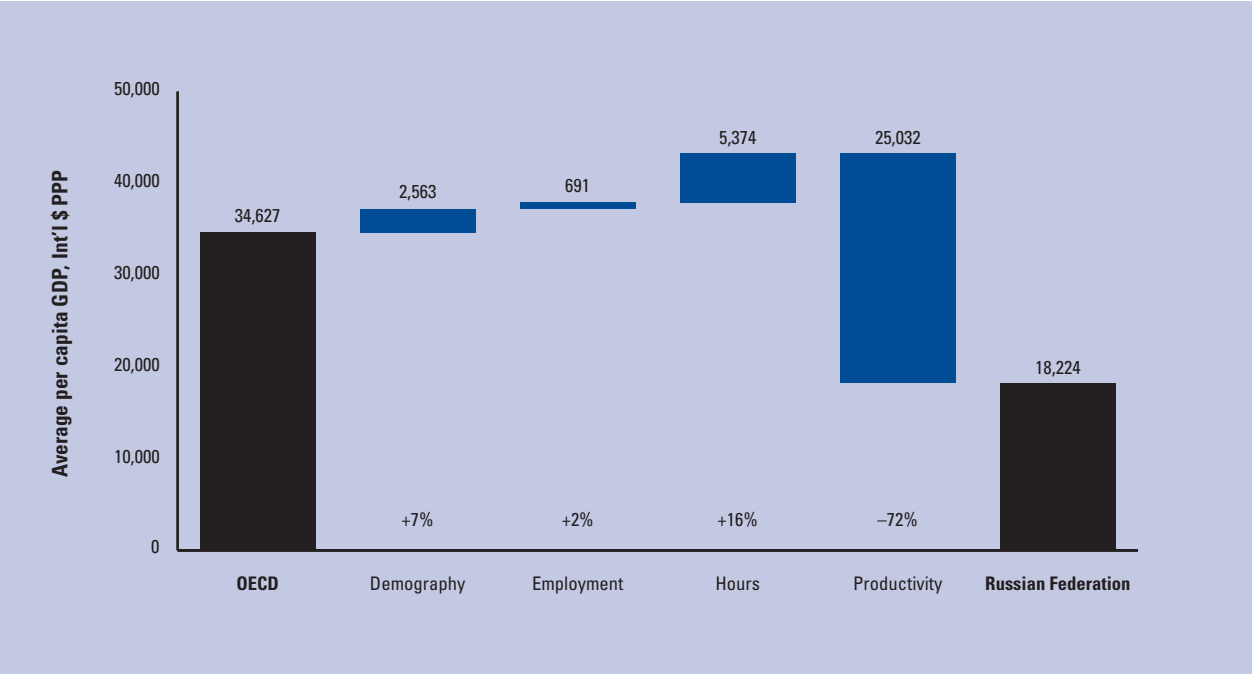


1b: Per capita GDP level, Int'l$ PPP, and annual GDP growth, 2000–10



Sources: World Bank, 2010a; The Conference Board, 2011; OECD, 2011a; US Census Bureau, 2010; Rosstat, 2011a.

Figure 2: Disaggregation of difference in GDP per capita in the Russian Federation and the OECD, 2010



Sources: Authors' calculations based on the Conference Board, 2011; OECD, 2011c; US Census Bureau 2010; and Rosstat, 2011a.

Data show that Russia's solid GDP growth over the past decades has been accompanied by growing productivity. In transition economies, productivity growth is often a reflection of increasing capacity utilization; this is also the case in Russia. However, after correcting for capacity utilization, out of the 6.5 percent growth achieved on average during 1999–2005, about 4.15 percent was attributable to gains from resources that were used.[1] Much of this growth in productivity has been the result of efficiency gains within sectors rather than reallocation among sectors. Overall, productivity growth that took place within the firms—that is, growth that occurred through greater efficiency in production processes, the shedding of surplus labor in the course of the privatization process, and better organization of administrative functions—explains the largest share of efficiency gains, accounting for about 30 percent of total manufacturing productivity growth from 2001 to 2004.[2] Much of this was a result of labor shedding in the initial transition period.

Although the shrinking of the manufacturing sectors is a process that most transition economies have undergone, the decline of Russian manufacturing beyond the initial transition period remains a worrying trend for a number of reasons. The most important is that, while the number of jobs in manufacturing is declining, employment in the government sector is growing, pointing to a move toward a growing role of the state that is built on the redistribution of resources rather than creation of value. Furthermore, as we discuss below, the Russian Federation is well positioned to be competitive in high-end manufacturing sectors. It could aim at improving the business environment and creating favorable conditions for the development of these industries.

A number of studies show that the decline in manufacturing competitiveness in Russia is due to the combination of an increase in real wages and shortcomings of the business climate,[3] which puts Russia at a disadvantage in international comparison. Although productivity in the country is higher than in India and China, high Russian salaries mean that for each dollar of wage, a Russian worker produces half the output of his or her Chinese or Indian peers. Competitiveness-enhancing reforms will improve the business environment, strengthen efficiency, and align manufacturing productivity better with international wage-productivity ratios. This will make Russia more attractive as an exporter of goods and tradable services as well as a destination for foreign direct investment (FDI). The GCI aims to identify those factors that drive or impede growth in countries; the following analysis of the results for Russia sheds some light on what could be done to further raise productivity.

Measuring national competitiveness

The World Economic Forum defines *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 sustainable level of prosperity that can be earned by an economy. In other words, more competitive economies tend to be able to produce higher levels of income for their citizens. The productivity level also determines the rates of return obtained by

Box 1: Russian growth in detail: Exploring performance at the industry level

ALEXEY PRAZDNICHNYKH, Strategy Partners Group, Eurasia Competitiveness Institute

NIKITA POPOV, Strategy Partners Group

The productivity gap between Russia and the OECD countries is determined by the level of productivity in individual industries and the variation in industry structure. When we take a closer look at the industry structure, three groups of industry sectors can be determined: basic, supporting, and infrastructure sectors.

Basic sectors are agriculture, mining, manufacturing, and software development—that is, those industries that produce goods that are traded globally and therefore often face real competition. Supporting sectors are the market sectors that either facilitate the distribution of goods (such as wholesale and retail trade), support production (for example, business services), or produce goods and services that can be traded only locally (construction, real estate, hospitality, etc.). Infrastructure sectors are non-market services and production, such as government services, education and health, utilities, transport, and communications.[1]

If we explore growth in the Russian economy between 2003 and 2009 according to sector groups, the analysis shows that growth was higher in those sectors with a greater intensity of competition (Figure 1). Productivity in supporting sectors (which are mostly market services) grew faster than in many basic sectors (where the government is the main proponent and owner) and in most infrastructure sectors (which are non-market services). In basic sectors—both manufacturing and resources—productivity grew moderately while employment declined. Infrastructure sectors did not grow in employment, while productivity grew slowly.

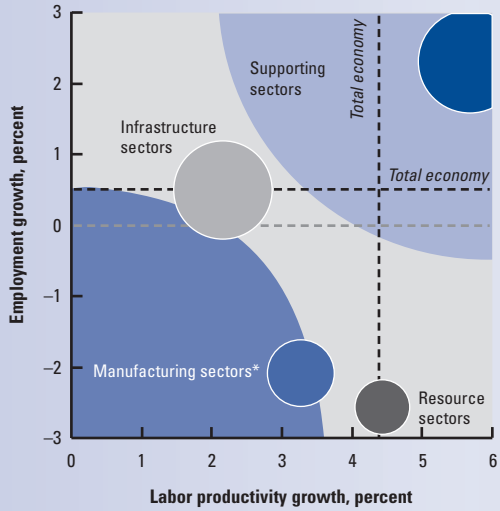
Overall, infrastructure productivity in Russia was three times lower than it was in OECD countries. In recent years, productivity growth has not been realized in Russian infrastructure sectors. Furthermore, the government share in total employment was constantly growing (Figure 2). Structural transformation is not occurring in any infrastructure sector, and such fundamental change is essential for further development of these sectors. Communications was by far the fastest-growing sector, because of growth in mobile communications and Internet services.

Supporting sectors were fast growing in both productivity and employment, with finance leading the growth (Figure 3). This sector has been, and is still, emerging and its growth fills an "empty space" and promotes the underdeveloped distribution function in the economy.

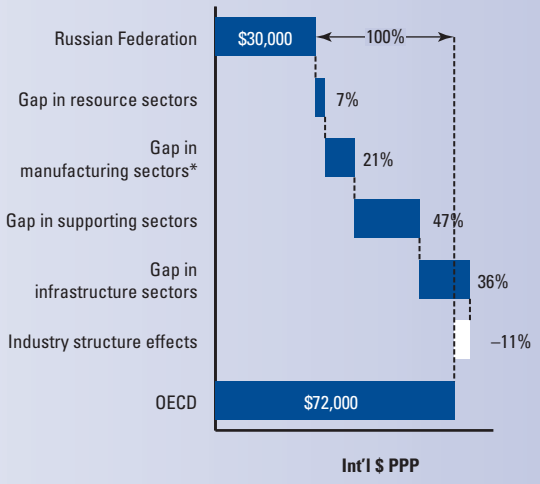
The productivity gap in supporting sectors remains large (47 percent of the total gap) and further rapid growth is necessary for productivity improvements. More than half of this gap is determined by low productivity in the labor-intensive construction and real estate sectors. Productivity is gradually improving there but many problems still persist.

Figure 1: Productivity and employment growth

1a: Annual average change of employment and productivity by sector group, percent (2003–09)



1b: Breakdown of Russia's labor productivity gap compared with the OECD average by sector group, percent (2007)



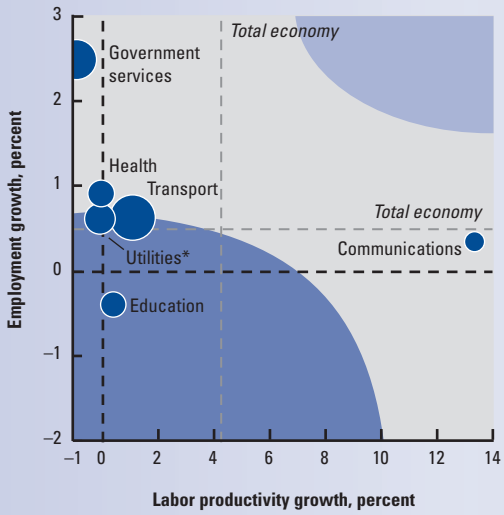
Sources: Authors' calculations based on Rosstat, 2011; OECD, 2011a, 2011b; Eurostat, 2011; national statistics.
* Manufacturing and resource sectors form the "basic sectors" group of industries. Manufacturing sectors include computer and related activities industry.

(Cont'd.)

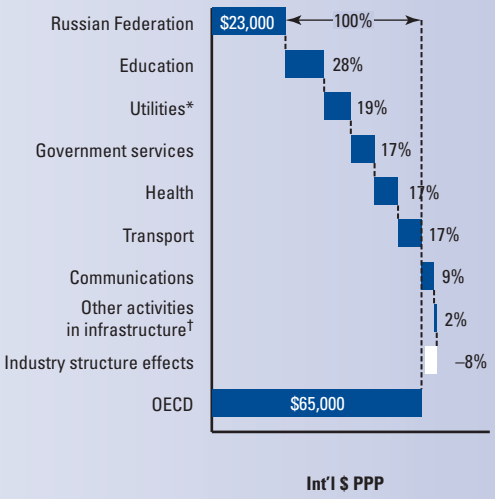
Box 1: Russian growth in detail: Exploring performance at the industry level *(cont'd.)*

Figure 2: Productivity and employment in infrastructure sectors

2a: Annual average change of employment and productivity in infrastructure sectors, percent (2003–09)



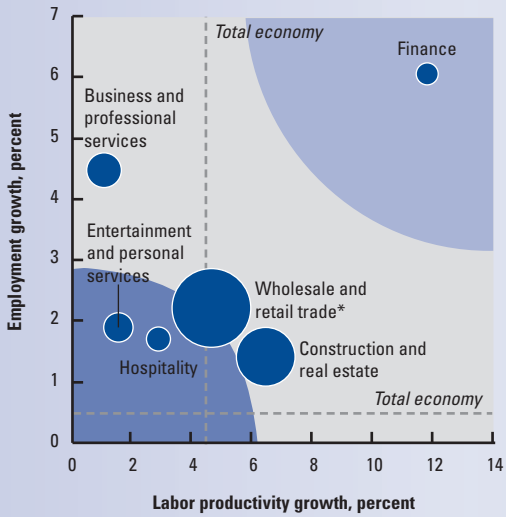
2b: Breakdown of Russia's labor productivity gap compared with the OECD average by infrastructure sector, percent (2007)



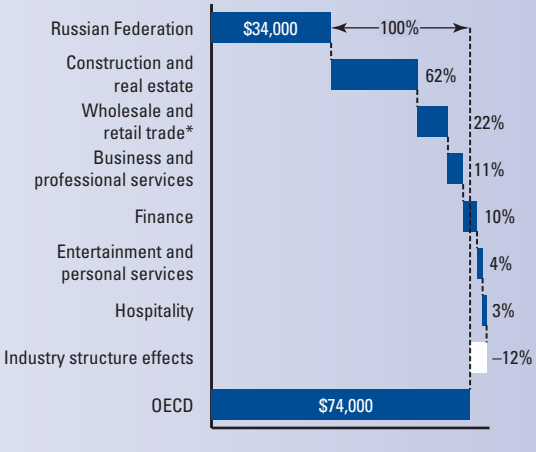
Sources: Authors' calculations based on Rosstat, 2011; OECD 2011a, 2011b; Eurostat, 2011; national statistics.
* Utilities include collection of sewage and waste.
† Other activities include R&D and professional associations.

Figure 3: Employment and productivity in supporting sectors

3a: Annual average change of employment and productivity in supporting sectors, percent (2003–09)



3b: Breakdown of Russia's labor productivity gap compared with the OECD average by supporting sector, percent (2007)



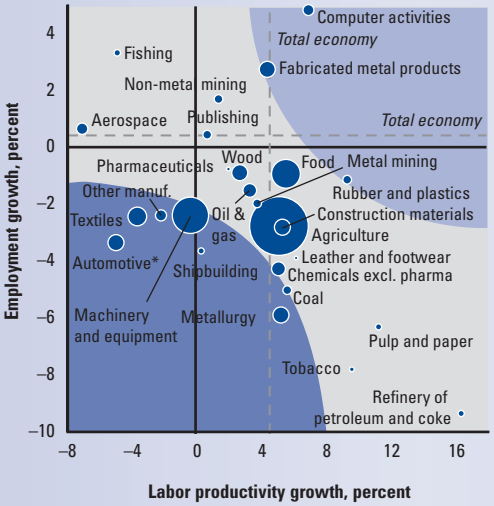
Sources: Authors' calculations based on Rosstat, 2011; OECD, 2011a, 2011b; Eurostat, 2011; national statistics.
* Trade includes renting.

(Cont'd.)

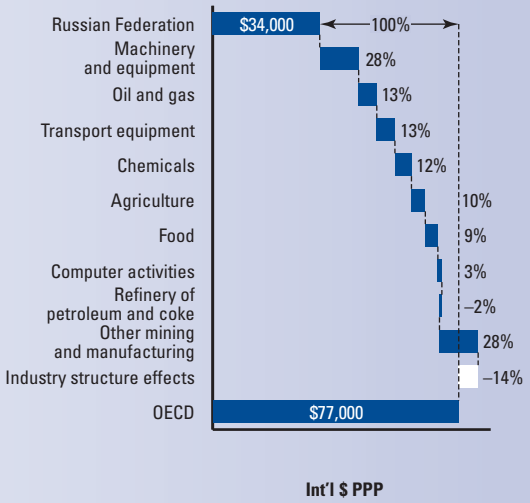
Box 1: Russian growth in detail: Exploring performance at the industry level *(cont'd.)*

Figure 4: Employment and productivity in basic sectors

4a: Annual average change of employment and productivity in basic sectors, percent (2003–09)

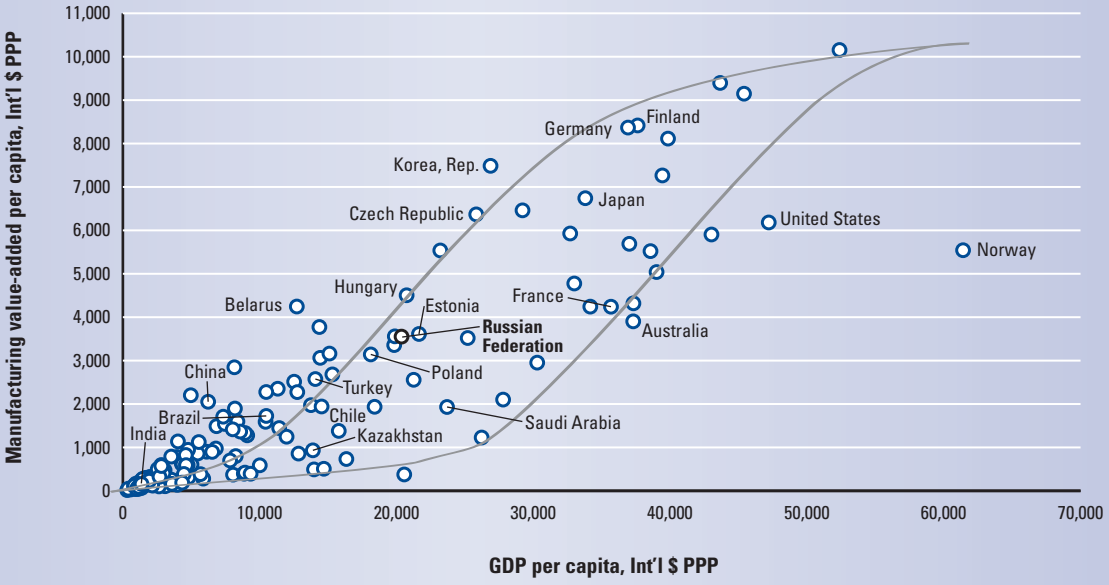


4b: Breakdown of Russia's labor productivity gap compared with the OECD average by basic sector, percent (2007)



Sources: Authors' calculations based on Rosstat, 2011; OECD 2011a, 2011b; Eurostat, 2011; national statistics.
* Automotive sector includes production of all types of ground vehicles.

Figure 5: Manufacturing and economic development: Manufacturing output per capita and level of development, 2008



Sources: Authors' calculations based on World Bank, 2010; ILO, 2010a, 2010b; Rosstat, 2011; OECD, 2011b.

(Cont'd.)

Box 1: Russian growth in detail: Exploring performance at the industry level *(cont'd.)*

Most basic producing sectors in Russia demonstrated some growth in productivity and decline in employment (Figure 4). Resource sectors raise productivity but do not create net new jobs. Among the manufacturing (including software) sectors, the best performing were computer activities, fabricated metal products, and rubber and plastic. Productivity also grew rapidly in oil and gas refinery, metallurgy, coal mining, food processing, chemicals (except pharmaceuticals), tobacco, and pulp and paper. Most of these are characterized by intensive market competition.

In machinery, equipment, and transport equipment, both employment and productivity decreased. These sectors were the most seriously affected by the economic crisis of 2008–09. The government is the most important player in these industries.

Productivity gaps in machinery and equipment and transport equipment account for 40 percent of the total productivity gap between basic sectors in Russia and those of the OECD countries. Another 40 percent is the result of lower productivity in the oil and gas, mining and refinery, chemicals, and agriculture and food sectors.

There are different perspectives on the development of basic sectors. Some experts propose abandoning manufacturing and instead using natural resource rents for the development of sophisticated market services; others insist that industry development, especially manufacturing, should be the highest priority. Statistics and cross country analysis, however, show that the truth is somewhere in the middle: manufacturing still matters for economic development and countries create new jobs in competence-driven manufacturing.

According to statistics, as countries proceed to the next stages of development, per capita manufacturing value-added increases. This is proportional to per capita GDP. Although it is well known that the employment share in industry tends to decrease after some critical point, the employment decline is compensated by productivity gains. These gains include both an increase in productivity at the individual industry level and the shift up the value chain to sectors that depend less on natural resources and are more competence based.

In recent years Russia lost ground in the global competition for new jobs in competence-driven manufacturing, while other countries were actively creating new jobs—most notably the Czech Republic, Slovakia, Hungary, and Poland (Figures 5 and 6). Since the state of this segment of the economy is key to bringing the accelerated export-led growth model into action, it is crucial to foster its development by appropriate policy measures. A new pro-competitiveness industrial policy might be useful to ensure that this segment develops in the right direction in the future.

Note

1 Bauman Innovation 2007.

Figure 6: Manufacturing and economic development: Global market for competence-driven manufacturing employment

Sources: Authors' calculations based on World Bank, 2010; ILO, 2010a, 2010b; Rosstat, 2011; OECD, 2011b.

* Natural resource–independent sectors are manufacturing industries except food, tobacco, textiles, leather, wood, pulp & paper, refinery, chemical, mineral products, and basic metals.

investments (physical, human, and technological) in an economy. Because the rates of return are the fundamental drivers of the growth rates of the economy, a more competitive economy is one that is likely to grow faster in the medium to long run.

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

The 12 pillars of competitiveness

Many determinants drive productivity and competitiveness.[4] Over the years economists have studied the role of different factors ranging from physical capital and infrastructure to education and training, technology, macroeconomic stability, good governance, firm sophistication, and market efficiency, among others. While all of these determinants are important, they are not mutually exclusive—a number of them could be true at the same time, and in fact that is what has been shown in the economic literature.[5]

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

First pillar: Institutions

The institutional framework is determined by the legal and administrative environment within which individuals, firms, and governments interact to generate income and wealth in the economy.

The quality of institutions has a strong bearing on competitiveness and growth.[6] 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.[7]

Institutions are not limited to the legal framework. Government attitudes toward markets and freedoms and the efficiency of its operations are also very important: excessive bureaucracy and red tape,[8] overregulation, corruption, dishonesty in dealing with public contracts, lack of transparency and trustworthiness, and undue influence on the judicial system impose significant economic costs to businesses.

Although the economic literature has mainly focused on public institutions, private institutions are also an important element in any market economy. 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.

Second pillar: Infrastructure

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

Effective transport facilities, including high-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

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. 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, and low inflation rates ensure planning security for firms. In sum, the economy cannot grow in a sustainable manner unless the macro environment is stable.

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, through absenteeism or lower efficiency. Investment in the provision of health services is thus critical for clear economic, as well as moral, considerations.[10]

In addition to health, this pillar takes into account the quantity and quality of 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 work 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.

Fifth pillar: Higher education and training

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.

Sixth pillar: Goods market efficiency

Countries with efficient goods markets are well positioned to produce the right mix of products and services given 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 or discriminatory rules on FDI as well as on international trade.

Market efficiency also depends on demand conditions such as customer orientation and buyer sophistication. For cultural or historical reasons, customers in some countries may be more demanding regarding the quality of products and services or their technological advancement 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. Efficient labor markets must also ensure a clear relationship between worker incentives and their efforts, as well as equity in the business environment between women and men.

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. Business investment is 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

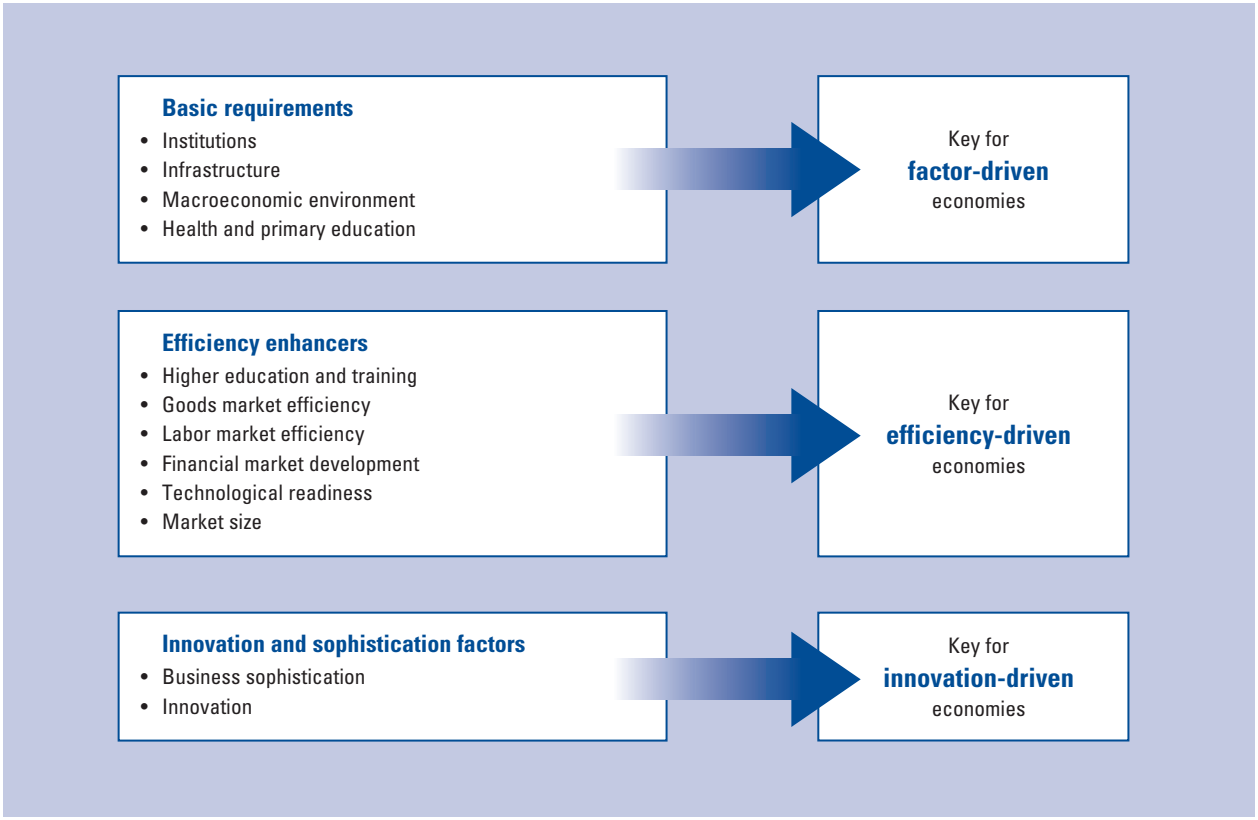
Technology has increasingly become an important element for firms to compete and prosper. The technological readiness pillar measures the agility with which an economy adopts existing technologies to enhance the productivity of its industries, with specific emphasis on its capacity to fully leverage information and communication technologies (ICT) in daily activities and production processes for increased efficiency and competitiveness. ICT has evolved into the "general purpose technology" of our time,[11] given the spillovers to other economic sectors and its role for raising productivity.

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 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 the level of technology available to firms in a country affects productivity differently from the country's ability to innovate and expand the frontiers of knowledge. For this reason we separate technological readiness from innovation, which is captured in the 12th pillar.

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, to a certain

Figure 3: The 12 pillars of competitiveness



Source: World Economic Forum, 2010a.

extent, a substitute for domestic markets, especially for small countries. There is vast empirical evidence showing that trade openness is positively associated with growth.[12]

Eleventh pillar: Business sophistication

More sophisticated business practices are conducive to higher efficiency in the production of goods and services. This leads, in turn, to increased productivity, thus enhancing a nation's competitiveness. Business sophistication concerns the quality of a country's overall business networks as well as the quality of individual firms' operations and strategies. It is particularly important for countries at an advanced stage of development, when the more basic sources of productivity improvements have been exhausted to a large extent. 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 ("clusters"), efficiency is heightened, greater opportunities for innovation are created, and barriers to entry for new firms are reduced. Individual firms' operations and strategies (branding, marketing, the presence of a value chain, and the production of unique and sophisticated products) all lead to sophisticated and modern business processes.

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.

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 to increase productivity. Firms in these countries must design and develop cutting-edge products and processes to maintain a competitive edge. This requires an environment that is conducive to innovative activity, supported by both the public and the private sectors. In particular, this 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.

The factors that determine the competitiveness of the national innovation system are discussed in more detail in Chapter 1.2 of this *Report*.

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, innovation (12th pillar) will be very difficult without a well-educated and trained workforce (pillars 4 and 5) that are adept at absorbing new technologies (9th pillar), and without sufficient financing (pillar 8) for research and development or an efficient goods market that makes it possible to take new innovations to market (6th pillar). While 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 Moldova to improve its competitiveness is not the same as the best way for Germany to do so. This is because Moldova and Germany 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 improve.

In line with the well-known economic theory of stages of development, the GCI assumes that, in the first stage, the economy is *factor driven* and countries compete based on their factor endowments: primarily unskilled labor and natural resources.[13] 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), well-developed infrastructure (pillar 2), a stable macroeconomic environment (pillar 3), and a healthy workforce that has received at least a basic education (pillar 4).

As a country becomes more competitive, productivity will increase and wages will rise with advancing development. Countries will then move into the *efficiency-driven* stage of development, when they must begin to develop more efficient production processes and increase product quality, as 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 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 through innovation (pillar 12).

The GCI takes the stages of development into account by attributing higher relative weights to those pillars that are relatively 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 3.

The weights attributed to each subindex in every stage of development, which are derived from a maximum likelihood regression of GDP per capita for past years, are shown in Table 1.

Table 1: Weights of the three main subindexes at each stage of development

Subindex	Factor-driven stage (%)	Efficiency-driven stage (%)	Innovation-driven stage (%)
Basic requirements	60	40	20
Efficiency enhancers	35	50	50
Innovation and sophistication factors	5	10	30

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, as internationally comparable data on wages are not available for all countries covered. The thresholds used are shown in Table 2. 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 goods (measured using a five-year average) are to a large extent factor driven.[14]

Table 2: Income thresholds for establishing stages of development

Stage of development	GDP per capita (in US$)
Stage 1: Factor driven	< 2,000
Transition from stage 1 to stage 2	2,000–3,000
Stage 2: Efficiency driven	3,000–9,000
Transition from stage 2 to stage 3	9,000–17,000
Stage 3: Innovation driven	> 17,000

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. The classification of selected countries into stages of development is shown in Table 3.

Data in the GCI

The GCI is calculated using two distinct types of data. Approximately one third of the indicators are obtained from major international organizations, such as the World Bank, the International Monetary Fund, the United Nations Educational, Scientific and Cultural Organization (UNESCO), and others. The remaining indicators are derived from the World Economic Forum's annual Executive Opinion Survey (the Survey). By surveying leading business executives, the Survey data provide an assessment of the qualitative aspects of competitiveness, as well as insight on dimensions for which statistical sources are not available for all countries covered.[15]

Panel economies and benchmarks used in the *Report*

For the purposes of this *Report,* a panel of 25 economies has been selected to benchmark Russia's competitiveness and is used throughout the *Report*. These economies are Australia, Brazil, Canada, Chile, China, the Czech Republic, Estonia, Finland, France, Germany, Hungary, India, Indonesia, Israel, Japan, Kazakhstan, Korea, Rep., Norway, Poland, Saudi Arabia, South Africa, Turkey, Ukraine, the United States, and Venezuela. A wide range of criteria has been used for selecting these countries, including country size, resource dependency, geographical proximity, and a similar history, among others. In addition to these panel economies, we benchmark Russia against its peers, the three other BRIC economies—Brazil, India, and China (BIC)—and against the average of members of the OECD. The latter is a particularly valid benchmark given the Russian Federation's stated aim of joining the OECD.

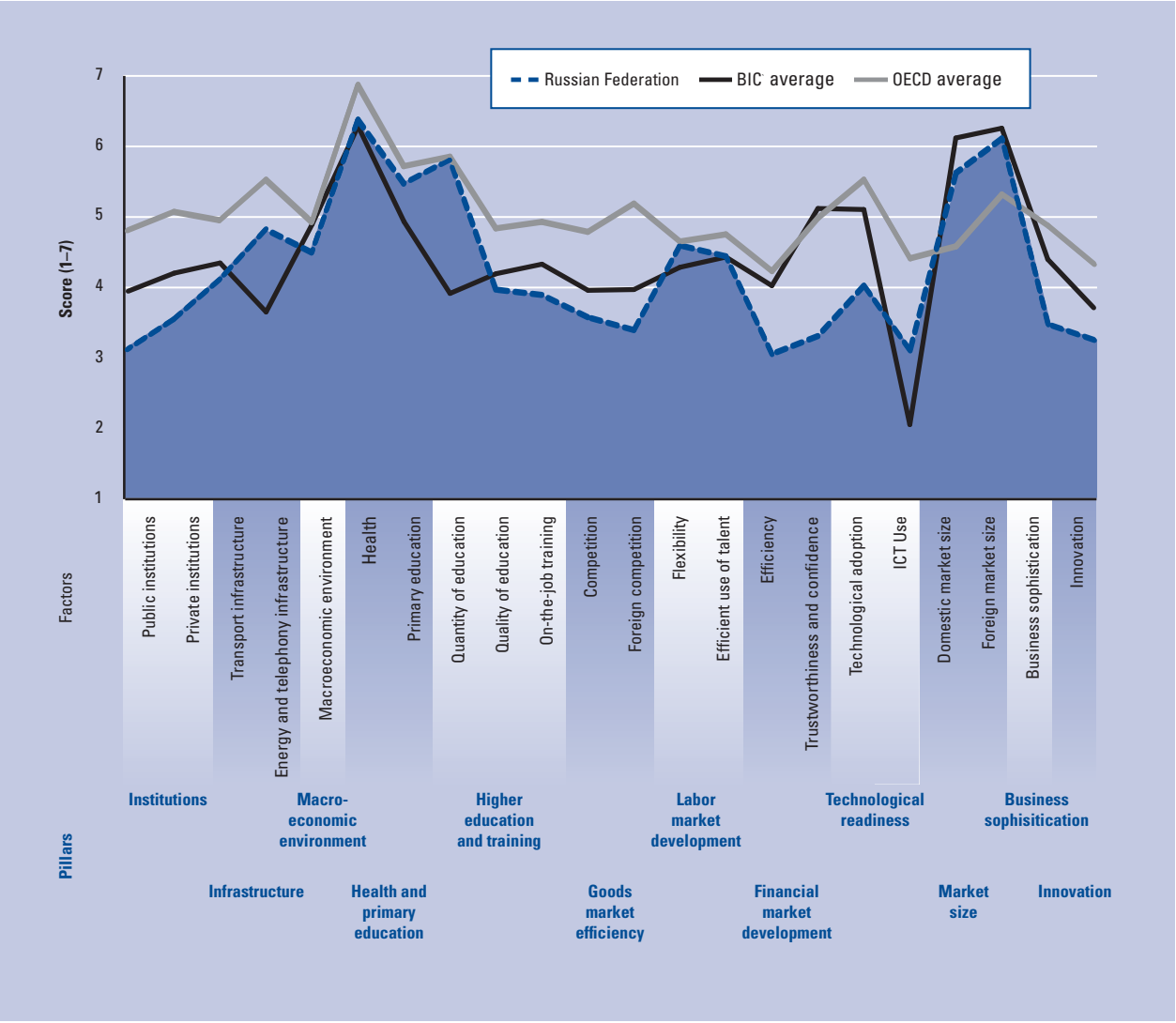
The state of Russian competitiveness according to the Global Competitiveness Index

Russia ranks 63rd out of 139 countries covered by the GCI 2010–2011. The country lags behind the OECD member countries on average (on a scale of 1

Table 3: Selected countries by stage of development

Stage of development, GDP per capita (in US$)	Selected countries in this stage	Important areas for competitiveness
Stage 1 (factor-driven) **< 2,000**	Bangladesh, Bolivia, Kenya, Kyrgyz Republic, Moldova Pakistan, Vietnam	Basic requirements (60%) and efficiency enhancers (35%)
Transition from 1 to 2 **2,000–3,000**	Armenia, Azerbaijan, Indonesia, Iran, Islamic Rep., Kazakhstan, Ukraine, Venezuela	Basic requirements (between 40 and 60%) and efficiency enhancers (between 35 and 50%)
Stage 2 (efficiency-driven) **3,000–9,000**	Brazil, China, Malaysia, Mexico, Russian Federation, South Africa, Turkey	Basic requirements (40%) and efficiency enhancers (50%)
Transition from 2 to 3 **9,000–17,000**	Chile, Croatia, Estonia, Hungary Poland	Basic requirements (between 20 and 40%) and efficiency enhancers (50%) Innovation factors (10% to 30%)
Stage 3 (innovation-driven) **> 17,000**	Australia, Czech Republic, Finland, France, Germany, Israel, Japan, Korea, Rep., Norway, Spain, United Kingdom, United States	Basic requirements (20%), efficiency enhancers (50%), and innovation factors (30%)

Figure 4: Competitiveness landscape for the Russian Federation in 2010–11



Source: World Economic Forum, 2010a.

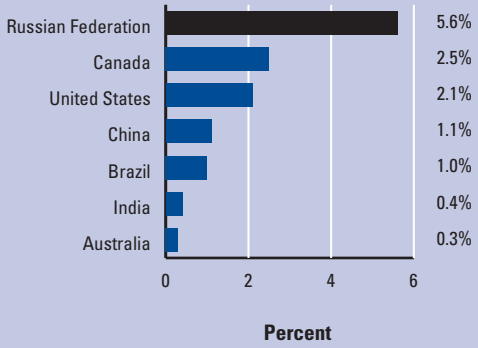
to 7, Russia achieves a score of 4.2 against 4.9 for the OECD) as well as the BIC economies (score of 4.5). The country remains stable compared to the previous year, keeping the same rank. However, in the course of the past five years, Russia's performance in the GCI stagnated and the country remained in the 5th decile of the GCI sample. A considerable improvement was observed prior to the financial crisis (in the 2008–09 edition), although it deteriorated the following year.

The country's overall ranking conceals a number of pronounced strengths and weaknesses, which are shown in Figure 4 in comparison to the OECD average and the average of Brazil, India, and China, the other large emerging economies. As the figure illustrates, the key strengths of the Russian economy are to be found in the areas of primary education and participation rates at higher levels of education, which reach OECD levels and where Russia is far ahead of the BIC average. The other clear area of strength is the large size of the country's market, both domestic and foreign; here Russia in on a par with its BIC peers and significantly ahead of OECD members. The country also benefits from a fairly stable macroeconomic environment, which reflects low debt and fairly high national savings, resulting from rising oil revenues over the past years. However, the fiscal deficit rose with stimulus spending during the economic crisis and will have to be phased out in the years to come.

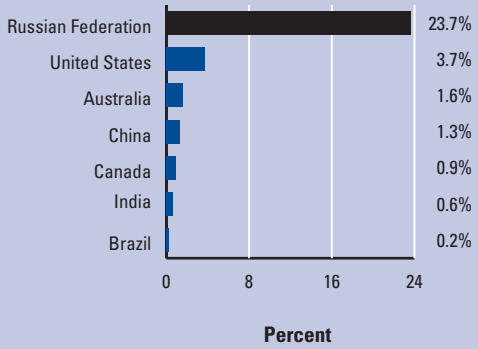
Among the challenges that Russia will have to address in order to raise productivity are above all the poorly functioning institutional framework, as it pertains to both public as well as private institutions. In addition, competition and demand conditions do not contribute to the efficiency of goods markets to the same degree as in OECD and BIC economies. Furthermore, financial markets trail the two comparator groups in terms

Figure 5: Resource endowments in the Russian Federation

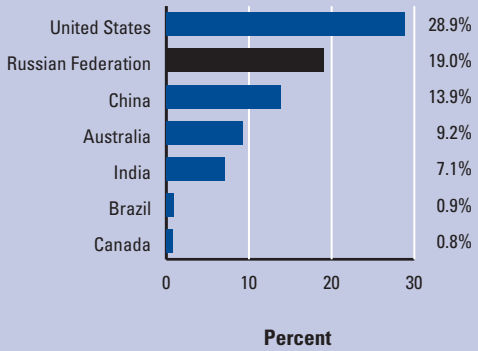
5a: Oil, proven reserves, share of world total in 2009 (%)



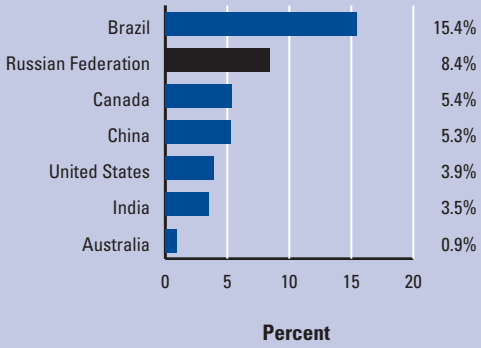
5b: Gas, proven reserves, share of world total in 2009 (%)



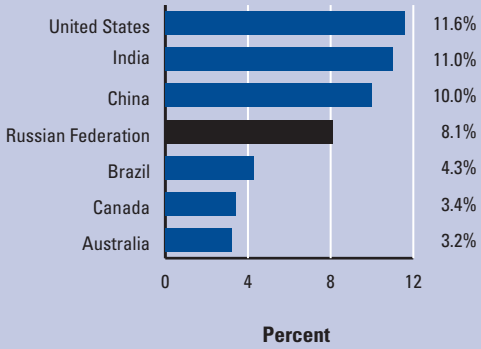
5c: Coal, proven reserves, share of world total in 2009 (%)



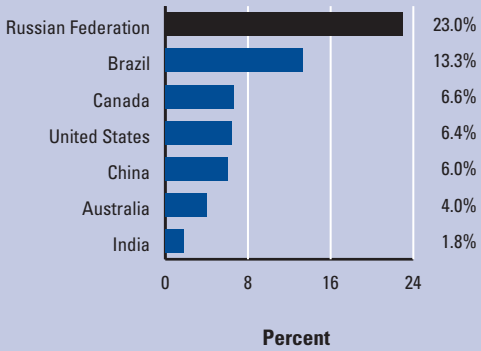
5d: Water reserves, share of world total in 2005 (%)



5e: Arable land, share of world total in 2005 (%)



5f: Forest cover, share of world total in 2005 (%)



Sources: British Petroleum, 2010; PAI, 2004; FAO, 2011.

of efficiency as well as trustworthiness and confidence. Last but not least, the country's business sector is significantly less sophisticated than enterprises in peer economies or OECD member states.

The following sections of the chapter explore in more detail the competitive strengths and weaknesses of the Russian Federation identified by the GCI analysis as the key areas for policy reform. They can be summarized in a simple "three-plus-five formula"—building on three strengths and addressing five priority challenges, the Russian Federation could reap considerable productivity gains. Improvements in these five areas by 2030 would lead to improved competitiveness by this time, which would correspond to a significant increase in prosperity in Russia.

First strength: Natural resources

Perhaps the single most particular feature of the Russian economy are its endowments with a vast array of natural resources, particularly oil, gas, coal, and precious metals as well as abundant agricultural land, forests, and water (Figure 5).[16] In terms of oil and gas, Russia controls 5.6 percent and 23.7 percent of the world's resources, respectively (at the end of 2009), making the country the biggest exporter of mineral fuels, oils, and distillation products in the world (in 2009) with a market share of 10.6 percent.[17] But Russia's wealth in natural resources is not limited to hydrocarbons. The country also controls 8.4 percent of the world's water reserves, 8.1 percent of its arable land, and 23 percent of its forest cover.[18]

Economically, wealth in natural resources can be seen as a mixed blessing. While rising resource exports fuel growth and provide a country with revenues for investment, a frequent negative by-product is the so-called Dutch disease, which arises when the appreciation of the exchange rate caused by rising resource exports leads to a loss of competitiveness of manufacturing sectors. In a number of countries, an abundance of resources has not led to high growth because of difficulties in establishing a political and economic institutional framework that is favorable to the development of a market economy. Furthermore, resource-dependant economies tend to have less dynamic manufacturing or services sectors, and forgo some of the related gains.

With energy prices skyrocketing over the past years, hydrocarbon resources became an increasingly important driver of the Russian economy. Prudent management of resource wealth has left the country with large international reserves and low public debt, which not only enabled Russia to preserve liquidity and macroeconomic stability throughout the economic crisis of 2008–09, but also provides both room for investment to enhance the country's future competitiveness and an economic environment conducive to reform.[19]

Hydrocarbon prices are expected to remain high for the foreseeable future because of growing demand. The observed shift to a stepped up use of renewable energies and increased energy efficiency is expected to be offset by the positive effects on global demand for fossil fuels resulting from population growth and advancing economic development over the next 30 years.[20] With fossil fuel prices expected to remain high, the prudent and future-oriented use of revenues is key to Russia's economic future. While fiscal consolidation is a priority in the short term in order to phase out the stimulus spending, the longer term should not be neglected. It is imperative to identify key priorities for public investment and reform in such a way that they support future competitiveness.

Second strength: Domestic market's size and growth rate

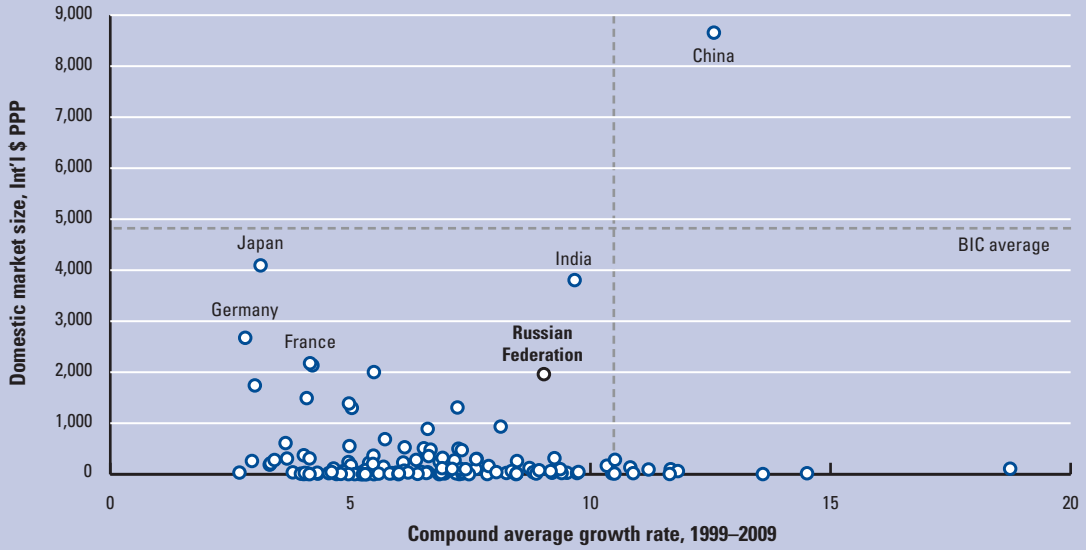
A second distinct competitive advantage is the country's large market size. A large market size raises productivity as it enables businesses to realize economies of scale. A large market size has also other advantages, in particular higher attractiveness to FDI, which brings many spillover effects such as transfer of management and technological know how. Russia has one of the largest domestic markets in the world, ranking 8th among 139 countries (Figure 6), a fact that engenders particular advantages. Russia has also been among the fastest-growing economies over the past 10 years in terms of domestic market size, behind China but significantly ahead of India and Brazil.

Russia is more export oriented than other countries of similar size; its exports reached 28.2 percent of GDP in 2009. In China, which is relatively export oriented for its size, exports are valued at 27.9 percent of GDP. In Turkey, it is 24.3 percent and in Brazil, which is significantly less export oriented, it is only 11.3 percent. However, the fact that 73.1 percent of Russia's exports are in fuels and mining products limits the advantage of the large market size considerably, as economies of scale in other sectors cannot be realized.

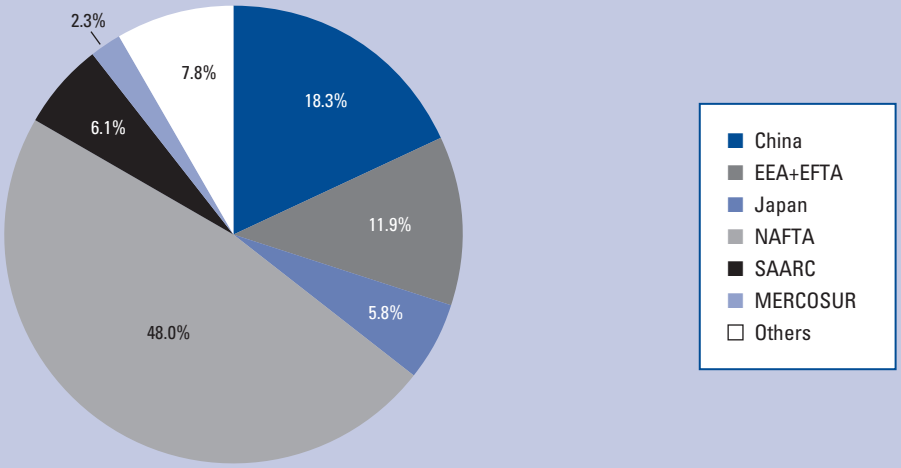
Russia's geographical location offers additional potential for export development. The country is geographically close to the largest markets in the world: the European Union (EU) to the west and China, India, Japan, and the United States to the east and south. Thus markets with close geographical proximity to Russia account for over 36 percent of global GDP (see Figure 6). Russia has signed regional trading agreements with some of its neighbors—notably, with Commonwealth of Independent States (CIS) countries as well as separate agreements with Armenia, Georgia, the Kyrgyz Republic, and Ukraine.[21] More recently, Russia entered an agreement on the Common Economic Zone (CEZ) with Kazakhstan, Belarus, and Ukraine. The aim of this agreement is to create a single economic space among

Figure 6: Market size: Russian Federation and markets bordering Russia

6a: Market size (PPP) in 2009 and compound average growth rate 1999–2009, percent



6b: Market share of world total, close neighbors of Russia



Sources: Authors' calculations based on IMF, 2010b; World Bank, 2010a; World Economic Forum, 2010a; World Bank, 2010a.
Notes: Calculations based on GDP PPP. EEA + EFTA = European Economic Area and European Free Trade Association; MERCOSUR = Mercado Común del Sur, or Southern Common Market; NAFTA = North American Free Trade Agreement; and SAARC = South Asian Association for Regional Cooperation.

Box 2: Partnership for competitiveness, sustainability, and prosperity: A new agenda for EU-Russia cooperation

ALEXEY PRAZDNICHNYKH, Strategy Partners Group, Eurasia Competitiveness Institute

SERGEY LOZINSKY, Strategy Partners Group, Eurasia Competitiveness Institute

Since 1991, when the Russian Federation became an independent state, its cooperation with the European Union (EU) has been mainly limited to areas such as the production and transportation of natural resources, energy, political issues, international security issues, and combating terrorism. Also addressed, albeit to a lesser extent, are issues such as culture, nonprofit organizations, cross-border cooperation, and the "Euroregions."

Currently, both Europe and Russia need a new, tighter integration for purely economic reasons. Under US leadership and with the rapid increase in the role of Asian countries, especially China, the complexity of competitiveness challenges in the world economy has increased, both for Russia and the European Union. Bearing this in mind, Russia and the European Union complement each other. They both have the advantage of a large domestic market and a vast pool of human resources. Besides, Russia's strengths are its natural resources, including opportunities for agricultural production and its favorable geographical position, while Europe's strengths are its technology and financial resources, as well as its developed educational system.

Although Russia does not belong to the community of countries that have historically been known as "United Europe," there have been several periods of close relations and intensive cultural exchange between Russia and Europe. In the 10th–12th centuries, Russia had close ties with Europe through the Kievan princely dynasty, a relative of the ruling dynasties of Northern Europe, and also through the Byzantine Empire. During the 16th century, the rulers of Moscow were interested in technological and political cooperation with Europe. A striking symbol of this period is the Moscow Kremlin, which is a late Gothic architectural monument, built by the most prominent Italian architects of the time. In the 17th–19th centuries, the ruling Romanov dynasty was also interested in new technologies from Europe, including construction, military equipment, industrial production, and new cultural values.

This period has been characterized as exhibiting the closest relationship between Russia and Europe, because it concerned not only the ruling class but also the wider community. The relationship was particularly intense in the fields of science and culture. Russia was intimately involved in internal European political processes. In economic terms, much of Russian industry was owned by European investors, while Russian entrepreneurs were actively involved in the capital of joint-stock companies in Europe.

Currently, conditions in Russia and the European Union are extremely favorable for beginning a new phase of cooperation. One of the main positive factors is political: neither Russia nor the European Union has grounds for military or political conflicts. The economic advantages mentioned above provide strong incentives for Russia and the European Union to integrate more closely. A new approach to cooperation should focus primarily on the joint increase in competitiveness in these two economies, sustainable development, and prosperity for residents. The aim is to create a common market that will be competitive for European and Russian companies on a global scale.

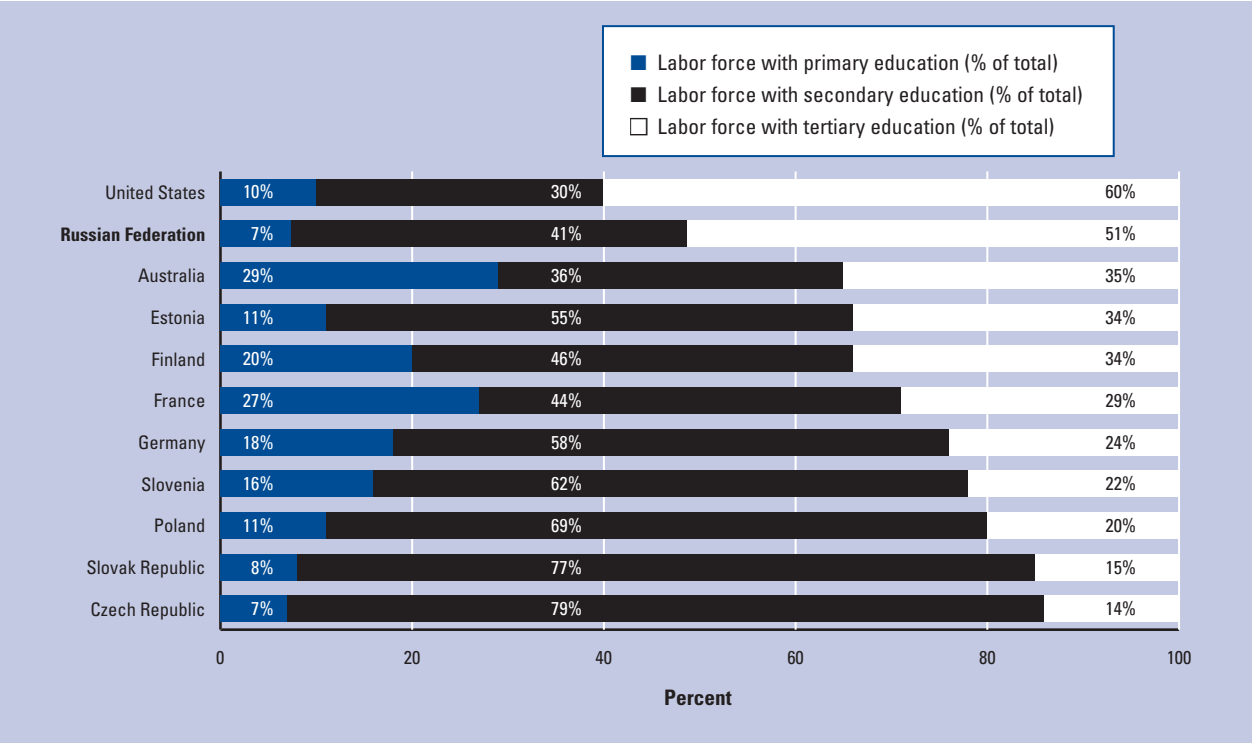
Needless to say, both sides would need to take each others' interests into account. The potential new dimensions of EU-Russia cooperation are access to Russian and EU markets, foreign direct investment and cluster integration, science and education, technology and innovation, healthcare, resource productivity and sustainability, infrastructure development and integration, and the "import" of some EU institutions into Russia. An important feature of integration is the introduction of successful EU regulations and their adaptation to Russia—for example, anti-monopoly regulation, industrial regulation, trade regulation, and so on. There are many problems with regulation in Russia, often associated with a lack of total legislation, and the import of the best European legal practices would allow significant progress in addressing these issues. Development of a cooperation in new areas will require focusing on the following basic channels of cooperation:

- direct cooperation between the European Commission and Russia;
- cooperation among individual EU countries and Russia, coordinated by the European Union;
- direct contact between Russian and European business and public organizations;
- direct cooperation between EU and Russian regions under the auspices of the European Commission; and
- more direct interaction among EU agencies (government bodies), and the EU as a whole, and federal authorities in Russia.

For a new generation of cooperative programs to work effectively, it is necessary to create new institutions that specifically address the implementation of new strategies and develop new areas of cooperation. The Russian institutions already engaged with the European Union (Russia's Ministry of Foreign Affairs, regional authorities in partnerships with European regions, and so on) are certainly capable of dealing with the present agenda, but deeper integration will require updating the current system of cooperation. A big role could also be played by independent think tanks, which would specialize in researching the capabilities and results of Russian-European integration and would help to form public opinion on these issues.

(Cont'd.)

Figure 7: Labor force by level of education, 2006



Source: Authors' calculations based on World Bank, 2010a.

participating countries. Despite these agreements, according to the World Economic Forum's *Global Enabling Trade Report,* one of Russia's key obstacles to increasing exports is the tariffs Russian exporters face in target markets, which remain high in international comparison (5.7 percent, corresponding to the 102nd rank out of 125 countries).[22] Concluding the World Trade Organization (WTO) accession process would allow the country to reduce these barriers and further develop exports. As discussed in more detail in Box 2, Russia would also benefit from stronger cooperation with the European Union, with which it has signed a modernization partnership.

Third strength: Highly educated population

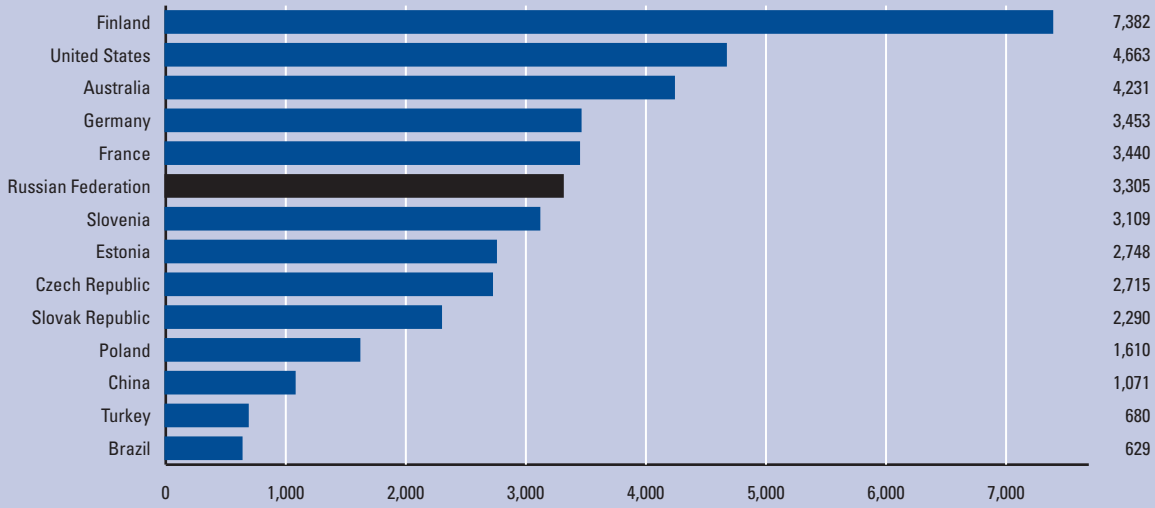
In terms of advantages, last but not least, Russia has one of the best educated populations in the world. The country ranks 25th out of 139 economies on the indicator measuring the quantity of education, far ahead of Brazil (51st), China (96th), and India (108th). Inherited from the Soviet Union, which stressed universal access to education at all levels, the country benefits from high levels of education present in the labor force. Russia has one of the highest shares of workers with a tertiary education among the countries shown in Figure 7, right after the United States and ahead of many EU countries such as France, Germany, Poland, and the Czech Republic. It also has the lowest share of workers who have only a primary education among the countries shown in the chart. Scientists and engineers are available to a larger degree than in countries such as Brazil, Poland, or even China, and researchers as well as R&D technicians are numerous, both in absolute terms and relative to the country's population (see Figure 8a). As a result, Russia has a particularly high potential for developing R&D activities and high-end manufacturing and service sectors. It is therefore not surprising that the lack of skills is much less of a constraint for doing business in Russia than it is in many other countries. According to the Survey, business leaders rarely name an inadequately educated labor force as one of the major impediments to doing business, significantly less than in other countries such as China or Germany (see Figure 8b).

In principle, the level of workforce education is likely to remain high over the next years, as the participation in educational institutions at all levels remains high in international comparison. Studies estimate that the returns to tertiary education rose from around 2–4 percent prior to transition to a market economy to 8–10 percent by 2000–02, which partly explains Russia's excellent performance on the educational indicators.[23] However, as discussed later, Russia will have to address the low and deteriorating quality of education to sustain this key competitive advantage over the medium to longer term (Box 3).

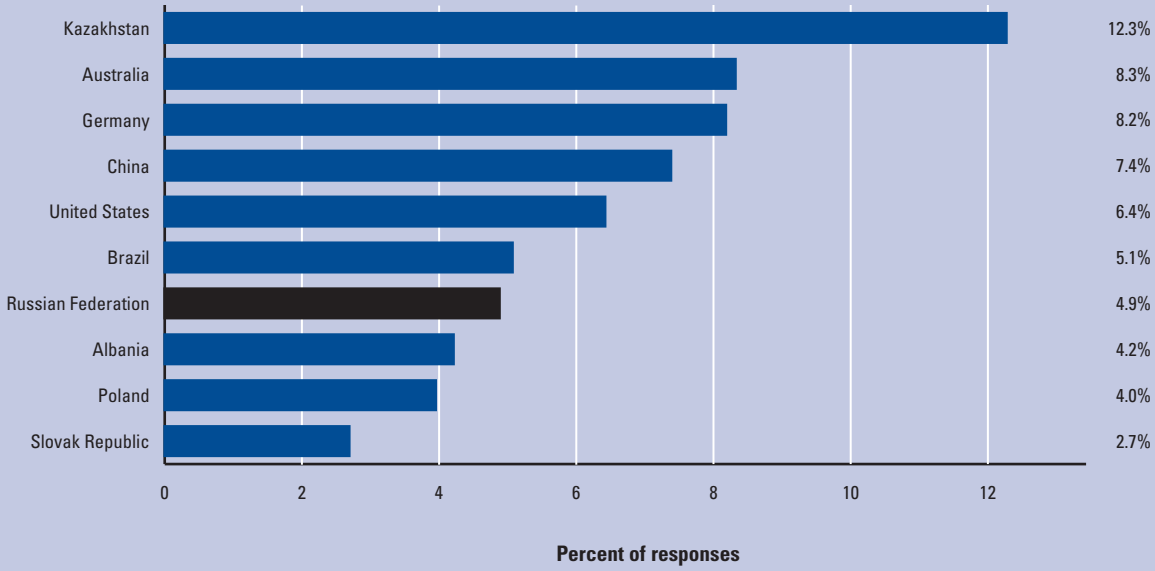
The wealth of the Russian economy is unique, but its mediocre economic performance over the past 20 years triggers the question of why the country has not been able to benefit from its resources to date. The GCI highlights a number of weaknesses that stand in the way of a more competitive economy. An analysis

Figure 8: Availability of research staff and education as obstacle for doing business

8a: Researchers in R&D per million people, 2006, 2007 (most recent)



8b: Most problematic factors for doing business: Inadequately educated workforce



Source: World Economic Forum, 2010a.

Box 3: Competing for foreign direct investment

ALEXEY PRAZDNICHNYKH, Strategy Partners Group, Eurasia Competitiveness Institute

NIKITA POPOV AND DMITRY PLOTNIKOV, Strategy Partners Group

In the 2000s, Russia managed to attract a great deal of foreign direct investment (FDI) although it practically started from scratch. In 1996, the inward FDI stock was less than US$10 billion and, by the end of 2009, FDI stock in the Russian economy surpassed US$250 billion, which is more than in Japan, India, or Saudi Arabia. Although FDI stock growth in the second half of the decade was not as rapid as it was in Belarus, Ukraine, or Kazakhstan, and was even less than the world average, FDI inflows from 2007 to 2009 amounted to more than 4 percent of the country's GDP in 2009—more than in most comparison countries.

However, when FDI quality is put under scrutiny, Russia's performance is not as good as it appears (Figure 1). There is much work to be done to derive the full benefits of FDI for fostering national economic development.

From an investor's point of view, there are three goals for direct investment in a foreign country:

- access to natural resources,
- access to the foreign country's domestic market, and
- access to competences.

FDI of the first type, which is based on the goal of *access to natural resources,* is literally aimed at gaining access to the country's mining, agriculture, forestry, and fishing sectors, and at establishing operations such as extraction, transportation, and primary processing of raw materials. Investments from Shell, Mitsui, and Mitsubishi in oil and gas extraction in the Sakhalin region of Russia are prime examples of this type of FDI.

The economic rationale for such investments is that the investor receives a rent from selling scarce resources on the global market. As a rule, the rents from this type of FDI are very high and ought to cover all costs of doing business in the country. Thus, although competition among nations for this type of FDI occurs on a global scale, it is not very fierce. Investors have low requirements with respect to the quality of the national business environment.

Thanks to Russia's abundant natural resources, the country's performance in attracting this type of FDI has been strong. By 2005, FDI stock in the nation's resource base was already worth more than US$100 billion. However, this kind of investment decreased and, by 2009, a different type of FDI played the dominant role.

Access to domestic market denotes investment with the aim of gaining a share of the national market. This investment feeds production, distribution, and aftersales service. One kind of it is investment in local sectors such as construction, retail trade, hotels, catering, and other services. New outlets of IKEA, METRO, and Auchan in Russia exemplify it. Another kind of FDI is investment in the manufacturing of goods that are primarily sold on the national market, although some portion of these goods may be exported. There are numerous examples of investment projects in food processing (Mars and Campina in Moscow), automotive assembly (Ford and Toyota in St. Petersburg), manufacturing of white goods (Indesit in the Lipetsk region), and other industries in many Russian regions. The motivation for this kind of investment may be to overcome trade barriers, reduce delivery times, and lower the cost of production and distribution.

Competition among national economies for this type of FDI is more intense than it is for FDI that aims to obtain access to natural resources, but it is still mediated by the size and momentum of the domestic market. Investors of this type pay more attention to the quality of the business environment, since it is a major cost factor. However, the environment does not have to be very advantageous and, as soon as basic conditions are met, foreign investors are ready to contend for a share of the lucrative local market.

Russia's large domestic market was among the fastest growing in the 2000s and, during the second half of the decade, the presence of foreign companies in retail and consumer goods sectors increased radically. Because of the outstandingly large inflow of investment in 2007, 2008, and 2009, the FDI stock aiming to secure access to the Russian market grew rapidly and became FDI's dominant component.

Access to competences refers to FDI with the aim of producing goods and services that can be sold or employed globally. A country's competence base can be attractive either because of its low cost or its unique and extraordinary high skills. Cost-driven FDI in competences is directed into specialized production facilities and other operations across the vast spectrum of the manufacturing and services industries. Skill-driven FDI in competences is, for example, an investment in research and development (R&D) activities. There are rare examples of such FDI in Russia, including the Intel research lab in Nizhny Novgorod, the Boeing engineering center in Moscow, and the Motorola development center in St. Petersburg.

Nations compete for FDI in competence globally, and on a level playing field, without predetermined advantages of natural wealth or market size. The quality of the business environment and quality of life have a major influence on investment decisions; the easier it is to do business in a country, the more chances it has to attract FDI of this type.

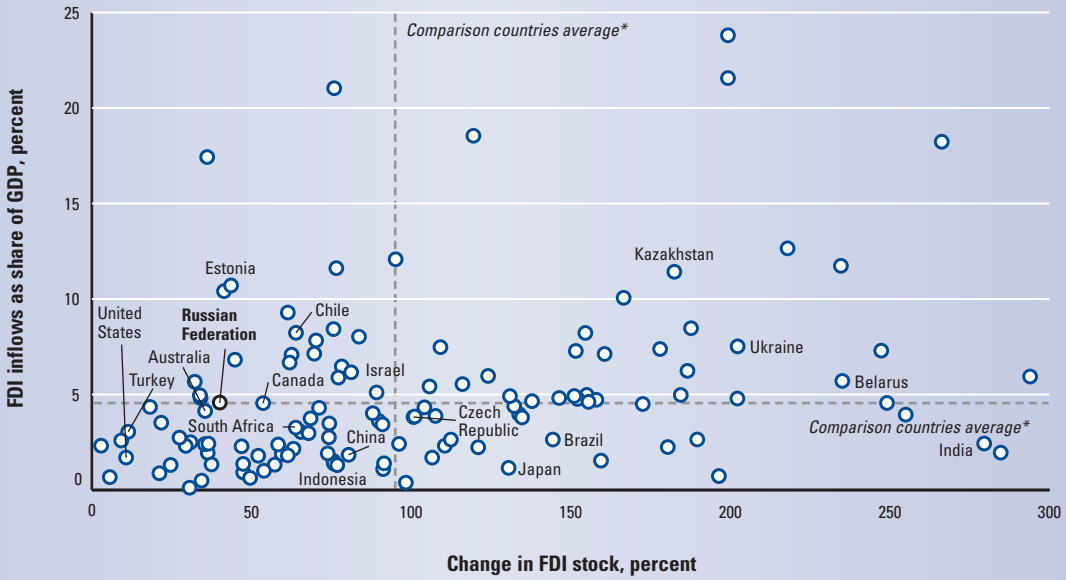
To date, Russia has been modestly successful in attracting FDI in competence. In 2009, around 9 percent of the total FDI stock in the country was of this type, mostly as cost-driven investment in basic metals. As illustrated by the trends of R&D investment abroad by US multinational corporations, Russia's innovative potential did not attract much money from other countries, whereas other emerging economies were much more successful. In fact, Russia is losing the battle for global R&D investment (Figure 2), although there have been some improvements in recent years.

(Cont'd.)

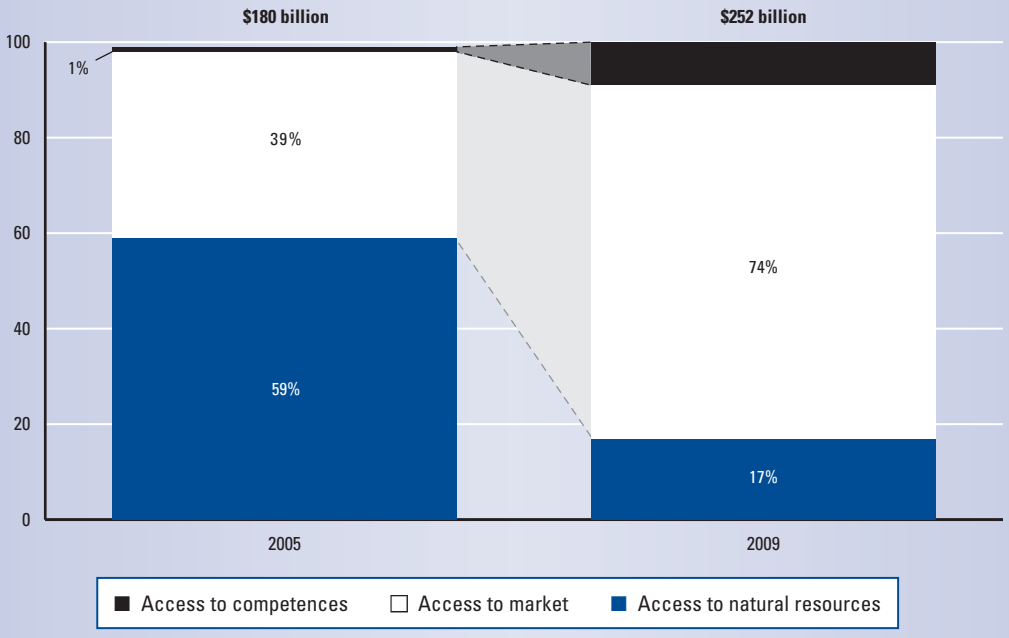
Box 3: Competing for foreign direct investment *(cont'd.)*

Figure 1: FDI in Russia: Growth and trends

1a: FDI inflows as share of GDP in 2007–09 (average) and change in accumulated FDI stock, percent (2005–09)



1b: FDI accumulated in Russia by type, end of 2005 and end of 2009



Sources: Authors' calculations based on UNCTAD, 2010; World Bank, 2010; Rosstat, 2010.

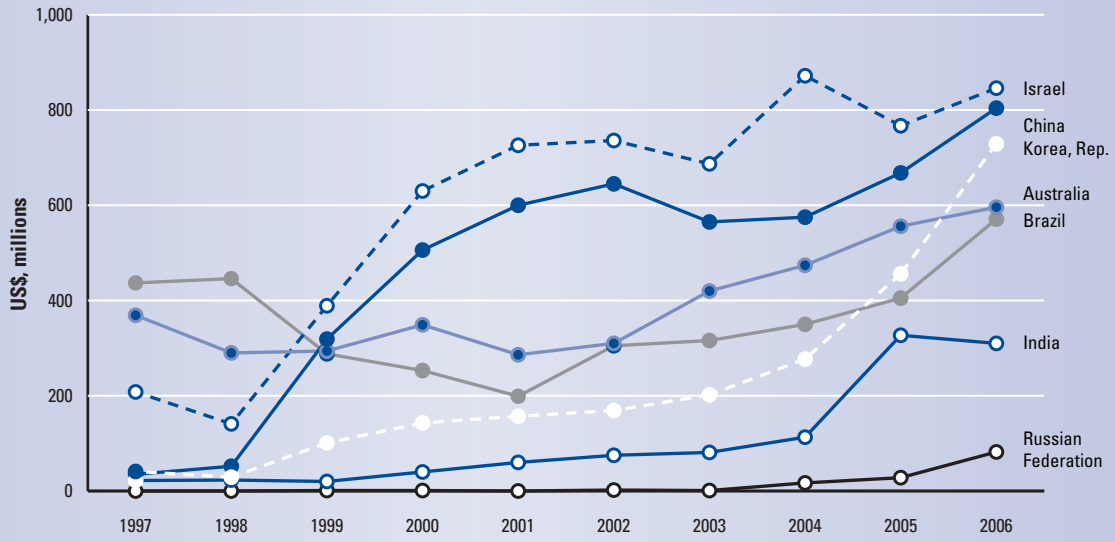
(Cont'd.)

Box 3: Competing for foreign direct investment *(cont'd.)*

Although different types of FDI require different levels of quality of the business environment, the Russian economy should become more competitive if it wants to attract more FDI (Figure 3a). Statistics show that the level of per capita FDI is proportional to the economy's level of competitiveness, and that this trend is valid for energy resource–intensive economies as well, in spite of the greater variation and lower slope of the trend line (see Figure 3b).

It is intriguing to attempt to quantify the FDI inflow, given a certain increase in competitiveness. In a simple modeling experiment, Russia's FDI inflow was estimated using the competitiveness performance of India and China. The experiment shows that, if competitiveness reached the current level of India, Russia would be able to attract 10 percent more investment in the coming years. A radical improvement to Russian competitiveness to Chinese levels would almost double the inflow of FDI into Russia (see Figure 3b).

Figure 2: Foreign investment in R&D: Russia and other emerging economies



Source: National Science Board, 2010.
Note: R&D performed abroad by majority-owned foreign affiliates of US parent companies, 1997–2006.

(Cont'd.)

of the GCI 2010–2011 identifies five core challenges that should form the backbone of the reform agenda for the Russian economy in the near future. These are challenges to the country's institutional framework, the quality of the education it provides, the efficiency of its markets for goods and services, the efficiency and stability of its financial sector, and its business sophistication. These aspects are analyzed in detail in the next section.

First challenge: Reforming the inefficient and corrupt institutional framework

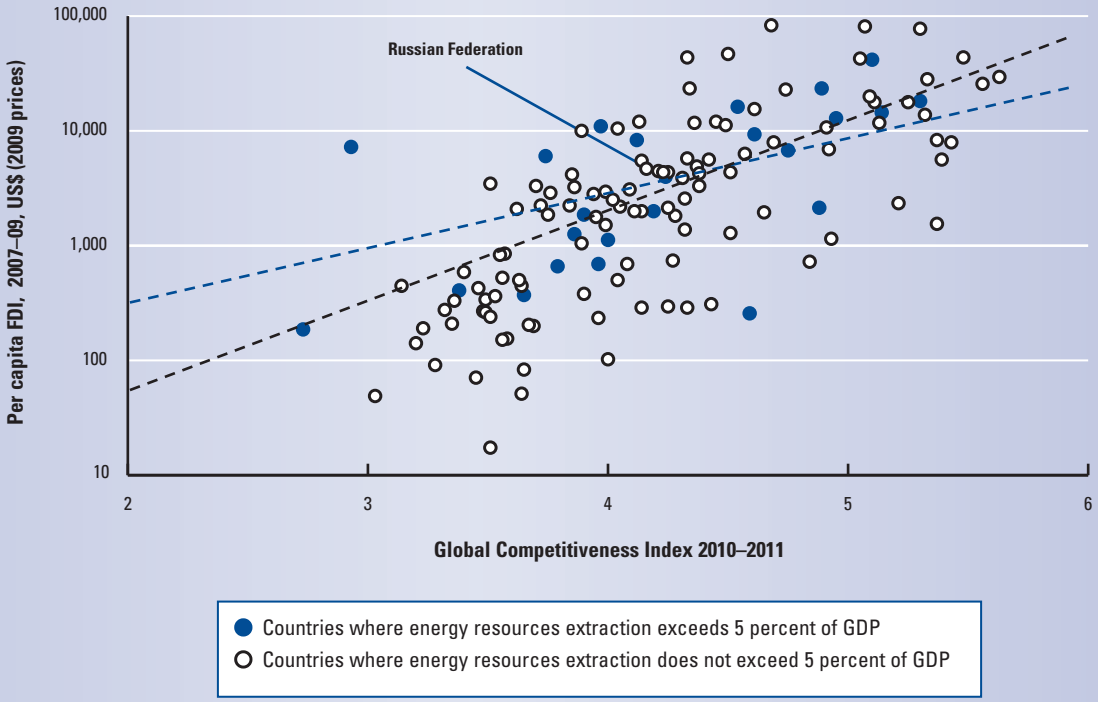
Benefiting from these three strengths will require addressing five economic policy challenges. First, in order to reform the institutional framework, several areas must be tackled. Property rights need to be better enforced: the protection of land rights and access to land remain key issues, but also intellectual property rights are insufficiently protected according to international standards. Corruption and undue influence are a major concern and present costly impediments to Russian businesses. Undue influence is rampant in administration and the judiciary, and regulations are among the most burdensome in the world. In addition, the judiciary is inefficient and unfair. Without a major push to improve the institutional framework, Russia will not be able to raise its competitiveness.

An institutional framework is a system of rules that shapes incentives and defines the way economic agents interact in an economy. Clear evidence exists that an efficient and well-functioning institutional framework is conducive to economic development. Given the extremely different institutional setups and incentive structures of planned economies, for many transition

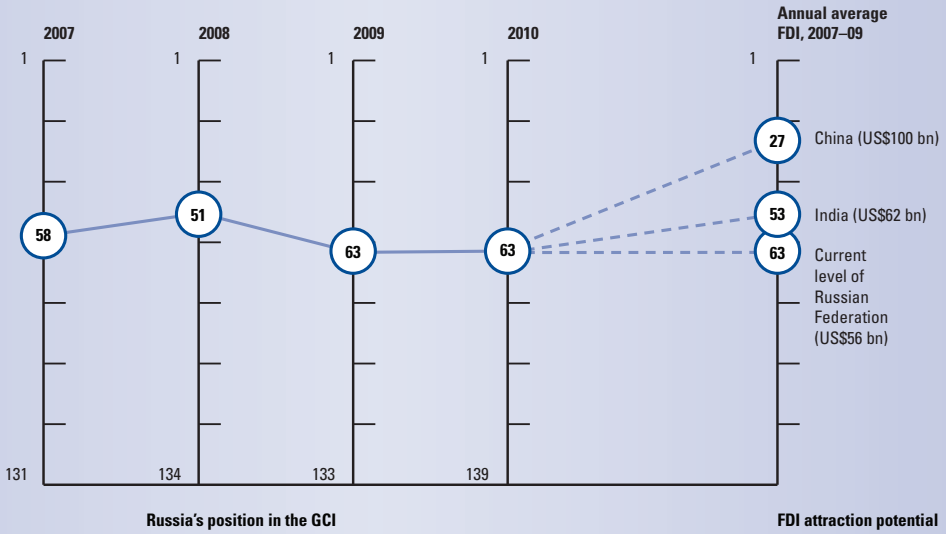
Box 3: Competing for foreign direct investment *(cont'd.)*

Figure 3: FDI and competitiveness

3a: Average per capita FDI (2007–09) and Global Competitiveness Index 2010–2011



3b: Russia's position in the GCI and FDI attraction potential



Sources: Authors' calculations based on UNCTAD, 2010; World Economic Forum, 2010a.

countries, one of the most difficult parts of the transition process has been reforming the institutional framework. A strong institutional framework not only supports growth in a direct way, but it also generates important spillover effects into other policy areas, which can be implemented more efficiently than they could when the institutions are weak.

In the GCI 2010–2011, Russia ranks 118th on the institutions pillar—a ranking that is the result of its poor outcomes on the two components that make up this pillar, namely, 118th for public and 119th for private institutions. Figure 9a shows selected indicators from the institutions pillar for Russia in comparison with the BICs and OECD averages. The sizeable distance from both comparator groups across all the indicators indicates the daunting challenges that Russia is facing to improve its institutional framework.

Enforcement of property rights

A key challenge for the reform of public institutions is a clear definition of property rights for both intellectual and physical and financial property. In Russia, the strength of property protection is assessed at the 128th position in the GCI rankings, with a score of 2.9 and 2.6 for property rights and intellectual property protection, respectively (Figure 9b). Weakly defined and enforced property rights have an impact on investment decisions, as owners are not willing either to invest in the upkeep of existing property or to invest in new property.

Protection of land rights and access to land

In Russia, acquiring land remains difficult for businesses, in particular for smaller companies, according to the World Bank's BEEPS survey, which assesses barriers to private-sector development in transition economies.[24] Out of 29 countries, the Russian Federation is among the poorest performers with respect to access to land, with only Moldovan and Ukrainian business facing slightly more problems. Administrative barriers contribute to the difficulties in acquiring land. A survey conducted in 2006 shows that the procedure for buying or leasing land can take over a year.[25] Arbitrariness and corruption in the related transactions are key problem areas, which result from the lack of competition in real estate markets, among other factors, because only a small portion of land has been privatized and much of it remains in the hands of local governments.

Protection of intellectual property rights

There remains room for improvement with respect to the protection of intellectual property rights. Respondents to the Survey assess the protection of these rights at 2.58 on a scale of 1 to 7, which corresponds to 119th position. Although the laws correspond to international standards, the limited capacity of public authorities to enforce intellectual property rights appears to be the key challenge. This is particularly important to the process of Russia's accession to the WTO, which requires protection of intellectual property rights to be enforced as per the provisions of the agreement on Trade Related Intellectual Property Rights (TRIPs).

Corruption and undue influence

It is widely acknowledged that corruption and undue influence are among the major burdens faced by Russian businesses. Indeed, Survey respondents place the country at a low 109th place for diversion of public funds as a result of corruption (with a score of 2.61), and 111th for the prevalence of irregular payments and bribes.[26] Most of the irregular payments in Russia are associated with awarding public contracts and conducting import and export operations and to a lesser extent with public utilities or tax payments (see Figure 10a).

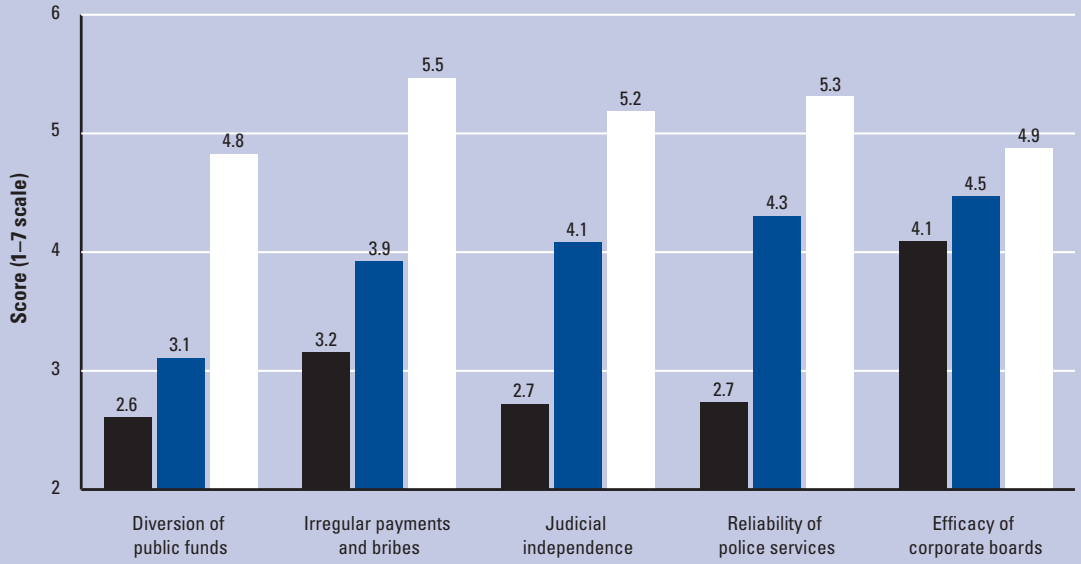
There is a clear business case for reducing corruption in Russia, although it is difficult if not impossible to quantify the advantage that such a reduction would engender, given its hidden nature.[27] Some estimates at the global level show that corruption amounts to more than 5 percent of global GDP and that it adds up to 10 percent to the total cost of doing business. This number is likely to be significantly higher in the Russian Federation, given the extent of corruption in that country. To name just one example, a recent contracting fraud involving Transneft lost the company US$4 billion.[28] In surveys conducted by the business association OPORA, 18.7 percent admit paying bribes, while 43.9 percent refused to answer the question (see Figure 10b).[29] One possible way of obtaining some insight into the level of corruption and the administrative burden is to compare the cost of building roads across countries. Figure 11 shows these data for Russia, China, the United States, and the European Union. Although prices reflect many factors (such as land prices, for example), in Russia the bulk of the cost appears to be administrative inefficiencies. Given the endemic corruption in the country, this also mirrors bribes and irregular payments.[30] Responses to the Survey also allow quantification of the relative importance of corruption for business in Russia. Corruption is seen as the single most important impediment to doing business in the country, with 21.2 percent of the Survey responses. Corruption is ahead, by a wide margin, of the next-placed impediment of access to financing, which received 15.5 percent of responses. Box 4 discusses the bottom-up approach taken by the World Economic Forum's Partnering Against Corruption Initiative in detail.

Undue influence in administration and judiciary and a high burden of regulation

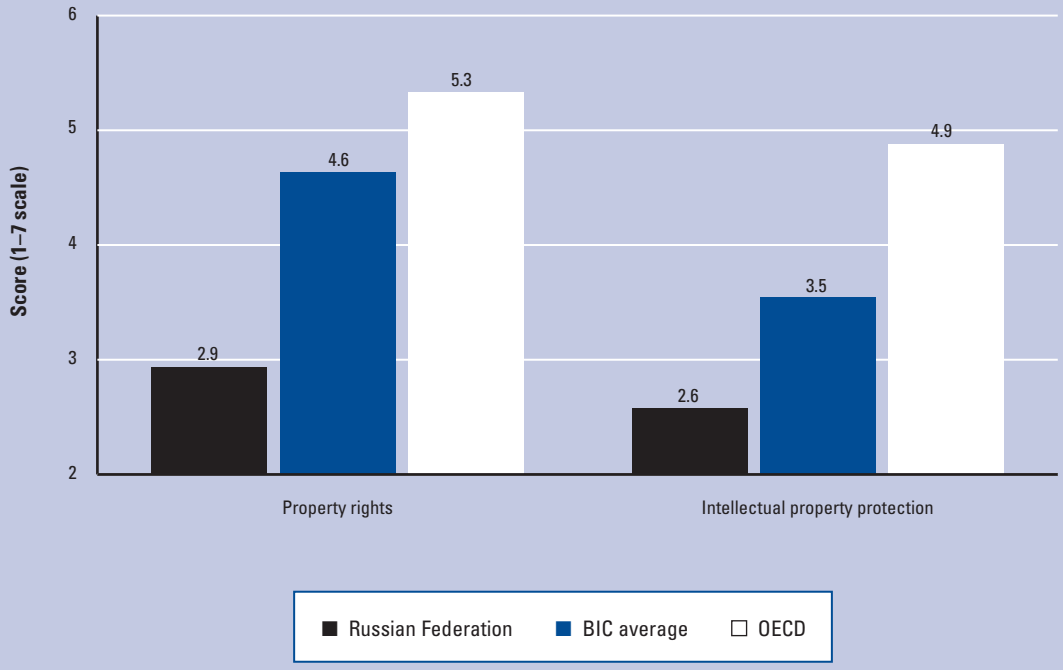
Nepotism and state capture of the government administration and the judiciary impede efficiency of public institutions, which are key to the functioning of the economy.[31] Particular inefficiencies are related to the

Figure 9: Performance of the Russian Federation on selected institutional indicators in international comparison

9a: GCI 2010–2011 scores on selected institutional indicators



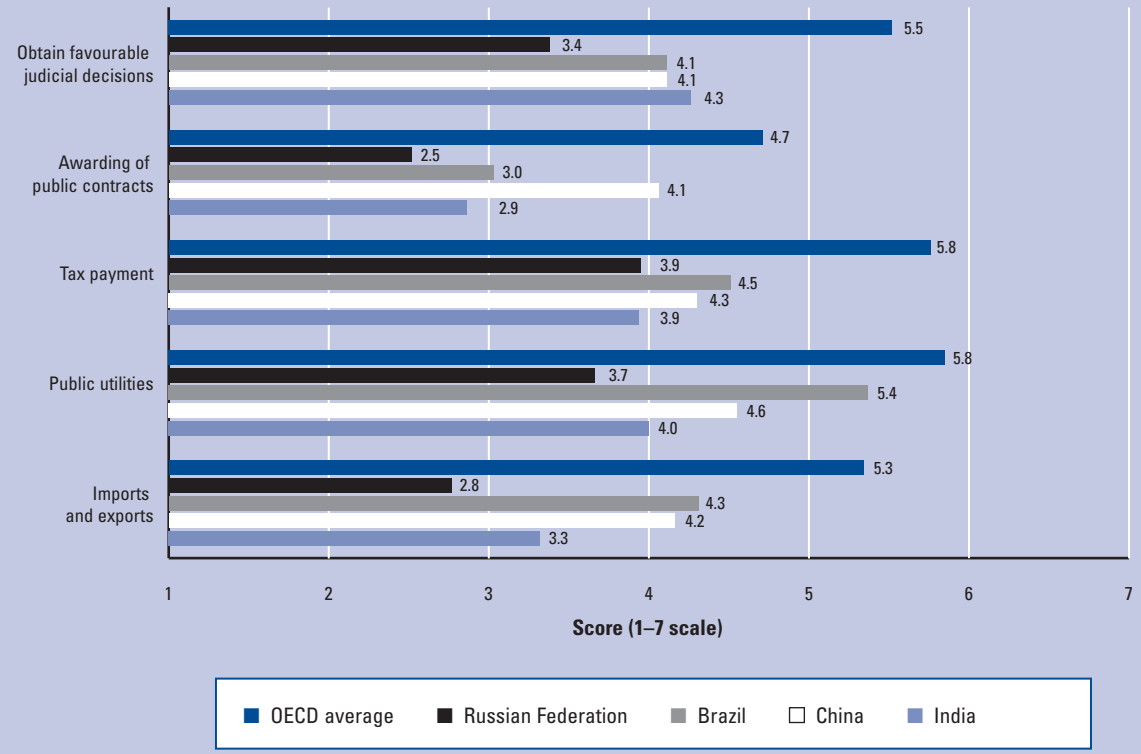
9b: Property rights indicators



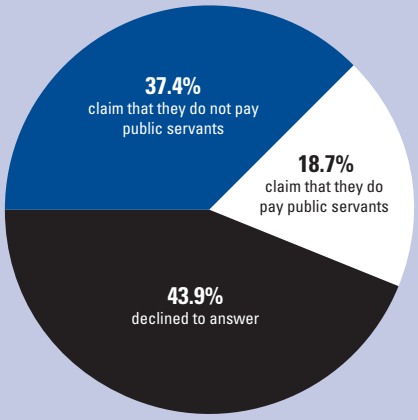
Source: World Economic Forum, 2010a.

Figure 10: Corruption levels in Russia

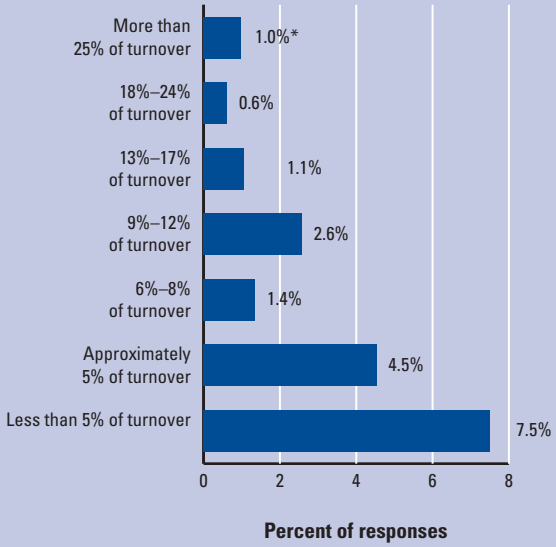
10a: Corruption levels across different areas, 2009–10



10b: Frequency of irregular payments to public servants*

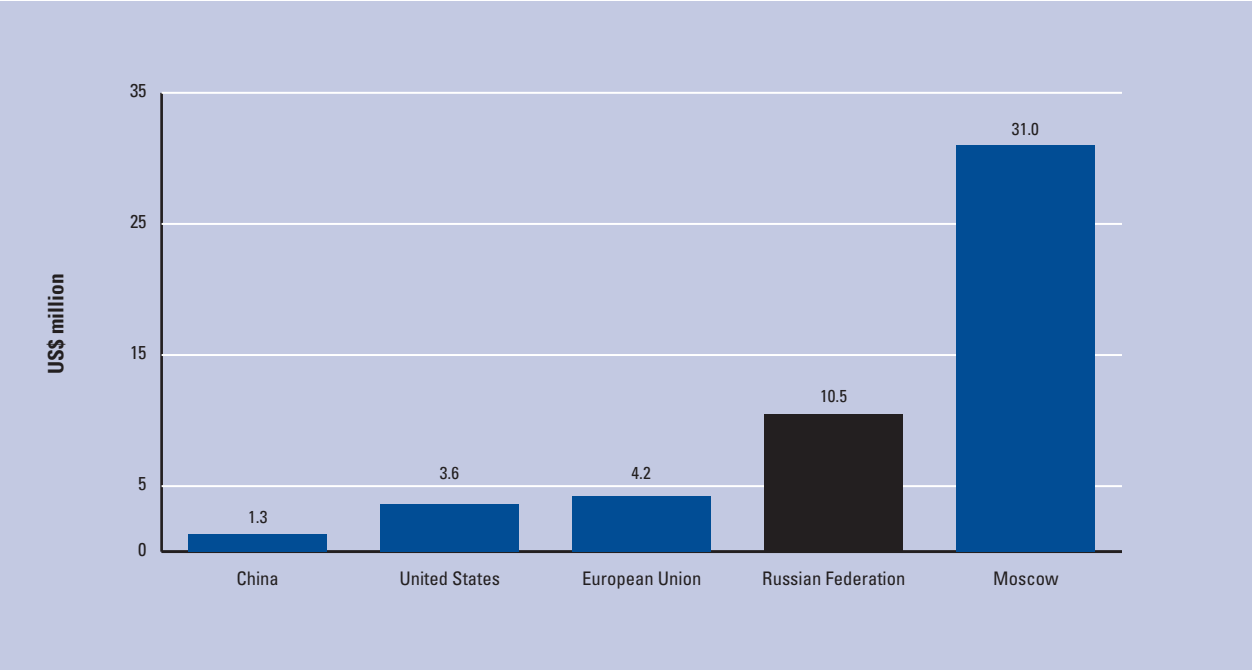


10c: Irregular payments as share of company turnover



Sources: World Economic Forum, 2010a; OPORA, Eurasia Competitiveness Institute, Strategy Partners Group, 2011.
Note: In 10a, scores are on a scale of 1 to 7 with 7 representing the best result. Responses are in answer to the question "How common is it for firms to make undocumented extra payments or bribes related to:"
* Share of respondents in the total sample.

Figure 11: The cost of building a road



Source: Ria Novosti (based on Nuttall, 2010).

burden of government regulation, where Russia performs particularly poorly in comparison with the panel economies, as shown in Figure 12c. Senior managers in Russian companies spend more than 20 percent of their time dealing with different government institutions (Figure 12b) and obtaining a permit necessitates more than 60 days of administration time (Figure 12a).

Inefficient and unfair judiciary

Equally, the judicial system is considered inefficient for settling business disputes. Russia lags behind most of the other panel countries, bar Ukraine and Venezuela, on this indicator and ranks 114th in the GCI sample. The judiciary is also not efficient as a conduit for challenging government regulations by business (Figure 13), as reflected in the low 115th position in the GCI sample, which corresponds to a score of 2.8 on a 1-to-7 scale.

Russia's institutional framework urgently needs improvement

Over the past few years, Russia has made some efforts to improve the rule of law and to fight corruption.[32] These efforts have led to a small improvement in the score of the institutions pillar between 2007 and 2008, and the country stabilized its score at a higher level in subsequent years. Yet these advances were not sufficient for the country to catch up with China or Brazil, for example, both of which made even greater progress over this period of time. Yet further improvements are indispensible if the country is serious about raising competitiveness. In particular, a comprehensive strategy to fight corruption and undue influence should be put into place in Russia. Box 5 summarizes the different elements that an anti-corruption strategy needs to take into account if it is to be successful.

Second challenge: Improving the quality of education

> The quality of education in Russia is deteriorating quickly, which represents a marked change from the time when Russia provided world-class education for its citizens, particularly in math and science. This is especially worrisome as it is deteriorating from a low level, in particular for secondary and tertiary schools. The consequence is that qualified workers are leaving the country.

Although the country's highly educated population is among its key advantages, Russia will most likely not be able to maintain this advantage over the medium to longer term without major investment into improving the quality of the country's educational system at all levels.

Deteriorating quality of education

The past five years have seen a significant deterioration in the quality of education in Russia, while educational outcomes in India, China, and Brazil have been improving and OECD countries show stable results (see Figure 14).[33] In particular, math and science education—which had been one of the key strengths of the Russian educational system—has deteriorated considerably more in Russia than in the two comparator country groups. Over the same time period, according to the

Box 4: Anti-Corruption: Why companies are part of the problem and part of the solution

MICHAEL PEDERSEN and **ARTHUR WASUNNA**, World Economic Forum

Companies increasingly appreciate the business case for fighting corruption

In recent years, companies and senior officers are increasingly acknowledging the business case for engaging in fighting corruption for a variety of reasons:

- Financial reasons
  - — Corruption has been shown to *increase the cost of doing business* globally by up to 10 percent on average.
  - — Companies engaging in corrupt practices have been barred from bidding for various public tenders in several countries.
  - — Companies are increasingly paying attention to and seeking to mitigate corruption-related risks in order to avoid substantial fines and penalties.
- Legal incentives
  - — Legal frameworks have been strengthened and corruption law enforcement has increased, with more countries enacting extraterritorial laws on the issue.
  - — Companies, CEOs, and board members are increasingly held personally liable for acts of corruption committed by employees.
- Ethical and reputational risks incentives
  - — Companies and senior executives increasingly see that doing business with integrity attracts and retains principled, motivated employees and ethically oriented investors; it also safeguards a company's reputation in an increasingly competitive marketplace.

As a result, companies are taking concrete action internally and externally to fight corruption. But corruption is a complex problem that cannot be solved by companies acting in isolation. Therefore, to demonstrate leadership in the fight against corruption, companies today are increasingly taking the following measures:

- As a first step, companies are developing, implementing, and continually testing anti-corruption management systems that are designed to prevent, detect, and mitigate corruption-related risks. As would be expected in a dynamic environment, these systems are often benchmarked to best practice.
- As a further step, companies are engaging in initiatives that foster collective corporate action against corruption. Senior officials recognize that no company acting alone can effectively address corruption, even with a best-practice anti-corruption management system. This is because of the uneven playing field that is often evident where corruption is prevalent. It implies that scrupulous companies risk losing business by adopting a zero tolerance policy toward corruption.

The Partnering Against Corruption Initiative

The World Economic Forum's Partnering Against Corruption Initiative (PACI) convenes private-sector action against corruption that offers a corruption risk mitigation platform. Representing "the business voice against corruption," PACI—a global multi-sectoral anti-corruption initiative—ensures that companies committed to the fight against corruption are recognized for their engagement. To become engaged in PACI, CEOs sign the PACI support statement and thereby commit to a zero-tolerance policy toward bribery and corruption. They agree to put in place an internal anti-corruption program that reflects the PACI Principles for Countering Bribery. Signature and engagement in PACI are free of any monetary charges.

PACI offers a risk mitigation platform to help companies:

- design and implement effective policies and systems to prevent, detect, and address corruption;
- benchmark internal practices against global best practice through peer exchange and learning; and
- level the playing field through collective action with other companies, governments, and civil society.

Some of the benefits that PACI offers include:

- access to a best-practice anti-corruption management system framework, including a suite of implementation tools;
- demonstration to board members, employees, and governments of the seriousness of a company's commitment to avoiding bribery;
- peer exchange and learning opportunities for a company's senior compliance executives;
- continuous improvement and benchmarking of a company's systems in relation to global best practice;
- engagement in collective action with the company's industry, suppliers, and other partners to create a level, ethical playing field in key sectors and markets; and
- influence on the evolving regulatory framework through industry dialogue with governments.

Since 2004, CEOs from over 160 companies have signed the PACI statement committing themselves and their companies to fight bribery and corruption. These companies include industry leaders from multiple sectors and global locations.

(Cont'd.)

Box 4: Anti-Corruption: Why companies are part of the problem and part of the solution *(cont'd.)*

The need for multi-stakeholder engagement in the fight against corruption in Russia

PACI has a number of signatory companies from Russia and supports the Russian Initiative for Corporate Ethics. The aim of this initiative is to unite the efforts of different associations and companies in the fight against corruption in order to minimize commercial risks and provide conditions for healthy competition.

Using the PACI best-practice anti-corruption management framework as a basis, the International Business Leaders Forum, the Association of European Businesses, the Russian-German Chamber of Commerce, and the American Chamber of Commerce in Russia have called upon Russian and international companies, working in Russia, to participate in the new initiative and to voluntarily accept the necessary obligations.

In 1996, Russia made an official request for membership into the Organisation for Economic Co-operation and Development (OECD) and, since then, the accession process has been on-going. The OECD program managing the accession process for Russia undertakes reviews of Russia's policies in various fields, including those touching on governance and transparency.

This desire for membership in the OECD provides a clear incentive for Russia to adopt the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, as this would further demonstrate the government's commitment to creating an environment for clean business to thrive.

Russian business community, brain drain has increased, while it has decreased in BIC economies and remained stable in the OECD member states, on average.

Low level of math and science education in secondary and tertiary schools

Findings from the OECD Programme for International Student Assessment (PISA) confirm weaknesses in the Russian educational system.[34] On both mathematics and science, Russian 15-year-old students perform below the OECD average; across all disciplines, Russia places below both Poland and Turkey (see Figure 15). The weaknesses continue when it comes to tertiary education. Businesses view management schools as not sufficiently strong to provide the necessary skills and rank Russian schools at 92nd in the GCI sample. This is reinforced by the facts that Russia is home to only very few leading universities, and that it also occupies low rankings globally in terms of scientific performance. As a result, only a small share of graduates are proficient enough to be hired by multinational companies (see Figure 16). Expanding the participation of Russian students in European exchange programs in secondary schools and universities would expose them to European best practices, and would be particularly valuable in management education. The quality of available skills could be also be improved quickly through more open immigration policies that would aim at making Russia more attractive for qualified migrants.

Third challenge: Intensifying competition to raise goods markets efficiency

Russia continues to display inefficiencies in markets that are largely a result of dominance by a few firms and serious barriers to trade and investment. State involvement across many levels additionally stifles competition and constrains entrepreneurship. Moreover, taxation distorts competition and dis-incentivizes investment. Russia remains largely closed to foreign participation because of its trade barriers, inefficient customs, and excessive restrictions on FDI.

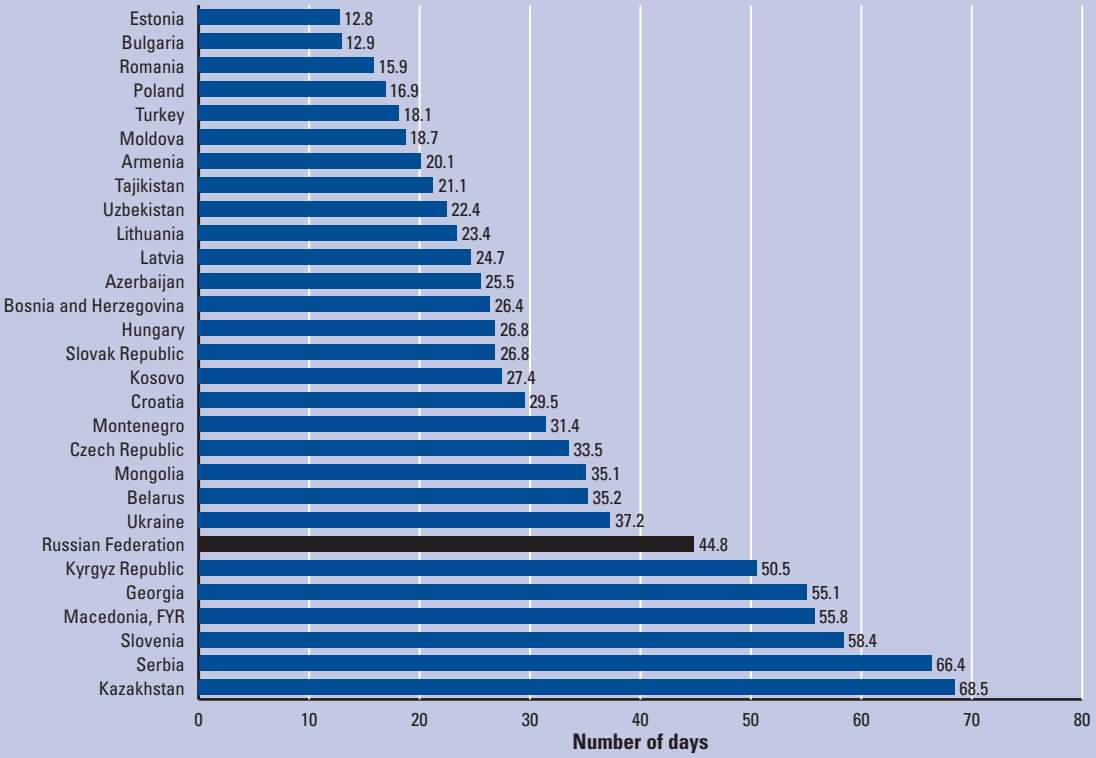
The efficiency of markets for goods and services is at the core of the functioning of any market economy and key for productivity. Efficient markets allow for higher productivity through competition and an appropriate level of involvement of the government. The dimensions assessed in this pillar, such as intensity of competition or anti-monopoly policy, were central to transition efforts and were one of the areas where progress was difficult to achieve, as mechanisms to regulate markets needed to be put in place and enforced. For the most part, firms, employees, and consumers had to learn how to cope with entirely new incentive structures, which required a major change in mindset. See Box 6 for an example of progress on goods market efficiency in another transition economy. Box 7 discusses the specific challenges Russia faces across different sectors.

Market inefficiencies

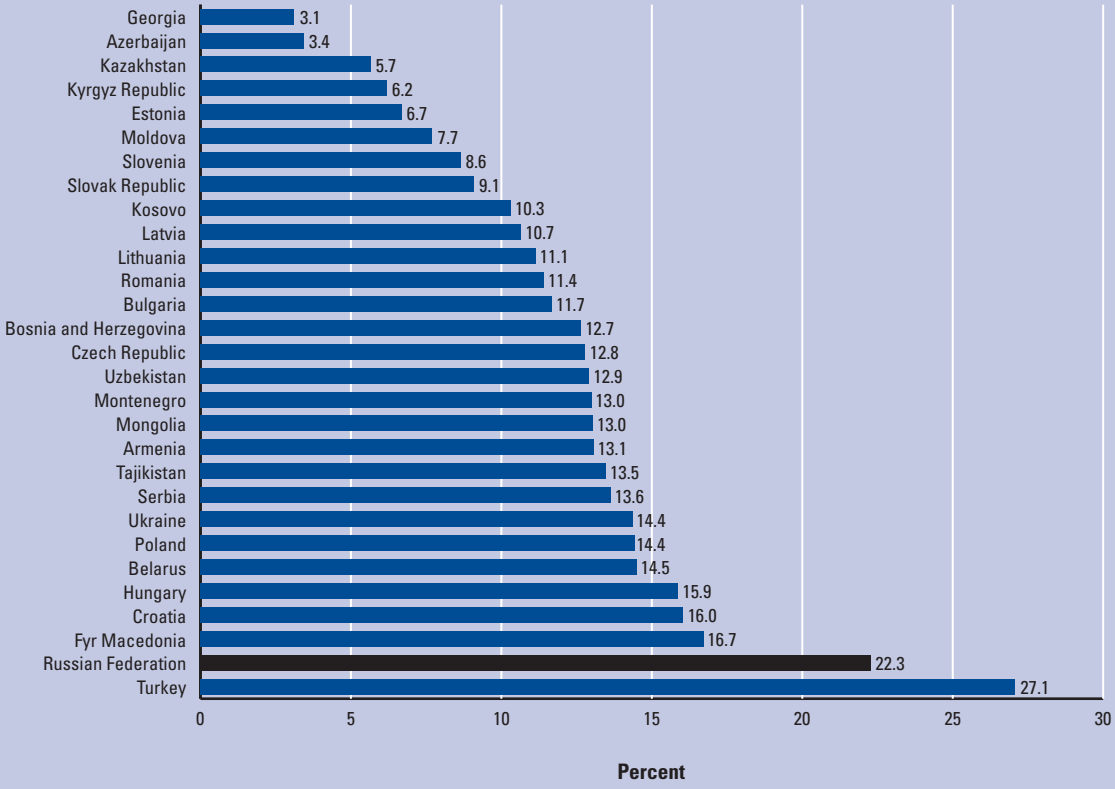
As in most former transition economies, the Russian Federation sees promoting and protecting competition as a crucial element of its economic policy; competition is even protected by the constitution. Many reforms were introduced in Russia to foster competition and regulate markets, such as the new competition law of October 2006, when the Federal Antimonopoly Service was established.[35] However, because of both the legacy of the Soviet Union and the transition process, Russia

Figure 12: The burden of government regulation

12a: Days spent by staff dealing with permits, last two years



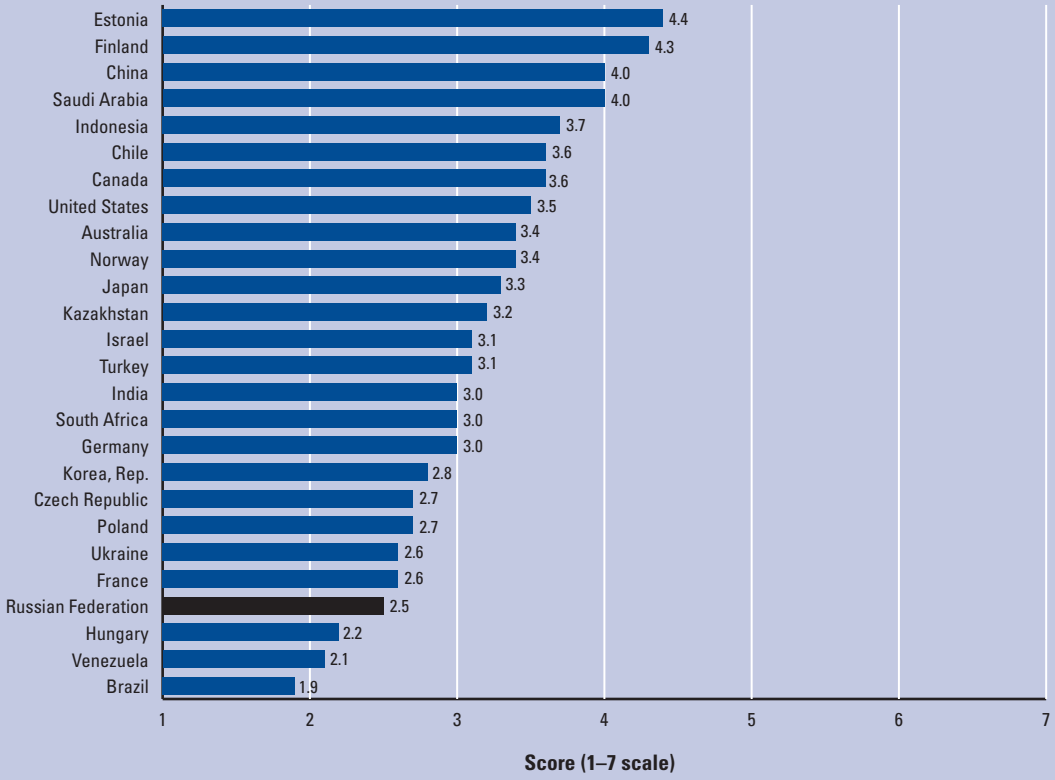
12b: Percent of senior management time spent dealing with the government



Sources: BEEPS, 2009.

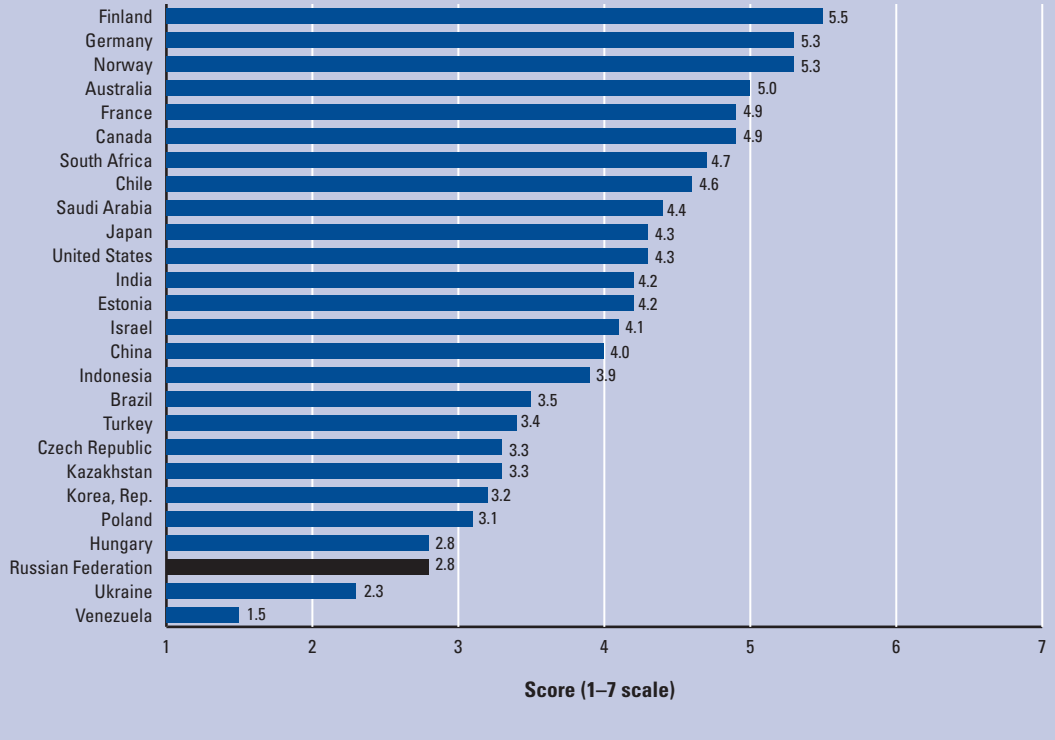
Figure 12: The burden of government regulation *(cont'd.)*

12c: Burden of government regulation, 2009–10



Source: World Economic Forum, 2010a.

Figure 13: Efficiency of legal framework in challenging regulations, 2009–10



Source: World Economic Forum, 2010a.

Box 5: Engineering an anti-corruption strategy

ALEXEY PRAZDNICHNYKH, Strategy Partners Group, Eurasia Competitiveness Institute

DMITRY KALICHKIN, Strategy Partners Group

There are various definitions of corruption and various ideas about how it can be cured. One view is that corruption is a political problem that should be solved by changing a country's political regime. Another view is that corruption is a transitional problem and that it will disappear with time. A completely different view is that corruption is a product of culture, a fundamental problem that cannot be eradicated. International experience in fighting corruption across the world demonstrates that corruption is just an intricate disorder and that a cure should be very comprehensive.

Three types of corruption can be identified: corruption without crime, corruption implying crime, and state capture (Table 1).

The *corruption without crime* type includes all cases when bribery is used to speed up the process of receiving a public service. In other words, civil servants take money to do what they should do for free and what they are legally entitled to provide, which means that no legal rules are being broken during the execution of the service. This type of corruption usually happens when there is a shortage of supply in administrative service. A citizen paying bribes to receive a passport on time is an example of corruption without crime.

Corruption implying crime includes cases when the bribe-taker breaks the law for bribery or enforces existing rules with bias. Favoritism in government procurement, biased judicial decisions, or business over-regulation are examples of this type of corruption.

State capture is the most high-level type of corruption, and is aimed at changing legislative rules and regulations in favor of bribers. All political corruption falls into this category. When a few powerful people bribe legislators to get things done, this is state capture.

The government must thoroughly combat each of the types of corruption described above to make anti-corruption policy efforts effective and productive. Based on broad international experience, a framework for tackling corruption has been developed. It consists of eight dimensions (Figure 1):

1. Acknowledgment, strategy, and coordination
2. Sound prosecution mechanisms
3. Transparent and effective public procurement
4. Streamlined public services delivery and regulation
5. Efficient human resources management in public service
6. Involvement of citizens, nongovernmental organizations (NGOs), and media
7. Corporate ethics and accountability
8. Society's intolerance toward corruption

Acknowledgment of the corruption problem on every level of government must be the first step in any battle against it. A *strategy* must be developed to ensure the

Table 1: Types of corruption

	People	Business
Corruption without theft	• Bribes for issuing a passport • Bribes for proper and timely medication • Payments to receive a paper that has to be signed by the official	• Bribes to receive certification in time • Payments to process documentation in time • Bribes while registering new business
Corruption violating the legal rules (or a very biased enforcement of the rules)	• Bribes to policemen to avoid punishment • Bribes for favorable judicial decisions • Irregular payments in education for enrollment and exams	• Bribes in government procurement • Bribes for favorable judicial decisions • Irregular payments to inspectors and auditors to hide illegalities
State capture: Corruption aimed at changing the rules	• Not applicable	• Illegal lobbyism • Bribes to change legislation so that briber will have an advantage (i.e., tax deduction for specific business) • Payments to secure strategic government orders

Source: Eurasia Competitiveness Institute and Strategy Partners Group.

(Cont'd.)

Box 5: Engineering an anti-corruption strategy *(cont'd.)*

Figure 1: Framework for attacking corruption

Source: Eurasia Competitiveness Institute and Strategy Partners Group.

integrity of all measures taken. For proper *coordination* of efforts in all spheres, some kind of coordination council must be established. Most countries that succeed in the fight against bribery have done this. For example, in Turkey a State Supervisory Council within the Presidential Office has been established and is responsible for coordinating all actions taken nationally and internationally. In Macedonia, the National Program to Fight Corruption has been developed by the State Commission for the Fight against Corruption, in close collaboration with NGOs and other entities. Similar measures and strategies have been adopted in Estonia, Hong Kong, India, Ireland, Kuwait and many other countries.

A *sound corruption prosecution mechanism* is the second dimension in a successful anti-corruption effort. Proper legislation grounded in international experience is the first factor in effective prosecution. The thorough analysis of compliance of national legislation with the UN Convention against Corruption undertaken in Indonesia and the resulting changes are good examples in this context. It is also essential to establish a powerful independent body, dedicated to corruption prosecution. The Special Court and Special Prosecutor's Office for Corruption Cases in the Slovak Republic are good examples of this kind of approach. It is also advisable to effectively monitor the income of officials and their families. This is being done in many countries including Albania, Romania, United Kingdom, and the United States.

Transparent and effective public procurement is the next important step in an effective fight against corruption. All competition during procurement procedures must be not solely price driven but also value driven. Discretion of public officials must be minimized in all tender procedures to promote the fair distribution of government contracts. In Ireland, the National Public Procurement Policy Unit established within the Department of Finance works on this matter. This authority creates and continuously updates guidelines for the public contracting system. Finally, effective auditing measures must be developed to control all procurement procedures. For example, in Turkey a Public Procurement Authority has been established to deal with all tender complaints and to keep records of all companies that have been caught for bribery in procurement.

Streamlined public services delivery and regulation must be ensured in every field of public services provision. First, excessive complexity of decision making in public services must be eliminated, and clear instructions should be provided to every public servant. Obsolete regulations for doing business should also be eliminated (e.g., in the Slovak Republic, company registration was significantly simplified in the mid 2000s). Direct interaction of companies and citizens with officials should also be minimized to reduce bribery potential. The randomized assignment of cases to judges in the Slovak Republic is a good example of such minimization.

Box 5: Engineering anti-corruption strategy *(cont'd.)*

There should also be some staff rotation mechanisms to decrease possible nepotism and the "human factor."

The next dimension of the framework is *effective human resources management in public service.* First, an open, transparent, effective hiring and promotion system for civil servants must be developed and implemented. This was successfully done in Indonesia at the beginning of 2000s. However, this kind of system will make a difference only if the salary of officials is decent and competitive. The third significant factor is the introduction of codes of conduct for public officials that have to be obeyed by every state employee. Such codes have been successfully implemented in many countries fighting corruption, including Hong Kong, Kazakhstan, and the Slovak Republic.

The sixth dimension is the active *involvement of citizens, NGOs, and the media* in the anti-corruption efforts. To ensure such involvement, hotlines for reporting corruption should be created and every citizen should be informed about how and where to report corruption cases. Anti-corruption bodies and the media should be supported by local and national authorities. And the legislation should guarantee the necessary rights to effective participation in the fight against corruption, especially those in information disclosure. In Indonesia, for example, the easement of the NGO registration process resulted in NGOs mushrooming at both state and county levels. In Albania, the Citizen's Advocacy Office was created. This provided citizens who were victims of extortion with free legal advice and help in following up on their complaints, with the general prosecutor if necessary. The results of these kinds of measures were immediate, and could be felt and witnessed by all.

The next dimension is *corporate ethics and accountability.* Efforts to strengthen corporate accountability require that legislation regulating political lobbying is created so that lobbying can emerge from the shadows and be scrutinized by all stakeholders. Also all financial flows should be made transparent to ensure that no money has been spent on bribes. This can be achieved by introducing modern internal and external auditing procedures. Turkey might be considered an example in this respect, as a number of institutions in this country—including banks and investment funds—are now obliged to report to the Financial Crimes Investigation Board (MASAK) about all suspicious financial transactions. Corporate governance standards must also be updated in compliance with the latest developments in this field. All Countries that regularly update their national codes for corporate governance (for instance, Brazil and Hungary) can provide us with valuable experience in this area. International organizations can be helpful to businesses by creating anti-corruption management systems. A good example is the World Economic Forum's Partnering Against Corruption Initiative (PACI).

The last dimension—and perhaps the main one—of the framework for attacking corruption is the *society's intolerance toward corruption.* A shift in societal perception of corruption is required for all other efforts to be effective. To ensure this shift, there should be public awareness campaigns and people of all ages should be educated about corruption and its influence on economy and society. In this way, existing tolerance toward bribery will be eliminated. For instance, the social advertising campaign "Corruption is sucking our blood" was successfully launched in the Slovak Republic in the mid 2000s. Almost at the same time, discussions about corruption were organized in secondary schools and advertising was employed in the least-trusted institutions (e.g., asking individual officials and doctors to put the slogan "Office without bribes" on their office doors). A very similar campaign was launched in Bosnia in the run up to the country's national elections: 200,000 educational brochures were published in newspapers, combined with television and radio spots as well as outdoor banners saying "Vote corruption away."

Corruption is a complex problem. It is therefore essential to develop every dimension of the framework to make anti-corruption efforts truly effective.

continues to display largely inefficient market mechanisms for goods and services. This particular situation is reflected in the country's ranking on the goods markets efficiency pillar of the GCI, where it comes in at a very low 123rd place.

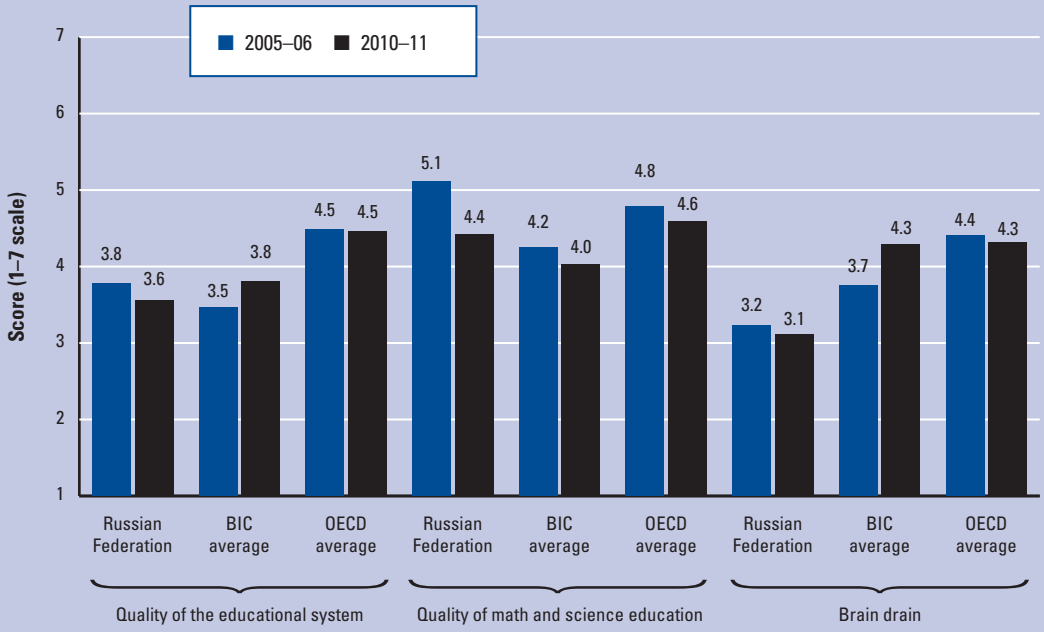
Markets dominated by a few firms and barriers to trade and investment

In the case of Russia, the key reasons for the low rankings in market efficiency pertain to three categories assessed by the GCI under this pillar: the quality of demand conditions, domestic competition, and foreign competition, as can be seen in Figure 17. Among these areas it is worth taking a closer look at the level of domestic and foreign competition, as these can be influenced efficiently by policy measures.

Excessive state involvement

Despite improvements to the regulatory framework, competition remains weak. Unlike in China, India, or many OECD countries, in Russia markets tend to be dominated by a few large firms (see Figure 18) and the intensity of competition does not contribute to efficiency. One reason for the weak competition in the

Figure 14: Education quality and brain drain, 2004–05 and 2009–10

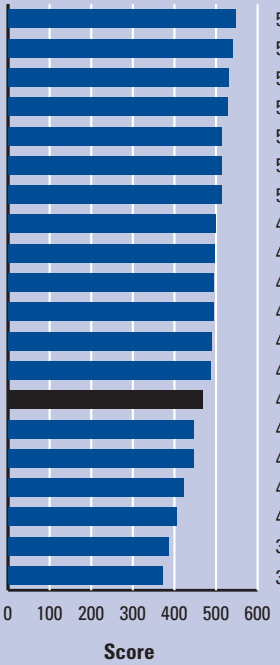


Sources: World Economic Forum, 2005; 2010a.

Figure 15: Results from the OECD's PISA study, 2009

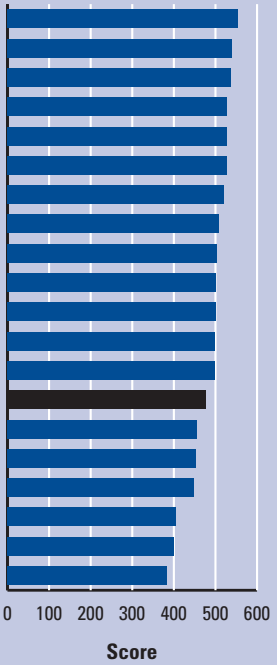
15a: Math PISA ranks and scores

Country	Rank	Score
Korea, Rep.	3	546
Finland	5	541
Japan	8	529
Canada	9	527
Australia	14	514
Germany	15	513
Estonia	16	512
Norway	20	498
France	21	497
Poland	24	495
Czech Republic	26	493
Hungary	28	490
United States	30	487
Russian Federation	37	468
Israel	41	447
Turkey	42	445
Chile	48	421
Kazakhstan	52	405
Brazil	56	386
Indonesia	60	371



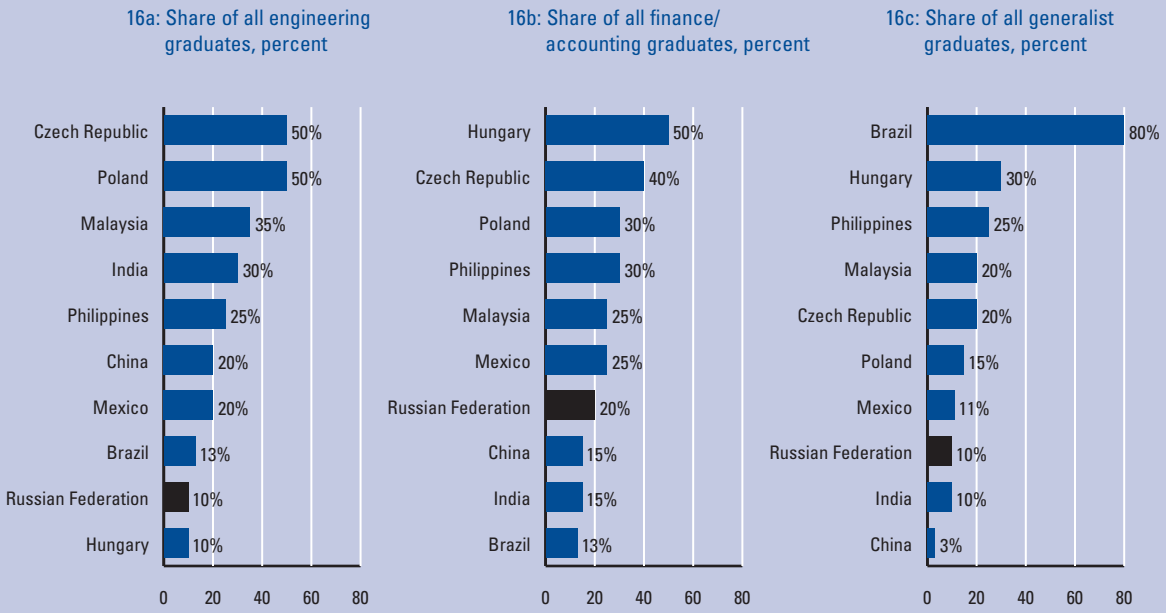
15b: Science PISA ranks and scores

Country	Rank	Score
Finland	1	554
Japan	4	539
Korea, Rep.	5	538
Canada	7	529
Estonia	8	528
Australia	9	527
Germany	12	520
Poland	18	508
Hungary	21	503
United States	22	502
Czech Republic	23	500
Norway	24	500
France	26	498
Russian Federation	38	478
Israel	41	455
Turkey	42	454
Chile	43	447
Brazil	52	405
Kazakhstan	57	400
Indonesia	59	383



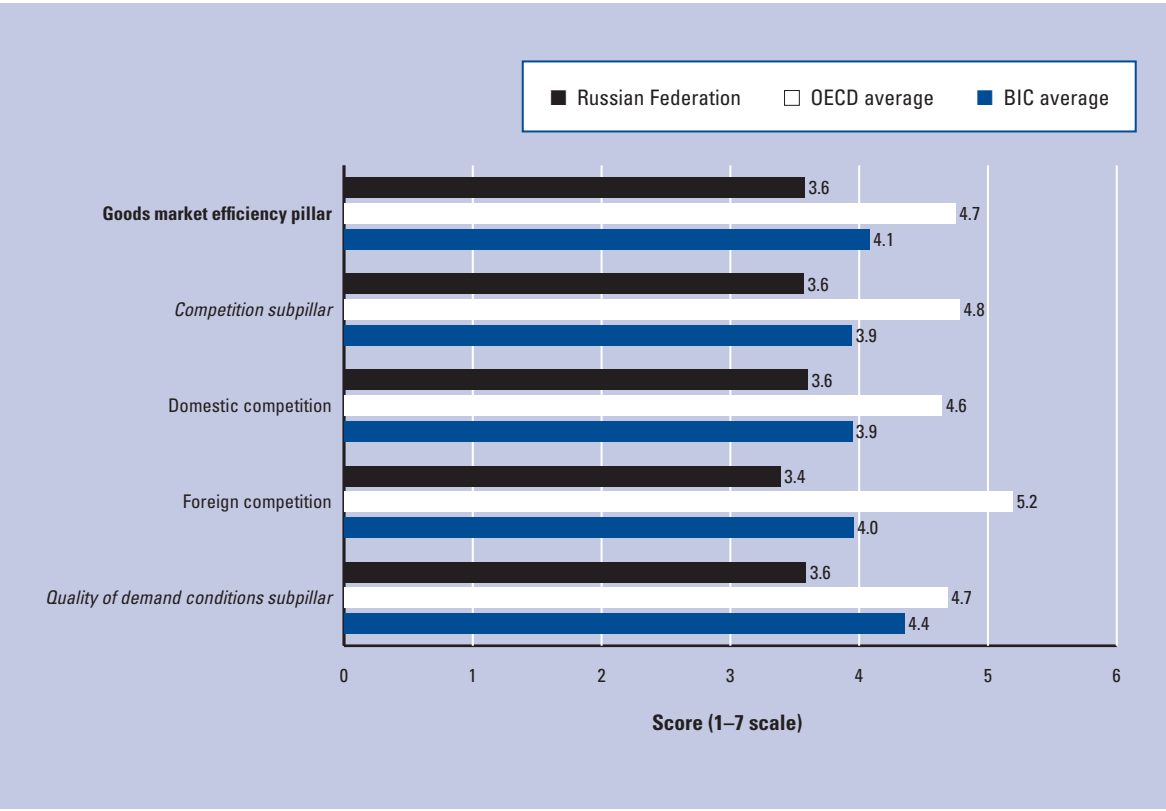
Source: OECD, 2010.

Figure 16: Share of graduates proficient enough to be hired by a multinational company, by main field of study



Source: Farrell et al., 2005.

Figure 17: Results for Russia in the goods market efficiency pillar



Source: World Economic Forum, 2010a.

Box 6: Lessons for the Russian Federation from Macedonia's recent progress on goods market efficiency

ROBERTO CROTTI, World Economic Forum

The goods market efficiency pillar of the Global Competitiveness Index measures the quality of the business environment in terms of its level of competition, level of taxation, burden of regulations, barriers to trade and investment, and the sophistication of its consumers. Healthy market competition, non-distortionary taxation, and ease of market entrance foster productivity by ensuring that the most efficient firms in the market prosper and the least efficient have to leave the market. In particular, the pillar is composed of two subpillars—one measuring the level of competition and the other measuring the quality of demand conditions. The following analysis focuses on the competition element.

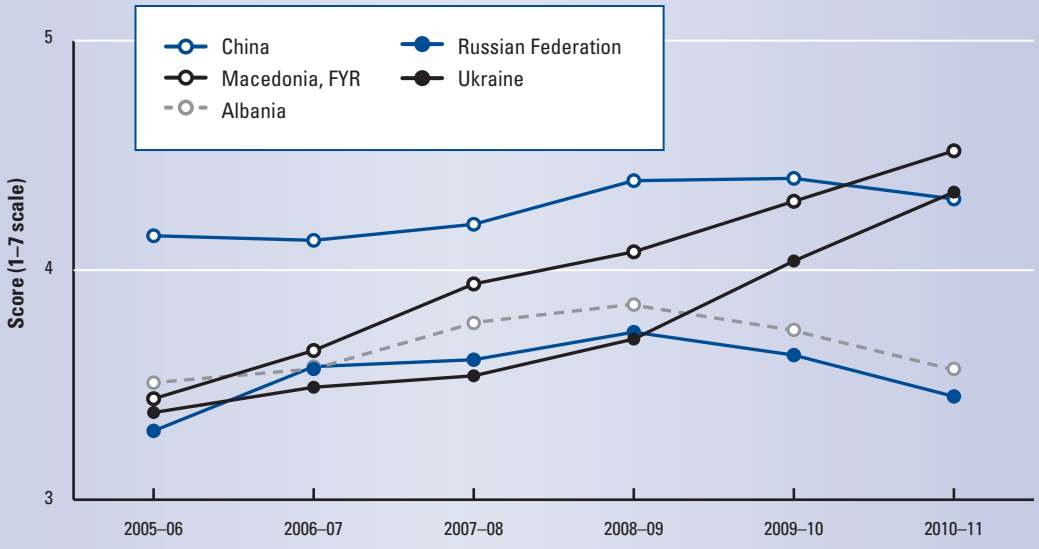
According to the past six editions of *The Global Competitiveness Report,* Macedonia FYR is one of the countries that has made the most progress in this area, advancing by over 50 positions in rankings and improving its score by approximately 30 percent. Macedonia made remarkable improvements in its goods market efficiency (see Table 1).[1] This positive trend has been mainly driven by cuts in tax rates and trade tariffs, along with a simplification of custom procedures and easing the requirements to start a business. Over the same period, the Russian Federation has lost ground compared with other economies, dropping by 37 positions while remaining essentially stable in score (see Figure 1).[2] The question therefore arises of whether any lessons could be drawn for Russia from the Macedonian experience.

Comparing Macedonia FYR with the Russian Federation has several drawbacks:

- The two economies are hardly comparable because of their different size.
- They have different levels of engagement with the European Union (EU) and the World Trade Organization (WTO). Macedonia has been a WTO member since 2003 and recently became a candidate for EU membership, which is likely to provide an important anchor for reform.
- The impact of the recent financial crisis has been quite different on the two countries. The real GDP of Macedonia contracted by only 0.8 percent in 2009, while the Russian Federation's GDP dropped by 7.9 percent.

Despite the differences between the two countries, some of the reforms introduced by Macedonia could help the Russian Federation to improve its competitiveness in the short term. In particular, the simplification of procedures and tariff rates are basic and specific measures that could be adopted reasonably quickly. These measures do not require major structural reforms, yet they impact the competitiveness of an economy to a great degree. More open markets and less burdensome procedures can enhance the efficiency of the incumbent business sector, promoting at the same time the development of new,

Figure 1: Evolution of the competition subpillar



Sources: World Economic Forum 2005, 2006, 2007, 2008, 2009, 2010a.

Box 6: Lessons for the Russian Federation from Macedonia's recent progress *(cont'd.)*

Table 1: Indicators by level of impact on Macedonia's performance, 2005–06 and 2010–11

		Macedonia, FYR			Russian Federation		
		2005 score	2010 score	Percent change	2005 score	2010 score	Percent change
	A. Competition	**3.44**	**4.52**	**31%**	**3.51**	**3.57**	**2%**
Great impact	Time required to start a business	48.00	4.00	–92%	37.00	30.00	–19%
	Number of procedures required to start a business	13.00	4.00	–69%	10.00	9.00	–10%
	Total tax rate	43.00	16.40	–62%	69.00	48.30	–30%
Some impact	Burden of customs procedures	3.00	4.28	43%	2.76	2.93	6%
	Extent and effect of taxation	2.72	3.84	41%	2.71	3.17	17%
	Trade tariffs	8.40	5.36	–36%	12.90	11.55	–10%
Slight impact	Effectiveness of anti-monopoly policy	2.85	3.69	29%	3.07	3.43	12%
	Agricultural policy costs	3.40	4.31	27%	2.94	3.31	13%
	Intensity of local competition	3.86	4.50	17%	4.49	4.14	–8%
	Prevalence of trade barriers	3.99	4.45	12%	3.82	3.50	–8%
	Extent of market dominance	3.08	3.41	11%	2.94	3.39	15%
	Prevalence of foreign ownership	3.97	3.69	–7%	3.78	3.61	–5%
Negative impact	Business impact of rules on FDI	4.48	3.83	–15%	3.89	3.58	–8%

Sources: World Economic Forum 2005, 2010a.

small, local companies. Such reforms also create a more attractive environment for foreign companies that, in turn, will further raise the efficiency of the local business sector through spillover effects such as innovation. Had Russia reached the level of performance of Macedonia on the main competition indicators, it would gain five positions in the current GCI rankings.

The World Bank's *Doing Business* report helps explain what lies behind the progress made by Macedonia in the past five years vis-à-vis the Russian Federation. Throughout the past six editions of *Doing Business,* Macedonia emerges as being more active in reforming business entry conditions, taxation, and custom duties, especially compared with Russia.

The adoption of the National Law on Protection of Competition in Macedonia in 2005 led the way to other reforms, shown in Table 2. The simplification of procedures (especially by using ICT solutions) and the abolition of the minimum paid-in capital to start a business have been efficient in reducing the time required to start a company by over 44 days in 6 years, an improvement that led Macedonia to become the 6th best performing economy in the world on this element. The benefits of the ICT-driven information exchange improvements and the introduction of voluntary liquidation for closing enterprises have been recognized by the 2009 *European Commission Progress Report* as influential measures for fostering market openness.[3] Particularly relevant is the progress made in simplifying customs administration, which induced a perception of less burdensome customs procedures. To a lesser extent, the reduction in trade tariffs resulted in lower perceived limitations for imported goods to compete in the market.

In conclusion, although Macedonia should not necessarily be seen as a role model in terms of competition policies because of the continuing problems with its judicial system, its improvement over the past several years has been impressive. This analysis has provided some indication of what types of action Russia can take in order to start improving its competition environment in the short run.

(Cont'd.)

Box 6: Lessons for the Russian Federation from Macedonia's recent progress *(cont'd.)*

Table 2: Summary of reforms introduced by Macedonia FYR and the Russian Federation, 2005–10

BUSINESS ENTRY

	Macedonia	Russian Federation
2005	Introduced electronic notice for company establishment	Created a single access point for entrepreneurs
2006	Created a single access point for entrepreneurs	Simplified registration of companies
	Made registration administrative rather than judicial	
	Combined registrations for company, tax, and social security purposes	
2007	Abolished the paidin minimum capital requirement for companies	
2008	Improved its onestop shop and online registration	
2009	Created regulatory reform committees at ministerial level	
	Diminished the number of documents to be notarized to start a business	
	The central registry is entitled to forward information to other institutions	

TAXATION

	Macedonia	Russian Federation
2006	Cut corporate tax rates on profits from 15 to 12%	Reduced the number of taxes
2007	Introduced an electronic tax service	
2008	Cut corporate tax rates on profits from 12 to 10%	
2009	Revised the tax code to simplify procedures of paying taxes	Cut corporate income tax rates from 24 to 20%
	Reduced labor tax rate and mandatory contributions paid by employees	
	The electronic filing of tax forms is set as mandatory	
2010	Cut corporate tax on undistributed profits from 10 to 0%	
	Simplified the tax compliance process	

CUSTOMS PROCEDURES

	Macedonia	Russian Federation
2005	Set time limits on customs	
2008	Introduced a risk management system for inspections	
	Reduced the number of documents required for trading	
	Improved custom administration and introduced ICT-based inspection systems (e.g., via mobile scanners)	

Sources: World Economic Forum 2005, 2010a.

Notes

1 Similar trends can also be traced in the European Bank for Reconstruction and Development's transition indicators, where Macedonia has reached one of the highest levels of price liberalization and trade and foreign exchange policy while improving slightly on its competition policy over the past five years.

2 Although the Russian Federation introduced some reforms in this area and has made progress in the past decade, it appears to have reduced its efforts to liberalize and improve the efficiency of its markets. Consequently, more dynamic economies in recent years were able to increase the efficiency of their markets, surpassing Russian Federation on this ground.

3 Commission of the European Communities 2009.

Box 7: Focus of a pro-competitiveness industrial policy

ALEXEY PRAZDNICHNYKH, Strategy Partners Group, Eurasia Competitiveness Institute

Industrial policy discussions in Russia often run to the extremes of either the laissez-faire approach or utmost dirigisme. Both points of view are an oversimplification and neither is adequate for Russia, which is in need of a structural and pro-competitiveness policy that would foster productivity in industries and enhance the industry structure. This industrial policy should be targeted at fixing weaknesses and capacity building in industry. Instead of picking winners, the policy should aim at creating the right incentives and providing appropriate resources. Each segment of the Russian economy has its own mix of weaknesses, and a specific set of priorities should guide industrial policy in each segment of the economy (Table 1).

Emerging Russian multinational corporations that compete globally in software and telecommunications industries account for less than 1 percent of total employment. Priorities for pro-competitiveness industrial policies in this segment of the Russian economy include, for example, support for R&D, fostering the development of human resources, and lowering barriers to international trade. More specifically, the development of human resources may include support for the most prominent university educators and new education programs in information technology and computer science, as well as grant-based tools to stimulate on-the-job training.

Companies competing on the local market (in market-based industry and services) account for 44 percent of total employment. This segment includes industries such as consumer goods, retail, entertainment, and some others. To foster competitiveness of these sectors, several broad policy areas should be prioritized, including enhancement of standards and technical regulation, facilitation of access to infrastructure, and maintenance of a level playing field. In industry, measures to develop technical regulation might include the adoption of recent demanding international standards and a thorough review of the national industry regulation to dispose of obsolete references, remove unnecessary certification requirements, and achieve more compatibility with the main trading partners.

Another distinctive segment of the economy in need of policy priorities of its own is defense-related machinery and equipment, a sector that is mainly driven by government procurement. It accounts for approximately 5 percent of employment and includes industries such as aerospace and shipbuilding. Recent policy initiatives to revitalize the sector by putting various assets under the control of umbrella companies led to the creation of difficult-to-manage holdings. The most immediate priorities, therefore, are the development of corporate strategy and restructuring in business units with the aim of increasing competitiveness and leveraging synergies. Another priority is effective government procurement in the industry, including R&D.

Natural resource–based business groups in oil and gas and the basic metals industry constitute another important segment of the Russian economy. Although they generate a significant share of value-added and profits, even when related businesses are taken into account their share of employment does not exceed 4 percent of the total. These business groups are themselves powerful enough to compete successfully. However, there is a need to implement measures to stimulate competitiveness. These include promoting diversification as well as the globalization of businesses to foster competitiveness of business groups, and implementing effective anti-trust policy. Tax and tariff incentives could be employed to stimulate diversification into manufacturing and to extend business activities up the value chain.

Built infrastructure industries constitute a segment where the government's role is not only that of a regulator, but often also of the main customer. This segment includes

(Cont'd.)

domestic markets is the overbearing role of the state in the Russian economy. Two aspects are important in this context: state-owned enterprises and direct interventions in markets by the state. State enterprises play a dominant role in the Russian economy and are heavily favored by the state, more than in China, India, or Brazil (see Figure 19).

In addition to exerting control over state enterprises, the Russian government intervenes in markets via price controls to a significantly higher extent than governments in OECD countries. Almost half of the differential in product market regulation between the OECD and Russia can be explained by the role of state control (Figure 20). Russia uses significantly more command and control regulation and, to an even higher extent, price controls.[36]

Entrepreneurship constraints

Countries with efficient markets are characterized by fairly high rates of entry and exit of firms. By maintaining a credible threat of failure, this process enables "creative destruction" and encourages firms to become more efficient, creative, and innovative. In Russia, entrepreneurship appears to be less developed than in other economies. In economies with efficient markets, about 5 to 20 percent of firms enter and exit the market each year, whereas in Russia, only about 5 percent of firms were new or ceased operation. There are a number of indicators that point to the reasons for this

Box 7: Focus of a pro-competitiveness industrial policy *(cont'd.)*

Table 1: Priorities for pro-competitiveness industrial policy by segment of economy

ECONOMY SEGMENT			PRIORITIES FOR PRO-COMPETITIVENESS INDUSTRIAL POLICY	
Economy segement	Employment share (%)	Industry example		
Global Russian companies	1%	Software Telecommunications	Human resources development Lowering trade barriers Support for R&D	Lowering administrative burdens Financial resources
Companies competing on local market	44%	Consumer goods Retail Agriculture	Standards and technical regulation Level playing field Entrepreneurship and SME development	Access to infrastructure Human resources development Anti-trust regulation
Machinery driven by government procurement	5%	Aerospace Shipbuilding Nuclear industry	Corporate strategy Restructuring of enterprises Efficient government procurement Support for R&D	Financial resources Human resources development Standards and technical regulation Supplier ecosystem development
Natural resource–based business groups	4%	Oil and gas Basic metals	Promoting diversification Promoting globalization	Technological upgrading Effective anti-monopoly policy
Built infrastructure	21%	Transport Utilities Construction	Outcome-based and productivity gains–based regulation Value-based government procurement	Long-term investment Urban and spatial planning

Source: Strategy Partners Group.

physical infrastructure industries such as transport, utilities, and construction, and accounts for 21 percent of all persons employed. The situation in the sector has improved slightly in the last five years as a consequence of reforms and various policy initiatives, but numerous problems remain. Policy measures to strengthen the segment should focus on ensuring adequate funding of essential long-term investment; creating mechanisms of value-based government procurement; enforcing proper urban and spatial planning; and creating a dedicated industry regulation, which should both be outcome-based as well as based on productivity gains. The last set of policies could include changes in price regulations such that they reward productivity champions and stimulate implementation of resource productive technologies.

development. Administrative barriers are often mentioned, and indeed it takes 30 days and nine procedures to set up a business in Russia, which places the country 93rd and 88th, respectively, among 139 economies.[37]

Distortionary taxation and excessive tax burden

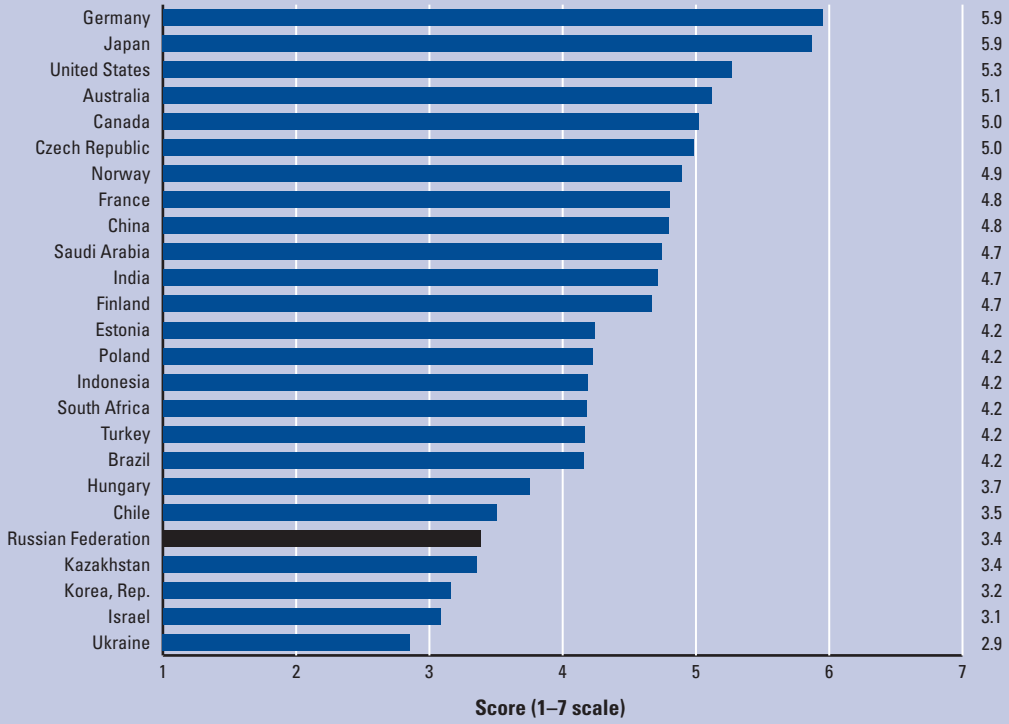
A distortionary tax system or an overly high tax burden can also significantly limit competition in a country, as it distorts the incentives to invest and develop an enterprise. In Russia, the burden of corporate taxation appears fairly high (see Figure 21), reaching 48 percent according to the World Bank[38]—a significantly higher level than in most EU countries. However, an even more troublesome issue than the pure level of taxation is the problem that taxes significantly limit the incentives to work and invest (Russia ranks 97th on the related indicator) and taxes and subsidies distort competition to a high degree (see Figure 21).

Trade barriers, inefficient customs, and FDI restrictions

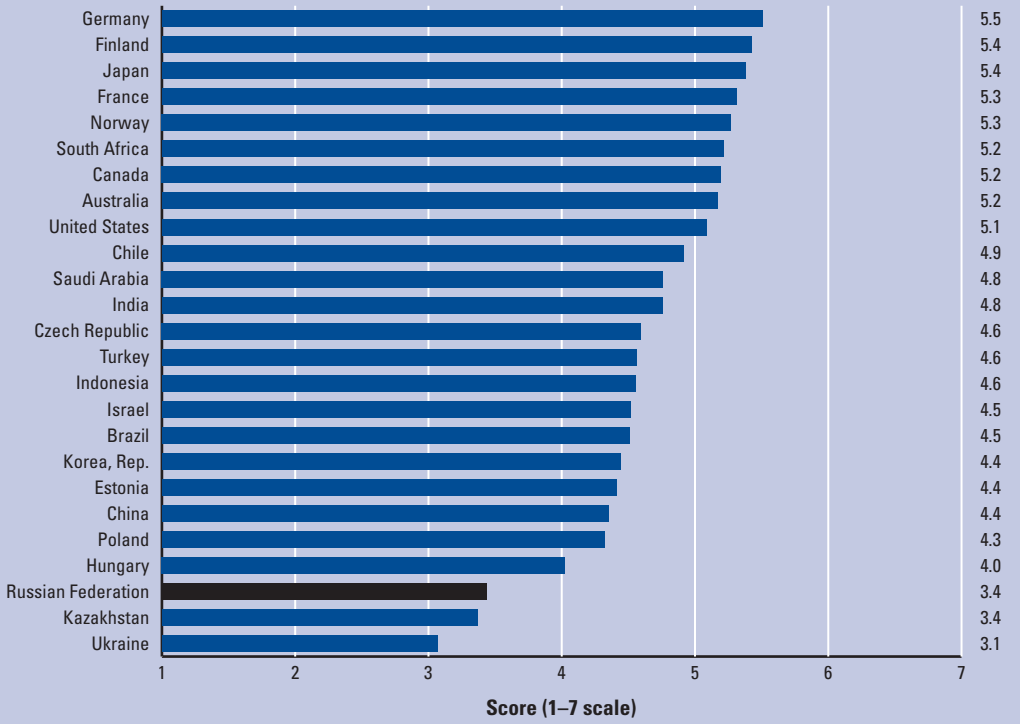
In addition to domestic competition, foreign competition is important in fostering productivity, as it forces the domestic business sector to face competition from highly efficient global enterprises from their industry. The two most important channels for this interaction are trade and FDI inflows into the economy. Russia ranks a low 135th in the related overall GCI category, a ranking that reflects a number of barriers to trade and investment. Indeed, import tariffs, at 11.5 percent, continue to be among the highest in the world; these

Figure 18: Selected goods markets efficiency indicators for Russia in international comparison

18a: Extent of market dominance, 2009–10*



18b: Effectiveness of anti-monopoly policy, 2009–10†



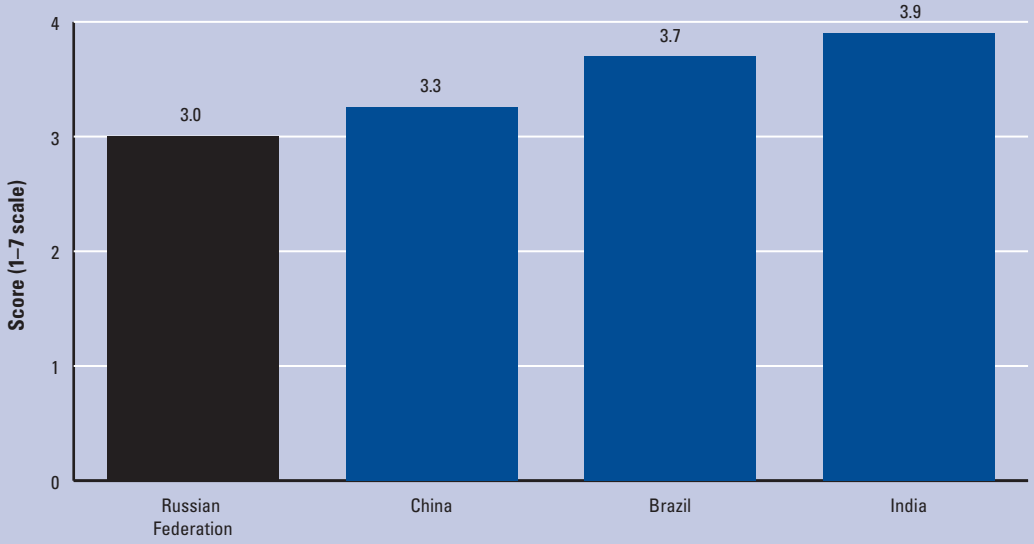
Source: World Economic Forum, 2010a.

* The responses are to the question "How would you characterize corporate activity in your country? [1 = dominated by a few business groups; 7 = spread among many firms]"

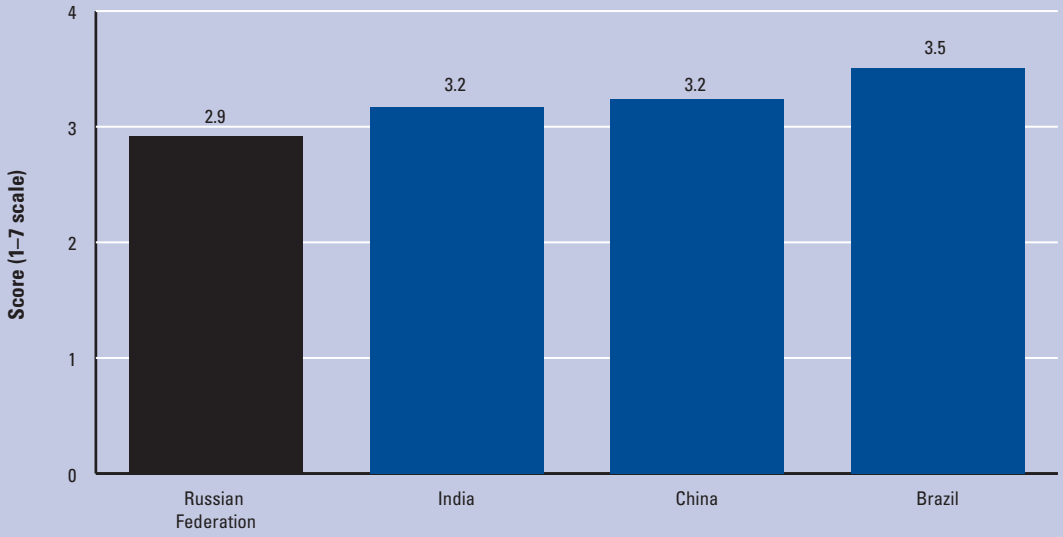
† The responses are to the question "To what extent does anti-monopoly policy promote competition in your country? [1 = does not promote competition; 7 = effectively promotes competition]"

Figure 19: The role of state enterprises in the Russian economy

19a: Favoritism of state-owned enterprises, 2009–10*



19b: Dominance of role of state enterprises, 2009–10†



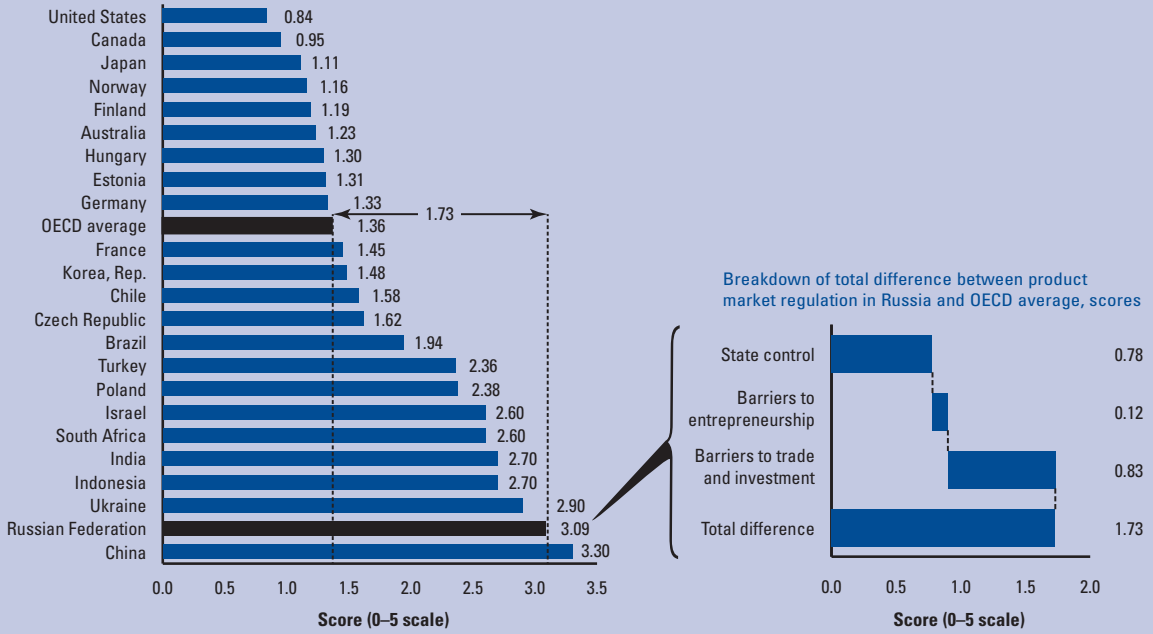
Source: World Economic Forum, 2010d.

* The responses are to the question "To what extent are state-owned enterprises favored over private companies in your country? [1 = state-owned enterprises are heavily favored; 7 = state-owned enterprises are not favored at all]"

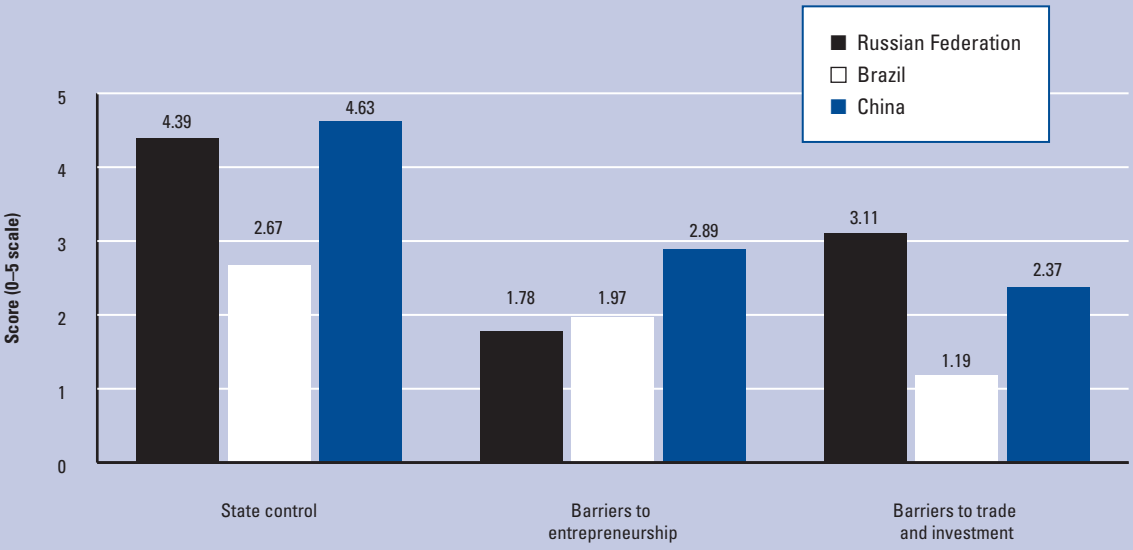
† The responses are to the question "How would you characterize the role that state-owned enterprises play in your country's economy? [1 = play a dominant role in the economy; 7 = have little or no role in the economy]"

Figure 20: Product market regulation in Russia in international comparison, 2008

20a: Aggregate product market regulation, scores

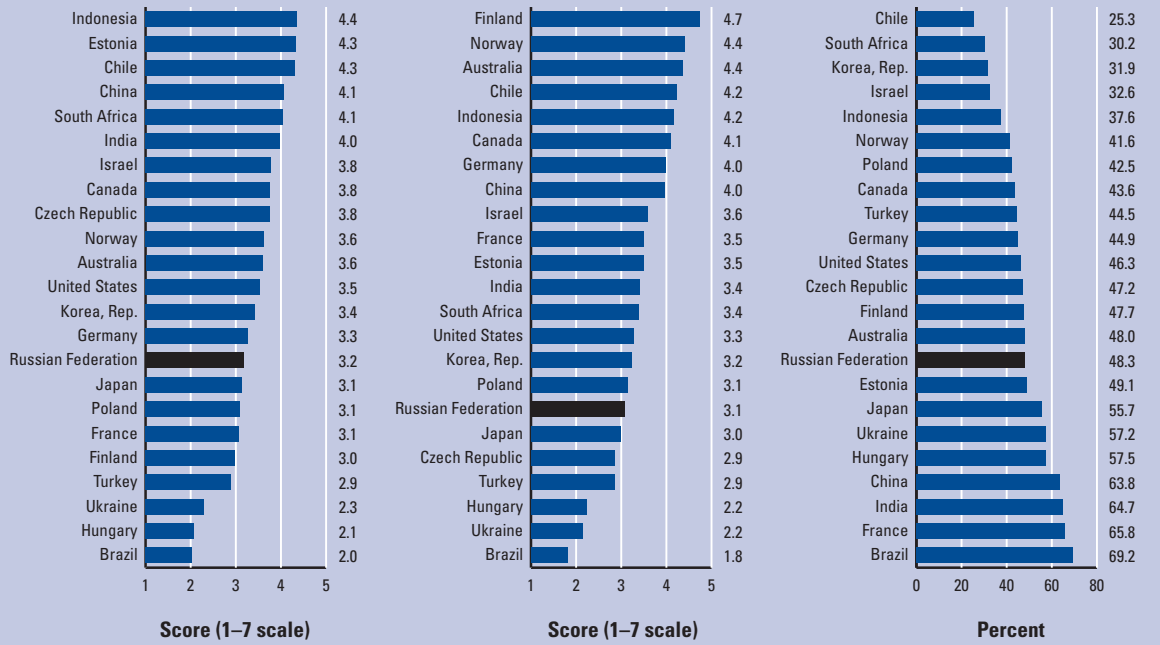


20b: Levels of product market regulation components in Russia, Brazil, and China, scores



Source: Authors' calculations based on Wölfl et al., 2010.

Figure 21: Taxation in the Russian Federation and its impact on competition



Sources: World Economic Forum, 2010a; World Bank, 2010b.

* The responses are to the question "In your country, to what extent do government subsidies and tax breaks distort competition? [1 = significantly distort competition; 7 = do not distort competition]

† The responses are to the question "What impact does the level of taxes in your country have on incentives to work or invest? [1 = significantly limits incentives to work or invest; 7 = has no impact on incentives to work or invest]

are approximately equally applied to agricultural and non-agricultural products.[39] Overall, the Russian business community considers trade barriers in general to be high, notably because of non-tariff measures, for which the country achieves a rank of 96th out of 125 countries in *The Global Enabling Trade Report 2010*.[40] Trade is further restricted by cumbersome customs procedures, which are among the most burdensome in the world (see Figure 22).

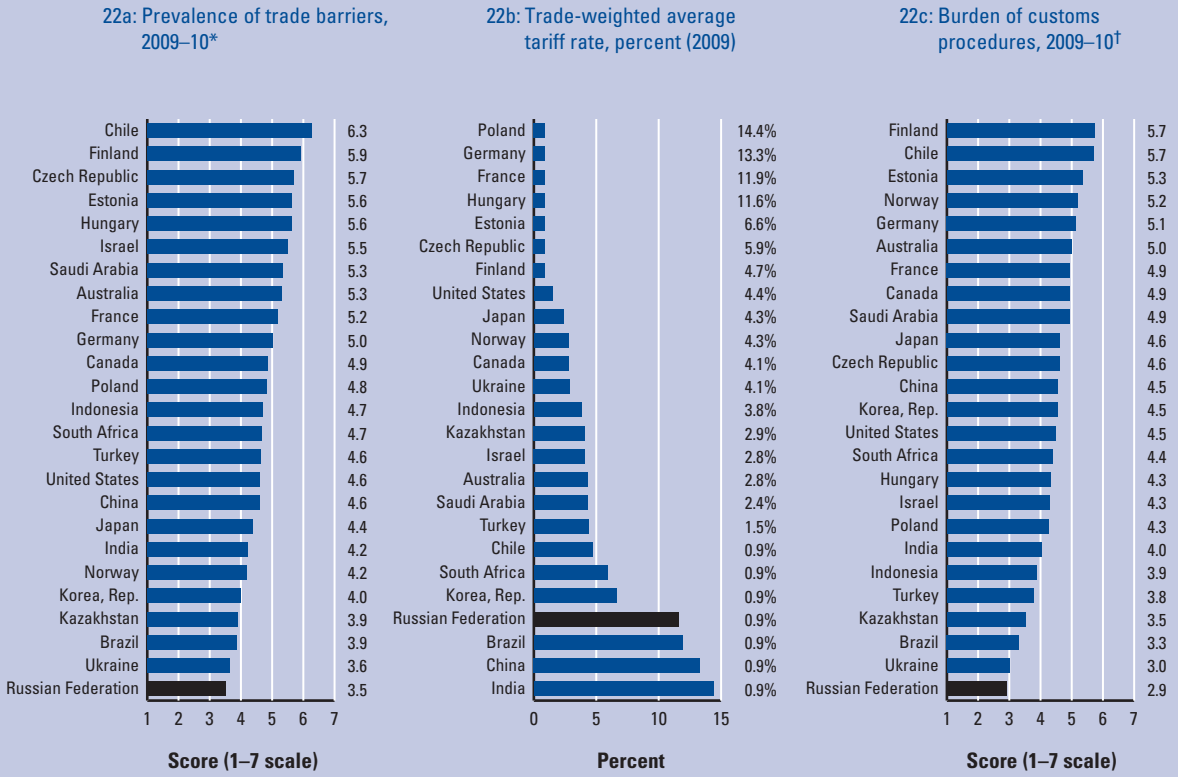
FDI is equally constrained by barriers that are mainly related to regulation. In fact, Russia is among the weakest performers in the group of panel countries. As a result, the prevalence of foreign ownership is low as perceived by the local business leaders (see Figure 23). One of the reasons for this is the law on the protection of strategic sectors of 2008, which limited FDI in key sectors of the economy—including the energy sector, which until then attracted the largest share of FDI. In this context, concluding WTO accession should be the most important priority for Russian policymakers. The advantages of WTO accession for competitiveness are exposed in Box 8. In a nutshell, WTO accession would open the country to trade and foreign investment and limit, to some extent, the distortive effect of subsidies and the role of the state.

Fourth challenge: Stabilizing financial markets and facilitating access to finance for business

Much progress has been made in terms of strengthening the soundness of Russia's banking sector in the past decade, but further strengthening its stability is key to avoiding future crises. The financial sector also needs to be made more efficient so that it can provide needed capital for business investment, but the operational efficiency of banks remains low. These issues must be addressed for the country's banks and financial markets to become the robust sectors that will successfully meet this fourth challenge.

Russia's financial sector has gone through major transformations since the beginning of its transition to a market economy. Following the initial privatization of the banking sector in the early 1990s, the sector suffered two major banking crises—in 1998 and in 2008. In particular, the 1998 crisis gave rise to reform and consolidation, which considerably stabilized the banking system. Despite these improvements, the system was and continues to be affected by the financial crisis of 2008 in a major way. This crisis exposed weaknesses in terms of both banking stability and the efficiency of the financial

Figure 22: Barriers to imports in the Russian Federation in international comparison



Source: World Economic Forum, 2010a.

* The responses are to the question "In your country, to what extent do tariff and non-tariff barriers limit the ability of imported goods to compete in the domestic market? [1 = strongly limit; 7 = do not limit]"

† The responses are to the question "How would you rate the level of efficiency of customs procedures (related to the entry and exit of merchandise) in your country? [1 = extremely inefficient; 7 = extremely efficient]"

sector. Figure 24 shows that, in international comparison, based on data from the GCI's financial market development pillar, Russia trails considerably behind both the OECD average and the average of the other large emerging markets: Brazil, China, and India. The GCI assesses the level of development of the financial sector according to two main categories: trustworthiness and confidence in the financial system and efficiency of the financial sector.

Banking sector stability

As we have seen in recent years, stability of the banking system is key to productivity because of the systemic nature of the financial sector. The stability of Russia's banking system was shaken twice in two major banking crises over the past 20 years. In particular, the 1998 crisis gave rise to significant reform of the supervision of the banking sector. These reforms were implemented mainly between 2002 and 2006. Key elements included the introduction of a deposit insurance scheme, which necessitated a screening of banks; required disclosure of the shareholder structure; a stronger move toward international financial reporting standards; privatization of stakes in banks held by the state; stricter procedures for increasing authorized capital; and the introduction of a network of credit bureaus.[41] However, the crisis exposed numerous weaknesses in the country's financial system, so that by 2009–10 it was assessed lower than it had been in 2004–05 (see Figure 25). On the positive side, Russian banks appear to be well capitalized, with Tier 1 ratios that match those of countries with more developed financial systems, such as Canada, Brazil, or Finland (see Figure 26a). A large majority of large and systemically important banks is also either state-owned or foreign-owned, which supports stability, because owners have, in principle, the financial capacity to financially support institutions in case of liquidity shortages.[42]

Banking sector strength

Some weaknesses in the banking system that prevent it from becoming more sound and crisis-proof remain. This is confirmed by the view of the business executives, who place Russia 129th out of 139 countries on the indicator measuring the soundness of banks.

Similarly, on the Financial Strength Indicator—an analyst-based assessment of banking soundness compiled by Moody's—Russia comes in 48th out of 57 countries

Box 8: Russian Economic Competitiveness Through Accession to the World Trade Organization

LARA BIRKES, World Economic Forum

Russia holds a permanent seat on the United Nations Security Council, is a member of the G-8, and belongs to financial institutions such as the International Monetary Fund and the World Bank while also participating in specialized agencies such as the International Labour Organization and the World Health Organization, though it is not yet a Member of the World Trade Organization (WTO). As such, Russia is the last major economy remaining outside the world's principal trade regime.

Nearly 18 years into a process that began in 1993, Russia's accession to the WTO has unfolded in tandem with two decades of post-communist economic transition. A key impetus toward economic development, WTO accession has accelerated a host of sector, industry, and market reforms that have led to a dramatic modernization in Russian trade and foreign investment regimes, thus boosting Russia ever-closer to an open market economy.

Progress to this end has waned at times. Viewed as a crucial piece of Russia's long-term economic development planning, the country's recently renewed efforts to join the trade regime sent a signal to the international community that economic competitiveness was a national priority.

To achieve greater economic competitiveness, Russia must consolidate a host of market institutions, upgrade production facilities, organize enterprises to increase productivity, and re-train its workforce. This stands to have both positive and negative impacts on overall income, returns to capital, and trade flows. In addition, Russia's initial admission to the WTO will benefit its largest trading partner—the European Union (EU)—the most.

The European Union holds a strong interest in Russia's accession given the significance of current EU trade flows, which presently account for over a half of all Russian exports. At the same time, Russia is the fourth most important export destination for EU manufacturers. With reduced tariff rates, WTO admission will provide access to new markets for the European Union. Russia, however, stands to remain a formidable partner given both its sizable trade surplus and Europe's reliance on Russian energy supplies in the long run.

Heavy subsidization of industries—in particular energy—and ominous bureaucratic processes, inefficient customs administration, questionable intellectual property enforcement, and inadequate food standards remain hurdles in the ongoing WTO negotiations.

Because of the significance of the market changes required for WTO accession, skeptics warn against drastic subsidy reform that is caused by industrial sector reliance on the government, cautioning about the danger of negative economic implications of rapid liberalization if adequate transition is not provided for in the negotiations. Suffice it to say that many reforms remain outstanding and the short-term implications will be the most daunting to surmount.

In the long run, however, Russia will reap substantial gains from WTO accession. With Membership too will come investor confidence and a correspondingly enhanced investment environment. This will benefit foreign and domestic investors alike, attracting foreign direct investment with renewed availability of financing sources, assurance of market diversification (away from raw materials), a more open banking sector, stronger services sectors, more transfer of technology and innovation, stronger competition, and less powerful domestic lobbies. Estimates suggest that, over the short term, Russia could gain 7.2 percent of the value of consumption; over the longer term, this could be as high as 24 percent. While most of the gains would come from opening up services sectors, export-oriented industries such as metals, chemicals, timber, wood, and paper products stand to gain the most.[1]

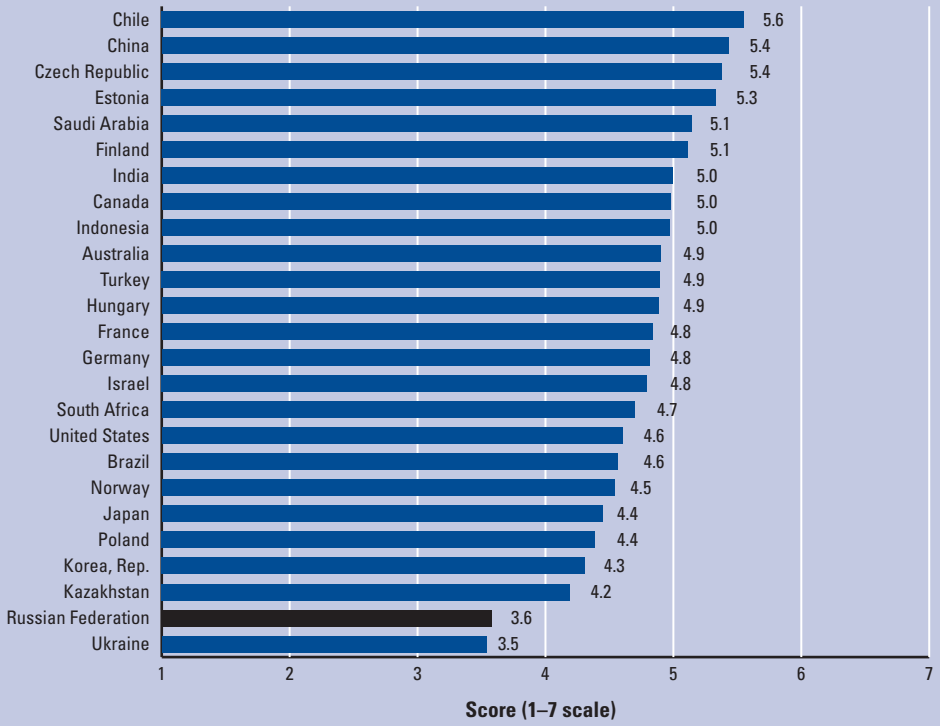
The regions that establish the best investment practices stand to reap the greatest benefits of WTO accession early on. The most broadly recognized gain, however, will be the internal reforms Russia has faced as a result of the WTO accession process. In this respect, advancements toward market reform have been achieved quickly as a consequence of the binding and external pressure to adopt stringent trade policy reforms.

Note

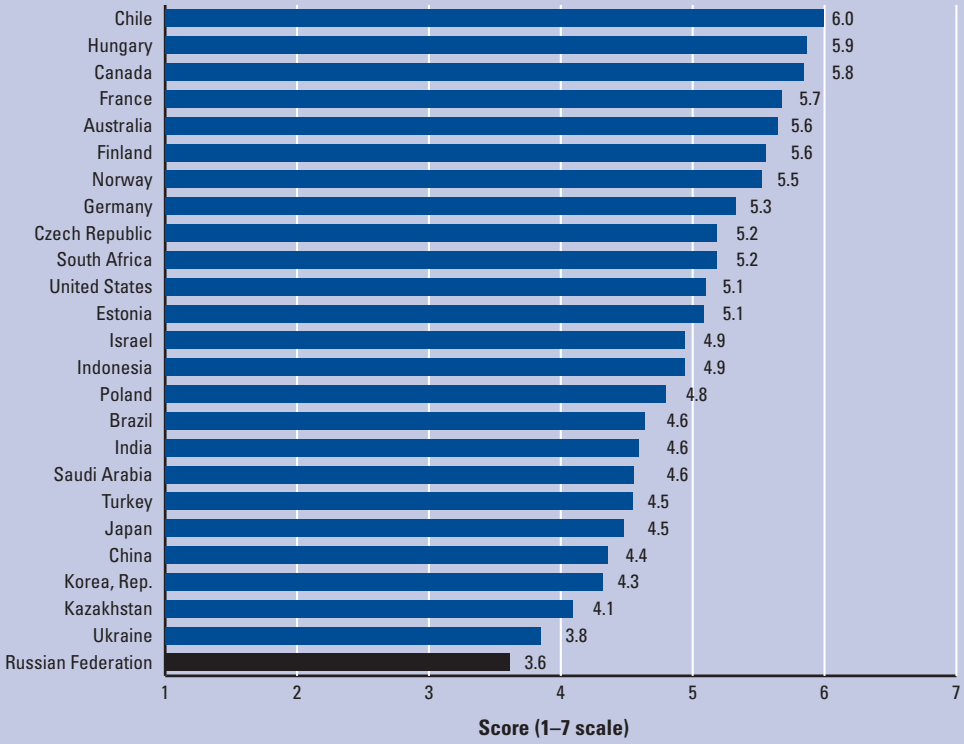
1 Rutherford and Tarr 2005.

Figure 23: Barriers to foreign direct investment in the Russian Federation

23a: Business impact of rules on FDI, 2009–10*



23b: Prevalence of foreign ownership, 2009–10†

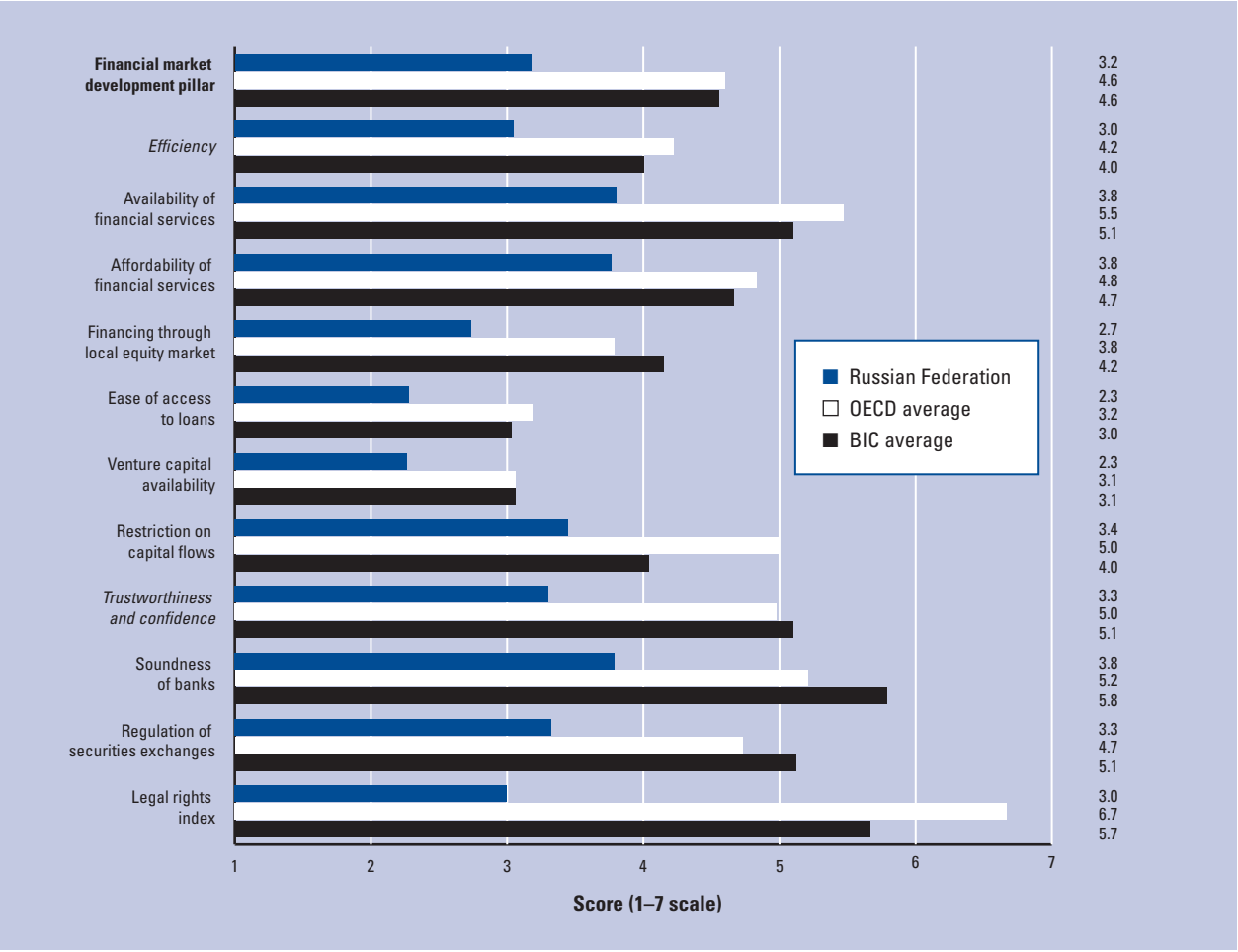


Source: World Economic Forum, 2010a.

* The responses are to the question "To what extent do rules governing foreign direct investment (FDI) encourage or discourage it? [1 = strongly discourage FDI; 7 = strongly encourage FDI]"

† The responses are to the question "How prevalent is foreign ownership of companies in your country? [1 = very rare; 7 = highly prevalent]"

Figure 24: Russia's results on the financial market development pillar in international comparison, 2009–10



Source: World Economic Forum, 2010a.

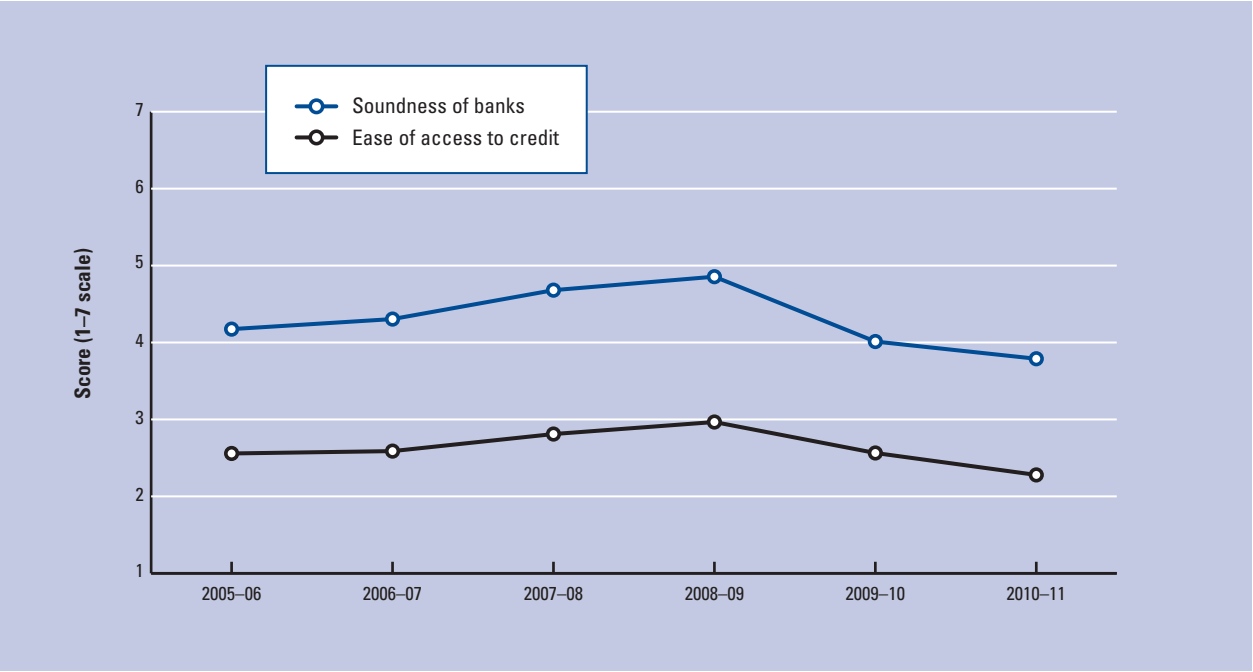
assessed in the World Economic Forum's *Financial Development Report 2010*.[43] The reasons for this rather poor assessment are diverse. First of all, financial information is not sufficient and does not enable an adequate assessment of the system. More transparency is particularly important, as lack thereof makes assessing the status of the current loan portfolio difficult, and non-performing loans have increased to 9.6 percent of total banking assets in 2009.[44] Higher coverage of the population by credit bureaus would also lead to more transparency. Currently, only 14 percent of the population are covered, much less than in other emerging markets (see Figure 26b).

Further, banking supervision and the overall regulatory framework remain weak despite the improvements undertaken over the past decade.[45] Recent proposals to strengthen capital requirements are a step in the right direction. Particularly important is the most recent strategy of the government to strengthen the Central Bank of Russia's supervisory role and improve transparency, valuation of assets, and corporate governance of the sector.[46] Finally, with respect to regulation, there is some concern that, in its current form, regulation amplifies economic cycles and insufficiently takes into account liquidity needs.[47]

Capital for business

The key contribution of the financial sector to productivity lies in the provision of sources of finance for the private sector from domestic savings and international liquidity. An efficient financial sector provides a wide range of products that respond to the different needs of companies and consumers at an affordable price. In the case of Russia, the financial sector does not fulfill this role efficiently. Both in terms of availability as well as affordability of financial services, executives see the situation in the country as in need of improvement, ranking it 92nd and 109th, respectively (Figure 27a). Access is difficult across all key financial products—loans, the equity market, and venture capital (Figure 27b). Indeed, access to financing is the second most problematic factor for doing business in Russia, with 15.5 percent of responses (following corruption with 21.4 percent). According to surveys conducted by the World Bank, access to finance is more difficult for small enterprises than for large and medium ones. Asked to rank eight

Figure 25: Assessment of the soundness of banks and ease of access to credit in 2004–05 to 2009–10



Sources: World Economic Forum, 2005, 2006, 2007, 2008, 2009, 2010a.

obstacles according to their importance, 7 percent of large and medium enterprises named finance as an investment climate constraint (the 5th most important) as opposed to 12 percent of the small enterprises (4th most important).

Low operational efficiency of banks

The financial sector also displays low bank efficiency on the operational side. About 37.9 percent of the banking sector is in state hands (Figure 28), which limits competition and thereby reduces the efficiency of the sector's key institutions. As a result, Russia does not perform well on a number of indicators of operational efficiency of banks in international comparison. For example, the overhead costs for banks in Russia is 7.6 percent of total assets, which is significantly higher than in India (1.6 percent) and China (1.0).[48]

On a more positive side, Russia's non-banking sector has been thriving over the past years, with initial public offering (IPO) and merger and acquisition (M&A) activity booming. Proceeds from IPOs amounted to 0.5 percent of GDP between 2007 and 2008, which was higher than in the United States or Canada (both 0.2 percent). Clearly there is some potential to expand these activities further, as reflected in Russia's still low share of world IPOs, which amounts to 0.7 percent as opposed to, for example, 12.6 percent in China. The picture is more positive with respect to M&A operations, although this may be temporary as it reflects a wave of consolidation in the economy. The data point to a high market share of M&A transactions, and also a high share of M&A operations as share of GDP (7.7 percent) and a high share of total number of M&A deals globally (3.6 percent).

Fifth challenge: Making business practices more sophisticated

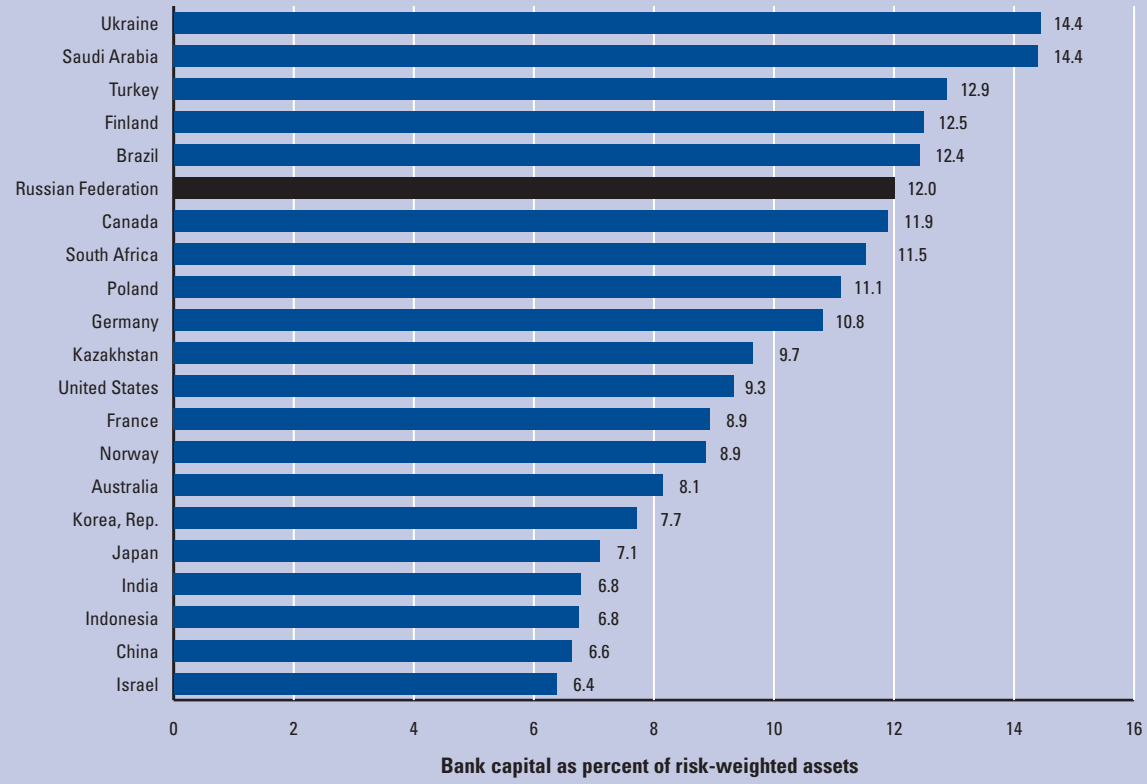
Russian business lags behind its peers in terms of business sophistication. This poor showing is caused in part by the limited presence and extent of clusters in the country. Also contributing is a product portfolio that displays low value-added both because it is based mainly on exploiting natural resources and also because businesses make little use of advanced management techniques.

The business sophistication pillar examines some of the business-related microeconomic factors that contribute to making a country competitive. Competitiveness depends not only on the macroeconomic, political, legal, and social circumstances but also on the quality of business operations. Unlike in other pillars—such as infrastructure, healthcare, education, domestic competition, or financial market development where the government takes the lead—the private sector plays the key role in this dimension of competitiveness.

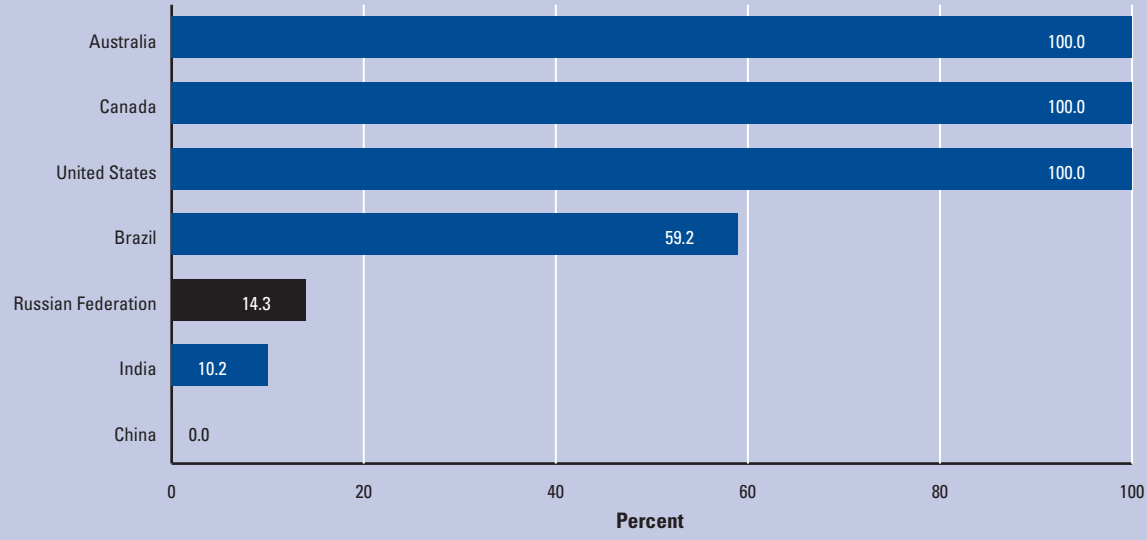
Because the GCI methodology assumes that business sophistication and innovation factors are more important for countries that produce at the higher end

Figure 26: Tier 1 capital ratio and credit bureau coverage, 2009

26a: Tier 1 capital ratio*



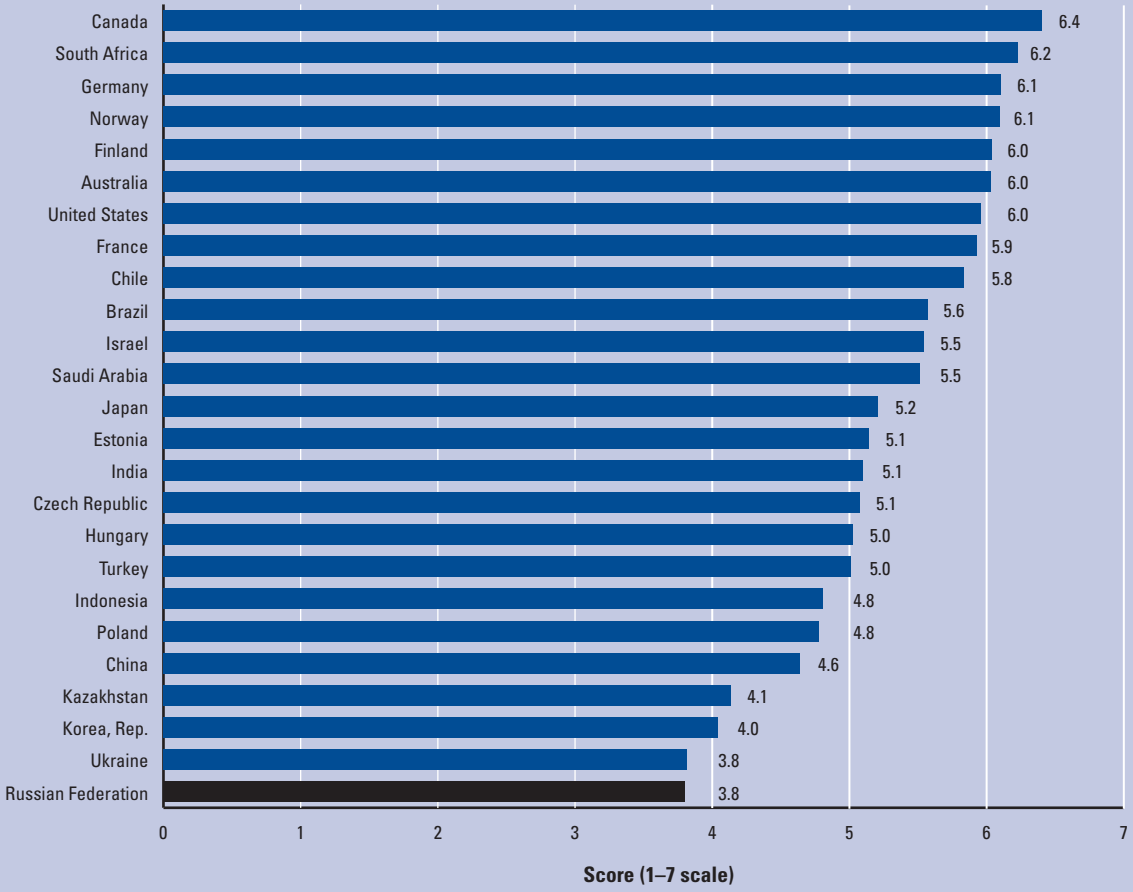
26b: The percentage of adults covered by a private credit bureau, 2009



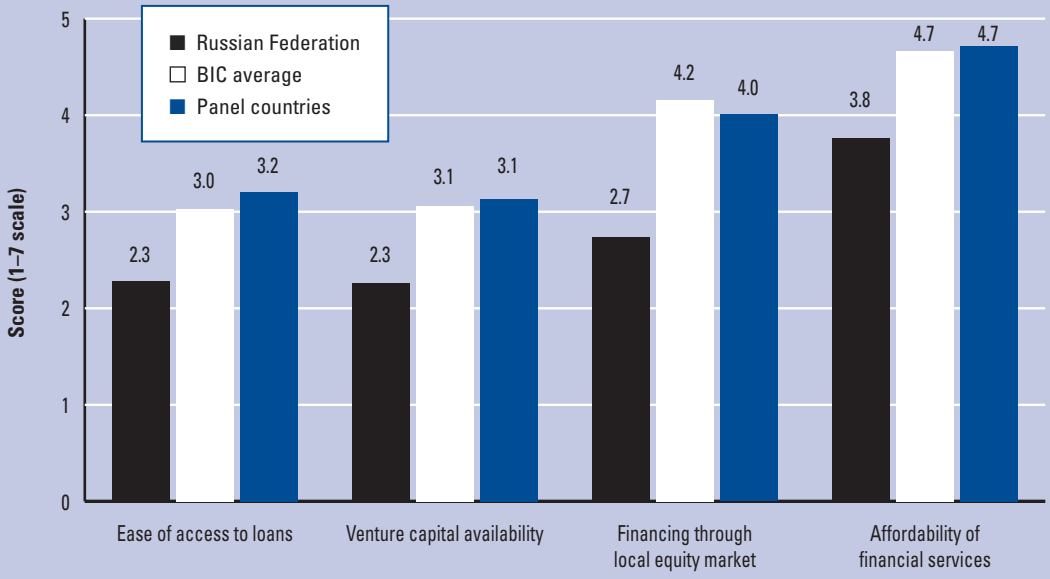
Source: World Economic Forum, 2010c.
* This is the weighted average Tier 1 regulatory capital ratio at the 10 largest banks.

Figure 27: Availability of financial services, scores

27a: Affordability of financial services, 2009–10*



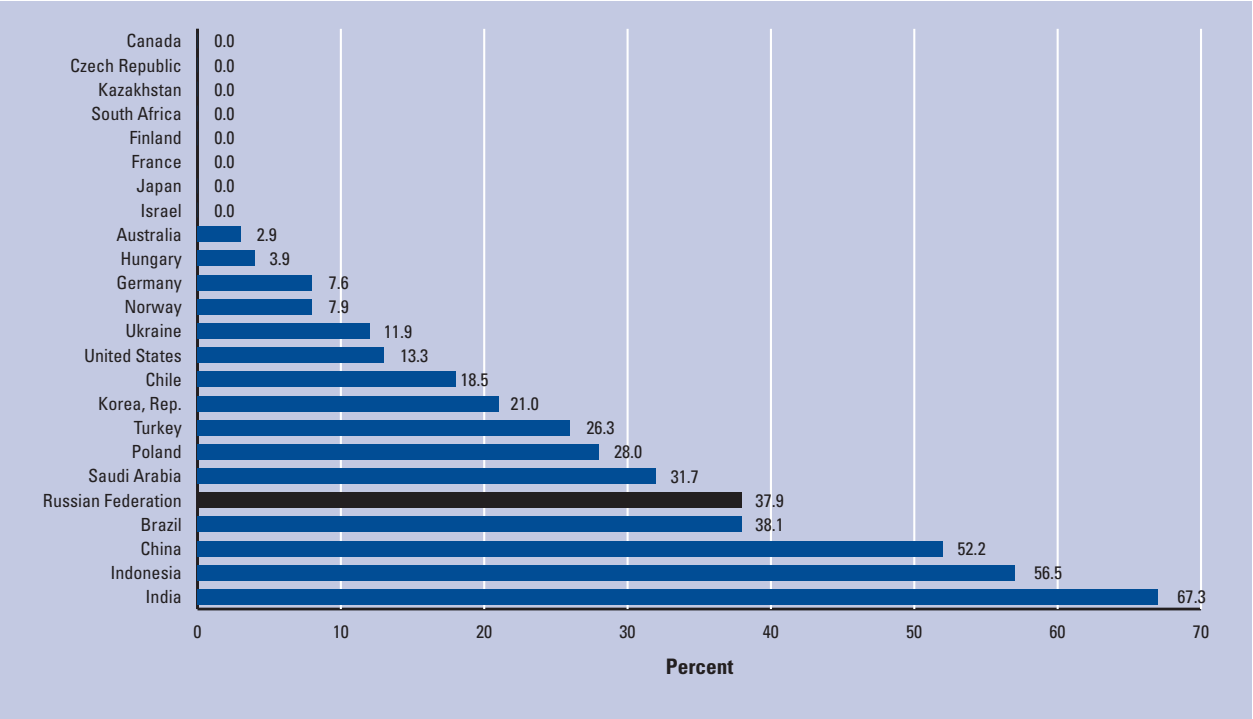
27b: Availability of financial services, selected indicators (2009–10)



Source: World Economic Forum, 2010a.

* The responses are to the question "To what extent does competition among providers of financial services in your country ensure the provision of financial services at affordable prices? [1 = not at all; 7 = extremely well]"

Figure 28: Public ownership of banks



Source: World Economic Forum, 2010c.

of the value chain, less weight is put on these factors for countries in the intermediate stage of development, such as Russia. Yet this aspect of competitiveness should not be overlooked for at least three reasons. First, the country has pockets of innovative industries that require a high level of business sophistication in order to develop further. Second, clusters, through spillovers, influence economic development, which in turn nurtures further cluster development, thus initiating a virtuous growth cycle. And third, as Russia develops, business sophistication will fairly soon become a necessity, so taking early action is important to prepare for more advanced development levels.

Lagging business sophistication

Presently, the Russian Federation ranks a low 101st on the GCI's business sophistication pillar, trailing other OECD countries, emerging markets, and resource-based economies as shown in Figure 29a. The pillar in essence assesses three areas of business sophistication: the presence and quality of clusters, the sophistication of products, and state management techniques.

Limited clusters

Survey data included in the GCI points to a need to further develop clusters in the Russian Federation, as it lags behind all panel economies bar Kazakhstan. Clusters arise when companies form a particular sector are interconnected in geographically proximate groups. They heighten efficiency, create opportunities for innovation, and reduce barriers to entry for new firms. In view of the shortcomings of the Russian business environment, encouraging the formation of clusters by putting in place the right framework conditions would benefit the economy and support the country's diversification efforts. Regional groupings of sectors and related industries would help enhance the quality and the quantity of suppliers, which are currently a major shortcoming in terms of business sophistication in Russia. The country places 114th and 103rd on the related indicators, respectively.

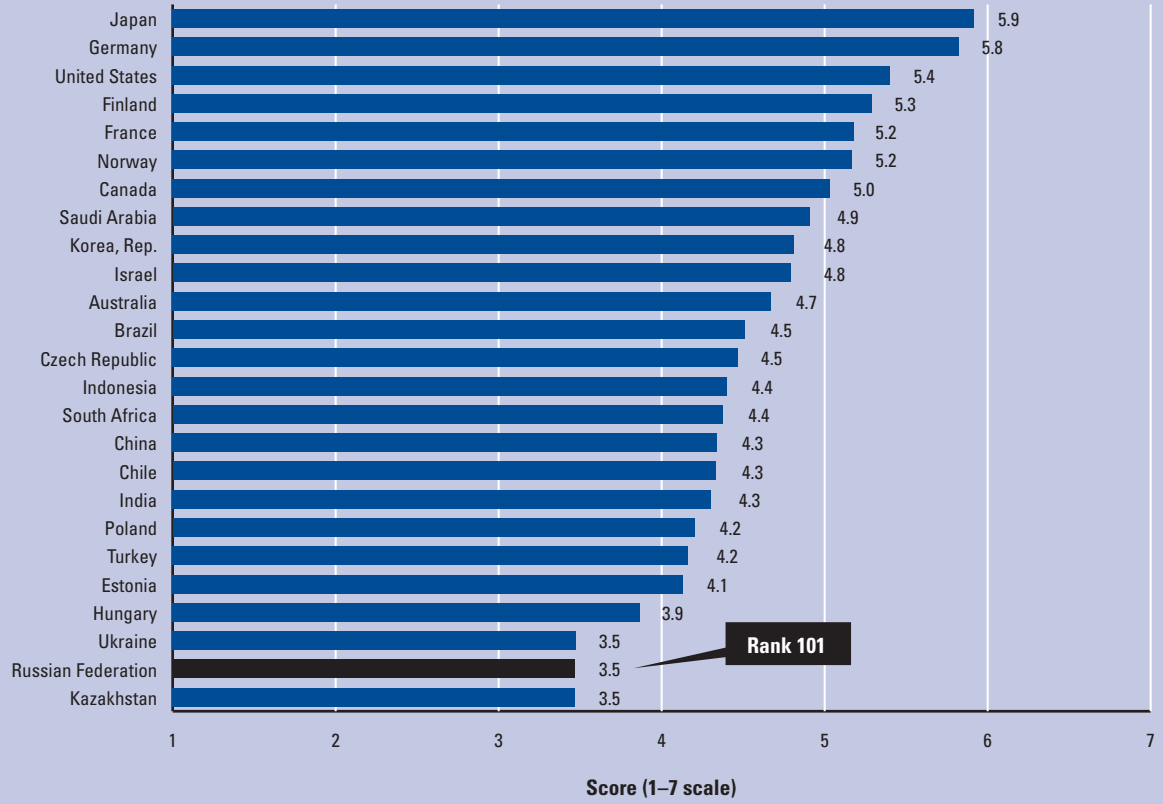
Low-value-added product portfolio

As outlined above, Russia's product portfolio is dominated by low-value-added goods, in particular oil and gas products. Manufacturing of high-tech products takes up only 0.7 percent of GDP—more than seven times less than in China (5.2 percent) and half of the value achieved by Brazil (1.5 percent). The export portfolio is dominated by oil and gas with 66 percent of exports coming from this sector. More importantly, the products where Russia has gained ground compared with other exporters between 1997 and 2007 are equally low-value-added goods and services, such as coal and briquettes, construction services, forest products, and furniture (see Figure 30).

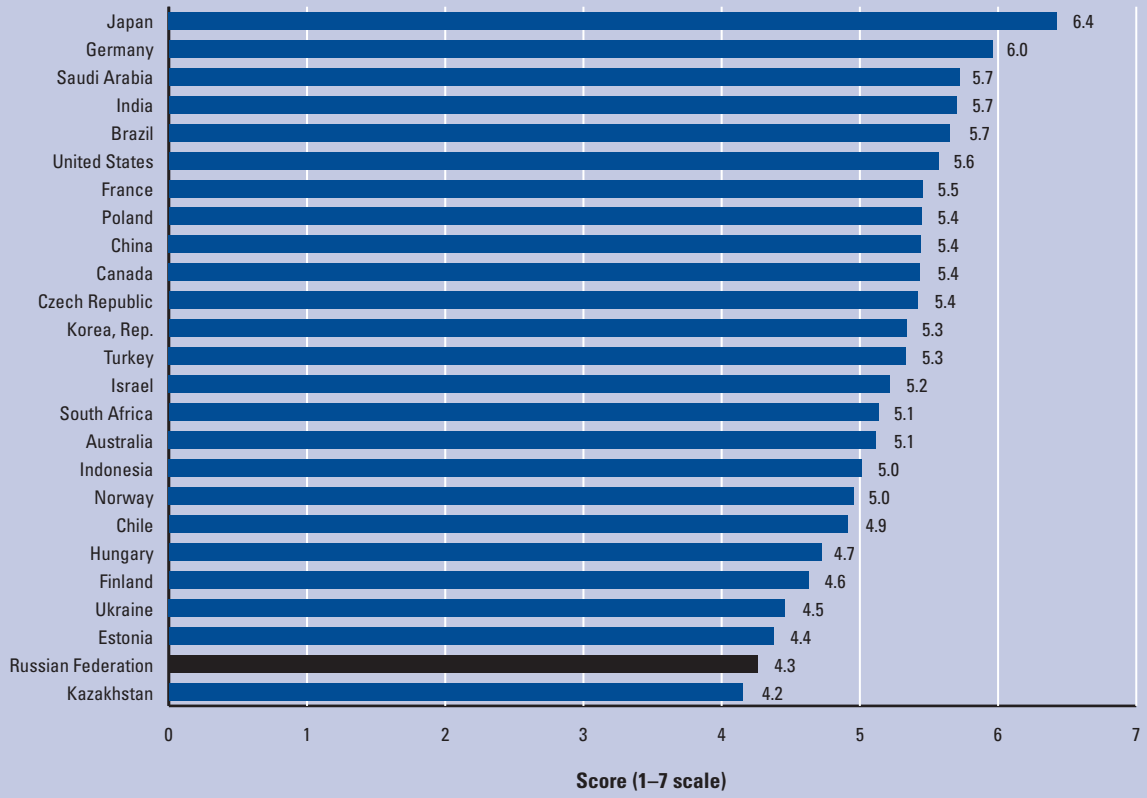
Given that the product portfolio is dominated by low-value-added goods, it is not surprising that the country's competitive advantage is found in low-cost or natural resources—many of which are non-renewable and therefore not sustainable—rather than in unique products and processes. Most companies are not

Figure 29: Business sophistication and local supplier quantity in the Russian Federation in international comparison

29a: Business sophistication pillar, 2010–11 GCI score

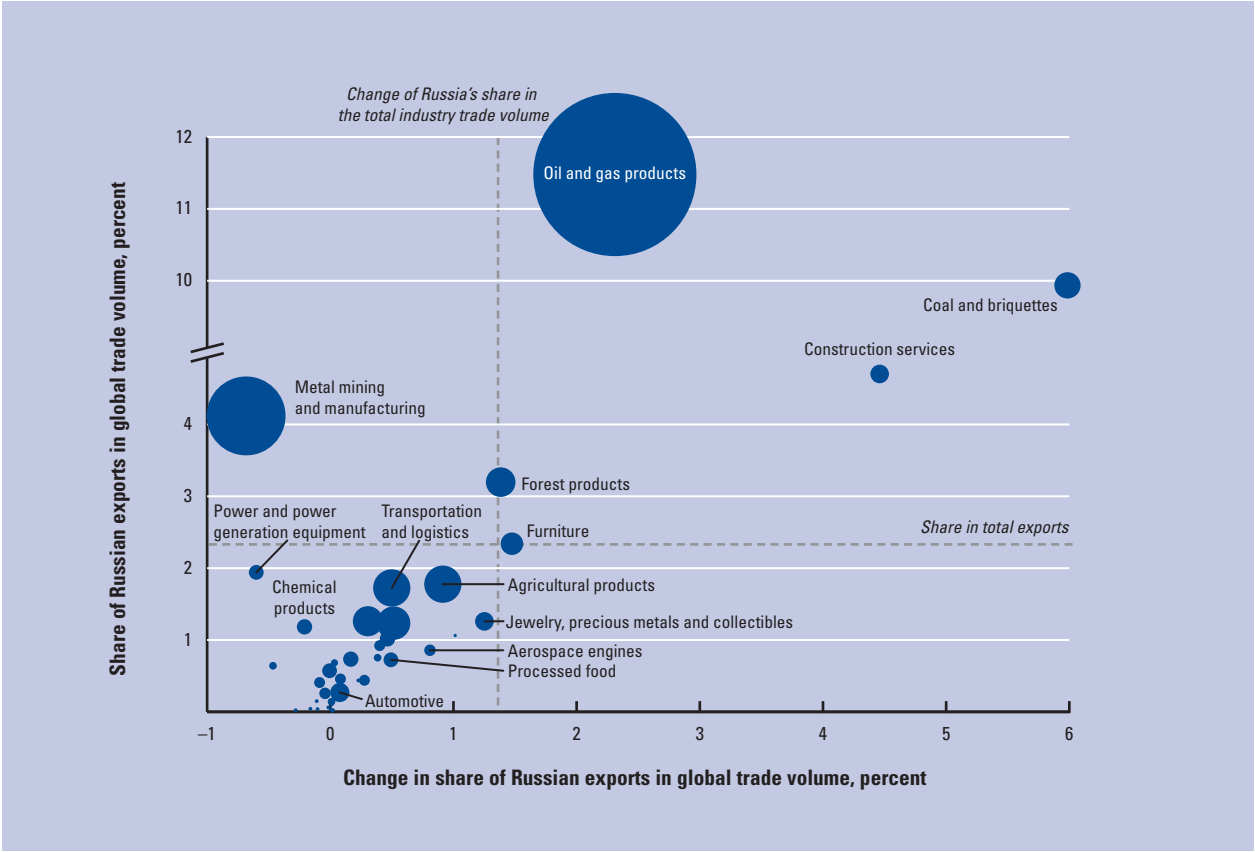


29b: Local supplier quantity, 2009–10*



Source: World Economic Forum, 2010c.
* The responses are to the question "How numerous are local suppliers in your country? [1 = largely nonexistent; 7 = very numerous]"

Figure 30: Russia's export portfolio, 2007



Source: Institute for Strategy and Competitiveness, Harvard Business School, 2011.

involved in production steps that span many stages of the value chain, such as product design, marketing, or after-sales services, but rather focus on individual steps, such as production or resource extraction. Companies only rarely use advanced marketing techniques and usually do not control international distribution. One of the reasons for the lack of advanced management techniques lies in the fact that these skills appear not to be taught effectively at the country's business schools. Indeed, Russia ranks 92nd on the Survey indicator measuring the quality of management education, as discussed above. The other reason lies in the tendency of businesses to rely on friends and relatives rather than workers with professional qualifications for senior management positions.[49] These factors, combined with a low willingness to delegate authority (ranked 103rd), can mean that the necessary skills and knowledge of specific techniques may not be available or put to use within companies. But even the sophistication of production processes remains low.[50]

Key policy recommendations

Two key policy recommendations emerge from this analysis: to further open the Russian Federation to the world and to make institutional reform a priority. Finalizing the WTO accession process with the numerous benefits to be expected from membership—including more trade and investment, easier access to foreign markets, and better protection of intellectual property—is, in this context, of the utmost importance and would allow for greater openness to the outside world. Serious institutional reform that is anchored at the highest level of government would generate spillovers into other policy areas and speed up Russia's development process considerably. Box 7, earlier in this chapter, makes additional policy recommendations for pro-policy competitiveness.

Conclusions: The three-plus-five approach to improving Russia's competitiveness

This chapter analyzes Russia's national competitiveness using the World Economic Forum's GCI. It emphasizes Russia's potential to develop its competitiveness over the shorter term to raise the country's prosperity, provided that key reforms are implemented and that the overall pace of reforms is increased. We develop the three-plus-five approach to Russian competitiveness, which would enable the country to efficiently improve its competitiveness within a fairly short time frame.

The approach suggests building on the *three key advantages* of the Russian economy by addressing the *five key challenges*. The three key advantages include the

country's large domestic and foreign market size, its stock of well-educated population, and its undisputable wealth in natural resources. Together these provide the country with unrivaled potential for growth and prosperity. According the GCI, five areas of challenge will need to be addressed in order to realize this potential more fully. First, the rule of law and the institutional framework are in need of significant reform. The agenda in this area is heavy and crucially important not only because of the severity of the assessment by the country's business executives, but also because of the spillover effects that improvements can generate in other policy areas. In this context it is imperative to continue the fight against corruption, to contain undue influence on government and court decisions, to reduce the burden of government regulation, and to strengthen the protection of property rights.

Second, although the country's educated population is among the key strengths of the economy, this advantage appears to be eroding. While participation rates remain high, the quality of education is deteriorating. For this reason, it is vitally important that the education curricula become more attuned to the needs of business.

Third, more intense competition within the country and from abroad would significantly raise the efficiency of the overall economy. Key goals include less state intervention, lower administrative barriers to entrepreneurship, and also making rules and regulations more conducive to FDI and reducing trade barriers.

Fourth, the supervision of financial markets and the banking sector needs to be strengthened further, and the sector needs to become more efficient as the provider of liquidity and targeted financial products to the business sector. The current lack of access to finance is considered one of the major impediments to doing business in the country.

And last but not least, more sophisticated management and business techniques would raise enterprise efficiency. It is important for public policy to support clusters of industries that generate important spillover effects in terms of entrepreneurship, efficiency, and innovation.

The results of the GCI provide a useful insight into the key challenges to enhancing competitiveness in Russia. The GCI can provide a sound basis for identifying key policy priorities and for continuing the public-private dialogue on how barriers to competitiveness can be overcome over the medium term. The recent recession has created a sense of urgency about the need to put economic development on a sounder and more sustainable footing and increase competitiveness across the country. This opportunity should not be lost. Given Russia's tremendous competitive strengths, policy improvements as outlined above could generate gains in productivity that could translate into rising prosperity levels for the population within a relatively short time.

Notes

1 World Bank 2007.

2 World Bank 2007.

3 See Desai 2008 for a review of these studies.

4 This section draws heavily on Sala-i-Martin et al. 2010.

5 See, for example, Sala-i-Martin et al. 2004 for an extensive list of potential robust determinants of economic growth.

6 See Easterly and Levine 1997; Acemoglu et al. 2001, 2002; Rodrik et al. 2002; and Sala-i-Martin and Subramanian 2003.

7 See de Soto 2000.

8 See de Soto and Abbot 1990.

9 See Aschauer 1989; Canning et al. 1994; Gramlich 1994; and Easterly 2002.

10 See Sachs 2001.

11 A general purpose technology (GPT), according to Trajtenberg (2005), is one which in any given period gives a particular contribution to overall economy's growth thanks to its ability to transform the methods of production in a wide array of industries. Examples of GPTs have been the invention of the steam engine and the electric dynamo.

12 See Sachs and Warner 1995; Frenkel and Romer 1999; Rodrik and Rodriguez 1999; Alesina et al. 2005; and Feyrer 2009.

13 Probably the most famous theory of stages of development was developed by the American historian W. W. Rostow in the 1960s (see Rostow 1960). Here we adapt Michael Porter's theory of stages (see Porter 1990). Please see Chapter 1.1 of *The Global Competitiveness Report 2007–2008* for a complete description of how we have adapted Michael Porter's theory for the present application.

14 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 2003 through 2007. Further information on these data can be found at the following site: 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 uniquely 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).

15 For more information about the Survey see Browne and Geiger 2010.

16 Although endowments are not considered as such in the GCI, because they affect competitiveness in an indirect way, they are included here as they play a particularly important role for the Russian economy.

17 British Petroleum 2010 and International Trade Centre 2011. Mineral fuels, oils, and distillation products corresponds to category 27 of the Harmonized System (HS). Russia exported goods worth US$190 billion in this category, in addition to US$30 billion in commodity exports (HS 99).

18 PAI 2010.

19 Some consolidation of expenditure is necessary following the expansionary policy during the downturn.

20 IEA 2010.

21 In addition, Russia is member the Eurasian Economic Community which also comprises Belarus, Kyrgyz Republic, Kazakhstan, and Tajikistan (since 1997). Source: WTO 2011.

22 World Economic Forum 2010b.

23 Fleisher et al. 2005.

24 World Bank 2005a and World Bank 2005b.

25 CEFIR 2007.

26 Transparency International ranks Russia 154th out of 178 countries in the Corruption Perceptions Index, last among all panel countries bar Ukraine. See Transparency International 2010.

27 Some estimates at the global level, based on household and enterprise surveys, point to a figure of US$1 trillion. See Kaufmann 2005.

28 Kramer 2011.

29 OPORA, Eurasia Competitiveness Institute, Strategy Partners Group 2011.

30 See Nuttall 2010.

31 Russia ranks 106th for favoritism of government officials and 115th for the independence of the judiciary in the GCI sample. See World Economic Forum 2010a.

32 In April 2011, the government introduced an anti-corruption law that considerably increased punishment in these cases.

33 Russia fell from 48th position in 2005–06 to 66th place in 2010–11 in the GCI.

34 OECD 2010.

35 Federal Law No. 135-FZ "On the Protection of Competition."

36 Wölfl et al. 2010. The OECD's product market regulation indicators examine how restrictive regulatory frameworks are and take into account three broad categories: state control, barriers to entrepreneurship, and barriers to trade and investment. In terms of command and control regulation, Russia attains a score of 4.0 against 1.52 for the OECD average; in terms of price controls, the score is 5.0 for Russia versus 0.78 for the OECD average. All scores are on a scale of 1 to 5, with 5 being the poorest score.

37 World Bank 2010b.

38 World Bank 2010b.

39 World Economic Forum 2010b.

40 World Economic Forum 2010b.

41 OECD 2009.

42 At the same time, public and foreign ownership of banks can create other challenges. With public ownership it is difficult to maintain a healthy level of competition among banks, and the 2008–09 financial crisis has shown that foreign-owned banks can be at even greater risk of financial distress if the parent bank decides not to refinance it or even to withdraw liquidity.

43 World Economic Forum 2010c.

44 IMF 2010a.

45 IMF 2010a.

46 See IMF 2010a for more details on the recommendations for policies to improve banking supervision.

47 IMF 2010a.

48 World Economic Forum 2010b.

49 Russia ranks 101st on the related Survey indicator, far behind India (49th), China (50th), and Brazil (52nd).

50 Russia ranks 93rd out of 139 countries.

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Appendix: Computation and structure of the Global Competitiveness Index 2010–2011

This appendix presents the structure of the Global Competitiveness Index 2010–2011 (GCI). The number preceding the period indicates to which pillar the variable belongs (e.g., variable **1.**01 belongs to the 1st pillar and variable **12.**04 belongs to the 12th pillar).

The computation of the GCI is based on successive aggregations of scores from the indicator level (i.e., the most aggregated level) all the way up to the overall GCI score. Unless otherwise mentioned, we use an arithmetic mean to aggregate individual variables within a category.[a] For 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 Pillar 9 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 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 Moldova—a country in the first stage of development—the score in the *basic requirements* subindex accounts for 60 percent of its overall GCI score, while it represents just 20 percent of the overall GCI score of Germany, a country in the third stage of development.

Variables that are not derived from the Executive Opinion Survey (the Survey) are identified by an asterisk (*) in the following pages. The Technical Notes and Sources section in Part 2 provides detailed information about these indicators. To make the aggregation possible, these variables are transformed onto a 1-to-7 scale 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]

Variables that are followed by the designation "1/2" enter the GCI in two different pillars; 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 A: Computation and structure of the Global Competitiveness Index 2010–2011 *(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* [g]

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 [h]

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* [i]
6.07 Time required to start a business* [i]
6.08 Agricultural policy costs

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

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

B. Quality of demand conditions 33%

6.14 Degree of customer orientation
6.15 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
8.06 Restriction on capital flows

B. Trustworthiness and confidence 50%

8.07 Soundness of banks
8.08 Regulation of securities exchanges
8.09 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* [j]

B. Foreign market size 25%

10.02 Foreign market size index* [k]

INNOVATION AND SOPHISTICATION FACTORS

11th pillar: Business sophistication 50%

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

(Cont'd.)

Appendix A: Computation and structure of the Global Competitiveness Index 2010–2011 *(cont'd.)*

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 the following:

Weights	Factor-driven stage (%)	Efficiency-driven stage (%)	Innovation-driven stage (%)
Basic requirements	60	40	20
Efficiency enhancers	35	50	50
Innovation and sophistication factors	5	10	30

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 for those groups 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 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, 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 For this variable we first apply a log-transformation and then a min-max transformation.

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

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

j The size of the domestic market is constructed by taking the natural log of the sum of the gross domestic product valued at purchasing 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 of *The Global Competitiveness Report 2010–2011*.

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 of *The Global Competitiveness Report 2010–2011*.

CHAPTER 1.2

Building an Innovation Nation for Future Prosperity

ALEXEY PRAZDNICHNYKH, Strategy Partners Group, Eurasia Competitiveness Institute

It is a widely held belief that Russia inherited great capabilities in science and technology from the Soviet era. Unfortunately these capabilities have not resulted in innovation and prosperity. To compete in innovation, the country has all the necessary components in place. Thus, when asked whether Russia can innovate, the answer is a definite "Yes," but only if there is ambition, an appropriate innovation strategy, and its effective implementation.

Innovation is defined as the design, invention, development, and implementation of new or improved products, services, processes, systems, organizational structures, or business models for the purpose of creating new value for customers, increasing financial returns for firms, and boosting productivity.[1] This definition immediately emphasizes several important aspects of this multifaceted term, each of which deserves individual analysis.

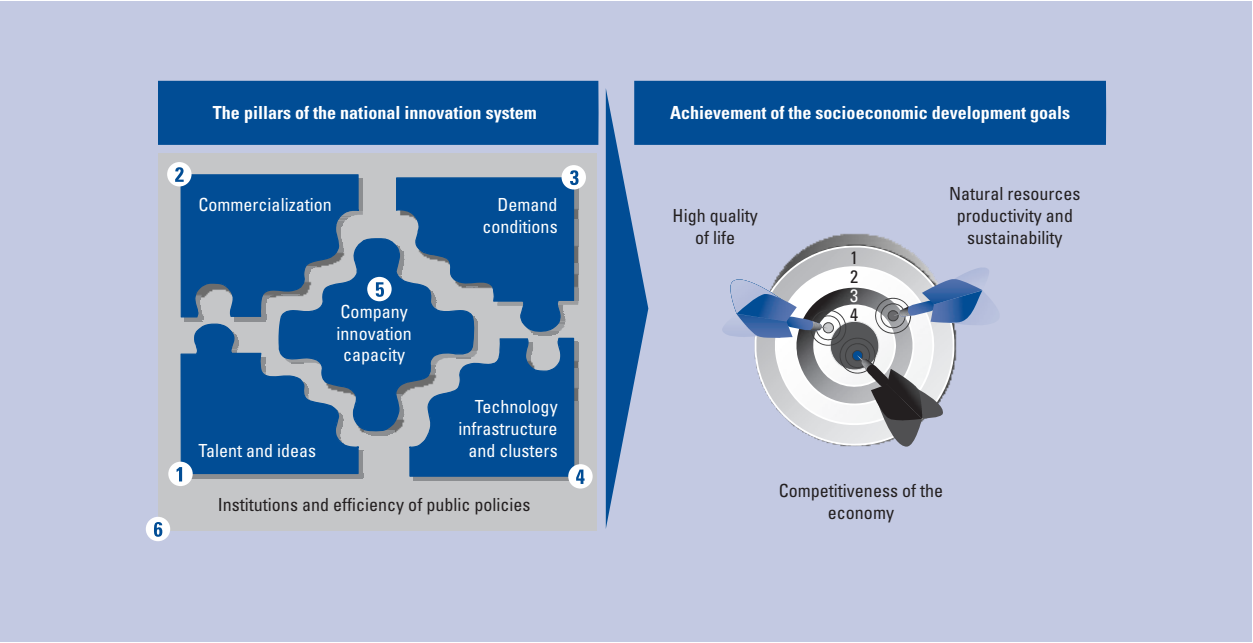
For-profit and not-for-profit organizations generate innovations with various aims in mind. The main aim of the vast majority of private-sector innovations is to improve financial performance; in healthcare and education, the primary goal is the creation of public value (e.g., the reduction of mortality from certain diseases or fire prevention) and cost reduction.

Possible results of innovation are new or improved products, processes, or business models. A recent example of innovation in a product is the iPhone, a revolutionary new mobile communication device. Motion-capture technology, which made it possible to create films such as *Avatar,* is a well-known example of process innovation. The appearance of low-cost airlines on the market is a prime example of innovation in a business model. Results of innovation can be determined by their level of novelty. Many new and improved products are considered "novel" only by the specific companies putting them into production or improving existing processes, as they already exist elsewhere. Other new products, as well as other new technologies and business models, are novel for both a sector within a country and for the international market. Sometimes an innovation is new for the world as a whole: such innovations are on the cutting edge of technology and are either significant technological achievements or completely new business models.

Innovations can lead to an increase in productivity. There are a multitude of examples of innovations—such

This chapter is based on a year-long Russian innovation policy initiative that was initiated and coordinated by the all-Russian nongovernmental organization of small and medium-sized businesses, OPORA, carried out by Bauman Innovation / Strategy Partners, and supported by Rosnano, the US-Russia Foundation, Sberbank, and others. Part of this project was the Russian Innovation Survey 2009–2010, which covered leading Russian scientists, large and mid-sized companies, and innovative SMEs as well as the general population. The analytical team included Alexey Prazdnichnykh (the team leader), Dmitry Adov, Sergey Lozinsky, Katerina Marandi, Nikita Popov, and George and Olga Rybalchenko.

Figure 1: The pillars of national innovation system competitiveness



Source: Strategy Partners Group and Eurasia Competitiveness Institute.

as the Bessemer process of producing steel and the chemical synthesis of rubber—that have allowed companies to reduce costs. Similarly, innovative products and services can be sold with a price premium because of their personal productivity gains: increased functionality, such as liquid crystal displays (LCDs), or versatility, such as automobiles with automatic transmission.

As a rule, innovations are an essential element of economic growth. China, Korea, Rep., and other developing countries with high economic growth rates owe a great deal of their progress to their companies' increased activity in innovation and technological improvement. As well as increasing productivity, innovations can enhance a society's well-being by improving the quality of life for their citizens and reducing negative ecological consequences. Innovations in recycling of different types of waste have reduced our carbon footprint and made city streets, water, and air cleaner. New medicines have increased life expectancy and help to treat or cure an ever-greater number of diseases.

Faster economic development occurs in innovation-leading countries because their innovation systems can leverage achievements in innovation to generate added value. These leading countries have achieved a high level of economic performance, mainly because of their success in the organization and execution of effective innovation processes. The concept of the competitiveness of national innovation systems can provide insight into why some countries achieve good results in bringing innovations on to the market. We define the *competitiveness* of a national innovation system as the set of abundant resources, institutions, and policies that enhance innovation performance and channel innovation into prosperity.

Pillars of competitiveness of national innovation systems: An overview of the methodological framework

Research into the innovation policies of various countries and regions leads us to conclude that no single main factor can determine the competitiveness of an innovation system. Each success story—the United States, Japan, Switzerland, Finland, and Israel—has occurred because of the simultaneous action of a unique set of factors. Here we distinguish six pillars of competitiveness for innovation systems (see Figure 1):

1. Talents and ideas
2. Commercialization
3. Demand conditions
4. Technological infrastructure and clusters
5. Company innovation capacity
6. Institutions and efficiency of public policies

Pillar 1: Talents and ideas

The education and research and development (R&D) sectors saturate the labor market with technologically oriented, talented people, feeding the entire innovation system with ideas. We can therefore say that talented people and their creative ideas are the main sources of innovation.

Talents are brought to fruition through the educational system. Although the qualifications of engineers

and scientists within a country depend primarily on the quality of their higher education, the seeds for this quality are planted in earlier schooling. Knowledge acquired in primary and high school in the natural sciences and mathematics provides a springboard for entry into higher education. It also helps to form skills and values oriented toward technology. The ability of an educational system to nurture future talents and create the right conditions for their development fulfills the function of a "social ladder" and is critical for innovation. Talented people are involved in the innovation process through the labor market. For innovation, it is important that a market be supplied with well-trained specialists and that it can offer good research opportunities while cultivating the specialists' inventive capabilities.

Education also increases opportunities outside the country and improves geographic mobility. Countries that do not offer attractive job opportunities waste part of their educational system potential because many engineers and researchers choose to go elsewhere, whereas countries that provide the best job opportunities attract leading specialists from all over the world. For foreign specialists, important components of national innovation system competitiveness are the openness and attractiveness of a country. Accessibility factors are low visa requirements, the ease of obtaining work permits, and societal readiness to accept foreigners.

The starting point of the innovation process is investments in new ideas. The results of cutting-edge scientific research can be used to create products and processes that may have the potential to be the best in the world. Research that meets the world's highest standards is impossible if proper resources cannot be provided, and financial input alone will not guarantee performance.

Pillar 2: Commercialization

The transformation of scientific ideas and inventions into new products and technologies does not occur on its own. The risks and difficulties of creating a new product or technology are so great that they demand a thorough analysis of commercial potential and close interaction among researchers, inventors, investors, and managers. A sophisticated commercialization infrastructure (technology transfer centers, business incubators, services for start-up companies and entrepreneurs, etc.) makes it possible to select the best projects and facilitates their smooth implementation. Project financing depends on commercialization grants, venture funds, and a developed financial sector. The combination of these financial instruments should aim to guarantee financial resources at each stage of the innovation process, from the original idea to an initial public offering.

Pillar 3: Demand conditions

The ability and inclination of national companies toward innovation often depend on external incentives, mainly on the demands of the domestic market. The scale of the domestic market is an obvious advantage: it serves as a powerful impetus for innovation development. Large countries—such as the United States, China, and Russia—have historically been able to draw on their large domestic markets. However, it is not only the scale but also the quality of demand that influences competitiveness. How early consumers choose new technologies over less-perfected alternatives is determined by the level of consumer sophistication.

Certainly not all innovations result in mass market products. In many sectors, such as machinery and equipment manufacturing, most of the output goes into the business-to-business (B2B) markets. A supportive environment for these innovations comes about when access to their markets is not limited or regulated by the government.

The government plays an active role in demand formation via civil and military procurement, and thus it can have a significant influence on innovation development. The precursor of the Internet was created through a US Department of Defense project, for example, and energy-saving technologies have become widespread in Europe as a result of deliberate government purchases. The more the government prioritizes and supports technological innovation when procuring new items or tools, the stronger the incentives will be for innovations in these areas. The life science and aerospace industries are good examples of this type of government support for innovation.

Pillar 4: Technological infrastructure and clusters

The innovation system itself is a complex network of interactions among small and large companies, research institutions, universities, consumers, associations, government bodies, and other entities. These interactions prove fruitful if they are based on widely accessible technological infrastructure, contemporary technical standards, and well-developed intellectual property legislation.

Innovation in cutting-edge technology is possible only when the use of modern technology is widespread across the economy. The dispersal scale of a new general-purpose technology—for example, an information technology—opens up opportunities for businesses to create new products. Such a new technology can transform entire sectors. For instance, modern information technologies have facilitated a radical increase in the productivity of the retail sector and financial services in developed countries.

Standards and certification also have a large influence on innovation. Demanding obligatory standards can create regulatory pressure for companies to use more refined technologies and eliminate those already obsolete. Outdated standards present a threat to development, as they reduce economic incentives, create needless losses during the adoption of new productive

processes, or possibly even make such adoption illegal. Voluntary certification is a sign of quality and a confirmation that international standards have been met, making it easier for companies to acquire access to the world market. The proliferation of international certification systems enables technological exchange and refinement, reduces the costs of development, and accelerates both technology diffusion and new product development.

Countries differ in the extent to which intellectual property rights are protected, and a balance should be observed between creator and user rights. Companies will not invest in the creation of knowledge if competitors can openly replicate their results.

At a regional level, clusters—groups of businesses and organizations that interact with each other—play an important role in a country's innovation system. Mature clusters make it easier to create new companies, foster technological spillovers, and accelerate innovation diffusion. In traditional sectors, mature clusters facilitate large-scale technological improvements, and competitive innovation clusters serve as centers for the creation of completely new sectors. Together, these make up the driving force of future development.

Pillar 5: Company innovation capacity

Although many breakthroughs are produced through scientific research, the companies that commercialize these breakthroughs are key players in the innovation process. In many developed countries, the majority of innovative potential and technological capability is primarily concentrated within companies. In many sectors, a special role in commercialization and adoption of innovations is played by small- and medium-sized enterprises (SMEs). SMEs often experience greater competitive pressure and have limited financial resources. In response to these challenges, they become proportionally more innovative than larger corporations and they leverage their natural flexibility to stay competitive.

Motivation for a company to engage in innovative activity depends, to a large extent, on how much that activity will help it to compete and succeed in a specific market. When the profit of a company depends solely on access to natural resources, innovations are not in demand. However, companies whose profits depend on new products being continually produced are easily enticed into technological upgrading. These companies actively finance applied scientific research, go in search of external ideas, and carry out all the work to implement research results.

A company's innovation capacity depends in large part on the technological sophistication of its production processes. If these processes do not meet international standards, the company will be unable to operate close to the world's technological frontier, and there is much less chance that its innovations will be groundbreaking. Foreign investments can be an important source of technology transfer and can therefore upgrade the overall technological production level in the national economy.

An individual company does not need to both come up with the innovative idea and commercialize it. The capabilities to create innovative solutions and implement them are equally important, but they may come from different companies. Sometimes extensive research is not required and the application of an existing technology or process in a different context may result in innovation. In certain cases, it is advisable to consider cooperation with another organization that can carry out the part of R&D that may not be the strength of the originating company. Through licensing and subcontracting agreements, it is possible to create a development and production chain that draws efficiently on the resources of many stakeholders to bring innovative products on to the market.

Pillar 6: Institutions and efficiency of public policies

The environment in which the actors of an innovation system work together is influenced by a country's government policy and institutional peculiarities. Although institutions may be responsible for only the basic conditions of such interaction, the low quality of services they provide may lead to major difficulties. The institutional environment can hinder any government attempt to significantly improve innovative activity, and so the ability of all actors of an innovation system to make decisions and plan long-term investments relies heavily on high-quality institutions.

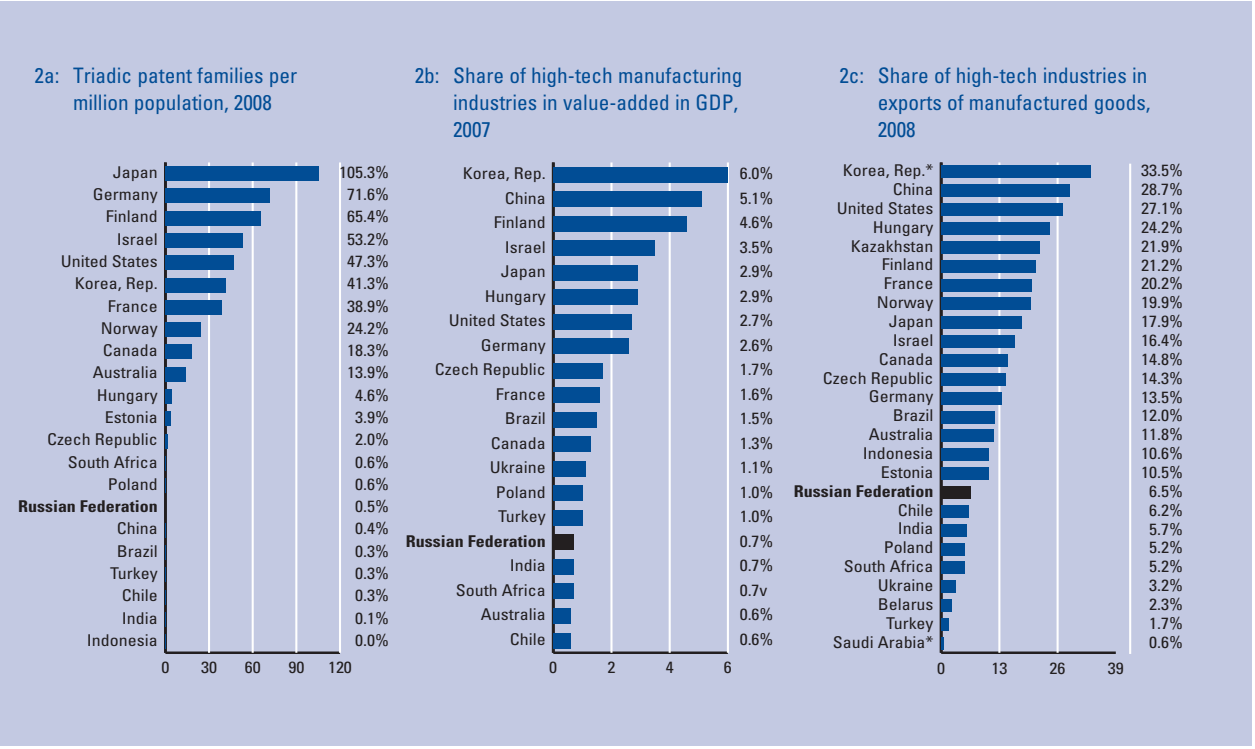
When property rights are not guaranteed, investors will strive to back projects that will give an immediate return. If law courts are controlled by an executive government or other political stakeholders, inventors and investors cannot rely on them to protect their rights or resolve conflicts. Widespread corruption naturally lowers the effectiveness of public R&D expenditures and other resources designated for commercialization. At best, it is difficult to run a new technology-based business.

As with institutions, the quality of government decisions can only contribute toward the initial development environment. If this quality drops below a certain level, insurmountable barriers arise on the path to innovation. An inability of the government to prioritize budget expenditures, modify policy in accordance with the economic situation, or to make informed decisions and put them into action will lead to ineffective administration and a general decline of national innovation system competitiveness.

Pillars as a system

Five out of the six competitiveness pillars directly influence innovation development, but each is associated with a distinct component of the innovation system and a separate stage of the innovation process. There is no

Figure 2: Russian innovation performance



Sources: National Science Board, 2010; OECD, 2009b; World Bank, 2011.
Note: OECD's "triadic" patent families are defined as a set of patents filed for at the European Patent Organisation, the Japan Patent Office, and granted by the United States Patent and Trademark Office that share one or more priority applications.
* 2007.

single competitiveness pillar that is the main or primary one. The success of innovations depends on the harmonious performance of all parties and the development of each pillar is crucial. However, some of them may become more important than others, and that relative importance depends on the level of development of the country's innovation system.

Russian innovation system competitiveness analysis: Strengths and weaknesses

Russia's current innovation system has somewhat reduced capabilities in comparison with that of the Soviet era. The number of areas in which new technologies can be created has dropped significantly, and the segment directed at the simple use of imported technologies has grown. Judging from available statistical data, today Russia is not a leading country in innovation, and the country's achievements in inventions, value creation, and exports are modest (see Figure 2).

The profile of Russia's innovation system (see Figure 3) shows its position according to various factors in comparison with the average for all countries in the Organisation for Economic Co-operation and Development (OECD) and the B(R)IC countries (BRIC without Russia—i.e., Brazil, India, and China). Only a few factors are strong points for Russia and, in the majority (more than half) of factors, Russia occupies lower positions.

The analysis of strengths and weaknesses of the Russian innovation system, as well as opportunities and threats for its development, are summarized in Table 1.

Further in this section, we discuss the strengths and weaknesses of each competitiveness pillar of Russia's innovation system.

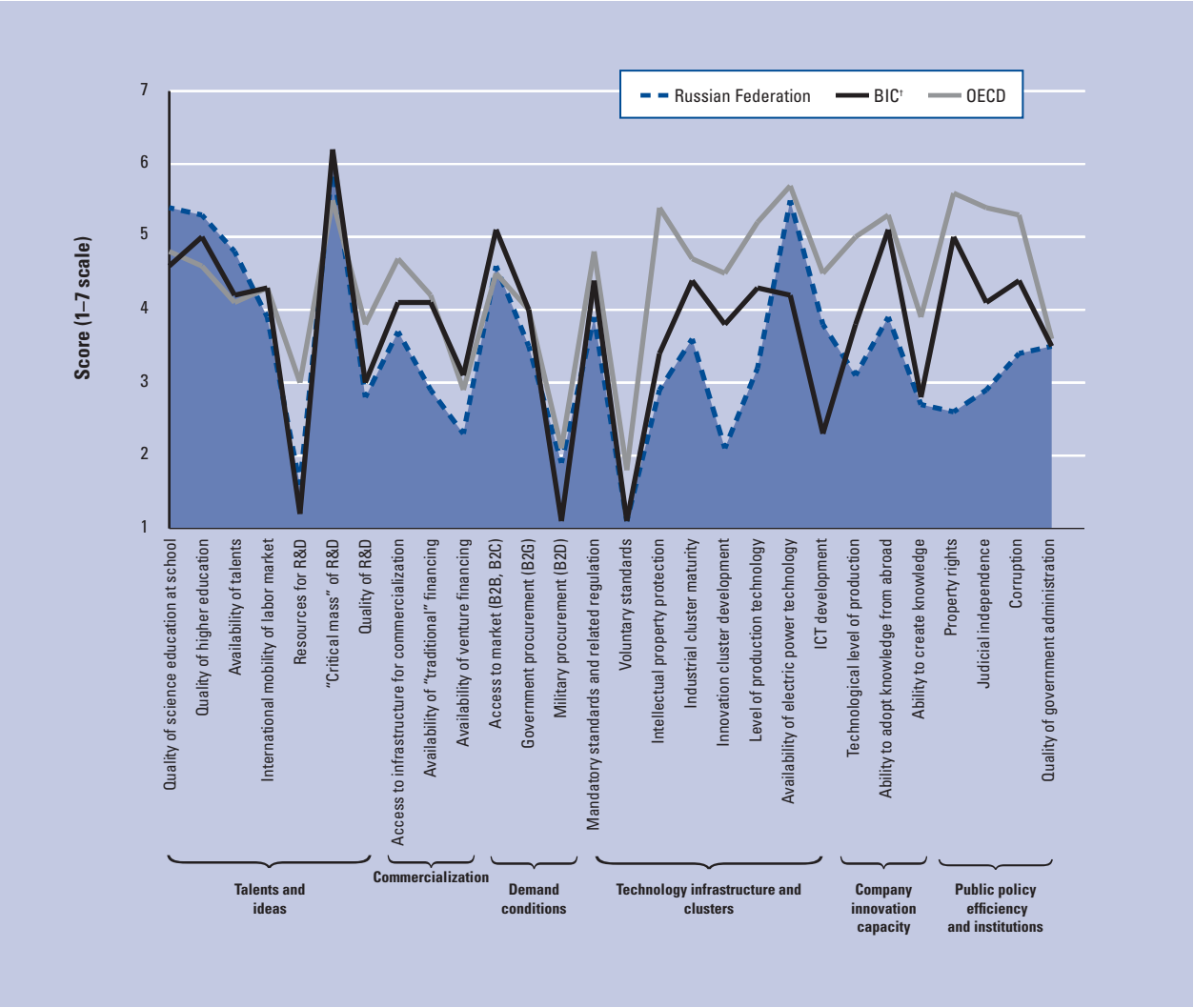
Talents and ideas

Talents and ideas can be fostered in several arenas, which are connected in a myriad of ways. These are discussed below.

Potential of the educational system

The Russian system of professional education still has potential, especially when compared with the other BRIC countries. This potential is based on a few different sources. First, the percentage of the Russian population with secondary or higher education is large and increasing with the younger generation. Second, engineering or natural science specializations are still high within the educational system (see Figure 4), although they continue to decrease. Third, the average quality of higher education is also quite advanced in comparison with the average quality worldwide. Last, the highest-quality educational programs are traditionally

Figure 3: Competitiveness of the Russian innovation system



Source: Eurasia Competitiveness Institute and Strategy Partners Group.
† Average of Brazil, India, and China.

concentrated in a few leading universities. As a result, in certain areas (e.g., mathematics, physics, chemistry, and certain engineering sciences), leading Russian universities are still able to train highly skilled specialists who can compete on the global labor market.

The potential is certainly there to leverage the Russian educational system to create an innovation economy, with the assumption that large-scale support is provided and that the system is constantly evolving to meet new demands.

Availability of educational opportunities for all talented youth ("social ladder")

Russia has inherited from the Soviet Union the concept of free higher education. Egalitarian principles of open access to higher education still dominate public opinion. As a result, applicants from different social classes and regions have the opportunity to apply to leading universities. This is arguably a strong positive aspect of Russia's innovation system, as the entire population is leveraged to generate a large talented pool of highly skilled workers.

Retained scientific traditions

Although a detailed discussion of the history of the Russian educational system is beyond the scope of this *Report*, it is worth noting that much of the current system was inherited from the Soviet era, along with the country's innovation system. There has historically been a focus on engineering and the natural sciences. Certain programs in leading Russian universities are still focused on the preparation of high-quality specialists who are in demand on an international level. In some cases, these programs are connected to scientific groups carrying out cutting-edge research, which can lead to the formation of self-supporting scientific communities. Their very existence serves as an example of how extremely important intellectual capital is for any program that seeks to modernize the economy and stimulate innovation (see Box 1).

Table 1: Analysis of Russia's innovation system development: Strengths, weaknesses, opportunities, and threats (SWOT)

Strengths	Potential of the educational system
	Availability of educational opportunities for talented youth from all over the country ("social ladder")
	Retained scientific traditions
	Large domestic market
	Large military procurement
	Internally available basic technologies
Weaknesses	Deterioration of education quality
	Low expenditure and low efficiency of public R&D
	Low effectiveness of infrastructure for commercialization
	Low level of entrepreneurial activity
	Non pro-innovative public procurement, including procurement in infrastructure, defense, and aerospace sectors
	Ineffectiveness of existing standards and technical regulations
	Intellectual property protection issues
	Low maturity of key regional innovation clusters
	Poor innovative activity through absorption of technology from abroad and development of internal technology
	Low level of foreign investment in R&D in Russia
	Low efficiency of science, technology, and innovation policy
Opportunities	Demand for innovation in infrastructure and social sectors in Russia
	Potential demand for innovation in the defense sector in Russia
	Global availability of knowledge and technologies
	Growing mobility of talents in emerging economies
	Global dissemination of international standards and technical regulations
	Increasing investment in R&D abroad by multinational companies
	Expanding foreign markets and higher accessibility of foreign markets for Russian companies
	Administrative and political opportunities for carrying out an ambitious and comprehensive program to increase the competitiveness of the Russian innovation system
Threats	Intensifying competition between national innovation systems
	Freezing of the current industry mix
	Expanding opportunities for the immigration of Russian talents and intensifying competition for human resources
	Loss of the population's scientific literacy and expansion of pseudoscience
	Low appeal of science and engineering careers

Deterioration of education quality

In recent years, the quality of education in Russia has deteriorated in many areas, however, including mathematics and natural sciences in secondary school, vocational training, and science and engineering in higher education. There has also been a sharp decrease in enrollment in science and engineering in the tertiary education sector.

The outflow of the country's most qualified personnel abroad or into non-innovative sectors of the economy, the reduction of education funding, an absence of control over education quality, and the lack of prestige in the natural sciences and mathematics all have a consistently negative effect on higher education in Russia. These negative effects are particularly apparent in the natural sciences, engineering, and mathematics, and the quality of the education and skills of university graduates have declined as a result.

Russian education expenditure is not very high in relation to GDP. Even though expenditure was increased by 0.9 percent of GDP from 2000 to 2006, today it is less than 4 percent, below countries such as Turkey and Brazil.

In fact, Russia is currently yielding its previous positions in secondary education. According to the OECD PISA (Programme for International Student Assessment)'s international research into the quality of education of schoolchildren,[2] Russian schoolchildren are firmly in the lower half of ratings in all areas of knowledge and they occupy 37th and 38th positions in the rating of 65 countries in mathematics and natural sciences, respectively.

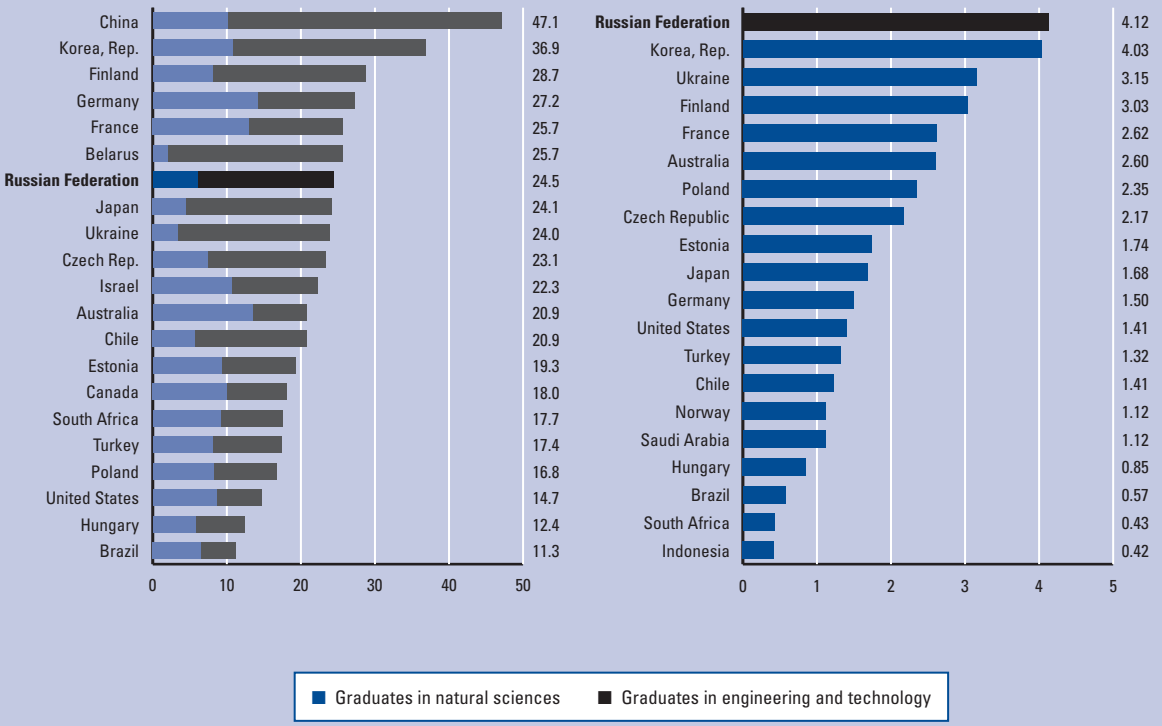
As far as applying knowledge in practice (i.e., scientific explanations for different phenomena), Russian schoolchildren also perform relatively poorly. This would not seem so bad if young people were able to obtain the knowledge and skills in higher education. The United States cannot boast of the success of its schoolchildren either, but they compensate for this through their strong university educational system. The US system offers significant active research work by students and teachers, in addition to lectures and teaching. In Russia, only a limited number of universities offer students the opportunity to use their knowledge in practice and to participate in scientific research.

Low expenditure and inefficiency of public R&D

International comparisons show that financing for R&D from the Russian budget does not correspond with the ambitious goals set by the R&D system and does not allow Russia to compete with the leading countries in cutting-edge research (see Figure 5).

In R&D intensity of the economy, Russia is comparable to countries such as Estonia, Belarus, South Africa, and Ukraine; only slightly exceeds India, Turkey, and Chile; and falls behind China and the Czech Republic. The average expenditure on R&D in

Figure 4: Tertiary education in Russia



Source: UNESCO Institute for Statistics, 2011; World Bank, 2011.

the group of countries to which Russia belongs is less than half that of countries such as the United States, Germany, France, and Canada; and less than a third of that of Japan, Finland, and Korea. It is clear that Israel's achievements in R&D have not come cheaply, as that country allocates 5 percent of its GDP to research and development. This amount is continually increasing, while the share of Russia's GDP spent on R&D has increased only slightly in the last 10 years.

Despite a marked increase in the financing of public R&D since the 1990s and the beginning of the 2000s, as judged by the number of publications in international scientific journals and the quantity of registered patents, the results of R&D have improved relatively little. The poor results of publicly funded R&D can be traced back to a whole range of factors. In addition to the low level of financing, key problems include insufficient personnel intake, the poor quality of research infrastructure, and an improper distribution of the limited funds that are available.

A continuous supply of well-trained, employable, and ambitious researchers is needed to carry out competitive and high-impact research. However, in the majority of Russia's scientific research institutions, the bulk of current employees are of retirement age or approaching it. Also, many of the country's most qualified researchers have left Russia for R&D centers abroad or have moved to other sectors of the economy that guarantee a higher income. Scientific work has become unpopular and unattractive to young people. On top of lacking the prestige it once had, over the last 20 years the average income in the field has dropped to the point where it is now difficult to support a family. All these factors have combined to result in an insufficient rejuvenation of academic research organizations.

To carry out truly groundbreaking research with high-impact results, modern, high-quality research infrastructure is required. This includes specialized facilities, equipment, and materials. Existing infrastructure is poorly maintained and, in the majority of organizations, it has not been upgraded since the Soviet era. This was not helped by the 1990s, which was a period of overall economic instability, especially with respect to funding. During this time, there was also a massive outflow of personnel from the R&D sector, which caused much infrastructure to go into decline.

As a result of these challenges, no steps to improve the effectiveness of R&D will provide results without a noticeable increase in financing. If funding is provided, it must be accompanied by a corresponding improvement in the manner in which it is applied and distributed for it to be truly effective.

Box 1: The evolution of the Russian Academy of Sciences

SERGEY LOZINSKY, Strategy Partners Group, Eurasia Competitiveness Institute

The history of Peter I's founding of the Academy of Sciences is inextricably linked to the history of all Russian science. However, to say that the Academy has always played an unambiguously positive role would not be entirely true. At the beginning, the scale of activity at the St. Petersburg Academy of Sciences was small. Although the idea of raising the Academy's status and increasing its resource base was widespread in Russian society as early as the 1830s, serious reforms, accompanied by formal status elevation, did not happen until 1917.

Over time, the Academy gradually began to acquire the specific traits of a future "super ministry" of science. It received more than half of all the Ministry of People's Enlightenment science funding. At the same time, societal opinion was rather critical of its structure and the organization of its resources. The Academy was considered to be outmoded, not in keeping with the real needs of the economy or society, and focused on an old-fashioned classical approach to education and science in which the main focus was on disciplines in the humanities, especially classical disciplines.

At the beginning of the 20th century, the Academy included five laboratories, seven museums, the Russian Archaeological Institute in Constantinople, the Pulkovo Astronomical Observatory, and the Main Physics Observatory. In 1912, 153 people were working at the Academy of Sciences, including 46 academicians. A large proportion of them were scholars of astronomy, mathematics, geology, and an array of humanities.

About half of the entire scientific budget of the pre-Revolutionary Ministry of Enlightenment was spent on the Academy's work, which gives an idea of the general number of researchers in Russia at the time. Strengthening the role of the Academy of Sciences was a key plan in the first stage of Soviet science development. The Academy of Sciences managed to survive the Revolution and Civil War with relative success. It had also found common ground with the Soviet government, as scientists in technical and natural sciences had an overall positive attitude toward the government and the new research opportunities it presented.

Through its independent expert status, recognition in the international scientific community, and detachment from political and ideological issues, the Academy was able to turn itself into a large and powerful organization. It played a key role in the Soviet system and was responsible for all science-related issues and independent from governmental ministries and agencies.

Academy staff and resources grew rapidly in 1918–35, mainly because of new tasks set by the Soviet government. In this way, its laboratories gradually became full-fledged scientific institutes. In 1925, the Academy of Science officially celebrated its 200th anniversary and a new charter was drawn up in which the Academy received supreme scientific institute status, along with a new name: the Academy of Sciences of the USSR. The position of the president of the Academy of Sciences also became elective and, more importantly, it was officially confirmed that the organization was self-governing and independent.

In 1928, the number of full-fledged members practically doubled (from 45 to 85) following a decision by the Council of People's Commissars, and chairs in technical sciences were created for engineering specialists. In 1935, this movement was formalized by the creation of the special Division of Technical Sciences of the Soviet Academy of Sciences. In the long view, this was to demonstrate the prioritization of engineering solutions.

The most serious changes in the real status of the Academy of Sciences began in 1934, when the Academy was moved to Moscow. Located next to the main ministries of the government of the Soviet Union, the Academy evolved into an exclusive organization of scientific excellence. At the same time, it managed to retain formal independence and the right to self-administration. The system grew not only by increasing the number of research institutes and laboratories and by including previously independent organizations, but also by territorial expansion. Divisions and branches of the Academy of Sciences were set up in the Union Republics and in regions of the RSFSR (Russian Soviet Federative Socialist Republic).

The Academy's fast power gain led to a reduction in the status and role of universities, including the oldest ones (Leningrad, Kazan) as well as newly created universities in the provinces. Moreover, the tendency toward the preference of engineering institutions over universities that had arisen as early as the 19th century only increased in the Soviet era (Soviet universities often did not offer engineering programs).

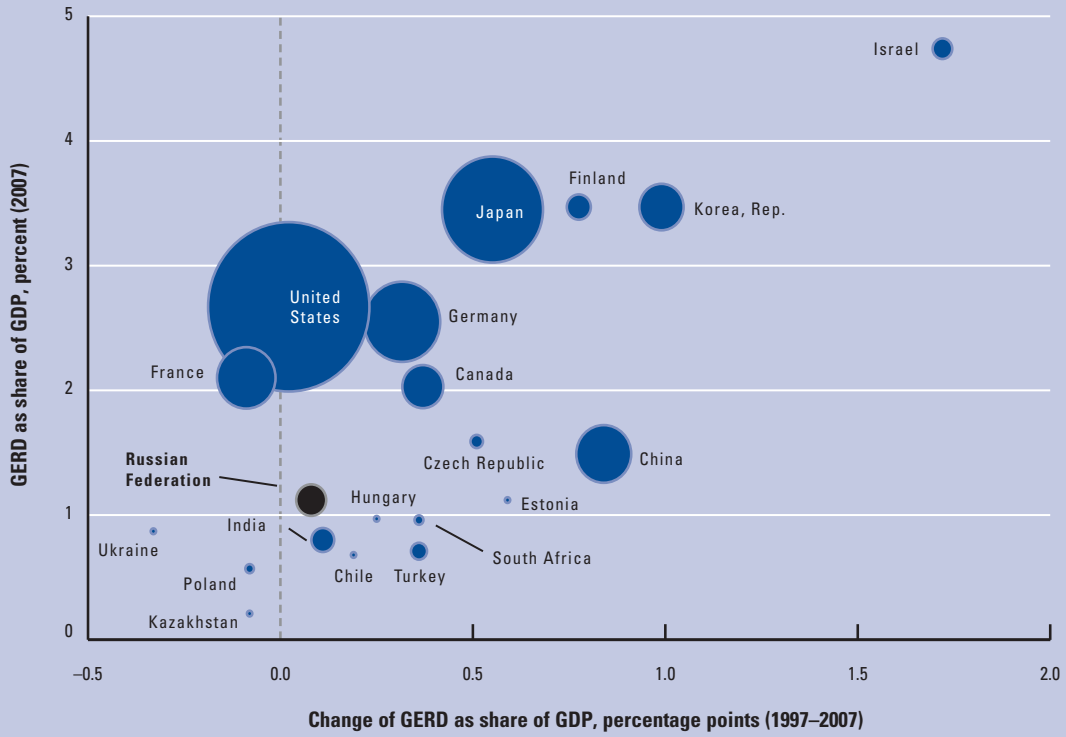
The complicated political transition period of the 1990s increased the influence of the former Soviet Academy of Sciences, now known as the Russian Academy of Sciences (RAS). The RAS obtained complete independence, not only formally, as in the Soviet era, but in reality. It acquired significant lobbying power, reinforced by the overall weakness of the government and the decaying of social structures. While new Russian authorities were confronting supporters of the old political system, the RAS remained neutral and obtained material and moral support from all sides.

The outcome of the 1990s was full of contradictions for the RAS. While it won from a political point of view, it definitely lost economically. Government financing dropped dramatically, and a significant amount of the real estate that had passed into the Academy's management could only partially be used for commercial purposes, as it was formally owned by the government.

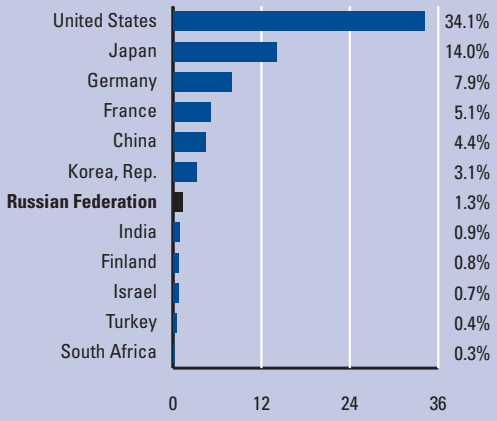
The situation changed again in the 2000s. The RAS began to obtain much greater government financing, but its level of independence and freedom of action fundamentally decreased. Currently, broad discussions are being held in government and society about the need for serious reforms in the Academy.

Figure 5: Countries' role in world R&D expenditure

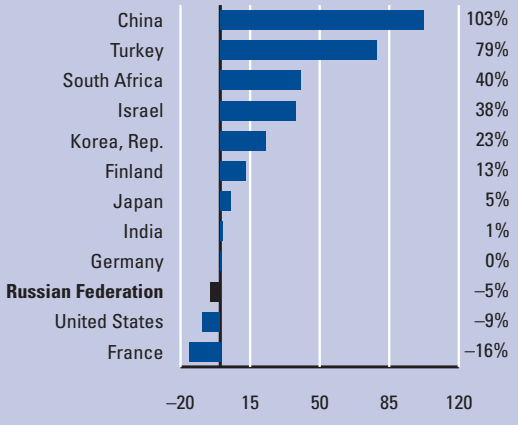
5a: GERD as share of GDP (2007) and its change (1997–2007)



5b: Share in world R&D expenditure, by country (2007)



5c: Relative change of share in world R&D expenditure, by country (1997–2007)



Sources: UNESCO Institute for Statistics, 2011; World Bank, 2011.
Notes: *GERD* is gross expenditure on research and development. Circle size is proportional to GERD (US$ millions).

Russian scientists seriously trail the worldwide average in the quantity of their international publications (see Figure 6). This seems to be only weakly connected with the specific scientific areas in which publications are produced in Russia. The greatest numbers of publications by Russian scientists are in physics, chemistry, and engineering. The highest levels of Russian specialization (i.e., the share of Russian publications compared with the total publications in a certain area) are found in physics, space and earth sciences, mathematics, chemistry, and engineering. At the same time, the quality (evaluated according to average number of citations) of Russian publications is behind the world average in all disciplines, with the highest quality of publications from Russian scientists being in physics, pharmacology, and engineering.

Widespread belief that Russian scientists work in areas where the number of cited publications is lower than in other areas is not supported by the facts. The level of citations per article for Russian publications is 4.7, while the world average is 10.7. There are two factors contributing to this gap of 6.0 citations per article between Russia and the world average: the first is the mixture of disciplines, and the second is the quality of Russian research.

As it happens, only 0.9 citations of the gap per article can be attributed to the fact that Russian scientists primarily publish in less-cited disciplines. This means that the remaining gap of 5.1 citations is likely to be due to other reasons (e.g., the low quality, unpopularity, or irrelevance of publications from Russia). In spite of these numbers, the quantity of publications by Russian researchers and the average level of citations have notably improved over the last few years.

Commercialization

After research, the next step to foster innovation in Russian industry is the commercialization of the new product.

Low effectiveness of infrastructure for commercialization

Infrastructure for commercialization in Russia is not working properly. Its low effectiveness is due to poor availability of financing, poor performance of technology transfer centers, specialized services, and facilities for technology startups.

Despite the significant financial resources that Russia has acquired over the last few years during the period of economic growth, securing financing is an extremely complicated process even for established, commercially successful companies. Long-term financing is particularly complicated. For startups that are working in innovative, high-risk sectors, financing is an even greater problem. The Fund for Promotion of Development of Small Businesses in Science and Technology is practically the only real source of financing for innovative teams, but its resources are limited and the provisions of the Fund are far from suitable for everyone.

In addition to lack of financing, the low availability of office space and poor infrastructure for small innovative startups is a big problem. There are few business incubators and those that do exist often have conditions that are unacceptable for startups. Services for small innovative start-up companies in existing incubators are often limited to offering office space with advantageous conditions. High-quality financial, legal, marketing, and training services are practically unavailable at a reasonable price. In fact, most services that form the basis of the success of business incubators in developed countries are absent in Russia. Existing institutions for the commercialization of technology (e.g., centers of technology transfer in universities and venture funds) often work extremely ineffectively, although they are officially designated and active.

Low level of entrepreneurial activity

Entrepreneurship among Russians is extremely low (Box 2). This is brought about by many factors, including the absence of well-known positive examples of entrepreneurship. There are practically no examples of people such as Steve Jobs and Sergey Brin, who started a small business and then, year after year, increased their revenue, finally becoming rich as a result of developing in the same area in which they began. Moreover, the dominant opinion in Russia is that people engaging in small business often experience constant oppression and are victimized by the negative actions of civil servants and criminal organizations.

Demand conditions

Besides conditions that encourage companies to innovate, conditions must allow demand to be great enough for innovation to truly flourish.

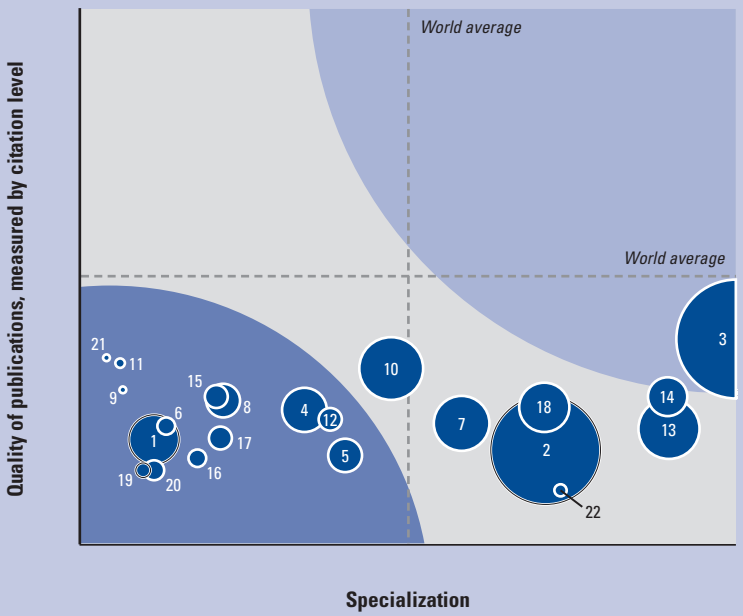
Large domestic market

The large size of the domestic market can be considered one of the biggest advantages of the Russian innovation system. The combination of a large population and a rather high (by international standards) level of per capita income makes Russia's consumer market one of the largest in the world—it is one of the top 10 countries in this area. This inevitably leads to significant localization of consumer goods production in Russia, which could be further increased if business development conditions were more favorable. In turn, this production would constantly create a demand for new technologies, processes, and innovations for the production of consumer goods.

Innovative companies can rely on a large-scale and accessible market for sales of new products, therefore achieving effective economies of scale. For example, the potential demand for innovation within the agricultural and food industries is rather high right now, and there

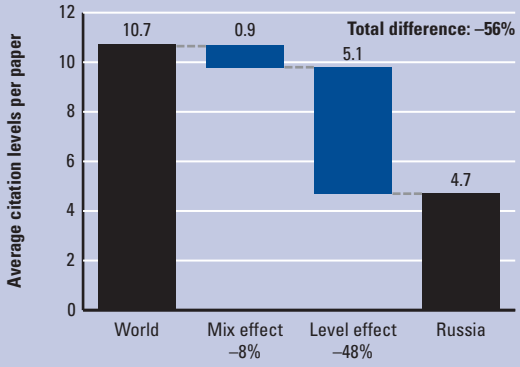
Figure 6: Russia's research portfolio

6a: Publications by scientific discipline, specialization, and quality, 2000–10

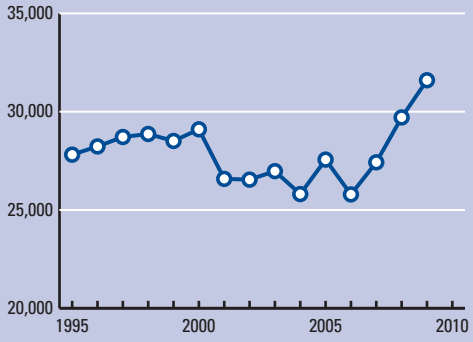


1. Clinical medicine
2. Chemistry
3. Physics
4. Biology & biochemistry
5. Molecular biology & genetics
6. Neuroscience & behavior
7. Materials science
8. Plant & animal science
9. Immunology
10. Engineering
11. Pharmacology & toxicology
12. Microbiology
13. Geosciences
14. Space science
15. Environment/ecology
16. Agricultural sciences
17. Computer science
18. Mathematics
19. Psychiatry/psychology
20. Social sciences, general
21. Economics & business
22. Multidisciplinary

6b: Citation levels by level and mix of discipline effects, 2000–10



6c: Russian papers in ISI-indexed journals, 1995–2009



Sources: Thompson Reuters, 2011; Strategy Partners Group and Eurasia Competitiveness Institute analysis.

is room for companies to innovate in narrowly specialized equipment. This is in contrast to countries such as South Africa, Chile, and Israel, where companies do not have this advantage.

Large military procurement

The volumes of Russian military procurement are high in both absolute and relative terms (according to estimates by the Stockholm International Peace Research Institute). In terms of share of GDP, Russia's expenditure on the procurement of weapons and scientific research and the testing of military equipment for national defense lags behind only that of the United States (see Figure 7). The Russian military-industrial sector is an important element of the country's innovation system.

Non pro-innovative government procurement

Government procurement in Russia is large in volume but it is not effective in stimulating innovation.

Government procurement may be divided into three levels based on its effect on innovation:

1. Government procurement of standard products or services for which standard selection criteria can be formulated (e.g., automobiles or office equipment).
2. Government procurement of complex, high-tech, or science-intensive products or services for which it is difficult to formulate selection criteria (e.g., integrated fire safety systems for complex industrial facilities, large-scale architectural projects, intelligent transport systems, etc.).
3. Government procurement of R&D for which it is even harder to standardize selection criteria. Two types of R&D are possible here: (1) the search for a solution to an existing problem (e.g., working out methods for controlling and preventing technogenic disasters in the power generation industry); and (2) fundamental research aimed at understanding nature and society (e.g., determining the causes of a disease).

Government procurement stimulates innovation to a greater degree at each successive level. However, the currently existing policy of government procurement uses short-term cost as the main criterion and does not take into account quality and innovativeness.

Many deficiencies can be found in the purchasing of commercially available standard products for military purposes. Presently, the norms of the government procurement law do not extend to defense and security and, as a result, there is significant gap that allows for abuse in the purchases of standard, cheap products at elevated prices. Since this problem is not unique to Russia, it is extremely important to create a thorough system of criteria for the procurement of standard goods in defense and security.

However, even a systematization of evaluation criteria for government procurement applications on a primary level cannot produce the desired effect to stimulate innovation. With an increasing focus on innovation, the significance of economic criteria for the selection of a supplier inevitably diminishes. At the same time, the significance of qualifying criteria and the effectiveness of the purchasing process needs to increase.

Technological infrastructure and clusters

In addition to factors that affect capabilities and demand for new products or systems, innovation is greatly influenced by the interaction among innovative technologies and firms.

Box 2: Unleashing Russian entrepreneurial energy

ALEXEY PRAZDNICHNYKH, Strategy Partners Group, Eurasia Competitiveness Institute
KATERINA MARANDI, Eurasia Competitiveness Institute
NIKITA POPOV, Strategy Partners Group

Although innovation is an important factor of competitiveness and economic growth, entrepreneurship is its essential prerequisite. Recognition of that fact in the 1980s by North American, and, later, by West European countries fundamentally changed the social perceptions of small- and medium-sized enterprises (SMEs) and government policies for SME development. Previously perceived simply as a problematic segment, a risky business with scarce resources and dominated by large companies, the SME sector has instead started to be seen as a crucial driver of economic growth, while fostering entrepreneurship has become a major priority in economic policy.

Business growth can be thought of as a three-stage process:

1. stimulation of entrepreneurship,
2. development of SMEs, and
3. supply ecosystem and cluster development.[1]

Entrepreneurs set up their own businesses and take the associated risks so that they make profits and fulfill themselves. Emerging small enterprises become vehicles that are used by entrepreneurs to turn ideas into value-added. As companies grow, they upgrade their business processes and enter new markets. At this stage, productivity growth occurs as a result of staff training, the implementation of more effective production technologies, and the exploitation of scale effects. Gradually, some businesses become medium-sized or large. By interacting with each other, they establish lasting relationships that may be supported by coordinated joint actions. This is how, through a natural evolution, industrial clusters are formed. While expanding, new companies form clusters. Clusters facilitate the exchange of know-how and bring down the obstacles to starting and doing business, thus giving impetus to the next cycle of entrepreneurship.

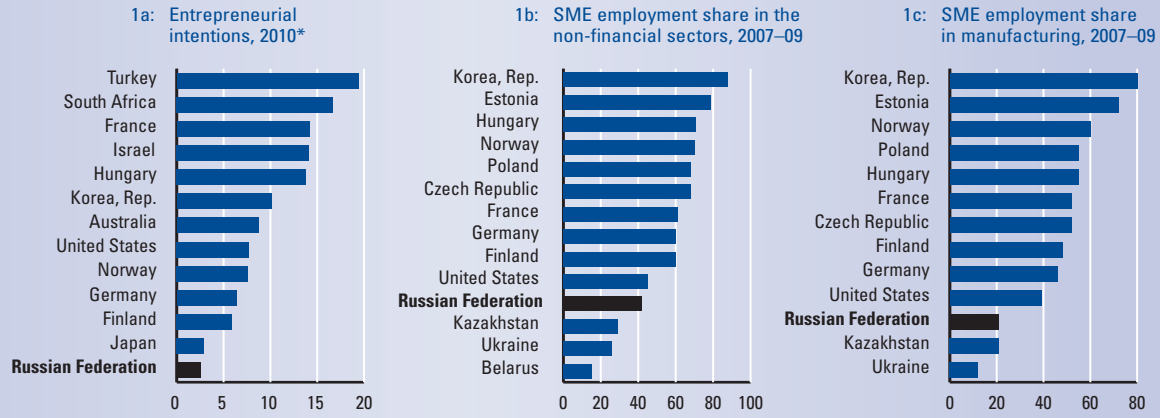
The position of Russia, relative to other peer countries, is very low at every stage of the business development cycle (Figure 1). Very few people in Russia have plans to start a business and to be an entrepreneur. The share of people with entrepreneurial intentions in Russia is 2.6 percent, which is several times lower than in most peer countries, both developed and emerging. SME share in employment in all industries in the non-financial sectors in Russia is 42 percent. This is one-and-a-half times less than in Germany, Japan, or Eastern European countries. Furthermore, the share of SME employment in manufacturing, which is a good proxy for clustering, is two to four times lower in Russia than in most peer countries.

This dreary performance is in part the result of the unfavorable enabling environment for SMEs. Compared with

(Cont'd.)

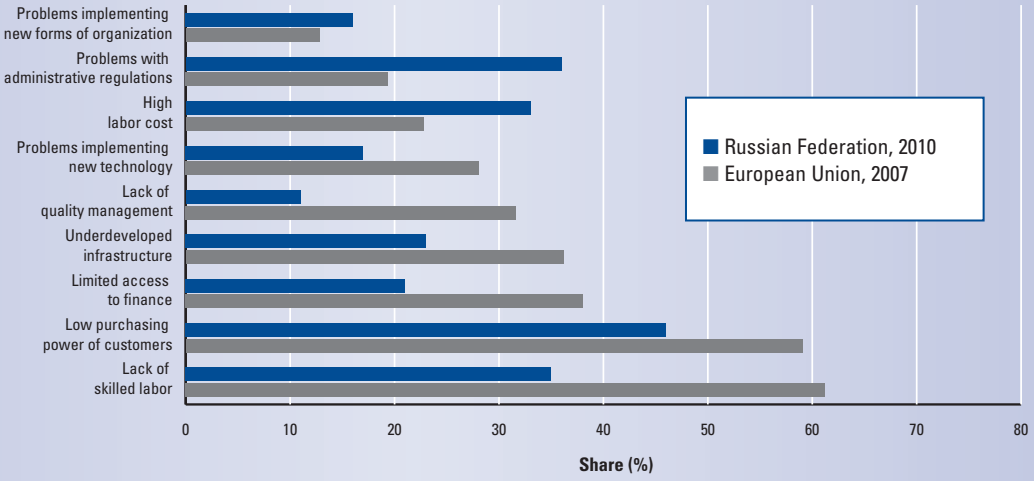
Box 2: Unleashing Russian entrepreneurial energy *(cont'd.)*

Figure 1: New business development in Russia: Entrepreneurship, SME development, and clustering



Sources: Kelley et al., 2011; European Commission, Eurostat, 2009a, 2010; Rosstat, 2011; national statistical sources.
* Share of 18- to 64-year-olds who want to be (but are not yet) involved in entrepreneurial activity.

Figure 2: Constraints to business development encountered by SMEs: Russia and the European Union



Sources: OPORA, Eurasia Competitiveness Institute, Strategy Partners Group, 2011; European Commission, 2007.
Notes: This SME survey involved more than 6,000 companies in 40 Russian regions. Affirmative responses (%) to the question "Did your enterprise encounter any of these constraints or difficulties in the last two years?" with respect to every type of constraint.

those in the European Union (EU) member countries (Figure 2), Russian SMEs encounter serious constraints to business development and, for most factors, Russia is in the lower half of the rankings (if Russia is ranked together with the 27 countries of the European Union). Constraints such as lack of skilled labor, lack of quality management, limited access to finance, and difficulties when implementing new technology are encountered by SMEs in Russia much more often than by SMEs in the European Union. Russia occupies either last or next to last position in the rankings for these indicators.

Problems with infrastructure (e.g., roads, gas, electricity, and communications) and the purchasing power of customers are also much more pronounced in Russia than in the European Union. However, Russian SMEs actually seem to have fewer problems with the cost of labor, the stringency of administrative regulations, and less difficulty in the implementation of new organizational forms than SMEs in the European Union in general.

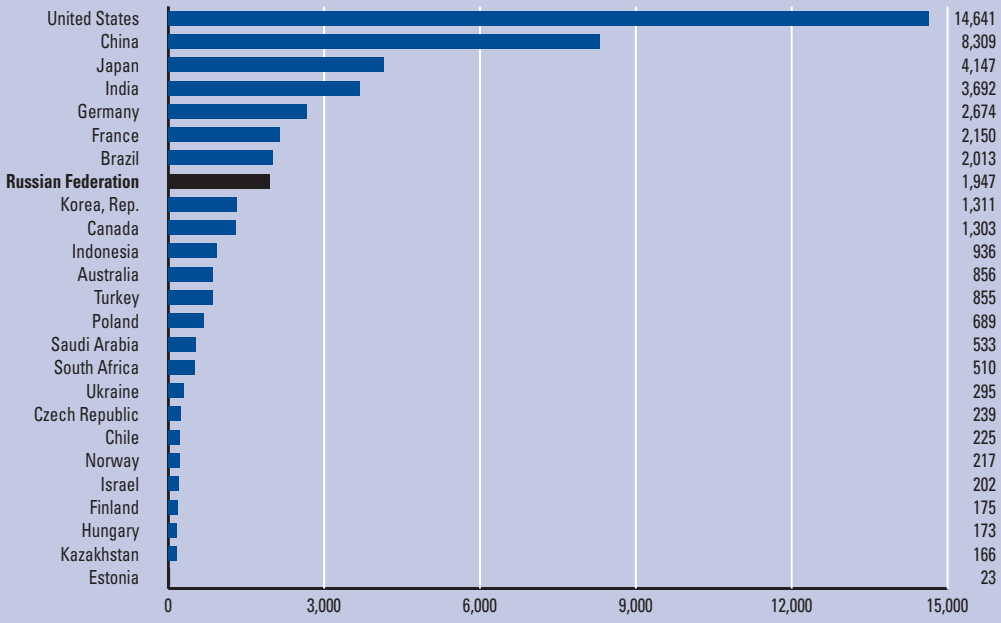
When comparing the different constraints, we can identify the two most problematic factors for SMEs in Russia. According to the SME survey, they are a lack of skilled labor and problems with the purchasing power of customers, which is in some respect a consequence of the recent economic downturn.

Note

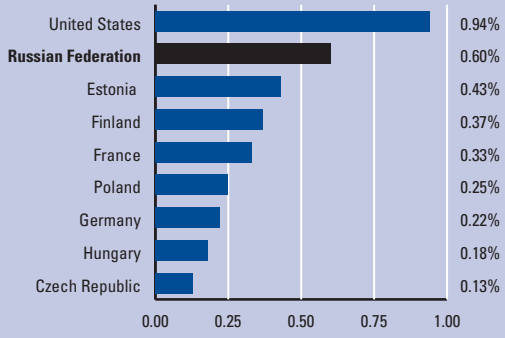
1 See OPORA and Bauman Innovation 2007; Delgado et al. 2010.

Figure 7: Demand conditions: Domestic market size and military procurement

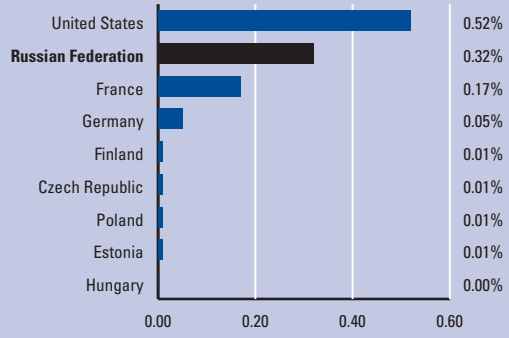
7a: Domestic market size, Int'l $ PPP, billions (2009)



7b: Military equipment purchasing, percentage of GDP (2008)

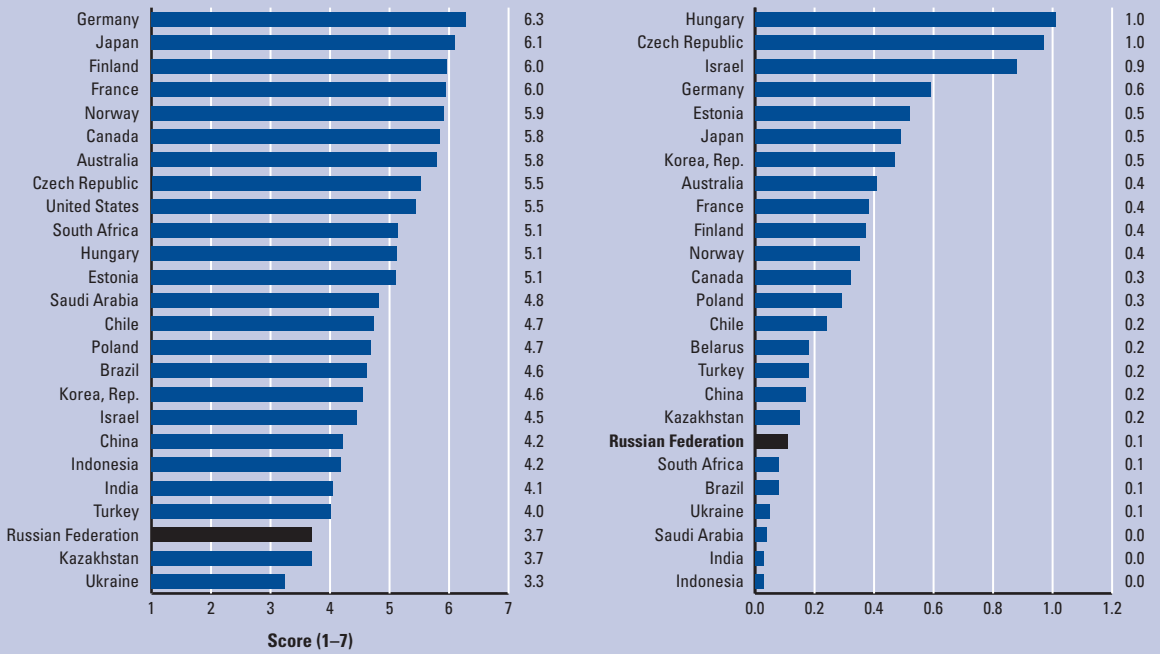


7c: Military R&D and testing expenditure, percentage of GDP (2008)



Sources: Cooper, 2009; European Defence Agency, 2010; US Department of Defense, 2008; World Economic Forum, 2010.
Note: Market size is GDP + imports – exports.

Figure 8: Regulatory standards and voluntary certification



Sources: ISO 2009; World Economic Forum, 2010.

Internally available basic technologies

During the Soviet era of large-scale infrastructure projects and programs, there was a preference for working with domestic resources that ranged from the development of technology to domestic industrial production. Therefore today, in comparison with the world average, there is a rather high level of underlying production technologies and exploitation of resources in power engineering, railways, air transport, and so on. Russian companies still win international competitions for the construction of nuclear power stations and the installation of equipment for power generation and other infrastructure complexes and facilities. This potential is continually diminishing and may soon be completely exhausted. However, it now still exists, and is an important positive factor for innovation development.

Ineffectiveness of existing standards and technical regulation

Technical standardization and regulation is one of the most problematic areas in Russia's innovation system and industry development. The existing technical regulation is either based on the outdated standards of the 1980s and holds back the adoption of new technologies, or it does not impose any requirements on companies. This creates favorable conditions for unethical manufacturers and gives no impetus to innovators. Moreover, Russia lags behind the majority of countries in the allocation of international quality certificates. It is rare that a Russian company can boast of having an ISO 9001:2000 certificate (see Figure 8).

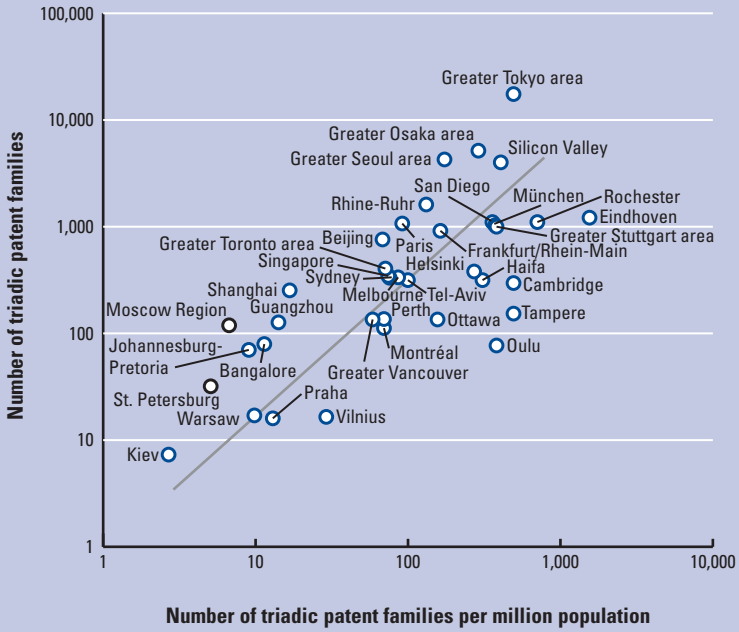
Intellectual property protection issues

The official line is that Russia's intellectual property (IP) legislation does not have significant failings and that the problems lie in several other areas, including the clarity of the law and its enforcement.

At the moment, there are issues around the rights for IP, created in the course of government-funded R&D. There is no clear division in IP rights between its immediate creators (physical persons) and the organizations in which the staff worked during its creation (legal persons).

Together with unclear methods of IP value assessment, the legislative ambiguity regarding the rights of physical persons versus legal ones gets even more opaque and complicated when the government is involved. This situation creates a general lack of incentive for a practical application of the generated IP. Creators (physical persons) are not interested in IP applications because they

Figure 9: Performance of innovation hubs, 2005–07



- A *patent family* is a set of patents and claims for what is basically the same invention.
- *Triadic patent families* are those that include patents and claims from patent offices from the United States, Japan, and Europe simultaneously.
- A triadic patent family is very likely to represent innovation that is novel to the world.
- An innovation hub may be productive in terms of national patents, but unproductive in terms of world-class inventions, as measured by triadic patent families.
- Russian innovation hubs, Moscow and St. Petersburg, have low-scale and low per capita numbers of triadic patent families compared not only with those of developed countries, but also with those of Beijing and Shanghai.

Sources: European Commission, Eurostat, 2011b; OECD, 2006, 2009b; national statistical services; Strategy Partners Group and Eurasia Competitiveness Institute analysis.

can see no financial benefit for themselves. Organizations are also not interested since they generally consider IP value to be small. The government is simply not in a position to manage all the IP that it owns.

It is also important to consider the poor legal literacy of researchers and administrative personnel in the area of IP protection, as the legislation itself is relatively difficult to understand. There are simply not enough qualified specialists (e.g., competent patent lawyers) in this sphere for the country's scale. Another significant problem is the general ineffectiveness of the judiciary, including in the protection of IP rights.

Low maturity of key regional innovation clusters

It is not just the quality of regulation and the general level of infrastructure that are important factors in the competitiveness of an innovation system. The presence of mature, competitive, innovative clusters on a regional level is a key driver of innovation in leading countries. The most famous examples of such clusters are Silicon Valley, California; biotechnological clusters in Boston, San Francisco, and Munich; and the aerospace cluster in Toulouse. In such clusters, innovation is catalyzed: demand for scientific research and development is built up in universities and research centers, new companies appear, specialized financial instruments for the commercialization of technology are created, and so on.

There are very few such clusters in Russia, and the competitiveness of those that do exist is too low in comparison with those of the world leaders. There are separate elements of innovative clusters in the Moscow region, St. Petersburg, Novosibirsk, and to some extent in Tomsk, Nizhny Novgorod, and Kazan. However, these clusters cannot evolve effectively and compete with their foreign peers when they are relying on more traditional sectors of the economy that are poorly developed, mainly manufacturing, and also when they must do without the necessary government support. Today, even the Moscow region and St. Petersburg have practically lost their status as international scientific centers, in spite of the fact that an extraordinary amount of the nation's vast resources have been concentrated there since Soviet times and even before 1917.

The world's leading innovation hubs can be compared by the scale and performance of their innovative activity using the triadic patent families measure (see Figure 9). Moscow and St. Petersburg are behind in both indicators. The diagram shows that Moscow and St. Petersburg cannot compete, not only with the clear leaders (Tokyo, Silicon Valley, Seoul, Eindhoven), but

Box 3: Skolkovo: The Silicon Valley of Russia

STANISLAV NAUMOV, Foundation for Development of the Center of Research and Commercializing of New Technologies

In the 20th century, the emergence and growth of high-tech enterprises was taking place in a very limited number of locations across the globe. These enterprises were gradually joined by various related and supporting organizations as well as specialized suppliers and infrastructure. Such concentrations of high-tech producers were labeled innovation clusters, while specialized science and technology locations where such clusters were present were labeled innovation hubs.

Innovation hubs are important elements of the national innovation system. New industries emerging there gradually turn into engines of economic growth. Countries such as the United States, the United Kingdom, and Japan can boast of well-known innovation hubs—such as Silicon Valley in California—while countries such as China, Malaysia, and the United Arab Emirates are actively creating an infrastructure necessary to emulate the leaders.

For Russia, the development of specialized science and technology centers is not a new subject. In Soviet times, numerous "scientific towns" were built to house enterprises and applied research institutions for the aerospace, defense, and nuclear industries, as well as specialized basic and applied research centers. The best example of the Soviet tradition of innovation hubs is Akademgorodok in the suburbs of Novosibirsk, the industrial center of Siberia. An exemplary recent policy initiative is the Skolkovo project.

The Skolovo Innovation Center was set up by the Russian government in 2010 as the country's primary center of world-class research and innovation. Its mission is to become a magnet for global innovation and the home for the best innovation in Russia. Its main aims are to assist innovation, to breed a new generation of technology professionals, and to nurture a new class of entrepreneurs inspired by cutting-edge technology and science. Its key social mission is to create success stories of Russian innovation and to disseminate entrepreneurial culture.

Skolkovo will aim to attract research teams, R&D centers, and innovation startups, giving priority to projects that plan to sell on the global market and to disruptive technologies potentially capable of transforming markets. The project will be positioned to facilitate innovation during the R&D stage of innovation and the early stage of commercialization. Innovation in Skolkovo will be focused on five priority areas: information technology, aerospace telecommunications, life sciences, nuclear power technology, and energy efficiency technology. The current plan is to create a "park" of around one square mile for 20,000 professionals and a virtual collaboration system making it possible for project participants to reside at any other location. Overall, the project should be up and running as early as 2014. The federal government has committed to invest US$2 billion into the project by that time.[1]

The project has a very high status and is actively promoted by the country's high officials internationally.

To attract the world's best innovators, it is necessary to create an environment uniquely conducive for R&D and commercialization, provide a superb quality of living, and deliver training and education programs tailored to their needs. Facilities and infrastructure for commercialization will include a technology institute, an incubator, shared equipment centers, a center for intellectual property services, several special funds for commercialization support, and dedicated government services and regulatory authorities, including a special intellectual property court.

The Skolkovo Institute of Technology will be where 300 globally recognized faculty members will conduct their research projects and teach Master-level programs, as well as executive courses, to 1,200 top-tier students from all over Russia. The special funds will aim at supporting venture capital investments on a 50/50 basis, promoting the development of innovation infrastructure, as well as facilitating the development of innovation clusters. The special Federal Law #244 on the Skolkovo Innovation Center lays down numerous zero tax rates and custom duties, as well as flexible construction regulations and OECD-compatible technology standards on the Center's territory.

Skolovo is managed by the Skolkovo Foundation, which serves as the sole administrator for all federal funds allocated to the project and acts independently of regional and local governments. Its Board of Trustees is chaired by the President of Russia, and its Board of Directors is co-chaired by Craig Barrett, Intel's ex-CEO; the CEOs of Google, Nokia, Cisco, and Siemens are some of its Board members.

To date, the first preliminary results show that the project is on schedule. The Skolkovo park masterplan has been completed and the Skolkovo Institute of Technology is being developed, in partnership with the Massachusetts Institute of Technology. By April 2011, 36 research teams and startups will have the status of project participants; the current plan is to attract 200 participants by the end of the year. Already, 15 participants have received grants totaling US$100 million. If successful, Skolkovo will become an essential element of the Russian innovation system and a powerful means of stimulating innovation and entrepreneurship in Russia.

Note

1 The total estimated cost of the project amounts to more than US$6 billion.

also with the middle performers (Helsinki, Tel-Aviv). Moscow and St. Petersburg are on a par with leading regions of countries such as South Africa or India in terms of innovative activities.

Currently much policy effort is directed to fostering the performance of key innovation hubs in Russia (Box 3).

Innovation capacity of companies

The interrelation of companies is important to innovation, but so is the capacity of each company. It is individual firms that make up the elements of the technological infrastructure and clusters.

Poor innovative activity through absorption of technology from abroad and development of internal technology

The low level of innovative activity within Russian companies can be explained as the result of two key factors: poor incentives, and the insufficiency of resources for such activity in the country's main sectors. First, the structure of the Russian economy is such that the dominant sectors tend to have a low level of innovative activity. These sectors include extraction and refinement of natural resources and basic metals. In these industries, product innovations are not a key factor for a business success, because it is considered easier for companies to buy technologies and equipment from leading manufacturers (mainly foreign ones). The share of actively innovating sectors in the Russian economy is extremely small, and limited to sectors such as information and communication technologies, life sciences, and new materials.

Second, even in the dominant industries of the Russian economy, the level of innovative activity is lower than it is in the same industries in other countries. On the one hand, there is often no benefit in adopting innovations. Companies have no need to outpace their competitors through new refinements because the level of competition in the Russian economy is low and success in the competitive struggle is achieved largely through administrative resources and by limiting competitors' access to the market, rather than through the adoption of innovations. Russian consumers, especially in the public sector, are also undemanding about product quality, and the innovative nature of new products has little meaning for government procurement.

On the other hand, the few companies that do try to engage in innovative activity do not have sufficient resources (Box 4). They do not receive tax benefits for carrying out innovative work and do not have access to long-term credit for the refinement and adoption of new technologies. On top of this, a number of other problems exist: the lack of experienced qualified researchers who were confined to work in the industrial research institutes during Soviet times; the low technological level of components suppliers (e.g., machine building and automobile production); and the lack of qualified personnel.

Companies' innovation capacity is based on three main factors: (1) their technological level; (2) their ability to adapt technology and know-how from the outside for use in their own innovation; and (3) their ability to create new knowledge. The ability to assimilate knowledge and the technological level of production in Russia are extremely low in comparison with the skills and abilities of companies in other countries (see Figure 10). As far as the ability to create new knowledge is concerned, Russian companies perform better. Their share of expenditure on R&D in 2007, as a percentage of GDP, was 0.7 percent. This is greater than in neighboring Ukraine and Belarus, as well as Turkey, Chile, or Brazil; however, it is much less than in China.

Low level of foreign investment in R&D in Russia

The innovative activity of foreign investors is an important driver of innovation in a number of countries. Foreign investors conduct specific R&D activities in a given country based on its competitive advantages. These can be unique researchers, the low cost of a qualified workforce, or significant internal demand for innovative products. The most attractive countries for carrying out R&D are the United States, Germany, the United Kingdom, India, France, Japan, and China. Unfortunately, foreign investors, with some rare exceptions (Intel, Boeing), carry out virtually no research or development in Russia. This is because foreign investors regard Russia either as a significant market for product sales or as a good source of natural resources, but not as an attractive base for R&D.

The conditions for carrying out innovative work in Russia are poor, and therefore practically no investors have come to Russia in the last few years with the hope of developing or exporting innovations. The above-mentioned exceptions are due to the fact that Russia still has strong programs for training specialists in areas of engineering and the natural sciences. This means that for companies in specific sectors it is advantageous to have a research center in Russia, with research results used in production divisions in other countries. These are, however, rare exceptions to the rule.

Judging by the results of a survey of international companies,[3] the current state of the Russian innovation climate is responsible for the low foreign investment in the R&D sector. According to the results of this survey, Russia is is lagging behind to such an extent that it is not even on the list of countries that attract the relocation of R&D branches. It is interesting to note that India and China are now on the list of the most attractive countries for relocation of R&D, their positions being comparable to France and Japan.

Box 4: Innovation capacity of Russian industries: Providing incentives and resources for innovation

ALEXEY PRAZDNICHNYKH, Strategy Partners Group, Eurasia Competitiveness Institute

KATERINA MARANDI, Eurasia Competitiveness Institute

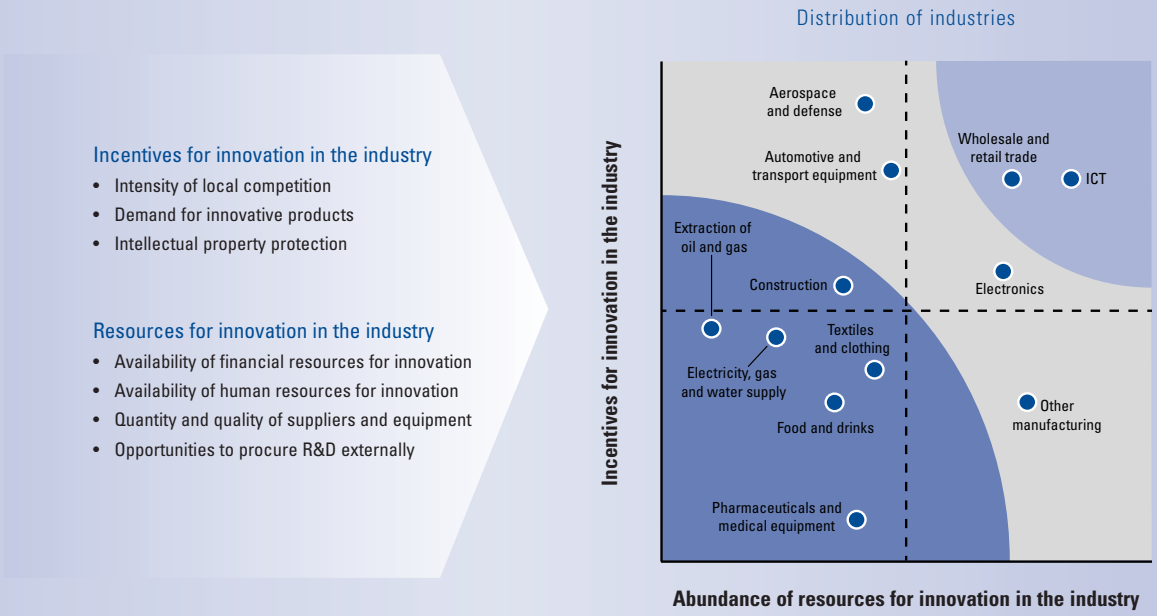
The comparatively low innovative activity of companies and entire industries is explained by negative external factors: poor incentives and low availability of resources in the industry. The industry-specific incentives for innovation include the intensity of competition, the importance of innovations for competitive advantage, the level of buyer sophistication and their demands for innovation in products and services, the importance of innovativeness in public procurement, access to export markets, and intellectual property (IP) protection. Resources important for innovation are financial and human resources, research institutions, the quantity of suppliers, and the quality of higher education.

Surveys of large and mid-sized Russian companies demonstrate that there are rather serious problems with both incentives and resources for innovation. There are big differences in the incentive levels between sectors (Figure 1). Incentives are relatively powerful in pharmaceuticals and the production of medical equipment. Less pronounced incentives are in the aerospace, defense, and oil and gas industries. However, the availability of resources for innovation in these industries is a little lower than the average level, according to the survey results.

A high availability of resources for innovation is reported by executives of surveyed companies in sectors such as retail trade and construction. However, construction does not offer great innovation incentives. According to executives, the only sectors in Russia that possess both sufficient incentives and resources for innovation are the food processing industry and the information and communication technologies sector. At the same time, in the majority of sectors—including electronics, textiles and apparel, automotive, and utilities—neither incentives nor resources for innovation are sufficient (Figure 1). It is interesting that executives of surveyed companies consider the oil and gas sector to be close to this group in terms of the level of incentives for innovation, which is only slightly above average.

In a survey of Russian innovative small- and medium-sized enterprises (SMEs), respondents were asked to name up to three barriers limiting innovation in their companies. The survey showed that the main barrier is a lack of

Figure 1: Incentives and resources for innovation in Russian industries



Source: OPORA, Bauman Innovation / Strategy Partners, 2010.

(Cont'd.)

Box 4: Innovation capacity of Russian industries: Providing incentives and resources for innovation *(cont'd.)*

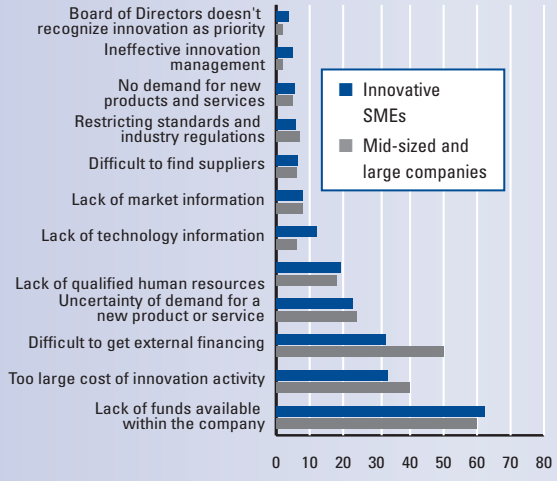
available financial resources for investing in innovations (60 percent), poor availability of financing from outside sources (50 percent), and a high cost of innovative projects in Russia (40 percent). This is akin to the ranking of the obstacles to innovation reported by companies in the European Union: lack of funds available within the company and difficulties in getting external financing are among the top three barriers for both innovative and non-innovative companies. Other problems, such as uncertainty in forecasting demand for innovative products on the consumer market and a shortage of qualified personnel, are less significant. The remaining barriers are even less important.

The barriers to innovative activity of large and mid-sized companies are largely identical to the barriers that were emphasized by innovative SMEs (Figure 2). The key differences here are the reduced availability of internal funding (62 percent), less pronounced problems of high-cost innovative activity, and lack of external funding (about 33 percent). Because of their scale, it is easier for large companies to attract financial resources from outside and it is cheaper for them to engage in implementing costly innovation projects. It is interesting that mid-sized and large companies more frequently experience a lack of technology-related information and that 12 percent of respondents list this among the three most important barriers to innovation in their companies.

As shown above, executives of both innovative SMEs and mid-to-large-sized companies from "traditional" sectors often single out the lack of qualified personnel as a serious obstacle for innovation (Figure 2). About half of the companies (47 percent in both surveys) respond that it is difficult to find qualified engineers and technicians. This is a question of availability not cost, since candidates' expectations for high salaries were perceived as problematic in only 31 percent of innovative SMEs and 22 percent of mid-sized and large companies. Finding qualified workers is also a serious obstacle: 49 percent of innovative SMEs and 52 percent of mid-sized and large companies experience difficulties, while finding experienced high-level managers seems problematic for 61 percent of innovative SMEs and 57 percent of mid-sized and large companies.

Figure 2: Obstacles to innovation in Russian companies

2a: Main obstacles for innovative SMEs and mid-sized and large companies, percent

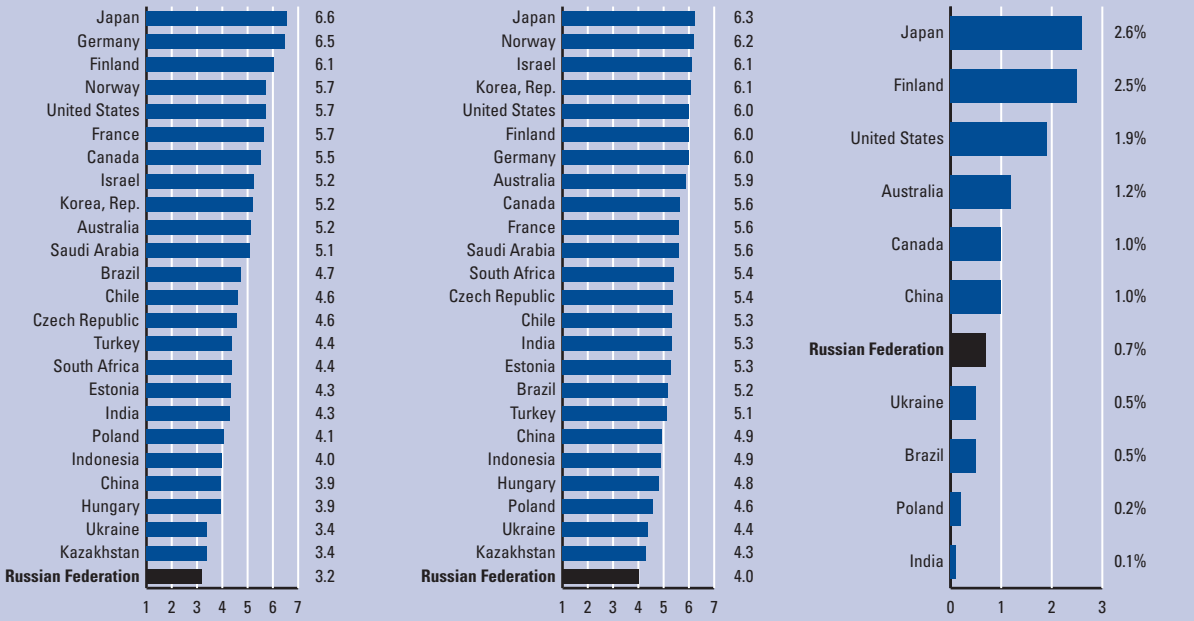


2b: Rankings of obstacles to innovation for EU companies

	Innovative companies*	Non-innovative companies
1	Lack of funds available within the company	No demand for new products and services
2	Difficult to get external financing	Lack of funds available within the company
3	Uncertainty of demand for a new product or service	Difficult to get external financing
4	Difficult to find suppliers	Difficult to find suppliers
5	Too large cost of innovation activity	Uncertainty of demand for a new product or service
6	Lack of qualified human resources	Too large cost of innovation activity
7	No demand for new products and services	Restricting standards and industry regulations
8	Restricting standards and industry regulations	Lack of qualified human resources
9	Lack of market information	Lack of technology information
10	Lack of technology information	Lack of market information

Sources: European Commission, Eurostat, 2009b; OPORA, Bauman Innovation / Strategy Partners, 2010.
Note: The sum in Figure 2a exceeds 100 percent since up to three options were allowed.
* See Community Innovation Survey 2004–2006 (European Commission, Eurostat, 2009b) for further details.

Figure 10: Company innovation capacity and technological level of production



Sources: UNESCO Institute for Statistics, 2011; World Economic Forum, 2010a.

Institutions and efficiency of public policies

Besides the capacity and environment of individual companies, public institutions and policies have an important effect on the ability of firms to innovate.

Low efficiency of science, technology, and innovation policy

Specific aspects of the government's science, technology, and innovation policy are ineffective and considered to be limiting factors for the development of Russia's innovation system. Each ministry or agency acts predominantly according to its own considerations and does not want to coordinate the budgeting of expenditures and priorities with other departments. This leads to the fragmentation of government resources. Modern policy instruments for stimulating innovation that have proven their effectiveness in many countries are not used in Russia. Examples of such instruments are an established national science fund or an agency supporting technological upgrading of industrial enterprises. Corruption, favoritism, and the absence of personal responsibility on the part of government officials are all serious problems in government agencies.

Russian innovation system competitiveness analysis: Opportunities and threats

An analysis of the innovation system in Russia shows both opportunities and serious risks. The task is to take advantage of the opportunities and avoid the risks.

Opportunities

This section considers the opportunities available, which range from elements of demand and the development of capacity to international issues.

Demand for innovation in infrastructure and social sectors in Russia

Demand for physical infrastructure (highways, railroads, airports, etc.) is very high in Russia. Planning for the current infrastructure took place in a different time period and with a different economic model. As a result, the criteria upon which the infrastructure systems were developed have no bearing on contemporary needs. Because of this, innovative solutions are extremely important in the application of technology; the process of planning, reconstruction, repair; and the management of infrastructure. The utilities sector in Russia, for example, requires a spectrum of innovative solutions, from new technologies for thermal power plants and boiler rooms and new methods of purifying water to new approaches for controlling the demands for these utilities and reducing energy losses in utility systems.

There is also a potential demand for innovation in social sectors, specifically in education, healthcare, and social work. Electronic cards for social services, which are already being used in some regions, are a good example. These provide a whole package of different benefits to the resident, all integrated within a single electronic plastic card that can also be used as an electronic wallet.

To summarize, there is an enormous untapped potential market for innovative solutions.

Potential demand for innovation in the defense sector

Demands for national security traditionally create increased demand for results of both fundamental and applied science, as well as high-tech production, and this stimulates innovation. Few countries in the world possess such favorable demand conditions in national security as Russia. The experience of these few countries shows the importance of such incentives for the development of science and innovation. The United States and Israel are among the countries where a large number of new technologies have come from the defense sector.

Global availability of knowledge and technologies

External innovation sources are becoming increasingly available to companies in Russia. Russian enterprises experienced significant limitations when purchasing equipment during the Soviet era because, at the time, the sources of new technologies and the main owners of contemporary technology were the United States and its close allies the United Kingdom, Japan, and West Germany.

Today, the number of countries with their own unique technologies has greatly increased and no political limitations akin to the Jackson-Vanik amendment can prevent Russian firms from buying new technologies from companies in countries such as Taiwan or Israel. Moreover, competition has also strongly increased between manufacturers of new products and new equipment. Thus, potential Russian orders may have great importance for foreign firms that are prepared to compete for them.

Growing mobility of talents in emerging economies

If there are not enough researchers in Russian science today, and if it is impossible to generate them in the short term, the solution may be to attract researchers with the necessary qualifications from other countries. While previously the sole source of researchers was Western developed countries (Europe and the United States), today more and more countries have their own high-quality universities that educate skilled researchers. Russia is fully able to attract talented scientists from countries and regions such as Iran, India, Latin America, and Central and Eastern Europe. A well-developed policy for attracting talented people from other countries is needed.

Global dissemination of international standards and technical regulations

Despite the significant problems and barriers for innovative activity that are caused by imperfections in standards and technical regulation created for political purposes, these issues can be resolved rather quickly. There are many positive examples of solving similar problems across the world, and corresponding measures can be applied successfully in Russia. Moreover, the experience of other countries has proven that it is much easier to upgrade standards and regulations than to introduce new educational programs or improve production technologies. Russian companies have demonstrated a number of successful examples for this, including the adoption of ISO standards, the Harmonised Seed Security Project (HASSP) American voluntary standard for food production, and the Good Manufacturing Practice (GMP) standard for pharmaceuticals production.

Increasing investment in R&D abroad by multinational companies

Globalization of the economy has led to a change in the way that transnational corporations (TNCs) carry out R&D. A larger and larger share of such research takes place not in a TNC's own research divisions or even in universities or scientific centers near the TNC, but in research centers scattered across the world. The general expenditures of American TNCs on scientific research and development carried out in affiliated divisions abroad doubled between 1997 and 2006, and are today over US$30 billion.

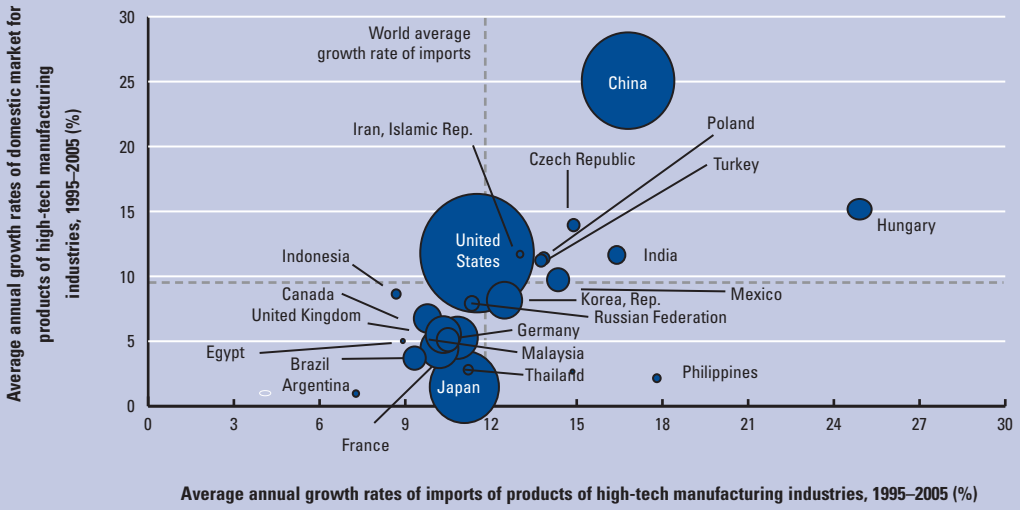
Although foreign investors rarely fund the creation of R&D divisions in Russia, this practice does exist. The Boeing engineering center in Moscow, for example, very actively contributed to the development of the new Boeing aircraft 787 Dreamliner. International competition for carrying out R&D, and the provision of areas for the relocation of a TNC's R&D divisions in other countries, is continually increasing. At the same time, new opportunities also arise because of changes in how a TNC's R&D is divided among various foreign R&D centers. This trend opens up new possibilities for R&D activity expansion in Russia in areas where Russia is still able to carry out competitive scientific research.

Expanding foreign markets and higher accessibility of foreign markets for Russian companies

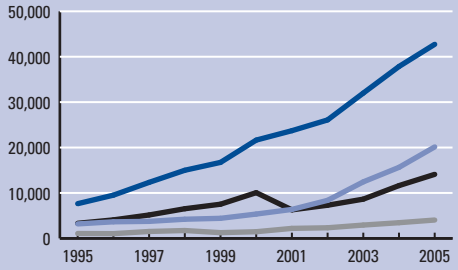
Globalization and general economic development result in a continuous expansion of the market for innovative products. At the moment, China is becoming one of the largest markets for innovative products, alongside the United States, the European Union, and Japan (see Figure 11). The markets of the other BRIC countries

Figure 11: Potential markets for innovative products of Russian companies

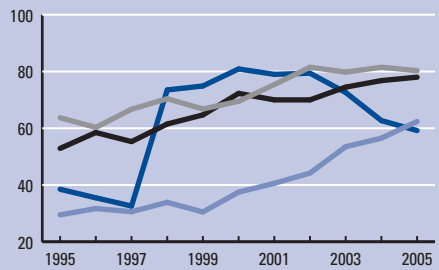
11a: Average growth rates of domestic market and imports for high-tech manufacturing industries, percent (1995–2005)



11b: Growth of imports of products of high-tech manufacturing industries, US$ millions, constant 2000 prices (1995–2005)



11c: Share of imports in domestic market for high-tech products, percent (1995–2005)



Source: National Science Board, 2011.
Note: The circle size is proportional to the size of the domestic market for products of high-tech manufacturing industries (by OECD classification).

(Brazil and India) are gradually growing and the markets of countries such as Mexico, Turkey, South Africa, Pakistan, Indonesia, and Malaysia will probably be of increasing significance in the future. Previously isolated national markets, such as Japan, are progressively becoming more open. All this creates new opportunities for the export of Russia's innovative products.

Administrative and political opportunities

Russians place rather large demands on the government for the modernization of the economy and the improvement of their living standards. They consider it important for their country to be a leader in a large range of areas, from sports and the economy to military power and science. Thus political opportunities are available for carrying out an ambitious and comprehensive program to increase the competitiveness of the Russian innovation system. Such a large-scale program is very likely to have tremendous support in public opinion polls.

Threats

The development of the national innovation system, however, has many risks as well as great potential. The risks and threats are considered in this section.

Intensifying competition between national innovation systems

Competition among the innovation systems of various countries is constantly increasing, while new countries are coming up to par with Russia's competitors. In the past, Soviet science could compete with that of the United States and, to a certain extent, with that of the United Kingdom, France, Germany, and Japan. Today, however, not only are China, India, and the countries of Southeast Asia becoming potential competitors, but so are Brazil, Mexico, Spain, and Romania, Bulgaria, and Turkey. In the long term, former Soviet republics—such as Ukraine, Belarus, and Kazakhstan—are likely to join this list.

The factors that determine the competitiveness of innovation systems are becoming more mobile: researchers can be enticed to a new place of work and leading companies are offered more advantageous conditions to relocate their business. The latter trend can currently be observed even in the United States, where any direct government support for business is traditionally considered unacceptable. Municipal and regional authorities are offering unprecedentedly favorable conditions to the most significant investors, even funding the construction of industrial facilities, offering tax benefits, and so on.

Quality of life for researchers also has a great significance. A continuation of the existing unfriendly policy toward researchers and small innovative companies may lead to a complete loss of Russia's scientific and technological potential.

Freezing of the current industry mix

As mentioned in the description of the weak points of Russia's innovation system, the current structure of the economy does not foster innovation because the dominant economic sectors (extraction and refinement of oil and gas, the service sector, metallurgy, etc.) are not active innovators. Because of their size within the economy, these dominant sectors influence the character and direction of the development of the national innovation system. Unfortunately, this situation is somewhat of a stalemate. The same economic dominance that allows these sectors to avoid the need to innovate also means that high-tech and innovative companies will have difficulty gaining ground.

Expanding foreign opportunities for Russian talents and intensifying competition for human resources

Progress in the education and research sectors in countries that do not have a strong national innovation system leads to the appearance of a greater number of qualified researchers on the world job market. This creates new opportunities for the development of Russia's innovation system by attracting these talented people from other countries. However, the same processes that lead to these new researchers and teachers to come to Russia are also likely to produce similar job opportunities in their home countries.

As a result, along with the creation of new professionals, there is an increasingly high demand for scientists, university instructors, and researchers not only in China and India, but also in Indonesia, Malaysia, and in the Middle East. The living conditions offered to foreign specialists in these countries are fully competitive by world standards. Therefore, while previously the threat of a brain drain was driven mostly by the United States and Western Europe, today practically any country in the world, with the exception of the most underdeveloped ones, are able to offer to talented researchers and teachers advantageous working conditions and living standards.

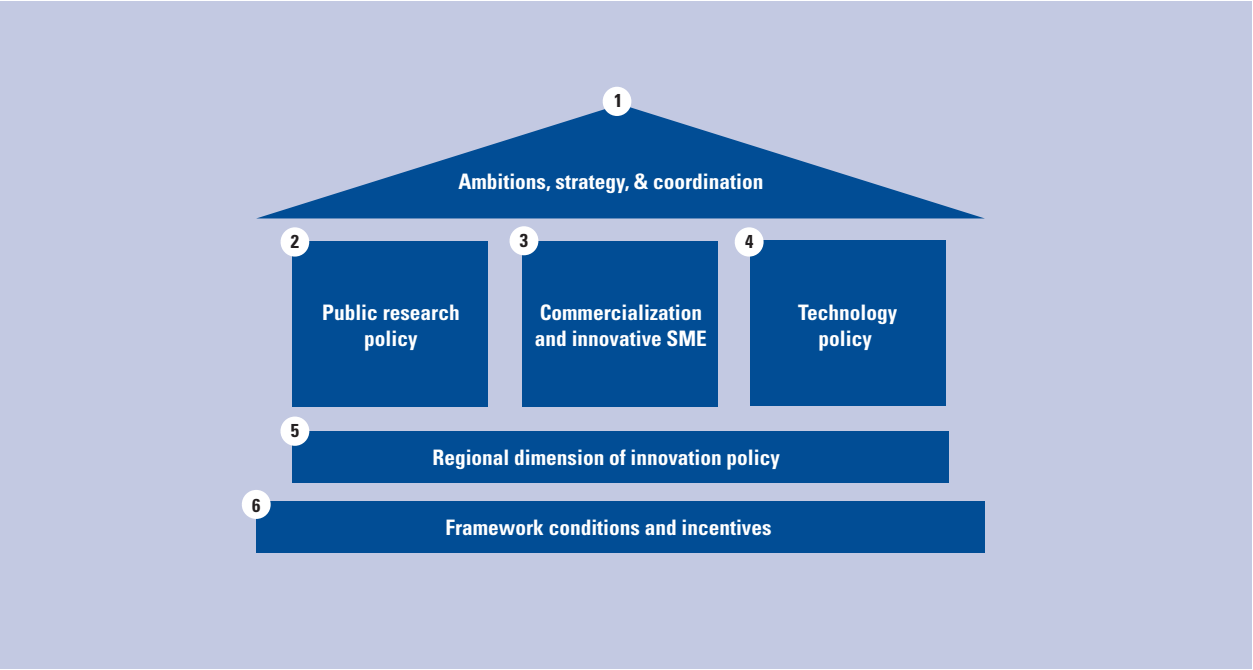
Scientific literacy and the expansion of pseudoscience

At the end of the 1980s, propaganda of various pseudoscientific and occult ideas began to fill the mass media and penetrate even into respected scientific and educational institutions. Astrology, psychological and religious cults, and widespread belief in charlatanism and pseudoscientific ideas appeal predominantly to the imagination of poorly educated people and they recruit fanatical followers. This is an indication of the general decline of the school-level natural science education. It also potentially reduces interest in careers in science and engineering, explains the low priority assigned by the population in general to public expenditure on science and technology, and causes distrust in innovative products at large. According to population surveys, the share of those who unequivocally "do not want to use innovative goods" is almost 2.5 times higher in Russia than in the EU countries (26 percent vs. 11 percent). Together with decreasing scientific literacy of the general population, this may seriously impede innovation.

Low appeal of science and engineering careers

The diminishing popularity of science and engineering careers is a trend in many countries. One possible explanation is that the situation has been caused by a shift in society's perception of these fields. In the 20th century, the high status of a professional scientist or engineer meant that such a career was extremely attractive for a young person. In the past, there was a widespread view that an engineer or scientist was a person who, through his or her work, was making life better by encouraging scientific progress, fighting disease, conquering space, and so on. More recently, humanitarian, creative, and media professions (musician, actor, stylist, designer, journalist, etc.) have become more attractive

Figure 12: The key dimensions for a new Russian innovation policy



Source: Strategy Partners Group and Eurasia Competitiveness Institute.

to young people. This is probably caused, among other factors, by the constant focus of the press on personal celebrity and fame through media stardom, rather than on novel engineering achievements through intelligence and innovative thinking.

This ignorance of science has continued, despite unprecedented developments over the last two decades in communications (Internet, smartphones), physics (the European Organization for Nuclear Research, or CERN; the Large Hadron Collider, or LHC), space exploration (planet-finding missions, Mars rovers), electronics (tablet PCs, personal computers, data storage), biotechnology, and many others.

Evidence of this anti-intellectualism and a general distrust of science can be seen in the rise of pseudoscience, creationism, and disbelief in climate change—all of which continue to be popular beliefs despite a universal scientific consensus to the contrary. This trend is also present in Russia and is reinforced by the general degradation of Russia's innovation system and a number of other factors. These factors are specific to the Russian economy and probably make a much greater contribution than those previously mentioned.

The economic structure of the country has changed quite radically since the end of the Soviet era. During the 1990s, many technology-oriented sectors exhibited a rapid decrease in production rates and R&D activities (e.g., the production of fixed-wing civil jet aircraft decreased more than 10-fold). At the same time, the higher educational system continued to train engineers and researchers. The result was an oversupply of qualified workers in a dwindling field.

With the exception of information and communication technologies, nothing improved much in the 2000s. This stagnation has been even further aggravated by the sector mix shift toward low-tech sectors, increasing imports, and the poor financial state of many companies in traditionally high-tech areas such as aerospace and defense.

Current demand is much lower than supply for highly qualified researchers and engineers, yet many official, available positions offer noncompetitive salaries that are even lower than those in the service sector. As a result, with very few exceptions, the overall image of engineering or any scientific career is incomparably less attractive in Russia than in other countries, either developing or developed. Choosing a profession in science or engineering in Russia often results in underemployment and borderline poverty. This means that many students enter engineering or science programs without any real intention of pursuing a career in the high-tech industry. The proportion of university graduates specializing in engineering and natural sciences is falling, although it still remains high in comparison with other countries.

Due to all these factors, only people who are passionate about being a scientist or engineer will make that career choice. At present, the force of inertia is still strong and many families hang on to the hope that the demand for researchers and engineers in Russia will be

restored, along with appropriate salaries—among other things, such as prestige and respect. Some young people choose to specialize in scientific or engineering fields with the hope of acquiring qualifications that are recognized abroad and then leaving Russia, although this option does not offer a positive outlook for the Russian innovation system. However, in the mid term, inertia may cease and engineering schools and natural science departments may lose their students. This would be especially dangerous given that the number of young people is expected to fall in the mid term.

Russian innovation agenda: From analysis to action

A new innovation policy for Russia should include six primary areas (see Figure 12):

1. ambitions, strategy, and coordination,
2. policy in public R&D,
3. policies on the commercialization and development of innovative SMEs,
4. a technology policy,
5. regional dimensions of innovation policy, and
6. framework conditions and incentives.

Ambitions, strategy, and coordination

International experience in the accelerated development of innovation systems shows that an ambitious government innovation policy plays an important role in the improvement of a national innovation system. Restructuring certain sectors of the economy or enhancing postsecondary education may take time, but an effective innovation policy immediately supports substantial improvement in smaller areas. More gradual institutional changes progress more slowly. Finland, Ireland, and China are good examples of how definitive and visionary goals, with the support of the government and society, can foster the creation of a strong innovation system practically from scratch.

In order to support the launch and implementation of a new innovation policy, it is necessary to create an administrative entity that is capable of performing the following tasks:

- improve coordination between various institutions in the development and implementation of innovation policy;
- use contemporary and systematic methods of evaluating the success or failure of specific programs within the innovation policy framework; and
- refine existing methods and define new ones, as required, to monitor the progress of innovation policy.

Innovation policy requires effective cross-institutional coordination and control. Each specialized ministry needs to professionally solve its own tasks, while other areas of innovation policy must be successfully coordinated. In order to resolve this problem, most countries create special councils or boards that operate under the auspices of the president or prime minister. The creation of an innovation coordination board is an essential catalyst for improving Russia's innovation system, given the fragmentary nature of the existing innovation policy across Russian administrative bodies.

Innovation frameworks of many countries are increasingly using methods to regularly monitor the state of their innovation system while policies are being implemented. This is done in order to evaluate the relative success of different strategies and the health of the innovation system in general. This approach would include evaluating the competitiveness of scientific research and the contribution it makes to the country's socioeconomic development. The Audit Chamber—the body that oversees the Russian federal budget—can play an important role in this evaluation process by drawing on its experience of monitoring the use of government funds.

Many components of the innovation system within Russia would also benefit from an increased coverage and improved quality of statistical data. These would include the observation of entrepreneurial activity and a firm's demographics, the technology level used in various companies, and the contribution made by innovation to the productivity and competitiveness of certain enterprises and sectors.

Policy in public R&D

Competitive scientific research is a primary source of innovative potential in mid- and long-term perspectives. It generates innovative breakthroughs, facilitates the creation new sectors of the economy, and transforms existing sectors.

A high level of scientific research in universities or scientific centers is a necessary prerequisite for competitive education, in particular within the natural science and engineering disciplines. Opportunities to participate in productive research are also important for university students if they are to play a larger role in the technological advancement of existing companies in the future. If they do not have experience with contemporary scientific methods, these new scientists and engineers will be unable to conduct high-quality scientific research and development or adopt new technologies for their companies.

For these reasons, increasing the scale and the effectiveness of public investment in R&D is one of the keys to innovation policy in many countries.

A policy regarding government-funded scientific research in Russia could be implemented through the following:

- increasing the volume and raising the effectiveness of public financing in R&D;

Box 5: Recent innovation policy initiatives in Russia

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Russian innovation policy has recently focused mostly on commercialization. However, these measures took the form of a set of initiatives rather than a comprehensive policy. The main initiatives aimed at the development of innovative SMEs and entrepreneurship in the high-tech sectors.

Current policy initiatives

Several policy initiatives of the following types are being implemented:

- commercialization support,
- infrastructure development, and
- venture financing.

Commercialization support

The main group of funds allocated by the government for commercialization is channeled through two organizations: the Fund for Promotion of Development of Small Businesses in Science and Technology, and the Russian Corporation of Nanotechnologies (RUSNANO).

The Fund for Promotion of Development of Small Businesses in Science and Technology was founded by the federal government in 1994. Annually, 1.5 percent of federal budget funds for public research is allocated to this Fund. In 2009, the sum was about US$85 million. The main funds are given to small innovative companies through grants (on a non-repayable basis) for carrying out R&D.

RUSNANO was created by the federal government in 2007. Currently its capital amounts to US$2.7 billion. It provides funding for nanotechnology and related industry projects (on a repayable basis) close to start up stage.

Infrastructure development

Most important current initiatives on infrastructure creation for innovative business development in Russia include the set up and development of three types of infrastructure: business incubators, technoparks, and innovation-type special economic zones (SEZs).

More than 100 business incubators have been originated by various Russian regional governments. Their creation is co-financed by the federal government on a competitive basis. The Ministry of Economic Development is in charge of this initiative.

Technoparks are also being introduced by the regional governments. They encompass office space, industrial premises, and in some cases housing and social infrastructure. Construction is financed by regional as well as private funds. The creation of 12 technoparks in 10 regions is co-financed through a dedicated federal program administered by the Ministry of Communications. These technoparks are intended to co-locate companies in high-tech industries—including nanotechnology, biotechnology, and information technology—with scientific organizations and educational institutions. As of 2009, these parks were home to 272 enterprises.

Innovative special economic zone status is granted to four territories in Russia. Preferential terms for entrepreneurship have been introduced there, and funding for infrastructure development has been provided by the federal government. Approximately 200 companies are currently tenants of these SEZs. The program is implemented by the SEZ corporation and overseen by the Ministry of Economic Development.

Venture financing

In 2006, the Ministry of Economic Development launched a regional venture funds organization program and the Russian venture company (RVC). Regional venture funds currently exist in 20 Russian regions. The regional governments and the federal government have together invested about US$150 million in these funds. In turn, the regional venture funds invest into venture funds if private investors provide equal funding. In total, the capitalization of venture funds in the Russian regions is about US$300 million. Still, only about 20 percent of this funding is employed, and most funds experience problems with the project portfolio. The RVC is a tool to provide federal government funding to private venture funds. Its current capitalization is about US$900 million. Apart from the funding function, the RVC is an expert review body for all venture funding applications to the regional venture funds.

The Fund for Promotion of Development of Small Businesses in Science and Technology

As mentioned above, the main focus of this Fund is to support commercialization up to the venture stage. It provides direct financial assistance on a competitive basis (through a grant portfolio) to small innovative enterprises implementing new high-tech projects.

Part of this financial support is given to the small innovative companies that developed the product in order to protect the intellectual property rights, finance the pilot production, and start commercial production. Another part of the financing is given to companies that have already begun the commercial production of an innovative product and are interested in production development.

The Fund implements seven grant programs. Depending on its stage of development and current needs, a company may apply for financing through one of these programs. For example, through the Start program, a start-up company may get up to US$200,000 for innovative product development and implementation. Financing is realized in three stages: the first stage with approximately US$30,000; the second stage with approximately US$70,000; and the third stage with approximately US$100,000). After completion of the first and second stages, the Fund makes its decision about continuation and amounts.

(Cont'd.)

Box 5: Recent innovation policy initiatives in Russia *(cont'd.)*

In the framework of the development program, the Fund finances small, expanding innovative companies carrying out R&D. The aim of R&D in this case is to create new products and increase a company's market capitalization. The condition for financing is the joint partnership of a company and the Fund in project financing.

In the Fund's other programs, small innovative companies may receive financing for various purposes: to compensate partially for bank loan interest rates or lease payments; to conduct R&D necessary to use licenses from Russian universities and research institutions; or to carry out innovative projects realized with the support of Russian universities.

The Competition Commission makes decisions on every grant. About 4,000 Russian scientists (professionals in various scientific disciplines) have been invited to work as experts for the Fund. By the beginning of 2009, 16,500 projects applied to the Fund and more than 5,500 of them had received funding. The enterprises supported by the Fund brought around 3,500 patented inventions into production.

In the future, the Fund is planning to cooperate with venture funds and to provide financing for R&D for businesses at an earlier stage of the innovative cycle and for startups founded on results of basic research.

- streamlining and increasing the effectiveness of the administration within government-run scientific research organizations;
- expanding the research function of leading universities;
- enhancing education in the natural sciences and engineering; and
- developing biomedical research and related infrastructure through the formation of integrated medical complexes (school of medicine + scientific research institution + hospital) that can compete on a world scale.

Policies on the commercialization and development of innovative SMEs

For the last 10 years, Russian innovation policy has been focused on developing infrastructure for the commercialization of previously existing ideas in the science sector. There are currently attempts to develop the venture capital sector, expand the spectrum of grants to aid the commercialization of SMEs, and create technology incubators and technology-oriented special economic zones (Box 5).

However, as international experience shows, without increasing the competitiveness of Russia's innovation system, concentrating solely on the development of infrastructure for commercialization cannot yield the expected results. It is necessary to use a wide spectrum of innovation policy instruments, primarily those that will increase the success rate in scientific research and stimulate technological modernization of the industry.

Commercialization is still a rather important factor and so, while it is not the entire solution, it is necessary to focus on developing infrastructure for commercialization and on increasing effectiveness by:

- expanding the availability of financial resources for commercialization, especially in the early stages;
- fostering the effectiveness of innovation infrastructure through micro instruments such as technology transfer centers in universities and research institutions, increasing the availability of facilities and infrastructure for technology startups, and increasing the availability and quality of professional services for commercialization and development of technological companies; and
- widening the availability of financial resources for the technological advancement of SMEs—for example, expanding the portfolio of grants dedicated to the technological modernization of SMEs.

Technology policy

Within the broader innovation policy, there should be a more specific technology policy directed at existing industry to increase productivity in companies and develop industrial clusters. This can be achieved by upgrading technologies and stimulating innovation. This is accomplished by using instruments of direct and indirect support from individual companies while streamlining and increasing the effectiveness of government-run applied research institutes. More specifically, the government could grant either direct financial support or co-financing to ambitious projects that are developing new products and technologies with the cooperation of several companies. One means to implement this policy is specialized technology agency (Box 6).

A new technology policy can be implemented in the following ways:

- supporting technological upgrading and stimulation of a company's innovative capacity (e.g., via direct financing of corporate innovation projects);
- streamlining operations and increasing the effectiveness of applied research institutions;
- increasing the technological capacity of SMEs;
- implementing R&D tax benefits;
- actively attracting international companies to Russia to carry out R&D and other innovative activities (e.g., through tax benefits); and
- adopting modern principles of R&D management and procurement in defense and national security.

Box 6: Technology agency

ALEXEY PRAZDNICHNYKH, Strategy Partners Group, Eurasia Competitiveness Institute

A dedicated technology development agency can be a valuable tool in the successful implementation of technology policy. Such an agency should aim to increase the productivity of economic sectors and clusters by assisting companies with internal technological upgrading and innovation.

The main areas of activity and tools within the agency should be:

- co-financing companies that aim to develop new products or technological processes, and the adaptation and development of basic industrial technologies through a system of grants and tax deductions;
- co-financing and administering targeted technological programs directed toward the increase of competitiveness and productivity in high priority industrial clusters; and
- developing strategies and programs to technologically upgrade existing high-priority industrial clusters and sectors and to create new ones.

In these ways, the government can support ambitious projects initiated by mid-sized companies directed toward the development of new products and technologies. For example, multiple suppliers of automobile parts could simultaneously implement a switch to a new quality standard by adopting new equipment and technology. Universities and research institutes should be encouraged to take part in such projects by performing collaborative R&D on contracts with the relevant companies. The goal of this section of policy should be pragmatic and directed toward increasing the competitiveness and productivity of particular industries.

It is important to note that technological policy should be implemented not only with the goal of developing high-tech sectors but also to affect change in "traditional sectors." Through the use of similar instruments, Chile was able to modify its coastal fishing industry into a totally new model; it is now made up of fisheries and fish processing plants created by importing modern technologies. Previously, no research or development had taken place in the fishing sector in Chile. However, exports from this (now upgraded) old sector rose from several tens of millions to several billion dollars as a result of this development. Finland also uses similar policy tools for the development of priority clusters, from telecommunications to timber processing.

Taking into account current changes in the defense industry (the strengthening of competition, the increasing numbers of private suppliers, and the expanding possibilities for international cooperation and attracting foreign companies as well as structural changes), it is extremely important to apply innovation policies to the development of security systems. Given that the production of military equipment is an important contributor to a country's innovation system,[4] innovation within this sector must be considered to be one of the key decision-making factors in public procurement.

Regional dimensions of innovation policy

Regional authorities can play a large role in increasing the competitiveness of Russia's innovation system. Acting within the framework of a federal innovation policy, the federal government can provide active assistance by:

- developing world-class innovation centers in several regions and using them as platforms for the creation and evolution of innovation clusters;
- stimulating the most forward-thinking innovation clusters through development competition; and
- assisting in the development of regional innovation policy (e.g., the enhancement of infrastructure for commercialization and SME development and support in local implementation of technological policy).

Framework conditions and incentives

Framework conditions and incentives also play a key role in increasing the competitiveness of the innovation system. Therefore, a comprehensive innovation policy should concentrate on:

- increasing the effectiveness of intellectual property protection by ensuring the enforcement of relevant legislation (via developing appropriate law enforcement procedures) and solving conflicts regarding the allocation of IP rights between legal and physical persons;
- improving the government's focus on innovation when purchasing in the social, infrastructural, and national defense and security sectors;
- adopting effective technical standards (e.g., contemporary standards for clinical trials, etc.);
- removing obstacles to attracting highly qualified specialists from abroad (including the issuing of visas and migration legislation);
- increasing the effectiveness of foreign trade regulations (including the implementation of customs legislation that is more efficient and favorable for the innovative sector and regulation of high-tech equipment and components imports); and
- amending bankruptcy legislation to simplify bankruptcy procedures.

In addition to supporting innovation through legislation and regulation, the government can also leverage its large procurement potential. In Russia, this leverage is growing for a number of reasons. There is a large demand in the national defense and security sectors; there are unprecedented infrastructural challenges due to the scale of the country; and the traditional focus that Russian society attributes to national achievements in science is keenly felt. To fully take advantage of these potential incentives, a specialized government agency could be formed to improve the innovative potential of pending government purchases.

International organizations' involvement

Collaborative work with international organizations in individual areas of innovation policy may become an important part of the coordination board's work. This could include organizations such as the World Bank, the OECD, and the World Intellectual Property Organization (WIPO).

The World Bank can be an effective partner in the implementation of a project-oriented approach to reforming individual areas. The Bank could participate in the creation of an effective infrastructure to control the quality and effectiveness of technical regulation, assist in the development of tax benefits for companies engaging in R&D, and assist also in shifting the focus of public procurement to include more innovative products. The OECD can develop recommendations for the adoption of contemporary principles of governance in organizations responsible for the implementation of innovation policy, as well as for the assessment of individual areas of this policy. WIPO can advise on developing a comprehensive strategy for increasing the effective circulation of intellectual property and can also assist in monitoring the implementation of recommendations and fundamental measures.

Working with international organizations may have several advantages, including:

- access to the best international practices for Russian businesses;
- assistance in the implementation of certain policies;
- outside evaluation of the effectiveness of overall strategy (including principle measures and the achievement of key performance indicators);
- outside evaluation of the ability and effectiveness of individual instruments (tax benefits, individual programs, etc.); and
- improved effectiveness of public administration and increased qualification of personnel in key organizations through the completion of dedicated, comprehensive projects.

Conclusion

The priorities of an innovation policy can have different effects in different sections of society and areas of industry. These effects will vary over time. For example, an effective technological policy could provide results in the short or medium term and focus on commercialization. The development of innovative SMEs could give results no earlier than in the medium term. Public R&D policy could produce results only in medim- and long-term perspectives. As international experience shows, the advancement and establishment of stable national innovation systems can occur only where adequate focus is given to all the key components of an innovation policy.

Ensuring that the focus is adequate and the policy is efficient are essential components of the way forward for Russia that will allow the country to seize its opportunities and avoid succumbing to its risks.

Notes

1 This definition has been adapted from the report of the Advisory Committee on Measuring Innovation in the 21st Century Economy to the US Secretary of Commerce.

2 The PISA study is carried out annually by the OECD and in each country up to 10,000 15-year-old schoolchildren participate in the testing across various cities.

3 Ernst & Young 2007.

4 In addition to the United States, where the defense sector plays a key role in the creation of groundbreaking innovations, the example of Israel is very indicative. One of the most developed innovative economies in the world was created in Israel in a short time through the defense industry. The United Kingdom, France, Switzerland, and other countries are also good examples.

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Part 2

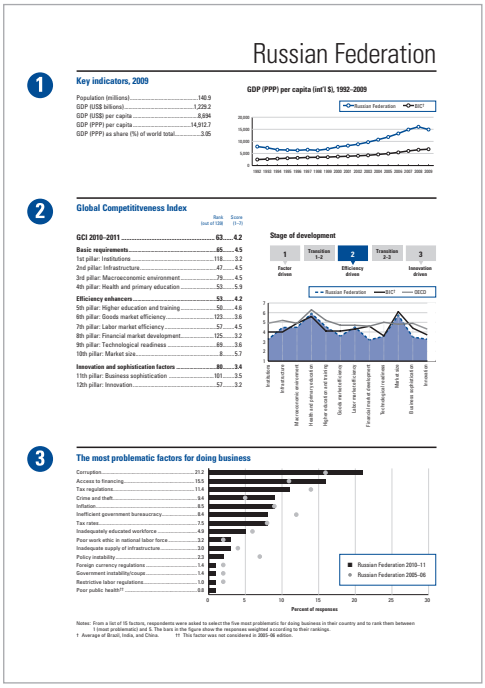
Country Profiles

How to Read the Country Profiles

This part of the *Report* presents detailed information in the form of country profiles for:

- the Russian Federation, and
- the 26 comparator countries.

The next few pages explain how to read each type of profile.



Russian Federation

1 Key indicators

The first section presents a selection of key production indicators for the Russian Federation. The chart on the upper right-hand side displays the evolution of the Russian Federation's gross domestic product (GDP) per capita adjusted for purchasing parity (PPP) from 1992 through 2009. The black line represents the aggregate performance of Brazil, India, and China (BICs).

The data for this section come from the International Monetary Fund (IMF)'s *World Economic Outlook 2010* and the World Bank's *World Development Indicators 2010*.

2 Global Competitiveness Index

This section details the Russian Federation's performance on the various components (subindexes and pillars) of the Global Competitiveness Index (GCI). The first column contains the Russian Federation's ranking among the 139 economies covered by the GCI, while the second column reports the scores. The landscape chart at the right of the GCI's components represents the performance of the Russian Federation (in blue) on the 12 pillars in comparison with the performance of the OECD and the BIC aggregates.

3 The most problematic factors for doing business

This chart summarizes those factors seen by business executives as the most problematic for doing business in their country. From a list of 15 factors, respondents were asked to select the five most problematic and rank them from 1 (most problematic) to 5. The black bars represent the combined percentages of responses to the 2010–11 edition of the World Economic Forum's Executive Opinion Survey (the Survey), while the circles shows the results of the 2005–06 edition of the Survey.

The indicator "Poor public health" was not included in the 2005–06 list of problematic factors, therefore there is no circle representing this data point.

4 The Global Competitiveness Index in detail

The second and third pages provide detailed information on each component and each indicator included in the GCI.

- **INDICATOR, UNITS:** This column contains the title of each component and each indicator and the units by which it is expressed—for example, "years" or "% GDP." Indicators derived from the Survey are identified by an asterisk; these variables are always expressed as scores on a 1–7 scale, with 7 being the most desirable score. For a full description of all the variables entering the GCI, please refer to the appendix of Chapter 1.1.
- **RANK/139:** This column reports the Russian Federation's position among the 139 economies covered by the GCI 2010–2011.
- **SCORE:** This column reports the Russian Federation's score on each of the variables comprised in the GCI. Next to the score, a colored square indicates whether an indicator constitutes an advantage ■ or a disadvantage ■ for the country. For the Russian Federation, as for all economies ranked lower than 50 in the overall GCI, any individual variables ranked higher than 51 are considered to be advantages. Any variables ranked lower than 50 are considered to be disadvantages.
- **Trend 2005–11:** This column highlights a positive (upward arrow) or negative (downward arrow) difference between the scores obtained by the Russian Federation in the 2005–06 and the 2010–11 editions of the GCI for each variable.
- **OECD, BIC:** For the sake of comparison, we report the average scores of the OECD members and of Brazil, India, and China (BIC) in the gray area of the page.
- **Best Performer:** The two columns under this heading report the score and name of the best-performing economy for each pillar or indicator. When several countries share first rank, the number of these economies is reported in parentheses in the second column.

4 Russian Federation

The Global Competitiveness Index in detail ■ Competitive advantage ■ Competitive disadvantage

INDICATOR, UNITS	Russian Federation RANK/139	Russian Federation SCORE	Trend 2005–11	OECD SCORE	BIC† SCORE	Best performer SCORE	Best performer ECONOMY
Global Competitiveness Index 2010–2011	**63**	**4.2**	↗	**4.9**	**4.5**	**5.6**	**Switzerland**
Basic requirements	65	4.5	↗	5.3	4.6	6.1	Hong Kong SAR
Efficiency enhancers	53	4.3	↗	4.9	4.5	5.5	Singapore
Innovation and sophistication factors	80	3.4	↘	4.6	4.0	5.7	Japan
1st pillar: Institutions	**118**	**3.2**	↗	**4.5**	**4.0**	**6.1**	**Singapore**
1.01 Property rights*	128	2.9	↘	5.4	4.6	6.4	Switzerland
1.02 Intellectual property protection*	119	2.6	↘	4.9	3.5	6.2	Sweden
1.03 Diversion of public funds*	109	2.6	↘	4.9	3.1	6.6	New Zealand
1.04 Public trust of politicians*	69	2.9	↗	3.6	2.8	6.4	Singapore
1.05 Irregular payments and bribes*	111	3.2	n/a	5.5	3.9	6.7	New Zealand
1.06 Judicial independence*	115	2.7	↘	5.2	4.1	6.8	New Zealand
1.07 Favoritism in decisions of government officials*	106	2.6	↘	3.9	3.2	6.0	Sweden
1.08 Wastefulness of government spending*	62	3.1	↘	3.6	3.1	6.1	Singapore
1.09 Burden of government regulation*	128	2.5	↗	3.2	3.0	5.5	Singapore
1.10 Efficiency of legal sys. in settling disputes*	114	2.9	n/a	4.4	3.9	6.3	Singapore
1.11 Efficiency of legal sys. in challenging regs*	115	2.8	n/a	4.3	3.9	5.9	Sweden
1.12 Transparency of government policymaking*	105	3.8	↗	4.9	4.5	6.3	Singapore
1.13 Business costs of terrorism*	93	5.3	↘	5.9	5.5	6.9	Uruguay
1.14 Business costs of crime and violence*	90	4.5	↘	5.4	4.5	6.6	Syria
1.15 Organized crime*	112	4.3	↘	5.9	4.8	6.9	Rwanda
1.16 Reliability of police services*	128	2.7	↘	5.4	4.3	6.6	Finland
1.17 Ethical behavior of firms*	112	3.3	↘	5.3	3.9	6.9	Sweden
1.18 Strength of auditing and reporting standards*	116	3.8	↘	5.3	4.9	6.4	South Africa
1.19 Efficacy of corporate boards*	113	4.1	↘	4.9	4.5	5.9	Sweden
1.20 Protection of minority shareholders' interests*	132	3.2	↗	4.7	4.4	6.0	Sweden
1.21 Strength of investor protection, index 0–10 (best)	77	5.0	n/a	5.9	5.4	9.7	New Zealand
2nd pillar: Infrastructure	**47**	**4.5**	↗	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01 Quality of overall infrastructure*	94	3.6	↗	5.5	3.8	6.9	Switzerland
2.02 Quality of roads*	125	2.4	n/a	5.2	3.5	6.6	Singapore
2.03 Quality of railroad infrastructure*	31	4.1	■	4.6	3.6	6.8	Switzerland
2.04 Quality of port infrastructure*	93	3.7	↘	5.2	3.7	6.8	Hong Kong SAR
2.05 Quality of air transport infrastructure*	104	3.8	↘	5.6	4.3	6.9	Hong Kong SAR
2.06 Available airline seat kilometers, millions	13	2,673.3	n/a	2,337.0	4,966.2	31,076.0	United States
2.07 Quality of electricity supply*	80	4.3	↘	6.1	4.5	6.9	Hong Kong SAR
2.08 Fixed telephone lines/100 pop.	39	31.8	■	41.2	15.9	63.2	Taiwan, China
2.09 Mobile telephone subscriptions/100 pop.	8	163.6	■	114.9	63.8	222.1	United Arab Emirates
3rd pillar: Macroeconomic environment	**79**	**4.5**	↘	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01 Government budget balance, % GDP	106	−6.2	↘	−4.8	−3.2	178.0	Timor Leste
3.02 National savings rate, % GDP	58	21.9	↘	19.0	34.9	54.1	Kuwait
3.03 Inflation, annual % change	126	11.7	↘	1.6	5.0	−7.7	Zimbabwe
3.04 Interest rate spread, %	87	6.7	↘	3.0	14.5	−0.6	Netherlands
3.05 Government debt, % GDP	9	8.5	■	65.2	46.0	0.0	Timor-Leste
3.06 Country credit rating, 0–100 (best)	49	63.2	■	81.2	67.6	92.8	Switzerland
4th pillar: Health and primary education	**53**	**5.9**	↗	**6.3**	**5.6**	**6.8**	**Belgium**
4.01 Business impact of malaria*	1	n/a	■	6.4	5.6	n/a(g)	Multiple (71)
4.02 Malaria incidence/100,000 pop.	1	0.0	■	8.0	553.5	0.0	Multiple (9)
4.03 Business impact of tuberculosis*	66	5.7	↘	6.5	5.5	7.0	Finland
4.04 Tuberculosis incidence/100,000 pop.	90	106.7	↘	12.9	103.9	0.0	Multiple (2)
4.05 Business impact of HIV/AIDS*	62	5.4	↘	6.1	5.2	6.7	Norway
4.06 HIV prevalence, % adult pop.	106	1.1	↘	0.2	0.3	<0.1	Multiple (21)
4.07 Infant mortality, deaths/1,000 live births	59	11.9	↘	4.9	29.5	1.9	Hong Kong SAR
4.08 Life expectancy, years	99	67.9	↗	79.3	69.7	82.6	Japan
4.09 Quality of primary education*	65	3.9	↘	4.9	3.4	6.6	Finland
4.10 Primary education enrollment, net %	3	99.8	■	96.9	94.5	100.0	Costa Rica
5th pillar: Higher education and training	**50**	**4.6**	↘	**5.2**	**4.1**	**6.1**	**Finland**
5.01 Secondary education enrollment, gross %	77	84.8	↘	104.1	79.0	149.3	Australia
5.02 Tertiary education enrollment, gross %	12	72.2	■	63.7	23.5	98.1	Korea, Rep.
5.03 Quality of the educational system*	78	3.6	↘	4.5	3.9	6.1	Singapore
5.04 Quality of math and science education*	54	4.4	↘	4.6	4.0	6.5	Singapore
5.05 Quality of management schools*	92	3.8	↘	5.0	4.5	6.1	Qatar
5.06 Internet access in schools*	62	4.1	↘	5.3	4.4	6.8	Iceland
5.07 Availability of research & training services*	67	4.1	↘	5.2	4.5	6.5	Switzerland
5.08 Extent of staff training*	90	3.7	↘	4.6	4.1	5.7	Sweden

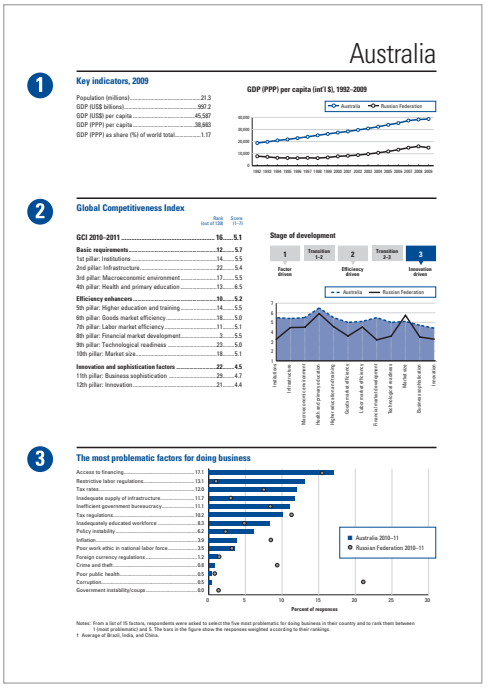
* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Comparator countries

1 Key indicators

The first section presents a selection of key production indicators. The chart on the upper right-hand side displays the evolution of each economy's gross domestic product (GDP) per capita adjusted for purchasing parity (PPP) from 1992 through 2009. The black line represents the performance of the Russian Federation.

The data for this section come from International Monetary Fund (IMF)'s *World Economic Outlook 2010* and the World Bank's *World Development Indicators 2010.*



2 Global Competitiveness Index

This section details the performance of each comparator country on the various components (subindexes and pillars) of the GCI. The first column contains the ranking among the 139 economies covered by the GCI, while the second column reports the scores. The landscape chart at the right of the GCI's components represents the performance of the comparator country (in blue) on the 12 pillars in comparison with the performance of the Russian Federation (black line).

3 The most problematic factors for doing business

This chart summarizes those factors seen by business executives as the most problematic for doing business in their country. From a list of 15 factors, respondents were asked to select the five most problematic and rank them from 1 (most problematic) to 5.The blue bars represent the combined percentages of responses of the 2010–11 edition of the Survey for the comparator country, while the circles shows the 2010–11 results for the Russian Federation.

4 The Global Competitiveness Index in detail

The following two pages provide detailed information on each component and each indicator included in the GCI.

- **INDICATOR, UNITS:** This column contains the title of each component and each indicator and the units by which it is expressed—for example, "years" or "% GDP." Indicators derived from the Executive Opinion Survey are identified by an asterisk; these variables are always expressed on a 1–7 scale, with 7 being the most desirable score. For a full description of all the variables entering the GCI, please refer to the appendix of Chapter 1.1.
- **RANK/139:** This column reports the comparator country's position among the 139 economies covered by the GCI 2010–2011.
- **SCORE:** This column reports the comparator country's score on each of the variables comprising the GCI.
- **Russian Federation, OECD, BIC:** For the sake of comparison, within the gray area of the page we report the average scores of OECD members and of Brazil, India, and China (BICs).
- **Best Performer:** The two columns under this heading report the score and the name of the best-performing economy for each pillar or indicator. When several countries share the first rank, the number of these economies is reported in parentheses in the second column.

4 Australia

The Global Competitiveness Index in detail

	INDICATOR, UNITS	Australia RANK/139	Australia SCORE	Russian Federation SCORE	OECD SCORE	BIC† SCORE	Best performer SCORE	Best performer ECONOMY
	Global Competitiveness Index 2010–2011	**16**	**5.1**	**4.2**	**4.9**	**4.5**	**5.8**	**Switzerland**
	Basic requirements	12	5.7	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	10	5.2	4.2	4.9	4.5	5.5	Singapore
	Innovation and sophistication factors	22	4.5	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**14**	**5.5**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	14	5.9	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	14	5.6	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	13	5.8	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	17	4.6	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	16	6.0	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	9	6.2	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	19	4.6	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	21	4.4	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	60	3.4	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	12	5.4	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	13	5.0	2.9	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	19	5.2	3.6	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	80	5.5	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	45	5.4	4.5	5.4	4.5	6.6	Syria
1.15	Organised crime*	32	6.2	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	19	5.9	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	10	6.2	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	14	5.8	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	7	5.5	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	15	5.2	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	45	5.7	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**22**	**5.4**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	24	5.2	3.6	5.3	3.9	6.8	Switzerland
2.02	Quality of roads*	30	5.3	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	26	4.4	4.1	4.6	3.6	6.9	Switzerland
2.04	Quality of port infrastructure*	46	5.9	3.3	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	30	5.8	3.9	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, millions	6	3,597.1	2,517.3	2,227.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	33	6.0	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	23	42.4	31.9	41.2	16.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	42	113.7	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**17**	**5.5**	**4.5**	**4.9**	**4.9**	**6.8**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	67	–4.0	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	46	24.1	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	49	1.8	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	35	3.2	6.7	3.0	14.5	0.6	Netherlands
3.05	Government debt, % GDP	23	19.2	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	14	87.6	63.2	81.2	67.6	92.9	Switzerland
	4th pillar: Health and primary education	**13**	**6.5**	**5.9**	**6.3**	**5.9**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.8	n/a(a)	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	35	6.3	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	20	6.6	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	53	5.6	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	55	0.2	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	28	4.9	11.9	4.9	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	7	81.4	67.9	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	14	5.4	3.9	4.9	3.4	6.6	Finland
4.10	Primary education enrollment, net %	42	96.9	99.9	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**14**	**5.5**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	1	149.3	94.9	104.1	76.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	13	77.0	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	12	5.2	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	24	4.9	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	17	5.3	3.9	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	28	5.5	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	20	5.3	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	20	4.8	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Technical Notes and Sources

This section provides detailed definitions and sources for all the indicators that enter the Global Competitiveness Index 2010–2011 (GCI).

Two types of data are used in the GCI: Executive Opinion Survey data and data from sources other than the World Economic Forum (national authorities, international agencies, and private sources). The latter were updated at the time the *Global Competitiveness Report* was prepared.

For each indicator, the title appears on the fist line, preceded by its number to allow for quick reference. The numbering refers to the data tables section of *The Global Competitiveness Report 2010–2011*. Underneath is a description of the indicator or, in the case of the Executive Opinion Survey data, the full question and the associated responses.

1ST PILLAR: INSTITUTIONS

1.01 Property rights

How would you rate the protection of property rights, including financial assets, in your country? [1 = very weak; 7 = very strong] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.02 Intellectual property protection

How would you rate intellectual property protection, including anti-counterfeiting measures, in your country? [1 = very weak; 7 = very strong] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.03 Diversion of public funds

In your country, how common is diversion of public funds to companies, individuals, or groups due to corruption? [1 = very common; 7 = never occurs] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.04 Public trust of politicians

How would you rate the level of public trust in the ethical standards of politicians in your country? [1 = very low; 7 = very high] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.05 Irregular payments and bribes

This indicator represents the average score across the five components of the following Executive Opinion Survey question: In your country, how common is it for firms to make undocumented extra payments or bribes connected with (a) imports and exports; (b) public utilities; (c) annual tax payments; (d) awarding of public contracts and licenses; (e) obtaining favorable judicial decisions. The answer to each question ranges from 1 (very common) to 7 (never occurs). | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.06 Judicial independence

To what extent is the judiciary in your country independent from influences of members of government, citizens, or firms? [1 = heavily influenced; 7 = entirely independent] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.07 Favoritism in decisions of government officials

To what extent do government officials in your country show favoritism to well-connected firms and individuals when deciding upon policies and contracts? [1 = always show favoritism; 7 = never show favoritism] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.08 Wastefulness of government spending

How would you rate the composition of public spending in your country? [1 = extremely wasteful; 7 = highly efficient in providing necessary goods and services] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.09 Burden of government regulation

How burdensome is it for businesses in your country to comply with governmental administrative requirements (e.g., permits, regulations, reporting)? [1 = extremely burdensome; 7 = not burdensome at all] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.10 Efficiency of legal framework in settling disputes

How efficient is the legal framework in your country for private businesses in settling disputes? [1 = extremely inefficient; 7 = highly efficient] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.11 Efficiency of legal framework in challenging regulations

How efficient is the legal framework in your country for private businesses in challenging the legality of government actions and/or regulations? [1 = extremely inefficient; 7 = highly efficient] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.12 Transparency of government policymaking

How easy is it for businesses in your country to obtain information about changes in government policies and regulations affecting their activities? [1 = impossible; 7 = extremely easy] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.13 Business costs of terrorism

To what extent does the threat of terrorism impose costs on businesses in your country? [1 = significant costs; 7 = no costs] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.14 Business costs of crime and violence

To what extent does the incidence of crime and violence impose costs on businesses in your country? [1 = significant costs; 7 = no costs] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.15 Organized crime

To what extent does organized crime (mafia-oriented racketeering, extortion) impose costs on businesses in your country? [1 = significant costs; 7 = no costs] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.16 Reliability of police services

To what extent can police services be relied upon to enforce law and order in your country? [1 = cannot be relied upon at all; 7 = can always be relied upon] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.17 Ethical behavior of firms

How would you compare the corporate ethics (ethical behavior in interactions with public officials, politicians, and other enterprises) of firms in your country with those of other countries in the world? [1 = among the worst in the world; 7 = among the best in the world] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.18 Strength of auditing and reporting standards

In your country, how would you assess financial auditing and reporting standards regarding company financial performance? [1 = extremely weak; 7 = extremely strong] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.19 Efficacy of corporate boards

How would you characterize corporate governance by investors and boards of directors in your country? [1 = management has little accountability to investors and boards; 7 = investors and boards exert strong supervision of management decisions] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.20 Protection of minority shareholders' interests

In your country, to what extent are the interests of minority shareholders protected by the legal system? [1 = not protected at all; 7 = fully protected] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

1.21 Strength of investor protection

Strength of Investor Protection Index on a 0–10 (best) scale | 2009

Source: The World Bank, *Doing Business 2010*

2ND PILLAR: INFRASTRUCTURE

2.01 Quality of overall infrastructure

How would you assess general infrastructure (e.g., transport, telephony, and energy) in your country? [1 = extremely underdeveloped; 7 = extensive and efficient by international standards] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

2.02 Quality of roads

How would you assess roads in your country? [1 = extremely underdeveloped; 7 = extensive and efficient by international standards] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

2.03 Quality of railroad infrastructure

How would you assess the railroad system in your country? [1 = extremely underdeveloped; 7 = extensive and efficient by international standards] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

2.04 Quality of port infrastructure

How would you assess port facilities in your country? [1 = extremely underdeveloped; 7 = well developed and efficient by international standards]
For landlocked countries, the question is as follows: How accessible are port facilities? [1 = extremely inaccessible; 7 = extremely accessible] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

2.05 Quality of air transport infrastructure

How would you assess passenger air transport infrastructure in your country? [1 = extremely underdeveloped; 7 = extensive and efficient by international standards] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

2.06 Available airline seat kilometers

Scheduled available airline seat kilometers per week originating in country (in millions) | January 2010 and July 2010 average

Sources: International Air Transport Association, SRS Analyser; national sources

2.07 Quality of electricity supply

How would you assess the quality of the electricity supply in your country (lack of interruptions and lack of voltage fluctuations)? [1 = insufficient and suffers frequent interruptions; 7 = sufficient and reliable] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

2.08 Fixed telephone lines

Number of active fixed telephone lines per 100 population | 2009

Sources: International Telecommunication Union, *World Telecommunication/ICT Indicators 2010* (June 2010 edition); national sources

2.09 Mobile telephone subscriptions

Number of mobile cellular telephone subscriptions per 100 population | 2009

Sources: International Telecommunication Union, *World Telecommunication/ICT Indicators 2010* (June 2010 edition); national sources

3RD PILLAR: MACROECONOMIC ENVIRONMENT

3.01 Government budget balance

Government budget balance as a percentage of GDP | 2009

Sources: African Development Bank; European Bank for Reconstruction and Development; Inter-American Development Bank; International Monetary Fund; Organisation for Economic Co-operation and Development; Economist Intelligence Unit, *CountryData Database* (July 2010); national sources

3.02 National savings rate

National savings rate as a percentage of GDP | 2009

Sources: Economist Intelligence Unit, *CountryData Database* (June/July 2010); International Monetary Fund; The World Bank Group, *World dataBank* (July 2010); national sources

3.03 Inflation

Annual percent change in consumer price index (year average) | 2009

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2010); national sources
Notes: Economies are ranked in ascending order for presentation purposes only. See Appendix of Chapter 1 for details about the treatment of deflationary countries in the Global Competitiveness Index.

3.04 Interest rate spread

Average interest rate spread between typical lending and deposit rates | 2009

Sources: Economist Intelligence Unit, *CountryData Database* (July 2010); International Monetary Fund, *International Financial Statistics* (July 2010); national sources

3.05 Government debt

General government gross debt as a percentage of GDP | 2009

Sources: African Development Bank; African Development Bank and OECD Development Centre, *Africa Economic Outlook* (retrieved July 6, 2010); European Bank for Reconstruction and Development; International Monetary Fund; Economist Intelligence Unit, *CountryData Database* (July 2010); national sources

3.06 Country credit rating

Expert assessment of the probability of sovereign debt default on a 0–100 (lowest probability) scale | September 2009

4TH PILLAR: HEALTH AND PRIMARY EDUCATION

4.01 Business impact of malaria

How serious an impact do you consider malaria will have on your company in the next five years (e.g., death, disability, medical and funeral expenses, productivity and absenteeism, recruitment and training expenses, revenues)? [1 = a serious impact; 7 = no impact at all] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

4.02 Malaria incidence

Number of malaria cases per 100,000 population | 2006

Sources: World Health Organization, *World Malaria Report 2008*; national sources

4.03 Business impact of tuberculosis

How serious an impact do you consider tuberculosis will have on your company in the next five years (e.g., death, disability, medical and funeral expenses, productivity and absenteeism, recruitment and training expenses, revenues)? [1 = a serious impact; 7 = no impact at all] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

4.04 Tuberculosis incidence

Number of tuberculosis cases per 100,000 population | 2008

Source: The World Bank, *Data Catalog* (retrieved July 27, 2010)

4.05 Business impact of HIV/AIDS

How serious an impact do you consider HIV/AIDS will have on your company in the next five years (e.g., death, disability, medical and funeral expenses, productivity and absenteeism, recruitment and training expenses, revenues)? [1 = a serious impact; 7 = no impact at all] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

4.06 HIV prevalence

HIV prevalence as a percentage of adults aged 15–49 years | 2007

Sources: UNAIDS/World Health Organization, *2008 Report on the Global AIDS Epidemic*; United Nations Development Programme, *Human Development Report 2007/2008*; national sources

4.07 Infant mortality

Infant (children aged 0–12 months) mortality per 1,000 live births | 2008

Sources: The World Bank, *Data Catalog* (retrieved June 23, 2010); national sources

4.08 Life expectancy

Life expectancy at birth (years) | 2008

Source: The World Bank, *Data Catalog* (retrieved July 27, 2010); national source

4.09 Quality of primary education

How would you assess the quality of primary schools in your country? [1 = poor; 7 = excellent—among the best in the world] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

4.10 Primary education enrollment rate

Net primary education enrollment rate | 2008

Sources: UNESCO Institute for Statistics (retrieved July 16, 2010); The World Bank, *EdStats query* (retrieved July 16, 2010); national sources

5TH PILLAR: HIGHER EDUCATION AND TRAINING

5.01 Secondary education enrollment rate

Gross secondary education enrollment rate | 2008

Sources: UNESCO Institute for Statistics (retrieved July 16, 2010); national sources

5.02 Tertiary education enrollment rate

Gross tertiary education enrollment rate | 2008

Sources: UNESCO Institute for Statistics (retrieved July 16, 2010); national sources

5.03 Quality of the educational system

How well does the educational system in your country meet the needs of a competitive economy? [1 = not well at all; 7 = very well] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

5.04 Quality of math and science education

How would you assess the quality of math and science education in your country's schools? [1 = poor; 7 = excellent – among the best in the world] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

5.05 Quality of management schools

How would you assess the quality of management or business schools in your country? [1 = poor; 7 = excellent – among the best in the world] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

5.06 Internet access in schools

How would you rate the level of access to the Internet in schools in your country? [1 = very limited; 7 = extensive] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

5.07 Local availability of specialized research and training services

In your country, to what extent are high-quality, specialized training services available? [1 = not available; 7 = widely available] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

5.08 Extent of staff training

To what extent do companies in your country invest in training and employee development? [1 = hardly at all; 7 = to a great extent] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

6TH PILLAR: GOODS MARKET EFFICIENCY

6.01 Intensity of local competition

How would you assess the intensity of competition in the local markets in your country? [1 = limited in most industries; 7 = intense in most industries] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

6.02 Extent of market dominance

How would you characterize corporate activity in your country? [1 = dominated by a few business groups; 7 = spread among many firms] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

6.03 Effectiveness of anti-monopoly policy

To what extent does anti-monopoly policy promote competition in your country? [1 = does not promote competition; 7 = effectively promotes competition] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

6.04 Extent and effect of taxation

What impact does the level of taxes in your country have on incentives to work or invest? [1 = significantly limits incentives to work or invest; 7 = has no impact on incentives to work or invest] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

6.05 Total tax rate

This variable is a combination of profit tax (% of profits), labor tax and contribution (% of profits), and other taxes (% of profits) | 2009

Source: The World Bank, *Doing Business 2010*

6.06 Number of procedures required to start a business

Number of procedures required to start a business | 2009

Source: The World Bank, *Doing Business 2010*

6.07 Time required to start a business

Number of days required to start a business | 2009

Source: The World Bank, *Doing Business 2010*

6.08 Agricultural policy costs

How would you assess the agricultural policy in your country? [1 = excessively burdensome for the economy; 7 = balances the interests of taxpayers, consumers, and producers] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

6.09 Prevalence of trade barriers

In your country, to what extent do tariff and non-tariff barriers limit the ability of imported goods to compete in the domestic market? [1 = strongly limit; 7 = do not limit] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

6.10 Trade tariffs

Trade-weighted average tariff rate | 2009

Source: International Trade Centre

6.11 Prevalence of foreign ownership

How prevalent is foreign ownership of companies in your country? [1 = very rare; 7 = highly prevalent] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

6.12 Business impact of rules on FDI

To what extent do rules governing foreign direct investment (FDI) encourage or discourage it? [1 = strongly discourage FDI; 7 = strongly encourage FDI] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

6.13 Burden of customs procedures

How would you rate the level of efficiency of customs procedures (related to the entry and exit of merchandise) in your country? [1 = extremely inefficient; 7 = extremely efficient] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

6.14 Degree of customer orientation

How well do companies in your country treat customers? [1 = generally treat their customers badly; 7 = are highly responsive to customers and customer retention] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

6.15 Buyer sophistication

In your country, how do buyers make purchasing decisions? [1 = based solely on the lowest price; 7 = based on a sophisticated analysis of performance attributes] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

7TH PILLAR: LABOR MARKET EFFICIENCY

7.01 Cooperation in labor-employer relations

How would you characterize labor-employer relations in your country? [1 = generally confrontational; 7 = generally cooperative] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

7.02 Flexibility of wage determination

How are wages generally set in your country? [1 = by a centralized bargaining process; 7 = up to each individual company] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

7.03 Rigidity of employment

Rigidity of Employment Index on a 0–100 (worst) scale | 2009

Source: The World Bank, *Doing Business 2010*

7.04 Hiring and firing practices

How would you characterize the hiring and firing of workers in your country? [1 = impeded by regulations; 7 = flexibly determined by employers] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

7.05 Redundancy costs

Redundancy costs in weeks of salary | 2009

Source: The World Bank, *Doing Business 2010*

7.06 Pay and productivity

To what extent is pay in your country related to productivity? [1 = not related to worker productivity; 7 = strongly related to worker productivity] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

7.07 Reliance on professional management

In your country, who holds senior management positions? [1 = usually relatives or friends without regard to merit; 7 = mostly professional managers chosen for merit and qualifications] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

7.08 Brain drain

Does your country retain and attract talented people? [1 = no, the best and brightest normally leave to pursue opportunities in other countries; 7 = yes, there are many opportunities for talented people within the country] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

7.09 Female participation in labor force

Female-to-male participation ratio in the labor force | 2008

Source: International Labour Organization, *KILM Net* (retrieved June 28, 2010)

8TH PILLAR: FINANCIAL MARKET DEVELOPMENT

8.01 Availability of financial services

Does the financial sector in your country provide a wide variety of financial products and services to businesses? [1 = not at all, 7 =provides a wide variety] | 2010

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

8.02 Affordability of financial services

To what extent does competition among providers of financial services in your country ensure the provision of financial services at affordable prices? [1 = not at all; 7 = extremely well] | 2010

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

8.03 Financing through local equity market

How easy is it to raise money by issuing shares on the stock market in your country? [1 = very difficult; 7 = very easy] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

8.04 Ease of access to loans

How easy is it to obtain a bank loan in your country with only a good business plan and no collateral? [1 = very difficult; 7 = very easy] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

8.05 Venture capital availability

In your country, how easy is it for entrepreneurs with innovative but risky projects to find venture capital? [1 = very difficult; 7 = very easy] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

8.06 Restriction on capital flows

How restrictive are regulations in your country related to international capital flows? [1 = highly restrictive; 7 = not restrictive at all] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

8.07 Soundness of banks

How would you assess the soundness of banks in your country? [1 = insolvent and may require a government bailout; 7 = generally healthy with sound balance sheets] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

8.08 Regulation of securities exchanges

How would you assess the regulation and supervision of securities exchanges in your country? [1 = ineffective; 7 = effective] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

8.09 Legal rights index

Degree of legal protection of borrowers and lenders' rights on a 0–10 (best) scale | 2009

Source: The World Bank, *Doing Business 2010*

9TH PILLAR: TECHNOLOGICAL READINESS

9.01 Availability of latest technologies

To what extent are the latest technologies available in your country? [1 = not available; 7 = widely available] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

9.02 Firm-level technology absorption

To what extent do businesses in your country absorb new technology? [1 = not at all; 7 = aggressively absorb] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

9.03 FDI and technology transfer

To what extent does foreign direct investment (FDI) bring new technology into your country? [1 = not at all; 7 = fdi is a key source of new technology] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

9.04 Internet users

Number of estimated Internet users per 100 population | 2009

Sources: International Telecommunication Union, *World Telecommunication/ICT Indicators* (June 2010 edition); The World Bank, *Data Catalog* (retrieved July 19, 2010); national sources

9.05 Broadband Internet subscriptions

Number of fixed broadband Internet subscriptions per 100 population | 2009

Source: International Telecommunication Union, *World Telecommunication/ICT Indicators* (June 2010 edition)

9.06 Internet bandwidth

International Internet bandwidth (Mb/s) per 10,000 population | 2007

Sources: International Telecommunication Union, *World Telecommunication/ICT Indicators* (June 2010 edition); national sources

10TH PILLAR: MARKET SIZE

10.01 Domestic market size index

Sum of gross domestic product plus value of imports of goods and services, minus value of exports of goods and services, normalized on a 1–7 (best) scale | 2009

Source: Authors' calculation. For more details please refer to Appendix A in Chapter 1.1 of this *Report*

10.02 Foreign market size index

Value of exports of goods and services, normalized on a 1–7 (best) scale | 2009

Source: Authors' calculation. For more details please refer to Appendix A in Chapter 1.1 of this *Report*

10.03 GDP (PPP)

Gross domestic product valued at purchasing power parity in billions of international dollars | 2009

Sources: International Monetary Fund, *World Economic Outlook Database* (April 2010); national sources

10.04 Imports as a percentage of GDP

Imports of goods and services as a percentage of gross domestic product | 2009

Sources: Economist Intelligence Unit, *CountryData Database* (retrieved July 1, 2010); The World Bank, *Data Catalog* (retrieved July 13, 2010); national sources

10.05 Exports as a percentage of GDP

Exports of goods and services as a percentage of gross domestic product | 2009

Sources: Economist Intelligence Unit, *CountryData Database* (retrieved July 1, 2010); The World Bank, *Data Catalog* (retrieved July 14, 2010); national sources

11TH PILLAR: BUSINESS SOPHISTICATION

11.01 Local supplier quantity

How numerous are local suppliers in your country? [1 = largely nonexistent; 7 = very numerous] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.02 Local supplier quality

How would you assess the quality of local suppliers in your country? [1 = very poor; 7 = very good] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.03 State of cluster development

In your country's economy, how prevalent are well-developed and deep clusters? [1 = nonexistent; 7 = widespread in many fields] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.04 Nature of competitive advantage

What is the nature of competitive advantage of your country's companies in international markets based upon? [1 = low-cost or natural resources; 7 = unique products and processes] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.05 Value chain breadth

In your country, do exporting companies have a narrow or broad presence in the value chain? [1 = narrow, primarily involved in individual steps of the value chain (e.g., resource extraction or production); 7 = broad, present across the entire value chain (i.e., do not only produce but also perform product design, marketing sales, logistics, and after-sales services)] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.06 Control of international distribution

To what extent are international distribution and marketing from your country owned and controlled by domestic companies? [1 = not at all, they take place through foreign companies; 7 = extensively, they are primarily owned and controlled by domestic companies] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.07 Production process sophistication

In your country, how sophisticated are production processes? [1 = not at all—labor-intensive methods or previous generations of process technology prevail; 7 = highly—the world's best and most efficient process technology prevails] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.08 Extent of marketing

In your country, to what extent do companies use sophisticated marketing tools and techniques? [1 = very little; 7 = extensively] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

11.09 Willingness to delegate authority

In your country, how do you assess the willingness to delegate authority to subordinates? [1 = low—top management controls all important decisions; 7 = high—authority is mostly delegated to business unit heads and other lower-level managers] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

12TH PILLAR: INNOVATION

12.01 Capacity for innovation

In your country, how do companies obtain technology? [1 = exclusively from licensing or imitating foreign companies; 7 = by conducting formal research and pioneering their own new products and processes] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

12.02 Quality of scientific research institutions

How would you assess the quality of scientific research institutions in your country? [1 = very poor; 7 = the best in their field internationally] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

12.03 Company spending on R&D

To what extent do companies in your country spend on R&D? [1 = do not spend on R&D; 7 = spend heavily on R&D] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

12.04 University-industry collaboration in R&D

To what extent do business and universities collaborate on research and development (R&D) in your country? [1 = do not collaborate at all; 7 = collaborate extensively] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

12.05 Government procurement of advanced technology products

Do government procurement decisions foster technological innovation in your country? [1 = no, not at all; 7 = yes, extremely effectively] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

12.06 Availability of scientists and engineers

To what extent are scientists and engineers available in your country? [1 = not at all; 7 = widely available] | 2009–10 weighted average

Source: World Economic Forum, Executive Opinion Survey 2009, 2010

12.07 Utility patents per million population

Number of utility patents (i.e., patents for invention) granted in 2009, per million population | 2009

Source: The United States Patent and Trademark Office

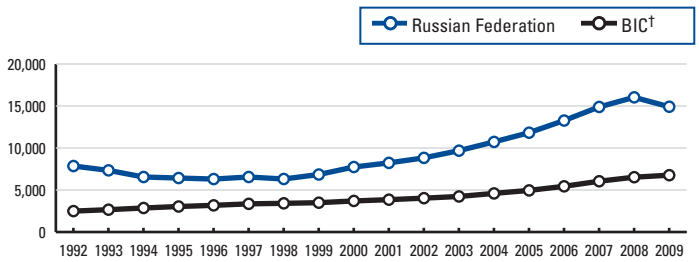
List of Countries

Russian Federation

Key indicators, 2009

Population (millions)	140.9
GDP (US$ billions)	1,229.2
GDP (US$) per capita	8,694
GDP (PPP) per capita	14,912.7
GDP (PPP) as share (%) of world total	3.05

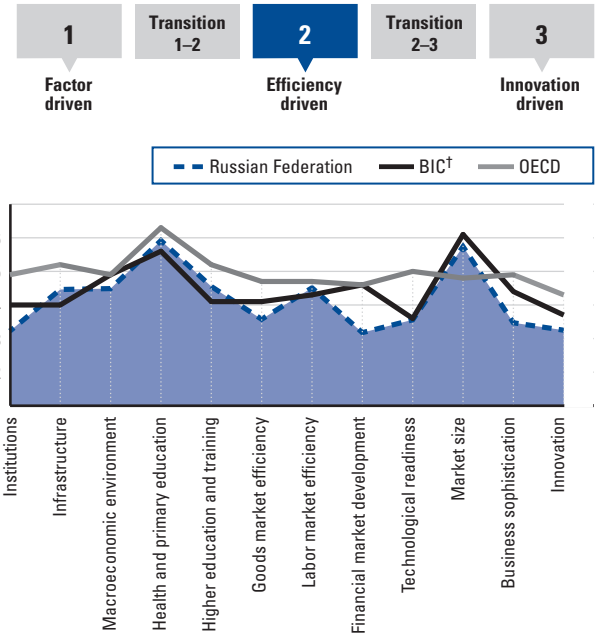
GDP (PPP) per capita (int'l $), 1992–2009



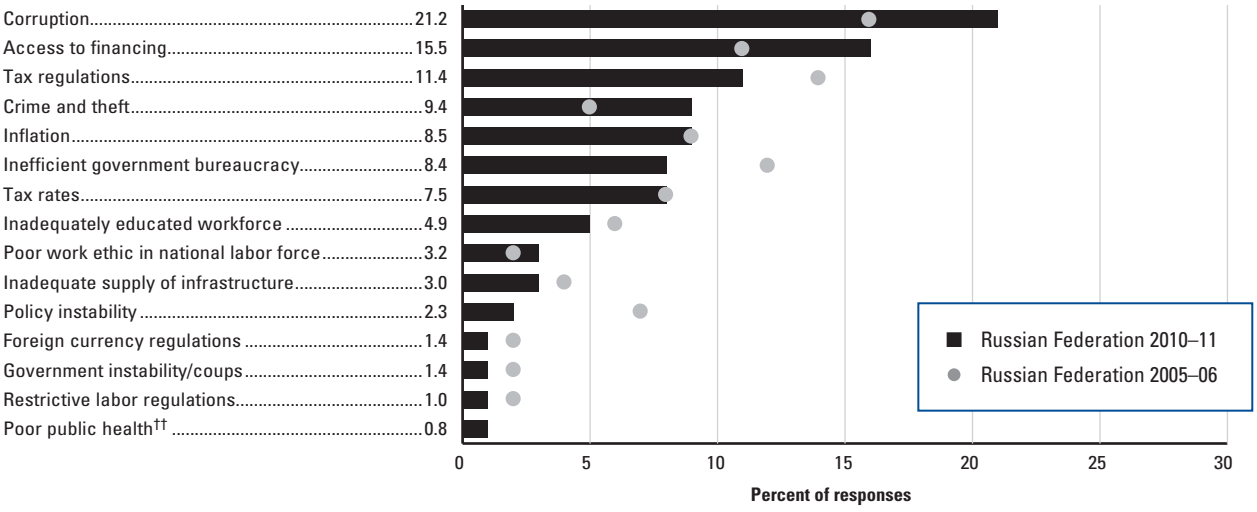
Global Competititveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**63**	**4.2**
Basic requirements	**65**	**4.5**
1st pillar: Institutions	118	3.2
2nd pillar: Infrastructure	47	4.5
3rd pillar: Macroeconomic environment	79	4.5
4th pillar: Health and primary education	53	5.9
Efficiency enhancers	**53**	**4.2**
5th pillar: Higher education and training	50	4.6
6th pillar: Goods market efficiency	123	3.6
7th pillar: Labor market efficiency	57	4.5
8th pillar: Financial market development	125	3.2
9th pillar: Technological readiness	69	3.6
10th pillar: Market size	8	5.7
Innovation and sophistication factors	**80**	**3.4**
11th pillar: Business sophistication	101	3.5
12th pillar: Innovation	57	3.2

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China. †† This factor was not considered in 2005–06 edition.

Russian Federation

The Global Competitiveness Index in detail

■ Competitive **advantage** ■ Competitive **disadvantage**

		Russian Federation		Trend	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	2005–11	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**63**	**4.2**	↗	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	65	4.5	↗	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	53	4.2	↗	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	80	3.4	↘	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**118**	**3.2**	↗	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	128	2.9	↘	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	119	2.6	↗	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	109	2.6	↘	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	69	2.9	↗	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	111	3.2	n/a	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	115	2.7	↗	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	106	2.6	↗	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	82	3.1	↗	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	128	2.5	↗	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	114	2.9	n/a	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	115	2.8	n/a	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	105	3.8	↗	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	93	5.3	↗	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	90	4.5	↗	5.4	4.5	6.6	Syria
1.15	Organized crime*	112	4.3	↗	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	128	2.7	↘	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	112	3.3	↘	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	116	3.8	↗	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	113	4.1	↘	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	132	3.2	↗	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	77	5.0	n/a	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**47**	**4.5**	↗	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	94	3.6	↗	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	125	2.4	n/a	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	31	4.1	↘	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	93	3.7	↘	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	104	3.8	↘	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	13	2,517.3	n/a	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	80	4.3	↗	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	39	31.8	↗	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	8	163.6	↗	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**79**	**4.5**	↘	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	106	–6.2	↘	–4.8	–3.3	178.0	Timor Leste
3.02	National savings rate, % GDP	58	21.9	↘	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	125	11.7	↗	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	87	6.7	↘	3.0	14.5	–0.6	Netherlands
3.05	Government debt, % GDP	8	8.5	↘	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	49	63.2	n/a	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**53**	**5.9**	↗	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	0.0	↘	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	66	5.7	↘	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	90	106.7	↘	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	62	5.4	↘	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	106	1.1	↘	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	59	11.9	↘	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	99	67.8	↗	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	65	3.9	↘	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	3	99.8	↘	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**50**	**4.6**	↘	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	77	84.8	↘	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	12	77.2	↗	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	78	3.6	↘	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	54	4.4	↘	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	92	3.8	↗	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	62	4.1	↗	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	67	4.1	↘	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	90	3.7	↗	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Russian Federation

The Global Competitiveness Index in detail

■ Competitive **advantage** ■ Competitive **disadvantage**

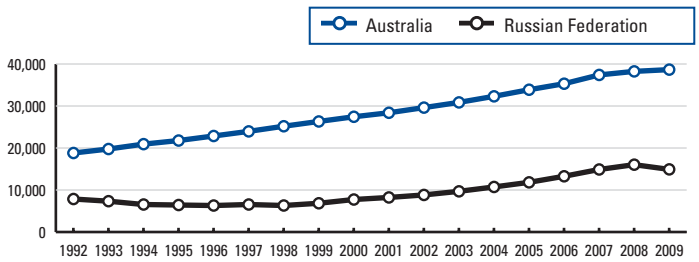
		Russian Federation			Trend	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE		2005–11	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**123**	**3.6**		↘	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	115	4.1		↘	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	88	3.4		↗	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	108	3.4		↗	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	97	3.2		↗	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	95	48.3		n/a	43.8	65.9	0.2	Timor Leste
6.06	No. procedures to start a business	88	9.0		↘	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	93	30.0		↘	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	121	3.3		↗	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	133	3.5		↘	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	111	11.6		n/a	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	126	3.6		↘	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	127	3.6		↘	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	132	2.9		↗	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	132	3.5		↘	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	50	3.7	■	↘	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**57**	**4.5**		↗	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	116	3.8		↘	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	78	5.0		↘	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	90	38.0		↘	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	75	3.9		↘	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	29	17.0	■	↘	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	47	4.2	■	↘	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	101	3.9		↘	5.2	4.7	6.5	Sweden
7.08	Brain drain*	82	3.1		↘	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	25	0.9	■	n/a	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**125**	**3.2**		↘	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	109	3.8		n/a	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	92	3.8		n/a	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	107	2.7		↘	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	107	2.3		↘	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	95	2.3		↘	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	119	3.4		n/a	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	129	3.8		↘	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	118	3.3		↘	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	103	3.0		↘	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**69**	**3.6**		↗	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	122	4.2		↗	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	120	4.0		↘	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	120	3.9		↘	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	52	42.4		↗	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	50	9.2	■	n/a	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	83	5.7		n/a	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**8**	**5.7**		↗	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	9	5.6	■	↗	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	7	6.1	■	↗	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**101**	**3.5**		↘	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	103	4.3		↘	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	114	3.8		↘	5.4	4.8	6.3	Austria
11.03	State of cluster development*	87	3.2		↘	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	98	2.9		↗	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	104	3.0		↗	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	91	3.7		↘	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	93	3.2		↘	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	88	3.8		↗	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	103	3.1		↘	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**57**	**3.2**		↘	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	38	3.5	■	↘	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	53	3.9		↘	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	50	3.2	■	↘	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	61	3.7		↗	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	82	3.5		↘	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	56	4.3		↘	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	49	1.4	■	↗	66.6	0.8	287.1	Taiwan, China

Australia

Key indicators, 2009

Population (millions)	21.3
GDP (US$ billions)	997.2
GDP (US$) per capita	45,587
GDP (PPP) per capita	38,663
GDP (PPP) as share (%) of world total	1.17

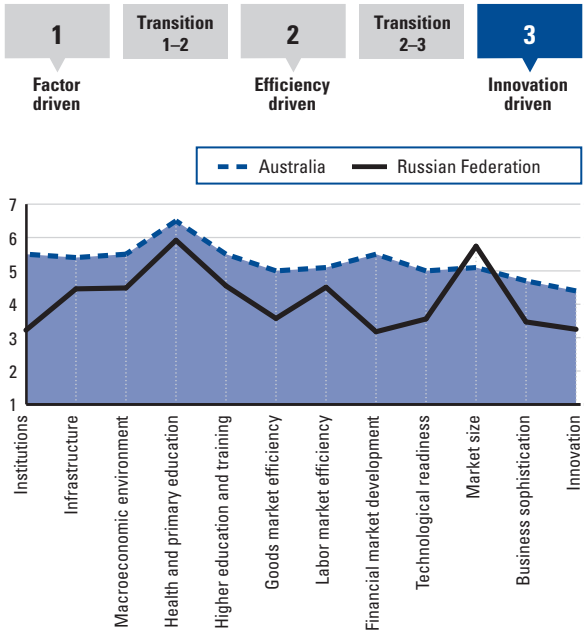
GDP (PPP) per capita (int'l $), 1992–2009



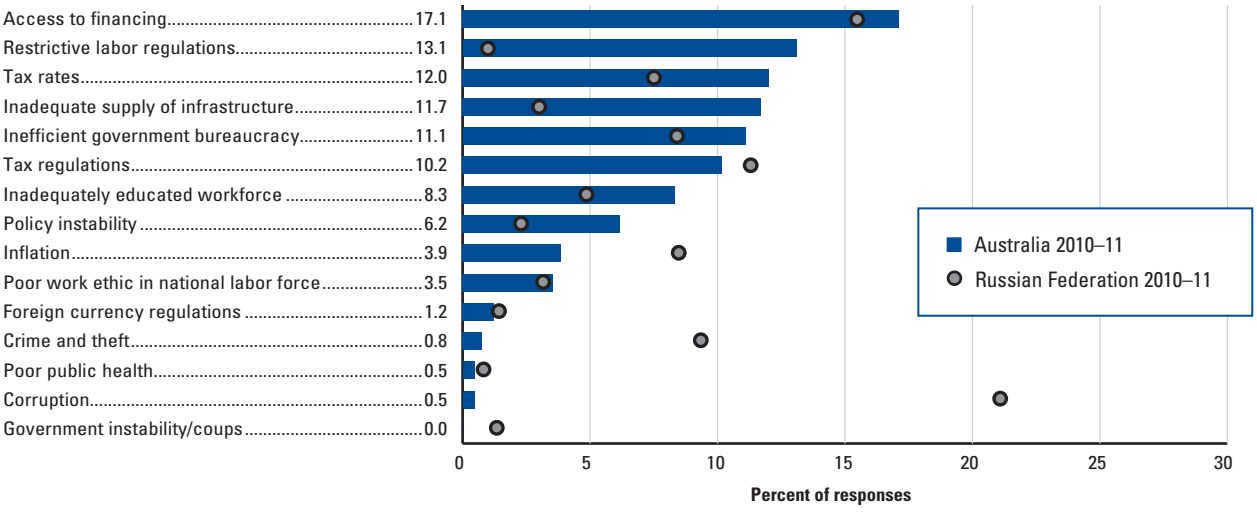
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**16**	**5.1**
Basic requirements	**12**	**5.7**
1st pillar: Institutions	14	5.5
2nd pillar: Infrastructure	22	5.4
3rd pillar: Macroeconomic environment	17	5.5
4th pillar: Health and primary education	13	6.5
Efficiency enhancers	**10**	**5.2**
5th pillar: Higher education and training	14	5.5
6th pillar: Goods market efficiency	18	5.0
7th pillar: Labor market efficiency	11	5.1
8th pillar: Financial market development	3	5.5
9th pillar: Technological readiness	23	5.0
10th pillar: Market size	18	5.1
Innovation and sophistication factors	**22**	**4.5**
11th pillar: Business sophistication	29	4.7
12th pillar: Innovation	21	4.4

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Australia

The Global Competitiveness Index in detail

		Australia		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**16**	**5.1**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	12	5.7	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	10	5.2	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	22	4.5	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**14**	**5.5**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	14	5.9	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	14	5.6	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	13	5.8	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	17	4.6	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	16	6.0	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	9	6.3	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	19	4.6	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	21	4.4	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	60	3.4	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	12	5.4	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	13	5.0	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	19	5.2	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	80	5.5	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	45	5.4	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	32	6.2	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	19	5.9	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	10	6.2	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	14	5.8	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	7	5.5	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	15	5.2	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	45	5.7	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**22**	**5.4**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	34	5.2	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	30	5.3	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	26	4.4	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	46	4.9	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	30	5.8	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	6	3,587.1	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	33	6.0	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	23	42.4	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	42	113.7	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**17**	**5.5**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	67	–4.0	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	46	24.1	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	49	1.8	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	35	3.2	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	23	19.2	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	14	87.6	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**13**	**6.5**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	35	6.3	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	20	6.6	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	53	5.6	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	55	0.2	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	28	4.9	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	7	81.4	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	14	5.4	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	42	96.9	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**14**	**5.5**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	1	149.3	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	13	77.0	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	12	5.2	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	24	4.9	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	17	5.3	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	28	5.5	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	20	5.3	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	20	4.8	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Australia

The Global Competitiveness Index in detail

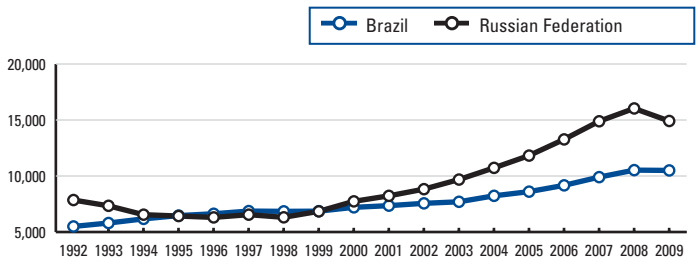
		Australia		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**18**	**5.0**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	11	5.7	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	11	5.1	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	15	5.2	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	66	3.6	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	94	48.0	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	3	2.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	2	2.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	9	4.8	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	24	5.3	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	55	4.3	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	19	5.6	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	57	4.9	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	24	5.0	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	20	5.4	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	16	4.4	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**11**	**5.1**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	43	4.7	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	110	4.4	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	1	0.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	79	3.8	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	6	4.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	53	4.2	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	8	6.0	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	22	4.8	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	51	0.8	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**3**	**5.5**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	14	6.0	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	25	5.1	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	15	4.6	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	16	3.9	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	12	3.8	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	32	5.1	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	3	6.5	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	10	5.5	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	6	9.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**23**	**5.0**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	22	6.1	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	19	5.9	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	22	5.2	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	20	74.0	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	18	25.4	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	40	55.1	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**18**	**5.1**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	17	5.1	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	30	5.3	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**29**	**4.7**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	37	5.1	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	16	5.5	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	35	4.1	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	59	3.4	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	78	3.4	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	31	4.5	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	24	5.2	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	16	5.3	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	12	4.9	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**21**	**4.4**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	23	4.1	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	10	5.6	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	23	4.1	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	13	5.1	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	37	4.1	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	45	4.5	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	17	57.3	1.4	66.6	0.8	287.1	Taiwan, China

Brazil

Key indicators, 2009

Population (millions)	193.7
GDP (US$ billions)	1,574.0
GDP (US$) per capita	8,220
GDP (PPP) per capita	10,499
GDP (PPP) as share (%) of world total	2.87

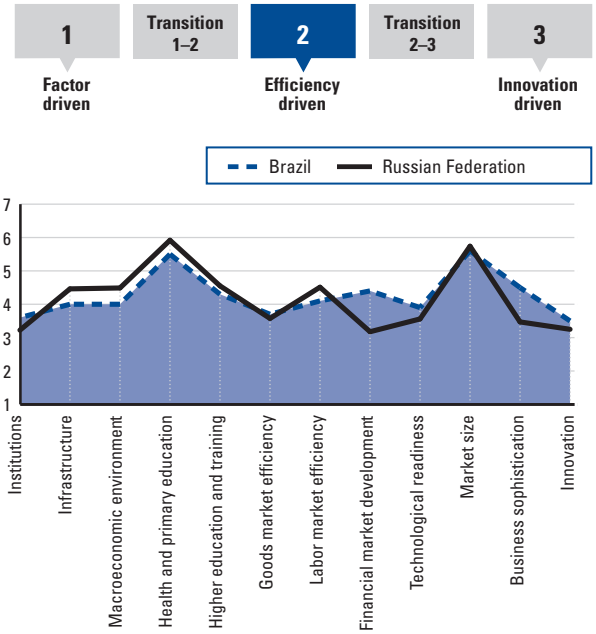
GDP (PPP) per capita (int'l $), 1992–2009



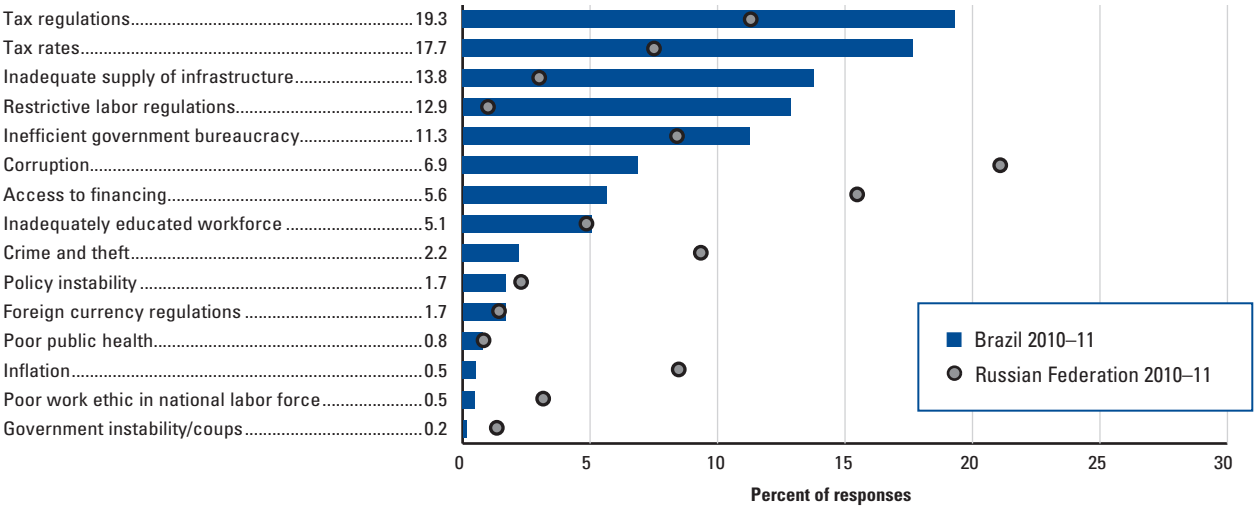
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**58**	**4.3**
Basic requirements	**86**	**4.3**
1st pillar: Institutions	93	3.6
2nd pillar: Infrastructure	62	4.0
3rd pillar: Macroeconomic environment	111	4.0
4th pillar: Health and primary education	87	5.5
Efficiency enhancers	**44**	**4.4**
5th pillar: Higher education and training	58	4.3
6th pillar: Goods market efficiency	114	3.7
7th pillar: Labor market efficiency	96	4.1
8th pillar: Financial market development	50	4.4
9th pillar: Technological readiness	54	3.9
10th pillar: Market size	10	5.6
Innovation and sophistication factors	**38**	**4.0**
11th pillar: Business sophistication	31	4.5
12th pillar: Innovation	42	3.5

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Brazil

The Global Competitiveness Index in detail

		Brazil		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**58**	**4.3**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	86	4.3	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	44	4.4	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	38	4.0	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**93**	**3.6**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	72	4.3	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	89	3.1	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	121	2.3	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	127	1.8	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	71	4.0	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	76	3.5	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	74	2.9	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	136	1.8	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	139	1.9	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	83	3.4	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	71	3.5	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	87	4.1	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	15	6.6	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	123	3.3	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	125	3.9	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	74	4.1	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	94	3.5	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	64	4.8	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	67	4.5	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	64	4.4	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	59	5.3	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**62**	**4.0**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	84	3.8	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	105	2.9	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	87	1.9	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	123	2.9	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	93	4.0	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	9	3,001.8	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	63	5.1	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	62	21.4	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	76	89.8	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**111**	**4.0**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	51	–3.2	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	101	15.0	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	93	4.9	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	136	35.4	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	84	48.0	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	46	65.3	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**87**	**5.5**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	81	6.1	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	104	728.2	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	55	5.9	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	66	46.5	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	68	5.3	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	89	0.6	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	76	18.3	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	76	72.4	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	127	2.5	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	68	94.2	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**58**	**4.3**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	22	100.8	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	65	34.4	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	103	3.1	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	126	2.7	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	73	4.1	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	72	3.8	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	36	4.7	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	53	4.2	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Brazil

The Global Competitiveness Index in detail

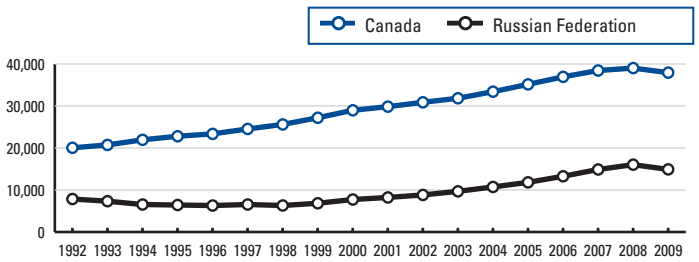
		Brazil		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**114**	**3.7**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	50	5.1	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	46	4.2	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	39	4.5	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	139	2.0	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	127	69.2	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	132	16.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	135	120.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	25	4.4	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	119	3.9	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	114	11.9	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	76	4.6	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	81	4.6	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	122	3.3	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	50	4.9	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	52	3.6	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**96**	**4.1**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	90	4.1	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	116	4.3	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	114	46.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	131	2.8	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	80	46.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	85	3.7	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	52	4.7	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	39	4.2	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	80	0.8	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**50**	**4.4**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	27	5.6	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	52	4.5	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	45	3.9	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	65	2.8	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	60	2.6	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	73	4.4	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	14	6.2	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	5	5.7	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	103	3.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**54**	**3.9**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	50	5.5	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	46	5.2	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	23	5.2	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	57	38.7	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	58	7.5	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	56	21.1	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**10**	**5.6**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	8	5.6	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	24	5.5	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**31**	**4.5**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	9	5.7	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	29	5.2	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	23	4.5	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	89	3.0	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	60	3.7	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	27	4.6	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	29	4.7	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	22	5.2	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	43	3.9	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**42**	**3.5**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	29	3.8	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	42	4.2	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	29	3.8	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	34	4.3	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	50	3.9	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	68	4.0	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	61	0.5	1.4	66.6	0.8	287.1	Taiwan, China

Canada

Key indicators, 2009

Population (millions)	33.6
GDP (US$ billions)	1,336.4
GDP (US$) per capita	39,669
GDP (PPP) per capita	37,947
GDP (PPP) as share (%) of world total	1.85

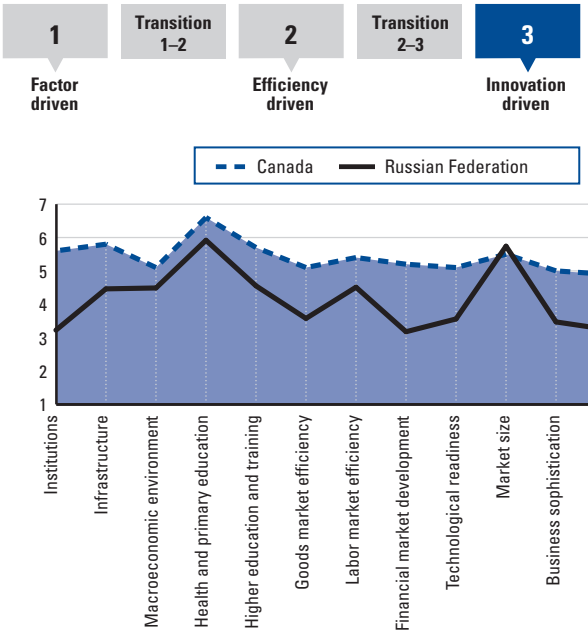
GDP (PPP) per capita (int'l $), 1992–2009



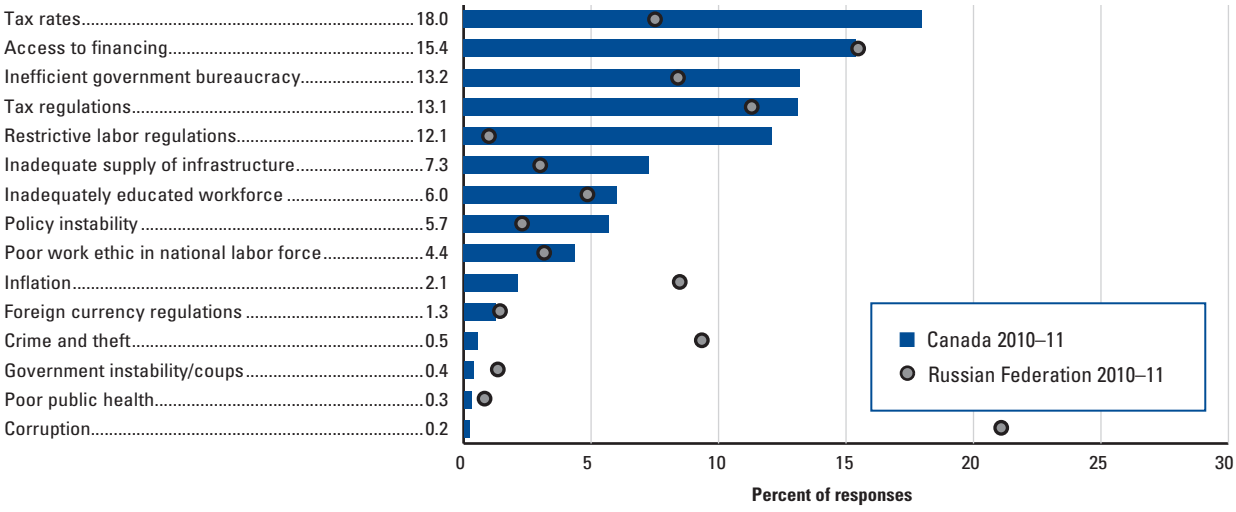
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**10**	**5.3**
Basic requirements	**11**	**5.8**
1st pillar: Institutions	11	5.6
2nd pillar: Infrastructure	9	5.8
3rd pillar: Macroeconomic environment	36	5.1
4th pillar: Health and primary education	6	6.6
Efficiency enhancers	**6**	**5.3**
5th pillar: Higher education and training	8	5.7
6th pillar: Goods market efficiency	11	5.1
7th pillar: Labor market efficiency	6	5.4
8th pillar: Financial market development	12	5.2
9th pillar: Technological readiness	16	5.1
10th pillar: Market size	14	5.5
Innovation and sophistication factors	**14**	**5.0**
11th pillar: Business sophistication	16	5.0
12th pillar: Innovation	11	4.9

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Canada

The Global Competitiveness Index in detail

		Canada		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**10**	**5.3**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	11	5.8	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	6	5.3	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	14	5.0	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**11**	**5.6**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	10	6.1	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	13	5.6	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	16	5.7	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	23	4.2	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	12	6.2	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	11	6.2	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	20	4.3	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	32	4.1	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	41	3.6	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	14	5.3	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	18	4.9	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	11	5.5	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	96	5.3	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	49	5.3	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	50	5.8	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	7	6.2	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	8	6.3	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	6	6.1	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	4	5.7	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	8	5.4	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	5	8.3	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**9**	**5.8**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	13	6.0	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	17	5.7	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	16	5.3	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	14	5.7	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	23	6.0	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	10	2,959.0	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	14	6.6	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	12	54.4	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	100	68.7	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**36**	**5.1**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	34	–2.0	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	80	18.5	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	24	0.3	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	20	2.3	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	120	81.6	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	4	92.1	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**6**	**6.6**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	9	6.7	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	8	5.0	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	25	6.2	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	77	0.4	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	35	5.7	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	11	81.0	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	9	5.6	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	8	99.5	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**8**	**5.7**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	19	101.3	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	27	62.3	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	5	5.7	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	10	5.4	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	3	6.0	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	13	6.0	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	11	5.7	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	12	5.0	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Canada

The Global Competitiveness Index in detail

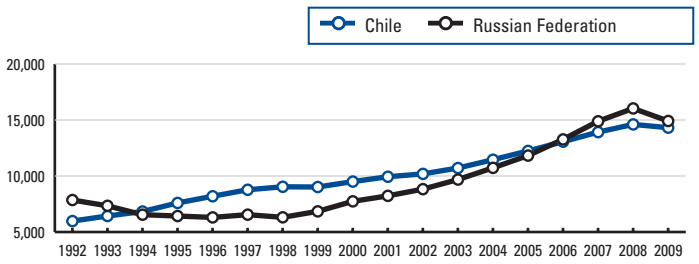
		Canada		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**11**	**5.1**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	20	5.6	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	13	5.0	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	14	5.2	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	48	3.8	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	79	43.6	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	1	1.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	9	5.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	28	4.4	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	45	4.9	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	38	2.8	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	11	5.8	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	48	5.0	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	27	4.9	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	13	5.5	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	6	4.7	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**6**	**5.4**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	28	5.0	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	33	5.5	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	8	4.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	15	4.8	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	55	28.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	30	4.4	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	5	6.1	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	9	5.2	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	24	0.9	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**12**	**5.2**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	2	6.4	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	14	5.5	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	8	4.7	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	24	3.6	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	19	3.7	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	39	5.0	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	1	6.7	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	22	5.2	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	60	6.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**16**	**5.1**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	14	6.4	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	22	5.6	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	29	5.1	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	15	78.1	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	12	29.7	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	18	162.1	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**14**	**5.5**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	14	5.3	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	18	5.8	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**16**	**5.0**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	20	5.4	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	7	5.8	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	11	5.0	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	56	3.5	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	33	4.2	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	36	4.4	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	15	5.5	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	10	5.7	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	7	5.1	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**11**	**4.9**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	19	4.2	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	8	5.7	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	20	4.2	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	7	5.4	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	26	4.3	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	6	5.6	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	10	108.8	1.4	66.6	0.8	287.1	Taiwan, China

Chile

Key indicators, 2009

Population (millions)	17.0
GDP (US$ billions)	161.8
GDP (US$) per capita	9,525
GDP (PPP) per capita	14,316
GDP (PPP) as share (%) of world total	0.35

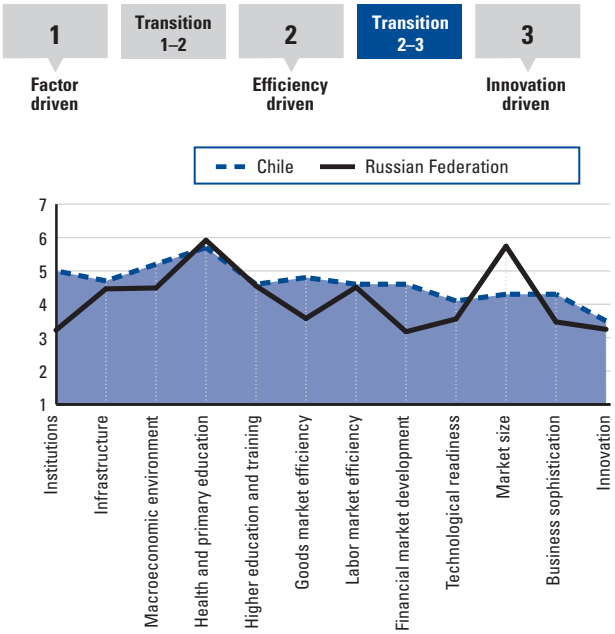
GDP (PPP) per capita (int'l $), 1992–2009



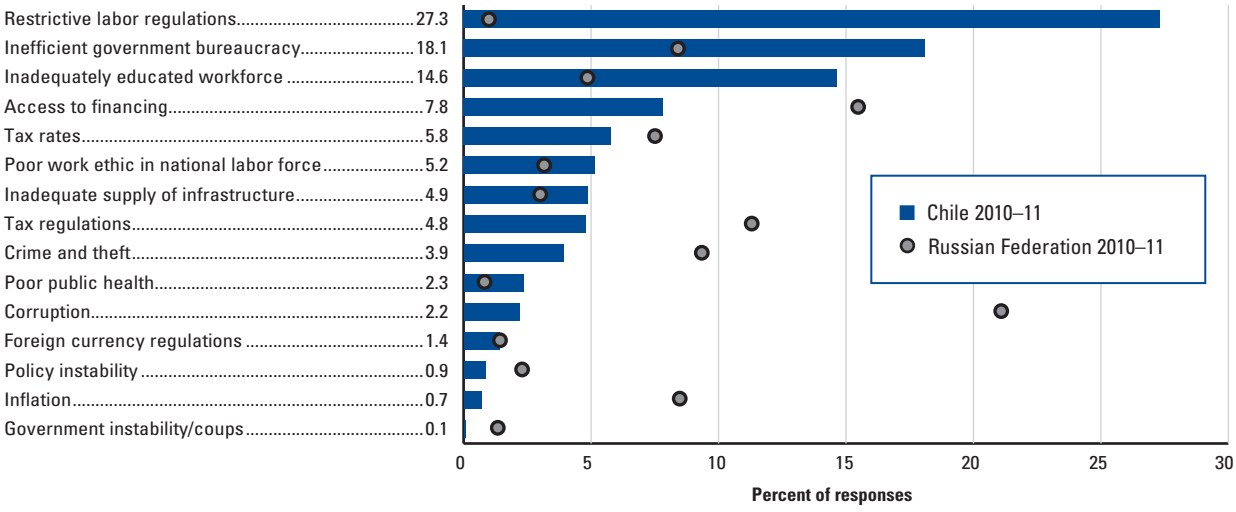
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**30**	**4.7**
Basic requirements	**37**	**5.2**
1st pillar: Institutions	28	5.0
2nd pillar: Infrastructure	40	4.7
3rd pillar: Macroeconomic environment	27	5.2
4th pillar: Health and primary education	71	5.7
Efficiency enhancers	**35**	**4.5**
5th pillar: Higher education and training	45	4.6
6th pillar: Goods market efficiency	28	4.8
7th pillar: Labor market efficiency	44	4.6
8th pillar: Financial market development	41	4.6
9th pillar: Technological readiness	45	4.1
10th pillar: Market size	46	4.3
Innovation and sophistication factors	**44**	**3.9**
11th pillar: Business sophistication	43	4.3
12th pillar: Innovation	43	3.5

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Chile

The Global Competitiveness Index in detail

		Chile		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**30**	**4.7**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	37	5.2	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	35	4.5	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	44	3.9	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**28**	**5.0**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	37	5.2	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	59	3.7	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	35	4.6	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	34	3.8	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	24	5.7	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	25	5.4	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	21	4.3	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	26	4.2	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	45	3.6	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	26	4.8	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	24	4.6	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	10	5.6	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	21	6.4	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	78	4.6	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	45	5.8	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	5	6.3	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	19	5.6	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	24	5.6	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	18	5.1	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	36	4.8	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	33	6.0	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**40**	**4.7**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	24	5.7	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	12	5.9	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	77	2.2	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	24	5.5	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	26	5.9	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	39	426.0	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	30	6.0	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	63	21.1	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	64	96.9	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**27**	**5.2**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	76	–4.4	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	61	21.6	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	46	1.7	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	67	5.3	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	29	22.1	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	26	77.9	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**71**	**5.7**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	31	6.4	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	29	11.5	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	32	6.1	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	71	0.3	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	44	7.2	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	31	78.6	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	121	2.6	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	65	94.4	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**45**	**4.6**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	56	90.6	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	43	52.1	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	100	3.2	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	123	2.8	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	15	5.3	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	42	4.7	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	31	4.9	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	33	4.4	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Chile

The Global Competitiveness Index in detail

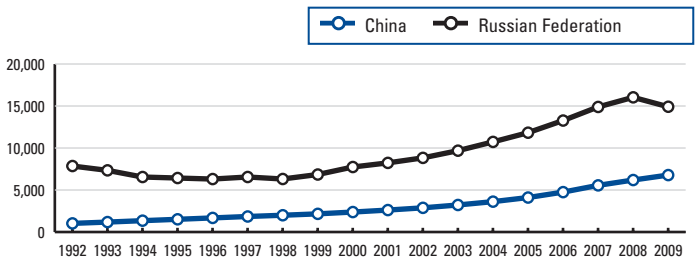
		Chile		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**28**	**4.8**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	25	5.5	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	78	3.5	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	22	4.9	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	19	4.3	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	20	25.3	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	88	9.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	86	27.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	4	5.1	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	4	6.3	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	62	4.7	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	9	6.0	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	12	5.6	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	7	5.7	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	51	4.9	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	27	4.1	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**44**	**4.6**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	39	4.7	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	25	5.6	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	42	18.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	111	3.3	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	85	52.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	37	4.3	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	28	5.1	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	13	5.0	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	110	0.6	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**41**	**4.6**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	19	5.8	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	13	5.5	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	19	4.4	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	23	3.7	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	34	3.2	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	20	5.4	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	5	6.5	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	104	3.7	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	86	4.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**45**	**4.1**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	26	6.0	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	37	5.3	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	20	5.2	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	68	34.0	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	48	9.8	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	47	40.8	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**46**	**4.3**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	46	4.1	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	45	4.9	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**43**	**4.3**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	58	4.9	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	27	5.2	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	38	4.1	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	92	3.0	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	48	3.8	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	40	4.4	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	31	4.6	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	27	5.0	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	67	3.6	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**43**	**3.5**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	59	3.1	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	55	3.9	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	52	3.2	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	39	4.2	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	44	4.1	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	24	4.9	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	50	1.2	1.4	66.6	0.8	287.1	Taiwan, China

China

Key indicators, 2009

Population (millions)	1,345.8
GDP (US$ billions)	4,909.0
GDP (US$) per capita	3,678
GDP (PPP) per capita	6,778
GDP (PPP) as share (%) of world total	12.52

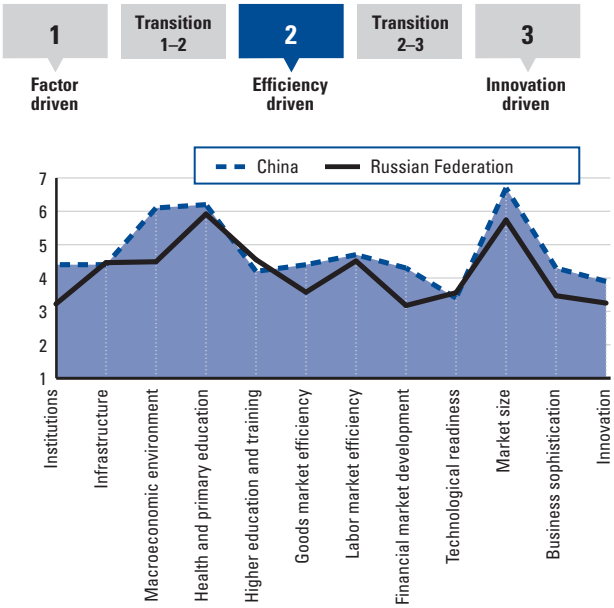
GDP (PPP) per capita (int'l $), 1992–2009



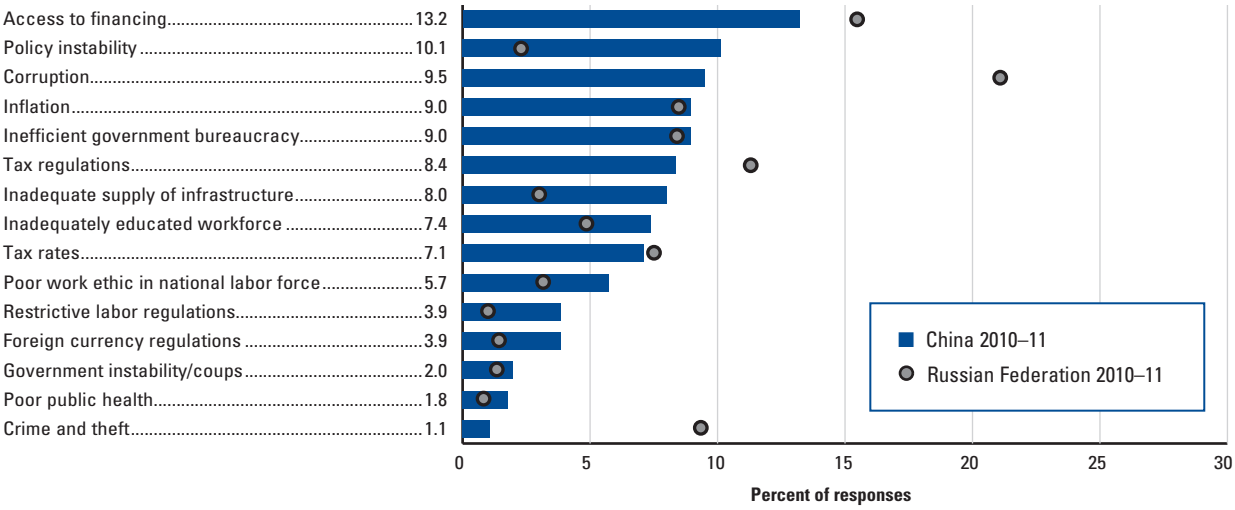
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**27**	**4.8**
Basic requirements	**30**	**5.3**
1st pillar: Institutions	49	4.4
2nd pillar: Infrastructure	50	4.4
3rd pillar: Macroeconomic environment	4	6.1
4th pillar: Health and primary education	37	6.2
Efficiency enhancers	**29**	**4.6**
5th pillar: Higher education and training	60	4.2
6th pillar: Goods market efficiency	43	4.4
7th pillar: Labor market efficiency	38	4.7
8th pillar: Financial market development	57	4.3
9th pillar: Technological readiness	78	3.4
10th pillar: Market size	2	6.7
Innovation and sophistication factors	**31**	**4.1**
11th pillar: Business sophistication	41	4.3
12th pillar: Innovation	26	3.9

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

China

The Global Competitiveness Index in detail

		China		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**27**	**4.8**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	30	5.3	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	29	4.6	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	31	4.1	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**49**	**4.4**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	38	5.1	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	49	4.0	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	55	3.8	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	22	4.3	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	63	4.1	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	62	4.0	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	37	3.8	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	35	3.9	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	21	4.0	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	44	4.2	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	51	4.0	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	38	4.8	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	79	5.5	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	47	5.3	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	76	5.2	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	51	4.6	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	55	4.2	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	61	4.8	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	85	4.4	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	66	4.4	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	77	5.0	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**50**	**4.4**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	72	4.1	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	53	4.3	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	27	4.3	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	67	4.3	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	79	4.4	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	2	9,126.5	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	52	5.3	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	57	23.3	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	111	55.5	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**4**	**6.1**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	35	–2.2	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	3	52.3	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	10	–0.7	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	33	3.1	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	18	16.9	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	32	75.4	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**37**	**6.2**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	90	5.7	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	80	7.5	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	74	5.5	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	86	97.3	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	56	5.5	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	22	0.1	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	75	17.8	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	70	73.1	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	35	4.7	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	7	99.5	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**60**	**4.2**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	92	76.1	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	88	22.7	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	53	4.0	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	33	4.7	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	63	4.2	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	22	5.7	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	50	4.4	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	57	4.1	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

The Global Competitiveness Index in detail

		China		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**43**	**4.4**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	19	5.6	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	23	4.8	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	50	4.4	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	29	4.1	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	122	63.8	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	126	14.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	108	37.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	5	5.0	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	69	4.6	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	122	13.3	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	103	4.4	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	18	5.4	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	46	4.5	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	70	4.5	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	7	4.6	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**38**	**4.7**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	58	4.5	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	56	5.3	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	78	31.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	62	4.1	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	114	91.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	15	4.7	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	50	4.7	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	37	4.3	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	23	0.9	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**57**	**4.3**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	71	4.6	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	44	4.7	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	52	3.8	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	51	3.0	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	27	3.3	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	123	3.3	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	60	5.3	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	61	4.4	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	60	6.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**78**	**3.4**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	94	4.4	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	61	4.9	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	80	4.6	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	77	28.5	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	57	7.7	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	80	6.4	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**2**	**6.7**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	2	6.6	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	1	7.0	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**41**	**4.3**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	19	5.4	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	54	4.7	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	17	4.7	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	48	3.7	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	41	4.0	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	42	4.3	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	55	3.9	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	49	4.5	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	68	3.6	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**26**	**3.9**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	21	4.2	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	39	4.3	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	22	4.1	3.2	4.2	3.9	6.0	Sweden
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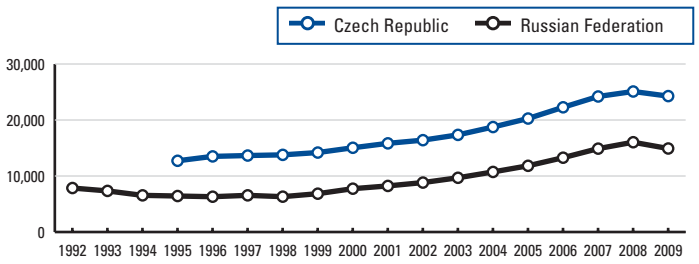
12.05	Gov't procurement of advanced tech.*	12	4.5	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	35	4.6	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	51	1.2	1.4	66.6	0.8	287.1	Taiwan, China

Czech Republic

Key indicators, 2009

Population (millions)	10.4
GDP (US$ billions)	194.8
GDP (US$) per capita	18,557
GDP (PPP) per capita	24,271
GDP (PPP) as share (%) of world total	0.37

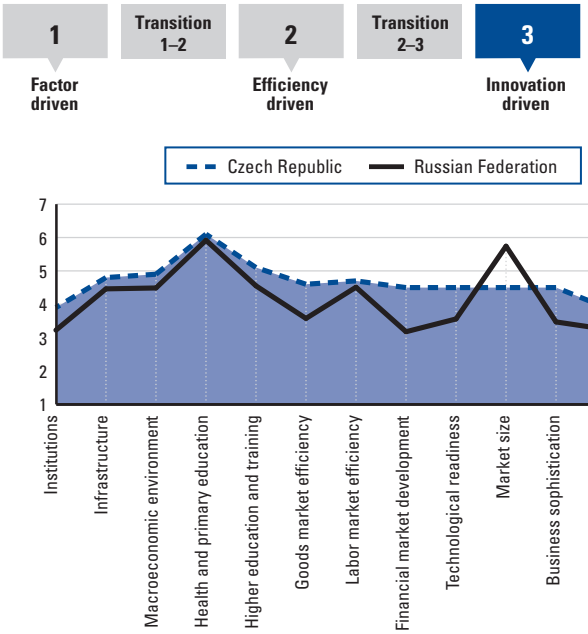
GDP (PPP) per capita (int'l $), 1992–2009



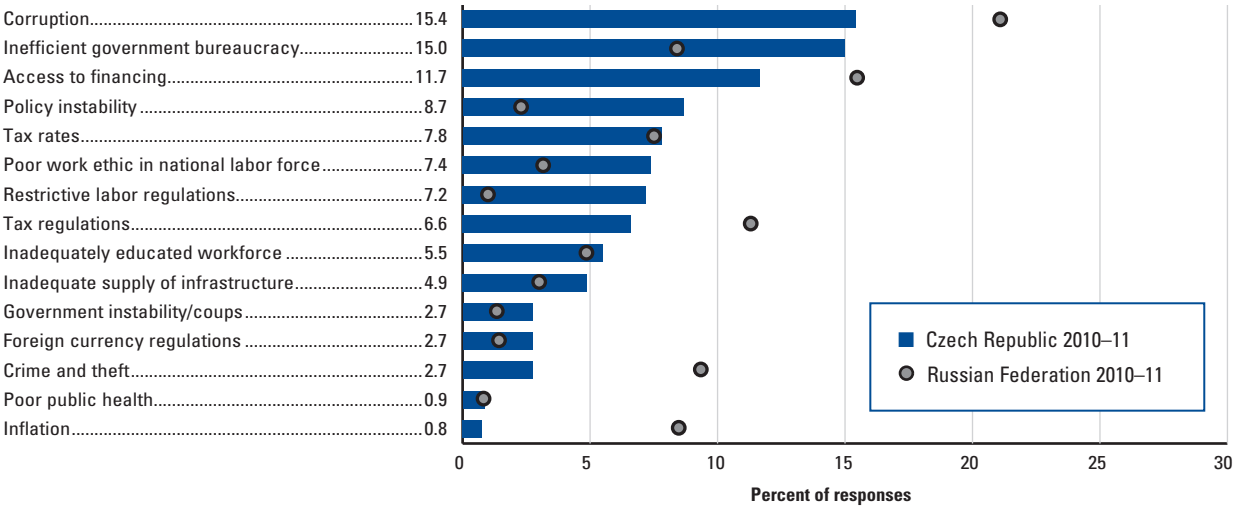
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**36**	**4.6**
Basic requirements	**44**	**4.9**
1st pillar: Institutions	72	3.9
2nd pillar: Infrastructure	39	4.8
3rd pillar: Macroeconomic environment	48	4.9
4th pillar: Health and primary education	43	6.1
Efficiency enhancers	**28**	**4.7**
5th pillar: Higher education and training	24	5.1
6th pillar: Goods market efficiency	35	4.6
7th pillar: Labor market efficiency	33	4.7
8th pillar: Financial market development	48	4.5
9th pillar: Technological readiness	32	4.5
10th pillar: Market size	42	4.5
Innovation and sophistication factors	**30**	**4.2**
11th pillar: Business sophistication	34	4.5
12th pillar: Innovation	27	3.9

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Czech Republic

The Global Competitiveness Index in detail

		Czech Republic		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**36**	**4.6**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	44	4.9	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	28	4.7	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	30	4.2	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**72**	**3.9**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	65	4.4	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	52	3.9	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	102	2.7	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	121	1.9	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	67	4.0	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	61	4.0	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	107	2.6	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	95	2.9	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	118	2.7	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	97	3.2	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	84	3.3	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	102	3.9	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	24	6.4	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	35	5.6	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	49	5.8	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	86	3.8	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	90	3.6	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	47	5.1	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	43	4.8	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	89	4.0	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	77	5.0	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**39**	**4.8**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	37	5.1	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	80	3.6	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	22	4.6	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	54	4.6	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	17	6.1	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	60	180.5	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	18	6.4	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	66	20.2	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	19	137.5	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**48**	**4.9**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	102	–5.9	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	78	18.6	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	37	1.0	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	54	4.7	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	75	42.1	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	31	75.5	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**43**	**6.1**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	41	6.1	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	27	9.0	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	52	5.6	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	1	0.0	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	13	3.1	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	38	77.2	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	26	4.9	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	97	89.6	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**24**	**5.1**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	42	94.9	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	32	58.6	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	34	4.5	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	25	4.9	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	56	4.4	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	24	5.7	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	17	5.4	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	40	4.4	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Czech Republic

The Global Competitiveness Index in detail

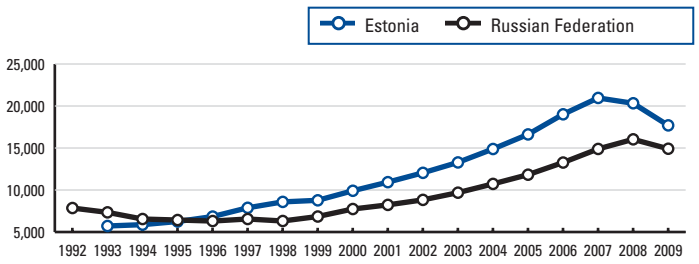
		Czech Republic		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**35**	**4.6**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	12	5.7	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	15	5.0	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	31	4.6	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	49	3.8	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	91	47.2	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	73	8.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	56	15.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	64	3.9	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	12	5.7	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	4	0.9	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	42	5.2	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	22	5.4	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	43	4.6	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	59	4.8	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	36	3.9	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**33**	**4.7**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	50	4.5	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	69	5.1	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	25	11.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	119	3.0	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	40	22.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	22	4.6	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	33	5.0	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	61	3.5	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	61	0.8	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**48**	**4.5**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	47	5.1	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	96	3.7	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	39	4.0	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	47	3.1	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	63	2.6	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	25	5.2	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	24	5.9	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	47	4.6	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	60	6.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**32**	**4.5**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	46	5.5	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	36	5.4	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	15	5.3	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	30	64.4	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	33	19.5	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	34	71.2	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**42**	**4.5**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	45	4.2	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	28	5.3	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**34**	**4.5**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	22	5.4	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	17	5.4	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	41	4.0	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	42	3.8	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	29	4.3	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	117	3.5	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	34	4.6	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	41	4.6	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	24	4.3	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**27**	**3.9**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	24	4.1	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	21	5.1	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	25	4.0	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	29	4.5	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	31	4.2	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	50	4.4	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	34	4.2	1.4	66.6	0.8	287.1	Taiwan, China

Estonia

Key indicators, 2009

Population (millions)	1.3
GDP (US$ billions)	19.1
GDP (US$) per capita	14,267
GDP (PPP) per capita	17,695
GDP (PPP) as share (%) of world total	0.04

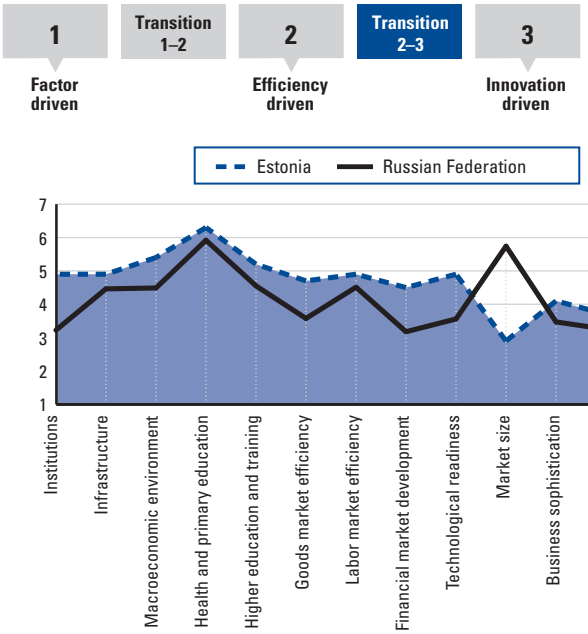
GDP (PPP) per capita (int'l $), 1992–2009



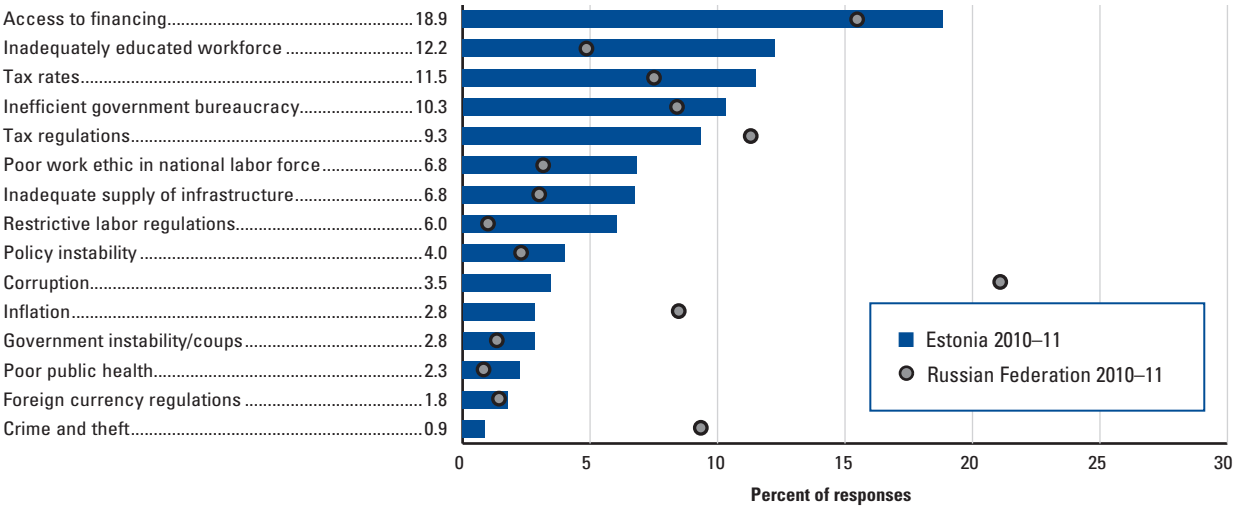
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**33**	**4.6**
Basic requirements	**25**	**5.4**
1st pillar: Institutions	31	4.9
2nd pillar: Infrastructure	32	4.9
3rd pillar: Macroeconomic environment	19	5.4
4th pillar: Health and primary education	29	6.3
Efficiency enhancers	**34**	**4.5**
5th pillar: Higher education and training	22	5.2
6th pillar: Goods market efficiency	29	4.7
7th pillar: Labor market efficiency	17	4.9
8th pillar: Financial market development	45	4.5
9th pillar: Technological readiness	24	4.9
10th pillar: Market size	101	2.9
Innovation and sophistication factors	**45**	**3.9**
11th pillar: Business sophistication	56	4.1
12th pillar: Innovation	37	3.7

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Estonia

The Global Competitiveness Index in detail

		Estonia		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**33**	**4.6**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	25	5.4	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	34	4.5	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	45	3.9	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**31**	**4.9**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	33	5.3	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	34	4.6	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	37	4.6	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	53	3.3	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	30	5.5	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	24	5.5	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	36	3.8	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	49	3.5	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	7	4.4	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	41	4.3	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	40	4.2	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	14	5.4	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	12	6.6	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	30	5.7	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	19	6.5	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	33	5.4	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	33	5.0	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	26	5.6	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	66	4.6	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	54	4.5	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	45	5.7	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**32**	**4.9**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	28	5.5	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	48	4.5	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	36	3.7	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	17	5.6	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	74	4.6	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	125	13.6	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	39	5.7	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	32	36.8	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	2	203.0	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**19**	**5.4**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	29	–1.7	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	47	24.1	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	18	–0.1	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	51	4.6	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	5	7.2	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	56	57.1	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**29**	**6.3**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	52	5.9	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	60	34.0	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	57	5.5	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	110	1.3	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	25	4.4	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	62	74.0	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	16	5.3	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	66	94.3	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**22**	**5.2**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	26	99.3	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	25	63.7	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	42	4.3	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	21	4.9	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	41	4.6	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	2	6.4	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	33	4.8	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	48	4.3	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Estonia

The Global Competitiveness Index in detail

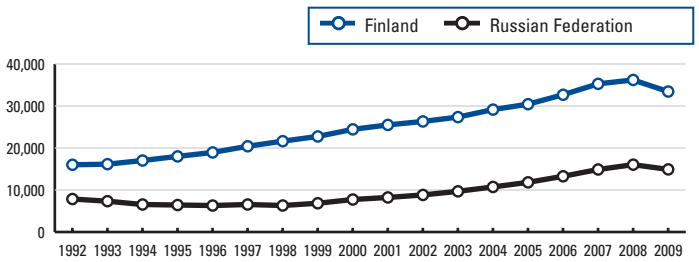
		Estonia		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**29**	**4.7**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	31	5.4	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	38	4.2	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	46	4.4	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	18	4.3	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	98	49.1	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	23	5.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	21	7.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	42	4.2	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	14	5.6	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	4	0.9	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	48	5.1	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	23	5.3	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	12	5.3	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	40	5.0	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	78	3.3	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**17**	**4.9**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	37	4.8	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	5	6.0	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	123	51.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	56	4.1	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	68	35.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	8	5.0	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	29	5.1	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	57	3.5	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	17	0.9	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**45**	**4.5**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	43	5.1	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	49	4.5	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	68	3.6	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	50	3.0	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	30	3.3	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	11	5.7	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	72	5.2	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	44	4.7	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	60	6.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**24**	**4.9**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	31	5.8	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	42	5.3	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	40	5.0	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	25	72.4	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	19	25.3	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	27	126.7	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**101**	**2.9**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	107	2.6	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	84	3.8	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**56**	**4.1**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	94	4.4	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	36	5.1	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	92	3.1	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	53	3.6	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	58	3.7	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	79	3.9	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	41	4.3	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	61	4.3	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	25	4.3	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**37**	**3.7**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	34	3.6	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	26	4.7	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	46	3.3	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	36	4.2	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	43	4.1	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	58	4.2	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	40	2.3	1.4	66.6	0.8	287.1	Taiwan, China

Finland

Key indicators, 2009

Population (millions)	5.3
GDP (US$ billions)	238.1
GDP (US$) per capita	44,492
GDP (PPP) per capita	33,445
GDP (PPP) as share (%) of world total	0.26

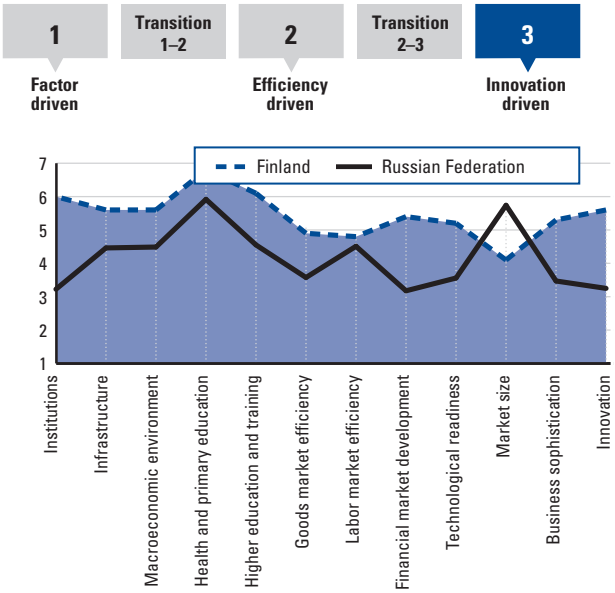
GDP (PPP) per capita (int'l $), 1992–2009



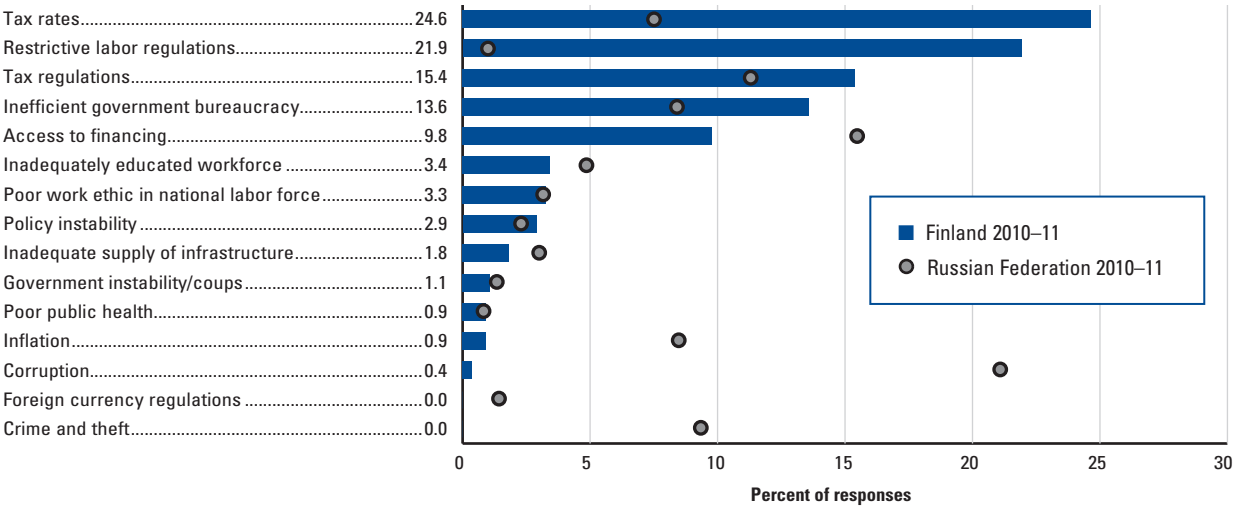
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**7**	**5.4**
Basic requirements	**5**	**6.0**
1st pillar: Institutions	4	6.0
2nd pillar: Infrastructure	17	5.6
3rd pillar: Macroeconomic environment	15	5.6
4th pillar: Health and primary education	2	6.8
Efficiency enhancers	**14**	**5.1**
5th pillar: Higher education and training	1	6.1
6th pillar: Goods market efficiency	24	4.9
7th pillar: Labor market efficiency	22	4.8
8th pillar: Financial market development	4	5.4
9th pillar: Technological readiness	15	5.2
10th pillar: Market size	56	4.1
Innovation and sophistication factors	**6**	**5.4**
11th pillar: Business sophistication	10	5.3
12th pillar: Innovation	3	5.6

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Finland

The Global Competitiveness Index in detail

		Finland		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**7**	**5.4**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	5	6.0	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	14	5.1	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	6	5.4	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**4**	**6.0**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	2	6.4	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	2	6.2	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	5	6.3	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	13	5.1	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	4	6.5	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	6	6.3	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	9	5.0	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	14	4.7	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	10	4.3	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	7	5.5	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	4	5.5	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	8	5.6	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	8	6.7	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	10	6.2	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	5	6.7	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	1	6.6	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	3	6.6	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	5	6.2	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	9	5.5	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	2	5.9	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	45	5.7	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**17**	**5.6**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	8	6.4	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	13	5.9	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	7	5.8	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	6	6.4	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	15	6.2	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	49	341.4	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	4	6.8	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	49	26.9	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	13	144.6	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**15**	**5.6**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	18	–0.1	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	82	18.1	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	45	1.6	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	6	0.9	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	93	52.6	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	7	90.6	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**2**	**6.8**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	1	7.0	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	23	7.2	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	6	6.6	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	22	0.1	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	7	2.7	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	24	79.8	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	1	6.6	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	48	96.0	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**1**	**6.1**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	9	110.3	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	2	94.4	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	6	5.6	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	3	6.2	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	18	5.3	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	11	6.1	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	7	5.8	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	9	5.2	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Finland

The Global Competitiveness Index in detail

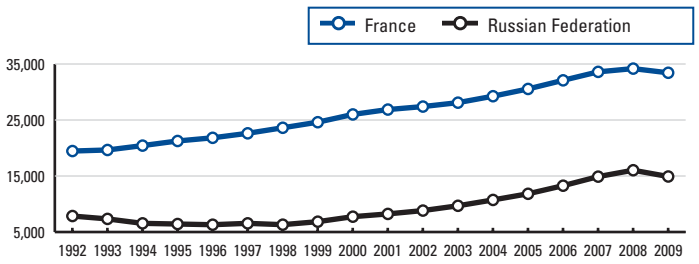
		Finland		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**24**	**4.9**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	52	5.1	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	27	4.7	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	4	5.4	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	114	3.0	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	93	47.7	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	6	3.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	52	14.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	99	3.6	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	8	5.9	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	4	0.9	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	23	5.6	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	41	5.1	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	6	5.7	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	25	5.3	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	17	4.4	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**22**	**4.8**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	15	5.3	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	132	3.1	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	104	41.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	73	3.9	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	48	26.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	69	3.9	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	4	6.1	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	20	4.8	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	9	1.0	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**4**	**5.4**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	12	6.0	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	6	5.7	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	48	3.9	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	5	4.5	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	4	4.2	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	2	6.1	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	11	6.3	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	7	5.6	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	39	7.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**15**	**5.2**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	4	6.6	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	12	6.0	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	93	4.3	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	8	84.1	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	14	29.4	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	17	172.4	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**56**	**4.1**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	53	4.0	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	54	4.7	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**10**	**5.3**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	80	4.6	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	19	5.4	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	9	5.1	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	4	6.0	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	9	5.3	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	25	4.6	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	5	6.1	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	29	4.9	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	6	5.2	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**3**	**5.6**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	5	5.6	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	13	5.4	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	5	5.4	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	3	5.6	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	6	4.7	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	1	6.0	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	6	163.0	1.4	66.6	0.8	287.1	Taiwan, China

France

Key indicators, 2009

Population (millions)	62.3
GDP (US$ billions)	2,675.9
GDP (US$) per capita	42,747
GDP (PPP) per capita	33,434
GDP (PPP) as share (%) of world total	3.03

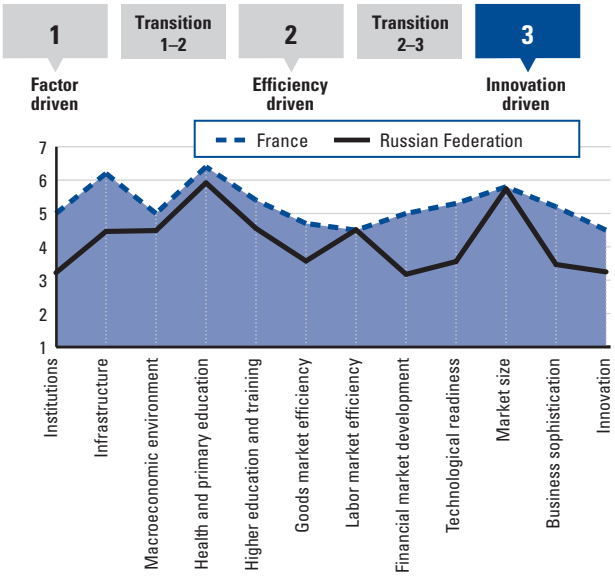
GDP (PPP) per capita (int'l $), 1992–2009



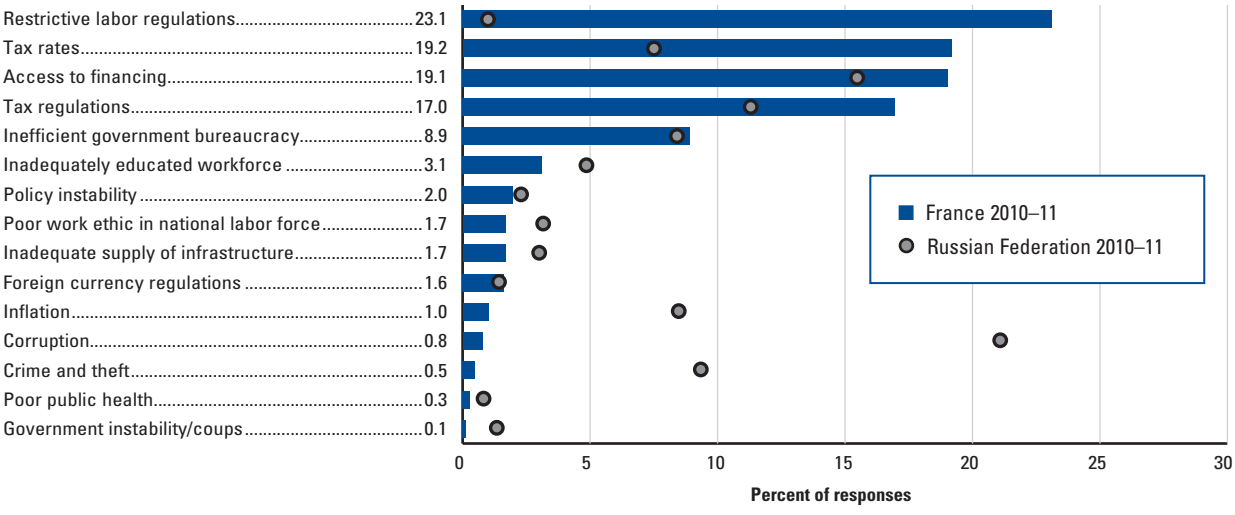
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**15**	**5.1**
Basic requirements	**16**	**5.7**
1st pillar: Institutions	26	5.0
2nd pillar: Infrastructure	4	6.2
3rd pillar: Macroeconomic environment	44	5.0
4th pillar: Health and primary education	16	6.4
Efficiency enhancers	**15**	**5.1**
5th pillar: Higher education and training	17	5.4
6th pillar: Goods market efficiency	32	4.7
7th pillar: Labor market efficiency	60	4.5
8th pillar: Financial market development	16	5.0
9th pillar: Technological readiness	12	5.3
10th pillar: Market size	7	5.8
Innovation and sophistication factors	**16**	**4.8**
11th pillar: Business sophistication	12	5.2
12th pillar: Innovation	19	4.5

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

France

The Global Competitiveness Index in detail

		France		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**15**	**5.1**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	16	5.7	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	15	5.1	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	16	4.8	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**26**	**5.0**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	16	5.8	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	6	5.9	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	25	5.2	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	31	3.9	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	29	5.5	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	39	4.8	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	32	3.8	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	48	3.5	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	122	2.6	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	23	4.9	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	17	4.9	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	28	4.9	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	74	5.6	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	42	5.5	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	46	5.8	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	27	5.6	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	17	5.7	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	27	5.5	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	31	5.0	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	43	4.7	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	59	5.3	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**4**	**6.2**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	4	6.6	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	2	6.6	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	4	6.5	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	12	5.9	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	9	6.3	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	7	3,501.5	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	10	6.7	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	8	56.9	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	67	95.5	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**44**	**5.0**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	87	–4.9	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	87	16.7	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	21	0.1	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	4	0.7	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	116	77.4	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	9	90.2	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**16**	**6.4**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	29	6.5	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	17	6.2	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	51	5.7	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	77	0.4	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	14	3.3	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	6	81.5	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	24	5.0	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	24	98.4	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**17**	**5.4**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	7	113.2	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	39	54.6	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	29	4.7	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	11	5.4	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	5	5.7	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	41	4.8	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	5	5.9	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	30	4.7	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

France

The Global Competitiveness Index in detail

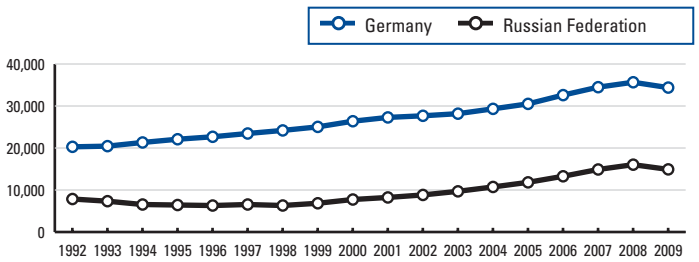
		France		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**32**	**4.7**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	17	5.6	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	22	4.8	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	10	5.3	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	108	3.1	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	125	65.8	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	23	5.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	21	7.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	46	4.1	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	27	5.2	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	4	0.9	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	16	5.7	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	62	4.8	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	26	4.9	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	35	5.1	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	26	4.1	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**60**	**4.5**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	129	3.5	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	53	5.3	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	124	52.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	125	2.9	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	65	32.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	55	4.2	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	30	5.1	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	41	4.1	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	34	0.9	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**16**	**5.0**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	16	5.9	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	16	5.4	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	6	4.8	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	35	3.4	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	32	3.2	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	46	4.8	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	40	5.6	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	17	5.2	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	39	7.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**12**	**5.3**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	16	6.4	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	23	5.6	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	51	4.9	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	26	71.6	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	9	31.1	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	10	294.6	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**7**	**5.8**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	7	5.7	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	10	6.0	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**12**	**5.2**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	17	5.5	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	10	5.7	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	30	4.2	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	15	5.5	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	5	5.7	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	13	4.8	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	13	5.7	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	8	5.7	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	47	3.9	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**19**	**4.5**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	8	5.1	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	19	5.2	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	13	4.7	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	44	4.0	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	48	4.0	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	12	5.3	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	21	50.4	1.4	66.6	0.8	287.1	Taiwan, China

Germany

Key indicators, 2009

Population (millions)	82.2
GDP (US$ billions)	3,352.7
GDP (US$) per capita	40,875
GDP (PPP) per capita	34,388
GDP (PPP) as share (%) of world total	4.03

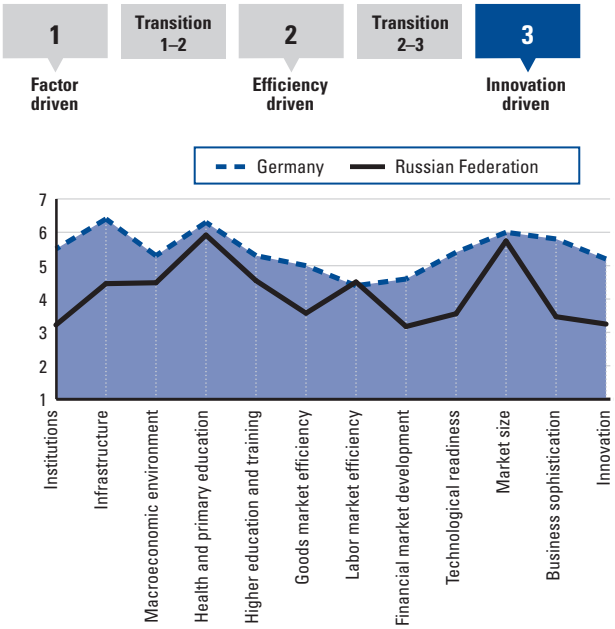
GDP (PPP) per capita (int'l $), 1992–2009



Global Competitiveness Index

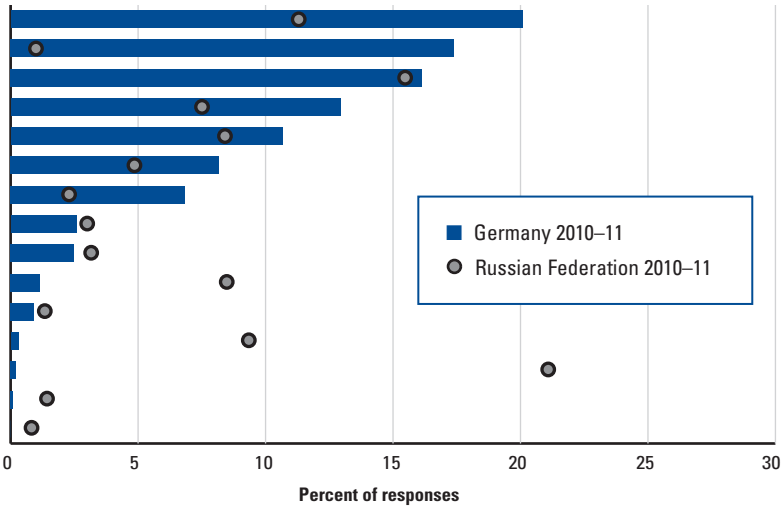
	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**5**	**5.4**
Basic requirements	**6**	**5.9**
1st pillar: Institutions	13	5.5
2nd pillar: Infrastructure	2	6.4
3rd pillar: Macroeconomic environment	23	5.3
4th pillar: Health and primary education	25	6.3
Efficiency enhancers	**13**	**5.1**
5th pillar: Higher education and training	19	5.3
6th pillar: Goods market efficiency	21	5.0
7th pillar: Labor market efficiency	70	4.4
8th pillar: Financial market development	36	4.6
9th pillar: Technological readiness	10	5.4
10th pillar: Market size	5	6.0
Innovation and sophistication factors	**5**	**5.5**
11th pillar: Business sophistication	3	5.8
12th pillar: Innovation	8	5.2

Stage of development



The most problematic factors for doing business

Tax regulations	20.1
Restrictive labor regulations	17.4
Access to financing	16.1
Tax rates	12.9
Inefficient government bureaucracy	10.7
Inadequately educated workforce	8.2
Policy instability	6.8
Inadequate supply of infrastructure	2.6
Poor work ethic in national labor force	2.5
Inflation	1.1
Government instability/coups	0.9
Crime and theft	0.3
Corruption	0.2
Foreign currency regulations	0.1
Poor public health	0.0



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Germany

The Global Competitiveness Index in detail

		Germany		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**5**	**5.4**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	6	5.9	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	13	5.1	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	5	5.5	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**13**	**5.5**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	8	6.1	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	9	5.7	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	14	5.7	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	29	4.0	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	20	5.9	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	5	6.4	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	16	4.6	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	33	4.0	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	92	3.0	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	15	5.3	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	8	5.3	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	13	5.4	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	56	6.1	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	23	5.9	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	28	6.3	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	12	6.2	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	13	6.0	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	21	5.6	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	15	5.2	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	13	5.2	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	77	5.0	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**2**	**6.4**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	9	6.3	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	5	6.4	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	5	6.2	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	5	6.4	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	3	6.6	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	5	4,365.4	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	6	6.8	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	5	59.3	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	26	127.8	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**23**	**5.3**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	26	–1.1	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	56	22.1	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	20	0.1	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	28	2.7	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	114	72.5	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	6	91.5	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**25**	**6.3**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	11	6.7	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	9	5.1	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	12	6.4	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	22	0.1	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	20	3.7	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	19	80.1	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	36	4.6	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	27	98.2	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**19**	**5.3**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	18	101.7	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	52	46.3	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	18	5.0	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	39	4.7	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	31	4.9	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	39	4.9	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	2	6.2	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	8	5.2	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Germany

The Global Competitiveness Index in detail

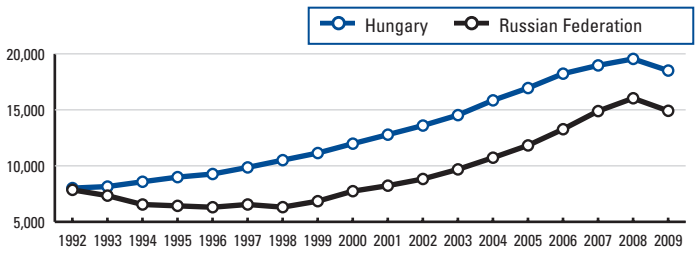
		Germany		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**21**	**5.0**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	2	6.1	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	1	5.9	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	3	5.5	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	90	3.3	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	84	44.9	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	88	9.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	65	18.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	85	3.7	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	36	5.0	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	4	0.9	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	36	5.3	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	63	4.8	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	21	5.1	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	11	5.6	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	18	4.4	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**70**	**4.4**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	18	5.3	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	136	2.9	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	108	42.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	133	2.7	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	98	69.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	43	4.3	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	14	5.7	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	31	4.5	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	44	0.9	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**36**	**4.6**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	8	6.1	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	18	5.4	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	49	3.9	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	69	2.8	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	52	2.8	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	15	5.5	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	112	4.4	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	35	4.9	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	39	7.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**10**	**5.4**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	17	6.3	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	14	6.0	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	85	4.5	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	14	79.3	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	10	30.4	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	12	256.3	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**5**	**6.0**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	5	5.8	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	3	6.5	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**3**	**5.8**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	3	6.0	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	3	6.2	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	12	5.0	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	3	6.3	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	1	6.3	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	2	5.5	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	2	6.5	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	7	5.8	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	9	5.0	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**8**	**5.2**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	1	5.9	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	6	5.9	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	4	5.7	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	9	5.2	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	32	4.2	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	27	4.8	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	9	109.5	1.4	66.6	0.8	287.1	Taiwan, China

Hungary

Key indicators, 2009

Population (millions)	10.0
GDP (US$ billions)	129.4
GDP (US$) per capita	12,927
GDP (PPP) per capita	18,506
GDP (PPP) as share (%) of world total	0.27

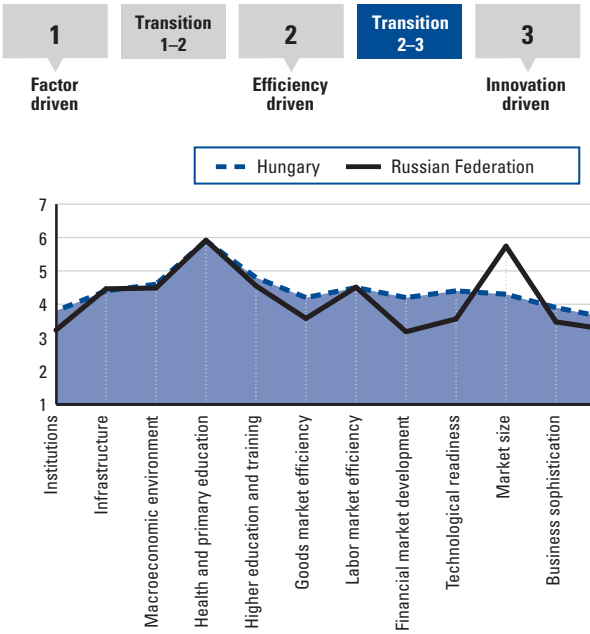
GDP (PPP) per capita (int'l $), 1992–2009



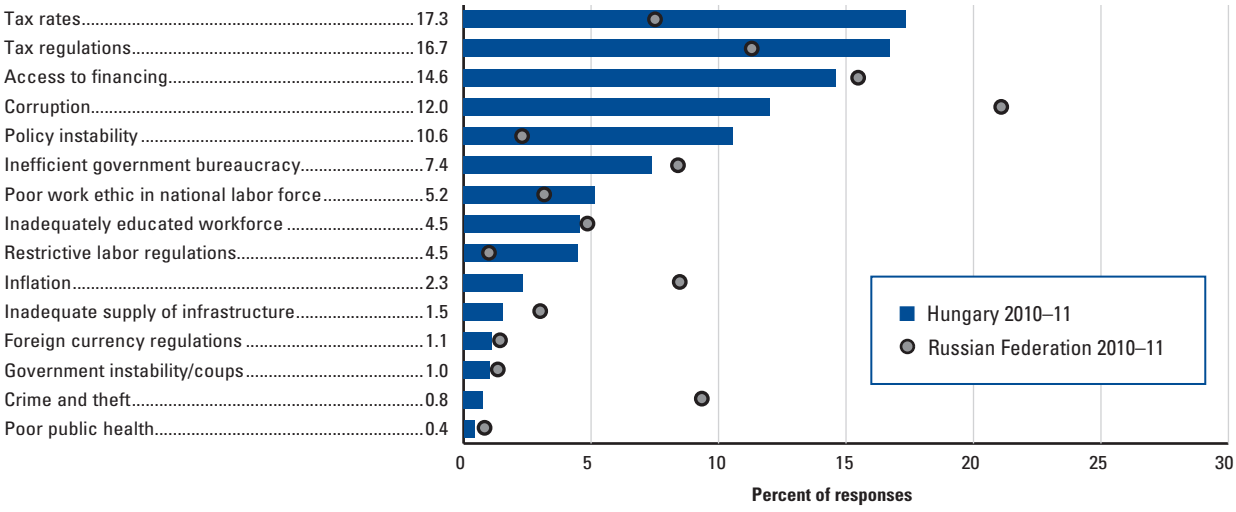
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**52**	**4.3**
Basic requirements	**59**	**4.6**
1st pillar: Institutions	79	3.8
2nd pillar: Infrastructure	51	4.4
3rd pillar: Macroeconomic environment	69	4.6
4th pillar: Health and primary education	57	5.9
Efficiency enhancers	**41**	**4.4**
5th pillar: Higher education and training	34	4.8
6th pillar: Goods market efficiency	67	4.2
7th pillar: Labor market efficiency	62	4.5
8th pillar: Financial market development	68	4.2
9th pillar: Technological readiness	37	4.4
10th pillar: Market size	49	4.3
Innovation and sophistication factors	**51**	**3.7**
11th pillar: Business sophistication	69	3.9
12th pillar: Innovation	41	3.6

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Hungary

The Global Competitiveness Index in detail

		Hungary		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**52**	**4.3**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	59	4.6	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	41	4.4	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	51	3.7	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**79**	**3.8**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	66	4.4	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	51	4.0	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	100	2.7	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	128	1.8	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	60	4.2	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	59	4.0	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	109	2.6	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	126	2.2	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	134	2.2	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	92	3.3	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	114	2.8	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	94	4.0	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	22	6.4	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	61	5.0	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	72	5.3	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	67	4.2	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	105	3.3	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	31	5.4	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	68	4.5	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	78	4.1	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	99	4.3	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**51**	**4.4**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	49	4.8	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	63	4.1	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	43	3.5	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	77	4.0	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	66	4.7	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	76	123.8	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	46	5.5	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	42	30.7	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	38	118.0	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**69**	**4.6**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	68	–4.0	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	62	21.3	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	88	4.2	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	31	2.9	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	123	84.3	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	55	57.6	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**57**	**5.9**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	26	6.5	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	37	16.4	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	15	6.4	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	22	0.1	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	32	5.4	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	61	74.0	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	51	4.2	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	96	89.7	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**34**	**4.8**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	33	97.4	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	23	65.0	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	75	3.6	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	30	4.8	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	71	4.1	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	31	5.4	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	47	4.4	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	88	3.7	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Hungary

The Global Competitiveness Index in detail

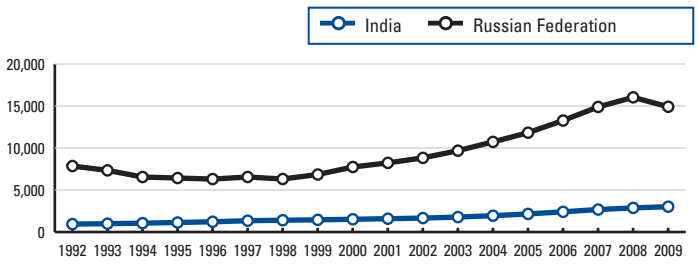
		Hungary		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**67**	**4.2**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	39	5.3	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	62	3.7	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	66	4.0	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	138	2.1	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	115	57.5	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	14	4.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	6	4.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	92	3.6	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	15	5.6	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	4	0.9	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	10	5.9	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	60	4.9	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	59	4.3	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	92	4.3	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	101	3.0	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**62**	**4.5**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	73	4.3	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	35	5.5	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	58	22.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	61	4.1	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	68	35.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	48	4.2	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	67	4.3	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	99	2.7	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	63	0.8	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**68**	**4.2**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	51	5.0	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	110	3.5	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	111	2.6	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	86	2.5	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	105	2.2	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	28	5.2	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	90	4.8	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	52	4.5	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	39	7.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**37**	**4.4**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	47	5.5	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	70	4.8	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	25	5.2	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	33	61.8	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	35	18.8	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	38	60.0	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**49**	**4.3**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	54	4.0	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	35	5.2	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**69**	**3.9**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	73	4.7	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	62	4.6	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	101	2.9	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	64	3.4	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	46	3.8	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	96	3.7	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	56	3.9	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	52	4.4	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	108	3.0	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**41**	**3.6**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	46	3.4	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	18	5.2	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	75	3.0	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	32	4.3	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	106	3.2	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	48	4.4	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	32	4.6	1.4	66.6	0.8	287.1	Taiwan, China

India

Key indicators, 2009

Population (millions)	1,198.0
GDP (US$ billions)	1,236.0
GDP (US$) per capita	1,031
GDP (PPP) per capita	3,015
GDP (PPP) as share (%) of world total	5.06

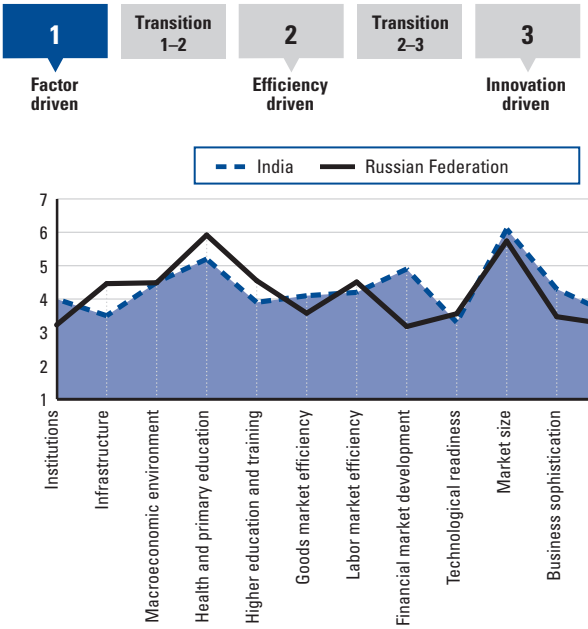
GDP (PPP) per capita (int'l $), 1992–2009



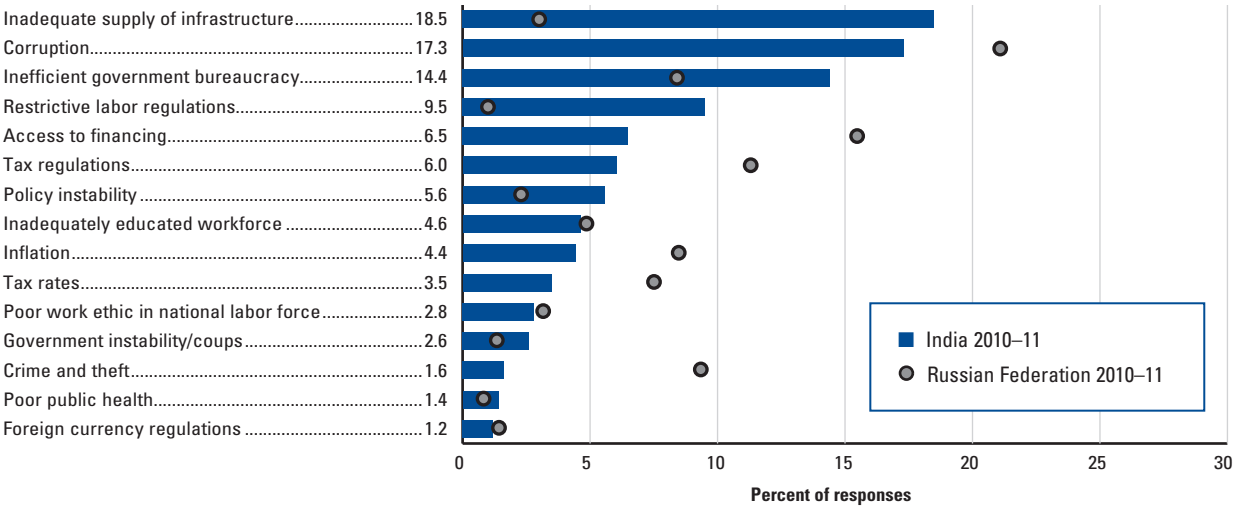
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**51**	**4.3**
Basic requirements	**81**	**4.3**
1st pillar: Institutions	58	4.0
2nd pillar: Infrastructure	86	3.5
3rd pillar: Macroeconomic environment	73	4.5
4th pillar: Health and primary education	104	5.2
Efficiency enhancers	**38**	**4.4**
5th pillar: Higher education and training	85	3.9
6th pillar: Goods market efficiency	71	4.1
7th pillar: Labor market efficiency	92	4.2
8th pillar: Financial market development	17	4.9
9th pillar: Technological readiness	86	3.3
10th pillar: Market size	4	6.1
Innovation and sophistication factors	**42**	**4.0**
11th pillar: Business sophistication	44	4.3
12th pillar: Innovation	39	3.6

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

India

The Global Competitiveness Index in detail

		India		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**51**	**4.3**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	81	4.3	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	38	4.4	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	42	4.0	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**58**	**4.0**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	61	4.5	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	66	3.6	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	71	3.2	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	88	2.3	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	83	3.7	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	41	4.8	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	72	2.9	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	57	3.4	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	95	3.0	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	47	4.1	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	37	4.2	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	42	4.7	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	127	4.4	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	67	5.0	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	73	5.3	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	68	4.2	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	70	3.9	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	45	5.1	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	76	4.5	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	55	4.5	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	33	6.0	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**86**	**3.5**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	91	3.6	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	90	3.3	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	23	4.6	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	83	3.9	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	71	4.6	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	12	2,770.2	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	110	3.1	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	110	3.1	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	118	43.8	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**73**	**4.5**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	81	–4.6	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	9	37.5	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	123	10.9	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	65	5.2	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	115	73.1	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	50	62.2	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**104**	**5.2**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	102	5.1	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	108	924.6	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	87	5.2	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	101	167.8	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	99	4.7	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	71	0.3	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	111	52.3	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	109	63.7	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	98	3.1	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	95	89.8	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**85**	**3.9**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	108	57.0	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	101	13.5	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	39	4.3	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	38	4.7	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	23	5.1	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	70	3.8	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	51	4.4	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	59	4.1	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

The Global Competitiveness Index in detail

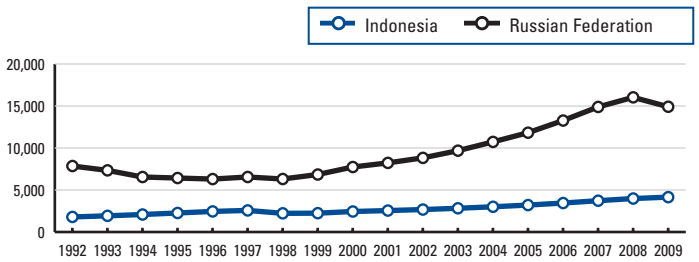
		India		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**71**	**4.1**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	30	5.4	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	26	4.7	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	29	4.8	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	36	4.0	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	123	64.7	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	121	13.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	93	30.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	81	3.7	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	96	4.2	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	124	14.4	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	81	4.6	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	46	5.0	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	81	4.0	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	64	4.7	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	43	3.8	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**92**	**4.2**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	49	4.6	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	61	5.2	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	77	30.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	89	3.7	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	89	56.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	61	4.0	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	49	4.7	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	34	4.3	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	128	0.4	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**17**	**4.9**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	45	5.1	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	38	4.8	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	10	4.7	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	39	3.3	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	31	3.2	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	75	4.4	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	25	5.8	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	15	5.3	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	20	8.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**86**	**3.3**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	41	5.6	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	39	5.3	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	28	5.1	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	118	5.1	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	100	0.6	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	119	0.3	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**4**	**6.1**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	4	6.1	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	4	6.2	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**44**	**4.3**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	7	5.7	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	60	4.6	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	29	4.2	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	61	3.4	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	42	3.9	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	64	4.1	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	43	4.3	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	57	4.4	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	48	3.9	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**39**	**3.6**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	33	3.6	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	30	4.7	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	37	3.6	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	58	3.7	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	76	3.5	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	15	5.2	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	59	0.6	1.4	66.6	0.8	287.1	Taiwan, China

Indonesia

Key indicators, 2009

Population (millions)	230.0
GDP (US$ billions)	539.4
GDP (US$) per capita	2,329
GDP (PPP) per capita	4,151
GDP (PPP) as share (%) of world total	1.38

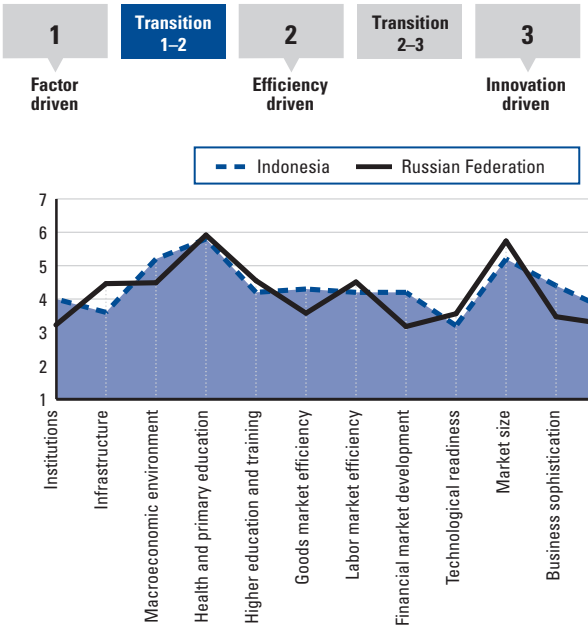
GDP (PPP) per capita (int'l $), 1992–2009



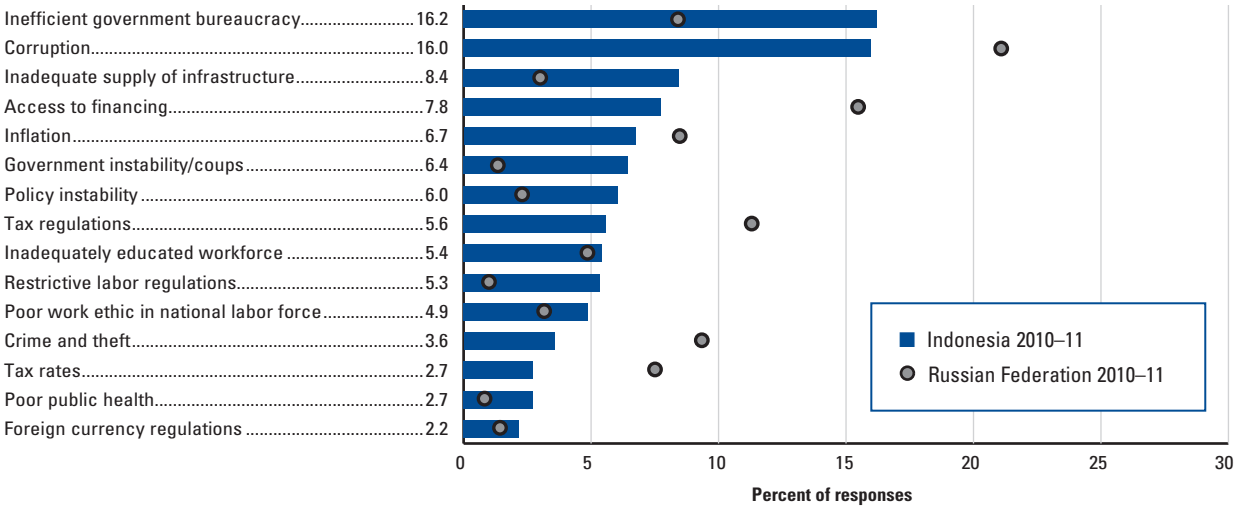
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**44**	**4.4**
Basic requirements	**60**	**4.6**
1st pillar: Institutions	61	4.0
2nd pillar: Infrastructure	82	3.6
3rd pillar: Macroeconomic environment	35	5.2
4th pillar: Health and primary education	62	5.8
Efficiency enhancers	**51**	**4.2**
5th pillar: Higher education and training	66	4.2
6th pillar: Goods market efficiency	49	4.3
7th pillar: Labor market efficiency	84	4.2
8th pillar: Financial market development	62	4.2
9th pillar: Technological readiness	91	3.2
10th pillar: Market size	15	5.2
Innovation and sophistication factors	**37**	**4.1**
11th pillar: Business sophistication	37	4.4
12th pillar: Innovation	36	3.7

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Indonesia

The Global Competitiveness Index in detail

	INDICATOR, UNITS	Indonesia RANK/139	Indonesia SCORE	Russian Federation SCORE	OECD SCORE	BIC† SCORE	Best performer SCORE	Best performer ECONOMY
	Global Competitiveness Index 2010–2011	**44**	**4.4**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	60	4.6	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	51	4.2	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	37	4.1	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**61**	**4.0**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	84	4.0	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	58	3.8	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	60	3.5	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	51	3.3	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	95	3.4	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	67	3.8	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	28	3.9	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	30	4.2	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	36	3.7	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	60	3.8	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	55	3.9	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	91	4.1	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	101	5.1	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	75	4.7	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	98	4.7	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	80	4.0	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	99	3.5	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	78	4.6	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	54	4.7	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	48	4.6	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	33	6.0	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**82**	**3.6**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	90	3.7	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	84	3.5	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	56	3.0	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	96	3.6	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	69	4.6	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	21	1,450.9	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	97	3.6	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	82	14.8	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	98	69.2	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**35**	**5.2**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	41	–2.6	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	16	32.9	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	92	4.8	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	66	5.2	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	51	31.1	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	72	50.1	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**62**	**5.8**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	106	4.8	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	111	1,100.2	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	102	4.7	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	105	189.0	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	95	4.7	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	55	0.2	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	97	30.7	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	91	70.8	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	55	4.1	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	52	95.7	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**66**	**4.2**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	95	74.4	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	89	21.3	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	40	4.3	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	46	4.5	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	55	4.4	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	50	4.5	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	52	4.4	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	36	4.4	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Indonesia

The Global Competitiveness Index in detail

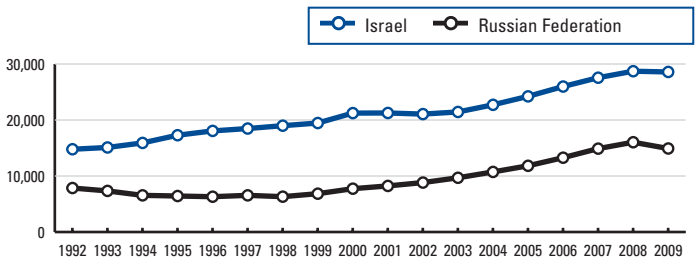
		Indonesia		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**49**	**4.3**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	54	5.1	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	42	4.2	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	35	4.6	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	17	4.4	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	60	37.6	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	88	9.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	121	60.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	22	4.4	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	58	4.7	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	48	3.8	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	54	4.9	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	49	5.0	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	89	3.9	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	60	4.8	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	35	3.9	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**84**	**4.2**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	47	4.6	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	98	4.6	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	100	40.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	38	4.4	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	127	108.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	20	4.6	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	57	4.5	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	27	4.6	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	109	0.6	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**62**	**4.2**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	59	4.8	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	59	4.4	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	13	4.6	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	14	4.0	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	9	3.9	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	49	4.8	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	92	4.7	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	49	4.6	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	103	3.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**91**	**3.2**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	77	4.8	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	65	4.9	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	54	4.9	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	107	8.7	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	99	0.7	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	102	1.1	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**15**	**5.2**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	15	5.1	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	23	5.5	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**37**	**4.4**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	43	5.0	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	61	4.6	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	24	4.5	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	33	4.1	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	26	4.4	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	33	4.4	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	52	4.0	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	56	4.4	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	32	4.1	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**36**	**3.7**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	30	3.7	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	44	4.2	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	26	4.0	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	38	4.2	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	30	4.2	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	31	4.7	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	89	0.0	1.4	66.6	0.8	287.1	Taiwan, China

Israel

Key indicators, 2009

Population (millions)	7.2
GDP (US$ billions)	194.8
GDP (US$) per capita	26,797
GDP (PPP) per capita	28,581
GDP (PPP) as share (%) of world total	0.30

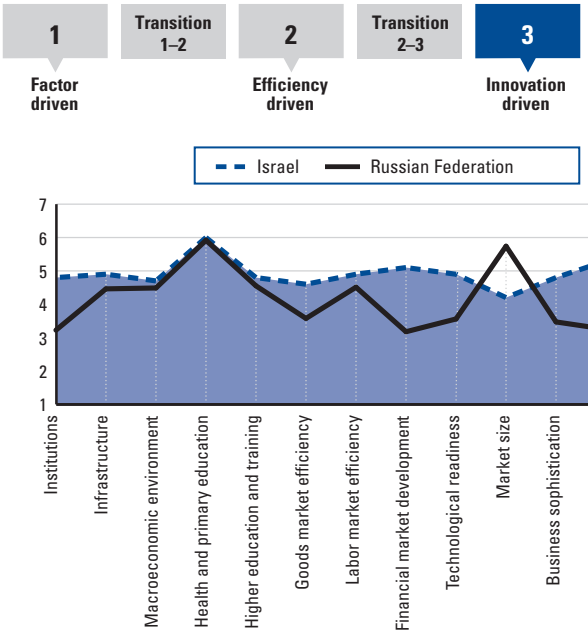
GDP (PPP) per capita (int'l $), 1992–2009



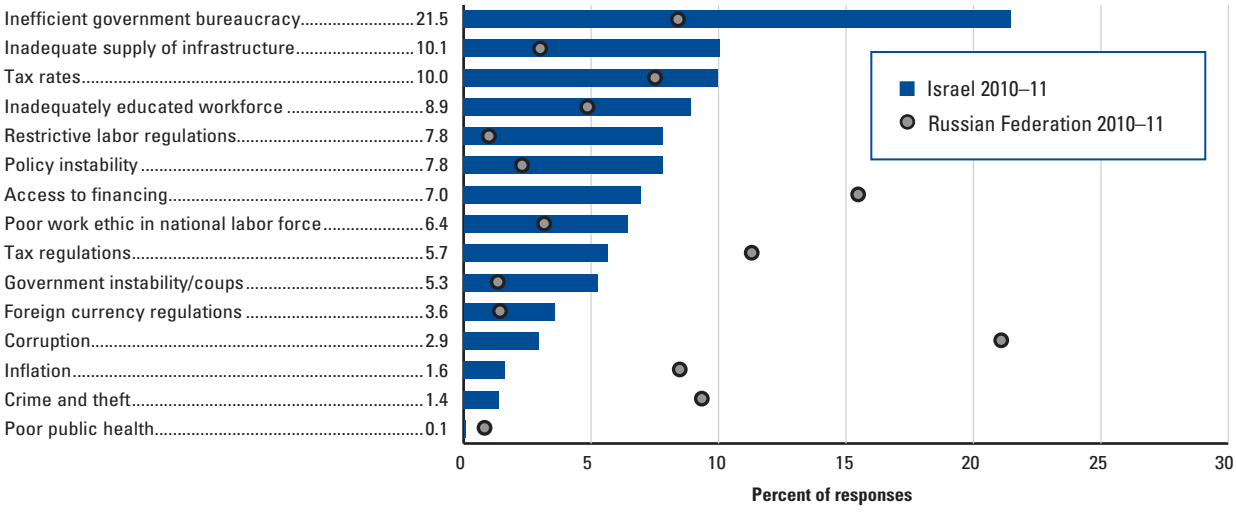
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**24**	**4.9**
Basic requirements	**39**	**5.1**
1st pillar: Institutions	33	4.8
2nd pillar: Infrastructure	34	4.9
3rd pillar: Macroeconomic environment	60	4.7
4th pillar: Health and primary education	46	6.0
Efficiency enhancers	**23**	**4.7**
5th pillar: Higher education and training	33	4.8
6th pillar: Goods market efficiency	37	4.6
7th pillar: Labor market efficiency	19	4.9
8th pillar: Financial market development	14	5.1
9th pillar: Technological readiness	26	4.9
10th pillar: Market size	53	4.2
Innovation and sophistication factors	**11**	**5.0**
11th pillar: Business sophistication	26	4.8
12th pillar: Innovation	6	5.3

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Israel

The Global Competitiveness Index in detail

		Israel		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**24**	**4.9**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	39	5.1	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	23	4.7	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	11	5.0	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**33**	**4.8**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	49	4.7	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	43	4.2	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	24	5.3	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	37	3.7	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	15	6.0	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	14	6.2	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	34	3.8	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	44	3.6	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	85	3.1	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	45	4.2	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	43	4.1	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	90	4.1	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	105	5.1	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	44	5.4	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	57	5.6	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	78	4.0	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	24	5.3	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	28	5.5	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	62	4.6	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	25	5.0	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	5	8.3	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**34**	**4.9**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	47	4.9	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	50	4.4	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	52	3.2	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	53	4.6	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	37	5.6	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	37	470.5	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	34	5.9	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	19	45.3	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	28	125.8	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**60**	**4.7**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	89	–5.1	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	70	19.8	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	76	3.3	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	24	2.6	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	117	78.4	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	41	69.4	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**46**	**6.0**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	12	6.7	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	14	6.0	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	9	6.5	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	22	0.1	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	19	3.6	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	10	81.0	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	75	3.6	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	39	97.1	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**33**	**4.8**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	60	90.0	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	31	59.7	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	74	3.6	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	95	3.5	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	46	4.6	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	33	5.2	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	30	4.9	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	25	4.7	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

The Global Competitiveness Index in detail

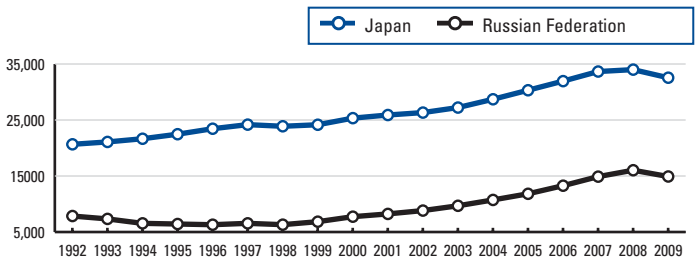
		Israel		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**37**	**4.6**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	22	5.6	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	117	3.1	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	38	4.5	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	45	3.8	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	41	32.6	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	23	5.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	102	34.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	10	4.8	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	18	5.5	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	49	4.1	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	53	4.9	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	65	4.8	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	61	4.3	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	41	5.0	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	74	3.4	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**19**	**4.9**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	24	5.1	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	28	5.6	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	37	17.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	44	4.2	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	114	91.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	21	4.6	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	24	5.3	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	32	4.4	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	29	0.9	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**14**	**5.1**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	29	5.5	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	51	4.5	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	37	4.0	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	54	2.9	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	10	3.9	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	53	4.7	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	13	6.3	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	32	5.0	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	6	9.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**26**	**4.9**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	6	6.4	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	7	6.1	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	26	5.2	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	43	51.6	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	17	25.8	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	57	20.7	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**53**	**4.2**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	48	4.1	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	50	4.8	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**26**	**4.8**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	31	5.2	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	21	5.4	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	67	3.5	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	7	5.8	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	23	4.6	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	60	4.1	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	22	5.2	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	34	4.7	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	28	4.2	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**6**	**5.3**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	7	5.3	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	1	6.2	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	11	4.7	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	14	5.1	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	20	4.4	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	17	5.1	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	4	195.0	1.4	66.6	0.8	287.1	Taiwan, China

Japan

Key indicators, 2009

Population (millions)	127.2
GDP (US$ billions)	5,068.1
GDP (US$) per capita	39,731
GDP (PPP) per capita	32,554
GDP (PPP) as share (%) of world total	6.00

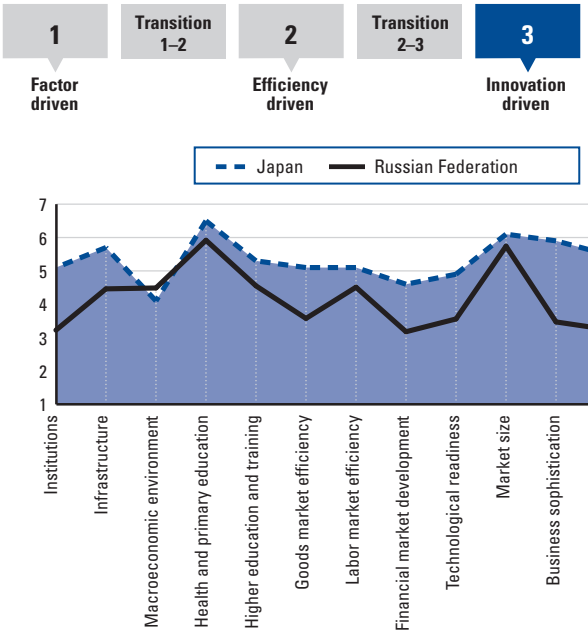
GDP (PPP) per capita (int'l $), 1992–2009



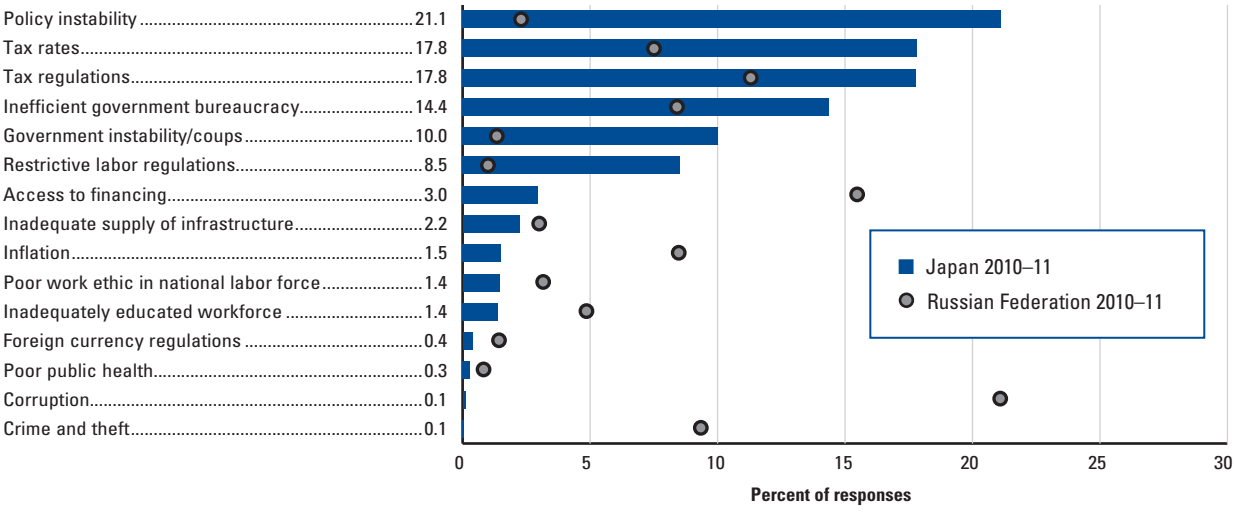
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**6**	**5.4**
Basic requirements	**26**	**5.4**
1st pillar: Institutions	25	5.1
2nd pillar: Infrastructure	11	5.7
3rd pillar: Macroeconomic environment	105	4.1
4th pillar: Health and primary education	9	6.5
Efficiency enhancers	**11**	**5.2**
5th pillar: Higher education and training	20	5.3
6th pillar: Goods market efficiency	17	5.1
7th pillar: Labor market efficiency	13	5.1
8th pillar: Financial market development	39	4.6
9th pillar: Technological readiness	28	4.9
10th pillar: Market size	3	6.1
Innovation and sophistication factors	**1**	**5.7**
11th pillar: Business sophistication	1	5.9
12th pillar: Innovation	4	5.5

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Japan

The Global Competitiveness Index in detail

		Japan		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**6**	**5.4**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	26	5.4	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	11	5.2	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	1	5.7	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**25**	**5.1**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	23	5.6	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	21	5.2	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	27	5.2	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	58	3.1	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	11	6.2	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	20	5.7	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	14	4.6	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	91	3.0	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	70	3.3	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	27	4.7	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	33	4.3	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	48	4.6	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	95	5.3	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	53	5.2	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	71	5.3	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	22	5.8	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	18	5.6	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	33	5.4	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	19	5.1	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	27	5.0	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	16	7.0	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**11**	**5.7**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	15	6.0	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	22	5.6	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	3	6.6	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	37	5.2	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	54	5.1	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	4	4,796.8	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	5	6.8	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	34	34.9	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	75	90.4	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**105**	**4.1**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	134	–11.4	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	51	23.1	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	4	–1.4	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	7	1.1	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	137	217.6	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	16	87.3	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**9**	**6.5**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	50	6.0	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	45	21.8	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	42	5.9	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	1	0.0	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	6	2.5	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	1	82.6	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	20	5.1	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	2	100.0	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**20**	**5.3**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	21	100.9	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	34	58.0	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	35	4.5	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	28	4.9	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	65	4.2	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	40	4.9	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	13	5.6	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	6	5.4	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Japan

The Global Competitiveness Index in detail

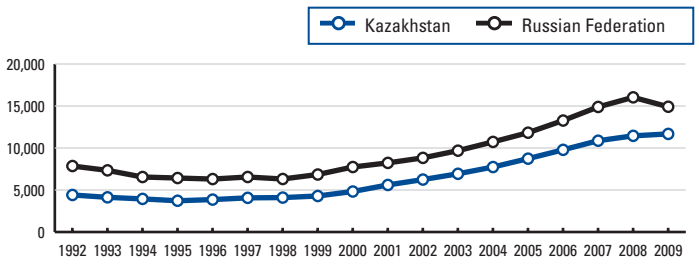
		Japan		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**17**	**5.1**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	7	5.8	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	2	5.9	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	7	5.4	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	102	3.1	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	111	55.7	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	73	8.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	77	23.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	133	3.0	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	85	4.4	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	36	2.4	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	97	4.5	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	91	4.4	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	41	4.6	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	1	6.4	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	1	5.2	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**13**	**5.1**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	7	5.7	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	15	5.8	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	36	16.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	121	3.0	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	6	4.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	12	4.8	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	16	5.6	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	26	4.7	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	88	0.7	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**39**	**4.6**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	41	5.2	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	33	5.0	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	24	4.4	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	46	3.1	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	49	2.8	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	51	4.7	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	77	5.1	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	40	4.8	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	39	7.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**28**	**4.9**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	18	6.3	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	3	6.3	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	68	4.7	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	21	74.0	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	20	24.9	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	39	57.9	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**3**	**6.1**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	3	6.1	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	9	6.0	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**1**	**5.9**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	1	6.4	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	4	6.2	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	2	5.4	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	1	6.4	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	2	6.3	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	1	5.6	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	1	6.6	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	9	5.7	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	13	4.8	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**4**	**5.5**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	2	5.8	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	15	5.3	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	3	5.9	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	19	4.9	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	41	4.1	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	2	5.8	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	2	279.1	1.4	66.6	0.8	287.1	Taiwan, China

Kazakhstan

Key indicators, 2009

Population (millions)	15.6
GDP (US$ billions)	109.3
GDP (US$) per capita	7,019
GDP (PPP) per capita	11,679
GDP (PPP) as share (%) of world total	0.25

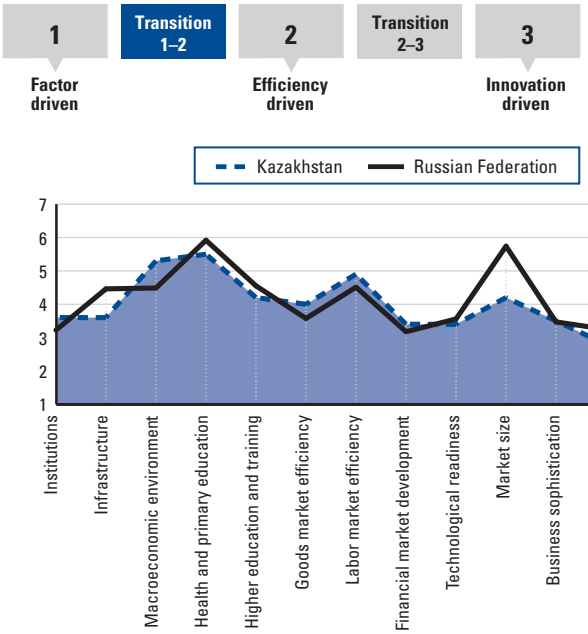
GDP (PPP) per capita (int'l $), 1992–2009



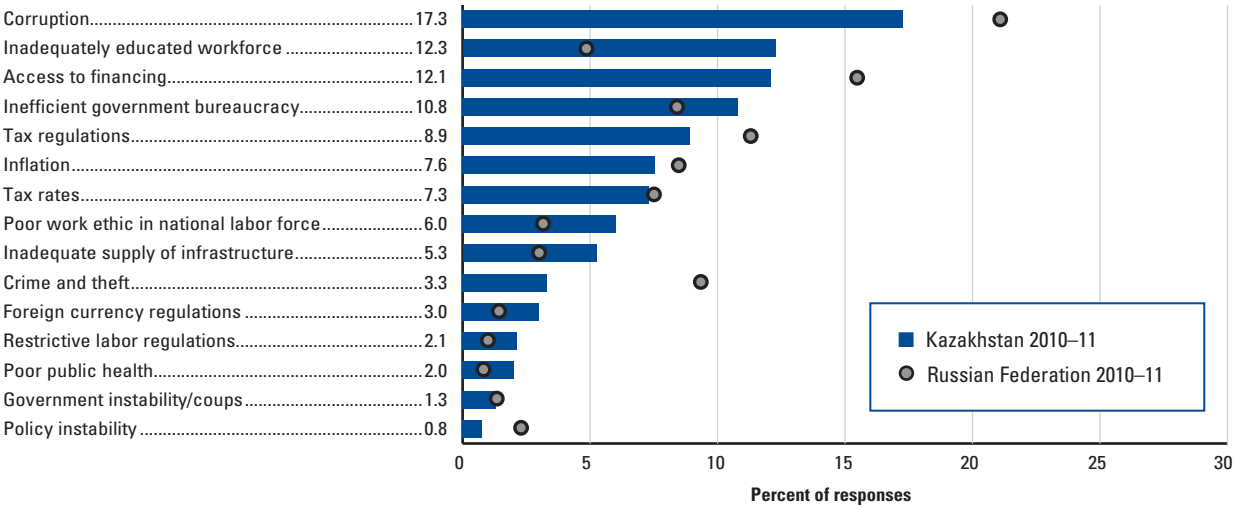
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**72**	**4.1**
Basic requirements	**69**	**4.5**
1st pillar: Institutions	91	3.6
2nd pillar: Infrastructure	81	3.6
3rd pillar: Macroeconomic environment	26	5.3
4th pillar: Health and primary education	85	5.5
Efficiency enhancers	**71**	**4.0**
5th pillar: Higher education and training	65	4.2
6th pillar: Goods market efficiency	86	4.0
7th pillar: Labor market efficiency	21	4.9
8th pillar: Financial market development	117	3.4
9th pillar: Technological readiness	82	3.4
10th pillar: Market size	55	4.2
Innovation and sophistication factors	**102**	**3.1**
11th pillar: Business sophistication	102	3.5
12th pillar: Innovation	101	2.8

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Kazakhstan

The Global Competitiveness Index in detail

		Kazakhstan		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**72**	**4.1**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	69	4.5	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	71	4.0	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	102	3.1	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**91**	**3.6**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	112	3.5	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	98	2.8	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	97	2.8	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	47	3.4	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	93	3.5	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	109	2.9	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	81	2.8	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	55	3.4	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	73	3.2	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	86	3.4	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	85	3.3	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	75	4.2	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	81	5.5	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	72	4.8	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	95	4.8	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	113	3.3	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	87	3.6	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	98	4.2	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	86	4.4	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	116	3.6	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	45	5.7	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**81**	**3.6**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	74	4.0	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	124	2.4	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	32	4.0	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	111	3.3	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	95	3.9	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	67	163.2	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	84	4.1	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	54	24.1	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	66	95.9	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**26**	**5.3**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	33	–2.0	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	31	28.9	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	110	7.3	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	23	2.6	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	7	8.5	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	73	49.8	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**85**	**5.5**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	104	4.5	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	103	175.1	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	86	4.9	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	22	0.1	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	93	26.9	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	106	66.4	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	74	3.7	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	87	90.3	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**65**	**4.2**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	51	92.0	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	51	46.9	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	93	3.3	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	78	3.8	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	104	3.6	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	63	4.1	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	76	4.0	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	98	3.6	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Kazakhstan

The Global Competitiveness Index in detail

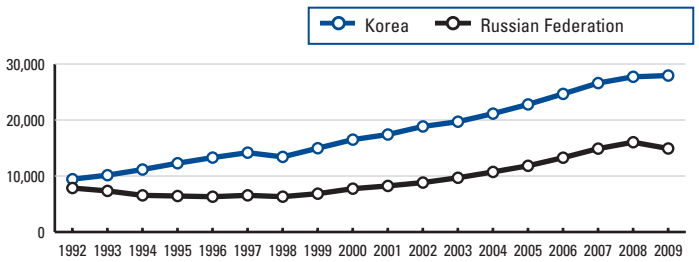
		Kazakhstan		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**86**	**4.0**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	109	4.2	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	91	3.4	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	113	3.4	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	74	3.5	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	54	35.9	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	57	7.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	71	20.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	62	3.9	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	116	3.9	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	50	4.1	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	113	4.1	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	101	4.2	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	107	3.5	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	105	4.1	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	49	3.7	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**21**	**4.9**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	85	4.1	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	30	5.6	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	37	17.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	29	4.5	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	16	9.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	19	4.7	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	118	3.5	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	80	3.1	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	22	0.9	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**117**	**3.4**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	93	4.1	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	102	3.6	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	106	2.8	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	121	2.1	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	82	2.4	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	106	3.7	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	131	3.7	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	119	3.3	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	75	5.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**82**	**3.4**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	97	4.4	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	105	4.3	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	108	4.1	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	69	33.9	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	53	8.7	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	69	13.6	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**55**	**4.2**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	55	3.9	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	46	4.9	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**102**	**3.5**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	113	4.2	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	97	4.0	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	85	3.2	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	112	2.7	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	109	3.0	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	95	3.7	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	80	3.4	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	85	3.8	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	95	3.2	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**101**	**2.8**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	75	2.8	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	112	2.9	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	84	2.8	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	111	3.0	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	83	3.4	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	91	3.7	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	81	0.1	1.4	66.6	0.8	287.1	Taiwan, China

Korea, Rep.

Key indicators, 2009

Population (millions)	48.3
GDP (US$ billions)	832.5
GDP (US$) per capita	17,074
GDP (PPP) per capita	27,938
GDP (PPP) as share (%) of world total	1.94

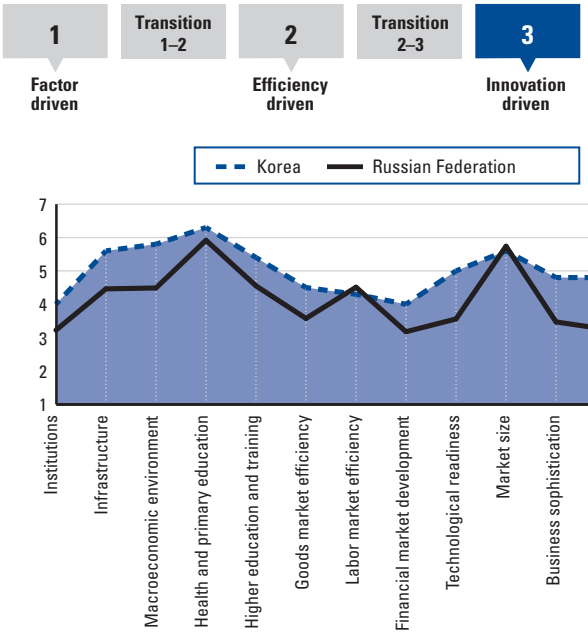
GDP (PPP) per capita (int'l $), 1992–2009



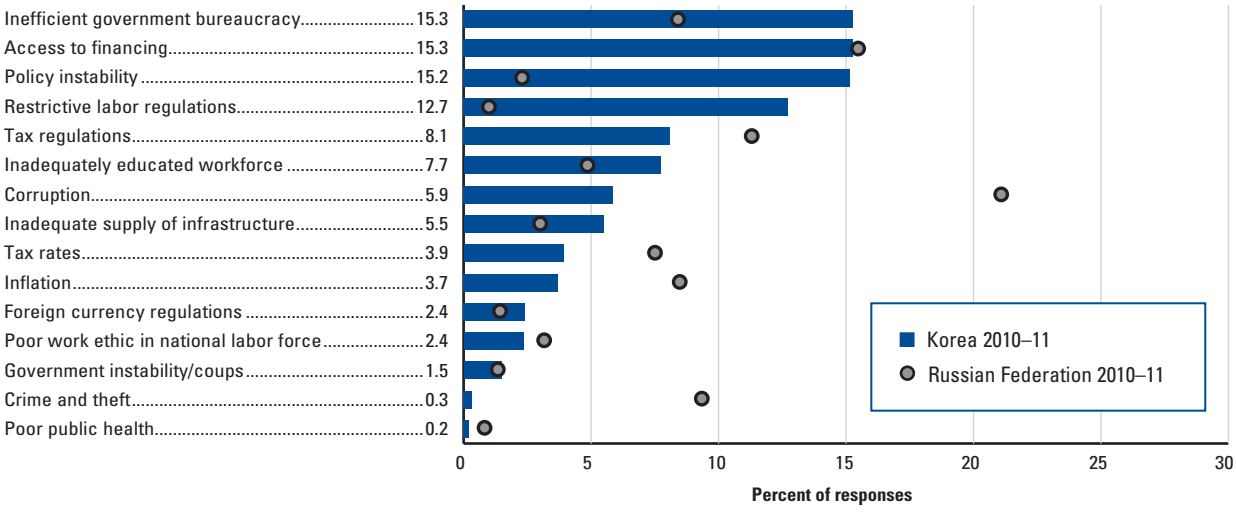
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**22**	**4.9**
Basic requirements	**23**	**5.4**
1st pillar: Institutions	62	4.0
2nd pillar: Infrastructure	18	5.6
3rd pillar: Macroeconomic environment	6	5.8
4th pillar: Health and primary education	21	6.3
Efficiency enhancers	**22**	**4.8**
5th pillar: Higher education and training	15	5.4
6th pillar: Goods market efficiency	38	4.5
7th pillar: Labor market efficiency	78	4.3
8th pillar: Financial market development	83	4.0
9th pillar: Technological readiness	19	5.0
10th pillar: Market size	11	5.6
Innovation and sophistication factors	**18**	**4.8**
11th pillar: Business sophistication	24	4.8
12th pillar: Innovation	12	4.8

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Korea, Rep.

The Global Competitiveness Index in detail

	INDICATOR, UNITS	Korea, Rep. RANK/139	Korea, Rep. SCORE	Russian Federation SCORE	OECD SCORE	BIC† SCORE	Best performer SCORE	Best performer ECONOMY
	Global Competitiveness Index 2010–2011	**22**	**4.9**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	23	5.4	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	22	4.8	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	18	4.8	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**62**	**4.0**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	54	4.7	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	44	4.1	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	56	3.7	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	105	2.1	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	51	4.6	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	60	4.0	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	84	2.8	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	71	3.2	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	108	2.8	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	75	3.5	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	87	3.2	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	111	3.8	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	91	5.3	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	80	4.6	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	85	5.1	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	46	4.7	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	57	4.1	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	95	4.3	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	98	4.2	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	102	3.8	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	59	5.3	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**18**	**5.6**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	12	6.0	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	14	5.8	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	10	5.7	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	25	5.5	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	22	6.0	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	18	1,665.3	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	19	6.3	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	26	39.9	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	62	99.2	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**6**	**5.8**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	17	0.0	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	20	31.0	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	68	2.8	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	16	2.2	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	58	34.9	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	37	72.7	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**21**	**6.3**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	76	6.3	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	83	13.5	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	48	6.0	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	84	88.0	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	41	5.9	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	1	n/a	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	27	4.7	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	23	79.8	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	31	4.8	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	15	98.8	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**15**	**5.4**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	34	97.2	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	1	98.1	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	57	3.9	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	18	5.1	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	47	4.5	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	12	6.0	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	39	4.6	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	42	4.4	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Korea, Rep.

The Global Competitiveness Index in detail

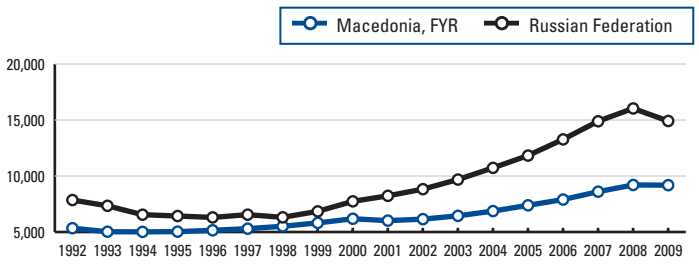
		Korea, Rep.		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**38**	**4.5**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	14	5.7	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	112	3.2	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	43	4.4	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	81	3.4	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	38	31.9	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	73	8.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	52	14.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	117	3.4	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	111	4.0	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	81	6.6	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	106	4.3	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	97	4.3	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	47	4.5	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	21	5.4	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	11	4.6	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**78**	**4.3**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	138	3.0	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	38	5.5	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	90	38.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	115	3.2	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	114	91.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	24	4.5	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	38	4.9	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	21	4.8	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	93	0.7	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**83**	**4.0**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	98	4.0	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	82	4.0	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	59	3.8	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	118	2.1	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	98	2.2	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	94	4.0	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	99	4.7	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	75	4.1	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	39	7.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**19**	**5.0**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	23	6.1	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	9	6.1	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	86	4.5	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	12	81.6	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	6	33.8	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	37	61.2	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**11**	**5.6**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	13	5.3	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	5	6.2	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**24**	**4.8**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	25	5.3	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	33	5.2	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	25	4.4	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	18	5.3	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	14	5.1	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	24	4.6	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	23	5.2	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	32	4.9	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	88	3.3	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**12**	**4.8**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	18	4.3	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	25	4.8	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	12	4.7	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	23	4.7	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	39	4.1	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	23	4.9	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	5	181.4	1.4	66.6	0.8	287.1	Taiwan, China

Macedonia, FYR

Key indicators, 2009

Population (millions)	2.0
GDP (US$ billions)	9.2
GDP (US$) per capita	4,482
GDP (PPP) per capita	9,183
GDP (PPP) as share (%) of world total	0.03

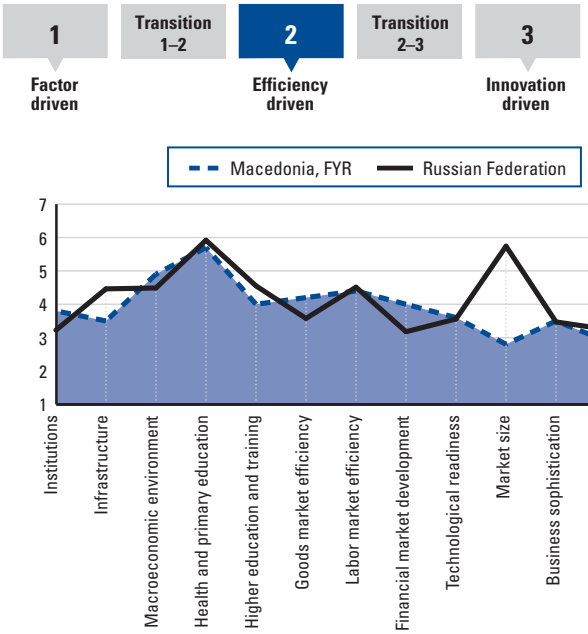
GDP (PPP) per capita (int'l $), 1992–2009



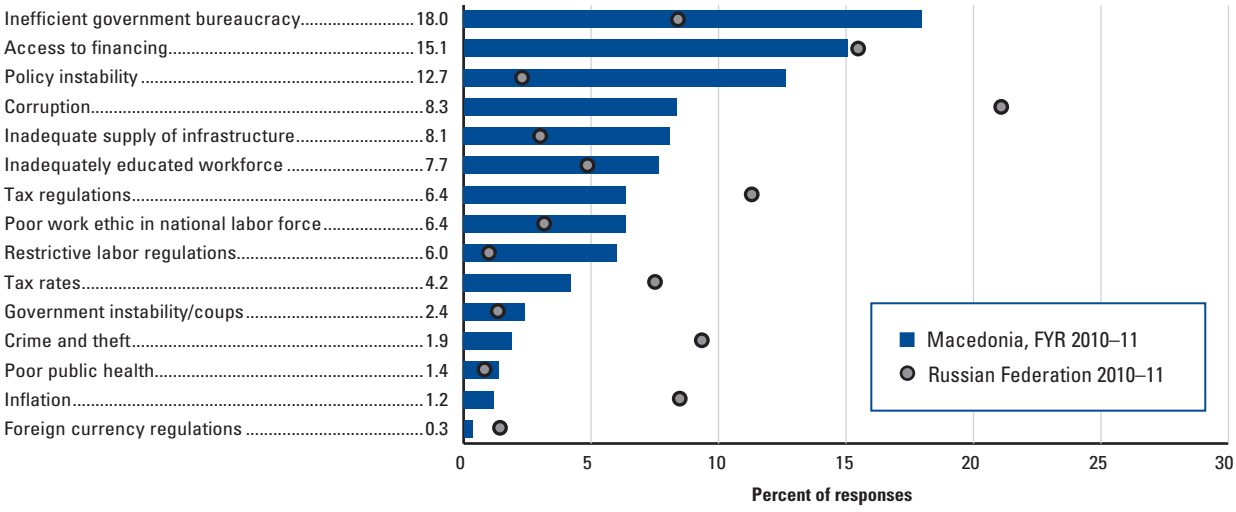
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**79**	**4.0**
Basic requirements	**70**	**4.4**
1st pillar: Institutions	80	3.8
2nd pillar: Infrastructure	91	3.5
3rd pillar: Macroeconomic environment	47	4.9
4th pillar: Health and primary education	69	5.7
Efficiency enhancers	**83**	**3.8**
5th pillar: Higher education and training	72	4.0
6th pillar: Goods market efficiency	57	4.2
7th pillar: Labor market efficiency	71	4.4
8th pillar: Financial market development	87	4.0
9th pillar: Technological readiness	64	3.6
10th pillar: Market size	106	2.8
Innovation and sophistication factors	**97**	**3.2**
11th pillar: Business sophistication	96	3.5
12th pillar: Innovation	97	2.9

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Macedonia, FYR

The Global Competitiveness Index in detail

		Macedonia, FYR		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**79**	**4.0**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	70	4.4	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	83	3.8	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	97	3.2	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**80**	**3.8**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	105	3.6	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	87	3.1	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	59	3.5	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	68	2.9	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	56	4.4	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	103	2.9	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	71	2.9	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	86	3.0	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	90	3.1	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	99	3.1	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	110	3.0	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	80	4.2	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	66	5.8	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	66	5.0	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	92	4.8	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	69	4.2	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	77	3.8	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	70	4.7	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	106	4.1	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	112	3.7	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	20	6.7	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**91**	**3.5**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	89	3.7	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	99	3.1	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	81	2.1	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	90	3.7	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	127	3.1	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	134	5.3	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	72	4.6	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	61	21.7	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	69	95.1	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**47**	**4.9**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	45	–2.9	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	99	15.4	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	9	–0.8	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	32	3.0	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	27	21.3	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	82	42.7	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**69**	**5.7**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	70	5.7	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	52	24.2	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	46	5.8	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	1	n/a	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	54	10.5	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	58	74.2	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	68	3.9	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	110	86.5	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**72**	**4.0**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	79	83.7	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	58	40.4	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	59	3.9	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	61	4.2	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	75	4.0	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	54	4.4	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	102	3.4	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	119	3.3	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Macedonia, FYR

The Global Competitiveness Index in detail

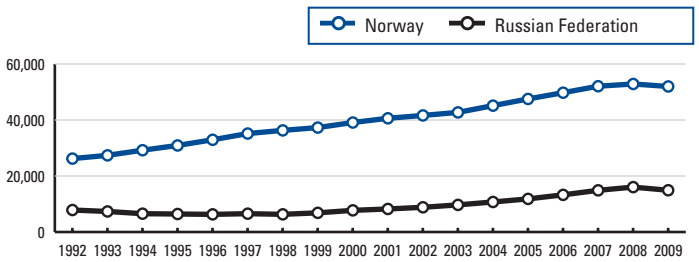
		Macedonia, FYR		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**57**	**4.2**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	96	4.5	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	85	3.4	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	94	3.7	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	42	3.8	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	10	16.4	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	14	4.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	6	4.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	33	4.3	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	76	4.5	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	69	5.4	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	124	3.7	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	115	3.8	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	62	4.3	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	74	4.5	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	110	2.9	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**71**	**4.4**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	82	4.2	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	6	6.0	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	33	14.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	40	4.4	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	48	26.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	51	4.2	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	115	3.6	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	126	2.2	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	101	0.7	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**87**	**4.0**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	122	3.5	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	112	3.5	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	85	3.2	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	122	2.1	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	72	2.5	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	103	3.8	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	78	5.1	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	65	4.3	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	39	7.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**64**	**3.6**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	80	4.8	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	113	4.1	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	105	4.1	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	42	51.8	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	47	10.6	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	124	0.2	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**106**	**2.8**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	108	2.6	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	98	3.5	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**96**	**3.5**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	66	4.8	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	83	4.3	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	107	2.9	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	130	2.5	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	80	3.4	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	80	3.9	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	90	3.2	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	98	3.5	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	93	3.2	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**97**	**2.9**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	87	2.7	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	71	3.5	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	111	2.6	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	74	3.5	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	110	3.1	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	95	3.6	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	90	0.0	1.4	66.6	0.8	287.1	Taiwan, China

Norway

Key indicators, 2009

Population (millions)	4.8
GDP (US$ billions)	383.0
GDP (US$) per capita	79,085
GDP (PPP) per capita	51,985
GDP (PPP) as share (%) of world total	0.37

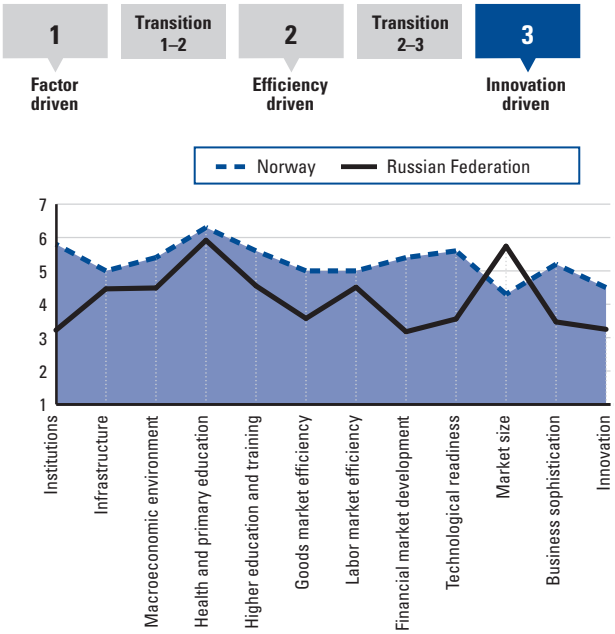
GDP (PPP) per capita (int'l $), 1992–2009



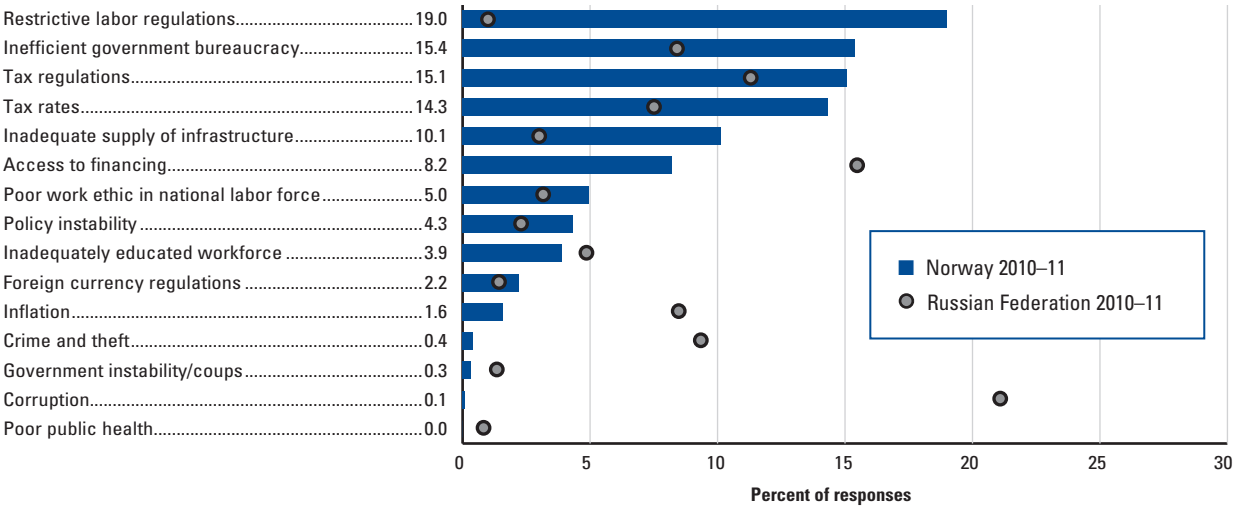
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**14**	**5.1**
Basic requirements	**17**	**5.6**
1st pillar: Institutions	6	5.8
2nd pillar: Infrastructure	29	5.0
3rd pillar: Macroeconomic environment	18	5.4
4th pillar: Health and primary education	24	6.3
Efficiency enhancers	**12**	**5.1**
5th pillar: Higher education and training	12	5.6
6th pillar: Goods market efficiency	23	5.0
7th pillar: Labor market efficiency	15	5.0
8th pillar: Financial market development	5	5.4
9th pillar: Technological readiness	9	5.6
10th pillar: Market size	44	4.3
Innovation and sophistication factors	**17**	**4.8**
11th pillar: Business sophistication	14	5.2
12th pillar: Innovation	18	4.5

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Norway

The Global Competitiveness Index in detail

		Norway		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**14**	**5.1**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	17	5.6	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	12	5.1	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	17	4.8	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**6**	**5.8**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	9	6.1	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	16	5.6	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	9	5.9	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	6	5.6	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	7	6.4	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	13	6.2	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	7	5.2	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	20	4.4	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	59	3.4	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	4	5.8	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	9	5.3	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	12	5.4	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	25	6.4	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	14	6.2	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	11	6.6	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	8	6.2	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	7	6.4	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	7	6.1	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	6	5.5	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	3	5.8	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	20	6.7	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**29**	**5.0**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	38	5.1	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	79	3.6	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	50	3.2	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	15	5.7	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	10	6.2	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	40	424.7	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	16	6.6	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	27	39.5	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	46	110.9	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**18**	**5.4**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	111	–6.8	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	12	35.4	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	55	2.2	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	15	2.1	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	87	49.2	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	3	92.5	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**24**	**6.3**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	3	6.9	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	16	6.1	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	1	6.7	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	22	0.1	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	8	2.9	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	12	80.7	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	38	4.6	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	19	98.7	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**12**	**5.6**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	8	111.6	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	15	73.2	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	19	5.0	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	64	4.1	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	19	5.2	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	15	5.9	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	14	5.5	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	3	5.5	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Norway

The Global Competitiveness Index in detail

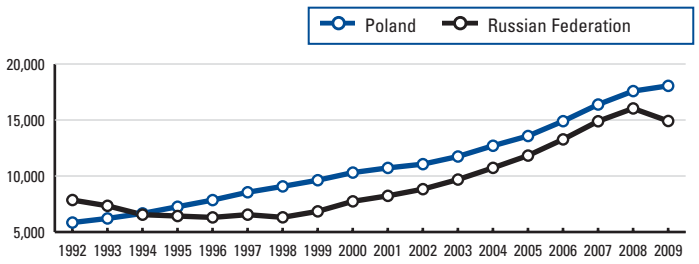
		Norway		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**23**	**5.0**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	27	5.5	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	18	4.9	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	11	5.3	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	64	3.6	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	72	41.6	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	23	5.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	21	7.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	112	3.5	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	99	4.2	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	39	2.8	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	24	5.5	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	83	4.5	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	17	5.2	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	17	5.4	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	12	4.5	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**15**	**5.0**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	3	5.9	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	125	3.6	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	113	44.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	123	2.9	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	21	13.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	65	4.0	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	2	6.3	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	7	5.3	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	15	0.9	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**5**	**5.4**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	9	6.1	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	9	5.6	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	16	4.6	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	7	4.4	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	2	4.3	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	26	5.2	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	17	6.1	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	4	5.7	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	39	7.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**9**	**5.6**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	3	6.7	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	6	6.2	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	76	4.6	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	2	92.1	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	3	37.3	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	11	268.4	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**44**	**4.3**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	47	4.1	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	42	5.0	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**14**	**5.2**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	51	5.0	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	12	5.6	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	18	4.7	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	25	4.6	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	30	4.3	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	20	4.7	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	10	5.7	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	15	5.4	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	2	5.9	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**18**	**4.5**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	13	4.7	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	23	5.0	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	17	4.4	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	20	4.9	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	34	4.2	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	18	5.1	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	19	55.2	1.4	66.6	0.8	287.1	Taiwan, China

Poland

Key indicators, 2009

Population (millions)	38.1
GDP (US$ billions)	430.2
GDP (US$) per capita	11,288
GDP (PPP) per capita	18,050
GDP (PPP) as share (%) of world total	0.98

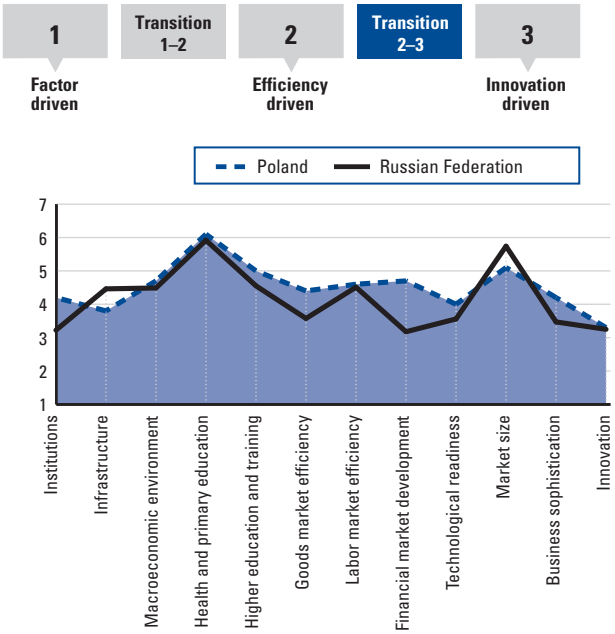
GDP (PPP) per capita (int'l $), 1992–2009



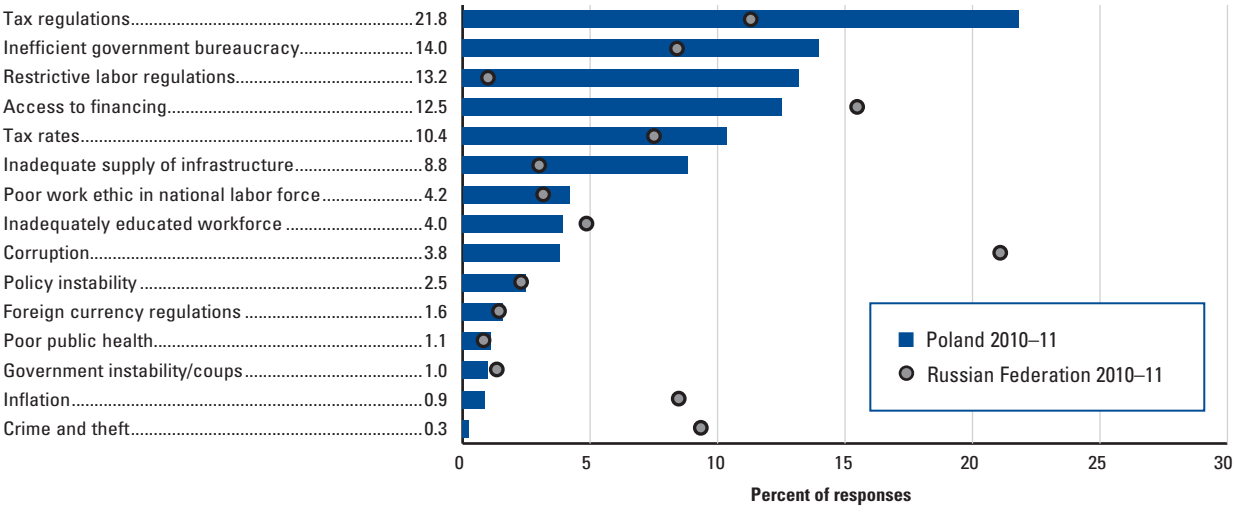
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**39**	**4.5**
Basic requirements	**56**	**4.7**
1st pillar: Institutions	54	4.2
2nd pillar: Infrastructure	72	3.8
3rd pillar: Macroeconomic environment	61	4.7
4th pillar: Health and primary education	39	6.1
Efficiency enhancers	**30**	**4.6**
5th pillar: Higher education and training	26	5.0
6th pillar: Goods market efficiency	45	4.4
7th pillar: Labor market efficiency	53	4.6
8th pillar: Financial market development	32	4.7
9th pillar: Technological readiness	47	4.0
10th pillar: Market size	21	5.1
Innovation and sophistication factors	**50**	**3.8**
11th pillar: Business sophistication	50	4.2
12th pillar: Innovation	54	3.3

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Poland

The Global Competitiveness Index in detail

		Poland		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**39**	**4.5**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	56	4.7	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	30	4.6	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	50	3.8	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**54**	**4.2**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	59	4.6	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	60	3.7	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	43	4.2	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	82	2.5	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	41	4.9	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	53	4.3	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	49	3.4	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	76	3.1	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	111	2.7	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	106	3.1	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	95	3.1	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	113	3.7	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	59	6.0	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	50	5.3	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	55	5.7	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	60	4.4	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	54	4.2	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	46	5.1	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	73	4.5	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	60	4.5	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	33	6.0	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**72**	**3.8**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	108	3.4	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	131	2.2	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	62	2.7	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	114	3.3	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	108	3.6	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	52	289.3	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	54	5.2	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	51	25.1	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	39	117.0	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**61**	**4.7**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	113	–7.1	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	84	17.6	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	79	3.5	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	40	3.4	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	89	51.0	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	39	70.5	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**39**	**6.1**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	39	6.2	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	53	24.5	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	24	6.2	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	22	0.1	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	36	5.8	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	47	75.5	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	42	4.5	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	55	95.6	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**26**	**5.0**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	25	99.8	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	21	66.9	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	62	3.8	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	40	4.6	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	62	4.2	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	48	4.5	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	22	5.1	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	52	4.2	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Poland

The Global Competitiveness Index in detail

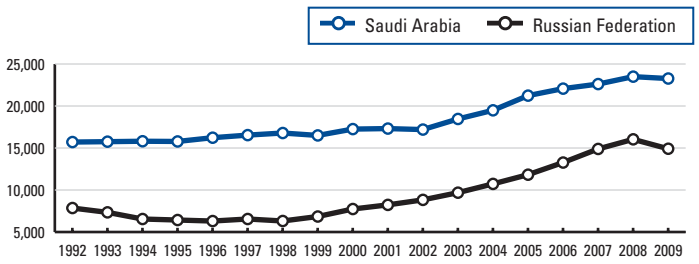
		Poland		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**45**	**4.4**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	35	5.4	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	39	4.2	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	52	4.3	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	107	3.1	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	74	42.5	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	34	6.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	98	32.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	79	3.7	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	47	4.8	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	4	0.9	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	62	4.8	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	94	4.4	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	64	4.3	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	53	4.8	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	51	3.6	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**53**	**4.6**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	88	4.1	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	47	5.4	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	64	25.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	108	3.3	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	21	13.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	54	4.2	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	53	4.6	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	79	3.2	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	56	0.8	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**32**	**4.7**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	62	4.8	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	63	4.3	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	64	3.7	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	59	2.9	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	56	2.7	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	67	4.5	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	73	5.2	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	31	5.0	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	6	9.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**47**	**4.0**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	86	4.7	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	83	4.6	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	35	5.0	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	36	59.0	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	42	13.6	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	51	27.5	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**21**	**5.1**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	19	4.9	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	22	5.6	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**50**	**4.2**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	18	5.4	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	41	5.0	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	108	2.9	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	57	3.5	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	39	4.0	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	59	4.1	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	48	4.1	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	44	4.5	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	40	4.0	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**54**	**3.3**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	50	3.3	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	47	4.1	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	61	3.0	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	64	3.6	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	61	3.7	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	60	4.2	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	54	0.9	1.4	66.6	0.8	287.1	Taiwan, China

Saudi Arabia

Key indicators, 2009

Population (millions)	25.7
GDP (US$ billions)	369.7
GDP (US$) per capita	14,486
GDP (PPP) per capita	23,272
GDP (PPP) as share (%) of world total	0.86

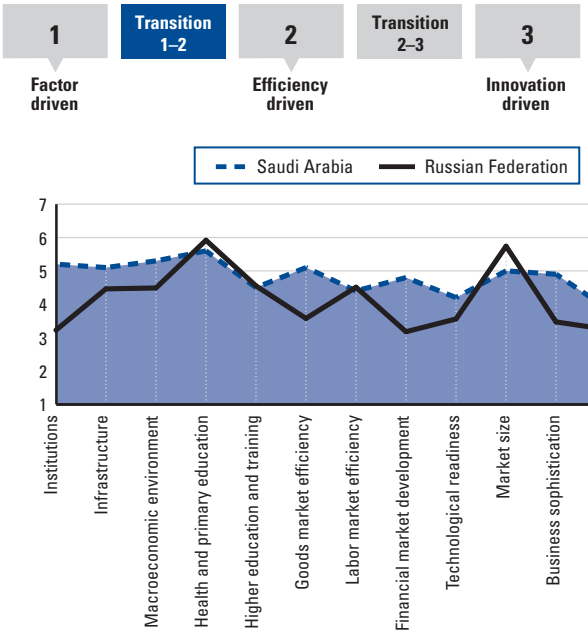
GDP (PPP) per capita (int'l $), 1992–2009



Global Competitiveness Index

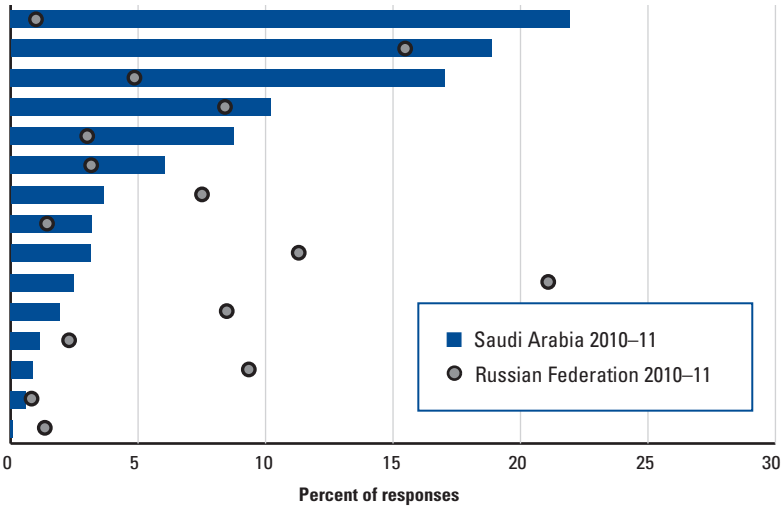
	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**21**	**4.9**
Basic requirements	**28**	**5.3**
1st pillar: Institutions	21	5.2
2nd pillar: Infrastructure	28	5.1
3rd pillar: Macroeconomic environment	22	5.3
4th pillar: Health and primary education	74	5.6
Efficiency enhancers	**27**	**4.7**
5th pillar: Higher education and training	51	4.5
6th pillar: Goods market efficiency	10	5.1
7th pillar: Labor market efficiency	66	4.4
8th pillar: Financial market development	22	4.8
9th pillar: Technological readiness	42	4.2
10th pillar: Market size	22	5.0
Innovation and sophistication factors	**26**	**4.4**
11th pillar: Business sophistication	19	4.9
12th pillar: Innovation	28	3.9

Stage of development



The most problematic factors for doing business

Restrictive labor regulations	22.0
Access to financing	18.9
Inadequately educated workforce	17.0
Inefficient government bureaucracy	10.2
Inadequate supply of infrastructure	8.8
Poor work ethic in national labor force	6.1
Tax rates	3.6
Foreign currency regulations	3.2
Tax regulations	3.1
Corruption	2.5
Inflation	1.9
Policy instability	1.2
Crime and theft	0.9
Poor public health	0.6
Government instability/coups	0.1



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Saudi Arabia

The Global Competitiveness Index in detail

		Saudi Arabia		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**21**	**4.9**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	28	5.3	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	27	4.7	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	26	4.4	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**21**	**5.2**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	28	5.4	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	30	4.8	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	28	5.1	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	9	5.4	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	26	5.6	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	29	5.2	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	13	4.6	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	6	5.2	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	18	4.0	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	37	4.4	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	29	4.4	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	40	4.8	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	57	6.1	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	16	6.1	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	16	6.6	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	30	5.5	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	31	5.2	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	35	5.4	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	26	5.0	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	19	5.1	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	16	7.0	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**28**	**5.1**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	29	5.5	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	26	5.5	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	38	3.6	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	36	5.2	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	46	5.4	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	26	822.4	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	29	6.1	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	78	16.2	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	5	174.4	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**22**	**5.3**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	53	–3.2	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	13	33.3	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	94	5.1	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	77	6.0	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	37	22.9	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	38	72.2	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**74**	**5.6**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	75	6.3	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	78	6.1	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	38	6.2	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	41	18.6	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	30	6.1	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	1	n/a	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	78	18.4	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	71	73.1	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	54	4.2	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	113	84.5	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**51**	**4.5**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	43	94.6	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	75	29.9	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	41	4.3	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	49	4.5	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	60	4.3	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	52	4.4	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	34	4.7	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	34	4.4	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Saudi Arabia

The Global Competitiveness Index in detail

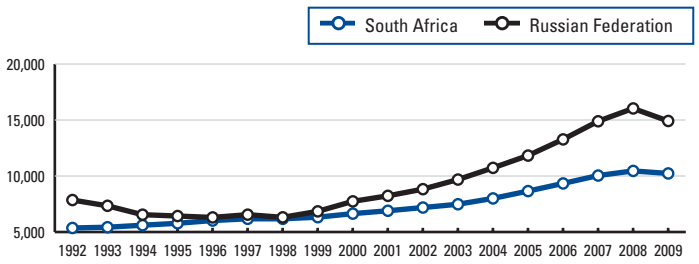
		Saudi Arabia		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**10**	**5.1**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	24	5.6	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	25	4.7	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	28	4.8	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	9	5.3	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	5	14.5	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	14	4.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	9	5.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	11	4.8	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	23	5.3	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	54	4.3	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	84	4.6	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	35	5.1	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	28	4.9	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	31	5.2	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	20	4.3	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**66**	**4.4**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	30	4.9	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	24	5.6	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	27	13.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	22	4.6	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	102	80.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	14	4.8	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	37	4.9	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	14	5.0	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	138	0.2	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**22**	**4.8**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	30	5.5	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	19	5.4	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	3	4.8	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	6	4.4	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	14	3.8	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	24	5.3	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	20	5.9	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	26	5.1	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	86	4.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**42**	**4.2**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	39	5.6	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	26	5.6	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	9	5.5	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	58	38.1	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	66	5.6	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	61	17.1	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**22**	**5.0**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	23	4.7	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	20	5.7	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**19**	**4.9**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	5	5.7	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	24	5.3	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	27	4.3	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	28	4.2	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	21	4.7	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	7	5.2	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	25	5.1	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	26	5.0	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	19	4.6	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**28**	**3.9**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	26	4.0	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	37	4.4	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	24	4.1	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	33	4.3	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	10	4.6	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	34	4.6	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	56	0.9	1.4	66.6	0.8	287.1	Taiwan, China

South Africa

Key indicators, 2009

Population (millions)	50.1
GDP (US$ billions)	287.2
GDP (US$) per capita	5,824
GDP (PPP) per capita	10,229
GDP (PPP) as share (%) of world total	0.70

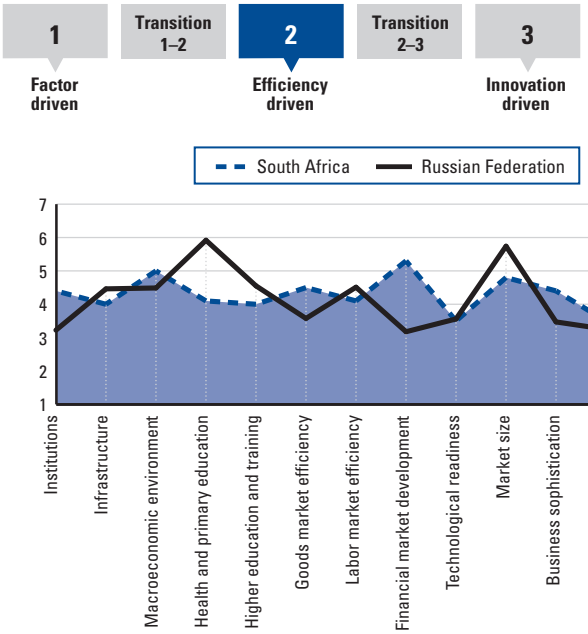
GDP (PPP) per capita (int'l $), 1992–2009



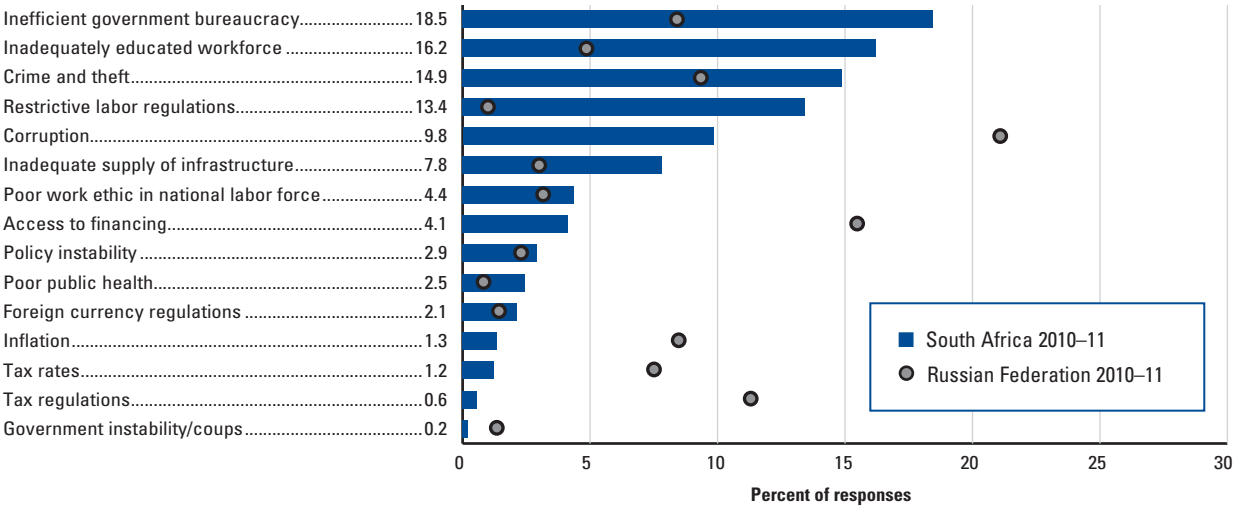
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**54**	**4.3**
Basic requirements	**79**	**4.4**
1st pillar: Institutions	47	4.4
2nd pillar: Infrastructure	63	4.0
3rd pillar: Macroeconomic environment	43	5.0
4th pillar: Health and primary education	129	4.1
Efficiency enhancers	**42**	**4.4**
5th pillar: Higher education and training	75	4.0
6th pillar: Goods market efficiency	40	4.5
7th pillar: Labor market efficiency	97	4.1
8th pillar: Financial market development	9	5.3
9th pillar: Technological readiness	76	3.5
10th pillar: Market size	25	4.8
Innovation and sophistication factors	**43**	**3.9**
11th pillar: Business sophistication	38	4.4
12th pillar: Innovation	44	3.5

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

South Africa

The Global Competitiveness Index in detail

		South Africa		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**54**	**4.3**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	79	4.4	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	42	4.4	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	43	3.9	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**47**	**4.4**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	29	5.4	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	27	4.9	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	82	3.1	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	86	2.4	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	49	4.6	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	44	4.7	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	102	2.6	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	60	3.4	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	94	3.0	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	19	5.1	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	20	4.7	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	27	5.0	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	42	6.3	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	137	2.1	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	114	4.3	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	104	3.4	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	50	4.5	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	1	6.4	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	2	5.8	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	6	5.6	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	10	8.0	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**63**	**4.0**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	56	4.6	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	43	4.8	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	47	3.3	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	49	4.7	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	18	6.1	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	24	1,139.4	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	94	3.8	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	98	8.6	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	73	92.7	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**43**	**5.0**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	27	–1.2	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	98	15.5	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	109	7.1	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	34	3.2	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	47	29.5	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	51	62.0	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**129**	**4.1**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	105	4.9	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	91	67.4	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	135	3.2	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	138	959.8	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	138	2.5	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	136	18.1	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	109	47.9	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	127	51.5	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	125	2.5	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	109	87.5	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**75**	**4.0**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	41	95.1	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	99	15.4	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	130	2.5	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	137	2.0	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	21	5.1	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	100	3.2	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	49	4.4	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	26	4.7	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

South Africa

The Global Competitiveness Index in detail

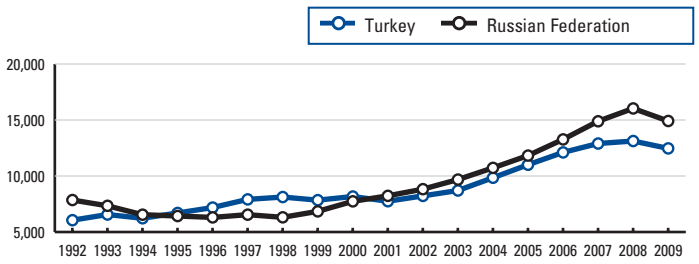
		South Africa		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**40**	**4.5**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	63	5.0	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	43	4.2	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	12	5.2	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	31	4.1	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	29	30.2	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	34	6.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	75	22.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	43	4.2	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	61	4.7	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	71	5.9	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	43	5.2	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	71	4.7	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	55	4.4	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	75	4.5	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	29	4.1	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**97**	**4.1**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	132	3.5	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	131	3.1	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	86	35.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	135	2.5	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	44	24.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	112	3.2	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	19	5.5	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	62	3.5	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	64	0.8	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**9**	**5.3**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	7	6.2	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	43	4.7	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	7	4.7	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	41	3.2	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	39	3.0	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	99	3.9	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	6	6.5	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	1	6.0	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	6	9.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**76**	**3.5**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	51	5.5	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	35	5.4	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	37	5.0	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	105	8.8	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	93	1.0	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	106	0.7	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**25**	**4.8**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	24	4.7	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	36	5.2	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**38**	**4.4**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	35	5.1	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	22	5.3	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	39	4.0	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	87	3.0	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	91	3.2	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	23	4.6	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	39	4.4	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	28	4.9	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	31	4.1	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**44**	**3.5**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	47	3.4	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	29	4.7	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	40	3.5	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	24	4.6	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	103	3.2	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	116	3.3	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	43	1.9	1.4	66.6	0.8	287.1	Taiwan, China

Turkey

Key indicators, 2009

Population (millions)	74.8
GDP (US$ billions)	615.3
GDP (US$) per capita	8,723
GDP (PPP) per capita	12,466
GDP (PPP) as share (%) of world total	1.25

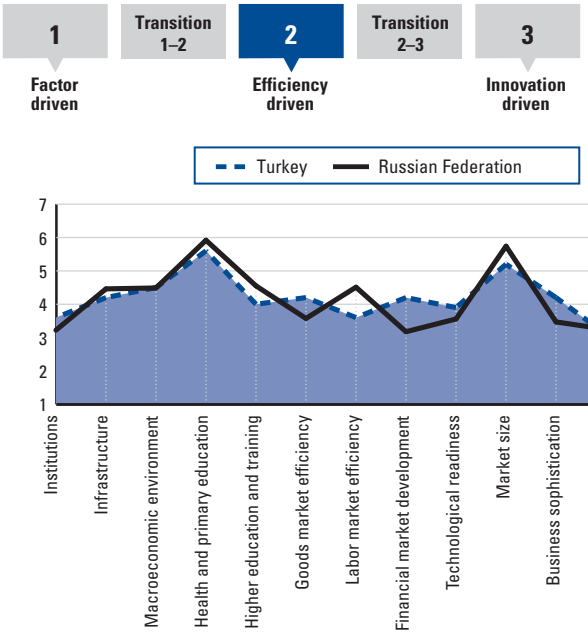
GDP (PPP) per capita (int'l $), 1992–2009



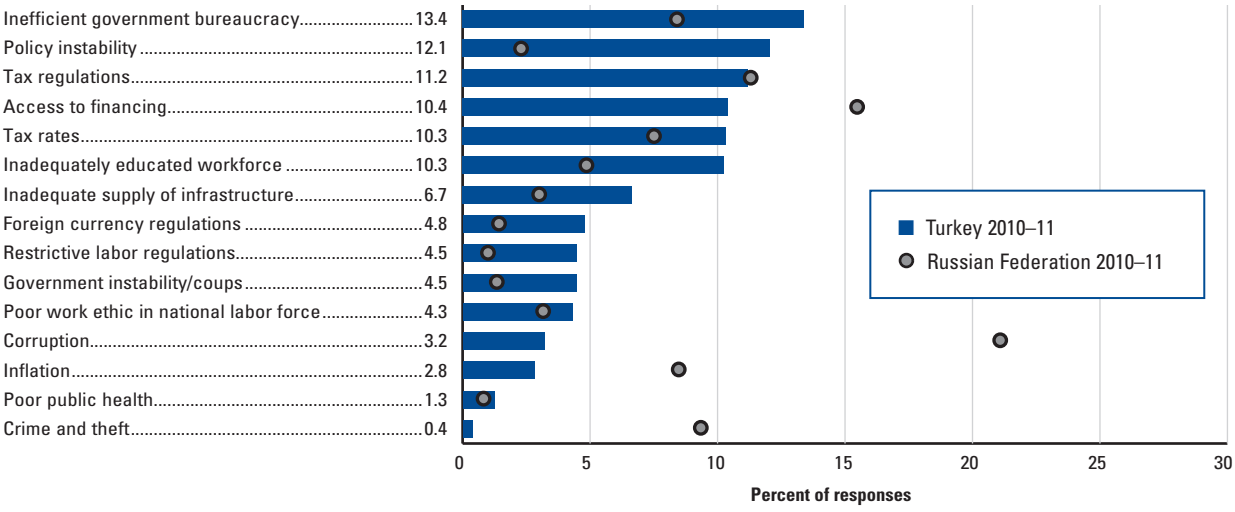
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**61**	**4.2**
Basic requirements	**68**	**4.5**
1st pillar: Institutions	88	3.6
2nd pillar: Infrastructure	56	4.2
3rd pillar: Macroeconomic environment	83	4.5
4th pillar: Health and primary education	72	5.6
Efficiency enhancers	**55**	**4.2**
5th pillar: Higher education and training	71	4.0
6th pillar: Goods market efficiency	59	4.2
7th pillar: Labor market efficiency	127	3.6
8th pillar: Financial market development	61	4.2
9th pillar: Technological readiness	56	3.9
10th pillar: Market size	16	5.2
Innovation and sophistication factors	**57**	**3.6**
11th pillar: Business sophistication	52	4.2
12th pillar: Innovation	67	3.1

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Turkey

The Global Competitiveness Index in detail

		Turkey		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**61**	**4.2**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	68	4.5	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	55	4.2	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	57	3.6	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**88**	**3.6**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	83	4.0	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	117	2.6	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	76	3.2	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	81	2.5	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	76	3.9	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	83	3.4	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	89	2.8	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	96	2.9	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	81	3.1	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	73	3.6	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	74	3.4	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	54	4.5	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	135	4.0	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	86	4.5	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	104	4.4	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	98	3.6	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	79	3.7	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	87	4.4	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	105	4.2	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	97	3.9	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	45	5.7	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**56**	**4.2**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	40	5.1	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	46	4.7	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	63	2.7	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	72	4.1	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	44	5.4	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	23	1,250.2	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	73	4.6	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	59	22.1	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	86	83.9	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**83**	**4.5**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	96	–5.5	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	102	14.8	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	101	6.3	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	39	3.4	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	81	45.2	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	66	52.5	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**72**	**5.6**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	72	6.7	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	75	1.7	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	30	6.4	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	56	30.1	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	23	6.2	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	1	0.0	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	81	19.9	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	81	71.9	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	94	3.2	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	60	94.7	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**71**	**4.0**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	84	82.0	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	60	38.4	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	95	3.2	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	99	3.4	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	105	3.6	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	57	4.3	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	58	4.2	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	85	3.7	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Turkey

The Global Competitiveness Index in detail

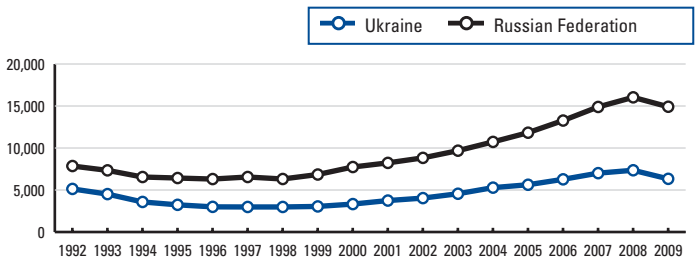
		Turkey		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**59**	**4.2**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	15	5.7	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	45	4.2	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	34	4.6	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	118	2.9	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	81	44.5	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	34	6.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	13	6.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	70	3.8	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	65	4.6	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	60	4.4	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	86	4.5	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	58	4.9	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	96	3.8	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	33	5.1	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	114	2.9	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**127**	**3.6**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	119	3.8	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	55	5.3	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	86	35.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	63	4.0	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	120	95.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	71	3.9	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	81	4.1	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	90	3.0	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	131	0.4	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**61**	**4.2**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	52	5.0	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	40	4.8	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	46	3.9	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	77	2.6	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	99	2.2	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	41	5.0	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	36	5.6	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	46	4.6	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	86	4.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**56**	**3.9**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	48	5.5	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	51	5.1	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	64	4.8	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	65	35.3	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	54	8.5	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	46	43.2	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**16**	**5.2**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	16	5.1	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	26	5.4	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**52**	**4.2**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	27	5.3	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	59	4.6	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	61	3.6	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	68	3.3	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	43	3.9	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	18	4.7	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	38	4.4	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	33	4.8	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	122	2.8	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**67**	**3.1**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	55	3.1	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	89	3.3	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	62	3.0	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	82	3.4	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	62	3.7	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	44	4.5	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	70	0.3	1.4	66.6	0.8	287.1	Taiwan, China

Ukraine

Key indicators, 2009

Population (millions)	45.7
GDP (US$ billions)	116.2
GDP (US$) per capita	2,542
GDP (PPP) per capita	6,330
GDP (PPP) as share (%) of world total	0.42

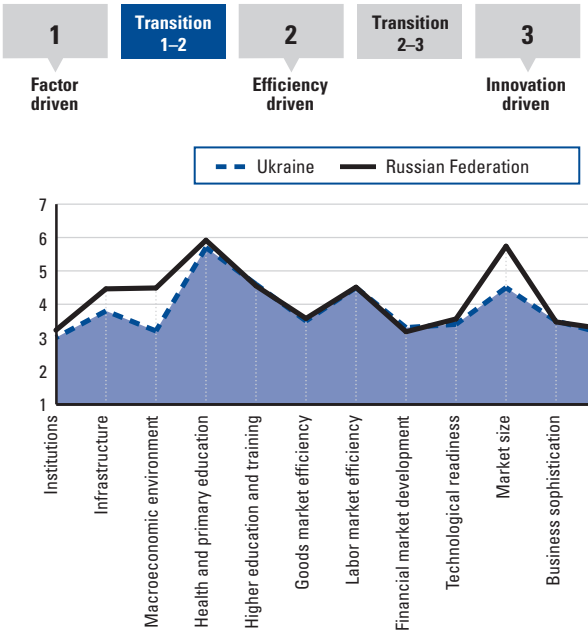
GDP (PPP) per capita (int'l $), 1992–2009



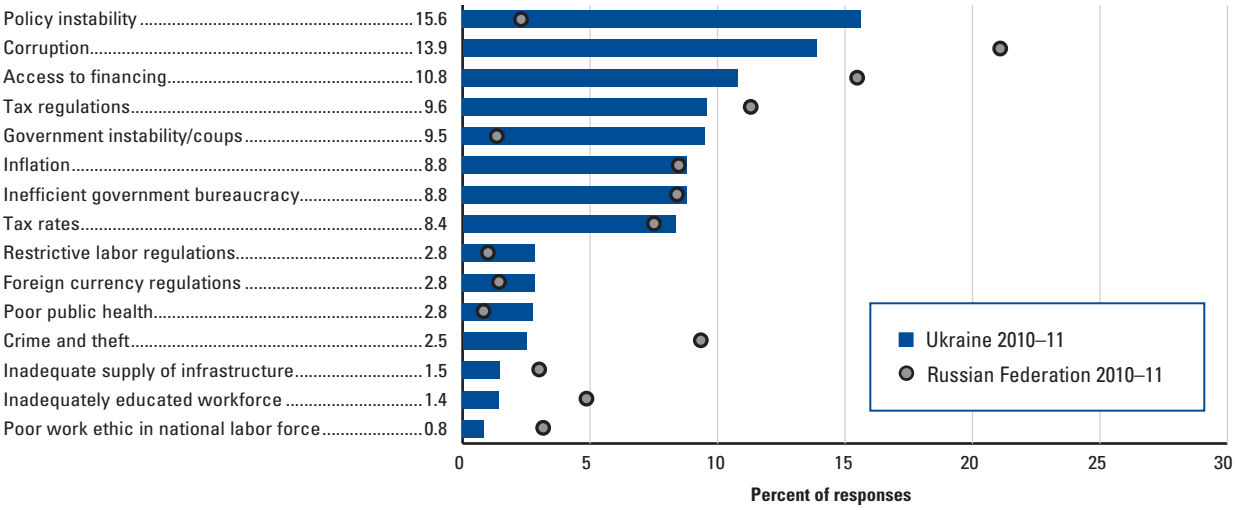
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**89**	**3.9**
Basic requirements	**102**	**3.9**
1st pillar: Institutions	134	3.0
2nd pillar: Infrastructure	68	3.8
3rd pillar: Macroeconomic environment	132	3.2
4th pillar: Health and primary education	67	5.7
Efficiency enhancers	**72**	**4.0**
5th pillar: Higher education and training	46	4.6
6th pillar: Goods market efficiency	129	3.5
7th pillar: Labor market efficiency	54	4.5
8th pillar: Financial market development	119	3.3
9th pillar: Technological readiness	83	3.4
10th pillar: Market size	38	4.5
Innovation and sophistication factors	**88**	**3.3**
11th pillar: Business sophistication	100	3.5
12th pillar: Innovation	63	3.1

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Ukraine

The Global Competitiveness Index in detail

		Ukraine		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**89**	**3.9**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	102	3.9	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	72	4.0	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	88	3.3	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**134**	**3.0**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	135	2.6	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	113	2.6	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	129	2.2	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	122	1.9	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	127	2.8	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	134	2.0	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	127	2.3	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	131	2.1	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	125	2.6	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	138	2.3	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	138	2.3	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	114	3.7	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	58	6.0	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	65	5.0	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	116	4.2	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	122	3.0	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	130	3.0	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	128	3.5	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	90	4.3	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	138	2.8	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	93	4.7	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**68**	**3.8**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	70	4.1	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	136	2.0	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	25	4.4	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	94	3.6	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	110	3.6	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	62	179.3	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	75	4.6	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	47	28.5	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	34	121.1	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**132**	**3.2**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	134	–11.4	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	96	15.6	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	134	15.9	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	91	7.1	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	52	31.3	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	99	32.1	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**67**	**5.7**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	113	4.3	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	87	101.5	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	96	4.7	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	114	1.6	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	64	13.7	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	98	68.3	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	49	4.4	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	102	88.9	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**46**	**4.6**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	44	94.4	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	8	79.4	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	56	3.9	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	42	4.6	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	108	3.5	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	68	3.8	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	84	3.9	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	109	3.4	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Ukraine

The Global Competitiveness Index in detail

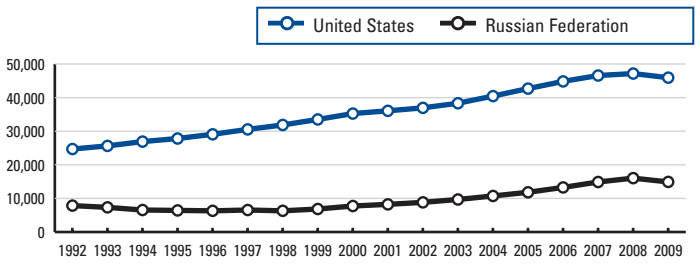
		Ukraine		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**129**	**3.5**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	118	4.1	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	128	2.9	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	126	3.1	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	136	2.3	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	113	57.2	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	99	10.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	86	27.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	135	2.8	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	126	3.6	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	40	2.9	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	121	3.8	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	128	3.5	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	131	3.0	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	103	4.2	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	83	3.2	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**54**	**4.5**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	110	3.9	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	54	5.3	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	78	31.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	18	4.7	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	21	13.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	26	4.5	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	122	3.5	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	115	2.5	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	32	0.9	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**119**	**3.3**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	108	3.8	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	122	3.2	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	120	2.3	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	130	1.9	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	121	1.9	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	125	3.2	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	138	2.5	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	127	2.7	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	6	9.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**83**	**3.4**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	92	4.5	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	96	4.4	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	124	3.8	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	70	33.5	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	71	4.2	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	96	2.1	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**38**	**4.5**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	37	4.3	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	37	5.2	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**100**	**3.5**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	91	4.5	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	100	4.0	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	106	2.9	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	99	2.9	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	81	3.4	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	108	3.6	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	78	3.4	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	91	3.7	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	109	3.0	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**63**	**3.1**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	37	3.5	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	68	3.6	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	69	3.0	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	72	3.5	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	112	3.1	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	53	4.3	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	64	0.4	1.4	66.6	0.8	287.1	Taiwan, China

United States

Key indicators, 2009

Population (millions)	314.7
GDP (US$ billions)	14,256.3
GDP (US$) per capita	46,381
GDP (PPP) per capita	45,934
GDP (PPP) as share (%) of world total	20.46

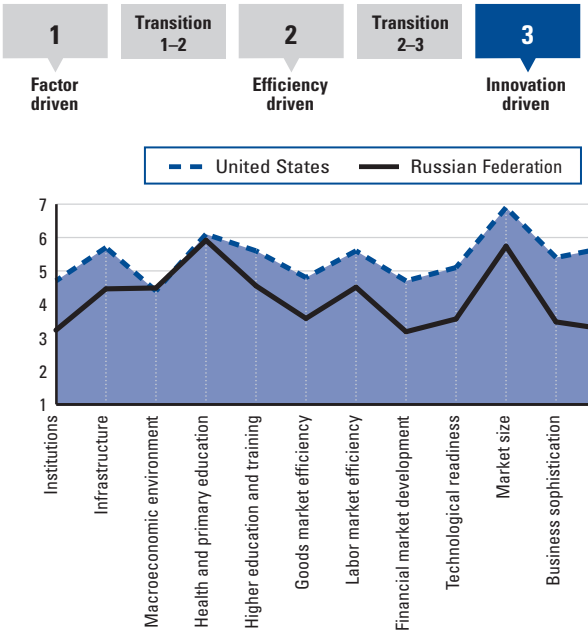
GDP (PPP) per capita (int'l $), 1992–2009



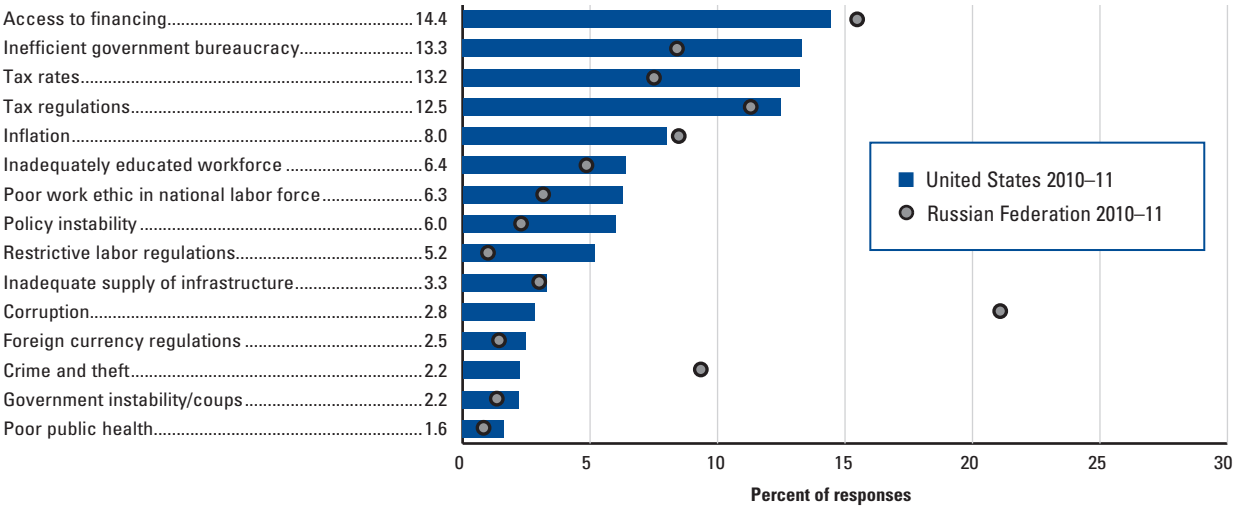
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**4**	**5.4**
Basic requirements	**32**	**5.2**
1st pillar: Institutions	40	4.7
2nd pillar: Infrastructure	15	5.7
3rd pillar: Macroeconomic environment	87	4.4
4th pillar: Health and primary education	42	6.1
Efficiency enhancers	**3**	**5.5**
5th pillar: Higher education and training	9	5.6
6th pillar: Goods market efficiency	26	4.8
7th pillar: Labor market efficiency	4	5.6
8th pillar: Financial market development	31	4.7
9th pillar: Technological readiness	17	5.1
10th pillar: Market size	1	6.9
Innovation and sophistication factors	**4**	**5.5**
11th pillar: Business sophistication	8	5.4
12th pillar: Innovation	1	5.7

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

United States

The Global Competitiveness Index in detail

		United States		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**4**	**5.4**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	32	5.2	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	3	5.5	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	4	5.5	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**40**	**4.7**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	40	5.1	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	24	5.1	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	34	4.7	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	54	3.3	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	40	5.0	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	35	5.0	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	55	3.3	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	68	3.3	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	49	3.5	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	33	4.6	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	35	4.3	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	41	4.7	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	125	4.5	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	84	4.5	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	86	5.1	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	26	5.6	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	30	5.2	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	55	5.0	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	28	5.0	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	40	4.8	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	5	8.3	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**15**	**5.7**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	23	5.8	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	19	5.7	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	18	4.8	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	22	5.5	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	32	5.8	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	1	31,076.0	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	23	6.2	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	16	49.3	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	71	94.8	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**87**	**4.4**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	118	–7.9	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	130	8.5	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	15	–0.3	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	26	2.7	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	122	83.2	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	11	88.9	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**42**	**6.1**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	1	n/a	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	1	n/a	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	53	5.9	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	6	4.8	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	80	5.1	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	89	0.6	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	41	6.7	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	34	78.4	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	34	4.7	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	79	92.0	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**9**	**5.6**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	45	94.1	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	6	82.9	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	26	4.8	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	52	4.4	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	11	5.5	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	14	5.9	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	10	5.8	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	10	5.1	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

United States

The Global Competitiveness Index in detail

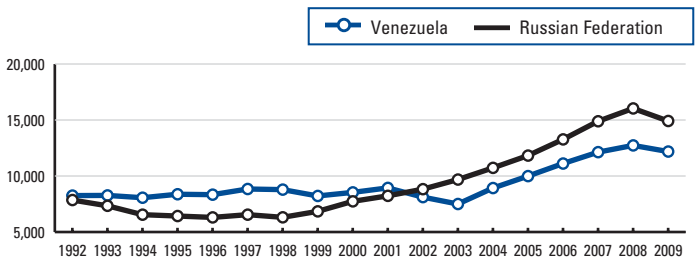
		United States		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**26**	**4.8**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	16	5.6	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	9	5.3	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	17	5.1	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	71	3.5	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	89	46.3	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	34	6.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	13	6.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	58	4.0	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	67	4.6	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	32	1.5	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	47	5.1	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	77	4.6	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	48	4.5	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	22	5.3	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	13	4.5	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**4**	**5.6**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	33	4.9	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	34	5.5	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	1	0.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	6	5.2	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	1	0.0	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	9	4.9	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	15	5.6	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	3	5.9	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	49	0.9	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**31**	**4.7**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	15	6.0	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	21	5.3	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	36	4.1	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	34	3.4	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	13	3.8	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	69	4.5	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	111	4.4	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	64	4.3	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	20	8.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**17**	**5.1**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	7	6.4	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	11	6.0	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	55	4.9	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	17	76.2	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	16	27.1	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	29	110.2	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**1**	**6.9**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	1	7.0	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	2	6.7	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**8**	**5.4**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	11	5.6	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	14	5.6	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	6	5.1	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	19	5.2	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	15	5.1	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	8	5.1	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	11	5.7	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	1	6.0	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	8	5.1	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**1**	**5.7**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	6	5.3	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	4	6.0	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	6	5.4	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	1	5.8	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	5	4.7	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	4	5.7	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	3	261.7	1.4	66.6	0.8	287.1	Taiwan, China

Venezuela

Key indicators, 2009

Population (millions)	28.6
GDP (US$ billions)	337.3
GDP (US$) per capita	11,789
GDP (PPP) per capita	12,184
GDP (PPP) as share (%) of world total	0.50

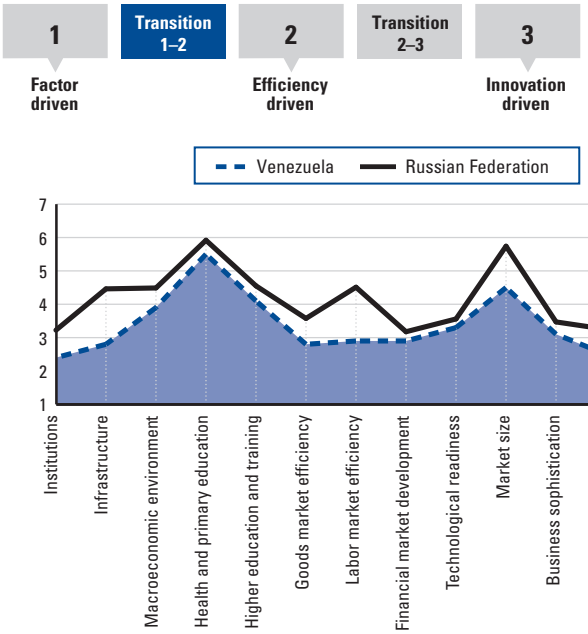
GDP (PPP) per capita (int'l $), 1992–2009



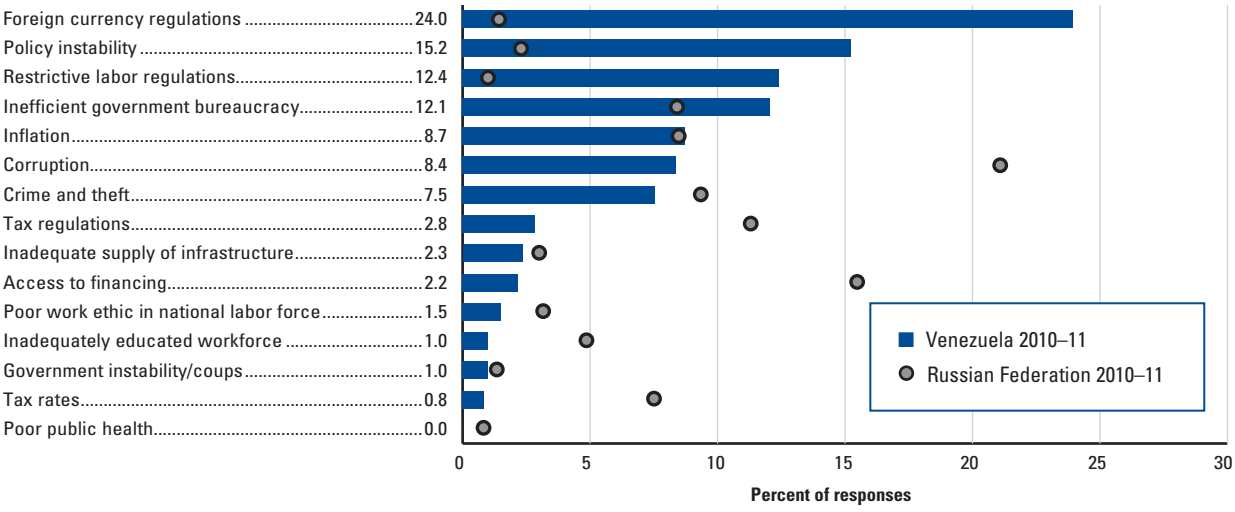
Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
GCI 2010–2011	**122**	**3.5**
Basic requirements	**117**	**3.7**
1st pillar: Institutions	139	2.4
2nd pillar: Infrastructure	108	2.8
3rd pillar: Macroeconomic environment	113	3.9
4th pillar: Health and primary education	86	5.5
Efficiency enhancers	**113**	**3.4**
5th pillar: Higher education and training	68	4.1
6th pillar: Goods market efficiency	139	2.8
7th pillar: Labor market efficiency	138	2.9
8th pillar: Financial market development	132	2.9
9th pillar: Technological readiness	90	3.3
10th pillar: Market size	40	4.5
Innovation and sophistication factors	**129**	**2.8**
11th pillar: Business sophistication	129	3.1
12th pillar: Innovation	123	2.5

Stage of development



The most problematic factors for doing business



Notes: From a list of 15 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

† Average of Brazil, India, and China.

Venezuela

The Global Competitiveness Index in detail

		Venezuela		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	Global Competitiveness Index 2010–2011	**122**	**3.5**	**4.2**	**4.9**	**4.5**	**5.6**	**Switzerland**
	Basic requirements	117	3.7	4.5	5.3	4.6	6.1	Hong Kong SAR
	Efficiency enhancers	113	3.4	4.2	4.8	4.5	5.5	Singapore
	Innovation and sophistication factors	129	2.8	3.4	4.6	4.0	5.7	Japan
	1st pillar: Institutions	**139**	**2.4**	**3.2**	**4.9**	**4.0**	**6.1**	**Singapore**
1.01	Property rights*	139	1.8	2.9	5.4	4.6	6.4	Switzerland
1.02	Intellectual property protection*	137	1.9	2.6	4.9	3.5	6.2	Sweden
1.03	Diversion of public funds*	137	1.9	2.6	4.8	3.1	6.6	New Zealand
1.04	Public trust of politicians*	139	1.5	2.9	3.6	2.8	6.4	Singapore
1.05	Irregular payments and bribes*	129	2.7	3.2	5.5	3.9	6.7	New Zealand
1.06	Judicial independence*	139	1.7	2.7	5.2	4.1	6.8	New Zealand
1.07	Favoritism in decisions of government officials*	135	2.0	2.6	3.9	3.2	6.0	Sweden
1.08	Wastefulness of government spending*	137	1.7	3.1	3.6	3.1	6.1	Singapore
1.09	Burden of government regulation*	135	2.1	2.5	3.2	3.0	5.5	Singapore
1.10	Efficiency of legal sys. in settling disputes*	139	2.0	2.9	4.4	3.9	6.3	Singapore
1.11	Efficiency of legal sys. in challenging regs*	139	1.5	2.8	4.3	3.9	5.8	Sweden
1.12	Transparency of government policymaking*	136	3.0	3.8	4.9	4.5	6.3	Singapore
1.13	Business costs of terrorism*	110	4.9	5.3	5.9	5.5	6.8	Uruguay
1.14	Business costs of crime and violence*	135	2.3	4.5	5.4	4.5	6.6	Syria
1.15	Organized crime*	135	3.0	4.3	5.8	4.8	6.9	Rwanda
1.16	Reliability of police services*	139	2.1	2.7	5.4	4.3	6.6	Finland
1.17	Ethical behavior of firms*	127	3.1	3.3	5.3	3.9	6.8	Sweden
1.18	Strength of auditing and reporting standards*	109	4.0	3.8	5.3	4.9	6.4	South Africa
1.19	Efficacy of corporate boards*	133	3.8	4.1	4.9	4.5	5.9	Sweden
1.20	Protection of minority shareholders' interests*	130	3.3	3.2	4.7	4.4	6.0	Sweden
1.21	Strength of investor protection, index 0–10 (best)	135	2.3	5.0	5.9	5.4	9.7	New Zealand
	2nd pillar: Infrastructure	**108**	**2.8**	**4.5**	**5.2**	**4.0**	**6.8**	**Hong Kong SAR**
2.01	Quality of overall infrastructure*	117	3.1	3.6	5.5	3.8	6.8	Switzerland
2.02	Quality of roads*	96	3.2	2.4	5.2	3.5	6.6	Singapore
2.03	Quality of railroad infrastructure*	101	1.5	4.1	4.6	3.6	6.8	Switzerland
2.04	Quality of port infrastructure*	135	2.4	3.7	5.2	3.7	6.8	Hong Kong SAR
2.05	Quality of air transport infrastructure*	113	3.6	3.8	5.6	4.3	6.9	Hong Kong SAR
2.06	Available airline seat kilometers, million	55	246.8	2,517.3	2,337.0	4,966.2	31,076.0	United States
2.07	Quality of electricity supply*	124	2.3	4.3	6.1	4.5	6.9	Hong Kong SAR
2.08	Fixed telephone lines/100 pop.	55	24.0	31.8	41.2	15.9	63.2	Taiwan, China
2.09	Mobile telephone subscriptions/100 pop.	63	98.4	163.6	114.9	63.0	232.1	United Arab Emirates
	3rd pillar: Macroeconomic environment	**113**	**3.9**	**4.5**	**4.9**	**4.9**	**6.6**	**Brunei Darussalam**
3.01	Government budget balance, % GDP	105	–6.2	–6.2	–4.8	–3.3	178.0	Timor-Leste
3.02	National savings rate, % GDP	36	27.4	21.9	19.0	34.9	54.1	Kuwait
3.03	Inflation, annual % change	138	27.1	11.7	1.6	5.0	–7.7	Zimbabwe
3.04	Interest rate spread, %	59	5.0	6.7	3.0	14.5	-0.6	Netherlands
3.05	Government debt, % GDP	19	17.3	8.5	66.2	46.0	0.0	Timor-Leste
3.06	Country credit rating, 0–100 (best)	85	40.1	63.2	81.2	67.6	92.8	Switzerland
	4th pillar: Health and primary education	**86**	**5.5**	**5.9**	**6.3**	**5.6**	**6.8**	**Belgium**
4.01	Business impact of malaria*	93	5.5	n/a	6.4	5.6	n/appl	Multiple (71)
4.02	Malaria incidence/100,000 pop.	102	435.6	0.0	8.0	553.5	0.0	Multiple (9)
4.03	Business impact of tuberculosis*	80	5.3	5.7	6.5	5.5	7.0	Finland
4.04	Tuberculosis incidence/100,000 pop.	59	33.5	106.7	12.8	103.9	0.0	Multiple (2)
4.05	Business impact of HIV/AIDS*	82	5.1	5.4	6.1	5.2	6.7	Norway
4.06	HIV prevalence, % adult pop.	95	0.7	1.1	0.2	0.3	<0.1	Multiple (21)
4.07	Infant mortality, deaths/1,000 live births	72	15.8	11.9	4.8	29.5	1.8	Hong Kong SAR
4.08	Life expectancy, years	64	73.5	67.8	79.3	69.7	82.6	Japan
4.09	Quality of primary education*	110	2.9	3.9	4.8	3.4	6.6	Finland
4.10	Primary education enrollment, net %	91	90.1	99.8	96.9	94.5	100.0	Costa Rica
	5th pillar: Higher education and training	**68**	**4.1**	**4.6**	**5.2**	**4.1**	**6.1**	**Finland**
5.01	Secondary education enrollment, gross %	87	81.1	84.8	104.1	78.0	149.3	Australia
5.02	Tertiary education enrollment, gross %	9	78.6	77.2	63.7	23.5	98.1	Korea, Rep.
5.03	Quality of the educational system*	127	2.6	3.6	4.5	3.8	6.1	Singapore
5.04	Quality of math and science education*	116	2.9	4.4	4.6	4.0	6.5	Singapore
5.05	Quality of management schools*	57	4.4	3.8	5.0	4.5	6.1	Qatar
5.06	Internet access in schools*	102	3.1	4.1	5.3	4.4	6.8	Iceland
5.07	Availability of research & training services*	123	3.0	4.1	5.2	4.5	6.5	Switzerland
5.08	Extent of staff training*	91	3.7	3.7	4.6	4.1	5.7	Sweden

* Out of 1–7 (best) scale. This indicator is derived from the World Economic Forum's Executive Opinion Survey. † Average of Brazil, India, and China.

Venezuela

The Global Competitiveness Index in detail

		Venezuela		Russian Federation	OECD	BIC†	Best performer	
	INDICATOR, UNITS	RANK/139	SCORE	SCORE	SCORE	SCORE	SCORE	ECONOMY
	6th pillar: Goods market efficiency	**139**	**2.8**	**3.6**	**4.7**	**4.1**	**5.7**	**Singapore**
6.01	Intensity of local competition*	138	3.2	4.1	5.4	5.4	6.1	Taiwan, China
6.02	Extent of market dominance*	135	2.7	3.4	4.6	4.6	5.9	Germany
6.03	Effectiveness of antimonopoly policy*	139	2.6	3.4	4.8	4.5	5.8	Sweden
6.04	Extent and effect of taxation*	98	3.2	3.2	3.4	3.4	6.1	Bahrain
6.05	Total tax rate, % profits	118	61.1	48.3	43.8	65.9	0.2	Timor-Leste
6.06	No. procedures to start a business	132	16.0	9.0	5.8	14.3	1.0	Multiple (2)
6.07	No. days to start a business	136	141.0	30.0	13.6	62.3	1.0	New Zealand
6.08	Agricultural policy costs*	138	2.4	3.3	3.9	4.4	5.9	New Zealand
6.09	Prevalence of trade barriers*	137	3.2	3.5	5.2	4.2	6.4	Qatar
6.10	Trade tariffs, % duty	117	12.4	11.6	1.9	13.2	0.0	Hong Kong SAR
6.11	Prevalence of foreign ownership*	117	3.9	3.6	5.3	4.5	6.3	Slovak Republic
6.12	Business impact of rules on FDI*	139	2.2	3.6	4.9	5.0	6.5	Singapore
6.13	Burden of customs procedures*	139	2.2	2.9	4.9	4.0	6.5	Hong Kong SAR
6.14	Degree of customer orientation*	138	3.2	3.5	5.2	4.7	6.4	Japan
6.15	Buyer sophistication*	82	3.2	3.7	4.1	4.0	5.2	Japan
	7th pillar: Labor market efficiency	**138**	**2.9**	**4.5**	**4.7**	**4.3**	**5.9**	**Singapore**
7.01	Cooperation in labor-employer relations*	139	3.0	3.8	4.8	4.4	6.2	Singapore
7.02	Flexibility of wage determination*	122	3.9	5.0	4.5	4.9	6.4	Hong Kong SAR
7.03	Rigidity of employment index, 0–100 (worst)	135	69.0	38.0	27.6	35.7	0.0	Multiple (7)
7.04	Hiring and firing practices*	139	2.2	3.9	3.6	3.5	6.0	Hong Kong SAR
7.05	Redundancy costs*	135	n/a	17.0	30.0	64.3	0.0	Multiple (4)
7.06	Pay and productivity*	136	2.7	4.2	4.1	4.2	5.6	Singapore
7.07	Reliance on professional management*	96	3.9	3.9	5.2	4.7	6.5	Sweden
7.08	Brain drain*	128	2.1	3.1	4.3	4.3	6.3	Switzerland
7.09	Females in labor force, ratio to males	103	0.7	0.9	0.8	0.7	1.2	Mozambique
	8th pillar: Financial market development	**132**	**2.9**	**3.2**	**4.6**	**4.6**	**5.9**	**Hong Kong SAR**
8.01	Availability of financial services*	107	3.9	3.8	5.5	5.1	6.6	Switzerland
8.02	Affordability of financial services*	109	3.5	3.8	4.8	4.7	6.0	Switzerland
8.03	Financing through local equity market*	128	2.1	2.7	3.8	4.2	5.2	Qatar
8.04	Ease of access to loans*	116	2.1	2.3	3.2	3.0	5.0	Qatar
8.05	Venture capital availability*	119	2.0	2.3	3.0	3.1	4.4	Hong Kong SAR
8.06	Restriction on capital flows*	139	1.8	3.4	5.0	4.0	6.5	Hong Kong SAR
8.07	Soundness of banks*	126	4.0	3.8	5.2	5.8	6.7	Canada
8.08	Regulation of securities exchanges*	95	3.7	3.3	4.7	5.1	6.0	South Africa
8.09	Legal rights index, 0–10 (best)	129	2.0	3.0	6.6	5.7	10.0	Multiple (5)
	9th pillar: Technological readiness	**90**	**3.3**	**3.6**	**5.0**	**3.6**	**6.1**	**Sweden**
9.01	Availability of latest technologies*	101	4.3	4.2	6.0	5.2	6.8	Sweden
9.02	Firm-level technology absorption*	110	4.2	4.0	5.6	5.1	6.5	Iceland
9.03	FDI and technology transfer*	125	3.7	3.9	4.9	5.0	6.3	Ireland
9.04	Internet users/100 pop.	72	30.9	42.4	70.0	24.1	93.5	Iceland
9.05	Broadband Internet subscriptions/100 pop.	61	6.5	9.2	25.1	5.3	41.1	Sweden
9.06	Internet bandwidth, Mb/s per 10,000 pop.	81	6.2	5.7	2,455.5	9.3	72,825.3	Luxembourg
	10th pillar: Market size	**40**	**4.5**	**5.7**	**4.8**	**6.1**	**6.9**	**United States**
10.01	Domestic market size index, 1–7 (best)	32	4.5	5.6	4.6	6.1	7.0	United States
10.02	Foreign market size index, 1–7 (best)	55	4.7	6.1	5.3	6.2	7.0	China
	11th pillar: Business sophistication	**129**	**3.1**	**3.5**	**4.9**	**4.4**	**5.9**	**Japan**
11.01	Local supplier quantity*	138	3.3	4.3	5.2	5.6	6.4	Japan
11.02	Local supplier quality*	129	3.6	3.8	5.4	4.8	6.3	Austria
11.03	State of cluster development*	132	2.4	3.2	4.3	4.5	5.5	Italy
11.04	Nature of competitive advantage*	138	2.2	2.9	4.7	3.4	6.4	Japan
11.05	Value chain breadth*	138	2.1	3.0	4.7	3.9	6.3	Germany
11.06	Control of international distribution*	121	3.4	3.7	4.5	4.3	5.6	Japan
11.07	Production process sophistication*	94	3.2	3.2	5.2	4.3	6.6	Japan
11.08	Extent of marketing*	80	3.8	3.8	5.1	4.7	6.0	United States
11.09	Willingness to delegate authority*	107	3.1	3.1	4.4	3.8	6.5	Sweden
	12th pillar: Innovation	**123**	**2.5**	**3.2**	**4.3**	**3.7**	**5.7**	**United States**
12.01	Capacity for innovation*	127	2.3	3.5	4.3	3.9	5.9	Germany
12.02	Quality of scientific research institutions*	101	3.0	3.9	4.9	4.4	6.2	Israel
12.03	Company spending on R&D*	121	2.5	3.2	4.2	3.9	6.0	Sweden
12.04	University-industry collaboration in R&D*	76	3.4	3.7	4.7	4.2	5.8	United States
12.05	Gov't procurement of advanced tech.*	137	2.4	3.5	4.0	4.0	5.5	Qatar
12.06	Availability of scientists and engineers*	109	3.4	4.3	4.8	4.6	6.0	Finland
12.07	Utility patents/million pop.	68	0.3	1.4	66.6	0.8	287.1	Taiwan, China

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Sberbank is the biggest bank in Russia, with around US$200 billion in assets. It offers wide access to banking through its 20,000 branches and 13,000 ATMs. In a country with a population of 140 million people, Sberbank maintains nearly 300 million individual accounts, and services half of the large and medium-size companies and a quarter of small businesses in Russia. Sberbank's public and private ownership exemplifies a proper balance between sustainability and drive for efficiency. Sberbank aims to develop into a leading global financial institution, using the growth potential of the domestic market and expanding its international business. Already operational in Ukraine and Kazakhstan, Sberbank is considering India and China for its next fields of activity. Moving ahead, Sberbank will be guided by its mission statement of "instilling confidence and reliability, making people's lives better and helping them to fulfil their dreams and aspirations." The mission explains Sberbank's understanding of the role of business in the 21st century and its contribution to sustainable social development.

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