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The Global Talent Competitiveness Index 2013

Bruno Lanvin and Paul Evans, Editors

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PREFACE

Welcome to this first edition of the Global Talent Competitiveness Index (GTCI), which we are proud to bring to you.

During the course of the past decade, INSEAD has been involved in developing two major global indices, on Global Information Technology and on Innovation.[1] Both have become world renowned benchmarks in their respective fields. While doing the research related to those two indices, we have been constantly reminded that the human factor was the most critical resource for national economies to improve their competitiveness and innovativeness in a sustainable way. In our work as educators and researchers, we are regularly struck by the importance of talented individuals and teams who make things happen, turning problems into opportunities and solutions.

Today's economy benefits from being *global* and *mobile*. The clothes that we wear, the phones that we use, and the planes that we fly are all the result of combining elements and factors of production that may come from a dozen or more countries. The deployment of information networks around the planet, and the convergence of broadband communications with mobile telephony, have contributed to making such combination not only feasible (e.g., through global supply chains) but also more affordable for the majority of humankind. Mobility has been redefined. Ideas, know-how, and innovative and entrepreneurial people routinely cross borders and generate value locally and globally; projects (such as this report) involve people collaborating across different continents, all of whom are living outside their respective countries of birth.

The engine of this global and mobile world is talent. In all regions of the world, a growing number of countries have recognised the importance of talent competitiveness, focusing on educational reform, reducing gender and other gaps, and attracting qualified and entrepreneurial people from abroad. Others are eager to learn how they can adopt similar strategies, and fit them to their specific needs and requirements. All can benefit from being able to access simple and credible tools to monitor current efforts, identify best practices, and chart the course ahead.

In development economics, as well as in most social sciences, it is often underlined that "*you cannot improve what you cannot measure*". The ambition of the GTCI is to be an action tool for continuous improvement in linking talent to economic development, and an instrument to stimulate dialogue between governments, business, academia, professionals and their associations, and other ordinary citizens.

This report is the result of a strong partnership between the business sector, government and academia. We are immensely grateful to Singapore's Human Capital Leadership Institute (HCLI) and to Adecco for having accepted to join and support this unprecedented effort. The GTCI reflects the professional skill and expertise of our research team led by Martina Mettgenberg Lemière, with Nurina Merdikawati and Aung Myint Thein. We also want to express our gratitude to the individuals and institutions who contributed to enhance our own thinking in the field of talent competitiveness by providing analytical chapters to this first edition, namely the World Bank and The Conference Board. We also want to associate in these thanks the Joint Research Centre of the European Commission (JRC), which performed a rigorous audit of the GTCI model, including its structure, variables and analytical foundations.

The GTCI team also owes a lot to the encouragement of our distinguished Advisory Board, whose members are listed in this report. And we are also indebted to INSEAD's academic network, notably Professors Javier Gimeno, Maria Guadalupe and Rose Xiaowei Luo, and also Professors Phil Anderson, Henrik Bresman, Pushan Dutt, Antonio Fatas, William Maddux, Andrew Shipilov, Narayan Pant, and Douglas Webber, for their inputs and advice on the model and measures. An ambitious project such as this needs the inputs and constructive critique of economists, demographers and sociologists as well as those in the HRM, strategy and labour economics areas. To guide the development of the GTCI, this academic network is being broadened to an Academic Council of leading scholars in such disciplines across the world.

This first edition of the GTCI report must be seen as a first step of a work in progress. In the coming years, subsequent annual editions of the report will include improvements on the GTCI methodology, a broadening of its array of variables, and increases in its country coverage. Analytical chapters will continue to offer state-of-the-art views on some of the frontier areas of talent competitiveness. The dedicated GTCI website (globalindices.insead.edu/gtci) and linked social network fora will offer a continuous basis for further dialogue between GTCI authors and readers. We hope to see you out there very soon!

Bruno Lanvin
Executive Director for Global Indices, INSEAD

Paul Evans
The Shell Chaired Professor of Human Resources and Organisational Development, Emeritus, INSEAD

Notes

[1] Since 2001, INSEAD has been collaborating with the World Economic Forum to publish the Global Information Technology Report (GITR), based on the Networked Readiness Index (NRI); since 2007, INSEAD has been co-producing the Global Innovation Index (GII), which is now co-edited by INSEAD, Cornell University and the World Intellectual Property Organization (WIPO).

TACKLING ASIA'S TALENT CHALLENGES, TOGETHER

The war for talent between organisations has been much researched and written about, but today, we see countries, not just companies, engaged in this competition. With Asia leading the way in terms of global growth and therefore driving much of the increase in talent demand, coupled with greatly increased global connectivity and talent mobility, we see today's highly mobile workforce seeking employment opportunities beyond their country of origin.

In an attempt to stem the talent outflow, increasingly we see countries taking action, be it regulations, policy changes, or incentives, to better attract and retain talent in-country. But just how effective and efficient are they in doing so?

The quest for answers led the Singapore Human Capital Leadership Institute (HCLI) to partner with INSEAD to create the Global Talent Competitiveness Index. Based on rigorous measurement and analysis, it seeks to inform policy and business decision-makers on the relative strengths of different countries across a host of talent-related factors. This index and its associated scores can hopefully help identify critical issues and prioritise actions.

At HCLI, it is our strong belief that countries can best increase talent competitiveness when the different constituents work together to attract, grow and retain talent. These constituents may include multiple players in the ecosystem: business, government, academia, consulting, and thought leaders.

With this in mind, we have evolved the ecosystem concept to be core to HCLI's modus operandi. It is our aim to help organisations accelerate human capital and leadership development in Asia, for a globalised Asia. Rather than attempting to do this alone, we foster rich networks between the many parties in the ecosystem, manifested through our various executive development programmes and research platforms.

As an example, in our annual flagship Singapore Business Leaders Programme, we seek out the best minds from business, academia, government and consulting to identify key trends and share insights on doing business in Asia, and what this means for leadership and human capital strategies. We specially created the Consortium Platform – where integral groups of four to five business leaders from at least five global/regional organisations across various industries come together – to stimulate cross-learning of best practices and co-creation of novel solutions to drive growth in Asia. Our research roundtables, with participation from senior executives, academia and thought leaders, bridge the gap between theory and practice in the leadership and human capital arena.

In today's world of global connectivity and talent mobility, we believe the solution to a country's talent competitiveness lies not with one entity but with a multitude of parties in the ecosystem working together, involving business, government and academia. Chapter 2: "Business ecosystems: developing employable talent to meet Asia's needs" details our view of how this can be done.

It is our sincere hope that this inaugural Global Talent Competitiveness Index will be useful as a benchmark for countries, cities and organisations as they compete for talent in this global marketplace.

Kwan Chee Wei
Chief Executive Officer
Human Capital Leadership Institute

ADECCO | *FOREWORD*

Adecco is honoured to be partnering with INSEAD and the Human Capital Leadership Institute (HCLI) to produce this first edition of the Global Talent Competitiveness Index.

The first study of its kind, the GTCI will help decision-makers, businesses and governments to better match talent with jobs.

Companies, countries and cities are indeed increasingly competing for talent, and seeking to attract, develop and retain it. Talent has become the key resource of the global economy and therefore one that decision-makers need to understand in depth.

As the leading provider of HR solutions and one of the largest employers in the world, Adecco is confronted with the realities and challenges of labour markets on a daily basis. Present in over 60 countries, working with over 100,000 companies, and employing more than 850,000 people every day, we see that talent becomes increasingly scarce in many regions, due to demographics, but also due to the mismatch between skills available and open positions.

The GTCI confirms what we see on the ground: countries apply very different strategies to develop and retain talent. The result is that some countries are talent champions, others underperformers, and there seems to be a clear correlation with their respective economic and labour market performances.

Talent champions foster and develop locally available talent by making their labour markets more flexible, by investing in lifelong learning and by promoting geographical mobility. The availability of "labour and vocational skills" (LV) and "global knowledge skills" (GK) seem to be other crucial elements to do well in today's talent economy.

Countries in the Northern Hemisphere are struggling to match talent with market demand. In the US, for example, millions of jobs in manufacturing and agriculture have shifted to the services and creative sectors. Germany, Europe's economic powerhouse, is struggling to find enough talent with MINT (mathematics, IT, natural sciences, and technical) training to match the more than 90,000 technical and engineering vacancies. Even the "talent champion" Switzerland faces a serious talent mismatch, for instance in healthcare, where 40% of hospital roles need to be filled by foreign nationals.

The growing importance of talent comes at a time when the global labour market is suffering from high unemployment in many, especially European, economies. Youth unemployment, in particular, stands at unacceptably high levels: across Europe, nearly eight million young people are out of work, education and training. That is almost one in four. Over 55% of young people are jobless in Spain, over 60% in Greece.

The mismatch in the need for and availability of talents with the right skills is muddying the waters even further with many unfilled vacancies. In the US and Europe, up to eight million jobs are left vacant each year, with different countries requiring different skills. While in Asia, the demand for highly-skilled workers now far exceeds the talent pool. China, as an example, may face a skills gap of more than 20 million college-educated workers by 2020; Indonesia's need for skilled workers could rise from 55 million to 113 million by 2030.

As the GTCI score exemplifies, China, which still exhibits solid economic growth rates, achieves 47th position in the ranking. Could this fact threaten the country's prospects for sustainable growth? To make matters even more complex, businesses and job seekers are increasingly looking for novel, more flexible ways of working.

All this emphasises that it is more important than ever to understand talent. Governments and companies need to work together to create labour markets that are based on an understanding of what employers need and the skills required to meet those needs in an efficient labour market, now and in the future, taking into account labour mobility and education systems.

We are confident that with this first edition of the GTCI the foundation stone has been laid for further research in coming years; for example, by looking into the role of cities and sectors in their quest for talent. Our aim is to provide an even deeper understanding of talent: how we can nurture, attract and retain the workforce of the future.

Patrick De Maeseneire
Chief Executive Officer, Adecco Group

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CHAPTERS

CHAPTER 1

GLOBAL AND MOBILE: TALENT IS RESHAPING THE WORLD ECONOMY

Bruno Lanvin, Paul Evans, Martina Mettgenberg Lemière and Nurina Merdikawati

INSEAD[1]

From the end of the Second World War until the end of the 20th Century, the world has known a period of almost uninterrupted growth, which has translated into higher living standards, a rapid expansion of international trade and longer lives. Initially concentrated in the advanced mature economies of North America, Europe and Japan, this positive wave found additional momentum in technological progress (especially on the information technology side), turning into another episode of rapid globalisation. New large economies started to emerge (China, India), while mass poverty kept regressing (according to the World Bank, 22% of the world lived below the poverty line in 2008, down from 52% in 1981). However, with the beginning of the 21st century, it became clear that reducing inequalities among countries was not necessarily synonymous with reducing inequalities within countries.

In mature industrial economies, unemployment (and more spectacularly youth unemployment) has returned to centre stage. While unemployment across Europe averaged 12% in late 2012, youth unemployment hit a 24% average, even exceeding 50% in Greece and Spain.[2] The challenge is no less daunting in developing countries. Whereas globalisation has often been described (or caricatured) as the source of displacement of jobs toward "low-wage economies" and a breeding ground for "social dumping", it is important to keep in mind that in many emerging economies, demography also puts pressure on policymakers to focus on job creation. To take only one example, more than half of the population of Nigeria (i.e., almost 90 million people out of 160 million) is younger than 20.[3]

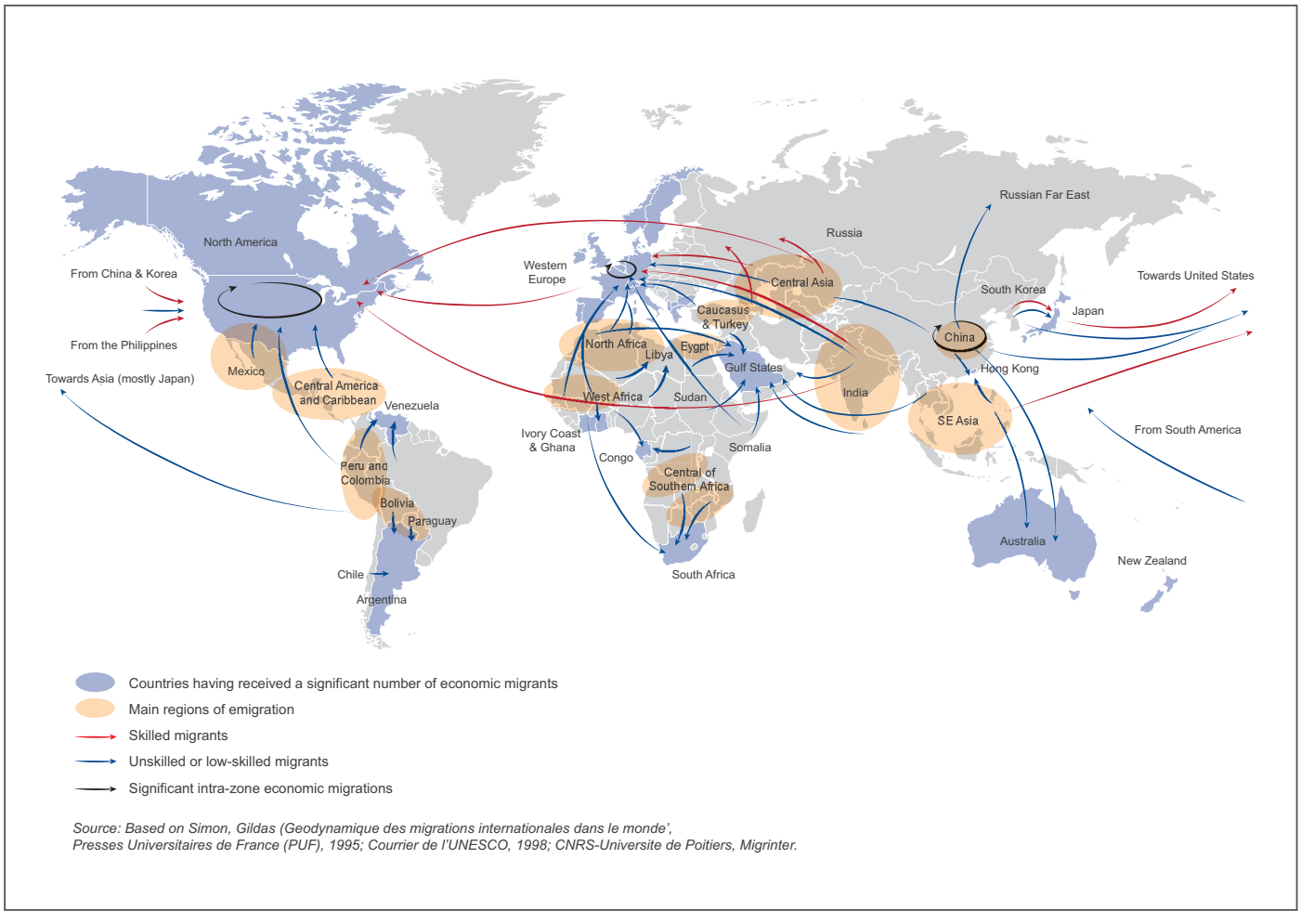
MOBILITY REDEFINED

At the same time, production factors have become increasingly mobile across borders, generating new production models in all sectors from manufacturing to telecommunications, health and education. Human resources do not escape this trend: during any given week, or even day, millions of workers cross national borders (see Figure 1 below). In 2012, remittances from migrant workers were estimated at US$550 billion; in some countries such as Lesotho, Nepal and Moldova they represent 25% or more of GDP.[4] On the other hand, information technologies and networks allow high-skilled workers to deliver their services from remote locations, and to collaborate seamlessly with teams scattered across continents.

All this provides a complex and fast-moving picture of how human resources contribute to production, growth, development and innovation around the planet. There are immediate challenges, as well as longer-term ones. In the short-term, for example, it is striking to note that, while in 2012 the European Union had some 26 million unemployed citizens,[5] it is expected that there will be 900,000 unfilled positions in the ICT sector by 2015.[6] At the same time, in the demographic arena the World Bank forecasts that Africa will have more inhabitants than India by 2035. So governments, businesses and individuals have important choices to make: How to create jobs? How to mobilise the best talents? How to choose an education or vocational training framework that will bring both fulfilment and economic stability?

On their side, many governments have started to respond to the need to ensure the growth of the workforce; for example, by extending opportunities to women, older people, and those who were too often ignored in the past. The possibility of attracting workers from abroad is also often considered, but immigration poses major social and political challenges, especially in times of slower growth and uneven demographics. At the same time as Europe (and to a lesser extent other countries such as the US or even Singapore) struggles with youth who do not have the skills for an economy with fewer low-skill factory jobs, the biggest demographic divide in history between contiguous regions looms large – the Mediterranean divide between the diminishing and ageing population of Europe and the fertile but unschooled populations of Africa and the Middle East, recently symbolised by

Figure 1: Migration of skilled and unskilled labour between regions of the world



Source: Based on Simon, Gildas (Geodynamique des migrations internationales dans le monde', Presses Universitaires de France (PUF), 1995; Courrier de l'UNESCO, 1998; CNRS-Universite de Poitiers, Migrinter.

the Lampedusa tragedy. From the lack of economic opportunities in demographically dynamic economies such as in Africa to the need to restore growth in older ones, for example in Europe, the talent equation spans a large array of social, economic and political concerns.

Contrary to some of the visions popular in the 1950s and 1960s, robots will not replace humans. Yet, automation and higher levels of technological intensity in the production of goods and services will continue to allow higher productivity per employee, and to foster innovation. Behind the software codes that steer robots in an automated factory, behind the communication tools and virtual networks that have become part of our everyday lives, lie increasing numbers of talented individuals, teams of skilled people, and collaborative networks. Studies for the European Union and the United States show business investment in knowledge-based capital contributing 2% to 34% of average labour productivity growth.[7] How well do societies equip their human capital for the innovation that a knowledge society demands? How well do they equip people for a world where not just jobs but entire careers are characterised by continuously shorter lifecycles? Over the last few decades, the world has started to measure the basics of employability, using statistics on literacy and numeracy.[8] But we are just beginning to understand how we could measure the basics of the new requirements of a world of innovation, demanding qualities like initiative, entrepreneurship, teamwork, and the ability to learn.[9]

CONSIDERING SKILLS GAPS IN A GLOBAL CONTEXT

The well-known notion of "skill gap" is one of the most visible facets of the current global talent debate. By itself, it could constitute a valid justification for the production of the Global Talent Competitiveness Index (GTCI).

With the rapid attrition of farm and manufacturing jobs in the developed world, the opportunities are now in the business services, health care, scientific and green sectors of the economy. The need here is for creative and well-trained knowledge workers that are in short supply. As underlined earlier, there is a widespread mismatch in Europe between what companies need in terms of skills and what local labour markets can offer. But this situation is far from unique: in all parts of the world, businesses big and small insist that they are unable to recruit because of a lack of qualified candidates.

Educational institutions are under pressure to supply the employable skills that the new global knowledge economy demands (the GTCI calls these Global Knowledge, or GK, skills). A dangerously high number of young people leave secondary education without the literacy, numeracy, social and team skills, and problem solving ability that are needed today, let alone the flexibility to cope in a world where already most individuals will change career many times in their life. Beyond formal training, labour markets also need to offer opportunities for growth through experience. One of the reasons why youth unemployment is so high in developed countries is that enterprises often look for highly skilled people and do not provide sufficient apprenticeships and training opportunities.

Talent shortages threaten growth in emerging countries. Half of India's GDP is dependent on the service sector, and the shortage of global skills in such emerging economies is exacerbated by a shortage of people with the necessary mid-level professional and vocational skills (the GTCI calls these Labour and Vocational, or LV, skills). A recent study estimates there will be a potential shortage of about 40 million high-talent people across the world in the next two decades, or 13% of the demand for such workers, with a shortage of nearly 45 million with mid-level vocational skills for the needs of the emerging countries of India, South Asia and Africa.[10] On the other hand, there will be a potential surplus around the world of more than 90 million low-skilled workers, roughly 10% of the supply of such workers.

This is confirmed by the strong correlation between GTCI scores and GDP per capita (see below in this chapter). Many other economic and social challenges that relate to various types of skills gaps emerge from this global picture and will be addressed in this first edition of the GTCI (and most probably in subsequent editions). They include in particular the following:

- The need for greater cross-border mobility of talent, guided by appropriate immigration policies, to balance surpluses and deficits of skills across the world. The US in the past has been known for its openness to immigration (17% of STEM (science, technology, engineering and mathematics) workers in the US in 2008 were foreign born), whereas in Europe immigration is dominated by low-skilled workers from neighbouring regions of Africa and the Middle East that may add to the surplus of low-level skills. The necessity of expanding the labour supply and talent pool is also fuelled by demographics, with ageing populations in Europe, Japan, and even China in the near future.

- Access to education and opportunities of members of the potential talent pool who may have been at the fringe of labour markets in the past – women, people of a different ethnic background than those predominant in a particular country, people with handicaps, those with an underprivileged background who could not access mainstream educational systems.

- Part of the skills gap may arise from the reluctance (or the inability) of companies to invest in talent development, expecting to find people on the marketplace with the high level of skill and knowledge that they require. This leads to the need to rediscover or reinvent apprenticeship schemes and life-long development programs, possibly accompanied by appropriate retention polices to encourage skilled individuals (and possibly the firms that employ them) to stay and contribute to creating local value and local jobs.[11]

To address such complex (and inter-connected) challenges, who should be responsible for action? Obviously, this has to be a collaborative effort: government, business, organised labour, educational establishments and individuals all have key and complementary roles to play. All will join with their own baggage, often based on decades of successes and failures, their own vocabulary and their own philosophy. One should not expect that such approaches will be uniform (or even compatible) across various economic systems and cultures around the world. This is typically the kind of situation in which the provision of fact-based quantitative indicators can help identify options and facilitate action.

A brief history of talent and competitiveness

While football and baseball teams as well as the world of music have long realised that talent is vital to success, the notion of talent is relatively new in the economic arena, emerging during the last 20 years. That of the talent competitiveness of a country is even more recent. Economists' views have come a long way since the days of Smith and Ricardo, when wealth and competitiveness were mainly linked to land, natural resources and labour. Technological change and innovation have since become areas of critical attention to enhance the productivity and competitiveness of nations. Neo-classical economists argued that skills could be treated as a durable investment good acquired in part through education and on-the-job training. Developmental investment by a business only had a clear return if that training nurtured firm-specific skills that an employee could not sell for a higher wage elsewhere. This meant that the development of generic skills was the responsibility of the state-guided educational system and the individual.

It was the Japanese, poor in natural resources but rich in people, who first began to argue in the 1950s that people were resources, fuelling the birth of the Human Resource Management movement in the 1970s in the United States, before it spread to the rest of the world. Early concerns with talent focused on strategic manpower planning, projecting the needs for engineers or scientists into the future and working backwards to fill the predicted gaps. But the turbulence and unpredictability of an increasingly global world quickly discredited this – a major oil corporation predicted in the early 1970s that it alone would need more chemical engineers than were supplied by all the universities in the United States, only to experience a surplus of such engineers a few years later after the first oil shock. The concern focused on "strategic" human resources – above all, the leaders responsible for the organisation. Capital-intensive industries such as petroleum were acutely aware of the enormous power of business leaders who needed to have global perspectives and mindsets, pioneering the focus on leadership development that was the precursor of the talent focus.

The shift of our societies towards a global, knowledge-based economy was becoming apparent in the late 1980s. Social observers such as Peter Drucker and Thomas Stewart argued that knowledge workers and the intellectual capital of the firm would be the keys to the future. The resource-based view of the firm that was then becoming a paradigm in corporate strategy reinforced this view.

Various events in the 1990s and 2000s increased this focus on talent and competitiveness. First, the shortage of IT professionals in the dot.com boom of the late 1990s sharpened and broadened the concern for talent. Second, there was growing awareness of the future impact of demographic trends in Europe, the United States and Japan as the bulge of experienced baby boomers headed for retirement, leaving a thin pyramid of younger people as a result of declining birth rates. Third, there were suggestions that the performance returns from selecting highly talented individuals for key roles were much greater than those from average individuals. A best-selling book by McKinsey authors on "The war for talent" brought the importance of talent to the attention of the broader public.

As China, India and other emerging countries were moving far more rapidly into the manufacturing and business services sectors than anyone had expected, the concern for talent became even more acute. With the hollowing of the traditional manufacturing sector in the West, the economies of the developed countries were becoming much more dependent on both highly skilled people and innovation as a source of competitive advantage. More "skills gaps" started to emerge. Simultaneously, while China, India and Brazil had an ample supply of low-skilled and cheap labour for the expanding factories, they were plagued by a limited supply of vocational skills, and especially the managerial and leadership talent with the experience to run global enterprises. Managerial salaries in Shanghai, Bangalore and Sao Paulo started to rise to reach the levels of New York and London.

INTRODUCING THE GLOBAL TALENT COMPETITIVENESS INDEX

Today, countries are competing globally to grow better talents, to attract the talents they need, and to retain those that bring them competitiveness, innovation and growth, while seeking to put economic and social policies in place that will facilitate this. In such a context, governments, business and the various components of civil society need quantitative instruments that can inform their decisions (as investors, employers, employees or job seekers) and help them to design and implement better policies in areas such as education, human resource management, and immigration, to name a few. This is the purpose of the GTCI.

Rationale, purpose and value of the Global Talent Competitiveness Index

The challenges mentioned above touch on the livelihoods of people in all types of countries. To understand the issues at hand, to mitigate the risks that they trail in their wake, and to provide the grounds for rational and well-informed policies and decisions, there is a need for a widely recognised and analytically rigorous way of measuring the performance of countries across the world on talent competitiveness. While a significant number of composite indices concerning skills, talent and human capital have been developed in recent years[12] both private and public players in the field see a need for a neutral, global and respected index that would enable them (1) to assess the effectiveness of talent-related policies and practices; (2) to identify priorities for action in relevant areas; and (3) to inform international and local debate in this arena.

It is in this context that INSEAD and the Human Capital Leadership Institute of Singapore have decided to join forces to build and disseminate the Global Talent Competiveness Index, to be issued and updated on an annual basis. Adecco, as the world's leading corporate player in the scene of professional talent supply, has also decided to join the partnership. INSEAD built on its expertise and experience in developing two other global indices – the Global Information Technology Index[13] and the Global Innovation Index (GII). These indices are now widely recognised by the international community, respectively in the domains of information technology and innovation. The Global Information Technology Index is in its twelfth year, while the GII's sixth annual edition was launched in 2013 at the Economic and Social Council of the United Nations.[14] The development of the GTCI model was facilitated by dialogue with academics from many disciplines at INSEAD, now being anchored in an Academic Council of leading scholars across the globe, and complemented by an expanding Advisory Board of government and business leaders who feel that vital issues are at stake.

What do we mean by 'talent'?

The Economist noted in 2006 that "companies do not even know how to define 'talent', let alone how to manage it. Some use it to mean people like Aldous Huxley's alphas in *Brave New World* – those at the top of the bell curve. Others employ it as a synonym for the entire workforce, a definition so broad as to be meaningless."[15]

Indeed, academics have only begun to focus on talent management, even at the level of the firm, in the recent past.[16] A growing body of literature argues that attracting and growing talent should focus on the skill requirements of strategic positions requiring firm-specific tacit knowledge and industry experience that cannot be found easily in the external labour market.[17] This follows more general calls for greater differentiation among roles within organisations and a greater focus on strategic resources.[18]

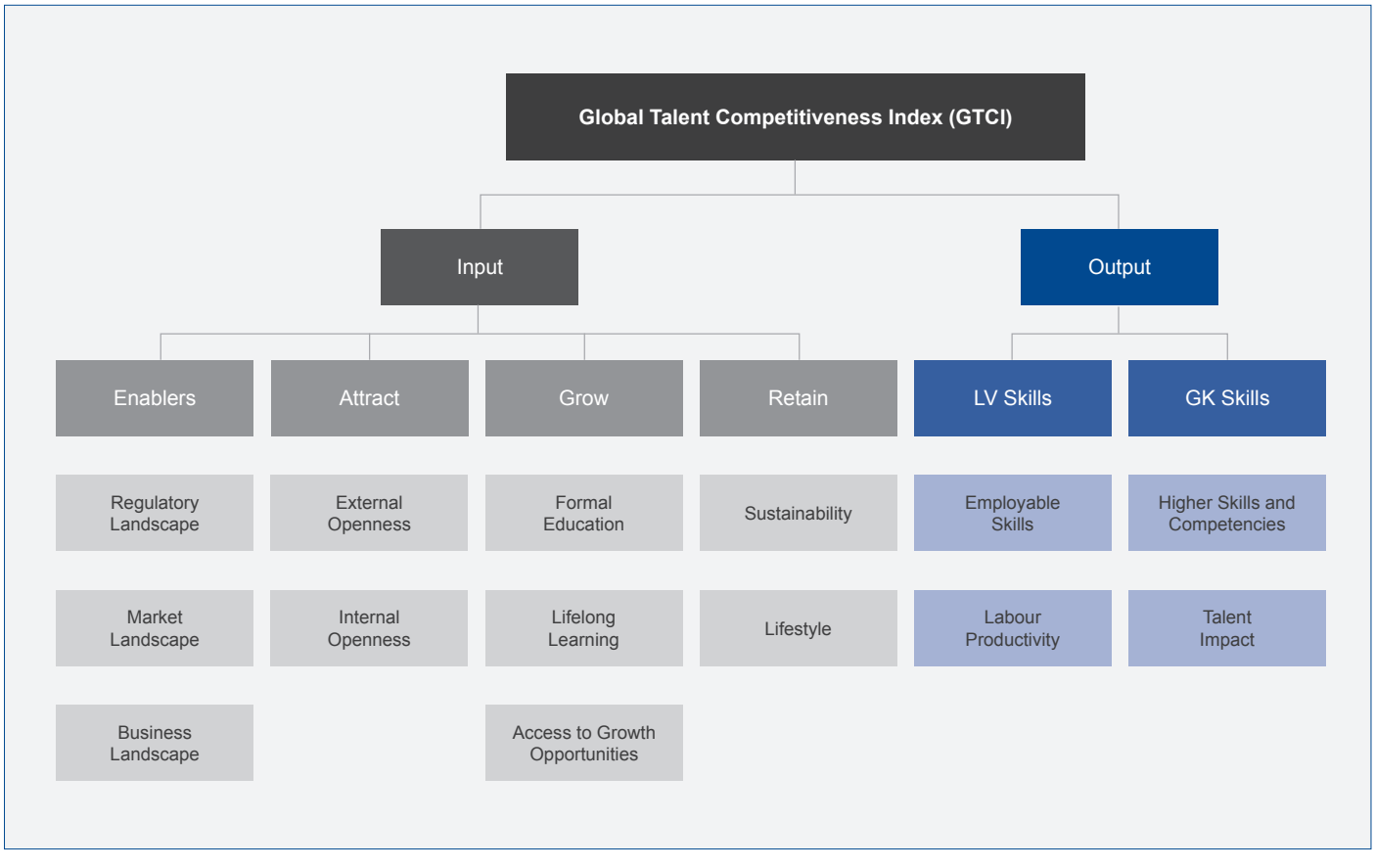
The GTCI is an input-output model, in the sense that it combines an assessment of what countries do to produce and acquire talents (input) and the kind of skills that are available to them (output).

On the output side, the GTCI differentiates between two levels of talent, which can be broadly thought of as mid-level and high-level skills. Mid-level skills, labelled Labour and Vocational Skills (or LV skills) describe skills acquired through vocational training and skills relevant to technical roles in the workforce. The economic impact of LV skills is measured by labour productivity and by the relationship between pay and productivity. High-level skills, labelled in the GTCI as Global Knowledge Skills (or GK skills) deal with knowledge workers in professional, managerial or leadership roles; their impact is evaluated by indicators related to innovation and entrepreneurship. With its focus on talent, we do not measure a third type of human capital, unskilled labour, although discussions will sometimes embrace lower-level skill. Together, LV skills and GK skills constitute the two output pillars of the GTCI.

The input parameters of the GTCI are based on the Attract-Grow-Retain framework used by corporations to steer talent management. Multinational corporations frame talent management in these terms, defining talent management as an organisation's efforts to attract, select, develop and retain key talented employees.[19]

In the context of national competitiveness, attracting talent should be viewed in terms of the growth of the talent pool – external attraction involving encouraging appropriate immigration, and internal attraction focused on removing the barriers to entering the talent pool for groups such as those with an underprivileged background, women and older people. Growing talent has traditionally meant education but should be broadened to include apprenticeships, training and continuous education, as well as access to experience or growth opportunities. (While we may acknowledge that most skill development occurs through experience, much remains to be done to conceptualise and measure its role.) The more talented the person, the wider the global opportunities they can find elsewhere. Retaining talent is necessary to ensure sustainability; one of its main components is the quality of life. In addition, the regulatory, market and business landscapes within a country facilitate or impede talent attraction and growth; the GTCI calls these elements "Enablers". Together, Enablers, Attract, Grow and Retain constitute the four input pillars of the GTCI model.

Figure 2: GTCI model 2013



Conceptual framework

The GTCI attempts to offer an approach to talent competitiveness issues that is comprehensive, action-oriented, analytical and practical. As described earlier, the GTCI is a composite index, relying on a simple but robust input-output model composed of six pillars (four on the input side and two on the output side). It generates three main indices that are the most visible focus for analysis, namely:

1. **The talent competitiveness Input Sub-Index**. Composed of four pillars, this index describes the policies, resources and efforts that a particular country can harness to foster its talent competitiveness. Enablers (Pillar 1) reflects the extent to which the political and economic environment creates a favourable climate for talent to develop and thrive. The other three pillars describe the three levers of talent competitiveness, focussing respectively on what countries are doing to Attract (Pillar 2), Grow (Pillar 3) and Retain (Pillar 4) talent. The Input Sub-Index is the direct arithmetic average of the scores registered on those four pillars.

2. **The talent competitiveness Output Sub-Index**. This index aims to describe and measure the quality of talent in a country that results from the policies, resources and efforts measured in the Input Sub-Index. It is composed of two pillars, describing the current situation of a particular country in terms of LV skills (Pillar 5) and GK skills (Pillar 6).

3. **The Global Talent Competitiveness Index**. This is the overall index and is computed as the direct arithmetic average of the scores obtained on each of the six pillars described above.

The GTCI model relies on a total of 48 indicators, distributed across the pillars mentioned above and coming from various recognised international sources. Further details on the GTCI technical notes and the variables used are provided in the Appendices. The GTCI is an evolving model, which, in coming years will be refined further through academic debates as well as discussions with business and government leaders.

In its first year, the GTCI model covers 103 countries, representing 86.3% of the world's population and 96.7% of the world's GDP (in current US dollars).

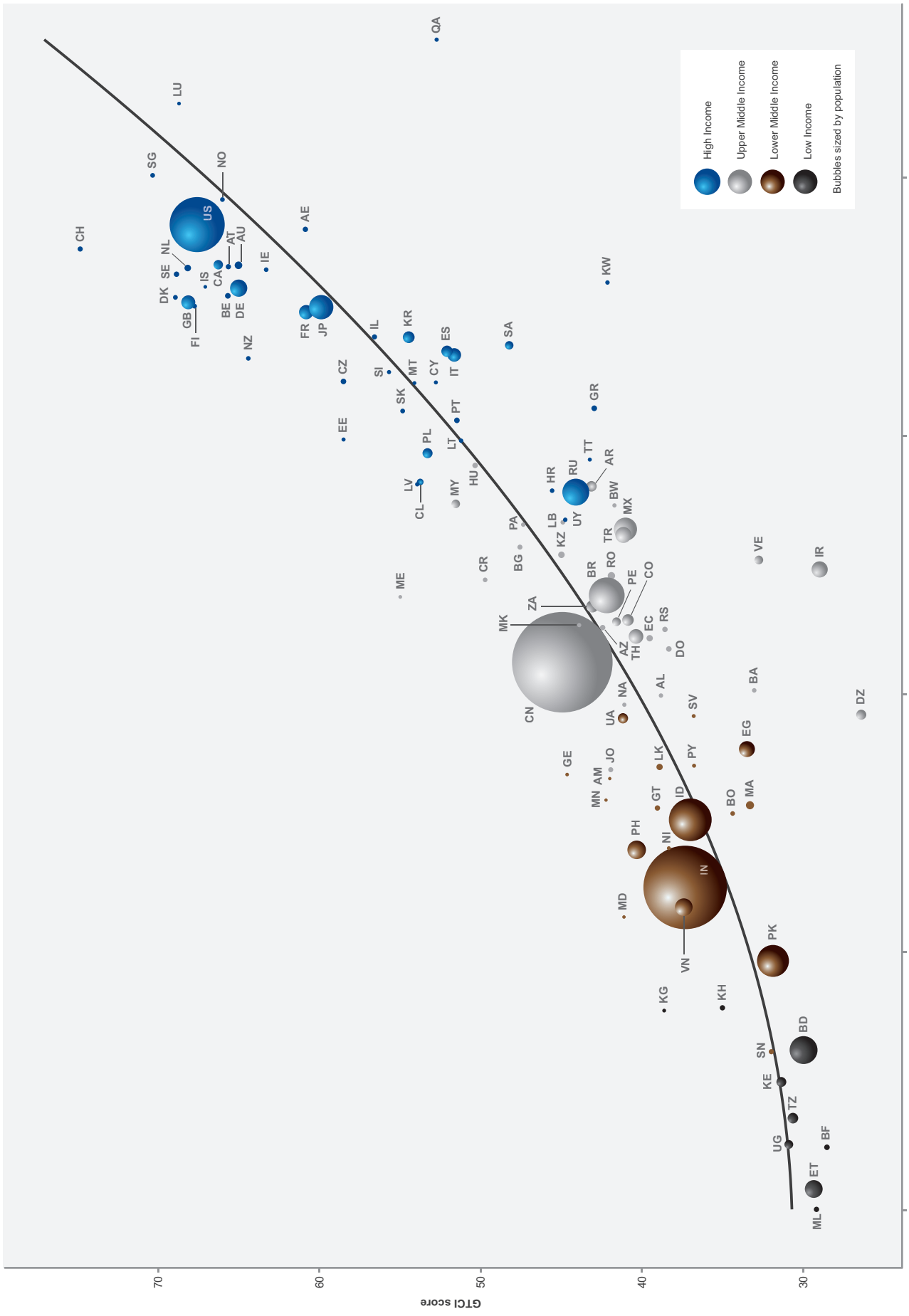


Figure 3a: GTCI scores vs GDP per capita

Note: GDP per capita in PPP$ is drawn from International Monetary Fund, World Economic Outlook and population data (represented by the bubbles) is from United Nations, World Population Prospects: The 2012 Revision; The trend line is a polynomial degree of two (R^2=0.764).

Figure 3b: GTCI scores vs GDP per capita (ISO-2 Country Code)

CODE	COUNTRY
AE	United Arab Emirates
AL	Albania
AM	Armenia
AR	Argentina
AT	Austria
AU	Australia
AZ	Azerbaijan
BA	Bosnia and Herzegovina
BD	Bangladesh
BE	Belgium
BF	Burkina Faso
BG	Bulgaria
BO	Bolivia
BR	Brazil
BW	Botswana
CA	Canada
CH	Switzerland
CL	Chile
CN	China
CO	Colombia
CR	Costa Rica
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
DO	Dominican Republic
DZ	Algeria
EC	Ecuador
EE	Estonia
EG	Egypt, Arab Rep.
ES	Spain
ET	Ethiopia
FI	Finland
FR	France

CODE	COUNTRY
GB	United Kingdom
GE	Georgia
GR	Greece
GT	Guatemala
HR	Croatia
HU	Hungary
ID	Indonesia
IE	Ireland
IL	Israel
IN	India
IR	Iran, Islamic Rep.
IS	Iceland
IT	Italy
JO	Jordan
JP	Japan
KE	Kenya
KG	Kyrgyz Republic
KH	Cambodia
KR	Korea, Rep.
KW	Kuwait
KZ	Kazakhstan
LB	Lebanon
LK	Sri Lanka
LT	Lithuania
LU	Luxembourg
LV	Latvia
MA	Morocco
MD	Moldova
ME	Montenegro
MK	Macedonia, FYR
ML	Mali
MN	Mongolia
MT	Malta
MX	Mexico

CODE	COUNTRY
MY	Malaysia
NA	Namibia
NI	Nicaragua
NL	Netherlands
NO	Norway
NZ	New Zealand
PA	Panama
PE	Peru
PH	Philippines
PK	Pakistan
PL	Poland
PT	Portugal
PY	Paraguay
QA	Qatar
RO	Romania
RS	Serbia
RU	Russian Federation
SA	Saudi Arabia
SE	Sweden
SG	Singapore
SI	Slovenia
SK	Slovak Republic
SN	Senegal
SV	El Salvador
TH	Thailand
TR	Turkey
TT	Trinidad and Tobago
TZ	Tanzania
UA	Ukraine
UG	Uganda
US	United States
UY	Uruguay
VE	Venezuela, RB
VN	Vietnam
ZA	South Africa

GLOBAL TALENT COMPETITIVENESS INDEX 2013: MAIN FINDINGS

A high-level way of mapping individual countries in terms of talent competitiveness consists of comparing their GTCI scores to their GDP per capita. It is a simplified manner of acquiring a first assessment about the ways in which talent competitiveness relates to the overall level of economic development of a nation. As Figure 3a suggests, GTCI performance is indeed strongly correlated to income per capita.

This strong correlation, however, says little about the channels through which talent policies (and success in growing, attracting and retaining skills of different types) are determined by the various dimensions of economic development, social and economic policies, or other characteristics of a country, such as history, culture, size or geographical location. It says even less about the tools available to various countries to improve their talent situation and turn talents and skills into efficient sources of innovation and competitiveness.

To access this higher level of granularity in the analysis, it is necessary to observe, analyse and compare the scores of individual countries on each of the six pillars and each of the 48 variables of the GTCI model. Such an approach helps identify patterns, differences and similarities among countries, suggesting some possible principles with regard to talent competitiveness. This year's GTCI report points to six initial key messages.

Message 1: The global war for talent is on, and it is an uneven one

Unsurprisingly, the top of the GTCI list is heavily constituted of high-income countries. The first middle-income country (Montenegro) appears at rank 26, while the first low-income country (the Kyrgyz Republic) is ranked at 78 out of 103 countries. The middle-income economies clearly seem to face specific hurdles to grow, attract and retain the skills and talents that they need to grow, innovate and compete globally. This first message becomes even clearer when one starts differentiating among the kind of skills that countries need and compete for. Whereas mature economies face urgent needs to realign their human resources in order to develop innovative knowledge-based societies, a significant number of developing and emerging economies are still struggling with acquiring or generating the vocational skills required to build the basic infrastructure they lack, and to compete in more labour-intensive markets.[20] One urgent concern that is shared around the world, and in all income groups, is that of fighting massive youth unemployment.

Message 2: Fostering talent competitiveness is a complex task, especially in poorer countries

Talent flows and policies offer a contradictory picture of the world. It might be expected, for example, that a country that does well on the input side of talent competitiveness (for example, by having a strong education system and efficient policies to lure talent from abroad) would also show high scores on the output side – in other words, its ability to provide locally the LV and GK skills required to be a productive, innovative and competitive economy. This GTCI input/output correlation is stronger and significant for richer countries (high and upper-middle income). In other words, there is a threshold (somewhere in the vicinity of US$4,000 per capita per annum) beyond which strategies aiming at growing, attracting and retaining talent do not translate automatically (or at least not quickly) into output results. For poorer economies, building talent competitiveness must be regarded as a medium- to long-term objective, for which low hanging fruit might be the exception rather than the rule. Policies should hence be targeted around the specific skills that the economy requires at a particular point in time, and that it has a good chance of finding locally. Building a "Grow" pillar around skills that are in high demand worldwide may not necessarily be a good choice if it is not accompanied by a similarly strong "Retain" pillar. Examples abound of countries that have developed high-quality education tracks, only to see their graduates flock to higher-paying shores.[21]

Message 3: Upcoming 'talent champions' are emerging

This first edition of the GTCI also shows that, in addition to the historical determination, a handful of dynamic economies at various levels of income are scoring high on the index. By and large, their performance is a direct result of the importance that their respective governments have granted to talent competitiveness, showing how different comparative advantages (and sometimes disadvantages) can be used to stimulate a country's ability to grow, attract and retain talent. Singapore (2nd in the world) is the perfect example in this case, but the experiences of other small economies such as Estonia (23rd), Montenegro (26th) and Malaysia (37th), show how middle-income countries are striving to mobilise the talent base that their specific economic and geographical situations require. Estonia and Montenegro need to carve out a competitive space amongst other larger European economies. Malaysia needs the skills and talents to move up the ladder of economic value, and to compete with Asian giants such as India and China.

Message 4: The global map of talent competitiveness bears the mark of history

Europe clearly dominates this year's GTCI rankings, with eight countries in the top ten, and 14 in the top 20.[22] An examination of the scores registered by European countries shows that the Grow pillar (especially education) is a common success factor for those countries: there are eight European countries in the top ten of the Grow pillar and seven European countries in the top ten of the Formal Education sub-pillar. There is a longstanding tradition of basic education for all, as well as demanding standards in higher education (e.g., in the UK). In addition to European countries, one finds at the top of the rankings a significant number of traditional "immigration lands", i.e., typically large countries such as Australia (15th), Canada (11th), and even the United States (9th). Part of this situation can be explained by the ways in which former colonial empires were built, and then dismantled: the respective legacies left by those evolutions in terms of education, language and even administration have added another layer of history on the provision and distribution of skills worldwide.

Message 5: Global Knowledge Skills are critical and strategically important

In terms of GTCI pillars, the most striking international differences are found in the GK area. This is the pillar for which the distance between rich and poor countries is the largest. Such skills include most of the "e-leadership skills" mentioned in Chapter 4 of this report, for example, and many of the "soft skills" that managers, leaders and innovators need in the global knowledge economy. Their development (or acquisition) requires a highly developed ecosystem of universities, innovative institutions, and enablers that is generally not found in less advanced economies, and which is difficult to replicate rapidly. Such skills are critically important not just from the point of view of competitiveness and productivity, but even more so on the innovation front.[23]

Yet, it remains that a large number of countries currently face an urgent need for the mid-level LV skills that will allow them to build infrastructure, develop basic services, and increase their productivity – and thereby their competitiveness. One of the challenges of the coming years will hence be to allow such countries to develop their LV pillar without allowing the GK gap to grow too much, avoiding the risk of another "divide".

Message 6: Expect more changes in the coming years

Contrary to what analysts used to believe, the world of skills and talents is changing very fast. On the push side, technology keeps affecting workers' mobility and ability to work remotely. On the pull side, migrations (see Chapter 3 of this report) and skills gaps (as described above) enhance the rationale for increased cross-border labour flows. A recent report by McKinsey's Global Institute underlined that the "automation of knowledge work" was probably the most under-reported (compared to its likely economic impact) of all "disruptive technological trends".[24] Keeping track of such changes, and factoring them into a credible quantification of talent competitiveness, will be one of the challenges that future editions of the GTCI will need to address: demand for new skills and talents is likely to continue to change much faster than our ability to provide them (through formal and continuous education), and probably to manage them. Greater awareness is hence becoming critically important for enterprises, governments and individuals to better synchronise the ways in which talents are grown. Curricula need to be modernised, education and training methods need to move closer to students' and workers' lifestyles and habits, and human resources need to be managed as a fluid and constantly changing pool of talents ("deployment" of talent may become an element of growing it, as in corporations such as IBM). Understanding what makes talents and skills move across borders will continue to be a significant source of competitive advantage.

Table 1: Global Talent Competitiveness Index rankings (continued)

Country	Score (0-100)	Overall Rank	Income Group	Income Group Rank	Regional Group	Regional Group Rank
Switzerland	74.83	1	HI	**1**	EUR	**1**
Singapore	70.34	2	HI	2	ESEAO	**1**
Denmark	68.93	3	HI	3	EUR	2
Sweden	68.86	4	HI	4	EUR	3
Luxembourg	68.70	5	HI	5	EUR	4
Netherlands	68.16	6	HI	6	EUR	5
United Kingdom	68.13	7	HI	7	EUR	6
Finland	67.73	8	HI	8	EUR	7
United States	67.58	9	HI	9	NAC	**1**
Iceland	67.07	10	HI	10	EUR	8
Canada	66.27	11	HI	11	NAC	2
Norway	66.01	12	HI	12	EUR	9
Belgium	65.67	13	HI	13	EUR	10
Austria	65.64	14	HI	14	EUR	11
Australia	65.01	15	HI	15	ESEAO	2
Germany	65.00	16	HI	16	EUR	12
New Zealand	64.40	17	HI	17	ESEAO	3
Ireland	63.30	18	HI	18	EUR	13
United Arab Emirates	60.87	19	HI	19	NAWA	**1**
France	60.82	20	HI	20	EUR	14
Japan	59.89	21	HI	21	ESEAO	4
Czech Republic	58.51	22	HI	22	EUR	15
Estonia	58.50	23	HI	23	EUR	16
Israel	56.58	24	HI	24	NAWA	2
Slovenia	55.68	25	HI	25	EUR	17
Montenegro	54.98	26	UM	**1**	EUR	18
Slovak Republic	54.84	27	HI	26	EUR	19
Korea, Rep.	54.46	28	HI	27	ESEAO	5
Malta	54.10	29	HI	28	EUR	20
Latvia	53.93	30	HI	29	EUR	21
Chile	53.75	31	HI	30	LCN	**1**
Poland	53.29	32	HI	31	EUR	22
Cyprus	52.78	33	HI	32	NAWA	3
Qatar	52.73	34	HI	33	NAWA	4
Spain	52.08	35	HI	34	EUR	23
Italy	51.64	36	HI	35	EUR	24
Malaysia	51.54	37	UM	2	ESEAO	6
Portugal	51.47	38	HI	36	EUR	25
Lithuania	51.21	39	HI	37	EUR	26
Hungary	50.34	40	UM	3	EUR	27
Costa Rica	49.72	41	UM	4	LCN	2
Saudi Arabia	48.23	42	HI	38	NAWA	5
Bulgaria	47.56	43	UM	5	EUR	28
Panama	47.36	44	UM	6	LCN	3
Croatia	45.57	45	HI	39	EUR	29
Kazakhstan	44.99	46	UM	7	CSA	**1**
China	44.94	47	UM	8	ESEAO	7
Lebanon	44.90	48	UM	9	NAWA	6
Uruguay	44.75	49	HI	40	LCN	4
Georgia	44.64	50	LM	**1**	NAWA	7
Russian Federation	44.10	51	HI	41	EUR	30
Macedonia, FYR	43.89	52	UM	10	EUR	31
Trinidad and Tobago	43.23	53	HI	42	LCN	5
Argentina	43.13	54	UM	11	LCN	6
South Africa	43.09	55	UM	12	SSF	**1**

Table 1: Global Talent Competitiveness Index rankings (continued)

Country	Score (0-100)	Overall Rank	Income Group	Income Group Rank	Regional Group	Regional Group Rank
Greece	42.96	56	HI	43	EUR	32
Azerbaijan	42.44	57	UM	13	NAWA	8
Mongolia	42.23	58	LM	2	ESEAO	8
Brazil	42.18	59	UM	14	LCN	7
Kuwait	42.14	60	HI	44	NAWA	9
Armenia	42.00	61	LM	3	NAWA	10
Jordan	41.93	62	UM	15	NAWA	11
Romania	41.89	63	UM	16	EUR	33
Botswana	41.70	64	UM	17	SSF	2
Peru	41.58	65	UM	18	LCN	8
Ukraine	41.18	66	LM	4	EUR	34
Turkey	41.16	67	UM	19	NAWA	12
Moldova	41.11	68	LM	5	EUR	35
Namibia	41.09	69	UM	20	SSF	3
Mexico	41.04	70	UM	21	LCN	9
Colombia	40.87	71	UM	22	LCN	10
Thailand	40.37	72	UM	23	ESEAO	9
Philippines	40.33	73	LM	6	ESEAO	10
Ecuador	39.52	74	UM	24	LCN	11
Guatemala	39.04	75	LM	7	LCN	12
Sri Lanka	38.91	76	LM	8	CSA	2
Albania	38.82	77	UM	25	EUR	36
Kyrgyz Republic	38.62	78	LI	1	CSA	3
Serbia	38.57	79	UM	26	EUR	37
Nicaragua	38.33	80	LM	9	LCN	13
Dominican Republic	38.33	81	UM	27	LCN	14
Vietnam	37.41	82	LM	10	ESEAO	11
India	37.32	83	LM	11	CSA	4
Indonesia	37.00	84	LM	12	ESEAO	12
El Salvador	36.79	85	LM	13	LCN	15
Paraguay	36.77	86	LM	14	LCN	16
Cambodia	35.01	87	LI	2	ESEAO	13
Bolivia	34.38	88	LM	15	LCN	17
Egypt, Arab Rep.	33.49	89	LM	16	NAWA	13
Morocco	33.30	90	LM	17	NAWA	14
Bosnia and Herzegovina	33.04	91	UM	28	EUR	38
Venezuela, RB	32.75	92	UM	29	LCN	18
Senegal	31.98	93	LM	18	SSF	4
Pakistan	31.88	94	LM	19	CSA	5
Kenya	31.36	95	LI	3	SSF	5
Uganda	30.89	96	LI	4	SSF	6
Tanzania	30.64	97	LI	5	SSF	7
Bangladesh	29.98	98	LI	6	CSA	6
Ethiopia	29.35	99	LI	7	SSF	8
Mali	29.18	100	LI	8	SSF	9
Iran, Islamic Rep.	28.98	101	UM	30	CSA	7
Burkina Faso	28.53	102	LI	9	SSF	10
Algeria	26.40	103	UM	31	NAWA	15

Note: World Bank Income Group Classification (July 2013): HI = high-income; LM = lower-middle income; UM = upper-middle income; LI = low-income. Regional Group is based on United Nations Classification (11 February 2013): EUR = Europe; NAC = Northern America; LCN = Latin, Central America and the Caribbean; CSA = Central and Southern Asia; ESEAO = Eastern, South-Eastern Asia, and Oceania; NAWA = Northern Africa and Western Asia; SSF = Sub-Saharan Africa.

DISCUSSION OF GTCI RESULTS: COMPETING FOR TALENT, A GLOBAL GAME

The following analysis describes and assesses the salient features of the GTCI 2013 results. It does so for the top ten global leaders on the GTCI, and for the best performers within four income categories according to the World Bank classification: high-, upper-middle, lower-middle, and low-income countries.[25]

The top 20 in GTCI 2013

This year, the GTCI rankings are heavily dominated by European countries. While Switzerland comes out as number one, the top ten include only two non-European countries, namely Singapore (2nd) and the United States (9th). The picture does not change much if we consider the top 20: only four additional non-European countries then come within range: Canada (11th), Australia (15th), New Zealand (17th) and the United Arab Emirates (19th).

Within Europe, it is mostly the northern part of the continent that appears as most "talent competitive", including Denmark (3rd), Sweden (4th), Luxembourg (5th), the Netherlands (6th), the United Kingdom (7th), Finland (8th), Iceland (10th), Norway (12th) and Belgium (13th), followed by Austria (14th), Germany (16th), Ireland (18th) and France (20th).

It is also worth noting that, among the non-European leaders of the GTCI rankings, one can see mostly economies with a longstanding history of immigration (e.g., the US, Canada, Australia), and dynamic economies with clear strategies to attract external expertise and become "talent hubs" (Singapore, the United Arab Emirates).

The following paragraphs offer some insights into the building blocks for the performance of the top ten GTCI countries. Beyond some clear similarities (for example, all have devoted significant attention to education for a long time), a few differences emerge that can help other countries determine what their own "winning strategies" might be in the current global competition for talents.

Switzerland (1st) is clearly ahead of the pack. Its overall GTCI score results from high performance across virtually all variables of the model. Switzerland is also 1st on the Input Sub-Index, where its performance is evenly high, with the possible exception of the Attract pillar (18th). On the Output Sub-Index (where it also ranks 1st), Switzerland's performance is particularly high on the variable of innovation output. It also ranks 1st on both the LV and GK pillars.

Singapore (2nd) ranks exceptionally high on Enablers (3rd). It features a high inflow of international students but does not score as high on the sub-pillars of Internal Openness (27th), Access to Growth Opportunities (30th), and Employable Skills (20th). While its Formal Education (8th) and Higher Level skills (2nd) are strong, Singapore's Talent Impact (25th) could be strengthened by more emphasis on entrepreneurial activity (45th). Overall, Singapore's position is driven by its strengths in both the Input (2nd) and Output (6th) sub-indices, especially on the GK side.

Four Nordic countries are found in the top ten of the GTCI this year, namely Denmark (3rd), Sweden (4th), Finland (8th) and Iceland (10th). **Denmark's** Input performance (7th) is not as high as that of its neighbour Sweden (3rd), but it is compensated by remarkably high scores on variables such voicing concern to officials paired with high government effectiveness (both 2nd). Denmark also has higher FDI inflows performance (30th) and ease of doing business (4th). Finally, Denmark (the land of "flexicurity") has more labour market flexibility (29th) and social protection (8th) than Sweden (52nd and 19th, respectively). **Sweden**, however, has a solid base to work from with similar scores in the Grow (5th), Attract (4th) and Retain (7th) pillars. Sweden's Input Sub-Index score puts it in 3rd position. On the Output Sub-Index, Sweden is only in 9th position, in spite of an excellent performance on the innovation output variable (2nd behind Switzerland). **Finland** and **Iceland** are close to one another, but they show interesting differences in the ways in which their respective GTCI performances are built. Finland's Input rank is 8th and its Output rank is 7th. Under Enablers, Finland ranks 1st in the world for Regulatory Landscape and 3rd in Market Landscape. It is in 4th position on the Grow pillar and in 5th position for the GK pillar, both reflecting the country's longstanding priority to education: Finland enjoys high scores in Lifelong Learning (4th) and Access to Growth Opportunities (8th). However, the country does not score as high on the Sustainability (19th) and Business Landscape (30th) sub-pillars. Iceland scores well on Higher Skills and Competencies (1st), Internal Openness (2nd) and Lifestyle (6th), but is not as strong when it comes to Grow (20th). For the Attract pillar, Iceland (8th) is ahead of Finland (15th). In Retain it ranks 11th. On the output side, Iceland's Output Sub-Index performance (4th) is higher than Finland's (7th), and a key driver is Iceland's exceptional performance in Higher Skills and Competencies (1st) compared to Finland (9th).

Luxembourg, the Netherlands and the United Kingdom, respectively in 5th, 6th and 7th places, also show how similar strong GTCI performances can be achieved through different paths. **Luxembourg's** 5th place comes from a contrasted performance between Input (9th) and Output (2nd) sub-indices. Few other top talent performers display such a large difference between the two GTCI sub-indices, with the possible exception of the Netherlands and Belgium, as mentioned below. For a number of years, Luxembourg, one of the smallest countries in the world, has demonstrated a remarkable ability to attract capital and talent through high levels of Internal and External Openness (for which it ranks 2nd overall); it also ranks 1st in the world for the prevalence of foreign ownership. Possibly handicapped by its size, Luxembourg is not performing as well on the Grow (14th) or Retain (13th) pillars. On the Output Sub-Index, its performance is also less spectacular for the LV pillar (15th), but remains high for GK, for which it ranks 2nd amongst all 103 countries, just behind Switzerland. Much of this may reflect Luxembourg's success in attracting financial companies, as well as private and public organisations focused on innovation.

The **Netherlands'** overall rank of 6th also results from a contrasted performance, in which the country's Input performance (4th) is higher than its Output performance (10th). Compared to

other top ten countries, the Netherlands is not remarkable for its Regulatory Landscape (9th), Market Landscape (18th) or Business Landscape (17th). Its labour market flexibility is low (45th). However, these areas are largely compensated by a strong Attract pillar (6th), scoring high on Internal Openness (6th) that is also reflected in a high percentage of female parliamentarians (4th). Its performance is equally high on the Grow pillar (6th) and on the Retain pillar (5th). On the Output Sub-Index, the LV pillar is slightly stronger than GK (10th vs. 14th), though neither are in the topmost league.

The **UK** occupies 7th position overall and shows a rather balanced performance across Input (5th) and Output (8th). While talent growth is a valuable asset (2nd for the Grow pillar) for the country, the Enablers (10th), Attract (12th) and Retain (9th) pillars are not as strong than its overall rank. The UK's Output also shows lower ranks – 11th for LV and 12th for GK skills respectively. Noteworthy highlights of the UK's performance are the Business Landscape (5th), Lifelong Learning (3rd), and Access to Growth Opportunities (4th) sub-pillars, with a high degree of qualified labour inflow (4th), as well as its excellent quality of management schools (2nd) and universities (1st). Lowlights, on the other hand, are the UK's FDI inflows (58th), the pupil-teacher ratio (52nd), technical/vocational enrolment (52nd), and extent and effect of taxation (53rd). The UK's Internal Openness displays contrasting performances, with a high level of tolerance for minorities (5th) but a relative lack of tolerance to immigrants (20th). In the same sub-pillar, social mobility is relatively low (19th), as is the number of women in professionals and technical roles (57th).

The **United States** is obviously the largest of these top ten countries, and differences by state or region would surely show similarities to the differences within Europe. It occupies 9th position and is ranked 11th on the Input and 5th on the Output sub-indices. While the country's performance is not particularly remarkable on the Retain pillar (19th), it is a world leader in terms of the Grow pillar (3rd) and in a solid place with an Enablers' rank of 7th. In particular, the US scores relatively high in Formal Education (3rd), with high tertiary enrolment (2nd) and Access to Growth Opportunities (7th). This contrasts, however, with the country's low performance in pupil-teacher ratios (49th) and average scores in reading, math and science (22nd). Overall, the US does not perform as highly as one could expect on Attraction (22nd) as its External Openness (24th) and Internal Openness (19th) do not stand out as compared to other countries. On the Output side, the US is among the world leaders for GK (7th) with relatively high legislators, senior official and managers (2nd). However, its high position in Higher Skills and Competencies (5th) is not accompanied by an equivalent Talent Impact (21st), leaving room for improvement to boost the respective variables in innovation (16th) and entrepreneurial activity (29th). Under the LV pillar (5th), the US' labour productivity is high (3rd), but youth employment highlights a serious concern (36th).

Growing, attracting and retaining talent: top GTCI performers by income group

Considering the strong correlation (highlighted above) between GTCI scores and GDP per capita, it is important to look at how individual countries perform vis-à-vis their respective income group.[26]

A first cursory look at how major income groups perform vis-à-vis specific pillars of the GTCI (see Table 2 below) shows that, differences are more significant on the output side (especially for GK skills) than on the input side. This is clearly linked to the way in which such skills are generated (higher education) and used (in advanced production and sharing processes), which are typical of higher-income economies.

Table 2: Income group average scores

	Classification	GTCI	Enablers	Attract	Grow	Retain	Labour and Vocational	Global Knowledge
INCOME LEVELS	High income	58.40	66.97	59.46	60.42	63.62	50.69	49.25
	Upper middle income	41.91	47.01	49.84	45.43	45.22	36.28	27.67
	Lower middle income	37.79	40.92	48.85	40.81	41.14	32.87	22.17
	Low income	31.51	38.25	45.75	34.35	34.60	29.78	6.32

Note: Countries are classified according to the World Bank Income Group (July 2013).

When it comes to identifying the ways in which specific countries can improve their talent policies and get a better return on their talent investment, it becomes important to consider the results obtained by other countries of a similar level of GDP per capita. Table 3 presents these results, listing the top performers of each major income group.

Table 3: Ten best performers by income group (rank)

GTCI	Enablers	Attract	Grow	Retain	Labour and Vocational	Global Knowledge
High income (44 countries)						
Switzerland (1)	Switzerland (1)	Belgium (1)	Switzerland (1)	Switzerland (1)	Switzerland (1)	Switzerland (1)
Singapore (2)	New Zealand (2)	Luxembourg (2)	United Kingdom (2)	Austria (2)	Austria (2)	Luxembourg (2)
Denmark (3)	Singapore (3)	Singapore (3)	United States (3)	United Arab Emirates (3)	Germany (3)	Iceland (3)
Sweden (4)	Denmark (4)	Sweden (4)	Finland (4)	Norway (4)	Qatar (4)	Denmark (4)
Luxembourg (5)	Sweden (5)	Denmark (5)	Sweden (5)	Netherlands (5)	United States (5)	Finland (5)
Netherlands (6)	Canada (6)	Netherlands (6)	Netherlands (6)	Germany (6)	Norway (6)	Singapore (6)
United Kingdom (7)	United States (7)	Canada (7)	Australia (7)	Sweden (7)	Singapore (7)	United States (7)
Finland (8)	Finland (8)	Iceland (8)	Belgium (8)	Estonia (8)	Denmark (9)	Israel (8)
United States (9)	Australia (9)	Ireland (10)	Germany (9)	United Kingdom (9)	Netherlands (10)	Estonia (9)
Iceland (10)	United Kingdom (10)	Norway (11)	Austria (10)	Singapore (10)	United Kingdom (11)	Sweden (10)
Upper middle income (31 countries)						
Montenegro (26)	Malaysia (23)	Costa Rica (16)	Malaysia (31)	Montenegro (32)	Montenegro (8)	Jordan (36)
Malaysia (37)	Hungary (31)	Panama (17)	Costa Rica (32)	Bulgaria (33)	Malaysia (26)	Colombia (37)
Hungary (40)	Botswana (32)	Montenegro (20)	Panama (39)	Hungary (40)	Kazakhstan (33)	Hungary (38)
Costa Rica (41)	Montenegro (33)	Namibia (28)	China (40)	Panama (42)	Hungary (34)	Lebanon (41)
Bulgaria (43)	South Africa (37)	Kazakhstan (29)	Argentina (41)	Costa Rica (43)	Botswana (40)	China (42)
Panama (44)	Bulgaria (42)	Argentina (30)	South Africa (42)	Kazakhstan (45)	Peru (45)	Bulgaria (43)
Kazakhstan (46)	Namibia (43)	South Africa (31)	Lebanon (44)	Macedonia, FYR (46)	China (46)	Turkey (46)
China (47)	Costa Rica (46)	Brazil (32)	Montenegro (45)	Malaysia (48)	Azerbaijan (47)	Serbia (47)
Lebanon (48)	Peru (51)	Peru (33)	Thailand (46)	Azerbaijan (50)	Lebanon (49)	South Africa (49)
Macedonia, FYR (52)	Jordan (52)	Botswana (34)	Hungary (48)	Lebanon (52)	Serbia (51)	Montenegro (52)
Lower middle income (19 countries)						
Georgia (50)	Georgia (40)	Nicaragua (9)	Guatemala (34)	Georgia (38)	Nicaragua (41)	Moldova (39)
Mongolia (58)	India (54)	Mongolia (27)	Philippines (55)	Egypt, Arab Rep. (47)	Mongolia (43)	Ukraine (50)
Armenia (61)	Armenia (56)	Georgia (41)	Indonesia (58)	Armenia (53)	Ukraine (50)	Philippines (58)
Ukraine (66)	Sri Lanka (61)	Senegal (45)	India (62)	Moldova (57)	Paraguay (52)	Georgia (61)
Moldova (68)	Mongolia (63)	Vietnam (48)	Mongolia (67)	Ukraine (58)	Vietnam (58)	Armenia (62)
Philippines (73)	Ukraine (74)	Sri Lanka (54)	Paraguay (70)	Sri Lanka (66)	El Salvador (60)	Pakistan (67)
Guatemala (75)	El Salvador (75)	Armenia (55)	Armenia (74)	Indonesia (70)	Guatemala (62)	Egypt, Arab Rep. (69)
Sri Lanka (76)	Moldova (76)	Paraguay (56)	Morocco (77)	Philippines (71)	Moldova (70)	Sri Lanka (71)
Nicaragua (80)	Philippines (79)	Philippines (59)	Georgia (81)	Mongolia (72)	Philippines (79)	El Salvador (73)
Vietnam (82)	Vietnam (82)	Morocco (69)	Senegal (83)	Guatemala (73)	Bolivia (81)	Paraguay (76)
Low income (9 countries)						
Kyrgyz Republic (78)	Kenya (73)	Kyrgyz Republic (35)	Uganda (78)	Cambodia (62)	Kyrgyz Republic (39)	Kyrgyz Republic (92)
Cambodia (87)	Cambodia (78)	Uganda (43)	Kenya (87)	Kyrgyz Republic (64)	Ethiopia (72)	Mali (94)
Kenya (95)	Kyrgyz Republic (81)	Tanzania (63)	Cambodia (92)	Ethiopia (82)	Cambodia (73)	Ethiopia (97)
Uganda (96)	Uganda (83)	Cambodia (71)	Tanzania (93)	Mali (87)	Kenya (74)	Bangladesh (98)
Tanzania (97)	Tanzania (86)	Mali (81)	Mali (97)	Bangladesh (92)	Bangladesh (86)	Uganda (99)
Bangladesh (98)	Burkina Faso (88)	Kenya (88)	Kyrgyz Republic (99)	Burkina Faso (94)	Tanzania (91)	Kenya (100)
Ethiopia (99)	Bangladesh (89)	Bangladesh (94)	Burkina Faso (100)	Tanzania (99)	Burkina Faso (98)	Burkina Faso (101)
Mali (100)	Ethiopia (98)	Burkina Faso (95)	Bangladesh (101)	Kenya (100)	Uganda (101)	Cambodia (102)
Burkina Faso (102)	Mali (100)	Ethiopia (98)	Ethiopia (103)	Uganda (103)	Mali (102)	Tanzania (103)

High-income group (44 countries)

Because this group finds itself largely at the top of the GTCI rankings, these countries have already been extensively discussed above. Switzerland is at the top of the list, being the only high-income country that scores very high on all pillars of the GTCI. Clearly, high-income countries generally have the capacity to generate a significant amount of skills and talents (as shown by the Grow pillar), and all of them score fairly high on the output pillars (LV and GK). Yet, some countries, such as Luxembourg (15th in LV and 2nd in GK), Iceland (12th in LV and 3rd in GK), and Finland (18th in LV and 5th in GK), display a relative trade-off pattern in the output pillars.

Upper-middle income group (31 countries)

The top ten countries among this upper-middle income group are Montenegro (26th), Malaysia (37th), Hungary (40th), Costa Rica (41st), Bulgaria (43rd), Panama (44th), Kazakhstan (46th), China (47th), Lebanon (48th) and Macedonia (52nd).

Montenegro's performance is uneven, in particular on the output side: the country's remarkable 8th position in the LV pillar differs markedly from its 52nd rank for the GK pillar. Such a high divergence underlines the fundamentally different nature of the two kinds of skills that a country requires to compete internationally: Montenegro has a relatively high proportion of adults with the latest education attainment at secondary level (5th) and technicians and associate professionals (21st). However, its marginal position for Higher Skills and Competencies (44th) and Talent Impact (55th) drives down its overall rank. This composition can be a reflection of its economic structure, which relies highly on the service sector (mainly tourism). The country makes the top 20 for the Attract pillar (20th), boosted by its high FDI inflows (6th) and favourable female professionals and technical workforce. On the other hand, Macedonia, which occupies 10th position within the upper-middle income group yet holds a much lower rank overall (52nd), has a rather balanced performance across the output pillars. Macedonia yields marginal position in both the LV (68th) and GK (59th) pillars.

Malaysia ranks 2nd, coming ahead of all other Eastern Asia, South-Eastern Asia and Oceania countries within this income group. It has a wide distribution of rankings across the six pillars, with Enablers (23rd) as the highest, followed by LV (26th), Grow (31st), Retain (48th), Attract (50th), and GK (56th). Malaysia's relative strengths are in its relationship of pay to productivity (2nd), extent of staff training (7th), venture capital availability (8th), extent and effect of taxation (10th), ease of doing business (11th), and state of cluster development (11th), but also labour market flexibility (14th), and qualified labour inflows (18th). Its position is weakened by its low score on tolerance to immigrants (101st) and a rather low performance in gender mobility, female professionals and technical workforce (72nd), as well as for female parliamentarians (84th).

Hungary, 3rd in this group, shows relative strengths in the Enablers (31st), LV (34th), and GK (38th) pillars. On the other hand, it ranks relatively lower in the Retain (40th), Grow (48th), and Attract (61st) pillars. Despite its commendable performance in female professionals and technical workforce, the other variables under the Attract pillar drive down its score, such as female parliamentarians (87th), social mobility (91st), and qualified labour inflow (93rd). A similar discrepancy is also observed in the Grow pillar, with relatively high Formal Education (43rd) and low Lifelong Learning (74th). The relatively low performance in the Attract pillar is also seen for Bulgaria (64th), Hungary's neighbour, which ranks 5th in this upper-middle income group. Nevertheless, Bulgaria's performance in the Grow pillar is much lower (61st) with similar pattern as Hungary, where Formal Education is relatively higher (50th) than Lifelong Learning (87th). Bulgaria's rank in the Retain pillar (33rd) is ahead of Hungary (40th), with variables such as property stolen (29th) and physicians density (15th) scoring higher than Hungary.

China ranks 8th among this upper-middle group, and 3rd among the Asian members of this income group, after Malaysia and Kazakhstan. It is relatively strong in the Grow (40th), GK (42nd) and LV (46th) pillars. A most remarkable fact is that China holds 1st in PISA's reading, math, and science scores, and 8th in QS university ranking. Nevertheless, China's Access to Growth Opportunities (70th) is much lower as compared to other sub-pillars within the Grow pillar, such as Formal Education (32nd) and Lifelong Learning (47th). It has relatively low voicing concern to officials (100th) and use of virtual social networks (87th).

Lower-middle income group (19 countries)

The top performers within the lower-middle income group are Georgia (50th), Mongolia (58th), Armenia (61st), Ukraine (66th), Moldova (68th), the Philippines (73rd), Guatemala (75th), Sri Lanka (76th), Nicaragua (80th) and Vietnam (82nd).

Compared to its peers within the income group, **Georgia** earns the top spot in the overall GTCI rankings; it also leads the group in the Enablers (40th) and Retain (38th) pillars. It has excellent scores in starting a foreign business (5th), ease of doing business (8th), and labour market flexibility (16th). Georgia also performs rather well in the Attract pillar (41st), with relatively high female professionals and technical workers and relatively high FDI inflows (16th) and tolerance to minorities (26th). The country's major weaknesses are in the Grow (81st) and LV (82nd) pillars, notably in quality for scientific research institutions (94th), technical/vocational enrolment (91st), state of cluster development (90th), quality of management schools (85th), and youth employment (83rd).

The runner-up in this group is **Mongolia**, which scores best in the Attract pillar (27th). This is mainly due to very high scores in FDI inflows and involvement of female professionals and technical workers (1st). The country's performance is homogeneous across the remaining input pillars: Enablers (63rd), Grow (67th) and Retain (72nd). Areas deserving attention include venture capital availability (103rd), quality of management schools (101st), female parliamentarians (98th), state of cluster development (92nd) and government effectiveness (90th).

Armenia (3rd in this group) and the Philippines (6th) show interesting differences, which are quite typical in this range of income. On one hand, Armenia's relative strengths are in the Retain (53rd), Attract (55th) and Enablers (56th) pillars.

On the other hand, the **Philippines** (which is the Asia-Pacific leader in this income group) is relatively strong in the Grow (55th) and GK (58th) pillars, holding higher rankings than Armenia (74th for Grow and 62nd for GK).

The Philippines has several sub-pillars scattered across different pillars ranked at 80th and below, such as Regulatory Landscape (83rd), Market Landscape (85th), Formal Education (96th), Labour Productivity (85th), and Talent Impact (80th). Meanwhile, Armenia's weaker points centred around Lifelong Learning (92nd) and Access to Growth Opportunities (86th) under the Grow pillar, and Employable Skills (92nd).

Low-income group (9 countries)

The low income group consists of nine countries. The countries in this group are ranked in the following sequence: the Kyrgyz Republic (78th), Cambodia (87th), Kenya (95th), Uganda (96th), Tanzania (97th), Bangladesh (98th), Ethiopia (99th), Mali (100th) and Burkina Faso (102nd).

The **Kyrgyz Republic's** 78th rank in the overall index is split into the 75th position on the input side and 78th position on the output side. Its score of 38.62 is above average in the low-income group (the average is 31.51). Its Attract pillar ranks the highest among all pillars on the input side. Within this pillar, it becomes clear that External Openness (30th) and, in particular, FDI inflows (7th) are strengths. This does not dovetail with the qualified labour inflow variable (100th) and prevalence of foreign ownership (94th). Regarding internal openness, the Kyrgyz Republic boasts female technicians and professionals, female parliamentarians (34th) and tolerance to minorities (44th) as strong points. The Kyrgyz Republic's other strength on the input side is its result in Retain (64th), where it ranks 2nd among low-income countries (after Cambodia). This score can be attributed to the sustainability factor of the pension system (50th) and the lifestyle factors of property stolen (44th) and safety at night (51st). The Enablers pillar ranks 3rd and the Grow pillar is in 6th position amongst all low-income countries. On the output side, the Kyrgyz Republic is consistently first in both the LV (39th) and GK (92nd) pillars amongst low-income countries. The LV pillar is marked by a good relationship of pay to productivity (14th), while the strong showing in GK is due to a highly educated workforce (46th). Overall, however, the country ranks low in terms of the Talent Impact sub-pillar (102nd).

Cambodia ranks 87th overall in the GTCI and 2nd amongst the low-income countries. Cambodia scores 35.01 and is therefore above the income group average of 31.51. Its rank consists of 77th on the Input and 98th on the Output sub-indices. Its strength is the Retain pillar, where it ranks 1st among low-income countries. In the Retain pillar, Cambodia has a moderate rank in environmental performance (53rd) and safety at night (41st). Its extent and effect of taxation is favourable (24th). Cambodia's talent pipeline does not reflect this, as it ranks 92nd in Grow. On the output side, Cambodia ranked 73rd in LV and 102nd in GK.

Kenya is in 3rd position among low-income countries and in 95th position in the GTCI. Amongst the low-income countries, Kenya's score of 31.36 is marginally below the income group average score of 31.51. Kenya's strength appears to be its Enablers and Grow strategies, where it ranks 1st and 2nd respectively among low-income countries. Within the Enablers pillar, Business Landscape is relatively high (28th), while the Regulatory (92nd) and Market Landscape (91st) ranks are low. Kenya's Grow pillar is boosted by its high rank in access to growth opportunities (51st) and lifelong learning (53rd). Kenya also appears to be above average in the LV pillar; within the low-income group, it ranks 4th. Kenya is the third-highest ranked country in the low-income group, yet the country requires significant development. It ranks 6th in the Attract pillar and 8th in the Retain pillar, while it comes in 6th GK out of nine low-income countries.

CONCLUSION

Faced with the complex array of challenges and opportunities mentioned in this chapter, public and private decision-makers need the following:

- Quantitative tools and indicators that can help them identify their best possible courses of action with regard to talent-related policies;
- Success stories they can adapt to their own situation; and
- Benchmarking instruments that will help them monitor their progress over time and compare their performance to that of their neighbours and other similar economies.

For all types of economies, the challenges of upgrading skills are both immense and urgent. They include both the global knowledge skills linked to leadership and innovation, and the labour and vocational skills required to build infrastructure, and provide housing, schooling and other critical foundations of a modern economy. This requires a fresh look at immigration, educational upgrading and reform, social mobility, apprenticeships and lifelong learning, as well as ensuring appropriate regulation and flexibility in labour markets. These are complex and interconnected domains, touching on the lives of everyone. The tragedy of youth unemployment cuts across the globe and is perhaps the single most important sign of the dimension and urgency of such issues.

In this moving and complex environment, it is becoming clear that progress on talent competitiveness will require concerted efforts from the relevant components of government, business and education. All over the world, success stories call attention to how this can be done. The GTCI attempts to offer a common quantitative basis for concerted action in the field of talent competitiveness. It aims to be a dashboard for evaluating progress, and a guide for stimulating efforts and imagination. In the future, it will be improved through further refinements of its analytical approach, inclusion of additional data, and constructive criticism from its users. It is hence only a first step in what promises to be an exciting journey. We hope that it will also be a useful and constructive one towards a world where talent is not only valued but also stimulated and shared.

Notes

[1] The contribution of Aung Myint Thein, a member of the GTCI team at INSEAD, is gratefully acknowledged for preparing the data and providing support for the analysis reported in this chapter.

[2] Eurostat (2013)

[3] Based on "World Population Prospects: The 2012 Revision" (United Nations, 2012), due to this demographic dynamism, it is estimated that the population of Nigeria will be around 465 million by 2050.

[4] World Bank (2013)

[5] Eurostat (2013)

[6] European Commission (2013)

[7] OECD (2013a)

[8] OECD Report (2013b)

[9] Ramirez, F.O., X. Luo, E. Schofer, and J.W. Meyer (2006)

[10] McKinsey (2012)

[11] Cappelli, P. (2008)

[12] For example, the Heidrick and Struggles Global Talent Index and, more recently, World Economic Forum's The Human Capital Index.

[13] See globalindices.insead.edu/gitr

[14] See globalindices.insead.edu/gii

[15] The Economist (2006)

[16] A comprehensive 2007 handbook on Human Resource Management (Boxall, Purcell and Wright, 2007) reviewing academic research does not list "talent" in its index, let alone in the title of any of its articles.

[17] Lepak and Snell (1999); Becker and Huselid (2006); Boudreau and Ramstad (2007); Evans, P., V. Pucik and I. Björkman (2011)

[18] Becker, B.E., M.A. Huselid, and R.W. Beatty (2009)

[19] Stahl, G., I. Björkman, E. Farndale, S.Morris, J.Pauwe and P. Stiles (2007)

[20] Analysis among various income groups (see later in this chapter) shows that, on the output side of the GTCI, middle-income countries score better on Labour and Vocational Skills (LV) than on Global Knowledge Skills (GK). It is also interesting to note that France and Germany have symmetrical positions on those two pillars: Germany scores high on LV, and France on GK. Switzerland, on the other hand, scores equally high on both pillars.

[21] English-speaking Caribbean countries (such as Trinidad and Tobago) provide one relevant example. Their Ministers of Health are concerned about chronic staffing shortages in local health facilities. It was estimated that more than 1,800 nurses emigrated from those countries to Canada, the UK, and the US between 2002 and 2006 (The World Bank, 2009).

[22] See detailed analysis below of the "top 10 and top 20" of GTCI 2013.

[23] The GTCI results are more tightly correlated to the Global Innovation Index (GII) than the Global Competitiveness Index (GCI) (the correlation with GII is 0.95 while the correlation with GCI is 0.89).

[24] McKinsey (2013)

[25] Countries are grouped according to the World Bank classification. Economies are divided according to 2011 gross national income (GNI) per capita, calculated using the World Bank Atlas method. The groups are: low-income (US$1,025 or less); lower-middle income (US$1,026 to US$4,035); upper-middle income (US$4,036 to US$12,475); and high-income (US$12,476 or more).

[26] The income groups used in this report follow the World Bank's classification of July 2013. Countries are divided according to 2012 Gross National Income (GNI) per capita, calculated using the World Bank Atlas method. The groups are: low-income (US$1,035 or less); lower-middle income (US$1,036 to US$4,085); upper-middle income (US$4,086 to US$12,615); and high-income (US$12,616 or more).

[27] Michaels, E., H. Handfield-Jones, and B. Axelrod (2001)

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ANNEX 1: THE TOP 10 IN THE GTCI INPUT AND OUTPUT SUB-INDICES

The top performers on the GTCI Input Sub-Index

To a large extent, the GTCI Input Sub-Index can be considered as a summary of the amount of efforts and resources that individual countries are devoting to enhancing their respective local talent bases, as well as of the assets and obstacles that they are facing in this regard. Because the overall GTCI index is an average of four input pillar scores and two output pillar scores, one can naturally expect that it will be more strongly correlated to the Input Sub-Index than to the Output Sub-Index, and this is clearly the case. However, looking in greater detail at how countries fare on the input side of the GTCI model remains a worthy exercise, because it provides some valuable insights on what may constitute a successful talent competitiveness strategy.

The top ten of the GTCI Input Sub-Index is, as expected, quite reminiscent of the one found at the top of GTCI rankings.

For the GTCI Input Sub-Index, first spot and runner-up are held by Switzerland and Singapore, the same countries that lead the GTCI ranking. Subsequent members of the top ten are Sweden, the Netherlands, the United Kingdom, Belgium, Denmark, Finland, Luxembourg and Canada.

Belgium is an interesting case here: its rank on the Input Sub-Index (6th) is remarkably higher than its overall GTCI ranking (13th). This is due to noteworthy performance in the Attract pillar (1st) with strong External Openness (3rd) and high FDI inflow as a percentage of GDP (1st). Other strengths displayed by Belgium lie in the Grow pillar (8th), resulting from high rankings in Formal Education (5th) and Lifelong Learning (5th). Its performance is less remarkable in the Enablers pillar (16th), and in the Retain pillar (27th).

Canada and **the United States** are among the few non-European countries leading the Input Sub-Index (10th and 11th respectively). Canada is a world leader for two pillars, namely Enablers (6th) and Attract (7th). This is largely explained by its record in the Business Landscape sub-pillar (3rd), with a highly flexible labour market (4th) and high reliance on professional management (7th). Canada's position is also greatly enhanced by its excellent rank in tolerance to minorities (1st) and immigrants (2nd). It ranks highly at enhancing women's involvement in the professional and technical workforce. The quality of education is also an asset for Canada, as shown by the country's performance on QS university rankings (3rd), PISA's reading, math, and science scores (6th), and the quality of management schools (5th). Canada's relatively weaker spots are in the Grow (13th) and Retain (16th) pillars; the country ranks relatively low in voicing concern to officials (41st), and on lifestyle indicators such as property stolen (51st) and physician density (56th).

In addition to the top ten in the list of "GTCI output champions" (Switzerland, Luxembourg, Denmark, Iceland, the United States, Singapore, Finland, the United Kingdom, Sweden and the Netherlands), other countries of the top 20 provide useful insights on how a strong performance is built on the Labour and Vocational (LV) and Global Knowledge (GK) pillars. They include Austria, Norway, Germany, Canada, France, Israel, Estonia, New Zealand, Australia and the Czech Republic. In this second list, the examples of Austria and Estonia are both complementary and significantly distinct from one another.

Austria's overall GTCI rank (14th) comes from a homogeneous performance across both sub-indices: 14th on the Input Sub-Index and 11th on the Output Sub-Index. Austria is relatively strong on the Grow (10th) and Retain (2nd) pillars, while being somewhat less impressive on the Enablers (18th) and Attract (23rd) pillars. The country's high input performance can be attributed to factors such as Formal Education (2nd), supported by high technical and vocational enrolment (4th). Despite a relatively modest QS ranking (25th), the country has a high international student inflow (7th). Beyond formal education, its Access to Growth Opportunities sub-pillar is overall on par (10th), while Lifelong Learning (22nd) could be improved. Austria's retention indicators show high performance on the Lifestyle sub-pillar (1st). Its lower position on the Attract pillar (23rd) is attributed to its weaker rank on FDI inflows (40th), prevalence of foreign ownership (35th), and tolerance towards minorities (38th) and immigrants (37th).

Estonia (23rd overall in GTCI rankings) has an input rank of 23rd and an output rank of 17th. The country's performance is not particularly high on the Attract (52nd) or Grow (35th) pillars, or even on Enablers (25th). Estonia's performance could probably be even higher if some obstacles could be diminished or mitigated, including the country's relative lack of External Openness (65th) and Internal Openness (47th). Estonia ranks low for FDI inflows (83rd), qualified labour inflows (59th), and exhibiting low tolerance towards immigrants (91st) and minorities (81st). Estonia, nevertheless, presents high levels of female professionals and technical workers and respectable levels of social mobility (21st). Reading, math and science scores are high (11th) and its pupil-teacher ratio is among the best (12th). In spite of less than impressive Enablers performances (for example, it ranks only 46th for the Business Landscape sub-pillar) Estonia has proved to be a leader in the Retain pillar (8th). Estonia's output, however, is marked by a significantly lower rank in the Labour and Vocational (24th) pillar than its Global Knowledge (9th), perhaps reflecting its commitments to innovation, the IT sector and e-government. Its youth employment is rather low (64th). Nevertheless, the country has relatively high tertiary-educated workforce (6th). This translates into a significant impact on the country's ability to innovate (8th).

Table 1: GTCI Input Sub-Index rankings

Country	Input (0-100)	Input Rank	Enablers (0-100)	Enablers Rank	Attract (0-100)	Attract Rank	Grow (0-100)	Grow Rank	Retain (0-100)	Retain Rank
Switzerland	77.75	1	84.29	1	65.57	18	77.81	1	83.32	1
Singapore	74.80	2	82.47	3	79.53	3	68.45	11	68.77	10
Sweden	74.04	3	80.85	5	73.46	4	71.93	5	69.91	7
Netherlands	73.08	4	76.97	13	71.12	6	71.53	6	72.69	5
United Kingdom	72.54	5	79.39	10	68.57	12	73.17	2	69.04	9
Belgium	72.51	6	74.53	16	81.79	1	70.93	8	62.77	27
Denmark	72.14	7	81.97	4	72.16	5	68.05	12	66.40	17
Finland	71.95	8	79.79	8	67.64	15	72.03	4	68.36	12
Luxembourg	71.50	9	70.08	21	81.55	2	66.57	14	67.79	13
Canada	71.23	10	80.77	6	71.06	7	66.65	13	66.43	16
United States	70.59	11	80.63	7	64.13	22	72.27	3	65.31	19
Norway	70.58	12	71.54	19	69.85	11	66.49	15	74.45	4
Australia	70.56	13	79.43	9	68.27	14	71.22	7	63.30	26
Austria	69.93	14	72.00	18	62.49	23	70.30	10	74.92	2
Iceland	69.73	15	77.39	12	70.45	8	62.59	20	68.50	11
New Zealand	69.47	16	84.04	2	68.28	13	64.97	17	60.58	35
Germany	69.13	17	70.23	20	65.35	19	70.45	9	70.50	6
Ireland	68.73	18	73.92	17	70.07	10	63.28	18	67.66	14
United Arab Emirates	67.01	19	76.04	14	56.35	37	60.85	23	74.79	3
Japan	63.42	20	79.14	11	46.82	76	61.96	22	65.76	18
France	63.11	21	65.46	24	56.73	36	65.25	16	65.01	20
Czech Republic	61.06	22	67.04	22	53.34	47	57.40	29	66.44	15
Estonia	60.05	23	65.09	25	51.63	52	53.80	35	69.69	8
Portugal	59.20	24	55.46	41	60.23	26	58.53	27	62.57	29
Montenegro	58.86	25	58.92	33	64.66	20	50.31	45	61.57	32
Costa Rica	58.57	26	54.60	46	67.34	16	56.10	32	56.26	43
Spain	58.29	27	54.98	45	60.49	25	58.54	26	59.18	37
Slovak Republic	58.14	28	64.95	26	53.15	49	50.47	43	63.99	22
Slovenia	57.98	29	57.93	36	51.69	51	58.41	28	63.89	23
Cyprus	57.68	30	58.78	35	51.47	53	59.77	25	60.71	34
Chile	57.54	31	57.40	39	64.51	21	57.14	30	51.13	56
Korea, Rep.	57.42	32	62.51	28	48.71	66	60.04	24	58.40	41
Malaysia	57.11	33	66.02	23	52.13	50	56.48	31	53.79	48
Latvia	57.07	34	57.42	38	54.34	42	52.37	38	64.13	21
Israel	56.96	35	58.90	34	55.16	39	62.09	21	51.68	55
Poland	56.24	36	62.77	27	50.31	57	48.11	52	63.76	24
Malta	55.65	37	62.06	30	55.01	40	52.82	36	52.70	51
Lithuania	55.48	38	62.21	29	48.59	67	49.47	47	61.66	31
Panama	55.13	39	45.43	67	66.45	17	52.31	39	56.32	42
Qatar	54.52	40	74.79	15	40.97	93	62.74	19	39.56	77
Italy	54.43	41	52.93	49	46.14	79	55.95	33	62.72	28
Uruguay	54.42	42	52.81	50	61.48	24	48.18	51	55.23	44
Hungary	54.27	43	59.41	31	50.08	61	49.09	48	58.50	40
Saudi Arabia	53.57	44	55.10	44	47.98	72	52.50	37	58.69	39
Bulgaria	52.58	45	55.42	42	49.05	64	44.38	61	61.46	33
Georgia	52.45	46	55.84	40	54.44	41	40.41	81	59.12	38
Croatia	51.90	47	53.76	47	46.52	77	47.23	54	60.07	36
Kazakhstan	50.98	48	49.84	57	59.93	29	40.32	82	53.85	45
Trinidad and Tobago	50.21	49	53.01	48	55.40	38	44.05	65	48.37	60
Macedonia, FYR	50.19	50	52.16	53	50.10	60	44.66	60	53.84	46
Argentina	49.57	51	43.96	71	58.83	30	50.95	41	44.54	67
Brazil	49.24	52	45.15	69	58.33	32	48.30	50	45.17	65
Armenia	48.80	53	50.52	56	50.78	55	41.50	74	52.37	53

Table 1: GTCI Input Sub-Index rankings (continued)

Country	Input (0-100)	Input Rank	Enablers (0-100)	Enablers Rank	Attract (0-100)	Attract Rank	Grow (0-100)	Grow Rank	Retain (0-100)	Retain Rank
Kuwait	48.62	54	49.51	58	41.56	90	41.77	72	61.66	30
Greece	48.19	55	43.84	72	41.40	92	44.11	63	63.40	30
South Africa	48.08	56	57.86	37	58.73	31	50.94	42	24.77	101
Lebanon	48.02	57	40.71	84	48.55	68	50.41	44	52.39	52
China	48.01	58	47.76	59	48.81	65	51.30	40	44.16	68
Azerbaijan	47.93	59	45.53	66	49.78	62	43.30	69	53.12	50
Mongolia	47.74	60	45.75	63	60.21	27	43.52	67	41.47	72
Botswana	47.30	61	59.11	32	56.99	34	41.59	73	31.52	96
Namibia	46.81	62	55.21	43	60.18	28	42.24	71	29.62	97
Russian Federation	46.78	63	42.61	77	44.92	82	46.13	57	53.46	49
Jordan	46.50	64	52.39	52	41.62	89	43.47	68	48.51	59
Thailand	46.49	65	45.58	64	46.19	78	50.08	46	44.12	69
Romania	46.43	66	52.06	55	41.51	91	44.08	64	48.07	61
Albania	46.26	67	46.02	62	45.80	80	41.38	76	51.83	54
Peru	45.93	68	52.46	51	57.10	33	41.45	75	32.70	95
Mexico	45.62	69	46.32	60	50.24	58	47.31	53	38.62	83
Philippines	45.41	70	42.32	79	50.23	59	46.72	55	42.37	71
Sri Lanka	45.21	71	46.08	61	51.15	54	39.01	85	44.58	66
Guatemala	44.85	72	37.44	91	47.29	74	54.04	34	40.62	73
Nicaragua	44.85	73	38.37	87	70.27	9	33.10	98	37.65	84
Turkey	44.38	74	45.56	65	41.96	87	43.76	66	46.25	63
Kyrgyz Republic	44.14	75	41.15	81	56.81	35	32.86	99	45.75	64
India	44.08	76	52.10	54	44.38	84	44.37	62	35.49	89
Cambodia	43.75	77	42.54	78	48.11	71	36.35	92	48.00	62
Ecuador	43.63	78	32.17	97	53.50	44	48.54	49	40.32	75
Indonesia	43.63	79	37.14	92	48.46	70	45.66	58	43.26	70
Moldova	43.47	80	43.03	76	43.78	85	38.31	90	48.75	57
Dominican Republic	43.46	81	42.23	80	53.35	46	40.73	79	37.53	85
Ukraine	43.34	82	43.04	74	43.00	86	38.65	88	48.67	58
Colombia	43.32	83	45.28	68	47.00	75	46.26	56	34.74	91
Vietnam	42.49	84	40.84	82	53.21	48	36.77	91	39.13	80
Morocco	41.21	85	37.59	90	48.48	69	41.33	77	37.45	86
El Salvador	40.22	86	43.04	75	44.87	83	39.08	84	33.88	93
Paraguay	39.98	87	30.52	99	50.59	56	42.35	70	36.47	88
Bosnia and Herzegovina	39.87	88	39.74	85	35.49	99	45.01	59	39.25	79
Serbia	39.27	89	44.70	70	33.89	100	38.32	89	40.16	76
Uganda	38.69	90	40.79	83	53.51	43	41.29	78	19.18	103
Bolivia	38.66	91	33.44	94	47.42	73	39.00	86	34.78	90
Tanzania	38.25	92	39.50	86	49.11	63	36.15	93	28.26	99
Kenya	37.66	93	43.83	73	41.65	88	38.89	87	26.27	100
Egypt, Arab Rep.	37.57	94	34.01	93	26.53	103	35.94	94	53.81	47
Senegal	37.31	95	33.39	95	53.37	45	40.18	83	22.30	102
Mali	36.38	96	29.34	100	45.00	81	33.72	97	37.44	87
Venezuela, RB	36.22	97	25.46	102	38.29	97	40.56	80	40.58	74
Bangladesh	35.77	98	37.65	89	40.85	94	30.24	101	34.36	92
Burkina Faso	35.60	99	37.93	88	39.81	95	31.17	100	33.49	94
Pakistan	34.42	100	32.97	96	39.78	96	35.45	95	29.47	98
Ethiopia	33.87	101	31.48	98	36.92	98	28.45	103	38.63	82
Iran, Islamic Rep.	33.42	102	27.74	101	32.52	101	34.40	96	39.04	81
Algeria	29.65	103	22.48	103	26.56	102	30.22	102	39.34	78

Table 2: GTCI Output Sub-Index rankings

Country	Output (0-100)	Output Rank	LV (0-100)	LV Rank	GK (0-100)	GK Rank
Switzerland	68.98	1	69.56	1	68.40	1
Luxembourg	63.10	2	58.30	15	67.91	2
Denmark	62.49	3	60.69	9	64.30	4
Iceland	61.76	4	59.01	12	64.50	3
United States	61.56	5	62.54	5	60.57	7
Singapore	61.41	6	61.74	7	61.07	6
Finland	59.30	7	57.39	18	61.20	5
United Kingdom	59.30	8	59.83	11	58.76	12
Sweden	58.50	9	57.35	19	59.64	10
Netherlands	58.32	10	60.17	10	56.48	14
Austria	57.06	11	65.39	2	48.73	26
Norway	56.86	12	61.76	6	51.97	21
Germany	56.74	13	64.46	3	49.02	25
Canada	56.35	14	58.02	16	54.67	17
France	56.22	15	56.12	20	56.33	16
Israel	55.83	16	51.26	23	60.39	8
Estonia	55.40	17	50.96	24	59.83	9
New Zealand	54.27	18	49.54	28	59.01	11
Australia	53.93	19	57.91	17	49.96	23
Czech Republic	53.41	20	58.79	13	48.03	28
Japan	52.82	21	52.10	22	53.53	19
Ireland	52.42	22	48.38	29	56.46	15
Belgium	52.01	23	49.94	25	54.08	18
Slovenia	51.08	24	49.68	27	52.48	20
Malta	51.01	25	44.66	35	57.36	13
Qatar	49.15	26	63.62	4	34.68	48
United Arab Emirates	48.58	27	52.87	21	44.30	31
Korea, Rep.	48.55	28	46.89	31	50.20	22
Slovak Republic	48.23	29	58.36	14	38.10	40
Latvia	47.66	30	46.76	32	48.57	27
Poland	47.41	31	47.52	30	47.29	30
Montenegro	47.22	32	61.28	8	33.17	52
Chile	46.15	33	43.14	38	49.17	24
Italy	46.05	34	44.39	36	47.70	29
Cyprus	42.96	35	43.88	37	42.04	34
Lithuania	42.67	36	41.41	42	43.94	32
Hungary	42.49	37	45.11	34	39.88	38
Malaysia	40.42	38	49.82	26	31.01	56
Spain	39.64	39	35.97	65	43.30	33
China	38.80	40	40.38	46	37.22	42
Russian Federation	38.74	41	41.05	44	36.44	45
Lebanon	38.68	42	39.81	49	37.55	41
Saudi Arabia	37.55	43	38.51	55	36.60	44
Bulgaria	37.53	44	37.86	57	37.21	43
Serbia	37.18	45	39.15	51	35.22	47
Ukraine	36.86	46	39.71	50	34.01	50
Moldova	36.41	47	33.47	70	39.34	39
Portugal	36.02	48	30.79	83	41.26	35
Colombia	35.96	49	31.77	76	40.14	37
Turkey	34.72	50	33.72	69	35.72	46
South Africa	33.12	51	31.75	77	34.50	49
Kazakhstan	33.01	52	45.34	33	20.68	80

Table 2: GTCI Output Sub-Index rankings (continued)

Country	Output (0-100)	Output Rank	LV (0-100)	LV Rank	GK (0-100)	GK Rank
Croatia	32.91	53	35.98	64	29.84	57
Peru	32.88	54	40.65	45	25.10	66
Romania	32.82	55	34.60	67	31.05	54
Jordan	32.81	56	24.61	100	41.01	36
Greece	32.49	57	31.27	80	33.72	51
Costa Rica	32.02	58	38.89	53	25.16	65
Mexico	31.86	59	36.19	63	27.54	60
Panama	31.82	60	37.96	56	25.68	63
Azerbaijan	31.45	61	40.11	47	22.78	75
Ecuador	31.30	62	31.58	78	31.02	55
Macedonia, FYR	31.29	63	34.15	68	28.42	59
Mongolia	31.21	64	41.21	43	21.21	78
Botswana	30.51	65	42.89	40	18.13	87
Paraguay	30.34	66	39.11	52	21.58	76
Argentina	30.26	67	36.68	61	23.83	72
Philippines	30.16	68	31.32	79	29.01	58
El Salvador	29.94	69	37.00	60	22.87	73
Namibia	29.65	70	27.38	92	31.91	53
Trinidad and Tobago	29.28	71	39.96	48	18.60	85
Kuwait	29.17	72	35.48	66	22.85	74
Georgia	29.01	73	30.80	82	27.22	61
Armenia	28.40	74	29.63	87	27.16	62
Thailand	28.12	75	30.64	84	25.61	64
Dominican Republic	28.08	76	31.79	75	24.37	68
Brazil	28.06	77	37.15	59	18.97	82
Kyrgyz Republic	27.58	78	43.09	39	12.07	92
Guatemala	27.43	79	36.40	62	18.45	86
Vietnam	27.24	80	37.49	58	16.99	88
Pakistan	26.79	81	28.49	90	25.09	67
Sri Lanka	26.31	82	28.76	88	23.85	71
Venezuela, RB	25.82	83	32.85	71	18.79	84
Bolivia	25.81	84	30.93	81	20.69	79
Uruguay	25.42	85	26.90	93	23.93	70
Egypt, Arab Rep.	25.32	86	26.48	95	24.17	69
Nicaragua	25.31	87	42.14	41	8.48	96
Albania	23.95	88	38.72	54	9.18	93
India	23.80	89	26.36	96	21.23	77
Indonesia	23.75	90	28.66	89	18.84	83
Senegal	21.31	91	30.21	85	12.42	91
Ethiopia	20.31	92	32.60	72	8.02	97
Iran, Islamic Rep.	20.10	93	26.61	94	13.59	90
Algeria	19.91	94	20.53	103	19.30	81
Bosnia and Herzegovina	19.37	95	24.69	99	14.05	89
Kenya	18.75	96	32.12	74	5.38	100
Bangladesh	18.39	97	29.84	86	6.94	98
Cambodia	17.53	98	32.26	73	2.80	102
Morocco	17.48	99	26.34	97	8.61	95
Tanzania	15.41	100	28.17	91	2.65	103
Uganda	15.29	101	24.43	101	6.16	99
Mali	14.79	102	20.75	102	8.82	94
Burkina Faso	14.39	103	24.75	98	4.03	101

ANNEX 2: A REGIONAL VIEW OF THE GTCI

Not all regions show the same degree of income disparity among their member countries. Sub-Saharan Africa, for example, is quite homogeneous (hosting many of the poorest countries on the world) while others (such as Eastern Asia, South-Eastern Asia and Oceania) harbour both high-income countries such as Singapore and low-income ones such as Cambodia. It is hence more perilous to identify "geographical" messages from GTCI data than it is for income groups.

Table 3 below brings together information on key GTCI elements (pillars) for both income groups and regional groups.

Northern America (2 countries)

Northern America has already been covered in the top ten of the GTCI and in the section on the Input Sub-Index. It is made up of Canada and the United States of America.

Europe (38 countries)

This regional group consists of Switzerland (1st), Denmark (3rd), Sweden (4th), Luxembourg (5th), the Netherlands (6th), the United Kingdom (7th), Finland (8th), Iceland (10th), Norway (12th), Belgium (13th), Austria (14th), Germany (16th), Ireland (18th), France (20th), the Czech Republic (22nd), Estonia (23rd), Slovenia (25th), Montenegro (26th), the Slovak Republic (27th), Malta (29th), Latvia (30th), Poland (32nd), Spain (35th), Italy (36th), Portugal (38th), Lithuania (39th), Hungary (40th), Bulgaria (43rd), Croatia (45th), the Russian Federation (51st), Macedonia, FYR (52nd), Greece (56th), Romania (63rd), Ukraine (66th), Moldova (68th), Albania (77th), Serbia (79th), and Bosnia Herzegovina (91st). Thus this group is very diverse in occupying ranks from 1st to 91st positions, pointing to some of the challenges that the European community and region faces.

Many of these countries have already been discussed in the section on the top ten of the GTCI. Of these countries, Germany and France stand out and are often compared as the leading economies of the European Union. **Germany** occupies 16th in the GTCI, 17th on the GTCI Input Sub-Index and 13th on the GTCI Output Sub-Index. In the pillar ranks, Germany's highlights are its renowned vocational skills (Labour and Vocational, or LV, is 3rd), and its performance in the Retain (6th) and Grow (9th) pillars. In LV skills, Germany shows a high rank in Employable Skills (3rd), notably technicians and associate professionals (2nd). In Retain, the country is high-ranking on Lifestyle (7th). Under Grow, the country is high-ranking in Formal Education (6th) and Access to Growth Opportunities (5th). In the other three pillars, Germany's ranks hover between 19th and 25th: the Attract pillar ranks 19th, the Enablers pillar ranks 20th and the Global Knowledge (GK) pillar ranks 25th. The moderate rank on Attract reflects reasonable Internal Openness (9th) but low External Openness (43rd) ranks. Among the Enablers, the Regulatory Landscape ranks 15th, the Market Landscape ranks 9th, and the Business Landscape ranks 50th; the latter being perhaps concomitant with the External Openness of the country. Finally, in the GK pillar, Talent Impact is divided into a high position in innovation output (7th) and a low position in terms of entrepreneurial activity (59th).

France ranks lower than Germany at 20th overall, with an input rank of 21st and output rank of 15th. Its pillar ranks are between 16th and 36th. The GK and Grow pillars rank highest at 16th each. Within the Grow pillar, France ranks moderately in Formal Education (15th), Access to Growth Opportunities (18th) and Lifelong Learning (19th). In the GK pillar, the talent impact is notable (6th), with a high rank for entrepreneurial activity (6th) and lower rank for innovation output (25th). But its higher-level skills and competencies (22nd) do not measure up to the same degree, ranking 19th for researchers, 25th for professionals, 27th for legislators, senior officials and managers, and 29th

Table 3: Regional group average scores

	Classification	GTCI	Enablers	Attract	Grow	Retain	Labour and Vocational	Global Knowledge
REGIONS	Northern America	66.92	80.70	67.60	69.46	65.87	60.28	57.62
	Europe	55.21	62.00	56.63	56.26	62.13	48.28	45.98
	Eastern, South-Eastern Asia, and Oceania	49.46	58.12	55.31	53.35	51.78	43.07	35.11
	Northern Africa and Western Asia	44.24	50.52	45.48	47.34	52.63	37.18	32.29
	Latin, Central America, and the Caribbean	41.31	43.28	55.12	46.08	42.49	36.17	24.69
	Central and Southern Asia	35.81	41.08	46.49	36.66	40.36	32.64	17.64
	Sub-Saharan Africa	33.78	42.84	49.53	38.46	29.15	29.51	13.20

Note: Countries are classified according to United Nations Regional Classifications (11 February 2013).

for tertiary-educated workforce. Following this are the LV and Retain pillars, which each rank 20th. The LV pillar shows a moderate Employable Skills rank (15th) and labour productivity (22nd). Within the Employable Skills, youth employment is ranked low (67th), while technicians and associate professionals rank high (3rd), and the secondary-educated workforce is moderate (28th). Labour Productivity reflects a high ranking on labour productivity per employee (11th) but a poorer connection between pay and productivity (55th). On the lower end are the Enablers, occupying 24th position, with the Attract pillar taking 36th. In the Enablers, the Business Landscape ranks 52nd, with the Regulatory Landscape is 25th and the Market Landscape ranks 22nd. Under Attract, External Openness ranks lower (46th) than Internal Openness (31st).

Eastern and South-Eastern Asia and Oceania (13 countries)

Singapore marks an excellent performance in the region, with its government's explicit focus on building talent competitiveness. After Singapore, two Oceania countries, Australia (15th) and New Zealand (17th), follow. Japan (21st) and Korea (28th) are the bottom two from the high-income group. As mentioned earlier, Malaysia (37th) leads the upper-middle income group and is followed by China (47th). Meanwhile, Indonesia (84th) and Cambodia (87th) lag behind.

Australia and **New Zealand** are equally strong on Attract, respectively at 14th and 13th places. Australia ranks 10th in Internal Openness and 21st in External Openness while the distribution is more skewed in the case of New Zealand with exceptionally high Internal Openness (4th) and relatively low External Openness (38th). Both are among the top ten in Enablers with New Zealand in 2nd and Australia in 9th position. Australia is in 7th position in Grow, with particular strengths in Formal Education (1st). Here New Zealand lags behind (17th), though it gains strength from Lifelong Learning (14th). Their performance in the Output Sub-Index is also similar despite playing on different strengths: Australia does well in LV skills (17th) while New Zealand's strength lies in GK (11th).

There is a relatively similar distribution in the performance of **Japan** and **Korea** across six pillars, except for Enablers and Retain. Japan occupies a higher position in Enablers (11th) and Retain (18th) than Korea (28th and 41st, respectively). They have relatively strong performance in Grow, where Korea leads in Formal Education (17th) and Japan takes the higher spot in Lifelong Learning (26th) and Access to Growth Opportunities (21st). Regarding the output composition, Japan has a rather balanced distribution of LV and GK skills (22nd and 19th, respectively) while Korea performs slightly lower in LV (31st) than its GK (22nd). In order to further enhance talent competitiveness, both have to address areas of concerns in the Attract pillar. They rank low both in External Openness (Japan, 73rd and Korea, 61st) and Internal Openness (Japan, 67th and Korea, 73rd), coming across as closed talent economies.

Northern Africa and Western Asia (15 countries)

The regional group of Northern Africa and Western Asia spans countries on the cusp of Europe such as Turkey, countries along the Persian Gulf and the Red, Caspian, Black and Mediterranean seas such as Kuwait, the United Arab Emirates (UAE), Egypt, Georgia, Lebanon, Israel, Morocco, Algeria and Cyprus, and the landlocked smaller economy of Armenia.

The GTCI includes 15 countries within this group. The top ten are the UAE, Israel, Cyprus, Qatar, Saudi Arabia, Lebanon, Georgia, Azerbaijan, Kuwait and Armenia. The other five are Jordan, Turkey, the Arab Republic of Egypt, Morocco and Algeria.

Leading the group is **the UAE** with a rank of 19th overall, 19th in the Input Sub-Index and 27th in the Output Sub-Index. Within the Input Sub-Index, the UAE ranks very highly in Retain (3rd), supported by a high rank in terms of the Sustainability sub-pillar. Regarding the Lifestyle sub-pillar, the UAE ranks high for safety at night (2nd) and a lack of stolen property (10th). Enablers are also reasonably high (14th) based on high ranks in Business Landscape (9th) and Market Landscape (12th) with a lower score in Regulatory Landscape (27th). In terms of its Business Landscape, the UAE's labour market flexibility is particularly high (3rd). Within Market Landscape, the availability of venture capital ranks highly (6th). The Grow pillar ranks lower at 23rd and the Attract pillar is even lower at 37th. The output side is marked by average LV skills (21st) with the highlight being strong labour productivity (10th). As the UAE's economy remains oil-based, building the Grow pillar will be critical for the economy's future.

The second rank in this group is held by Israel, which has been discussed above in the Top 10 countries in the GTCI Output Sub-Index. **Cyprus** ranks 3rd in this regional group, 33rd in the GTCI, 30th in the Input Sub-Index and 35th in the Output Sub-Index. These rankings are reflected in similar scores on the Input Sub-Index, where the Grow pillar is the strongest (25th) while the Retain and Enablers pillars rank 34th and 35th respectively. The Attract pillar is lower at 53rd. The Grow pillar benefits from a high rank in Formal Education (14th), while Lifelong Learning (38th) and Access to Growth Opportunities (35th) lag somewhat behind. The Enablers pillar draws on a solid rank in the Regulatory Landscape (22nd) and Market Landscape (34th), while the Business Landscape trails behind (76th). Under the Output Sub-Index, the results show moderate levels of LV (37th) and GK (34th) skill. Under the LV pillar, three variables rank between 31st and 37th. Technicians and associate professionals are ranked 31st, labour productivity per employee 32nd, and secondary-educated workforce 37th, while youth employment (71st) and relationship of pay to productivity (61st) are particularly low.

Latin, Central America, and the Caribbean (18 countries)

Among the high-income countries within this regional group, Chile takes the lead (31st), followed by Uruguay (49th) and Trinidad and Tobago (53rd). However, the latter two countries are ranked below Costa Rica (41st) and Panama (44th) from the upper-middle income group. Subsequently, Argentina (54th), Brazil (59th), Peru (65th), Mexico (70th), and Colombia (71st) follow. Four countries are part of the low-income group whose rankings are very close to one another: El Salvador (85th), Paraguay (86th), Bolivia (88th), and Venezuela (92nd).

Chile stands out in this regional group, ranking highly in Attract (21st) and GK (24th). It performs remarkably well in External Openness (5th) and places all of its variables within the top 15; for instance, FDI inflows (11th), qualified labour inflow (13th), and prevalence of foreign ownership (12th). Chile also scores the highest in new product entrepreneurial activity (1st) that contributes to its high position in the Talent Impact sub-pillar (2nd). Chile's low performance in Retain (56th), particularly in the Lifestyle sub-pillar (78th), drives down its rank. Chile ranks 82nd in safety at night, 73rd in physicians density, 65th in property stolen, and 52nd in environmental performance.

The close tie between **Costa Rica** and **Panama** in GTCI score is also reflected at the pillar level. They compete head-to-head in Attract (Costa Rica, 16th and Panama, 17th), Grow (Costa Rica, 32nd and Panama, 39th), Retain (Costa Rica, 43rd and Panama, 42nd), Labour and Vocational (Costa Rica, 53rd and Panama, 56th), and Global Knowledge (Costa Rica, 65th and Panama, 63rd). The divergence in scores prevails only in Enablers where Costa Rica (46th) is well ahead of Panama (67th). Costa Rica ranks much higher in political stability (32nd), reliance on professional management (35th), government effectiveness (47th), labour market flexibility (49th), and R&D expenditure (51st) than Panama, which ranks 59th, 86th, 54th, 80th, and 76th respectively.

Brazil, ranking 59th in the GTCI, ranks 7th within this group and is placed right after Argentina. The country has varied distribution across six pillars, with Attract (32nd) as its best-performing pillar. This Attract score is the highest among the BRIC countries. As an emerging country, Brazil receives a constant stream of FDI inflow (48th) and qualified labour inflow (22nd). It has excellent internal openness (29th) as tolerance to minorities (16th) and immigrants (21st) is at the upper level. However, its Enablers (69th) come in behind China (59th) and India (54th) and its Global Knowledge (82nd) leaves Brazil almost in the bottom 20. The Talent Impact sub-pillar (88th) drags down its rank as Brazil is at the lower end of new product entrepreneurial activity.

Central and Southern Asia (7 countries)

This regional group has seven countries in the GTCI. This, however, presents a large human capital pool of 1.69 billion people, with India leading with the largest population of 1.24 billion. In the overall ranking, Kazakhstan heads up this regional group. The other countries in the group are Sri Lanka (ranked 46th), Kyrgyz Republic (78th), India (83rd), Pakistan (94th), Bangladesh (98th) and the Islamic Republic of Iran (101st).

Kazakhstan's leading position amongst the regional group is supported by its input rank of 48th and output rank of 52nd. Kazakhstan is particularly strong on the Attract (29th) pillar and in the LV skills (33rd). Digging deeper into Attract, it appears that the External Openness rank (33rd) and the Internal Openness rank (28th) are supporting this. Kazakhstan ranks high for female professionals and technicians, and moderately in its tolerance to minorities (19th) and immigrants (25th). In External Openness, FDI inflows rank high (12th), while the remaining elements rank lower: qualified labour inflow occupies 55th place and prevalence of foreign ownership 75th. Kazakhstan's other pillars are not as strong: Retain (45th), Enablers (57th), GK skills (80th) and Grow (82nd). In the Grow pillar, Formal Education ranks low (64th), Lifelong Learning even lower (70th) and Access to Growth Opportunities is very low (92nd). The Grow pillar reveals the lack of a solid foundation and might be an urgent area to address.

Ranking second in Central and Southern Asia, **Sri Lanka** comes in 76th overall, 71st on the Input Sub-Index and 82nd on the Output Sub-Index. Sri Lanka's input side reveals high ranks in Attract (54th), with External Openness at 68th and Internal Openness at 51st. In terms of External Openness, there are relative high ranks on inflow of qualified labour (38th) and foreign ownership (36th), but with an otherwise low FDI inflow (95th). On Internal Openness there is more tolerance to minorities (26th) than to immigrants (57th). The Retain pillar ranks 66th and is constituted by Sustainability (74th) and Lifestyle (57th). Under Lifestyle, Sri Lanka has a rank of 22nd for safety at night and 50th for environmental performance. Its Sustainability sub-pillar performance benefits from a more favourable ranking on the extent and effect of taxation (31st) but suffers from its pension system rank (67th). For the Output Sub-Index, Sri Lanka's LV pillar (88th) is influenced by the relationship of pay to productivity (32nd), while the GK skills (71st) benefit from the higher skills and competencies sub-pillar (59th), where the legislators, senior officials and managers rank 16th and the tertiary workforce ranks 58th.

Although the **Kyrgyz Republic** is in 3rd place in this regional group, it also ranks 1st in the low-income countries and has been described in that section. **India** is in 4th place and of particular importance as one of the BRIC economies and as the most populous country on earth with its 1.24 billion people. While ranking 4th among its regional peers, India ranks 83rd in the GTCI index overall, 76th in the Input Sub-Index and 89th in the Output Sub-Index. On the input side, the highest-ranking pillars are the Enablers (54th) and Grow (62nd). Noteworthy in the Enablers rank

is that India's Regulatory Landscape ranks 68th and its Market Landscape ranks 75th, while its Business Landscape ranks 18th because of high labour market flexibility and reliance on professional management. With the Grow pillar, India ranks high for Lifelong Learning (32nd) and Growth Opportunities (42nd) but low for Formal Education (93rd). Lowlights of India's performance are the Attract (84th) and Retain (89th) pillars. The Attract pillar reveals moderate external Openness (54th), with qualified labour inflow being high (24th), while FDI inflow (74th) and foreign ownership (59th) are weaker. But Internal Openness is much lower (93rd), with particularly low ranks for gender equality (90th) and tolerance to immigrants (92nd) as well as moderate ranks for social mobility (35th) and tolerance to minorities. The Retain pillar is constituted by a sustainability rank of 90th and a lifestyle rank of 82nd. On the output side, India's rank has a reasonable LV rank (33rd), although employable skills are very low at a rank of 99th. Labour productivity is also low at 77th. GK skills rank lower at 77th – innovation (39th) is stronger than entrepreneurship (70th). These ranks are consistent with prevailing insights on the drivers of India's uneven growth story. While India could address these issues from its strong business landscape, its low Grow pillar skills may hold it back and the regulatory landscape may continue to pose a hurdle.

Sub-Saharan Africa (10 countries)

Among the regional groups, Sub-Saharan Africa holds the bottom rank for the overall GTCI, and for the Retain, LV and GK pillars, as shown in Table 3. South Africa leads the pack, almost entering the top half of the GTCI (55th). The next countries are Botswana (64th) and Namibia (69th). Senegal (93rd) follows as the only country from the lower-middle income group. The remaining countries – Kenya (95th), Uganda (96th), Tanzania (97th), Ethiopia (99th), Mali (100th), and Burkina Faso (102nd) – are part of the low-income group and situated at the bottom of the ranking.

The top three countries in this Sub-Saharan Africa group share the same traits in terms of their performance in the GTCI pillars, with an extremely low rank in the Retain pillar, **South Africa** (101st), **Botswana** (96th), and **Namibia** (97th). Despite a slight variation on Sustainability (91st, 76th and 93rd, respectively), their rankings in the Lifestyle sub-pillar are close to one another (102nd, 101st, 98th). The indicators of major bottlenecks in their efforts to retain talent are property stolen (98th, 100th, 88th) and safety at night (97th, 101st, 99th) where they are in the bottom ten. The highlights lie in the three countries' performance in Enablers and talent Attraction. While they rank similarly on the Enablers pillar (37th, 32nd, 43rd), there are differences in the sub-pillars: Botswana leads in the Regulatory Landscape (33rd, ahead of South Africa's 41st and Namibia's 48th) and Business Landscape (21st, ahead of Namibia's 27th and South Africa's 35th), while South Africa leads in the Market Landscape (40th, ahead of Botswana's 65th and Namibia's 66th). In the Attract pillar, Namibia leads marginally (28th, ahead of South Africa's 31st and Botswana's 34th). The rankings suggest different relative strengths: while Namibia's position benefits from its positive rank in External Openness (22nd), South Africa's strength is its Internal Openness (24th), and Botswana's rank benefits from strong External Openness (34th) and Internal Openness (35th). Other differences can be spotted in South Africa's significantly higher scores in Grow (42nd), while Botswana exhibits more solid LV skills (40th), though lower performance in GK (87th).

ANNEX 3: A CLOSER LOOK AT THE GTCI PILLARS

Enablers

Recognising that governments, business and markets all have key roles to play in the design and implementation of a talent competitiveness strategy, this pillar lists variables pertaining to the importance of these three enabling landscapes.

Under *Regulatory Landscape*, the GTCI has the components government efficiency and FDI climate. Government efficiency has been seen as constituting government effectiveness and stability. The *Market Landscape* sub-pillar contains concepts such as competition climate, innovation climate, connectivity and ease of doing business. Further, innovation climate consists of three variables. Firstly, ideas have to be researched and created, then they need to be taken to industry, and finally they need to be financed. These three parts of the innovation climate are measured by three variables, namely venture capital availability, firm-level technology absorption, and expenditure on R&D as a percentage of GDP. At the basic level, infrastructure in providing ICT access is fundamental. Ease of doing business is also important to provide a conducive environment for business operation. *Business Landscape* lists labour market flexibility and ownership as components.

Attract

This pillar has the two sub-pillars: *External Openness and Internal Openness*.

Under *External Openness*, the index lists variables about the inflow of FDI, people (brain gain) and companies into a country. Together these cover new financial, demographic and organisational forms. *Internal Openness* refers to the ability of citizens to move within a country. It aims to measure diversity, social and gender mobility. Of these three concepts, diversity and gender mobility consist of two variables each. Diversity consists of tolerance to immigrants and tolerance to minorities, while gender mobility consists of female professionals and technicians as well as female parliamentarians. The rationale for including these two parameters under diversity is that while minorities need to be accepted, newcomers from outside a country's borders also need to be tolerated to fulfil the concept of diversity. The gender mobility concept captures the understanding that gender diversity is achieved if women participate in political and business leadership. This is being captured by the variables under these concepts.

Grow

The Grow pillar consists of three sub-pillars, namely *Formal Education, Lifelong Learning* and *Growth Opportunities*. Based on the understanding that growth is constituted through classroom education and more importantly through lifelong learning and real-life challenges and opportunities, this pillar aims to capture variables in three areas: formal education, lifelong learning and access to growth opportunities.

Formal education measures concepts such as education climate, performance of the education system, top universities, and international students. Within these, the education climate concept consists of three variables summing up aspects of a conducive climate: pupil-teacher ratio, technical/vocational enrolment and tertiary enrolment. Together these three provide a foundation of indicators listed under the output variables and allow analysts to countercheck aspects of the entire supply chain of talent – both of Labour and Vocational (LV) and Global Knowledge (GK) skills.

Lifelong Learning relies on the concept of further education and training, which consists of the variables for quality of management schools and extent of staff training. Together these variables capture again aspects of further learning for both LV and GK skills.

Concomitant to *Formal Education* and *Lifelong Learning*, budding talent requires *Access to Growth Opportunities*. These are provided by networks, research quality and voice. The networks concept is captured through the use of virtual networks and the state of cluster development. In that sense, the concept captures both the virtual and physical aspect of networking. Research quality is an important parameter to measure the rigour and thought processes of a country and is testimony to a country's intellectual capital. Further, to have a voice and use it regularly captures a country's ability to think and for leaders to listen to their populace, too.

Retain

This pillar contains two sub-pillars measuring concepts required to retain local and foreign human capital. Under *Sustainability*, the pension system and taxation concepts capture the extent to which a country manages its taxation scheme while also providing a pension system to its residents/citizens. *Lifestyle* measures quality of life and also services. For quality of life, the concept consists of the environmental performance, property stolen, and safety at night variables.

Labour and Vocational

Within this pillar, the *Employable Skills* and *Labour Productivity* sub-pillars capture the extent of labour and vocational talent. *Employable Skills* contains concepts such as the vocationally trained workforce, technical professions and youth employment. Meanwhile, *Labour Productivity* shares insight regarding the output of total labour input and the extent to which pay is related to productivity.

Global Knowledge

Mirroring the LV pillar, the GK pillar contains two sub-pillars: *Higher Skills and Competencies*, which measures the concepts of an educated workforce and knowledge workers, and *Talent Impact*, which measures innovation and entrepreneurship. The knowledge workers concept consists of the variables legislators, senior officials and managers, professionals, and researchers, as these four populations of an educated workforce capture all aspects of knowledge workers and are at the heart of this pillar. Similar to *Labour Productivity*, *Talent Impact* captures the extent to which this talent converts its competencies into tangible results in innovation and entrepreneurship.

Notes

[1] Regional groups have been based on the United Nations Classification: EUR = Europe; NAC = Northern America; LCN = Latin America and the Caribbean; CSA = Central and Southern Asia; SEAO = South East Asia and Oceania; NAWA = Northern Africa and Western Asia; and SSA = Sub-Saharan Africa

[2] Acemoglu and Robinson (2013)

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CHAPTER 2

BUSINESS ECOSYSTEMS: DEVELOPING EMPLOYABLE TALENT TO MEET ASIA'S NEEDS

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ASIA'S EMPLOYABILITY CHALLENGE

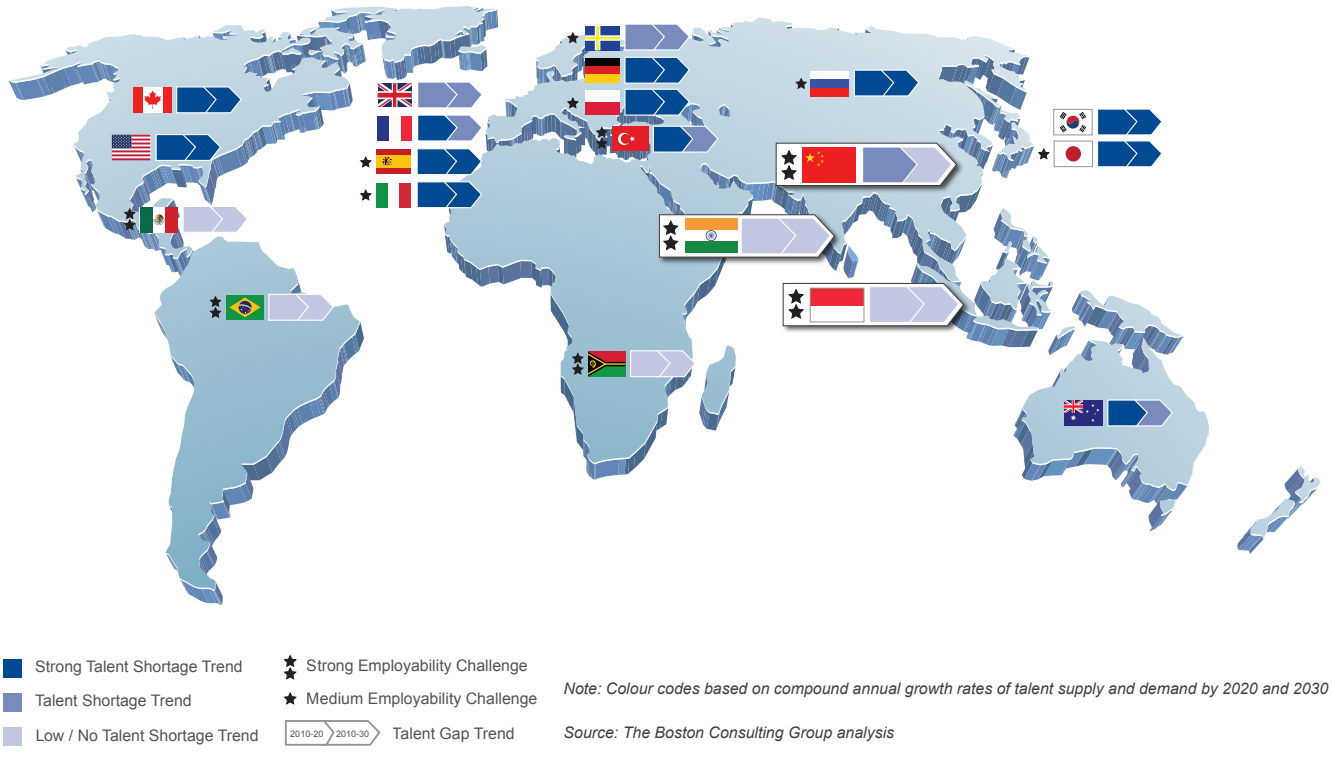
The World Economic Forum emphasised the world's talent risks in a 2011 study with The Boston Consulting Group. The study highlighted that – given relatively favourable birth rates and population sizes – *employee shortage* would be a smaller problem in Asian countries such as China, India, and Indonesia vis-à-vis the developed markets of the United States and Europe. However, Asia's rising economic powers would face a severe *employability* challenge due to the lower skill levels of their people (see Figure 1).

In a 2012 McKinsey survey, for instance, large employers in India stated that they currently had, on average, 36 vacant full-time entry-level jobs. This was more than the other eight countries surveyed across Europe, the Americas and Middle East. In the same survey, 53% of Indian employers said that the vacancies were due to a lack of skills.

What skills might employees in Asia lack? Manpower Group's 2012 Talent Shortage Survey, which involved close to 9,000 employers across the Asia Pacific, suggested that employers in this region had greater difficulties filling jobs (45% compared to the global average of 34%) due to a deficiency of both technical and soft skills. The former could comprise industry-specific qualifications or certifications, skilled trade qualifications, and speaking/verbal skills, and the latter interpersonal skills.

Employers are well aware that solutions are needed. In fact, many have taken it upon themselves to develop their employees. In the Economist Intelligence Unit's 2011 survey of over 400 senior executives on their talent outlook through to 2015, 60% of the respondents in Asia Pacific stated that, compared to two years ago, their companies were putting in more time and/or investment to bring new management talent, and/or specialised talent up to speed. This was a marked variance from the global average of 49%.

Figure 1: Significant talent gaps expected by 2020 and beyond
In countries with no talent shortage trend, employability is the challenge



Source: World Economic Forum - BCG 2011

Talent solutions – new models needed

Yet, it is not merely sufficient to develop talent. The trick is to do so with speed and scale – and in a cost-effective manner. Consider PwC's survey finding from 440 CEOs in Asia Pacific: talent constraints have prevented half the respondent companies in China from innovating effectively and 45% from pursuing market opportunities; in India, 41% had to cancel or delay a key strategic initiative. Thus, concerning talent development in Asia Pacific, there needs to be speed before more business opportunities are lost. Considering the difficulty that employers in Asia Pacific have in filling roles with the right quality of talent, any solution should also be scalable to produce huge numbers of business-ready employees. Finally, factoring in rising cost pressures across the region (including escalating manpower costs), talent development initiatives must be financially sustainable.

The Human Capital Leadership Institute (HCLI) proposes that the answer to the above lies in the "business ecosystem". The rest of this chapter goes on to:

1. Explain the concept of the business ecosystem from scholarly literature;
2. Suggest the transferability to the talent development domain; and
3. Elaborate on the keys to successful ecosystem partnerships through two case examples.

THE "BUSINESS ECOSYSTEM" CONCEPT

The concept of the business ecosystem was first raised by Moore (1993), and can be broadly defined as an interdependent economic community including cross-industrial players, governments, and universities that co-evolve with one other to create and deliver value.[1]

Traditionally, this creation and delivery of value has revolved around an innovation or new product. The structure of a typical business ecosystem involves a "keystone player" setting up an innovation platform, while other "niche players" with specialised capabilities then base their business activities around and operate on top of this platform by providing complementary offerings. Oft-cited examples include Microsoft's Windows Operating System and third-party software programmes, and Apple's iPhone and third-party mobile app developers.[2]

While the business ecosystem concept to date has been largely explored and studied in the innovation domain, HCLI suggests that the concept can likewise be instructive for companies as they design and implement speedy, scalable – and cost-effective – talent initiatives.

TRANSFERABILITY TO TALENT DEVELOPMENT

First and foremost, the key principle underlying the business ecosystem concept is that businesses should "look out". This means not just focusing on internal capabilities, but leveraging external partners to confront and co-solve challenges and seize opportunities.

As suggested by Iansiti and Levien (2004), organisations should determine the dependencies most critical to their business, and systemically identify the external organisations with which their future is most closely intertwined. For instance, Microsoft would qualify that its success depends on the health of thousands of other organisations in other domains, such as systems integrators, independent software vendors, internet service providers and consumer electronics companies.

Partners in the above-mentioned domains are certainly critical to delivery. However, has due consideration been similarly given to potential partners in the talent domain? Ultimately, talent is a critical dependency to business, and can undermine the future of business just as broken supply chain links could. As highlighted by the PwC survey mentioned earlier, talent constraints can limit innovation and the pursuit of market opportunities, and delay or cancel strategic initiatives.

Aside from supporting business delivery, ecosystem partnerships on the talent front can better diagnose the nature or magnitude of the talent challenge at hand, and then align different parties to deal with it. Sometimes, each party may hold differing perceptions of the problem due to lack of information, exposure or biases. For instance, in the same McKinsey survey mentioned earlier, fewer than half of youth and employers believe that new graduates are adequately prepared for entry-level positions. This differs widely from the 72% of education providers who believe new graduates are business-ready. McKinsey's survey findings go on to suggest that *only one kind* of employer will be successful in getting the talent it requires, and the distinguishing factor is that these employers reach out regularly to education providers and youth. All parties "actively step into one another's worlds" – early and intensely – instead of staying in their silos. For instance, employers would help to design the curriculum, while education providers would have their students go through hands-on training on job sites.

In some sense, the positive outcome achieved through such ecosystem interactions is not surprising. A lot of knowledge about work is tacit, not easily codified and widely dispersed. By intentionally seeking out partners, this forces together knowledge and resource combinations that would otherwise not form naturally,[3] and allow the seeking partners to reap above-average returns.

Thus, a forward-thinking company would leverage external partners in its business ecosystem to innovate on talent development solutions. And this is precisely what two companies – Infosys and Rolls-Royce – have done in Asia.

Two case examples

Let us first understand the context of Infosys. In the early 2000s, India's IT industry was growing exponentially and by the mid-2000s, it was quite normal for major industry players such as Infosys to have to recruit over 10,000 entry-level engineers every year. However, the industry faced a significant employability challenge: there were simply not enough engineering graduates who were business-ready and could apply theory to practical problem solving, among other competency gaps. In 2004, Infosys launched its Campus Connect programme with 70 colleges to enhance the quality of IT education in India, thus meeting the employability challenge head-on. In subsequent years, the company collaborated with other organisations such as the All India Council for Technical Education that promoted and regulated engineering education in the country, and the National Association of Software and Services Companies to push out policy-level changes into the higher education system. Eight years after its first rollout, Campus Connect has been scaled up to 400 colleges, touching more than 180,000 students and 8,300 faculty members across India. For Infosys, it was also able to multiply its recruitment from about 8,000 in 2006 to over 20,000 employable recruits in 2012.

Rolls-Royce's journey of talent development via the business ecosystem began with its announcement in 2007 that it would build an advanced manufacturing, training and research facility in Singapore. At full capacity, the facility would produce about 250 aero engines and over 6,000 fan blades a year. Such high-value manufacturing techniques required complex technology to be introduced for the first time into Asia. Unfortunately, the local labour market in Singapore lacked experienced aerospace technicians. Contrast this with Rolls-Royce's employment experience in the UK, where technicians on the shop floor can have 30 years of experience building engines. To overcome the employability challenge, Rolls-Royce collaborated with the Singapore Workforce Development Agency, National Trades Union Congress's Employment and Employability Institute, Singapore Airlines Engineering Company, Institute of Technical Education, and various polytechnics to develop training and qualifications programmes. This provided a steady stream of new recruits with the necessary skills for aerospace manufacturing. By its first year of operations in 2012, the new facility had filled over 500 new jobs.

But… just how different is a "business ecosystem" from other forms of external partnerships?

That a company should co-opt the complementary capabilities, resources and knowledge of other organisations in its network is not novel thinking.[4] In fact, it can be argued that the vertically integrated organisation came into being as business leaders recognised this merit. However, a business ecosystem model has advantages over permanent, integrated organisational structures as it can enable activities, assets and capabilities to be flexibly and constantly reconfigured. This flexibility aligns with the volatile, uncertain and fast-moving pace of Asia. Moreover, the ecosystem model can work for companies of different resource capacities. For instance, it does not require a company to build out its own corporate university, and in so doing, preclude those with little capital to invest.

Secondly, in a true ecosystem, the partnership is not one between a principal and subcontractors. It is not about a client company sourcing for an educational institute or even a consulting firm to run training or leadership development courses. Instead, there is no strict separation between conception and execution that disfavours collective innovation.[5] In fact, it is the potential for innovation, set against the contextual need for talent solutions of speed, scale and value, that lends further weight to the ecosystem argument.

Finally, an ecosystem model does not just comprise a single alliance, but a host of relationships among multiple players. Hence, the multiplier effect of complementary capabilities, resources and knowledge in creating the new talent development solution is many times more than a single industry-academic partnership. Rolls-Royce, for instance, did not just work with the education institutes to design curricula. As elaborated in the next section, it also worked with other parties such as the government and industry partners to amplify the impact.

KEYS TO DRIVING A SUCCESSFUL ECOSYSTEM

Ultimately, a business ecosystem is an extended organisational design that will only hold together when partners are in agreement about the development of a common project – in this case, talent development solutions of speed, scale and value. As pointed out by Koenig (2012), the critical question to ask is: how can partners come to an agreement with only their potential to influence to fall back on – in the absence of direct command and control relationships? Moreover, how can businesses avoid the risks of one party gaining at the expense of others, confusion during the collaboration process, and financially unsustainable arrangements to ultimately create truly innovative talent solutions?

The rest of this section adapts some of the principles proposed by Williamson and De Meyer (2012), illustrated through the case examples of Infosys and Rolls-Royce which were co-developed between them and the HCLI.

i) To avoid one-sided gains and promote agreement, create added value for all

For both Infosys and Rolls-Royce, it was clear that through their ecosystems, they would end up with a pool of business-ready graduates, and because of existing industry-academia relationships, a significant mindshare with these graduates who would be more prone to apply for jobs with them. Rolls-Royce, for instance, influenced 70% of the modules and curriculum at Singapore's Institute of Technical Education, facilitating new recruits to have in advance the knowledge for working at its new facility in Singapore. However, what were the benefits to its partners?

From the perspective of their academic and education partners, they benefited by producing more employable graduates and gaining an enhanced reputation in this respect. Moreover, the educational institutes partnering with Rolls-Royce benefited by receiving privileged industry-specific education material from an industry leader and training opportunities for their students; the faculty of colleges partnering Infosys received industry support on the research papers they were working on.

Uniquely in Rolls-Royce's case, the Singapore government achieved a milestone in establishing the country as an aerospace hub in Asia through leveraging the Rolls-Royce brand and the fact that its most advanced aero engines would be manufactured in Singapore. In more quantitative terms, Rolls-Royce together with its joint venture partners accounted for over 15% of Singapore's aerospace output and employed more than 2,200 people, of whom 85% were local.

ii) To untangle confusion in collaboration, structure differentiated partner roles and rewards

Having to work with multiple partners in the ecosystem can more often lead to confusion rather than clarity. It is thus important that each partner has clearly defined and differentiated roles.

Infosys made the concerted effort to structure this right from the start, both internally within its organisation and externally with its partners. Firstly, it set aside a core team of dedicated staff who managed the actual operations of the Campus Connect programme. This involved developing and managing the relationships with different ecosystem partners, and reviewing the programmes and performance of partners. Infosys expected each of its external college partners to form a core group comprising programme directors and faculty to work with the Infosys team to realise an implementation plan, underpinned by a Memorandum of Understanding.

Furthermore, Infosys created a system that differentiated its college partners. This was essential in managing an ecosystem of partnerships, compared to a one-to-one alliance. Each college partner would be categorised as "member" or "advanced". Member colleges were recent entrants to the ecosystem that had commenced joint programmes, while advanced colleges were those that had significantly integrated the Campus Connect programme into their curriculum and/or co-created effective industry electives. For the latter group, they were further rewarded by Infosys sponsoring sabbaticals for their faculty, and financial support on joint prototype development of new innovations and research. On the other hand, there are also "punishments" along with rewards: in the event of failed objectives per the Memorandum of Understanding or implementation plan, a college partner may be dropped from the ecosystem.

iii) To ensure long-term financial sustainability, reduce cost and seek partner investment

To be viable in the long term, the ecosystem model should not lead to skyrocketing maintenance costs. Particularly in the context of rising cost pressures in Asia, the ecosystem should not only create added value for all parties, but reduce direct and indirect costs.

For Rolls-Royce, having the new facility in Singapore was a decision of business sense: due to Singapore's geographic proximity to its fast-growing markets in Asia, there would be reduced customer transaction costs for providing services and transporting manufactured products to these markets. It was thus an extra sweetener that costs were further defrayed through tax incentives and training grants supported by the Singapore government.

Regarding the direct cost implications of Infosys' Campus Connect programme, it was estimated that it had reduced costs by 40% in the last few years. This was achieved through leveraging innovation, such as webinar technology. Infosys has also gotten its college partners to become more invested, such that about half of its current programmes are now implemented in the colleges (and not on Infosys premises). These partners have also taken the lead in organising their own faculty-developed programmes, instead of relying on Infosys to initiate and direct, as was the case when Campus Connect was first launched.

iv) To create truly innovative solutions for a volatile and complex world, emphasise flexible structures and co-learning

The above keys to success are important but, as mentioned earlier, it is the potential for truly innovative solutions that differentiates the business ecosystem model from other forms of alliances – in this case, to develop talent with speed and scale. In Asia, speed is necessary to keep pace with rapid development and demand, while scale is required to create a magnified impact. To achieve this, the final key to success is that the structure put in place be flexible and facilitate co-learning.

The structure of Infosys' Campus Connect programme, for instance, is not centralised, which would have hampered speed and scale considering the different regions in India, their education specifications, and the hundreds of partner colleges involved that would each require a certain degree of customisation. Rather, Campus Connect is built on a distributed model of ten development centres across India. Each college partner is attached to the nearest centre whose responsibility it is to ensure uniformity of the "Infosys experience".

For Rolls-Royce, it partnered with Singapore's Institute of Technical Education to design local modules and a curriculum to produce entry-level technicians. However, it magnified the impact by working with the Singapore Workforce Development Agency to develop Precision Engineering Workforce Skills Qualifications that were internationally recognised. Furthermore, to enable the ecosystem to co-learn and co-evolve, Rolls-Royce sought representation on several bodies that gathered industry intelligence and influenced policymaking, such as the Association of Aerospace Industries in Singapore and the Singapore Economic Development Board.

CONCLUSION

This chapter has shown that talent innovations for Asia are possible. The business ecosystem is an answer to developing talent quickly, with magnified impact and in a cost-effective manner. Businesses should thoroughly give it due consideration as they confront talent challenges and the war for talent. After all, as forewarned by Moore (1993), competition will no longer be between individual companies, but between the ecosystems that the companies spearhead or find themselves in.

Notes

[1] Rong, K., Y. Shi, and J. Yu (2013)

[2] Moore, J.F. (1993); Rong, K., Y. Shi, and J. Yu (2013); Zahra, S.A. and S. Nambisan (2012)

[3] Galunic, D.C. and S. Rodan (1998)

[4] Williamson, P.J. and A. De Meyer (2012)

[5] Koenig, G. (2012)

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CHAPTER 3

LIBERALISING THE GLOBAL MARKET FOR LABOUR: FROM PARALYSIS TO POLICY INNOVATION

Manjula Luthria and Pamela Dale
The World Bank

Policymakers around the globe have resisted taking on the issue of international labour mobility. Despite the plethora of migration-related and development-focused fora, the international community has not been able to come together to get consensus on actually liberalising international labour markets. But this may be about to change. Three reasons are likely to force us to grapple with this issue seriously: ageing populations which are creating demand for labour-intensive services; social security systems which need young labour to pay in to them; and the shift away from manufacturing in many rich countries, which has elevated the importance of innovation and created a global race for talent. These three factors mean that international labour mobility at all skill levels is likely to increase in the near future.

After having resisted such movements for so long, the international community at large will need to rush to create the policy and institutional foundations for such movements to be facilitated and coordinated so they are safe for the people who move and beneficial for the places they move to and from. This will mean making up for lost time. This chapter will provide a roadmap for doing so, looking first at the economic arguments for increased labour mobility, and then addressing the obstacles and opportunities for high-, mid-, and low-skill migration.

SETTING THE STAGE – WHY IS INTERNATIONAL LABOUR MOBILITY IMPORTANT?

Three key numbers

Three figures tell us why a rethink of international labour mobility is needed, and why it is needed now. They are: 232 million people, 39 trillion dollars, and 10 to 15 years.

Let's start with the 232 million people. That number, equivalent to 3.2% of the world's population, represents the number of migrants today.[1] They emigrate from countries across the income spectrum, with Mexico leading the way,

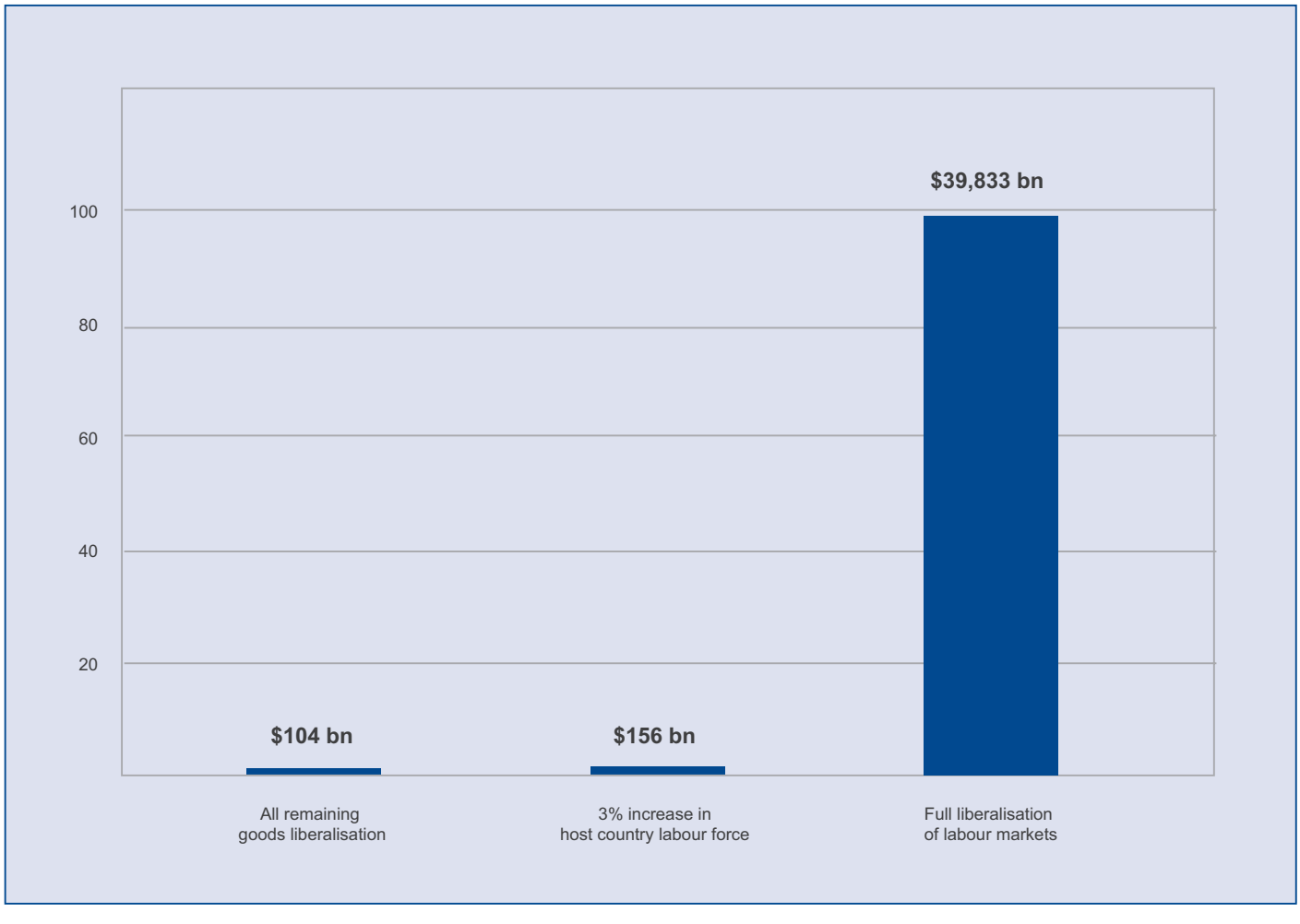
followed closely by India, the Russian Federation, and China.[2] Overwhelmingly, they migrate to the US, though proportional to their population, the Gulf Cooperation Council (GCC) countries of Qatar, the UAE and Kuwait host staggeringly large immigrant populations. Though migration occurs for a variety of reasons, the search for better economic opportunities is a key driver.

The potential economic impact of expanded income-earning opportunities for workers in low-wage countries is huge. In recent decades, the income gap across countries has largely risen,[3] contributing to substantial earnings gaps between people in low- and high-wage countries. Nearly all of the existing earnings gap between workers in poor and rich locations stems from spatial differences, not personal characteristics. Therefore, enabling those workers trapped in low-wage environments to move to areas where their work is more highly valued opens up huge potential for improvements in individual economic well-being and global economic growth.

How huge? Potentially as much as US$39 trillion. This number, higher than 2006 world GDP, reflects the potential gains from full liberalisation of international labour markets.[4] Though full liberalisation is highly infeasible, this figure dramatically illustrates the magnitude of the distortion between high- and low-wage countries. More practically, migration on a much smaller scale – an additional 16 million or so workers per year, or approximately a 3% increase in the combined host country labour force – surpasses the gains from eliminating all remaining barriers to trade and capital flows (see Figure 1). Yet, compared to the international machinery dedicated to liberalising trade and capital, our efforts towards liberalising labour have been scant – a point to which we return later.

These numbers show the incredible potential of more efficient, open international labour markets. But policymakers have been slow to recognise the potential of migration in aligning the interests of countries with growing, largely low-income, populations and the ageing middle- and upper-income countries that are in need of additional workers. The supply of skilled workers is inelastic in the short-run, and demographic change means the opportunity for labour market arbitrage is rapidly closing – there may be just 10 to 15 years left where the supply

Figure 1: Estimated gains from the liberalisation of labour mobility relative to trade



Source: Lant Pritchett, Let Their People Come: Breaking the Gridlock on Global Labour Mobility. Center for Global Development, 2006.

and demand for labour are so well-aligned. To capitalise on this opportunity, it is essential that sending and receiving countries, the private sector, and other stakeholders work together to open up new opportunities in international labour mobility.

Why we should expect to see more mobility

i) Labour market and fiscal impacts of ageing populations and shrinking workforces

In much of the developed world, years of declining fertility, coupled with advances in health and life expectancy, have led to ageing populations and concomitant declines in the workforce. The impact will be felt most acutely in the European Union, which will lose 66 million workers between 2005 and 2050.[5] Likewise, parts of Eastern Europe and the Commonwealth of Independent States will see populations decline by as much as 25% in the first quarter of the century, and if Turkey (with its growing working-age population) is excluded, the region as a whole will lose over 23 million people during this same period.[6] Japan's rate of population ageing is well-known; less known is that many other countries in the region face similar trends. The powerhouses of East Asian growth – such as China, the Republic of Korea and Singapore – and emerging economies such as Vietnam and Thailand will also see substantial ageing and declines in working-age population by 2020.[7]

In OECD countries in particular, ageing has the potential to shrink GDP growth rates and increase liabilities for spending on health care, social security and other entitlement programmes, at a time when the tax base is potentially shrinking.[8] The pay-as-you-go pension systems common to most industrialised countries rely on a large working population, whose tax contributions fund the pensions.[9] While many countries have anticipated and attempted to address the potential fiscal impact of pension liabilities for an ageing population through incentives for delayed retirement, higher contributions, or changes to pension benefit levels, these responses on their own have not been sufficient to fully mitigate the impact of a shrinking labour force.[10] In addition to pension outlays, governments can expect increased expenditures on healthcare, even though today's elderly population tends to be healthy longer. Across the OECD, some estimates put the potential increase of age-related spending as a whole as high as 6 to 7 percentage points of GDP by 2050.[11] The full impacts of ageing will be complex and idiosyncratic, influenced by each country's economic structure, worker productivity, labour force participation rates, and related factors. But in all countries facing ageing and declining workforces, there is a pressing need for policy options to maintain growth and competitiveness.

Some of the impacts of ageing can be mitigated by policies to increase labour force participation rates, especially for women and youth. Active labour market programmes geared towards the young unemployed can improve employment outcomes, if they are appropriately designed and funded.[12] Though women's labour force participation rates have risen in most industrialised countries in recent decades, ageing countries in lower-income Europe and East Asia in particular have substantial room for growth.[13] Policies to reform pension systems or encourage delays in retirement – or at a minimum, counteract the decline in retirement age that has taken place in much of the OECD – are also necessary.[14] However, changes in retirement age and labour force participation rates will be insufficient on their own to mitigate the impacts of ageing on labour force decline. Together with these policies, ageing countries will need to attract new workers from outside their borders.

Though ageing and declining workforces is the dominant story in many middle- and high-income countries, many countries in the Global South are experiencing a substantial, and oftentimes unexploited, demographic dividend. Between 2005 and 2050, there will be an estimated 570 million new workers aged 15 to 29.[15] Sub-Saharan Africa will produce the largest number of new workers (328 million), followed by India (68 million) and other South Asian countries (89 million), the Middle East and North Africa (44 million), Latin America and the Caribbean (29 million), and the East Asia and Pacific region (12 million).

The young populations of these countries are increasingly mobile, as they seek better earning opportunities outside of their countries of origin. With 36 million people living abroad, South Asians were the largest migrant group as of 2013.[16] Over one-third of South Asian migrants currently reside in the GCC countries. Demand for workers in the oil-producing states of the GCC and rapidly growing economies in Southeast Asia (including Singapore, Malaysia and Thailand) has been a strong pull factor for migration in the past decade. Since 2000, Asia and the Middle East and North Africa together have attracted 20 million migrants.[17]

In recent years, immigration has played an important role in stabilising working-age populations. In 2009, net immigration to the European Union was responsible for 63% of total population growth.[18] Approximately 40% of the US population growth in the early 2000s was due to immigration, dropping to 30% in recent years.[19] In Canada, immigration was responsible for two-thirds of 2012 population growth.[20]

However, the transition towards lower fertility and declines in working-age populations will hit most countries by 2030, decreasing the possibility of demographic arbitrage. With the exception of Sub-Saharan Africa, most regions will see declines in their supply of migrant labour by 2020. India, East Asia and the Pacific, and Latin America and the Caribbean will experience declining labour forces by 2030.[21] In Eastern European and former Soviet countries, expected shortages in the working-age population may still be offset by migration from younger countries within the region.[22] EU and ASEAN countries, however, will increasingly need to attract immigrants from outside of their regional networks to meet labour force needs.

ii) The importance of global talent and diversity for innovation

Though clearly important to combat the effects of population ageing and workforce decline, the added value of migration extends far beyond this. Immigration also leads to increases in trade between home and host countries and contributes to the cultural dynamism that continues to draw populations to regional talent centres, spurring innovation. To start with the impact of migration on trade, there is strong evidence of the positive impact of diasporas on portfolio investments and foreign direct investment.[23] Migrants play a key role in overcoming information asymmetries and leveraging business networks to reduce the search costs for trade partnerships.[24] Migrants also spur trade in new goods by consuming commodities from their home country and influencing the choice of commodities of friends and family in their home country.[25]

Migrants' impacts on innovation are even more pronounced. A report by the Partnership for a New American Economy in 2011 pointed out that a full 40% of companies listed in the 2010 Fortune 500 were founded by immigrants or their children. Looking just at companies founded within the past quarter century, the role of immigrants is even more pronounced. The economic impact of these companies is astounding – combined 2010 revenues of US$4.2 trillion and over 10 million employees, as well as seven of the ten most valuable brands in the world. Though particularly resonant in the data on immigrant-founded companies in the US, the innovation impact is not limited to this environment. Data from Germany also links diverse cultural backgrounds to enhanced performance of regional research and development sectors[26] and OECD research finds that immigrants are more likely than native-born populations to be self-employed.[27] Florida and Gates (2001) point to the relationship between diversity within cities and the size and growth of the technology sector, reinforcing the link between diversity and innovation.

Managing migrant flows today, and what needs to change

Because migration by its nature requires international cooperation, initial efforts to regulate movement were attempted within the framework of the World Trade Organization (WTO). Mode 4 of the General Agreement on Trade in Services (GATS) tried to liberalise service provision through the movement of labour for delivery of specific services. However, two central tenets of the multilateral framework make it unsuitable for labour movements. The first is the clause of national treatment, which requires that once a foreign good or service has entered the market it be treated no different from the national good or service – the scope of this tenet has been a challenge in the context of labour. The second tenet is the most favoured nation (MFN) status, which means that once preferential access is granted to some nations it must be extended to all nations. Again, for labour such unconditional access is not politically feasible, as labour migration is often balanced with domestic economic, social and security concerns. Hence the only hope for liberalising labour movements seems to come not from multilateral quarters, but instead from well-crafted bilateral arrangements. The effectiveness of such arrangements hinges on the commitment and cooperation of governments and key stakeholders to making them work in practice.

The next sections delve further into some of the challenges for workers at all skill levels, and provide guidance on moving the agenda forward.

GIVE US YOUR BEST AND BRIGHTEST – MEETING THE DEMAND FOR HIGH-SKILLED LABOUR

The demand for highly skilled labour

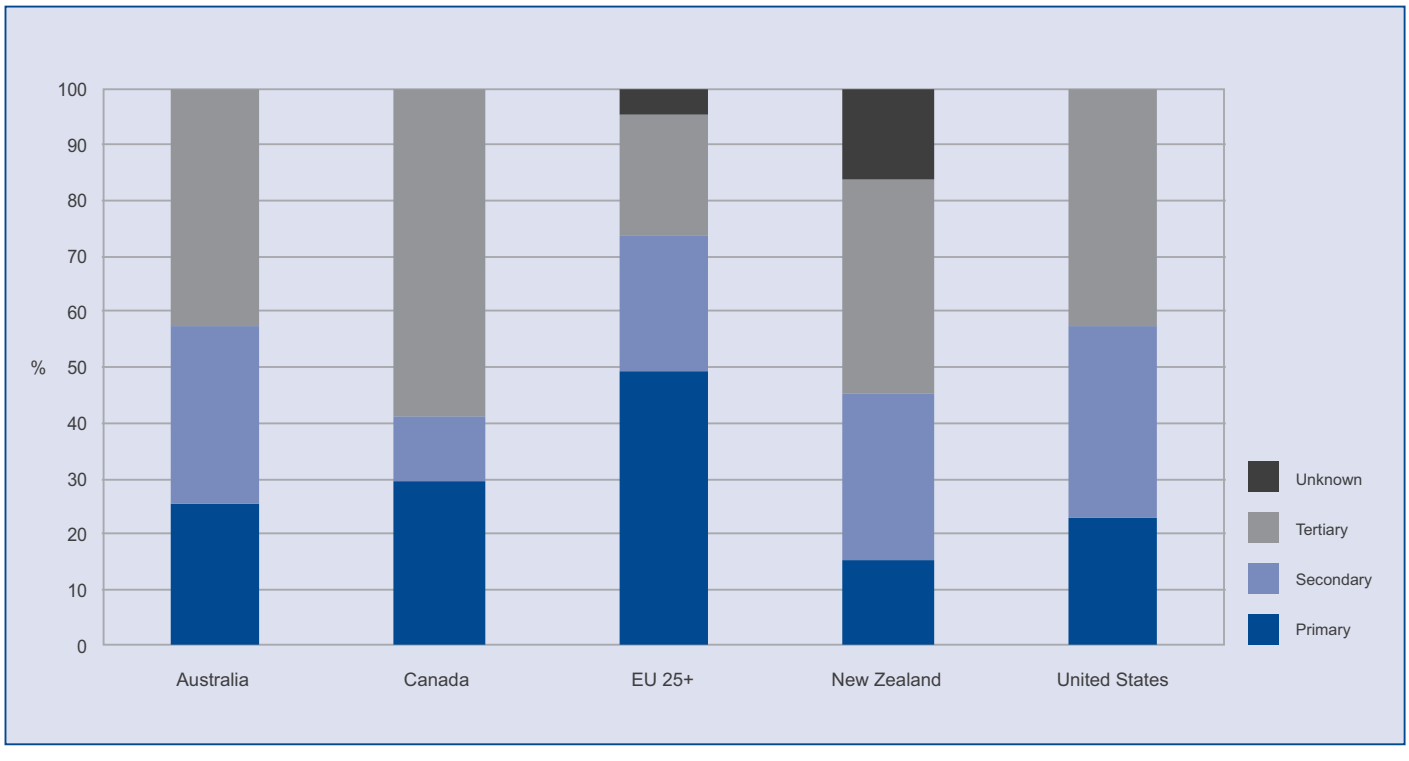
As the role of services, technology and innovation in employment has increased, the share of manufacturing in total employment in many high-income countries has declined. Over the past four decades, most OECD countries experienced declines in the number of manufacturing jobs and a rise in service sector employment.[28] The decline in manufacturing jobs was not limited to high-income countries; Brazil, China and Russia have all had decreased manufacturing employment, while employment in industry has largely failed to grow in India and Indonesia. Increasingly, employment and growth in the global economy is linked to innovation and high-skilled sectors,[29] though labour-intensive employment in sectors such as agriculture and construction is still a major characteristic of the Asian growth model.

Services, technology and innovation have increasingly driven the competition for highly skilled global talent. However, the pool of global talent has not expanded as quickly as demand, and the current pool of unemployed workers is often ill-equipped to fill vacancies in high-skill fields such as information and communications technology (ICT).[30] Skill requirements are expected to increase for most industries in the coming decades, accentuating the skill gap.[31] A recent survey of Eastern European enterprises identified the shortage of skilled labour as the second most common constraint to growth,[32] and a 2010 report by the European Commission predicted that 16 million new jobs requiring higher education would be created by 2020.[33] In the US, the share of jobs requiring post-secondary education will increase from 28% in 1973 to 63% in 2020, with 22 million new jobs requiring degrees created between 2010 and 2018 alone.[34] China, middle- and high-income East Asian countries, and Central Asia will also increasingly compete for high-skilled labour as the engine of their continued economic growth.

Winners and losers in the global race for talent

In the race for talent, some countries have fared well whereas others have faltered. In the traditional immigration countries of Australia, New Zealand and North America, 40% of migrants have tertiary education, while 16% to 30% have a primary education (see Figure 2).[35] Canada in particular attracts substantial numbers of highly educated migrants – nearly 60% have a tertiary-level education. In contrast, nearly half of the EU25+ migrant population originating from non-EU countries has only a primary education, with just 21% having tertiary

Figure 2: Highest educational attainment of migrant population in select destination regions, 2000



Source: World Bank 2009. Note: Rates for Australia exclude New Zealand (and vice versa), and the EU25+ excludes other EU.

qualification. The ASEAN member states and other East Asian countries traditionally attracted low- or mid-skill migrants to work in construction or farming activities, but there is a trend towards increased high-skill migration within Asia.[36]

The variations in competitiveness of countries in attracting tertiary-educated migrants can largely be explained by differences in their immigration policies and how proactive they are in attracting global talent. For countries which have so far failed to attract large numbers of highly skilled migrants, a change of mind-set is needed, to move from "managing migration" towards proactively competing in the global race for talent. Particularly among the EU countries, immigration policies are largely driven by humanitarian concerns and family reunification, rather than employment demand and skills shortages. This focus on non-economic migration can create a path dependency, where the comparatively low skill profile of non-economic migrants contributes to public misconceptions of the economic benefits of migration for migrants and the host country economy, undermining public support for labour migration.

Barriers for labour migrants can be substantial, and include policies tying migration status to a specific job or employer, limited opportunities for permanent residency or citizenship, restricted access to education and services for non-citizens, and limited portability of social security and health benefits. Non-policy barriers, such as attitudes towards immigrants, concerns about social cohesion, language, and skills recognition also limit the attractiveness of some EU countries to high-skilled migrants.[37] There are, of course, exceptions. The UK hosts the third-largest number of highly skilled immigrants seeking employment (after Ireland and Canada), due in part to a points-based migration system that favours educational attainment, no restrictions on migration from within the EU, and large numbers of international students.[38]

Australia, Canada and the US are favourable destinations for highly skilled migrants, and have put in place policies to attract and retain migrants to meet labour market needs.[39] In Canada and Australia, scoring systems prioritise immigration that matches labour shortages and favours migrants with tertiary education.[40] Canada also attracts highly skilled migrants with its clear pathways to citizenship, access to education for migrants' children, and generally favourable attitudes towards immigrants.[41] The US maintains a separate visa system for workers in high-demand "specialty occupations" and provides the opportunity to obtain citizenship to individuals with high achievements or abilities in their field.[42] East Asian countries, including Japan, Singapore, South Korea and Malaysia, have also recently introduced special immigration regimes to encourage skilled migration, particularly in the areas of healthcare and ICT.[43]

The number of high-skilled immigrants is also linked to tertiary education opportunities. In 2008, nearly 19% of tertiary students enrolled in foreign institutions attended university in the

US, followed by 10% in Great Britain, 7% in Germany, France and Australia, 5.5% in Canada, and 4% in Japan.[44] In advanced research programmes in the US, nearly one-third of students are international. Beyond their contributions to the density of talent in research and educational institutions during their studies, foreign students often develop professional and personal ties which encourage them to remain in their host country after graduation. A 2011 OECD report noted that approximately one-quarter of international students who did not renew their student visas changed their visa status in the host country for largely work-related reasons.

Capturing the benefits and mitigating the risks

In attracting high-skilled workers, countries must develop policies that allow them to capture the benefits from migration while minimising negative externalities. The benefits of high-skilled migration to individuals and the global economy are discussed earlier in this chapter. Beyond the direct economic contributions, however, labour migration can play an important role in influencing human capital formation in home countries.[45] This can occur as the attractiveness of certain fields grows due to the possibility of migration, or through "brain circulation" as migrants share their knowledge and skills.

However, sending and receiving countries have expressed concern about the possibility of "brain drain" as high-skilled workers seek opportunities abroad. Concerns largely focus on fiscal loss in low-income sending countries due to the public financing of education and skills that are then used in receiving countries, or – particularly in the case of healthcare – where poor health services could be exacerbated as skilled professionals seek opportunities elsewhere. The best countermeasure against brain drain is an effort to grow the overall pool of talent and skills in key sectors. Rather than focusing on restricting the movement of workers in fields such as healthcare, national governments, international organisations and the private sector would do better to support initiatives that can "expand the pie". This can be achieved by creating more skilled and qualified workers through better educational services, improved market signalling, training and vocational services with clear employment links, and related policies. Sending and receiving countries and the private sector should invest in skills partnerships to support human capital formation, both for those workers who will migrate and those who will stay. Further, countries can build productive partnerships with the diaspora and returnees to benefit from brain circulation, and better capture technological advances, innovation, education and investment for increased opportunities.

THE MISSING MIDDLE – MID-SKILLED MOVEMENTS

Demand for mid-skilled migrants

While shortages at the highest skill levels have captured the attention of policymakers, and movements of the low-skilled have frightened and paralysed policymakers, the discussion on mid-skill movements often gets missed altogether from policy fora. In fact, substantial deficits in mid-skill workers are expected to occur over the coming decades. By 2050, the EU alone will experience a decline of approximately 35 million mid-skill workers – those working in fields such as construction management and intermediate business services.[46] In a much shorter time frame – between 2010 and 2018 – the US economy will create or replace approximately 14 million jobs for workers who have either completed some college or obtained an associate's degree.[47] Filling these jobs is important in its own right, but even more so because high-skilled workers are attracted to areas where complementary services provided by mid- or low-skill workers are available and permit a higher quality of life.

Engaging the private sector to attract talent

In 2007, the Australian Agency for International Development (AusAID) launched the Australian-Pacific Technical College (APTC), a network of institutes located throughout the Pacific Islands that trains Pacific Islanders in a variety of vocational skills with the goal of facilitating students' employment in Australia. In an attempt to align itself with the demands of the private sector in Australia, APTC designs its course offering around the list of skills and occupations facing shortages in Australia (the Skills Occupation List, or SOL). After an investment of Aus$150 million, however, less than 2% of the programme's 4,000 graduates had left their country of origin, and 61% returned to the same job they had held prior to enrollment in the programme. The lack of active private sector engagement contributed heavily to this failure.

By contrast, the Filipino Technical Education and Skill Development Authority (TESDA) engaged employers prior to designing curricula or enrolling students. TESDA administrators solicited input from domestic and international industry experts, which ensured that the programme produced graduates with the skills necessary to succeed in their target field. Furthermore, the process of working with employers to develop skill standards fostered a sense of trust in the programme, which gave TESDA certificates added value in the labour market. As a result, employers from Germany to Saudi Arabia specifically recruit TESDA graduates and the programme has attracted more than 800,000 students since 1994.

Source: Beyond Skill Visibility: A New Framework for Migration and Development, 2013. NYU Wagner Capstone Report

Recognising the value of mid-skill labour

Mid-skilled migrants face some of the same constraints to labour mobility as those in higher skill categories, but their full labour market participation in host countries is further impeded by problems with skills visibility. Unlike in the case of high-skilled migration, university systems and labour markets for mid-skilled workers are often less integrated globally, making talent harder for companies to find, and harder for migrants to demonstrate. In some cases, migrants are not adequately equipped with the hard and soft skills valued by the private sector in host countries, or have qualifications that are not aligned with the host country standards. In other cases, migrants may have received adequate training, but suffer from insufficient links between training programmes and the private sector. This can limit both the ability of potential employers to identify and recruit workers, and of workers to market themselves and their skills adequately (see box on previous page). For both reasons, migrants are proportionately less likely than host country nationals to be employed in professions that correspond to their levels of education and training.[48]

Partnering for better and more visible skills

As demonstrated in the box on the previous page, extracting the most value from mid-skill workers requires an intensive engagement of government, training centres, migrants, and the private sector to identify, train, and recruit migrants. By working together from the outset, the private sector and education and training facilities can ensure that the skills acquired are appropriately matched to private sector needs, and are valued in host countries. Partnerships on skills development, recognition, and certification can reduce costs for receiving countries and employers by training workers in their home country. Such partnerships can also increase the employability of migrants and their economic outcomes, and improve worker integration upon arrival in the host country.

THE FORGOTTEN MASSES – OPENING DOORS FOR LOW-SKILLED LABOUR MOVEMENT

Why we need low-skill migration

The need for low-skill workers – those in professions such as tourism and hospitality, home healthcare, and agriculture – will continue to increase as workforces decline. Projections in the US predict that more than half of labour demand will occur in low-skill occupations.[49] Despite the slow recovery in construction, tourism and other low-skill dominated fields, demand for low-skilled jobs in Canada is also projected to continue to grow.[50] A 2008 mid-term projection for the EU25+ pointed towards a significant expansion in jobs in areas such as retail, distribution and other low-skill areas.[51] In France, four of the top five occupations with the strongest recruitment difficulties are in relatively low-skilled professions, including home help, cooks, nursing assistants, and home and cleaning personnel. Employers also indicate strong demand for agricultural workers, catering apprentices, and other low-skilled service occupations.[52] As emerging countries transition towards service-based economies, their demand for low-skill labour will also continue to grow.

The movement of relatively unskilled labour can help improve firm competitiveness, if such labour movements are well-managed and potential migrants are provided with the appropriate training and skills. However, even when the tools to recognise and value migrants' skills are in place, a proper management framework is necessary to facilitate the movement of labour. This is even truer when workers have skills that are more difficult to recognise.

Obstacles to low-skill migration

Lower-skilled migrants face substantial barriers to movement, and in the absence of effective means to regulate migration, are also more prone to irregular movements. Irregular migration exposes migrants to greater risk, as demonstrated by the October 2013 shipwreck off the coast of Lampedusa, Italy. It also limits the benefit to migrants and host countries from job stability, integration and taxes.[53] There are undeniable benefits from improving the movement of low-skill workers, but the current regulatory frameworks and systems governing labour market access are suboptimal for the movement of people. The supply-side infrastructure for labour movements, which is essential to target workers for recruitment, prepare them with adequate skills and training, and protect them through insurance and services throughout the migration process, is currently underdeveloped. Similar to programmes for mid-skill workers, inadequate involvement of the private sector in identifying skills gaps and recruiting workers can undermine the commercial viability of labour migration schemes, and lead to overstays and poor employment outcomes for workers. With effective stakeholder engagement, however, it is possible to design programmes that enable migration of lower-skilled workers and provide clear benefits to employers (see box on next page).

Mitigating risks in the migration process

Due to their more limited bargaining power, low-skill migrants are also exposed to greater risk and vulnerability during migration. Such risks can be minimised by better regulation and oversight of international recruitment services, and by engaging a wide range of stakeholders (including migrants' associations, employers, the diaspora, consular services, and migrants themselves) to provide support services to assist workers. Legal and institutional mechanisms that allow for greater flexibility in moving between sending and receiving countries without facing the loss of pensions and health insurance benefits will also be important for workers at all skill levels.

Low-skill migration under the Recognised Seasonal Employer's Scheme

For low-skill migrants in particular, cooperation between sending and receiving countries and the private sector can improve the identification, recruitment and training of workers and ensure the commercial viability of labour schemes. In New Zealand, the Recognized Seasonal Employer's Scheme (RSE) was introduced in 2006 as a combined effort of the governments of New Zealand (Department of Labour, Ministry of Social Development, International Aid and Development Agency) and five Pacific Islands (Kiribati, Samoa, Tonga, Tuvalu and Vanuatu). The programme gives an opportunity for workers in the Pacific to provide seasonal labour in New Zealand's horticulture and viticulture industries, while circumventing local labour shortages in New Zealand. The programme responds to a strong demand from the private sector in New Zealand, and employers are regularly consulted on the design and guidelines of the programme and changes to its structure. The government of New Zealand informs sending governments of the expected demand for seasonal workers annually, and sending countries select and screen workers to maintain a pool of qualified candidates.

The government of New Zealand closely monitors the implementation of the RSE, and has revised and improved the programme in response to monitoring and evaluation findings. The programme now includes substantial pre-departure training and a pooled savings and remittance transfer mechanism, as well as institutional capacity building components. As a result of the careful attention to programme design and close work with the private sector, the programme has had positive development impacts (including improved per capita income and economic welfare, increased remittances, and increases in children's school attendance), and has effectively addressed short-term labour shortages. The overwhelmingly positive impacts point to the RSE being among the most effective development policies evaluated to date, and a best practice model for other labour-receiving countries.[54]

Source: Adapted heavily from Chauffour 2013 (Box 3.8, pg. 136-137) and World Bank 2012.

THE WAY FORWARD

Liberalising international labour markets has tremendous potential to deliver efficiency and development gains to the people that move and the places they go to and come from. However, without improvements in migration policies, it is likely that only a very small number of workers will be able to take part in labour migration opportunities. The unmet demand for migrants in receiving countries has a range of potentially detrimental consequences, from unfilled jobs and underfunded pensions to unrealised potential for innovation and trade. The case for both sending and receiving countries to find workable solutions for mutual benefit is clear – so how can we move from policy paralysis to action?

Leveraging partnerships to increase labour mobility

The first step in moving towards better policy and action on labour mobility is recognising that this requires committed partnerships between government, international institutions, the private sector, policy think tanks and other stakeholders. As shown above, there is a substantial body of research pointing to the benefits of migration – be it high, medium, or low skill – to sending and receiving countries and to migrants themselves. Yet, this research has not been effectively fed into the public discourse on labour migration, and misinformation abounds. We need to find new and better ways to share information and knowledge with policymakers, thought leaders, and the public at large, and provide a more nuanced view on migration than has often been the case. Without such efforts, we risk a continued policy impasse as political economy concerns, bias, and misconceptions override evidence-based policymaking.

Second, we need to amplify the voice of the private sector in migration policymaking. Though firms are clearly best placed to determine their labour shortages and needs, they have too often been left out of discussions on labour migration policy. The resultant skill shortages may contribute to inefficiencies in labour allocations and suboptimal labour productivity. Furthermore, when legal ways of accessing overseas labour do not exist, it gives impetus to illegal flows, which end up increasing the human cost of migration. As firms are prevented from accessing labour, they are also increasingly incentivised to revisit their locational decisions in the first place. In a world where capital is more mobile than labour, owners of capital could choose to locate some businesses where the labour exists, resulting in lost tax revenues and job opportunities for countries with restrictive immigration policies.

We also need to help bridge the divide between sending and receiving country governments, providing space for dialogue and mutual gain from migrant flows. This is particularly the case for the movement of low-skilled workers, who are less likely to be effectively identified by the private sector in receiving countries. Facilitating the flow of low-skill labour requires that both sending and receiving countries are involved in identifying the skills gaps, finding appropriately skilled workers, providing training to upgrade skills where needed, ensuring that workers and employers are complying with labour regulations in the host country, and facilitating return at the closure of a migrant's contract. Without cooperation between sending and receiving countries, bilateral labour agreements will continue to underperform and workers will continue to pursue other, more dangerous, and less beneficial extra-legal means of migration.

The fourth step involves overcoming the disconnect between the global labour market and the skills offered at educational institutions. For mid-skill workers, this entails improving the visibility of skills and certifications gained at home-country education and training institutions, and the link between such institutions in receiving countries and private sector recruiters. Partnerships between the private sector and education and training centres would also ensure that the skills imparted in training centres are well-matched to the labour market. For higher-skill individuals, particularly in fields such as healthcare, engineering and IT, global partnerships could encourage the private and public sectors to invest together in overcoming skills scarcity in both sending and receiving countries.

We also need to look further than the experience of national governments, to capture the voices and actions of city governments around labour migration. Because of the recognised benefits of migration and cultural diversity for innovation, trade, and attraction of a high-skilled workforce, cities are often experimenting and innovating with programmes to welcome and integrate migrants, even as national governments hesitate to liberalise labour migration policies. Many local governments and community organisations have taken the lead on finding innovative ways to facilitate social cohesion through integration policies. Local governments have valuable experiences that should be recognised and, if possible, replicated at the national level.

Given the size of the challenges, multiple actors will need to engage to reduce these disconnects. Public and private actors, non-governmental organisations, the research community, media, and the main international development agencies will need to use their analytical and convening power to create these international public goods that are currently missing or lagging. International labour markets are the last bastion of protection, with detrimental impacts on people, places and economies. The gains from fixing failures in international labour markets are too big to be ignored or foregone, and with strong and proactive leadership to foster cooperation, overcoming barriers to effective labour migration is achievable.

Notes

[1] UN (2013)

[2] World Bank (2011)

[3] Pritchett (2006)

[4] Pritchett (2006)

[5] World Bank (2009)

[6] World Bank (2007)

[7] Bank staff estimates using UN 2010 data.

[8] Bloom et al. (2011)

[9] Chand and Jaeger (2000)

[10] OECD (2005)

[11] OECD (2001)

[12] See for example Betcherman et al. (2004) and Kluve (2006)

[13] Jaumotte (2003)

[14] Gill and Raiser (2012)

[15] World Bank (2009)

[16] UN (2013)

[17] UN (2013)

[18] Gill and Raiser (2012)

[19] Mather (2012)

[20] Gignac (2013)

[21] World Bank (2007)

[22] World Bank (2007)

[23] Leblang (2011)

[24] Sangita (2013)

[25] Sangita (2013)

[26] Niebuhr (2006)

[27] OECD (2010)

[28] OECD (2007)

[29] Gill and Raiser (2012)

[30] Hüsing et al. (2013)

[31] World Economic Forum and BCG (2013)

[32] Gill and Raiser (2012)

[33] European Commission (2010)

[34] Carnevale et al. (2010)

[35] Gill and Raiser (2012)

[36] Castles and Miller (2009)

[37] World Bank (2009)

[38] Gill and Raiser (2012)

[39] Kapur and McHale (2005)

[40] Gill and Raiser (2012)

[41] Gill and Raiser (2012)

[42] Pritchett (2006)

[43] Castles and Miller (2009)

[44] Gill and Raiser (2012)

[45] Kapur and McHale (2005)

[46] World Bank (2009)

[47] Carnevale et al. (2010)

[48] World Bank (2009)

[49] Pritchett (2006)

[50] Government of Canada (2011)

[51] Cedefop (2008)

[52] World Bank (2012)

[53] World Bank (2009)

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CHAPTER 4

COMPETING FOR TALENT IN A GLOBAL KNOWLEDGE ECONOMY: WHY E-LEADERSHIP MATTERS

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According to The Conference Board CEO Challenge survey,[1] human capital is the top concern of CEOs around the globe. More than ever, CEOs are focusing on what they can do within their organisations to improve business, and they are particularly concerned with retaining and growing top talent to keep up with competitors. Furthermore, to meet the human capital challenge, several strategies selected by CEOs focus on current and future leadership to build and develop their workforce.

Global leadership development is especially important to do well today – and will be more so tomorrow. The rapidly evolving global and strategic structure of organisations has made leadership development a critical component of success. It is increasingly clear that great leadership drives an engaged workforce and high levels of business performance, and companies with strong leadership practices financially outperform those that do not have these characteristics. However, high levels of engagement require investment and commitment. In today's knowledge economies, characterised by a shift to "everything online", and "everything mobile", it is crucial for a technology component to be added to leadership development at all levels of management, so that managers are able to identify technologies that will increase their company's performance, and allow them to remain competitive and innovative.[2] Such e-leadership skills are now becoming a vital component of the global competition for talent.

This chapter is organised as follows: Section 1 frames the talent and human capital challenge in a global and regional context and lays out some of the strategies reported in practice to meet the talent and leadership challenge. Section 2 delves into the specific need for e-leadership skills and Section 3 sets out conclusions.

TOP CHALLENGES FOR CEOS GLOBALLY

The Conference Board CEO Challenge annual survey (now in its 14th year) asks CEOs to identify their most critical challenges for the coming year and compares results on a global and regional scale. More than in previous years, the 2013 survey reveals that CEOs globally are focused on the people within their organisations, naming human capital as their top challenge. Other leading priority areas for CEOs are operational excellence, innovation, customer relationships, and global political/economic risk. CEOs this year are less concerned with external factors, such as risk and regulation, than in the past, perhaps due to the slow-growth environment that is causing leaders to focus on more immediate needs that can be controlled.

Regional results

There is a great deal of regional agreement on top challenges, reinforcing the notion that successful approaches can be applied across regions and that regional economic conditions and ideas can affect business strategies on a global scale. In fact, human capital, operational excellence, innovation, and customer relationships make the top five lists in all three surveyed regions – Europe, Asia and the US (see Table 1).

In keeping with the global results, CEOs in Europe are focused on what they can do internally to improve business, with a special focus on talent. Human capital rose from seventh in 2012 to the top challenge for European CEOs in 2013. This dramatic increase could be due to the current economic environment; with investment capital being difficult to obtain, CEOs are turning towards increasing the capabilities of their current employees. Following the human capital challenge are operational excellence, innovation, global political/economic risk, and customer relationships. CEOs in Europe are focused internally on strong leadership, good management and excellent execution.

In Table 1, CEOs in Europe and Asia are in agreement as to top challenges, with the same challenges making the top five for both regions. In Asia, human capital was followed by innovation, operational excellence, global political/economic risk, and, tied for fifth, customer relationships and global expansion. Asia is the only region to rank both human capital and innovation in its top three, indicating the region's desire to maintain its growth trajectory. Asia includes China, India, and Australia. In China,[3] innovation is ranked first, a possible indication that CEOs in China are interested in changing their role in the global economy from making products to creating them. It is also interesting to note that while CEOs across the regions agree that *raising employee engagement and productivity* is the top strategy for meeting the operational excellence challenge, CEOs in Asia rank *invest more in new technologies* second, another indication that CEOs in this region are attempting to connect innovation with human capital to achieve growth.

In the US, the top five challenges are similar, but human capital is ranked relatively lower, and government regulation, which is not a top five challenge in any other region, is ranked second. Perhaps the emphasis on government regulation in this region, where CEOs are faced with increased regulations (e.g., in health care) and the polarisation in Congress over taxes, spending, and other regulations, is taking precedence over other, still pressing, challenges. The relatively lower ranking of human capital in the US may also suggest that CEOs in this region feel relatively more confident than their peers in workforce processes. It may also reflect a "buyer's market" for talent following the recent crisis.

Table 1: CEO challenges by region

	Global N=729	United States N=138	Europe N=136	Asia N=395	Rest of World N=60
1	Human Capital	Operational Excellence	Human Capital	Human Capital	Operational Excellence
2	Operational Excellence	Government Regulation	Operational Excellence	Innovation	Human Capital
3	Innovation	Customer Relationships	Innovation (T3)	Operational Excellence	Global Political / Economic Risk
4	Customer Relationships	Innovation	Global Political / Economic Risk (T3)	Global Political / Economic Risk	Customer Relationships
5	Global Political / Economic Risk	Human Capital	Customer Relationships	Global Expansion (T5)[4]	Government Regulation

Note: N=Number of overall responses. The response rate varies for each challenge. Each score represents the mean of the ranks given to the challenge. T=Tie.
Source: The Conference Board (2013a).

Strategies for addressing top challenges

The results show that, based on global averages, CEOs are internalising their efforts: the top four challenges globally relate to what they can do within their organisations to increase their business (see Table 2). Specifically, all four of the top challenges relate in some way to the people in an organisation. The human capital challenge speaks directly to employee needs, but operational excellence, innovation, and customer relationships all have a human element as well. Businesses cannot be successful in these areas without talented and hardworking employees.

Not only are CEOs focused on talent, but they are specifically interested in retaining and growing high-potential individuals who are already part of the organisation. All of the top five global strategies for meeting the human capital challenge focus on developing and retaining current talent as the best approach in this tight global talent market. These strategies are: *grow talent internally, provide employee training and development, raise employee engagement, improve performance management,* and *retain critical talent*. They represent a movement from the narrower high-potential focus of current management, found in previous surveys, to a broader capacity-building approach across employees.

In fact, the results reveal a trend towards greater understanding of the role of employee engagement as a human capital challenge; *raise employee engagement,* ranked third globally, rose from eighth last year. Regionally, it rose from fifteenth to eighth in Europe, and from ninth to third in Asia. In the US, however, it has remained highly ranked at fourth for the past two years. Continuing this trend of the importance of engaging people to improve business, the second-ranked strategy for meeting the operational excellence challenge is to *raise employee engagement and productivity*. For the innovation challenge, *find, engage, and incentivise key talent for innovation* is the second-ranked strategy. Finally, a top strategy for improving customer relationships is to *engage personally with key customers/clients*. Today's CEOs may be more clearly realising the importance of the personal aspect of business.

Furthermore, an organisation's leadership has been found to drive workplace culture and has emerged as an important component for raising engagement and meeting the human capital challenge. While many strategies have a leadership

Table 2: Strategies for managing human capital by importance

Global	Importance-adjusted strategies for managing human capital	Asia N=321	Europe N=85	United States N=95
1	Grow talent internally	1	1	1
2	Provide employee training and development	2	3	2
3	Raise employee engagement	3	T8	4
4	Improve performance management processes and accountability	7	T8	3
5	Increase efforts to retain critical talent	4	T5	9
6	Enhance effectiveness of the senior management team	8	11	8
7	Improve corporate brand and employee value propositions to attract talent	6	4	15
8	Hire more talent in the open market	9	7	6
9	Improve effectiveness of front-line supervisors and managers	5	16	10
10	Improve leadership development programmes	12	T12	7
11	Invest in education systems to improve workforce readiness	11	2	12
12	Improve succession planning for current and future needs	13	10	5
13	Redesign financial rewards and incentives	10	T12	13
14	Increase diversity and cross-cultural competencies	14	T5	T17
15	Promote and reward entrepreneurship and risk taking	15	15	11

Note: N=Number of overall responses. The response rate varies for each challenge. Each score represents the mean of the ranks given to the challenge. T=Tie.
Source: The Conference Board (2013a).

Table 3: Key skills in areas of organisational importance

Global	#1 Human Capital	#2 Operational Excellence	#3 Innovation	#4 Customer Relationships	#5 Global Political/ Economic Risk
1	Grow talent internally	Raise employee engagement and productivity	Apply new technologies (product, process, information, etc.)	Enhance quality of products/services	Integrate long-term risk recognition into strategic planning
2	Provide employee training and development	Focus on reduction of baseline costs	Find, engage, and incentivise key talent for innovation (T2)	Sharpen understanding of customer/ client needs	Reduce exposure to risky countries/regions
3	Raise employee engagement	Break down internal silos	Engage in strategic alliances with customers, suppliers, and/or other business partners (T2)	Engage personally with key customers/ clients	Implement contingency plans for crises (e.g., geographical, political, relocation of employees)
4	Improve performance management processes and accountability	Continual improvement (six sigma, total quality, etc.)	Create culture of innovation by promoting and rewarding entrepreneurship and risk taking	Increase speed of products and services to market	Manage currency risk
5	Increase efforts to retain critical talent	Seek better alignment between strategy, objectives and organisational capabilities	Develop innovation skills for all employees	Use competitive intelligence to better understand customer/client needs	Establish crisis management teams and procedures

Note: T=Tie.
Source: The Conference Board (2013a).

element, three ranked in the top ten relate specifically to leadership: *enhance effectiveness of the senior management team* (ranked 6th), *improve effectiveness of front-line supervisors and managers* (9th), and *improve leadership development programmes* (10th). The focus on senior leadership as the most highly ranked leadership strategy might point to the realisation that senior leaders need support to deal with complexity/ ambiguity and to globalise their business. In Asia, where there is a critical leadership shortage, CEOs are under significant pressure to accelerate leadership development. CEOs in this region rank *improve effectiveness of front-line supervisors and managers* as a top-five strategy, higher than any other region.

Need for e-leadership skills

Today's leaders must be master strategists, change managers, relationship/network builders, and talent developers to successfully utilise the strategies listed in Table 3 and meet their human capital needs. This is particularly important when it comes to innovation. In a global knowledge economy, innovative firms require leaders with specific leadership skills, such as anticipating the future, fostering creativity, having a collaborative mind-set, networking, communicating a strategic vision, and responding to emerging (global) trends.[5] To do so, it is important that they understand the evolving needs of internal and external stakeholders and stay at the forefront of innovation and technological developments. In fact, according to the CEO Challenge results, innovation in products and processes is no longer just an item on CEOs' wish lists, but rather is a "must-have" to remain relevant today. In addition, research has shown that innovators can succeed even in slow-growth periods and recessions.[6]

In order to remain innovative, CEOs globally believe that it is extremely important to *apply new technologies*. They also realise that innovation cannot occur without strong human capital: in Europe, the top two strategies to meet the innovation challenge are to *create a culture of innovation by promoting and rewarding entrepreneurship and risk taking, and to develop innovation skills for all employees.* CEOs understand the importance of diversity in leadership and talent, as well as the utilisation of new technologies, to foster innovation.

The importance of the combination of human capital and technology to innovation is also stressed by van Welsum and Lanvin (2012). They argue that it is important for leaders to possess a degree of technological awareness that allows them to identify new technologies that will transform and shape their business model. This awareness will also allow them to do new things, or do things differently, and to develop new products and services, ways of delivering them, and ways to communicate with their suppliers, customers and employees. Such skills are vital to ensuring future competitiveness and innovation and will become increasingly important as more countries progress to become fully enabled knowledge economies,[7] and as "the cloud" and big data continue to gain importance. These trends combine with the continued spread of knowledge and information on the internet, and the increasing diffusion of high-speed and mobile connections on ever more powerful devices.

Managing in an increasingly competitive and global business environment presents challenges for business leaders across the globe. As they seek to leverage talent to create value they face increasing demand and competition for that talent and must also deal with the growing importance of technology in emerging economies transitioning to knowledge economies. Many countries are putting their hopes for continued innovation and a new impetus for growth on investments in information and communication technology (ICT). However, the impact of ICT depend on how it is used, which is in turn driven by factors such as skills, and whether or not the business environment enables people and businesses to take advantage of the opportunities offered by ICT.[8] This is increasingly important in today's knowledge economies, in which "the creation, acquisition, dissemination, and utilisation of knowledge"[9] are key to economic performance.

In a fully enabled knowledge economy, different factors need to come together and mutually support each other to be able to maximise the opportunities for innovation, growth and competitiveness. These factors include, in particular, the physical ICT infrastructure, the soft infrastructure (the skills needed to exploit the physical infrastructure), the business environment (factors such as the cost and ease of starting a business, and product and labour market regulations), and the innovation environment (e.g., university and firm collaboration, ability to bring new ideas to market, treatment of R&D, IP protection).[10]

The ability to exploit the benefits from a "physical ICT infrastructure" is likely to become ever more important in a cloud computing environment,[11] increasingly levelling the playing field in terms of access to computing resources no matter how big or small the user need is (e.g., for hardware, software, storage, and support). Combined with almost unlimited and ubiquitous access to all kinds of information and knowledge on the internet, what will make a difference for companies and countries alike is the ability to exploit the benefits these resources offer. Having the skills to use all this information and turn it into business opportunities will create competitive advantages for those relatively better at doing so. This requires e-leadership skills. As "big data" will increasingly influence the way businesses are run, these skills are likely to become ever more important.

Indeed, more and more data will be created as we move from an "internet of people", to an "internet of things", and possibly to an "internet of everything",[12] with machines, devices and people communicating with each other constantly. Increased use of mobile broadband will also continue to add tremendous amounts of data as the use of mobile devices creates information about people's behaviours, preferences, locations and interactions. Being able not only to analyse this information but also to create new business opportunities out of it will be crucial for the competitiveness of firms and countries going forward. It will require technical skills to process, analyse and visualise big data, but it will also require business and management skills. Many companies will also have to go through a profound digital transformation, and the skills required for imagining and implementing such a transformation are currently few and far between. This accentuates the crucial need for e-leadership talent and it will be critical for a technology component to be added to leadership development at all levels of management. Much more remains to be done on this front.

What are e-leaders?[13]

E-leaders combine business and management skills with a degree of technological awareness to create new opportunities for the business – not only to do new things, but also to do existing things differently. Therefore, e-leadership skills can be found at all levels in any organisation.

For CEOs, entrepreneurs and visionaries, e-leadership skills are those that will allow start-ups and companies to create new innovations and bring them to market, and to translate technological advances into business successes, growth and job creation.

E-leadership skills allow the managers of IT departments to act as the interface between the practitioners (engineers, programmers, architects, analysts) and the rest of the organisation (company boards, other business units), enhancing in particular the capacity of business strategies and IT strategies to be fully aligned around competitiveness and innovation objectives. A major challenge is to transform the way IT departments are traditionally viewed – transforming them from performing mostly a cost-cutting function to the business, to becoming an integral part of the business strategy and development.

Throughout firms and organisations it is also important to involve users in any deployment of innovative technologies and to enhance the e-leadership skills of "advanced users" – especially among SMEs and companies from non-ICT sectors. Putting the technology into the hands of willing users will be key to increased (bottom-up user-generated) innovation, accelerated technology adoption and integration, and thereby also the realisation of additional productivity gains.

What are e-leadership skills?

E-leadership combines three essential components: (1) business skills, (2) technical skills, and (3) an entrepreneurial mind-set. These components cover a range of skills, attributes and attitudes that includes:

- Business and management skills
- Technological knowledge and awareness
- The ability to conceive and communicate a vision
- Strategic thinking
- Risk taking
- Identifying opportunities
- Embracing and managing change
- Cultural diversity awareness
- Creativity
- Collaboration
- Networking
- Knowledge exchange
- Flexibility
- Managing knowledge flows
- Managing and using big data – or identifying the right people who can analyse it to the advantage of the business.

Some of these skills and attributes will come naturally to certain people and others can be taught through formal and informal types of education and training. However, formal education and training programmes that offer combinations of business and technical skills in an e-leadership sense do not yet widely exist.[14]

When it comes to combining business/management skills and IT skills, three well-known problems remain:

1. There is a mismatch between the skills that are needed in practice and those supplied by the educational system.
2. Many top vacancies remain difficult to fill: baby boomers are retiring and many of the people currently available do not have the right skills.
3. Fewer young people are taking ICT-related courses and degrees, creating a potential lack in the talent pipeline, with more acute gaps and mismatches in the future.

There is some evidence that organisations are starting to put in place measures to deal with these problems. For example, Kaplan et al. (2012) find that to retain and train talent already in-house, technology organisations are increasingly encouraging a combination of technological expertise and operational and project competencies. For example, they are actively rotating high-performers across technology domains and into business and operational functions, providing training that helps technical staff understand the business better, and allowing high-performing staff to engage with external communities. External skill sourcing strategies are found to include sourcing whole teams, and maintaining a portfolio of locations – including in city centres or near universities to attract cutting-edge technology talents.

The advent of Massive Open Online Courses (MOOCS), including those offered by some of the world's leading academic institutions, could help address some of these issues. They offer focused courses addressing specific skills needs, in some cases in collaboration with businesses.

CONCLUSION

The Conference Board CEO Challenge survey reveals that CEOs globally are most concerned with the human capital challenge of attracting, engaging and retaining employees. Many of their other challenges also require strong talent: an organisation cannot be innovative or achieve operational excellence, for example, without it. Especially in today's rapidly evolving globalised knowledge economies, an organisation"s leaders need to develop the skills to retain and grow top talent and must innovate to remain relevant. The use of technology to achieve these results is a must.

As more and more countries worldwide develop and transform themselves into knowledge economies, and as technologies, platforms and devices continue to evolve and diffuse at unprecedented speeds, having the skills to exploit them becomes ever more important to ensuring continued innovation, competitiveness and growth. In many cases, investments in the physical infrastructure are not matched by efforts to develop the right skills needed to optimise its use. In addition to having an enabling regulatory framework, skills will be the crucial game-changer.

A key emerging skills need is for e-leadership skills. These are needed on both the business and technology side of firms and organisations: (i) business leaders and managers with an understanding of – and vision for – what technologies can do for the business, and (ii) business-oriented and demand-oriented technology specialists, who are crucial for innovation, the renewal and digital transformation of any business, and for the creation of new, innovative and high-growth start-ups.

There is an urgent need for educational and training institutions to act now to ensure these skills are being developed. Curricula need to reflect the dual nature of the skills that are needed in practice: the teaching of soft skills needs to be combined with the development of a technological awareness. Technical skills also need to be matched with soft skills to be able to apply and communicate the acquired technological skills and insights to managers and people with less-technical backgrounds to raise awareness of the transformative potential and new business opportunities. In the coming years, and as the international mobility of such skills is likely to increase, the data and analyses described here suggest that e-leadership skills are likely to become one of the most active areas of global competition for talent.

Notes

[1] Mitchell, C., R. Ray, and B. van Ark (2013)

[2] In fact, van Welsum and Lanvin (2012) argue that there is an increasing need for e-leadership and "dual-thinkers": people who have the skills to identify and develop new business opportunities, and the technological savvy to identify the technologies and applications that will allow them to do so. These so called 'e-leaders' will need to combine an entrepreneurial mindset with business skills and technical skills.

[3] China is not listed in the table but based on a sample of (n=54) shows rankings of : 1. Innovation; 2. Human Capital; 3. Sustainability; 4. Global political/economic risk; 5. Operational execellence

[4] Tying with Global Expansion and not listed in this table, Asian leaders see Customer Relationships as a challenge

[5] Abel, A. and R. Ray (2013)

[6] Mitchell, C. (2010)

[7] As illustrated, for example, by the Knowledge Economy Index (http://info.worldbank.org/etools/kam2/KAM_page5.asp), the Global Innovation Index (http://www.globalinnovationindex.org/content.aspx?page=GII-Home), and the Networked Readiness Index (http://www3.weforum.org/docs/GITR/2013/GITR_OverallRankings_2013.pdf).

[8] The Conference Board (2013b, 2013c)

[9] Kumar, K. and D. van Welsum (2013)

[10] Similarly, see for example, the World Bank's Knowledge Assessment Methodology (KAM) framework, which identifies four pillars to innovation processes (Chen, D.H.C. and C.J. Dahlman, 2005): Economic incentive and institutional regime (policies and institutions for the protection of intellectual property, the rule of law, the ease of starting a business, etc.), education (human capital), innovation (universities, firms, and research institutes), and ICT (physical capital).

[11] One useful definition of cloud computing (sometimes abbreviated as "the cloud") is as follows: "The provision of computing infrastructure, platform or application service as a utility, which can be consumed by any internet-connected device, using open standard protocols where variability in demand is satisfied through the dynamic and automatic provisioning of pooled hardware, network, and software service resources providing the illusion of infinite scalability and are generally billed for on a pay-as-you-go basis." Thus, there are essentially three layers of cloud computing: infrastructure as a service (IaaS), which is a computing resource management model; platform as a service (PaaS), which is a software development model; and software as a service (SaaS), which is an application delivery model. Source: http://www.adamalthus.com.

[12] For example, Cisco's John Chambers refers to the Internet of Everything as 'the intelligent connection of people, processes, data, and things' (Bilbao-Osorio, B., S. Dutta, and B. Lanvin eds., 2013).

[13] This sub-section and the following one draw on van Welsum and Lanvin (2012, pp. 14-15).

[14] Example of existing programs addressing e-leadership skills include the Executive MBA in Business and IT initiated by the European CIO Association (http://www.eurocio.org/index.php/executive-education/executive-mba/information) and the Software Engineering Management Program (SEMP) implemented by European Software Institute – Center Eastern Europe (http://www.esicenter.bg/news.aspx?nid=72). Vendors like IBM, Cisco, Microsoft and SAP have also developed courses and platforms providing training to address dual skills needs, combining business and soft skills with technical skills.

[15] There is also some anecdotal evidence that companies pair up workers with complementary skills on certain corporate functions to cover a broader spectrum of required skills and for people to learn from each other.

[16] See Belkin, D. and C. Porter (2013) for an example of how this might work.

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CHAPTER 5

JRC STATISTICAL AUDIT ON THE GLOBAL TALENT COMPETITIVENESS INDEX 2013

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The GTCI attempts to summarise complex and versatile concepts related to human capital and talent competitiveness at the national scale worldwide. In doing so, it raises some practical challenges related to the quality of data and the combination of these into a single number. The Econometrics and Applied Statistics Unit at the European Commission Joint Research Centre (JRC) in Ispra, Italy, was invited by the developing team to undertake an analysis of the statistical properties of the GTCI, in order to ensure the transparency and reliability of the GTCI, to enable policymakers to derive more accurate and meaningful conclusions, and to potentially guide choices on priority setting and policy formulation.

The JRC assessment of the GTCI 2013 focused on two main issues: the statistical coherence of the structure and the impact of key modelling assumptions on the GTCI scores and ranks.[1] The JRC analysis complements the reported country rankings for the GTCI and the Input and Output sub-indices with confidence intervals, in order to better appreciate the robustness of these rankings to the computation methodology (in particular imputation, weights, and aggregation formula). In addition, the JRC analysis includes an assessment of potential redundancy of information in the GTCI, and a measure of distance to the efficient frontier of human capital and talent competitiveness by using data envelopment analysis.

STATISTICAL COHERENCE IN THE GTCI FRAMEWORK

An earlier version of the GTCI model was assessed by the JRC in July 2013. Preliminary suggestions by the JRC related to the presence of (a) indicators with strong collinearity; (b) indicators that behave as noise in the overall framework; (c) indicators that point to the opposite direction from the phenomenon being measured; and (d) statistical dimensionality and reliability of the GTCI components. The JRC recommendations were taken into account in the final computation of the rankings by the GTCI

developing team in an iterative process with the JRC, which aimed at setting the foundation for a balanced index. The entire process followed four steps:

Step 1: Relevance

Candidate indicators were selected for their relevance to a specific pillar, on the basis of the literature review, expert opinion, country coverage and timeliness. To represent a fair picture of country differences, indicators were scaled either at the source or by the GTCI team as appropriate and where needed.

Step 2: Data checks

The most recently released data were used for each country with a cut-off at year 2002. Countries were included if data availability was at least 80% at the index level and at least 50% at the sub-pillar level. Potentially problematic indicators that could bias the overall results were identified by the GTCI developing team as those having absolute skewness greater than two and kurtosis greater than 3.5 [2] and were treated by Winsorisation (in case of one to four outliers; variable treated FDI inflow and international students inflow). These criteria follow the WIPO-INSEAD Global Innovation Index practice (discussed with the JRC in 2011).

Step 3: Statistical coherence

i) Principal component analysis and reliability analysis

Principal component analysis (PCA) was used to assess to what extent the conceptual framework is confirmed by statistical approaches. PCA confirms the presence of a single statistical dimension in the majority of the sub-pillars (one component with eigenvalue greater than 1.0) that captures between 50% (*Lifestyle* sub-pillar) and 73% (*Regulatory landscape*) of the total variance in the underlying indicators. A more detailed analysis of the correlation structure within and across the six pillars confirms the expectation that the sub-pillars are more correlated to their own pillar than to any other, and all correlations within a pillar are positive, strong and similar (see Table 1). These results suggest that the conceptual grouping of indicators into pillars is also statistically confirmed and that the six pillars are statistically well-balanced in the underlying sub-pillars.

The six pillars also share a single statistical dimension that summarises almost 80% of the total variance, and the six loadings (correlation coefficients) are very similar to each other. This latter suggests that the six pillars do have an equal contribution to the variation of the GTCI scores, as envisaged by the developing team. The reliability of the GTCI, measured by the Cronbach-alpha value, is very high at 0.94, which is well above the 0.7 threshold for a reliable aggregate (see Nunnally, 1978). Had the GTCI been calculated assigning equal weight to the Input and Output sub-indices (which would translate into assigning 12.5% to each Input pillar and 25% to each Output pillar, the reliability of the GTCI would have been slightly lower, decreasing from 0.94 to 0.91).

Table1: Statistical coherence in the GTCI: Correlations between sub-pillars and pillars

		Enablers	Attract	Grow	Retain	LV	GK
INPUT	Regulatory Landscape	0.93	0.69	0.84	0.76	0.80	0.81
	Market Landscape	0.92	0.62	0.92	0.77	0.84	0.88
	Business Landscape	0.81	0.51	0.56	0.45	0.60	0.49
	External Openness	0.57	0.84	0.55	0.34	0.53	0.40
	Internal Openness	0.61	0.87	0.64	0.50	0.57	0.54
	Formal Education	0.75	0.56	0.87	0.79	0.76	0.83
	Lifelong Learning	0.79	0.69	0.89	0.54	0.69	0.67
	Access to Growth Opportunities	0.79	0.63	0.89	0.59	0.70	0.72
	Sustainability	0.77	0.47	0.73	0.94	0.74	0.75
	Lifestyle	0.61	0.45	0.65	0.91	0.61	0.68
OUTPUT	Employable Skills	0.67	0.56	0.66	0.62	0.90	0.60
	Labour Productivity	0.83	0.57	0.80	0.69	0.86	0.75
	Higher Skills and Competencies	0.81	0.57	0.80	0.81	0.75	0.92
	Talent Impact	0.71	0.45	0.77	0.62	0.65	0.92

Source: Saisana and Rossetti, European Commission Joint Research Centre, 2013.

An important remark relates to the importance of the two sub-indices with respect to the variation of the GTCI scores. The four Input pillars are assigned a total weight (=4/6) that is twice the weight (=2/6) assigned to the two Output pillars. Yet, this does not imply that the Input aspect is more important than the Output aspect in determining the variation of the GTCI scores. In fact, the correlation coefficient between the GTCI scores and the Input or Output Sub-Index is 0.99 and 0.97 respectively, which suggests that the sub-indices are effectively placed on equal footing.

Overall, the tests so far show that the grouping of indicators into sub-pillars, pillars, and an overall index is statistically coherent, and that the GTCI has a balanced structure, whereby all six pillars are equally important in determining the variation in the GTCI scores.

ii) Assessing potential redundancy of information in the GTCI

A very high statistical reliability may be interpreted by some as a sign of redundancy of information in an index. This is not the case in the GTCI. In fact, for more than 32% (up to 58%) of the 103 countries included in the GTCI 2013, the GTCI ranking and any of the six pillar rankings differ by ten positions or more (see Table 2). This is a desired outcome, because it evidences the added value of the GTCI ranking, which helps to highlight other components of human capital and talent competitiveness that do not emerge directly by looking into the six pillars separately.

Step 4: Qualitative review

Finally, the GTCI results, including overall country classifications and relative performances in terms of the Input or Output sub-indices were evaluated by the developing team and external experts to verify that the overall results were, to a great extent, consistent with current evidence, existing research or prevailing theory.

Notwithstanding these statistical tests and the positive outcomes on the statistical soundness of the GTCI, it is important to mention that the GTCI has to remain open for future improvements as better data, more comprehensive surveys and assessments, and new relevant research studies become available.

IMPACT OF MODELLING ASSUMPTIONS ON THE GTCI RESULTS

Every country score on the GTCI and its two sub-indices depends on modelling choices: six-pillar structure, selected indicators, imputation or not of missing data, normalisation, weights, and aggregation method, among other elements. These choices are based on expert opinion (e.g., selection of indicators), or common practice (e.g., min-max normalisation in the [0, 100] range), driven by statistical analysis (e.g., treatment of outliers) or simplicity (e.g., no imputation of missing data). The robustness analysis is aimed at assessing the simultaneous and joint impact of these modelling choices on the rankings. The data are assumed to be error-free since potential outliers and eventual errors and typos were corrected during the computation phase.

Table 2: Distribution of differences between pillar and GTCI rankings

	GTCI Input Sub-Index				GTCI Output Sub-Index	
Shifts with respect to the GTCI	Enablers	Attract	Grow	Retain	Labour and Vocational	Global Knowledge
more than 30 positions	0%	17%	3%	6%	13%	9%
20 to 29 positions	8%	16%	9%	10%	10%	17%
10 to 19 positions	24%	25%	24%	31%	35%	29%
5 to 9 positions	27%	17%	31%	27%	22%	23%
less than 5 positions	34%	23%	28%	24%	17%	18%
0 positions	7%	1%	5%	2%	3%	4%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
More than 10	**32%**	**58%**	**36%**	**47%**	**57%**	**54%**

Source: Saisana and Rossetti, European Commission Joint Research Centre, 2013.

The robustness assessment of the GTCI was based on a combination of a Monte Carlo experiment and a multi-modelling approach that dealt with three issues: pillar weights, missing data and the aggregation formula. This type of assessment aims to respond to eventual criticism that the country scores associated with aggregate measures are generally not calculated under conditions of certainty, even if they are frequently presented as such.[3]

The Monte Carlo simulation related to the issue of weighting, and comprised 1,000 runs, each corresponding to a different set of weights of the six pillars, randomly sampled from uniform continuous distributions and ranging ±20% from the reference values. The choice of the range for the weights' variation was driven by two opposite needs: ensure a wide enough interval to have meaningful robustness checks; and respect the rationale of the GTCI that places all six pillars on an equal footing.

Given these considerations, limit values of uncertainty intervals for the pillar weights are: 10% to 30% for the four Input pillars for the calculation of the Input Sub-Index, and 40% to 60% for the two Output pillars for the calculation of the Output Sub-Index (see Table 3). For the calculation of the GTCI, the limit values of uncertainty intervals for all six pillar weights are: 12% to 20%. In all simulations, sampled weights are rescaled to unity sum.

The GTCI developing team, for transparency and replicability, opted not to estimate the few missing data (only 6.2% missing data in the dataset of 103 countries × 48 indicators). The 'no imputation' choice, which is common in similar contexts, might encourage countries not to report low data values.[4] To overcome this limitation, the JRC estimated missing data using the Expectation Maximisation (EM) algorithm.[5]

Regarding the aggregation formula, decision-theory practitioners have challenged the use of simple arithmetic averages because of their fully compensatory nature, in which a comparative high advantage on a few indicators can compensate a comparative disadvantage on many indicators.[6] Despite the arithmetic averaging formula receiving statistical support for the development of the GTCI, as already discussed in the previous section, the geometric average was considered instead,[7] which is a partially compensatory approach that rewards countries with similar performance in all pillars, and motivates those countries with uneven performance to improve in those pillars in which they perform poorly, and not just in *any* pillar.

Four models were tested based on the combination of no imputation versus EM imputation, and arithmetic versus geometric average, combined with 1,000 simulations per model (random weights versus fixed weights), for a total of 4,000 simulations for the GTCI, and each of the two sub-indices (see Table 3 for a summary of the uncertainties considered in the GTCI 2013).

Table 3: Uncertainty analysis for the GTCI 2013: weights, missing data, aggregation

I. Uncertainty in the treatment of missing values			
Reference: No estimation of missing data		**Alternative:** Expectation Maximisation (EM)	
II. Uncertainty in the aggregation formula at pillar level			
Reference: Arithmetic average		**Alternative:** Geometric average	
III. Uncertainty in the weights			
Pillar		Reference value for the weight (within sub-index)	Distribution assigned for robustness analysis (within sub-index)
INPUT	Enablers	0.25	U[0.10,0.30]
	Attract	0.25	U[0.10,0.30]
	Grow	0.25	U[0.10,0.30]
	Retain	0.25	U[0.10,0.30]
OUTPUT	Labour and Vocational	0.5	U[0.40,0.60]
	Global Knowledge	0.5	U[0.40,0.60]

Source: Saisana and Rossetti, European Commission Joint Research Centre, 2013.

Uncertainty analysis results

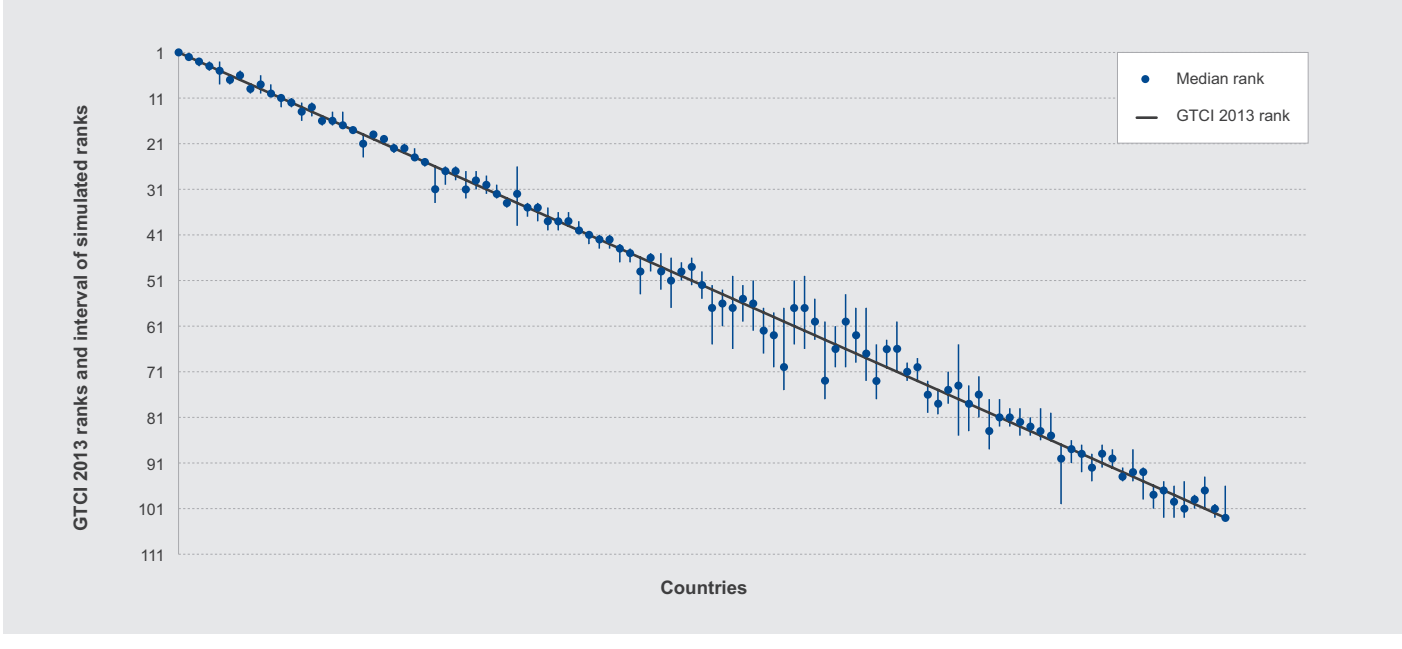
The main results of the robustness analysis are shown in Figure 1 with median ranks and 90% confidence intervals computed across the 4,000 Monte Carlo simulations for the GTCI, and the two sub-indices. Countries are ordered from best to worst according to their reference rank (black line), the dot being the median rank. Error bars represent, for each country, the 90% interval across all simulations. Table 4 reports the published rankings and the 90% confidence intervals that account for uncertainties in the missing data estimation, the pillar weights, and the aggregation formula. All published country ranks lay within the simulated intervals, and these are narrow enough for most countries (less than ten positions) to allow for meaningful inferences to be drawn.

GTCI ranks are shown to be both representative of a plurality of scenarios and robust to changes in the imputation method, the pillar weights and the aggregation formula. If one considers the median rank across the simulated scenarios as being representative of these scenarios, then the fact that the GTCI rank is close to the median rank (less than two positions away) for 75% of the countries suggests that the GTCI is a suitable summary measure. Furthermore, the narrow confidence intervals for the majority of the countries' ranks (less than ±2 positions for half of the countries) imply that the GTCI ranks are also, for most countries, robust to changes in the pillar weights, the imputation method and the aggregation formula.

Results for the Input and Output sub-indices are also robust and representative of the plurality of scenarios considered. The Input rank is close to the median rank (less than two positions away) for 75% of the countries and the rank intervals are ±3 positions for half of the countries. Similarly the Output rank is close to the median rank (less than two positions away) for 75% of the countries, and for half of the countries the rank intervals are ±2 positions.

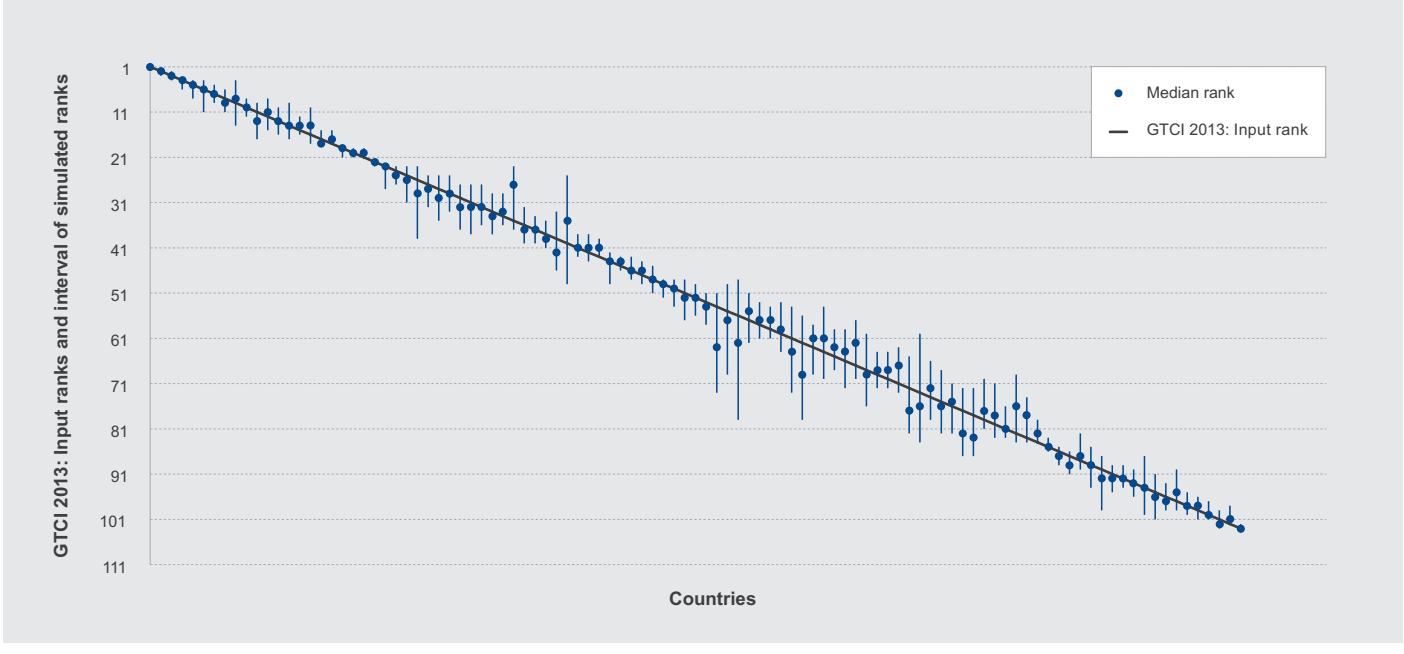
Overall, country ranks in the GTCI and its two sub-indices are robust to changes in the pillar weights, the imputation method and the aggregation formula for the majority of the countries considered. For full transparency and information, Table 4 reports the GTCI country ranks (and those of the sub-indices) together with the simulated intervals (90% of the 4,000 scenarios) in order to better appreciate the robustness of these ranks to the computation methodology.

Figure 1a: Robustness analysis (GTCI rank vs. median rank, 90% confidence intervals)



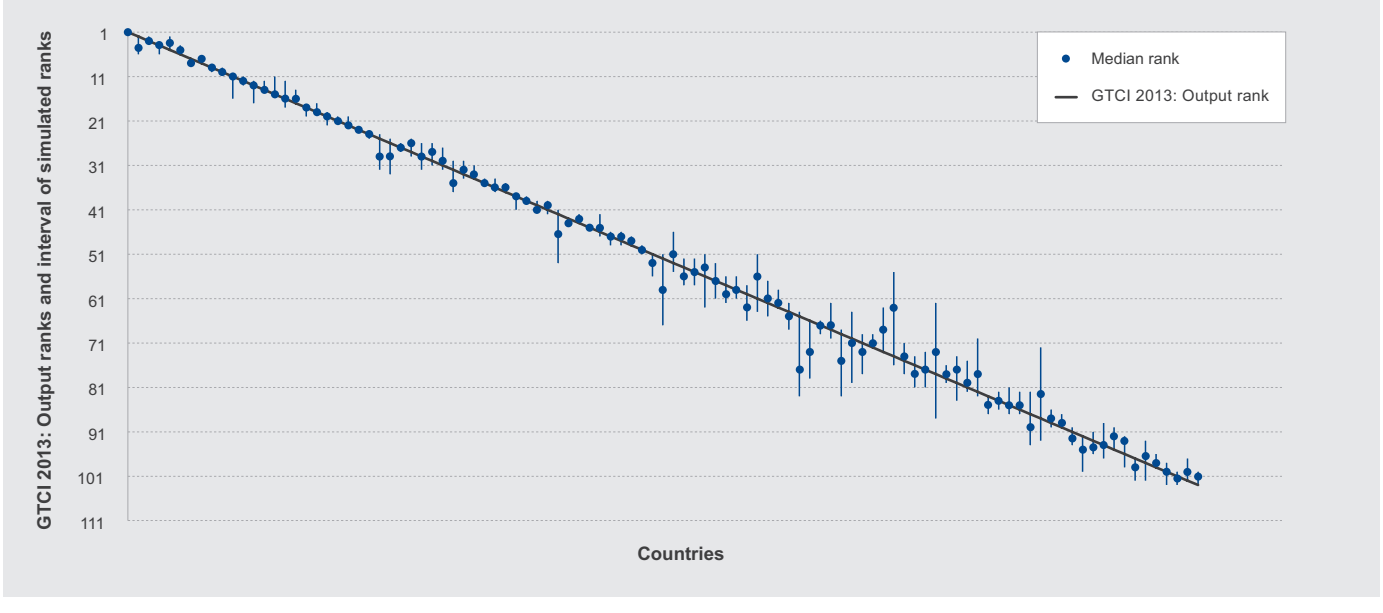
Notes: The Spearman rank correlation between the median rank and the GTCI 2013 rank is 0.997. Simulated intervals are less than ±2 positions for half of the countries. Median ranks and intervals are calculated over 4,000 simulated scenarios combining random weights, imputed versus missing values, and geometric versus arithmetic average at the pillar level.
Source: Saisana and Rossetti, European Commission Joint Research Centre, 2013.

Figure 1b: Robustness analysis (Input rank vs. median rank, 90% confidence intervals)



Notes: The Spearman rank correlation between the median rank and the GTCI 2013 input rank is 0.997. Simulated intervals are less than ±3 positions for half of the countries. Median ranks and intervals are calculated over 4,000 simulated scenarios combining random weights, imputed versus missing values, and geometric versus arithmetic average at the pillar level.
Source: Saisana and Rossetti, European Commission Joint Research Centre, 2013.

Figure 1c: Robustness analysis (Output rank vs. median rank, 90% confidence intervals)



Note: The Spearman rank correlation between the median rank and the GTCI 2013 output rank is 0.996. Simulated intervals are less than ±2 positions for half of the countries. Median ranks and intervals are calculated over 4,000 simulated scenarios combining random weights, imputation versus no imputation of missing values, and geometric versus arithmetic average at the pillar level.
Source: Saisana and Rossetti, European Commission Joint Research Centre, 2013.

Table 4: Country ranks and 90% intervals for the GTCI 2013 and its Input/Output sub-indices

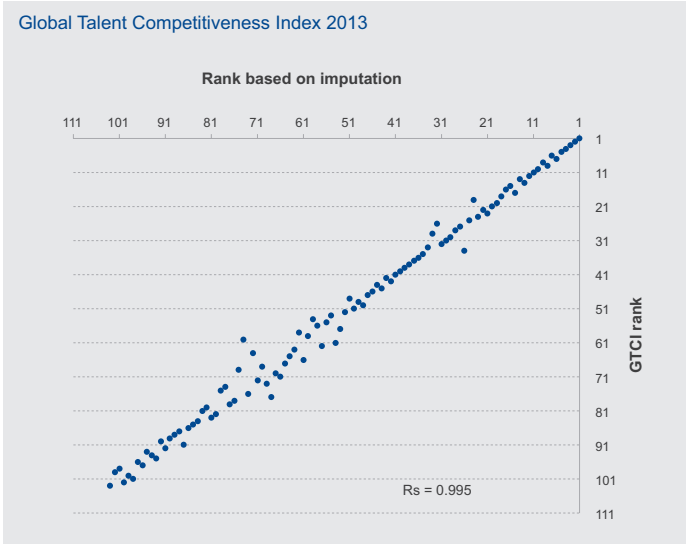
Country	GTCI 2013		Input Sub-Index		Output Sub-Index	
	Rank	Interval	Rank	Interval	Rank	Interval
Switzerland	1	[1, 1]	1	[1, 1]	1	[1, 1]
Singapore	2	[2, 2]	2	[2, 3]	6	[4, 6]
Denmark	3	[3, 4]	7	[5, 9]	3	[2, 3]
Sweden	4	[3, 5]	3	[2, 4]	9	[9, 10]
Luxembourg	5	[3, 8]	9	[4, 14]	2	[2, 6]
Netherlands	6	[6, 8]	4	[4, 6]	10	[9, 10]
United Kingdom	7	[5, 7]	5	[4, 8]	8	[7, 8]
Finland	8	[8, 10]	8	[6, 11]	7	[7, 8]
United States	9	[6, 10]	11	[9, 17]	5	[2, 5]
Iceland	10	[8, 10]	15	[12, 16]	4	[4, 6]
Canada	11	[11, 13]	10	[8, 12]	14	[12, 14]
Norway	12	[11, 13]	12	[8, 15]	12	[11, 13]
Belgium	13	[12, 16]	6	[4, 11]	23	[23, 23]
Austria	14	[12, 15]	14	[9, 17]	11	[11, 16]
Australia	15	[15, 17]	13	[10, 16]	19	[17, 19]
Germany	16	[14, 17]	17	[15, 18]	13	[12, 17]
New Zealand	17	[14, 17]	16	[10, 18]	18	[18, 20]
Ireland	18	[18, 18]	18	[15, 18]	22	[20, 22]
United Arab Emirates	19	[19, 24]	19	[19, 21]	27	[26, 28]
France	20	[19, 20]	21	[19, 21]	15	[11, 15]
Japan	21	[20, 21]	20	[19, 21]	21	[20, 21]
Czech Republic	22	[21, 23]	22	[22, 23]	20	[19, 22]
Estonia	23	[21, 23]	23	[23, 28]	17	[14, 17]
Israel	24	[22, 24]	35	[23, 37]	16	[12, 18]
Slovenia	25	[25, 26]	29	[25, 33]	24	[24, 25]
Montenegro	26	[26, 34]	25	[23, 31]	32	[30, 37]
Slovak Republic	27	[26, 30]	28	[25, 35]	29	[26, 32]
Korea, Rep.	28	[26, 29]	32	[27, 36]	28	[25, 29]
Malta	29	[27, 33]	37	[34, 40]	25	[24, 32]
Latvia	30	[27, 31]	34	[29, 36]	30	[26, 31]
Chile	31	[28, 32]	31	[27, 38]	33	[30, 34]
Poland	32	[30, 33]	36	[32, 40]	31	[27, 32]
Cyprus	33	[33, 35]	30	[27, 37]	35	[34, 35]
Qatar	34	[26, 39]	40	[25, 49]	26	[25, 33]
Spain	35	[34, 37]	27	[25, 32]	39	[38, 39]
Italy	36	[34, 38]	41	[38, 43]	34	[31, 34]
Malaysia	37	[35, 40]	33	[29, 38]	38	[38, 41]
Portugal	38	[36, 40]	24	[23, 27]	48	[46, 49]
Lithuania	39	[36, 39]	38	[35, 41]	36	[34, 37]
Hungary	40	[38, 40]	43	[39, 43]	37	[35, 37]
Costa Rica	41	[41, 43]	26	[23, 39]	58	[56, 62]
Saudi Arabia	42	[41, 44]	44	[42, 49]	43	[43, 44]
Bulgaria	43	[41, 44]	45	[43, 46]	44	[42, 44]
Panama	44	[43, 47]	39	[33, 46]	60	[58, 66]
Croatia	45	[44, 47]	47	[44, 49]	53	[46, 55]
Kazakhstan	46	[46, 54]	48	[45, 51]	52	[51, 67]
China	47	[45, 49]	58	[53, 61]	40	[39, 41]
Lebanon	48	[45, 53]	57	[51, 62]	42	[41, 53]
Uruguay	49	[46, 57]	42	[38, 44]	85	[81, 87]
Georgia	50	[47, 51]	46	[43, 48]	73	[63, 73]
Russian Federation	51	[46, 52]	63	[58, 69]	41	[39, 42]
Macedonia, FYR	52	[49, 55]	50	[48, 54]	63	[59, 63]

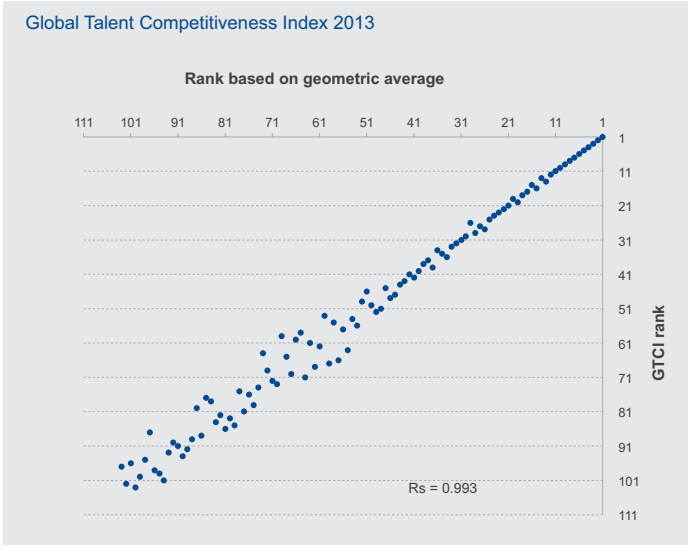
Table 4: Country ranks and 90% intervals for the GTCI 2013 and its Input/Output sub-indices (continued)

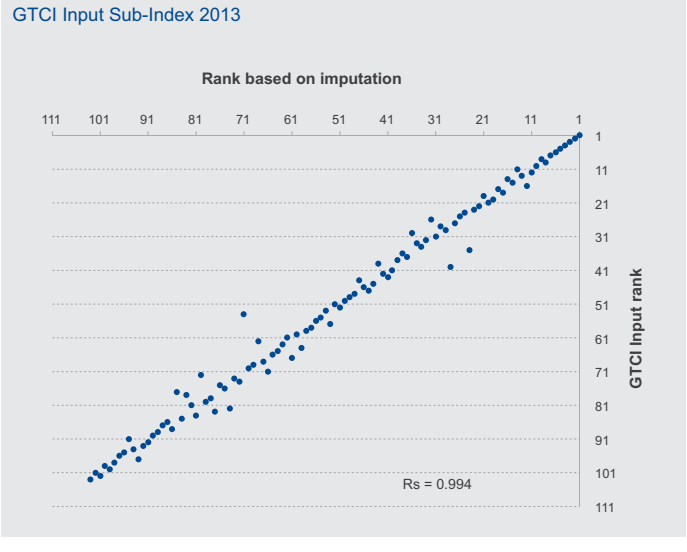
Country	GTCI 2013		Input Sub-Index		Output Sub-Index	
	Rank	Interval	Rank	Interval	Rank	Interval
Trinidad and Tobago	53	[52, 65]	49	[48, 52]	71	[69, 78]
Argentina	54	[53, 61]	51	[48, 57]	67	[66, 69]
South Africa	55	[50, 66]	56	[48, 79]	51	[51, 56]
Greece	56	[52, 60]	55	[49, 69]	57	[53, 61]
Azerbaijan	57	[51, 62]	59	[54, 61]	61	[51, 64]
Mongolia	58	[57, 67]	60	[53, 64]	64	[62, 68]
Brazil	59	[58, 70]	52	[49, 56]	77	[73, 81]
Kuwait	60	[57, 75]	54	[51, 73]	72	[69, 72]
Armenia	61	[51, 65]	53	[51, 58]	74	[55, 76]
Jordan	62	[50, 66]	64	[54, 70]	56	[51, 63]
Romania	63	[55, 64]	66	[59, 72]	55	[52, 58]
Botswana	64	[60, 77]	61	[54, 73]	65	[64, 83]
Peru	65	[61, 70]	68	[60, 76]	54	[52, 58]
Ukraine	66	[54, 70]	82	[69, 84]	46	[42, 47]
Turkey	67	[57, 69]	74	[66, 79]	50	[49, 51]
Moldova	68	[57, 73]	80	[71, 83]	47	[46, 49]
Namibia	69	[65, 77]	62	[56, 79]	70	[64, 80]
Mexico	70	[64, 70]	69	[64, 72]	59	[56, 61]
Colombia	71	[60, 71]	83	[74, 84]	49	[47, 49]
Thailand	72	[69, 73]	65	[59, 68]	75	[71, 78]
Philippines	73	[68, 73]	70	[64, 72]	68	[62, 70]
Ecuador	74	[73, 80]	78	[72, 87]	62	[57, 65]
Guatemala	75	[75, 80]	72	[65, 82]	79	[76, 80]
Sri Lanka	76	[71, 78]	71	[63, 73]	82	[70, 83]
Albania	77	[65, 85]	67	[57, 70]	88	[72, 93]
Kyrgyz Republic	78	[74, 84]	75	[68, 82]	78	[62, 88]
Serbia	79	[72, 81]	89	[85, 94]	45	[45, 45]
Nicaragua	80	[77, 88]	73	[60, 84]	87	[82, 94]
Dominican Republic	81	[77, 83]	81	[76, 83]	76	[74, 81]
Vietnam	82	[79, 83]	84	[79, 84]	80	[74, 84]
India	83	[79, 85]	76	[71, 82]	89	[86, 90]
Indonesia	84	[81, 85]	79	[70, 81]	90	[87, 89]
El Salvador	85	[79, 86]	86	[85, 89]	69	[68, 83]
Paraguay	86	[80, 86]	87	[86, 91]	66	[66, 79]
Cambodia	87	[87, 100]	77	[72, 87]	98	[93, 102]
Bolivia	88	[86, 91]	91	[89, 95]	84	[82, 86]
Egypt, Arab Rep.	89	[87, 93]	94	[87, 100]	86	[82, 87]
Morocco	90	[89, 95]	85	[83, 86]	99	[96, 99]
Bosnia and Herzegovina	91	[87, 92]	88	[82, 90]	95	[90, 95]
Venezuela, RB	92	[88, 92]	97	[90, 99]	83	[83, 87]
Senegal	93	[92, 95]	95	[91, 101]	91	[90, 94]
Pakistan	94	[88, 95]	100	[97, 101]	81	[75, 82]
Kenya	95	[92, 99]	93	[90, 96]	96	[92, 99]
Uganda	96	[96, 101]	90	[87, 99]	101	[100, 103]
Tanzania	97	[95, 103]	92	[89, 94]	100	[98, 103]
Bangladesh	98	[96, 103]	98	[95, 100]	97	[97, 102]
Ethiopia	99	[95, 103]	101	[99, 103]	92	[92, 100]
Mali	100	[98, 101]	96	[93, 99]	102	[97, 102]
Iran, Islamic Rep.	101	[94, 101]	102	[98, 102]	93	[91, 96]
Burkina Faso	102	[100, 103]	99	[96, 101]	103	[100, 103]
Algeria	103	[96, 103]	103	[102, 103]	94	[89, 97]

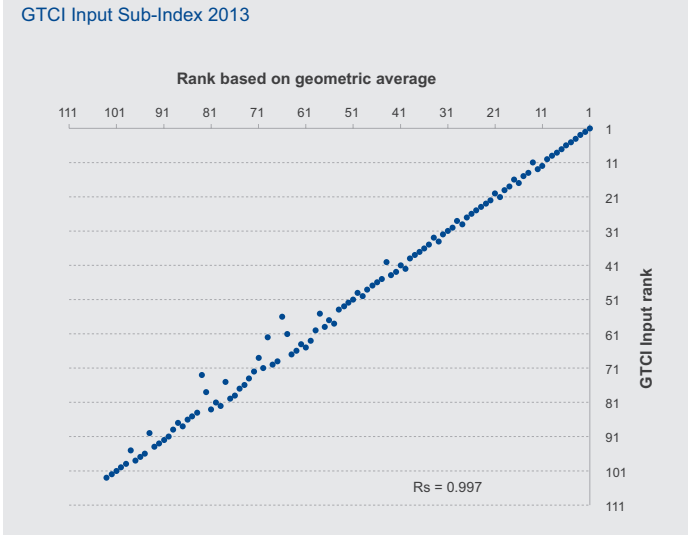
Source: Saisana and Rossetti, European Commission Joint Research Centre, 2013.

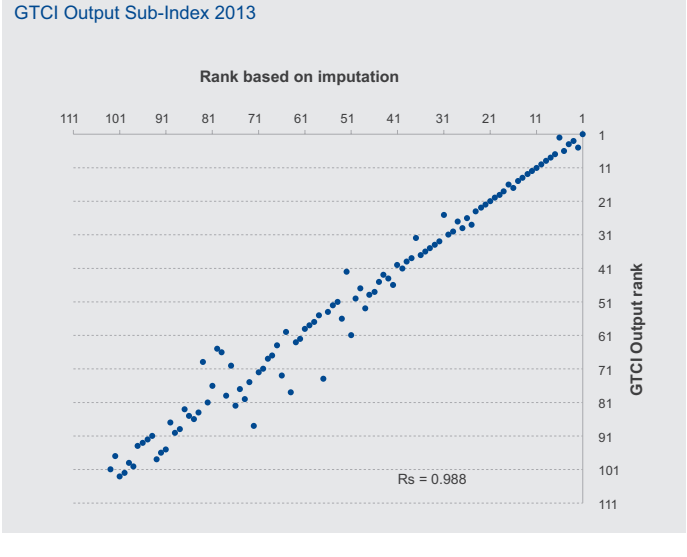
Figure 2: Sensitivity analysis: Impact of modelling choices

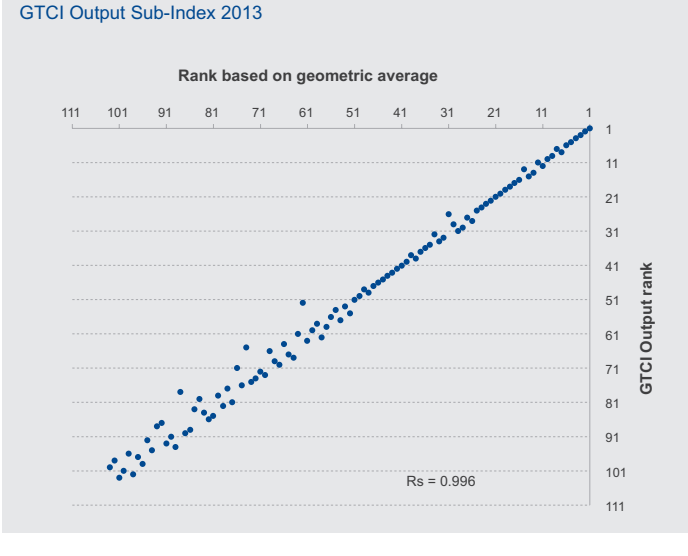












Source: Saisana and Rossetti, European Commission Joint Research Centre, 2013.

Sensitivity analysis results

Complementary to the uncertainty analysis, sensitivity analysis has been used to identify which of the modelling assumptions have the highest impact on certain country ranks. Figure 2 plots the GTCI and Sub-Index rankings versus one-at-a-time changes of either the EM imputation method or the geometric aggregation formula (assuming equal weights for the six pillars as in the GTCI).

The most influential assumption is the choice of no imputation versus EM imputation for the Output Sub-Index. For example, in the most extreme case, a country improves by merely two positions in the Output ranking if a geometric aggregation is applied, although it is found to improve by 17 positions if EM imputation is applied. If both assumptions are changed (assuming equal pillar weights), the country improves by 19 positions. Notably, the country in question has 73% data availability for the Output Sub-Index, which despite being satisfactory in general, appears not to suffice in this particular case. Another example relates to two countries that move 15 positions in the Output rank when EM imputation is applied, yet their data availability for the Output Sub-Index is 64% and 73%. These results suggest that the inclusion criteria based on data availability are suitable in general for the GTCI and its sub-indices, yet for some countries stricter data availability criteria may be needed.

The JRC recommendation is not to alter the GTCI inclusion criteria on data availability, but to consider country ranks in the GTCI 2013 and in the Input and Output sub-indices within the 90% confidence intervals, as those are reported in Table 4, in order to better appreciate to what degree a country's rank depends on the modelling choices. It is reassuring that for over 80% of the countries included in the GTCI, the overall rank and those in the Input and Output sub-indices are the result of the underlying data and not of the modelling choices.

CONCLUSION

The JRC analysis suggests that the conceptualised multi-level structure of the GTCI 2013 is statistically coherent and balanced (i.e., not dominated by any pillar or sub-pillar; all indicators contribute to the variation of the respective Input/Output sub-indices and to the overall GTCI). The reliability of the GTCI, as measured by the Cronbach-alpha value, is very high at 0.94 (well above the recommended 0.7 threshold for a reliable aggregate). Furthermore, the analysis has offered statistical justification for the equal weights and the use of arithmetic averaging at the various levels of aggregation. It has also shown that the GTCI is "statistically" more reliable in the current form, namely built as the average of the six pillars, instead of the average of the Input and Output sub-indices.

The GTCI and sub-index country ranks are robust to methodological assumptions related to the estimation of missing data, weighting, and aggregation formula (less than three position shifts on average for 94 out of 103 countries). Consequently, inferences can be drawn for most countries in the GTCI, while some caution may be needed for a few countries. Note that perfect robustness would have been undesirable as this would have implied that the GTCI components are perfectly correlated and hence redundant, which is not the case for the GTCI 2013. In fact, one way in which the GTCI helps to highlight other components of human capital and talent competitiveness is by pinpointing the differences in rankings that emerge from a comparison between the GTCI and each of the six pillars: for more than 32% (up to 58%) of the countries, the GTCI ranking and any of the six pillar rankings differ by ten positions or more.

Notes

[1] The JRC analysis was based on the recommendations of the OECD (2008) Handbook on Composite Indicators, and on more recent research from the JRC. The JRC auditing studies of composite indicators are available at http://composite-indicators.jrc.ec.europa.eu/ (all audits were carried upon request of the Index developers).

[2] Groeneveld and Meeden (1984) set the criteria for absolute skewness above 1 and kurtosis above 3.5. The skewness criterion was relaxed to account for the small sample (+100 countries).

[3] Saisana, M., A. Saltelli, and S. Tarantola (2005); Saisana, M., B. D'Hombres, and A. Saltelli (2011)

[4] With arithmetic average, the 'no imputation' choice is equivalent to replacing missing values with the average of the available (normalised) data within each sub-pillar.

[5] The Expectation-Maximisation (EM) algorithm (Little and Rubin, 2002) is an iterative procedure that finds the maximum likelihood estimates of the parameter vector by repeating two steps: (1) The expectation E-step: Given a set of parameter estimates, such as a mean vector and covariance matrix for a multivariate normal distribution, the E-step calculates the conditional expectation of the complete-data log likelihood given the observed data and the parameter estimates. (2) The maximisation M-step: Given a complete-data log likelihood, the M-step finds the parameter estimates to maximise the complete-data log likelihood from the E-step. The two steps are iterated until the iterations converge.

[6] Munda, G. (2008)

[7] In the geometric average, pillars are multiplied as opposed to summed in the arithmetic average. Pillar weights appear as exponents in the multiplication. All pillar scores were greater than 1.0, hence there was no reason to rescale them (so as to avoid zero values that would have led to zero geometric averages).

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COUNTRY PROFILES

How to read the country profiles

COUNTRY PROFILE

ALBANIA

RANK (out of 103) **77**

1
Population (millions) **3.16**
GDP per capita (PPP$) **8,052.18**
GDP (US$ billions) **12.69**

Global Talent Competitiveness Index Score **38.82**
Global Talent Competitiveness Index Score (Income Group Average) **41.91**

2

3

	VARIABLE	SCORE	RANK/103
1	**Enablers**	46.02	62
1.1	**Regulatory landscape**	58.46	52
	Government efficiency		
1.1.1	Government effectiveness	26.98	69
1.1.2	Political stability	59.54	63
	FDI climate		
1.1.3	Starting a foreign business	88.87	5
1.2	**Market landscape**	31.77	89
	Competition climate		
1.2.1	Intensity of local competition	47.62	94
	Innovation climate		
1.2.2	Venture capital availability	14.08	97
1.2.3	Firm-level technology absorption	60.74	64
1.2.4	R&D expenditure	3.00	82
	Connectivity		
1.2.5	ICT access	26.90	77
	Ease of doing business		
1.2.6	Ease of doing business	38.30	64
1.3	**Business landscape**	47.82	65
	Labour market flexibility		
1.3.1	Labour market flexibility	42.57	65
	Ownership and governance		
1.3.2	Reliance on professional management	53.08	51
2	**Attract**	45.80	80
2.1	**External openness**	49.36	32
	FDI		
2.1.1	FDI inflow	60.93	9
	Brain gain		
2.1.2	Qualified labour inflow	35.01	71
	Foreign companies		
2.1.3	Prevalence of foreign ownership	52.15	76
2.2	**Internal openness**	42.24	97
	Diversity		
2.2.1	Tolerance of minorities	55.65	89
2.2.2	Tolerance of immigrants	48.03	90
	Social mobility		
2.2.3	Social mobility	n/a	n/a
	Gender mobility		
2.2.4	Female professionals and technical workers	n/a	n/a
2.2.5	Female parliamentarians	23.04	67
3	**Grow**	41.38	76
3.1	**Formal education**	31.15	73
	Education climate		
3.1.1	Pupil-teacher ratio	75.62	60
3.1.2	Technical/vocational enrolment	11.12	78
3.1.3	Tertiary enrolment	40.35	51
	Performance of education system		
3.1.4	Reading, maths and science scores	23.58	61
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	5.05	61
3.2	**Lifelong learning**	55.48	42
	Further education and training climate		
3.2.1	Quality of management schools	54.92	53
3.2.2	Extent of staff training	56.03	29
3.3	**Access to growth opportunities**	37.51	100
	Networks		
3.3.1	Use of virtual social networks	74.64	57
3.3.2	State of cluster development	17.19	103
	Research quality		
3.3.3	Quality of scientific research institutions	23.53	99
	Voice		
3.3.4	Voicing concern to officials	34.67	72
4	**Retain**	51.83	54
4.1	**Sustainability**	43.45	57
	Social protection		
4.1.1	Pension system	38.93	52
	Taxation		
4.1.2	Extent and effect of taxation	47.97	30
4.2	**Lifestyle**	60.22	44
	Quality of life		
4.2.1	Environmental performance	75.22	15
4.2.2	Property stolen	72.51	40
4.2.3	Safety at night	74.55	37
	Services		
4.2.4	Physicians density	18.59	70
5	**Labour and Vocational**	38.72	54
5.1	**Employable skills**	42.91	49
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	44.43	42
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	41.40	50
5.2	**Labour productivity**	34.52	61
	Productivity per employee		
5.2.1	Labour productivity per employee	13.03	65
	Pay and productivity		
5.2.2	Relationship of pay to productivity	56.01	28
6	**Global Knowledge**	9.18	93
6.1	**Higher skills and competencies**	4.13	95
	Educated workforce		
6.1.1	Tertiary-educated workforce	3.42	84
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	n/a	n/a
6.1.3	Professionals	n/a	n/a
6.1.4	Researchers	4.85	67
6.2	**Talent impact**	14.23	91
	Innovation		
6.2.1	Innovation output	14.23	84
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

91 The Global Talent Competitiveness Index 2013

The country profiles provide more granular information on how each of the 103 countries performs in the various dimensions of the Global Talent Competitiveness Index (GTCI).

Each country profile consists of three parts:
1. Key indicators,
2. Radar chart, and
3. Scores and Ranks.

1 The first section comprises the respective country's rank (out of 103 countries), GTCI score, and income group average GTCI score. The income group is based on the World Bank Income Group Classification, as of July 2013. Additionally, basic indicators are included to put the country under review in context. These include population (in millions) drawn from *World Population Prospects: The 2012 Revision, Population Division, United Nations*, and GDP per capita (PPP$) and GDP (current US$ in billions) from *World Economic Outlook, International Monetary Fund*.

2 The second section presents a radar chart that outlines the respective country's performance along the six pillars and its position with respect to its income group peers. The black line plots the country's score on each of the six pillars while the blue line represents its income group average.

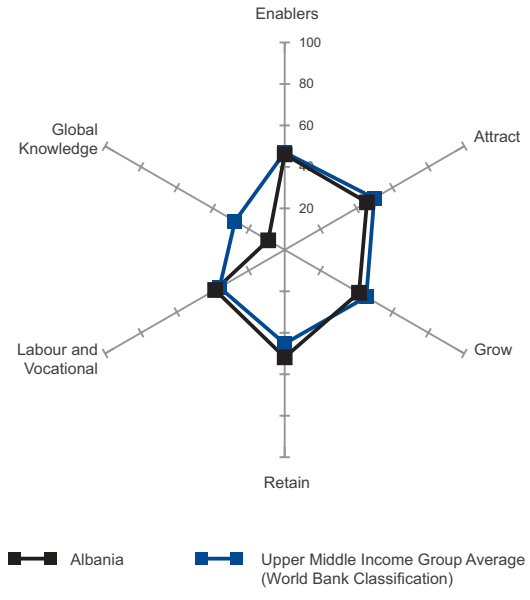
3 The third section lays out the country's normalised scores and ranks across all pillars, sub-pillars, and variables. The pillars are identified by a bold single-digit notation (***e.g., 1 Enablers***) and sub-pillars by a bold two-digit notation (***e.g., 1.1 Regulatory landscape***). Under selected sub-pillars, components are provided in grey colour. There are no values attached to the components as they only contextualise the theoretical framework. The 48 variables are indicated by a three-digit notation (***e.g., 1.1.1 Government effectiveness***).

For more information about variable definitions and the method of calculation, please refer to the Sources and Definitions and Technical Notes sections in the Appendices.

ALBANIA

RANK
(out of 103) **77**

Population (millions)	**3.16**
GDP per capita (PPP$)	**8,052.18**
GDP (US$ billions)	**12.69**
Global Talent Competitiveness Index Score	**38.82**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



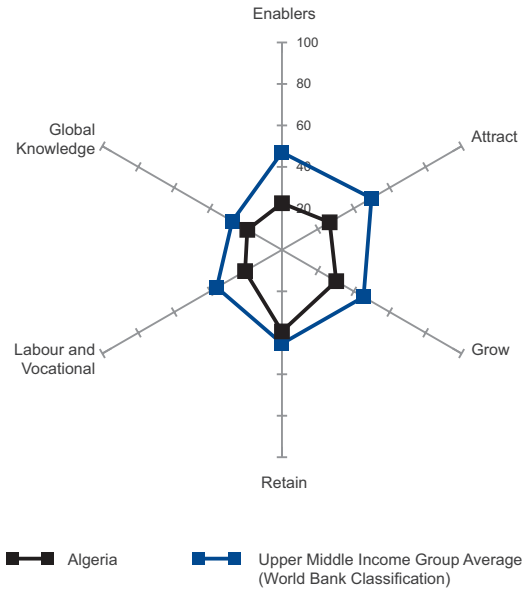
	VARIABLE	SCORE	RANK/103
1	**Enablers**	46.02	62
1.1	**Regulatory landscape**	58.46	52
	Government efficiency		
1.1.1	Government effectiveness	26.98	69
1.1.2	Political stability	59.54	63
	FDI climate		
1.1.3	Starting a foreign business	88.87	5
1.2	**Market landscape**	31.77	89
	Competition climate		
1.2.1	Intensity of local competition	47.62	94
	Innovation climate		
1.2.2	Venture capital availability	14.08	97
1.2.3	Firm-level technology absorption	60.74	64
1.2.4	R&D expenditure	3.00	82
	Connectivity		
1.2.5	ICT access	26.90	77
	Ease of doing business		
1.2.6	Ease of doing business	38.30	64
1.3	**Business landscape**	47.82	65
	Labour market flexibility		
1.3.1	Labour market flexibility	42.57	65
	Ownership and governance		
1.3.2	Reliance on professional management	53.08	51
2	**Attract**	45.80	80
2.1	**External openness**	49.36	32
	FDI		
2.1.1	FDI inflow	60.93	9
	Brain gain		
2.1.2	Qualified labour inflow	35.01	71
	Foreign companies		
2.1.3	Prevalence of foreign ownership	52.15	76
2.2	**Internal openness**	42.24	97
	Diversity		
2.2.1	Tolerance of minorities	55.65	89
2.2.2	Tolerance of immigrants	48.03	90
	Social mobility		
2.2.3	Social mobility	n/a	n/a
	Gender mobility		
2.2.4	Female professionals and technical workers	n/a	n/a
2.2.5	Female parliamentarians	23.04	67
3	**Grow**	41.38	76
3.1	**Formal education**	31.15	73
	Education climate		
3.1.1	Pupil-teacher ratio	75.62	60
3.1.2	Technical/vocational enrolment	11.12	78
3.1.3	Tertiary enrolment	40.35	51
	Performance of education system		
3.1.4	Reading, maths and science scores	23.58	61
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	5.05	61

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	55.48	42
	Further education and training climate		
3.2.1	Quality of management schools	54.92	53
3.2.2	Extent of staff training	56.03	29
3.3	**Access to growth opportunities**	37.51	100
	Networks		
3.3.1	Use of virtual social networks	74.64	57
3.3.2	State of cluster development	17.19	103
	Research quality		
3.3.3	Quality of scientific research institutions	23.53	99
	Voice		
3.3.4	Voicing concern to officials	34.67	72
4	**Retain**	51.83	54
4.1	**Sustainability**	43.45	57
	Social protection		
4.1.1	Pension system	38.93	52
	Taxation		
4.1.2	Extent and effect of taxation	47.97	30
4.2	**Lifestyle**	60.22	44
	Quality of life		
4.2.1	Environmental performance	75.22	15
4.2.2	Property stolen	72.51	40
4.2.3	Safety at night	74.55	37
	Services		
4.2.4	Physicians density	18.59	70
5	**Labour and Vocational**	38.72	54
5.1	**Employable skills**	42.91	49
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	44.43	42
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	41.40	50
5.2	**Labour productivity**	34.52	61
	Productivity per employee		
5.2.1	Labour productivity per employee	13.03	65
	Pay and productivity		
5.2.2	Relationship of pay to productivity	56.01	28
6	**Global Knowledge**	9.18	93
6.1	**Higher skills and competencies**	4.13	95
	Educated workforce		
6.1.1	Tertiary-educated workforce	3.42	84
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	n/a	n/a
6.1.3	Professionals	n/a	n/a
6.1.4	Researchers	4.85	67
6.2	**Talent impact**	14.23	91
	Innovation		
6.2.1	Innovation output	14.23	84
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

ALGERIA

RANK
(out of 103) **103**

Population (millions)	**38.41**
GDP per capita (PPP$)	**7,477.07**
GDP (US$ billions)	**207.79**
Global Talent Competitiveness Index Score	**26.40**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



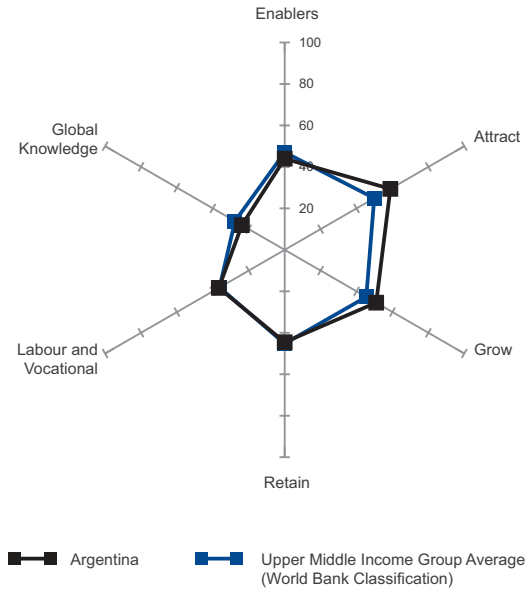
	VARIABLE	SCORE	RANK/103
1	**Enablers**	22.48	103
1.1	**Regulatory landscape**	23.17	101
	Government efficiency		
1.1.1	Government effectiveness	13.36	92
1.1.2	Political stability	32.97	97
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	19.31	103
	Competition climate		
1.2.1	Intensity of local competition	35.75	103
	Innovation climate		
1.2.2	Venture capital availability	12.98	102
1.2.3	Firm-level technology absorption	36.01	103
1.2.4	R&D expenditure	1.03	90
	Connectivity		
1.2.5	ICT access	26.07	79
	Ease of doing business		
1.2.6	Ease of doing business	4.00	99
1.3	**Business landscape**	24.97	103
	Labour market flexibility		
1.3.1	Labour market flexibility	28.64	85
	Ownership and governance		
1.3.2	Reliance on professional management	21.31	103
2	**Attract**	26.56	102
2.1	**External openness**	19.52	103
	FDI		
2.1.1	FDI inflow	11.73	80
	Brain gain		
2.1.2	Qualified labour inflow	9.00	103
	Foreign companies		
2.1.3	Prevalence of foreign ownership	37.83	100
2.2	**Internal openness**	33.60	102
	Diversity		
2.2.1	Tolerance of minorities	23.80	101
2.2.2	Tolerance of immigrants	52.40	85
	Social mobility		
2.2.3	Social mobility	33.33	96
	Gender mobility		
2.2.4	Female professionals and technical workers	47.69	80
2.2.5	Female parliamentarians	10.76	92
3	**Grow**	30.22	102
3.1	**Formal education**	27.07	85
	Education climate		
3.1.1	Pupil-teacher ratio	59.70	71
3.1.2	Technical/vocational enrolment	17.60	65
3.1.3	Tertiary enrolment	28.44	69
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	2.53	69

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	29.98	103
	Further education and training climate		
3.2.1	Quality of management schools	33.78	100
3.2.2	Extent of staff training	26.18	103
3.3	**Access to growth opportunities**	33.60	102
	Networks		
3.3.1	Use of virtual social networks	70.64	75
3.3.2	State of cluster development	22.79	100
	Research quality		
3.3.3	Quality of scientific research institutions	18.33	102
	Voice		
3.3.4	Voicing concern to officials	22.64	91
4	**Retain**	39.34	78
4.1	**Sustainability**	37.04	73
	Social protection		
4.1.1	Pension system	37.69	53
	Taxation		
4.1.2	Extent and effect of taxation	36.39	68
4.2	**Lifestyle**	41.65	84
	Quality of life		
4.2.1	Environmental performance	35.70	72
4.2.2	Property stolen	59.00	70
4.2.3	Safety at night	52.41	78
	Services		
4.2.4	Physicians density	19.47	68
5	**Labour and Vocational**	20.53	103
5.1	**Employable skills**	22.60	97
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	10.57	82
	Technical professions		
5.1.2	Technicians and associate professionals	40.82	50
	Youth employment		
5.1.3	Youth employment	16.40	84
5.2	**Labour productivity**	18.46	102
	Productivity per employee		
5.2.1	Labour productivity per employee	13.84	64
	Pay and productivity		
5.2.2	Relationship of pay to productivity	23.07	103
6	**Global Knowledge**	19.30	81
6.1	**Higher skills and competencies**	15.87	81
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	33.15	37
6.1.3	Professionals	11.89	78
6.1.4	Researchers	2.56	72
6.2	**Talent impact**	22.73	77
	Innovation		
6.2.1	Innovation output	0.00	103
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	45.45	30

ARGENTINA

RANK
(out of 103) **54**

Population (millions)	**41.11**
GDP per capita (PPP$)	**18,112.33**
GDP (US$ billions)	**474.95**
Global Talent Competitiveness Index Score	**43.13**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



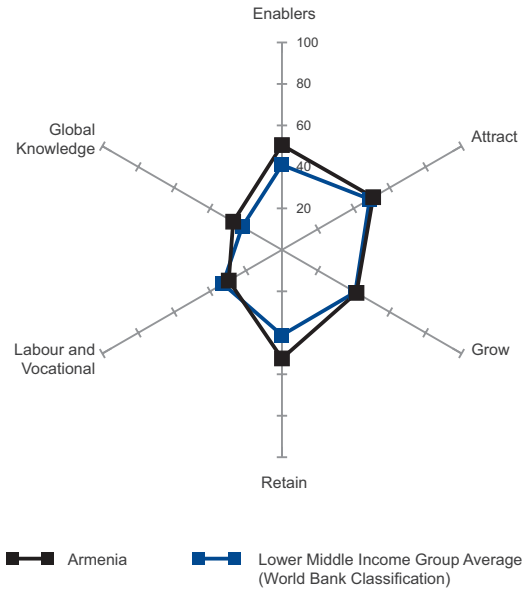
	VARIABLE	SCORE	RANK/103
1	**Enablers**	43.96	71
1.1	**Regulatory landscape**	53.66	55
	Government efficiency		
1.1.1	Government effectiveness	28.18	68
1.1.2	Political stability	70.97	46
	FDI climate		
1.1.3	Starting a foreign business	61.83	38
1.2	**Market landscape**	34.40	81
	Competition climate		
1.2.1	Intensity of local competition	51.22	87
	Innovation climate		
1.2.2	Venture capital availability	13.71	100
1.2.3	Firm-level technology absorption	55.24	84
1.2.4	R&D expenditure	13.10	50
	Connectivity		
1.2.5	ICT access	55.45	50
	Ease of doing business		
1.2.6	Ease of doing business	17.70	85
1.3	**Business landscape**	43.80	78
	Labour market flexibility		
1.3.1	Labour market flexibility	30.46	82
	Ownership and governance		
1.3.2	Reliance on professional management	57.15	41
2	**Attract**	58.83	30
2.1	**External openness**	39.70	69
	FDI		
2.1.1	FDI inflow	13.47	75
	Brain gain		
2.1.2	Qualified labour inflow	40.26	52
	Foreign companies		
2.1.3	Prevalence of foreign ownership	65.37	42
2.2	**Internal openness**	77.96	14
	Diversity		
2.2.1	Tolerance of minorities	84.57	28
2.2.2	Tolerance of immigrants	88.15	18
	Social mobility		
2.2.3	Social mobility	43.17	82
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	73.91	11
3	**Grow**	50.95	41
3.1	**Formal education**	48.19	40
	Education climate		
3.1.1	Pupil-teacher ratio	87.97	30
3.1.2	Technical/vocational enrolment	16.34	67
3.1.3	Tertiary enrolment	71.48	13
	Performance of education system		
3.1.4	Reading, maths and science scores	28.11	58
	Top universities		
3.1.5	QS university ranking	37.04	29
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	56.13	39
	Further education and training climate		
3.2.1	Quality of management schools	64.82	30
3.2.2	Extent of staff training	47.44	60
3.3	**Access to growth opportunities**	48.52	63
	Networks		
3.3.1	Use of virtual social networks	79.42	42
3.3.2	State of cluster development	38.61	74
	Research quality		
3.3.3	Quality of scientific research institutions	51.30	43
	Voice		
3.3.4	Voicing concern to officials	24.76	88
4	**Retain**	44.54	67
4.1	**Sustainability**	35.41	75
	Social protection		
4.1.1	Pension system	48.66	48
	Taxation		
4.1.2	Extent and effect of taxation	22.16	96
4.2	**Lifestyle**	53.67	56
	Quality of life		
4.2.1	Environmental performance	53.81	46
4.2.2	Property stolen	54.03	82
4.2.3	Safety at night	54.87	72
	Services		
4.2.4	Physicians density	51.99	26
5	**Labour and Vocational**	36.68	61
5.1	**Employable skills**	46.62	36
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	40.29	45
	Technical professions		
5.1.2	Technicians and associate professionals	63.27	28
	Youth employment		
5.1.3	Youth employment	36.31	55
5.2	**Labour productivity**	26.74	87
	Productivity per employee		
5.2.1	Labour productivity per employee	24.13	44
	Pay and productivity		
5.2.2	Relationship of pay to productivity	29.34	100
6	**Global Knowledge**	23.83	72
6.1	**Higher skills and competencies**	13.88	85
	Educated workforce		
6.1.1	Tertiary-educated workforce	31.21	59
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	1.12	90
6.1.3	Professionals	11.59	80
6.1.4	Researchers	11.58	46
6.2	**Talent impact**	33.79	57
	Innovation		
6.2.1	Innovation output	27.32	59
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	40.26	40

ARMENIA

RANK
(out of 103) **61**

Population (millions)	**2.97**
GDP per capita (PPP$)	**5,838.26**
GDP (US$ billions)	**10.07**
Global Talent Competitiveness Index Score	**42.00**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



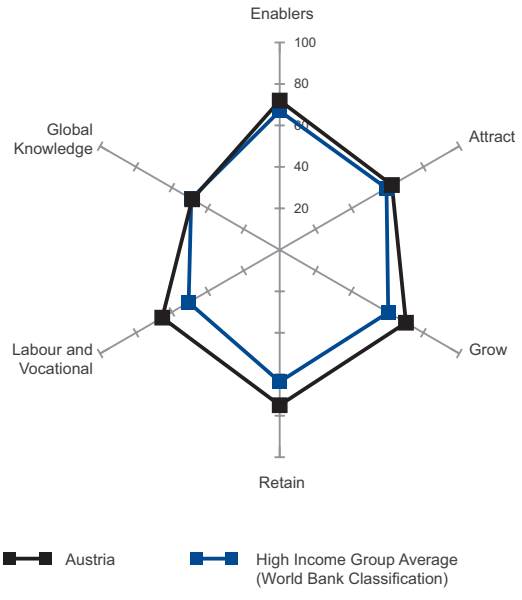
	VARIABLE	SCORE	RANK/103
1	**Enablers**	50.52	56
1.1	**Regulatory landscape**	58.51	50
	Government efficiency		
1.1.1	Government effectiveness	30.35	63
1.1.2	Political stability	63.79	58
	FDI climate		
1.1.3	Starting a foreign business	81.41	14
1.2	**Market landscape**	41.13	63
	Competition climate		
1.2.1	Intensity of local competition	47.47	96
	Innovation climate		
1.2.2	Venture capital availability	22.82	71
1.2.3	Firm-level technology absorption	57.10	76
1.2.4	R&D expenditure	5.66	65
	Connectivity		
1.2.5	ICT access	n/a	n/a
	Ease of doing business		
1.2.6	Ease of doing business	72.60	29
1.3	**Business landscape**	51.92	56
	Labour market flexibility		
1.3.1	Labour market flexibility	55.09	47
	Ownership and governance		
1.3.2	Reliance on professional management	48.76	66
2	**Attract**	50.78	55
2.1	**External openness**	43.48	53
	FDI		
2.1.1	FDI inflow	38.86	23
	Brain gain		
2.1.2	Qualified labour inflow	36.66	65
	Foreign companies		
2.1.3	Prevalence of foreign ownership	54.92	70
2.2	**Internal openness**	58.08	62
	Diversity		
2.2.1	Tolerance of minorities	62.39	78
2.2.2	Tolerance of immigrants	66.06	61
	Social mobility		
2.2.3	Social mobility	50.62	65
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	11.34	91
3	**Grow**	41.50	74
3.1	**Formal education**	40.85	54
	Education climate		
3.1.1	Pupil-teacher ratio	100.00	1
3.1.2	Technical/vocational enrolment	4.22	89
3.1.3	Tertiary enrolment	45.42	45
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	13.76	42

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	40.19	92
	Further education and training climate		
3.2.1	Quality of management schools	36.42	98
3.2.2	Extent of staff training	43.97	73
3.3	**Access to growth opportunities**	43.47	86
	Networks		
3.3.1	Use of virtual social networks	73.93	59
3.3.2	State of cluster development	44.06	57
	Research quality		
3.3.3	Quality of scientific research institutions	32.79	89
	Voice		
3.3.4	Voicing concern to officials	23.11	90
4	**Retain**	52.37	53
4.1	**Sustainability**	39.93	68
	Social protection		
4.1.1	Pension system	32.80	59
	Taxation		
4.1.2	Extent and effect of taxation	47.06	33
4.2	**Lifestyle**	64.81	29
	Quality of life		
4.2.1	Environmental performance	33.23	75
4.2.2	Property stolen	82.70	11
4.2.3	Safety at night	82.35	25
	Services		
4.2.4	Physicians density	60.95	12
5	**Labour and Vocational**	29.63	87
5.1	**Employable skills**	25.70	92
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	n/a	n/a
	Technical professions		
5.1.2	Technicians and associate professionals	41.84	49
	Youth employment		
5.1.3	Youth employment	9.55	96
5.2	**Labour productivity**	33.57	66
	Productivity per employee		
5.2.1	Labour productivity per employee	10.55	73
	Pay and productivity		
5.2.2	Relationship of pay to productivity	56.58	26
6	**Global Knowledge**	27.16	62
6.1	**Higher skills and competencies**	27.75	54
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	25.28	55
6.1.3	Professionals	45.43	32
6.1.4	Researchers	12.55	44
6.2	**Talent impact**	26.57	71
	Innovation		
6.2.1	Innovation output	26.57	61
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

AUSTRIA

RANK
(out of 103) **14**

Population (millions)	**8.46**
GDP per capita (PPP$)	**42,408.58**
GDP (US$ billions)	**398.59**
Global Talent Competitiveness Index Score	**65.64**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



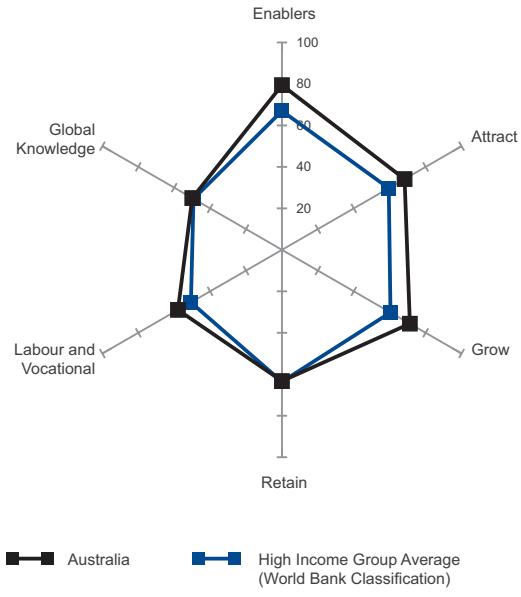
	VARIABLE	SCORE	RANK/103
1	**Enablers**	72.00	18
1.1	**Regulatory landscape**	83.95	14
	Government efficiency		
1.1.1	Government effectiveness	82.50	13
1.1.2	Political stability	95.26	10
	FDI climate		
1.1.3	Starting a foreign business	74.08	22
1.2	**Market landscape**	70.00	17
	Competition climate		
1.2.1	Intensity of local competition	80.50	6
	Innovation climate		
1.2.2	Venture capital availability	33.42	32
1.2.3	Firm-level technology absorption	82.17	12
1.2.4	R&D expenditure	62.32	10
	Connectivity		
1.2.5	ICT access	86.07	14
	Ease of doing business		
1.2.6	Ease of doing business	75.50	26
1.3	**Business landscape**	62.06	31
	Labour market flexibility		
1.3.1	Labour market flexibility	49.94	56
	Ownership and governance		
1.3.2	Reliance on professional management	74.17	17
2	**Attract**	62.49	23
2.1	**External openness**	50.53	28
	FDI		
2.1.1	FDI inflow	26.45	40
	Brain gain		
2.1.2	Qualified labour inflow	56.84	26
	Foreign companies		
2.1.3	Prevalence of foreign ownership	68.29	35
2.2	**Internal openness**	74.46	23
	Diversity		
2.2.1	Tolerance of minorities	78.59	38
2.2.2	Tolerance of immigrants	75.24	37
	Social mobility		
2.2.3	Social mobility	84.45	8
	Gender mobility		
2.2.4	Female professionals and technical workers	86.14	63
2.2.5	Female parliamentarians	47.87	23
3	**Grow**	70.30	10
3.1	**Formal education**	72.60	2
	Education climate		
3.1.1	Pupil-teacher ratio	90.61	23
3.1.2	Technical/vocational enrolment	83.12	4
3.1.3	Tertiary enrolment	64.82	20
	Performance of education system		
3.1.4	Reading, maths and science scores	64.28	28
	Top universities		
3.1.5	QS university ranking	42.67	25
	International students		
3.1.6	International students inflow	90.11	7

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	65.18	22
	Further education and training climate		
3.2.1	Quality of management schools	63.16	33
3.2.2	Extent of staff training	67.19	12
3.3	**Access to growth opportunities**	73.13	10
	Networks		
3.3.1	Use of virtual social networks	85.96	17
3.3.2	State of cluster development	62.98	16
	Research quality		
3.3.3	Quality of scientific research institutions	68.09	20
	Voice		
3.3.4	Voicing concern to officials	75.47	9
4	**Retain**	74.92	2
4.1	**Sustainability**	67.62	13
	Social protection		
4.1.1	Pension system	98.20	5
	Taxation		
4.1.2	Extent and effect of taxation	37.04	66
4.2	**Lifestyle**	82.22	1
	Quality of life		
4.2.1	Environmental performance	82.24	7
4.2.2	Property stolen	77.73	22
4.2.3	Safety at night	90.27	8
	Services		
4.2.4	Physicians density	78.67	2
5	**Labour and Vocational**	65.39	2
5.1	**Employable skills**	76.70	2
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	71.71	13
	Technical professions		
5.1.2	Technicians and associate professionals	89.29	6
	Youth employment		
5.1.3	Youth employment	69.11	18
5.2	**Labour productivity**	54.09	13
	Productivity per employee		
5.2.1	Labour productivity per employee	58.28	9
	Pay and productivity		
5.2.2	Relationship of pay to productivity	49.90	52
6	**Global Knowledge**	48.73	26
6.1	**Higher skills and competencies**	44.11	29
	Educated workforce		
6.1.1	Tertiary-educated workforce	39.86	48
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	28.09	50
6.1.3	Professionals	42.38	35
6.1.4	Researchers	66.12	8
6.2	**Talent impact**	53.34	24
	Innovation		
6.2.1	Innovation output	58.63	21
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	48.05	27

AUSTRALIA

RANK
(out of 103) **15**

Population (millions)	**23.05**
GDP per capita (PPP$)	**42,640.28**
GDP (US$ billions)	**1,541.80**
Global Talent Competitiveness Index Score	**65.01**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



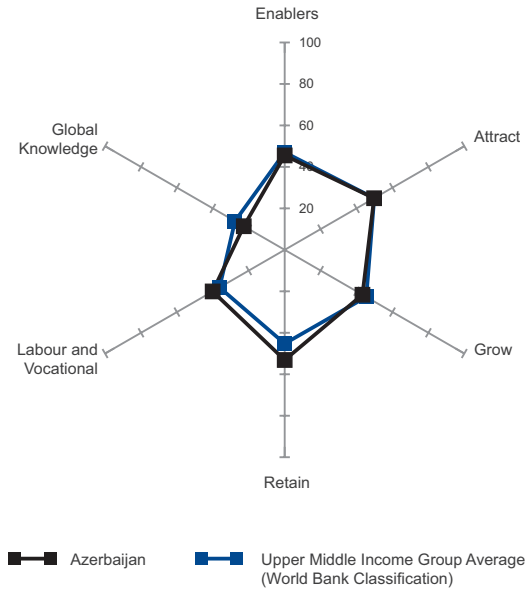
	VARIABLE	SCORE	RANK/103
1	**Enablers**	79.43	9
1.1	**Regulatory landscape**	86.14	12
	Government efficiency		
1.1.1	Government effectiveness	84.85	10
1.1.2	Political stability	87.43	25
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	71.73	15
	Competition climate		
1.2.1	Intensity of local competition	80.86	5
	Innovation climate		
1.2.2	Venture capital availability	38.93	22
1.2.3	Firm-level technology absorption	81.61	14
1.2.4	R&D expenditure	53.72	13
	Connectivity		
1.2.5	ICT access	83.03	18
	Ease of doing business		
1.2.6	Ease of doing business	92.20	9
1.3	**Business landscape**	80.44	7
	Labour market flexibility		
1.3.1	Labour market flexibility	78.70	13
	Ownership and governance		
1.3.2	Reliance on professional management	82.17	10
2	**Attract**	68.27	14
2.1	**External openness**	53.10	21
	FDI		
2.1.1	FDI inflow	21.55	49
	Brain gain		
2.1.2	Qualified labour inflow	57.25	25
	Foreign companies		
2.1.3	Prevalence of foreign ownership	80.51	7
2.2	**Internal openness**	83.45	10
	Diversity		
2.2.1	Tolerance of minorities	97.61	3
2.2.2	Tolerance of immigrants	96.69	3
	Social mobility		
2.2.3	Social mobility	82.35	9
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	40.58	29
3	**Grow**	71.22	7
3.1	**Formal education**	80.95	1
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	69.36	14
3.1.3	Tertiary enrolment	76.63	8
	Performance of education system		
3.1.4	Reading, maths and science scores	76.98	8
	Top universities		
3.1.5	QS university ranking	84.04	4
	International students		
3.1.6	International students inflow	97.72	6

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	65.69	20
	Further education and training climate		
3.2.1	Quality of management schools	71.20	16
3.2.2	Extent of staff training	60.18	24
3.3	**Access to growth opportunities**	67.01	19
	Networks		
3.3.1	Use of virtual social networks	86.48	14
3.3.2	State of cluster development	53.93	33
	Research quality		
3.3.3	Quality of scientific research institutions	79.29	7
	Voice		
3.3.4	Voicing concern to officials	48.35	43
4	**Retain**	63.30	26
4.1	**Sustainability**	65.48	17
	Social protection		
4.1.1	Pension system	95.02	15
	Taxation		
4.1.2	Extent and effect of taxation	35.94	70
4.2	**Lifestyle**	61.11	40
	Quality of life		
4.2.1	Environmental performance	54.10	44
4.2.2	Property stolen	71.33	44
4.2.3	Safety at night	70.59	47
	Services		
4.2.4	Physicians density	48.43	32
5	**Labour and Vocational**	57.91	17
5.1	**Employable skills**	62.40	11
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	44.57	41
	Technical professions		
5.1.2	Technicians and associate professionals	64.29	27
	Youth employment		
5.1.3	Youth employment	78.34	8
5.2	**Labour productivity**	53.42	15
	Productivity per employee		
5.2.1	Labour productivity per employee	60.58	8
	Pay and productivity		
5.2.2	Relationship of pay to productivity	46.26	66
6	**Global Knowledge**	49.96	23
6.1	**Higher skills and competencies**	57.09	16
	Educated workforce		
6.1.1	Tertiary-educated workforce	87.47	4
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	62.36	7
6.1.3	Professionals	54.57	17
6.1.4	Researchers	23.97	33
6.2	**Talent impact**	42.82	39
	Innovation		
6.2.1	Innovation output	46.68	30
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	38.96	44

AZERBAIJAN

RANK
(out of 103) **57**

Population (millions)	**9.32**
GDP per capita (PPP$)	**10,478.23**
GDP (US$ billions)	**68.80**
Global Talent Competitiveness Index Score	**42.44**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



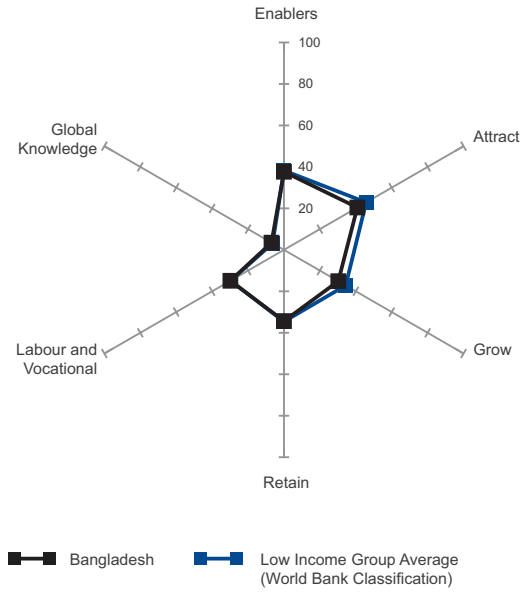
	VARIABLE	SCORE	RANK/103
1	**Enablers**	45.53	66
1.1	**Regulatory landscape**	44.26	75
	Government efficiency		
1.1.1	Government effectiveness	9.41	96
1.1.2	Political stability	52.25	75
	FDI climate		
1.1.3	Starting a foreign business	71.13	26
1.2	**Market landscape**	39.23	71
	Competition climate		
1.2.1	Intensity of local competition	47.07	97
	Innovation climate		
1.2.2	Venture capital availability	29.40	48
1.2.3	Firm-level technology absorption	62.45	59
1.2.4	R&D expenditure	5.21	67
	Connectivity		
1.2.5	ICT access	41.24	61
	Ease of doing business		
1.2.6	Ease of doing business	50.00	52
1.3	**Business landscape**	53.09	54
	Labour market flexibility		
1.3.1	Labour market flexibility	59.78	41
	Ownership and governance		
1.3.2	Reliance on professional management	46.40	76
2	**Attract**	49.78	62
2.1	**External openness**	37.87	72
	FDI		
2.1.1	FDI inflow	18.57	56
	Brain gain		
2.1.2	Qualified labour inflow	40.23	53
	Foreign companies		
2.1.3	Prevalence of foreign ownership	54.81	71
2.2	**Internal openness**	61.70	54
	Diversity		
2.2.1	Tolerance of minorities	65.11	72
2.2.2	Tolerance of immigrants	72.79	41
	Social mobility		
2.2.3	Social mobility	47.02	75
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	23.56	64
3	**Grow**	43.30	69
3.1	**Formal education**	32.51	69
	Education climate		
3.1.1	Pupil-teacher ratio	93.38	13
3.1.2	Technical/vocational enrolment	36.73	38
3.1.3	Tertiary enrolment	15.91	79
	Performance of education system		
3.1.4	Reading, maths and science scores	25.27	59
	Top universities		
3.1.5	QS university ranking	10.91	50
	International students		
3.1.6	International students inflow	12.89	45

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	44.68	77
	Further education and training climate		
3.2.1	Quality of management schools	38.05	95
3.2.2	Extent of staff training	51.31	45
3.3	**Access to growth opportunities**	52.70	52
	Networks		
3.3.1	Use of virtual social networks	81.58	35
3.3.2	State of cluster development	45.16	55
	Research quality		
3.3.3	Quality of scientific research institutions	44.20	59
	Voice		
3.3.4	Voicing concern to officials	39.86	61
4	**Retain**	53.12	50
4.1	**Sustainability**	40.96	65
	Social protection		
4.1.1	Pension system	36.29	54
	Taxation		
4.1.2	Extent and effect of taxation	45.64	35
4.2	**Lifestyle**	65.27	25
	Quality of life		
4.2.1	Environmental performance	23.25	89
4.2.2	Property stolen	95.50	2
4.2.3	Safety at night	81.07	26
	Services		
4.2.4	Physicians density	61.28	10
5	**Labour and Vocational**	40.11	47
5.1	**Employable skills**	43.76	45
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	83.71	4
	Technical professions		
5.1.2	Technicians and associate professionals	14.29	81
	Youth employment		
5.1.3	Youth employment	33.28	63
5.2	**Labour productivity**	36.46	56
	Productivity per employee		
5.2.1	Labour productivity per employee	12.77	66
	Pay and productivity		
5.2.2	Relationship of pay to productivity	60.15	16
6	**Global Knowledge**	22.78	75
6.1	**Higher skills and competencies**	30.00	49
	Educated workforce		
6.1.1	Tertiary-educated workforce	57.18	27
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	6.74	84
6.1.3	Professionals	45.43	32
6.1.4	Researchers	10.67	51
6.2	**Talent impact**	15.56	89
	Innovation		
6.2.1	Innovation output	15.56	82
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

BANGLADESH

RANK
(out of 103) **98**

Population (millions)	**155.05**
GDP per capita (PPP$)	**2,039.48**
GDP (US$ billions)	**122.72**
Global Talent Competitiveness Index Score	**29.98**
Global Talent Competitiveness Index Score (Income Group Average)	**31.51**



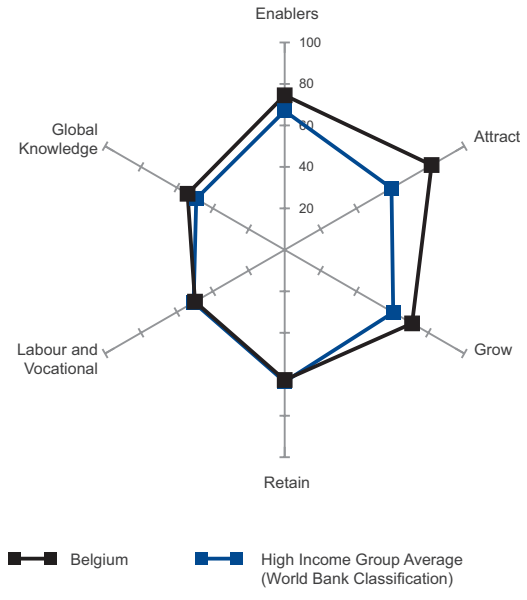
	VARIABLE	SCORE	RANK/103
1	**Enablers**	37.65	89
1.1	**Regulatory landscape**	28.33	96
	Government efficiency		
1.1.1	Government effectiveness	7.41	101
1.1.2	Political stability	29.40	100
	FDI climate		
1.1.3	Starting a foreign business	48.17	53
1.2	**Market landscape**	36.43	76
	Competition climate		
1.2.1	Intensity of local competition	60.97	67
	Innovation climate		
1.2.2	Venture capital availability	16.84	93
1.2.3	Firm-level technology absorption	54.11	85
1.2.4	R&D expenditure	n/a	n/a
	Connectivity		
1.2.5	ICT access	n/a	n/a
	Ease of doing business		
1.2.6	Ease of doing business	13.80	89
1.3	**Business landscape**	48.20	64
	Labour market flexibility		
1.3.1	Labour market flexibility	54.50	48
	Ownership and governance		
1.3.2	Reliance on professional management	41.90	89
2	**Attract**	40.85	94
2.1	**External openness**	29.43	94
	FDI		
2.1.1	FDI inflow	9.27	86
	Brain gain		
2.1.2	Qualified labour inflow	29.48	82
	Foreign companies		
2.1.3	Prevalence of foreign ownership	49.53	85
2.2	**Internal openness**	52.28	83
	Diversity		
2.2.1	Tolerance of minorities	97.50	4
2.2.2	Tolerance of immigrants	85.17	22
	Social mobility		
2.2.3	Social mobility	48.37	69
	Gender mobility		
2.2.4	Female professionals and technical workers	0.00	93
2.2.5	Female parliamentarians	30.35	53
3	**Grow**	30.24	101
3.1	**Formal education**	10.38	100
	Education climate		
3.1.1	Pupil-teacher ratio	38.43	82
3.1.2	Technical/vocational enrolment	6.66	87
3.1.3	Tertiary enrolment	6.78	88
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	0.00	61
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	40.79	90
	Further education and training climate		
3.2.1	Quality of management schools	47.91	69
3.2.2	Extent of staff training	33.66	100
3.3	**Access to growth opportunities**	39.55	94
	Networks		
3.3.1	Use of virtual social networks	58.10	94
3.3.2	State of cluster development	48.80	47
	Research quality		
3.3.3	Quality of scientific research institutions	25.81	96
	Voice		
3.3.4	Voicing concern to officials	25.47	87
4	**Retain**	34.36	92
4.1	**Sustainability**	25.91	96
	Social protection		
4.1.1	Pension system	1.38	89
	Taxation		
4.1.2	Extent and effect of taxation	50.44	22
4.2	**Lifestyle**	42.81	81
	Quality of life		
4.2.1	Environmental performance	21.97	91
4.2.2	Property stolen	57.11	75
4.2.3	Safety at night	87.49	13
	Services		
4.2.4	Physicians density	4.66	87
5	**Labour and Vocational**	29.84	86
5.1	**Employable skills**	37.32	64
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	n/a	n/a
	Technical professions		
5.1.2	Technicians and associate professionals	11.73	83
	Youth employment		
5.1.3	Youth employment	62.90	23
5.2	**Labour productivity**	22.36	96
	Productivity per employee		
5.2.1	Labour productivity per employee	2.57	86
	Pay and productivity		
5.2.2	Relationship of pay to productivity	42.15	80
6	**Global Knowledge**	6.94	98
6.1	**Higher skills and competencies**	7.43	91
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	21.91	62
6.1.3	Professionals	0.00	93
6.1.4	Researchers	0.38	90
6.2	**Talent impact**	6.45	99
	Innovation		
6.2.1	Innovation output	12.9	89
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	0.00	77

BELGIUM

RANK
(out of 103) **13**

Population (millions)	**11.06**
GDP per capita (PPP$)	**37,883.06**
GDP (US$ billions)	**484.69**
Global Talent Competitiveness Index Score	**65.67**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



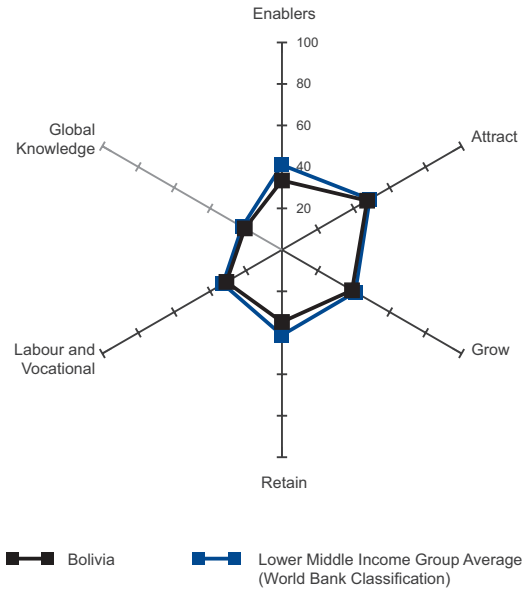
	VARIABLE	SCORE	RANK/103
1	**Enablers**	74.53	16
1.1	**Regulatory landscape**	85.21	13
	Government efficiency		
1.1.1	Government effectiveness	82.68	12
1.1.2	Political stability	87.74	24
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	66.85	21
	Competition climate		
1.2.1	Intensity of local competition	82.70	3
	Innovation climate		
1.2.2	Venture capital availability	42.15	19
1.2.3	Firm-level technology absorption	75.88	27
1.2.4	R&D expenditure	44.89	16
	Connectivity		
1.2.5	ICT access	83.86	17
	Ease of doing business		
1.2.6	Ease of doing business	71.60	30
1.3	**Business landscape**	71.54	16
	Labour market flexibility		
1.3.1	Labour market flexibility	69.30	31
	Ownership and governance		
1.3.2	Reliance on professional management	73.77	19
2	**Attract**	81.79	1
2.1	**External openness**	80.37	3
	FDI		
2.1.1	FDI inflow	100.00	1
	Brain gain		
2.1.2	Qualified labour inflow	62.46	16
	Foreign companies		
2.1.3	Prevalence of foreign ownership	78.66	10
2.2	**Internal openness**	83.20	11
	Diversity		
2.2.1	Tolerance of minorities	83.91	30
2.2.2	Tolerance of immigrants	81.86	27
	Social mobility		
2.2.3	Social mobility	80.71	13
	Gender mobility		
2.2.4	Female professionals and technical workers	93.72	54
2.2.5	Female parliamentarians	75.82	10
3	**Grow**	70.93	8
3.1	**Formal education**	68.58	5
	Education climate		
3.1.1	Pupil-teacher ratio	88.90	28
3.1.2	Technical/vocational enrolment	84.29	2
3.1.3	Tertiary enrolment	67.23	18
	Performance of education system		
3.1.4	Reading, maths and science scores	73.18	13
	Top universities		
3.1.5	QS university ranking	60.55	14
	International students		
3.1.6	International students inflow	37.31	15

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	73.72	5
	Further education and training climate		
3.2.1	Quality of management schools	83.61	2
3.2.2	Extent of staff training	63.83	19
3.3	**Access to growth opportunities**	70.50	14
	Networks		
3.3.1	Use of virtual social networks	85.96	16
3.3.2	State of cluster development	60.59	17
	Research quality		
3.3.3	Quality of scientific research institutions	82.39	4
	Voice		
3.3.4	Voicing concern to officials	53.07	35
4	**Retain**	62.77	27
4.1	**Sustainability**	58.68	35
	Social protection		
4.1.1	Pension system	95.78	13
	Taxation		
4.1.2	Extent and effect of taxation	21.57	100
4.2	**Lifestyle**	66.86	20
	Quality of life		
4.2.1	Environmental performance	68.75	24
4.2.2	Property stolen	74.17	36
4.2.3	Safety at night	75.72	33
	Services		
4.2.4	Physicians density	48.79	30
5	**Labour and Vocational**	49.94	25
5.1	**Employable skills**	46.95	35
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	42.57	43
	Technical professions		
5.1.2	Technicians and associate professionals	75.51	17
	Youth employment		
5.1.3	Youth employment	22.77	74
5.2	**Labour productivity**	52.93	19
	Productivity per employee		
5.2.1	Labour productivity per employee	61.92	7
	Pay and productivity		
5.2.2	Relationship of pay to productivity	43.94	72
6	**Global Knowledge**	54.08	18
6.1	**Higher skills and competencies**	50.05	21
	Educated workforce		
6.1.1	Tertiary-educated workforce	68.34	16
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	40.45	29
6.1.3	Professionals	61.59	13
6.1.4	Researchers	29.83	28
6.2	**Talent impact**	58.11	15
	Innovation		
6.2.1	Innovation output	61.67	18
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	54.55	16

BOLIVIA

RANK
(out of 103) **88**

Population (millions)	**10.52**
GDP per capita (PPP$)	**5,099.27**
GDP (US$ billions)	**27.43**
Global Talent Competitiveness Index Score	**34.38**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



	VARIABLE	SCORE	RANK/103
1	**Enablers**	33.44	94
1.1	**Regulatory landscape**	44.54	74
	Government efficiency		
1.1.1	Government effectiveness	20.55	78
1.1.2	Political stability	53.78	72
	FDI climate		
1.1.3	Starting a foreign business	59.30	41
1.2	**Market landscape**	25.82	98
	Competition climate		
1.2.1	Intensity of local competition	45.09	98
	Innovation climate		
1.2.2	Venture capital availability	38.00	24
1.2.3	Firm-level technology absorption	44.84	99
1.2.4	R&D expenditure	3.09	80
	Connectivity		
1.2.5	ICT access	21.93	85
	Ease of doing business		
1.2.6	Ease of doing business	2.00	101
1.3	**Business landscape**	29.95	97
	Labour market flexibility		
1.3.1	Labour market flexibility	17.20	95
	Ownership and governance		
1.3.2	Reliance on professional management	42.70	85
2	**Attract**	47.42	73
2.1	**External openness**	36.26	76
	FDI		
2.1.1	FDI inflow	27.43	38
	Brain gain		
2.1.2	Qualified labour inflow	39.49	58
	Foreign companies		
2.1.3	Prevalence of foreign ownership	41.86	96
2.2	**Internal openness**	58.57	60
	Diversity		
2.2.1	Tolerance of minorities	66.96	66
2.2.2	Tolerance of immigrants	73.00	40
	Social mobility		
2.2.3	Social mobility	47.71	72
	Gender mobility		
2.2.4	Female professionals and technical workers	63.07	75
2.2.5	Female parliamentarians	42.12	26
3	**Grow**	39.00	86
3.1	**Formal education**	28.67	81
	Education climate		
3.1.1	Pupil-teacher ratio	67.32	67
3.1.2	Technical/vocational enrolment	9.99	80
3.1.3	Tertiary enrolment	35.05	61
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	2.30	71

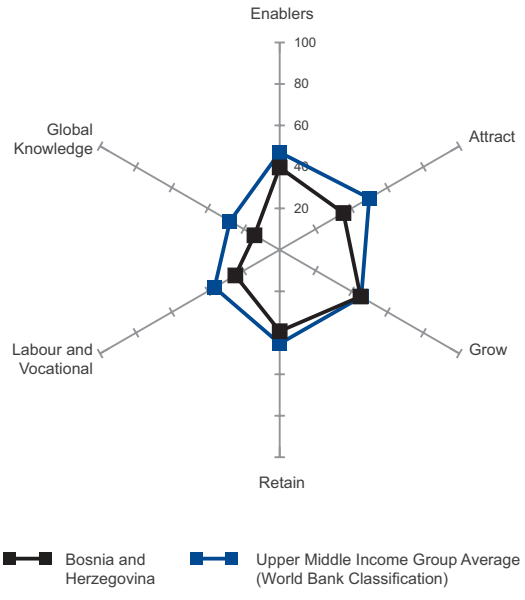
	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	41.51	89
	Further education and training climate		
3.2.1	Quality of management schools	39.66	92
3.2.2	Extent of staff training	43.37	78
3.3	**Access to growth opportunities**	46.82	73
	Networks		
3.3.1	Use of virtual social networks	48.77	101
3.3.2	State of cluster development	40.84	66
	Research quality		
3.3.3	Quality of scientific research institutions	38.49	78
	Voice		
3.3.4	Voicing concern to officials	59.20	21
4	**Retain**	34.78	90
4.1	**Sustainability**	26.17	95
	Social protection		
4.1.1	Pension system	11.70	76
	Taxation		
4.1.2	Extent and effect of taxation	40.63	52
4.2	**Lifestyle**	43.40	80
	Quality of life		
4.2.1	Environmental performance	49.44	56
4.2.2	Property stolen	33.18	96
4.2.3	Safety at night	47.59	85
	Services		
4.2.4	Physicians density	n/a	n/a
5	**Labour and Vocational**	30.93	81
5.1	**Employable skills**	36.50	67
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	22.00	71
	Technical professions		
5.1.2	Technicians and associate professionals	23.98	73
	Youth employment		
5.1.3	Youth employment	63.54	22
5.2	**Labour productivity**	25.35	91
	Productivity per employee		
5.2.1	Labour productivity per employee	6.96	78
	Pay and productivity		
5.2.2	Relationship of pay to productivity	43.75	73
6	**Global Knowledge**	20.69	79
6.1	**Higher skills and competencies**	20.87	71
	Educated workforce		
6.1.1	Tertiary-educated workforce	51.71	32
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	10.67	81
6.1.3	Professionals	19.82	67
6.1.4	Researchers	1.29	79
6.2	**Talent impact**	20.50	82
	Innovation		
6.2.1	Innovation output	8.54	96
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	32.47	53

BOSNIA AND HERZEGOVINA

RANK
(out of 103)

91

Population (millions)	**3.83**
GDP per capita (PPP$)	**8,215.95**
GDP (US$ billions)	**17.33**
Global Talent Competitiveness Index Score	**33.04**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



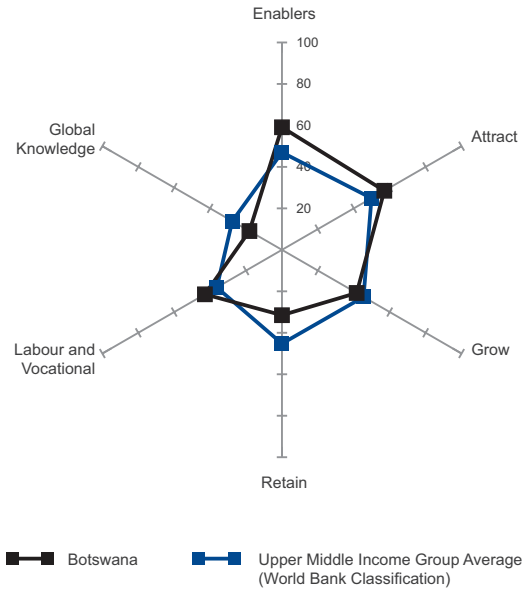
	VARIABLE	SCORE	RANK/103
1	**Enablers**	39.74	85
1.1	**Regulatory landscape**	39.06	82
	Government efficiency		
1.1.1	Government effectiveness	10.24	95
1.1.2	Political stability	43.99	86
	FDI climate		
1.1.3	Starting a foreign business	62.96	34
1.2	**Market landscape**	28.78	95
	Competition climate		
1.2.1	Intensity of local competition	43.36	100
	Innovation climate		
1.2.2	Venture capital availability	15.50	95
1.2.3	Firm-level technology absorption	55.36	83
1.2.4	R&D expenditure	0.00	96
	Connectivity		
1.2.5	ICT access	41.79	59
	Ease of doing business		
1.2.6	Ease of doing business	16.70	86
1.3	**Business landscape**	51.36	57
	Labour market flexibility		
1.3.1	Labour market flexibility	51.72	53
	Ownership and governance		
1.3.2	Reliance on professional management	51.01	59
2	**Attract**	35.49	99
2.1	**External openness**	30.55	92
	FDI		
2.1.1	FDI inflow	19.14	53
	Brain gain		
2.1.2	Qualified labour inflow	15.35	101
	Foreign companies		
2.1.3	Prevalence of foreign ownership	57.18	61
2.2	**Internal openness**	40.43	98
	Diversity		
2.2.1	Tolerance of minorities	50.22	94
2.2.2	Tolerance of immigrants	61.26	70
	Social mobility		
2.2.3	Social mobility	16.58	99
	Gender mobility		
2.2.4	Female professionals and technical workers	n/a	n/a
2.2.5	Female parliamentarians	33.68	45
3	**Grow**	45.01	59
3.1	**Formal education**	44.05	49
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	75.47	9
3.1.3	Tertiary enrolment	34.49	63
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	22.19	26

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	49.63	61
	Further education and training climate		
3.2.1	Quality of management schools	57.40	44
3.2.2	Extent of staff training	41.86	83
3.3	**Access to growth opportunities**	41.34	90
	Networks		
3.3.1	Use of virtual social networks	75.90	54
3.3.2	State of cluster development	26.33	98
	Research quality		
3.3.3	Quality of scientific research institutions	42.86	65
	Voice		
3.3.4	Voicing concern to officials	20.28	93
4	**Retain**	39.25	79
4.1	**Sustainability**	29.66	88
	Social protection		
4.1.1	Pension system	24.77	66
	Taxation		
4.1.2	Extent and effect of taxation	34.56	76
4.2	**Lifestyle**	48.84	69
	Quality of life		
4.2.1	Environmental performance	8.73	95
4.2.2	Property stolen	87.44	6
4.2.3	Safety at night	72.73	43
	Services		
4.2.4	Physicians density	26.47	63
5	**Labour and Vocational**	24.69	99
5.1	**Employable skills**	17.09	101
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	31.00	54
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	3.18	100
5.2	**Labour productivity**	32.29	69
	Productivity per employee		
5.2.1	Labour productivity per employee	21.63	51
	Pay and productivity		
5.2.2	Relationship of pay to productivity	42.95	75
6	**Global Knowledge**	14.05	89
6.1	**Higher skills and competencies**	9.78	87
	Educated workforce		
6.1.1	Tertiary-educated workforce	12.98	79
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	n/a	n/a
6.1.3	Professionals	n/a	n/a
6.1.4	Researchers	6.57	54
6.2	**Talent impact**	18.32	85
	Innovation		
6.2.1	Innovation output	21.06	70
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	15.58	70

BOTSWANA

RANK
(out of 103) **64**

Population (millions)	**2.01**
GDP per capita (PPP$)	**16,820.29**
GDP (US$ billions)	**17.62**
Global Talent Competitiveness Index Score	**41.70**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



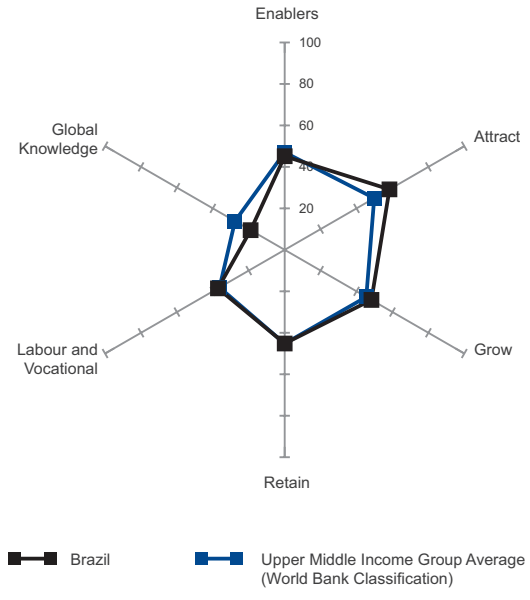
	VARIABLE	SCORE	RANK/103
1	**Enablers**	59.11	32
1.1	**Regulatory landscape**	70.23	33
	Government efficiency		
1.1.1	Government effectiveness	48.89	42
1.1.2	Political stability	91.58	16
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	40.48	65
	Competition climate		
1.2.1	Intensity of local competition	63.33	62
	Innovation climate		
1.2.2	Venture capital availability	32.01	40
1.2.3	Firm-level technology absorption	56.58	77
1.2.4	R&D expenditure	11.29	53
	Connectivity		
1.2.5	ICT access	25.66	80
	Ease of doing business		
1.2.6	Ease of doing business	54.00	48
1.3	**Business landscape**	66.62	21
	Labour market flexibility		
1.3.1	Labour market flexibility	63.92	38
	Ownership and governance		
1.3.2	Reliance on professional management	69.31	26
2	**Attract**	56.99	34
2.1	**External openness**	48.39	34
	FDI		
2.1.1	FDI inflow	26.26	42
	Brain gain		
2.1.2	Qualified labour inflow	47.42	36
	Foreign companies		
2.1.3	Prevalence of foreign ownership	71.49	28
2.2	**Internal openness**	65.59	35
	Diversity		
2.2.1	Tolerance of minorities	77.72	41
2.2.2	Tolerance of immigrants	78.12	33
	Social mobility		
2.2.3	Social mobility	61.48	32
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	10.61	94
3	**Grow**	41.59	73
3.1	**Formal education**	28.14	82
	Education climate		
3.1.1	Pupil-teacher ratio	79.51	50
3.1.2	Technical/vocational enrolment	10.32	79
3.1.3	Tertiary enrolment	3.60	95
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	19.14	31

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	48.53	62
	Further education and training climate		
3.2.1	Quality of management schools	47.90	70
3.2.2	Extent of staff training	49.16	51
3.3	**Access to growth opportunities**	48.11	68
	Networks		
3.3.1	Use of virtual social networks	65.98	82
3.3.2	State of cluster development	43.59	59
	Research quality		
3.3.3	Quality of scientific research institutions	42.76	66
	Voice		
3.3.4	Voicing concern to officials	40.09	58
4	**Retain**	31.52	96
4.1	**Sustainability**	35.39	76
	Social protection		
4.1.1	Pension system	8.28	81
	Taxation		
4.1.2	Extent and effect of taxation	62.49	9
4.2	**Lifestyle**	27.65	101
	Quality of life		
4.2.1	Environmental performance	47.54	58
4.2.2	Property stolen	24.88	100
4.2.3	Safety at night	32.83	101
	Services		
4.2.4	Physicians density	5.33	85
5	**Labour and Vocational**	42.89	40
5.1	**Employable skills**	37.58	63
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	n/a	n/a
	Technical professions		
5.1.2	Technicians and associate professionals	27.55	67
	Youth employment		
5.1.3	Youth employment	47.61	39
5.2	**Labour productivity**	48.21	29
	Productivity per employee		
5.2.1	Labour productivity per employee	n/a	n/a
	Pay and productivity		
5.2.2	Relationship of pay to productivity	48.21	57
6	**Global Knowledge**	18.13	87
6.1	**Higher skills and competencies**	17.43	78
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	31.46	43
6.1.3	Professionals	14.63	75
6.1.4	Researchers	6.18	57
6.2	**Talent impact**	18.83	84
	Innovation		
6.2.1	Innovation output	7.78	97
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	29.87	59

BRAZIL

RANK
(out of 103) **59**

Population (millions)	**198.83**
GDP per capita (PPP$)	**11,875.26**
GDP (US$ billions)	**2,395.97**
Global Talent Competitiveness Index Score	**42.18**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



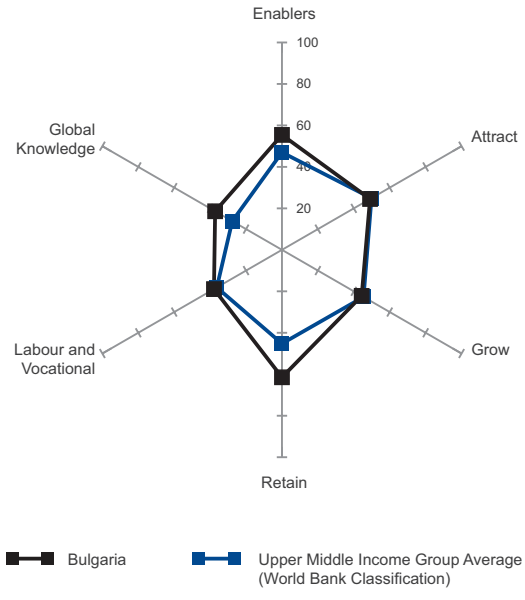
	VARIABLE	SCORE	RANK/103
1	**Enablers**	45.15	69
1.1	**Regulatory landscape**	52.08	57
	Government efficiency		
1.1.1	Government effectiveness	32.67	59
1.1.2	Political stability	65.25	56
	FDI climate		
1.1.3	Starting a foreign business	58.31	44
1.2	**Market landscape**	43.10	51
	Competition climate		
1.2.1	Intensity of local competition	69.01	40
	Innovation climate		
1.2.2	Venture capital availability	30.36	43
1.2.3	Firm-level technology absorption	69.24	42
1.2.4	R&D expenditure	26.01	30
	Connectivity		
1.2.5	ICT access	51.17	54
	Ease of doing business		
1.2.6	Ease of doing business	12.80	90
1.3	**Business landscape**	40.27	85
	Labour market flexibility		
1.3.1	Labour market flexibility	15.75	96
	Ownership and governance		
1.3.2	Reliance on professional management	64.79	31
2	**Attract**	58.33	32
2.1	**External openness**	46.81	42
	FDI		
2.1.1	FDI inflow	21.91	48
	Brain gain		
2.1.2	Qualified labour inflow	59.63	22
	Foreign companies		
2.1.3	Prevalence of foreign ownership	58.88	57
2.2	**Internal openness**	69.84	29
	Diversity		
2.2.1	Tolerance of minorities	91.30	16
2.2.2	Tolerance of immigrants	85.38	21
	Social mobility		
2.2.3	Social mobility	60.89	33
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	11.64	89
3	**Grow**	48.30	50
3.1	**Formal education**	30.09	77
	Education climate		
3.1.1	Pupil-teacher ratio	71.59	62
3.1.2	Technical/vocational enrolment	12.79	73
3.1.3	Tertiary enrolment	21.93	74
	Performance of education system		
3.1.4	Reading, maths and science scores	30.20	54
	Top universities		
3.1.5	QS university ranking	44.05	23
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	56.86	37
	Further education and training climate		
3.2.1	Quality of management schools	57.08	46
3.2.2	Extent of staff training	56.65	27
3.3	**Access to growth opportunities**	57.94	40
	Networks		
3.3.1	Use of virtual social networks	79.44	41
3.3.2	State of cluster development	58.42	25
	Research quality		
3.3.3	Quality of scientific research institutions	51.93	42
	Voice		
3.3.4	Voicing concern to officials	41.98	54
4	**Retain**	45.17	65
4.1	**Sustainability**	40.29	66
	Social protection		
4.1.1	Pension system	61.66	40
	Taxation		
4.1.2	Extent and effect of taxation	18.91	103
4.2	**Lifestyle**	50.05	65
	Quality of life		
4.2.1	Environmental performance	63.91	28
4.2.2	Property stolen	64.69	62
4.2.3	Safety at night	43.10	95
	Services		
4.2.4	Physicians density	28.51	61
5	**Labour and Vocational**	37.15	59
5.1	**Employable skills**	45.30	39
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	34.86	49
	Technical professions		
5.1.2	Technicians and associate professionals	33.67	61
	Youth employment		
5.1.3	Youth employment	67.36	20
5.2	**Labour productivity**	29.00	84
	Productivity per employee		
5.2.1	Labour productivity per employee	11.93	69
	Pay and productivity		
5.2.2	Relationship of pay to productivity	46.07	67
6	**Global Knowledge**	18.97	82
6.1	**Higher skills and competencies**	21.62	66
	Educated workforce		
6.1.1	Tertiary-educated workforce	25.74	68
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	27.53	52
6.1.3	Professionals	19.82	67
6.1.4	Researchers	13.41	41
6.2	**Talent impact**	16.32	88
	Innovation		
6.2.1	Innovation output	32.64	50
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	0.00	77

BULGARIA

RANK
(out of 103) **43**

Population (millions)	**7.27**
GDP per capita (PPP$)	**14,311.58**
GDP (US$ billions)	**51.02**
Global Talent Competitiveness Index Score	**47.56**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



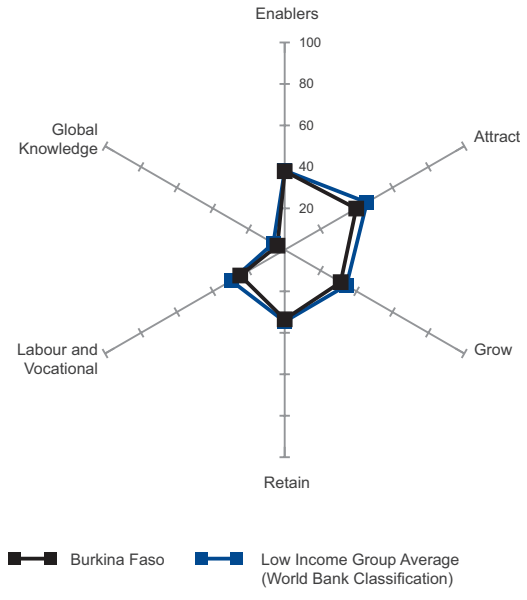
	VARIABLE	SCORE	RANK/103
1	**Enablers**	55.42	42
1.1	**Regulatory landscape**	62.74	45
	Government efficiency		
1.1.1	Government effectiveness	33.22	57
1.1.2	Political stability	73.58	43
	FDI climate		
1.1.3	Starting a foreign business	81.41	14
1.2	**Market landscape**	43.10	52
	Competition climate		
1.2.1	Intensity of local competition	55.45	76
	Innovation climate		
1.2.2	Venture capital availability	29.42	47
1.2.3	Firm-level technology absorption	49.87	93
1.2.4	R&D expenditure	13.11	49
	Connectivity		
1.2.5	ICT access	59.72	44
	Ease of doing business		
1.2.6	Ease of doing business	51.00	51
1.3	**Business landscape**	60.43	37
	Labour market flexibility		
1.3.1	Labour market flexibility	75.88	17
	Ownership and governance		
1.3.2	Reliance on professional management	44.99	79
2	**Attract**	49.05	64
2.1	**External openness**	33.69	82
	FDI		
2.1.1	FDI inflow	27.25	39
	Brain gain		
2.1.2	Qualified labour inflow	22.57	92
	Foreign companies		
2.1.3	Prevalence of foreign ownership	51.23	79
2.2	**Internal openness**	64.42	38
	Diversity		
2.2.1	Tolerance of minorities	81.63	33
2.2.2	Tolerance of immigrants	65.85	62
	Social mobility		
2.2.3	Social mobility	42.12	84
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	32.49	47
3	**Grow**	44.38	61
3.1	**Formal education**	43.38	50
	Education climate		
3.1.1	Pupil-teacher ratio	84.61	40
3.1.2	Technical/vocational enrolment	63.59	19
3.1.3	Tertiary enrolment	53.40	38
	Performance of education system		
3.1.4	Reading, maths and science scores	42.57	43
	Top universities		
3.1.5	QS university ranking	0.00	61
	International students		
3.1.6	International students inflow	16.11	38

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	41.65	87
	Further education and training climate		
3.2.1	Quality of management schools	45.76	78
3.2.2	Extent of staff training	37.55	89
3.3	**Access to growth opportunities**	48.11	67
	Networks		
3.3.1	Use of virtual social networks	71.59	70
3.3.2	State of cluster development	40.28	70
	Research quality		
3.3.3	Quality of scientific research institutions	42.13	67
	Voice		
3.3.4	Voicing concern to officials	38.44	65
4	**Retain**	61.46	33
4.1	**Sustainability**	61.07	27
	Social protection		
4.1.1	Pension system	82.23	30
	Taxation		
4.1.2	Extent and effect of taxation	39.91	56
4.2	**Lifestyle**	61.86	35
	Quality of life		
4.2.1	Environmental performance	53.35	48
4.2.2	Property stolen	75.36	29
4.2.3	Safety at night	58.29	66
	Services		
4.2.4	Physicians density	60.43	15
5	**Labour and Vocational**	37.86	57
5.1	**Employable skills**	39.43	55
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	69.57	14
	Technical professions		
5.1.2	Technicians and associate professionals	34.69	58
	Youth employment		
5.1.3	Youth employment	14.01	86
5.2	**Labour productivity**	36.29	57
	Productivity per employee		
5.2.1	Labour productivity per employee	17.04	58
	Pay and productivity		
5.2.2	Relationship of pay to productivity	55.53	31
6	**Global Knowledge**	37.21	43
6.1	**Higher skills and competencies**	36.46	39
	Educated workforce		
6.1.1	Tertiary-educated workforce	47.15	37
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	35.96	33
6.1.3	Professionals	46.34	30
6.1.4	Researchers	16.41	40
6.2	**Talent impact**	37.95	49
	Innovation		
6.2.1	Innovation output	37.95	41
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

BURKINA FASO

RANK
(out of 103) **102**

Population (millions)	**16.52**
GDP per capita (PPP$)	**1,399.50**
GDP (US$ billions)	**10.46**
Global Talent Competitiveness Index Score	**28.53**
Global Talent Competitiveness Index Score (Income Group Average)	**31.51**



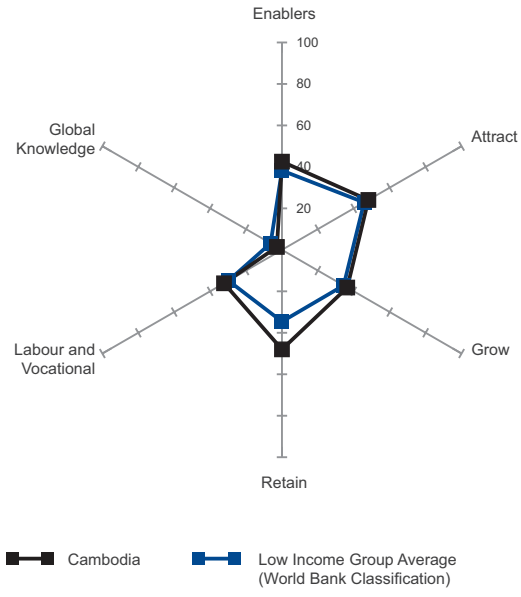
	VARIABLE	SCORE	RANK/103
1	**Enablers**	37.93	88
1.1	**Regulatory landscape**	34.37	90
	Government efficiency		
1.1.1	Government effectiveness	17.02	83
1.1.2	Political stability	52.85	73
	FDI climate		
1.1.3	Starting a foreign business	33.24	60
1.2	**Market landscape**	21.51	101
	Competition climate		
1.2.1	Intensity of local competition	54.31	80
	Innovation climate		
1.2.2	Venture capital availability	13.67	101
1.2.3	Firm-level technology absorption	51.49	89
1.2.4	R&D expenditure	4.09	75
	Connectivity		
1.2.5	ICT access	2.48	96
	Ease of doing business		
1.2.6	Ease of doing business	3.00	100
1.3	**Business landscape**	57.90	41
	Labour market flexibility		
1.3.1	Labour market flexibility	74.30	24
	Ownership and governance		
1.3.2	Reliance on professional management	41.50	94
2	**Attract**	39.81	95
2.1	**External openness**	27.66	97
	FDI		
2.1.1	FDI inflow	2.10	98
	Brain gain		
2.1.2	Qualified labour inflow	29.38	83
	Foreign companies		
2.1.3	Prevalence of foreign ownership	51.51	77
2.2	**Internal openness**	51.96	86
	Diversity		
2.2.1	Tolerance of minorities	90.33	18
2.2.2	Tolerance of immigrants	84.31	23
	Social mobility		
2.2.3	Social mobility	40.24	89
	Gender mobility		
2.2.4	Female professionals and technical workers	22.58	88
2.2.5	Female parliamentarians	22.35	68
3	**Grow**	31.17	100
3.1	**Formal education**	17.18	95
	Education climate		
3.1.1	Pupil-teacher ratio	43.67	80
3.1.2	Technical/vocational enrolment	8.55	83
3.1.3	Tertiary enrolment	0.00	99
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	16.49	36

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	38.49	96
	Further education and training climate		
3.2.1	Quality of management schools	44.57	82
3.2.2	Extent of staff training	32.41	101
3.3	**Access to growth opportunities**	37.83	98
	Networks		
3.3.1	Use of virtual social networks	52.07	100
3.3.2	State of cluster development	24.79	99
	Research quality		
3.3.3	Quality of scientific research institutions	45.67	54
	Voice		
3.3.4	Voicing concern to officials	28.77	82
4	**Retain**	33.49	94
4.1	**Sustainability**	19.32	102
	Social protection		
4.1.1	Pension system	0.00	90
	Taxation		
4.1.2	Extent and effect of taxation	38.64	62
4.2	**Lifestyle**	47.67	72
	Quality of life		
4.2.1	Environmental performance	n/a	n/a
4.2.2	Property stolen	75.36	29
4.2.3	Safety at night	66.74	53
	Services		
4.2.4	Physicians density	0.91	93
5	**Labour and Vocational**	24.75	98
5.1	**Employable skills**	32.27	78
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	0.00	91
	Technical professions		
5.1.2	Technicians and associate professionals	0.00	91
	Youth employment		
5.1.3	Youth employment	96.82	2
5.2	**Labour productivity**	17.23	103
	Productivity per employee		
5.2.1	Labour productivity per employee	0.46	93
	Pay and productivity		
5.2.2	Relationship of pay to productivity	34.01	95
6	**Global Knowledge**	4.03	101
6.1	**Higher skills and competencies**	0.47	102
	Educated workforce		
6.1.1	Tertiary-educated workforce	0.46	88
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	0.00	93
6.1.3	Professionals	0.91	92
6.1.4	Researchers	0.49	88
6.2	**Talent impact**	7.59	97
	Innovation		
6.2.1	Innovation output	7.59	98
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

CAMBODIA

RANK
(out of 103) **87**

Population (millions)	**14.89**
GDP per capita (PPP$)	**2,402.33**
GDP (US$ billions)	**14.24**
Global Talent Competitiveness Index Score	**35.01**
Global Talent Competitiveness Index Score (Income Group Average)	**31.51**



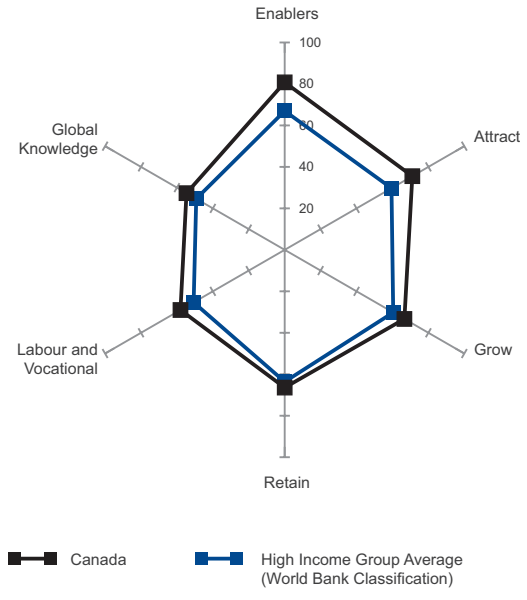
	VARIABLE	SCORE	RANK/103
1	**Enablers**	42.54	78
1.1	**Regulatory landscape**	33.06	92
	Government efficiency		
1.1.1	Government effectiveness	10.60	94
1.1.2	Political stability	55.33	69
	FDI climate		
1.1.3	Starting a foreign business	33.24	60
1.2	**Market landscape**	30.66	91
	Competition Climate		
1.2.1	Intensity of local competition	63.47	60
	Innovation climate		
1.2.2	Venture capital availability	32.40	37
1.2.3	Firm-level technology absorption	64.38	52
1.2.4	R&D expenditure	0.64	94
	Connectivity		
1.2.5	ICT access	12.28	88
	Ease of doing business		
1.2.6	Ease of doing business	10.80	92
1.3	**Business landscape**	63.89	26
	Labour market flexibility		
1.3.1	Labour market flexibility	71.72	28
	Ownership and governance		
1.3.2	Reliance on professional management	56.07	43
2	**Attract**	48.11	71
2.1	**External openness**	53.75	18
	FDI		
2.1.1	FDI inflow	52.79	15
	Brain gain		
2.1.2	Qualified labour inflow	52.44	28
	Foreign companies		
2.1.3	Prevalence of foreign ownership	56.02	68
2.2	**Internal openness**	42.47	96
	Diversity		
2.2.1	Tolerance of minorities	59.46	83
2.2.2	Tolerance of immigrants	34.69	98
	Social mobility		
2.2.3	Social mobility	47.60	74
	Gender mobility		
2.2.4	Female professionals and technical workers	39.09	86
2.2.5	Female parliamentarians	31.51	49
3	**Grow**	36.35	92
3.1	**Formal education**	13.07	98
	Education climate		
3.1.1	Pupil-teacher ratio	36.76	84
3.1.2	Technical/vocational enrolment	4.81	88
3.1.3	Tertiary enrolment	10.72	84
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	47.22	68
	Further education and training climate		
3.2.1	Quality of management schools	46.32	74
3.2.2	Extent of staff training	48.11	56
3.3	**Access to growth opportunities**	48.77	62
	Networks		
3.3.1	Use of virtual social networks	64.83	86
3.3.2	State of cluster development	50.60	42
	Research quality		
3.3.3	Quality of scientific research institutions	43.34	62
	Voice		
3.3.4	Voicing concern to officials	36.32	68
4	**Retain**	48.00	62
4.1	**Sustainability**	49.90	50
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	49.90	24
4.2	**Lifestyle**	46.09	76
	Quality of life		
4.2.1	Environmental performance	51.09	53
4.2.2	Property stolen	56.64	78
4.2.3	Safety at night	73.05	41
	Services		
4.2.4	Physicians density	3.60	89
5	**Labour and Vocational**	32.26	73
5.1	**Employable skills**	34.78	72
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	5.71	86
	Technical professions		
5.1.2	Technicians and associate professionals	6.12	88
	Youth employment		
5.1.3	Youth employment	92.52	4
5.2	**Labour productivity**	29.73	81
	Productivity per employee		
5.2.1	Labour productivity per employee	2.16	87
	Pay and productivity		
5.2.2	Relationship of pay to productivity	57.31	25
6	**Global Knowledge**	2.80	102
6.1	**Higher skills and competencies**	2.76	99
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	3.37	89
6.1.3	Professionals	4.57	89
6.1.4	Researchers	0.33	91
6.2	**Talent impact**	2.85	102
	Innovation		
6.2.1	Innovation output	2.85	101
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

CANADA

RANK
(out of 103) **11**

Population (millions)	**34.83**
GDP per capita (PPP$)	**42,734.36**
GDP (US$ billions)	**1819.08**
Global Talent Competitiveness Index Score	**66.27**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



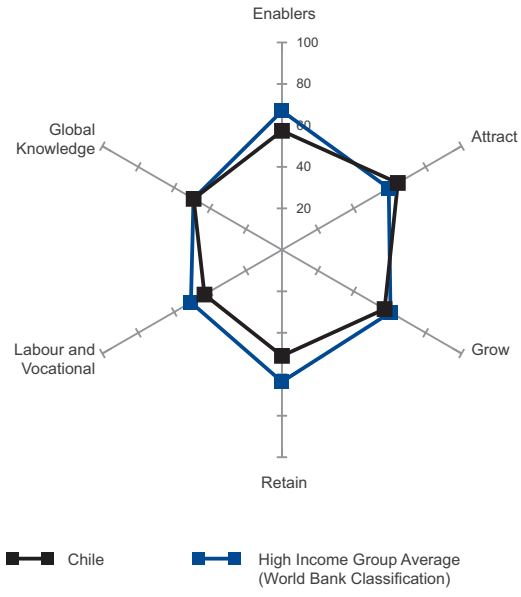
	VARIABLE	SCORE	RANK/103
1	**Enablers**	80.77	6
1.1	**Regulatory landscape**	88.32	10
	Government efficiency		
1.1.1	Government effectiveness	88.13	7
1.1.2	Political stability	91.62	15
	FDI climate		
1.1.3	Starting a foreign business	85.21	8
1.2	**Market landscape**	67.51	20
	Competition climate		
1.2.1	Intensity of local competition	77.12	16
	Innovation climate		
1.2.2	Venture capital availability	43.77	16
1.2.3	Firm-level technology absorption	75.91	26
1.2.4	R&D expenditure	40.59	18
	Connectivity		
1.2.5	ICT access	81.38	21
	Ease of doing business		
1.2.6	Ease of doing business	86.30	15
1.3	**Business landscape**	86.48	3
	Labour market flexibility		
1.3.1	Labour market flexibility	89.65	4
	Ownership and governance		
1.3.2	Reliance on professional management	83.30	7
2	**Attract**	71.06	7
2.1	**External openness**	57.50	12
	FDI		
2.1.1	FDI inflow	18.94	54
	Brain gain		
2.1.2	Qualified labour inflow	74.76	7
	Foreign companies		
2.1.3	Prevalence of foreign ownership	78.79	9
2.2	**Internal openness**	84.63	8
	Diversity		
2.2.1	Tolerance of minorities	100.00	1
2.2.2	Tolerance of immigrants	96.91	2
	Social mobility		
2.2.3	Social mobility	85.43	5
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	40.80	28
3	**Grow**	66.65	13
3.1	**Formal education**	60.28	16
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	n/a	n/a
3.1.3	Tertiary enrolment	56.55	31
	Performance of education system		
3.1.4	Reading, maths and science scores	80.05	6
	Top universities		
3.1.5	QS university ranking	86.36	3
	International students		
3.1.6	International students inflow	18.17	33

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	70.36	9
	Further education and training climate		
3.2.1	Quality of management schools	79.03	5
3.2.2	Extent of staff training	61.69	21
3.3	**Access to growth opportunities**	69.31	16
	Networks		
3.3.1	Use of virtual social networks	88.80	9
3.3.2	State of cluster development	64.22	14
	Research quality		
3.3.3	Quality of scientific research institutions	74.19	16
	Voice		
3.3.4	Voicing concern to officials	50.00	41
4	**Retain**	66.43	16
4.1	**Sustainability**	71.46	6
	Social protection		
4.1.1	Pension system	91.46	21
	Taxation		
4.1.2	Extent and effect of taxation	51.45	18
4.2	**Lifestyle**	61.41	37
	Quality of life		
4.2.1	Environmental performance	58.22	35
4.2.2	Property stolen	70.14	51
4.2.3	Safety at night	85.35	20
	Services		
4.2.4	Physicians density	31.94	56
5	**Labour and Vocational**	58.02	16
5.1	**Employable skills**	58.84	16
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	33.14	52
	Technical professions		
5.1.2	Technicians and associate professionals	73.47	18
	Youth employment		
5.1.3	Youth employment	69.90	16
5.2	**Labour productivity**	57.21	9
	Productivity per employee		
5.2.1	Labour productivity per employee	55.51	12
	Pay and productivity		
5.2.2	Relationship of pay to productivity	58.91	20
6	**Global Knowledge**	54.67	17
6.1	**Higher skills and competencies**	57.37	15
	Educated workforce		
6.1.1	Tertiary-educated workforce	100.00	1
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	52.25	10
6.1.3	Professionals	53.05	19
6.1.4	Researchers	24.18	32
6.2	**Talent impact**	51.98	27
	Innovation		
6.2.1	Innovation output	61.10	20
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	42.86	33

CHILE

RANK
(out of 103) **31**

Population (millions)	**17.48**
GDP per capita (PPP$)	**18,419.04**
GDP (US$ billions)	**268.18**
Global Talent Competitiveness Index Score	**53.75**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



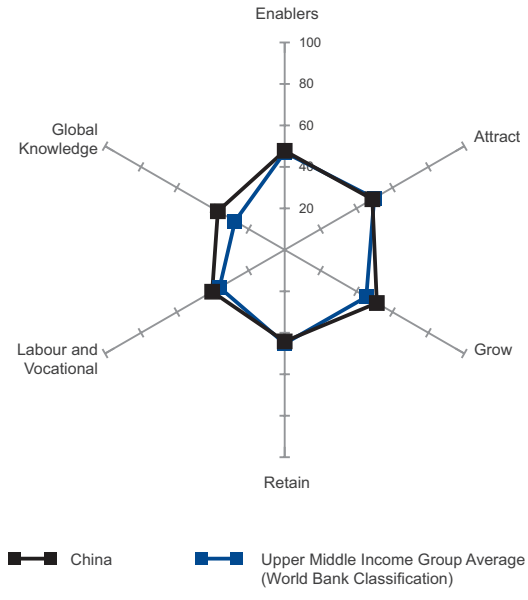
	VARIABLE	SCORE	RANK/103
1	**Enablers**	57.40	39
1.1	**Regulatory landscape**	69.01	36
	Government efficiency		
1.1.1	Government effectiveness	67.94	25
1.1.2	Political stability	79.80	35
	FDI climate		
1.1.3	Starting a foreign business	59.30	41
1.2	**Market landscape**	50.93	37
	Competition climate		
1.2.1	Intensity of local competition	71.01	35
	Innovation climate		
1.2.2	Venture capital availability	36.79	25
1.2.3	Firm-level technology absorption	69.90	39
1.2.4	R&D expenditure	8.07	63
	Connectivity		
1.2.5	ICT access	52.14	53
	Ease of doing business		
1.2.6	Ease of doing business	67.70	34
1.3	**Business landscape**	52.25	55
	Labour market flexibility		
1.3.1	Labour market flexibility	40.08	69
	Ownership and governance		
1.3.2	Reliance on professional management	64.42	33
2	**Attract**	64.51	21
2.1	**External openness**	66.64	5
	FDI		
2.1.1	FDI inflow	56.08	11
	Brain gain		
2.1.2	Qualified labour inflow	66.00	13
	Foreign companies		
2.1.3	Prevalence of foreign ownership	77.85	12
2.2	**Internal openness**	62.39	46
	Diversity		
2.2.1	Tolerance of minorities	74.35	54
2.2.2	Tolerance of immigrants	73.21	38
	Social mobility		
2.2.3	Social mobility	59.90	37
	Gender mobility		
2.2.4	Female professionals and technical workers	84.00	66
2.2.5	Female parliamentarians	20.47	71
3	**Grow**	57.14	30
3.1	**Formal education**	41.52	53
	Education climate		
3.1.1	Pupil-teacher ratio	56.81	72
3.1.2	Technical/vocational enrolment	50.11	26
3.1.3	Tertiary enrolment	62.73	22
	Performance of education system		
3.1.4	Reading, maths and science scores	45.41	42
	Top universities		
3.1.5	QS university ranking	34.07	31
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong Learning**	64.29	24
	Further education and training climate		
3.2.1	Quality of management schools	73.10	14
3.2.2	Extent of staff training	55.47	30
3.3	**Access to Growth Opportunities**	65.60	22
	Networks		
3.3.1	Use of virtual social networks	83.42	26
3.3.2	State of cluster development	58.50	24
	Research quality		
3.3.3	Quality of scientific research institutions	53.26	38
	Voice		
3.3.4	Voicing concern to officials	67.22	15
4	**Retain**	51.13	56
4.1	**Sustainability**	57.12	39
	Social protection		
4.1.1	Pension system	59.94	43
	Taxation		
4.1.2	Extent and effect of taxation	54.30	14
4.2	**Lifestyle**	45.13	78
	Quality of life		
4.2.1	Environmental performance	51.20	52
4.2.2	Property stolen	62.32	65
4.2.3	Safety at night	50.48	82
	Services		
4.2.4	Physicians density	16.53	73
5	**Labour and Vocational**	43.14	38
5.1	**Employable skills**	47.81	34
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	49.29	33
	Technical professions		
5.1.2	Technicians and associate professionals	60.71	30
	Youth employment		
5.1.3	Youth employment	33.44	62
5.2	**Labour productivity**	38.46	50
	Productivity per employee		
5.2.1	Labour productivity per employee	22.42	49
	Pay and productivity		
5.2.2	Relationship of pay to productivity	54.50	36
6	**Global Knowledge**	49.17	24
6.1	**Higher skills and competencies**	26.79	55
	Educated workforce		
6.1.1	Tertiary-educated workforce	41.00	44
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	32.02	41
6.1.3	Professionals	27.74	57
6.1.4	Researchers	6.41	56
6.2	**Talent impact**	71.54	2
	Innovation		
6.2.1	Innovation output	43.07	33
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	100.00	1

CHINA

RANK
(out of 103) **47**

Population (millions)	**1,376.57**
GDP per capita (PPP$)	**9,161.97**
GDP (US$ billions)	**8,227.04**
Global Talent Competitiveness Index Score	**44.94**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



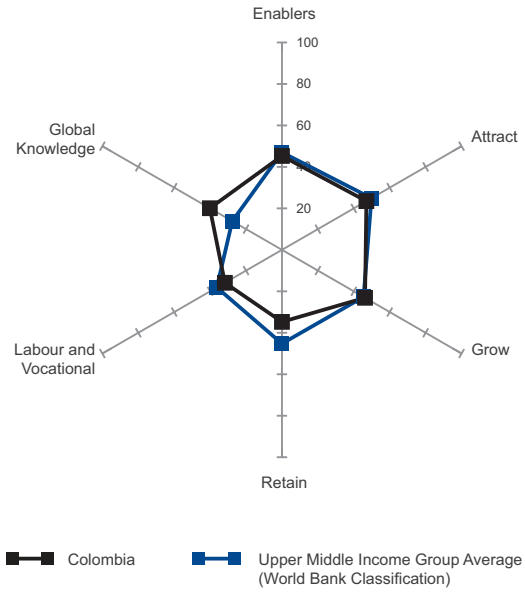
	VARIABLE	SCORE	RANK/103
1	**Enablers**	47.76	59
1.1	**Regulatory landscape**	48.50	69
	Government efficiency		
1.1.1	Government effectiveness	36.49	51
1.1.2	Political stability	49.00	78
	FDI climate		
1.1.3	Starting a foreign business	60.00	40
1.2	**Market landscape**	47.23	46
	Competition climate		
1.2.1	Intensity of local competition	71.71	33
	Innovation climate		
1.2.2	Venture capital availability	42.20	18
1.2.3	Firm-level technology absorption	62.49	58
1.2.4	R&D expenditure	38.38	21
	Connectivity		
1.2.5	ICT access	34.21	68
	Ease of doing business		
1.2.6	Ease of doing business	34.40	68
1.3	**Business landscape**	47.54	67
	Labour market flexibility		
1.3.1	Labour market flexibility	35.99	75
	Ownership and governance		
1.3.2	Reliance on professional management	59.09	38
2	**Attract**	48.81	65
2.1	**External openness**	40.34	67
	FDI		
2.1.1	FDI inflow	14.49	69
	Brain gain		
2.1.2	Qualified labour inflow	51.90	32
	Foreign companies		
2.1.3	Prevalence of foreign ownership	54.62	72
2.2	**Internal openness**	57.29	65
	Diversity		
2.2.1	Tolerance of minorities	56.85	87
2.2.2	Tolerance of immigrants	41.52	94
	Social mobility		
2.2.3	Social mobility	54.59	53
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	33.48	46
3	**Grow**	51.30	40
3.1	**Formal education**	52.88	32
	Education climate		
3.1.1	Pupil-teacher ratio	75.88	58
3.1.2	Technical/vocational enrolment	44.01	30
3.1.3	Tertiary enrolment	23.10	73
	Performance of education system		
3.1.4	Reading, maths and science scores	100.00	1
	Top universities		
3.1.5	QS university ranking	74.28	8
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	53.52	47
	Further education and training climate		
3.2.1	Quality of management schools	53.62	57
3.2.2	Extent of staff training	53.43	36
3.3	**Access to growth opportunities**	47.49	70
	Networks		
3.3.1	Use of virtual social networks	64.48	87
3.3.2	State of cluster development	59.68	20
	Research quality		
3.3.3	Quality of scientific research institutions	53.06	40
	Voice		
3.3.4	Voicing concern to officials	12.74	100
4	**Retain**	44.16	68
4.1	**Sustainability**	41.17	64
	Social protection		
4.1.1	Pension system	34.32	57
	Taxation		
4.1.2	Extent and effect of taxation	48.03	29
4.2	**Lifestyle**	47.14	74
	Quality of life		
4.2.1	Environmental performance	21.26	92
4.2.2	Property stolen	56.87	76
4.2.3	Safety at night	87.59	12
	Services		
4.2.4	Physicians density	22.84	66
5	**Labour and Vocational**	40.38	46
5.1	**Employable skills**	44.53	43
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	19.00	76
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	70.06	15
5.2	**Labour productivity**	36.23	58
	Productivity per employee		
5.2.1	Labour productivity per employee	10.89	71
	Pay and productivity		
5.2.2	Relationship of pay to productivity	61.57	13
6	**Global Knowledge**	37.22	42
6.1	**Higher skills and competencies**	11.97	86
	Educated workforce		
6.1.1	Tertiary-educated workforce	8.20	80
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	9.55	82
6.1.3	Professionals	16.77	73
6.1.4	Researchers	13.36	42
6.2	**Talent impact**	62.46	8
	Innovation		
6.2.1	Innovation output	61.29	19
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	63.64	11

COLOMBIA

RANK
(out of 103) **71**

Population (millions)	**47.78**
GDP per capita (PPP$)	**10,791.73**
GDP (US$ billions)	**366.02**
Global Talent Competitiveness Index Score	**40.87**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



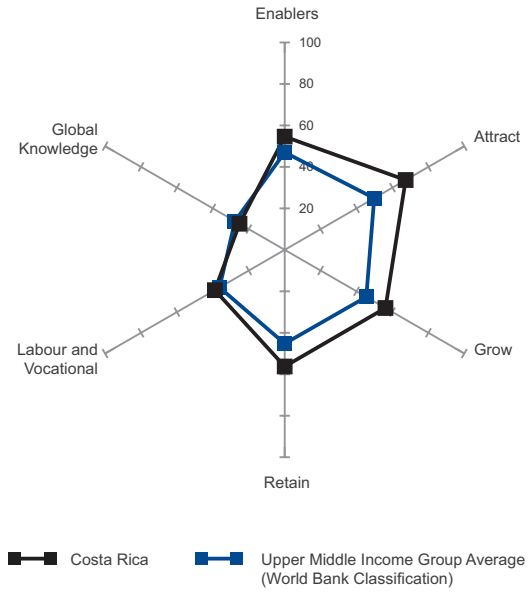
	VARIABLE	SCORE	RANK/103
1	**Enablers**	45.28	68
1.1	**Regulatory landscape**	47.41	70
	Government efficiency		
1.1.1	Government effectiveness	40.21	50
1.1.2	Political stability	35.38	92
	FDI climate		
1.1.3	Starting a foreign business	66.62	31
1.2	**Market landscape**	41.57	59
	Competition climate		
1.2.1	Intensity of local competition	61.94	65
	Innovation climate		
1.2.2	Venture capital availability	30.31	44
1.2.3	Firm-level technology absorption	57.40	74
1.2.4	R&D expenditure	3.05	81
	Connectivity		
1.2.5	ICT access	34.90	66
	Ease of doing business		
1.2.6	Ease of doing business	61.80	40
1.3	**Business landscape**	46.87	70
	Labour market flexibility		
1.3.1	Labour market flexibility	41.77	66
	Ownership and governance		
1.3.2	Reliance on professional management	51.98	58
2	**Attract**	47.00	75
2.1	**External openness**	41.50	63
	FDI		
2.1.1	FDI inflow	30.85	36
	Brain gain		
2.1.2	Qualified labour inflow	36.59	66
	Foreign companies		
2.1.3	Prevalence of foreign ownership	57.05	62
2.2	**Internal openness**	52.51	82
	Diversity		
2.2.1	Tolerance of minorities	75.54	52
2.2.2	Tolerance of immigrants	75.45	36
	Social mobility		
2.2.3	Social mobility	42.03	85
	Gender mobility		
2.2.4	Female professionals and technical workers	n/a	n/a
2.2.5	Female parliamentarians	17.03	77
3	**Grow**	46.26	56
3.1	**Formal education**	30.13	76
	Education climate		
3.1.1	Pupil-teacher ratio	46.25	78
3.1.2	Technical/vocational enrolment	11.87	76
3.1.3	Tertiary enrolment	39.33	55
	Performance of education system		
3.1.4	Reading, maths and science scores	29.25	56
	Top universities		
3.1.5	QS university ranking	23.96	36
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong Learning**	48.22	64
	Further education and training climate		
3.2.1	Quality of management schools	52.48	61
3.2.2	Extent of staff training	43.96	74
3.3	**Access to growth opportunities**	60.42	36
	Networks		
3.3.1	Use of virtual social networks	72.80	66
3.3.2	State of cluster development	47.58	49
	Research quality		
3.3.3	Quality of scientific research institutions	40.17	71
	Voice		
3.3.4	Voicing concern to officials	81.13	4
4	**Retain**	34.74	91
4.1	**Sustainability**	30.67	85
	Social protection		
4.1.1	Pension system	28.18	61
	Taxation		
4.1.2	Extent and effect of taxation	33.16	82
4.2	**Lifestyle**	38.81	89
	Quality of life		
4.2.1	Environmental performance	67.18	26
4.2.2	Property stolen	38.63	92
4.2.3	Safety at night	47.17	86
	Services		
4.2.4	Physicians density	2.26	90
5	**Labour and Vocational**	31.77	76
5.1	**Employable skills**	35.15	70
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	31.29	53
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	39.01	52
5.2	**Labour productivity**	28.40	86
	Productivity per employee		
5.2.1	Labour productivity per employee	14.22	63
	Pay and productivity		
5.2.2	Relationship of pay to productivity	42.58	77
6	**Global Knowledge**	40.14	37
6.1	**Higher skills and competencies**	23.24	62
	Educated workforce		
6.1.1	Tertiary-educated workforce	44.87	40
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	n/a	n/a
6.1.3	Professionals	n/a	n/a
6.1.4	Researchers	1.61	76
6.2	**Talent impact**	57.04	17
	Innovation		
6.2.1	Innovation output	24.48	64
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	89.61	2

COSTA RICA

RANK
(out of 103) **41**

Population (millions)	**4.81**
GDP per capita (PPP$)	**12,606.29**
GDP (US$ billions)	**45.13**
Global Talent Competitiveness Index Score	**49.72**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



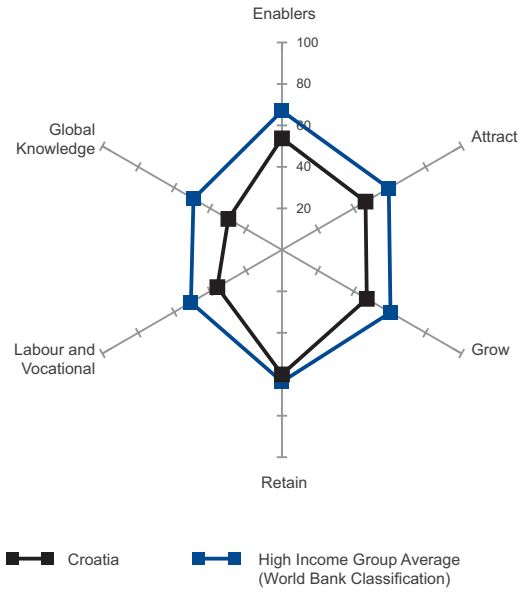
	VARIABLE	SCORE	RANK/103
1	**Enablers**	54.60	46
1.1	**Regulatory landscape**	66.13	39
	Government efficiency		
1.1.1	Government effectiveness	43.40	47
1.1.2	Political stability	80.90	32
	FDI climate		
1.1.3	Starting a foreign business	74.08	22
1.2	**Market landscape**	40.35	67
	Competition climate		
1.2.1	Intensity of local competition	65.92	52
	Innovation climate		
1.2.2	Venture capital availability	20.70	78
1.2.3	Firm-level technology absorption	67.89	45
1.2.4	R&D expenditure	11.87	51
	Connectivity		
1.2.5	ICT access	50.21	55
	Ease of doing business		
1.2.6	Ease of doing business	25.50	77
1.3	**Business landscape**	57.32	43
	Labour market flexibility		
1.3.1	Labour market flexibility	53.97	49
	Ownership and governance		
1.3.2	Reliance on professional management	60.67	35
2	**Attract**	67.34	16
2.1	**External openness**	59.21	11
	FDI		
2.1.1	FDI inflow	39.75	22
	Brain gain		
2.1.2	Qualified labour inflow	62.45	17
	Foreign companies		
2.1.3	Prevalence of foreign ownership	75.45	17
2.2	**Internal openness**	75.46	22
	Diversity		
2.2.1	Tolerance of minorities	86.52	25
2.2.2	Tolerance of immigrants	77.27	34
	Social mobility		
2.2.3	Social mobility	66.26	25
	Gender mobility		
2.2.4	Female professionals and technical workers	69.50	71
2.2.5	Female parliamentarians	77.77	9
3	**Grow**	56.10	32
3.1	**Formal education**	39.06	57
	Education climate		
3.1.1	Pupil-teacher ratio	76.54	57
3.1.2	Technical/vocational enrolment	32.04	50
3.1.3	Tertiary enrolment	39.42	54
	Performance of education system		
3.1.4	Reading, maths and science scores	40.72	44
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	6.60	56

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	65.11	23
	Further education and training climate		
3.2.1	Quality of management schools	70.27	18
3.2.2	Extent of staff training	59.96	25
3.3	**Access to growth opportunities**	64.11	23
	Networks		
3.3.1	Use of virtual social networks	80.31	37
3.3.2	State of cluster development	49.16	45
	Research quality		
3.3.3	Quality of scientific research institutions	60.70	31
	Voice		
3.3.4	Voicing concern to officials	66.27	17
4	**Retain**	56.26	43
4.1	**Sustainability**	51.28	46
	Social protection		
4.1.1	Pension system	60.89	42
	Taxation		
4.1.2	Extent and effect of taxation	41.66	47
4.2	**Lifestyle**	61.23	39
	Quality of life		
4.2.1	Environmental performance	82.49	5
4.2.2	Property stolen	56.40	79
4.2.3	Safety at night	44.81	93
	Services		
4.2.4	Physicians density	n/a	n/a
5	**Labour and Vocational**	38.89	53
5.1	**Employable skills**	43.36	46
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	22.71	69
	Technical professions		
5.1.2	Technicians and associate professionals	63.27	28
	Youth employment		
5.1.3	Youth employment	44.11	46
5.2	**Labour productivity**	34.41	64
	Productivity per employee		
5.2.1	Labour productivity per employee	19.45	55
	Pay and productivity		
5.2.2	Relationship of pay to productivity	49.37	53
6	**Global Knowledge**	25.16	65
6.1	**Higher skills and competencies**	23.80	60
	Educated workforce		
6.1.1	Tertiary-educated workforce	42.82	41
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	15.73	69
6.1.3	Professionals	30.79	51
6.1.4	Researchers	5.85	59
6.2	**Talent impact**	26.52	72
	Innovation		
6.2.1	Innovation output	32.26	51
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	20.78	68

CROATIA

RANK
(out of 103) **45**

Population (millions)	**4.31**
GDP per capita (PPP$)	**17,810.14**
GDP (US$ billions)	**57.10**
Global Talent Competitiveness Index Score	**45.57**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**

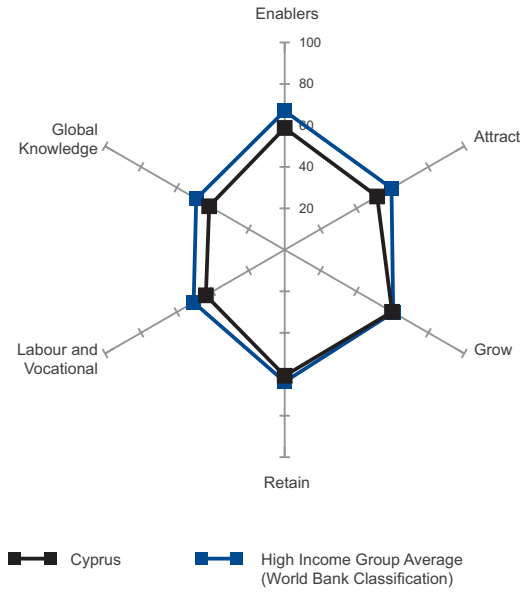


	VARIABLE	SCORE	RANK/103
1	**Enablers**	53.76	47
1.1	**Regulatory landscape**	71.32	31
	Government efficiency		
1.1.1	Government effectiveness	49.47	40
1.1.2	Political stability	79.29	39
	FDI climate		
1.1.3	Starting a foreign business	85.21	8
1.2	**Market landscape**	42.63	55
	Competition climate		
1.2.1	Intensity of local competition	50.74	89
	Innovation climate		
1.2.2	Venture capital availability	19.00	86
1.2.3	Firm-level technology absorption	61.19	61
1.2.4	R&D expenditure	16.18	42
	Connectivity		
1.2.5	ICT access	69.38	32
	Ease of doing business		
1.2.6	Ease of doing business	39.30	63
1.3	**Business landscape**	47.33	69
	Labour market flexibility		
1.3.1	Labour market flexibility	51.25	54
	Ownership and governance		
1.3.2	Reliance on professional management	43.41	82
2	**Attract**	46.52	77
2.1	**External openness**	30.76	91
	FDI		
2.1.1	FDI inflow	18.80	55
	Brain gain		
2.1.2	Qualified labour inflow	22.73	91
	Foreign companies		
2.1.3	Prevalence of foreign ownership	50.76	80
2.2	**Internal openness**	62.29	48
	Diversity		
2.2.1	Tolerance of minorities	70.11	60
2.2.2	Tolerance of immigrants	59.02	76
	Social mobility		
2.2.3	Social mobility	43.66	81
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	38.64	32
3	**Grow**	47.23	54
3.1	**Formal education**	48.03	42
	Education climate		
3.1.1	Pupil-teacher ratio	95.79	6
3.1.2	Technical/vocational enrolment	78.05	6
3.1.3	Tertiary enrolment	50.65	43
	Performance of education system		
3.1.4	Reading, maths and science scores	59.19	34
	Top universities		
3.1.5	QS university ranking	1.91	58
	International students		
3.1.6	International students inflow	2.57	68
3.2	**Lifelong learning**	42.47	83
	Further education and training climate		
3.2.1	Quality of management schools	48.86	66
3.2.2	Extent of staff training	36.08	92
3.3	**Access to growth opportunities**	51.21	55
	Networks		
3.3.1	Use of virtual social networks	70.47	77
3.3.2	State of cluster development	38.58	75
	Research quality		
3.3.3	Quality of scientific research institutions	50.97	44
	Voice		
3.3.4	Voicing concern to officials	44.81	50
4	**Retain**	60.07	36
4.1	**Sustainability**	50.78	48
	Social protection		
4.1.1	Pension system	79.42	32
	Taxation		
4.1.2	Extent and effect of taxation	22.14	97
4.2	**Lifestyle**	69.36	15
	Quality of life		
4.2.1	Environmental performance	71.36	20
4.2.2	Property stolen	91.23	4
4.2.3	Safety at night	72.73	43
	Services		
4.2.4	Physicians density	42.10	44
5	**Labour and Vocational**	35.98	64
5.1	**Employable skills**	34.50	74
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	n/a	n/a
	Technical professions		
5.1.2	Technicians and associate professionals	58.16	33
	Youth employment		
5.1.3	Youth employment	10.83	92
5.2	**Labour productivity**	37.47	52
	Productivity per employee		
5.2.1	Labour productivity per employee	32.11	37
	Pay and productivity		
5.2.2	Relationship of pay to productivity	42.83	76
6	**Global Knowledge**	29.84	57
6.1	**Higher skills and competencies**	29.23	51
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	24.16	56
6.1.3	Professionals	40.24	40
6.1.4	Researchers	23.28	34
6.2	**Talent impact**	30.46	61
	Innovation		
6.2.1	Innovation output	36.24	44
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	24.68	62

CYPRUS

RANK
(out of 103) **33**

Population (millions)	**1.13**
GDP per capita (PPP$)	**27,085.98**
GDP (US$ billions)	**23.01**
Global Talent Competitiveness Index Score	**52.78**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



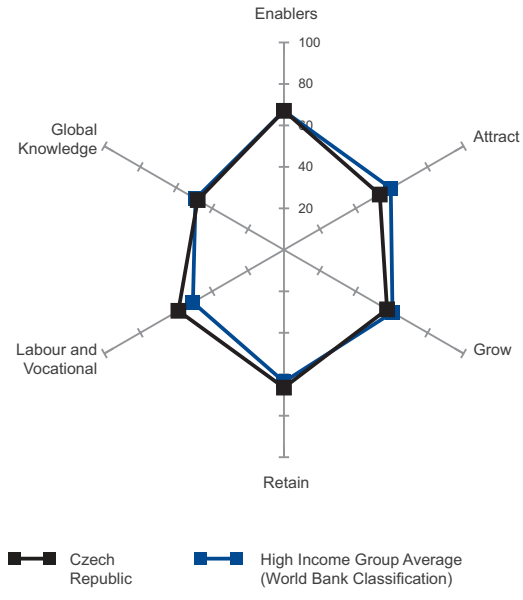
	VARIABLE	SCORE	RANK/103
1	**Enablers**	58.78	35
1.1	**Regulatory landscape**	78.97	22
	Government efficiency		
1.1.1	Government effectiveness	78.58	17
1.1.2	Political stability	79.35	37
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	52.90	34
	Competition climate		
1.2.1	Intensity of local competition	69.14	38
	Innovation climate		
1.2.2	Venture capital availability	32.31	38
1.2.3	Firm-level technology absorption	69.98	38
1.2.4	R&D expenditure	10.82	54
	Connectivity		
1.2.5	ICT access	66.48	38
	Ease of doing business		
1.2.6	Ease of doing business	68.70	33
1.3	**Business landscape**	44.45	76
	Labour market flexibility		
1.3.1	Labour market flexibility	47.08	59
	Ownership and governance		
1.3.2	Reliance on professional management	41.83	91
2	**Attract**	51.47	53
2.1	**External openness**	38.32	71
	FDI		
2.1.1	FDI inflow	9.72	85
	Brain gain		
2.1.2	Qualified labour inflow	42.99	46
	Foreign companies		
2.1.3	Prevalence of foreign ownership	62.25	49
2.2	**Internal openness**	64.62	36
	Diversity		
2.2.1	Tolerance of minorities	77.39	45
2.2.2	Tolerance of immigrants	68.41	54
	Social mobility		
2.2.3	Social mobility	63.30	26
	Gender mobility		
2.2.4	Female professionals and technical workers	99.18	50
2.2.5	Female parliamentarians	14.82	83
3	**Grow**	59.77	25
3.1	**Formal education**	62.52	14
	Education climate		
3.1.1	Pupil-teacher ratio	91.22	19
3.1.2	Technical/vocational enrolment	14.06	69
3.1.3	Tertiary enrolment	44.79	47
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	100.00	1

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	56.29	38
	Further education and training climate		
3.2.1	Quality of management schools	66.08	27
3.2.2	Extent of staff training	46.51	64
3.3	**Access to growth opportunities**	60.50	35
	Networks		
3.3.1	Use of virtual social networks	78.82	43
3.3.2	State of cluster development	51.00	39
	Research quality		
3.3.3	Quality of scientific research institutions	50.41	47
	Voice		
3.3.4	Voicing concern to officials	61.79	19
4	**Retain**	60.71	34
4.1	**Sustainability**	60.37	31
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	60.37	11
4.2	**Lifestyle**	61.06	41
	Quality of life		
4.2.1	Environmental performance	55.34	40
4.2.2	Property stolen	70.62	49
4.2.3	Safety at night	76.47	31
	Services		
4.2.4	Physicians density	41.82	45
5	**Labour and Vocational**	43.88	37
5.1	**Employable skills**	44.56	42
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	46.71	37
	Technical professions		
5.1.2	Technicians and associate professionals	60.20	31
	Youth employment		
5.1.3	Youth employment	26.75	71
5.2	**Labour productivity**	43.21	37
	Productivity per employee		
5.2.1	Labour productivity per employee	38.99	32
	Pay and productivity		
5.2.2	Relationship of pay to productivity	47.42	61
6	**Global Knowledge**	42.04	34
6.1	**Higher skills and competencies**	39.49	33
	Educated workforce		
6.1.1	Tertiary-educated workforce	70.39	14
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	23.03	61
6.1.3	Professionals	51.22	22
6.1.4	Researchers	13.31	43
6.2	**Talent impact**	44.59	38
	Innovation		
6.2.1	Innovation output	44.59	31
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

CZECH REPUBLIC

RANK
(out of 103) **22**

Population (millions)	**10.65**
GDP per capita (PPP$)	**27,190.92**
GDP (US$ billions)	**196.07**
Global Talent Competitiveness Index Score	**58.51**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



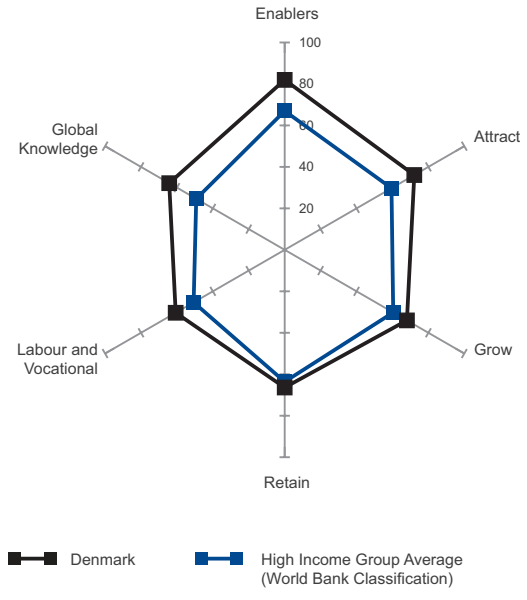
	VARIABLE	SCORE	RANK/103
1	**Enablers**	67.04	22
1.1	**Regulatory landscape**	80.69	19
	Government efficiency		
1.1.1	Government effectiveness	63.33	28
1.1.2	Political stability	93.53	12
	FDI climate		
1.1.3	Starting a foreign business	85.21	8
1.2	**Market landscape**	54.10	31
	Competition climate		
1.2.1	Intensity of local competition	78.50	11
	Innovation climate		
1.2.2	Venture capital availability	23.50	66
1.2.3	Firm-level technology absorption	67.93	44
1.2.4	R&D expenditure	35.22	26
	Connectivity		
1.2.5	ICT access	67.45	36
	Ease of doing business		
1.2.6	Ease of doing business	52.00	50
1.3	**Business landscape**	66.34	22
	Labour market flexibility		
1.3.1	Labour market flexibility	74.57	23
	Ownership and governance		
1.3.2	Reliance on professional management	58.11	39
2	**Attract**	53.34	47
2.1	**External openness**	44.97	45
	FDI		
2.1.1	FDI inflow	20.06	52
	Brain gain		
2.1.2	Qualified labour inflow	38.42	64
	Foreign companies		
2.1.3	Prevalence of foreign ownership	76.42	15
2.2	**Internal openness**	61.72	53
	Diversity		
2.2.1	Tolerance of minorities	59.24	84
2.2.2	Tolerance of immigrants	61.69	68
	Social mobility		
2.2.3	Social mobility	62.36	28
	Gender mobility		
2.2.4	Female professionals and technical workers	90.40	59
2.2.5	Female parliamentarians	34.89	41
3	**Grow**	57.40	29
3.1	**Formal education**	59.25	19
	Education climate		
3.1.1	Pupil-teacher ratio	87.75	32
3.1.2	Technical/vocational enrolment	83.57	3
3.1.3	Tertiary enrolment	60.13	27
	Performance of education system		
3.1.4	Reading, maths and science scores	65.73	25
	Top universities		
3.1.5	QS university ranking	21.52	41
	International students		
3.1.6	International students inflow	36.79	16

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	49.85	59
	Further education and training climate		
3.2.1	Quality of management schools	47.07	73
3.2.2	Extent of staff training	52.62	38
3.3	**Access to growth opportunities**	63.10	27
	Networks		
3.3.1	Use of virtual social networks	82.85	30
3.3.2	State of cluster development	50.44	43
	Research quality		
3.3.3	Quality of scientific research institutions	64.86	25
	Voice		
3.3.4	Voicing concern to officials	54.25	31
4	**Retain**	66.44	15
4.1	**Sustainability**	67.61	14
	Social protection		
4.1.1	Pension system	100.00	1
	Taxation		
4.1.2	Extent and effect of taxation	35.23	72
4.2	**Lifestyle**	65.27	24
	Quality of life		
4.2.1	Environmental performance	72.80	18
4.2.2	Property stolen	61.85	66
4.2.3	Safety at night	66.95	51
	Services		
4.2.4	Physicians density	59.49	16
5	**Labour and Vocational**	58.79	13
5.1	**Employable skills**	71.03	5
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	100.00	1
	Technical professions		
5.1.2	Technicians and associate professionals	92.86	4
	Youth employment		
5.1.3	Youth employment	20.22	77
5.2	**Labour productivity**	46.55	33
	Productivity per employee		
5.2.1	Labour productivity per employee	35.22	35
	Pay and productivity		
5.2.2	Relationship of pay to productivity	57.87	24
6	**Global Knowledge**	48.03	28
6.1	**Higher skills and competencies**	36.13	40
	Educated workforce		
6.1.1	Tertiary-educated workforce	37.59	50
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	26.40	54
6.1.3	Professionals	38.11	47
6.1.4	Researchers	42.44	21
6.2	**Talent impact**	59.92	11
	Innovation		
6.2.1	Innovation output	57.50	23
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	62.34	13

DENMARK

RANK
(out of 103) **3**

Population (millions)	**5.60**
GDP per capita (PPP$)	**37,657.20**
GDP (US$ billions)	**313.64**
Global Talent Competitiveness Index Score	**68.93**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



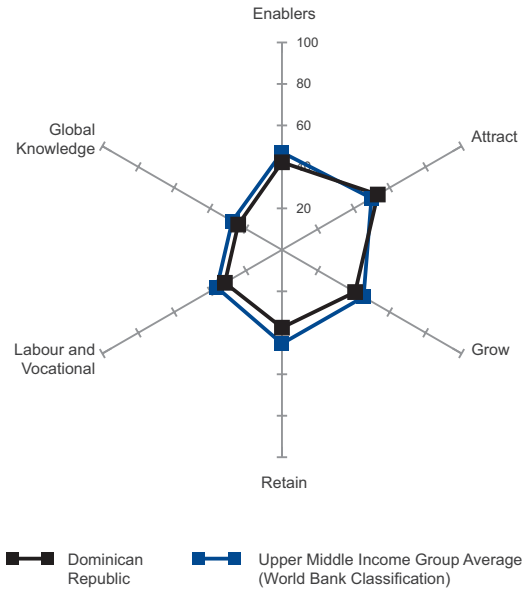
	VARIABLE	SCORE	RANK/103
1	**Enablers**	81.97	4
1.1	**Regulatory landscape**	95.51	2
	Government efficiency		
1.1.1	Government effectiveness	97.71	2
1.1.2	Political stability	93.30	13
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	73.42	10
	Competition climate		
1.2.1	Intensity of local competition	73.73	26
	Innovation climate		
1.2.2	Venture capital availability	26.79	57
1.2.3	Firm-level technology absorption	80.71	17
1.2.4	R&D expenditure	69.39	6
	Connectivity		
1.2.5	ICT access	92.83	8
	Ease of doing business		
1.2.6	Ease of doing business	97.10	4
1.3	**Business landscape**	76.97	11
	Labour market flexibility		
1.3.1	Labour market flexibility	70.80	29
	Ownership and governance		
1.3.2	Reliance on professional management	83.14	8
2	**Attract**	72.16	5
2.1	**External openness**	53.22	19
	FDI		
2.1.1	FDI inflow	34.49	30
	Brain gain		
2.1.2	Qualified labour inflow	54.42	27
	Foreign companies		
2.1.3	Prevalence of foreign ownership	70.74	30
2.2	**Internal openness**	91.09	3
	Diversity		
2.2.1	Tolerance of minorities	95.00	10
2.2.2	Tolerance of immigrants	94.88	5
	Social mobility		
2.2.3	Social mobility	86.17	4
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	79.43	8
3	**Grow**	68.05	12
3.1	**Formal education**	59.44	18
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	55.29	23
3.1.3	Tertiary enrolment	71.07	14
	Performance of education system		
3.1.4	Reading, maths and science scores	69.17	18
	Top universities		
3.1.5	QS university ranking	66.99	12
	International students		
3.1.6	International students inflow	34.66	17

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	68.39	13
	Further education and training climate		
3.2.1	Quality of management schools	68.07	23
3.2.2	Extent of staff training	68.72	10
3.3	**Access to growth opportunities**	76.32	6
	Networks		
3.3.1	Use of virtual social networks	83.89	24
3.3.2	State of cluster development	58.59	23
	Research quality		
3.3.3	Quality of scientific research institutions	72.01	18
	Voice		
3.3.4	Voicing concern to officials	90.80	2
4	**Retain**	66.40	17
4.1	**Sustainability**	61.86	23
	Social protection		
4.1.1	Pension system	97.31	8
	Taxation		
4.1.2	Extent and effect of taxation	26.40	93
4.2	**Lifestyle**	70.93	11
	Quality of life		
4.2.1	Environmental performance	70.10	21
4.2.2	Property stolen	70.14	51
4.2.3	Safety at night	88.02	11
	Services		
4.2.4	Physicians density	55.46	23
5	**Labour and Vocational**	60.69	9
5.1	**Employable skills**	70.27	6
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	59.00	23
	Technical professions		
5.1.2	Technicians and associate professionals	78.57	12
	Youth employment		
5.1.3	Youth employment	73.25	11
5.2	**Labour productivity**	51.11	24
	Productivity per employee		
5.2.1	Labour productivity per employee	50.55	21
	Pay and productivity		
5.2.2	Relationship of pay to productivity	51.66	43
6	**Global Knowledge**	64.30	4
6.1	**Higher skills and competencies**	61.31	11
	Educated workforce		
6.1.1	Tertiary-educated workforce	69.93	15
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	15.17	71
6.1.3	Professionals	75.30	3
6.1.4	Researchers	84.82	3
6.2	**Talent impact**	67.29	5
	Innovation		
6.2.1	Innovation output	69.64	9
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	64.94	10

DOMINICAN REPUBLIC

RANK
(out of 103) **81**

Population (millions)	**10.3**
GDP per capita (PPP$)	**9,646.07**
GDP (US$ billions)	**59.00**
Global Talent Competitiveness Index Score	**38.33**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



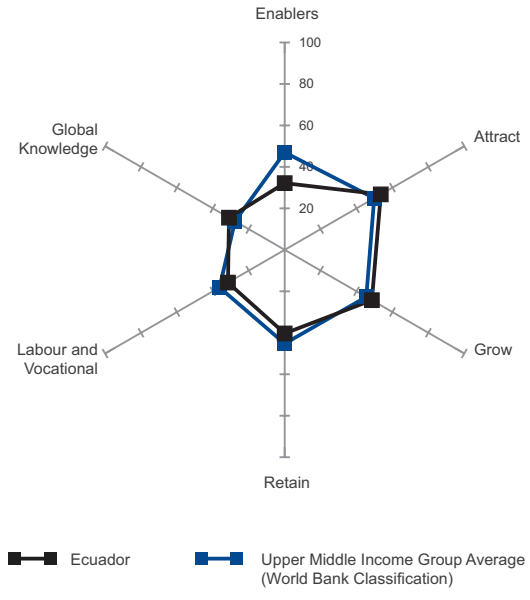
	VARIABLE	SCORE	RANK/103
1	**Enablers**	42.23	80
1.1	**Regulatory landscape**	42.22	80
	Government efficiency		
1.1.1	Government effectiveness	16.47	87
1.1.2	Political stability	67.97	53
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	39.38	70
	Competition climate		
1.2.1	Intensity of local competition	66.69	49
	Innovation climate		
1.2.2	Venture capital availability	19.72	85
1.2.3	Firm-level technology absorption	65.04	49
1.2.4	R&D expenditure	n/a	n/a
	Connectivity		
1.2.5	ICT access	23.86	81
	Ease of doing business		
1.2.6	Ease of doing business	21.60	81
1.3	**Business landscape**	45.08	74
	Labour market flexibility		
1.3.1	Labour market flexibility	49.55	57
	Ownership and governance		
1.3.2	Reliance on professional management	40.61	97
2	**Attract**	53.35	46
2.1	**External openness**	47.25	40
	FDI		
2.1.1	FDI inflow	32.22	34
	Brain gain		
2.1.2	Qualified labour inflow	42.83	48
	Foreign companies		
2.1.3	Prevalence of foreign ownership	66.72	41
2.2	**Internal openness**	59.45	57
	Diversity		
2.2.1	Tolerance of minorities	61.09	80
2.2.2	Tolerance of immigrants	62.54	64
	Social mobility		
2.2.3	Social mobility	41.13	87
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	32.49	47
3	**Grow**	40.73	79
3.1	**Formal education**	25.65	88
	Education climate		
3.1.1	Pupil-teacher ratio	37.32	83
3.1.2	Technical/vocational enrolment	9.25	82
3.1.3	Tertiary enrolment	30.37	67
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	48.25	63
	Further education and training climate		
3.2.1	Quality of management schools	48.64	67
3.2.2	Extent of staff training	47.87	58
3.3	**Access to growth opportunities**	48.30	65
	Networks		
3.3.1	Use of virtual social networks	77.18	49
3.3.2	State of cluster development	43.08	61
	Research quality		
3.3.3	Quality of scientific research institutions	25.98	95
	Voice		
3.3.4	Voicing concern to officials	46.93	46
4	**Retain**	37.53	85
4.1	**Sustainability**	27.85	92
	Social protection		
4.1.1	Pension system	27.22	63
	Taxation		
4.1.2	Extent and effect of taxation	28.47	92
4.2	**Lifestyle**	47.22	73
	Quality of life		
4.2.1	Environmental performance	44.57	60
4.2.2	Property stolen	55.69	80
4.2.3	Safety at night	41.39	96
	Services		
4.2.4	Physicians density	n/a	n/a
5	**Labour and Vocational**	31.79	75
5.1	**Employable skills**	33.98	76
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	30.29	56
	Technical professions		
5.1.2	Technicians and associate professionals	27.55	67
	Youth employment		
5.1.3	Youth employment	44.11	46
5.2	**Labour productivity**	29.59	82
	Productivity per employee		
5.2.1	Labour productivity per employee	20.41	53
	Pay and productivity		
5.2.2	Relationship of pay to productivity	38.78	89
6	**Global Knowledge**	24.37	68
6.1	**Higher skills and competencies**	19.64	75
	Educated workforce		
6.1.1	Tertiary-educated workforce	23.46	70
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	16.85	67
6.1.3	Professionals	18.60	69
6.1.4	Researchers	n/a	n/a
6.2	**Talent impact**	29.09	64
	Innovation		
6.2.1	Innovation output	21.82	67
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	36.36	48

ECUADOR

RANK
(out of 103) **74**

Population (millions)	**15.52**
GDP per capita (PPP$)	**10,055.89**
GDP (US$ billions)	**80.93**
Global Talent Competitiveness Index Score	**39.52**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



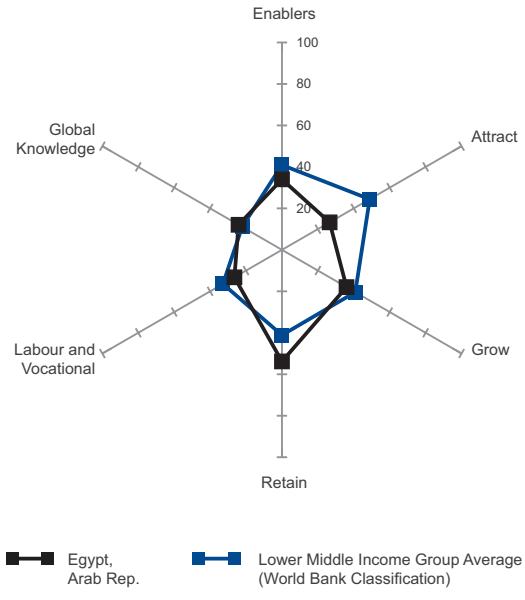
	VARIABLE	SCORE	RANK/103
1	**Enablers**	32.17	97
1.1	**Regulatory landscape**	37.67	86
	Government efficiency		
1.1.1	Government effectiveness	16.56	86
1.1.2	Political stability	48.28	82
	FDI climate		
1.1.3	Starting a foreign business	48.17	53
1.2	**Market landscape**	30.72	90
	Competition climate		
1.2.1	Intensity of local competition	54.88	78
	Innovation climate		
1.2.2	Venture capital availability	26.85	56
1.2.3	Firm-level technology absorption	55.47	79
1.2.4	R&D expenditure	5.43	66
	Connectivity		
1.2.5	ICT access	34.76	67
	Ease of doing business		
1.2.6	Ease of doing business	6.90	96
1.3	**Business landscape**	28.12	100
	Labour market flexibility		
1.3.1	Labour market flexibility	11.01	100
	Ownership and governance		
1.3.2	Reliance on professional management	45.24	78
2	**Attract**	53.50	44
2.1	**External openness**	31.30	89
	FDI		
2.1.1	FDI inflow	7.74	89
	Brain gain		
2.1.2	Qualified labour inflow	36.26	68
	Foreign companies		
2.1.3	Prevalence of foreign ownership	49.91	84
2.2	**Internal openness**	75.69	20
	Diversity		
2.2.1	Tolerance of minorities	75.87	51
2.2.2	Tolerance of immigrants	70.76	48
	Social mobility		
2.2.3	Social mobility	n/a	n/a
	Gender mobility		
2.2.4	Female professionals and technical workers	97.11	53
2.2.5	Female parliamentarians	59.02	16
3	**Grow**	48.54	49
3.1	**Formal education**	56.72	25
	Education climate		
3.1.1	Pupil-teacher ratio	87.86	31
3.1.2	Technical/vocational enrolment	46.06	27
3.1.3	Tertiary enrolment	36.25	59
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	46.41	72
	Further education and training climate		
3.2.1	Quality of management schools	47.36	72
3.2.2	Extent of staff training	45.46	68
3.3	**Access to Growth Opportunities**	42.50	87
	Networks		
3.3.1	Use of virtual social networks	63.70	89
3.3.2	State of cluster development	40.99	65
	Research quality		
3.3.3	Quality of scientific research institutions	32.98	88
	Voice		
3.3.4	Voicing concern to officials	32.31	75
4	**Retain**	40.32	75
4.1	**Sustainability**	30.23	87
	Social protection		
4.1.1	Pension system	26.76	64
	Taxation		
4.1.2	Extent and effect of taxation	33.71	81
4.2	**Lifestyle**	50.41	63
	Quality of life		
4.2.1	Environmental performance	63.11	29
4.2.2	Property stolen	58.53	72
4.2.3	Safety at night	52.73	77
	Services		
4.2.4	Physicians density	27.26	62
5	**Labour and Vocational**	31.58	78
5.1	**Employable skills**	37.27	65
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	29.14	57
	Technical professions		
5.1.2	Technicians and associate professionals	28.06	65
	Youth employment		
5.1.3	Youth employment	54.62	29
5.2	**Labour productivity**	25.88	90
	Productivity per employee		
5.2.1	Labour productivity per employee	12.72	67
	Pay and productivity		
5.2.2	Relationship of pay to productivity	39.04	87
6	**Global Knowledge**	31.02	55
6.1	**Higher skills and competencies**	17.39	79
	Educated workforce		
6.1.1	Tertiary-educated workforce	26.42	67
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	16.85	67
6.1.3	Professionals	25.00	62
6.1.4	Researchers	1.27	80
6.2	**Talent impact**	44.65	37
	Innovation		
6.2.1	Innovation output	19.17	75
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	70.13	8

EGYPT, ARAB REP.

RANK
(out of 103) **89**

Population (millions)	**80.80**
GDP per capita (PPP$)	**6,544.87**
GDP (US$ billions)	**256.73**
Global Talent Competitiveness Index Score	**33.49**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



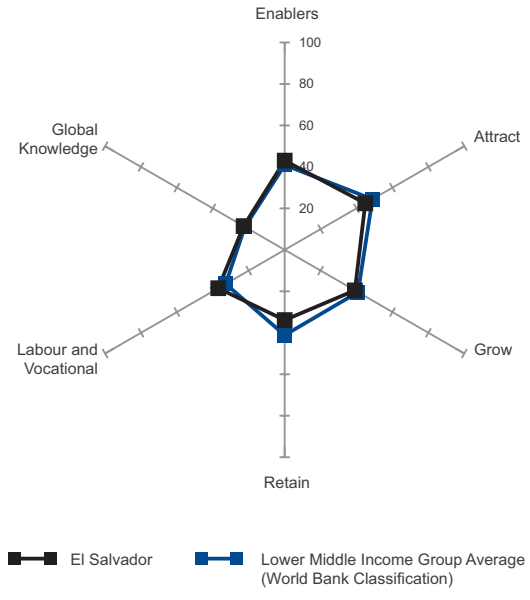
	VARIABLE	SCORE	RANK/103
1	**Enablers**	34.01	93
1.1	**Regulatory landscape**	36.28	89
	Government efficiency		
1.1.1	Government effectiveness	14.97	89
1.1.2	Political stability	34.59	93
	FDI climate		
1.1.3	Starting a foreign business	59.30	41
1.2	**Market landscape**	34.84	79
	Competition climate		
1.2.1	Intensity of local competition	50.40	90
	Innovation climate		
1.2.2	Venture capital availability	33.38	33
1.2.3	Firm-level technology absorption	59.40	69
1.2.4	R&D expenditure	4.33	74
	Connectivity		
1.2.5	ICT access	35.03	65
	Ease of doing business		
1.2.6	Ease of doing business	26.50	76
1.3	**Business landscape**	30.89	95
	Labour market flexibility		
1.3.1	Labour market flexibility	23.68	86
	Ownership and governance		
1.3.2	Reliance on professional management	38.11	100
2	**Attract**	26.53	103
2.1	**External openness**	23.78	101
	FDI		
2.1.1	FDI inflow	0.00	103
	Brain gain		
2.1.2	Qualified labour inflow	20.66	95
	Foreign companies		
2.1.3	Prevalence of foreign ownership	50.68	81
2.2	**Internal openness**	29.28	103
	Diversity		
2.2.1	Tolerance of minorities	23.91	100
2.2.2	Tolerance of immigrants	28.28	99
	Social mobility		
2.2.3	Social mobility	47.60	73
	Gender mobility		
2.2.4	Female professionals and technical workers	44.10	83
2.2.5	Female parliamentarians	2.52	101
3	**Grow**	35.94	94
3.1	**Formal education**	34.31	65
	Education climate		
3.1.1	Pupil-teacher ratio	80.53	45
3.1.2	Technical/vocational enrolment	37.11	36
3.1.3	Tertiary enrolment	28.72	68
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	16.68	45
	International students		
3.1.6	International students inflow	8.52	49

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	31.81	101
	Further education and training climate		
3.2.1	Quality of management schools	29.22	102
3.2.2	Extent of staff training	34.40	95
3.3	**Access to growth opportunities**	41.71	89
	Networks		
3.3.1	Use of virtual social networks	81.99	32
3.3.2	State of cluster development	44.52	56
	Research quality		
3.3.3	Quality of scientific research institutions	31.12	90
	Voice		
3.3.4	Voicing concern to officials	9.20	101
4	**Retain**	53.81	47
4.1	**Sustainability**	48.13	52
	Social protection		
4.1.1	Pension system	57.19	45
	Taxation		
4.1.2	Extent and effect of taxation	39.08	59
4.2	**Lifestyle**	59.49	46
	Quality of life		
4.2.1	Environmental performance	50.83	54
4.2.2	Property stolen	79.38	18
4.2.3	Safety at night	61.93	61
	Services		
4.2.4	Physicians density	45.82	36
5	**Labour and Vocational**	26.48	95
5.1	**Employable skills**	28.37	85
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	n/a	n/a
	Technical professions		
5.1.2	Technicians and associate professionals	40.82	50
	Youth employment		
5.1.3	Youth employment	15.92	85
5.2	**Labour productivity**	24.58	93
	Productivity per employee		
5.2.1	Labour productivity per employee	9.91	75
	Pay and productivity		
5.2.2	Relationship of pay to productivity	39.25	85
6	**Global Knowledge**	24.17	69
6.1	**Higher skills and competencies**	30.19	48
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	46.07	19
6.1.3	Professionals	39.02	42
6.1.4	Researchers	5.47	62
6.2	**Talent impact**	18.15	86
	Innovation		
6.2.1	Innovation output	14.23	84
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	22.08	65

EL SALVADOR

RANK
(out of 103) **85**

Population (millions)	**6.31**
GDP per capita (PPP$)	**7,437.93**
GDP (US$ billions)	**23.82**
Global Talent Competitiveness Index Score	**36.79**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



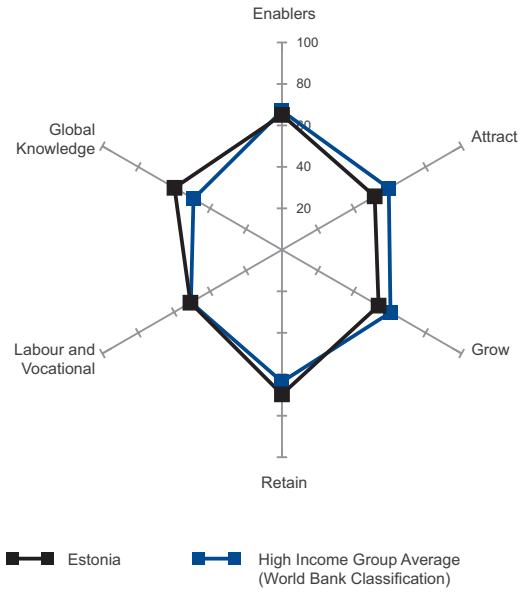
	VARIABLE	SCORE	RANK/103
1	**Enablers**	43.04	75
1.1	**Regulatory landscape**	49.34	65
	Government efficiency		
1.1.1	Government effectiveness	29.71	64
1.1.2	Political stability	68.97	52
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	33.07	87
	Competition climate		
1.2.1	Intensity of local competition	65.41	55
	Innovation climate		
1.2.2	Venture capital availability	21.57	75
1.2.3	Firm-level technology absorption	57.90	73
1.2.4	R&D expenditure	1.27	89
	Connectivity		
1.2.5	ICT access	28.69	76
	Ease of doing business		
1.2.6	Ease of doing business	23.60	79
1.3	**Business landscape**	46.69	71
	Labour market flexibility		
1.3.1	Labour market flexibility	50.91	55
	Ownership and governance		
1.3.2	Reliance on professional management	42.48	87
2	**Attract**	44.87	83
2.1	**External openness**	33.79	81
	FDI		
2.1.1	FDI inflow	14.03	72
	Brain gain		
2.1.2	Qualified labour inflow	22.92	90
	Foreign companies		
2.1.3	Prevalence of foreign ownership	64.42	45
2.2	**Internal openness**	55.94	71
	Diversity		
2.2.1	Tolerance of minorities	62.72	75
2.2.2	Tolerance of immigrants	62.43	65
	Social mobility		
2.2.3	Social mobility	27.98	98
	Gender mobility		
2.2.4	Female professionals and technical workers	97.55	52
2.2.5	Female parliamentarians	29.02	55
3	**Grow**	39.08	84
3.1	**Formal education**	25.86	87
	Education climate		
3.1.1	Pupil-teacher ratio	49.76	73
3.1.2	Technical/vocational enrolment	32.82	46
3.1.3	Tertiary enrolment	20.87	75
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	46.42	71
	Further education and training climate		
3.2.1	Quality of management schools	45.98	77
3.2.2	Extent of staff training	46.86	62
3.3	**Access to growth opportunities**	44.96	81
	Networks		
3.3.1	Use of virtual social networks	77.34	48
3.3.2	State of cluster development	40.34	69
	Research quality		
3.3.3	Quality of scientific research institutions	21.10	100
	Voice		
3.3.4	Voicing concern to officials	41.04	55
4	**Retain**	33.88	93
4.1	**Sustainability**	26.87	94
	Social protection		
4.1.1	Pension system	23.01	69
	Taxation		
4.1.2	Extent and effect of taxation	30.74	87
4.2	**Lifestyle**	40.90	88
	Quality of life		
4.2.1	Environmental performance	43.75	63
4.2.2	Property stolen	48.82	87
4.2.3	Safety at night	45.24	90
	Services		
4.2.4	Physicians density	25.78	64
5	**Labour and Vocational**	37.00	60
5.1	**Employable Skills**	35.42	69
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	28.14	61
	Technical professions		
5.1.2	Technicians and associate professionals	29.08	63
	Youth employment		
5.1.3	Youth employment	49.04	36
5.2	**Labour productivity**	38.58	49
	Productivity per employee		
5.2.1	Labour productivity per employee	n/a	n/a
	Pay and productivity		
5.2.2	Relationship of pay to productivity	38.58	90
6	**Global Knowledge**	22.87	73
6.1	**Higher skills and competencies**	8.27	89
	Educated workforce		
6.1.1	Tertiary-educated workforce	15.49	76
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	5.62	85
6.1.3	Professionals	11.89	78
6.1.4	Researchers	0.08	96
6.2	**Talent impact**	37.48	50
	Innovation		
6.2.1	Innovation output	16.51	81
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	58.44	15

ESTONIA

RANK
(out of 103) **23**

Population (millions)	**1.29**
GDP per capita (PPP$)	**21,713.22**
GDP (US$ billions)	**21.86**
Global Talent Competitiveness Index Score	**58.50**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



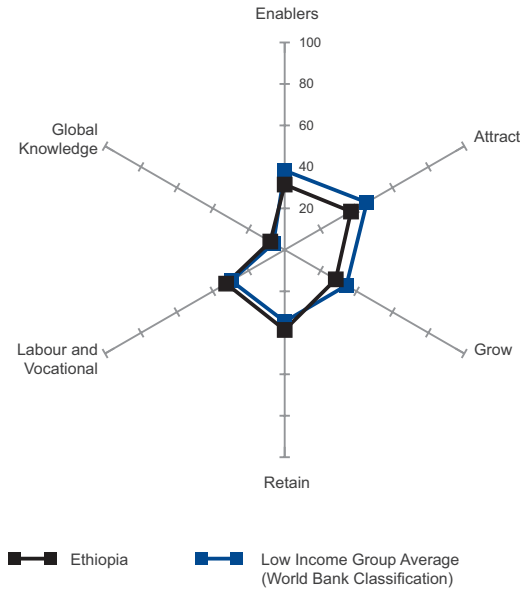
	VARIABLE	SCORE	RANK/103
1	**Enablers**	65.09	25
1.1	**Regulatory landscape**	74.74	28
	Government efficiency		
1.1.1	Government effectiveness	68.88	23
1.1.2	Political stability	80.60	33
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	63.79	24
	Competition climate		
1.2.1	Intensity of local competition	75.03	22
	Innovation climate		
1.2.2	Venture capital availability	35.98	27
1.2.3	Firm-level technology absorption	75.08	30
1.2.4	R&D expenditure	36.58	24
	Connectivity		
1.2.5	ICT access	76.69	25
	Ease of doing business		
1.2.6	Ease of doing business	83.40	18
1.3	**Business landscape**	56.73	46
	Labour market flexibility		
1.3.1	Labour market flexibility	43.26	64
	Ownership and governance		
1.3.2	Reliance on professional management	70.20	23
2	**Attract**	51.63	52
2.1	**External openness**	40.97	65
	FDI		
2.1.1	FDI inflow	10.08	83
	Brain gain		
2.1.2	Qualified labour inflow	39.31	59
	Foreign companies		
2.1.3	Prevalence of foreign ownership	73.50	21
2.2	**Internal openness**	62.29	47
	Diversity		
2.2.1	Tolerance of minorities	60.65	81
2.2.2	Tolerance of immigrants	46.00	91
	Social mobility		
2.2.3	Social mobility	74.28	21
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	30.54	51
3	**Grow**	53.80	35
3.1	**Formal education**	47.07	44
	Education climate		
3.1.1	Pupil-teacher ratio	94.05	12
3.1.2	Technical/vocational enrolment	41.41	33
3.1.3	Tertiary enrolment	60.87	26
	Performance of education system		
3.1.4	Reading, maths and science scores	74.91	11
	Top universities		
3.1.5	QS university ranking	2.98	57
	International students		
3.1.6	International students inflow	8.20	51

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	55.67	41
	Further education and training climate		
3.2.1	Quality of management schools	58.22	42
3.2.2	Extent of staff training	53.13	37
3.3	**Access to growth opportunities**	58.65	39
	Networks		
3.3.1	Use of virtual social networks	89.39	7
3.3.2	State of cluster development	41.85	63
	Research quality		
3.3.3	Quality of scientific research institutions	65.14	24
	Voice		
3.3.4	Voicing concern to officials	38.21	67
4	**Retain**	69.69	8
4.1	**Sustainability**	78.89	3
	Social protection		
4.1.1	Pension system	99.00	4
	Taxation		
4.1.2	Extent and effect of taxation	58.79	13
4.2	**Lifestyle**	60.48	43
	Quality of life		
4.2.1	Environmental performance	52.91	49
4.2.2	Property stolen	69.43	55
4.2.3	Safety at night	65.56	56
	Services		
4.2.4	Physicians density	54.00	24
5	**Labour and Vocational**	50.96	24
5.1	**Employable skills**	55.09	19
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	72.57	10
	Technical professions		
5.1.2	Technicians and associate professionals	60.20	31
	Youth employment		
5.1.3	Youth employment	32.48	64
5.2	**Labour productivity**	46.84	31
	Productivity per employee		
5.2.1	Labour productivity per employee	27.88	41
	Pay and productivity		
5.2.2	Relationship of pay to productivity	65.81	6
6	**Global Knowledge**	59.83	9
6.1	**Higher skills and competencies**	58.12	14
	Educated workforce		
6.1.1	Tertiary-educated workforce	80.87	6
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	50.56	12
6.1.3	Professionals	58.84	14
6.1.4	Researchers	42.19	22
6.2	**Talent impact**	61.55	9
	Innovation		
6.2.1	Innovation output	71.16	8
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	51.95	20

ETHIOPIA

RANK
(out of 103) **99**

Population (millions)	**92.26**
GDP per capita (PPP$)	**1,190.56**
GDP (US$ billions)	**41.91**
Global Talent Competitiveness Index Score	**29.35**
Global Talent Competitiveness Index Score (Income Group Average)	**31.51**



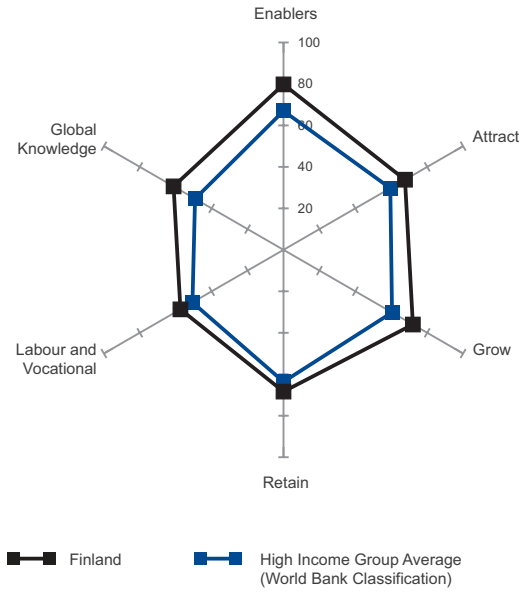
	VARIABLE	SCORE	RANK/103
1	**Enablers**	31.48	98
1.1	**Regulatory landscape**	15.65	103
	Government efficiency		
1.1.1	Government effectiveness	20.87	77
1.1.2	Political stability	26.08	102
	FDI climate		
1.1.3	Starting a foreign business	0.00	65
1.2	**Market landscape**	21.06	102
	Competition climate		
1.2.1	Intensity of local competition	43.20	101
	Innovation climate		
1.2.2	Venture capital availability	17.78	91
1.2.3	Firm-level technology absorption	44.62	100
1.2.4	R&D expenditure	5.06	69
	Connectivity		
1.2.5	ICT access	0.00	97
	Ease of doing business		
1.2.6	Ease of doing business	15.70	87
1.3	**Business landscape**	57.74	42
	Labour market flexibility		
1.3.1	Labour market flexibility	73.05	26
	Ownership and governance		
1.3.2	Reliance on professional management	42.42	88
2	**Attract**	36.92	98
2.1	**External openness**	24.21	100
	FDI		
2.1.1	FDI inflow	6.58	91
	Brain gain		
2.1.2	Qualified labour inflow	27.87	86
	Foreign companies		
2.1.3	Prevalence of foreign ownership	38.17	99
2.2	**Internal openness**	49.63	88
	Diversity		
2.2.1	Tolerance of minorities	51.74	93
2.2.2	Tolerance of immigrants	53.15	83
	Social mobility		
2.2.3	Social mobility	53.86	54
	Gender mobility		
2.2.4	Female professionals and technical workers	41.75	85
2.2.5	Female parliamentarians	47.63	24
3	**Grow**	28.45	103
3.1	**Formal education**	8.47	101
	Education climate		
3.1.1	Pupil-teacher ratio	4.33	88
3.1.2	Technical/vocational enrolment	17.28	66
3.1.3	Tertiary enrolment	3.80	94
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	39.05	95
	Further education and training climate		
3.2.1	Quality of management schools	43.81	84
3.2.2	Extent of staff training	34.29	96
3.3	**Access to growth opportunities**	37.82	99
	Networks		
3.3.1	Use of virtual social networks	39.52	102
3.3.2	State of cluster development	36.10	82
	Research quality		
3.3.3	Quality of scientific research institutions	36.96	80
	Voice		
3.3.4	Voicing concern to officials	38.68	64
4	**Retain**	38.63	82
4.1	**Sustainability**	42.03	59
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	42.03	46
4.2	**Lifestyle**	35.24	96
	Quality of life		
4.2.1	Environmental performance	45.19	59
4.2.2	Property stolen	41.94	90
4.2.3	Safety at night	53.58	74
	Services		
4.2.4	Physicians density	0.23	96
5	**Labour and Vocational**	32.60	72
5.1	**Employable skills**	43.33	47
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	6.14	85
	Technical professions		
5.1.2	Technicians and associate professionals	29.59	62
	Youth employment		
5.1.3	Youth employment	94.27	3
5.2	**Labour productivity**	21.86	98
	Productivity per employee		
5.2.1	Labour productivity per employee	0.00	94
	Pay and productivity		
5.2.2	Relationship of pay to productivity	43.73	74
6	**Global Knowledge**	8.02	97
6.1	**Higher skills and competencies**	6.06	92
	Educated workforce		
6.1.1	Tertiary-educated workforce	1.14	87
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	14.04	74
6.1.3	Professionals	8.54	86
6.1.4	Researchers	0.51	87
6.2	**Talent impact**	9.97	94
	Innovation		
6.2.1	Innovation output	4.36	99
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	15.58	70

FINLAND

RANK
(out of 103) **8**

Population (millions)	**5.41**
GDP per capita (PPP$)	**36,395.01**
GDP (US$ billions)	**250.13**
Global Talent Competitiveness Index Score	**67.73**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



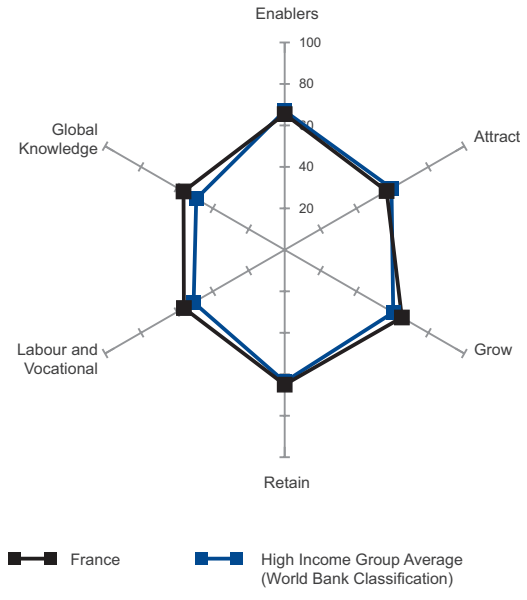
	VARIABLE	SCORE	RANK/103
1	**Enablers**	79.79	8
1.1	**Regulatory landscape**	100.00	1
	Government efficiency		
1.1.1	Government effectiveness	100.00	1
1.1.2	Political stability	100.00	1
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	76.79	3
	Competition climate		
1.2.1	Intensity of local competition	64.52	58
	Innovation climate		
1.2.2	Venture capital availability	48.55	10
1.2.3	Firm-level technology absorption	84.23	6
1.2.4	R&D expenditure	88.11	2
	Connectivity		
1.2.5	ICT access	84.14	16
	Ease of doing business		
1.2.6	Ease of doing business	91.20	10
1.3	**Business landscape**	62.58	30
	Labour market flexibility		
1.3.1	Labour market flexibility	37.10	72
	Ownership and governance		
1.3.2	Reliance on professional management	88.06	2
2	**Attract**	67.64	15
2.1	**External openness**	47.51	39
	FDI		
2.1.1	FDI inflow	1.68	99
	Brain gain		
2.1.2	Qualified labour inflow	67.88	11
	Foreign companies		
2.1.3	Prevalence of foreign ownership	72.96	22
2.2	**Internal openness**	87.77	7
	Diversity		
2.2.1	Tolerance of minorities	78.15	39
2.2.2	Tolerance of immigrants	78.23	32
	Social mobility		
2.2.3	Social mobility	91.01	1
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	91.44	2
3	**Grow**	72.03	4
3.1	**Formal education**	68.27	7
	Education climate		
3.1.1	Pupil-teacher ratio	90.85	21
3.1.2	Technical/vocational enrolment	67.00	16
3.1.3	Tertiary enrolment	90.50	3
	Performance of education system		
3.1.4	Reading, maths and science scores	86.76	2
	Top universities		
3.1.5	QS university ranking	53.15	17
	International students		
3.1.6	International students inflow	21.36	27

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	74.54	4
	Further education and training climate		
3.2.1	Quality of management schools	75.86	10
3.2.2	Extent of staff training	73.22	2
3.3	**Access to growth opportunities**	73.27	8
	Networks		
3.3.1	Use of virtual social networks	89.14	8
3.3.2	State of cluster development	69.30	5
	Research quality		
3.3.3	Quality of scientific research institutions	75.44	13
	Voice		
3.3.4	Voicing concern to officials	59.20	21
4	**Retain**	68.36	12
4.1	**Sustainability**	65.33	19
	Social protection		
4.1.1	Pension system	93.96	17
	Taxation		
4.1.2	Extent and effect of taxation	36.71	67
4.2	**Lifestyle**	71.39	10
	Quality of life		
4.2.1	Environmental performance	72.00	19
4.2.2	Property stolen	80.09	16
4.2.3	Safety at night	86.42	16
	Services		
4.2.4	Physicians density	47.04	34
5	**Labour and Vocational**	57.39	18
5.1	**Employable skills**	61.53	13
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	54.00	27
	Technical professions		
5.1.2	Technicians and associate professionals	80.10	11
	Youth employment		
5.1.3	Youth employment	50.48	34
5.2	**Labour productivity**	53.26	16
	Productivity per employee		
5.2.1	Labour productivity per employee	52.72	16
	Pay and productivity		
5.2.2	Relationship of pay to productivity	53.80	39
6	**Global Knowledge**	61.20	5
6.1	**Higher skills and competencies**	62.74	9
	Educated workforce		
6.1.1	Tertiary-educated workforce	71.98	13
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	29.21	48
6.1.3	Professionals	64.33	11
6.1.4	Researchers	85.44	2
6.2	**Talent impact**	59.66	12
	Innovation		
6.2.1	Innovation output	76.47	5
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	42.86	33

FRANCE

RANK
(out of 103) **20**

Population (millions)	**63.93**
GDP per capita (PPP$)	**35,547.96**
GDP (US$ billions)	**2,608.70**
Global Talent Competitiveness Index Score	**60.82**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



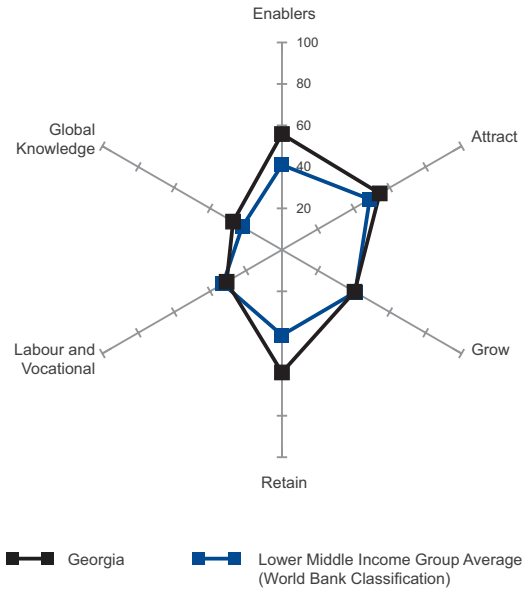
	VARIABLE	SCORE	RANK/103
1	**Enablers**	65.46	24
1.1	**Regulatory landscape**	78.07	25
	Government efficiency		
1.1.1	Government effectiveness	73.65	20
1.1.2	Political stability	81.12	31
	FDI climate		
1.1.3	Starting a foreign business	79.44	19
1.2	**Market landscape**	64.51	22
	Competition climate		
1.2.1	Intensity of local competition	74.57	25
	Innovation climate		
1.2.2	Venture capital availability	29.46	46
1.2.3	Firm-level technology absorption	74.83	31
1.2.4	R&D expenditure	50.95	14
	Connectivity		
1.2.5	ICT access	86.62	12
	Ease of doing business		
1.2.6	Ease of doing business	70.60	31
1.3	**Business landscape**	53.80	52
	Labour market flexibility		
1.3.1	Labour market flexibility	40.77	68
	Ownership and governance		
1.3.2	Reliance on professional management	66.82	27
2	**Attract**	56.73	36
2.1	**External openness**	44.69	46
	FDI		
2.1.1	FDI inflow	12.40	77
	Brain gain		
2.1.2	Qualified labour inflow	45.78	40
	Foreign companies		
2.1.3	Prevalence of foreign ownership	75.90	16
2.2	**Internal openness**	68.77	31
	Diversity		
2.2.1	Tolerance of minorities	89.02	22
2.2.2	Tolerance of immigrants	82.28	26
	Social mobility		
2.2.3	Social mobility	57.30	45
	Gender mobility		
2.2.4	Female professionals and technical workers	86.42	62
2.2.5	Female parliamentarians	28.83	56
3	**Grow**	65.25	16
3.1	**Formal education**	62.23	15
	Education climate		
3.1.1	Pupil-teacher ratio	82.91	43
3.1.2	Technical/vocational enrolment	42.26	32
3.1.3	Tertiary enrolment	53.23	39
	Performance of education system		
3.1.4	Reading, math and science scores	68.26	21
	Top universities		
3.1.5	QS university ranking	73.50	9
	International students		
3.1.6	International students inflow	53.24	12

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	65.92	19
	Further education and training climate		
3.2.1	Quality of management schools	77.21	8
3.2.2	Extent of staff training	54.63	33
3.3	**Access to growth opportunities**	67.59	18
	Networks		
3.3.1	Use of virtual social networks	84.54	20
3.3.2	State of cluster development	58.13	27
	Research quality		
3.3.3	Quality of scientific research institutions	74.37	15
	Voice		
3.3.4	Voicing concern to officials	53.30	34
4	**Retain**	65.01	20
4.1	**Sustainability**	60.43	29
	Social protection		
4.1.1	Pension system	91.40	22
	Taxation		
4.1.2	Extent and effect of taxation	29.45	89
4.2	**Lifestyle**	69.60	14
	Quality of life		
4.2.1	Environmental performance	82.42	6
4.2.2	Property stolen	68.48	58
4.2.3	Safety at night	71.66	46
	Services		
4.2.4	Physicians density	55.84	22
5	**Labour and Vocational**	56.12	20
5.1	**Employable skills**	59.69	15
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	53.14	28
	Technical professions		
5.1.2	Technicians and associate professionals	96.94	3
	Youth employment		
5.1.3	Youth employment	28.98	67
5.2	**Labour productivity**	52.55	22
	Productivity per employee		
5.2.1	Labour productivity per employee	56.11	11
	Pay and productivity		
5.2.2	Relationship of pay to productivity	49.00	55
6	**Global Knowledge**	56.33	16
6.1	**Higher skills and competencies**	47.86	22
	Educated workforce		
6.1.1	Tertiary-educated workforce	55.58	29
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	41.57	27
6.1.3	Professionals	50.30	25
6.1.4	Researchers	43.97	19
6.2	**Talent impact**	64.80	6
	Innovation		
6.2.1	Innovation output	54.27	25
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	75.32	6

GEORGIA

RANK
(out of 103) **50**

Population (millions)	**4.36**
GDP per capita (PPP$)	**5,929.75**
GDP (US$ billions)	**15.93**
Global Talent Competitiveness Index Score	**44.64**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**

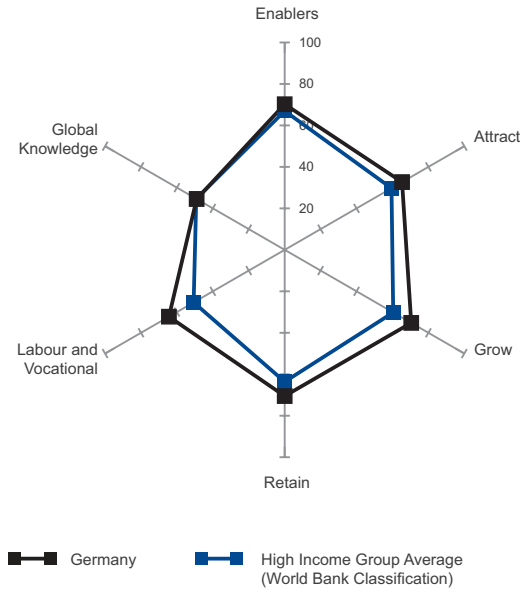


	VARIABLE	SCORE	RANK/103
1	**Enablers**	55.84	40
1.1	**Regulatory landscape**	61.94	47
	Government efficiency		
1.1.1	Government effectiveness	49.20	41
1.1.2	Political stability	47.74	83
	FDI climate		
1.1.3	Starting a foreign business	88.87	5
1.2	**Market landscape**	42.78	53
	Competition climate		
1.2.1	Intensity of local competition	47.81	93
	Innovation climate		
1.2.2	Venture capital availability	20.56	79
1.2.3	Firm-level technology absorption	50.62	92
1.2.4	R&D expenditure	3.54	78
	Connectivity		
1.2.5	ICT access	40.97	62
	Ease of doing business		
1.2.6	Ease of doing business	93.20	8
1.3	**Business landscape**	62.80	29
	Labour market flexibility		
1.3.1	Labour market flexibility	76.94	16
	Ownership and governance		
1.3.2	Reliance on professional management	48.66	67
2	**Attract**	54.44	41
2.1	**External openness**	44.51	47
	FDI		
2.1.1	FDI inflow	51.48	16
	Brain gain		
2.1.2	Qualified labour inflow	33.16	76
	Foreign companies		
2.1.3	Prevalence of foreign ownership	48.88	89
2.2	**Internal openness**	64.37	40
	Diversity		
2.2.1	Tolerance of minorities	85.98	26
2.2.2	Tolerance of immigrants	62.75	63
	Social mobility		
2.2.3	Social mobility	n/a	n/a
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	8.74	96
3	**Grow**	40.41	81
3.1	**Formal education**	30.81	74
	Education climate		
3.1.1	Pupil-teacher ratio	97.44	3
3.1.2	Technical/vocational enrolment	3.07	91
3.1.3	Tertiary enrolment	26.36	70
	Performance of education system		
3.1.4	Reading, maths and science scores	20.08	62
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	7.11	54
3.2	**Lifelong learning**	43.35	81
	Further education and training climate		
3.2.1	Quality of management schools	42.90	85
3.2.2	Extent of staff training	43.81	76
3.3	**Access to growth opportunities**	47.07	71
	Networks		
3.3.1	Use of virtual social networks	76.84	51
3.3.2	State of cluster development	33.82	90
	Research quality		
3.3.3	Quality of scientific research institutions	26.20	94
	Voice		
3.3.4	Voicing concern to officials	51.42	39
4	**Retain**	59.12	38
4.1	**Sustainability**	39.32	70
	Social protection		
4.1.1	Pension system	29.73	60
	Taxation		
4.1.2	Extent and effect of taxation	48.91	26
4.2	**Lifestyle**	78.93	3
	Quality of life		
4.2.1	Environmental performance	54.63	43
4.2.2	Property stolen	83.89	9
4.2.3	Safety at night	100.00	1
	Services		
4.2.4	Physicians density	77.19	3
5	**Labour and Vocational**	30.80	82
5.1	**Employable skills**	30.50	81
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	50.14	31
	Technical professions		
5.1.2	Technicians and associate professionals	24.49	71
	Youth employment		
5.1.3	Youth employment	16.88	83
5.2	**Labour productivity**	31.10	75
	Productivity per employee		
5.2.1	Labour productivity per employee	10.77	72
	Pay and productivity		
5.2.2	Relationship of pay to productivity	51.43	45
6	**Global Knowledge**	27.22	61
6.1	**Higher skills and competencies**	33.57	42
	Educated workforce		
6.1.1	Tertiary-educated workforce	58.77	24
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	20.22	64
6.1.3	Professionals	38.41	45
6.1.4	Researchers	16.89	39
6.2	**Talent impact**	20.87	81
	Innovation		
6.2.1	Innovation output	20.87	71
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

GERMANY

RANK
(out of 103) **16**

Population (millions)	**82.76**
GDP per capita (PPP$)	**39,028.39**
GDP (US$ billions)	**3,400.58**
Global Talent Competitiveness Index Score	**65.00**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



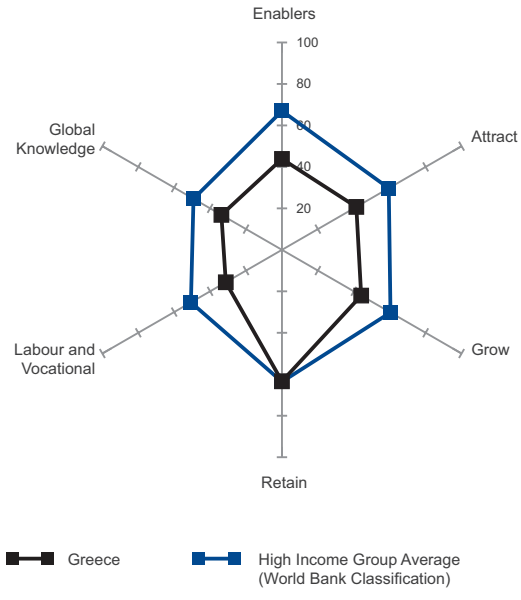
	VARIABLE	SCORE	RANK/103
1	**Enablers**	70.23	20
1.1	**Regulatory landscape**	83.01	15
	Government efficiency		
1.1.1	Government effectiveness	78.71	16
1.1.2	Political stability	87.31	26
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	73.69	9
	Competition climate		
1.2.1	Intensity of local competition	79.77	7
	Innovation climate		
1.2.2	Venture capital availability	35.98	28
1.2.3	Firm-level technology absorption	81.27	15
1.2.4	R&D expenditure	63.88	9
	Connectivity		
1.2.5	ICT access	96.83	4
	Ease of doing business		
1.2.6	Ease of doing business	84.40	17
1.3	**Business landscape**	53.99	50
	Labour market flexibility		
1.3.1	Labour market flexibility	32.01	81
	Ownership and governance		
1.3.2	Reliance on professional management	75.98	14
2	**Attract**	65.35	19
2.1	**External openness**	46.72	43
	FDI		
2.1.1	FDI inflow	9.88	84
	Brain gain		
2.1.2	Qualified labour inflow	61.23	19
	Foreign companies		
2.1.3	Prevalence of foreign ownership	69.04	32
2.2	**Internal openness**	83.98	9
	Diversity		
2.2.1	Tolerance of minorities	95.22	9
2.2.2	Tolerance of immigrants	89.54	16
	Social mobility		
2.2.3	Social mobility	75.59	18
	Gender mobility		
2.2.4	Female professionals and technical workers	98.90	51
2.2.5	Female parliamentarians	60.66	15
3	**Grow**	70.45	9
3.1	**Formal education**	68.27	6
	Education climate		
3.1.1	Pupil-teacher ratio	82.27	44
3.1.2	Technical/vocational enrolment	42.93	31
3.1.3	Tertiary enrolment	n/a	n/a
	Performance of education system		
3.1.4	Reading, math and science scores	73.53	12
	Top universities		
3.1.5	QS university ranking	74.35	7
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	66.46	17
	Further education and training climate		
3.2.1	Quality of management schools	65.75	28
3.2.2	Extent of staff training	67.16	13
3.3	**Access to growth opportunities**	76.63	5
	Networks		
3.3.1	Use of virtual social networks	79.49	40
3.3.2	State of cluster development	68.98	7
	Research quality		
3.3.3	Quality of scientific research institutions	76.90	10
	Voice		
3.3.4	Voicing concern to officials	81.13	4
4	**Retain**	70.50	6
4.1	**Sustainability**	66.08	16
	Social protection		
4.1.1	Pension system	90.95	23
	Taxation		
4.1.2	Extent and effect of taxation	41.21	51
4.2	**Lifestyle**	74.92	7
	Quality of life		
4.2.1	Environmental performance	77.65	11
4.2.2	Property stolen	76.54	27
4.2.3	Safety at night	87.17	14
	Services		
4.2.4	Physicians density	58.34	19
5	**Labour and Vocational**	64.46	3
5.1	**Employable skills**	76.06	3
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	72.29	11
	Technical professions		
5.1.2	Technicians and associate professionals	97.45	2
	Youth employment		
5.1.3	Youth employment	58.44	25
5.2	**Labour productivity**	52.86	20
	Productivity per employee		
5.2.1	Labour productivity per employee	51.20	19
	Pay and productivity		
5.2.2	Relationship of pay to productivity	54.53	35
6	**Global Knowledge**	49.02	25
6.1	**Higher skills and competencies**	47.15	23
	Educated workforce		
6.1.1	Tertiary-educated workforce	55.13	30
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	27.53	52
6.1.3	Professionals	52.13	20
6.1.4	Researchers	53.81	11
6.2	Talent impact	50.89	28
	Innovation		
6.2.1	**Innovation output**	71.92	7
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	29.87	59

GREECE

RANK
(out of 103) **56**

Population (millions)	**11.12**
GDP per capita (PPP$)	**24,505.04**
GDP (US$ billions)	**249.20**
Global Talent Competitiveness Index Score	**42.96**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



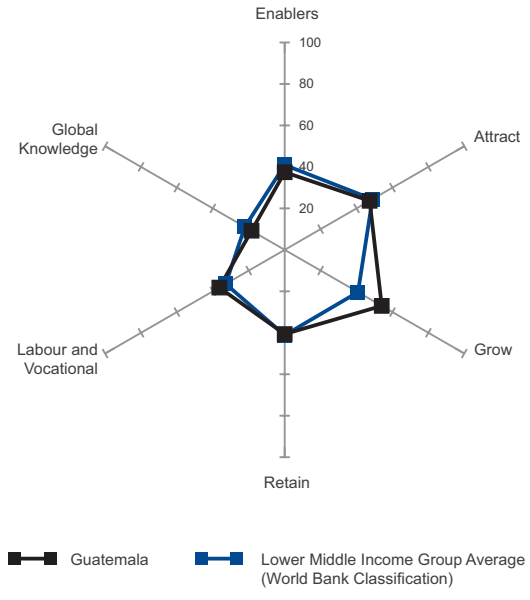
	VARIABLE	SCORE	RANK/103
1	**Enablers**	43.84	72
1.1	**Regulatory landscape**	59.45	49
	Government efficiency		
1.1.1	Government effectiveness	47.20	43
1.1.2	Political stability	64.53	57
	FDI climate		
1.1.3	Starting a foreign business	66.62	31
1.2	**Market landscape**	42.07	57
	Competition climate		
1.2.1	Intensity of local competition	57.08	73
	Innovation climate		
1.2.2	Venture capital availability	13.77	99
1.2.3	Firm-level technology absorption	57.25	75
1.2.4	R&D expenditure	13.26	48
	Connectivity		
1.2.5	ICT access	67.86	35
	Ease of doing business		
1.2.6	Ease of doing business	43.20	59
1.3	**Business landscape**	30.01	96
	Labour market flexibility		
1.3.1	Labour market flexibility	13.74	98
	Ownership and governance		
1.3.2	Reliance on professional management	46.29	77
2	**Attract**	41.40	92
2.1	**External openness**	28.61	95
	FDI		
2.1.1	FDI inflow	6.04	93
	Brain gain		
2.1.2	Qualified labour inflow	23.64	89
	Foreign companies		
2.1.3	Prevalence of foreign ownership	56.16	66
2.2	**Internal openness**	54.19	76
	Diversity		
2.2.1	Tolerance of minorities	47.17	95
2.2.2	Tolerance of immigrants	49.73	89
	Social mobility		
2.2.3	Social mobility	45.74	76
	Gender mobility		
2.2.4	Female professionals and technical workers	99.87	49
2.2.5	Female parliamentarians	28.46	57
3	**Grow**	44.11	63
3.1	**Formal education**	51.76	35
	Education climate		
3.1.1	Pupil-teacher ratio	96.54	5
3.1.2	Technical/vocational enrolment	32.94	45
3.1.3	Tertiary enrolment	86.16	5
	Performance of education system		
3.1.4	Reading, maths and science scores	58.78	35
	Top universities		
3.1.5	QS university ranking	16.87	44
	International students		
3.1.6	International students inflow	19.23	30

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	41.85	84
	Further education and training climate		
3.2.1	Quality of management schools	44.60	81
3.2.2	Extent of staff training	39.09	87
3.3	**Access to growth opportunities**	38.72	95
	Networks		
3.3.1	Use of virtual social networks	70.69	74
3.3.2	State of cluster development	30.99	94
	Research quality		
3.3.3	Quality of scientific research institutions	38.82	77
	Voice		
3.3.4	Voicing concern to officials	14.39	98
4	**Retain**	63.40	25
4.1	**Sustainability**	56.00	42
	Social protection		
4.1.1	Pension system	89.99	25
	Taxation		
4.1.2	Extent and effect of taxation	22.00	98
4.2	**Lifestyle**	70.80	12
	Quality of life		
4.2.1	Environmental performance	61.94	31
4.2.2	Property stolen	64.69	62
4.2.3	Safety at night	56.58	67
	Services		
4.2.4	Physicians density	100.00	1
5	**Labour and Vocational**	31.27	80
5.1	**Employable skills**	25.34	93
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	38.00	48
	Technical professions		
5.1.2	Technicians and associate professionals	34.18	59
	Youth employment		
5.1.3	Youth employment	3.82	99
5.2	**Labour productivity**	37.21	54
	Productivity per employee		
5.2.1	Labour productivity per employee	41.55	27
	Pay and productivity		
5.2.2	Relationship of pay to productivity	32.87	97
6	**Global Knowledge**	33.72	51
6.1	**Higher skills and competencies**	38.45	35
	Educated workforce		
6.1.1	Tertiary-educated workforce	45.56	38
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	23.60	57
6.1.3	Professionals	53.35	18
6.1.4	Researchers	31.31	26
6.2	**Talent impact**	28.98	65
	Innovation		
6.2.1	Innovation output	20.30	72
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	37.66	45

GUATEMALA

RANK
(out of 103) **75**

Population (millions)	**15.14**
GDP per capita (PPP$)	**5,208.96**
GDP (US$ billions)	**49.88**
Global Talent Competitiveness Index Score	**39.04**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



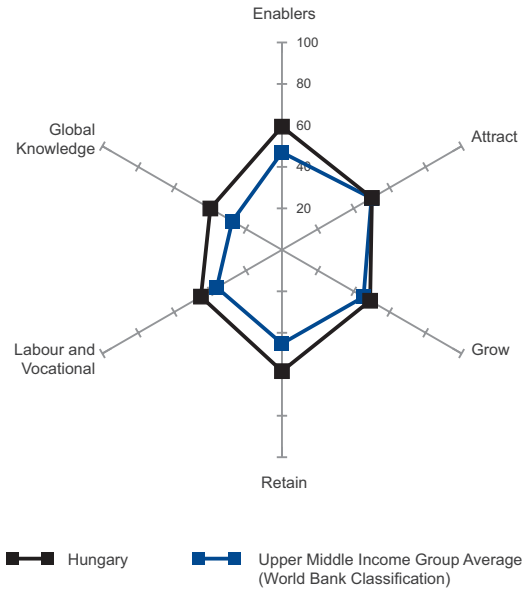
	VARIABLE	SCORE	RANK/103
1	**Enablers**	37.44	91
1.1	**Regulatory landscape**	37.39	88
	Government efficiency		
1.1.1	Government effectiveness	12.02	93
1.1.2	Political stability	48.34	81
	FDI climate		
1.1.3	Starting a foreign business	51.83	48
1.2	**Market landscape**	40.07	68
	Competition climate		
1.2.1	Intensity of local competition	68.52	41
	Innovation climate		
1.2.2	Venture capital availability	27.78	53
1.2.3	Firm-level technology absorption	69.87	40
1.2.4	R&D expenditure	0.77	92
	Connectivity		
1.2.5	ICT access	n/a	n/a
	Ease of doing business		
1.2.6	Ease of doing business	33.40	69
1.3	**Business landscape**	34.85	92
	Labour market flexibility		
1.3.1	Labour market flexibility	17.71	92
	Ownership and governance		
1.3.2	Reliance on professional management	51.99	57
2	**Attract**	47.29	74
2.1	**External openness**	42.56	56
	FDI		
2.1.1	FDI inflow	16.91	62
	Brain gain		
2.1.2	Qualified labour inflow	45.76	41
	Foreign companies		
2.1.3	Prevalence of foreign ownership	65.01	44
2.2	**Internal openness**	52.02	85
	Diversity		
2.2.1	Tolerance of minorities	76.30	49
2.2.2	Tolerance of immigrants	52.40	85
	Social mobility		
2.2.3	Social mobility	60.40	36
	Gender mobility		
2.2.4	Female professionals and technical workers	n/a	n/a
2.2.5	Female parliamentarians	18.98	74
3	**Grow**	54.04	34
3.1	**Formal education**	50.52	38
	Education climate		
3.1.1	Pupil-teacher ratio	79.21	51
3.1.2	Technical/vocational enrolment	58.28	22
3.1.3	Tertiary enrolment	14.07	82
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	57.68	35
	Further education and training climate		
3.2.1	Quality of management schools	60.12	39
3.2.2	Extent of staff training	55.23	32
3.3	**Access to growth opportunities**	53.91	50
	Networks		
3.3.1	Use of virtual social networks	72.46	68
3.3.2	State of cluster development	51.11	38
	Research quality		
3.3.3	Quality of scientific research institutions	35.71	86
	Voice		
3.3.4	Voicing concern to officials	56.37	28
4	**Retain**	40.62	73
4.1	**Sustainability**	32.11	82
	Social protection		
4.1.1	Pension system	20.22	73
	Taxation		
4.1.2	Extent and effect of taxation	43.99	39
4.2	**Lifestyle**	49.14	67
	Quality of life		
4.2.1	Environmental performance	43.29	64
4.2.2	Property stolen	59.00	70
4.2.3	Safety at night	45.13	91
	Services		
4.2.4	Physicians density	n/a	n/a
5	**Labour and Vocational**	36.40	62
5.1	**Employable skills**	41.23	52
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	10.00	84
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	72.45	12
5.2	**Labour productivity**	31.58	72
	Productivity per employee		
5.2.1	Labour productivity per employee	12.44	68
	Pay and productivity		
5.2.2	Relationship of pay to productivity	50.72	50
6	**Global Knowledge**	18.45	86
6.1	**Higher skills and competencies**	4.00	96
	Educated workforce		
6.1.1	Tertiary-educated workforce	7.74	81
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	n/a	n/a
6.1.3	Professionals	n/a	n/a
6.1.4	Researchers	0.26	93
6.2	**Talent impact**	32.90	58
	Innovation		
6.2.1	Innovation output	13.85	86
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	51.95	20

HUNGARY

RANK
(out of 103) **40**

Population (millions)	**9.97**
GDP per capita (PPP$)	**19,637.59**
GDP (US$ billions)	**126.87**
Global Talent Competitiveness Index Score	**50.34**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



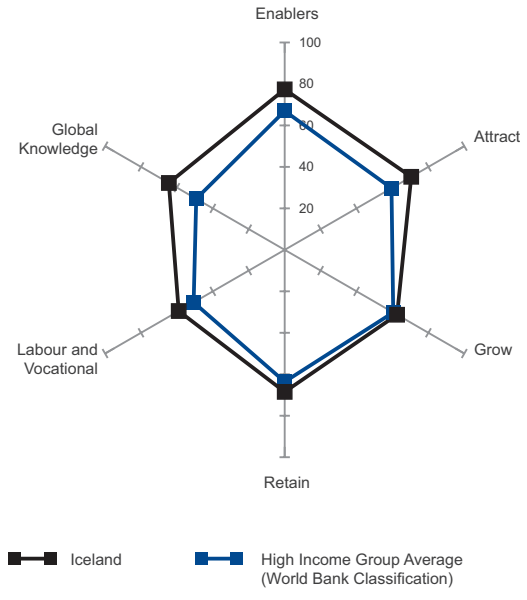
	VARIABLE	SCORE	RANK/103
1	**Enablers**	59.41	31
1.1	**Regulatory landscape**	69.24	35
	Government efficiency		
1.1.1	Government effectiveness	53.98	35
1.1.2	Political stability	84.49	28
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	50.53	38
	Competition climate		
1.2.1	Intensity of local competition	71.23	34
	Innovation climate		
1.2.2	Venture capital availability	18.31	89
1.2.3	Firm-level technology absorption	63.99	54
1.2.4	R&D expenditure	26.00	31
	Connectivity		
1.2.5	ICT access	66.76	37
	Ease of doing business		
1.2.6	Ease of doing business	56.90	45
1.3	**Business landscape**	58.45	40
	Labour market flexibility		
1.3.1	Labour market flexibility	68.06	35
	Ownership and governance		
1.3.2	Reliance on professional management	48.84	65
2	**Attract**	50.08	61
2.1	**External openness**	41.60	62
	FDI		
2.1.1	FDI inflow	26.32	41
	Brain gain		
2.1.2	Qualified labour inflow	21.91	93
	Foreign companies		
2.1.3	Prevalence of foreign ownership	76.57	14
2.2	**Internal openness**	58.57	61
	Diversity		
2.2.1	Tolerance of minorities	70.87	59
2.2.2	Tolerance of immigrants	71.82	44
	Social mobility		
2.2.3	Social mobility	38.20	91
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	11.94	87
3	**Grow**	49.09	48
3.1	**Formal education**	47.10	43
	Education climate		
3.1.1	Pupil-teacher ratio	89.97	26
3.1.2	Technical/vocational enrolment	33.35	44
3.1.3	Tertiary enrolment	57.22	30
	Performance of education system		
3.1.4	Reading, maths and science scores	67.78	23
	Top universities		
3.1.5	QS university ranking	15.81	46
	International students		
3.1.6	International students inflow	18.45	32

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	46.10	74
	Further education and training climate		
3.2.1	Quality of management schools	51.34	63
3.2.2	Extent of staff training	54.08	84
3.3	**Access to growth opportunities**	54	49
	Networks		
3.3.1	Use of virtual social networks	72.67	67
3.3.2	State of cluster development	36.37	81
	Research quality		
3.3.3	Quality of scientific research institutions	68.84	19
	Voice		
3.3.4	Voicing concern to officials	38.44	65
4	**Retain**	58.50	40
4.1	**Sustainability**	60.75	28
	Social protection		
4.1.1	Pension system	96.39	11
	Taxation		
4.1.2	Extent and effect of taxation	25.10	94
4.2	**Lifestyle**	56.25	49
	Quality of life		
4.2.1	Environmental performance	55.27	41
4.2.2	Property stolen	57.35	74
4.2.3	Safety at night	63.32	59
	Services		
4.2.4	Physicians density	49.08	29
5	**Labour and Vocational**	45.11	34
5.1	**Employable skills**	51.60	26
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	78.29	8
	Technical professions		
5.1.2	Technicians and associate professionals	66.33	26
	Youth employment		
5.1.3	Youth employment	10.19	93
5.2	**Labour productivity**	38.61	48
	Productivity per employee		
5.2.1	Labour productivity per employee	29.39	39
	Pay and productivity		
5.2.2	Relationship of pay to productivity	47.83	58
6	**Global Knowledge**	39.88	38
6.1	**Higher skills and competencies**	38.76	34
	Educated workforce		
6.1.1	Tertiary-educated workforce	45.56	38
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	32.02	41
6.1.3	Professionals	47.56	28
6.1.4	Researchers	29.90	27
6.2	**Talent impact**	41.00	45
	Innovation		
6.2.1	Innovation output	49.53	28
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	32.47	53

ICELAND

RANK
(out of 103) **10**

Population (millions)	**0.33**
GDP per capita (PPP$)	**39,223.96**
GDP (US$ billions)	**13.65**
Global Talent Competitiveness Index Score	**67.07**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



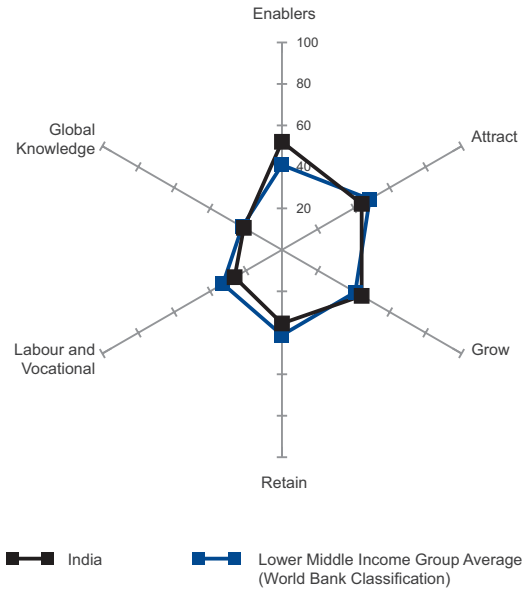
	VARIABLE	SCORE	RANK/103
1	**Enablers**	77.39	12
1.1	**Regulatory landscape**	87.91	11
	Government efficiency		
1.1.1	Government effectiveness	79.70	14
1.1.2	Political stability	96.12	7
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	70.48	16
	Competition climate		
1.2.1	Intensity of local competition	60.63	68
	Innovation climate		
1.2.2	Venture capital availability	27.47	54
1.2.3	Firm-level technology absorption	87.71	2
1.2.4	R&D expenditure	59.88	11
	Connectivity		
1.2.5	ICT access	98.90	3
	Ease of doing business		
1.2.6	Ease of doing business	88.30	13
1.3	**Business landscape**	73.77	14
	Labour market flexibility		
1.3.1	Labour market flexibility	75.46	19
	Ownership and governance		
1.3.2	Reliance on professional management	72.09	21
2	**Attract**	70.45	8
2.1	**External openness**	49.61	31
	FDI		
2.1.1	FDI inflow	54.59	13
	Brain gain		
2.1.2	Qualified labour inflow	59.84	21
	Foreign companies		
2.1.3	Prevalence of foreign ownership	34.41	102
2.2	**Internal openness**	91.28	2
	Diversity		
2.2.1	Tolerance of minorities	95.54	8
2.2.2	Tolerance of immigrants	94.34	8
	Social mobility		
2.2.3	Social mobility	85.08	6
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	81.45	6
3	**Grow**	62.59	20
3.1	**Formal education**	53.26	30
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	45.30	29
3.1.3	Tertiary enrolment	75.26	9
	Performance of education system		
3.1.4	Reading, maths and science scores	69.84	15
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	22.65	25

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	66.66	16
	Further education and training climate		
3.2.1	Quality of management schools	70.82	17
3.2.2	Extent of staff training	62.50	20
3.3	**Access to growth opportunities**	67.84	17
	Networks		
3.3.1	Use of virtual social networks	93.56	1
3.3.2	State of cluster development	51.67	35
	Research quality		
3.3.3	Quality of scientific research institutions	66.92	22
	Voice		
3.3.4	Voicing concern to officials	59.20	21
4	**Retain**	68.50	11
4.1	**Sustainability**	61.77	24
	Social protection		
4.1.1	Pension system	90.81	24
	Taxation		
4.1.2	Extent and effect of taxation	32.72	84
4.2	**Lifestyle**	75.23	6
	Quality of life		
4.2.1	Environmental performance	76.21	13
4.2.2	Property stolen	77.49	24
4.2.3	Safety at night	86.74	15
	Services		
4.2.4	Physicians density	60.48	14
5	**Labour and Vocational**	59.01	12
5.1	**Employable skills**	64.83	10
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	40.14	46
	Technical professions		
5.1.2	Technicians and associate professionals	78.06	13
	Youth employment		
5.1.3	Youth employment	76.27	9
5.2	**Labour productivity**	53.20	17
	Productivity per employee		
5.2.1	Labour productivity per employee	55.50	13
	Pay and productivity		
5.2.2	Relationship of pay to productivity	50.90	48
6	**Global Knowledge**	64.50	3
6.1	**Higher skills and competencies**	70.66	1
	Educated workforce		
6.1.1	Tertiary-educated workforce	62.87	22
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	50.56	12
6.1.3	Professionals	69.21	5
6.1.4	Researchers	100.00	1
6.2	**Talent impact**	58.34	14
	Innovation		
6.2.1	Innovation output	66.03	12
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	50.65	22

INDIA

RANK
(out of 103) **83**

Population (millions)	**1,238.70**
GDP per capita (PPP$)	**3,829.70**
GDP (US$ billions)	**1,824.83**
Global Talent Competitiveness Index Score	**37.32**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



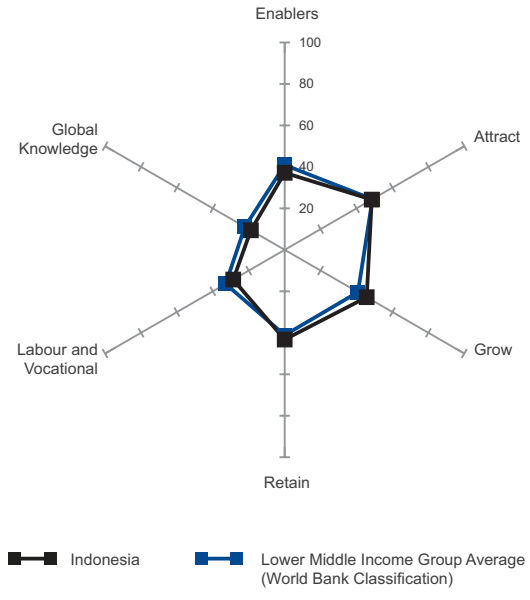
	VARIABLE	SCORE	RANK/103
1	**Enablers**	52.10	54
1.1	**Regulatory landscape**	48.83	68
	Government efficiency		
1.1.1	Government effectiveness	32.07	60
1.1.2	Political stability	36.68	91
	FDI climate		
1.1.3	Starting a foreign business	77.75	20
1.2	**Market landscape**	37.29	75
	Competition climate		
1.2.1	Intensity of local competition	72.95	30
	Innovation climate		
1.2.2	Venture capital availability	39.96	21
1.2.3	Firm-level technology absorption	70.64	35
1.2.4	R&D expenditure	16.81	40
	Connectivity		
1.2.5	ICT access	11.59	89
	Ease of doing business		
1.2.6	Ease of doing business	11.80	91
1.3	**Business landscape**	70.19	18
	Labour market flexibility		
1.3.1	Labour market flexibility	80.71	10
	Ownership and governance		
1.3.2	Reliance on professional management	59.67	36
2	**Attract**	44.38	84
2.1	**External openness**	42.96	54
	FDI		
2.1.1	FDI inflow	13.52	74
	Brain gain		
2.1.2	Qualified labour inflow	57.75	24
	Foreign companies		
2.1.3	Prevalence of foreign ownership	57.61	59
2.2	**Internal openness**	45.80	93
	Diversity		
2.2.1	Tolerance of minorities	87.93	23
2.2.2	Tolerance of immigrants	44.29	92
	Social mobility		
2.2.3	Social mobility	60.65	35
	Gender mobility		
2.2.4	Female professionals and technical workers	20.84	90
2.2.5	Female parliamentarians	15.29	80
3	**Grow**	44.37	62
3.1	**Formal education**	18.24	93
	Education climate		
3.1.1	Pupil-teacher ratio	46.97	77
3.1.2	Technical/vocational enrolment	1.72	95
3.1.3	Tertiary enrolment	14.11	81
	Performance of education system		
3.1.4	Reading, maths and science scores	4.41	66
	Top universities		
3.1.5	QS university ranking	42.23	26
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	58.64	32
	Further education and training climate		
3.2.1	Quality of management schools	65.43	29
3.2.2	Extent of staff training	51.85	43
3.3	**Access to growth opportunities**	56.22	42
	Networks		
3.3.1	Use of virtual social networks	69.00	79
3.3.2	State of cluster development	58.35	26
	Research quality		
3.3.3	Quality of scientific research institutions	57.42	36
	Voice		
3.3.4	Voicing concern to officials	40.09	58
4	**Retain**	35.49	89
4.1	**Sustainability**	28.36	90
	Social protection		
4.1.1	Pension system	9.63	78
	Taxation		
4.1.2	Extent and effect of taxation	47.09	32
4.2	**Lifestyle**	42.61	82
	Quality of life		
4.2.1	Environmental performance	7.52	96
4.2.2	Property stolen	77.01	26
4.2.3	Safety at night	75.51	34
	Services		
4.2.4	Physicians density	10.41	80
5	**Labour and Vocational**	26.36	96
5.1	**Employable skills**	22.52	99
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	n/a	n/a
	Technical professions		
5.1.2	Technicians and associate professionals	9.69	86
	Youth employment		
5.1.3	Youth employment	35.35	58
5.2	**Labour productivity**	30.20	77
	Productivity per employee		
5.2.1	Labour productivity per employee	6.09	81
	Pay and productivity		
5.2.2	Relationship of pay to productivity	54.30	37
6	**Global Knowledge**	21.23	77
6.1	**Higher skills and competencies**	14.28	83
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	31.46	43
6.1.3	Professionals	10.98	81
6.1.4	Researchers	0.39	89
6.2	**Talent impact**	28.19	67
	Innovation		
6.2.1	Innovation output	40.80	39
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	15.58	70

INDONESIA

RANK
(out of 103) **84**

Population (millions)	**247.27**
GDP per capita (PPP$)	**4,977.09**
GDP (US$ billions)	**878.20**
Global Talent Competitiveness Index Score	**37.00**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



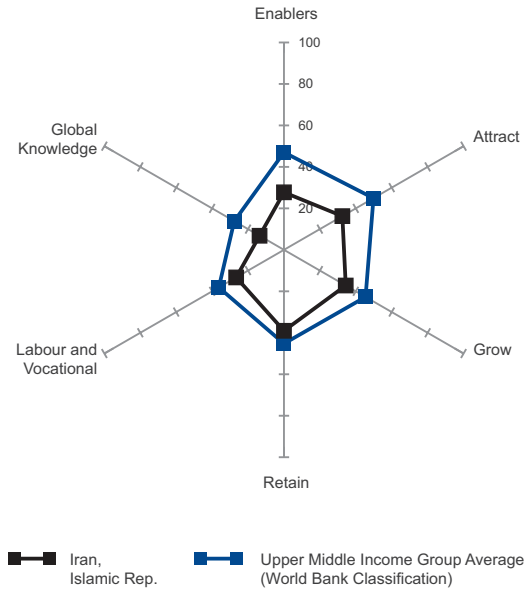
	VARIABLE	SCORE	RANK/103
1	**Enablers**	37.14	92
1.1	**Regulatory landscape**	38.71	84
	Government efficiency		
1.1.1	Government effectiveness	25.73	72
1.1.2	Political stability	46.02	84
	FDI climate		
1.1.3	Starting a foreign business	44.37	56
1.2	**Market landscape**	34.26	82
	Competition climate		
1.2.1	Intensity of local competition	56.99	74
	Innovation climate		
1.2.2	Venture capital availability	42.73	17
1.2.3	Firm-level technology absorption	65.80	48
1.2.4	R&D expenditure	1.41	88
	Connectivity		
1.2.5	ICT access	23.86	81
	Ease of doing business		
1.2.6	Ease of doing business	14.80	88
1.3	**Business landscape**	38.46	87
	Labour market flexibility		
1.3.1	Labour market flexibility	19.39	90
	Ownership and governance		
1.3.2	Reliance on professional management	57.53	40
2	**Attract**	48.46	70
2.1	**External openness**	42.74	55
	FDI		
2.1.1	FDI inflow	18.02	59
	Brain gain		
2.1.2	Qualified labour inflow	49.93	34
	Foreign companies		
2.1.3	Prevalence of foreign ownership	60.26	53
2.2	**Internal openness**	54.18	77
	Diversity		
2.2.1	Tolerance of minorities	71.96	58
2.2.2	Tolerance of immigrants	40.88	96
	Social mobility		
2.2.3	Social mobility	52.01	58
	Gender mobility		
2.2.4	Female professionals and technical workers	78.53	70
2.2.5	Female parliamentarians	27.53	58
3	**Grow**	45.66	58
3.1	**Formal education**	31.61	72
	Education climate		
3.1.1	Pupil-teacher ratio	84.34	41
3.1.2	Technical/vocational enrolment	38.00	35
3.1.3	Tertiary enrolment	19.40	77
	Performance of education system		
3.1.4	Reading, maths and science scores	23.93	60
	Top universities		
3.1.5	QS university ranking	23.97	35
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	54.20	44
	Further education and training climate		
3.2.1	Quality of management schools	53.07	58
3.2.2	Extent of staff training	55.33	31
3.3	**Access to growth opportunities**	51.19	56
	Networks		
3.3.1	Use of virtual social networks	78.54	44
3.3.2	State of cluster development	54.20	29
	Research quality		
3.3.3	Quality of scientific research institutions	47.95	51
	Voice		
3.3.4	Voicing concern to officials	24.06	89
4	**Retain**	43.26	70
4.1	**Sustainability**	30.68	84
	Social protection		
4.1.1	Pension system	10.40	77
	Taxation		
4.1.2	Extent and effect of taxation	50.96	20
4.2	**Lifestyle**	55.83	51
	Quality of life		
4.2.1	Environmental performance	44.23	62
4.2.2	Property stolen	80.33	15
4.2.3	Safety at night	94.22	5
	Services		
4.2.4	Physicians density	4.55	88
5	**Labour and Vocational**	28.66	89
5.1	**Employable skills**	26.01	90
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	28.71	59
	Technical professions		
5.1.2	Technicians and associate professionals	4.08	89
	Youth employment		
5.1.3	Youth employment	45.22	44
5.2	**Labour productivity**	31.32	73
	Productivity per employee		
5.2.1	Labour productivity per employee	6.65	80
	Pay and productivity		
5.2.2	Relationship of pay to productivity	55.98	29
6	**Global Knowledge**	18.84	83
6.1	**Higher skills and competencies**	9.65	88
	Educated workforce		
6.1.1	Tertiary-educated workforce	17.08	75
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	9.55	82
6.1.3	Professionals	10.98	81
6.1.4	Researchers	1.00	81
6.2	**Talent impact**	28.03	69
	Innovation		
6.2.1	Innovation output	18.41	79
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	37.66	45

IRAN, ISLAMIC REP.

RANK
(out of 103) **101**

Population (millions)	**76.37**
GDP per capita (PPP$)	**13,127.14**
GDP (US$ billions)	**548.90**
Global Talent Competitiveness Index Score	**28.98**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



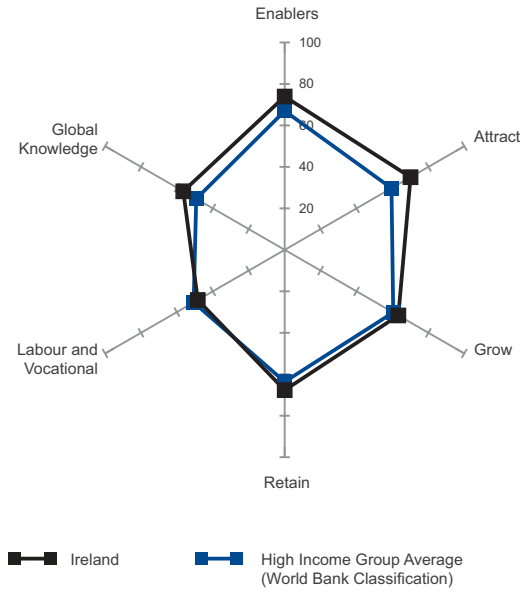
	VARIABLE	SCORE	RANK/103
1	**Enablers**	27.74	101
1.1	**Regulatory landscape**	24.79	99
	Government efficiency		
1.1.1	Government effectiveness	19.13	81
1.1.2	Political stability	30.46	99
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	30.51	92
	Competition climate		
1.2.1	Intensity of local competition	54.26	81
	Innovation climate		
1.2.2	Venture capital availability	14.98	96
1.2.3	Firm-level technology absorption	51.37	90
1.2.4	R&D expenditure	17.51	39
	Connectivity		
1.2.5	ICT access	39.03	64
	Ease of doing business		
1.2.6	Ease of doing business	5.90	97
1.3	**Business landscape**	27.93	101
	Labour market flexibility		
1.3.1	Labour market flexibility	14.06	97
	Ownership and governance		
1.3.2	Reliance on professional management	41.79	92
2	**Attract**	32.52	101
2.1	**External openness**	20.00	102
	FDI		
2.1.1	FDI inflow	8.05	88
	Brain gain		
2.1.2	Qualified labour inflow	31.30	79
	Foreign companies		
2.1.3	Prevalence of foreign ownership	20.65	103
2.2	**Internal openness**	45.04	95
	Diversity		
2.2.1	Tolerance of minorities	68.91	63
2.2.2	Tolerance of immigrants	58.80	78
	Social mobility		
2.2.3	Social mobility	51.50	62
	Gender mobility		
2.2.4	Female professionals and technical workers	42.41	84
2.2.5	Female parliamentarians	3.56	100
3	**Grow**	34.40	96
3.1	**Formal education**	18.95	91
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	23.39	60
3.1.3	Tertiary enrolment	45.06	46
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	7.37	54
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	40.67	91
	Further education and training climate		
3.2.1	Quality of management schools	47.53	71
3.2.2	Extent of staff training	33.80	98
3.3	**Access to growth opportunities**	43.58	84
	Networks		
3.3.1	Use of virtual social networks	35.13	103
3.3.2	State of cluster development	40.46	68
	Research quality		
3.3.3	Quality of scientific research institutions	54.13	37
	Voice		
3.3.4	Voicing concern to officials	44.58	51
4	**Retain**	39.04	81
4.1	**Sustainability**	41.53	61
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	41.53	48
4.2	**Lifestyle**	36.54	92
	Quality of life		
4.2.1	Environmental performance	22.38	90
4.2.2	Property stolen	49.05	86
4.2.3	Safety at night	60.43	63
	Services		
4.2.4	Physicians density	14.32	77
5	**Labour and Vocational**	26.61	94
5.1	**Employable skills**	23.31	96
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	34.00	51
	Technical professions		
5.1.2	Technicians and associate professionals	18.88	77
	Youth employment		
5.1.3	Youth employment	17.04	80
5.2	**Labour productivity**	29.92	80
	Productivity per employee		
5.2.1	Labour productivity per employee	23.89	46
	Pay and productivity		
5.2.2	Relationship of pay to productivity	35.95	93
6	**Global Knowledge**	13.59	90
6.1	**Higher skills and competencies**	22.43	64
	Educated workforce		
6.1.1	Tertiary-educated workforce	42.14	43
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	13.48	75
6.1.3	Professionals	23.17	64
6.1.4	Researchers	10.92	50
6.2	**Talent impact**	4.74	100
	Innovation		
6.2.1	Innovation output	9.49	94
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	0.00	77

IRELAND

RANK
(out of 103) **18**

Population (millions)	**4.58**
GDP per capita (PPP$)	**41,920.73**
GDP (US$ billions)	**210.42**
Global Talent Competitiveness Index Score	**63.30**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



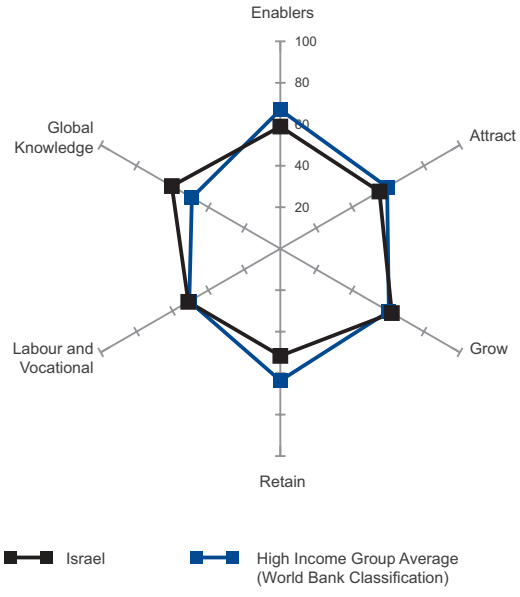
	VARIABLE	SCORE	RANK/103
1	**Enablers**	73.92	17
1.1	**Regulatory landscape**	78.26	24
	Government efficiency		
1.1.1	Government effectiveness	75.35	18
1.1.2	Political stability	90.57	17
	FDI climate		
1.1.3	Starting a foreign business	68.87	29
1.2	**Market landscape**	63.23	25
	Competition climate		
1.2.1	Intensity of local competition	70.42	36
	Innovation climate		
1.2.2	Venture capital availability	22.93	70
1.2.3	Firm-level technology absorption	75.52	29
1.2.4	R&D expenditure	40.45	19
	Connectivity		
1.2.5	ICT access	82.76	19
	Ease of doing business		
1.2.6	Ease of doing business	87.30	14
1.3	**Business landscape**	80.28	8
	Labour market flexibility		
1.3.1	Labour market flexibility	79.43	12
	Ownership and governance		
1.3.2	Reliance on professional management	81.14	12
2	**Attract**	70.07	10
2.1	**External openness**	62.18	9
	FDI		
2.1.1	FDI inflow	46.00	18
	Brain gain		
2.1.2	Qualified labour inflow	60.04	20
	Foreign companies		
2.1.3	Prevalence of foreign ownership	80.51	6
2.2	**Internal openness**	77.96	15
	Diversity		
2.2.1	Tolerance of minorities	96.63	6
2.2.2	Tolerance of immigrants	94.45	7
	Social mobility		
2.2.3	Social mobility	76.69	17
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	22.00	69
3	**Grow**	63.28	18
3.1	**Formal education**	51.08	37
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	33.73	42
3.1.3	Tertiary enrolment	62.78	21
	Performance of education system		
3.1.4	Reading, maths and science scores	68.28	20
	Top universities		
3.1.5	QS university ranking	58.64	15
	International students		
3.1.6	International students inflow	31.97	19

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	67.03	15
	Further education and training climate		
3.2.1	Quality of management schools	68.96	21
3.2.2	Extent of staff training	65.11	16
3.3	**Access to growth opportunities**	71.71	12
	Networks		
3.3.1	Use of virtual social networks	83.13	27
3.3.2	State of cluster development	59.43	21
	Research quality		
3.3.3	Quality of scientific research institutions	74.73	14
	Voice		
3.3.4	Voicing concern to officials	69.58	14
4	**Retain**	67.66	14
4.1	**Sustainability**	69.99	8
	Social protection		
4.1.1	Pension system	93.07	18
	Taxation		
4.1.2	Extent and effect of taxation	46.91	34
4.2	**Lifestyle**	65.33	23
	Quality of life		
4.2.1	Environmental performance	58.86	34
4.2.2	Property stolen	74.41	35
4.2.3	Safety at night	76.68	30
	Services		
4.2.4	Physicians density	51.39	27
5	**Labour and Vocational**	48.38	29
5.1	**Employable skills**	34.98	71
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	30.71	55
	Technical professions		
5.1.2	Technicians and associate professionals	47.96	45
	Youth employment		
5.1.3	Youth employment	26.27	72
5.2	**Labour productivity**	61.78	6
	Productivity per employee		
5.2.1	Labour productivity per employee	67.00	5
	Pay and productivity		
5.2.2	Relationship of pay to productivity	56.57	27
6	**Global Knowledge**	56.46	15
6.1	**Higher skills and competencies**	55.90	17
	Educated workforce		
6.1.1	Tertiary-educated workforce	73.35	12
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	42.13	23
6.1.3	Professionals	65.55	10
6.1.4	Researchers	42.56	20
6.2	**Talent impact**	57.03	18
	Innovation		
6.2.1	Innovation output	64.71	14
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	49.35	23

ISRAEL

RANK
(out of 103) **24**

Population (millions)	**7.64**
GDP per capita (PPP$)	**32,312.42**
GDP (US$ billions)	**240.89**
Global Talent Competitiveness Index Score	**56.58**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



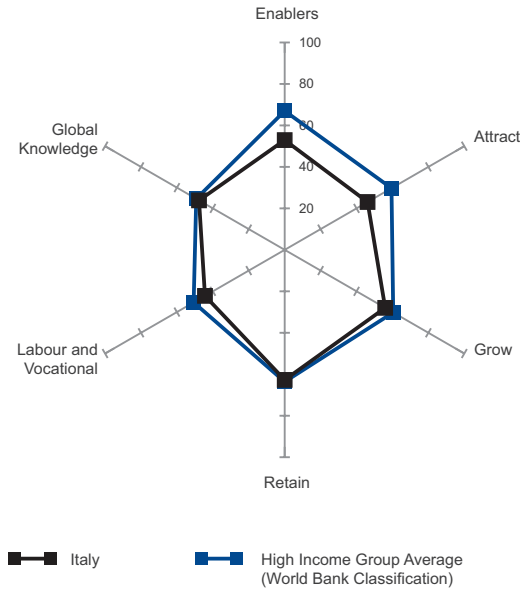
	VARIABLE	SCORE	RANK/103
1	**Enablers**	58.90	34
1.1	**Regulatory landscape**	51.58	58
	Government efficiency		
1.1.1	Government effectiveness	68.84	24
1.1.2	Political stability	34.32	94
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	75.67	5
	Competition climate		
1.2.1	Intensity of local competition	65.23	56
	Innovation climate		
1.2.2	Venture capital availability	57.52	2
1.2.3	Firm-level technology absorption	85.98	5
1.2.4	R&D expenditure	100.00	1
	Connectivity		
1.2.5	ICT access	78.62	23
	Ease of doing business		
1.2.6	Ease of doing business	66.70	35
1.3	**Business landscape**	49.45	59
	Labour market flexibility		
1.3.1	Labour market flexibility	29.07	84
	Ownership and governance		
1.3.2	Reliance on professional management	69.83	25
2	**Attract**	55.16	39
2.1	**External openness**	53.14	20
	FDI		
2.1.1	FDI inflow	36.06	26
	Brain gain		
2.1.2	Qualified labour inflow	52.01	31
	Foreign companies		
2.1.3	Prevalence of foreign ownership	71.35	29
2.2	**Internal openness**	57.18	66
	Diversity		
2.2.1	Tolerance of minorities	54.46	90
2.2.2	Tolerance of immigrants	41.09	95
	Social mobility		
2.2.3	Social mobility	59.43	42
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	30.93	50
3	**Grow**	62.09	21
3.1	**Formal education**	58.37	21
	Education climate		
3.1.1	Pupil-teacher ratio	91.20	20
3.1.2	Technical/vocational enrolment	39.61	34
3.1.3	Tertiary enrolment	59.06	29
	Performance of education system		
3.1.4	Reading, maths and science scores	53.05	38
	Top universities		
3.1.5	QS university ranking	48.95	20
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	61.04	28
	Further education and training climate		
3.2.1	Quality of management schools	61.48	36
3.2.2	Extent of staff training	60.59	23
3.3	**Access to growth opportunities**	66.86	20
	Networks		
3.3.1	Use of virtual social networks	82.89	29
3.3.2	State of cluster development	47.79	48
	Research quality		
3.3.3	Quality of scientific research institutions	89.12	1
	Voice		
3.3.4	Voicing concern to officials	47.64	44
4	**Retain**	51.68	55
4.1	**Sustainability**	41.23	62
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	41.23	50
4.2	**Lifestyle**	62.14	34
	Quality of life		
4.2.1	Environmental performance	49.60	55
4.2.2	Property stolen	75.12	33
4.2.3	Safety at night	64.71	58
	Services		
4.2.4	Physicians density	59.13	17
5	**Labour and Vocational**	51.26	23
5.1	**Employable skills**	51.90	24
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	48.57	36
	Technical professions		
5.1.2	Technicians and associate professionals	84.18	9
	Youth employment		
5.1.3	Youth employment	22.93	73
5.2	**Labour productivity**	50.63	26
	Productivity per employee		
5.2.1	Labour productivity per employee	46.99	23
	Pay and productivity		
5.2.2	Relationship of pay to productivity	54.26	38
6	**Global Knowledge**	60.39	8
6.1	**Higher skills and competencies**	63.19	8
	Educated workforce		
6.1.1	Tertiary-educated workforce	98.18	2
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	43.82	21
6.1.3	Professionals	47.56	28
6.1.4	Researchers	n/a	n/a
6.2	**Talent impact**	57.60	16
	Innovation		
6.2.1	Innovation output	65.84	13
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	49.35	23

ITALY

RANK
(out of 103) **36**

Population (millions)	**60.83**
GDP per capita (PPP$)	**30,136.38**
GDP (US$ billions)	**2,014.08**
Global Talent Competitiveness Index Score	**51.64**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



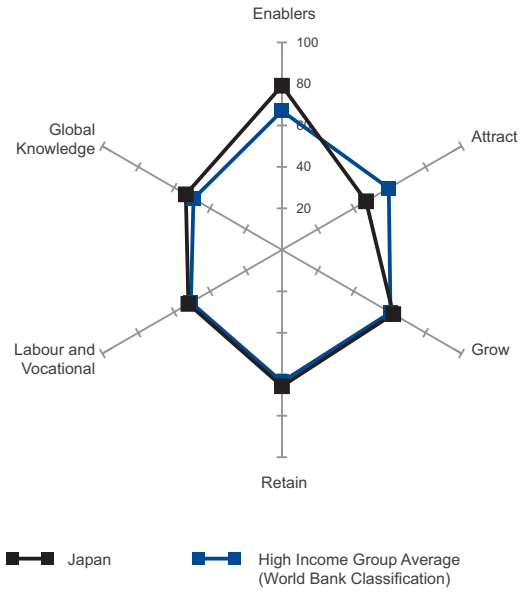
	VARIABLE	SCORE	RANK/103
1	**Enablers**	52.93	49
1.1	**Regulatory landscape**	63.38	43
	Government efficiency		
1.1.1	Government effectiveness	46.26	44
1.1.2	Political stability	80.49	34
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	47.70	44
	Competition climate		
1.2.1	Intensity of local competition	64.97	57
	Innovation climate		
1.2.2	Venture capital availability	17.09	92
1.2.3	Firm-level technology absorption	55.38	82
1.2.4	R&D expenditure	28.24	29
	Connectivity		
1.2.5	ICT access	75.45	27
	Ease of doing business		
1.2.6	Ease of doing business	45.10	57
1.3	**Business landscape**	47.70	66
	Labour market flexibility		
1.3.1	Labour market flexibility	52.67	50
	Ownership and governance		
1.3.2	Reliance on professional management	42.72	84
2	**Attract**	46.14	79
2.1	**External openness**	30.05	93
	FDI		
2.1.1	FDI inflow	11.33	82
	Brain gain		
2.1.2	Qualified labour inflow	29.33	84
	Foreign companies		
2.1.3	Prevalence of foreign ownership	49.49	86
2.2	**Internal openness**	62.24	49
	Diversity		
2.2.1	Tolerance of minorities	77.17	46
2.2.2	Tolerance of immigrants	71.40	47
	Social mobility		
2.2.3	Social mobility	45.51	77
	Gender mobility		
2.2.4	Female professionals and technical workers	83.03	68
2.2.5	Female parliamentarians	34.08	43
3	**Grow**	55.95	33
3.1	**Formal education**	59.06	20
	Education climate		
3.1.1	Pupil-teacher ratio	90.24	24
3.1.2	Technical/vocational enrolment	78.04	7
3.1.3	Tertiary enrolment	61.59	25
	Performance of education system		
3.1.4	Reading, maths and science scores	63.91	30
	Top universities		
3.1.5	QS university ranking	44.33	22
	International students		
3.1.6	International students inflow	16.23	37

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	50.05	57
	Further education and training climate		
3.2.1	Quality of management schools	63.81	31
3.2.2	Extent of staff training	36.30	91
3.3	**Access to growth opportunities**	58.74	38
	Networks		
3.3.1	Use of virtual social networks	76.09	52
3.3.2	State of cluster development	71.70	1
	Research quality		
3.3.3	Quality of scientific research institutions	53.18	39
	Voice		
3.3.4	Voicing concern to officials	33.96	73
4	**Retain**	62.72	28
4.1	**Sustainability**	57.52	38
	Social protection		
4.1.1	Pension system	94.33	16
	Taxation		
4.1.2	Extent and effect of taxation	20.72	101
4.2	**Lifestyle**	67.91	18
	Quality of life		
4.2.1	Environmental performance	82.19	8
4.2.2	Property stolen	74.17	36
4.2.3	Safety at night	58.82	64
	Services		
4.2.4	Physicians density	56.47	21
5	**Labour and Vocational**	44.39	36
5.1	**Employable skills**	46.27	37
	Vocationally trained workforce		
5.1.1	Secondary educated workforce	46.43	38
	Technical professions		
5.1.2	Technicians and associate professionals	82.65	10
	Youth employment		
5.1.3	Youth employment	9.71	95
5.2	**Labour productivity**	42.51	40
	Productivity per employee		
5.2.1	Labour productivity per employee	51.13	20
	Pay and productivity		
5.2.2	Relationship of pay to productivity	33.90	96
6	**Global Knowledge**	47.70	29
6.1	**Higher skills and competencies**	30.66	47
	Educated workforce		
6.1.1	Tertiary-educated workforce	27.56	65
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	21.91	62
6.1.3	Professionals	39.63	41
6.1.4	Researchers	33.55	24
6.2	**Talent impact**	64.74	7
	Innovation		
6.2.1	Innovation output	41.18	38
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	88.31	3

JAPAN

RANK
(out of 103) **21**

Population (millions)	**127.16**
GDP per capita (PPP$)	**36,265.75**
GDP (US$ billions)	**5,963.97**
Global Talent Competitiveness Index Score	**59.89**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



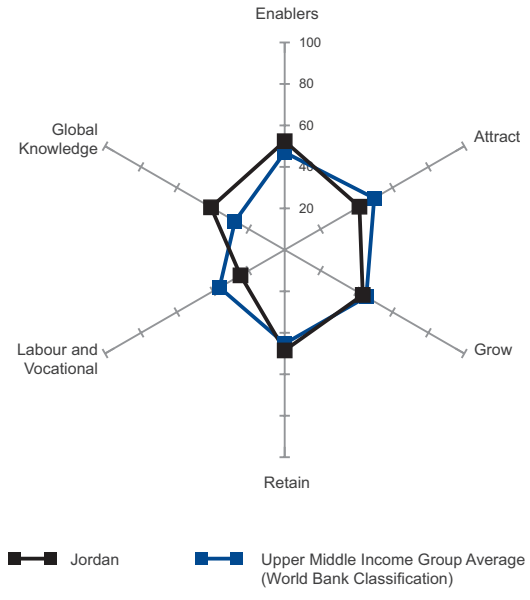
	VARIABLE	SCORE	RANK/103
1	**Enablers**	79.14	11
1.1	**Regulatory landscape**	82.76	16
	Government efficiency		
1.1.1	Government effectiveness	73.09	21
1.1.2	Political stability	89.98	19
	FDI climate		
1.1.3	Starting a foreign business	85.21	8
1.2	**Market landscape**	74.09	8
	Competition climate		
1.2.1	Intensity of local competition	84.13	2
	Innovation climate		
1.2.2	Venture capital availability	32.66	35
1.2.3	Firm-level technology absorption	86.07	4
1.2.4	R&D expenditure	76.19	5
	Connectivity		
1.2.5	ICT access	85.10	15
	Ease of doing business		
1.2.6	Ease of doing business	80.40	21
1.3	**Business landscape**	80.57	6
	Labour market flexibility		
1.3.1	Labour market flexibility	86.20	6
	Ownership and governance		
1.3.2	Reliance on professional management	74.94	16
2	**Attract**	46.82	76
2.1	**External oipenness**	36.64	73
	FDI		
2.1.1	FDI inflow	1.31	100
	Brain gain		
2.1.2	Qualified labour inflow	51.66	33
	Foreign companies		
2.1.3	Prevalence of foreign ownership	56.93	64
2.2	**Internal openness**	57.01	67
	Diversity		
2.2.1	Tolerance of minorities	65.98	70
2.2.2	Tolerance of immigrants	69.69	52
	Social mobility		
2.2.3	Social mobility	77.38	16
	Gender mobility		
2.2.4	Female professionals and technical workers	n/a	n/a
2.2.5	Female parliamentarians	14.98	81
3	**Grow**	61.96	22
3.1	**Formal education**	57.68	23
	Education climate		
3.1.1	Pupil-teacher ratio	85.17	36
3.1.2	Technical/vocational enrolment	24.88	54
3.1.3	Tertiary enrolment	56.30	33
	Performance of education system		
3.1.4	Reading, maths and science scores	81.18	5
	Top universities		
3.1.5	QS university ranking	81.55	6
	International students		
3.1.6	International students inflow	16.97	34

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	61.50	26
	Further education and training climate		
3.2.1	Quality of management schools	51.73	62
3.2.2	Extent of staff training	71.26	5
3.3	**Access to growth opportunities**	66.71	21
	Networks		
3.3.1	Use of virtual social networks	73.28	65
3.3.2	State of cluster development	69.73	4
	Research quality		
3.3.3	Quality of scientific research institutions	76.66	11
	Voice		
3.3.4	Voicing concern to officials	47.17	45
4	**Retain**	65.76	18
4.1	**Sustainability**	66.89	15
	Social protection		
4.1.1	Pension system	99.98	3
	Taxation		
4.1.2	Extent and effect of taxation	33.81	80
4.2	**Lifestyle**	64.62	30
	Quality of life		
4.2.1	Environmental performance	69.53	23
4.2.2	Property stolen	78.91	19
4.2.3	Safety at night	75.40	35
	Services		
4.2.4	Physicians density	34.65	52
5	**Labour and Vocational**	52.10	22
5.1	**Employable skills**	49.77	30
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	56.71	24
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	42.83	49
5.2	**Labour productivity**	54.43	12
	Productivity per employee		
5.2.1	Labour productivity per employee	49.15	22
	Pay and productivity		
5.2.2	Relationship of pay to productivity	59.71	17
6	**Global Knowledge**	53.53	19
6.1	**Higher skills and competencies**	60.13	13
	Educated workforce		
6.1.1	Tertiary-educated workforce	68.11	17
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	n/a	n/a
6.1.3	Professionals	n/a	n/a
6.1.4	Researchers	52.16	13
6.2	**Talent impact**	46.94	33
	Innovation		
6.2.1	Innovation output	49.72	27
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	44.16	31

JORDAN

RANK
(out of 103) **62**

Population (millions)	**7.04**
GDP per capita (PPP$)	**6,042.29**
GDP (US$ billions)	**31.21**
Global Talent Competitiveness Index Score	**41.93**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



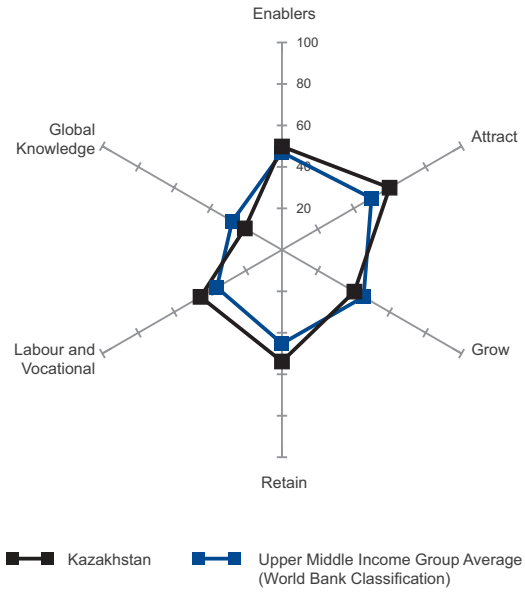
	VARIABLE	SCORE	RANK/103
1	**Enablers**	52.39	52
1.1	**Regulatory landscape**	45.14	73
	Government efficiency		
1.1.1	Government effectiveness	34.41	56
1.1.2	Political stability	55.87	68
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	43.42	49
	Competition climate		
1.2.1	Intensity of local competition	73.25	28
	Innovation climate		
1.2.2	Venture capital availability	31.83	41
1.2.3	Firm-level technology absorption	76.15	24
1.2.4	R&D expenditure	9.43	57
	Connectivity		
1.2.5	ICT access	41.38	60
	Ease of doing business		
1.2.6	Ease of doing business	28.50	74
1.3	**Business landscape**	68.61	19
	Labour market flexibility		
1.3.1	Labour market flexibility	88.09	5
	Ownership and governance		
1.3.2	Reliance on professional management	49.12	64
2	**Attract**	41.62	89
2.1	**External openness**	47.10	41
	FDI		
2.1.1	FDI inflow	37.17	24
	Brain gain		
2.1.2	Qualified labour inflow	44.39	42
	Foreign companies		
2.1.3	Prevalence of foreign ownership	59.73	56
2.2	**Internal openness**	36.14	99
	Diversity		
2.2.1	Tolerance of minorities	31.85	98
2.2.2	Tolerance of immigrants	41.73	93
	Social mobility		
2.2.3	Social mobility	55.99	49
	Gender mobility		
2.2.4	Female professionals and technical workers	n/a	n/a
2.2.5	Female parliamentarians	14.98	81
3	**Grow**	43.47	68
3.1	**Formal education**	31.89	71
	Education climate		
3.1.1	Pupil-teacher ratio	68.14	65
3.1.2	Technical/vocational enrolment	7.09	86
3.1.3	Tertiary enrolment	34.21	64
	Performance of education system		
3.1.4	Reading, maths and science scores	30.74	53
	Top universities		
3.1.5	QS university ranking	5.46	55
	International students		
3.1.6	International students inflow	45.67	14

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	50.89	56
	Further education and training climate		
3.2.1	Quality of management schools	55.74	48
3.2.2	Extent of staff training	46.04	66
3.3	**Access to growth opportunities**	47.63	69
	Networks		
3.3.1	Use of virtual social networks	82.05	31
3.3.2	State of cluster development	50.86	40
	Research quality		
3.3.3	Quality of scientific research institutions	41.81	68
	Voice		
3.3.4	Voicing concern to officials	15.80	96
4	**Retain**	48.51	59
4.1	**Sustainability**	39.44	69
	Social protection		
4.1.1	Pension system	39.48	51
	Taxation		
4.1.2	Extent and effect of taxation	39.39	57
4.2	**Lifestyle**	57.58	48
	Quality of life		
4.2.1	Environmental performance	21.07	93
4.2.2	Property stolen	81.04	13
4.2.3	Safety at night	88.56	9
	Services		
4.2.4	Physicians density	39.65	47
5	**Labour and Vocational**	24.61	100
5.1	**Employable skills**	16.69	102
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	20.00	75
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	13.38	88
5.2	**Labour productivity**	32.54	67
	Productivity per employee		
5.2.1	Labour productivity per employee	14.53	62
	Pay and productivity		
5.2.2	Relationship of pay to productivity	50.54	51
6	**Global Knowledge**	41.01	36
6.1	**Higher skills and competencies**	42.11	30
	Educated workforce		
6.1.1	Tertiary-educated workforce	36.90	53
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	n/a	n/a
6.1.3	Professionals	n/a	n/a
6.1.4	Researchers	47.32	16
6.2	**Talent impact**	39.91	47
	Innovation		
6.2.1	Innovation output	35.67	45
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	44.16	31

KAZAKHSTAN

RANK
(out of 103) **46**

Population (millions)	**16.29**
GDP per capita (PPP$)	**13,892.83**
GDP (US$ billions)	**196.42**
Global Talent Competitiveness Index Score	**44.99**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



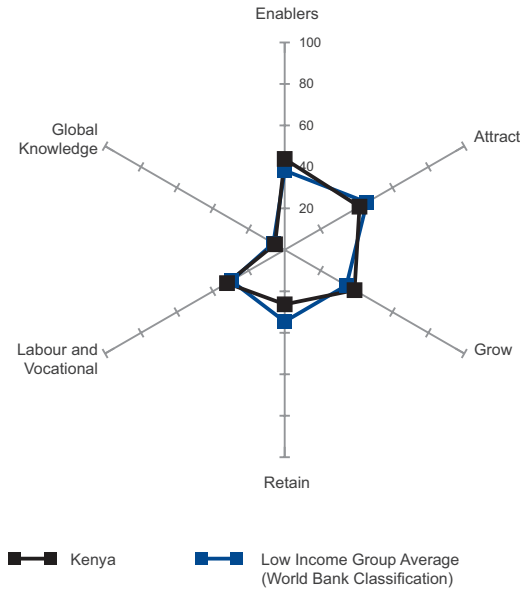
	VARIABLE	SCORE	RANK/103
1	**Enablers**	49.84	57
1.1	**Regulatory landscape**	49.98	63
	Government efficiency		
1.1.1	Government effectiveness	25.06	73
1.1.2	Political stability	61.93	62
	FDI climate		
1.1.3	Starting a foreign business	62.96	34
1.2	**Market landscape**	42.32	56
	Competition climate		
1.2.1	Intensity of local competition	52.09	85
	Innovation climate		
1.2.2	Venture capital availability	20.49	80
1.2.3	Firm-level technology absorption	58.00	72
1.2.4	R&D expenditure	4.74	71
	Connectivity		
1.2.5	ICT access	59.72	44
	Ease of doing business		
1.2.6	Ease of doing business	58.90	43
1.3	**Business landscape**	57.21	45
	Labour market flexibility		
1.3.1	Labour market flexibility	64.81	37
	Ownership and governance		
1.3.2	Reliance on professional management	49.62	62
2	**Attract**	59.93	29
2.1	**External openness**	49.02	33
	FDI		
2.1.1	FDI inflow	54.92	12
	Brain gain		
2.1.2	Qualified labour inflow	39.97	55
	Foreign companies		
2.1.3	Prevalence of foreign ownership	52.16	75
2.2	**Internal openness**	70.84	28
	Diversity		
2.2.1	Tolerance of minorities	90.22	19
2.2.2	Tolerance of immigrants	83.56	25
	Social mobility		
2.2.3	Social mobility	53.61	55
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	26.79	59
3	**Grow**	40.32	82
3.1	**Formal education**	34.47	64
	Education climate		
3.1.1	Pupil-teacher ratio	94.50	11
3.1.2	Technical/vocational enrolment	14.15	68
3.1.3	Tertiary enrolment	39.62	52
	Performance of education system		
3.1.4	Reading, maths and science scores	29.23	57
	Top universities		
3.1.5	QS university ranking	22.97	38
	International students		
3.1.6	International students inflow	6.34	58

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	46.83	70
	Further education and training climate		
3.2.1	Quality of management schools	44.85	80
3.2.2	Extent of staff training	48.81	54
3.3	**Access to growth opportunities**	39.66	92
	Networks		
3.3.1	Use of virtual social networks	62.89	91
3.3.2	State of cluster development	34.88	85
	Research quality		
3.3.3	Quality of scientific research institutions	33.73	87
	Voice		
3.3.4	Voicing concern to officials	27.12	85
4	**Retain**	53.85	45
4.1	**Sustainability**	56.85	40
	Social protection		
4.1.1	Pension system	65.04	37
	Taxation		
4.1.2	Extent and effect of taxation	48.65	27
4.2	**Lifestyle**	50.85	61
	Quality of life		
4.2.1	Environmental performance	0.00	99
4.2.2	Property stolen	71.09	46
4.2.3	Safety at night	65.88	55
	Services		
4.2.4	Physicians density	66.42	6
5	**Labour and Vocational**	45.34	33
5.1	**Employable skills**	49.98	29
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	56.43	25
	Technical professions		
5.1.2	Technicians and associate professionals	40.82	50
	Youth employment		
5.1.3	Youth employment	52.71	30
5.2	**Labour Pproductivity**	40.69	44
	Productivity per employee		
5.2.1	Labour productivity per employee	17.50	56
	Pay and productivity		
5.2.2	Relationship of pay to productivity	63.88	8
6	**Global Knowledge**	20.68	80
6.1	**Higher skills and competencies**	34.45	41
	Educated workforce		
6.1.1	Tertiary-educated workforce	58.09	26
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	35.96	33
6.1.3	Professionals	38.41	45
6.1.4	Researchers	5.35	63
6.2	**Talent impact**	6.91	98
	Innovation		
6.2.1	Innovation output	12.52	90
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	1.30	76

KENYA

RANK
(out of 103) **95**

Population (millions)	**43.32**
GDP per capita (PPP$)	**1,802.38**
GDP (US$ billions)	**41.12**
Global Talent Competitiveness Index Score	**31.36**
Global Talent Competitiveness Index Score (Income Group Average)	**31.51**



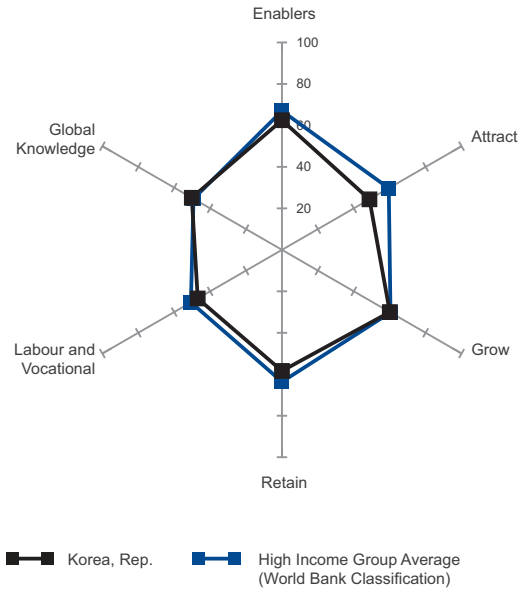
	VARIABLE	SCORE	RANK/103
1	**Enablers**	43.83	73
1.1	**Regulatory landscape**	34.24	91
	Government efficiency		
1.1.1	Government effectiveness	16.80	85
1.1.2	Political stability	34.08	96
	FDI climate		
1.1.3	Starting a foreign business	51.83	48
1.2	**Market landscape**	34.02	83
	Competition climate		
1.2.1	Intensity of local competition	65.53	54
	Innovation climate		
1.2.2	Venture capital availability	36.36	26
1.2.3	Firm-level technology absorption	64.85	50
1.2.4	R&D expenditure	9.02	60
	Connectivity		
1.2.5	ICT access	9.66	92
	Ease of doing business		
1.2.6	Ease of doing business	18.70	84
1.3	**Business landscape**	63.24	28
	Labour market flexibility		
1.3.1	Labour market flexibility	71.85	27
	Ownership and governance		
1.3.2	Reliance on professional management	54.64	46
2	**Attract**	41.65	88
2.1	**External openness**	35.09	78
	FDI		
2.1.1	FDI inflow	8.80	87
	Brain gain		
2.1.2	Qualified labour inflow	40.42	51
	Foreign companies		
2.1.3	Prevalence of foreign ownership	56.05	67
2.2	**Internal openness**	48.20	89
	Diversity		
2.2.1	Tolerance of minorities	67.50	65
2.2.2	Tolerance of immigrants	68.73	53
	Social mobility		
2.2.3	Social mobility	43.15	83
	Gender mobility		
2.2.4	Female professionals and technical workers	n/a	n/a
2.2.5	Female parliamentarians	13.44	86
3	**Grow**	38.89	87
3.1	**Formal education**	11.59	99
	Education climate		
3.1.1	Pupil-teacher ratio	34.61	85
3.1.2	Technical/vocational enrolment	0.00	96
3.1.3	Tertiary enrolment	0.17	97
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	52.35	53
	Further education and training climate		
3.2.1	Quality of management schools	55.67	49
3.2.2	Extent of staff training	49.04	52
3.3	**Access to growth opportunities**	52.72	51
	Networks		
3.3.1	Use of virtual social networks	70.52	76
3.3.2	State of cluster development	45.98	52
	Research quality		
3.3.3	Quality of scientific research institutions	50.50	46
	Voice		
3.3.4	Voicing concern to officials	43.87	52
4	**Retain**	26.27	100
4.1	**Sustainability**	22.71	98
	Social protection		
4.1.1	Pension system	6.68	83
	Taxation		
4.1.2	Extent and effect of taxation	38.73	61
4.2	**Lifestyle**	29.84	99
	Quality of life		
4.2.1	Environmental performance	37.35	70
4.2.2	Property stolen	26.30	99
4.2.3	Safety at night	53.58	74
	Services		
4.2.4	Physicians density	2.13	91
5	**Labour and Vocational**	32.12	74
5.1	**Employable skills**	38.16	61
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	42.57	43
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	33.76	61
5.2	**Labour productivity**	26.07	89
	Productivity per employee		
5.2.1	Labour productivity per employee	1.41	89
	Pay and productivity		
5.2.2	Relationship of pay to productivity	50.72	49
6	**Global Knowledge**	5.38	100
6.1	**Higher skills and competencies**	0.32	103
	Educated workforce		
6.1.1	Tertiary-educated workforce	0.00	89
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	n/a	n/a
6.1.3	Professionals	n/a	n/a
6.1.4	Researchers	0.65	84
6.2	**Talent impact**	10.44	93
	Innovation		
6.2.1	Innovation output	10.44	93
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

KOREA, REP.

RANK
(out of 103) **28**

Population (millions)	**48.94**
GDP per capita (PPP$)	**32,272.12**
GDP (US$ billions)	**1155.87**
Global Talent Competitiveness Index Score	**54.46**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



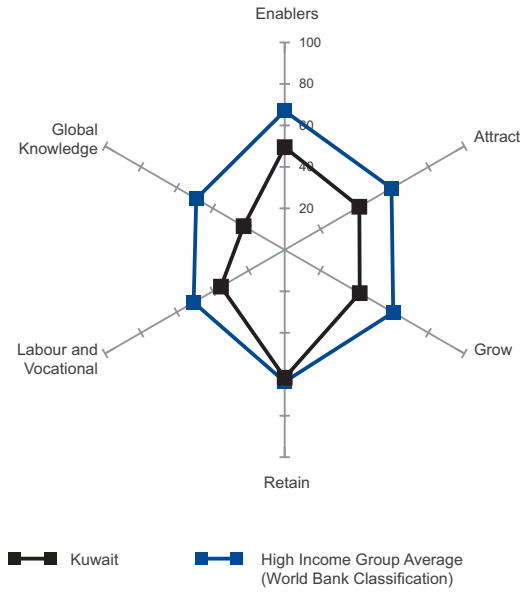
	VARIABLE	SCORE	RANK/103
1	**Enablers**	62.51	28
1.1	**Regulatory landscape**	70.66	32
	Government efficiency		
1.1.1	Government effectiveness	69.71	22
1.1.2	Political stability	71.83	45
	FDI climate		
1.1.3	Starting a foreign business	70.42	27
1.2	**Market landscape**	75.52	6
	Competition climate		
1.2.1	Intensity of local competition	79.09	9
	Innovation climate		
1.2.2	Venture capital availability	19.81	84
1.2.3	Firm-level technology absorption	83.28	10
1.2.4	R&D expenditure	84.88	3
	Connectivity		
1.2.5	ICT access	91.86	10
	Ease of doing business		
1.2.6	Ease of doing business	94.20	7
1.3	**Business landscape**	41.35	83
	Labour market flexibility		
1.3.1	Labour market flexibility	17.93	91
	Ownership and governance		
1.3.2	Reliance on professional management	64.77	32
2	**Attract**	48.71	66
2.1	**External openness**	41.61	61
	FDI		
2.1.1	FDI inflow	4.62	96
	Brain gain		
2.1.2	Qualified labour inflow	63.55	15
	Foreign companies		
2.1.3	Prevalence of foreign ownership	56.67	65
2.2	**Internal openness**	55.81	73
	Diversity		
2.2.1	Tolerance of minorities	76.85	47
2.2.2	Tolerance of immigrants	67.98	55
	Social mobility		
2.2.3	Social mobility	48.23	70
	Gender mobility		
2.2.4	Female professionals and technical workers	64.68	74
2.2.5	Female parliamentarians	21.32	70
3	**Grow**	60.04	24
3.1	**Formal education**	60.16	17
	Education climate		
3.1.1	Pupil-teacher ratio	68.94	63
3.1.2	Technical/vocational enrolment	24.93	53
3.1.3	Tertiary enrolment	100.00	1
	Performance of education system		
3.1.4	Reading, maths and science scores	85.84	4
	Top universities		
3.1.5	QS university ranking	72.92	10
	International students		
3.1.6	International students inflow	8.33	50

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	57.60	36
	Further education and training climate		
3.2.1	Quality of management schools	60.86	38
3.2.2	Extent of staff training	54.34	34
3.3	**Access to growth opportunities**	62.36	29
	Networks		
3.3.1	Use of virtual social networks	82.94	28
3.3.2	State of cluster development	60.09	19
	Research quality		
3.3.3	Quality of scientific research institutions	65.60	23
	Voice		
3.3.4	Voicing concern to officials	40.80	56
4	**Retain**	58.40	41
4.1	**Sustainability**	59.17	34
	Social protection		
4.1.1	Pension system	83.74	28
	Taxation		
4.1.2	Extent and effect of taxation	34.59	75
4.2	**Lifestyle**	57.64	47
	Quality of life		
4.2.1	Environmental performance	55.45	39
4.2.2	Property stolen	81.52	12
4.2.3	Safety at night	60.86	62
	Services		
4.2.4	Physicians density	32.73	55
5	**Labour and Vocational**	46.89	31
5.1	**Employable skills**	40.69	54
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	53.14	28
	Technical professions		
5.1.2	Technicians and associate professionals	49.49	44
	Youth employment		
5.1.3	Youth employment	19.43	78
5.2	**Labour productivity**	53.10	18
	Productivity per employee		
5.2.1	Labour productivity per employee	42.01	26
	Pay and productivity		
5.2.2	Relationship of pay to productivity	64.20	7
6	**Global Knowledge**	50.20	22
6.1	**Higher skills and competencies**	45.22	26
	Educated workforce		
6.1.1	Tertiary-educated workforce	80.41	7
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	12.92	76
6.1.3	Professionals	28.05	54
6.1.4	Researchers	59.49	10
6.2	**Talent impact**	55.18	20
	Innovation		
6.2.1	Innovation output	57.12	24
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	53.25	17

KUWAIT

RANK
(out of 103) **60**

Population (millions)	**3.25**
GDP per capita (PPP$)	**39,888.76**
GDP (US$ billions)	**173.42**
Global Talent Competitiveness Index Score	**42.14**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



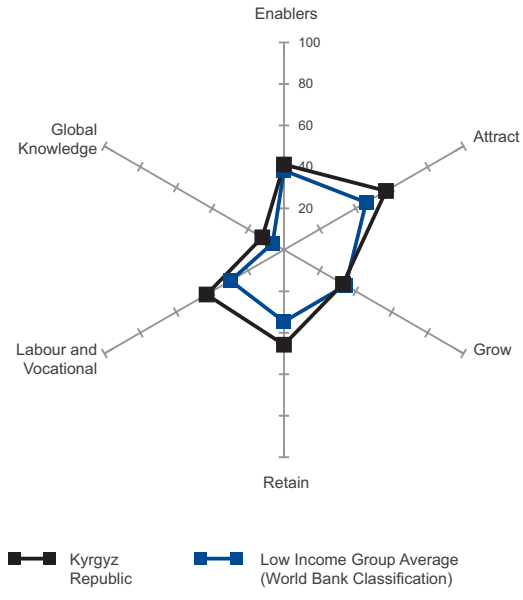
	VARIABLE	SCORE	RANK/103
1	**Enablers**	49.51	58
1.1	**Regulatory landscape**	52.96	56
	Government efficiency		
1.1.1	Government effectiveness	31.63	61
1.1.2	Political stability	74.29	42
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	41.65	58
	Competition climate		
1.2.1	Intensity of local competition	61.59	66
	Innovation climate		
1.2.2	Venture capital availability	32.90	34
1.2.3	Firm-level technology absorption	70.51	36
1.2.4	R&D expenditure	2.07	85
	Connectivity		
1.2.5	ICT access	n/a	n/a
	Ease of doing business		
1.2.6	Ease of doing business	41.20	61
1.3	**Business landscape**	53.90	51
	Labour market flexibility		
1.3.1	Labour market flexibility	60.93	40
	Ownership and governance		
1.3.2	Reliance on professional management	46.87	74
2	**Attract**	41.56	90
2.1	**External openness**	28.57	96
	FDI		
2.1.1	FDI inflow	3.20	97
	Brain gain		
2.1.2	Qualified labour inflow	47.08	37
	Foreign companies		
2.1.3	Prevalence of foreign ownership	35.43	101
2.2	**Internal openness**	54.54	75
	Diversity		
2.2.1	Tolerance of minorities	80.22	35
2.2.2	Tolerance of immigrants	79.30	30
	Social mobility		
2.2.3	Social mobility	58.56	43
	Gender mobility		
2.2.4	Female professionals and technical workers	44.32	82
2.2.5	Female parliamentarians	10.32	95
3	**Grow**	41.77	72
3.1	**Formal Education**	28.72	80
	Education climate		
3.1.1	Pupil-teacher ratio	96.73	4
3.1.2	Technical/vocational enrolment	0.00	96
3.1.3	Tertiary enrolment	18.14	78
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	0.00	61
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong earning**	45.13	75
	Further education and training climate		
3.2.1	Quality of management schools	45.37	79
3.2.2	Extent of staff training	44.90	70
3.3	**Access to growth opportunities**	51.47	53
	Networks		
3.3.1	Use of virtual social networks	78.03	46
3.3.2	State of cluster development	36.96	79
	Research quality		
3.3.3	Quality of scientific research institutions	35.93	83
	Voice		
3.3.4	Voicing concern to officials	54.95	30
4	**Retain**	61.66	30
4.1	**Sustainability**	74.44	4
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	74.44	3
4.2	**Lifestyle**	48.88	68
	Quality of life		
4.2.1	Environmental performance	5.94	97
4.2.2	Property stolen	65.40	61
4.2.3	Safety at night	95.19	4
	Services		
4.2.4	Physicians density	28.98	60
5	**Labour and Vocational**	35.48	66
5.1	**Employable skills**	28.17	86
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	18.86	77
	Technical professions		
5.1.2	Technicians and associate professionals	35.71	56
	Youth employment		
5.1.3	Youth employment	29.94	66
5.2	**Labour productivity**	42.79	38
	Productivity per employee		
5.2.1	Labour productivity per employee	38.99	33
	Pay and productivity		
5.2.2	Relationship of pay to productivity	46.58	65
6	**Global Knowledge**	22.85	74
6.1	**Higher skills and competencies**	14.21	84
	Educated workforce		
6.1.1	Tertiary-educated workforce	18.91	74
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	11.24	79
6.1.3	Professionals	25.30	61
6.1.4	Researchers	1.39	78
6.2	**Talent impact**	31.50	59
	Innovation		
6.2.1	Innovation output	31.50	52
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

KYRGYZ REPUBLIC

RANK
(out of 103) **78**

Population (millions)	**5.45**
GDP per capita (PPP$)	**2,376.49**
GDP (US$ billions)	**6.47**
Global Talent Competitiveness Index Score	**38.62**
Global Talent Competitiveness Index Score (Income Group Average)	**31.51**



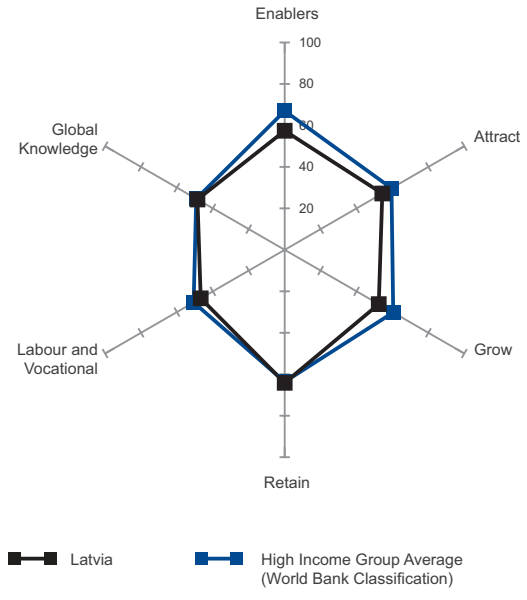
	VARIABLE	SCORE	RANK/103
1	**Enablers**	41.15	81
1.1	**Regulatory landscape**	42.99	79
	Government efficiency		
1.1.1	Government effectiveness	14.44	91
1.1.2	Political stability	40.44	89
	FDI climate		
1.1.3	Starting a foreign business	74.08	22
1.2	**Market landscape**	32.19	88
	Competition climate		
1.2.1	Intensity of local competition	50.22	91
	Innovation climate		
1.2.2	Venture capital availability	13.98	98
1.2.3	Firm-level technology absorption	45.53	98
1.2.4	R&D expenditure	3.14	79
	Connectivity		
1.2.5	ICT access	n/a	n/a
	Ease of doing business		
1.2.6	Ease of doing business	48.10	54
1.3	**Business landscape**	48.26	63
	Labour market flexibility		
1.3.1	Labour market flexibility	55.46	46
	Ownership and governance		
1.3.2	Reliance on professional management	41.05	96
2	**Attract**	56.81	35
2.1	**External openness**	49.93	30
	FDI		
2.1.1	FDI inflow	91.35	7
	Brain gain		
2.1.2	Qualified labour inflow	15.84	100
	Foreign companies		
2.1.3	Prevalence of foreign ownership	42.60	94
2.2	**Internal openness**	63.69	44
	Diversity		
2.2.1	Tolerance of minorities	77.50	44
2.2.2	Tolerance of immigrants	59.34	75
	Social mobility		
2.2.3	Social mobility	44.02	79
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	37.58	34
3	**Grow**	32.86	99
3.1	**Formal education**	32.76	68
	Education climate		
3.1.1	Pupil-teacher ratio	75.73	59
3.1.2	Technical/vocational enrolment	18.72	63
3.1.3	Tertiary enrolment	37.77	57
	Performance of education system		
3.1.4	Reading, maths and science scores	0.00	67
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	31.62	21

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	31.19	102
	Further education and training climate		
3.2.1	Quality of management schools	27.93	103
3.2.2	Extent of staff training	34.44	94
3.3	**Access to growth opportunities**	34.62	101
	Networks		
3.3.1	Use of virtual social networks	65.70	83
3.3.2	State of cluster development	22.16	102
	Research quality		
3.3.3	Quality of scientific research institutions	18.55	101
	Voice		
3.3.4	Voicing concern to officials	32.08	76
4	**Retain**	45.75	64
4.1	**Sustainability**	39.98	67
	Social protection		
4.1.1	Pension system	41.58	50
	Taxation		
4.1.2	Extent and effect of taxation	38.37	63
4.2	**Lifestyle**	51.53	59
	Quality of life		
4.2.1	Environmental performance	30.61	81
4.2.2	Property stolen	71.33	44
4.2.3	Safety at night	66.95	51
	Services		
4.2.4	Physicians density	37.23	49
5	**Labour and Vocational**	43.09	39
5.1	**Employable skills**	53.97	21
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	86.71	3
	Technical professions		
5.1.2	Technicians and associate professionals	28.06	65
	Youth employment		
5.1.3	Youth employment	47.13	40
5.2	**Labour productivity**	32.21	70
	Productivity per employee		
5.2.1	Labour productivity per employee	3.08	85
	Pay and productivity		
5.2.2	Relationship of pay to productivity	61.33	14
6	**Global Knowledge**	12.07	92
6.1	**Higher skills and competencies**	21.30	67
	Educated workforce		
6.1.1	Tertiary-educated workforce	40.77	46
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	12.92	76
6.1.3	Professionals	28.05	54
6.1.4	Researchers	3.47	71
6.2	**Talent impact**	2.85	102
	Innovation		
6.2.1	Innovation output	2.85	101
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

LATVIA

RANK
(out of 103) **30**

Population (millions)	**2.06**
GDP per capita (PPP$)	**18,254.66**
GDP (US$ billions)	**28.38**
Global Talent Competitiveness Index Score	**53.93**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



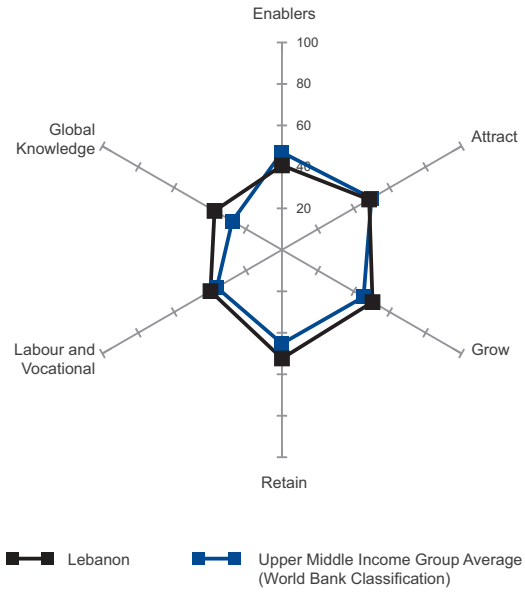
	VARIABLE	SCORE	RANK/103
1	**Enablers**	57.42	38
1.1	**Regulatory landscape**	63.33	44
	Government efficiency		
1.1.1	Government effectiveness	53.36	36
1.1.2	Political stability	73.31	44
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	51.67	35
	Competition climate		
1.2.1	Intensity of local competition	64.33	59
	Innovation climate		
1.2.2	Venture capital availability	32.42	36
1.2.3	Firm-level technology absorption	58.50	71
1.2.4	R&D expenditure	13.31	47
	Connectivity		
1.2.5	ICT access	61.93	43
	Ease of doing business		
1.2.6	Ease of doing business	79.50	22
1.3	**Business landscape**	57.27	44
	Labour market flexibility		
1.3.1	Labour market flexibility	58.92	42
	Ownership and governance		
1.3.2	Reliance on professional management	55.61	44
2	**Attract**	54.34	42
2.1	**External openness**	47.73	37
	FDI		
2.1.1	FDI inflow	42.33	20
	Brain gain		
2.1.2	Qualified labour inflow	35.51	70
	Foreign companies		
2.1.3	Prevalence of foreign ownership	65.34	43
2.2	**Internal openness**	60.96	56
	Diversity		
2.2.1	Tolerance of minorities	66.63	69
2.2.2	Tolerance of immigrants	40.55	97
	Social mobility		
2.2.3	Social mobility	60.66	34
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	36.95	35
3	**Grow**	52.37	38
3.1	**Formal education**	54.81	27
	Education climate		
3.1.1	Pupil-teacher ratio	95.27	7
3.1.2	Technical/vocational enrolment	51.93	25
3.1.3	Tertiary enrolment	53.92	36
	Performance of education system		
3.1.4	Reading, maths and science scores	64.18	29
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	8.76	47

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	52.83	50
	Further education and training climate		
3.2.1	Quality of management schools	53.80	56
3.2.2	Extent of staff training	51.86	42
3.3	**Access to growth opportunities**	49.46	60
	Networks		
3.3.1	Use of virtual social networks	74.37	58
3.3.2	State of cluster development	37.14	78
	Research quality		
3.3.3	Quality of scientific research institutions	46.25	53
	Voice		
3.3.4	Voicing concern to officials	40.09	58
4	**Retain**	64.13	21
4.1	**Sustainability**	65.36	18
	Social protection		
4.1.1	Pension system	96.10	12
	Taxation		
4.1.2	Extent and effect of taxation	34.62	74
4.2	**Lifestyle**	62.89	32
	Quality of life		
4.2.1	Environmental performance	85.55	2
4.2.2	Property stolen	62.56	64
4.2.3	Safety at night	55.08	71
	Services		
4.2.4	Physicians density	48.38	33
5	**Labour and Vocational**	46.76	32
5.1	**Employable skills**	51.83	25
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	72.00	12
	Technical professions		
5.1.2	Technicians and associate professionals	55.61	35
	Youth employment		
5.1.3	Youth employment	27.87	70
5.2	**Labour productivity**	41.69	41
	Productivity per employee		
5.2.1	Labour productivity per employee	25.16	43
	Pay and productivity		
5.2.2	Relationship of pay to productivity	58.21	22
6	**Global Knowledge**	48.57	27
6.1	**Higher skills and competencies**	47.03	24
	Educated workforce		
6.1.1	Tertiary-educated workforce	59.00	23
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	56.18	9
6.1.3	Professionals	50.00	26
6.1.4	Researchers	22.96	35
6.2	**Talent impact**	50.10	29
	Innovation		
6.2.1	Innovation output	50.85	26
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	49.35	23

LEBANON

RANK
(out of 103) **48**

Population (millions)	**4.65**
GDP per capita (PPP$)	**15,756.94**
GDP (US$ billions)	**41.35**
Global Talent Competitiveness Index Score	**44.90**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



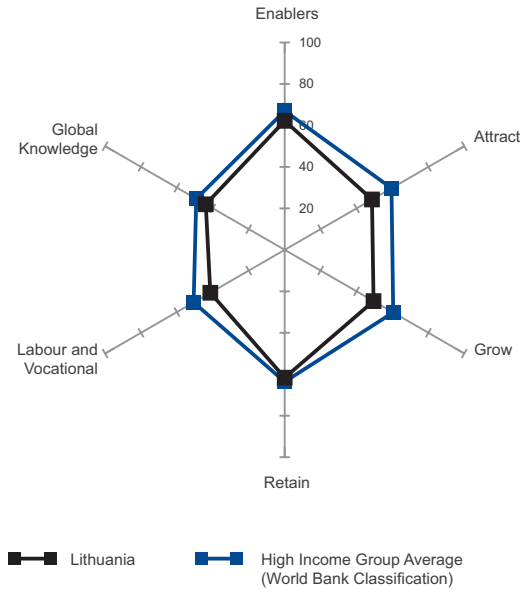
	VARIABLE	SCORE	RANK/103
1	**Enablers**	40.71	84
1.1	**Regulatory landscape**	25.69	98
	Government efficiency		
1.1.1	Government effectiveness	23.17	75
1.1.2	Political stability	28.22	101
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	47.84	43
	Competition climate		
1.2.1	Intensity of local competition	72.91	31
	Innovation climate		
1.2.2	Venture capital availability	28.68	52
1.2.3	Firm-level technology absorption	62.61	57
1.2.4	R&D expenditure	n/a	n/a
	Connectivity		
1.2.5	ICT access	52.41	52
	Ease of doing business		
1.2.6	Ease of doing business	22.60	80
1.3	**Business landscape**	48.59	62
	Labour market flexibility		
1.3.1	Labour market flexibility	n/a	n/a
	Ownership and governance		
1.3.2	Reliance on professional management	48.59	68
2	**Attract**	48.55	68
2.1	**External openness**	43.94	50
	FDI		
2.1.1	FDI inflow	58.75	10
	Brain gain		
2.1.2	Qualified labour inflow	25.09	87
	Foreign companies		
2.1.3	Prevalence of foreign ownership	47.97	90
2.2	**Internal openness**	53.17	79
	Diversity		
2.2.1	Tolerance of minorities	46.74	96
2.2.2	Tolerance of immigrants	66.60	59
	Social mobility		
2.2.3	Social mobility	56.30	47
	Gender mobility		
2.2.4	Female professionals and technical workers	92.27	55
2.2.5	Female parliamentarians	3.96	99
3	**Grow**	50.41	44
3.1	**Formal education**	54.25	28
	Education climate		
3.1.1	Pupil-teacher ratio	92.50	16
3.1.2	Technical/vocational enrolment	36.25	39
3.1.3	Tertiary enrolment	54.20	35
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	17.97	43
	International students		
3.1.6	International students inflow	70.36	10

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	58.44	33
	Further education and training climate		
3.2.1	Quality of management schools	73.18	13
3.2.2	Extent of staff training	43.70	77
3.3	**Access to growth opportunities**	38.55	96
	Networks		
3.3.1	Use of virtual social networks	75.94	53
3.3.2	State of cluster development	35.09	84
	Research quality		
3.3.3	Quality of scientific research institutions	25.25	97
	Voice		
3.3.4	Voicing concern to officials	17.92	94
4	**Retain**	52.39	52
4.1	**Sustainability**	44.57	55
	Social protection		
4.1.1	Pension system	35.38	55
	Taxation		
4.1.2	Extent and effect of taxation	53.76	15
4.2	**Lifestyle**	60.20	45
	Quality of life		
4.2.1	Environmental performance	32.94	76
4.2.2	Property stolen	76.30	28
4.2.3	Safety at night	74.22	38
	Services		
4.2.4	Physicians density	57.35	20
5	**Labour and Vocational**	39.81	49
5.1	**Employable skills**	28.54	84
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	24.71	66
	Technical professions		
5.1.2	Technicians and associate professionals	43.88	47
	Youth employment		
5.1.3	Youth employment	17.04	80
5.2	**Labour productivity**	51.07	25
	Productivity per employee		
5.2.1	Labour productivity per employee	n/a	n/a
	Pay and productivity		
5.2.2	Relationship of pay to productivity	51.07	46
6	**Global Knowledge**	37.55	41
6.1	**Higher skills and competencies**	44.17	28
	Educated workforce		
6.1.1	Tertiary-educated workforce	34.85	56
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	66.85	6
6.1.3	Professionals	30.79	51
6.1.4	Researchers	n/a	n/a
6.2	**Talent impact**	30.92	60
	Innovation		
6.2.1	Innovation output	28.08	57
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	33.77	52

LITHUANIA

RANK
(out of 103) **39**

Population (millions)	**3.02**
GDP per capita (PPP$)	**21,615.34**
GDP (US$ billions)	**42.16**
Global Talent Competitiveness Index Score	**51.21**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



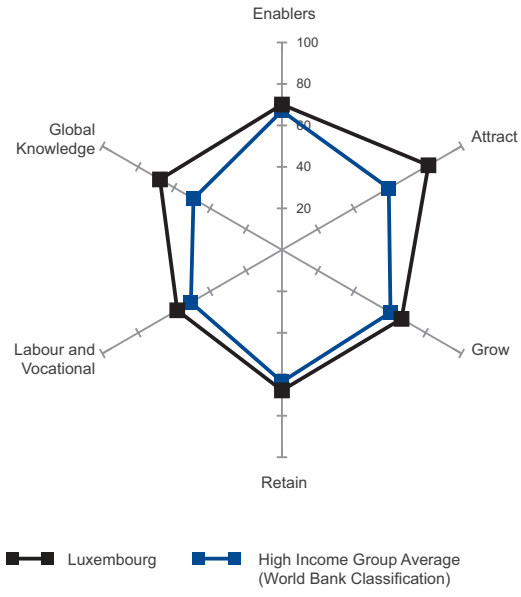
	VARIABLE	SCORE	RANK/103
1	**Enablers**	62.21	29
1.1	**Regulatory landscape**	67.38	38
	Government efficiency		
1.1.1	Government effectiveness	53.27	37
1.1.2	Political stability	81.49	30
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	53.66	32
	Competition climate		
1.2.1	Intensity of local competition	68.34	42
	Innovation climate		
1.2.2	Venture capital availability	23.06	68
1.2.3	Firm-level technology absorption	66.89	46
1.2.4	R&D expenditure	17.74	38
	Connectivity		
1.2.5	ICT access	68.41	34
	Ease of doing business		
1.2.6	Ease of doing business	77.50	24
1.3	**Business landscape**	65.60	23
	Labour market flexibility		
1.3.1	Labour market flexibility	74.12	25
	Ownership and governance		
1.3.2	Reliance on professional management	57.08	42
2	**Attract**	48.59	67
2.1	**External openness**	35.86	77
	FDI		
2.1.1	FDI inflow	22.55	46
	Brain gain		
2.1.2	Qualified labour inflow	28.04	85
	Foreign companies		
2.1.3	Prevalence of foreign ownership	57.00	63
2.2	**Internal openness**	61.31	55
	Diversity		
2.2.1	Tolerance of minorities	64.13	73
2.2.2	Tolerance of immigrants	53.68	81
	Social mobility		
2.2.3	Social mobility	59.55	40
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	29.21	54
3	**Grow**	49.47	47
3.1	**Formal education**	44.54	47
	Education climate		
3.1.1	Pupil-teacher ratio	94.61	10
3.1.2	Technical/vocational enrolment	24.15	59
3.1.3	Tertiary enrolment	66.12	19
	Performance of education system		
3.1.4	Reading, maths and science scores	61.09	33
	Top universities		
3.1.5	QS university ranking	13.89	48
	International students		
3.1.6	International students inflow	7.38	53

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	52.55	52
	Further education and training climate		
3.2.1	Quality of management schools	55.48	50
3.2.2	Extent of staff training	49.62	49
3.3	**Access to growth opportunities**	51.31	54
	Networks		
3.3.1	Use of virtual social networks	84.10	23
3.3.2	State of cluster development	33.82	89
	Research quality		
3.3.3	Quality of scientific research institutions	60.89	30
	Voice		
3.3.4	Voicing concern to officials	26.42	86
4	**Retain**	61.66	31
4.1	**Sustainability**	58.44	36
	Social protection		
4.1.1	Pension system	86.71	26
	Taxation		
4.1.2	Extent and effect of taxation	30.18	88
4.2	**Lifestyle**	64.87	28
	Quality of life		
4.2.1	Environmental performance	74.42	17
4.2.2	Property stolen	81.04	13
4.2.3	Safety at night	45.45	89
	Services		
4.2.4	Physicians density	58.55	18
5	**Labour and Vocational**	41.41	42
5.1	**Employable skills**	38.68	58
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	45.43	39
	Technical professions		
5.1.2	Technicians and associate professionals	53.57	36
	Youth employment		
5.1.3	Youth employment	17.04	80
5.2	**Labour productivity**	44.14	35
	Productivity per employee		
5.2.1	Labour productivity per employee	29.06	40
	Pay and productivity		
5.2.2	Relationship of pay to productivity	59.22	19
6	**Global Knowledge**	43.94	32
6.1	**Higher skills and competencies**	54.01	18
	Educated workforce		
6.1.1	Tertiary-educated workforce	66.74	19
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	51.12	11
6.1.3	Professionals	66.77	8
6.1.4	Researchers	31.42	25
6.2	**Talent impact**	33.86	56
	Innovation		
6.2.1	Innovation output	41.75	36
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	25.97	61

LUXEMBOURG

RANK
(out of 103) **5**

Population (millions)	**0.52**
GDP per capita (PPP$)	**79,785.04**
GDP (US$ billions)	**56.74**
Global Talent Competitiveness Index Score	**68.70**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



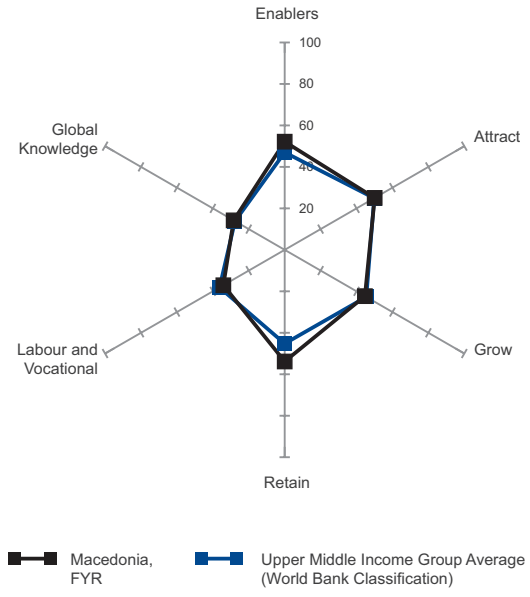
	VARIABLE	SCORE	RANK/103
1	**Enablers**	70.08	21
1.1	**Regulatory landscape**	91.73	7
	Government efficiency		
1.1.1	Government effectiveness	84.72	11
1.1.2	Political stability	98.75	4
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	64.02	23
	Competition climate		
1.2.1	Intensity of local competition	66.53	51
	Innovation climate		
1.2.2	Venture capital availability	48.73	9
1.2.3	Firm-level technology absorption	77.33	21
1.2.4	R&D expenditure	36.81	23
	Connectivity		
1.2.5	ICT access	99.72	2
	Ease of doing business		
1.2.6	Ease of doing business	55.00	47
1.3	**Business landscape**	54.49	49
	Labour market flexibility		
1.3.1	Labour market flexibility	35.66	76
	Ownership and governance		
1.3.2	Reliance on professional management	73.31	20
2	**Attract**	81.55	2
2.1	**External openness**	85.41	2
	FDI		
2.1.1	FDI inflow	100.00	1
	Brain gain		
2.1.2	Qualified labour inflow	65.34	14
	Foreign companies		
2.1.3	Prevalence of foreign ownership	90.88	1
2.2	**Internal openness**	77.69	17
	Diversity		
2.2.1	Tolerance of minorities	91.96	14
2.2.2	Tolerance of immigrants	89.65	15
	Social mobility		
2.2.3	Social mobility	80.56	14
	Gender mobility		
2.2.4	Female professionals and technical workers	85.06	65
2.2.5	Female parliamentarians	41.24	27
3	**Grow**	66.57	14
3.1	**Formal education**	65.54	12
	Education climate		
3.1.1	Pupil-teacher ratio	94.80	9
3.1.2	Technical/vocational enrolment	63.91	17
3.1.3	Tertiary enrolment	6.72	89
	Performance of education system		
3.1.4	Reading, maths and science scores	62.24	32
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	100.00	1

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	63.34	25
	Further education and training climate		
3.2.1	Quality of management schools	55.09	52
3.2.2	Extent of staff training	71.59	4
3.3	**Access to growth opportunities**	70.83	13
	Networks		
3.3.1	Use of virtual social networks	85.17	19
3.3.2	State of cluster development	58.94	22
	Research quality		
3.3.3	Quality of scientific research institutions	62.81	29
	Voice		
3.3.4	Voicing concern to officials	76.42	8
4	**Retain**	67.79	13
4.1	**Sustainability**	63.03	21
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	63.03	8
4.2	**Lifestyle**	72.55	8
	Quality of life		
4.2.1	Environmental performance	82.88	4
4.2.2	Property stolen	77.73	22
4.2.3	Safety at night	84.81	21
	Services		
4.2.4	Physicians density	44.78	37
5	**Labour and Vocational**	58.30	15
5.1	**Employable skills**	53.96	22
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	60.29	22
	Technical professions		
5.1.2	Technicians and associate professionals	87.76	7
	Youth employment		
5.1.3	Youth employment	13.85	87
5.2	**Labour productivity**	62.63	4
	Productivity per employee		
5.2.1	Labour productivity per employee	73.81	2
	Pay and productivity		
5.2.2	Relationship of pay to productivity	51.45	44
6	**Global Knowledge**	67.91	2
6.1	**Higher skills and competencies**	66.37	4
	Educated workforce		
6.1.1	Tertiary-educated workforce	75.63	10
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	23.60	57
6.1.3	Professionals	100.00	1
6.1.4	Researchers	66.25	7
6.2	**Talent impact**	69.45	4
	Innovation		
6.2.1	Innovation output	69.45	10
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

MACEDONIA, FYR

RANK
(out of 103) **52**

Population (millions)	**2.11**
GDP per capita (PPP$)	**10,579.03**
GDP (US$ billions)	**9.68**
Global Talent Competitiveness Index Score	**43.89**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



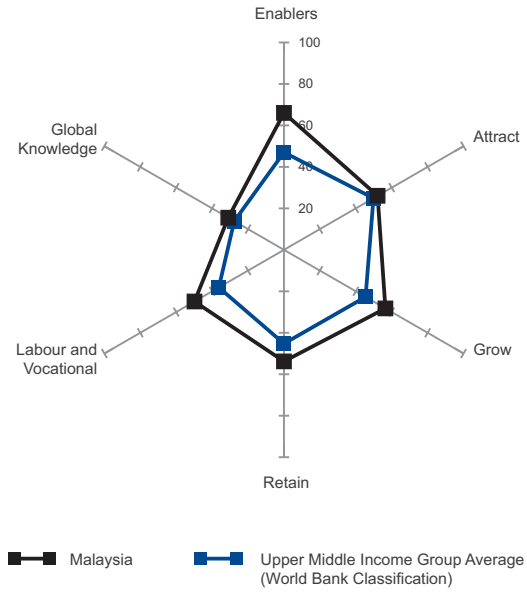
	VARIABLE	SCORE	RANK/103
1	**Enablers**	52.16	53
1.1	**Regulatory landscape**	54.16	54
	Government efficiency		
1.1.1	Government effectiveness	29.69	65
1.1.2	Political stability	55.03	70
	FDI climate		
1.1.3	Starting a foreign business	77.75	20
1.2	**Market landscape**	43.78	48
	Competition climate		
1.2.1	Intensity of local competition	50.90	88
	Innovation climate		
1.2.2	Venture capital availability	22.48	73
1.2.3	Firm-level technology absorption	46.85	97
1.2.4	R&D expenditure	4.65	72
	Connectivity		
1.2.5	ICT access	56.41	48
	Ease of doing business		
1.2.6	Ease of doing business	81.40	20
1.3	**Business landscape**	58.55	39
	Labour market flexibility		
1.3.1	Labour market flexibility	77.78	15
	Ownership and governance		
1.3.2	Reliance on professional management	39.31	99
2	**Attract**	50.10	60
2.1	**External openness**	32.69	85
	FDI		
2.1.1	FDI inflow	32.17	35
	Brain gain		
2.1.2	Qualified labour inflow	18.44	96
	Foreign companies		
2.1.3	Prevalence of foreign ownership	47.47	91
2.2	**Internal openness**	67.50	32
	Diversity		
2.2.1	Tolerance of minorities	67.83	64
2.2.2	Tolerance of immigrants	70.44	49
	Social mobility		
2.2.3	Social mobility	43.90	80
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	55.32	19
3	**Grow**	44.66	60
3.1	**Formal education**	48.05	41
	Education climate		
3.1.1	Pupil-teacher ratio	85.09	37
3.1.2	Technical/vocational enrolment	61.98	20
3.1.3	Tertiary enrolment	35.02	62
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	10.09	46

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	39.70	94
	Further education and training climate		
3.2.1	Quality of management schools	44.36	83
3.2.2	Extent of staff training	35.05	93
3.3	**Access to growth opportunities**	46.24	77
	Networks		
3.3.1	Use of virtual social networks	80.65	36
3.3.2	State of cluster development	39.28	73
	Research quality		
3.3.3	Quality of scientific research institutions	36.94	81
	Voice		
3.3.4	Voicing concern to officials	28.07	84
4	**Retain**	53.84	46
4.1	**Sustainability**	53.27	43
	Social protection		
4.1.1	Pension system	54.21	46
	Taxation		
4.1.2	Extent and effect of taxation	52.32	17
4.2	**Lifestyle**	54.42	53
	Quality of life		
4.2.1	Environmental performance	32.05	78
4.2.2	Property stolen	72.51	40
4.2.3	Safety at night	70.59	47
	Services		
4.2.4	Physicians density	42.52	43
5	**Labour and Vocational**	34.15	68
5.1	**Employable skills**	33.93	77
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	50.57	30
	Technical professions		
5.1.2	Technicians and associate professionals	46.43	46
	Youth employment		
5.1.3	Youth employment	4.78	98
5.2	**Labour productivity**	34.38	65
	Productivity per employee		
5.2.1	Labour productivity per employee	21.86	50
	Pay and productivity		
5.2.2	Relationship of pay to productivity	46.90	62
6	**Global Knowledge**	28.42	59
6.1	**Higher skills and competencies**	26.60	56
	Educated workforce		
6.1.1	Tertiary-educated workforce	27.79	64
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	32.58	39
6.1.3	Professionals	38.72	44
6.1.4	Researchers	7.32	53
6.2	**Talent impact**	30.25	63
	Innovation		
6.2.1	Innovation output	25.43	63
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	35.06	49

MALAYSIA

RANK
(out of 103) **37**

Population (millions)	**29.27**
GDP per capita (PPP$)	**16,922.37**
GDP (US$ billions)	**303.53**
Global Talent Competitiveness Index Score	**51.54**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



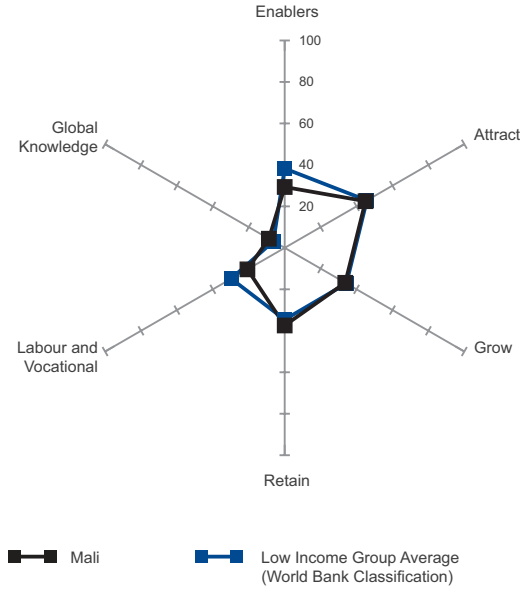
	VARIABLE	SCORE	RANK/103
1	**Enablers**	66.02	23
1.1	**Regulatory landscape**	62.73	46
	Government efficiency		
1.1.1	Government effectiveness	62.76	29
1.1.2	Political stability	69.93	48
	FDI climate		
1.1.3	Starting a foreign business	55.49	46
1.2	**Market landscape**	60.24	26
	Competition climate		
1.2.1	Intensity of local competition	72.71	32
	Innovation climate		
1.2.2	Venture capital availability	50.56	8
1.2.3	Firm-level technology absorption	75.92	25
1.2.4	R&D expenditure	14.00	44
	Connectivity		
1.2.5	ICT access	58.07	46
	Ease of doing business		
1.2.6	Ease of doing business	90.20	11
1.3	**Business landscape**	75.10	13
	Labour market flexibility		
1.3.1	Labour market flexibility	78.21	14
	Ownership and governance		
1.3.2	Reliance on professional management	71.99	22
2	**Attract**	52.13	50
2.1	**External openness**	54.26	16
	FDI		
2.1.1	FDI inflow	33.22	33
	Brain gain		
2.1.2	Qualified labour inflow	62.20	18
	Foreign companies		
2.1.3	Prevalence of foreign ownership	67.35	40
2.2	**Internal openness**	50.01	87
	Diversity		
2.2.1	Tolerance of minorities	80.33	34
2.2.2	Tolerance of immigrants	19.64	101
	Social mobility		
2.2.3	Social mobility	67.97	24
	Gender mobility		
2.2.4	Female professionals and technical workers	67.76	72
2.2.5	Female parliamentarians	14.36	84
3	**Grow**	56.48	31
3.1	**Formal education**	39.44	56
	Education climate		
3.1.1	Pupil-teacher ratio	79.94	47
3.1.2	Technical/vocational enrolment	13.10	71
3.1.3	Tertiary enrolment	38.71	56
	Performance of education system		
3.1.4	Reading, maths and science scores	35.14	50
	Top universities		
3.1.5	QS university ranking	41.67	28
	International students		
3.1.6	International students inflow	28.05	22

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	68.46	12
	Further education and training climate		
3.2.1	Quality of management schools	66.99	24
3.2.2	Extent of staff training	69.93	7
3.3	**Access to growth opportunities**	61.55	32
	Networks		
3.3.1	Use of virtual social networks	83.79	25
3.3.2	State of cluster development	66.40	11
	Research quality		
3.3.3	Quality of scientific research institutions	64.39	27
	Voice		
3.3.4	Voicing concern to officials	31.60	77
4	**Retain**	53.79	48
4.1	**Sustainability**	56.57	41
	Social protection		
4.1.1	Pension system	50.72	47
	Taxation		
4.1.2	Extent and effect of taxation	62.42	10
4.2	**Lifestyle**	51.02	60
	Quality of life		
4.2.1	Environmental performance	67.59	25
4.2.2	Property stolen	69.67	54
4.2.3	Safety at night	51.66	81
	Services		
4.2.4	Physicians density	15.15	74
5	**Labour and Vocational**	49.82	26
5.1	**Employable skills**	51.95	23
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	49.00	34
	Technical professions		
5.1.2	Technicians and associate professionals	69.90	20
	Youth employment		
5.1.3	Youth employment	36.94	54
5.2	**Labour productivity**	47.70	30
	Productivity per employee		
5.2.1	Labour productivity per employee	23.11	48
	Pay and productivity		
5.2.2	Relationship of pay to productivity	72.29	2
6	**Global Knowledge**	31.01	56
6.1	**Higher skills and competencies**	25.76	57
	Educated workforce		
6.1.1	Tertiary-educated workforce	37.36	51
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	42.13	23
6.1.3	Professionals	18.60	69
6.1.4	Researchers	4.94	65
6.2	**Talent impact**	36.27	51
	Innovation		
6.2.1	Innovation output	41.37	37
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	31.17	57

MALI

RANK
(out of 103) **100**

Population (millions)	**14.85**
GDP per capita (PPP$)	**1,100.24**
GDP (US$ billions)	**10.32**
Global Talent Competitiveness Index Score	**29.18**
Global Talent Competitiveness Index Score (Income Group Average)	**31.51**



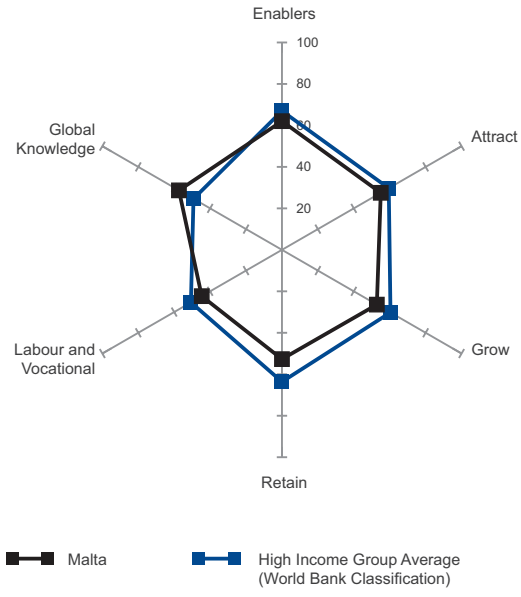
	VARIABLE	SCORE	RANK/103
1	**Enablers**	29.34	100
1.1	**Regulatory landscape**	29.02	95
	Government efficiency		
1.1.1	Government effectiveness	8.21	99
1.1.2	Political stability	48.72	79
	FDI climate		
1.1.3	Starting a foreign business	30.14	62
1.2	**Market landscape**	25.36	99
	Competition climate		
1.2.1	Intensity of local competition	53.22	84
	Innovation climate		
1.2.2	Venture capital availability	22.16	74
1.2.3	Firm-level technology absorption	59.01	70
1.2.4	R&D expenditure	5.19	68
	Connectivity		
1.2.5	ICT access	7.59	93
	Ease of doing business		
1.2.6	Ease of doing business	5.00	98
1.3	**Business landscape**	33.65	93
	Labour market flexibility		
1.3.1	Labour market flexibility	29.49	83
	Ownership and governance		
1.3.2	Reliance on professional management	37.81	102
2	**Attract**	45.00	81
2.1	**External openness**	32.71	84
	FDI		
2.1.1	FDI inflow	14.22	70
	Brain gain		
2.1.2	Qualified labour inflow	33.80	75
	Foreign companies		
2.1.3	Prevalence of foreign ownership	50.11	83
2.2	**Internal openness**	57.30	64
	Diversity		
2.2.1	Tolerance of minorities	93.15	12
2.2.2	Tolerance of immigrants	83.88	24
	Social mobility		
2.2.3	Social mobility	38.10	92
	Gender mobility		
2.2.4	Female professionals and technical workers	n/a	n/a
2.2.5	Female parliamentarians	14.05	85
3	**Grow**	33.72	97
3.1	**Formal education**	19.42	90
	Education climate		
3.1.1	Pupil-teacher ratio	48.70	75
3.1.2	Technical/vocational enrolment	24.29	58
3.1.3	Tertiary enrolment	2.25	96
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	2.42	70

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	36.61	99
	Further education and training climate		
3.2.1	Quality of management schools	38.95	94
3.2.2	Extent of staff training	34.27	97
3.3	**Access to growth opportunities**	45.11	80
	Networks		
3.3.1	Use of virtual social networks	55.83	96
3.3.2	State of cluster development	34.22	87
	Research quality		
3.3.3	Quality of scientific research institutions	43.71	60
	Voice		
3.3.4	Voicing concern to officials	46.70	47
4	**Retain**	37.44	87
4.1	**Sustainability**	20.96	100
	Social protection		
4.1.1	Pension system	7.13	82
	Taxation		
4.1.2	Extent and effect of taxation	34.79	73
4.2	**Lifestyle**	53.92	55
	Quality of life		
4.2.1	Environmental performance	n/a	n/a
4.2.2	Property stolen	75.12	33
4.2.3	Safety at night	85.99	19
	Services		
4.2.4	Physicians density	0.67	95
5	**Labour and Vocational**	20.75	102
5.1	**Employable skills**	21.54	100
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	4.86	87
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	38.22	53
5.2	**Labour productivity**	19.97	101
	Productivity per employee		
5.2.1	Labour productivity per employee	1.05	90
	Pay and productivity		
5.2.2	Relationship of pay to productivity	38.88	88
6	**Global Knowledge**	8.82	94
6.1	**Higher skills and competencies**	2.46	100
	Educated workforce		
6.1.1	Tertiary-educated workforce	4.33	83
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	n/a	n/a
6.1.3	Professionals	n/a	n/a
6.1.4	Researchers	0.59	85
6.2	**Talent impact**	15.18	90
	Innovation		
6.2.1	Innovation output	15.18	83
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

MALTA

RANK
(out of 103) **29**

Population (millions)	**0.43**
GDP per capita (PPP$)	**27,022.36**
GDP (US$ billions)	**8.69**
Global Talent Competitiveness Index Score	**54.10**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



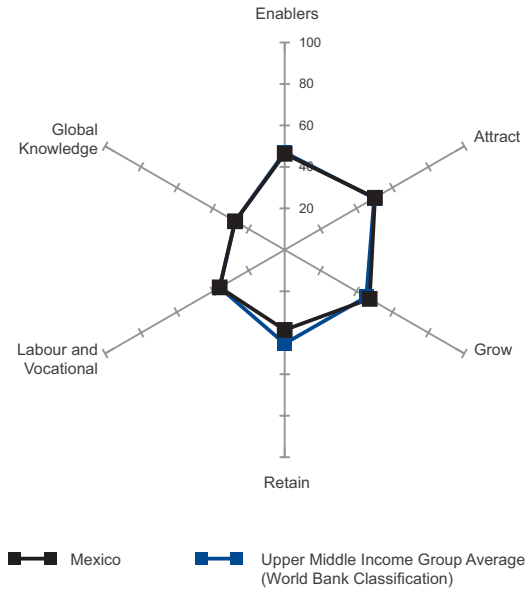
	VARIABLE	SCORE	RANK/103
1	**Enablers**	62.06	30
1.1	**Regulatory landscape**	79.10	20
	Government efficiency		
1.1.1	Government effectiveness	67.68	26
1.1.2	Political stability	90.52	18
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	53.44	33
	Competition climate		
1.2.1	Intensity of local competition	79.39	8
	Innovation climate		
1.2.2	Venture capital availability	35.13	29
1.2.3	Firm-level technology absorption	75.55	28
1.2.4	R&D expenditure	13.81	46
	Connectivity		
1.2.5	ICT access	86.34	13
	Ease of doing business		
1.2.6	Ease of doing business	30.40	72
1.3	**Business landscape**	53.64	53
	Labour market flexibility		
1.3.1	Labour market flexibility	57.94	43
	Ownership and governance		
1.3.2	Reliance on professional management	49.34	63
2	**Attract**	55.01	40
2.1	**External openness**	53.04	23
	FDI		
2.1.1	FDI inflow	45.94	19
	Brain gain		
2.1.2	Qualified labour inflow	52.15	30
	Foreign companies		
2.1.3	Prevalence of foreign ownership	61.01	50
2.2	**Internal openness**	56.99	68
	Diversity		
2.2.1	Tolerance of minorities	76.41	48
2.2.2	Tolerance of immigrants	76.84	35
	Social mobility		
2.2.3	Social mobility	62.26	29
	Gender mobility		
2.2.4	Female professionals and technical workers	57.64	76
2.2.5	Female parliamentarians	11.79	88
3	**Grow**	52.82	36
3.1	**Formal education**	41.61	52
	Education climate		
3.1.1	Pupil-teacher ratio	92.79	15
3.1.2	Technical/vocational enrolment	31.75	51
3.1.3	Tertiary enrolment	31.69	65
	Performance of education system		
3.1.4	Reading, maths and science scores	51.81	39
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	59.34	30
	Further education and training climate		
3.2.1	Quality of management schools	66.56	26
3.2.2	Extent of staff training	52.12	40
3.3	**Access to growth opportunities**	57.52	41
	Networks		
3.3.1	Use of virtual social networks	90.45	4
3.3.2	State of cluster development	43.59	58
	Research quality		
3.3.3	Quality of scientific research institutions	44.65	57
	Voice		
3.3.4	Voicing concern to officials	51.42	39
4	**Retain**	52.70	51
4.1	**Sustainability**	44.44	56
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	44.44	37
4.2	**Lifestyle**	60.96	42
	Quality of life		
4.2.1	Environmental performance	35.59	73
4.2.2	Property stolen	85.78	8
4.2.3	Safety at night	72.09	45
	Services		
4.2.4	Physicians density	50.40	28
5	**Labour and Vocational**	44.66	35
5.1	**Employable skills**	42.94	48
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	10.43	83
	Technical professions		
5.1.2	Technicians and associate professionals	66.33	24
	Youth employment		
5.1.3	Youth employment	52.07	31
5.2	**Labour productivity**	46.39	34
	Productivity per employee		
5.2.1	Labour productivity per employee	40.23	29
	Pay and productivity		
5.2.2	Relationship of pay to productivity	52.54	42
6	**Global Knowledge**	57.36	13
6.1	**Higher skills and competencies**	36.54	38
	Educated workforce		
6.1.1	Tertiary-educated workforce	30.75	60
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	48.31	14
6.1.3	Professionals	45.73	31
6.1.4	Researchers	21.37	36
6.2	**Talent impact**	78.18	1
	Innovation		
6.2.1	Innovation output	78.18	4
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

MEXICO

RANK
(out of 103) **70**

Population (millions)	**121.07**
GDP per capita (PPP$)	**15,311.77**
GDP (US$ billions)	**1,177.12**
Global Talent Competitiveness Index Score	**41.04**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



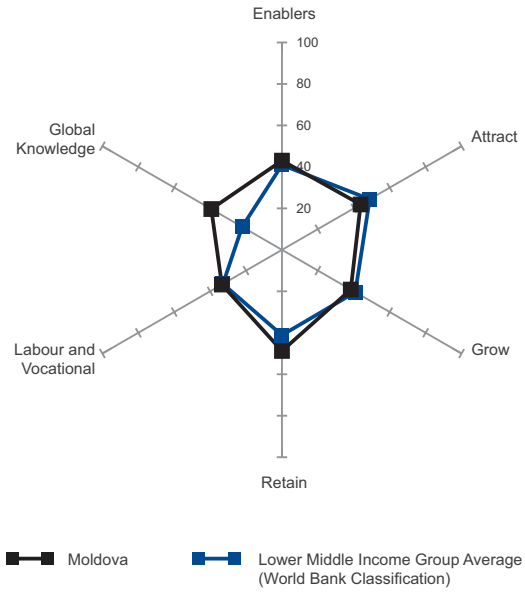
	VARIABLE	SCORE	RANK/103
1	**Enablers**	46.32	60
1.1	**Regulatory landscape**	51.54	59
	Government efficiency		
1.1.1	Government effectiveness	42.60	48
1.1.2	Political stability	49.05	77
	FDI climate		
1.1.3	Starting a foreign business	62.96	34
1.2	**Market landscape**	42.64	54
	Competition climate		
1.2.1	Intensity of local competition	62.73	63
	Innovation climate		
1.2.2	Venture capital availability	27.05	55
1.2.3	Firm-level technology absorption	64.01	53
1.2.4	R&D expenditure	8.53	62
	Connectivity		
1.2.5	ICT access	33.66	69
	Ease of doing business		
1.2.6	Ease of doing business	59.90	42
1.3	**Business landscape**	44.77	75
	Labour market flexibility		
1.3.1	Labour market flexibility	35.29	77
	Ownership and governance		
1.3.2	Reliance on professional management	54.24	48
2	**Attract**	50.24	58
2.1	**External openness**	44.33	48
	FDI		
2.1.1	FDI inflow	14.07	71
	Brain gain		
2.1.2	Qualified labour inflow	43.96	43
	Foreign companies		
2.1.3	Prevalence of foreign ownership	74.96	20
2.2	**Internal openness**	56.15	69
	Diversity		
2.2.1	Tolerance of minorities	61.96	79
2.2.2	Tolerance of immigrants	56.56	80
	Social mobility		
2.2.3	Social mobility	52.35	57
	Gender mobility		
2.2.4	Female professionals and technical workers	65.99	73
2.2.5	Female parliamentarians	43.92	25
3	**Grow**	47.31	53
3.1	**Formal education**	33.04	67
	Education climate		
3.1.1	Pupil-teacher ratio	68.71	64
3.1.2	Technical/vocational enrolment	33.66	43
3.1.3	Tertiary enrolment	24.35	72
	Performance of education system		
3.1.4	Reading, maths and science scores	37.70	48
	Top universities		
3.1.5	QS university ranking	33.83	32
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	53.40	48
	Further education and training climate		
3.2.1	Quality of management schools	57.37	45
3.2.2	Extent of staff training	49.43	50
3.3	**Access to growth opportunities**	55.49	44
	Networks		
3.3.1	Use of virtual social networks	72.27	69
3.3.2	State of cluster development	54.07	31
	Research quality		
3.3.3	Quality of scientific research institutions	50.58	45
	Voice		
3.3.4	Voicing concern to officials	45.05	49
4	**Retain**	38.62	83
4.1	**Sustainability**	35.31	77
	Social protection		
4.1.1	Pension system	27.80	62
	Taxation		
4.1.2	Extent and effect of taxation	42.81	42
4.2	**Lifestyle**	41.94	83
	Quality of life		
4.2.1	Environmental performance	36.96	71
4.2.2	Property stolen	53.55	83
4.2.3	Safety at night	45.56	88
	Services		
4.2.4	Physicians density	31.68	57
5	**Labour and Vocational**	36.19	63
5.1	**Employable skills**	37.93	62
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	20.86	73
	Technical professions		
5.1.2	Technicians and associate professionals	43.88	47
	Youth employment		
5.1.3	Youth employment	49.04	36
5.2	**Labour productivity**	34.45	63
	Productivity per employee		
5.2.1	Labour productivity per employee	23.33	47
	Pay and productivity		
5.2.2	Relationship of pay to productivity	45.57	68
6	**Global Knowledge**	27.54	60
6.1	**Higher skills and competencies**	18.88	76
	Educated workforce		
6.1.1	Tertiary-educated workforce	40.09	47
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	11.24	79
6.1.3	Professionals	20.12	66
6.1.4	Researchers	4.05	70
6.2	**Talent impact**	36.21	52
	Innovation		
6.2.1	Innovation output	19.17	75
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	53.25	17

MOLDOVA

RANK
(out of 103) **68**

Population (millions)	**3.52**
GDP per capita (PPP$)	**3,415.03**
GDP (US$ billions)	**7.25**
Global Talent Competitiveness Index Score	**41.11**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



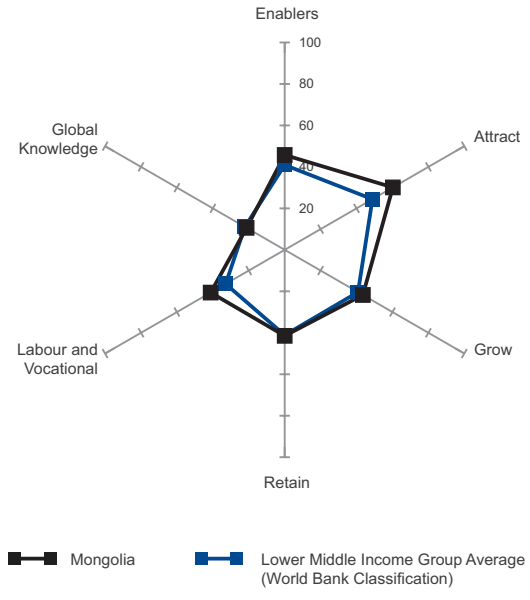
	VARIABLE	SCORE	RANK/103
1	**Enablers**	43.03	76
1.1	**Regulatory landscape**	49.13	66
	Government efficiency		
1.1.1	Government effectiveness	15.51	88
1.1.2	Political stability	63.02	60
	FDI climate		
1.1.3	Starting a foreign business	68.87	29
1.2	**Market landscape**	38.08	73
	Competition climate		
1.2.1	Intensity of local competition	53.81	82
	Innovation climate		
1.2.2	Venture capital availability	17.79	90
1.2.3	Firm-level technology absorption	49.29	95
1.2.4	R&D expenditure	11.51	52
	Connectivity		
1.2.5	ICT access	55.86	49
	Ease of doing business		
1.2.6	Ease of doing business	40.20	62
1.3	**Business landscape**	41.87	81
	Labour market flexibility		
1.3.1	Labour market flexibility	36.48	74
	Ownership and governance		
1.3.2	Reliance on professional management	47.26	73
2	**Attract**	43.78	85
2.1	**External openness**	32.40	86
	FDI		
2.1.1	FDI inflow	30.43	37
	Brain gain		
2.1.2	Qualified labour inflow	17.79	98
	Foreign companies		
2.1.3	Prevalence of foreign ownership	48.97	88
2.2	**Internal openness**	55.16	74
	Diversity		
2.2.1	Tolerance of minorities	52.07	92
2.2.2	Tolerance of immigrants	53.58	82
	Social mobility		
2.2.3	Social mobility	39.63	90
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	30.54	51
3	**Grow**	38.31	90
3.1	**Formal education**	37.29	60
	Education climate		
3.1.1	Pupil-teacher ratio	90.82	22
3.1.2	Technical/vocational enrolment	24.42	57
3.1.3	Tertiary enrolment	35.86	60
	Performance of education system		
3.1.4	Reading, maths and science scores	29.60	55
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	5.75	60

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	38.02	97
	Further education and training climate		
3.2.1	Quality of management schools	39.17	93
3.2.2	Extent of staff training	36.88	90
3.3	**Access to growth opportunities**	39.62	93
	Networks		
3.3.1	Use of virtual social networks	71.34	71
3.3.2	State of cluster development	22.56	101
	Research quality		
3.3.3	Quality of scientific research institutions	24.00	98
	Voice		
3.3.4	Voicing concern to officials	40.57	57
4	**Retain**	48.75	57
4.1	**Sustainability**	48.98	51
	Social protection		
4.1.1	Pension system	58.89	44
	Taxation		
4.1.2	Extent and effect of taxation	39.07	60
4.2	**Lifestyle**	48.53	71
	Quality of life		
4.2.1	Environmental performance	28.05	87
4.2.2	Property stolen	66.59	60
4.2.3	Safety at night	56.15	68
	Services		
4.2.4	Physicians density	43.33	42
5	**Labour and Vocational**	33.47	70
5.1	**Employable skills**	35.83	68
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	60.71	21
	Technical professions		
5.1.2	Technicians and associate professionals	34.18	59
	Youth employment		
5.1.3	Youth employment	12.58	89
5.2	**Labour productivity**	31.12	74
	Productivity per employee		
5.2.1	Labour productivity per employee	7.24	77
	Pay and productivity		
5.2.2	Relationship of pay to productivity	54.99	34
6	**Global Knowledge**	39.34	39
6.1	**Higher skills and competencies**	31.44	45
	Educated workforce		
6.1.1	Tertiary-educated workforce	38.72	49
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	38.20	31
6.1.3	Professionals	40.55	39
6.1.4	Researchers	8.29	52
6.2	**Talent impact**	47.25	32
	Innovation		
6.2.1	Innovation output	47.25	29
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

MONGOLIA

RANK
(out of 103) **58**

Population (millions)	**2.79**
GDP per capita (PPP$)	**5,371.64**
GDP (US$ billions)	**10.26**
Global Talent Competitiveness Index Score	**42.23**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



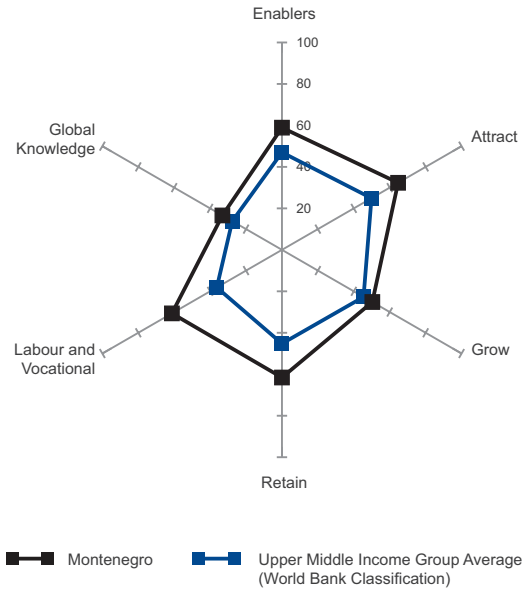
	VARIABLE	SCORE	RANK/103
1	**Enablers**	45.75	63
1.1	**Regulatory landscape**	47.09	71
	Government efficiency		
1.1.1	Government effectiveness	14.48	90
1.1.2	Political stability	79.69	36
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	35.22	77
	Competition climate		
1.2.1	Intensity of local competition	60.09	70
	Innovation climate		
1.2.2	Venture capital availability	12.12	103
1.2.3	Firm-level technology absorption	60.63	65
1.2.4	R&D expenditure	5.04	70
	Connectivity		
1.2.5	ICT access	29.24	75
	Ease of doing business		
1.2.6	Ease of doing business	44.20	58
1.3	**Business landscape**	54.94	47
	Labour market flexibility		
1.3.1	Labour market flexibility	66.58	36
	Ownership and governance		
1.3.2	Reliance on professional management	43.30	83
2	**Attract**	60.21	27
2.1	**External openness**	66.40	6
	FDI		
2.1.1	FDI inflow	100.00	1
	Brain gain		
2.1.2	Qualified labour inflow	30.18	80
	Foreign companies		
2.1.3	Prevalence of foreign ownership	69.03	33
2.2	**Internal openness**	54.02	78
	Diversity		
2.2.1	Tolerance of minorities	56.41	88
2.2.2	Tolerance of immigrants	52.83	84
	Social mobility		
2.2.3	Social mobility	55.84	50
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	5.02	98
3	**Grow**	43.52	67
3.1	**Formal education**	39.70	55
	Education climate		
3.1.1	Pupil-teacher ratio	77.76	53
3.1.2	Technical/vocational enrolment	24.54	55
3.1.3	Tertiary enrolment	53.70	37
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	2.79	67

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	41.77	85
	Further education and training climate		
3.2.1	Quality of management schools	33.13	101
3.2.2	Extent of staff training	50.41	47
3.3	**Access to growth opportunities**	49.09	61
	Networks		
3.3.1	Use of virtual social networks	71.15	72
3.3.2	State of cluster development	32.29	92
	Research quality		
3.3.3	Quality of scientific research institutions	35.84	85
	Voice		
3.3.4	Voicing concern to officials	57.08	26
4	**Retain**	41.47	72
4.1	**Sustainability**	41.95	60
	Social protection		
4.1.1	Pension system	34.26	58
	Taxation		
4.1.2	Extent and effect of taxation	49.65	25
4.2	**Lifestyle**	40.99	87
	Quality of life		
4.2.1	Environmental performance	28.41	86
4.2.2	Property stolen	38.63	92
4.2.3	Safety at night	52.19	79
	Services		
4.2.4	Physicians density	44.73	38
5	**Labour and Vocational**	41.21	43
5.1	**Employable skills**	26.60	89
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	n/a	n/a
	Technical professions		
5.1.2	Technicians and associate professionals	17.86	79
	Youth employment		
5.1.3	Youth employment	35.35	58
5.2	**Labour productivity**	55.82	11
	Productivity per employee		
5.2.1	Labour productivity per employee	n/a	n/a
	Pay and productivity		
5.2.2	Relationship of pay to productivity	55.82	30
6	**Global Knowledge**	21.21	78
6.1	**Higher skills and competencies**	20.98	70
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	23.60	57
6.1.3	Professionals	34.45	50
6.1.4	Researchers	4.88	66
6.2	**Talent impact**	21.44	79
	Innovation		
6.2.1	Innovation output	21.44	69
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

MONTENEGRO

RANK
(out of 103) **26**

Population (millions)	**0.62**
GDP per capita (PPP$)	**11,800.31**
GDP (US$ billions)	**4.28**
Global Talent Competitiveness Index Score	**54.98**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



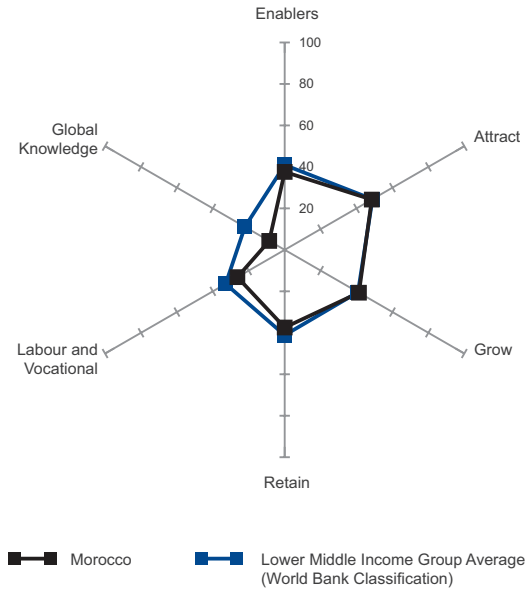
	VARIABLE	SCORE	RANK/103
1	**Enablers**	58.92	33
1.1	**Regulatory landscape**	65.38	40
	Government efficiency		
1.1.1	Government effectiveness	35.89	53
1.1.2	Political stability	78.84	40
	FDI climate		
1.1.3	Starting a foreign business	81.41	14
1.2	**Market landscape**	45.86	47
	Competition climate		
1.2.1	Intensity of local competition	51.52	86
	Innovation climate		
1.2.2	Venture capital availability	38.24	23
1.2.3	Firm-level technology absorption	55.92	78
1.2.4	R&D expenditure	25.75	33
	Connectivity		
1.2.5	ICT access	n/a	n/a
	Ease of doing business		
1.2.6	Ease of doing business	57.90	44
1.3	**Business landscape**	65.51	24
	Labour market flexibility		
1.3.1	Labour market flexibility	80.78	9
	Ownership and governance		
1.3.2	Reliance on professional management	50.24	60
2	**Attract**	64.66	20
2.1	**External openness**	64.91	7
	FDI		
2.1.1	FDI inflow	92.11	6
	Brain gain		
2.1.2	Qualified labour inflow	42.53	49
	Foreign companies		
2.1.3	Prevalence of foreign ownership	60.09	55
2.2	**Internal openness**	64.41	39
	Diversity		
2.2.1	Tolerance of minorities	76.20	50
2.2.2	Tolerance of immigrants	72.68	42
	Social mobility		
2.2.3	Social mobility	55.83	51
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	17.35	76
3	**Grow**	50.31	45
3.1	**Formal education**	49.14	39
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	71.99	12
3.1.3	Tertiary enrolment	44.11	49
	Performance of education system		
3.1.4	Reading, maths and science scores	31.31	52
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	53.59	45
	Further education and training climate		
3.2.1	Quality of management schools	55.11	51
3.2.2	Extent of staff training	52.07	41
3.3	**Access to growth opportunities**	48.20	66
	Networks		
3.3.1	Use of virtual social networks	81.70	34
3.3.2	State of cluster development	31.06	93
	Research quality		
3.3.3	Quality of scientific research institutions	48.66	49
	Voice		
3.3.4	Voicing concern to officials	31.37	78
4	**Retain**	61.57	32
4.1	**Sustainability**	52.68	45
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	52.68	16
4.2	**Lifestyle**	70.45	13
	Quality of life		
4.2.1	Environmental performance	n/a	n/a
4.2.2	Property stolen	91.00	5
4.2.3	Safety at night	86.42	16
	Services		
4.2.4	Physicians density	33.95	54
5	**Labour and Vocational**	61.28	8
5.1	**Employable skills**	75.87	4
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	82.86	5
	Technical professions		
5.1.2	Technicians and associate professionals	68.88	21
	Youth employment		
5.1.3	Youth employment	n/a	n/a
5.2	**Labour productivity**	46.69	32
	Productivity per employee		
5.2.1	Labour productivity per employee	n/a	n/a
	Pay and productivity		
5.2.2	Relationship of pay to productivity	46.69	64
6	**Global Knowledge**	33.17	52
6.1	**Higher skills and competencies**	32.25	44
	Educated workforce		
6.1.1	Tertiary-educated workforce	36.67	54
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	29.78	46
6.1.3	Professionals	50.61	23
6.1.4	Researchers	11.95	45
6.2	**Talent impact**	34.09	55
	Innovation		
6.2.1	Innovation output	37.00	43
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	31.17	57

MOROCCO

RANK
(out of 103) **90**

Population (millions)	**32.34**
GDP per capita (PPP$)	**5,265.18**
GDP (US$ billions)	**97.53**
Global Talent Competitiveness Index Score	**33.30**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



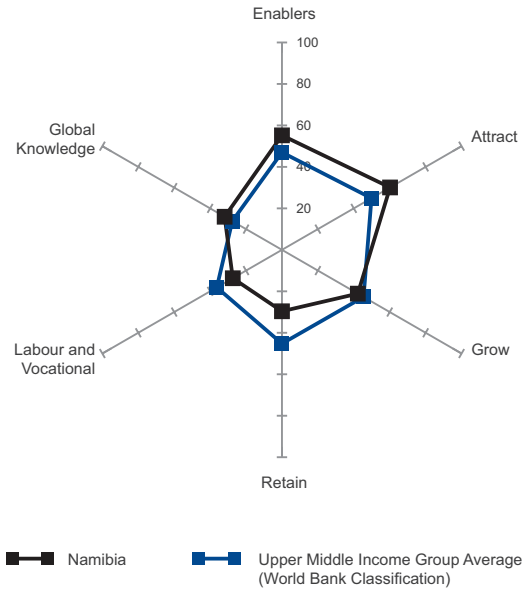
	VARIABLE	SCORE	RANK/103
1	**Enablers**	37.59	90
1.1	**Regulatory landscape**	43.08	78
	Government efficiency		
1.1.1	Government effectiveness	26.40	70
1.1.2	Political stability	54.67	71
	FDI climate		
1.1.3	Starting a foreign business	48.17	53
1.2	**Market landscape**	41.27	61
	Competition climate		
1.2.1	Intensity of local competition	66.58	50
	Innovation climate		
1.2.2	Venture capital availability	33.70	31
1.2.3	Firm-level technology absorption	61.60	60
1.2.4	R&D expenditure	14.02	43
	Connectivity		
1.2.5	ICT access	39.31	63
	Ease of doing business		
1.2.6	Ease of doing business	32.40	70
1.3	**Business landscape**	28.41	99
	Labour market flexibility		
1.3.1	Labour market flexibility	9.50	101
	Ownership and governance		
1.3.2	Reliance on professional management	47.33	72
2	**Attract**	48.48	69
2.1	**External openness**	43.83	51
	FDI		
2.1.1	FDI inflow	20.09	51
	Brain gain		
2.1.2	Qualified labour inflow	43.46	44
	Foreign companies		
2.1.3	Prevalence of foreign ownership	67.95	37
2.2	**Internal openness**	53.13	80
	Diversity		
2.2.1	Tolerance of minorities	66.85	67
2.2.2	Tolerance of immigrants	73.11	39
	Social mobility		
2.2.3	Social mobility	51.80	61
	Gender mobility		
2.2.4	Female professionals and technical workers	48.58	79
2.2.5	Female parliamentarians	25.34	61
3	**Grow**	41.33	77
3.1	**Formal education**	24.18	89
	Education climate		
3.1.1	Pupil-teacher ratio	65.73	69
3.1.2	Technical/vocational enrolment	12.86	72
3.1.3	Tertiary enrolment	9.42	85
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	8.70	48

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	53.37	49
	Further education and training climate		
3.2.1	Quality of management schools	58.74	41
3.2.2	Extent of staff training	48.00	57
3.3	**Access to growth opportunities**	46.45	75
	Networks		
3.3.1	Use of virtual social networks	79.53	39
3.3.2	State of cluster development	49.91	44
	Research quality		
3.3.3	Quality of scientific research institutions	35.85	84
	Voice		
3.3.4	Voicing concern to officials	20.52	92
4	**Retain**	37.45	86
4.1	**Sustainability**	33.33	81
	Social protection		
4.1.1	Pension system	23.98	68
	Taxation		
4.1.2	Extent and effect of taxation	42.67	43
4.2	**Lifestyle**	41.58	85
	Quality of life		
4.2.1	Environmental performance	29.30	84
4.2.2	Property stolen	52.84	84
4.2.3	Safety at night	74.22	38
	Services		
4.2.4	Physicians density	9.94	81
5	**Labour and Vocational**	26.34	97
5.1	**Employable skills**	22.59	98
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	n/a	n/a
	Technical professions		
5.1.2	Technicians and associate professionals	16.84	80
	Youth employment		
5.1.3	Youth employment	28.34	69
5.2	**Labour productivity**	30.10	78
	Productivity per employee		
5.2.1	Labour productivity per employee	6.88	79
	Pay and productivity		
5.2.2	Relationship of pay to productivity	53.31	41
6	**Global Knowledge**	8.61	95
6.1	**Higher skills and competencies**	4.88	94
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	3.93	86
6.1.3	Professionals	4.88	88
6.1.4	Researchers	5.83	60
6.2	**Talent impact**	12.34	92
	Innovation		
6.2.1	Innovation output	16.89	80
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	7.79	74

NAMIBIA

RANK
(out of 103) **69**

Population (millions)	**2.27**
GDP per capita (PPP$)	**7,771.70**
GDP (US$ billions)	**12.30**
Global Talent Competitiveness Index Score	**41.09**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



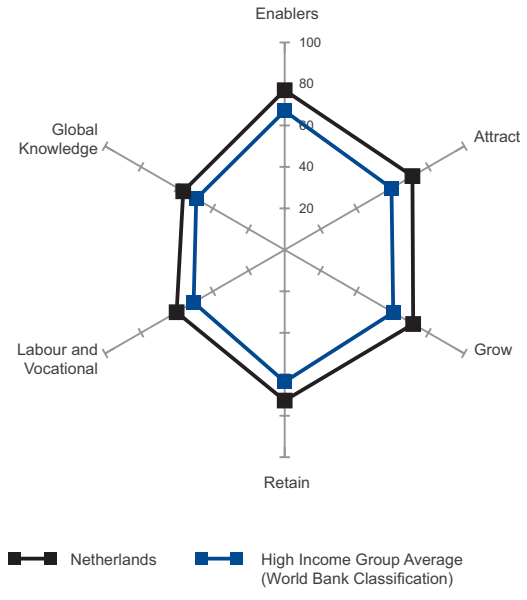
	VARIABLE	SCORE	RANK/103
1	**Enablers**	55.21	43
1.1	**Regulatory landscape**	61.35	48
	Government efficiency		
1.1.1	Government effectiveness	34.75	55
1.1.2	Political stability	87.95	23
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	40.42	66
	Competition climate		
1.2.1	Intensity of local competition	58.94	72
	Innovation climate		
1.2.2	Venture capital availability	23.75	65
1.2.3	Firm-level technology absorption	63.92	55
1.2.4	R&D expenditure	n/a	n/a
	Connectivity		
1.2.5	ICT access	19.17	86
	Ease of doing business		
1.2.6	Ease of doing business	36.30	66
1.3	**Business landscape**	63.86	27
	Labour market flexibility		
1.3.1	Labour market flexibility	74.92	22
	Ownership and governance		
1.3.2	Reliance on professional management	52.81	54
2	**Attract**	60.18	28
2.1	**External openness**	53.05	22
	FDI		
2.1.1	FDI inflow	52.92	14
	Brain gain		
2.1.2	Qualified labour inflow	38.66	60
	Foreign companies		
2.1.3	Prevalence of foreign ownership	67.56	38
2.2	**Internal openness**	67.31	33
	Diversity		
2.2.1	Tolerance of minorities	82.50	32
2.2.2	Tolerance of immigrants	61.47	69
	Social mobility		
2.2.3	Social mobility	52.65	56
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	39.93	30
3	**Grow**	42.24	71
3.1	**Formal education**	33.62	66
	Education climate		
3.1.1	Pupil-teacher ratio	48.97	74
3.1.2	Technical/vocational enrolment	n/a	n/a
3.1.3	Tertiary enrolment	5.13	91
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	46.76	13

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	43.35	82
	Further education and training climate		
3.2.1	Quality of management schools	35.34	99
3.2.2	Extent of staff training	51.35	44
3.3	**Access to growth opportunities**	49.74	59
	Networks		
3.3.1	Use of virtual social networks	65.66	84
3.3.2	State of cluster development	39.81	71
	Research quality		
3.3.3	Quality of scientific research institutions	39.46	76
	Voice		
3.3.4	Voicing concern to officials	54.01	33
4	**Retain**	29.62	97
4.1	**Sustainability**	27.16	93
	Social protection		
4.1.1	Pension system	8.87	80
	Taxation		
4.1.2	Extent and effect of taxation	45.44	36
4.2	**Lifestyle**	32.09	98
	Quality of life		
4.2.1	Environmental performance	40.55	66
4.2.2	Property stolen	46.68	88
4.2.3	Safety at night	35.19	99
	Services		
4.2.4	Physicians density	5.94	83
5	**Labour and Vocational**	27.38	92
5.1	**Employable skills**	13.80	103
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	n/a	n/a
	Technical professions		
5.1.2	Technicians and associate professionals	20.92	76
	Youth employment		
5.1.3	Youth employment	6.69	97
5.2	**Labour productivity**	40.96	43
	Productivity per employee		
5.2.1	Labour productivity per employee	n/a	n/a
	Pay and productivity		
5.2.2	Relationship of pay to productivity	40.96	82
6	**Global Knowledge**	31.91	53
6.1	**Higher skills and competencies**	21.13	69
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	15.73	69
6.1.3	Professionals	26.52	60
6.1.4	Researchers	n/a	n/a
6.2	**Talent impact**	42.70	40
	Innovation		
6.2.1	Innovation output	19.17	75
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	66.23	9

NETHERLANDS

RANK
(out of 103) **6**

Population (millions)	**16.71**
GDP per capita (PPP$)	**42,193.69**
GDP (US$ billions)	**773.12**
Global Talent Competitiveness Index Score	**68.16**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



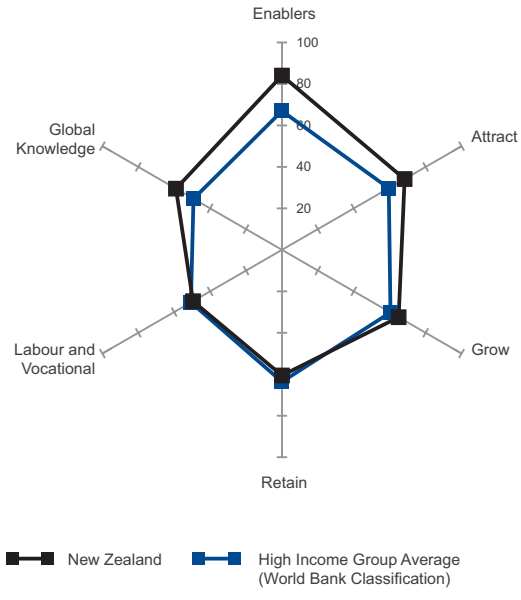
	VARIABLE	SCORE	RANK/103
1	**Enablers**	76.97	13
1.1	**Regulatory landscape**	90.00	9
	Government efficiency		
1.1.1	Government effectiveness	86.37	8
1.1.2	Political stability	93.63	11
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	69.58	18
	Competition climate		
1.2.1	Intensity of local competition	84.56	1
	Innovation climate		
1.2.2	Venture capital availability	46.31	11
1.2.3	Firm-level technology absorption	79.29	19
1.2.4	R&D expenditure	41.31	17
	Connectivity		
1.2.5	ICT access	92.41	9
	Ease of doing business		
1.2.6	Ease of doing business	73.60	28
1.3	**Business landscape**	71.34	17
	Labour market flexibility		
1.3.1	Labour market flexibility	57.15	45
	Ownership and governance		
1.3.2	Reliance on professional management	85.53	3
2	**Attract**	71.12	6
2.1	**External openness**	54.33	15
	FDI		
2.1.1	FDI inflow	16.60	64
	Brain gain		
2.1.2	Qualified labour inflow	71.09	9
	Foreign companies		
2.1.3	Prevalence of foreign ownership	75.30	18
2.2	**Internal openness**	87.91	6
	Diversity		
2.2.1	Tolerance of minorities	91.63	15
2.2.2	Tolerance of immigrants	92.00	11
	Social mobility		
2.2.3	Social mobility	82.21	10
	Gender mobility		
2.2.4	Female professionals and technical workers	88.82	60
2.2.5	Female parliamentarians	84.91	4
3	**Grow**	71.53	6
3.1	**Formal education**	68.03	9
	Education climate		
3.1.1	Pupil-teacher ratio	79.93	48
3.1.2	Technical/vocational enrolment	100.00	1
3.1.3	Tertiary enrolment	62.01	24
	Performance of education system		
3.1.4	Reading, maths and science scores	76.97	9
	Top universities		
3.1.5	QS university ranking	69.54	11
	International students		
3.1.6	International students inflow	19.76	29

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	73.37	6
	Further education and training climate		
3.2.1	Quality of management schools	77.01	9
3.2.2	Extent of staff training	69.72	8
3.3	**Access to growth opportunities**	73.19	9
	Networks		
3.3.1	Use of virtual social networks	90.76	3
3.3.2	State of cluster development	64.99	13
	Research quality		
3.3.3	Quality of scientific research institutions	78.99	8
	Voice		
3.3.4	Voicing concern to officials	58.02	24
4	**Retain**	72.69	5
4.1	**Sustainability**	73.17	5
	Social protection		
4.1.1	Pension system	95.02	14
	Taxation		
4.1.2	Extent and effect of taxation	51.32	19
4.2	**Lifestyle**	72.20	9
	Quality of life		
4.2.1	Environmental performance	74.77	16
4.2.2	Property stolen	79.62	17
4.2.3	Safety at night	88.13	10
	Services		
4.2.4	Physicians density	46.29	35
5	**Labour and Vocational**	60.17	10
5.1	**Employable skills**	68.94	7
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	48.71	35
	Technical professions		
5.1.2	Technicians and associate professionals	77.04	16
	Youth employment		
5.1.3	Youth employment	81.05	6
5.2	**Labour productivity**	51.40	23
	Productivity per employee		
5.2.1	Labour productivity per employee	54.40	15
	Pay and productivity		
5.2.2	Relationship of pay to productivity	48.40	56
6	**Global Knowledge**	56.48	14
6.1	**Higher skills and competencies**	52.60	19
	Educated workforce		
6.1.1	Tertiary-educated workforce	65.15	20
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	41.01	28
6.1.3	Professionals	67.99	7
6.1.4	Researchers	36.26	23
6.2	**Talent impact**	60.36	10
	Innovation		
6.2.1	Innovation output	80.46	3
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	40.26	40

NEW ZEALAND

RANK
(out of 103) **17**

Population (millions)	**4.46**
GDP per capita (PPP$)	**29,730.30**
GDP (US$ billions)	**169.68**
Global Talent Competitiveness Index Score	**64.40**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**

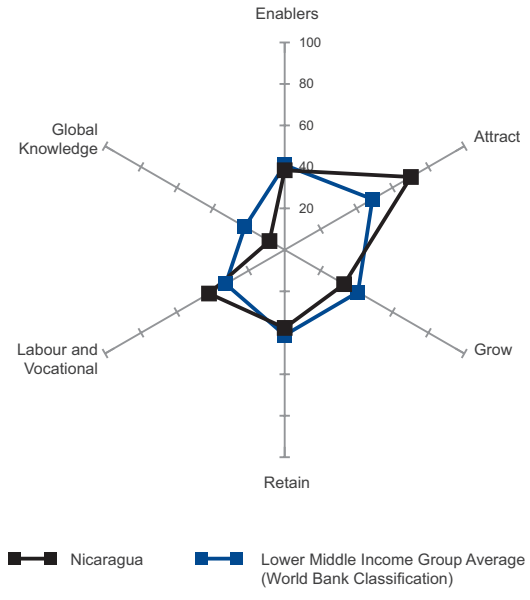


	VARIABLE	SCORE	RANK/103
1	**Enablers**	84.04	2
1.1	**Regulatory landscape**	94.87	3
	Government efficiency		
1.1.1	Government effectiveness	90.54	5
1.1.2	Political stability	99.20	2
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	68.14	19
	Competition climate		
1.2.1	Intensity of local competition	75.12	21
	Innovation climate		
1.2.2	Venture capital availability	42.11	20
1.2.3	Firm-level technology absorption	80.94	16
1.2.4	R&D expenditure	29.23	28
	Connectivity		
1.2.5	ICT access	82.34	20
	Ease of doing business		
1.2.6	Ease of doing business	99.10	2
1.3	**Business landscape**	89.11	1
	Labour market flexibility		
1.3.1	Labour market flexibility	89.95	2
	Ownership and governance		
1.3.2	Reliance on professional management	88.28	1
2	**Attract**	68.28	13
2.1	**External openness**	47.53	38
	FDI		
2.1.1	FDI inflow	16.84	63
	Brain gain		
2.1.2	Qualified labour inflow	42.95	47
	Foreign companies		
2.1.3	Prevalence of foreign ownership	82.80	5
2.2	**Internal openness**	89.04	4
	Diversity		
2.2.1	Tolerance of minorities	98.48	2
2.2.2	Tolerance of immigrants	100.00	1
	Social mobility		
2.2.3	Social mobility	87.98	3
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	58.75	17
3	**Grow**	64.97	17
3.1	**Formal education**	65.16	13
	Education climate		
3.1.1	Pupil-teacher ratio	77.74	54
3.1.2	Technical/vocational enrolment	32.71	47
3.1.3	Tertiary enrolment	79.29	6
	Performance of education system		
3.1.4	Reading, maths and science scores	79.05	7
	Top universities		
3.1.5	QS university ranking	56.76	16
	International students		
3.1.6	International students inflow	65.43	11
3.2	**Lifelong learning**	67.07	14
	Further education and training climate		
3.2.1	Quality of management schools	70.21	19
3.2.2	Extent of staff training	63.92	18
3.3	**Access to growth opportunities**	62.68	28
	Networks		
3.3.1	Use of virtual social networks	87.40	11
3.3.2	State of cluster development	46.13	51
	Research quality		
3.3.3	Quality of scientific research institutions	73.54	17
	Voice		
3.3.4	Voicing concern to officials	43.63	53
4	**Retain**	60.58	35
4.1	**Sustainability**	59.58	33
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	59.58	12
4.2	**Lifestyle**	61.59	36
	Quality of life		
4.2.1	Environmental performance	75.68	14
4.2.2	Property stolen	52.61	85
4.2.3	Safety at night	73.80	40
	Services		
4.2.4	Physicians density	44.28	41
5	**Labour and Vocational**	49.54	28
5.1	**Employable skills**	49.47	32
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	29.14	57
	Technical professions		
5.1.2	Technicians and associate professionals	57.65	34
	Youth employment		
5.1.3	Youth employment	61.62	24
5.2	**Labour productivity**	49.60	28
	Productivity per employee		
5.2.1	Labour productivity per employee	39.65	31
	Pay and productivity		
5.2.2	Relationship of pay to productivity	59.54	18
6	**Global Knowledge**	59.01	11
6.1	**Higher skills and competencies**	68.13	3
	Educated workforce		
6.1.1	Tertiary-educated workforce	79.27	8
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	76.97	4
6.1.3	Professionals	50.61	23
6.1.4	Researchers	65.67	9
6.2	**Talent impact**	49.89	30
	Innovation		
6.2.1	Innovation output	64.71	14
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	35.06	49

NICARAGUA

RANK
(out of 103) **80**

Population (millions)	**6.01**
GDP per capita (PPP$)	**4,458.43**
GDP (US$ billions)	**10.51**
Global Talent Competitiveness Index Score	**38.33**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



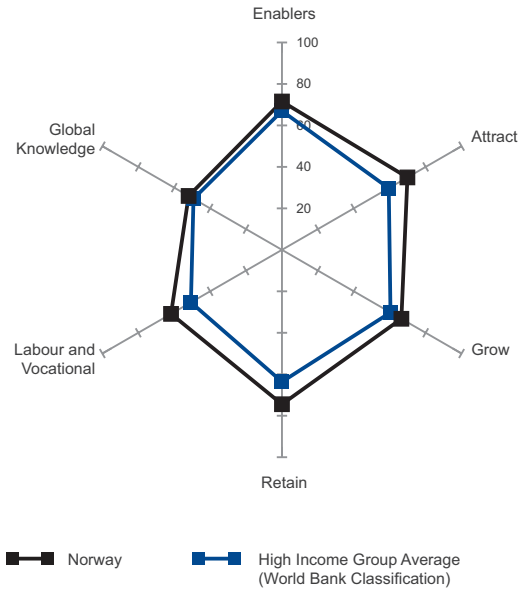
	VARIABLE	SCORE	RANK/103
1	**Enablers**	38.37	87
1.1	**Regulatory landscape**	38.27	85
	Government efficiency		
1.1.1	Government effectiveness	6.20	102
1.1.2	Political stability	56.79	67
	FDI climate		
1.1.3	Starting a foreign business	51.83	48
1.2	**Market landscape**	27.45	97
	Competition climate		
1.2.1	Intensity of local competition	47.61	95
	Innovation climate		
1.2.2	Venture capital availability	28.77	50
1.2.3	Firm-level technology absorption	50.79	91
1.2.4	R&D expenditure	0.54	95
	Connectivity		
1.2.5	ICT access	16.41	87
	Ease of doing business		
1.2.6	Ease of doing business	20.60	82
1.3	**Business landscape**	49.40	60
	Labour market flexibility		
1.3.1	Labour market flexibility	57.34	44
	Ownership and governance		
1.3.2	Reliance on professional management	41.45	95
2	**Attract**	70.27	9
2.1	**External openness**	62.84	8
	FDI		
2.1.1	FDI inflow	100.00	1
	Brain gain		
2.1.2	Qualified labour inflow	34.13	74
	Foreign companies		
2.1.3	Prevalence of foreign ownership	54.38	73
2.2	**Internal openness**	77.69	16
	Diversity		
2.2.1	Tolerance of minorities	82.93	31
2.2.2	Tolerance of immigrants	80.79	28
	Social mobility		
2.2.3	Social mobility	41.58	86
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	83.17	5
3	**Grow**	33.10	98
3.1	**Formal education**	16.22	97
	Education climate		
3.1.1	Pupil-teacher ratio	31.33	86
3.1.2	Technical/vocational enrolment	3.12	90
3.1.3	Tertiary enrolment	14.22	80
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	45.13	76
	Further education and training climate		
3.2.1	Quality of management schools	46.15	76
3.2.2	Extent of staff training	44.11	72
3.3	**Access to growth opportunities**	37.93	97
	Networks		
3.3.1	Use of virtual social networks	56.81	95
3.3.2	State of cluster development	36.40	80
	Research quality		
3.3.3	Quality of scientific research institutions	27.61	93
	Voice		
3.3.4	Voicing concern to officials	30.90	79
4	**Retain**	37.65	84
4.1	**Sustainability**	30.49	86
	Social protection		
4.1.1	Pension system	21.80	71
	Taxation		
4.1.2	Extent and effect of taxation	39.19	58
4.2	**Lifestyle**	44.80	79
	Quality of life		
4.2.1	Environmental performance	60.09	33
4.2.2	Property stolen	58.06	73
4.2.3	Safety at night	55.19	70
	Services		
4.2.4	Physicians density	5.88	84
5	**Labour and Vocational**	42.14	41
5.1	**Employable skills**	44.56	41
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	n/a	n/a
	Technical professions		
5.1.2	Technicians and associate professionals	39.29	54
	Youth employment		
5.1.3	Youth employment	49.84	35
5.2	**Labour productivity**	39.71	47
	Productivity per employee		
5.2.1	Labour productivity per employee	n/a	n/a
	Pay and productivity		
5.2.2	Relationship of pay to productivity	39.71	84
6	**Global Knowledge**	8.48	96
6.1	**Higher skills and competencies**	8.22	90
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	14.61	72
6.1.3	Professionals	10.06	83
6.1.4	Researchers	0.00	97
6.2	**Talent impact**	8.73	96
	Innovation		
6.2.1	Innovation output	8.73	95
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

NORWAY

RANK
(out of 103) **12**

Population (millions)	**4.99**
GDP per capita (PPP$)	**55,008.77**
GDP (US$ billions)	**501.10**
Global Talent Competitiveness Index Score	**66.01**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



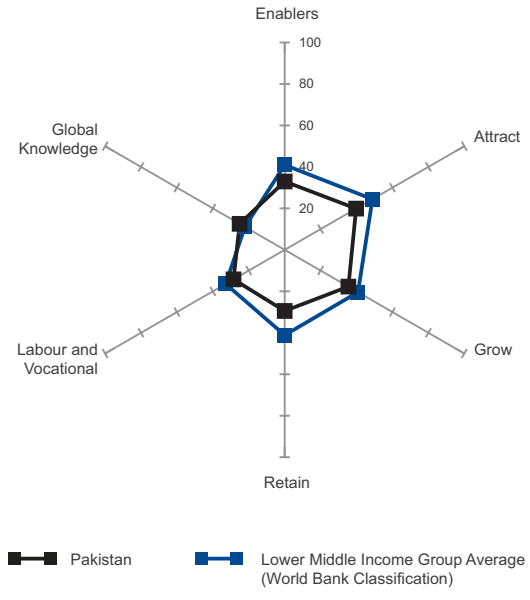
	VARIABLE	SCORE	RANK/103
1	**Enablers**	71.54	19
1.1	**Regulatory landscape**	92.37	6
	Government efficiency		
1.1.1	Government effectiveness	85.55	9
1.1.2	Political stability	99.19	3
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	72.99	11
	Competition climate		
1.2.1	Intensity of local competition	73.14	29
	Innovation climate		
1.2.2	Venture capital availability	55.57	5
1.2.3	Firm-level technology absorption	83.30	9
1.2.4	R&D expenditure	38.22	22
	Connectivity		
1.2.5	ICT access	91.59	11
	Ease of doing business		
1.2.6	Ease of doing business	96.10	5
1.3	**Business landscape**	49.27	61
	Labour market flexibility		
1.3.1	Labour market flexibility	13.36	99
	Ownership and governance		
1.3.2	Reliance on professional management	85.18	4
2	**Attract**	69.85	11
2.1	**External openness**	50.69	27
	FDI		
2.1.1	FDI inflow	7.06	90
	Brain gain		
2.1.2	Qualified labour inflow	72.79	8
	Foreign companies		
2.1.3	Prevalence of foreign ownership	72.22	23
2.2	**Internal openness**	89.00	5
	Diversity		
2.2.1	Tolerance of minorities	93.70	11
2.2.2	Tolerance of immigrants	94.77	6
	Social mobility		
2.2.3	Social mobility	84.63	7
	Gender mobility		
2.2.4	Female professionals and technical workers	90.82	58
2.2.5	Female parliamentarians	81.11	7
3	**Grow**	66.49	15
3.1	**Formal education**	57.60	24
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	63.61	18
3.1.3	Tertiary enrolment	71.03	15
	Performance of education system		
3.1.4	Reading, maths and science scores	69.64	16
	Top universities		
3.1.5	QS university ranking	51.50	19
	International students		
3.1.6	International students inflow	32.21	18

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	68.77	11
	Further education and training climate		
3.2.1	Quality of management schools	68.23	22
3.2.2	Extent of staff training	69.32	9
3.3	**Access to growth opportunities**	73.11	11
	Networks		
3.3.1	Use of virtual social networks	89.74	6
3.3.2	State of cluster development	63.84	15
	Research quality		
3.3.3	Quality of scientific research institutions	64.57	26
	Voice		
3.3.4	Voicing concern to officials	74.29	10
4	**Retain**	74.45	4
4.1	**Sustainability**	70.37	7
	Social protection		
4.1.1	Pension system	97.67	6
	Taxation		
4.1.2	Extent and effect of taxation	43.08	41
4.2	**Lifestyle**	78.52	4
	Quality of life		
4.2.1	Environmental performance	84.53	3
4.2.2	Property stolen	71.80	43
4.2.3	Safety at night	90.37	7
	Services		
4.2.4	Physicians density	67.40	5
5	**Labour and Vocational**	61.76	6
5.1	**Employable skills**	65.69	9
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	55.14	26
	Technical professions		
5.1.2	Technicians and associate professionals	78.06	13
	Youth employment		
5.1.3	Youth employment	63.85	21
5.2	**Labour productivity**	57.83	8
	Productivity per employee		
5.2.1	Labour productivity per employee	68.83	4
	Pay and productivity		
5.2.2	Relationship of pay to productivity	46.83	63
6	**Global Knowledge**	51.97	21
6.1	**Higher skills and competencies**	61.60	10
	Educated workforce		
6.1.1	Tertiary-educated workforce	66.97	18
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	36.52	32
6.1.3	Professionals	66.77	8
6.1.4	Researchers	76.14	4
6.2	**Talent impact**	42.35	42
	Innovation		
6.2.1	Innovation output	62.62	17
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	22.08	65

PAKISTAN

RANK
(out of 103) **94**

Population (millions)	**180.08**
GDP per capita (PPP$)	**2,880.67**
GDP (US$ billions)	**231.88**
Global Talent Competitiveness Index Score	**31.88**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



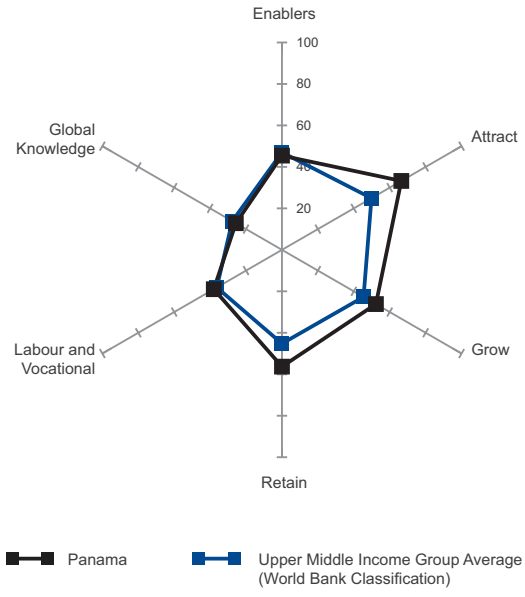
	VARIABLE	SCORE	RANK/103
1	**Enablers**	32.97	96
1.1	**Regulatory landscape**	23.31	100
	Government efficiency		
1.1.1	Government effectiveness	8.53	97
1.1.2	Political stability	0.00	103
	FDI climate		
1.1.3	Starting a foreign business	61.41	39
1.2	**Market landscape**	33.14	86
	Competition climate		
1.2.1	Intensity of local competition	60.36	69
	Innovation climate		
1.2.2	Venture capital availability	29.99	45
1.2.3	Firm-level technology absorption	59.58	68
1.2.4	R&D expenditure	10.12	56
	Connectivity		
1.2.5	ICT access	11.31	90
	Ease of doing business		
1.2.6	Ease of doing business	27.50	75
1.3	**Business landscape**	42.46	80
	Labour market flexibility		
1.3.1	Labour market flexibility	38.11	71
	Ownership and governance		
1.3.2	Reliance on professional management	46.82	75
2	**Attract**	39.78	96
2.1	**External openness**	32.31	87
	FDI		
2.1.1	FDI inflow	6.22	92
	Brain gain		
2.1.2	Qualified labour inflow	41.74	50
	Foreign companies		
2.1.3	Prevalence of foreign ownership	48.98	87
2.2	**Internal openness**	47.25	91
	Diversity		
2.2.1	Tolerance of minorities	79.02	37
2.2.2	Tolerance of immigrants	51.97	87
	Social mobility		
2.2.3	Social mobility	51.84	59
	Gender mobility		
2.2.4	Female professionals and technical workers	17.48	91
2.2.5	Female parliamentarians	35.92	38
3	**Grow**	35.45	95
3.1	**Formal education**	4.74	103
	Education climate		
3.1.1	Pupil-teacher ratio	0.00	89
3.1.2	Technical/vocational enrolment	8.28	84
3.1.3	Tertiary enrolment	4.49	92
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	10.91	50
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	46.87	69
	Further education and training climate		
3.2.1	Quality of management schools	52.99	59
3.2.2	Extent of staff training	40.76	86
3.3	**Access to growth opportunities**	54.75	45
	Networks		
3.3.1	Use of virtual social networks	63.33	90
3.3.2	State of cluster development	47.18	50
	Research quality		
3.3.3	Quality of scientific research institutions	41.76	69
	Voice		
3.3.4	Voicing concern to officials	66.75	16
4	**Retain**	29.47	98
4.1	**Sustainability**	22.09	99
	Social protection		
4.1.1	Pension system	2.83	88
	Taxation		
4.1.2	Extent and effect of taxation	41.36	49
4.2	**Lifestyle**	36.84	91
	Quality of life		
4.2.1	Environmental performance	15.13	94
4.2.2	Property stolen	69.43	55
4.2.3	Safety at night	49.73	83
	Services		
4.2.4	Physicians density	13.07	78
5	**Labour and Vocational**	28.49	90
5.1	**Employable skills**	30.56	80
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	23.43	67
	Technical professions		
5.1.2	Technicians and associate professionals	21.43	75
	Youth employment		
5.1.3	Youth employment	46.82	42
5.2	**Labour productivity**	26.42	88
	Productivity per employee		
5.2.1	Labour productivity per employee	5.19	83
	Pay and productivity		
5.2.2	Relationship of pay to productivity	47.66	60
6	**Global Knowledge**	25.09	67
6.1	**Higher skills and competencies**	23.70	61
	Educated workforce		
6.1.1	Tertiary-educated workforce	15.26	77
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	71.35	5
6.1.3	Professionals	3.96	90
6.1.4	Researchers	4.24	69
6.2	**Talent impact**	26.47	73
	Innovation		
6.2.1	Innovation output	11.39	91
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	41.56	35

PANAMA

RANK
(out of 103) **44**

Population (millions)	**3.81**
GDP per capita (PPP$)	**15,616.75**
GDP (US$ billions)	**36.25**
Global Talent Competitiveness Index Score	**47.36**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



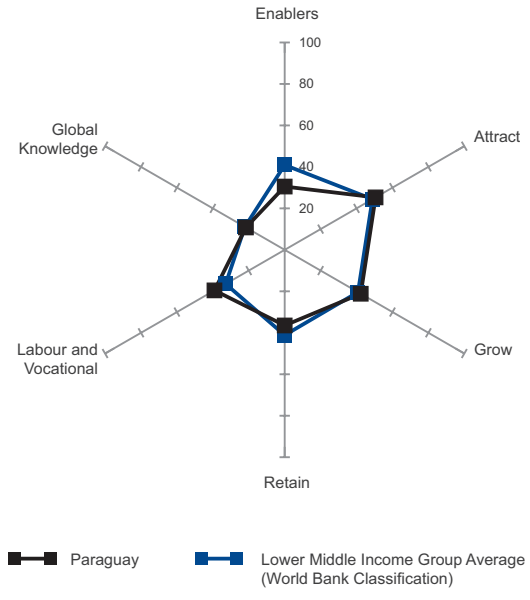
	VARIABLE	SCORE	RANK/103
1	**Enablers**	45.43	67
1.1	**Regulatory landscape**	49.60	64
	Government efficiency		
1.1.1	Government effectiveness	35.88	54
1.1.2	Political stability	63.33	59
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	49.00	39
	Competition climate		
1.2.1	Intensity of local competition	66.91	48
	Innovation climate		
1.2.2	Venture capital availability	44.83	13
1.2.3	Firm-level technology absorption	76.76	22
1.2.4	R&D expenditure	3.93	76
	Connectivity		
1.2.5	ICT access	48.55	56
	Ease of doing business		
1.2.6	Ease of doing business	53.00	49
1.3	**Business landscape**	37.70	90
	Labour market flexibility		
1.3.1	Labour market flexibility	32.88	80
	Ownership and governance		
1.3.2	Reliance on professional management	42.53	86
2	**Attract**	66.45	17
2.1	**External openness**	68.97	4
	FDI		
2.1.1	FDI inflow	68.41	8
	Brain gain		
2.1.2	Qualified labour inflow	58.14	23
	Foreign companies		
2.1.3	Prevalence of foreign ownership	80.37	8
2.2	**Internal openness**	63.93	42
	Diversity		
2.2.1	Tolerance of minorities	77.93	40
2.2.2	Tolerance of immigrants	67.88	56
	Social mobility		
2.2.3	Social mobility	62.37	27
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	11.49	90
3	**Grow**	52.31	39
3.1	**Formal education**	42.76	51
	Education climate		
3.1.1	Pupil-teacher ratio	77.21	55
3.1.2	Technical/vocational enrolment	34.22	40
3.1.3	Tertiary enrolment	42.20	50
	Performance of education system		
3.1.4	Reading, maths and science scores	17.42	64
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	52.70	51
	Further education and training climate		
3.2.1	Quality of management schools	51.29	64
3.2.2	Extent of staff training	54.10	35
3.3	**Access to Growth Opportunities**	61.46	33
	Networks		
3.3.1	Use of virtual social networks	84.31	21
3.3.2	State of cluster development	45.98	53
	Research quality		
3.3.3	Quality of scientific research institutions	49.53	48
	Voice		
3.3.4	Voicing concern to officials	66.04	18
4	**Retain**	56.32	42
4.1	**Sustainability**	50.18	49
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	50.18	23
4.2	**Lifestyle**	62.45	33
	Quality of life		
4.2.1	Environmental performance	57.14	36
4.2.2	Property stolen	78.44	20
4.2.3	Safety at night	51.76	80
	Services		
4.2.4	Physicians density	n/a	n/a
5	**Labour and Vocational**	37.96	56
5.1	**Employable skills**	38.53	59
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	28.43	60
	Technical professions		
5.1.2	Technicians and associate professionals	35.71	56
	Youth employment		
5.1.3	Youth employment	51.43	33
5.2	**Labour productivity**	37.40	53
	Productivity per employee		
5.2.1	Labour productivity per employee	n/a	n/a
	Pay and productivity		
5.2.2	Relationship of pay to productivity	37.40	92
6	**Global Knowledge**	25.68	63
6.1	**Higher skills and competencies**	28.20	52
	Educated workforce		
6.1.1	Tertiary-educated workforce	48.52	34
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	32.58	39
6.1.3	Professionals	29.27	53
6.1.4	Researchers	2.41	74
6.2	**Talent impact**	23.16	75
	Innovation		
6.2.1	Innovation output	13.85	86
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	32.47	53

PARAGUAY

RANK
(out of 103) **86**

Population (millions)	**6.70**
GDP per capita (PPP$)	**6,136.46**
GDP (US$ billions)	**26.00**
Global Talent Competitiveness Index Score	**36.77**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



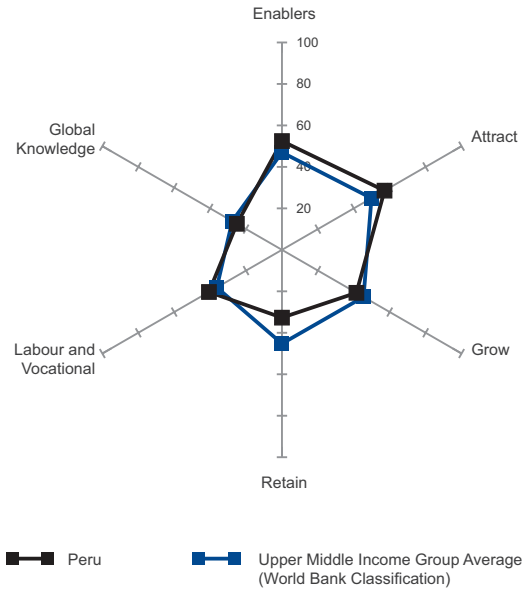
	VARIABLE	SCORE	RANK/103
1	**Enablers**	30.52	99
1.1	**Regulatory landscape**	28.29	97
	Government efficiency		
1.1.1	Government effectiveness	8.12	100
1.1.2	Political stability	48.46	80
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	33.60	84
	Competition climate		
1.2.1	Intensity of local competition	63.41	61
	Innovation climate		
1.2.2	Venture capital availability	26.00	58
1.2.3	Firm-level technology absorption	55.45	80
1.2.4	R&D expenditure	0.87	91
	Connectivity		
1.2.5	ICT access	26.34	78
	Ease of doing business		
1.2.6	Ease of doing business	29.50	73
1.3	**Business landscape**	29.68	98
	Labour market flexibility		
1.3.1	Labour market flexibility	17.51	93
	Ownership and governance		
1.3.2	Reliance on professional management	41.85	90
2	**Attract**	50.59	56
2.1	**External openness**	34.07	79
	FDI		
2.1.1	FDI inflow	11.53	81
	Brain gain		
2.1.2	Qualified labour inflow	32.88	77
	Foreign companies		
2.1.3	Prevalence of foreign ownership	57.80	58
2.2	**Internal openness**	67.10	34
	Diversity		
2.2.1	Tolerance of minorities	79.13	36
2.2.2	Tolerance of immigrants	90.07	14
	Social mobility		
2.2.3	Social mobility	48.64	68
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	17.67	75
3	**Grow**	42.35	70
3.1	**Formal education**	45.87	46
	Education climate		
3.1.1	Pupil-teacher ratio	85.31	35
3.1.2	Technical/vocational enrolment	21.38	62
3.1.3	Tertiary enrolment	30.93	66
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	40.12	93
	Further education and training climate		
3.2.1	Quality of management schools	37.84	96
3.2.2	Extent of staff training	42.40	82
3.3	**Access to growth opportunities**	41.05	91
	Networks		
3.3.1	Use of virtual social networks	65.22	85
3.3.2	State of cluster development	32.74	91
	Research quality		
3.3.3	Quality of scientific research institutions	17.18	103
	Voice		
3.3.4	Voicing concern to officials	49.06	42
4	**Retain**	36.47	88
4.1	**Sustainability**	37.62	72
	Social protection		
4.1.1	**Pension system**	11.91	75
	Taxation		
4.1.2	Extent and effect of taxation	63.32	7
4.2	**Lifestyle**	35.32	95
	Quality of life		
4.2.1	Environmental performance	44.48	61
4.2.2	Property stolen	38.15	94
4.2.3	Safety at night	40.75	98
	Services		
4.2.4	Physicians density	17.89	72
5	**Labour and Vocational**	39.11	52
5.1	**Employable skills**	38.32	60
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	25.71	65
	Technical professions		
5.1.2	Technicians and associate professionals	18.88	77
	Youth employment		
5.1.3	Youth employment	70.38	14
5.2	**Labour productivity**	39.89	46
	Productivity per employee		
5.2.1	Labour productivity per employee	n/a	n/a
	Pay and productivity		
5.2.2	Relationship of pay to productivity	39.89	83
6	**Global Knowledge**	21.58	76
6.1	**Higher skills and competencies**	15.08	82
	Educated workforce		
6.1.1	Tertiary-educated workforce	23.69	69
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	18.54	65
6.1.3	Professionals	17.38	71
6.1.4	Researchers	0.72	83
6.2	**Talent impact**	28.08	68
	Innovation		
6.2.1	Innovation output	28.08	57
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

PERU

RANK
(out of 103) **65**

Population (millions)	**30.04**
GDP per capita (PPP$)	**10,719.48**
GDP (US$ billions)	**199.00**
Global Talent Competitiveness Index Score	**41.58**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



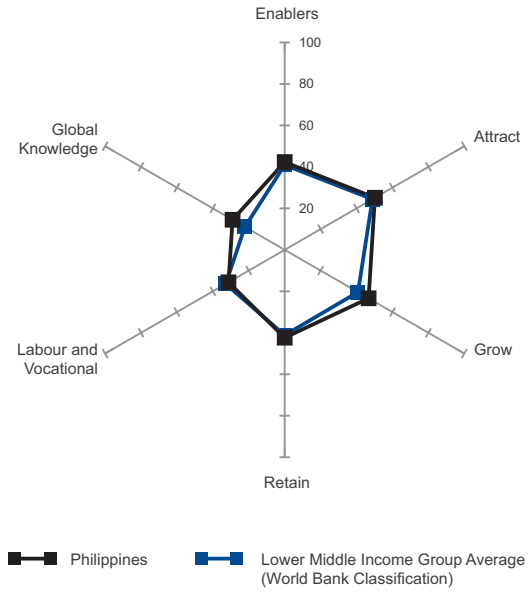
	VARIABLE	SCORE	RANK/103
1	**Enablers**	52.46	51
1.1	**Regulatory landscape**	50.01	62
	Government efficiency		
1.1.1	Government effectiveness	28.43	67
1.1.2	Political stability	49.22	76
	FDI climate		
1.1.3	Starting a foreign business	72.39	25
1.2	**Market landscape**	43.12	50
	Competition climate		
1.2.1	Intensity of local competition	68.25	43
	Innovation climate		
1.2.2	Venture capital availability	32.17	39
1.2.3	Firm-level technology absorption	60.86	63
1.2.4	R&D expenditure	2.91	83
	Connectivity		
1.2.5	ICT access	30.76	72
	Ease of doing business		
1.2.6	Ease of doing business	63.80	38
1.3	**Business landscape**	64.24	25
	Labour market flexibility		
1.3.1	Labour market flexibility	68.82	33
	Ownership and governance		
1.3.2	Reliance on professional management	59.65	37
2	**Attract**	57.10	33
2.1	**External openness**	51.98	25
	FDI		
2.1.1	FDI inflow	35.17	29
	Brain gain		
2.1.2	Qualified labour inflow	49.05	35
	Foreign companies		
2.1.3	Prevalence of foreign ownership	71.71	27
2.2	**Internal openness**	62.22	50
	Diversity		
2.2.1	Tolerance of minorities	72.93	56
2.2.2	Tolerance of immigrants	71.50	46
	Social mobility		
2.2.3	Social mobility	51.44	63
	Gender mobility		
2.2.4	Female professionals and technical workers	81.35	69
2.2.5	Female parliamentarians	33.88	44
3	**Grow**	41.45	75
3.1	**Formal education**	26.81	86
	Education climate		
3.1.1	Pupil-teacher ratio	72.07	61
3.1.2	Technical/vocational enrolment	0.00	96
3.1.3	Tertiary enrolment	39.42	53
	Performance of education system		
3.1.4	Reading, maths and science scores	17.13	65
	Top universities		
3.1.5	QS university ranking	5.46	55
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	52.15	54
	Further education and training climate		
3.2.1	Quality of management schools	57.66	43
3.2.2	Extent of staff training	46.64	63
3.3	**Access to growth opportunities**	45.38	79
	Networks		
3.3.1	Use of virtual social networks	68.58	80
3.3.2	State of cluster development	43.54	60
	Research quality		
3.3.3	Quality of scientific research institutions	29.80	91
	Voice		
3.3.4	Voicing concern to officials	39.62	62
4	**Retain**	32.70	95
4.1	**Sustainability**	30.83	83
	Social protection		
4.1.1	Pension system	21.72	72
	Taxation		
4.1.2	Extent and effect of taxation	39.93	55
4.2	**Lifestyle**	34.58	97
	Quality of life		
4.2.1	Environmental performance	39.66	68
4.2.2	Property stolen	34.12	95
4.2.3	Safety at night	49.73	83
	Services		
4.2.4	Physicians density	14.81	76
5	**Labour and Vocational**	40.65	45
5.1	**Employable skills**	51.23	28
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	45.43	39
	Technical professions		
5.1.2	Technicians and associate professionals	39.80	53
	Youth employment		
5.1.3	Youth employment	68.47	19
5.2	**Labour productivity**	30.07	79
	Productivity per employee		
5.2.1	Labour productivity per employee	16.12	59
	Pay and productivity		
5.2.2	Relationship of pay to productivity	44.03	71
6	**Global Knowledge**	25.10	66
6.1	**Higher skills and competencies**	19.94	74
	Educated workforce		
6.1.1	Tertiary-educated workforce	47.61	36
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	3.93	86
6.1.3	Professionals	26.83	59
6.1.4	Researchers	1.39	77
6.2	**Talent impact**	30.27	62
	Innovation		
6.2.1	Innovation output	18.98	78
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	41.56	35

PHILIPPINES

RANK
(out of 103) **73**

Population (millions)	**96.90**
GDP per capita (PPP$)	**4,429.59**
GDP (US$ billions)	**250.44**
Global Talent Competitiveness Index Score	**40.33**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



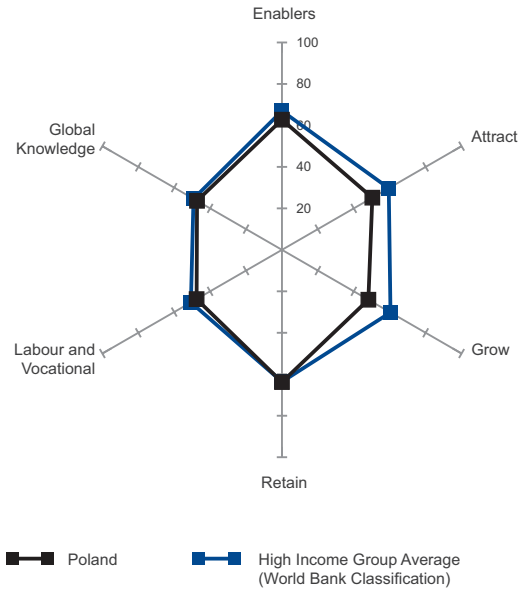
	VARIABLE	SCORE	RANK/103
1	**Enablers**	42.32	79
1.1	**Regulatory landscape**	38.94	83
	Government efficiency		
1.1.1	Government effectiveness	32.84	58
1.1.2	Political stability	32.16	98
	FDI climate		
1.1.3	Starting a foreign business	51.83	48
1.2	**Market landscape**	33.26	85
	Competition climate		
1.2.1	Intensity of local competition	68.23	44
	Innovation climate		
1.2.2	Venture capital availability	28.74	51
1.2.3	Firm-level technology absorption	69.49	41
1.2.4	R&D expenditure	2.01	86
	Connectivity		
1.2.5	ICT access	23.17	83
	Ease of doing business		
1.2.6	Ease of doing business	7.90	95
1.3	**Business landscape**	54.77	48
	Labour market flexibility		
1.3.1	Labour market flexibility	44.23	63
	Ownership and governance		
1.3.2	Reliance on professional management	65.30	30
2	**Attract**	50.23	59
2.1	**External openness**	36.40	75
	FDI		
2.1.1	FDI inflow	5.68	94
	Brain gain		
2.1.2	Qualified labour inflow	40.06	54
	Foreign companies		
2.1.3	Prevalence of foreign ownership	63.47	48
2.2	**Internal openness**	64.06	41
	Diversity		
2.2.1	Tolerance of minorities	59.78	82
2.2.2	Tolerance of immigrants	67.66	57
	Social mobility		
2.2.3	Social mobility	56.09	48
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	36.75	36
3	**Grow**	46.72	55
3.1	**Formal education**	16.57	96
	Education climate		
3.1.1	Pupil-teacher ratio	20.01	87
3.1.2	Technical/vocational enrolment	n/a	n/a
3.1.3	Tertiary enrolment	24.55	71
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	21.74	39
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	60.44	29
	Further education and training climate		
3.2.1	Quality of management schools	61.66	35
3.2.2	Extent of staff training	59.21	26
3.3	**Access to growth opportunities**	63.14	26
	Networks		
3.3.1	Use of virtual social networks	84.10	22
3.3.2	State of cluster development	52.31	34
	Research quality		
3.3.3	Quality of scientific research institutions	36.19	82
	Voice		
3.3.4	Voicing concern to officials	79.95	6
4	**Retain**	42.37	71
4.1	**Sustainability**	34.39	78
	Social protection		
4.1.1	Pension system	25.28	65
	Taxation		
4.1.2	Extent and effect of taxation	43.50	40
4.2	**Lifestyle**	50.36	64
	Quality of life		
4.2.1	Environmental performance	55.91	38
4.2.2	Property stolen	59.24	68
4.2.3	Safety at night	67.70	50
	Services		
4.2.4	Physicians density	18.59	70
5	**Labour and Vocational**	31.32	79
5.1	**Employable skills**	34.14	75
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	49.86	32
	Technical professions		
5.1.2	Technicians and associate professionals	7.65	87
	Youth employment		
5.1.3	Youth employment	44.90	45
5.2	**Labour productivity**	28.49	85
	Productivity per employee		
5.2.1	Labour productivity per employee	5.98	82
	Pay and productivity		
5.2.2	Relationship of pay to productivity	51.00	47
6	**Global Knowledge**	29.01	58
6.1	**Higher skills and competencies**	37.01	37
	Educated workforce		
6.1.1	Tertiary-educated workforce	55.13	30
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	78.65	3
6.1.3	Professionals	13.72	77
6.1.4	Researchers	0.55	86
6.2	**Talent impact**	21.00	80
	Innovation		
6.2.1	Innovation output	19.92	73
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	22.08	65

POLAND

RANK
(out of 103) **32**

Population (millions)	**38.18**
GDP per capita (PPP$)	**20,591.75**
GDP (US$ billions)	**487.67**
Global Talent Competitiveness Index Score	**53.29**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



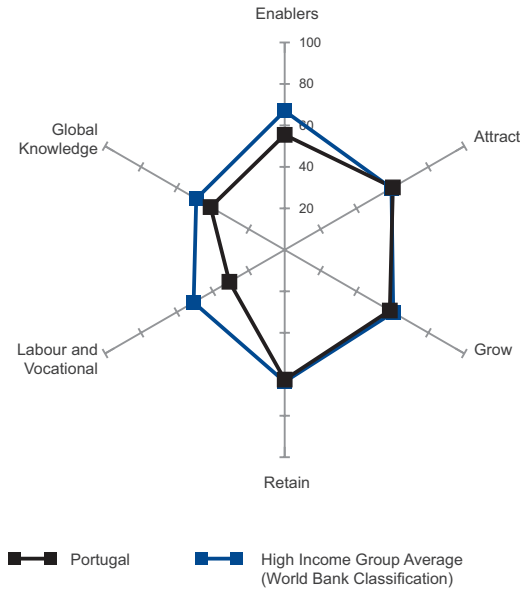
	VARIABLE	SCORE	RANK/103
1	**Enablers**	62.77	27
1.1	**Regulatory landscape**	78.65	23
	Government efficiency		
1.1.1	Government effectiveness	53.11	38
1.1.2	Political stability	92.85	14
	FDI climate		
1.1.3	Starting a foreign business	90.00	3
1.2	**Market landscape**	48.14	41
	Competition climate		
1.2.1	Intensity of local competition	73.61	27
	Innovation climate		
1.2.2	Venture capital availability	22.70	72
1.2.3	Firm-level technology absorption	53.85	86
1.2.4	R&D expenditure	16.30	41
	Connectivity		
1.2.5	ICT access	66.48	38
	Ease of doing business		
1.2.6	Ease of doing business	55.90	46
1.3	**Business landscape**	61.52	34
	Labour market flexibility		
1.3.1	Labour market flexibility	70.05	30
	Ownership and governance		
1.3.2	Reliance on professional management	52.99	52
2	**Attract**	50.31	57
2.1	**External openness**	38.59	70
	FDI		
2.1.1	FDI inflow	23.28	44
	Brain gain		
2.1.2	Qualified labour inflow	31.53	78
	Foreign companies		
2.1.3	Prevalence of foreign ownership	60.95	51
2.2	**Internal openness**	62.03	52
	Diversity		
2.2.1	Tolerance of minorities	58.91	85
2.2.2	Tolerance of immigrants	61.79	67
	Social mobility		
2.2.3	Social mobility	51.02	64
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	38.43	33
3	**Grow**	48.11	52
3.1	**Formal education**	52.42	34
	Education climate		
3.1.1	Pupil-teacher ratio	89.41	27
3.1.2	Technical/vocational enrolment	60.53	21
3.1.3	Tertiary enrolment	69.01	17
	Performance of education system		
3.1.4	Reading, maths and science scores	69.94	14
	Top universities		
3.1.5	QS university ranking	21.70	40
	International students		
3.1.6	International students inflow	3.93	63

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	50.00	58
	Further education and training climate		
3.2.1	Quality of management schools	49.52	65
3.2.2	Extent of staff training	50.49	46
3.3	**Access to growth opportunities**	41.90	88
	Networks		
3.3.1	Use of virtual social networks	62.24	93
3.3.2	State of cluster development	37.43	77
	Research quality		
3.3.3	Quality of scientific research institutions	52.36	41
	Voice		
3.3.4	Voicing concern to officials	15.57	97
4	**Retain**	63.76	24
4.1	**Sustainability**	61.42	25
	Social protection		
4.1.1	Pension system	85.13	27
	Taxation		
4.1.2	Extent and effect of taxation	37.72	65
4.2	**Lifestyle**	66.09	21
	Quality of life		
4.2.1	Environmental performance	69.78	22
4.2.2	Property stolen	86.73	7
4.2.3	Safety at night	72.94	42
	Services		
4.2.4	Physicians density	34.89	51
5	**Labour and Vocational**	47.52	30
5.1	**Employable skills**	51.53	27
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	81.29	6
	Technical professions		
5.1.2	Technicians and associate professionals	51.02	40
	Youth employment		
5.1.3	Youth employment	22.29	75
5.2	**Labour productivity**	43.52	36
	Productivity per employee		
5.2.1	Labour productivity per employee	31.83	38
	Pay and productivity		
5.2.2	Relationship of pay to productivity	55.21	33
6	**Global Knowledge**	47.29	30
6.1	**Higher skills and competencies**	38.08	36
	Educated workforce		
6.1.1	Tertiary-educated workforce	48.06	35
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	34.27	36
6.1.3	Professionals	52.13	20
6.1.4	Researchers	17.84	38
6.2	**Talent impact**	56.50	19
	Innovation		
6.2.1	Innovation output	33.78	48
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	79.22	4

PORTUGAL

RANK
(out of 103) **38**

Population (millions)	**10.61**
GDP per capita (PPP$)	**23,385.17**
GDP (US$ billions)	**212.72**
Global Talent Competitiveness Index Score	**51.47**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



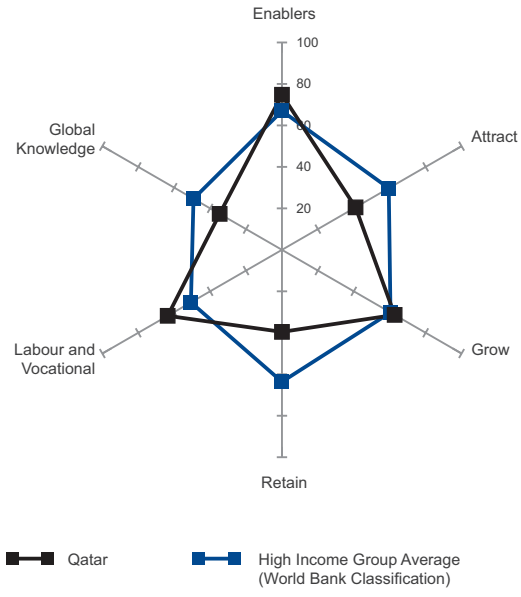
	VARIABLE	SCORE	RANK/103
1	**Enablers**	55.46	41
1.1	**Regulatory landscape**	72.66	30
	Government efficiency		
1.1.1	Government effectiveness	62.02	31
1.1.2	Political stability	83.30	29
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	57.81	28
	Competition climate		
1.2.1	Intensity of local competition	65.61	53
	Innovation climate		
1.2.2	Venture capital availability	21.27	77
1.2.3	Firm-level technology absorption	76.39	23
1.2.4	R&D expenditure	35.85	25
	Connectivity		
1.2.5	ICT access	73.10	28
	Ease of doing business		
1.2.6	Ease of doing business	74.60	27
1.3	**Business landscape**	35.92	91
	Labour market flexibility		
1.3.1	Labour market flexibility	19.55	89
	Ownership and governance		
1.3.2	Reliance on professional management	52.28	56
2	**Attract**	60.23	26
2.1	**External openness**	42.39	58
	FDI		
2.1.1	FDI inflow	33.52	32
	Brain gain		
2.1.2	Qualified labour inflow	36.36	67
	Foreign companies		
2.1.3	Prevalence of foreign ownership	57.29	60
2.2	**Internal openness**	78.06	13
	Diversity		
2.2.1	Tolerance of minorities	89.13	21
2.2.2	Tolerance of immigrants	91.68	12
	Social mobility		
2.2.3	Social mobility	59.70	38
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	49.80	20
3	**Grow**	58.53	27
3.1	**Formal education**	52.72	33
	Education climate		
3.1.1	Pupil-teacher ratio	98.07	2
3.1.2	Technical/vocational enrolment	53.69	24
3.1.3	Tertiary enrolment	62.09	23
	Performance of education system		
3.1.4	Reading, maths and science scores	65.42	26
	Top universities		
3.1.5	QS university ranking	23.84	37
	International students		
3.1.6	International students inflow	13.23	44

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	58.83	31
	Further education and training climate		
3.2.1	Quality of management schools	69.14	20
3.2.2	Extent of staff training	48.53	55
3.3	**Access to growth opportunities**	64.03	24
	Networks		
3.3.1	Use of virtual social networks	81.75	33
3.3.2	State of cluster development	48.99	46
	Research quality		
3.3.3	Quality of scientific research institutions	67.37	21
	Voice		
3.3.4	Voicing concern to officials	58.02	24
4	**Retain**	62.57	29
4.1	**Sustainability**	60.03	32
	Social protection		
4.1.1	Pension system	96.40	10
	Taxation		
4.1.2	Extent and effect of taxation	23.66	95
4.2	**Lifestyle**	65.12	27
	Quality of life		
4.2.1	Environmental performance	56.46	37
4.2.2	Property stolen	70.85	47
4.2.3	Safety at night	70.48	49
	Services		
4.2.4	Physicians density	62.67	9
5	**Labour and Vocational**	30.79	83
5.1	**Employable skills**	26.00	91
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	17.86	78
	Technical professions		
5.1.2	Technicians and associate professionals	39.29	54
	Youth employment		
5.1.3	Youth employment	20.86	76
5.2	**Labour productivity**	35.58	59
	Productivity per employee		
5.2.1	Labour productivity per employee	32.61	36
	Pay and productivity		
5.2.2	Relationship of pay to productivity	38.54	91
6	**Global Knowledge**	41.26	35
6.1	**Higher skills and competencies**	40.00	32
	Educated workforce		
6.1.1	Tertiary-educated workforce	28.93	63
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	34.83	35
6.1.3	Professionals	42.68	34
6.1.4	Researchers	53.57	12
6.2	**Talent impact**	42.51	41
	Innovation		
6.2.1	Innovation output	43.45	32
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	41.56	35

QATAR

RANK
(out of 103) **34**

Population (millions)	**2.05**
GDP per capita (PPP$)	**102,211.00**
GDP (US$ billions)	**183.38**
Global Talent Competitiveness Index Score	**52.73**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



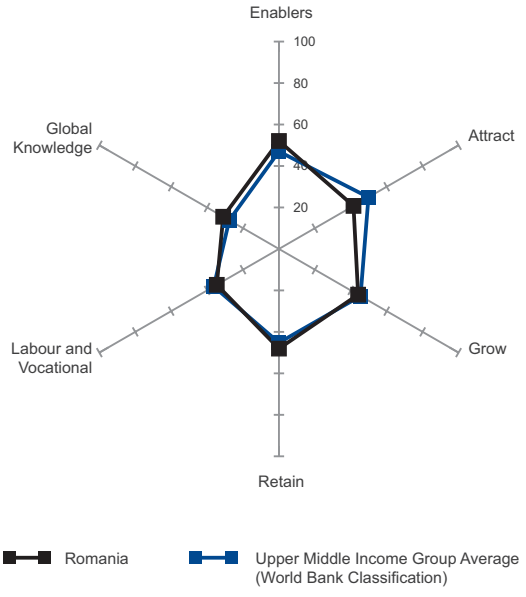
	VARIABLE	SCORE	RANK/103
1	**Enablers**	74.79	15
1.1	**Regulatory landscape**	76.81	26
	Government efficiency		
1.1.1	Government effectiveness	57.82	34
1.1.2	Political stability	95.80	8
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	72.20	14
	Competition climate		
1.2.1	Intensity of local competition	78.93	10
	Innovation climate		
1.2.2	Venture capital availability	61.40	1
1.2.3	Firm-level technology absorption	83.33	8
1.2.4	R&D expenditure	n/a	n/a
	Connectivity		
1.2.5	ICT access	72.55	29
	Ease of doing business		
1.2.6	Ease of doing business	64.80	37
1.3	**Business landscape**	75.36	12
	Labour market flexibility		
1.3.1	Labour market flexibility	74.95	21
	Ownership and governance		
1.3.2	Reliance on professional management	75.78	15
2	**Attract**	40.97	93
2.1	**External openness**	47.82	36
	FDI		
2.1.1	FDI inflow	1.17	102
	Brain gain		
2.1.2	Qualified labour inflow	77.89	3
	Foreign companies		
2.1.3	Prevalence of foreign ownership	64.41	46
2.2	**Internal openness**	34.12	100
	Diversity		
2.2.1	Tolerance of minorities	n/a	n/a
2.2.2	Tolerance of immigrants	n/a	n/a
	Social mobility		
2.2.3	Social mobility	81.36	11
	Gender mobility		
2.2.4	Female professionals and technical workers	21.00	89
2.2.5	Female parliamentarians	0.00	102
3	**Grow**	62.74	19
3.1	**Formal education**	36.79	61
	Education climate		
3.1.1	Pupil-teacher ratio	90.17	25
3.1.2	Technical/vocational enrolment	1.76	94
3.1.3	Tertiary enrolment	7.80	86
	Performance of education system		
3.1.4	Reading, maths and science scores	19.13	63
	Top universities		
3.1.5	QS university ranking	1.91	58
	International students		
3.1.6	International students inflow	100.00	1

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	72.61	7
	Further education and training climate		
3.2.1	Quality of management schools	77.95	7
3.2.2	Extent of staff training	67.27	11
3.3	**Access to growth opportunities**	78.80	2
	Networks		
3.3.1	Use of virtual social networks	87.82	10
3.3.2	State of cluster development	69.06	6
	Research quality		
3.3.3	Quality of scientific research institutions	79.53	5
	Voice		
3.3.4	Voicing concern to officials	n/a	n/a
4	**Retain**	39.56	77
4.1	**Sustainability**	41.21	63
	Social protection		
4.1.1	Pension system	3.34	86
	Taxation		
4.1.2	Extent and effect of taxation	79.08	2
4.2	**Lifestyle**	37.92	90
	Quality of life		
4.2.1	Environmental performance	31.20	80
4.2.2	Property stolen	n/a	n/a
4.2.3	Safety at night	n/a	n/a
	Services		
4.2.4	Physicians density	44.63	39
5	**Labour and Vocational**	63.62	4
5.1	**Employable skills**	44.17	44
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	26.86	63
	Technical professions		
5.1.2	Technicians and associate professionals	26.02	69
	Youth employment		
5.1.3	Youth employment	79.62	7
5.2	**Labour productivity**	83.08	1
	Productivity per employee		
5.2.1	Labour productivity per employee	100.00	1
	Pay and productivity		
5.2.2	Relationship of pay to productivity	66.17	4
6	**Global Knowledge**	34.68	48
6.1	**Higher skills and competencies**	29.33	50
	Educated workforce		
6.1.1	Tertiary-educated workforce	42.82	41
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	17.42	66
6.1.3	Professionals	27.74	57
6.1.4	Researchers	n/a	n/a
6.2	**Talent impact**	40.04	46
	Innovation		
6.2.1	Innovation output	40.04	40
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

ROMANIA

RANK
(out of 103) **63**

Population (millions)	**21.74**
GDP per capita (PPP$)	**12,808.08**
GDP (US$ billions)	**169.38**
Global Talent Competitiveness Index Score	**41.89**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



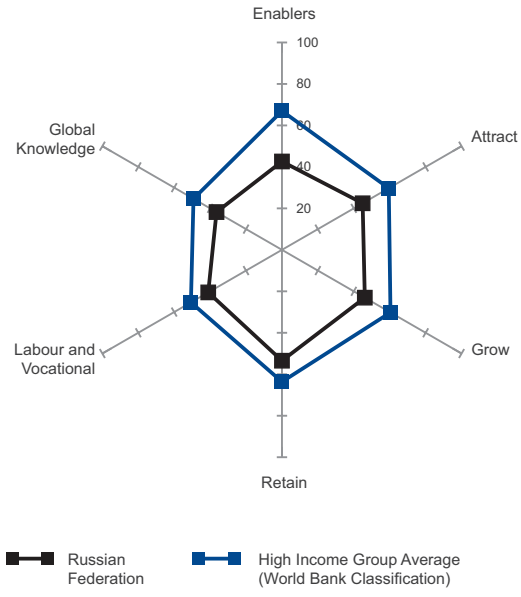
	VARIABLE	SCORE	RANK/103
1	**Enablers**	52.06	55
1.1	**Regulatory landscape**	63.95	42
	Government efficiency		
1.1.1	Government effectiveness	26.39	71
1.1.2	Political stability	69.14	51
	FDI climate		
1.1.3	Starting a foreign business	96.34	2
1.2	**Market landscape**	40.89	64
	Competition climate		
1.2.1	Intensity of local competition	55.07	77
	Innovation climate		
1.2.2	Venture capital availability	24.92	62
1.2.3	Firm-level technology absorption	52.31	87
1.2.4	R&D expenditure	10.24	55
	Connectivity		
1.2.5	ICT access	56.69	47
	Ease of doing business		
1.2.6	Ease of doing business	46.10	56
1.3	**Business landscape**	51.33	58
	Labour market flexibility		
1.3.1	Labour market flexibility	61.01	39
	Ownership and governance		
1.3.2	Reliance on professional management	41.64	93
2	**Attract**	41.51	91
2.1	**External openness**	27.09	98
	FDI		
2.1.1	FDI inflow	12.10	78
	Brain gain		
2.1.2	Qualified labour inflow	17.80	97
	Foreign companies		
2.1.3	Prevalence of foreign ownership	51.37	78
2.2	**Internal openness**	55.93	72
	Diversity		
2.2.1	Tolerance of minorities	73.70	55
2.2.2	Tolerance of immigrants	56.67	79
	Social mobility		
2.2.3	Social mobility	33.67	95
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	15.60	79
3	**Grow**	44.08	64
3.1	**Formal education**	44.47	48
	Education climate		
3.1.1	Pupil-teacher ratio	83.49	42
3.1.2	Technical/vocational enrolment	70.49	13
3.1.3	Tertiary enrolment	55.39	34
	Performance of education system		
3.1.4	Reading, maths and science scores	40.35	46
	Top universities		
3.1.5	QS university ranking	10.91	50
	International students		
3.1.6	International students inflow	6.19	59

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	41.51	88
	Further education and training climate		
3.2.1	Quality of management schools	42.21	87
3.2.2	Extent of staff training	40.82	85
3.3	**Access to growth opportunities**	46.27	76
	Networks		
3.3.1	Use of virtual social networks	73.48	64
3.3.2	State of cluster development	35.33	83
	Research quality		
3.3.3	Quality of scientific research institutions	40.42	70
	Voice		
3.3.4	Voicing concern to officials	35.85	70
4	**Retain**	48.07	61
4.1	**Sustainability**	45.44	54
	Social protection		
4.1.1	Pension system	70.85	35
	Taxation		
4.1.2	Extent and effect of taxation	20.04	102
4.2	**Lifestyle**	50.69	62
	Quality of life		
4.2.1	Environmental performance	35.20	74
4.2.2	Property stolen	68.48	58
4.2.3	Safety at night	62.35	60
	Services		
4.2.4	Physicians density	36.71	50
5	**Labour and Vocational**	34.60	67
5.1	**Employable skills**	38.87	57
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	68.43	15
	Technical professions		
5.1.2	Technicians and associate professionals	29.08	63
	Youth employment		
5.1.3	Youth employment	19.11	79
5.2	**Labour productivity**	30.33	76
	Productivity per employee		
5.2.1	Labour productivity per employee	15.94	61
	Pay and productivity		
5.2.2	Relationship of pay to productivity	44.71	70
6	**Global Knowledge**	31.05	54
6.1	**Higher skills and competencies**	22.99	63
	Educated workforce		
6.1.1	Tertiary-educated workforce	27.11	66
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	11.80	78
6.1.3	Professionals	42.07	37
6.1.4	Researchers	10.96	49
6.2	**Talent impact**	39.11	48
	Innovation		
6.2.1	Innovation output	30.17	54
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	48.05	27

RUSSIAN FEDERATION

RANK
(out of 103) **51**

Population (millions)	**143.02**
GDP per capita (PPP$)	**17,708.74**
GDP (US$ billions)	**2,021.96**
Global Talent Competitiveness Index Score	**44.10**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**

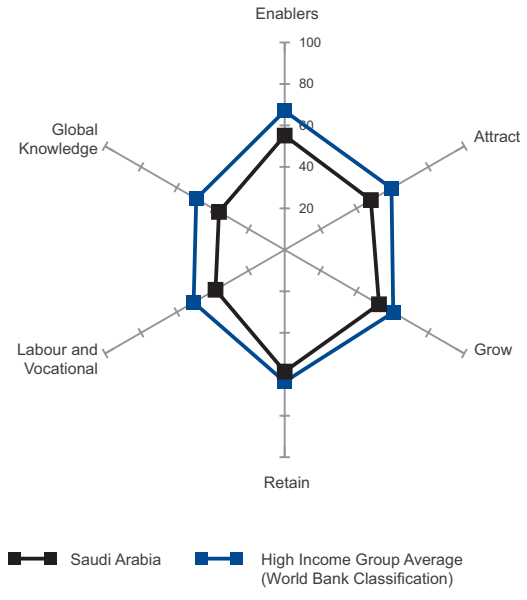


	VARIABLE	SCORE	RANK/103
1	**Enablers**	42.61	77
1.1	**Regulatory landscape**	44.05	77
	Government efficiency		
1.1.1	Government effectiveness	20.87	76
1.1.2	Political stability	44.67	85
	FDI climate		
1.1.3	Starting a foreign business	66.62	31
1.2	**Market landscape**	39.48	69
	Competition climate		
1.2.1	Intensity of local competition	49.40	92
	Innovation climate		
1.2.2	Venture capital availability	23.33	67
1.2.3	Firm-level technology absorption	43.89	101
1.2.4	R&D expenditure	25.97	32
	Connectivity		
1.2.5	ICT access	69.66	31
	Ease of doing business		
1.2.6	Ease of doing business	24.60	78
1.3	**Business landscape**	44.30	77
	Labour market flexibility		
1.3.1	Labour market flexibility	44.89	62
	Ownership and governance		
1.3.2	Reliance on professional management	43.72	81
2	**Attract**	44.92	82
2.1	**External openness**	30.93	90
	FDI		
2.1.1	FDI inflow	22.73	45
	Brain gain		
2.1.2	Qualified labour inflow	30.07	81
	Foreign companies		
2.1.3	Prevalence of foreign ownership	40.00	98
2.2	**Internal openness**	58.90	59
	Diversity		
2.2.1	Tolerance of minorities	62.50	76
2.2.2	Tolerance of immigrants	62.01	66
	Social mobility		
2.2.3	Social mobility	50.51	66
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	19.47	73
3	**Grow**	46.13	57
3.1	**Formal education**	51.42	36
	Education climate		
3.1.1	Pupil-teacher ratio	94.89	8
3.1.2	Technical/vocational enrolment	34.21	41
3.1.3	Tertiary enrolment	72.57	12
	Performance of education system		
3.1.4	Reading, maths and science scores	57.00	36
	Top universities		
3.1.5	QS university ranking	43.47	24
	International students		
3.1.6	International students inflow	6.39	57
3.2	**Lifelong learning**	43.37	80
	Further education and training climate		
3.2.1	Quality of management schools	41.01	88
3.2.2	Extent of staff training	45.73	67
3.3	**Access to growth opportunities**	43.59	83
	Networks		
3.3.1	Use of virtual social networks	68.42	81
3.3.2	State of cluster development	34.16	88
	Research quality		
3.3.3	Quality of scientific research institutions	43.00	63
	Voice		
3.3.4	Voicing concern to officials	28.77	82
4	**Retain**	53.46	49
4.1	**Sustainability**	50.96	47
	Social protection		
4.1.1	Pension system	69.65	36
	Taxation		
4.1.2	Extent and effect of taxation	32.27	85
4.2	**Lifestyle**	55.97	50
	Quality of life		
4.2.1	Environmental performance	28.55	85
4.2.2	Property stolen	78.44	20
4.2.3	Safety at night	47.06	87
	Services		
4.2.4	Physicians density	69.83	4
5	**Labour and Vocational**	41.05	44
5.1	**Employable skills**	45.44	38
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	23.29	68
	Technical professions		
5.1.2	Technicians and associate professionals	71.94	19
	Youth employment		
5.1.3	Youth employment	41.08	51
5.2	**Labour productivity**	36.66	55
	Productivity per employee		
5.2.1	Labour productivity per employee	24.08	45
	Pay and productivity		
5.2.2	Relationship of pay to productivity	49.24	54
6	**Global Knowledge**	36.44	45
6.1	**Higher skills and competencies**	45.40	25
	Educated workforce		
6.1.1	Tertiary-educated workforce	57.18	27
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	39.33	30
6.1.3	Professionals	55.79	16
6.1.4	Researchers	29.33	29
6.2	**Talent impact**	27.47	70
	Innovation		
6.2.1	Innovation output	34.16	47
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	20.78	68

SAUDI ARABIA

RANK
(out of 103) **42**

Population (millions)	**28.4**
GDP per capita (PPP$)	**31,275.49**
GDP (US$ billions)	**727.31**
Global Talent Competitiveness Index Score	**48.23**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



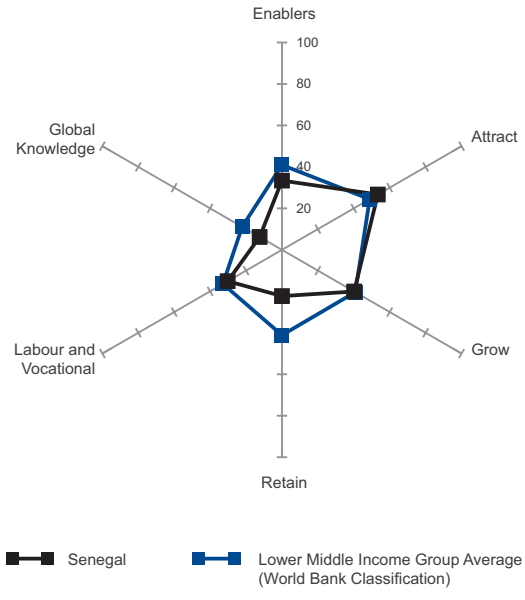
	VARIABLE	SCORE	RANK/103
1	**Enablers**	55.10	44
1.1	**Regulatory landscape**	32.80	93
	Government efficiency		
1.1.1	Government effectiveness	20.06	79
1.1.2	Political stability	58.77	64
	FDI climate		
1.1.3	Starting a foreign business	19.58	64
1.2	**Market landscape**	59.38	27
	Competition climate		
1.2.1	Intensity of local competition	78.45	12
	Innovation climate		
1.2.2	Venture capital availability	44.82	14
1.2.3	Firm-level technology absorption	80.36	18
1.2.4	R&D expenditure	1.41	87
	Connectivity		
1.2.5	ICT access	68.83	33
	Ease of doing business		
1.2.6	Ease of doing business	82.40	19
1.3	**Business landscape**	73.12	15
	Labour market flexibility		
1.3.1	Labour market flexibility	79.96	11
	Ownership and governance		
1.3.2	Reliance on professional management	66.29	29
2	**Attract**	47.98	72
2.1	**External openness**	50.33	29
	FDI		
2.1.1	FDI inflow	23.30	43
	Brain gain		
2.1.2	Qualified labour inflow	67.46	12
	Foreign companies		
2.1.3	Prevalence of foreign ownership	60.24	54
2.2	**Internal openness**	45.62	94
	Diversity		
2.2.1	Tolerance of minorities	40.87	97
2.2.2	Tolerance of immigrants	85.81	20
	Social mobility		
2.2.3	Social mobility	73.88	22
	Gender mobility		
2.2.4	Female professionals and technical workers	27.54	87
2.2.5	Female parliamentarians	0.00	102
3	**Grow**	52.50	37
3.1	**Formal education**	37.90	59
	Education climate		
3.1.1	Pupil-teacher ratio	86.78	34
3.1.2	Technical/vocational enrolment	7.57	85
3.1.3	Tertiary enrolment	37.60	58
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	41.83	27
	International students		
3.1.6	International students inflow	15.73	39

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	57.78	34
	Further education and training climate		
3.2.1	Quality of management schools	59.43	40
3.2.2	Extent of staff training	56.13	28
3.3	**Access to growth opportunities**	61.82	31
	Networks		
3.3.1	Use of virtual social networks	75.72	55
3.3.2	State of cluster development	60.30	18
	Research quality		
3.3.3	Quality of scientific research institutions	58.20	35
	Voice		
3.3.4	Voicing concern to officials	53.07	35
4	**Retain**	58.69	39
4.1	**Sustainability**	68.03	12
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	68.03	6
4.2	**Lifestyle**	49.35	66
	Quality of life		
4.2.1	Environmental performance	38.93	69
4.2.2	Property stolen	59.72	67
4.2.3	Safety at night	83.64	24
	Services		
4.2.4	Physicians density	15.12	75
5	**Labour and Vocational**	38.51	55
5.1	**Employable skills**	23.57	95
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	20.71	74
	Technical professions		
5.1.2	Technicians and associate professionals	50.00	42
	Youth employment		
5.1.3	Youth employment	0.00	102
5.2	**Labour productivity**	53.45	14
	Productivity per employee		
5.2.1	Labour productivity per employee	44.87	25
	Pay and productivity		
5.2.2	Relationship of pay to productivity	62.02	12
6	**Global Knowledge**	36.60	44
6.1	**Higher skills and competencies**	20.68	72
	Educated workforce		
6.1.1	Tertiary-educated workforce	33.94	57
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	23.60	57
6.1.3	Professionals	25.00	62
6.1.4	Researchers	0.17	94
6.2	**Talent impact**	52.51	26
	Innovation		
6.2.1	Innovation output	25.81	62
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	79.22	4

SENEGAL

RANK
(out of 103) **93**

Population (millions)	**13.73**
GDP per capita (PPP$)	**2,026.55**
GDP (US$ billions)	**13.86**
Global Talent Competitiveness Index Score	**31.98**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



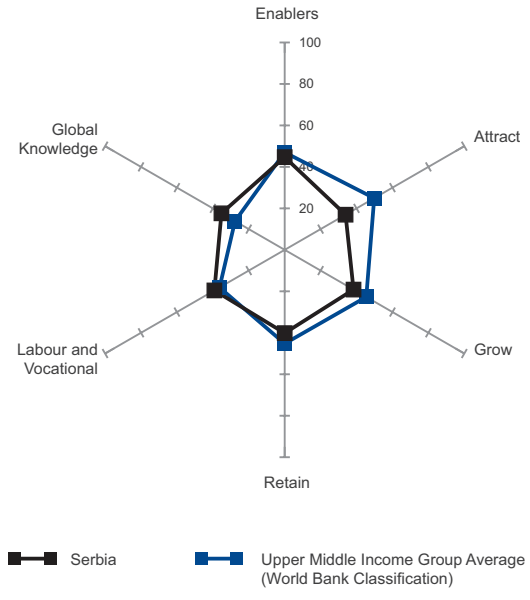
	VARIABLE	SCORE	RANK/103
1	**Enablers**	33.39	95
1.1	**Regulatory landscape**	37.40	87
	Government efficiency		
1.1.1	Government effectiveness	19.93	80
1.1.2	Political stability	58.61	65
	FDI climate		
1.1.3	Starting a foreign business	33.66	59
1.2	**Market landscape**	29.93	93
	Competition climate		
1.2.1	Intensity of local competition	67.60	46
	Innovation climate		
1.2.2	Venture capital availability	18.42	88
1.2.3	Firm-level technology absorption	74.72	32
1.2.4	R&D expenditure	7.92	64
	Connectivity		
1.2.5	ICT access	9.93	91
	Ease of doing business		
1.2.6	Ease of doing business	1.00	102
1.3	**Business landscape**	32.84	94
	Labour market flexibility		
1.3.1	Labour market flexibility	17.31	94
	Ownership and governance		
1.3.2	Reliance on professional management	48.36	70
2	**Attract**	53.37	45
2.1	**External openness**	42.19	60
	FDI		
2.1.1	FDI inflow	16.17	67
	Brain gain		
2.1.2	Qualified labour inflow	39.74	56
	Foreign companies		
2.1.3	Prevalence of foreign ownership	70.65	31
2.2	**Internal openness**	64.56	37
	Diversity		
2.2.1	Tolerance of minorities	92.50	13
2.2.2	Tolerance of immigrants	80.36	29
	Social mobility		
2.2.3	Social mobility	49.05	67
	Gender mobility		
2.2.4	Female professionals and technical workers	n/a	n/a
2.2.5	Female parliamentarians	36.33	37
3	**Grow**	40.18	83
3.1	**Formal education**	18.78	92
	Education climate		
3.1.1	Pupil-teacher ratio	41.22	81
3.1.2	Technical/vocational enrolment	9.50	81
3.1.3	Tertiary enrolment	4.09	93
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	20.32	28

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	47.47	67
	Further education and training climate		
3.2.1	Quality of management schools	61.20	37
3.2.2	Extent of staff training	33.75	99
3.3	**Access to growth opportunities**	54.28	48
	Networks		
3.3.1	Use of virtual social networks	73.88	61
3.3.2	State of cluster development	39.46	72
	Research quality		
3.3.3	Quality of scientific research institutions	48.36	50
	Voice		
3.3.4	Voicing concern to officials	55.42	29
4	**Retain**	22.30	102
4.1	**Sustainability**	16.80	103
	Social protection		
4.1.1	Pension system	4.17	85
	Taxation		
4.1.2	Extent and effect of taxation	29.43	90
4.2	**Lifestyle**	27.80	100
	Quality of life		
4.2.1	Environmental performance	31.52	79
4.2.2	Property stolen	20.14	101
4.2.3	Safety at night	58.72	65
	Services		
4.2.4	Physicians density	0.83	94
5	**Labour and Vocational**	30.21	85
5.1	**Employable skills**	37.14	66
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	2.14	89
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	72.13	13
5.2	**Labour productivity**	23.28	95
	Productivity per employee		
5.2.1	Labour productivity per employee	1.45	88
	Pay and productivity		
5.2.2	Relationship of pay to productivity	45.11	69
6	**Global Knowledge**	12.42	91
6.1	**Higher skills and competencies**	3.21	98
	Educated workforce		
6.1.1	Tertiary-educated workforce	1.82	86
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	n/a	n/a
6.1.3	Professionals	n/a	n/a
6.1.4	Researchers	4.60	68
6.2	**Talent impact**	21.63	78
	Innovation		
6.2.1	Innovation output	21.63	68
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

SERBIA

RANK
(out of 103) **79**

Population (millions)	**9.56**
GDP per capita (PPP$)	**10,404.84**
GDP (US$ billions)	**37.40**
Global Talent Competitiveness Index Score	**38.57**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



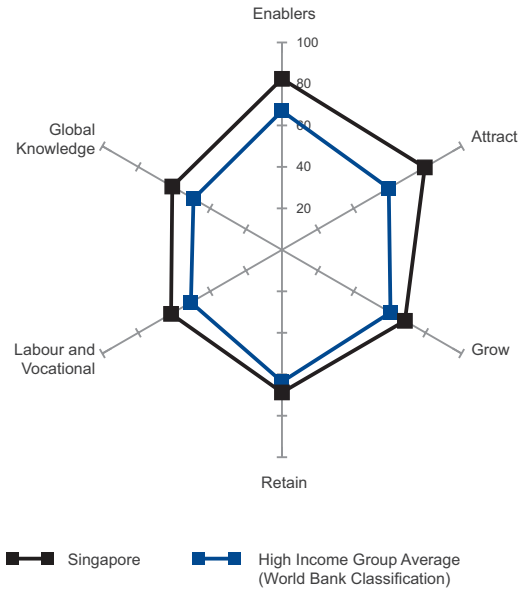
	VARIABLE	SCORE	RANK/103
1	**Enablers**	44.70	70
1.1	**Regulatory landscape**	58.47	51
	Government efficiency		
1.1.1	Government effectiveness	28.59	66
1.1.2	Political stability	57.94	66
	FDI climate		
1.1.3	Starting a foreign business	88.87	5
1.2	**Market landscape**	37.46	74
	Competition climate		
1.2.1	Intensity of local competition	43.58	99
	Innovation climate		
1.2.2	Venture capital availability	15.58	94
1.2.3	Firm-level technology absorption	42.57	102
1.2.4	R&D expenditure	20.50	35
	Connectivity		
1.2.5	ICT access	65.24	40
	Ease of doing business		
1.2.6	Ease of doing business	37.30	65
1.3	**Business landscape**	38.17	88
	Labour market flexibility		
1.3.1	Labour market flexibility	38.45	70
	Ownership and governance		
1.3.2	Reliance on professional management	37.89	101
2	**Attract**	33.89	100
2.1	**External openness**	33.94	80
	FDI		
2.1.1	FDI inflow	40.76	21
	Brain gain		
2.1.2	Qualified labour inflow	14.34	102
	Foreign companies		
2.1.3	Prevalence of foreign ownership	46.71	92
2.2	**Internal openness**	33.84	101
	Diversity		
2.2.1	Tolerance of minorities	0.00	102
2.2.2	Tolerance of immigrants	0.00	102
	Social mobility		
2.2.3	Social mobility	34.33	94
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	34.89	41
3	**Grow**	38.32	89
3.1	**Formal education**	47.05	45
	Education climate		
3.1.1	Pupil-teacher ratio	92.42	17
3.1.2	Technical/vocational enrolment	79.78	5
3.1.3	Tertiary enrolment	46.86	44
	Performance of education system		
3.1.4	Reading, maths and science scores	46.63	41
	Top universities		
3.1.5	QS university ranking	0.00	61
	International students		
3.1.6	International students inflow	16.59	35

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	36.46	100
	Further education and training climate		
3.2.1	Quality of management schools	40.98	89
3.2.2	Extent of staff training	31.93	102
3.3	**Access to growth opportunities**	31.46	103
	Networks		
3.3.1	Use of virtual social networks	53.82	99
3.3.2	State of cluster development	28.37	97
	Research quality		
3.3.3	Quality of scientific research institutions	43.63	61
	Voice		
3.3.4	Voicing concern to officials	0.00	102
4	**Retain**	40.16	76
4.1	**Sustainability**	39.24	71
	Social protection		
4.1.1	Pension system	46.49	49
	Taxation		
4.1.2	Extent and effect of taxation	31.98	86
4.2	**Lifestyle**	41.08	86
	Quality of life		
4.2.1	Environmental performance	30.17	83
4.2.2	Property stolen	100.00	1
4.2.3	Safety at night	0.00	102
	Services		
4.2.4	Physicians density	34.16	53
5	**Labour and Vocational**	39.15	51
5.1	**Employable skills**	49.11	33
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	68.43	15
	Technical professions		
5.1.2	Technicians and associate professionals	68.88	21
	Youth employment		
5.1.3	Youth employment	10.03	94
5.2	**Labour productivity**	29.18	83
	Productivity per employee		
5.2.1	Labour productivity per employee	17.37	57
	Pay and productivity		
5.2.2	Relationship of pay to productivity	41.00	81
6	**Global Knowledge**	35.22	47
6.1	**Higher skills and competencies**	28.13	53
	Educated workforce		
6.1.1	Tertiary-educated workforce	37.13	52
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	28.65	49
6.1.3	Professionals	35.37	48
6.1.4	Researchers	11.35	47
6.2	**Talent impact**	42.32	43
	Innovation		
6.2.1	Innovation output	43.07	33
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	41.56	35

SINGAPORE

RANK
(out of 103) **2**

Population (millions)	**5.30**
GDP per capita (PPP$)	**60,409.98**
GDP (US$ billions)	**276.52**
Global Talent Competitiveness Index Score	**70.34**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



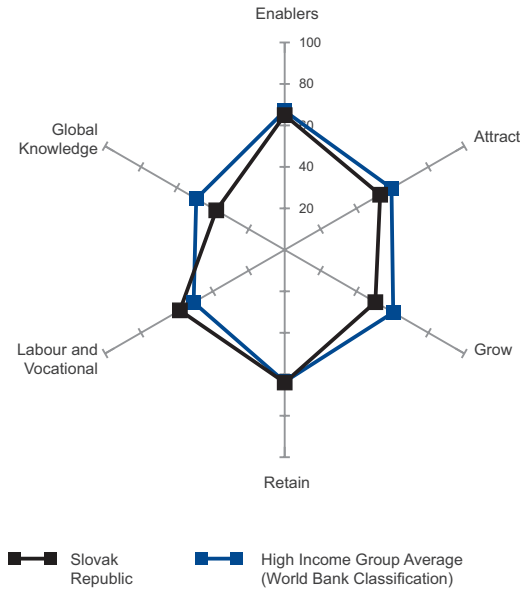
	VARIABLE	SCORE	RANK/103
1	**Enablers**	82.47	3
1.1	**Regulatory landscape**	91.50	8
	Government efficiency		
1.1.1	Government effectiveness	97.31	3
1.1.2	Political stability	95.78	9
	FDI climate		
1.1.3	Starting a foreign business	81.41	14
1.2	**Market landscape**	77.30	2
	Competition climate		
1.2.1	Intensity of local competition	75.73	18
	Innovation climate		
1.2.2	Venture capital availability	56.45	3
1.2.3	Firm-level technology absorption	83.71	7
1.2.4	R&D expenditure	54.96	12
	Connectivity		
1.2.5	ICT access	92.97	7
	Ease of doing business		
1.2.6	Ease of doing business	100.00	1
1.3	**Business landscape**	78.60	10
	Labour market flexibility		
1.3.1	Labour market flexibility	75.52	18
	Ownership and governance		
1.3.2	Reliance on professional management	81.68	11
2	**Attract**	79.53	3
2.1	**External openness**	87.82	1
	FDI		
2.1.1	FDI inflow	100.00	1
	Brain gain		
2.1.2	Qualified labour inflow	78.61	2
	Foreign companies		
2.1.3	Prevalence of foreign ownership	84.84	3
2.2	**Internal openness**	71.24	27
	Diversity		
2.2.1	Tolerance of minorities	84.46	29
2.2.2	Tolerance of immigrants	70.33	50
	Social mobility		
2.2.3	Social mobility	80.27	15
	Gender mobility		
2.2.4	Female professionals and technical workers	85.83	64
2.2.5	Female parliamentarians	35.30	40
3	**Grow**	68.45	11
3.1	**Formal education**	68.15	8
	Education climate		
3.1.1	Pupil-teacher ratio	76.57	56
3.1.2	Technical/vocational enrolment	24.44	56
3.1.3	Tertiary enrolment	n/a	n/a
	Performance of education system		
3.1.4	Reading, maths and science scores	86.65	3
	Top universities		
3.1.5	QS university ranking	53.10	18
	International students		
3.1.6	International students inflow	100.00	1

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	75.38	2
	Further education and training climate		
3.2.1	Quality of management schools	78.62	6
3.2.2	Extent of staff training	72.13	3
3.3	**Access to growth opportunities**	61.82	30
	Networks		
3.3.1	Use of virtual social networks	86.44	15
3.3.2	State of cluster development	70.77	2
	Research quality		
3.3.3	Quality of scientific research institutions	76.16	12
	Voice		
3.3.4	Voicing concern to officials	13.92	99
4	**Retain**	68.77	10
4.1	**Sustainability**	69.47	9
	Social protection		
4.1.1	Pension system	64.61	39
	Taxation		
4.1.2	Extent and effect of taxation	74.32	4
4.2	**Lifestyle**	68.07	17
	Quality of life		
4.2.1	Environmental performance	53.53	47
4.2.2	Property stolen	93.60	3
4.2.3	Safety at night	95.51	3
	Services		
4.2.4	Physicians density	29.63	59
5	**Labour and Vocational**	61.74	7
5.1	**Employable skills**	54.51	20
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	27.71	62
	Technical professions		
5.1.2	Technicians and associate professionals	100.00	1
	Youth employment		
5.1.3	Youth employment	35.83	57
5.2	**Labour productivity**	68.97	2
	Productivity per employee		
5.2.1	Labour productivity per employee	64.94	6
	Pay and productivity		
5.2.2	Relationship of pay to productivity	73.01	1
6	**Global Knowledge**	61.07	6
6.1	**Higher skills and competencies**	68.96	2
	Educated workforce		
6.1.1	Tertiary-educated workforce	86.79	5
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	100.00	1
6.1.3	Professionals	41.16	38
6.1.4	Researchers	47.88	15
6.2	**Talent impact**	53.18	25
	Innovation		
6.2.1	Innovation output	68.69	11
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	37.66	45

SLOVAK REPUBLIC

RANK
(out of 103) **27**

Population (millions)	**5.44**
GDP per capita (PPP$)	**24,249.11**
GDP (US$ billions)	**91.92**
Global Talent Competitiveness Index Score	**54.84**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



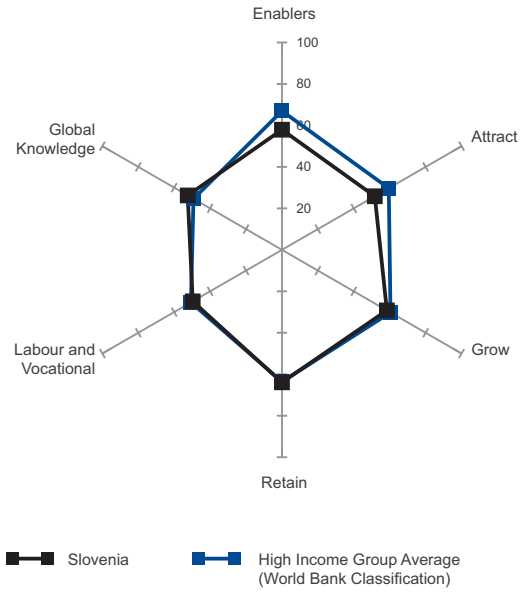
	VARIABLE	SCORE	RANK/103
1	**Enablers**	64.95	26
1.1	**Regulatory landscape**	82.76	17
	Government efficiency		
1.1.1	Government effectiveness	58.49	33
1.1.2	Political stability	89.79	20
	FDI climate		
1.1.3	Starting a foreign business	100.00	1
1.2	**Market landscape**	51.33	36
	Competition climate		
1.2.1	Intensity of local competition	74.63	24
	Innovation climate		
1.2.2	Venture capital availability	29.36	49
1.2.3	Firm-level technology absorption	64.66	51
1.2.4	R&D expenditure	13.97	45
	Connectivity		
1.2.5	ICT access	64.55	41
	Ease of doing business		
1.2.6	Ease of doing business	60.80	41
1.3	**Business landscape**	60.76	36
	Labour market flexibility		
1.3.1	Labour market flexibility	68.26	34
	Ownership and governance		
1.3.2	Reliance on professional management	53.26	49
2	**Attract**	53.15	49
2.1	**External openness**	42.46	57
	FDI		
2.1.1	FDI inflow	17.98	60
	Brain gain		
2.1.2	Qualified labour inflow	24.42	88
	Foreign companies		
2.1.3	Prevalence of foreign ownership	84.97	2
2.2	**Internal openness**	63.84	43
	Diversity		
2.2.1	Tolerance of minorities	69.57	62
2.2.2	Tolerance of immigrants	66.60	59
	Social mobility		
2.2.3	Social mobility	59.48	41
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	23.56	64
3	**Grow**	50.47	43
3.1	**Formal education**	58.04	22
	Education climate		
3.1.1	Pupil-teacher ratio	84.75	38
3.1.2	Technical/vocational enrolment	73.72	10
3.1.3	Tertiary enrolment	51.37	41
	Performance of education system		
3.1.4	Reading, maths and science scores	64.79	27
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	15.58	40

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	43.62	79
	Further education and training climate		
3.2.1	Quality of management schools	42.83	86
3.2.2	Extent of staff training	44.41	71
3.3	**Access to growth opportunities**	49.77	58
	Networks		
3.3.1	Use of virtual social networks	78.27	45
3.3.2	State of cluster development	45.84	54
	Research quality		
3.3.3	Quality of scientific research institutions	39.81	75
	Voice		
3.3.4	Voicing concern to officials	35.14	71
4	**Retain**	63.99	22
4.1	**Sustainability**	62.41	22
	Social protection		
4.1.1	Pension system	82.47	29
	Taxation		
4.1.2	Extent and effect of taxation	42.36	44
4.2	**Lifestyle**	65.56	22
	Quality of life		
4.2.1	Environmental performance	76.98	12
4.2.2	Property stolen	70.14	51
4.2.3	Safety at night	66.52	54
	Services		
4.2.4	Physicians density	48.58	31
5	**Labour and Vocational**	58.36	14
5.1	**Employable skills**	66.73	8
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	96.29	2
	Technical professions		
5.1.2	Technicians and associate professionals	91.33	5
	Youth employment		
5.1.3	Youth employment	12.58	89
5.2	**Labour productivity**	49.99	27
	Productivity per employee		
5.2.1	Labour productivity per employee	37.40	34
	Pay and productivity		
5.2.2	Relationship of pay to productivity	62.58	11
6	**Global Knowledge**	38.10	40
6.1	**Higher skills and competencies**	30.98	46
	Educated workforce		
6.1.1	Tertiary-educated workforce	30.07	61
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	29.78	46
6.1.3	Professionals	34.76	49
6.1.4	Researchers	29.31	30
6.2	**Talent impact**	45.22	36
	Innovation		
6.2.1	Innovation output	37.19	42
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	53.25	17

SLOVENIA

RANK
(out of 103) **25**

Population (millions)	**2.07**
GDP per capita (PPP$)	**28,195.24**
GDP (US$ billions)	**45.62**
Global Talent Competitiveness Index Score	**55.68**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



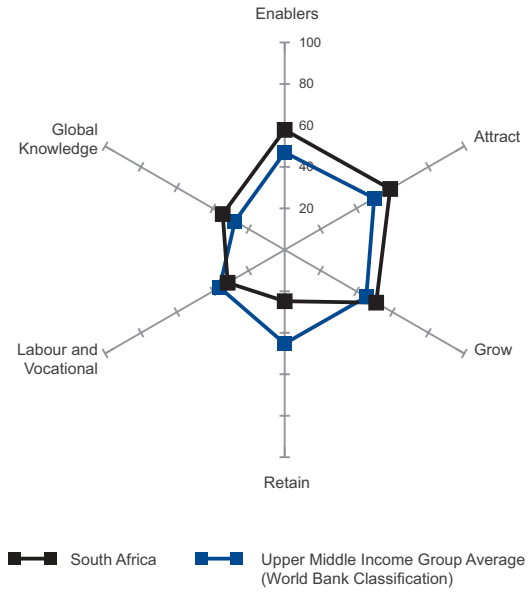
	VARIABLE	SCORE	RANK/103
1	**Enablers**	57.93	36
1.1	**Regulatory landscape**	74.58	29
	Government efficiency		
1.1.1	Government effectiveness	62.34	30
1.1.2	Political stability	86.83	27
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	57.48	29
	Competition climate		
1.2.1	Intensity of local competition	70.00	37
	Innovation climate		
1.2.2	Venture capital availability	18.66	87
1.2.3	Firm-level technology absorption	61.00	62
1.2.4	R&D expenditure	47.61	15
	Connectivity		
1.2.5	ICT access	77.93	24
	Ease of doing business		
1.2.6	Ease of doing business	69.70	32
1.3	**Business landscape**	41.73	82
	Labour market flexibility		
1.3.1	Labour market flexibility	33.23	78
	Ownership and governance		
1.3.2	Reliance on professional management	50.24	61
2	**Attract**	51.69	51
2.1	**External openness**	31.89	88
	FDI		
2.1.1	FDI inflow	16.42	66
	Brain gain		
2.1.2	Qualified labour inflow	38.48	63
	Foreign companies		
2.1.3	Prevalence of foreign ownership	40.77	97
2.2	**Internal openness**	71.48	26
	Diversity		
2.2.1	Tolerance of minorities	77.61	42
2.2.2	Tolerance of immigrants	59.02	76
	Social mobility		
2.2.3	Social mobility	62.02	31
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	58.75	17
3	**Grow**	58.41	28
3.1	**Formal education**	55.60	26
	Education climate		
3.1.1	Pupil-teacher ratio	92.85	14
3.1.2	Technical/vocational enrolment	75.71	8
3.1.3	Tertiary enrolment	86.37	4
	Performance of education system		
3.1.4	Reading, maths and science scores	69.01	19
	Top universities		
3.1.5	QS university ranking	1.91	58
	International students		
3.1.6	International students inflow	7.74	52

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	49.64	60
	Further education and training climate		
3.2.1	Quality of management schools	54.23	55
3.2.2	Extent of staff training	45.06	69
3.3	**Access to growth opportunities**	69.98	15
	Networks		
3.3.1	Use of virtual social networks	73.89	60
3.3.2	State of cluster development	42.73	62
	Research quality		
3.3.3	Quality of scientific research institutions	63.30	28
	Voice		
3.3.4	Voicing concern to officials	100.00	1
4	**Retain**	63.89	23
4.1	**Sustainability**	60.38	30
	Social protection		
4.1.1	Pension system	91.53	20
	Taxation		
4.1.2	Extent and effect of taxation	29.24	91
4.2	**Lifestyle**	67.40	19
	Quality of life		
4.2.1	Environmental performance	66.99	27
4.2.2	Property stolen	70.38	50
4.2.3	Safety at night	91.66	6
	Services		
4.2.4	Physicians density	40.56	46
5	**Labour and Vocational**	49.68	27
5.1	**Employable skills**	58.27	18
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	80.00	7
	Technical professions		
5.1.2	Technicians and associate professionals	65.82	26
	Youth employment		
5.1.3	Youth employment	28.98	67
5.2	**Labour productivity**	41.10	42
	Productivity per employee		
5.2.1	Labour productivity per employee	39.77	30
	Pay and productivity		
5.2.2	Relationship of pay to productivity	42.44	79
6	**Global Knowledge**	52.48	20
6.1	**Higher skills and competencies**	51.06	20
	Educated workforce		
6.1.1	Tertiary-educated workforce	50.57	33
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	46.63	16
6.1.3	Professionals	58.84	14
6.1.4	Researchers	48.19	14
6.2	**Talent impact**	53.90	23
	Innovation		
6.2.1	Innovation output	58.44	22
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	49.35	23

SOUTH AFRICA

RANK (out of 103) **55**

Population (millions)	**52.46**
GDP per capita (PPP$)	**11,375.48**
GDP (US$ billions)	**384.32**
Global Talent Competitiveness Index Score	**43.09**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



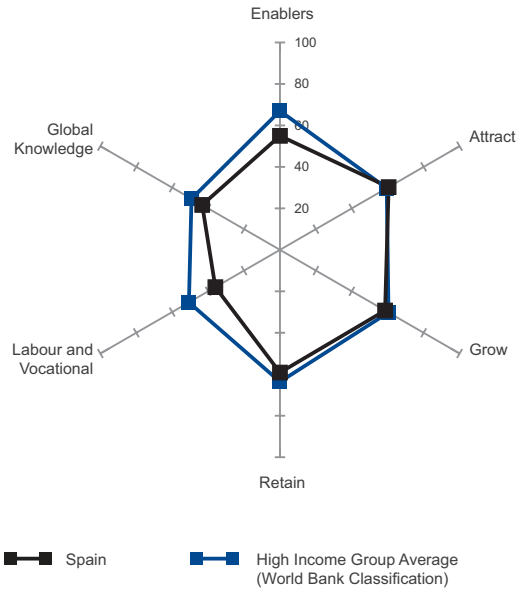
	VARIABLE	SCORE	RANK/103
1	**Enablers**	57.86	37
1.1	**Regulatory landscape**	64.00	41
	Government efficiency		
1.1.1	Government effectiveness	43.94	46
1.1.2	Political stability	66.64	54
	FDI climate		
1.1.3	Starting a foreign business	81.41	14
1.2	**Market landscape**	48.62	40
	Competition climate		
1.2.1	Intensity of local competition	67.77	45
	Innovation climate		
1.2.2	Venture capital availability	34.24	30
1.2.3	Firm-level technology absorption	73.61	33
1.2.4	R&D expenditure	20.75	34
	Connectivity		
1.2.5	ICT access	29.66	73
	Ease of doing business		
1.2.6	Ease of doing business	65.70	36
1.3	**Business landscape**	60.97	35
	Labour market flexibility		
1.3.1	Labour market flexibility	45.23	61
	Ownership and governance		
1.3.2	Reliance on professional management	76.71	13
2	**Attract**	58.73	31
2.1	**External openness**	43.51	52
	FDI		
2.1.1	FDI inflow	12.04	79
	Brain gain		
2.1.2	Qualified labour inflow	46.43	39
	Foreign companies		
2.1.3	Prevalence of foreign ownership	72.06	24
2.2	**Internal openness**	73.95	24
	Diversity		
2.2.1	Tolerance of minorities	65.98	70
2.2.2	Tolerance of immigrants	61.26	70
	Social mobility		
2.2.3	Social mobility	51.84	60
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	90.69	3
3	**Grow**	50.94	42
3.1	**Formal education**	32.20	70
	Education climate		
3.1.1	Pupil-teacher ratio	47.77	76
3.1.2	Technical/vocational enrolment	12.13	75
3.1.3	Tertiary enrolment	n/a	n/a
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	36.71	30
	International students		
3.1.6	International students inflow	n/a	n/a

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	66.01	18
	Further education and training climate		
3.2.1	Quality of management schools	71.34	15
3.2.2	Extent of staff training	60.68	22
3.3	**Access to growth opportunities**	54.61	46
	Networks		
3.3.1	Use of virtual social networks	70.90	73
3.3.2	State of cluster development	50.83	41
	Research quality		
3.3.3	Quality of scientific research institutions	60.40	32
	Voice		
3.3.4	Voicing concern to officials	36.32	68
4	**Retain**	24.77	101
4.1	**Sustainability**	28.24	91
	Social protection		
4.1.1	Pension system	5.80	84
	Taxation		
4.1.2	Extent and effect of taxation	50.67	21
4.2	**Lifestyle**	21.30	102
	Quality of life		
4.2.1	Environmental performance	3.68	98
4.2.2	Property stolen	28.20	98
4.2.3	Safety at night	40.96	97
	Services		
4.2.4	Physicians density	12.37	79
5	**Labour and Vocational**	31.75	77
5.1	**Employable skills**	39.42	56
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	65.00	18
	Technical professions		
5.1.2	Technicians and associate professionals	51.02	40
	Youth employment		
5.1.3	Youth employment	2.23	101
5.2	**Labour productivity**	24.08	94
	Productivity per employee		
5.2.1	Labour productivity per employee	16.06	60
	Pay and productivity		
5.2.2	Relationship of pay to productivity	32.09	99
6	**Global Knowledge**	34.50	49
6.1	**Higher skills and competencies**	21.23	68
	Educated workforce		
6.1.1	Tertiary-educated workforce	13.90	78
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	47.75	15
6.1.3	Professionals	16.77	73
6.1.4	Researchers	6.49	55
6.2	**Talent impact**	47.76	31
	Innovation		
6.2.1	Innovation output	24.10	65
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	71.43	7

SPAIN

RANK
(out of 103) **35**

Population (millions)	**46.71**
GDP per capita (PPP$)	**30,557.47**
GDP (US$ billions)	**1,352.06**
Global Talent Competitiveness Index Score	**52.08**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**

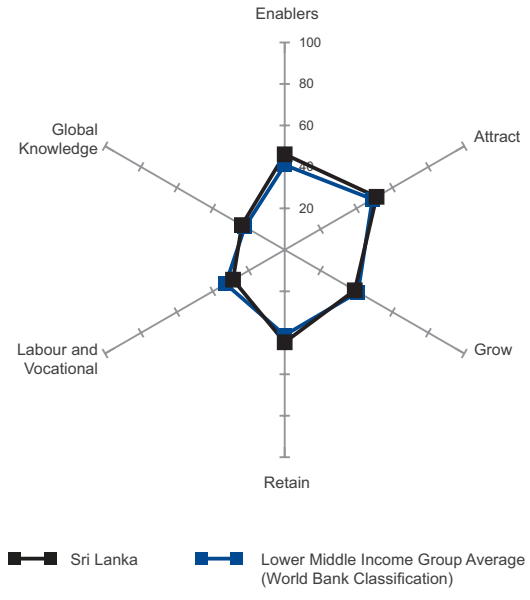


	VARIABLE	SCORE	RANK/103
1	**Enablers**	54.98	45
1.1	**Regulatory landscape**	67.74	37
	Government efficiency		
1.1.1	Government effectiveness	63.42	27
1.1.2	Political stability	69.37	50
	FDI climate		
1.1.3	Starting a foreign business	70.42	27
1.2	**Market landscape**	56.33	30
	Competition climate		
1.2.1	Intensity of local competition	75.27	20
	Innovation climate		
1.2.2	Venture capital availability	24.96	61
1.2.3	Firm-level technology absorption	68.14	43
1.2.4	R&D expenditure	31.20	27
	Connectivity		
1.2.5	ICT access	75.59	26
	Ease of doing business		
1.2.6	Ease of doing business	62.80	39
1.3	**Business landscape**	40.86	84
	Labour market flexibility		
1.3.1	Labour market flexibility	20.40	88
	Ownership and governance		
1.3.2	Reliance on professional management	61.33	34
2	**Attract**	60.49	25
2.1	**External openness**	40.95	66
	FDI		
2.1.1	FDI inflow	15.96	68
	Brain gain		
2.1.2	Qualified labour inflow	38.52	62
	Foreign companies		
2.1.3	Prevalence of foreign ownership	68.37	34
2.2	**Internal openness**	80.03	12
	Diversity		
2.2.1	Tolerance of minorities	86.63	24
2.2.2	Tolerance of immigrants	90.29	13
	Social mobility		
2.2.3	Social mobility	62.03	30
	Gender mobility		
2.2.4	Female professionals and technical workers	91.60	56
2.2.5	Female parliamentarians	69.59	12
3	**Grow**	58.54	26
3.1	**Formal education**	54.22	29
	Education climate		
3.1.1	Pupil-teacher ratio	88.24	29
3.1.2	Technical/vocational enrolment	36.87	37
3.1.3	Tertiary enrolment	74.85	10
	Performance of education system		
3.1.4	Reading, maths and science scores	63.25	31
	Top universities		
3.1.5	QS university ranking	48.38	21
	International students		
3.1.6	International students inflow	13.71	43
3.2	**Lifelong learning**	61.38	27
	Further education and training climate		
3.2.1	Quality of management schools	79.83	4
3.2.2	Extent of staff training	42.94	80
3.3	**Access to growth opportunities**	60.01	37
	Networks		
3.3.1	Use of virtual social networks	76.96	50
3.3.2	State of cluster development	51.50	36
	Research quality		
3.3.3	Quality of scientific research institutions	59.20	34
	Voice		
3.3.4	Voicing concern to officials	52.36	37
4	**Retain**	59.18	37
4.1	**Sustainability**	53.16	44
	Social protection		
4.1.1	Pension system	72.38	34
	Taxation		
4.1.2	Extent and effect of taxation	65.20	78
4.2	**Lifestyle**	65.2	26
	Quality of life		
4.2.1	Environmental performance	62.56	30
4.2.2	Property stolen	59.24	68
4.2.3	Safety at night	74.87	36
	Services		
4.2.4	Physicians density	64.12	8
5	**Labour and Vocational**	35.97	65
5.1	**Employable skills**	29.41	82
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	26.29	64
	Technical professions		
5.1.2	Technicians and associate professionals	50.00	42
	Youth employment		
5.1.3	Youth employment	11.94	91
5.2	**Labour productivity**	42.53	39
	Productivity per employee		
5.2.1	Labour productivity per employee	52.46	17
	Pay and productivity		
5.2.2	Relationship of pay to productivity	32.60	98
6	**Global Knowledge**	43.30	33
6.1	**Higher skills and competencies**	44.94	27
	Educated workforce		
6.1.1	Tertiary-educated workforce	58.54	25
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	28.09	50
6.1.3	Professionals	48.17	27
6.1.4	Researchers	44.96	18
6.2	**Talent impact**	41.67	44
	Innovation		
6.2.1	Innovation output	43.07	33
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	40.26	40

SRI LANKA

RANK
(out of 103) **76**

Population (millions)	**21.08**
GDP per capita (PPP$)	**6,106.59**
GDP (US$ billions)	**59.41**
Global Talent Competitiveness Index Score	**38.91**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



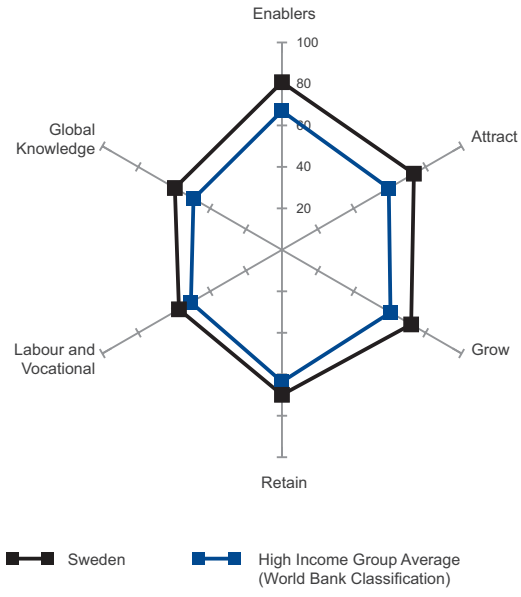
	VARIABLE	SCORE	RANK/103
1	**Enablers**	46.08	61
1.1	**Regulatory landscape**	40.33	81
	Government efficiency		
1.1.1	Government effectiveness	30.41	62
1.1.2	Political stability	52.83	74
	FDI climate		
1.1.3	Starting a foreign business	37.75	57
1.2	**Market landscape**	38.74	72
	Competition climate		
1.2.1	Intensity of local competition	74.93	23
	Innovation climate		
1.2.2	Venture capital availability	19.96	82
1.2.3	Firm-level technology absorption	70.33	37
1.2.4	R&D expenditure	2.12	84
	Connectivity		
1.2.5	ICT access	22.90	84
	Ease of doing business		
1.2.6	Ease of doing business	42.20	60
1.3	**Business landscape**	59.18	38
	Labour market flexibility		
1.3.1	Labour market flexibility	52.04	51
	Ownership and governance		
1.3.2	Reliance on professional management	66.31	28
2	**Attract**	51.15	54
2.1	**External openness**	40.09	68
	FDI		
2.1.1	FDI inflow	5.28	95
	Brain gain		
2.1.2	Qualified labour inflow	46.83	38
	Foreign companies		
2.1.3	Prevalence of foreign ownership	68.16	36
2.2	**Internal openness**	62.22	51
	Diversity		
2.2.1	Tolerance of minorities	85.98	26
2.2.2	Tolerance of immigrants	67.66	57
	Social mobility		
2.2.3	Social mobility	n/a	n/a
	Gender mobility		
2.2.4	Female professionals and technical workers	87.61	61
2.2.5	Female parliamentarians	7.62	97
3	**Grow**	39.01	85
3.1	**Formal education**	6.02	102
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	12.38	74
3.1.3	Tertiary enrolment	11.68	83
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	0.00	61
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	54.93	43
	Further education and training climate		
3.2.1	Quality of management schools	62.90	34
3.2.2	Extent of staff training	46.96	61
3.3	**Access to growth opportunities**	56.08	43
	Networks		
3.3.1	Use of virtual social networks	64.03	88
3.3.2	State of cluster development	55.67	28
	Research quality		
3.3.3	Quality of scientific research institutions	47.55	52
	Voice		
3.3.4	Voicing concern to officials	57.08	26
4	**Retain**	44.58	66
4.1	**Sustainability**	35.73	74
	Social protection		
4.1.1	Pension system	24.31	67
	Taxation		
4.1.2	Extent and effect of taxation	47.16	31
4.2	**Lifestyle**	53.43	57
	Quality of life		
4.2.1	Environmental performance	52.07	50
4.2.2	Property stolen	69.19	57
4.2.3	Safety at night	84.60	22
	Services		
4.2.4	Physicians density	7.86	82
5	**Labour and Vocational**	28.76	88
5.1	**Employable skills**	25.13	94
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	21.86	72
	Technical professions		
5.1.2	Technicians and associate professionals	22.96	74
	Youth employment		
5.1.3	Youth employment	30.57	65
5.2	**Labour productivity**	32.40	68
	Productivity per employee		
5.2.1	Labour productivity per employee	9.56	76
	Pay and productivity		
5.2.2	Relationship of pay to productivity	55.23	32
6	**Global Knowledge**	23.85	71
6.1	**Higher skills and competencies**	24.55	59
	Educated workforce		
6.1.1	Tertiary-educated workforce	32.12	58
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	46.63	16
6.1.3	Professionals	17.07	72
6.1.4	Researchers	2.39	75
6.2	**Talent impact**	23.15	76
	Innovation		
6.2.1	Innovation output	23.15	66
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

SWEDEN

RANK
(out of 103) **4**

Population (millions)	**9.51**
GDP per capita (PPP$)	**41,191.47**
GDP (US$ billions)	**526.19**
Global Talent Competitiveness Index Score	**68.86**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



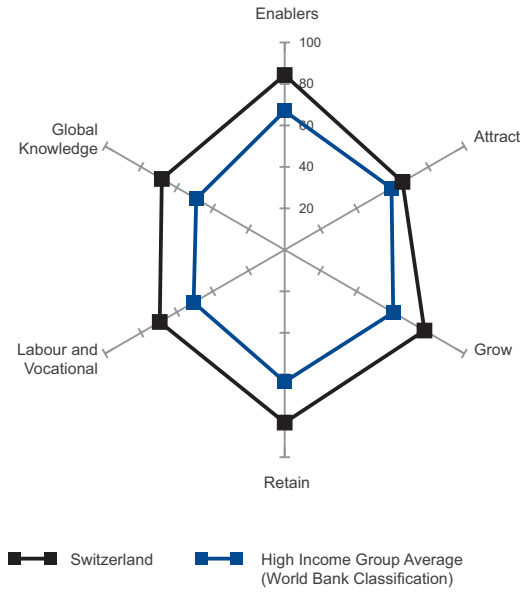
	VARIABLE	SCORE	RANK/103
1	**Enablers**	80.85	5
1.1	**Regulatory landscape**	94.28	4
	Government efficiency		
1.1.1	Government effectiveness	91.46	4
1.1.2	Political stability	97.10	6
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	80.22	1
	Competition climate		
1.2.1	Intensity of local competition	75.58	19
	Innovation climate		
1.2.2	Venture capital availability	56.26	4
1.2.3	Firm-level technology absorption	88.41	1
1.2.4	R&D expenditure	77.14	4
	Connectivity		
1.2.5	ICT access	94.62	5
	Ease of doing business		
1.2.6	Ease of doing business	89.30	12
1.3	**Business landscape**	68.04	20
	Labour market flexibility		
1.3.1	Labour market flexibility	51.84	52
	Ownership and governance		
1.3.2	Reliance on professional management	84.25	5
2	**Attract**	73.46	4
2.1	**External openness**	54.21	17
	FDI		
2.1.1	FDI inflow	18.25	57
	Brain gain		
2.1.2	Qualified labour inflow	69.35	10
	Foreign companies		
2.1.3	Prevalence of foreign ownership	75.04	19
2.2	**Internal openness**	92.70	1
	Diversity		
2.2.1	Tolerance of minorities	95.65	7
2.2.2	Tolerance of immigrants	95.30	4
	Social mobility		
2.2.3	Social mobility	72.54	23
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	100.00	1
3	**Grow**	71.93	5
3.1	**Formal education**	65.81	11
	Education climate		
3.1.1	Pupil-teacher ratio	91.35	18
3.1.2	Technical/vocational enrolment	68.51	15
3.1.3	Tertiary enrolment	70.43	16
	Performance of education system		
3.1.4	Reading, maths and science scores	67.75	24
	Top universities		
3.1.5	QS university ranking	64.95	13
	International students		
3.1.6	International students inflow	31.87	20

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong Learning**	71.87	8
	Further education and training climate		
3.2.1	Quality of management schools	73.63	11
3.2.2	Extent of staff training	70.10	6
3.3	**Access to Growth Opportunities**	78.12	3
	Networks		
3.3.1	Use of virtual social networks	90.10	5
3.3.2	State of cluster development	66.00	12
	Research quality		
3.3.3	Quality of scientific research institutions	77.38	9
	Voice		
3.3.4	Voicing concern to officials	79.01	7
4	**Retain**	69.91	7
4.1	**Sustainability**	64.26	20
	Social protection		
4.1.1	Pension system	93.01	19
	Taxation		
4.1.2	Extent and effect of taxation	35.51	71
4.2	**Lifestyle**	75.56	5
	Quality of life		
4.2.1	Environmental performance	82.01	9
4.2.2	Property stolen	72.75	39
4.2.3	Safety at night	86.42	16
	Services		
4.2.4	Physicians density	61.08	11
5	**Labour and Vocational**	57.35	19
5.1	**Employable skills**	62.11	12
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	61.29	20
	Technical professions		
5.1.2	Technicians and associate professionals	78.06	13
	Youth employment		
5.1.3	Youth employment	46.97	41
5.2	**Labour productivity**	52.60	21
	Productivity per employee		
5.2.1	Labour productivity per employee	57.50	10
	Pay and productivity		
5.2.2	Relationship of pay to productivity	47.70	59
6	**Global Knowledge**	59.64	10
6.1	**Higher skills and competencies**	60.44	12
	Educated workforce		
6.1.1	Tertiary-educated workforce	64.01	21
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	30.90	45
6.1.3	Professionals	76.22	2
6.1.4	Researchers	70.64	6
6.2	**Talent impact**	58.83	13
	Innovation		
6.2.1	Innovation output	85.20	2
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	32.47	53

SWITZERLAND

RANK (out of 103) **1**

Population (millions)	**7.99**
GDP per capita (PPP$)	**45,417.81**
GDP (US$ billions)	**632.40**
Global Talent Competitiveness Index Score	**74.83**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



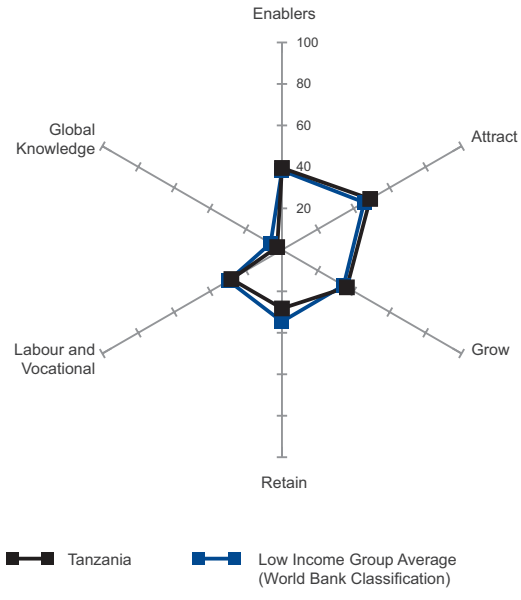
	VARIABLE	SCORE	RANK/103
1	**Enablers**	84.29	1
1.1	**Regulatory landscape**	93.58	5
	Government efficiency		
1.1.1	Government effectiveness	89.38	6
1.1.2	Political stability	97.78	5
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	75.20	7
	Competition climate		
1.2.1	Intensity of local competition	76.45	17
	Innovation climate		
1.2.2	Venture capital availability	43.82	15
1.2.3	Firm-level technology absorption	86.64	3
1.2.4	R&D expenditure	67.82	7
	Connectivity		
1.2.5	ICT access	100.00	1
	Ease of doing business		
1.2.6	Ease of doing business	76.50	25
1.3	**Business landscape**	84.09	4
	Labour market flexibility		
1.3.1	Labour market flexibility	84.13	8
	Ownership and governance		
1.3.2	Reliance on professional management	84.05	6
2	**Attract**	65.57	18
2.1	**External openness**	55.52	13
	FDI		
2.1.1	FDI inflow	1.31	101
	Brain gain		
2.1.2	Qualified labour inflow	88.09	1
	Foreign companies		
2.1.3	Prevalence of foreign ownership	77.16	13
2.2	**Internal openness**	75.62	21
	Diversity		
2.2.1	Tolerance of minorities	77.61	42
2.2.2	Tolerance of immigrants	79.08	31
	Social mobility		
2.2.3	Social mobility	88.11	2
	Gender mobility		
2.2.4	Female professionals and technical workers	83.97	67
2.2.5	Female parliamentarians	49.31	22
3	**Grow**	77.81	1
3.1	**Formal education**	70.67	4
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	72.34	11
3.1.3	Tertiary enrolment	51.34	42
	Performance of education system		
3.1.4	Reading, maths and science scores	76.25	10
	Top universities		
3.1.5	QS university ranking	82.78	5
	International students		
3.1.6	International students inflow	70.64	9

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	80.47	1
	Further education and training climate		
3.2.1	Quality of management schools	83.54	3
3.2.2	Extent of staff training	77.39	1
3.3	**Access to growth opportunities**	82.30	1
	Networks		
3.3.1	Use of virtual social networks	87.28	12
3.3.2	State of cluster development	68.11	8
	Research quality		
3.3.3	Quality of scientific research institutions	88.92	2
	Voice		
3.3.4	Voicing concern to officials	84.91	3
4	**Retain**	83.32	1
4.1	**Sustainability**	85.25	2
	Social protection		
4.1.1	Pension system	99.98	2
	Taxation		
4.1.2	Extent and effect of taxation	70.51	5
4.2	**Lifestyle**	81.40	2
	Quality of life		
4.2.1	Environmental performance	100.00	1
4.2.2	Property stolen	75.36	29
4.2.3	Safety at night	84.28	23
	Services		
4.2.4	Physicians density	65.95	7
5	**Labour and Vocational**	69.56	1
5.1	**Employable skills**	77.16	1
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	62.71	19
	Technical professions		
5.1.2	Technicians and associate professionals	87.24	8
	Youth employment		
5.1.3	Youth employment	81.53	5
5.2	**Labour productivity**	61.96	5
	Productivity per employee		
5.2.1	Labour productivity per employee	51.76	18
	Pay and productivity		
5.2.2	Relationship of pay to productivity	72.15	3
6	**Global Knowledge**	68.40	1
6.1	**Higher skills and competencies**	66.03	6
	Educated workforce		
6.1.1	Tertiary-educated workforce	75.17	11
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	43.82	21
6.1.3	Professionals	69.21	5
6.1.4	Researchers	75.91	5
6.2	**Talent impact**	70.78	3
	Innovation		
6.2.1	Innovation output	100.00	1
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	41.56	35

TANZANIA

RANK
(out of 103) **97**

Population (millions)	**47.91**
GDP per capita (PPP$)	**1,566.71**
GDP (US$ billions)	**28.25**
Global Talent Competitiveness Index Score	**30.64**
Global Talent Competitiveness Index Score (Income Group Average)	**31.51**



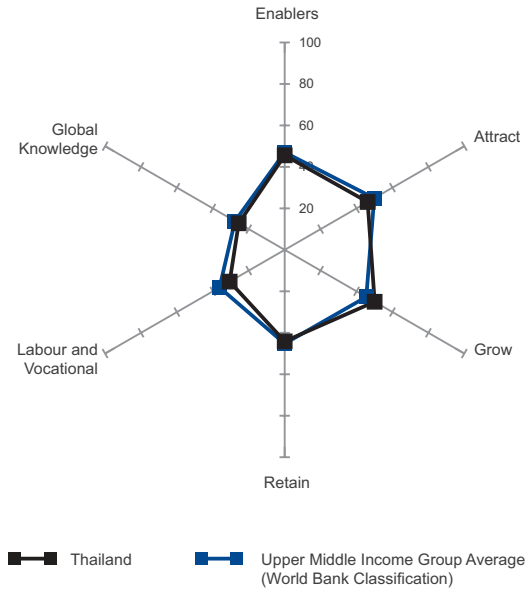
	VARIABLE	SCORE	RANK/103
1	**Enablers**	39.50	86
1.1	**Regulatory landscape**	47.07	72
	Government efficiency		
1.1.1	Government effectiveness	16.91	84
1.1.2	Political stability	65.99	55
	FDI climate		
1.1.3	Starting a foreign business	58.31	44
1.2	**Market landscape**	24.75	100
	Competition climate		
1.2.1	Intensity of local competition	53.51	83
	Innovation climate		
1.2.2	Venture capital availability	24.07	64
1.2.3	Firm-level technology absorption	48.70	96
1.2.4	R&D expenditure	9.43	58
	Connectivity		
1.2.5	ICT access	2.90	95
	Ease of doing business		
1.2.6	Ease of doing business	9.90	93
1.3	**Business landscape**	46.67	72
	Labour market flexibility		
1.3.1	Labour market flexibility	40.99	67
	Ownership and governance		
1.3.2	Reliance on professional management	52.34	55
2	**Attract**	49.11	63
2.1	**External openness**	42.24	59
	FDI		
2.1.1	FDI inflow	35.35	28
	Brain gain		
2.1.2	Qualified labour inflow	35.75	69
	Foreign companies		
2.1.3	Prevalence of foreign ownership	55.61	69
2.2	**Internal openness**	55.99	70
	Diversity		
2.2.1	Tolerance of minorities	53.37	91
2.2.2	Tolerance of immigrants	61.05	73
	Social mobility		
2.2.3	Social mobility	40.37	88
	Gender mobility		
2.2.4	Female professionals and technical workers	55.57	77
2.2.5	Female parliamentarians	69.59	12
3	**Grow**	36.15	93
3.1	**Formal education**	17.57	94
	Education climate		
3.1.1	Pupil-teacher ratio	43.94	79
3.1.2	Technical/vocational enrolment	23.32	61
3.1.3	Tertiary enrolment	0.06	98
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	2.94	66

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	43.92	78
	Further education and training climate		
3.2.1	Quality of management schools	40.35	91
3.2.2	Extent of staff training	47.48	59
3.3	**Access to growth opportunities**	46.98	72
	Networks		
3.3.1	Use of virtual social networks	54.06	98
3.3.2	State of cluster development	38.51	76
	Research quality		
3.3.3	Quality of scientific research institutions	43.00	64
	Voice		
3.3.4	Voicing concern to officials	52.36	37
4	**Retain**	28.26	99
4.1	**Sustainability**	20.68	101
	Social protection		
4.1.1	Pension system	3.26	87
	Taxation		
4.1.2	Extent and effect of taxation	38.10	64
4.2	**Lifestyle**	35.83	93
	Quality of life		
4.2.1	Environmental performance	48.73	57
4.2.2	Property stolen	29.15	97
4.2.3	Safety at night	65.45	57
	Services		
4.2.4	Physicians density	0.00	97
5	**Labour and Vocational**	28.17	91
5.1	**Employable skills**	34.76	73
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	0.71	90
	Technical professions		
5.1.2	Technicians and associate professionals	3.57	90
	Youth employment		
5.1.3	Youth employment	100.00	1
5.2	**Labour productivity**	21.58	99
	Productivity per employee		
5.2.1	Labour productivity per employee	0.62	92
	Pay and productivity		
5.2.2	Relationship of pay to productivity	42.53	78
6	**Global Knowledge**	2.65	103
6.1	**Higher skills and competencies**	1.12	101
	Educated workforce		
6.1.1	Tertiary-educated workforce	2.05	85
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	1.12	90
6.1.3	Professionals	1.22	91
6.1.4	Researchers	0.11	95
6.2	**Talent impact**	4.17	101
	Innovation		
6.2.1	Innovation output	4.17	100
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

THAILAND

RANK
(out of 103) **72**

Population (millions)	**66.84**
GDP per capita (PPP$)	**10,125.58**
GDP (US$ billions)	**365.56**
Global Talent Competitiveness Index Score	**40.37**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



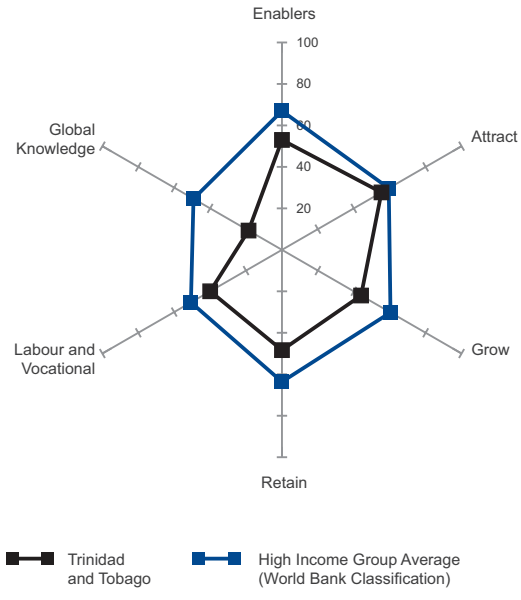
	VARIABLE	SCORE	RANK/103
1	**Enablers**	45.58	64
1.1	**Regulatory landscape**	44.20	76
	Government efficiency		
1.1.1	Government effectiveness	35.99	52
1.1.2	Political stability	41.12	88
	FDI climate		
1.1.3	Starting a foreign business	55.49	46
1.2	**Market landscape**	47.38	45
	Competition climate		
1.2.1	Intensity of local competition	67.16	47
	Innovation climate		
1.2.2	Venture capital availability	31.60	42
1.2.3	Firm-level technology absorption	66.32	47
1.2.4	R&D expenditure	4.39	73
	Connectivity		
1.2.5	ICT access	29.52	74
	Ease of doing business		
1.2.6	Ease of doing business	85.30	16
1.3	**Business landscape**	45.15	73
	Labour market flexibility		
1.3.1	Labour market flexibility	37.04	73
	Ownership and governance		
1.3.2	Reliance on professional management	53.25	50
2	**Attract**	46.19	78
2.1	**External openness**	46.05	44
	FDI		
2.1.1	FDI inflow	21.98	47
	Brain gain		
2.1.2	Qualified labour inflow	52.27	29
	Foreign companies		
2.1.3	Prevalence of foreign ownership	63.90	47
2.2	**Internal openness**	46.33	92
	Diversity		
2.2.1	Tolerance of minorities	29.46	99
2.2.2	Tolerance of immigrants	21.88	100
	Social mobility		
2.2.3	Social mobility	57.08	46
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	23.21	66
3	**Grow**	50.08	46
3.1	**Formal education**	35.59	62
	Education climate		
3.1.1	Pupil-teacher ratio	62.37	70
3.1.2	Technical/vocational enrolment	32.63	48
3.1.3	Tertiary enrolment	44.17	48
	Performance of education system		
3.1.4	Reading, maths and science scores	38.44	47
	Top universities		
3.1.5	QS university ranking	32.21	33
	International students		
3.1.6	International students inflow	3.71	64

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	53.57	46
	Further education and training climate		
3.2.1	Quality of management schools	54.61	54
3.2.2	Extent of staff training	52.53	39
3.3	**Access to growth opportunities**	61.06	34
	Networks		
3.3.1	Use of virtual social networks	73.51	63
3.3.2	State of cluster development	54.12	30
	Research quality		
3.3.3	Quality of scientific research institutions	45.62	55
	Voice		
3.3.4	Voicing concern to officials	70.99	12
4	**Retain**	44.12	69
4.1	**Sustainability**	33.49	80
	Social protection		
4.1.1	Pension system	22.89	70
	Taxation		
4.1.2	Extent and effect of taxation	44.08	38
4.2	**Lifestyle**	54.76	52
	Quality of life		
4.2.1	Environmental performance	61.81	32
4.2.2	Property stolen	72.27	42
4.2.3	Safety at night	79.89	28
	Services		
4.2.4	Physicians density	5.05	86
5	**Labour and Vocational**	30.64	84
5.1	**Employable skills**	26.70	88
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	13.43	81
	Technical professions		
5.1.2	Technicians and associate professionals	11.73	83
	Youth employment		
5.1.3	Youth employment	54.94	28
5.2	**Labour productivity**	34.57	60
	Productivity per employee		
5.2.1	Labour productivity per employee	10.96	70
	Pay and productivity		
5.2.2	Relationship of pay to productivity	58.19	23
6	**Global Knowledge**	25.61	64
6.1	**Higher skills and competencies**	15.91	80
	Educated workforce		
6.1.1	Tertiary-educated workforce	29.16	62
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	14.61	72
6.1.3	Professionals	14.02	76
6.1.4	Researchers	5.86	58
6.2	**Talent impact**	35.31	53
	Innovation		
6.2.1	Innovation output	30.36	53
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	40.26	40

TRINIDAD AND TOBAGO

RANK
(out of 103) **53**

Population (millions)	**1.34**
GDP per capita (PPP$)	**20,087.13**
GDP (US$ billions)	**25.28**
Global Talent Competitiveness Index Score	**43.23**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**

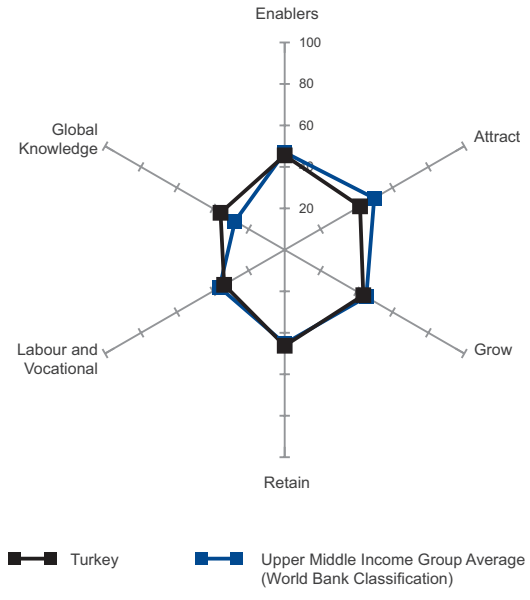


	VARIABLE	SCORE	RANK/103
1	**Enablers**	53.01	48
1.1	**Regulatory landscape**	56.04	53
	Government efficiency		
1.1.1	Government effectiveness	42.20	49
1.1.2	Political stability	69.88	49
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	41.20	62
	Competition climate		
1.2.1	Intensity of local competition	59.37	71
	Innovation climate		
1.2.2	Venture capital availability	23.05	69
1.2.3	Firm-level technology absorption	60.49	66
1.2.4	R&D expenditure	0.71	93
	Connectivity		
1.2.5	ICT access	54.48	51
	Ease of doing business		
1.2.6	Ease of doing business	49.10	53
1.3	**Business landscape**	61.78	33
	Labour market flexibility		
1.3.1	Labour market flexibility	69.20	32
	Ownership and governance		
1.3.2	Reliance on professional management	54.35	47
2	**Attract**	55.40	38
2.1	**External openness**	41.40	64
	FDI		
2.1.1	FDI inflow	20.74	50
	Brain gain		
2.1.2	Qualified labour inflow	43.11	45
	Foreign companies		
2.1.3	Prevalence of foreign ownership	60.33	52
2.2	**Internal openness**	69.41	30
	Diversity		
2.2.1	Tolerance of minorities	70.11	60
2.2.2	Tolerance of immigrants	71.61	45
	Social mobility		
2.2.3	Social mobility	55.77	52
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	49.55	21
3	**Grow**	44.05	65
3.1	**Formal education**	30.36	75
	Education climate		
3.1.1	Pupil-teacher ratio	80.51	46
3.1.2	Technical/vocational enrolment	1.79	93
3.1.3	Tertiary enrolment	7.71	87
	Performance of education system		
3.1.4	Reading, maths and science scores	35.19	49
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	26.60	23
3.2	**Lifelong learning**	56.10	40
	Further education and training climate		
3.2.1	Quality of management schools	63.26	32
3.2.2	Extent of staff training	48.93	53
3.3	**Access to growth opportunities**	45.70	78
	Networks		
3.3.1	Use of virtual social networks	75.26	56
3.3.2	State of cluster development	40.73	67
	Research quality		
3.3.3	Quality of scientific research institutions	37.09	79
	Voice		
3.3.4	Voicing concern to officials	29.72	80
4	**Retain**	48.37	60
4.1	**Sustainability**	61.39	26
	Social protection		
4.1.1	Pension system	74.19	33
	Taxation		
4.1.2	Extent and effect of taxation	48.60	28
4.2	**Lifestyle**	35.34	94
	Quality of life		
4.2.1	Environmental performance	32.23	77
4.2.2	Property stolen	45.26	89
4.2.3	Safety at night	44.92	92
	Services		
4.2.4	Physicians density	18.95	69
5	**Labour and Vocational**	39.96	48
5.1	**Employable skills**	42.15	51
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	17.86	78
	Technical professions		
5.1.2	Technicians and associate professionals	52.55	39
	Youth employment		
5.1.3	Youth employment	56.05	26
5.2	**Labour productivity**	37.78	51
	Productivity per employee		
5.2.1	Labour productivity per employee	40.79	28
	Pay and productivity		
5.2.2	Relationship of pay to productivity	34.76	94
6	**Global Knowledge**	18.60	85
6.1	**Higher skills and competencies**	20.39	73
	Educated workforce		
6.1.1	Tertiary-educated workforce	21.87	72
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	44.94	20
6.1.3	Professionals	9.45	85
6.1.4	Researchers	5.29	64
6.2	**Talent impact**	16.82	87
	Innovation		
6.2.1	Innovation output	19.35	74
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	14.29	73

TURKEY

RANK
(out of 103) **67**

Population (millions)	**74.08**
GDP per capita (PPP$)	**15,001.41**
GDP (US$ billions)	**794.47**
Global Talent Competitiveness Index Score	**41.16**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



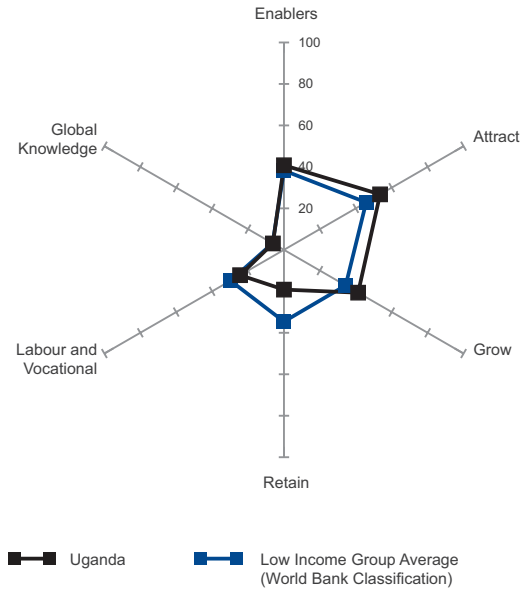
	VARIABLE	SCORE	RANK/103
1	**Enablers**	45.56	65
1.1	**Regulatory landscape**	50.50	61
	Government efficiency		
1.1.1	Government effectiveness	45.14	45
1.1.2	Political stability	43.40	87
	FDI climate		
1.1.3	Starting a foreign business	62.96	34
1.2	**Market landscape**	48.14	42
	Competition climate		
1.2.1	Intensity of local competition	78.09	14
	Innovation climate		
1.2.2	Venture capital availability	25.22	59
1.2.3	Firm-level technology absorption	71.63	34
1.2.4	R&D expenditure	18.77	37
	Connectivity		
1.2.5	ICT access	48.00	57
	Ease of doing business		
1.2.6	Ease of doing business	47.10	55
1.3	**Business landscape**	38.03	89
	Labour market flexibility		
1.3.1	Labour market flexibility	21.24	87
	Ownership and governance		
1.3.2	Reliance on professional management	54.81	45
2	**Attract**	41.96	87
2.1	**External openness**	36.56	74
	FDI		
2.1.1	FDI inflow	16.57	65
	Brain gain		
2.1.2	Qualified labour inflow	39.63	57
	Foreign companies		
2.1.3	Prevalence of foreign ownership	53.47	74
2.2	**Internal openness**	47.35	90
	Diversity		
2.2.1	Tolerance of minorities	57.07	86
2.2.2	Tolerance of immigrants	51.12	88
	Social mobility		
2.2.3	Social mobility	57.97	44
	Gender mobility		
2.2.4	Female professionals and technical workers	50.13	78
2.2.5	Female parliamentarians	20.47	71
3	**Grow**	43.76	66
3.1	**Formal education**	34.74	63
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	46.01	28
3.1.3	Tertiary enrolment	51.95	40
	Performance of education system		
3.1.4	Reading, maths and science scores	51.45	40
	Top universities		
3.1.5	QS university ranking	20.92	42
	International students		
3.1.6	International students inflow	3.37	65

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	48.06	65
	Further education and training climate		
3.2.1	Quality of management schools	46.32	75
3.2.2	Extent of staff training	49.80	48
3.3	**Access to growth opportunities**	48.47	64
	Networks		
3.3.1	Use of virtual social networks	73.70	62
3.3.2	State of cluster development	51.15	37
	Research quality		
3.3.3	Quality of scientific research institutions	40.04	74
	Voice		
3.3.4	Voicing concern to officials	29.01	81
4	**Retain**	46.25	63
4.1	**Sustainability**	46.96	53
	Social protection		
4.1.1	Pension system	60.94	41
	Taxation		
4.1.2	Extent and effect of taxation	32.98	83
4.2	**Lifestyle**	45.54	77
	Quality of life		
4.2.1	Environmental performance	27.11	88
4.2.2	Property stolen	75.36	29
4.2.3	Safety at night	54.87	72
	Services		
4.2.4	Physicians density	24.84	65
5	**Labour and Vocational**	33.72	69
5.1	**Employable skills**	27.36	87
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	22.71	69
	Technical professions		
5.1.2	Technicians and associate professionals	24.49	71
	Youth employment		
5.1.3	Youth employment	34.87	60
5.2	**Labour productivity**	40.07	45
	Productivity per employee		
5.2.1	Labour productivity per employee	26.76	42
	Pay and productivity		
5.2.2	Relationship of pay to productivity	53.39	40
6	**Global Knowledge**	35.72	46
6.1	**Higher skills and competencies**	25.49	58
	Educated workforce		
6.1.1	Tertiary-educated workforce	23.01	71
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	46.63	16
6.1.3	Professionals	21.04	65
6.1.4	Researchers	11.29	48
6.2	**Talent impact**	45.95	35
	Innovation		
6.2.1	Innovation output	28.27	56
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	63.64	11

UGANDA

RANK
(out of 103) **96**

Population (millions)	**36.48**
GDP per capita (PPP$)	**1,414.93**
GDP (US$ billions)	**21.00**
Global Talent Competitiveness Index Score	**30.89**
Global Talent Competitiveness Index Score (Income Group Average)	**31.51**



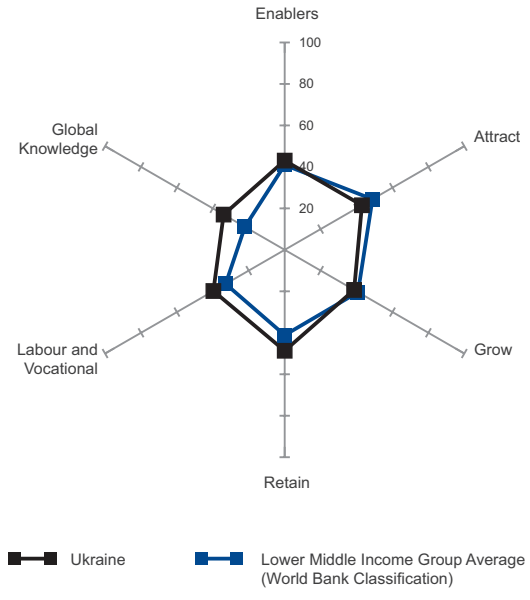
	VARIABLE	SCORE	RANK/103
1	**Enablers**	40.79	83
1.1	**Regulatory landscape**	31.33	94
	Government efficiency		
1.1.1	Government effectiveness	17.74	82
1.1.2	Political stability	39.21	90
	FDI climate		
1.1.3	Starting a foreign business	37.04	58
1.2	**Market landscape**	29.15	94
	Competition climate		
1.2.1	Intensity of local competition	62.12	64
	Innovation climate		
1.2.2	Venture capital availability	25.02	60
1.2.3	Firm-level technology absorption	55.41	81
1.2.4	R&D expenditure	8.91	61
	Connectivity		
1.2.5	ICT access	3.72	94
	Ease of doing business		
1.2.6	Ease of doing business	19.70	83
1.3	**Business landscape**	61.90	32
	Labour market flexibility		
1.3.1	Labour market flexibility	75.35	20
	Ownership and governance		
1.3.2	Reliance on professional management	48.45	69
2	**Attract**	53.51	43
2.1	**External openness**	47.90	35
	FDI		
2.1.1	FDI inflow	37.12	25
	Brain gain		
2.1.2	Qualified labour inflow	34.62	72
	Foreign companies		
2.1.3	Prevalence of foreign ownership	71.98	25
2.2	**Internal openness**	59.12	58
	Diversity		
2.2.1	Tolerance of minorities	64.13	73
2.2.2	Tolerance of immigrants	70.22	51
	Social mobility		
2.2.3	Social mobility	47.84	71
	Gender mobility		
2.2.4	Female professionals and technical workers	46.81	81
2.2.5	Female parliamentarians	66.62	14
3	**Grow**	41.29	78
3.1	**Formal education**	27.75	83
	Education climate		
3.1.1	Pupil-teacher ratio	68.05	66
3.1.2	Technical/vocational enrolment	13.74	70
3.1.3	Tertiary enrolment	5.33	90
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	23.88	24

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	46.11	73
	Further education and training climate		
3.2.1	Quality of management schools	48.28	68
3.2.2	Extent of staff training	43.95	75
3.3	**Access to growth opportunities**	50.02	57
	Networks		
3.3.1	Use of virtual social networks	55.69	97
3.3.2	State of cluster development	34.49	86
	Research quality		
3.3.3	Quality of scientific research institutions	40.08	72
	Voice		
3.3.4	Voicing concern to officials	69.81	13
4	**Retain**	19.18	103
4.1	**Sustainability**	22.90	97
	Social protection		
4.1.1	Pension system	9.62	79
	Taxation		
4.1.2	Extent and effect of taxation	36.19	69
4.2	**Lifestyle**	15.46	103
	Quality of life		
4.2.1	Environmental performance	n/a	n/a
4.2.2	Property stolen	0.00	102
4.2.3	Safety at night	44.60	94
	Services		
4.2.4	Physicians density	1.77	92
5	**Labour and Vocational**	24.43	101
5.1	**Employable skills**	28.71	83
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	3.29	88
	Technical professions		
5.1.2	Technicians and associate professionals	13.27	82
	Youth employment		
5.1.3	Youth employment	69.59	17
5.2	**Labour productivity**	20.15	100
	Productivity per employee		
5.2.1	Labour productivity per employee	1.05	91
	Pay and productivity		
5.2.2	Relationship of pay to productivity	39.25	86
6	**Global Knowledge**	6.16	99
6.1	**Higher skills and competencies**	3.47	97
	Educated workforce		
6.1.1	Tertiary-educated workforce	6.61	82
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	0.56	92
6.1.3	Professionals	6.40	87
6.1.4	Researchers	0.31	92
6.2	**Talent impact**	8.84	95
	Innovation		
6.2.1	Innovation output	11.20	92
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	6.49	75

UKRAINE

RANK
(out of 103) **66**

Population (millions)	**45.49**
GDP per capita (PPP$)	**7,373.99**
GDP (US$ billions)	**176.24**
Global Talent Competitiveness Index Score	**41.18**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



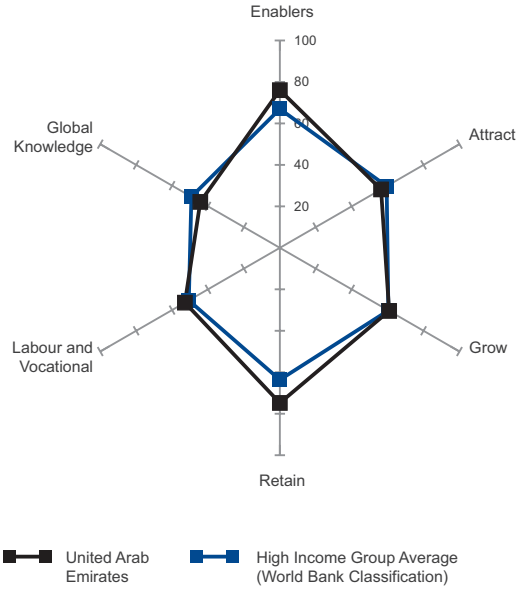
	VARIABLE	SCORE	RANK/103
1	**Enablers**	43.04	74
1.1	**Regulatory landscape**	51.24	60
	Government efficiency		
1.1.1	Government effectiveness	8.24	98
1.1.2	Political stability	62.53	61
	FDI climate		
1.1.3	Starting a foreign business	82.96	12
1.2	**Market landscape**	34.96	78
	Competition climate		
1.2.1	Intensity of local competition	54.67	79
	Innovation climate		
1.2.2	Venture capital availability	20.06	81
1.2.3	Firm-level technology absorption	62.66	56
1.2.4	R&D expenditure	19.07	36
	Connectivity		
1.2.5	ICT access	44.41	58
	Ease of doing business		
1.2.6	Ease of doing business	8.90	94
1.3	**Business landscape**	42.91	79
	Labour market flexibility		
1.3.1	Labour market flexibility	45.44	60
	Ownership and governance		
1.3.2	Reliance on professional management	40.39	98
2	**Attract**	43.00	86
2.1	**External openness**	32.90	83
	FDI		
2.1.1	FDI inflow	33.78	31
	Brain gain		
2.1.2	Qualified labour inflow	21.31	94
	Foreign companies		
2.1.3	Prevalence of foreign ownership	43.62	93
2.2	**Internal openness**	53.09	81
	Diversity		
2.2.1	Tolerance of minorities	62.50	76
2.2.2	Tolerance of immigrants	60.83	74
	Social mobility		
2.2.3	Social mobility	31.38	97
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	10.76	92
3	**Grow**	38.65	88
3.1	**Formal education**	29.47	78
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	18.63	64
3.1.3	Tertiary enrolment	78.43	7
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	13.89	48
	International students		
3.1.6	International students inflow	6.95	55

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	41.68	86
	Further education and training climate		
3.2.1	Quality of management schools	40.64	90
3.2.2	Extent of staff training	42.72	81
3.3	**Access to growth opportunities**	44.79	82
	Networks		
3.3.1	Use of virtual social networks	69.69	78
3.3.2	State of cluster development	30.89	95
	Research quality		
3.3.3	Quality of scientific research institutions	44.62	58
	Voice		
3.3.4	Voicing concern to officials	33.96	73
4	**Retain**	48.67	58
4.1	**Sustainability**	43.31	58
	Social protection		
4.1.1	Pension system	64.68	38
	Taxation		
4.1.2	Extent and effect of taxation	21.94	99
4.2	**Lifestyle**	54.03	54
	Quality of life		
4.2.1	Environmental performance	30.56	82
4.2.2	Property stolen	77.25	25
4.2.3	Safety at night	55.72	69
	Services		
4.2.4	Physicians density	52.57	25
5	**Labour and Vocational**	39.71	50
5.1	**Employable skills**	44.94	40
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	n/a	n/a
	Technical professions		
5.1.2	Technicians and associate professionals	53.57	36
	Youth employment		
5.1.3	Youth employment	36.31	55
5.2	**Labour productivity**	34.48	62
	Productivity per employee		
5.2.1	Labour productivity per employee	10.44	74
	Pay and productivity		
5.2.2	Relationship of pay to productivity	58.52	21
6	**Global Knowledge**	34.01	50
6.1	**Higher skills and competencies**	33.10	43
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	42.13	23
6.1.3	Professionals	39.02	42
6.1.4	Researchers	18.13	37
6.2	**Talent impact**	34.91	54
	Innovation		
6.2.1	Innovation output	34.91	46
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

UNITED ARAB EMIRATES

RANK
(out of 103) **19**

Population (millions)	**9.22**
GDP per capita (PPP$)	**49,011.59**
GDP (US$ billions)	**358.94**
Global Talent Competitiveness Index Score	**60.87**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



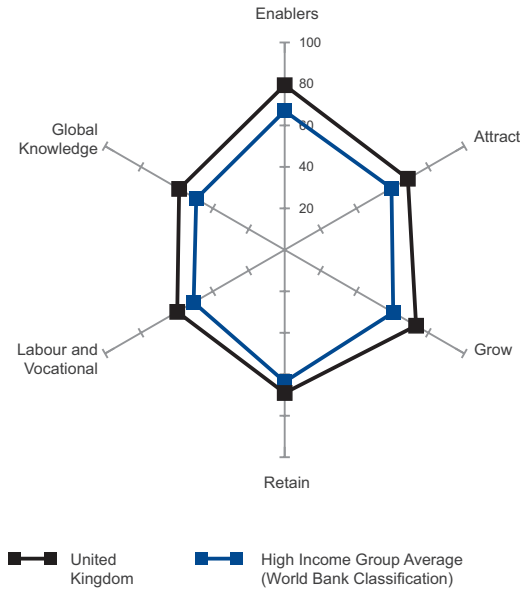
	VARIABLE	SCORE	RANK/103
1	**Enablers**	76.04	14
1.1	**Regulatory landscape**	75.47	27
	Government efficiency		
1.1.1	Government effectiveness	61.34	32
1.1.2	Political stability	89.59	21
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	72.83	12
	Competition climate		
1.2.1	Intensity of local competition	78.24	13
	Innovation climate		
1.2.2	Venture capital availability	52.39	6
1.2.3	Firm-level technology absorption	82.62	11
1.2.4	R&D expenditure	n/a	n/a
	Connectivity		
1.2.5	ICT access	72.41	30
	Ease of doing business		
1.2.6	Ease of doing business	78.50	23
1.3	**Business landscape**	79.82	9
	Labour market flexibility		
1.3.1	Labour market flexibility	89.72	3
	Ownership and governance		
1.3.2	Reliance on professional management	69.93	24
2	**Attract**	56.35	37
2.1	**External openness**	54.73	14
	FDI		
2.1.1	FDI inflow	17.27	61
	Brain gain		
2.1.2	Qualified labour inflow	75.12	6
	Foreign companies		
2.1.3	Prevalence of foreign ownership	71.82	26
2.2	**Internal openness**	57.96	63
	Diversity		
2.2.1	Tolerance of minorities	72.83	57
2.2.2	Tolerance of immigrants	92.64	10
	Social mobility		
2.2.3	Social mobility	81.19	12
	Gender mobility		
2.2.4	Female professionals and technical workers	16.93	92
2.2.5	Female parliamentarians	26.24	60
3	**Grow**	60.85	23
3.1	**Formal education**	53.07	31
	Education climate		
3.1.1	Pupil-teacher ratio	84.70	39
3.1.2	Technical/vocational enrolment	1.98	92
3.1.3	Tertiary enrolment	n/a	n/a
	Performance of education system		
3.1.4	Reading, maths and science scores	53.42	37
	Top universities		
3.1.5	QS university ranking	25.26	34
	International students		
3.1.6	International students inflow	100.00	1

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	65.50	21
	Further education and training climate		
3.2.1	Quality of management schools	66.62	25
3.2.2	Extent of staff training	64.37	17
3.3	**Access to growth opportunities**	63.98	25
	Networks		
3.3.1	Use of virtual social networks	85.84	18
3.3.2	State of cluster development	70.55	3
	Research quality		
3.3.3	Quality of scientific research institutions	60.38	33
	Voice		
3.3.4	Voicing concern to officials	39.15	63
4	**Retain**	74.79	3
4.1	**Sustainability**	85.93	1
	Social protection		
4.1.1	Pension system	n/a	n/a
	Taxation		
4.1.2	Extent and effect of taxation	85.93	1
4.2	**Lifestyle**	63.66	31
	Quality of life		
4.2.1	Environmental performance	41.07	65
4.2.2	Property stolen	83.65	10
4.2.3	Safety at night	98.72	2
	Services		
4.2.4	Physicians density	31.21	58
5	**Labour and Vocational**	52.87	21
5.1	**Employable skills**	49.59	31
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	34.71	50
	Technical professions		
5.1.2	Technicians and associate professionals	68.37	23
	Youth employment		
5.1.3	Youth employment	45.70	43
5.2	**Labour productivity**	56.14	10
	Productivity per employee		
5.2.1	Labour productivity per employee	46.34	24
	Pay and productivity		
5.2.2	Relationship of pay to productivity	65.93	5
6	**Global Knowledge**	44.30	31
6.1	**Higher skills and competencies**	41.84	31
	Educated workforce		
6.1.1	Tertiary-educated workforce	41.00	44
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	42.13	23
6.1.3	Professionals	42.38	35
6.1.4	Researchers	n/a	n/a
6.2	**Talent impact**	46.76	34
	Innovation		
6.2.1	Innovation output	33.78	48
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	59.74	14

UNITED KINGDOM

RANK
(OUT OF 103) **7**

Population (millions)	**62.78**
GDP per capita (PPP$)	**36,941.06**
GDP (US$ billions)	**2,440.51**
Global Talent Competitiveness Index Score	**68.13**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



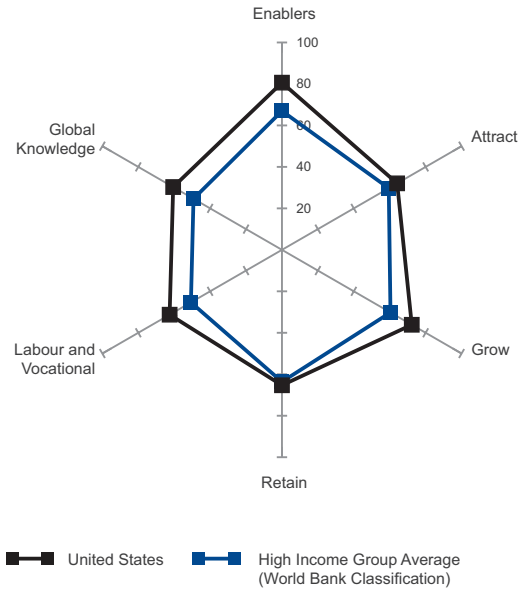
	VARIABLE	SCORE	RANK/103
1	**Enablers**	79.39	10
1.1	**Regulatory landscape**	81.48	18
	Government efficiency		
1.1.1	Government effectiveness	79.13	15
1.1.2	Political stability	75.29	41
	FDI climate		
1.1.3	Starting a foreign business	90.00	3
1.2	**Market landscape**	72.77	13
	Competition climate		
1.2.1	Intensity of local competition	82.64	4
	Innovation climate		
1.2.2	Venture capital availability	46.12	12
1.2.3	Firm-level technology absorption	78.81	20
1.2.4	R&D expenditure	39.76	20
	Connectivity		
1.2.5	ICT access	94.21	6
	Ease of doing business		
1.2.6	Ease of doing business	95.10	6
1.3	**Business landscape**	83.93	5
	Labour market flexibility		
1.3.1	Labour market flexibility	85.07	7
	Ownership and governance		
1.3.2	Reliance on professional management	82.80	9
2	**Attract**	68.57	12
2.1	**External openness**	59.90	10
	FDI		
2.1.1	FDI inflow	18.07	58
	Brain gain		
2.1.2	Qualified labour inflow	77.08	4
	Foreign companies		
2.1.3	Prevalence of foreign ownership	84.54	4
2.2	**Internal openness**	77.24	18
	Diversity		
2.2.1	Tolerance of minorities	96.96	5
2.2.2	Tolerance of immigrants	87.62	19
	Social mobility		
2.2.3	Social mobility	74.53	20
	Gender mobility		
2.2.4	Female professionals and technical workers	91.58	57
2.2.5	Female parliamentarians	35.51	39
3	**Grow**	73.17	2
3.1	**Formal education**	67.42	10
	Education climate		
3.1.1	Pupil-teacher ratio	78.40	52
3.1.2	Technical/vocational enrolment	27.96	52
3.1.3	Tertiary enrolment	56.31	32
	Performance of education system		
3.1.4	Reading, maths and science scores	69.54	17
	Top universities		
3.1.5	QS university ranking	100.00	1
	International students		
3.1.6	International students inflow	72.33	8

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	75.21	3
	Further education and training climate		
3.2.1	Quality of management schools	84.32	1
3.2.2	Extent of staff training	66.10	14
3.3	**Access to growth opportunities**	76.88	4
	Networks		
3.3.1	Use of virtual social networks	93.23	2
3.3.2	State of cluster development	67.86	9
	Research quality		
3.3.3	Quality of scientific research institutions	86.29	3
	Voice		
3.3.4	Voicing concern to officials	60.14	20
4	**Retain**	69.04	9
4.1	**Sustainability**	69.10	11
	Social protection		
4.1.1	Pension system	97.64	7
	Taxation		
4.1.2	Extent and effect of taxation	40.57	53
4.2	**Lifestyle**	68.97	16
	Quality of life		
4.2.1	Environmental performance	82.01	9
4.2.2	Property stolen	72.99	38
4.2.3	Safety at night	76.47	31
	Services		
4.2.4	Physicians density	44.41	40
5	**Labour and Vocational**	59.83	11
5.1	**Employable skills**	61.06	14
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	74.86	9
	Technical professions		
5.1.2	Technicians and associate professionals	53.06	38
	Youth employment		
5.1.3	Youth employment	55.25	27
5.2	**Labour productivity**	58.59	7
	Productivity per employee		
5.2.1	Labour productivity per employee	54.53	14
	Pay and productivity		
5.2.2	Relationship of pay to productivity	62.66	10
6	**Global Knowledge**	58.76	12
6.1	**Higher skills and competencies**	63.28	7
	Educated workforce		
6.1.1	Tertiary-educated workforce	76.77	9
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	57.30	8
6.1.3	Professionals	71.95	4
6.1.4	Researchers	47.10	17
6.2	**Talent impact**	54.25	22
	Innovation		
6.2.1	Innovation output	73.43	6
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	35.06	49

UNITED STATES

RANK
(OUT OF 103) **9**

Population (millions)	**317.81**
GDP per capita (PPP$)	**49,922.11**
GDP (US$ billions)	**15,684.75**
Global Talent Competitiveness Index Score	**67.58**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



	VARIABLE	SCORE	RANK/103
1	**Enablers**	80.63	7
1.1	**Regulatory landscape**	79.05	21
	Government efficiency		
1.1.1	Government effectiveness	74.90	19
1.1.2	Political stability	79.30	38
	FDI climate		
1.1.3	Starting a foreign business	82.96	12
1.2	**Market landscape**	75.91	4
	Competition climate		
1.2.1	Intensity of local competition	77.44	15
	Innovation climate		
1.2.2	Venture capital availability	51.75	7
1.2.3	Firm-level technology absorption	81.65	13
1.2.4	R&D expenditure	65.67	8
	Connectivity		
1.2.5	ICT access	80.83	22
	Ease of doing business		
1.2.6	Ease of doing business	98.10	3
1.3	**Business landscape**	86.92	2
	Labour market flexibility		
1.3.1	Labour market flexibility	100.00	1
	Ownership and governance		
1.3.2	Reliance on professional management	73.85	18
2	**Attract**	64.13	22
2.1	**External openness**	52.16	24
	FDI		
2.1.1	FDI inflow	12.62	76
	Brain gain		
2.1.2	Qualified labour inflow	76.37	5
	Foreign companies		
2.1.3	Prevalence of foreign ownership	67.48	39
2.2	**Internal openness**	76.11	19
	Diversity		
2.2.1	Tolerance of minorities	90.87	17
2.2.2	Tolerance of immigrants	89.11	17
	Social mobility		
2.2.3	Social mobility	75.57	19
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	24.98	63
3	**Grow**	72.27	3
3.1	**Formal education**	70.96	3
	Education climate		
3.1.1	Pupil-teacher ratio	79.84	49
3.1.2	Technical/vocational enrolment	n/a	n/a
3.1.3	Tertiary enrolment	91.63	2
	Performance of education system		
3.1.4	Reading, maths and science scores	68.07	22
	Top universities		
3.1.5	QS university ranking	99.85	2
	International students		
3.1.6	International students inflow	15.42	41

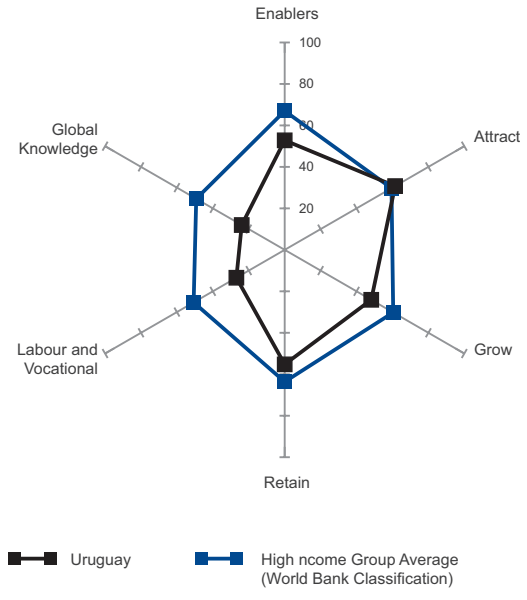
	VARIABLE	SCORE	RANK/103
3.2	**Lifelong Learning**	69.58	10
	Further education and training climate		
3.2.1	Quality of management schools	73.28	12
3.2.2	Extent of staff training	65.88	15
3.3	**Access to growth opportunities**	76.26	7
	Networks		
3.3.1	Use of virtual social networks	86.87	13
3.3.2	State of cluster development	67.19	10
	Research quality		
3.3.3	Quality of scientific research institutions	79.29	6
	Voice		
3.3.4	Voicing concern to officials	71.70	11
4	**Retain**	65.31	19
4.1	**Sustainability**	69.36	10
	Social protection		
4.1.1	Pension system	96.57	9
	Taxation		
4.1.2	Extent and effect of taxation	42.15	45
4.2	**Lifestyle**	61.27	38
	Quality of life		
4.2.1	Environmental performance	54.06	45
4.2.2	Property stolen	70.85	47
4.2.3	Safety at night	80.96	27
	Services		
4.2.4	Physicians density	39.19	48
5	**Labour and Vocational**	62.54	5
5.1	**Employable skills**	58.67	17
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	68.29	17
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	49.04	36
5.2	**Labour productivity**	66.41	3
	Productivity per employee		
5.2.1	Labour productivity per employee	70.09	3
	Pay and productivity		
5.2.2	Relationship of pay to productivity	62.74	9
6	**Global Knowledge**	60.57	7
6.1	**Higher skills and competencies**	66.17	5
	Educated workforce		
6.1.1	Tertiary-educated workforce	89.07	3
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	85.39	2
6.1.3	Professionals	63.72	12
6.1.4	Researchers	26.51	31
6.2	**Talent impact**	54.97	21
	Innovation		
6.2.1	Innovation output	63.19	16
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	46.75	29

URUGUAY

RANK
(OUT OF 103)

49

Population (millions)	**3.40**
GDP per capita (PPP$)	**15,910.80**
GDP (US$ billions)	**49.40**
Global Talent Competitiveness Index Score	**44.75**
Global Talent Competitiveness Index Score (Income Group Average)	**58.40**



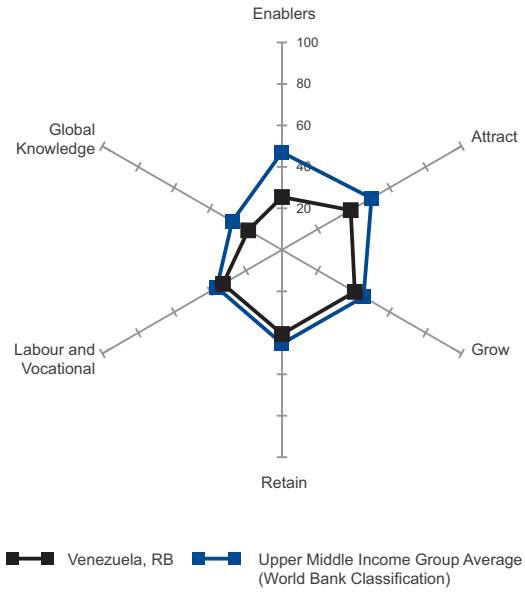
	VARIABLE	SCORE	RANK/103
1	**Enablers**	52.81	50
1.1	**Regulatory landscape**	69.62	34
	Government efficiency		
1.1.1	Government effectiveness	50.13	39
1.1.2	Political stability	89.11	22
	FDI climate		
1.1.3	Starting a foreign business	n/a	n/a
1.2	**Market landscape**	41.34	60
	Competition climate		
1.2.1	Intensity of local competition	56.05	75
	Innovation climate		
1.2.2	Venture capital availability	24.82	63
1.2.3	Firm-level technology absorption	60.27	67
1.2.4	R&D expenditure	9.42	59
	Connectivity		
1.2.5	ICT access	62.21	42
	Ease of doing business		
1.2.6	Ease of doing business	35.30	67
1.3	**Business landscape**	47.47	68
	Labour market flexibility		
1.3.1	Labour market flexibility	47.57	58
	Ownership and governance		
1.3.2	Reliance on professional management	47.37	71
2	**Attract**	61.48	24
2.1	**External openness**	50.87	26
	FDI		
2.1.1	FDI inflow	35.42	27
	Brain gain		
2.1.2	Qualified labour inflow	38.56	61
	Foreign companies		
2.1.3	Prevalence of foreign ownership	78.64	11
2.2	**Internal openness**	72.08	25
	Diversity		
2.2.1	Tolerance of minorities	89.78	20
2.2.2	Tolerance of immigrants	93.92	9
	Social mobility		
2.2.3	Social mobility	59.67	39
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	17.03	77
3	**Grow**	48.18	51
3.1	**Formal education**	38.85	58
	Education climate		
3.1.1	Pupil-teacher ratio	86.78	33
3.1.2	Technical/vocational enrolment	32.31	49
3.1.3	Tertiary enrolment	59.79	28
	Performance of education system		
3.1.4	Reading, maths and science scores	40.36	45
	Top universities		
3.1.5	QS university ranking	9.51	53
	International students		
3.1.6	International students inflow	4.36	62

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	51.18	55
	Further education and training climate		
3.2.1	Quality of management schools	55.95	47
3.2.2	Extent of staff training	46.41	65
3.3	**Access to growth opportunities**	54.52	47
	Networks		
3.3.1	Use of virtual social networks	77.74	47
3.3.2	State of cluster development	41.26	64
	Research quality		
3.3.3	Quality of scientific research institutions	44.85	56
	Voice		
3.3.4	Voicing concern to officials	54.25	31
4	**Retain**	55.23	44
4.1	**Sustainability**	58.16	37
	Social protection		
4.1.1	Pension system	82.02	31
	Taxation		
4.1.2	Extent and effect of taxation	34.30	77
4.2	**Lifestyle**	52.30	58
	Quality of life		
4.2.1	Environmental performance	55.13	42
4.2.2	Property stolen	40.05	91
4.2.3	Safety at night	53.48	76
	Services		
4.2.4	Physicians density	60.53	13
5	**Labour and Vocational**	26.90	93
5.1	**Employable skills**	31.72	79
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	17.57	80
	Technical professions		
5.1.2	Technicians and associate professionals	25.51	70
	Youth employment		
5.1.3	Youth employment	52.07	31
5.2	**Labour productivity**	22.09	97
	Productivity per employee		
5.2.1	Labour productivity per employee	19.45	54
	Pay and productivity		
5.2.2	Relationship of pay to productivity	24.74	102
6	**Global Knowledge**	23.93	70
6.1	**Higher skills and competencies**	22.04	65
	Educated workforce		
6.1.1	Tertiary-educated workforce	21.41	73
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	33.15	37
6.1.3	Professionals	28.05	54
6.1.4	Researchers	5.56	61
6.2	**Talent impact**	25.81	74
	Innovation		
6.2.1	Innovation output	26.94	60
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	24.68	62

VENEZUELA, RB

RANK (OUT OF 103) **92**

Population (millions)	**30.00**
GDP per capita (PPP$)	**13,615.82**
GDP (US$ billions)	**382.42**
Global Talent Competitiveness Index Score	**32.75**
Global Talent Competitiveness Index Score (Income Group Average)	**41.91**



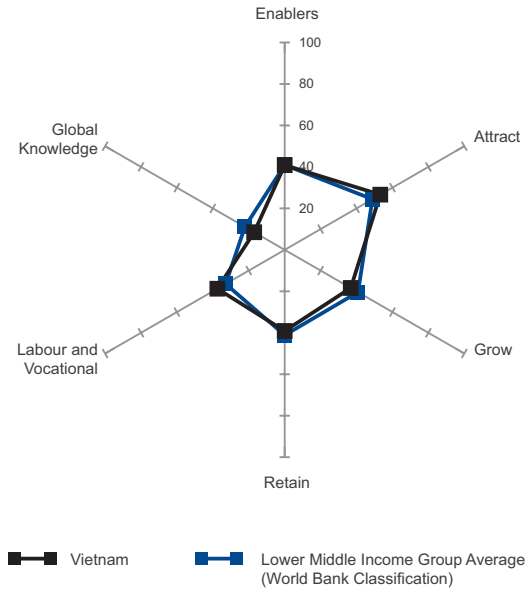
	VARIABLE	SCORE	RANK/103
1	**Enablers**	25.46	102
1.1	**Regulatory landscape**	21.45	102
	Government efficiency		
1.1.1	Government effectiveness	0.00	103
1.1.2	Political stability	34.22	95
	FDI climate		
1.1.3	Starting a foreign business	30.14	62
1.2	**Market landscape**	28.47	96
	Competition climate		
1.2.1	Intensity of local competition	37.82	102
	Innovation climate		
1.2.2	Venture capital availability	19.88	83
1.2.3	Firm-level technology absorption	51.97	88
1.2.4	R&D expenditure	n/a	n/a
	Connectivity		
1.2.5	ICT access	32.69	70
	Ease of doing business		
1.2.6	Ease of doing business	0.00	103
1.3	**Business landscape**	26.45	102
	Labour market flexibility		
1.3.1	Labour market flexibility	0.00	102
	Ownership and governance		
1.3.2	Reliance on professional management	52.90	53
2	**Attract**	38.29	97
2.1	**External openness**	24.54	99
	FDI		
2.1.1	FDI inflow	14.00	73
	Brain gain		
2.1.2	Qualified labour inflow	17.48	99
	Foreign companies		
2.1.3	Prevalence of foreign ownership	42.15	95
2.2	**Internal openness**	52.03	84
	Diversity		
2.2.1	Tolerance of minorities	74.78	53
2.2.2	Tolerance of immigrants	72.47	43
	Social mobility		
2.2.3	Social mobility	35.53	93
	Gender mobility		
2.2.4	Female professionals and technical workers	n/a	n/a
2.2.5	Female parliamentarians	25.34	61
3	**Grow**	40.56	80
3.1	**Formal education**	27.17	84
	Education climate		
3.1.1	Pupil-teacher ratio	n/a	n/a
3.1.2	Technical/vocational enrolment	11.13	77
3.1.3	Tertiary enrolment	74.83	11
	Performance of education system		
3.1.4	Reading, maths and science scores	35.14	50
	Top universities		
3.1.5	QS university ranking	14.74	47
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	48.05	66
	Further education and training climate		
3.2.1	Quality of management schools	52.86	60
3.2.2	Extent of staff training	43.24	79
3.3	**Access to growth opportunities**	46.45	74
	Networks		
3.3.1	Use of virtual social networks	79.58	38
3.3.2	State of cluster development	30.83	96
	Research quality		
3.3.3	Quality of scientific research institutions	29.65	92
	Voice		
3.3.4	Voicing concern to officials	45.75	48
4	**Retain**	40.58	74
4.1	**Sustainability**	34.26	79
	Social protection		
4.1.1	Pension system	34.67	56
	Taxation		
4.1.2	Extent and effect of taxation	33.84	79
4.2	**Lifestyle**	46.90	75
	Quality of life		
4.2.1	Environmental performance	51.84	51
4.2.2	Property stolen	54.74	81
4.2.3	Safety at night	34.12	100
	Services		
4.2.4	Physicians density	n/a	n/a
5	**Labour and Vocational**	32.85	71
5.1	**Employable skills**	40.72	53
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	38.29	47
	Technical professions		
5.1.2	Technicians and associate professionals	n/a	n/a
	Youth employment		
5.1.3	Youth employment	43.15	48
5.2	**Labour productivity**	24.98	92
	Productivity per employee		
5.2.1	Labour productivity per employee	21.38	52
	Pay and productivity		
5.2.2	Relationship of pay to productivity	28.57	101
6	**Global Knowledge**	18.79	84
6.1	**Higher skills and competencies**	18.60	77
	Educated workforce		
6.1.1	Tertiary-educated workforce	36.22	55
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	n/a	n/a
6.1.3	Professionals	n/a	n/a
6.1.4	Researchers	0.98	82
6.2	**Talent impact**	18.98	83
	Innovation		
6.2.1	Innovation output	13.28	88
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	24.68	62

VIETNAM

RANK
(OUT OF 103) **82**

Population (millions)	**90.95**
GDP per capita (PPP$)	**3,547.77**
GDP (US$ billions)	**138.07**
Global Talent Competitiveness Index Score	**37.41**
Global Talent Competitiveness Index Score (Income Group Average)	**37.79**



	VARIABLE	SCORE	RANK/103
1	**Enablers**	40.84	82
1.1	**Regulatory landscape**	48.90	67
	Government efficiency		
1.1.1	Government effectiveness	24.61	74
1.1.2	Political stability	70.27	47
	FDI climate		
1.1.3	Starting a foreign business	51.83	48
1.2	**Market landscape**	34.71	80
	Competition climate		
1.2.1	Intensity of local competition	69.14	39
	Innovation climate		
1.2.2	Venture capital availability	21.51	76
1.2.3	Firm-level technology absorption	49.73	94
1.2.4	R&D expenditure	3.91	77
	Connectivity		
1.2.5	ICT access	32.55	71
	Ease of doing business		
1.2.6	Ease of doing business	31.40	71
1.3	**Business landscape**	38.92	86
	Labour market flexibility		
1.3.1	Labour market flexibility	32.98	79
	Ownership and governance		
1.3.2	Reliance on professional management	44.86	80
2	**Attract**	53.21	48
2.1	**External openness**	43.99	49
	FDI		
2.1.1	FDI inflow	46.98	17
	Brain gain		
2.1.2	Qualified labour inflow	34.61	73
	Foreign companies		
2.1.3	Prevalence of foreign ownership	50.39	82
2.2	**Internal openness**	62.43	45
	Diversity		
2.2.1	Tolerance of minorities	66.85	67
2.2.2	Tolerance of immigrants	61.26	70
	Social mobility		
2.2.3	Social mobility	44.13	78
	Gender mobility		
2.2.4	Female professionals and technical workers	100.00	1
2.2.5	Female parliamentarians	39.93	30
3	**Grow**	36.77	91
3.1	**Formal education**	28.97	79
	Education climate		
3.1.1	Pupil-teacher ratio	66.23	68
3.1.2	Technical/vocational enrolment	n/a	n/a
3.1.3	Tertiary enrolment	20.68	76
	Performance of education system		
3.1.4	Reading, maths and science scores	n/a	n/a
	Top universities		
3.1.5	QS university ranking	n/a	n/a
	International students		
3.1.6	International students inflow	0.00	72

	VARIABLE	SCORE	RANK/103
3.2	**Lifelong learning**	37.79	98
	Further education and training climate		
3.2.1	Quality of management schools	37.10	97
3.2.2	Extent of staff training	38.47	88
3.3	**Access to growth opportunities**	43.57	85
	Networks		
3.3.1	Use of virtual social networks	62.46	92
3.3.2	State of cluster development	54.05	32
	Research quality		
3.3.3	Quality of scientific research institutions	40.07	73
	Voice		
3.3.4	Voicing concern to officials	17.69	95
4	**Retain**	39.13	80
4.1	**Sustainability**	29.66	89
	Social protection		
4.1.1	Pension system	19.20	74
	Taxation		
4.1.2	Extent and effect of taxation	40.12	54
4.2	**Lifestyle**	48.60	70
	Quality of life		
4.2.1	Environmental performance	40.46	67
4.2.2	Property stolen	56.87	76
4.2.3	Safety at night	77.33	29
	Services		
4.2.4	Physicians density	19.74	67
5	**Labour and Vocational**	37.49	58
5.1	**Employable skills**	42.86	50
	Vocationally trained workforce		
5.1.1	Secondary-educated workforce	n/a	n/a
	Technical professions		
5.1.2	Technicians and associate professionals	10.71	85
	Youth employment		
5.1.3	Youth employment	75.00	10
5.2	**Labour productivity**	32.12	71
	Productivity per employee		
5.2.1	Labour productivity per employee	3.30	84
	Pay and productivity		
5.2.2	Relationship of pay to productivity	60.95	15
6	**Global Knowledge**	16.99	88
6.1	**Higher skills and competencies**	5.51	93
	Educated workforce		
6.1.1	Tertiary-educated workforce	n/a	n/a
	Knowledge workers		
6.1.2	Legislators, senior officials and managers	3.93	86
6.1.3	Professionals	10.06	83
6.1.4	Researchers	2.55	73
6.2	**Talent impact**	28.46	66
	Innovation		
6.2.1	Innovation output	28.46	55
	Entrepreneurship		
6.2.2	New product entrepreneurial activity	n/a	n/a

APPENDICES

APPENDIX I

TECHNICAL NOTES

TECHNICAL NOTES

Audit by the Joint Research Centre of the European Commission

The Joint Research Centre (JRC) of the European Commission has conducted extensive research on the development of composite indicators, most notably, publishing the *Handbook on Constructing Composite Indicators: Methodology and User Guide*, in collaboration with the Organization for Economic Co-operation and Development (OECD). In its first edition, the Global Talent Competitiveness Idex (GTCI) team engaged the JRC to conduct audits.[1] This exercise has proven to be enriching, providing external validation and improving the statistical methods to ensure consistency and rigour in the model.

In July 2013, an earlier version of the GTCI 2013 was submitted to the JRC team. The results from the preliminary audit and extensive face-to-face discussions were taken into account and reflected in the final version of the GTCI model, as appropriate. The final audit was then performed in September 2013 based on the latest model, the results of which can be found in Chapter 5.

Composite indicators

The GTCI framework builds on six pillars: Enablers, Attract, Grow, Retain, Labour and Vocational, and Global Knowledge. Each pillar consists of two to three sub-pillars. Each sub-pillar is composed of two to six variables. Each sub-pillar score is derived as a weighted average of its individual variables. The successive arithmetic aggregation continues at pillar-level.

Overall, the GTCI consists of three indices:

1. The Talent Competitiveness Input Sub-Index is the simple average of the first four pillars.
2. The Talent Competitiveness Output Sub-Index is the simple average of the last two pillars.
3. The Global Talent Competitiveness Index is the simple average of the six pillars.[2]

In addition to the overall scores, country rankings are provided for each variable, sub-pillar and pillar in the Country Profiles section.

Individual Variables

The GTCI model includes 48 variables, which fall within the following categories:

1. Hard/quantitative data (19 variables)
2. Index/composite indicator data (9 variables)
3. Survey/qualitative data (20 variables)

Hard data

The 19 variables in this category are drawn from a variety of public sources, such as the United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Conference on Trade and Development (UNCTAD), International Labour Organization (ILO), World Bank, OECD, and The Conference Board. Most variables are already scaled at source and therefore do not need to be scaled for this exercise.

Indices

The 9 indices series come from the World Bank, INSEAD and the World Intellectual Property Organization (WIPO), the Fraser Institute, the QS Intelligence Unit, Yale University and Columbia University, and the International Telecommunication Union. There are two main concerns about using “index within an index”: (1) doubts over its methodology to derive a single score, and (2) the risk of duplicating variables. Despite these concerns, the GTCI team determined that the gains outweigh the downsides as there are certain phenomena that are best captured by a multi-dimensional index. To address the concerns, only indices that transparently indicate their methodology and are widely well-received are included in the GTCI. Additionally, to avoid double-counting, only indices with a narrow focus were selected.

Survey data

The 20 survey data series are extracted from the World Economic Forum’s Executive Opinion Survey and the Legatum Institute’s Legatum Prosperity Index, which draws on the Gallup World Poll. Qualitative information tends to provide the most current assessment of certain areas related to talent competitiveness for which hard data either do not exist or have low country coverage.

Country coverage and missing data

The 103 countries covered in the GTCI 2013 are selected based on a data availability threshold of at least 80% aggregate data availability (39 out of 48 variables) and at least 50% data availability at the sub-pillar level. The most recent data points available for each country are considered in the calculation with 2002 as the cut-off year. Meanwhile, each variable has to pass an availability threshold of 60% (63 out of 103 countries). In order to provide transparency and replicability, there is no imputation effort to fill in missing values in the data set. Missing values are noted with "n/a" and are not considered in the calculation of sub-pillar scores.

Treatment of series with outliers

Inclusion of series with outliers can be problematic and potentially bias the rankings. Outliers are detected based on absolute value of skewness greater than 2 *and* kurtosis greater than 3.5.[3] In our data set, there are two variables with outliers. As a general rule, for variables with one to four outliers, the Winsorisation method should be applied. This is the case for the FDI inflow and international students inflow variables, which have four outliers. The values distorting the variable distribution were assigned the next highest value until the skewness and/or kurtosis reported the ranges specified above.

Normalisation

To adjust for differences in terms of units of measurement and ranges of variation, all 48 variables are normalised into the [0, 100] range, with higher scores representing better comes. A min-max normalisation method was adopted, given the minimum and maximum values of each variable respectively, except for the World Economic Forum Executive Opinion Survey questions, where the original range of [1, 7] was kept as minimum and maximum values. Additionally, for the Ease of Doing Business variable, which is based on percent ranks, percent ranks were recalibrated for the sample of 103 countries.

For the variables where higher values indicate higher outcomes, the following normalisation formula is applied:

$$100 \times \frac{(\text{country value} - \min)}{(\max - \min)}$$

For the variables where higher values indicate worse outcomes, the following reverse normalisation formula is applied[4]:

$$-100 \times \frac{(\text{country value} - \min)}{(\max - \min)} + 100$$

Notes

[1] The JRC has audited various index projects. The most recent ones include The Global Innovation Index (WIPO and INSEAD), Environment Performance Index (Yale and Columbia), and Corruption Perceptions Index (Transparency International).

[2] One factor emerged from Principal Component Analysis (PCA) of the six pillars, which suggests using the simple average of the six pillars instead of the weighted average of Input and Output Sub-Indices.

[3] Adopted from Groeneveld and Meeden (1984). This selection rule is also used by INSEAD-WIPO's The Global Innovation Index (GII).

[4] The reverse normalisation only affects two indicators, namely, pupil-teacher ratio and property stolen.

References

Paruolo, P., M. Saisana, and A. Saltelli (2013). Ratings and rankings: voodoo or science? *Journal of the Royal Statistical Society*. A 176(2), doi: 0964-1998/13/176000.

OECD and JRC European Commission (2008). "Handbook on Constructing Composite Indicators: Methodology and User Guide". OECD Publishing.

APPENDIX II

SOURCES AND DEFINITIONS

SOURCES AND DEFINITIONS

1. Enablers

1.1 Regulatory Landscape

Government efficiency

1.1.1 Government effectiveness

Government effectiveness index | 2011

The government effectiveness index captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation and the credibility of the government's commitment to such policies. Scores are standardised.

Source: World Bank, The Worldwide Governance Indicators, 2012 Update.(http://info.worldbank.org/governance/wgi/index.asp)

1.1.2 Political stability

Political stability and absence of violence index | 2011

The political stability and absence of violence index captures perceptions of the likelihood that the government will be destabilised or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism. Scores are standardised.

Source: World Bank, The Worldwide Governance Indicators, 2012 Update. (http://info.worldbank.org/governance/wgi/index.asp)

FDI climate

1.1.3 Starting a foreign business

Ease of establishment index | 2010

The ease of establishment index evaluates the characteristics of the regulatory regimes for business start-up. The index takes values from 0 to 100, where higher values denote a start-up regime with fewer to no legal and administrative restrictions on the establishment process. It is based on a case study setting out assumptions about a foreign company that is establishing a local subsidiary. It focuses on the following areas: (1) Restrictions on the composition of the board of directors or appointment of managers; (2) Requirements forcing the use of a local third party (counsel, notary, investment promotion agency) during the establishment process; (3) Possibility of expediting establishment procedures through an official channel (availability of fast-track procedures); (4) Requirement of an investment approval (nature of investment approval requirement, possibility of appeal, minimum required amount of investment, period of validity); (5) Business registration process; (6) Restrictions on holding a foreign currency bank account; (7) Minimum capital requirements; and (8) Availability of electronic services (online laws, regulations, documents, and registration).

Source: World Bank, Investing Across Borders 2010. (http://iab.worldbank.org/)

1.2 Market Landscape

Competition climate

1.2.1 Intensity of local competition

Average answer to the question: 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] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

Innovation climate

1.2.2 Venture capital availability

Average answer to the question: In your country, how easy is it for entrepreneurs with innovative but risky projects to find venture capital? [1 = very difficult; 7 = very easy] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

1.2.3 Firm-level technology absorption

Average answer to the question: To what extent do businesses in your country absorb new technology? [1 = not at all; 7 = aggressively absorb] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

1.2.4 R&D expenditure

Gross expenditure on R&D (% of GDP) | 2010

Total domestic intramural expenditure on R&D during a given period as a percentage of the GDP. Intramural R&D expenditure is all expenditure for R&D performed within a statistical unit or sector of the economy during a specific period, whatever the source of funds.

Source: UNESCO Institute for Statistics, UIS online database. (http://stats.uis.unesco.org)

Connectivity

1.2.5 ICT access

ICT access index | 2011

The ICT access index is a composite indicator that weights five ICT indicators (20% each): (1) Fixed telephone lines per 100 inhabitants; (2) Mobile cellular telephone subscriptions per 100 inhabitants; (3) International internet bandwidth (bit/s) per internet user; (4) Proportion of households with a computer; and (5) Proportion of households with internet access at home. It is the first sub-index in ITU's ICT Development Index (IDI).

Source: International Telecommunication Union, Measuring the Information Society 2012, ICT Development Index 2010–2011. (http://www.itu.int/ITU-D/ict/publications/idi/)

Ease of doing business

1.2.6 Ease of doing business

Ease of doing business index | 2013

Ease of doing business ranks economies from 1 to 185, with first place being the best. A high ranking (a low numerical rank) means that the regulatory environment is conducive to business operation. The index averages the country's percentile rankings on 10 topics covered in the World Bank's Doing Business, which include starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency. The value is derived from the percent ranks based on 103 countries included in the GTCI 2013.

Source: World Bank, Ease of Doing Business Index 2013, Doing Business 2013. (http://www.doingbusiness.org/)

1.3 Business Landscape

Labour market flexibility

1.3.1 Labour market flexibility

Labour market flexibility index | 2010

The index provides a composite measure of labour market flexibility and indicators of labour market flexibility in six policy areas: (1) Minimum wage; (2) Hiring and firing regulation; (3) Centralised collective wage bargaining; (4) Mandated cost of hiring; (5) Mandated cost of work dismissal; and (6) Conscription. In order to earn high marks in the component rating regulation of the labour market, a country must allow market forces to determine wages and establish the conditions of hiring and firing, and refrain from the use of conscription.

Source: Fraser Institute, Economic Freedom of the World: 2012 Annual Report. (http://www.freetheworld.com/)

Ownership and governance

1.3.2 Reliance on professional management

Average answer to the question: 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] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

2. Attract

2.1 External Openness

FDI

2.1.1 FDI inflow

FDI inflows (% of GDP) | 2011

FDI inflows comprise capital provided (either directly or through other related enterprises) by a foreign direct investor to an FDI enterprise, or capital received by a foreign direct investor from an FDI enterprise. FDI includes the following three components: equity capital, reinvested earnings and intra-company loans. Data on FDI flows are presented on net bases (capital transactions' credits less debits between direct investors and their foreign affiliates). Net decreases in assets or net increases in liabilities are recorded as credits, while net increases in assets or net decreases in liabilities are recorded as debits. This series shows inflows in the reporting economy from foreign investors, and is divided by GDP.

Source: United Nations Conference on Trade and Development (UNCTAD) Division on Investment and Enterprise, UNCTAD STAT. (http://unctadstat.unctad.org/)

Brain gain

2.1.2 Qualified labour inflow

Average answer to the question: 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] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

Foreign companies

2.1.3 Prevalence of foreign ownership

Average answer to the question: How prevalent is foreign ownership of companies in your country? [1 = very rare; 7 = highly prevalent] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

2.2 Internal Openness

Diversity

2.2.1 Tolerance of minorities

Percentage of respondents who answered yes for the question: Is the area where you live a good place or not a good place to live for racial and ethnic minorities? | 2012

The Legatum Institute adopted surveys from Gallup World Poll in their publication of the Legatum Prosperity Index, which offers a unique insight into how prosperity is forming and changing across the world. The survey is conducted in different time periods across countries between 2007 and 2011.

Source: Legatum Institute, Legatum Prosperity Index 2012 based on Gallup World Poll. (http://www.prosperity.com/)
Last accessed April 2013.

2.2.2 Tolerance of immigrants

Percentage of respondents who answered yes for the question: Is the area where you live a good place or not a good place to live for immigrants? | 2012

The Legatum Institute adopted surveys from Gallup World Poll in their publication of the Legatum Prosperity Index, which offers a unique insight into how prosperity is forming and changing across the world. The survey is conducted in different time periods across countries between 2007 and 2011.

Source: Legatum Institute, Legatum Prosperity Index 2012 based on Gallup World Poll. (http://www.prosperity.com/)
Last accessed April 2013.

Social mobility

2.2.3 Social mobility

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

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

Gender mobility

2.2.4 Female professionals and technical workers

Ratio of female professionals and technical workers over male value | 2011

The ratio of female professionals and technical workers over male value. To account for gender equality, the data is truncated at the equality benchmarks, which is equal to 1, meaning equal numbers of women and men. Hence, the same score is assigned to a country that has reached parity between women and men and one where women have surpassed men. The classification of professionals and technical workers is based on International Standard Classification of Occupation (ISCO) Revision 1988. It includes physical and engineering science associate professionals, life science and health associate professionals, teaching associate professionals and other associate professionals (finance and sales, social work, artistic, entertainment and sports, religious associate professionals, police inspectors and detectives, administrative, customs, tax and related government associate professionals).

Source: International Labour Organization, Key Indicators of the Labour Market, 7th edition. (http://kilm.ilo.org/kilmnet/)

2.2.5 Female parliamentarians

Ratio of female parliamentarians over male value | 2011

Female parliamentarians is the percentage of parliamentary seats in a single or lower chamber held by women. The value is derived from the ratio of females with a seat in parliament to males with a seat in parliament.

Source: World Bank, World Development Indicators based on Inter-Parliamentary Union (IPU). (http://data.worldbank.org/)

3. Grow

3.1 Formal Education

Education climate

3.1.1 Pupil-teacher ratio

Pupil-teacher ratio, secondary | 2010

The number of pupils enrolled in secondary school divided by the number of secondary school teachers (regardless of their teaching assignment).

Source: UNESCO Institute for Statistics, UIS online database. (http://stats.uis.unesco.org)

3.1.2 Technical/vocational enrolment

Technical/vocational enrolment (%) | 2011

Total number of pupils or students enrolled in technical/vocational programmes at a given level of education, expressed as a percentage of the total number of pupils or students enrolled in all programmes (technical/vocational and general) at that level. The level of educational attainment is based on International Standard Classification of Education (ISCED) Level 3.

Source: UNESCO Institute for Statistics, UIS online database. (http://stats.uis.unesco.org)

3.1.3 Tertiary enrolment

School enrolment, tertiary (% gross) | 2010

The ratio of total tertiary enrolment, regardless of age, to the population of the age group that officially corresponds to the tertiary level of education. Tertiary education, whether or not to an advanced research qualification, normally requires, as a minimum condition of admission, the successful completion of education at the secondary level. The level of educational attainment is based on International Standard Classification of Education (ISCED) Level 5–6.

Source: UNESCO Institute for Statistics, UIS online database. (http://stats.uis.unesco.org)

Performance of education system

3.1.4 Reading, maths, and science scores

PISA average scales in reading, mathematics, and science | 2009

The OECD Programme for International Student Assessment (PISA) develops three-yearly surveys that examine 15-year-old students' performance in reading, mathematics and science. The scores are calculated in each year so that the mean is 500 and the standard deviation 100. The scores for China come from Shanghai; those for India from Himachal Pradesh and Tamil Nadu (average); those for the United Arab Emirates from Dubai; and those for the Bolivarian Republic of Venezuela from Miranda.

Source: OECD Programme for International Student Assessment (PISA) 2009 and 2010. (www.pisa.oecd.org/)

Top universities

3.1.5 QS university ranking

QS university ranking, average score top 3 | 2012

The assessment for QS World University Ranking is based on six indicators (with their weight in parentheses):
(1) Academic reputation from global survey (40%);
(2) Employer reputation from global survey (10%);
(3) Citations per faculty from SciVerse Scopus (20%);
(4) Faculty-student ratio (20%); (5) Proportion of international students (5%); and (6) Proportion of international faculty (5%).

The value is derived from the average score of the top three universities per country. The scores for the universities ranked above 400 are not provided from the source, hence, they were extrapolated. QS reported five group rankings: 401–450, 451–500, 501–550, 551–600 and 601+ (until 729). The extrapolation method predicts the data points in the upper and lower range of group rankings and the scores assigned are the average between the two. The universities in similar groups were assigned similar scores. If the country has fewer than three universities listed in the QS ranking, the sum of the scores of the listed universities was still divided by three, implying a score of zero for the non-listed universities.

Source: Quacquarelli Symonds Ltd (QS), QS World University Ranking 2012/2013, Top Universities. (http://www.topuniversities.com/university-rankings/world-universi-tyrankings/2012)

International students

3.1.6 International students inflow

Tertiary inbound mobility ratio (%) | 2010

The number of students from abroad studying in a given country, as a percentage of the total tertiary enrolment in that country.

Source: UNESCO Institute for Statistics, UIS online database. (http://stats.uis.unesco.org)

3.2 Lifelong Learning

Further education and training climate

3.2.1 Quality of management schools

Average answer to the question: How would you assess the quality of management or business schools in your country? [1 = poor; 7 = excellent – among the best in the world] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

3.2.2 Extent of staff training

Average answer to the question: To what extent do companies in your country invest in training and employee development? [1 = hardly at all; 7 = to a great extent] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

3.3 Access to Growth Opportunities

Networks

3.3.1 Use of virtual social networks

Average answer to the question: How widely used are virtual social networks (e.g., Facebook, Twitter, LinkedIn) for professional and personal communication in your country? [1 = not used at all; 7 = used widely] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

3.3.2 State of cluster development

Average answer to the question: In your country's economy, how prevalent are well-developed and deep clusters? [1 = nonexistent; 7 = widespread in many fields] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

Research quality

3.3.3 Quality of scientific research institutions

Average answer to the question: How would you assess the quality of scientific research institutions in your country? [1 = very poor; 7 = the best in their field internationally] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

Voice

3.3.4 Voicing concern to officials

Percentage of respondents who answered yes for the question: Have you voiced your opinion to a public official in the past month? | 2012

The Legatum Institute adopted surveys from Gallup World Poll in their publication of the Legatum Prosperity Index, which offers a unique insight into how prosperity is forming and changing across the world. The survey is conducted in different time periods across countries between 2007 and 2011.

Source: Legatum Institute, Legatum Prosperity Index 2012 based on Gallup World Poll. (http://www.prosperity.com/) Last accessed April 2013.

4. Retain

4.1 Sustainability

Social protection

4.1.1 Pension system

Share of workforce contributing to pension system | 2005

Pension system coverage includes both mandatory and voluntary schemes. It is reported as a share of active workforce contributing to the pension system.

Source: World Bank, International patterns of pension provision II: a worldwide overview of facts and figures. (http://web.worldbank.org/wbsite/external/topics/extsocialprotection/extpensions/)

Taxation

4.1.2 Extent and effect of taxation

Average answer 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 and invest; 7 = has no impact on incentives to work or invest] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

4.2 Lifestyle

Quality of life

4.2.1 Environmental performance

Environmental performance index | 2012

This index ranks countries on 22 performance indicators tracked across policy categories that cover both environmental public health and ecosystem vitality. These indicators gauge how close countries are to established environmental policy goals. The index ranges from 0 to 100, 100 indicating best performance.

Source: Yale University and Columbia University, Environmental Performance Index 2012. (http://epi.yale.edu/)

4.2.2 Property stolen

Percentage of respondents who answered yes for the question: Within the past 12 months, have you had money or property stolen from you or another household member? | 2012

The Legatum Institute adopted surveys from Gallup World Poll in their publication of the Legatum Prosperity Index, which offers a unique insight into how prosperity is forming and changing across the world. The survey is conducted in different time periods across countries between 2007 and 2011.

Source: Legatum Institute, Legatum Prosperity Index 2012 based on Gallup World Poll. (http://www.prosperity.com/) Last accessed April 2013.

4.2.3 Safety at night

Percentage of respondents who answered yes for the question: Do you feel safe walking alone at night in the area where you live? | 2012

The Legatum Institute adopted surveys from Gallup World Poll in their publication of the Legatum Prosperity Index, which offers a unique insight into how prosperity is forming and changing across the world. The survey is conducted in different time periods across countries between 2007 and 2011.

Source: Legatum Institute, Legatum Prosperity Index 2012 based on Gallup World Poll. (http://www.prosperity.com/) Last accessed April 2013.

Services

4.2.4 Physicians density

Physicians (per 1,000 people) | 2010

Number of medical doctors (physicians), including generalist and specialist medical practitioners, per 1,000 people.

Source: World Bank, World Development Indicators based on World Health Organization, Global Atlas of the Health Workforce. (http://data.worldbank.org/)

5. Labour and Vocational

5.1 Employable Skills

Vocationally trained workforce

5.1.1 Secondary-educated workforce

Percentage of workforce with secondary education (%) | 2010

Percentage of the population aged 25 years and older with secondary education qualifications. The level of educational attainment is based on International Standard Classification of Education (ISCED) Level 3.

Source: UNESCO, Global Education Digest 2011 and 2012. (http://www.uis.unesco.org/Education/Pages/global-education-digest.aspx)

Technical professions

5.1.2 Technicians and associate professionals

Technicians and associate professionals (%) | 2011

Percentage of technicians and associate professionals out of total employment. The employment by occupation is based on International Standard Classification of Occupation (ISCO) Revision 1988. It includes physical and engineering science associate professionals, life science and health associate professionals, teaching associate professionals, and other associate professionals (finance and sales, social work, artistic, entertainment and sports, religious associate professionals, police inspectors and detectives, administrative, customs, tax and related government associate professionals).

Source: International Labour Organization, Key Indicators of the Labour Market, 7th edition. (http://kilm.ilo.org/kilmnet/)

Youth employment

5.1.3 Youth employment

Youth employment (% of youth population) | 2012

The proportion of youth (15–24 years old) that is employed out of the total youth population. A high ratio means that a large proportion of a country's population is employed, while a low ratio means that a large share of the population is not involved directly in market-related activities, because they are either unemployed or (more likely) out of the labour force altogether. The ILO estimates are harmonised to account for differences in national data collection and tabulation methodologies.

Source: International Labour Organization, Key Indicators of the Labour Market, 7th edition. (http://kilm.ilo.org/kilmnet/)

5.2 Labour Productivity

Productivity per employee

5.2.1 Labour productivity per employee

Labour productivity per person employed (constant 2012 US$) | 2012

Labour productivity estimates are obtained by dividing the output measure (GDP) by the total labour input used to produce that output. GDP is measured in constant 2012 US dollars.

Source: The Conference Board, Total Economy Database. (http://www.conference-board.org/data/economydatabase/)

Pay and productivity

5.2.2 Relationship of pay to productivity

Average answer to the question: To what extent is pay in your country related to productivity? [1 = not related to worker productivity; 7 = strongly related to worker productivity] | 2012

The World Economic Forum's Executive Opinion Survey (EOS) is conducted on an annual basis to gather information from business leaders on topics for which hard data sources are scarce or non-existent. It is part of the effort to supplement The Global Competitiveness Report in assessing issues that drive national competitiveness.

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

6. Global Knowledge

6.1 Higher Skills and Competencies

Educated workforce

6.1.1 Tertiary-educated workforce

Percentage of workforce with tertiary education (%) | 2010

Percentage of the population aged 25 years and older with tertiary education qualifications. The level of educational attainment is based on International Standard Classification of Education (ISCED) Level 5–6.

Source: UNESCO, Global Education Digest 2011 and 2012. (http://www.uis.unesco.org/Education/Pages/global-education-digest.aspx)

Knowledge workers

6.1.2 Legislators, senior officials and managers

Legislators, senior officials and managers (%) | 2011

Percentage of legislators, senior officials and managers out of total employment. The employment by occupation is based on International Standard Classification of Occupation (ISCO) Revision 1988.

Source: International Labour Organization, Key Indicators of the Labour Market, 7th edition. (http://kilm.ilo.org/kilmnet/)

6.1.3 Professionals

Professionals (%) | 2011

Percentage of professionals out of total employment. The employment by occupation is based on International Standard Classification of Occupation (ISCO) Revision 1988. It includes physical, mathematical and engineering science professionals, life science and health professionals, teaching professionals, and other professionals (business, legal, archivists, librarians, social science, religious professionals and writers and creative or performing artists).

Source: International Labour Organization, Key Indicators of the Labour Market, 7th edition. (http://kilm.ilo.org/kilmnet/)

6.1.4 Researchers

Researchers per million population, headcounts | 2009

Researchers in R&D are professionals engaged in the conception or creation of new knowledge, products, processes, methods, or systems and in the management of the projects concerned. Postgraduate PhD students (ISCED97 Level 6) engaged in R&D are included.

Source: UNESCO Institute for Statistics, UIS online database. (http://stats.uis.unesco.org)

6.2 Talent Impact

Innovation

6.2.1 Innovation output

Innovation output sub-index | 2012

The Global Innovation Index (GII) is developed by INSEAD and the World Intellectual Property Organization to capture the richness of innovation in society. Innovation output is one of the two sub-indices in the GII. It is derived from aggregating the two output pillars – knowledge and technology output and creative output. The first pillar covers elements of knowledge creation, impact and diffusion. The second pillar includes creative intangibles, creative goods and services and online creativity.

Source: INSEAD and World Intellectual Property Organization, The Global Innovation Index 2012. (http://www.globalinnovationindex.org/)

Entrepreneurship

6.2.2 New product entrepreneurial activity

New product entrepreneurial activity (%) | 2012

Percentage of total early-stage entrepreneurs who indicate that their product or service is new to at least some customers.

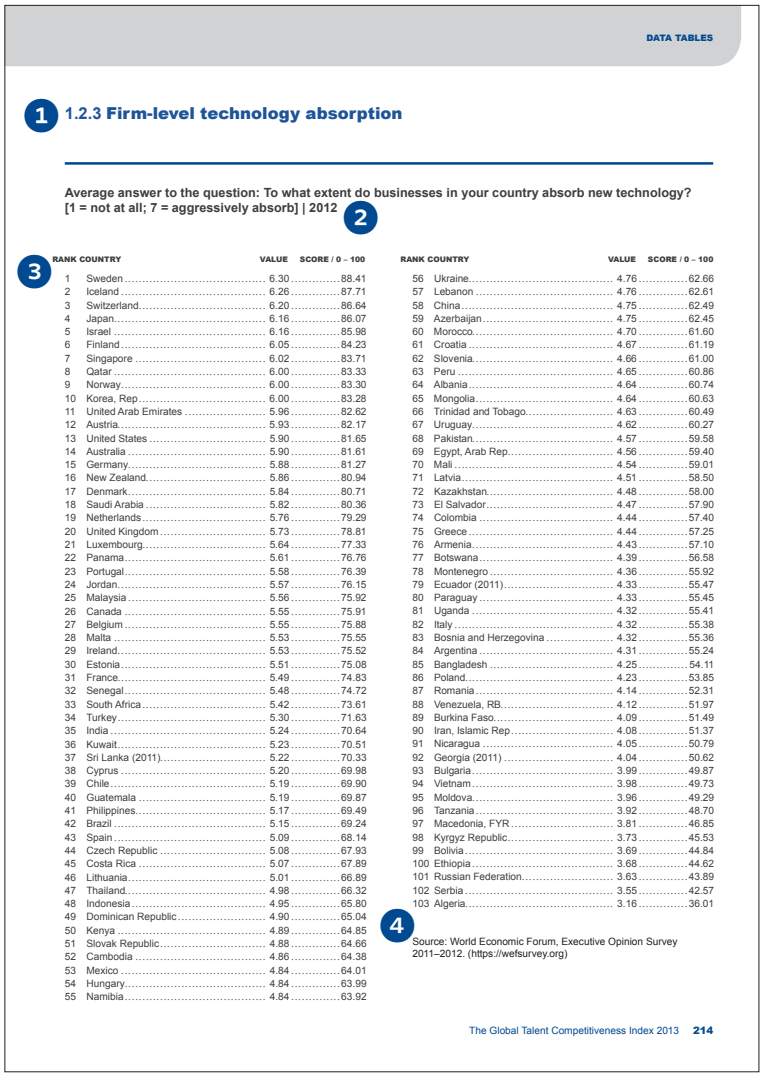
The Global Entrepreneurship Monitor (GEM) project is an annual assessment of the entrepreneurial activity, aspirations and attitudes of individuals across a wide range of countries.

Source: Global Entrepreneurship Research Association, Global Entrepreneurship Monitor database. (http://www.gemconsortium.org/Data/)

APPENDIX III

DATA TABLES

How to read the data tables



DATA TABLES

1 1.2.3 Firm-level technology absorption

Average answer to the question: To what extent do businesses in your country absorb new technology? [1 = not at all; 7 = aggressively absorb] | 2012 2

3

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Sweden	6.30	88.41
2	Iceland	6.26	87.71
3	Switzerland	6.20	86.64
4	Japan	6.16	86.07
5	Israel	6.16	85.98
6	Finland	6.05	84.23
7	Singapore	6.02	83.71
8	Qatar	6.00	83.33
9	Norway	6.00	83.30
10	Korea, Rep	6.00	83.28
11	United Arab Emirates	5.96	82.62
12	Austria	5.93	82.17
13	United States	5.90	81.65
14	Australia	5.90	81.61
15	Germany	5.88	81.27
16	New Zealand	5.86	80.94
17	Denmark	5.84	80.71
18	Saudi Arabia	5.82	80.36
19	Netherlands	5.76	79.29
20	United Kingdom	5.73	78.81
21	Luxembourg	5.64	77.33
22	Panama	5.61	76.76
23	Portugal	5.58	76.39
24	Jordan	5.57	76.15
25	Malaysia	5.56	75.92
26	Canada	5.55	75.91
27	Belgium	5.55	75.88
28	Malta	5.53	75.55
29	Ireland	5.53	75.52
30	Estonia	5.51	75.08
31	France	5.49	74.83
32	Senegal	5.48	74.72
33	South Africa	5.42	73.61
34	Turkey	5.30	71.63
35	India	5.24	70.64
36	Kuwait	5.23	70.51
37	Sri Lanka (2011)	5.22	70.33
38	Cyprus	5.20	69.98
39	Chile	5.19	69.90
40	Guatemala	5.19	69.87
41	Philippines	5.17	69.49
42	Brazil	5.15	69.24
43	Spain	5.09	68.14
44	Czech Republic	5.08	67.93
45	Costa Rica	5.07	67.89
46	Lithuania	5.01	66.89
47	Thailand	4.98	66.32
48	Indonesia	4.95	65.80
49	Dominican Republic	4.90	65.04
50	Kenya	4.89	64.85
51	Slovak Republic	4.88	64.66
52	Cambodia	4.86	64.38
53	Mexico	4.84	64.01
54	Hungary	4.84	63.99
55	Namibia	4.84	63.92
56	Ukraine	4.76	62.66
57	Lebanon	4.76	62.61
58	China	4.75	62.49
59	Azerbaijan	4.75	62.45
60	Morocco	4.70	61.60
61	Croatia	4.67	61.19
62	Slovenia	4.66	61.00
63	Peru	4.65	60.86
64	Albania	4.64	60.74
65	Mongolia	4.64	60.63
66	Trinidad and Tobago	4.63	60.49
67	Uruguay	4.62	60.27
68	Pakistan	4.57	59.58
69	Egypt, Arab Rep	4.56	59.40
70	Mali	4.54	59.01
71	Latvia	4.51	58.50
72	Kazakhstan	4.48	58.00
73	El Salvador	4.47	57.90
74	Colombia	4.44	57.40
75	Greece	4.44	57.25
76	Armenia	4.43	57.10
77	Botswana	4.39	56.58
78	Montenegro	4.36	55.92
79	Ecuador (2011)	4.33	55.47
80	Paraguay	4.33	55.45
81	Uganda	4.32	55.41
82	Italy	4.32	55.38
83	Bosnia and Herzegovina	4.32	55.36
84	Argentina	4.31	55.24
85	Bangladesh	4.25	54.11
86	Poland	4.23	53.85
87	Romania	4.14	52.31
88	Venezuela, RB	4.12	51.97
89	Burkina Faso	4.09	51.49
90	Iran, Islamic Rep	4.08	51.37
91	Nicaragua	4.05	50.79
92	Georgia (2011)	4.04	50.62
93	Bulgaria	3.99	49.87
94	Vietnam	3.98	49.73
95	Moldova	3.96	49.29
96	Tanzania	3.92	48.70
97	Macedonia, FYR	3.81	46.85
98	Kyrgyz Republic	3.73	45.53
99	Bolivia	3.69	44.84
100	Ethiopia	3.68	44.62
101	Russian Federation	3.63	43.89
102	Serbia	3.55	42.57
103	Algeria	3.16	36.01

4 Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

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The appendix provides insights into the country rankings under each of the 48 variables that make up the Global Talent Competitiveness Index 2013 (GTCI).

Structure of the data table

Each data table consists of the name of the variable 1, the technical name and the most frequent year 2, the ranking 3, and the source 4.

1 The first section provides the variable number that explains its position in the overall structure of the GTCI. The first digit refers to the pillar, the second digit refers to the sub-pillar within the pillar and the third digit refers to the position of the variable in the sub-pillar. For instance, variable "1.2.3 Firm-level technology absorption" is positioned in the first pillar (shown by the first digit, 1), the second sub-pillar (denoted by the second digit, 2) and is the third variable within this sub-pillar (shown by the third digit, 3).

2 The second section spells out the technical name of the variable with the most frequent year. For variables derived from surveys delivering qualitative information, the exact technical name is shown as the question asked in the surveys. These apply to all variables taken from the World Economic Forum, Executive Opinion Survey and the Legatum Prosperity Index, for instance.

3 The ranking of the countries within the data table follows their normalised scores. For details about normalisation method, please refer to Technical Notes. There are three parts to the information in the ranking: the rank of the country, the raw value and the normalised score. Due to treatment of outliers, several countries have the same score in the variables 2.1.1 FDI inflow and 3.1.6 International students inflow. For 2.2.4 Female professionals and technical workers, similar scores prevail because of the conceptual framework. For details about the definition, please refer to Sources and Definitions. If countries occupy the same rank in other variables, these countries have the same raw value and hence, their normalised scores are the same. In cases of ties, the countries are sorted alphabetically.

4 The fourth section presents all sources and a link to the data source.

Index of data tables

PILLAR 1:
ENABLERS

1.1.1 Government effectiveness

Government effectiveness index | 2011

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Finland	2.25	100.00
2	Denmark	2.17	97.71
3	Singapore	2.16	97.31
4	Sweden	1.96	91.46
5	New Zealand	1.93	90.54
6	Switzerland	1.89	89.38
7	Canada	1.85	88.13
8	Netherlands	1.79	86.37
9	Norway	1.76	85.55
10	Australia	1.74	84.85
11	Luxembourg	1.73	84.72
12	Belgium	1.67	82.68
13	Austria	1.66	82.50
14	Iceland	1.57	79.70
15	United Kingdom	1.55	79.13
16	Germany	1.53	78.71
17	Cyprus	1.53	78.58
18	Ireland	1.42	75.35
19	United States	1.41	74.90
20	France	1.36	73.65
21	Japan	1.35	73.09
22	Korea, Rep	1.23	69.71
23	Estonia	1.20	68.88
24	Israel	1.20	68.84
25	Chile	1.17	67.94
26	Malta	1.16	67.68
27	Spain	1.02	63.42
28	Czech Republic	1.02	63.33
29	Malaysia	1.00	62.76
30	Slovenia	0.99	62.34
31	Portugal	0.97	62.02
32	United Arab Emirates	0.95	61.34
33	Slovak Republic	0.86	58.49
34	Qatar	0.83	57.82
35	Hungary	0.71	53.98
36	Latvia	0.68	53.36
37	Lithuania	0.68	53.27
38	Poland	0.68	53.11
39	Uruguay	0.58	50.13
40	Croatia	0.55	49.47
41	Georgia	0.55	49.20
42	Botswana	0.53	48.89
43	Greece	0.48	47.20
44	Italy	0.45	46.26
45	Turkey	0.41	45.14
46	South Africa	0.37	43.94
47	Costa Rica	0.35	43.40
48	Mexico	0.32	42.60
49	Trinidad and Tobago	0.31	42.20
50	Colombia	0.24	40.21
51	China	0.12	36.49
52	Thailand	0.10	35.99
53	Montenegro	0.10	35.89
54	Panama	0.10	35.88
55	Namibia	0.06	34.75
56	Jordan	0.05	34.41
57	Bulgaria	0.01	33.22
58	Philippines	0.00	32.84
59	Brazil	-0.01	32.67
60	India	-0.03	32.07
61	Kuwait	-0.04	31.63
62	Sri Lanka	-0.08	30.41
63	Armenia	-0.09	30.35
64	El Salvador	-0.11	29.71
65	Macedonia, FYR	-0.11	29.69
66	Serbia	-0.15	28.59
67	Peru	-0.15	28.43
68	Argentina	-0.16	28.18
69	Albania	-0.20	26.98
70	Morocco	-0.22	26.40
71	Romania	-0.22	26.39
72	Indonesia	-0.24	25.73
73	Kazakhstan	-0.26	25.06
74	Vietnam	-0.28	24.61
75	Lebanon	-0.33	23.17
76	Russian Federation	-0.40	20.87
77	Ethiopia	-0.40	20.87
78	Bolivia	-0.41	20.55
79	Saudi Arabia	-0.43	20.06
80	Senegal	-0.44	19.93
81	Iran, Islamic Rep	-0.46	19.13
82	Uganda	-0.51	17.74
83	Burkina Faso	-0.53	17.02
84	Tanzania	-0.54	16.91
85	Kenya	-0.54	16.80
86	Ecuador	-0.55	16.56
87	Dominican Republic	-0.55	16.47
88	Moldova	-0.58	15.51
89	Egypt, Arab Rep	-0.60	14.97
90	Mongolia	-0.62	14.48
91	Kyrgyz Republic	-0.62	14.44
92	Algeria	-0.66	13.36
93	Guatemala	-0.70	12.02
94	Cambodia	-0.75	10.60
95	Bosnia and Herzegovina	-0.76	10.24
96	Azerbaijan	-0.79	9.41
97	Pakistan	-0.82	8.53
98	Ukraine	-0.83	8.24
99	Mali	-0.83	8.21
100	Paraguay	-0.83	8.12
101	Bangladesh	-0.85	7.41
102	Nicaragua	-0.90	6.20
103	Venezuela, RB	-1.10	0.00

Source: World Bank, The Worldwide Governance Indicators, 2012 Update. (http://info.worldbank.org/governance/wgi/index.asp)

1.1.2 Political stability

Political stability and absence of violence index | 2011

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Finland	1.38	100.00
2	New Zealand	1.35	99.20
3	Norway	1.35	99.19
4	Luxembourg	1.33	98.75
5	Switzerland	1.29	97.78
6	Sweden	1.26	97.10
7	Iceland	1.22	96.12
8	Qatar	1.21	95.80
9	Singapore	1.21	95.78
10	Austria	1.19	95.26
11	Netherlands	1.12	93.63
12	Czech Republic	1.12	93.53
13	Denmark	1.11	93.30
14	Poland	1.09	92.85
15	Canada	1.04	91.62
16	Botswana	1.04	91.58
17	Ireland	1.00	90.57
18	Malta	1.00	90.52
19	Japan	0.97	89.98
20	Slovak Republic	0.97	89.79
21	United Arab Emirates	0.96	89.59
22	Uruguay	0.94	89.11
23	Namibia	0.89	87.95
24	Belgium	0.88	87.74
25	Australia	0.87	87.43
26	Germany	0.86	87.31
27	Slovenia	0.84	86.83
28	Hungary	0.75	84.49
29	Portugal	0.70	83.30
30	Lithuania	0.63	81.49
31	France	0.61	81.12
32	Costa Rica	0.60	80.90
33	Estonia	0.59	80.60
34	Italy	0.59	80.49
35	Chile	0.56	79.80
36	Mongolia	0.55	79.69
37	Cyprus	0.54	79.35
38	United States	0.54	79.30
39	Croatia	0.54	79.29
40	Montenegro	0.52	78.84
41	United Kingdom	0.37	75.29
42	Kuwait	0.33	74.29
43	Bulgaria	0.30	73.58
44	Latvia	0.29	73.31
45	Korea, Rep	0.23	71.83
46	Argentina	0.20	70.97
47	Vietnam	0.17	70.27
48	Malaysia	0.16	69.93
49	Trinidad and Tobago	0.15	69.88
50	Spain	0.13	69.37
51	Romania	0.12	69.14
52	El Salvador	0.12	68.97
53	Dominican Republic	0.08	67.97
54	South Africa	0.02	66.64
55	Tanzania	-0.01	65.99
56	Brazil	-0.04	65.25
57	Greece	-0.06	64.53
58	Armenia	-0.10	63.79
59	Panama	-0.11	63.33
60	Moldova	-0.13	63.02
61	Ukraine	-0.15	62.53
62	Kazakhstan	-0.17	61.93
63	Albania	-0.27	59.54
64	Saudi Arabia	-0.30	58.77
65	Senegal	-0.31	58.61
66	Serbia	-0.33	57.94
67	Nicaragua	-0.38	56.79
68	Jordan	-0.42	55.87
69	Cambodia	-0.44	55.33
70	Macedonia, FYR	-0.45	55.03
71	Morocco	-0.47	54.67
72	Bolivia	-0.50	53.78
73	Burkina Faso	-0.54	52.85
74	Sri Lanka	-0.54	52.83
75	Azerbaijan	-0.57	52.25
76	Peru	-0.69	49.22
77	Mexico	-0.70	49.05
78	China	-0.70	49.00
79	Mali	-0.71	48.72
80	Paraguay	-0.72	48.46
81	Guatemala	-0.73	48.34
82	Ecuador	-0.73	48.28
83	Georgia	-0.75	47.74
84	Indonesia	-0.82	46.02
85	Russian Federation	-0.88	44.67
86	Bosnia and Herzegovina	-0.90	43.99
87	Turkey	-0.93	43.40
88	Thailand	-1.02	41.12
89	Kyrgyz Republic	-1.05	40.44
90	Uganda	-1.10	39.21
91	India	-1.20	36.68
92	Colombia	-1.25	35.38
93	Egypt, Arab Rep	-1.29	34.59
94	Israel	-1.30	34.32
95	Venezuela, RB	-1.30	34.22
96	Kenya	-1.31	34.08
97	Algeria	-1.35	32.97
98	Philippines	-1.39	32.16
99	Iran, Islamic Rep	-1.45	30.46
100	Bangladesh	-1.50	29.40
101	Lebanon	-1.55	28.22
102	Ethiopia	-1.63	26.08
103	Pakistan	-2.70	0.00

Source: World Bank, The Worldwide Governance Indicators, 2012 Update. (http://info.worldbank.org/governance/wgi/index.asp)

1.1.3 Starting a foreign business

Ease of establishment index | 2010

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Slovak Republic	92.10	100.00
2	Romania	89.50	96.34
3	Poland	85.00	90.00
3	United Kingdom	85.00	90.00
5	Albania	84.20	88.87
5	Georgia	84.20	88.87
5	Serbia	84.20	88.87
8	Canada	81.60	85.21
8	Croatia	81.60	85.21
8	Czech Republic	81.60	85.21
8	Japan	81.60	85.21
12	Ukraine	80.00	82.96
12	United States	80.00	82.96
14	Armenia	78.90	81.41
14	Bulgaria	78.90	81.41
14	Montenegro	78.90	81.41
14	Singapore	78.90	81.41
14	South Africa	78.90	81.41
19	France	77.50	79.44
20	India	76.30	77.75
20	Macedonia, FYR	76.30	77.75
22	Austria	73.70	74.08
22	Costa Rica	73.70	74.08
22	Kyrgyz Republic	73.70	74.08
25	Peru	72.50	72.39
26	Azerbaijan	71.60	71.13
27	Korea, Rep	71.10	70.42
27	Spain	71.10	70.42
29	Ireland	70.00	68.87
29	Moldova	70.00	68.87
31	Colombia	68.40	66.62
31	Greece	68.40	66.62
31	Russian Federation	68.40	66.62
34	Bosnia and Herzegovina	65.80	62.96
34	Kazakhstan	65.80	62.96
34	Mexico	65.80	62.96
34	Turkey	65.80	62.96
38	Argentina	65.00	61.83
39	Pakistan	64.70	61.41
40	China	63.70	60.00
41	Bolivia	63.20	59.30
41	Chile	63.20	59.30
41	Egypt, Arab Rep.	63.20	59.30
44	Brazil	62.50	58.31
44	Tanzania	62.50	58.31
46	Malaysia	60.50	55.49
46	Thailand	60.50	55.49
48	Guatemala	57.90	51.83
48	Kenya	57.90	51.83
48	Nicaragua	57.90	51.83
48	Philippines	57.90	51.83
48	Vietnam	57.90	51.83
53	Bangladesh	55.30	48.17
53	Ecuador	55.30	48.17
53	Morocco	55.30	48.17
56	Indonesia	52.60	44.37
57	Sri Lanka	47.90	37.75
58	Uganda	47.40	37.04
59	Senegal	45.00	33.66
60	Burkina Faso	44.70	33.24
60	Cambodia	44.70	33.24
62	Mali	42.50	30.14
62	Venezuela, RB	42.50	30.14
64	Saudi Arabia	35.00	19.58
65	Ethiopia	21.10	0.00
n/a	Algeria	n/a	n/a
n/a	Australia	n/a	n/a
n/a	Belgium	n/a	n/a
n/a	Botswana	n/a	n/a
n/a	Cyprus	n/a	n/a
n/a	Denmark	n/a	n/a
n/a	Dominican Republic	n/a	n/a
n/a	El Salvador	n/a	n/a
n/a	Estonia	n/a	n/a
n/a	Finland	n/a	n/a
n/a	Germany	n/a	n/a
n/a	Hungary	n/a	n/a
n/a	Iceland	n/a	n/a
n/a	Iran, Islamic Rep	n/a	n/a
n/a	Israel	n/a	n/a
n/a	Italy	n/a	n/a
n/a	Jordan	n/a	n/a
n/a	Kuwait	n/a	n/a
n/a	Latvia	n/a	n/a
n/a	Lebanon	n/a	n/a
n/a	Lithuania	n/a	n/a
n/a	Luxembourg	n/a	n/a
n/a	Malta	n/a	n/a
n/a	Mongolia	n/a	n/a
n/a	Namibia	n/a	n/a
n/a	Netherlands	n/a	n/a
n/a	New Zealand	n/a	n/a
n/a	Norway	n/a	n/a
n/a	Panama	n/a	n/a
n/a	Paraguay	n/a	n/a
n/a	Portugal	n/a	n/a
n/a	Qatar	n/a	n/a
n/a	Slovenia	n/a	n/a
n/a	Sweden	n/a	n/a
n/a	Switzerland	n/a	n/a
n/a	Trinidad and Tobago	n/a	n/a
n/a	United Arab Emirates	n/a	n/a
n/a	Uruguay	n/a	n/a

Source: World Bank, Investing Across Borders 2010.
(http://iab.worldbank.org/)

1.2.1 Intensity of local competition

Average answer to the question: 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] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Netherlands	6.07	84.56
2	Japan	6.05	84.13
3	Belgium	5.96	82.70
4	United Kingdom	5.96	82.64
5	Australia	5.85	80.86
6	Austria	5.83	80.50
7	Germany	5.79	79.77
8	Malta	5.76	79.39
9	Korea, Rep	5.75	79.09
10	Qatar	5.74	78.93
11	Czech Republic	5.71	78.50
12	Saudi Arabia	5.71	78.45
13	United Arab Emirates	5.69	78.24
14	Turkey	5.69	78.09
15	United States	5.65	77.44
16	Canada	5.63	77.12
17	Switzerland	5.59	76.45
18	Singapore	5.54	75.73
19	Sweden	5.53	75.58
20	Spain	5.52	75.27
21	New Zealand	5.51	75.12
22	Estonia	5.50	75.03
23	Sri Lanka (2011)	5.50	74.93
24	Slovak Republic	5.48	74.63
25	France	5.47	74.57
26	Denmark	5.42	73.73
27	Poland	5.42	73.61
28	Jordan	5.39	73.25
29	Norway	5.39	73.14
30	India	5.38	72.95
31	Lebanon	5.37	72.91
32	Malaysia	5.36	72.71
33	China	5.30	71.71
34	Hungary	5.27	71.23
35	Chile	5.26	71.01
36	Ireland	5.23	70.42
37	Slovenia	5.20	70.00
38	Cyprus	5.15	69.14
39	Vietnam	5.15	69.14
40	Brazil	5.14	69.01
41	Guatemala	5.11	68.52
42	Lithuania	5.10	68.34
43	Peru	5.09	68.25
44	Philippines	5.09	68.23
45	South Africa	5.07	67.77
46	Senegal	5.06	67.60
47	Thailand	5.03	67.16
48	Panama	5.01	66.91
49	Dominican Republic	5.00	66.69
50	Morocco	4.99	66.58
51	Luxembourg	4.99	66.53
52	Costa Rica	4.96	65.92
53	Portugal	4.94	65.61
54	Kenya	4.93	65.53
55	El Salvador	4.92	65.41
56	Israel	4.91	65.23
57	Italy	4.90	64.97
58	Finland	4.87	64.52
59	Latvia	4.86	64.33
60	Cambodia	4.81	63.47
61	Paraguay	4.80	63.41
62	Botswana	4.80	63.33
63	Mexico	4.76	62.73
64	Uganda	4.73	62.12
65	Colombia	4.72	61.94
66	Kuwait	4.70	61.59
67	Bangladesh	4.66	60.97
68	Iceland	4.64	60.63
69	Pakistan	4.62	60.36
70	Mongolia	4.61	60.09
71	Trinidad and Tobago	4.56	59.37
72	Namibia	4.54	58.94
73	Greece	4.42	57.08
74	Indonesia	4.42	56.99
75	Uruguay	4.36	56.05
76	Bulgaria	4.33	55.45
77	Romania	4.30	55.07
78	Ecuador (2011)	4.29	54.88
79	Ukraine	4.28	54.67
80	Burkina Faso	4.26	54.31
81	Iran, Islamic Rep	4.26	54.26
82	Moldova	4.23	53.81
83	Tanzania	4.21	53.51
84	Mali	4.19	53.22
85	Kazakhstan	4.13	52.09
86	Montenegro	4.09	51.52
87	Argentina	4.07	51.22
88	Macedonia, FYR	4.05	50.90
89	Croatia	4.04	50.74
90	Egypt, Arab Rep	4.02	50.40
91	Kyrgyz Republic	4.01	50.22
92	Russian Federation	3.96	49.40
93	Georgia (2011)	3.87	47.81
94	Albania	3.86	47.62
95	Nicaragua	3.86	47.61
96	Armenia	3.85	47.47
97	Azerbaijan	3.82	47.07
98	Bolivia	3.71	45.09
99	Serbia	3.61	43.58
100	Bosnia and Herzegovina	3.60	43.36
101	Ethiopia	3.59	43.20
102	Venezuela, RB	3.27	37.82
103	Algeria	3.15	35.75

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

1.2.2 Venture capital availability

Average answer to the question: In your country, how easy is it for entrepreneurs with innovative but risky projects to find venture capital? [1 = very difficult; 7 = very easy] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Qatar	4.68	61.40
2	Israel	4.45	57.52
3	Singapore	4.39	56.45
4	Sweden	4.38	56.26
5	Norway	4.33	55.57
6	United Arab Emirates	4.14	52.39
7	United States	4.10	51.75
8	Malaysia	4.03	50.56
9	Luxembourg	3.92	48.73
10	Finland	3.91	48.55
11	Netherlands	3.78	46.31
12	United Kingdom	3.77	46.12
13	Panama	3.69	44.83
14	Saudi Arabia	3.69	44.82
15	Switzerland	3.63	43.82
16	Canada	3.63	43.77
17	Indonesia	3.56	42.73
18	China	3.53	42.20
19	Belgium	3.53	42.15
20	New Zealand	3.53	42.11
21	India	3.40	39.96
22	Australia	3.34	38.93
23	Montenegro	3.29	38.24
24	Bolivia	3.28	38.00
25	Chile	3.21	36.79
26	Kenya	3.18	36.36
27	Estonia	3.16	35.98
28	Germany	3.16	35.98
29	Malta	3.11	35.13
30	South Africa	3.05	34.24
31	Morocco	3.02	33.70
32	Austria	3.01	33.42
33	Egypt, Arab Rep.	3.00	33.38
34	Kuwait	2.97	32.90
35	Japan	2.96	32.66
36	Latvia	2.95	32.42
37	Cambodia	2.94	32.40
38	Cyprus	2.94	32.31
39	Peru	2.93	32.17
40	Botswana	2.92	32.01
41	Jordan	2.91	31.83
42	Thailand	2.90	31.60
43	Brazil	2.82	30.36
44	Colombia	2.82	30.31
45	Pakistan	2.80	29.99
46	France	2.77	29.46
47	Bulgaria	2.77	29.42
48	Azerbaijan	2.76	29.40
49	Slovak Republic	2.76	29.36
50	Nicaragua	2.73	28.77
51	Philippines	2.72	28.74
52	Lebanon	2.72	28.68
53	Guatemala	2.67	27.78
54	Iceland	2.65	27.47
55	Mexico	2.62	27.05
56	Ecuador (2011)	2.61	26.85
57	Denmark	2.61	26.79
58	Paraguay	2.56	26.00
59	Turkey	2.51	25.22
60	Uganda	2.50	25.02
61	Spain	2.50	24.96
62	Romania	2.50	24.92
63	Uruguay	2.49	24.82
64	Tanzania	2.44	24.07
65	Namibia	2.42	23.75
66	Czech Republic	2.41	23.50
67	Russian Federation	2.40	23.33
68	Lithuania	2.38	23.06
69	Trinidad and Tobago	2.38	23.05
70	Ireland	2.38	22.93
71	Armenia	2.37	22.82
72	Poland	2.36	22.70
73	Macedonia, FYR	2.35	22.48
74	Mali	2.33	22.16
75	El Salvador	2.29	21.57
76	Vietnam	2.29	21.51
77	Portugal	2.28	21.27
78	Costa Rica	2.24	20.70
79	Georgia (2011)	2.23	20.56
80	Kazakhstan	2.23	20.49
81	Ukraine	2.20	20.06
82	Sri Lanka (2011)	2.20	19.96
83	Venezuela, RB	2.19	19.88
84	Korea, Rep	2.19	19.81
85	Dominican Republic	2.18	19.72
86	Croatia	2.14	19.00
87	Slovenia	2.12	18.66
88	Senegal	2.10	18.42
89	Hungary	2.10	18.31
90	Moldova	2.07	17.79
91	Ethiopia	2.07	17.78
92	Italy	2.03	17.09
93	Bangladesh	2.01	16.84
94	Serbia	1.93	15.58
95	Bosnia and Herzegovina	1.93	15.50
96	Iran, Islamic Rep	1.90	14.98
97	Albania	1.84	14.08
98	Kyrgyz Republic	1.84	13.98
99	Greece	1.83	13.77
100	Argentina	1.82	13.71
101	Burkina Faso	1.82	13.67
102	Algeria	1.78	12.98
103	Mongolia	1.73	12.12

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

1.2.3 Firm-level technology absorption

Average answer to the question: To what extent do businesses in your country absorb new technology? [1 = not at all; 7 = aggressively absorb] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Sweden	6.30	88.41
2	Iceland	6.26	87.71
3	Switzerland	6.20	86.64
4	Japan	6.16	86.07
5	Israel	6.16	85.98
6	Finland	6.05	84.23
7	Singapore	6.02	83.71
8	Qatar	6.00	83.33
9	Norway	6.00	83.30
10	Korea, Rep	6.00	83.28
11	United Arab Emirates	5.96	82.62
12	Austria	5.93	82.17
13	United States	5.90	81.65
14	Australia	5.90	81.61
15	Germany	5.88	81.27
16	New Zealand	5.86	80.94
17	Denmark	5.84	80.71
18	Saudi Arabia	5.82	80.36
19	Netherlands	5.76	79.29
20	United Kingdom	5.73	78.81
21	Luxembourg	5.64	77.33
22	Panama	5.61	76.76
23	Portugal	5.58	76.39
24	Jordan	5.57	76.15
25	Malaysia	5.56	75.92
26	Canada	5.55	75.91
27	Belgium	5.55	75.88
28	Malta	5.53	75.55
29	Ireland	5.53	75.52
30	Estonia	5.51	75.08
31	France	5.49	74.83
32	Senegal	5.48	74.72
33	South Africa	5.42	73.61
34	Turkey	5.30	71.63
35	India	5.24	70.64
36	Kuwait	5.23	70.51
37	Sri Lanka (2011)	5.22	70.33
38	Cyprus	5.20	69.98
39	Chile	5.19	69.90
40	Guatemala	5.19	69.87
41	Philippines	5.17	69.49
42	Brazil	5.15	69.24
43	Spain	5.09	68.14
44	Czech Republic	5.08	67.93
45	Costa Rica	5.07	67.89
46	Lithuania	5.01	66.89
47	Thailand	4.98	66.32
48	Indonesia	4.95	65.80
49	Dominican Republic	4.90	65.04
50	Kenya	4.89	64.85
51	Slovak Republic	4.88	64.66
52	Cambodia	4.86	64.38
53	Mexico	4.84	64.01
54	Hungary	4.84	63.99
55	Namibia	4.84	63.92
56	Ukraine	4.76	62.66
57	Lebanon	4.76	62.61
58	China	4.75	62.49
59	Azerbaijan	4.75	62.45
60	Morocco	4.70	61.60
61	Croatia	4.67	61.19
62	Slovenia	4.66	61.00
63	Peru	4.65	60.86
64	Albania	4.64	60.74
65	Mongolia	4.64	60.63
66	Trinidad and Tobago	4.63	60.49
67	Uruguay	4.62	60.27
68	Pakistan	4.57	59.58
69	Egypt, Arab Rep	4.56	59.40
70	Mali	4.54	59.01
71	Latvia	4.51	58.50
72	Kazakhstan	4.48	58.00
73	El Salvador	4.47	57.90
74	Colombia	4.44	57.40
75	Greece	4.44	57.25
76	Armenia	4.43	57.10
77	Botswana	4.39	56.58
78	Montenegro	4.36	55.92
79	Ecuador (2011)	4.33	55.47
80	Paraguay	4.33	55.45
81	Uganda	4.32	55.41
82	Italy	4.32	55.38
83	Bosnia and Herzegovina	4.32	55.36
84	Argentina	4.31	55.24
85	Bangladesh	4.25	54.11
86	Poland	4.23	53.85
87	Romania	4.14	52.31
88	Venezuela, RB	4.12	51.97
89	Burkina Faso	4.09	51.49
90	Iran, Islamic Rep	4.08	51.37
91	Nicaragua	4.05	50.79
92	Georgia (2011)	4.04	50.62
93	Bulgaria	3.99	49.87
94	Vietnam	3.98	49.73
95	Moldova	3.96	49.29
96	Tanzania	3.92	48.70
97	Macedonia, FYR	3.81	46.85
98	Kyrgyz Republic	3.73	45.53
99	Bolivia	3.69	44.84
100	Ethiopia	3.68	44.62
101	Russian Federation	3.63	43.89
102	Serbia	3.55	42.57
103	Algeria	3.16	36.01

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

1.2.4 R&D expenditure

Gross expenditure on R&D (% of GDP) | 2010

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Israel	4.40	100.00
2	Finland	3.88	88.11
3	Korea, Rep	3.74	84.88
4	Sweden	3.40	77.14
5	Japan (2009)	3.36	76.19
6	Denmark	3.06	69.39
7	Switzerland (2008)	2.99	67.82
8	United States (2009)	2.90	65.67
9	Germany	2.82	63.88
10	Austria (2011)	2.75	62.32
11	Iceland (2008)	2.64	59.88
12	Singapore (2009)	2.43	54.96
13	Australia (2008)	2.37	53.72
14	France	2.25	50.95
15	Slovenia	2.11	47.61
16	Belgium	1.99	44.89
17	Netherlands	1.83	41.31
18	Canada	1.80	40.59
19	Ireland	1.79	40.45
20	United Kingdom	1.76	39.76
21	China (2009)	1.70	38.38
22	Norway	1.69	38.22
23	Luxembourg	1.63	36.81
24	Estonia	1.62	36.58
25	Portugal	1.59	35.85
26	Czech Republic	1.56	35.22
27	Spain	1.39	31.20
28	New Zealand (2009)	1.30	29.23
29	Italy	1.26	28.24
30	Brazil	1.16	26.01
31	Hungary	1.16	26.00
32	Russian Federation	1.16	25.97
33	Montenegro (2007)	1.15	25.75
34	South Africa (2008)	0.93	20.75
35	Serbia (2009)	0.92	20.50
36	Ukraine (2009)	0.86	19.07
37	Turkey	0.84	18.77
38	Lithuania	0.80	17.74
39	Iran, Islamic Rep. (2008)	0.79	17.51
40	India (2007)	0.76	16.81
41	Poland	0.74	16.30
42	Croatia	0.73	16.18
43	Morocco (2006)	0.64	14.02
44	Malaysia (2006)	0.63	14.00
45	Slovak Republic	0.63	13.97
46	Malta	0.63	13.81
47	Latvia	0.60	13.31
48	Greece (2007)	0.60	13.26
49	Bulgaria	0.60	13.11
50	Argentina (2009)	0.60	13.10
51	Costa Rica (2009)	0.54	11.87
52	Moldova (2009)	0.53	11.51
53	Botswana (2005)	0.52	11.29
54	Cyprus	0.50	10.82
55	Romania	0.47	10.24
56	Pakistan (2009)	0.46	10.12
57	Jordan (2008)	0.43	9.43
58	Tanzania (2007)	0.43	9.43
59	Uruguay (2009)	0.43	9.42
60	Kenya (2007)	0.42	9.02
61	Uganda (2009)	0.41	8.91
62	Mexico (2009)	0.40	8.53
63	Chile (2008)	0.37	8.07
64	Senegal (2008)	0.37	7.92
65	Armenia (2009)	0.27	5.66
66	Ecuador (2008)	0.26	5.43
67	Azerbaijan (2009)	0.25	5.21
68	Mali (2007)	0.25	5.19
69	Ethiopia	0.24	5.06
70	Mongolia (2009)	0.24	5.04
71	Kazakhstan (2009)	0.23	4.74
72	Macedonia, FYR (2008)	0.23	4.65
73	Thailand (2007)	0.21	4.39
74	Egypt, Arab Rep. (2009)	0.21	4.33
75	Burkina Faso (2009)	0.20	4.09
76	Panama	0.19	3.93
77	Vietnam (2002)	0.19	3.91
78	Georgia (2005)	0.18	3.54
79	Kyrgyz Republic (2009)	0.16	3.14
80	Bolivia (2009)	0.16	3.09
81	Colombia	0.16	3.05
82	Albania (2008)	0.15	3.00
83	Peru (2004)	0.15	2.91
84	Sri Lanka (2008)	0.11	2.12
85	Kuwait (2009)	0.11	2.07
86	Philippines (2007)	0.11	2.01
87	Saudi Arabia (2009)	0.08	1.41
88	Indonesia (2009)	0.08	1.41
89	El Salvador (2009)	0.08	1.27
90	Algeria (2005)	0.07	1.03
91	Paraguay (2008)	0.06	0.87
92	Guatemala (2009)	0.06	0.77
93	Trinidad and Tobago (2009)	0.05	0.71
94	Cambodia (2002)	0.05	0.64
95	Nicaragua (2002)	0.05	0.54
96	Bosnia and Herzegovina (2009)	0.02	0.00
n/a	Bangladesh	n/a	n/a
n/a	Dominican Republic	n/a	n/a
n/a	Lebanon	n/a	n/a
n/a	Namibia	n/a	n/a
n/a	Qatar	n/a	n/a
n/a	United Arab Emirates	n/a	n/a
n/a	Venezuela, RB	n/a	n/a

Source: UNESCO Institute for Statistics, UIS online database. (http://stats.uis.unesco.org)

1.2.5 ICT access

ICT access index | 2011

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Switzerland	8.89	100.00
2	Luxembourg	8.87	99.72
3	Iceland	8.81	98.90
4	Germany	8.66	96.83
5	Sweden	8.50	94.62
6	United Kingdom	8.47	94.21
7	Singapore	8.38	92.97
8	Denmark	8.37	92.83
9	Netherlands	8.34	92.41
10	Korea, Rep	8.30	91.86
11	Norway	8.28	91.59
12	France	7.92	86.62
13	Malta	7.90	86.34
14	Austria	7.88	86.07
15	Japan	7.81	85.10
16	Finland	7.74	84.14
17	Belgium	7.72	83.86
18	Australia	7.66	83.03
19	Ireland	7.64	82.76
20	New Zealand	7.61	82.34
21	Canada	7.54	81.38
22	United States	7.50	80.83
23	Israel	7.34	78.62
24	Slovenia	7.29	77.93
25	Estonia	7.20	76.69
26	Spain	7.12	75.59
27	Italy	7.11	75.45
28	Portugal	6.94	73.10
29	Qatar	6.90	72.55
30	United Arab Emirates	6.89	72.41
31	Russian Federation	6.69	69.66
32	Croatia	6.67	69.38
33	Saudi Arabia	6.63	68.83
34	Lithuania	6.60	68.41
35	Greece	6.56	67.86
36	Czech Republic	6.53	67.45
37	Hungary	6.48	66.76
38	Cyprus	6.46	66.48
38	Poland	6.46	66.48
40	Serbia	6.37	65.24
41	Slovak Republic	6.32	64.55
42	Uruguay	6.15	62.21
43	Latvia	6.13	61.93
44	Bulgaria	5.97	59.72
44	Kazakhstan	5.97	59.72
46	Malaysia	5.85	58.07
47	Romania	5.75	56.69
48	Macedonia, FYR	5.73	56.41
49	Moldova	5.69	55.86
50	Argentina	5.66	55.45
51	Trinidad and Tobago	5.59	54.48
52	Lebanon	5.44	52.41
53	Chile	5.42	52.14
54	Brazil	5.35	51.17
55	Costa Rica	5.28	50.21
56	Panama	5.16	48.55
57	Turkey	5.12	48.00
58	Ukraine	4.86	44.41
59	Bosnia and Herzegovina	4.67	41.79
60	Jordan	4.64	41.38
61	Azerbaijan	4.63	41.24
62	Georgia	4.61	40.97
63	Morocco	4.49	39.31
64	Iran, Islamic Rep	4.47	39.03
65	Egypt, Arab Rep	4.18	35.03
66	Colombia	4.17	34.90
67	Ecuador	4.16	34.76
68	China	4.12	34.21
69	Mexico	4.08	33.66
70	Venezuela, RB	4.01	32.69
71	Vietnam	4.00	32.55
72	Peru	3.87	30.76
73	South Africa	3.79	29.66
74	Thailand	3.78	29.52
75	Mongolia	3.76	29.24
76	El Salvador	3.72	28.69
77	Albania	3.59	26.90
78	Paraguay	3.55	26.34
79	Algeria	3.53	26.07
80	Botswana	3.50	25.66
81	Dominican Republic	3.37	23.86
81	Indonesia	3.37	23.86
83	Philippines	3.32	23.17
84	Sri Lanka	3.30	22.90
85	Bolivia	3.23	21.93
86	Namibia	3.03	19.17
87	Nicaragua	2.83	16.41
88	Cambodia	2.53	12.28
89	India	2.48	11.59
90	Pakistan	2.46	11.31
91	Senegal	2.36	9.93
92	Kenya	2.34	9.66
93	Mali	2.19	7.59
94	Uganda	1.91	3.72
95	Tanzania	1.85	2.90
96	Burkina Faso	1.82	2.48
97	Ethiopia	1.64	0.00
n/a	Armenia	n/a	n/a
n/a	Bangladesh	n/a	n/a
n/a	Guatemala	n/a	n/a
n/a	Kuwait	n/a	n/a
n/a	Kyrgyz Republic	n/a	n/a
n/a	Montenegro	n/a	n/a

Source: International Telecommunication Union, Measuring the Information Society 2012, ICT Development Index 2010–2011. (http://www.itu.int/ITU-D/ict/publications/idi/)

1.2.6 Ease of doing business

Ease of doing business index | 2013

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Singapore	1.00	100.00
2	New Zealand	0.99	99.10
3	United States	0.98	98.10
4	Denmark	0.97	97.10
5	Norway	0.96	96.10
6	United Kingdom	0.95	95.10
7	Korea, Rep	0.94	94.20
8	Georgia	0.93	93.20
9	Australia	0.92	92.20
10	Finland	0.91	91.20
11	Malaysia	0.90	90.20
12	Sweden	0.89	89.30
13	Iceland	0.88	88.30
14	Ireland	0.87	87.30
15	Canada	0.86	86.30
16	Thailand	0.85	85.30
17	Germany	0.84	84.40
18	Estonia	0.83	83.40
19	Saudi Arabia	0.82	82.40
20	Macedonia, FYR	0.81	81.40
21	Japan	0.80	80.40
22	Latvia	0.80	79.50
23	United Arab Emirates	0.79	78.50
24	Lithuania	0.78	77.50
25	Switzerland	0.77	76.50
26	Austria	0.76	75.50
27	Portugal	0.75	74.60
28	Netherlands	0.74	73.60
29	Armenia	0.73	72.60
30	Belgium	0.72	71.60
31	France	0.71	70.60
32	Slovenia	0.70	69.70
33	Cyprus	0.69	68.70
34	Chile	0.68	67.70
35	Israel	0.67	66.70
36	South Africa	0.66	65.70
37	Qatar	0.65	64.80
38	Peru	0.64	63.80
39	Spain	0.63	62.80
40	Colombia	0.62	61.80
41	Slovak Republic	0.61	60.80
42	Mexico	0.60	59.90
43	Kazakhstan	0.59	58.90
44	Montenegro	0.58	57.90
45	Hungary	0.57	56.90
46	Poland	0.56	55.90
47	Luxembourg	0.55	55.00
48	Botswana	0.54	54.00
49	Panama	0.53	53.00
50	Czech Republic	0.52	52.00
51	Bulgaria	0.51	51.00
52	Azerbaijan	0.50	50.00
53	Trinidad and Tobago	0.49	49.10
54	Kyrgyz Republic	0.48	48.10
55	Turkey	0.47	47.10
56	Romania	0.46	46.10
57	Italy	0.45	45.10
58	Mongolia	0.44	44.20
59	Greece	0.43	43.20
60	Sri Lanka	0.42	42.20
61	Kuwait	0.41	41.20
62	Moldova	0.40	40.20
63	Croatia	0.39	39.30
64	Albania	0.38	38.30
65	Serbia	0.37	37.30
66	Namibia	0.36	36.30
67	Uruguay	0.35	35.30
68	China	0.34	34.40
69	Guatemala	0.33	33.40
70	Morocco	0.32	32.40
71	Vietnam	0.31	31.40
72	Malta	0.30	30.40
73	Paraguay	0.30	29.50
74	Jordan	0.29	28.50
75	Pakistan	0.28	27.50
76	Egypt, Arab Rep.	0.27	26.50
77	Costa Rica	0.26	25.50
78	Russian Federation	0.25	24.60
79	El Salvador	0.24	23.60
80	Lebanon	0.23	22.60
81	Dominican Republic	0.22	21.60
82	Nicaragua	0.21	20.60
83	Uganda	0.20	19.70
84	Kenya	0.19	18.70
85	Argentina	0.18	17.70
86	Bosnia and Herzegovina	0.17	16.70
87	Ethiopia	0.16	15.70
88	Indonesia	0.15	14.80
89	Bangladesh	0.14	13.80
90	Brazil	0.13	12.80
91	India	0.12	11.80
92	Cambodia	0.11	10.80
93	Tanzania	0.10	9.90
94	Ukraine	0.09	8.90
95	Philippines	0.08	7.90
96	Ecuador	0.07	6.90
97	Iran, Islamic Rep	0.06	5.90
98	Mali	0.05	5.00
99	Algeria	0.04	4.00
100	Burkina Faso	0.03	3.00
101	Bolivia	0.02	2.00
102	Senegal	0.01	1.00
103	Venezuela, RB	0.00	0.00

Source: World Bank, Ease of Doing Business Index 2013, Doing Business 2013. (http://www.doingbusiness.org/)

1.3.1 Labour market flexibility

Labour market flexibility index | 2010

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	United States	9.06	100.00
2	New Zealand	8.51	89.95
3	United Arab Emirates	8.50	89.72
4	Canada	8.49	89.65
5	Jordan	8.41	88.09
6	Japan	8.30	86.20
7	United Kingdom	8.24	85.07
8	Switzerland	8.19	84.13
9	Montenegro	8.01	80.78
10	India	8.00	80.71
11	Saudi Arabia	7.96	79.96
12	Ireland	7.93	79.43
13	Australia	7.90	78.70
14	Malaysia	7.87	78.21
15	Macedonia, FYR	7.85	77.78
16	Georgia	7.80	76.94
17	Bulgaria	7.74	75.88
18	Singapore	7.72	75.52
19	Iceland	7.72	75.46
20	Uganda	7.71	75.35
21	Qatar	7.69	74.95
22	Namibia	7.69	74.92
23	Czech Republic	7.67	74.57
24	Burkina Faso	7.66	74.30
25	Lithuania	7.65	74.12
26	Ethiopia	7.59	73.05
27	Kenya	7.52	71.85
28	Cambodia	7.51	71.72
29	Denmark	7.46	70.80
30	Poland	7.42	70.05
31	Belgium	7.38	69.30
32	Trinidad and Tobago	7.38	69.20
33	Peru	7.36	68.82
34	Slovak Republic	7.33	68.26
35	Hungary	7.32	68.06
36	Mongolia	7.23	66.58
37	Kazakhstan	7.14	64.81
38	Botswana	7.09	63.92
39	Romania	6.93	61.01
40	Kuwait	6.93	60.93
41	Azerbaijan	6.86	59.78
42	Latvia	6.82	58.92
43	Malta	6.76	57.94
44	Nicaragua	6.73	57.34
45	Netherlands	6.72	57.15
46	Kyrgyz Republic	6.63	55.46
47	Armenia	6.61	55.09
48	Bangladesh	6.58	54.50
49	Costa Rica	6.55	53.97
50	Italy	6.48	52.67
51	Sri Lanka	6.44	52.04
52	Sweden	6.43	51.84
53	Bosnia and Herzegovina	6.43	51.72
54	Croatia	6.40	51.25
55	El Salvador	6.38	50.91
56	Austria	6.33	49.94
57	Dominican Republic	6.31	49.55
58	Uruguay	6.20	47.57
59	Cyprus	6.17	47.08
60	Ukraine	6.08	45.44
61	South Africa	6.07	45.23
62	Russian Federation	6.05	44.89
63	Philippines	6.02	44.23
64	Estonia	5.96	43.26
65	Albania	5.93	42.57
66	Colombia	5.88	41.77
67	Tanzania	5.84	40.99
68	France	5.83	40.77
69	Chile	5.79	40.08
70	Serbia	5.70	38.45
71	Pakistan	5.68	38.11
72	Finland	5.63	37.10
73	Thailand	5.63	37.04
74	Moldova	5.59	36.48
75	China	5.57	35.99
76	Luxembourg	5.55	35.66
77	Mexico	5.53	35.29
78	Slovenia	5.42	33.23
79	Vietnam	5.40	32.98
80	Panama	5.40	32.88
81	Germany	5.35	32.01
82	Argentina	5.27	30.46
83	Mali	5.21	29.49
84	Israel	5.19	29.07
85	Algeria	5.17	28.64
86	Egypt, Arab Rep.	4.90	23.68
87	Turkey	4.76	21.24
88	Spain	4.72	20.40
89	Portugal	4.67	19.55
90	Indonesia	4.66	19.39
91	Korea, Rep	4.58	17.93
92	Guatemala	4.57	17.71
93	Paraguay	4.56	17.51
94	Senegal	4.55	17.31
95	Bolivia	4.54	17.20
96	Brazil	4.47	15.75
97	Iran, Islamic Rep	4.37	14.06
98	Greece	4.36	13.74
99	Norway	4.34	13.36
100	Ecuador	4.21	11.01
101	Morocco	4.12	9.50
102	Venezuela, RB	3.61	0.00
n/a	Lebanon	n/a	n/a

Source: Fraser Institute, Economic Freedom of the World: 2012 Annual Report. (http://www.freetheworld.com/)

1.3.2 Reliance on professional management

Average answer to the question: 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] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	New Zealand	6.30	88.28
2	Finland	6.28	88.06
3	Netherlands	6.13	85.53
4	Norway	6.11	85.18
5	Sweden	6.05	84.25
6	Switzerland	6.04	84.05
7	Canada	6.00	83.30
8	Denmark	5.99	83.14
9	United Kingdom	5.97	82.80
10	Australia	5.93	82.17
11	Singapore	5.90	81.68
12	Ireland	5.87	81.14
13	South Africa	5.60	76.71
14	Germany	5.56	75.98
15	Qatar	5.55	75.78
16	Japan	5.50	74.94
17	Austria	5.45	74.17
18	United States	5.43	73.85
19	Belgium	5.43	73.77
20	Luxembourg	5.40	73.31
21	Iceland	5.33	72.09
22	Malaysia	5.32	71.99
23	Estonia	5.21	70.20
24	United Arab Emirates	5.20	69.93
25	Israel	5.19	69.83
26	Botswana	5.16	69.31
27	France	5.01	66.82
28	Sri Lanka (2011)	4.98	66.31
29	Saudi Arabia	4.98	66.29
30	Philippines	4.92	65.30
31	Brazil	4.89	64.79
32	Korea, Rep	4.89	64.77
33	Chile	4.87	64.42
34	Spain	4.68	61.33
35	Costa Rica	4.64	60.67
36	India	4.58	59.67
37	Peru	4.58	59.65
38	China	4.55	59.09
39	Czech Republic	4.49	58.11
40	Indonesia	4.45	57.53
41	Argentina	4.43	57.15
42	Lithuania	4.42	57.08
43	Cambodia	4.36	56.07
44	Latvia	4.34	55.61
45	Turkey	4.29	54.81
46	Kenya	4.28	54.64
47	Trinidad and Tobago	4.26	54.35
48	Mexico	4.25	54.24
49	Slovak Republic	4.20	53.26
50	Thailand	4.19	53.25
51	Albania	4.18	53.08
52	Poland	4.18	52.99
53	Venezuela, RB	4.17	52.90
54	Namibia	4.17	52.81
55	Tanzania	4.14	52.34
56	Portugal	4.14	52.28
57	Guatemala	4.12	51.99
58	Colombia	4.12	51.98
59	Bosnia and Herzegovina	4.06	51.01
60	Montenegro	4.01	50.24
61	Slovenia	4.01	50.24
62	Kazakhstan	3.98	49.62
63	Malta	3.96	49.34
64	Jordan	3.95	49.12
65	Hungary	3.93	48.84
66	Armenia	3.93	48.76
67	Georgia (2011)	3.92	48.66
68	Lebanon	3.92	48.59
69	Uganda	3.91	48.45
70	Senegal	3.90	48.36
71	Uruguay	3.84	47.37
72	Morocco	3.84	47.33
73	Moldova	3.84	47.26
74	Kuwait	3.81	46.87
75	Pakistan	3.81	46.82
76	Azerbaijan	3.78	46.40
77	Greece	3.78	46.29
78	Ecuador (2011)	3.71	45.24
79	Bulgaria	3.70	44.99
80	Vietnam	3.69	44.86
81	Russian Federation	3.62	43.72
82	Croatia	3.60	43.41
83	Mongolia	3.60	43.30
84	Italy	3.56	42.72
85	Bolivia	3.56	42.70
86	Panama	3.55	42.53
87	El Salvador	3.55	42.48
88	Ethiopia	3.55	42.42
89	Bangladesh	3.51	41.90
90	Paraguay	3.51	41.85
91	Cyprus	3.51	41.83
92	Iran, Islamic Rep	3.51	41.79
93	Romania	3.50	41.64
94	Burkina Faso	3.49	41.50
95	Nicaragua	3.49	41.45
96	Kyrgyz Republic	3.46	41.05
97	Dominican Republic	3.44	40.61
98	Ukraine	3.42	40.39
99	Macedonia, FYR	3.36	39.31
100	Egypt, Arab Rep	3.29	38.11
101	Serbia	3.27	37.89
102	Mali	3.27	37.81
103	Algeria	2.28	21.31

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

PILLAR 2:
ATTRACT

2.1.1 FDI inflow

FDI inflows (% of GDP) | 2011

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Mongolia	55.17	100.00
1	Luxembourg	29.86	100.00
1	Singapore	25.15	100.00
1	Belgium	17.38	100.00
1	Nicaragua	13.34	100.00
6	Montenegro	12.27	92.11
7	Kyrgyz Republic	12.17	91.35
8	Panama	9.06	68.41
9	Albania	8.05	60.93
10	Lebanon	7.75	58.75
11	Chile	7.39	56.08
12	Kazakhstan	7.23	54.92
13	Iceland	7.19	54.59
14	Namibia	6.96	52.92
15	Cambodia	6.94	52.79
16	Georgia	6.77	51.48
17	Vietnam	6.16	46.98
18	Ireland	6.03	46.00
19	Malta	6.02	45.94
20	Latvia	5.53	42.33
21	Serbia	5.31	40.76
22	Costa Rica	5.18	39.75
23	Armenia	5.06	38.86
24	Jordan	4.83	37.17
25	Uganda	4.82	37.12
26	Israel	4.68	36.06
27	Uruguay	4.59	35.42
28	Tanzania	4.58	35.35
29	Peru	4.56	35.17
30	Denmark	4.47	34.49
31	Ukraine	4.37	33.78
32	Portugal	4.33	33.52
33	Malaysia	4.29	33.22
34	Dominican Republic	4.16	32.22
35	Macedonia, FYR	4.15	32.17
36	Colombia	3.97	30.85
37	Moldova	3.92	30.43
38	Bolivia	3.51	27.43
39	Bulgaria	3.48	27.25
40	Austria	3.38	26.45
41	Hungary	3.36	26.32
42	Botswana	3.35	26.26
43	Saudi Arabia	2.95	23.30
44	Poland	2.95	23.28
45	Russian Federation	2.87	22.73
46	Lithuania	2.85	22.55
47	Thailand	2.77	21.98
48	Brazil	2.76	21.91
49	Australia	2.71	21.55
50	Trinidad and Tobago	2.60	20.74
51	Morocco	2.51	20.09
52	Czech Republic	2.51	20.06
53	Bosnia and Herzegovina	2.38	19.14
54	Canada	2.36	18.94
55	Croatia	2.34	18.80
56	Azerbaijan	2.31	18.57
57	Sweden	2.26	18.25
58	United Kingdom	2.24	18.07
59	Indonesia	2.23	18.02
60	Slovak Republic	2.23	17.98
61	United Arab Emirates	2.13	17.27
62	Guatemala	2.08	16.91
63	New Zealand	2.07	16.84
64	Netherlands	2.04	16.60
65	Turkey	2.04	16.57
66	Slovenia	2.02	16.42
67	Senegal	1.98	16.17
68	Spain	1.95	15.96
69	China	1.76	14.49
70	Mali	1.72	14.22
71	Mexico	1.70	14.07
72	El Salvador	1.69	14.03
73	Venezuela, RB	1.69	14.00
74	India	1.62	13.52
75	Argentina	1.62	13.47
76	United States	1.50	12.62
77	France	1.47	12.40
78	Romania	1.43	12.10
79	South Africa	1.42	12.04
80	Algeria	1.38	11.73
81	Paraguay	1.35	11.53
82	Italy	1.33	11.33
83	Estonia	1.16	10.08
84	Germany	1.13	9.88
85	Cyprus	1.11	9.72
86	Bangladesh	1.05	9.27
87	Kenya	0.98	8.80
88	Iran, Islamic Rep.	0.88	8.05
89	Ecuador	0.84	7.74
90	Norway	0.75	7.06
91	Ethiopia	0.68	6.58
92	Pakistan	0.63	6.22
93	Greece	0.61	6.04
94	Philippines	0.56	5.68
95	Sri Lanka	0.51	5.28
96	Korea, Rep.	0.42	4.62
97	Kuwait	0.23	3.20
98	Burkina Faso	0.08	2.10
99	Finland	0.02	1.68
100	Japan	-0.03	1.31
101	Switzerland	-0.03	1.31
102	Qatar	-0.05	1.17
103	Egypt, Arab Rep.	-0.21	0.00

Source: United Nations Conference on Trade and Development (UNCTAD) Division on Investment and Enterprise, UNCTAD STAT. (http://unctadstat.unctad.org/)

2.1.2 Qualified labour inflow

Average answer to the question: 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] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Switzerland	6.29	88.09
2	Singapore	5.72	78.61
3	Qatar	5.67	77.89
4	United Kingdom	5.62	77.08
5	United States	5.58	76.37
6	United Arab Emirates	5.51	75.12
7	Canada	5.49	74.76
8	Norway	5.37	72.79
9	Netherlands	5.27	71.09
10	Sweden	5.16	69.35
11	Finland	5.07	67.88
12	Saudi Arabia	5.05	67.46
13	Chile	4.96	66.00
14	Luxembourg	4.92	65.34
15	Korea, Rep	4.81	63.55
16	Belgium	4.75	62.46
17	Costa Rica	4.75	62.45
18	Malaysia	4.73	62.20
19	Germany	4.67	61.23
20	Ireland	4.60	60.04
21	Iceland	4.59	59.84
22	Brazil	4.58	59.63
23	Panama	4.49	58.14
24	India	4.47	57.75
25	Australia	4.44	57.25
26	Austria	4.41	56.84
27	Denmark	4.27	54.42
28	Cambodia	4.15	52.44
29	Thailand	4.14	52.27
30	Malta	4.13	52.15
31	Israel	4.12	52.01
32	China	4.11	51.90
33	Japan	4.10	51.66
34	Indonesia	4.00	49.93
35	Peru	3.94	49.05
36	Botswana	3.85	47.42
37	Kuwait	3.82	47.08
38	Sri Lanka (2011)	3.81	46.83
39	South Africa	3.79	46.43
40	France	3.75	45.78
41	Guatemala	3.75	45.76
42	Jordan	3.66	44.39
43	Mexico	3.64	43.96
44	Morocco	3.61	43.46
45	Trinidad and Tobago	3.59	43.11
46	Cyprus	3.58	42.99
47	New Zealand	3.58	42.95
48	Dominican Republic	3.57	42.83
49	Montenegro	3.55	42.53
50	Pakistan	3.50	41.74
51	Kenya	3.43	40.42
52	Argentina	3.42	40.26
53	Azerbaijan	3.41	40.23
54	Philippines	3.40	40.06
55	Kazakhstan	3.40	39.97
56	Senegal	3.38	39.74
57	Turkey	3.38	39.63
58	Bolivia	3.37	39.49
59	Estonia	3.36	39.31
60	Namibia	3.32	38.66
61	Uruguay	3.31	38.56
62	Spain	3.31	38.52
63	Slovenia	3.31	38.48
64	Czech Republic	3.31	38.42
65	Armenia	3.20	36.66
66	Colombia	3.20	36.59
67	Portugal	3.18	36.36
68	Ecuador (2011)	3.18	36.26
69	Tanzania	3.15	35.75
70	Latvia	3.13	35.51
71	Albania	3.10	35.01
72	Uganda	3.08	34.62
73	Vietnam	3.08	34.61
74	Nicaragua	3.05	34.13
75	Mali	3.03	33.80
76	Georgia (2011)	2.99	33.16
77	Paraguay	2.97	32.88
78	Poland	2.89	31.53
79	Iran, Islamic Rep	2.88	31.30
80	Mongolia	2.81	30.18
81	Russian Federation	2.80	30.07
82	Bangladesh	2.77	29.48
83	Burkina Faso	2.76	29.38
84	Italy	2.76	29.33
85	Lithuania	2.68	28.04
86	Ethiopia	2.67	27.87
87	Lebanon	2.51	25.09
88	Slovak Republic	2.47	24.42
89	Greece	2.42	23.64
90	El Salvador	2.38	22.92
91	Croatia	2.36	22.73
92	Bulgaria	2.35	22.57
93	Hungary	2.31	21.91
94	Ukraine	2.28	21.31
95	Egypt, Arab Rep	2.24	20.66
96	Macedonia, FYR	2.11	18.44
97	Romania	2.07	17.80
98	Moldova	2.07	17.79
99	Venezuela, RB	2.05	17.48
100	Kyrgyz Republic	1.95	15.84
101	Bosnia and Herzegovina	1.92	15.35
102	Serbia	1.86	14.34
103	Algeria	1.54	9.00

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

2.1.3 Prevalence of foreign ownership

Average answer to the question: How prevalent is foreign ownership of companies in your country? [1 = very rare; 7 = highly prevalent] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Luxembourg	6.45	90.88
2	Slovak Republic	6.10	84.97
3	Singapore	6.09	84.84
4	United Kingdom	6.07	84.54
5	New Zealand	5.97	82.80
6	Ireland	5.83	80.51
7	Australia	5.83	80.51
8	Panama	5.82	80.37
9	Canada	5.73	78.79
10	Belgium	5.72	78.66
11	Uruguay	5.72	78.64
12	Chile	5.67	77.85
13	Switzerland	5.63	77.16
14	Hungary	5.59	76.57
15	Czech Republic	5.59	76.42
16	France	5.55	75.90
17	Costa Rica	5.53	75.45
18	Netherlands	5.52	75.30
19	Sweden	5.50	75.04
20	Mexico	5.50	74.96
21	Estonia	5.41	73.50
22	Finland	5.38	72.96
23	Norway	5.33	72.22
24	South Africa	5.32	72.06
25	Uganda	5.32	71.98
26	United Arab Emirates	5.31	71.82
27	Peru	5.30	71.71
28	Botswana	5.29	71.49
29	Israel	5.28	71.35
30	Denmark	5.24	70.74
31	Senegal	5.24	70.65
32	Germany	5.14	69.04
33	Mongolia	5.14	69.03
34	Spain	5.10	68.37
35	Austria	5.10	68.29
36	Sri Lanka (2011)	5.09	68.16
37	Morocco	5.08	67.95
38	Namibia	5.05	67.56
39	United States	5.05	67.48
40	Malaysia	5.04	67.35
41	Dominican Republic	5.00	66.72
42	Argentina	4.92	65.37
43	Latvia	4.92	65.34
44	Guatemala	4.90	65.01
45	El Salvador	4.87	64.42
46	Qatar	4.86	64.41
47	Thailand	4.83	63.90
48	Philippines	4.81	63.47
49	Cyprus	4.74	62.25
50	Malta	4.66	61.01
51	Poland	4.66	60.95
52	Trinidad and Tobago	4.62	60.33
53	Indonesia	4.62	60.26
54	Saudi Arabia	4.61	60.24
55	Montenegro	4.61	60.09
56	Jordan	4.58	59.73
57	Brazil	4.53	58.88
58	Paraguay	4.47	57.80
59	India	4.46	57.61
60	Portugal	4.44	57.29
61	Bosnia and Herzegovina	4.43	57.18
62	Colombia	4.42	57.05
63	Lithuania	4.42	57.00
64	Japan	4.42	56.93
65	Korea, Rep	4.40	56.67
66	Greece	4.37	56.16
67	Kenya	4.36	56.05
68	Cambodia	4.36	56.02
69	Tanzania	4.34	55.61
70	Armenia	4.30	54.92
71	Azerbaijan	4.29	54.81
72	China	4.28	54.62
73	Nicaragua	4.26	54.38
74	Turkey	4.21	53.47
75	Kazakhstan	4.13	52.16
76	Albania	4.13	52.15
77	Burkina Faso	4.09	51.51
78	Romania	4.08	51.37
79	Bulgaria	4.07	51.23
80	Croatia	4.05	50.76
81	Egypt, Arab Rep.	4.04	50.68
82	Vietnam	4.02	50.39
83	Mali	4.01	50.11
84	Ecuador (2011)	3.99	49.91
85	Bangladesh	3.97	49.53
86	Italy	3.97	49.49
87	Pakistan	3.94	48.98
88	Moldova	3.94	48.97
89	Georgia (2011)	3.93	48.88
90	Lebanon	3.88	47.97
91	Macedonia, FYR	3.85	47.47
92	Serbia	3.80	46.71
93	Ukraine	3.62	43.62
94	Kyrgyz Republic	3.56	42.60
95	Venezuela, RB	3.53	42.15
96	Bolivia	3.51	41.86
97	Slovenia	3.45	40.77
98	Russian Federation	3.40	40.00
99	Ethiopia	3.29	38.17
100	Algeria	3.27	37.83
101	Kuwait	3.13	35.43
102	Iceland	3.06	34.41
103	Iran, Islamic Rep	2.24	20.65

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

2.2.1 Tolerance of minorities

Percentage of respondents who answered yes for the question: Is the area where you live a good place or not a good place to live for racial and ethnic minorities? | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Canada	92.00	100.00
2	New Zealand	90.60	98.48
3	Australia	89.80	97.61
4	Bangladesh	89.70	97.50
5	United Kingdom	89.20	96.96
6	Ireland	88.90	96.63
7	Sweden	88.00	95.65
8	Iceland	87.90	95.54
9	Germany	87.60	95.22
10	Denmark	87.40	95.00
11	Norway	86.20	93.70
12	Mali	85.70	93.15
13	Senegal	85.10	92.50
14	Luxembourg	84.60	91.96
15	Netherlands	84.30	91.63
16	Brazil	84.00	91.30
17	United States	83.60	90.87
18	Burkina Faso	83.10	90.33
19	Kazakhstan	83.00	90.22
20	Uruguay	82.60	89.78
21	Portugal	82.00	89.13
22	France	81.90	89.02
23	India	80.90	87.93
24	Spain	79.70	86.63
25	Costa Rica	79.60	86.52
26	Georgia	79.10	85.98
26	Sri Lanka	79.10	85.98
28	Argentina	77.80	84.57
29	Singapore	77.70	84.46
30	Belgium	77.20	83.91
31	Nicaragua	76.30	82.93
32	Namibia	75.90	82.50
33	Bulgaria	75.10	81.63
34	Malaysia	73.90	80.33
35	Kuwait	73.80	80.22
36	Paraguay	72.80	79.13
37	Pakistan	72.70	79.02
38	Austria	72.30	78.59
39	Finland	71.90	78.15
40	Panama	71.70	77.93
41	Botswana	71.50	77.72
42	Slovenia	71.40	77.61
42	Switzerland	71.40	77.61
44	Kyrgyz Republic	71.30	77.50
45	Cyprus	71.20	77.39
46	Italy	71.00	77.17
47	Korea, Rep	70.70	76.85
48	Malta	70.30	76.41
49	Guatemala	70.20	76.30
50	Montenegro	70.10	76.20
51	Ecuador	69.80	75.87
52	Colombia	69.50	75.54
53	Venezuela, RB	68.80	74.78
54	Chile	68.40	74.35
55	Romania	67.80	73.70
56	Peru	67.10	72.93
57	United Arab Emirates	67.00	72.83
58	Indonesia	66.20	71.96
59	Hungary	65.20	70.87
60	Croatia	64.50	70.11
60	Trinidad and Tobago	64.50	70.11
62	Slovak Republic	64.00	69.57
63	Iran, Islamic Rep	63.40	68.91
64	Macedonia, FYR	62.40	67.83
65	Kenya	62.10	67.50
66	Bolivia	61.60	66.96
67	Morocco	61.50	66.85
67	Vietnam	61.50	66.85
69	Latvia	61.30	66.63
70	Japan	60.70	65.98
70	South Africa	60.70	65.98
72	Azerbaijan	59.90	65.11
73	Lithuania	59.00	64.13
73	Uganda	59.00	64.13
75	El Salvador	57.70	62.72
76	Russian Federation	57.50	62.50
76	Ukraine	57.50	62.50
78	Armenia	57.40	62.39
79	Mexico	57.00	61.96
80	Dominican Republic	56.20	61.09
81	Estonia	55.80	60.65
82	Philippines	55.00	59.78
83	Cambodia	54.70	59.46
84	Czech Republic	54.50	59.24
85	Poland	54.20	58.91
86	Turkey	52.50	57.07
87	China	52.30	56.85
88	Mongolia	51.90	56.41
89	Albania	51.20	55.65
90	Israel	50.10	54.46
91	Tanzania	49.10	53.37
92	Moldova	47.90	52.07
93	Ethiopia	47.60	51.74
94	Bosnia and Herzegovina	46.20	50.22
95	Greece	43.40	47.17
96	Lebanon	43.00	46.74
97	Saudi Arabia	37.60	40.87
98	Jordan	29.30	31.85
99	Thailand	27.10	29.46
100	Egypt, Arab Rep	22.00	23.91
101	Algeria	21.90	23.80
102	Serbia	0.00	0.00
n/a	Qatar	n/a	n/a

Source: Legatum Institute, Legatum Prosperity Index 2012 based on Gallup World Poll. (http://www.prosperity.com/)
Last accessed April 2013.

2.2.2 Tolerance of immigrants

Percentage of respondents who answered yes for the question: Is the area where you live a good place or not a good place to live for immigrants? | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	New Zealand	93.70	100.00
2	Canada	90.80	96.91
3	Australia	90.60	96.69
4	Sweden	89.30	95.30
5	Denmark	88.90	94.88
6	Norway	88.80	94.77
7	Ireland	88.50	94.45
8	Iceland	88.40	94.34
9	Uruguay	88.00	93.92
10	United Arab Emirates	86.80	92.64
11	Netherlands	86.20	92.00
12	Portugal	85.90	91.68
13	Spain	84.60	90.29
14	Paraguay	84.40	90.07
15	Luxembourg	84.00	89.65
16	Germany	83.90	89.54
17	United States	83.50	89.11
18	Argentina	82.60	88.15
19	United Kingdom	82.10	87.62
20	Saudi Arabia	80.40	85.81
21	Brazil	80.00	85.38
22	Bangladesh	79.80	85.17
23	Burkina Faso	79.00	84.31
24	Mali	78.60	83.88
25	Kazakhstan	78.30	83.56
26	France	77.10	82.28
27	Belgium	76.70	81.86
28	Nicaragua	75.70	80.79
29	Senegal	75.30	80.36
30	Kuwait	74.30	79.30
31	Switzerland	74.10	79.08
32	Finland	73.30	78.23
33	Botswana	73.20	78.12
34	Costa Rica	72.40	77.27
35	Malta	72.00	76.84
36	Colombia	70.70	75.45
37	Austria	70.50	75.24
38	Chile	68.60	73.21
39	Morocco	68.50	73.11
40	Bolivia	68.40	73.00
41	Azerbaijan	68.20	72.79
42	Montenegro	68.10	72.68
43	Venezuela, RB	67.90	72.47
44	Hungary	67.30	71.82
45	Trinidad and Tobago	67.10	71.61
46	Peru	67.00	71.50
47	Italy	66.90	71.40
48	Ecuador	66.30	70.76
49	Macedonia, FYR	66.00	70.44
50	Singapore	65.90	70.33
51	Uganda	65.80	70.22
52	Japan	65.30	69.69
53	Kenya	64.40	68.73
54	Cyprus	64.10	68.41
55	Korea, Rep	63.70	67.98
56	Panama	63.60	67.88
57	Philippines	63.40	67.66
57	Sri Lanka	63.40	67.66
59	Lebanon	62.40	66.60
59	Slovak Republic	62.40	66.60
61	Armenia	61.90	66.06
62	Bulgaria	61.70	65.85
63	Georgia	58.80	62.75
64	Dominican Republic	58.60	62.54
65	El Salvador	58.50	62.43
66	Russian Federation	58.10	62.01
67	Poland	57.90	61.79
68	Czech Republic	57.80	61.69
69	Namibia	57.60	61.47
70	Bosnia and Herzegovina	57.40	61.26
70	South Africa	57.40	61.26
70	Vietnam	57.40	61.26
73	Tanzania	57.20	61.05
74	Ukraine	57.00	60.83
75	Kyrgyz Republic	55.60	59.34
76	Croatia	55.30	59.02
76	Slovenia	55.30	59.02
78	Iran, Islamic Rep	55.10	58.80
79	Romania	53.10	56.67
80	Mexico	53.00	56.56
81	Lithuania	50.30	53.68
82	Moldova	50.20	53.58
83	Ethiopia	49.80	53.15
84	Mongolia	49.50	52.83
85	Algeria	49.10	52.40
85	Guatemala	49.10	52.40
87	Pakistan	48.70	51.97
88	Turkey	47.90	51.12
89	Greece	46.60	49.73
90	Albania	45.00	48.03
91	Estonia	43.10	46.00
92	India	41.50	44.29
93	Jordan	39.10	41.73
94	China	38.90	41.52
95	Israel	38.50	41.09
96	Indonesia	38.30	40.88
97	Latvia	38.00	40.55
98	Cambodia	32.50	34.69
99	Egypt, Arab Rep	26.50	28.28
100	Thailand	20.50	21.88
101	Malaysia	18.40	19.64
102	Serbia	0.00	0.00
n/a	Qatar	n/a	n/a

Source: Legatum Institute, Legatum Prosperity Index 2012 based on Gallup World Poll. (http://www.prosperity.com/)
Last accessed April 2013.

2.2.3 Social mobility

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

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Finland	6.46	91.01
2	Switzerland	6.29	88.11
3	New Zealand	6.28	87.98
4	Denmark	6.17	86.17
5	Canada	6.13	85.43
6	Iceland	6.11	85.08
7	Norway	6.08	84.63
8	Austria	6.07	84.45
9	Australia	5.94	82.35
10	Netherlands	5.93	82.21
11	Qatar	5.88	81.36
12	United Arab Emirates	5.87	81.19
13	Belgium	5.84	80.71
14	Luxembourg	5.83	80.56
15	Singapore	5.82	80.27
16	Japan	5.64	77.38
17	Ireland	5.60	76.69
18	Germany	5.54	75.59
19	United States	5.53	75.57
20	United Kingdom	5.47	74.53
21	Estonia	5.46	74.28
22	Saudi Arabia	5.43	73.88
23	Sweden	5.35	72.54
24	Malaysia	5.08	67.97
25	Costa Rica	4.98	66.26
26	Cyprus	4.80	63.30
27	Panama	4.74	62.37
28	Czech Republic	4.74	62.36
29	Malta	4.74	62.26
30	Spain	4.72	62.03
31	Slovenia	4.72	62.02
32	Botswana	4.69	61.48
33	Brazil	4.65	60.89
34	Latvia	4.64	60.66
35	India	4.64	60.65
36	Guatemala	4.62	60.40
37	Chile	4.59	59.90
38	Portugal	4.58	59.70
39	Uruguay	4.58	59.67
40	Lithuania	4.57	59.55
41	Slovak Republic	4.57	59.48
42	Israel	4.57	59.43
43	Kuwait	4.51	58.56
44	Turkey	4.48	57.97
45	France	4.44	57.30
46	Thailand	4.42	57.08
47	Lebanon	4.38	56.30
48	Philippines	4.37	56.09
49	Jordan	4.36	55.99
50	Mongolia	4.35	55.84
51	Montenegro	4.35	55.83
52	Trinidad and Tobago	4.35	55.77
53	China	4.28	54.59
54	Ethiopia	4.23	53.86
55	Kazakhstan	4.22	53.61
56	Namibia	4.16	52.65
57	Mexico	4.14	52.35
58	Indonesia	4.12	52.01
59	Pakistan	4.11	51.84
60	South Africa	4.11	51.84
61	Morocco	4.11	51.80
62	Iran, Islamic Rep.	4.09	51.50
63	Peru	4.09	51.44
64	Poland	4.06	51.02
65	Armenia	4.04	50.62
66	Russian Federation	4.03	50.51
67	Senegal	3.94	49.05
68	Paraguay	3.92	48.64
69	Bangladesh	3.90	48.37
70	Korea, Rep.	3.89	48.23
71	Uganda	3.87	47.84
72	Bolivia	3.86	47.71
73	Egypt, Arab Rep.	3.86	47.60
74	Cambodia	3.86	47.60
75	Azerbaijan	3.82	47.02
76	Greece	3.74	45.74
77	Italy	3.73	45.51
78	Vietnam	3.65	44.13
79	Kyrgyz Republic	3.64	44.02
80	Macedonia, FYR	3.63	43.90
81	Croatia	3.62	43.66
82	Argentina	3.59	43.17
83	Kenya	3.59	43.15
84	Bulgaria	3.53	42.12
85	Colombia	3.52	42.03
86	Nicaragua	3.49	41.58
87	Dominican Republic	3.47	41.13
88	Tanzania	3.42	40.37
89	Burkina Faso	3.41	40.24
90	Moldova	3.38	39.63
91	Hungary	3.29	38.20
92	Mali	3.29	38.10
93	Venezuela, RB	3.13	35.53
94	Serbia	3.06	34.33
95	Romania	3.02	33.67
96	Algeria	3.00	33.33
97	Ukraine	2.88	31.38
98	El Salvador	2.68	27.98
99	Bosnia and Herzegovina	1.99	16.58
n/a	Albania	n/a	n/a
n/a	Ecuador	n/a	n/a
n/a	Georgia	n/a	n/a
n/a	Sri Lanka	n/a	n/a

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

2.2.4 Female professionals and technical workers

Ratio of female professionals and technical workers over male value | 2011

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Lithuania	2.04	100.00
1	Kazakhstan (2008)	2.02	100.00
1	Moldova (2008)	1.98	100.00
1	Latvia	1.86	100.00
1	Russian Federation (2008)	1.80	100.00
1	Estonia	1.79	100.00
1	Ukraine (2008)	1.77	100.00
1	Kyrgyz Republic (2006)	1.67	100.00
1	Bulgaria	1.65	100.00
1	Philippines (2008)	1.64	100.00
1	Georgia (2007)	1.62	100.00
1	Armenia (2008)	1.49	100.00
1	Poland	1.46	100.00
1	Iceland	1.45	100.00
1	Slovak Republic	1.37	100.00
1	Serbia (2010)	1.35	100.00
1	Slovenia	1.34	100.00
1	Hungary	1.33	100.00
1	Thailand	1.33	100.00
1	United States (2008)	1.31	100.00
1	Canada (2008)	1.30	100.00
1	Romania	1.27	100.00
1	New Zealand (2008)	1.25	100.00
1	Botswana (2006)	1.24	100.00
1	Montenegro	1.24	100.00
1	Panama	1.21	100.00
1	Mongolia (2008)	1.20	100.00
1	Argentina (2006)	1.18	100.00
1	Azerbaijan (2008)	1.17	100.00
1	Australia (2008)	1.16	100.00
1	Trinidad and Tobago (2005)	1.14	100.00
1	Uruguay (2007)	1.13	100.00
1	Ireland	1.11	100.00
1	Namibia (2004)	1.10	100.00
1	South Africa	1.10	100.00
1	Brazil (2007)	1.09	100.00
1	Finland	1.09	100.00
1	Israel (2008)	1.09	100.00
1	Sweden	1.09	100.00
1	China (2005)	1.07	100.00
1	Croatia	1.07	100.00
1	Denmark	1.05	100.00
1	Nicaragua (2006)	1.05	100.00
1	Vietnam (2004)	1.05	100.00
1	Dominican Republic (2007)	1.04	100.00
1	Portugal	1.04	100.00
1	Paraguay (2008)	1.02	100.00
1	Macedonia, FYR	1.01	100.00
49	Greece	1.00	99.87
50	Cyprus	0.99	99.18
51	Germany	0.99	98.90
52	El Salvador (2010)	0.98	97.55
53	Ecuador (2006)	0.97	97.11
54	Belgium	0.95	93.72
55	Lebanon (2007)	0.93	92.27
56	Spain	0.93	91.60
57	United Kingdom	0.93	91.58
58	Norway	0.92	90.82
59	Czech Republic	0.92	90.40
60	Netherlands	0.90	88.82
61	Sri Lanka (2008)	0.89	87.61
62	France	0.88	86.42
63	Austria	0.88	86.14
64	Singapore	0.88	85.83
65	Luxembourg	0.87	85.06
66	Chile (2002)	0.86	84.00
67	Switzerland	0.86	83.97
68	Italy	0.85	83.03
69	Peru (2008)	0.84	81.35
70	Indonesia (2008)	0.81	78.53
71	Costa Rica	0.74	69.50
72	Malaysia (2010)	0.72	67.76
73	Mexico (2008)	0.70	65.99
74	Korea, Rep. (2008)	0.69	64.68
75	Bolivia (2007)	0.68	63.07
76	Malta	0.63	57.64
77	Tanzania (2006)	0.61	55.57
78	Turkey (2010)	0.57	50.13
79	Morocco (2008)	0.55	48.58
80	Algeria (2004)	0.55	47.69
81	Uganda (2003)	0.54	46.81
82	Kuwait (2005)	0.52	44.32
83	Egypt, Arab Rep. (2007)	0.51	44.10
84	Iran, Islamic Rep. (2008)	0.50	42.41
85	Ethiopia (2006)	0.49	41.75
86	Cambodia (2008)	0.47	39.09
87	Saudi Arabia (2008)	0.37	27.54
88	Burkina Faso (2006)	0.33	22.58
89	Qatar	0.31	21.00
90	India (2010)	0.31	20.84
91	Pakistan (2008)	0.28	17.48
92	United Arab Emirates (2008)	0.28	16.93
93	Bangladesh (2003)	0.13	0.00
n/a	Albania	n/a	n/a
n/a	Bosnia and Herzegovina	n/a	n/a
n/a	Colombia	n/a	n/a
n/a	Guatemala	n/a	n/a
n/a	Japan	n/a	n/a
n/a	Jordan	n/a	n/a
n/a	Kenya	n/a	n/a
n/a	Mali	n/a	n/a
n/a	Senegal	n/a	n/a
n/a	Venezuela, RB	n/a	n/a

Source: International Labour Organization, Key Indicators of the Labour Market, 7th edition. (http://kilm.ilo.org/kilmnet/)

2.2.5 Female parliamentarians

Ratio of female parliamentarians over male value | 2011

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Sweden	0.81	100.00
2	Finland	0.74	91.44
3	South Africa	0.73	90.69
4	Netherlands	0.69	84.91
5	Nicaragua	0.67	83.17
6	Iceland	0.66	81.45
7	Norway	0.66	81.11
8	Denmark	0.64	79.43
9	Costa Rica	0.63	77.77
10	Belgium	0.61	75.82
11	Argentina	0.60	73.91
12	Spain	0.56	69.59
12	Tanzania	0.56	69.59
14	Uganda	0.54	66.62
15	Germany	0.49	60.66
16	Ecuador	0.48	59.02
17	New Zealand	0.47	58.75
17	Slovenia	0.47	58.75
19	Macedonia, FYR	0.45	55.32
20	Portugal	0.40	49.80
21	Trinidad and Tobago	0.40	49.55
22	Switzerland	0.40	49.31
23	Austria	0.39	47.87
24	Ethiopia	0.39	47.63
25	Mexico	0.36	43.92
26	Bolivia	0.34	42.12
27	Luxembourg	0.33	41.24
28	Canada	0.33	40.80
29	Australia	0.33	40.58
30	Namibia	0.32	39.93
30	Vietnam	0.32	39.93
32	Croatia	0.31	38.64
33	Poland	0.31	38.43
34	Kyrgyz Republic	0.30	37.58
35	Latvia	0.30	36.95
36	Philippines	0.30	36.75
37	Senegal	0.29	36.33
38	Pakistan	0.29	35.92
39	United Kingdom	0.29	35.51
40	Singapore	0.29	35.30
41	Czech Republic	0.28	34.89
41	Serbia	0.28	34.89
43	Italy	0.28	34.08
44	Peru	0.27	33.88
45	Bosnia and Herzegovina	0.27	33.68
46	China	0.27	33.48
47	Bulgaria	0.26	32.49
47	Dominican Republic	0.26	32.49
49	Cambodia	0.25	31.51
50	Israel	0.25	30.93
51	Estonia	0.25	30.54
51	Moldova	0.25	30.54
53	Bangladesh	0.25	30.35
54	Lithuania	0.24	29.21
55	El Salvador	0.23	29.02
56	France	0.23	28.83
57	Greece	0.23	28.46
58	Indonesia	0.22	27.53
59	Kazakhstan	0.22	26.79
60	United Arab Emirates	0.21	26.24
61	Morocco	0.20	25.34
61	Venezuela, RB	0.20	25.34
63	United States	0.20	24.98
64	Azerbaijan	0.19	23.56
64	Slovak Republic	0.19	23.56
66	Thailand	0.19	23.21
67	Albania	0.19	23.04
68	Burkina Faso	0.18	22.35
69	Ireland	0.18	22.00
70	Korea, Rep	0.17	21.32
71	Chile	0.17	20.47
71	Turkey	0.17	20.47
73	Russian Federation	0.16	19.47
74	Guatemala	0.15	18.98
75	Paraguay	0.14	17.67
76	Montenegro	0.14	17.35
77	Colombia	0.14	17.03
77	Uruguay	0.14	17.03
79	Romania	0.13	15.60
80	India	0.12	15.29
81	Japan	0.12	14.98
81	Jordan	0.12	14.98
83	Cyprus	0.12	14.82
84	Malaysia	0.12	14.36
85	Mali	0.11	14.05
86	Kenya	0.11	13.44
87	Hungary	0.10	11.94
88	Malta	0.10	11.79
89	Brazil	0.09	11.64
90	Panama	0.09	11.49
91	Armenia	0.09	11.34
92	Algeria	0.09	10.76
92	Ukraine	0.09	10.76
94	Botswana	0.09	10.61
95	Kuwait	0.08	10.32
96	Georgia	0.07	8.74
97	Sri Lanka	0.06	7.62
98	Mongolia	0.04	5.02
99	Lebanon	0.03	3.96
100	Iran, Islamic Rep	0.03	3.56
101	Egypt, Arab Rep	0.02	2.52
102	Qatar	0.00	0.00
102	Saudi Arabia	0.00	0.00

Source: World Bank, World Development Indicators based on Inter-Parliamentary Union (IPU). (http://data.worldbank.org/)

PILLAR 3:
GROW

3.1.1 Pupil-teacher ratio

Pupil-teacher ratio, secondary | 2010

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Armenia	6.67	100.00
2	Portugal	7.35	98.07
3	Georgia (2009)	7.57	97.44
4	Kuwait (2011)	7.82	96.73
5	Greece (2007)	7.88	96.54
6	Croatia	8.15	95.79
7	Latvia (2011)	8.33	95.27
8	Russian Federation (2009)	8.47	94.89
9	Luxembourg	8.50	94.80
10	Lithuania (2011)	8.56	94.61
11	Kazakhstan (2012)	8.60	94.50
12	Estonia	8.76	94.05
13	Azerbaijan (2007)	9.00	93.38
14	Slovenia (2009)	9.18	92.85
15	Malta	9.20	92.79
16	Lebanon (2011)	9.31	92.50
17	Serbia (2011)	9.33	92.42
18	Sweden	9.71	91.35
19	Cyprus	9.76	91.22
20	Israel (2009)	9.76	91.20
21	Finland (2009)	9.89	90.85
22	Moldova (2011)	9.90	90.82
23	Austria	9.97	90.61
24	Italy (2007)	10.10	90.24
25	Qatar (2011)	10.13	90.17
26	Hungary	10.20	89.97
27	Poland	10.39	89.41
28	Belgium (2002)	10.57	88.90
29	Spain	10.80	88.24
30	Argentina (2008)	10.90	87.97
31	Ecuador (2011)	10.94	87.86
32	Czech Republic	10.98	87.75
33	Uruguay	11.32	86.78
33	Saudi Arabia (2009)	11.32	86.78
35	Paraguay (2004)	11.84	85.31
36	Japan	11.89	85.17
37	Macedonia, FYR	11.91	85.09
38	Slovak Republic	12.03	84.75
39	United Arab Emirates (2011)	12.05	84.70
40	Bulgaria	12.08	84.61
41	Indonesia	12.18	84.34
42	Romania	12.48	83.49
43	France	12.68	82.91
44	Germany	12.91	82.27
45	Egypt, Arab Rep.	13.52	80.53
46	Trinidad and Tobago (2008)	13.52	80.51
47	Malaysia	13.72	79.94
48	Netherlands	13.73	79.93
49	United States	13.76	79.84
50	Botswana (2007)	13.88	79.51
51	Guatemala	13.98	79.21
52	United Kingdom (2008)	14.27	78.40
53	Mongolia	14.49	77.76
54	New Zealand	14.50	77.74
55	Panama (2011)	14.69	77.21
56	Singapore (2009)	14.91	76.57
57	Costa Rica (2011)	14.92	76.54
58	China (2011)	15.15	75.88
59	Kyrgyz Republic	15.21	75.73
60	Albania (2011)	15.24	75.62
61	Peru (2011)	16.50	72.07
62	Brazil	16.66	71.59
63	Korea, Rep.	17.60	68.94
64	Mexico (2011)	17.68	68.71
65	Jordan (2003)	17.88	68.14
66	Uganda (2009)	17.91	68.05
67	Bolivia (2007)	18.17	67.32
68	Vietnam	18.55	66.23
69	Morocco (2004)	18.73	65.73
70	Thailand (2011)	19.91	62.37
71	Algeria (2004)	20.85	59.70
72	Chile	21.87	56.81
73	El Salvador (2011)	24.35	49.76
74	Namibia (2007)	24.62	48.97
75	Mali (2011)	24.72	48.70
76	South Africa (2009)	25.05	47.77
77	India	25.33	46.97
78	Colombia (2011)	25.58	46.25
79	Tanzania (2012)	26.39	43.94
80	Burkina Faso (2011)	26.49	43.67
81	Senegal (2011)	27.35	41.22
82	Bangladesh	28.33	38.43
83	Dominican Republic (2011)	28.72	37.32
84	Cambodia (2007)	28.92	36.76
85	Kenya (2009)	29.68	34.61
86	Nicaragua	30.83	31.33
87	Philippines (2009)	34.81	20.01
88	Ethiopia (2011)	40.33	4.33
89	Pakistan (2004)	41.86	0.00
n/a	Australia	n/a	n/a
n/a	Bosnia and Herzegovina	n/a	n/a
n/a	Canada	n/a	n/a
n/a	Denmark	n/a	n/a
n/a	Iceland	n/a	n/a
n/a	Iran, Islamic Rep.	n/a	n/a
n/a	Ireland	n/a	n/a
n/a	Montenegro	n/a	n/a
n/a	Norway	n/a	n/a
n/a	Sri Lanka	n/a	n/a
n/a	Switzerland	n/a	n/a
n/a	Turkey	n/a	n/a
n/a	Ukraine	n/a	n/a
n/a	Venezuela, RB	n/a	n/a

Source: UNESCO Institute for Statistics, UIS online database. (http://stats.uis.unesco.org)

3.1.2 Technical/vocational enrolment

Technical/vocational enrolment (%) | 2011

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Netherlands (2010)	47.33	100.00
2	Belgium (2010)	39.90	84.29
3	Czech Republic	39.55	83.57
4	Austria	39.34	83.12
5	Serbia	37.76	79.78
6	Croatia (2010)	36.94	78.05
7	Italy (2010)	36.94	78.04
8	Slovenia	35.84	75.71
9	Bosnia and Herzegovina	35.72	75.47
10	Slovak Republic	34.89	73.72
11	Switzerland	34.24	72.34
12	Montenegro (2012)	34.07	71.99
13	Romania (2010)	33.36	70.49
14	Australia (2010)	32.83	69.36
15	Sweden	32.43	68.51
16	Finland	31.71	67.00
17	Luxembourg (2010)	30.25	63.91
18	Norway (2010)	30.11	63.61
19	Bulgaria (2010)	30.10	63.59
20	Macedonia, FYR (2010)	29.33	61.98
21	Poland (2010)	28.65	60.53
22	Guatemala (2010)	27.59	58.28
23	Denmark (2010)	26.17	55.29
24	Portugal (2010)	25.41	53.69
25	Latvia	24.58	51.93
26	Chile	23.72	50.11
27	Ecuador	21.80	46.06
28	Turkey (2010)	21.78	46.01
29	Iceland (2010)	21.44	45.30
30	China	20.83	44.01
31	Germany (2010)	20.32	42.93
32	France	20.00	42.26
33	Estonia (2010)	19.60	41.41
34	Israel (2010)	18.75	39.61
35	Indonesia	17.99	38.00
36	Egypt, Arab Rep. (2010)	17.56	37.11
37	Spain	17.45	36.87
38	Azerbaijan	17.38	36.73
39	Lebanon	17.16	36.25
40	Panama	16.20	34.22
41	Russian Federation (2009)	16.19	34.21
42	Ireland	15.97	33.73
43	Mexico	15.93	33.66
44	Hungary	15.79	33.35
45	Greece (2010)	15.59	32.94
46	El Salvador	15.53	32.82
47	New Zealand (2010)	15.48	32.71
48	Thailand (2012)	15.44	32.63
49	Uruguay (2010)	15.29	32.31
50	Costa Rica	15.16	32.04
51	Malta (2010)	15.03	31.75
52	United Kingdom (2010)	13.23	27.96
53	Korea, Rep. (2010)	11.80	24.93
54	Japan (2010)	11.78	24.88
55	Mongolia	11.62	24.54
56	Singapore (2009)	11.57	24.44
57	Moldova	11.56	24.42
58	Mali	11.50	24.29
59	Lithuania	11.43	24.15
60	Iran, Islamic Rep.	11.07	23.39
61	Tanzania (2012)	11.04	23.32
62	Paraguay (2010)	10.12	21.38
63	Kyrgyz Republic	8.86	18.72
64	Ukraine	8.82	18.63
65	Algeria	8.33	17.60
66	Ethiopia	8.18	17.28
67	Argentina (2010)	7.74	16.34
68	Kazakhstan (2012)	6.70	14.15
69	Cyprus (2010)	6.65	14.06
70	Uganda (2009)	6.50	13.74
71	Malaysia (2010)	6.20	13.10
72	Morocco (2012)	6.09	12.86
73	Brazil	6.05	12.79
74	Sri Lanka	5.86	12.38
75	South Africa (2009)	5.74	12.13
76	Colombia	5.62	11.87
77	Venezuela, RB	5.27	11.13
78	Albania	5.26	11.12
79	Botswana (2008)	4.88	10.32
80	Bolivia (2003)	4.73	9.99
81	Senegal	4.50	9.50
82	Dominican Republic	4.38	9.25
83	Burkina Faso (2012)	4.05	8.55
84	Pakistan	3.92	8.28
85	Saudi Arabia (2008)	3.58	7.57
86	Jordan (2010)	3.36	7.09
87	Bangladesh	3.15	6.66
88	Cambodia (2008)	2.28	4.81
89	Armenia (2010)	2.00	4.22
90	Nicaragua (2010)	1.48	3.12
91	Georgia (2009)	1.45	3.07
92	United Arab Emirates	0.94	1.98
93	Trinidad and Tobago (2004)	0.85	1.79
94	Qatar	0.83	1.76
95	India (2008)	0.81	1.72
96	Kenya (2009)	0.00	0.00
96	Kuwait	0.00	0.00
96	Peru	0.00	0.00
n/a	Canada	n/a	n/a
n/a	Namibia	n/a	n/a
n/a	Philippines	n/a	n/a
n/a	United States	n/a	n/a
n/a	Vietnam	n/a	n/a

Source: UNESCO Institute for Statistics, UIS online database. (http://stats.uis.unesco.org)

3.1.3 Tertiary enrolment

School enrolment, tertiary (% gross) | 2010

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Korea, Rep.	103.11	100.00
2	United States	94.81	91.63
3	Finland	93.68	90.50
4	Slovenia	89.58	86.37
5	Greece (2007)	89.38	86.16
6	New Zealand	82.56	79.29
7	Ukraine (2011)	81.70	78.43
8	Australia	79.92	76.63
9	Iceland	78.56	75.26
10	Spain	78.15	74.85
11	Venezuela, RB (2009)	78.13	74.83
12	Russian Federation (2009)	75.89	72.57
13	Argentina	74.80	71.48
14	Denmark (2009)	74.40	71.07
15	Norway	74.36	71.03
16	Sweden	73.77	70.43
17	Poland	72.35	69.01
18	Belgium	70.59	67.23
19	Lithuania (2011)	69.49	66.12
20	Austria	68.19	64.82
21	Ireland	66.17	62.78
22	Chile	66.12	62.73
23	Portugal	65.49	62.09
24	Netherlands	65.41	62.01
25	Italy	64.98	61.59
26	Estonia	64.27	60.87
27	Czech Republic	63.54	60.13
28	Uruguay	63.20	59.79
29	Israel (2009)	62.48	59.06
30	Hungary	60.65	57.22
31	Canada (2002)	59.99	56.55
32	United Kingdom	59.75	56.31
33	Japan	59.74	56.30
34	Romania	58.84	55.39
35	Lebanon (2011)	57.65	54.20
36	Latvia (2011)	57.38	53.92
37	Mongolia (2011)	57.16	53.70
38	Bulgaria	56.86	53.40
39	France	56.69	53.23
40	Turkey	55.42	51.95
41	Slovak Republic	54.84	51.37
42	Switzerland	54.82	51.34
43	Croatia	54.13	50.65
44	Serbia (2011)	50.37	46.86
45	Armenia (2011)	48.94	45.42
46	Iran, Islamic Rep. (2011)	48.58	45.06
47	Cyprus	48.31	44.79
48	Thailand (2011)	47.70	44.17
49	Montenegro	47.64	44.11
50	Panama	45.75	42.20
51	Albania (2011)	43.91	40.35
52	Kazakhstan (2012)	43.19	39.62
53	Peru	42.99	39.42
53	Costa Rica (2011)	42.98	39.42
55	Colombia (2011)	42.90	39.33
56	Malaysia	42.28	38.71
57	Kyrgyz Republic (2011)	41.35	37.77
58	Saudi Arabia (2011)	41.18	37.60
59	Ecuador (2008)	39.84	36.25
60	Moldova (2011)	39.45	35.86
61	Bolivia (2007)	38.65	35.05
62	Macedonia, FYR	38.62	35.02
63	Bosnia and Herzegovina (2011)	38.09	34.49
64	Jordan (2011)	37.82	34.21
65	Malta	35.31	31.69
66	Paraguay	34.56	30.93
67	Dominican Republic (2004)	34.00	30.37
68	Egypt, Arab Rep.	32.37	28.72
69	Algeria (2011)	32.09	28.44
70	Georgia (2011)	30.02	26.36
71	Philippines (2009)	28.23	24.55
72	Mexico	28.03	24.35
73	China (2011)	26.79	23.10
74	Brazil (2005)	25.63	21.93
75	El Salvador (2011)	24.58	20.87
76	Vietnam (2011)	24.38	20.68
77	Indonesia	23.12	19.40
78	Kuwait (2004)	21.86	18.14
79	Azerbaijan (2011)	19.65	15.91
80	Nicaragua (2003)	17.97	14.22
81	India	17.87	14.11
82	Guatemala (2007)	17.83	14.07
83	Sri Lanka	15.46	11.68
84	Cambodia (2011)	14.50	10.72
85	Morocco (2009)	13.22	9.42
86	Qatar (2011)	11.61	7.80
87	Trinidad and Tobago (2005)	11.52	7.71
88	Bangladesh (2009)	10.59	6.78
89	Luxembourg (2008)	10.53	6.72
90	Uganda (2011)	9.15	5.33
91	Namibia (2008)	8.96	5.13
92	Pakistan (2011)	8.32	4.49
93	Senegal	7.92	4.09
94	Ethiopia (2011)	7.64	3.80
95	Botswana (2006)	7.44	3.60
96	Mali (2011)	6.10	2.25
97	Kenya (2009)	4.03	0.17
98	Tanzania (2012)	3.92	0.06
99	Burkina Faso (2011)	3.86	0.00
n/a	Germany	n/a	n/a
n/a	Singapore	n/a	n/a
n/a	South Africa	n/a	n/a
n/a	United Arab Emirates	n/a	n/a

Source: UNESCO Institute for Statistics, UIS online database. (http://stats.uis.unesco.org)

3.1.4 Reading, math and science scores

PISA average scales in reading, mathematics, and science | 2009

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	China	576.84	100.00
2	Finland	543.49	86.76
3	Singapore	543.20	86.65
4	Korea, Rep.	541.16	85.84
5	Japan	529.43	81.18
6	Canada	526.58	80.05
7	New Zealand	524.06	79.05
8	Australia	518.84	76.98
9	Netherlands	518.82	76.97
10	Switzerland	517.01	76.25
11	Estonia	513.63	74.91
12	Germany	510.16	73.53
13	Belgium	509.26	73.18
14	Poland	501.12	69.94
15	Iceland	500.85	69.84
16	Norway	500.35	69.64
17	United Kingdom	500.10	69.54
18	Denmark	499.18	69.17
19	Slovenia	498.77	69.01
20	Ireland	496.92	68.28
21	France	496.88	68.26
22	United States	496.41	68.07
23	Hungary	495.66	67.78
24	Sweden	495.60	67.75
25	Czech Republic	490.50	65.73
26	Portugal	489.72	65.42
27	Slovak Republic	488.13	64.79
28	Austria	486.84	64.28
29	Latvia	486.60	64.18
30	Italy	485.93	63.91
31	Spain	484.26	63.25
32	Luxembourg	481.72	62.24
33	Lithuania	478.82	61.09
34	Croatia	474.02	59.19
35	Greece	473.00	58.78
36	Russian Federation	468.50	57.00
37	United Arab Emirates	459.48	53.42
38	Israel	458.57	53.05
39	Malta (2010)	455.43	51.81
40	Turkey	454.52	51.45
41	Serbia	442.39	46.63
42	Chile	439.30	45.41
43	Bulgaria	432.15	42.57
44	Costa Rica (2010)	427.50	40.72
45	Uruguay	426.58	40.36
46	Romania	426.57	40.35
47	Thailand	421.75	38.44
48	Mexico	419.89	37.70
49	Trinidad and Tobago	413.56	35.19
50	Malaysia (2010)	413.43	35.14
50	Venezuela, RB (2010)	413.43	35.14
52	Montenegro	403.78	31.31
53	Jordan	402.35	30.74
54	Brazil	400.99	30.20
55	Moldova (2010)	399.47	29.60
56	Colombia	398.59	29.25
57	Kazakhstan	398.56	29.23
58	Argentina	395.72	28.11
59	Azerbaijan	388.56	25.27
60	Indonesia	385.19	23.93
61	Albania	384.32	23.58
62	Georgia (2010)	375.50	20.08
63	Qatar	373.09	19.13
64	Panama	368.79	17.42
65	Peru	368.05	17.13
66	India (2010)	336.02	4.41
67	Kyrgyz Republic	324.91	0.00
n/a	Algeria	n/a	n/a
n/a	Armenia	n/a	n/a
n/a	Bangladesh	n/a	n/a
n/a	Bolivia	n/a	n/a
n/a	Bosnia and Herzegovina	n/a	n/a
n/a	Botswana	n/a	n/a
n/a	Burkina Faso	n/a	n/a
n/a	Cambodia	n/a	n/a
n/a	Cyprus	n/a	n/a
n/a	Dominican Republic	n/a	n/a
n/a	Ecuador	n/a	n/a
n/a	Egypt, Arab Rep.	n/a	n/a
n/a	El Salvador	n/a	n/a
n/a	Ethiopia	n/a	n/a
n/a	Guatemala	n/a	n/a
n/a	Iran, Islamic Rep.	n/a	n/a
n/a	Kenya	n/a	n/a
n/a	Kuwait	n/a	n/a
n/a	Lebanon	n/a	n/a
n/a	Macedonia, FYR	n/a	n/a
n/a	Mali	n/a	n/a
n/a	Mongolia	n/a	n/a
n/a	Morocco	n/a	n/a
n/a	Namibia	n/a	n/a
n/a	Nicaragua	n/a	n/a
n/a	Pakistan	n/a	n/a
n/a	Paraguay	n/a	n/a
n/a	Philippines	n/a	n/a
n/a	Saudi Arabia	n/a	n/a
n/a	Senegal	n/a	n/a
n/a	South Africa	n/a	n/a
n/a	Sri Lanka	n/a	n/a
n/a	Tanzania	n/a	n/a
n/a	Uganda	n/a	n/a
n/a	Ukraine	n/a	n/a
n/a	Vietnam	n/a	n/a

Source: OECD Programme for International Student Assessment (PISA) 2009 and 2010. (www.pisa.oecd.org/)

3.1.5 QS university ranking

QS university ranking, average score top 3 | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	United Kingdom	99.01	100.00
2	United States	98.88	99.85
3	Canada	86.21	86.36
4	Australia	84.03	84.04
5	Switzerland	82.84	82.78
6	Japan	81.69	81.55
7	Germany	74.93	74.35
8	China	74.86	74.28
9	France	74.14	73.50
10	Korea, Rep.	73.58	72.92
11	Netherlands	70.41	69.54
12	Denmark	68.02	66.99
13	Sweden	66.10	64.95
14	Belgium	61.97	60.55
15	Ireland	60.18	58.64
16	New Zealand	58.41	56.76
17	Finland	55.03	53.15
18	Singapore	54.98	53.10
19	Norway	53.47	51.50
20	Israel	51.08	48.95
21	Spain	50.55	48.38
22	Italy	46.75	44.33
23	Brazil	46.48	44.05
24	Russian Federation	45.93	43.47
25	Austria	45.18	42.67
26	India	44.78	42.23
27	Saudi Arabia	44.40	41.83
28	Malaysia	44.25	41.67
29	Argentina	39.90	37.04
30	South Africa	39.59	36.71
31	Chile	37.12	34.07
32	Mexico	36.88	33.83
33	Thailand	35.37	32.21
34	United Arab Emirates	28.84	25.26
35	Indonesia	27.63	23.97
36	Colombia	27.62	23.96
37	Portugal	27.51	23.84
38	Kazakhstan	26.69	22.97
39	Philippines	25.53	21.74
40	Poland	25.50	21.70
41	Czech Republic	25.33	21.52
42	Turkey	24.77	20.92
43	Lebanon	21.99	17.97
44	Greece	20.97	16.87
45	Egypt, Arab Rep.	20.78	16.68
46	Hungary	19.96	15.81
47	Venezuela, RB	18.96	14.74
48	Lithuania	18.17	13.89
48	Ukraine	18.17	13.89
50	Azerbaijan	15.37	10.91
50	Pakistan	15.37	10.91
50	Romania	15.37	10.91
53	Uruguay	14.05	9.51
54	Iran, Islamic Rep.	12.04	7.37
55	Jordan	10.24	5.46
55	Peru	10.24	5.46
57	Estonia	7.92	2.98
58	Croatia	6.92	1.91
58	Qatar	6.92	1.91
58	Slovenia	6.92	1.91
61	Bangladesh	5.12	0.00
61	Bulgaria	5.12	0.00
61	Kuwait	5.12	0.00
61	Serbia	5.12	0.00
61	Sri Lanka	5.12	0.00
n/a	Albania	n/a	n/a
n/a	Algeria	n/a	n/a
n/a	Armenia	n/a	n/a
n/a	Bolivia	n/a	n/a
n/a	Bosnia and Herzegovina	n/a	n/a
n/a	Botswana	n/a	n/a
n/a	Burkina Faso	n/a	n/a
n/a	Cambodia	n/a	n/a
n/a	Costa Rica	n/a	n/a
n/a	Cyprus	n/a	n/a
n/a	Dominican Republic	n/a	n/a
n/a	Ecuador	n/a	n/a
n/a	El Salvador	n/a	n/a
n/a	Ethiopia	n/a	n/a
n/a	Georgia	n/a	n/a
n/a	Guatemala	n/a	n/a
n/a	Iceland	n/a	n/a
n/a	Kenya	n/a	n/a
n/a	Kyrgyz Republic	n/a	n/a
n/a	Latvia	n/a	n/a
n/a	Luxembourg	n/a	n/a
n/a	Macedonia, FYR	n/a	n/a
n/a	Mali	n/a	n/a
n/a	Malta	n/a	n/a
n/a	Moldova	n/a	n/a
n/a	Mongolia	n/a	n/a
n/a	Montenegro	n/a	n/a
n/a	Morocco	n/a	n/a
n/a	Namibia	n/a	n/a
n/a	Nicaragua	n/a	n/a
n/a	Panama	n/a	n/a
n/a	Paraguay	n/a	n/a
n/a	Senegal	n/a	n/a
n/a	Slovak Republic	n/a	n/a
n/a	Tanzania	n/a	n/a
n/a	Trinidad and Tobago	n/a	n/a
n/a	Uganda	n/a	n/a
n/a	Vietnam	n/a	n/a

Source: Quacquarelli Symonds Ltd (QS), QS World University Ranking 2012/2013, Top Universities. (http://www.topuniversities.com/university-rankings/world-universityrankings/2012)

3.1.6 International students inflow

Tertiary inbound mobility ratio (%) | 2010

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Luxembourg	41.41	100.00
1	Qatar (2011)	40.31	100.00
1	United Arab Emirates (2011)	38.19	100.00
1	Cyprus	31.93	100.00
1	Singapore (2012)	21.74	100.00
6	Australia	21.25	97.72
7	Austria	19.59	90.11
8	United Kingdom	15.73	72.33
9	Switzerland	15.36	70.64
10	Lebanon (2011)	15.30	70.36
11	New Zealand	14.23	65.43
12	France	11.58	53.24
13	Namibia (2008)	10.17	46.76
14	Jordan (2011)	9.93	45.67
15	Belgium	8.11	37.31
16	Czech Republic	8.00	36.79
17	Denmark	7.54	34.66
18	Norway	7.00	32.21
19	Ireland	6.95	31.97
20	Sweden	6.93	31.87
21	Kyrgyz Republic (2009)	6.87	31.62
22	Malaysia	6.10	28.05
23	Trinidad and Tobago (2004)	5.78	26.60
24	Uganda (2011)	5.19	23.88
25	Iceland	4.92	22.65
26	Bosnia and Herzegovina (2011)	4.82	22.19
27	Finland	4.64	21.36
28	Senegal (1999)	4.42	20.32
29	Netherlands	4.30	19.76
30	Greece	4.18	19.23
31	Botswana (2005)	4.16	19.14
32	Hungary	4.01	18.45
33	Canada (2002)	3.95	18.17
34	Japan	3.69	16.97
35	Serbia (2011)	3.61	16.59
36	Burkina Faso (2011)	3.59	16.49
37	Italy	3.53	16.23
38	Bulgaria	3.50	16.11
39	Saudi Arabia (2011)	3.42	15.73
40	Slovak Republic	3.39	15.58
41	United States	3.35	15.42
42	Armenia (2011)	2.99	13.76
43	Spain	2.98	13.71
44	Portugal	2.88	13.23
45	Azerbaijan (2011)	2.80	12.89
46	Macedonia, FYR (2009)	2.19	10.09
47	Latvia (2011)	1.91	8.76
48	Morocco (2009)	1.89	8.70
49	Egypt, Arab Rep.	1.85	8.52
50	Korea, Rep.	1.81	8.33
51	Estonia	1.78	8.20
52	Slovenia	1.68	7.74
53	Lithuania (2011)	1.61	7.38
54	Georgia (2011)	1.55	7.11
55	Ukraine (2011)	1.51	6.95
56	Costa Rica (2004)	1.43	6.60
57	Russian Federation (2009)	1.39	6.39
58	Kazakhstan (2012)	1.38	6.34
59	Romania	1.35	6.19
60	Moldova (2011)	1.25	5.75
61	Albania (2011)	1.10	5.05
62	Uruguay (1999)	0.95	4.36
63	Poland	0.85	3.93
64	Thailand (2011)	0.81	3.71
65	Turkey	0.73	3.37
66	Tanzania (2004)	0.64	2.94
67	Mongolia (2011)	0.61	2.79
68	Croatia	0.56	2.57
69	Algeria (2011)	0.55	2.53
70	Mali (2011)	0.53	2.42
71	Bolivia (1998)	0.50	2.30
72	Bangladesh (2009)	0.00	0.00
72	Brazil (2011)	0.00	0.00
72	Cambodia (2006)	0.00	0.00
72	Chile (2011)	0.00	0.00
72	China (2011)	0.00	0.00
72	El Salvador (2011)	0.00	0.00
72	India (2006)	0.00	0.00
72	Indonesia	0.00	0.00
72	Iran, Islamic Rep. (2011)	0.00	0.00
72	Malta	0.00	0.00
72	Mexico (2002)	0.00	0.00
72	Pakistan (2003)	0.00	0.00
72	Philippines (2008)	0.00	0.00
72	Sri Lanka (2011)	0.00	0.00
72	Venezuela, RB (2008)	0.00	0.00
72	Vietnam	0.00	0.00
n/a	Argentina	n/a	n/a
n/a	Colombia	n/a	n/a
n/a	Dominican Republic	n/a	n/a
n/a	Ecuador	n/a	n/a
n/a	Ethiopia	n/a	n/a
n/a	Germany	n/a	n/a
n/a	Guatemala	n/a	n/a
n/a	Israel	n/a	n/a
n/a	Kenya	n/a	n/a
n/a	Kuwait	n/a	n/a
n/a	Montenegro	n/a	n/a
n/a	Nicaragua	n/a	n/a
n/a	Panama	n/a	n/a
n/a	Paraguay	n/a	n/a
n/a	Peru	n/a	n/a
n/a	South Africa	n/a	n/a

Source: UNESCO Institute for Statistics, UIS online database. (http://stats.uis.unesco.org)

3.2.1 Quality of management schools

Average answer to the question: How would you assess the quality of management or business schools in your country? [1 = poor; 7 = excellent – among the best in the world] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	United Kingdom	6.06	84.32
2	Belgium	6.02	83.61
3	Switzerland	6.01	83.54
4	Spain	5.79	79.83
5	Canada	5.74	79.03
6	Singapore	5.72	78.62
7	Qatar	5.68	77.95
8	France	5.63	77.21
9	Netherlands	5.62	77.01
10	Finland	5.55	75.86
11	Sweden	5.42	73.63
12	United States	5.40	73.28
13	Lebanon	5.39	73.18
14	Chile	5.39	73.10
15	South Africa	5.28	71.34
16	Australia	5.27	71.20
17	Iceland	5.25	70.82
18	Costa Rica	5.22	70.27
19	New Zealand	5.21	70.21
20	Portugal	5.15	69.14
21	Ireland	5.14	68.96
22	Norway	5.09	68.23
23	Denmark	5.08	68.07
24	Malaysia	5.02	66.99
25	United Arab Emirates	5.00	66.62
26	Malta	4.99	66.56
27	Cyprus	4.96	66.08
28	Germany	4.95	65.75
29	India	4.93	65.43
30	Argentina	4.89	64.82
31	Italy	4.83	63.81
32	Trinidad and Tobago	4.80	63.26
33	Austria	4.79	63.16
34	Sri Lanka (2011)	4.77	62.90
35	Philippines	4.70	61.66
36	Israel	4.69	61.48
37	Senegal	4.67	61.20
38	Korea, Rep.	4.65	60.86
39	Guatemala	4.61	60.12
40	Saudi Arabia	4.57	59.43
41	Morocco	4.52	58.74
42	Estonia	4.49	58.22
43	Peru	4.46	57.66
44	Bosnia and Herzegovina	4.44	57.40
45	Mexico	4.44	57.37
46	Brazil	4.42	57.08
47	Uruguay	4.36	55.95
48	Jordan	4.34	55.74
49	Kenya	4.34	55.67
50	Lithuania	4.33	55.48
51	Montenegro	4.31	55.11
52	Luxembourg	4.31	55.09
53	Albania	4.30	54.92
54	Thailand	4.28	54.61
55	Slovenia	4.25	54.23
56	Latvia	4.23	53.80
57	China	4.22	53.62
58	Indonesia	4.18	53.07
59	Pakistan	4.18	52.99
60	Venezuela, RB	4.17	52.86
61	Colombia	4.15	52.48
62	Japan	4.10	51.73
63	Hungary	4.08	51.34
64	Panama	4.08	51.29
65	Poland	3.97	49.52
66	Croatia	3.93	48.86
67	Dominican Republic	3.92	48.64
68	Uganda	3.90	48.28
69	Bangladesh	3.87	47.91
70	Botswana	3.87	47.90
71	Iran, Islamic Rep.	3.85	47.53
72	Ecuador (2011)	3.84	47.36
73	Czech Republic	3.82	47.07
74	Cambodia	3.78	46.32
74	Turkey	3.78	46.32
76	Nicaragua	3.77	46.15
77	El Salvador	3.76	45.98
78	Bulgaria	3.75	45.76
79	Kuwait	3.72	45.37
80	Kazakhstan	3.69	44.85
81	Greece	3.68	44.60
82	Burkina Faso	3.67	44.57
83	Macedonia, FYR	3.66	44.36
84	Ethiopia	3.63	43.81
85	Georgia (2011)	3.57	42.90
86	Slovak Republic	3.57	42.83
87	Romania	3.53	42.21
88	Russian Federation	3.46	41.01
89	Serbia	3.46	40.98
90	Ukraine	3.44	40.64
91	Tanzania	3.42	40.35
92	Bolivia	3.38	39.66
93	Moldova	3.35	39.17
94	Mali	3.34	38.95
95	Azerbaijan	3.28	38.05
96	Paraguay	3.27	37.84
97	Vietnam	3.23	37.10
98	Armenia	3.19	36.42
99	Namibia	3.12	35.34
100	Algeria	3.03	33.78
101	Mongolia	2.99	33.13
102	Egypt, Arab Rep.	2.75	29.22
103	Kyrgyz Republic	2.68	27.93

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

3.2.2 Extent of staff training

Average answer to the question: To what extent do companies in your country invest in training and employee development? [1 = hardly at all; 7 = to a great extent] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Switzerland	5.64	77.39
2	Finland	5.39	73.22
3	Singapore	5.33	72.13
4	Luxembourg	5.30	71.59
5	Japan	5.28	71.26
6	Sweden	5.21	70.10
7	Malaysia	5.20	69.93
8	Netherlands	5.18	69.72
9	Norway	5.16	69.32
10	Denmark	5.12	68.72
11	Qatar	5.04	67.27
12	Austria	5.03	67.19
13	Germany	5.03	67.16
14	United Kingdom	4.97	66.10
15	United States	4.95	65.88
16	Ireland	4.91	65.11
17	United Arab Emirates	4.86	64.37
18	New Zealand	4.84	63.92
19	Belgium	4.83	63.83
20	Iceland	4.75	62.50
21	Canada	4.70	61.69
22	South Africa	4.64	60.68
23	Israel	4.64	60.59
24	Australia	4.61	60.18
25	Costa Rica	4.60	59.96
26	Philippines	4.55	59.21
27	Brazil	4.40	56.65
28	Saudi Arabia	4.37	56.13
29	Albania	4.36	56.03
30	Chile	4.33	55.47
31	Indonesia	4.32	55.33
31	Guatemala	4.31	55.23
33	France	4.28	54.63
34	Korea, Rep.	4.26	54.34
35	Panama	4.25	54.10
36	China	4.21	53.43
37	Estonia	4.19	53.13
38	Czech Republic	4.16	52.62
39	Thailand	4.15	52.53
40	Malta	4.13	52.12
41	Montenegro	4.12	52.07
42	Latvia	4.11	51.86
43	India	4.11	51.85
44	Namibia	4.08	51.35
45	Azerbaijan	4.08	51.31
46	Poland	4.03	50.49
47	Mongolia	4.02	50.41
48	Turkey	3.99	49.80
49	Lithuania	3.98	49.62
50	Mexico	3.97	49.43
51	Botswana	3.95	49.16
52	Kenya	3.94	49.04
53	Trinidad and Tobago	3.94	48.93
54	Kazakhstan	3.93	48.81
55	Portugal	3.91	48.53
56	Cambodia	3.89	48.11
57	Morocco	3.88	48.00
58	Dominican Republic	3.87	47.87
59	Tanzania	3.85	47.48
60	Argentina	3.85	47.44
61	Sri Lanka (2011)	3.82	46.96
62	El Salvador	3.81	46.86
63	Peru	3.80	46.64
64	Cyprus	3.79	46.51
65	Uruguay	3.78	46.41
66	Jordan	3.76	46.04
67	Russian Federation	3.74	45.73
68	Ecuador (2011)	3.73	45.46
69	Slovenia	3.70	45.06
70	Kuwait	3.69	44.90
71	Slovak Republic	3.66	44.41
72	Nicaragua	3.65	44.11
73	Armenia	3.64	43.97
74	Colombia	3.64	43.96
75	Uganda	3.64	43.95
76	Georgia (2011)	3.63	43.81
77	Lebanon	3.62	43.70
78	Bolivia	3.60	43.37
79	Venezuela, RB	3.59	43.24
80	Spain	3.58	42.94
81	Ukraine	3.56	42.72
82	Paraguay	3.54	42.40
83	Bosnia and Herzegovina	3.51	41.86
84	Hungary	3.45	40.87
85	Romania	3.45	40.82
86	Pakistan	3.45	40.76
87	Greece	3.35	39.09
88	Vietnam	3.31	38.47
89	Bulgaria	3.25	37.55
90	Moldova	3.21	36.88
91	Italy	3.18	36.30
92	Croatia	3.16	36.08
93	Macedonia, FYR	3.10	35.05
94	Kyrgyz Republic	3.07	34.44
95	Egypt, Arab Rep.	3.06	34.40
96	Ethiopia	3.06	34.29
97	Mali	3.06	34.27
98	Iran, Islamic Rep.	3.03	33.80
99	Senegal	3.02	33.75
100	Bangladesh	3.02	33.66
101	Burkina Faso	2.94	32.41
102	Serbia	2.92	31.93
103	Algeria	2.57	26.18

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

3.3.1 Use of virtual social networks

Average answer to the question: How widely used are virtual social networks (e.g., Facebook, Twitter, LinkedIn) for professional and personal communication in your country? [1 = not used at all; 7 = used widely] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Iceland	6.61	93.56
2	United Kingdom	6.59	93.23
3	Netherlands	6.45	90.76
4	Malta	6.43	90.45
5	Sweden	6.41	90.10
6	Norway	6.38	89.74
7	Estonia	6.36	89.39
8	Finland	6.35	89.14
9	Canada	6.33	88.80
10	Qatar	6.27	87.82
11	New Zealand	6.24	87.40
12	Switzerland	6.24	87.28
13	United States	6.21	86.87
14	Australia	6.19	86.48
15	Singapore	6.19	86.44
16	Belgium	6.16	85.96
17	Austria	6.16	85.96
18	United Arab Emirates	6.15	85.84
19	Luxembourg	6.11	85.17
20	France	6.07	84.54
21	Panama	6.06	84.31
22	Lithuania	6.05	84.10
22	Philippines	6.05	84.10
24	Denmark	6.03	83.89
25	Malaysia	6.03	83.79
26	Chile	6.00	83.42
27	Ireland	5.99	83.13
28	Korea, Rep.	5.98	82.94
29	Israel	5.97	82.89
30	Czech Republic	5.97	82.85
31	Jordan	5.92	82.05
32	Egypt, Arab Rep.	5.92	81.99
33	Portugal	5.90	81.75
34	Montenegro	5.90	81.70
35	Azerbaijan	5.89	81.58
36	Macedonia, FYR	5.84	80.65
37	Costa Rica	5.82	80.31
38	Venezuela, RB	5.77	79.58
39	Morocco	5.77	79.53
40	Germany	5.77	79.49
41	Brazil	5.77	79.44
42	Argentina	5.77	79.42
43	Cyprus	5.73	78.82
44	Indonesia	5.71	78.54
45	Slovak Republic	5.70	78.27
46	Kuwait	5.68	78.03
47	Uruguay	5.66	77.74
48	El Salvador	5.64	77.34
49	Dominican Republic	5.63	77.18
50	Spain	5.62	76.96
51	Georgia (2011)	5.61	76.84
52	Italy	5.57	76.09
53	Lebanon	5.56	75.94
54	Bosnia and Herzegovina	5.55	75.90
55	Saudi Arabia	5.54	75.72
56	Trinidad and Tobago	5.52	75.26
57	Albania	5.48	74.64
58	Latvia	5.46	74.37
59	Armenia	5.44	73.93
60	Slovenia	5.43	73.89
61	Senegal	5.43	73.88
62	Turkey	5.42	73.70
63	Thailand	5.41	73.51
64	Romania	5.41	73.48
65	Japan	5.40	73.28
66	Colombia	5.37	72.80
67	Hungary	5.36	72.67
68	Guatemala	5.35	72.46
69	Mexico	5.34	72.27
70	Bulgaria	5.30	71.59
71	Moldova	5.28	71.34
72	Mongolia	5.27	71.15
73	South Africa	5.25	70.90
74	Greece	5.24	70.69
75	Algeria	5.24	70.64
76	Kenya	5.23	70.52
77	Croatia	5.23	70.47
78	Ukraine	5.18	69.69
79	India	5.14	69.00
80	Peru	5.11	68.58
81	Russian Federation	5.11	68.42
82	Botswana	4.96	65.98
83	Kyrgyz Republic	4.94	65.70
84	Namibia	4.94	65.66
85	Paraguay	4.91	65.22
86	Cambodia	4.89	64.83
87	China	4.87	64.48
88	Sri Lanka (2011)	4.84	64.03
89	Ecuador (2011)	4.82	63.70
90	Pakistan	4.80	63.33
91	Kazakhstan	4.77	62.89
92	Vietnam	4.75	62.46
93	Poland	4.73	62.24
94	Bangladesh	4.49	58.10
95	Nicaragua	4.41	56.81
96	Mali	4.35	55.83
97	Uganda	4.34	55.69
98	Tanzania	4.24	54.06
99	Serbia	4.23	53.82
100	Burkina Faso	4.12	52.07
101	Bolivia	3.93	48.77
102	Ethiopia	3.37	39.52
103	Iran, Islamic Rep.	3.11	35.13

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

3.3.2 State of cluster development

Average answer to the question: In your country's economy, how prevalent are well-developed and deep clusters? [1 = nonexistent; 7 = widespread in many fields] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Italy	5.30	71.70
2	Singapore	5.25	70.77
3	United Arab Emirates	5.23	70.55
4	Japan	5.18	69.73
5	Finland	5.16	69.30
6	Qatar	5.14	69.06
7	Germany	5.14	68.98
8	Switzerland	5.09	68.11
9	United Kingdom	5.07	67.86
10	United States	5.03	67.19
11	Malaysia	4.98	66.40
12	Sweden	4.96	66.00
13	Netherlands	4.90	64.99
14	Canada	4.85	64.22
15	Norway	4.83	63.84
16	Austria	4.78	62.98
17	Belgium	4.64	60.59
18	Saudi Arabia	4.62	60.30
19	Korea, Rep.	4.61	60.09
20	China	4.58	59.68
21	Ireland	4.57	59.43
22	Luxembourg	4.54	58.94
23	Denmark	4.52	58.59
24	Chile	4.51	58.50
25	Brazil	4.51	58.42
26	India	4.50	58.35
27	France	4.49	58.13
28	Sri Lanka (2011)	4.34	55.67
29	Indonesia	4.25	54.20
30	Thailand	4.25	54.12
31	Mexico	4.24	54.07
32	Vietnam	4.24	54.05
33	Australia	4.24	53.93
34	Philippines	4.14	52.31
35	Iceland	4.10	51.67
36	Spain	4.09	51.50
37	Turkey	4.07	51.15
38	Guatemala	4.07	51.11
39	Cyprus	4.06	51.00
40	Jordan	4.05	50.86
41	South Africa	4.05	50.83
42	Cambodia	4.04	50.60
43	Czech Republic	4.03	50.44
44	Morocco	3.99	49.91
45	Costa Rica	3.95	49.16
46	Portugal	3.94	48.99
47	Bangladesh	3.93	48.80
48	Israel	3.87	47.79
49	Colombia	3.85	47.58
50	Pakistan	3.83	47.18
51	New Zealand	3.77	46.13
52	Kenya	3.76	45.98
52	Panama	3.76	45.98
54	Slovak Republic	3.75	45.84
55	Azerbaijan	3.71	45.16
56	Egypt, Arab Rep.	3.67	44.52
57	Armenia	3.64	44.06
58	Botswana	3.62	43.59
58	Malta	3.62	43.59
60	Peru	3.61	43.54
61	Dominican Republic	3.58	43.08
62	Slovenia	3.56	42.73
63	Estonia	3.51	41.85
64	Uruguay	3.48	41.26
65	Ecuador (2011)	3.46	40.99
66	Bolivia	3.45	40.84
67	Trinidad and Tobago	3.44	40.73
68	Iran, Islamic Rep.	3.43	40.46
69	El Salvador	3.42	40.34
70	Bulgaria	3.42	40.28
71	Namibia	3.39	39.81
72	Senegal	3.37	39.46
73	Macedonia, FYR	3.36	39.28
74	Argentina	3.32	38.61
75	Croatia	3.31	38.58
76	Tanzania	3.31	38.51
77	Poland	3.25	37.43
78	Latvia	3.23	37.14
79	Kuwait	3.22	36.96
80	Nicaragua	3.18	36.40
81	Hungary	3.18	36.37
82	Ethiopia	3.17	36.10
83	Romania	3.12	35.33
84	Lebanon	3.11	35.09
85	Kazakhstan	3.09	34.88
86	Uganda	3.07	34.49
87	Mali	3.05	34.22
88	Russian Federation	3.05	34.16
89	Georgia (2011)	3.03	33.82
89	Lithuania	3.03	33.82
91	Paraguay	2.96	32.74
92	Mongolia	2.94	32.29
93	Montenegro	2.86	31.06
94	Greece	2.86	30.99
95	Ukraine	2.85	30.89
96	Venezuela, RB	2.85	30.83
97	Serbia	2.70	28.37
98	Bosnia and Herzegovina	2.58	26.33
99	Burkina Faso	2.49	24.79
100	Algeria	2.37	22.79
101	Moldova	2.35	22.56
102	Kyrgyz Republic	2.33	22.16
103	Albania	2.03	17.19

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

3.3.3 Quality of scientific research institutions

Average answer to the question: How would you assess the quality of scientific research institutions in your country? [1 = very poor; 7 = the best in their field internationally] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Israel	6.35	89.12
2	Switzerland	6.34	88.92
3	United Kingdom	6.18	86.29
4	Belgium	5.94	82.39
5	Qatar	5.77	79.53
6	Australia	5.76	79.29
6	United States	5.76	79.29
8	Netherlands	5.74	78.99
9	Sweden	5.64	77.38
10	Germany	5.61	76.90
11	Japan	5.60	76.66
12	Singapore	5.57	76.16
13	Finland	5.53	75.44
14	Ireland	5.48	74.73
15	France	5.46	74.37
16	Canada	5.45	74.19
17	New Zealand	5.41	73.54
18	Denmark	5.32	72.01
19	Hungary	5.13	68.84
20	Austria	5.09	68.09
21	Portugal	5.04	67.37
22	Iceland	5.02	66.92
23	Korea, Rep.	4.94	65.60
24	Estonia	4.91	65.14
25	Czech Republic	4.89	64.86
26	Norway	4.87	64.57
27	Malaysia	4.86	64.39
28	Slovenia	4.80	63.30
29	Luxembourg	4.77	62.81
30	Lithuania	4.65	60.89
31	Costa Rica	4.64	60.70
32	South Africa	4.62	60.40
33	United Arab Emirates	4.62	60.38
34	Spain	4.55	59.20
35	Saudi Arabia	4.49	58.20
36	India	4.45	57.42
37	Iran, Islamic Rep.	4.25	54.13
38	Chile	4.20	53.26
39	Italy	4.19	53.18
40	China	4.18	53.06
41	Poland	4.14	52.36
42	Brazil	4.12	51.93
43	Argentina	4.08	51.30
44	Croatia	4.06	50.97
45	Mexico	4.03	50.58
46	Kenya	4.03	50.50
47	Cyprus	4.02	50.41
48	Panama	3.97	49.53
49	Montenegro	3.92	48.66
50	Senegal	3.90	48.36
51	Indonesia	3.88	47.95
52	Sri Lanka (2011)	3.85	47.55
53	Latvia	3.77	46.25
54	Burkina Faso	3.74	45.67
55	Thailand	3.74	45.62
56	Uruguay	3.69	44.85
57	Malta	3.68	44.65
58	Ukraine	3.68	44.62
59	Azerbaijan	3.65	44.20
60	Mali	3.62	43.71
61	Serbia	3.62	43.63
62	Cambodia	3.60	43.34
63	Russian Federation	3.58	43.00
63	Tanzania	3.58	43.00
65	Bosnia and Herzegovina	3.57	42.86
66	Botswana	3.57	42.76
67	Bulgaria	3.53	42.13
68	Jordan	3.51	41.81
69	Pakistan	3.51	41.76
70	Romania	3.43	40.42
71	Colombia	3.41	40.17
72	Uganda	3.41	40.08
73	Vietnam	3.40	40.07
74	Turkey	3.40	40.04
75	Slovak Republic	3.39	39.81
76	Namibia	3.37	39.46
77	Greece	3.33	38.82
78	Bolivia	3.31	38.49
79	Trinidad and Tobago	3.23	37.09
80	Ethiopia	3.22	36.96
81	Macedonia, FYR	3.22	36.94
82	Philippines	3.17	36.19
83	Kuwait	3.16	35.93
84	Morocco	3.15	35.85
85	Mongolia	3.15	35.84
86	Guatemala	3.14	35.71
87	Kazakhstan	3.02	33.73
88	Ecuador (2011)	2.98	32.98
89	Armenia	2.97	32.79
90	Egypt, Arab Rep.	2.87	31.12
91	Peru	2.79	29.80
92	Venezuela, RB	2.78	29.65
93	Nicaragua	2.66	27.61
94	Georgia (2011)	2.57	26.20
95	Dominican Republic	2.56	25.98
96	Bangladesh	2.55	25.81
97	Lebanon	2.52	25.25
98	Moldova	2.44	24.00
99	Albania	2.41	23.53
100	El Salvador	2.27	21.10
101	Kyrgyz Republic	2.11	18.55
102	Algeria	2.10	18.33
103	Paraguay	2.03	17.18

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

3.3.4 Voicing concern to officials

Percentage of respondents who answered yes for the question:
Have you voiced your opinion to a public official in the past month? | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Slovenia	42.40	100.00
2	Denmark	38.50	90.80
3	Switzerland	36.00	84.91
4	Colombia	34.40	81.13
4	Germany	34.40	81.13
6	Philippines	33.90	79.95
7	Sweden	33.50	79.01
8	Luxembourg	32.40	76.42
9	Austria	32.00	75.47
10	Norway	31.50	74.29
11	United States	30.40	71.70
12	Thailand	30.10	70.99
13	Uganda	29.60	69.81
14	Ireland	29.50	69.58
15	Chile	28.50	67.22
16	Pakistan	28.30	66.75
17	Costa Rica	28.10	66.27
18	Panama	28.00	66.04
19	Cyprus	26.20	61.79
20	United Kingdom	25.50	60.14
21	Bolivia	25.10	59.20
21	Finland	25.10	59.20
21	Iceland	25.10	59.20
24	Netherlands	24.60	58.02
24	Portugal	24.60	58.02
26	Mongolia	24.20	57.08
26	Sri Lanka	24.20	57.08
28	Guatemala	23.90	56.37
29	Senegal	23.50	55.42
30	Kuwait	23.30	54.95
31	Czech Republic	23.00	54.25
31	Uruguay	23.00	54.25
33	Namibia	22.90	54.01
34	France	22.60	53.30
35	Belgium	22.50	53.07
35	Saudi Arabia	22.50	53.07
37	Spain	22.20	52.36
37	Tanzania	22.20	52.36
39	Georgia	21.80	51.42
39	Malta	21.80	51.42
41	Canada	21.20	50.00
42	Paraguay	20.80	49.06
43	Australia	20.50	48.35
44	Israel	20.20	47.64
45	Japan	20.00	47.17
46	Dominican Republic	19.90	46.93
47	Mali	19.80	46.70
48	Venezuela, RB	19.40	45.75
49	Mexico	19.10	45.05
50	Croatia	19.00	44.81
51	Iran, Islamic Rep.	18.90	44.58
52	Kenya	18.60	43.87
53	New Zealand	18.50	43.63
54	Brazil	17.80	41.98
55	El Salvador	17.40	41.04
56	Korea, Rep.	17.30	40.80
57	Moldova	17.20	40.57
58	Botswana	17.00	40.09
58	India	17.00	40.09
58	Latvia	17.00	40.09
61	Azerbaijan	16.90	39.86
62	Peru	16.80	39.62
63	United Arab Emirates	16.60	39.15
64	Ethiopia	16.40	38.68
65	Bulgaria	16.30	38.44
65	Hungary	16.30	38.44
67	Estonia	16.20	38.21
68	Cambodia	15.40	36.32
68	South Africa	15.40	36.32
70	Romania	15.20	35.85
71	Slovak Republic	14.90	35.14
72	Albania	14.70	34.67
73	Italy	14.40	33.96
73	Ukraine	14.40	33.96
75	Ecuador	13.70	32.31
76	Kyrgyz Republic	13.60	32.08
77	Malaysia	13.40	31.60
78	Montenegro	13.30	31.37
79	Nicaragua	13.10	30.90
80	Trinidad and Tobago	12.60	29.72
81	Turkey	12.30	29.01
82	Burkina Faso	12.20	28.77
82	Russian Federation	12.20	28.77
84	Macedonia, FYR	11.90	28.07
85	Kazakhstan	11.50	27.12
86	Lithuania	11.20	26.42
87	Bangladesh	10.80	25.47
88	Argentina	10.50	24.76
89	Indonesia	10.20	24.06
90	Armenia	9.80	23.11
91	Algeria	9.60	22.64
92	Morocco	8.70	20.52
93	Bosnia and Herzegovina	8.60	20.28
94	Lebanon	7.60	17.92
95	Vietnam	7.50	17.69
96	Jordan	6.70	15.80
97	Poland	6.60	15.57
98	Greece	6.10	14.39
99	Singapore	5.90	13.92
100	China	5.40	12.74
101	Egypt, Arab Rep.	3.90	9.20
102	Serbia	0.00	0.00
n/a	Qatar	n/a	n/a

Source: Legatum Institute, Legatum Prosperity Index 2012 based on Gallup World Poll. (http://www.prosperity.com/)
Last accessed April 2013.

PILLAR 4:
RETAIN

4.1.1 Pension system

Share of workforce contributing to pension system | 2005

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Czech Republic (2007)	0.95	100.00
2	Japan	0.95	99.98
2	Switzerland	0.95	99.98
4	Estonia (2004)	0.94	99.00
5	Austria	0.94	98.20
6	Norway	0.93	97.67
7	United Kingdom	0.93	97.64
8	Denmark (2007)	0.93	97.31
9	United States	0.92	96.57
10	Portugal	0.92	96.40
11	Hungary (2008)	0.92	96.39
12	Latvia (2009)	0.92	96.10
13	Belgium	0.91	95.78
14	Australia	0.91	95.02
14	Netherlands	0.91	95.02
16	Italy	0.90	94.33
17	Finland	0.90	93.96
18	Ireland	0.89	93.07
19	Sweden	0.89	93.01
20	Slovenia (2008)	0.87	91.53
21	Canada (2009)	0.87	91.46
22	France	0.87	91.40
23	Germany	0.87	90.95
24	Iceland	0.87	90.81
25	Greece	0.86	89.99
26	Lithuania (2009)	0.83	86.71
27	Poland (2008)	0.81	85.13
28	Korea, Rep. (2006)	0.80	83.74
29	Slovak Republic (2003)	0.79	82.47
30	Bulgaria (2008)	0.79	82.23
31	Uruguay (2009)	0.78	82.02
32	Croatia (2010)	0.76	79.42
33	Trinidad and Tobago (2009)	0.71	74.19
34	Spain	0.69	72.38
35	Romania (2008)	0.68	70.85
36	Russian Federation (2007)	0.67	69.65
37	Kazakhstan (2009)	0.62	65.04
38	Ukraine (2010)	0.62	64.68
39	Singapore (2009)	0.62	64.61
40	Brazil (2010)	0.59	61.66
41	Turkey (2008)	0.59	60.94
42	Costa Rica (2010)	0.59	60.89
43	Chile (2010)	0.58	59.94
44	Moldova (2009)	0.57	58.89
45	Egypt, Arab Rep. (2009)	0.55	57.19
46	Macedonia, FYR (2009)	0.52	54.21
47	Malaysia (2008)	0.49	50.72
48	Argentina (2010)	0.47	48.66
49	Serbia (2007)	0.45	46.49
50	Kyrgyz Republic (2008)	0.40	41.58
51	Jordan (2006)	0.38	39.48
52	Albania (2008)	0.38	38.93
53	Algeria (2002)	0.37	37.69
54	Azerbaijan (2007)	0.35	36.29
55	Lebanon (2003)	0.35	35.38
56	Venezuela, RB (2009)	0.34	34.67
57	China (2010)	0.34	34.32
58	Mongolia (2008)	0.33	34.26
59	Armenia (2008)	0.32	32.80
60	Georgia (2004)	0.29	29.73
61	Colombia (2010)	0.28	28.18
62	Mexico (2009)	0.27	27.80
63	Dominican Republic (2010)	0.27	27.22
64	Ecuador (2007)	0.26	26.76
65	Philippines (2007)	0.25	25.28
66	Bosnia and Herzegovina (2009)	0.25	24.77
67	Sri Lanka (2006)	0.24	24.31
68	Morocco (2007)	0.24	23.98
69	El Salvador (2010)	0.23	23.01
70	Thailand (2006)	0.23	22.89
71	Nicaragua (2008)	0.22	21.80
72	Peru (2009)	0.22	21.72
73	Guatemala (2008)	0.20	20.22
74	Vietnam (2008)	0.19	19.20
75	Paraguay (2004)	0.12	11.91
76	Bolivia (2009)	0.12	11.70
77	Indonesia (2010)	0.11	10.40
78	India (2006)	0.10	9.63
79	Uganda (2004)	0.10	9.62
80	Namibia (2008)	0.10	8.87
81	Botswana (2006)	0.09	8.28
82	Mali (2010)	0.08	7.13
83	Kenya (2006)	0.08	6.68
84	South Africa (2010)	0.07	5.80
85	Senegal (2003)	0.05	4.17
86	Qatar (2008)	0.04	3.34
87	Tanzania (2006)	0.04	3.26
88	Pakistan (2008)	0.04	2.83
89	Bangladesh (2004)	0.03	1.38
90	Burkina Faso (2004)	0.01	0.00
n/a	Cambodia	n/a	n/a
n/a	Cyprus	n/a	n/a
n/a	Ethiopia	n/a	n/a
n/a	Iran, Islamic Rep.	n/a	n/a
n/a	Israel	n/a	n/a
n/a	Kuwait	n/a	n/a
n/a	Luxembourg	n/a	n/a
n/a	Malta	n/a	n/a
n/a	Montenegro	n/a	n/a
n/a	New Zealand	n/a	n/a
n/a	Panama	n/a	n/a
n/a	Saudi Arabia	n/a	n/a
n/a	United Arab Emirates	n/a	n/a

Source: World Bank, International patterns of pension provision II: a worldwide overview of facts and figures. (http://web.worldbank.org/wbsite/external/topics/extsocialprotection/extpensions/)

4.1.2 Extent and effect of taxation

Average answer 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 and invest; 7 = has no impact on incentives to work or invest] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	United Arab Emirates	6.16	85.93
2	Qatar	5.75	79.08
3	Kuwait	5.47	74.44
4	Singapore	5.46	74.32
5	Switzerland	5.23	70.51
6	Saudi Arabia	5.08	68.03
7	Paraguay	4.80	63.32
8	Luxembourg	4.78	63.03
9	Botswana	4.75	62.49
10	Malaysia	4.75	62.42
11	Cyprus	4.62	60.37
12	New Zealand	4.57	59.58
13	Estonia	4.53	58.79
14	Chile	4.26	54.30
15	Lebanon	4.23	53.76
16	Montenegro	4.16	52.68
17	Macedonia, FYR	4.14	52.32
18	Canada	4.09	51.45
19	Netherlands	4.08	51.32
20	Indonesia	4.06	50.96
21	South Africa	4.04	50.67
22	Bangladesh	4.03	50.44
23	Panama	4.01	50.18
24	Cambodia	3.99	49.90
25	Mongolia	3.98	49.65
26	Georgia (2011)	3.93	48.91
27	Kazakhstan	3.92	48.65
28	Trinidad and Tobago	3.92	48.60
29	China	3.88	48.03
30	Albania	3.88	47.97
31	Sri Lanka (2011)	3.83	47.16
32	India	3.83	47.09
33	Armenia	3.82	47.06
34	Ireland	3.81	46.91
35	Azerbaijan	3.74	45.64
36	Namibia	3.73	45.44
37	Malta	3.67	44.44
38	Thailand	3.65	44.08
39	Guatemala	3.64	43.99
40	Philippines	3.61	43.50
41	Norway	3.58	43.08
42	Mexico	3.57	42.81
43	Morocco	3.56	42.67
44	Slovak Republic	3.54	42.36
45	United States	3.53	42.15
46	Ethiopia	3.52	42.03
47	Costa Rica	3.50	41.66
48	Iran, Islamic Rep.	3.49	41.53
49	Pakistan	3.48	41.36
50	Israel	3.47	41.23
51	Germany	3.47	41.21
52	Bolivia	3.44	40.63
53	United Kingdom	3.43	40.57
54	Vietnam	3.41	40.12
55	Peru	3.40	39.93
56	Bulgaria	3.39	39.91
57	Jordan	3.36	39.39
58	Nicaragua	3.35	39.19
59	Egypt, Arab Rep.	3.34	39.08
60	Moldova	3.34	39.07
61	Kenya	3.32	38.73
62	Burkina Faso	3.32	38.64
63	Kyrgyz Republic	3.30	38.37
64	Tanzania	3.29	38.10
65	Poland	3.26	37.72
66	Austria	3.22	37.04
67	Finland	3.20	36.71
68	Algeria	3.18	36.39
69	Uganda	3.17	36.19
70	Australia	3.16	35.94
71	Sweden	3.13	35.51
72	Czech Republic	3.11	35.23
73	Mali	3.09	34.79
74	Latvia	3.08	34.62
75	Korea, Rep.	3.08	34.59
76	Bosnia and Herzegovina	3.07	34.56
77	Uruguay	3.06	34.30
78	Spain	3.04	33.94
79	Venezuela, RB	3.03	33.84
80	Japan	3.03	33.81
81	Ecuador (2011)	3.02	33.71
82	Colombia	2.99	33.16
83	Turkey	2.98	32.98
84	Iceland	2.96	32.72
85	Russian Federation	2.94	32.27
86	Serbia	2.92	31.98
87	El Salvador	2.84	30.74
88	Lithuania	2.81	30.18
89	France	2.77	29.45
90	Senegal	2.77	29.43
91	Slovenia	2.75	29.24
92	Dominican Republic	2.71	28.47
93	Denmark	2.58	26.40
94	Hungary	2.51	25.10
95	Portugal	2.42	23.66
96	Argentina	2.33	22.16
97	Croatia	2.33	22.14
98	Greece	2.32	22.00
99	Ukraine	2.32	21.94
100	Belgium	2.29	21.57
101	Italy	2.24	20.72
102	Romania	2.20	20.04
103	Brazil	2.13	18.91

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

4.2.1 Environmental performance

Environmental performance index | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Switzerland	76.69	100.00
2	Latvia	70.37	85.55
3	Norway	69.92	84.53
4	Luxembourg	69.20	82.88
5	Costa Rica	69.03	82.49
6	France	69.00	82.42
7	Austria	68.92	82.24
8	Italy	68.90	82.19
9	Sweden	68.82	82.01
9	United Kingdom	68.82	82.01
11	Germany	66.91	77.65
12	Slovak Republic	66.62	76.98
13	Iceland	66.28	76.21
14	New Zealand	66.05	75.68
15	Albania	65.85	75.22
16	Netherlands	65.65	74.77
17	Lithuania	65.50	74.42
18	Czech Republic	64.79	72.80
19	Finland	64.44	72.00
20	Croatia	64.16	71.36
21	Denmark	63.61	70.10
22	Poland	63.47	69.78
23	Japan	63.36	69.53
24	Belgium	63.02	68.75
25	Malaysia	62.51	67.59
26	Colombia	62.33	67.18
27	Slovenia	62.25	66.99
28	Brazil	60.90	63.91
29	Ecuador	60.55	63.11
30	Spain	60.31	62.56
31	Greece	60.04	61.94
32	Thailand	59.98	61.81
33	Nicaragua	59.23	60.09
34	Ireland	58.69	58.86
35	Canada	58.41	58.22
36	Panama	57.94	57.14
37	Portugal	57.64	56.46
38	Philippines	57.40	55.91
39	Korea, Rep.	57.20	55.45
40	Cyprus	57.15	55.34
41	Hungary	57.12	55.27
42	Uruguay	57.06	55.13
43	Georgia	56.84	54.63
44	Australia	56.61	54.10
45	United States	56.59	54.06
46	Argentina	56.48	53.81
47	Singapore	56.36	53.53
48	Bulgaria	56.28	53.35
49	Estonia	56.09	52.91
50	Sri Lanka	55.72	52.07
51	Venezuela, RB	55.62	51.84
52	Chile	55.34	51.20
53	Cambodia	55.29	51.09
54	Egypt, Arab Rep.	55.18	50.83
55	Israel	54.64	49.60
56	Bolivia	54.57	49.44
57	Tanzania	54.26	48.73
58	Botswana	53.74	47.54
59	Ethiopia	52.71	45.19
60	Dominican Republic	52.44	44.57
61	Paraguay	52.40	44.48
62	Indonesia	52.29	44.23
63	El Salvador	52.08	43.75
64	Guatemala	51.88	43.29
65	United Arab Emirates	50.91	41.07
66	Namibia	50.68	40.55
67	Vietnam	50.64	40.46
68	Peru	50.29	39.66
69	Saudi Arabia	49.97	38.93
70	Kenya	49.28	37.35
71	Mexico	49.11	36.96
72	Algeria	48.56	35.70
73	Malta	48.51	35.59
74	Romania	48.34	35.20
75	Armenia	47.48	33.23
76	Lebanon	47.35	32.94
77	Trinidad and Tobago	47.04	32.23
78	Macedonia, FYR	46.96	32.05
79	Senegal	46.73	31.52
80	Qatar	46.59	31.20
81	Kyrgyz Republic	46.33	30.61
82	Ukraine	46.31	30.56
83	Serbia	46.14	30.17
84	Morocco	45.76	29.30
85	Russian Federation	45.43	28.55
86	Mongolia	45.37	28.41
87	Moldova	45.21	28.05
88	Turkey	44.80	27.11
89	Azerbaijan	43.11	23.25
90	Iran, Islamic Rep.	42.73	22.38
91	Bangladesh	42.55	21.97
92	China	42.24	21.26
93	Jordan	42.16	21.07
94	Pakistan	39.56	15.13
95	Bosnia and Herzegovina	36.76	8.73
96	India	36.23	7.52
97	Kuwait	35.54	5.94
98	South Africa	34.55	3.68
99	Kazakhstan	32.94	0.00
n/a	Burkina Faso	n/a	n/a
n/a	Mali	n/a	n/a
n/a	Montenegro	n/a	n/a
n/a	Uganda	n/a	n/a

Source: Yale University and Columbia University, Environmental Performance Index 2012. (http://epi.yale.edu/)

4.2.2 Property stolen

Percentage of respondents who answered yes for the question: Within the past 12 months, have you had money or property stolen from you or another household member? | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Serbia	0.00	100.00
2	Azerbaijan	1.90	95.50
3	Singapore	2.70	93.60
4	Croatia	3.70	91.23
5	Montenegro	3.80	91.00
6	Bosnia and Herzegovina	5.30	87.44
7	Poland	5.60	86.73
8	Malta	6.00	85.78
9	Georgia	6.80	83.89
10	United Arab Emirates	6.90	83.65
11	Armenia	7.30	82.70
12	Korea, Rep.	7.80	81.52
13	Jordan	8.00	81.04
13	Lithuania	8.00	81.04
15	Indonesia	8.30	80.33
16	Finland	8.40	80.09
17	Netherlands	8.60	79.62
18	Egypt, Arab Rep.	8.70	79.38
19	Japan	8.90	78.91
20	Panama	9.10	78.44
20	Russian Federation	9.10	78.44
22	Austria	9.40	77.73
22	Luxembourg	9.40	77.73
24	Iceland	9.50	77.49
25	Ukraine	9.60	77.25
26	India	9.70	77.01
27	Germany	9.90	76.54
28	Lebanon	10.00	76.30
29	Bulgaria	10.40	75.36
29	Burkina Faso	10.40	75.36
29	Switzerland	10.40	75.36
29	Turkey	10.40	75.36
33	Israel	10.50	75.12
33	Mali	10.50	75.12
35	Ireland	10.80	74.41
36	Belgium	10.90	74.17
36	Italy	10.90	74.17
38	United Kingdom	11.40	72.99
39	Sweden	11.50	72.75
40	Albania	11.60	72.51
40	Macedonia, FYR	11.60	72.51
42	Thailand	11.70	72.27
43	Norway	11.90	71.80
44	Australia	12.10	71.33
44	Kyrgyz Republic	12.10	71.33
46	Kazakhstan	12.20	71.09
47	Portugal	12.30	70.85
47	United States	12.30	70.85
49	Cyprus	12.40	70.62
50	Slovenia	12.50	70.38
51	Canada	12.60	70.14
51	Denmark	12.60	70.14
51	Slovak Republic	12.60	70.14
54	Malaysia	12.80	69.67
55	Estonia	12.90	69.43
55	Pakistan	12.90	69.43
57	Sri Lanka	13.00	69.19
58	France	13.30	68.48
58	Romania	13.30	68.48
60	Moldova	14.10	66.59
61	Kuwait	14.60	65.40
62	Brazil	14.90	64.69
62	Greece	14.90	64.69
64	Latvia	15.80	62.56
65	Chile	15.90	62.32
66	Czech Republic	16.10	61.85
67	Saudi Arabia	17.00	59.72
68	Philippines	17.20	59.24
68	Spain	17.20	59.24
70	Algeria	17.30	59.00
70	Guatemala	17.30	59.00
72	Ecuador	17.50	58.53
73	Nicaragua	17.70	58.06
74	Hungary	18.00	57.35
75	Bangladesh	18.10	57.11
76	China	18.20	56.87
76	Vietnam	18.20	56.87
78	Cambodia	18.30	56.64
79	Costa Rica	18.40	56.40
80	Dominican Republic	18.70	55.69
81	Venezuela, RB	19.10	54.74
82	Argentina	19.40	54.03
83	Mexico	19.60	53.55
84	Morocco	19.90	52.84
85	New Zealand	20.00	52.61
86	Iran, Islamic Rep.	21.50	49.05
87	El Salvador	21.60	48.82
88	Namibia	22.50	46.68
89	Trinidad and Tobago	23.10	45.26
90	Ethiopia	24.50	41.94
91	Uruguay	25.30	40.05
92	Colombia	25.90	38.63
92	Mongolia	25.90	38.63
94	Paraguay	26.10	38.15
95	Peru	27.80	34.12
96	Bolivia	28.20	33.18
97	Tanzania	29.90	29.15
98	South Africa	30.30	28.20
99	Kenya	31.10	26.30
100	Botswana	31.70	24.88
101	Senegal	33.70	20.14
102	Uganda	42.20	0.00
n/a	Qatar	n/a	n/a

Source: Legatum Institute, Legatum Prosperity Index 2012 based on Gallup World Poll. (http://www.prosperity.com/)
Last accessed April 2013.

4.2.3 Safety at night

Percentage of respondents who answered yes for the question:
Do you feel safe walking alone at night in the area where you live? | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Georgia	93.50	100.00
2	United Arab Emirates	92.30	98.72
3	Singapore	89.30	95.51
4	Kuwait	89.00	95.19
5	Indonesia	88.10	94.22
6	Slovenia	85.70	91.66
7	Norway	84.50	90.37
8	Austria	84.40	90.27
9	Jordan	82.80	88.56
10	Netherlands	82.40	88.13
11	Denmark	82.30	88.02
12	China	81.90	87.59
13	Bangladesh	81.80	87.49
14	Germany	81.50	87.17
15	Iceland	81.10	86.74
16	Finland	80.80	86.42
16	Montenegro	80.80	86.42
16	Sweden	80.80	86.42
19	Mali	80.40	85.99
20	Canada	79.80	85.35
21	Luxembourg	79.30	84.81
22	Sri Lanka	79.10	84.60
23	Switzerland	78.80	84.28
24	Saudi Arabia	78.20	83.64
25	Armenia	77.00	82.35
26	Azerbaijan	75.80	81.07
27	United States	75.70	80.96
28	Thailand	74.70	79.89
29	Vietnam	72.30	77.33
30	Ireland	71.70	76.68
31	Cyprus	71.50	76.47
31	United Kingdom	71.50	76.47
33	Belgium	70.80	75.72
34	India	70.60	75.51
35	Japan	70.50	75.40
36	Spain	70.00	74.87
37	Albania	69.70	74.55
38	Lebanon	69.40	74.22
38	Morocco	69.40	74.22
40	New Zealand	69.00	73.80
41	Cambodia	68.30	73.05
42	Poland	68.20	72.94
43	Bosnia and Herzegovina	68.00	72.73
43	Croatia	68.00	72.73
45	Malta	67.40	72.09
46	France	67.00	71.66
47	Australia	66.00	70.59
47	Macedonia, FYR	66.00	70.59
49	Portugal	65.90	70.48
50	Philippines	63.30	67.70
51	Czech Republic	62.60	66.95
51	Kyrgyz Republic	62.60	66.95
53	Burkina Faso	62.40	66.74
54	Slovak Republic	62.20	66.52
55	Kazakhstan	61.60	65.88
56	Estonia	61.30	65.56
57	Tanzania	61.20	65.45
58	Israel	60.50	64.71
59	Hungary	59.20	63.32
60	Romania	58.30	62.35
61	Egypt, Arab Rep.	57.90	61.93
62	Korea, Rep.	56.90	60.86
63	Iran, Islamic Rep.	56.50	60.43
64	Italy	55.00	58.82
65	Senegal	54.90	58.72
66	Bulgaria	54.50	58.29
67	Greece	52.90	56.58
68	Moldova	52.50	56.15
69	Ukraine	52.10	55.72
70	Nicaragua	51.60	55.19
71	Latvia	51.50	55.08
72	Argentina	51.30	54.87
72	Turkey	51.30	54.87
74	Ethiopia	50.10	53.58
74	Kenya	50.10	53.58
76	Uruguay	50.00	53.48
77	Ecuador	49.30	52.73
78	Algeria	49.00	52.41
79	Mongolia	48.80	52.19
80	Panama	48.40	51.76
81	Malaysia	48.30	51.66
82	Chile	47.20	50.48
83	Pakistan	46.50	49.73
83	Peru	46.50	49.73
85	Bolivia	44.50	47.59
86	Colombia	44.10	47.17
87	Russian Federation	44.00	47.06
88	Mexico	42.60	45.56
89	Lithuania	42.50	45.45
90	El Salvador	42.30	45.24
91	Guatemala	42.20	45.13
92	Trinidad and Tobago	42.00	44.92
93	Costa Rica	41.90	44.81
94	Uganda	41.70	44.60
95	Brazil	40.30	43.10
96	Dominican Republic	38.70	41.39
97	South Africa	38.30	40.96
98	Paraguay	38.10	40.75
99	Namibia	32.90	35.19
100	Venezuela, RB	31.90	34.12
101	Botswana	30.70	32.83
102	Serbia	0.00	0.00
n/a	Qatar	n/a	n/a

Source: Legatum Institute, Legatum Prosperity Index 2012 based on Gallup World Poll. (http://www.prosperity.com/)
Last accessed April 2013.

4.2.4 Physicians density

Physicians (per 1,000 people) | 2010

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Greece	6.17	100.00
2	Austria	4.85	78.67
3	Georgia	4.76	77.19
4	Russian Federation	4.31	69.83
5	Norway	4.16	67.40
6	Kazakhstan	4.10	66.42
7	Switzerland	4.07	65.95
8	Spain	3.96	64.12
9	Portugal	3.87	62.67
10	Azerbaijan	3.78	61.28
11	Sweden	3.77	61.08
12	Armenia	3.76	60.95
13	Uruguay	3.74	60.53
14	Iceland	3.73	60.48
15	Bulgaria	3.73	60.43
16	Czech Republic	3.67	59.49
17	Israel	3.65	59.13
18	Lithuania	3.61	58.55
19	Germany	3.60	58.34
20	Lebanon	3.54	57.35
21	Italy	3.49	56.47
22	France	3.45	55.84
23	Denmark	3.42	55.46
24	Estonia	3.33	54.00
25	Ukraine	3.25	52.57
26	Argentina	3.21	51.99
27	Ireland	3.17	51.39
28	Malta	3.11	50.40
29	Hungary	3.03	49.08
30	Belgium	3.01	48.79
31	Slovak Republic	3.00	48.58
32	Australia	2.99	48.43
33	Latvia	2.99	48.38
34	Finland	2.91	47.04
35	Netherlands	2.86	46.29
36	Egypt, Arab Rep.	2.83	45.82
37	Luxembourg	2.77	44.78
38	Mongolia	2.76	44.73
39	Qatar	2.76	44.63
40	United Kingdom	2.74	44.41
41	New Zealand	2.74	44.28
42	Moldova	2.68	43.33
43	Macedonia, FYR	2.63	42.52
44	Croatia	2.60	42.10
45	Cyprus	2.58	41.82
46	Slovenia	2.51	40.56
47	Jordan	2.45	39.65
48	United States	2.42	39.19
49	Kyrgyz Republic	2.30	37.23
50	Romania	2.27	36.71
51	Poland	2.16	34.89
52	Japan	2.14	34.65
53	Serbia	2.11	34.16
54	Montenegro	2.10	33.95
55	Korea, Rep.	2.02	32.73
56	Canada	1.98	31.94
57	Mexico	1.96	31.68
58	United Arab Emirates	1.93	31.21
59	Singapore	1.83	29.63
60	Kuwait	1.79	28.98
61	Brazil	1.76	28.51
62	Ecuador	1.69	27.26
63	Bosnia and Herzegovina	1.64	26.47
64	El Salvador	1.60	25.78
65	Turkey	1.54	24.84
66	China	1.42	22.84
67	Vietnam	1.22	19.74
68	Algeria	1.21	19.47
69	Trinidad and Tobago	1.18	18.95
70	Albania	1.15	18.59
70	Philippines (2004)	1.15	18.59
72	Paraguay (2002)	1.11	17.89
73	Chile	1.03	16.53
74	Malaysia	0.94	15.15
75	Saudi Arabia	0.94	15.12
76	Peru	0.92	14.81
77	Iran, Islamic Rep.	0.89	14.32
78	Pakistan	0.81	13.07
79	South Africa (2004)	0.77	12.37
80	India	0.65	10.41
81	Morocco	0.62	9.94
82	Sri Lanka	0.49	7.86
83	Namibia	0.37	5.94
84	Nicaragua (2003)	0.37	5.88
85	Botswana	0.34	5.33
86	Thailand	0.32	5.05
87	Bangladesh	0.30	4.66
88	Indonesia	0.29	4.55
89	Cambodia	0.23	3.60
90	Colombia	0.15	2.26
91	Kenya (2004)	0.14	2.13
92	Uganda	0.12	1.77
93	Burkina Faso	0.06	0.91
94	Senegal	0.06	0.83
95	Mali	0.05	0.67
96	Ethiopia	0.02	0.23
97	Tanzania	0.01	0.00
n/a	Bolivia	n/a	n/a
n/a	Costa Rica	n/a	n/a
n/a	Dominican Republic	n/a	n/a
n/a	Guatemala	n/a	n/a
n/a	Panama	n/a	n/a
n/a	Venezuela, RB	n/a	n/a

Source: World Bank, World Development Indicators based on World Health Organization, Global Atlas of the Health Workforce. (http://data.worldbank.org/)

PILLAR 5:
LABOUR & VOCATIONAL

5.1.1 Secondary-educated workforce

Percentage of workforce with secondary education (%) | 2010

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Czech Republic (2011)	70.20	100.00
2	Slovakia (2006)	67.60	96.29
3	Kyrgyzstan (2009)	60.90	86.71
4	Azerbaijan (2009)	58.80	83.71
5	Montenegro (2006)	58.20	82.86
6	Poland (2011)	57.10	81.29
7	Slovenia (2011)	56.20	80.00
8	Hungary (2011)	55.00	78.29
9	United Kingdom	52.60	74.86
10	Estonia (2011)	51.00	72.57
11	Germany	50.80	72.29
12	Latvia (2011)	50.60	72.00
13	Austria	50.40	71.71
14	Bulgaria	48.90	69.57
15	Romania	48.10	68.43
15	Serbia (2011)	48.10	68.43
17	United States	48.00	68.29
18	South Africa (2011)	45.70	65.00
19	Switzerland	44.10	62.71
20	Sweden	43.10	61.29
21	Moldova	42.70	60.71
22	Luxembourg	42.40	60.29
23	Denmark (2011)	41.50	59.00
24	Japan	39.90	56.71
25	Kazakhstan (2007)	39.70	56.43
26	Norway	38.80	55.14
27	Finland (2009)	38.00	54.00
28	France	37.40	53.14
28	Korea, Rep.	37.40	53.14
30	Macedonia FYR (2002)	35.60	50.57
31	Georgia (2002)	35.30	50.14
32	Philippines (2008)	35.10	49.86
33	Chile	34.70	49.29
34	Malaysia	34.50	49.00
35	Netherlands	34.30	48.71
36	Israel	34.20	48.57
37	Cyprus	32.90	46.71
38	Italy	32.70	46.43
39	Lithuania (2011)	32.00	45.43
39	Peru	32.00	45.43
41	Australia (2011)	31.40	44.57
42	Albania (2011)	31.30	44.43
43	Belgium	30.00	42.57
43	Kenya	30.00	42.57
45	Argentina (2003)	28.40	40.29
46	Iceland (2005)	28.30	40.14
47	Venezuela (2009)	27.00	38.29
48	Greece	26.80	38.00
49	Brazil	24.60	34.86
50	United Arab Emirates (2005)	24.50	34.71
51	Iran, Islamic Rep.	24.00	34.00
52	Canada (2006)	23.40	33.14
53	Colombia (2011)	22.10	31.29
54	Bosnia and Herzegovina	21.90	31.00
55	Ireland	21.70	30.71
56	Dominican Republic (2011)	21.40	30.29
57	Ecuador	20.60	29.14
57	New Zealand (2011)	20.60	29.14
59	Indonesia (2009)	20.30	28.71
60	Panama	20.10	28.43
61	El Salvador	19.90	28.14
62	Singapore (2011)	19.60	27.71
63	Qatar (2011)	19.00	26.86
64	Spain	18.60	26.29
65	Paraguay (2008)	18.20	25.71
66	Lebanon (2007)	17.50	24.71
67	Pakistan (2009)	16.60	23.43
68	Russian Federation	16.50	23.29
69	Costa Rica (2011)	16.10	22.71
69	Turkey (2009)	16.10	22.71
71	Bolivia (2009)	15.60	22.00
72	Sri Lanka (2009)	15.50	21.86
73	Mexico	14.80	20.86
74	Saudi Arabia (2004)	14.70	20.71
75	Jordan	14.20	20.00
76	China	13.50	19.00
77	Kuwait (2008)	13.40	18.86
78	Portugal	12.70	17.86
78	Trinidad and Tobago (2009)	12.70	17.86
80	Uruguay	12.50	17.57
81	Thailand (2006)	9.60	13.43
82	Algeria (2006)	7.60	10.57
83	Malta (2011)	7.50	10.43
84	Guatemala (2006)	7.20	10.00
85	Ethiopia (2007)	4.50	6.14
86	Cambodia (2009)	4.20	5.71
87	Mali (2006)	3.60	4.86
88	Uganda	2.50	3.29
89	Senegal (2006)	1.70	2.14
90	Tanzania (2002)	0.70	0.71
91	Burkina Faso (2007)	0.20	0.00
n/a	Armenia	n/a	n/a
n/a	Bangladesh	n/a	n/a
n/a	Botswana	n/a	n/a
n/a	Croatia	n/a	n/a
n/a	Egypt, Arab Rep.	n/a	n/a
n/a	India	n/a	n/a
n/a	Mongolia	n/a	n/a
n/a	Morocco	n/a	n/a
n/a	Namibia	n/a	n/a
n/a	Nicaragua	n/a	n/a
n/a	Ukraine	n/a	n/a
n/a	Vietnam	n/a	n/a

Source: UNESCO, Global Education Digest 2011 and 2012. (http://www.uis.unesco.org/Education/Pages/global-education-digest.aspx)

5.1.2 Technicians and associate professionals

Technicians and associate professionals (%) | 2011

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Singapore	20.70	100.00
2	Germany	20.20	97.45
3	France	20.10	96.94
4	Czech Republic	19.30	92.86
5	Slovak Republic	19.00	91.33
6	Austria	18.60	89.29
7	Luxembourg	18.30	87.76
8	Switzerland	18.20	87.24
9	Israel (2008)	17.60	84.18
10	Italy	17.30	82.65
11	Finland	16.80	80.10
12	Denmark	16.50	78.57
13	Iceland	16.40	78.06
13	Norway	16.40	78.06
13	Sweden	16.40	78.06
16	Netherlands	16.20	77.04
17	Belgium	15.90	75.51
18	Canada (2008)	15.50	73.47
19	Russian Federation (2008)	15.20	71.94
20	Malaysia (2010)	14.80	69.90
21	Montenegro	14.60	68.88
21	Serbia (2010)	14.60	68.88
23	United Arab Emirates (2008)	14.50	68.37
24	Hungary	14.10	66.33
24	Malta	14.10	66.33
26	Slovenia	14.00	65.82
27	Australia (2008)	13.70	64.29
28	Argentina (2006)	13.50	63.27
28	Costa Rica	13.50	63.27
30	Chile (2002)	13.00	60.71
31	Cyprus	12.90	60.20
31	Estonia	12.90	60.20
33	Croatia	12.50	58.16
34	New Zealand (2008)	12.40	57.65
35	Latvia	12.00	55.61
36	Lithuania	11.60	53.57
36	Ukraine (2008)	11.60	53.57
38	United Kingdom	11.50	53.06
39	Trinidad and Tobago (2005)	11.40	52.55
40	Poland	11.10	51.02
40	South Africa	11.10	51.02
42	Saudi Arabia (2008)	10.90	50.00
42	Spain	10.90	50.00
44	Korea, Rep. (2008)	10.80	49.49
45	Ireland	10.50	47.96
46	Macedonia, FYR	10.20	46.43
47	Lebanon (2007)	9.70	43.88
47	Mexico (2008)	9.70	43.88
49	Armenia (2008)	9.30	41.84
50	Algeria (2004)	9.10	40.82
50	Egypt, Arab Rep. (2007)	9.10	40.82
50	Kazakhstan (2008)	9.10	40.82
53	Peru (2008)	8.90	39.80
54	Nicaragua (2006)	8.80	39.29
54	Portugal	8.80	39.29
56	Kuwait (2005)	8.10	35.71
56	Panama	8.10	35.71
58	Bulgaria	7.90	34.69
59	Greece	7.80	34.18
59	Moldova (2008)	7.80	34.18
61	Brazil (2007)	7.70	33.67
62	Ethiopia (2006)	6.90	29.59
63	El Salvador (2010)	6.80	29.08
63	Romania	6.80	29.08
65	Ecuador (2006)	6.60	28.06
65	Kyrgyz Republic (2006)	6.60	28.06
67	Botswana (2006)	6.50	27.55
67	Dominican Republic (2007)	6.50	27.55
69	Qatar (2009)	6.20	26.02
70	Uruguay (2007)	6.10	25.51
71	Georgia (2007)	5.90	24.49
71	Turkey (2010)	5.90	24.49
73	Bolivia (2007)	5.80	23.98
74	Sri Lanka (2008)	5.60	22.96
75	Pakistan (2008)	5.30	21.43
76	Namibia (2004)	5.20	20.92
77	Iran, Islamic Rep. (2008)	4.80	18.88
77	Paraguay (2008)	4.80	18.88
79	Mongolia (2008)	4.60	17.86
80	Morocco	4.40	16.84
81	Azerbaijan (2008)	3.90	14.29
82	Uganda (2009)	3.70	13.27
83	Bangladesh (2003)	3.40	11.73
83	Thailand	3.40	11.73
85	Vietnam (2004)	3.20	10.71
86	India (2010)	3.00	9.69
87	Philippines	2.60	7.65
88	Cambodia (2008)	2.30	6.12
89	Indonesia (2008)	1.90	4.08
90	Tanzania (2006)	1.80	3.57
91	Burkina Faso (2006)	1.10	0.00
n/a	Albania	n/a	n/a
n/a	Bosnia and Herzegovina	n/a	n/a
n/a	China	n/a	n/a
n/a	Colombia	n/a	n/a
n/a	Guatemala	n/a	n/a
n/a	Japan	n/a	n/a
n/a	Jordan	n/a	n/a
n/a	Kenya	n/a	n/a
n/a	Mali	n/a	n/a
n/a	Senegal	n/a	n/a
n/a	United States	n/a	n/a
n/a	Venezuela, RB	n/a	n/a

Source: International Labour Organization, Key Indicators of the Labour Market, 7th edition. (http://kilm.ilo.org/kilmnet/)

5.1.3 Youth employment

Youth employment (% of youth population) | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Tanzania	74.40	100.00
2	Burkina Faso	72.40	96.82
3	Ethiopia	70.80	94.27
4	Cambodia	69.70	92.52
5	Switzerland	62.80	81.53
6	Netherlands	62.50	81.05
7	Qatar	61.60	79.62
8	Australia	60.80	78.34
9	Iceland	59.50	76.27
10	Vietnam	58.70	75.00
11	Denmark	57.60	73.25
12	Guatemala	57.10	72.45
13	Senegal	56.90	72.13
14	Paraguay	55.80	70.38
15	China	55.60	70.06
16	Canada	55.50	69.90
17	Uganda	55.30	69.59
18	Austria	55.00	69.11
19	Peru	54.60	68.47
20	Brazil	53.90	67.36
21	Norway	51.70	63.85
22	Bolivia	51.50	63.54
23	Bangladesh	51.10	62.90
24	New Zealand	50.30	61.62
25	Germany	48.30	58.44
26	Trinidad and Tobago	46.80	56.05
27	United Kingdom	46.30	55.25
28	Thailand	46.10	54.94
29	Ecuador	45.90	54.62
30	Kazakhstan	44.70	52.71
31	Malta	44.30	52.07
31	Uruguay	44.30	52.07
33	Panama	43.90	51.43
34	Finland	43.30	50.48
35	Nicaragua	42.90	49.84
36	El Salvador	42.40	49.04
36	Mexico	42.40	49.04
36	United States	42.40	49.04
39	Botswana	41.50	47.61
40	Kyrgyz Republic	41.20	47.13
41	Sweden	41.10	46.97
42	Pakistan	41.00	46.82
43	United Arab Emirates	40.30	45.70
44	Indonesia	40.00	45.22
45	Philippines	39.80	44.90
46	Costa Rica	39.30	44.11
46	Dominican Republic	39.30	44.11
48	Venezuela, RB	38.70	43.15
49	Japan	38.50	42.83
50	Albania	37.60	41.40
51	Russian Federation	37.40	41.08
52	Colombia	36.10	39.01
53	Mali	35.60	38.22
54	Malaysia	34.80	36.94
55	Argentina	34.40	36.31
55	Ukraine	34.40	36.31
57	Singapore	34.10	35.83
58	India	33.80	35.35
58	Mongolia	33.80	35.35
60	Turkey	33.50	34.87
61	Kenya	32.80	33.76
62	Chile	32.60	33.44
63	Azerbaijan	32.50	33.28
64	Estonia	32.00	32.48
65	Sri Lanka	30.80	30.57
66	Kuwait	30.40	29.94
67	France	29.80	28.98
67	Slovenia	29.80	28.98
69	Morocco	29.40	28.34
70	Latvia	29.10	27.87
71	Cyprus	28.40	26.75
72	Ireland	28.10	26.27
73	Israel	26.00	22.93
74	Belgium	25.90	22.77
75	Poland	25.60	22.29
76	Portugal	24.70	20.86
77	Czech Republic	24.30	20.22
78	Korea, Rep.	23.80	19.43
79	Romania	23.60	19.11
80	Iran, Islamic Rep.	22.30	17.04
80	Lebanon	22.30	17.04
80	Lithuania	22.30	17.04
83	Georgia	22.20	16.88
84	Algeria	21.90	16.40
85	Egypt, Arab Rep.	21.60	15.92
86	Bulgaria	20.40	14.01
87	Luxembourg	20.30	13.85
88	Jordan	20.00	13.38
89	Moldova	19.50	12.58
89	Slovak Republic	19.50	12.58
91	Spain	19.10	11.94
92	Croatia	18.40	10.83
93	Hungary	18.00	10.19
94	Serbia	17.90	10.03
95	Italy	17.70	9.71
96	Armenia	17.60	9.55
97	Namibia	15.80	6.69
98	Macedonia, FYR	14.60	4.78
99	Greece	14.00	3.82
100	Bosnia and Herzegovina	13.60	3.18
101	South Africa	13.00	2.23
102	Saudi Arabia	11.60	0.00
n/a	Montenegro	n/a	n/a

Source: International Labour Organization, Key Indicators of the Labour Market, 7th edition. (http://kilm.ilo.org/kilmnet/)

5.2.1 Labour productivity per employee

Labour productivity per person employed (constant 2012 US$) | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Qatar	153432.00	100.00
2	Luxembourg	113725.00	73.81
3	United States	108080.10	70.09
4	Norway	106166.70	68.83
5	Ireland	103399.70	67.00
6	Singapore	100278.40	64.94
7	Belgium	95699.56	61.92
8	Australia	93667.77	60.58
9	Austria	90170.20	58.28
10	Sweden	88995.44	57.50
11	France	86887.54	56.11
12	Canada	85973.98	55.51
13	Iceland	85955.92	55.50
14	United Kingdom	84489.16	54.53
15	Netherlands	84288.39	54.40
16	Finland	81743.01	52.72
17	Spain	81359.58	52.46
18	Switzerland	80299.38	51.76
19	Germany	79441.02	51.20
20	Italy	79329.91	51.13
21	Denmark	78459.32	50.55
22	Japan	76339.92	49.15
23	Israel	73059.94	46.99
24	United Arab Emirates	72076.70	46.34
25	Saudi Arabia	69848.70	44.87
26	Korea, Rep.	65505.06	42.01
27	Greece	64812.00	41.55
28	Trinidad and Tobago	63665.46	40.79
29	Malta	62805.59	40.23
30	Slovenia	62105.79	39.77
31	New Zealand	61937.23	39.65
32	Cyprus	60936.01	38.99
33	Kuwait	60932.36	38.99
34	Slovak Republic	58514.41	37.40
35	Czech Republic	55214.75	35.22
36	Portugal	51262.21	32.61
37	Croatia	50492.68	32.11
38	Poland	50067.60	31.83
39	Hungary	46371.68	29.39
40	Lithuania	45875.84	29.06
41	Estonia	44080.29	27.88
42	Turkey	42383.94	26.76
43	Latvia	39968.74	25.16
44	Argentina	38403.34	24.13
45	Russian Federation	38326.61	24.08
46	Iran, Islamic Rep.	38042.17	23.89
47	Mexico	37180.74	23.33
48	Malaysia	36854.20	23.11
49	Chile	35811.66	22.42
50	Macedonia, FYR	34958.00	21.86
51	Bosnia and Herzegovina	34613.63	21.63
52	Venezuela, RB	34232.23	21.38
53	Dominican Republic	32753.82	20.41
54	Uruguay	31302.77	19.45
55	Costa Rica	31298.46	19.45
56	Kazakhstan	28346.27	17.50
57	Serbia	28146.15	17.37
58	Bulgaria	27651.75	17.04
59	Peru	26251.06	16.12
60	South Africa	26167.12	16.06
61	Romania	25986.96	15.94
62	Jordan	23843.72	14.53
63	Colombia	23370.24	14.22
64	Algeria	22805.49	13.84
65	Albania	21564.27	13.03
66	Azerbaijan	21181.99	12.77
67	Ecuador	21100.27	12.72
68	Guatemala	20675.09	12.44
69	Brazil	19898.72	11.93
70	Thailand	18431.65	10.96
71	China	18324.59	10.89
72	Georgia	18145.38	10.77
73	Armenia	17816.78	10.55
74	Ukraine	17637.81	10.44
75	Egypt, Arab Rep.	16840.58	9.91
76	Sri Lanka	16309.91	9.56
77	Moldova	12789.80	7.24
78	Bolivia	12363.69	6.96
79	Morocco	12243.72	6.88
80	Indonesia	11904.28	6.65
81	India	11048.40	6.09
82	Philippines	10887.00	5.98
83	Pakistan	9677.34	5.19
84	Vietnam	6815.95	3.30
85	Kyrgyz Republic	6483.73	3.08
86	Bangladesh	5714.51	2.57
87	Cambodia	5096.18	2.16
88	Senegal	4016.41	1.45
89	Kenya	3956.07	1.41
90	Mali	3412.18	1.05
91	Uganda	3408.24	1.05
92	Tanzania	2755.37	0.62
93	Burkina Faso	2516.63	0.46
94	Ethiopia	1815.42	0.00
n/a	Botswana	n/a	n/a
n/a	El Salvador	n/a	n/a
n/a	Lebanon	n/a	n/a
n/a	Mongolia	n/a	n/a
n/a	Montenegro	n/a	n/a
n/a	Namibia	n/a	n/a
n/a	Nicaragua	n/a	n/a
n/a	Panama	n/a	n/a
n/a	Paraguay	n/a	n/a

Source: The Conference Board, Total Economy Database.
(http://www.conference-board.org/data/economydatabase/)

5.2.2 Relationship of pay to productivity

Average answer to the question: To what extent is pay in your country related to productivity? [1 = not related to worker productivity; 7= strongly related to worker productivity] | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Singapore	5.38	73.01
2	Malaysia	5.34	72.29
3	Switzerland	5.33	72.15
4	Qatar	4.97	66.17
5	United Arab Emirates	4.96	65.93
6	Estonia	4.95	65.81
7	Korea, Rep.	4.85	64.20
8	Kazakhstan	4.83	63.88
9	United States	4.76	62.74
10	United Kingdom	4.76	62.66
11	Slovak Republic	4.75	62.58
12	Saudi Arabia	4.72	62.02
13	China	4.69	61.57
14	Kyrgyz Republic	4.68	61.33
15	Vietnam	4.66	60.95
16	Azerbaijan	4.61	60.15
17	Japan	4.58	59.71
18	New Zealand	4.57	59.54
19	Lithuania	4.55	59.22
20	Canada	4.53	58.91
21	Ukraine	4.51	58.52
22	Latvia	4.49	58.21
23	Thailand	4.49	58.19
24	Czech Republic	4.47	57.87
25	Cambodia	4.44	57.31
26	Armenia	4.39	56.58
27	Ireland	4.39	56.57
28	Albania	4.36	56.01
29	Indonesia	4.36	55.98
30	Mongolia	4.35	55.82
31	Bulgaria	4.33	55.53
32	Sri Lanka (2011)	4.31	55.23
33	Poland	4.31	55.21
34	Moldova	4.30	54.99
35	Germany	4.27	54.53
36	Chile	4.27	54.50
37	India	4.26	54.30
38	Israel	4.26	54.26
39	Finland	4.23	53.80
40	Turkey	4.20	53.39
41	Morocco	4.20	53.31
42	Malta	4.15	52.54
43	Denmark	4.10	51.66
44	Luxembourg	4.09	51.45
45	Georgia (2011)	4.09	51.43
46	Lebanon	4.06	51.07
47	Philippines	4.06	51.00
48	Iceland	4.05	50.90
49	Guatemala	4.04	50.72
49	Kenya	4.04	50.72
51	Jordan	4.03	50.54
52	Austria	3.99	49.90
53	Costa Rica	3.96	49.37
54	Russian Federation	3.95	49.24
55	France	3.94	49.00
56	Netherlands	3.90	48.40
57	Botswana	3.89	48.21
58	Hungary	3.87	47.83
59	Sweden	3.86	47.70
60	Pakistan	3.86	47.66
61	Cyprus	3.85	47.42
62	Macedonia, FYR	3.81	46.90
63	Norway	3.81	46.83
64	Montenegro	3.80	46.69
65	Kuwait	3.79	46.58
66	Australia	3.78	46.26
67	Brazil	3.76	46.07
68	Mexico	3.73	45.57
69	Senegal	3.71	45.11
70	Romania	3.68	44.71
71	Peru	3.64	44.03
72	Belgium	3.64	43.94
73	Bolivia	3.63	43.75
74	Ethiopia	3.62	43.73
75	Bosnia and Herzegovina	3.58	42.95
76	Croatia	3.57	42.83
77	Colombia	3.55	42.58
78	Tanzania	3.55	42.53
79	Slovenia	3.55	42.44
80	Bangladesh	3.53	42.15
81	Serbia	3.46	41.00
82	Namibia	3.46	40.96
83	Paraguay	3.39	39.89
84	Nicaragua	3.38	39.71
85	Egypt, Arab Rep.	3.36	39.25
85	Uganda	3.36	39.25
87	Ecuador (2011)	3.34	39.04
88	Mali	3.33	38.88
89	Dominican Republic	3.33	38.78
90	El Salvador	3.31	38.58
91	Portugal	3.31	38.54
92	Panama	3.24	37.40
93	Iran, Islamic Rep.	3.16	35.95
94	Trinidad and Tobago	3.09	34.76
95	Burkina Faso	3.04	34.01
96	Italy	3.03	33.90
97	Greece	2.97	32.87
98	Spain	2.96	32.60
99	South Africa	2.93	32.09
100	Argentina	2.76	29.34
101	Venezuela, RB	2.71	28.57
102	Uruguay	2.48	24.74
103	Algeria	2.38	23.07

Source: World Economic Forum, Executive Opinion Survey 2011–2012. (https://wefsurvey.org)

PILLAR 6:
GLOBAL KNOWLEDGE

6.1.1 Tertiary-educated workforce

Percentage of workforce with tertiary education (%) | 2010

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Canada	43.90	100.00
2	Israel	43.10	98.18
3	United States	39.10	89.07
4	Australia	38.40	87.47
5	Singapore	38.10	86.79
6	Estonia	35.50	80.87
7	Korea, Rep.	35.30	80.41
8	New Zealand	34.80	79.27
9	United Kingdom	33.70	76.77
10	Luxembourg	33.20	75.63
11	Switzerland	33.00	75.17
12	Ireland	32.20	73.35
13	Finland	31.60	71.98
14	Cyprus	30.90	70.39
15	Denmark (2011)	30.70	69.93
16	Belgium	30.00	68.34
17	Japan	29.90	68.11
18	Norway	29.40	66.97
19	Lithuania (2011)	29.30	66.74
20	Netherlands	28.60	65.15
21	Sweden	28.10	64.01
22	Iceland (2005)	27.60	62.87
23	Latvia (2011)	25.90	59.00
24	Georgia (2002)	25.80	58.77
25	Spain	25.70	58.54
26	Kazakhstan (2007)	25.50	58.09
27	Azerbaijan (2009)	25.10	57.18
27	Russian Federation	25.10	57.18
29	France	24.40	55.58
30	Germany	24.20	55.13
30	Philippines (2008)	24.20	55.13
32	Bolivia (2009)	22.70	51.71
33	Slovenia (2011)	22.20	50.57
34	Panama	21.30	48.52
35	Poland (2011)	21.10	48.06
36	Peru	20.90	47.61
37	Bulgaria	20.70	47.15
38	Greece	20.00	45.56
38	Hungary (2011)	20.00	45.56
40	Colombia (2011)	19.70	44.87
41	Costa Rica (2011)	18.80	42.82
41	Qatar (2011)	18.80	42.82
43	Iran, Islamic Rep.	18.50	42.14
44	Chile	18.00	41.00
44	United Arab Emirates (2005)	18.00	41.00
46	Kyrgyz Republic (2009)	17.90	40.77
47	Mexico	17.60	40.09
48	Austria	17.50	39.86
49	Moldova	17.00	38.72
50	Czech Republic (2011)	16.50	37.59
51	Malaysia	16.40	37.36
52	Serbia (2011)	16.30	37.13
53	Jordan	16.20	36.90
54	Montenegro (2006)	16.10	36.67
55	Venezuela, RB (2009)	15.90	36.22
56	Lebanon (2007)	15.30	34.85
57	Saudi Arabia (2004)	14.90	33.94
58	Sri Lanka (2009)	14.10	32.12
59	Argentina (2003)	13.70	31.21
60	Malta (2011)	13.50	30.75
61	Slovak Republic (2006)	13.20	30.07
62	Thailand (2006)	12.80	29.16
63	Portugal	12.70	28.93
64	Macedonia, FYR (2002)	12.20	27.79
65	Italy	12.10	27.56
66	Romania	11.90	27.11
67	Ecuador	11.60	26.42
68	Brazil	11.30	25.74
69	Paraguay (2008)	10.40	23.69
70	Dominican Republic (2011)	10.30	23.46
71	Turkey (2009)	10.10	23.01
72	Trinidad and Tobago (2009)	9.60	21.87
73	Uruguay	9.40	21.41
74	Kuwait (2008)	8.30	18.91
75	Indonesia (2009)	7.50	17.08
76	El Salvador	6.80	15.49
77	Pakistan (2009)	6.70	15.26
78	South Africa (2011)	6.10	13.90
79	Bosnia and Herzegovina	5.70	12.98
80	China	3.60	8.20
81	Guatemala (2006)	3.40	7.74
82	Uganda	2.90	6.61
83	Mali (2006)	1.90	4.33
84	Albania (2011)	1.50	3.42
85	Tanzania (2002)	0.90	2.05
86	Senegal (2006)	0.80	1.82
87	Ethiopia (2007)	0.50	1.14
88	Burkina Faso (2007)	0.20	0.46
89	Kenya	0.00	0.00
n/a	Algeria	n/a	n/a
n/a	Armenia	n/a	n/a
n/a	Bangladesh	n/a	n/a
n/a	Botswana	n/a	n/a
n/a	Cambodia	n/a	n/a
n/a	Croatia	n/a	n/a
n/a	Egypt, Arab Rep.	n/a	n/a
n/a	India	n/a	n/a
n/a	Mongolia	n/a	n/a
n/a	Morocco	n/a	n/a
n/a	Namibia	n/a	n/a
n/a	Nicaragua	n/a	n/a
n/a	Ukraine	n/a	n/a
n/a	Vietnam	n/a	n/a

Source: UNESCO, Global Education Digest 2011 and 2012. (http://www.uis.unesco.org/Education/Pages/global-education-digest.aspx)

6.1.2 Legislators, senior officials and managers

Legislators, senior officials and managers (%) | 2011

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Singapore	17.80	100.00
2	United States (2008)	15.20	85.39
3	Philippines	14.00	78.65
4	New Zealand (2008)	13.70	76.97
5	Pakistan (2008)	12.70	71.35
6	Lebanon (2007)	11.90	66.85
7	Australia (2008)	11.10	62.36
8	United Kingdom	10.20	57.30
9	Latvia	10.00	56.18
10	Canada (2008)	9.30	52.25
11	Lithuania	9.10	51.12
12	Estonia	9.00	50.56
12	Iceland	9.00	50.56
14	Malta	8.60	48.31
15	South Africa	8.50	47.75
16	Slovenia	8.30	46.63
16	Sri Lanka (2008)	8.30	46.63
16	Turkey (2010)	8.30	46.63
19	Egypt, Arab Rep. (2007)	8.20	46.07
20	Trinidad and Tobago (2005)	8.00	44.94
21	Israel (2008)	7.80	43.82
21	Switzerland	7.80	43.82
23	Ireland	7.50	42.13
23	Malaysia (2010)	7.50	42.13
23	Ukraine (2008)	7.50	42.13
23	United Arab Emirates (2008)	7.50	42.13
27	France	7.40	41.57
28	Netherlands	7.30	41.01
29	Belgium	7.20	40.45
30	Russian Federation (2008)	7.00	39.33
31	Moldova (2008)	6.80	38.20
32	Norway	6.50	36.52
33	Bulgaria	6.40	35.96
33	Kazakhstan (2008)	6.40	35.96
35	Portugal	6.20	34.83
36	Poland	6.10	34.27
37	Algeria (2004)	5.90	33.15
37	Uruguay (2007)	5.90	33.15
39	Macedonia, FYR	5.80	32.58
39	Panama	5.80	32.58
41	Chile (2002)	5.70	32.02
41	Hungary	5.70	32.02
43	Botswana (2006)	5.60	31.46
43	India (2010)	5.60	31.46
45	Sweden	5.50	30.90
46	Montenegro	5.30	29.78
46	Slovak Republic	5.30	29.78
48	Finland	5.20	29.21
49	Serbia (2010)	5.10	28.65
50	Austria	5.00	28.09
50	Spain	5.00	28.09
52	Brazil (2007)	4.90	27.53
52	Germany	4.90	27.53
54	Czech Republic	4.70	26.40
55	Armenia (2008)	4.50	25.28
56	Croatia	4.30	24.16
57	Greece	4.20	23.60
57	Luxembourg	4.20	23.60
57	Mongolia (2008)	4.20	23.60
57	Saudi Arabia (2008)	4.20	23.60
61	Cyprus	4.10	23.03
62	Bangladesh (2003)	3.90	21.91
62	Italy	3.90	21.91
64	Georgia (2007)	3.60	20.22
65	Paraguay (2008)	3.30	18.54
66	Qatar (2009)	3.10	17.42
67	Dominican Republic (2007)	3.00	16.85
67	Ecuador (2006)	3.00	16.85
69	Costa Rica	2.80	15.73
69	Namibia (2004)	2.80	15.73
71	Denmark	2.70	15.17
72	Nicaragua (2006)	2.60	14.61
72	Thailand	2.60	14.61
74	Ethiopia (2006)	2.50	14.04
75	Iran, Islamic Rep. (2008)	2.40	13.48
76	Korea, Rep. (2008)	2.30	12.92
76	Kyrgyz Republic (2006)	2.30	12.92
78	Romania	2.10	11.80
79	Kuwait (2005)	2.00	11.24
79	Mexico (2008)	2.00	11.24
81	Bolivia (2007)	1.90	10.67
82	China (2005)	1.70	9.55
82	Indonesia (2008)	1.70	9.55
84	Azerbaijan (2008)	1.20	6.74
85	El Salvador (2010)	1.00	5.62
86	Morocco	0.70	3.93
86	Peru (2008)	0.70	3.93
86	Vietnam (2004)	0.70	3.93
89	Cambodia (2008)	0.60	3.37
90	Argentina (2006)	0.20	1.12
90	Tanzania (2006)	0.20	1.12
92	Uganda (2003)	0.10	0.56
93	Burkina Faso (2006)	0.00	0.00
n/a	Albania	n/a	n/a
n/a	Bosnia and Herzegovina	n/a	n/a
n/a	Colombia	n/a	n/a
n/a	Guatemala	n/a	n/a
n/a	Japan	n/a	n/a
n/a	Jordan	n/a	n/a
n/a	Kenya	n/a	n/a
n/a	Mali	n/a	n/a
n/a	Senegal	n/a	n/a
n/a	Venezuela, RB	n/a	n/a

Source: International Labour Organization, Key Indicators of the Labour Market, 7th edition. (http://kilm.ilo.org/kilmnet/)

6.1.3 Professionals

Professionals (%) | 2011

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Luxembourg	33.00	100.00
2	Sweden	25.20	76.22
3	Denmark	24.90	75.30
4	United Kingdom	23.80	71.95
5	Iceland	22.90	69.21
5	Switzerland	22.90	69.21
7	Netherlands	22.50	67.99
8	Lithuania	22.10	66.77
8	Norway	22.10	66.77
10	Ireland	21.70	65.55
11	Finland	21.30	64.33
12	United States (2008)	21.10	63.72
13	Belgium	20.40	61.59
14	Estonia	19.50	58.84
14	Slovenia	19.50	58.84
16	Russian Federation (2008)	18.50	55.79
17	Australia (2008)	18.10	54.57
18	Greece	17.70	53.35
19	Canada (2008)	17.60	53.05
20	Germany	17.30	52.13
20	Poland	17.30	52.13
22	Cyprus	17.00	51.22
23	Montenegro	16.80	50.61
23	New Zealand (2008)	16.80	50.61
25	France	16.70	50.30
26	Latvia	16.60	50.00
27	Spain	16.00	48.17
28	Hungary	15.80	47.56
28	Israel (2008)	15.80	47.56
30	Bulgaria	15.40	46.34
31	Malta	15.20	45.73
32	Armenia (2008)	15.10	45.43
32	Azerbaijan (2008)	15.10	45.43
34	Portugal	14.20	42.68
35	Austria	14.10	42.38
35	United Arab Emirates (2008)	14.10	42.38
37	Romania	14.00	42.07
38	Singapore	13.70	41.16
39	Moldova (2008)	13.50	40.55
40	Croatia	13.40	40.24
41	Italy	13.20	39.63
42	Egypt, Arab Rep. (2007)	13.00	39.02
42	Ukraine (2008)	13.00	39.02
44	Macedonia, FYR	12.90	38.72
45	Georgia (2007)	12.80	38.41
45	Kazakhstan (2008)	12.80	38.41
47	Czech Republic	12.70	38.11
48	Serbia (2010)	11.80	35.37
49	Slovak Republic	11.60	34.76
50	Mongolia (2008)	11.50	34.45
51	Costa Rica	10.30	30.79
51	Lebanon (2007)	10.30	30.79
53	Panama	9.80	29.27
54	Korea, Rep. (2008)	9.40	28.05
54	Kyrgyz Republic (2006)	9.40	28.05
54	Uruguay (2007)	9.40	28.05
57	Chile (2002)	9.30	27.74
57	Qatar (2009)	9.30	27.74
59	Peru (2008)	9.00	26.83
60	Namibia (2004)	8.90	26.52
61	Kuwait (2005)	8.50	25.30
62	Ecuador (2006)	8.40	25.00
62	Saudi Arabia (2008)	8.40	25.00
64	Iran, Islamic Rep. (2008)	7.80	23.17
65	Turkey (2010)	7.10	21.04
66	Mexico (2008)	6.80	20.12
67	Bolivia (2007)	6.70	19.82
67	Brazil (2007)	6.70	19.82
69	Dominican Republic (2007)	6.30	18.60
69	Malaysia (2010)	6.30	18.60
71	Paraguay (2008)	5.90	17.38
72	Sri Lanka (2008)	5.80	17.07
73	China (2005)	5.70	16.77
73	South Africa	5.70	16.77
75	Botswana (2006)	5.00	14.63
76	Thailand	4.80	14.02
77	Philippines	4.70	13.72
78	Algeria (2004)	4.10	11.89
78	El Salvador (2010)	4.10	11.89
80	Argentina (2006)	4.00	11.59
81	India (2010)	3.80	10.98
81	Indonesia (2008)	3.80	10.98
83	Nicaragua (2006)	3.50	10.06
83	Vietnam (2004)	3.50	10.06
85	Trinidad and Tobago (2005)	3.30	9.45
86	Ethiopia (2006)	3.00	8.54
87	Uganda (2009)	2.30	6.40
88	Morocco	1.80	4.88
89	Cambodia (2008)	1.70	4.57
90	Pakistan (2008)	1.50	3.96
91	Tanzania (2006)	0.60	1.22
92	Burkina Faso (2006)	0.50	0.91
93	Bangladesh (2003)	0.20	0.00
n/a	Albania	n/a	n/a
n/a	Bosnia and Herzegovina	n/a	n/a
n/a	Colombia	n/a	n/a
n/a	Guatemala	n/a	n/a
n/a	Japan	n/a	n/a
n/a	Jordan	n/a	n/a
n/a	Kenya	n/a	n/a
n/a	Mali	n/a	n/a
n/a	Senegal	n/a	n/a
n/a	Venezuela, RB	n/a	n/a

Source: International Labour Organization, Key Indicators of the Labour Market, 7th edition. (http://kilm.ilo.org/kilmnet/)

6.1.4 Researchers

Researchers per million population, headcounts | 2009

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Iceland	17,401.75	100.00
2	Finland	14,878.66	85.44
3	Denmark	14,771.36	84.82
4	Norway	13,265.61	76.14
5	Switzerland (2008)	13,226.11	75.91
6	Sweden	12,312.28	70.64
7	Luxembourg	11,552.60	66.25
8	Austria	11,530.01	66.12
9	New Zealand	11,451.37	65.67
10	Korea, Rep. (2010)	10,379.55	59.49
11	Germany	9,395.89	53.81
12	Portugal	9,354.73	53.57
13	Japan	9,109.22	52.16
14	Slovenia	8,421.28	48.19
15	Singapore	8,368.57	47.88
16	Jordan (2003)	8,270.50	47.32
17	United Kingdom	8,232.04	47.10
18	Spain	7,861.92	44.96
19	France	7,690.79	43.97
20	Ireland	7,446.39	42.56
21	Czech Republic (2010)	7,424.31	42.44
22	Estonia	7,382.07	42.19
23	Netherlands	6,353.96	36.26
24	Italy	5,884.16	33.55
25	Lithuania	5,515.55	31.42
26	Greece (2005)	5,495.25	31.31
27	Hungary	5,251.02	29.90
28	Belgium	5,239.50	29.83
29	Russian Federation (2010)	5,152.14	29.33
30	Slovak Republic (2010)	5,149.65	29.31
31	United States (2006)	4,663.28	26.51
32	Canada (2006)	4,260.42	24.18
33	Australia (2006)	4,224.33	23.97
34	Croatia	4,103.96	23.28
35	Latvia	4,048.41	22.96
36	Malta	3,773.90	21.37
37	Ukraine	3,211.20	18.13
38	Poland	3,161.45	17.84
39	Georgia (2005)	2,996.42	16.89
40	Bulgaria	2,912.89	16.41
41	Brazil (2010)	2,392.71	13.41
42	China	2,384.95	13.36
43	Cyprus	2,376.03	13.31
44	Armenia	2,245.07	12.55
45	Montenegro (2007)	2,140.26	11.95
46	Argentina	2,077.03	11.58
47	Serbia	2,036.96	11.35
48	Turkey (2010)	2,026.29	11.29
49	Romania	1,969.61	10.96
50	Iran, Islamic Rep. (2008)	1,962.55	10.92
51	Azerbaijan	1,919.24	10.67
52	Moldova	1,505.47	8.29
53	Macedonia, FYR (2008)	1,337.86	7.32
54	Bosnia and Herzegovina (2007)	1,207.45	6.57
55	South Africa (2008)	1,194.16	6.49
56	Chile (2008)	1,179.48	6.41
57	Botswana (2005)	1,140.92	6.18
58	Thailand (2007)	1,084.10	5.86
59	Costa Rica	1,083.26	5.85
60	Morocco (2008)	1,079.96	5.83
61	Uruguay (2006)	1,032.62	5.56
62	Egypt, Arab Rep.	1,017.53	5.47
63	Kazakhstan	996.96	5.35
64	Trinidad and Tobago	986.27	5.29
65	Malaysia (2006)	924.84	4.94
66	Mongolia	915.68	4.88
67	Albania (2008)	909.03	4.85
68	Senegal (2008)	865.94	4.60
69	Pakistan	804.84	4.24
70	Mexico (2003)	771.47	4.05
71	Kyrgyz Republic	670.28	3.47
72	Algeria (2005)	513.71	2.56
73	Vietnam (2002)	510.77	2.55
74	Panama (2010)	487.27	2.41
75	Sri Lanka (2008)	482.91	2.39
76	Colombia	347.53	1.61
77	Peru (2004)	309.60	1.39
78	Kuwait	309.49	1.39
79	Bolivia	292.83	1.29
80	Ecuador (2008)	289.04	1.27
81	Indonesia (2005)	242.49	1.00
82	Venezuela, RB	239.45	0.98
83	Paraguay (2008)	193.89	0.72
84	Kenya (2007)	181.38	0.65
85	Mali (2007)	172.17	0.59
86	Philippines (2007)	165.25	0.55
87	Ethiopia (2010)	157.87	0.51
88	Burkina Faso (2010)	154.72	0.49
89	India (2005)	136.94	0.39
90	Bangladesh (1997)	135.89	0.38
91	Cambodia (2002)	126.51	0.33
92	Uganda	123.64	0.31
93	Guatemala	113.94	0.26
94	Saudi Arabia	99.03	0.17
95	Tanzania (2007)	87.49	0.11
96	El Salvador (2010)	83.32	0.08
97	Nicaragua (2004)	69.27	0.00
n/a	Dominican Republic	n/a	n/a
n/a	Israel	n/a	n/a
n/a	Lebanon	n/a	n/a
n/a	Namibia	n/a	n/a
n/a	Qatar	n/a	n/a
n/a	United Arab Emirates	n/a	n/a

Source: UNESCO Institute for Statistics, UIS online database. (http://stats.uis.unesco.org)

6.2.1 Innovation output

Innovation output sub-index | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Switzerland	68.50	100.00
2	Sweden	60.70	85.20
3	Netherlands	58.20	80.46
4	Malta	57.00	78.18
5	Finland	56.10	76.47
6	United Kingdom	54.50	73.43
7	Germany	53.70	71.92
8	Estonia	53.30	71.16
9	Denmark	52.50	69.64
10	Luxembourg	52.40	69.45
11	Singapore	52.00	68.69
12	Iceland	50.60	66.03
13	Israel	50.50	65.84
14	Ireland	49.90	64.71
14	New Zealand	49.90	64.71
16	United States	49.10	63.19
17	Norway	48.80	62.62
18	Belgium	48.30	61.67
19	China	48.10	61.29
20	Canada	48.00	61.10
21	Austria	46.70	58.63
22	Slovenia	46.60	58.44
23	Czech Republic	46.10	57.50
24	Korea, Rep.	45.90	57.12
25	France	44.40	54.27
26	Latvia	42.60	50.85
27	Japan	42.00	49.72
28	Hungary	41.90	49.53
29	Moldova	40.70	47.25
30	Australia	40.40	46.68
31	Cyprus	39.30	44.59
32	Portugal	38.70	43.45
33	Chile	38.50	43.07
33	Serbia	38.50	43.07
33	Spain	38.50	43.07
36	Lithuania	37.80	41.75
37	Malaysia	37.60	41.37
38	Italy	37.50	41.18
39	India	37.30	40.80
40	Qatar	36.90	40.04
41	Bulgaria	35.80	37.95
42	Slovak Republic	35.40	37.19
43	Montenegro	35.30	37.00
44	Croatia	34.90	36.24
45	Jordan	34.60	35.67
46	Ukraine	34.20	34.91
47	Russian Federation	33.80	34.16
48	Poland	33.60	33.78
48	United Arab Emirates	33.60	33.78
50	Brazil	33.00	32.64
51	Costa Rica	32.80	32.26
52	Kuwait	32.40	31.50
53	Thailand	31.80	30.36
54	Romania	31.70	30.17
55	Vietnam	30.80	28.46
56	Turkey	30.70	28.27
57	Lebanon	30.60	28.08
57	Paraguay	30.60	28.08
59	Argentina	30.20	27.32
60	Uruguay	30.00	26.94
61	Armenia	29.80	26.57
62	Saudi Arabia	29.40	25.81
63	Macedonia, FYR	29.20	25.43
64	Colombia	28.70	24.48
65	South Africa	28.50	24.10
66	Sri Lanka	28.00	23.15
67	Dominican Republic	27.30	21.82
68	Senegal	27.20	21.63
69	Mongolia	27.10	21.44
70	Bosnia and Herzegovina	26.90	21.06
71	Georgia	26.80	20.87
72	Greece	26.50	20.30
73	Philippines	26.30	19.92
74	Trinidad and Tobago	26.00	19.35
75	Ecuador	25.90	19.17
75	Mexico	25.90	19.17
75	Namibia	25.90	19.17
78	Peru	25.80	18.98
79	Indonesia	25.50	18.41
80	Morocco	24.70	16.89
81	El Salvador	24.50	16.51
82	Azerbaijan	24.00	15.56
83	Mali	23.80	15.18
84	Albania	23.30	14.23
84	Egypt, Arab Rep.	23.30	14.23
86	Guatemala	23.10	13.85
86	Panama	23.10	13.85
88	Venezuela, RB	22.80	13.28
89	Bangladesh	22.60	12.90
90	Kazakhstan	22.40	12.52
91	Pakistan	21.80	11.39
92	Uganda	21.70	11.20
93	Kenya	21.30	10.44
94	Iran, Islamic Rep.	20.80	9.49
95	Nicaragua	20.40	8.73
96	Bolivia	20.30	8.54
97	Botswana	19.90	7.78
98	Burkina Faso	19.80	7.59
99	Ethiopia	18.10	4.36
100	Tanzania	18.00	4.17
101	Cambodia	17.30	2.85
101	Kyrgyz Republic	17.30	2.85
103	Algeria	15.80	0.00

Source: INSEAD and World Intellectual Property Organization, The Global Innovation Index 2012. (http://www.globalinnovationindex.org/)

6.2.2 New product entrepreneurial activity

New product entrepreneurial activity (%) | 2012

RANK	COUNTRY	VALUE	SCORE / 0 – 100
1	Chile	88.00	100.00
2	Colombia	80.00	89.61
3	Italy	79.00	88.31
4	Poland	72.00	79.22
4	Saudi Arabia (2009)	72.00	79.22
6	France	69.00	75.32
7	South Africa	66.00	71.43
8	Ecuador	65.00	70.13
9	Namibia	62.00	66.23
10	Denmark	61.00	64.94
11	China (2011)	60.00	63.64
11	Turkey	60.00	63.64
13	Czech Republic (2011)	59.00	62.34
14	United Arab Emirates (2011)	57.00	59.74
15	El Salvador	56.00	58.44
16	Belgium	53.00	54.55
17	Korea, Rep.	52.00	53.25
17	Mexico	52.00	53.25
17	Slovak Republic	52.00	53.25
20	Estonia	51.00	51.95
20	Guatemala (2011)	51.00	51.95
22	Iceland (2010)	50.00	50.65
23	Ireland (2011)	49.00	49.35
23	Israel	49.00	49.35
23	Latvia	49.00	49.35
23	Slovenia	49.00	49.35
27	Austria	48.00	48.05
27	Romania	48.00	48.05
29	United States	47.00	46.75
30	Algeria	46.00	45.45
31	Japan	45.00	44.16
31	Jordan (2009)	45.00	44.16
33	Canada (2006)	44.00	42.86
33	Finland	44.00	42.86
35	Pakistan (2011)	43.00	41.56
35	Peru	43.00	41.56
35	Portugal	43.00	41.56
35	Serbia (2009)	43.00	41.56
35	Switzerland	43.00	41.56
40	Argentina	42.00	40.26
40	Netherlands	42.00	40.26
40	Spain	42.00	40.26
40	Thailand	42.00	40.26
44	Australia (2011)	41.00	38.96
45	Greece	40.00	37.66
45	Indonesia (2006)	40.00	37.66
45	Singapore (2011)	40.00	37.66
48	Dominican Republic (2009)	39.00	36.36
49	Macedonia, FYR	38.00	35.06
49	New Zealand (2005)	38.00	35.06
49	United Kingdom	38.00	35.06
52	Lebanon (2009)	37.00	33.77
53	Bolivia (2010)	36.00	32.47
53	Hungary	36.00	32.47
53	Panama	36.00	32.47
53	Sweden	36.00	32.47
57	Malaysia	35.00	31.17
57	Montenegro (2010)	35.00	31.17
59	Botswana	34.00	29.87
59	Germany (2011)	34.00	29.87
61	Lithuania	31.00	25.97
62	Croatia	30.00	24.68
62	Uruguay (2011)	30.00	24.68
62	Venezuela, RB (2011)	30.00	24.68
65	Egypt, Arab Rep.	28.00	22.08
65	Norway	28.00	22.08
65	Philippines (2006)	28.00	22.08
68	Costa Rica	27.00	20.78
68	Russian Federation	27.00	20.78
70	Bosnia and Herzegovina	23.00	15.58
70	Ethiopia	23.00	15.58
70	India (2008)	23.00	15.58
73	Trinidad and Tobago	22.00	14.29
74	Morocco (2009)	17.00	7.79
75	Uganda	16.00	6.49
76	Kazakhstan (2007)	12.00	1.30
77	Bangladesh (2011)	11.00	0.00
77	Brazil (2011)	11.00	0.00
77	Iran, Islamic Rep.	11.00	0.00
n/a	Albania	n/a	n/a
n/a	Armenia	n/a	n/a
n/a	Azerbaijan	n/a	n/a
n/a	Bulgaria	n/a	n/a
n/a	Burkina Faso	n/a	n/a
n/a	Cambodia	n/a	n/a
n/a	Cyprus	n/a	n/a
n/a	Georgia	n/a	n/a
n/a	Kenya	n/a	n/a
n/a	Kuwait	n/a	n/a
n/a	Kyrgyz Republic	n/a	n/a
n/a	Luxembourg	n/a	n/a
n/a	Mali	n/a	n/a
n/a	Malta	n/a	n/a
n/a	Moldova	n/a	n/a
n/a	Mongolia	n/a	n/a
n/a	Nicaragua	n/a	n/a
n/a	Paraguay	n/a	n/a
n/a	Qatar	n/a	n/a
n/a	Senegal	n/a	n/a
n/a	Sri Lanka	n/a	n/a
n/a	Tanzania	n/a	n/a
n/a	Ukraine	n/a	n/a
n/a	Vietnam	n/a	n/a

Source: Global Entrepreneurship Research Association, Global Entrepreneurship Monitor database. (http://www.gemconsortium.org/Data/)

APPENDIX IV

ABOUT THE AUTHORS AND PARTNERS

ABOUT THE AUTHORS

Paul Evans

Paul Evans is the Emeritus Professor of Organisational Behaviour and Shell Chaired Professor of Human Resources and Organisational Development, Emeritus. His research and teaching focuses on three domains: (1) leadership and talent development, building on his pioneering research into executive lifestyles (Must success cost so much?, translated into eight languages); (2) international human resource management where his most recent book is *The Global Challenge: International Human Resource Management*; and (3) multinational organisational development. He has launched and directed many executive programmes at INSEAD, taught courses as a visiting professor at universities in North America, Europe, Russia, Brazil and China, winning awards for his teaching and research. Prof. Evans was titular professor at the European Institute for Advanced Studies in Management in Brussels in recognition for his work in building scholarly networks in HR in Europe. He has a PhD in Management and Organisational Psychology from MIT, an MBA from INSEAD, and he is a graduate in law from Cambridge University. He has been chairman of INSEAD's Organizational Behaviour Area for successive periods, also heading Executive Education at INSEAD for two years. Prof. Evans has been an advisor to 150 multinational organisations across the world, including in the public sector, created numerous forums for top executive exchange, and he is a frequent speaker at international conferences and conventions.

Pamela Dale

Pamela Dale is a consultant with the International Labour Mobility program at the Center for Mediterranean Integration, where she specialises in social protection and migration. She coordinates the program area on Balancing Mobility with Worker Protection, working to reduce the implementation gaps in the portability of social security benefits, and to explore options for social insurance schemes that offer increased protection for a mobile workforce. Previously, Ms. Dale was a Social Protection Specialist with the World Bank office in Timor-Leste. She is a graduate of the Harvard Kennedy School (Public Policy).

Kwan Chee Wei

Kwan Chee Wei joined the Human Capital Leadership Institute as its Executive Director in February 2010 when the Institute was set up by the Ministry of Manpower in collaboration with the Singapore Management University. He is currently the Chief Executive Officer of the Institute.

Before joining HCLI, Mr. Kwan was the Chief Human Resources Officer at IMC Corp Limited, where he was responsible for all HR matters spanning the entire operations across the IMC Corp group of companies. Between 1997 and 2007, Mr. Kwan gained his HR consulting experience with SHL and Watson Wyatt. After seven years, he left Watson Wyatt as the Regional Director for the Human Capital Group, Asia Pacific. He was also the Managing Director for South East Asia at SHL from 1997 to 2000. Mr. Kwan worked extensively across the Asia Pacific region with clients on various operational and strategic HR issues, including recruitment and selection, competency modelling and development, performance management, promotion, and career and succession planning. He started his career as an organisation psychologist in the Singapore Ministry of Defence and over a tenure of ten years, he led many signature leadership and organisation development projects.

Mr. Kwan has a Bachelor of Science (Psychology) from Leeds University (UK) and an MBA from the University of Leicester (UK).

Bruno Lanvin

Bruno Lanvin is the Executive Director of INSEAD's European Competitiveness Initiative (IECI), and of Global Indices projects at INSEAD (the Global Information Technology Index, Global Innovation Index, and Global Talent Competitiveness Index).

He is a Director on the Board of ICANN, and a member of the Board of Directors of IDA Infocomm in Singapore. Since 2010, he has been a Broadband Commissioner (www.broadbandcommission.org). In 2009–2010, he was Chair of the Global Advisory Council on the Future of Government (World Economic Forum).

From 2000 to 2007, Dr. Lanvin worked for the World Bank, where he was, inter alia, Senior Advisor for E-strategies, Regional Coordinator (Europe and Central Asia) for ICT and e-government issues, and Chairman of the Bank's e-Thematic Group. From June 2001 to December 2003, he was the Manager of the Information for Development Program (infoDev). In 2000, he was appointed Executive Secretary of the G-8 DOT Force. Before that, he worked for some 20 years in senior positions in the United Nations.

The author of numerous books and articles on international economics, information technology and development, Dr. Lanvin holds a BA in Mathematics and Physics, an MBA from Ecole des Hautes Etudes Commerciales (HEC) in Paris, and a PhD in Economics from the University of Paris I – La Sorbonne.

Amy Lui Abel

Amy Lui Abel, PhD, is the director of human capital research at The Conference Board. She leads research efforts focusing on human capital analytics, talent management, leadership development, human resources and employee engagement. Dr. Lui Abel was previously a director of leadership development with Morgan Stanley supporting high-potential senior leaders globally. She has also held roles at Accenture, Adobe Systems and JPMorganChase, and led a private consulting organisation performance practice.

Dr. Lui Abel has taught at the New York University Stern School of Business in management and organisation studies and served on the Board of Directors for the American Society for Training and Development (ASTD) New York Chapter. She was named "Outstanding Alumni of the Year" from New York University's Business Education Program. Based on her doctoral research study about corporate universities and organisational learning, she was recognised for "Best Workplace Learning Dissertation" from the American Educational Research Association Workplace Learning Group.

Dr. Lui Abel was recently published in People and Strategy Journal, The Handbook of Workplace Learning by Sage Publications, Human Resources Development Quarterly, and ASTD's T+D (Training and Development) Magazine. She holds several degrees, including a PhD, from New York University in information technology, business education, and organisational learning and performance.

Manjula Luthria

Manjula Luthria leads the program on international labour mobility (ILM) at the World Bank and is based at the Center for Mediterranean Integration in Marseilles, France. The goal of the ILM program is to help create the policy and institutional infrastructure necessary to facilitate the safe and productive movement of people in a way that is beneficial to the people that move as well as for the places they move from and to. Dr. Luthria works closely with stakeholders in labour origin and host countries in conducting research as well as in tailoring practical technical assistance on migration management issues. She is an economist by training and has worked extensively on issues of growth, innovation, competitiveness, trade and labour market integration in Asia, Europe, the Middle East, North Africa and Oceania. Dr. Luthria earned her PhD in economics from Georgetown University, USA.

Martina Mettgenberg Lemière

Martina Mettgenberg Lemière is the lead researcher for the Global Talent Competitiveness Index at INSEAD driving the project delivery and stakeholder collaboration while leading the data management team. Dr. Mettgenberg Lemière's expertise includes human capital/talent, financial services and mobility, as well as a wide analytical skillset ranging from ethnography and case studies to composite indicators and impact assessment.

Before joining INSEAD, Dr. Mettgenberg Lemière was a senior research associate at the Human Capital Leadership Institute in Singapore and worked in business and financial services research in Gurgaon in India – first as business analyst for a Evalueserve and then as country representative for a British professional services start-up. She also taught at the Universities of Manchester and Sussex.

Her PhD thesis, completed at Manchester Business School, ethnographically examined international adjustment and cosmopolitanism of self-initiated international employees in India's knowledge process offshoring industry. Dr. Mettgenberg Lemière holds an MSc and BA (Hons) in Anthropology from the University of Sussex and the University of Manchester respectively.

Nurina Merdikawati

Nurina Merdikawati leads data management, collection, and analysis for INSEAD eLab projects and the Global Talent Competitiveness Index. Her work includes firm-level studies on building business performance and competitiveness with new information and communications technologies, country-level studies on payment systems, and talent competitiveness.

Ms. Merdikawati holds a Master in Public Policy from the Lee Kuan Yew School of Public Policy at the National University of Singapore, where she specialised in Economic Policy and Analysis and was a Mochtar Riady Scholar. She received her first degree in Economics from Nanyang Technological University, with a minor in Business.

Prior to joining INSEAD, she was a visiting researcher in the Islamic Banking Division of the Central Bank of Indonesia, where she developed policy options to accelerate human capital development for the Islamic banking industry in Indonesia. She also worked at the Asia Competitiveness Institute, where she was involved in a study of Competitiveness Analysis and Development Strategies for 33 Indonesian provinces.

Aung Myint Thein

Aung Myint Thein is a Research Programmer at INSEAD eLab in Singapore. He is involved in data management, collection, programming and analysis for INSEAD eLab projects and the Global Talent Competitiveness Index. His work includes reproducible researches using R, country-level studies on payment security, and talent competitiveness. He is also responsible for leading the creation, design, and implementation of data visualisation across eLab projects.

Mr. Thein has a BSc in Information Systems Management from Singapore Management University where he focused on Business Intelligence and Analytics systems and tools. His work focused on helping businesses identify innovative ways to transform information technology and analytics into insights for improving business models and processes.

Amanda Popiela

Amanda Popiela is a research assistant in human capital at The Conference Board and supports projects in employee engagement, leadership development, and diversity and inclusion. Ms. Popiela graduated from the University of Michigan with a bachelor's degree in Brain, Behavior, and Cognitive Sciences.

Fiammetta Rossetti

Fiammetta Rossetti is currently a researcher at the Econometrics and Applied Statistics Unit of the European Commission's Joint Research Centre (JRC). She received her PhD in Finance from the University of Rome, Tor Vergata, in 2010. Before joining the JRC she worked for the Italian Ministry of Economy and Finance, the European Central Bank, the University of Southampton and the University of Liège.

Dr. Rossetti's research papers and publications cover topics such as the economics of wellbeing, the financing of small firms' innovation, and the behaviour of banks during crises. The methodologies applied in her studies refer specifically to the econometrics of panel data and to the statistical analysis of composite indicators. Especially within her current position at the JRC, she is dealing exhaustively with the statistical methodologies to construct and audit composite indicators.

Michaela Saisana

Michaela Saisana is a Senior Scientific Officer at the Joint Research Centre of the European Commission. She conducts, coordinates and supervises research on multi-dimensional measures and socioeconomic indicators for policymaking. Between 2005 and 2013, she has assessed the statistical soundness of over 60 composite indicators, upon invitation of their developers, including the Human Development Index for the UNDP; the Corruption Perceptions Index for Transparency International; the Environmental Performance Index for Yale and Columbia Universities; the National Country Resilience Index for the World Economic Forum; the Index of African Governance for the Mo Ibrahim Foundation and the Harvard School of Economics; the Global Innovation Index for INSEAD, the World Intellectual Property Organization, and Cornell University; and the European Systemic Risk Board Country Heat maps for the European Central Bank.

She offers regular courses on the development and robustness assessment of composite indicators and on multi-criteria analysis to academia, international organisations, and the European Commission (over 1,000 participants in the last ten years). She is a principal author of the *2008 OECD Handbook on Composite Indicators*, co-author of the book *Global Sensitivity Analysis: The Primer* (2008), and developer and moderator of the JRC Information server on composite indicators. She has a steady flow of publications on composite indicators, multi-criteria analysis, multivariate analysis, sensitivity analysis, multi-objective optimisation, and mathematical modelling and forecasting (20 peer-reviewed publications, 50 working papers). In 2004 she was awarded the European Commission – JRC Young Scientist Prize in Statistics and Econometrics in recognition of her research on composite indicators. She has a PhD and an MSc in Chemical Engineering.

Rebecca Siow

Rebecca Siow is senior manager at the Human Capital Leadership Institute (HCLI). Since joining HCLI in November 2011, she has co-designed the Institute's flagship executive development programme, the Singapore Business Leaders Programme. As part of the Research & Solutions Development team, she has also steered a joint research initiative with Deloitte Consulting on Asia's talent challenges, strategies and trends, and further developed HCLI's proprietary research on the "5 paradoxes" of leadership development in Asia. In addition, she is one of the issue editors for HCLI's flagship publication, HQ Asia.

Prior to her time with HCLI, Ms. Siow was at Deutsche Bank where she engaged in numerous change management projects for its finance division. She was also with the Singapore Economic Development Board, specifically looking at the development of new industry frontiers such as performing arts and music in Singapore.

Ms. Siow holds a Master of Arts in Management & Organisational Analysis from the University of Warwick, as well as a Bachelor of Business Management (Finance) and Bachelor of Accountancy from the Singapore Management University.

Desirée van Welsum

Desirée van Welsum is an economist, managing The Conference Board Business Scenario Program. She has over ten years of experience in applied economic research and policy analysis on private and public sectors in the economy. Prior to joining The Conference Board, she worked at the OECD, the UN (UNCTAD and ITU), and the UK National Institute of Economic and Social Research (NIESR). She has also worked as a consultant for the RAND Corporation, INSEAD, the European Commission and the World Bank. She holds a PhD from Birkbeck College (University of London), an MSc from the University of Nottingham, and a Maîtrise from the University of Paris IX Dauphine. She is fluent in English, French and Dutch.

Dr. van Welsum has worked on many research topics, such as the economic impacts of information and communications technologies (ICT), including on growth and economic performance, the globalisation of services activities and trade, foreign direct investment and offshoring in ICT-enabled services, and business location choices; measuring ICT skills and employment; measuring employment and activities potentially affected by ICT-enabled globalisation and offshoring; factors enabling and supporting the knowledge economy; e-skills for competitiveness and innovation, e-leadership skills, and technology-driven changes in skills demand. She has published widely in these areas.

ABOUT THE PARTNERS

INSEAD – The Business School for the World – www.insead.edu

As one of the world's leading and largest graduate business schools, INSEAD brings together people, cultures and ideas to change lives and to transform organisations. A global perspective and cultural diversity are reflected in all aspects of its research and teaching. INSEAD became a pioneer of international business education with the opening of the Fontainebleau campus in Europe in 1959. In 2000, INSEAD opened its Asia campus in Singapore. And in 2007 the school began an association in the Middle East, officially opening the Abu Dhabi campus in 2010.

With campuses in Europe (France), Asia (Singapore) and Abu Dhabi, INSEAD's business education and research spans three continents. Its 145 renowned Faculty members from 35 countries inspire more than 1,000 degree participants annually in its MBA, Executive MBA, Specialised Master's degrees and PhD programmes. In addition, more than 9,000 executives participate in INSEAD's Executive Education programmes each year. INSEAD also participates in academic partnerships in North and Latin America and China and is a founding partner in the multidisciplinary Sorbonne University created in 2012.

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Human Capital Leadership Institute – www.hcli.org

The Human Capital Leadership Institute was established in 2010 with the Singapore Ministry of Manpower, the Singapore Economic Development Board and the Singapore Management University as strategic partners. The Institute is a national centre of excellence, with the mission to help organisations accelerate human capital and leadership development in Asia, for a globalised Asia.

It has the unique capability to bring together best-in-class thought leadership, faculty and insights on successfully doing business in Asia and the associated implications for leadership and human capital strategies. Through its efforts, the Institute aims to develop global leaders with a strong understanding of leading in Asia, as well as to build Asian leaders with the ability to lead on the global stage.

The Institute achieves this by driving pan-Asian research, creating cutting-edge executive development programs and fostering rich networks between leaders in business, government, academia and consulting.

Adecco Group – www.adecco.com

The Adecco Group, based in Zurich, Switzerland, is the world's leading provider of HR solutions. With over 31,000 FTE employees and around 5,200 branches, in over 60 countries and territories around the world, Adecco Group offers a wide variety of services, connecting more than 650,000 associates with over 100,000 clients every day. The services offered fall into the broad categories of temporary staffing, permanent placement, career transition and talent development, as well as outsourcing and consulting. The Adecco Group is a Fortune Global 500 company.

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