

Rethinking the Role of Government: Improving Government's Capacity in a Challenging Era

Rethinking the Role of Government: Improving Government's Capacity in a Challenging Era

Center for Government Competitiveness



Center for
Government
Competitiveness

Graduate School of Public Administration
Seoul National University



CENTER FOR
GOVERNMENT
COMPETITIVENESS

Contents

Part 1. Government Competitiveness Overview

Preface	2
Overview: Focusing on OECD countries	4
Overview: Focusing on Non-OECD countries	7
Overview: The 4 th Industrial Revolution in Agriculture and Food	11
What is Government Competitiveness?	15
Emphasizing Government's Role	16
Frequently Asked Questions for GC	17
GC Methodology	18
GC Policy Areas	19

Part 2. Analysis of Countries by Policy Area

1. Non-OECD Countries

Agriculture and Food: Vietnam, Nigeria	22
Economy: Ethiopia, Philippines	28
Education: Costa Rica, Pakistan	32
Environment: Peru, Zambia	36
Governance: Botswana, Mongolia, Romania, Costa Rica	42
Health and Welfare: Bangladesh, India, Romania	52
ICT: Azerbaijan, Indonesia	58
Infrastructure: Armenia, Malaysia	62
Safety: Qatar, Venezuela, Romania	68

2. Government Competitiveness of Korea

	74
--	----

Part 3. 2017 GC Results

1. Rankings of OECD Countries: 34 countries	85
2. Rankings of Non-OECD Countries: 89 countries	123



Part 1. Government Competitiveness Overview

Preface

Overview: Focusing on OECD

Overview: Focusing on Non-OECD

Overview: The 4th Industrial Revolution in
Agriculture and Food: Smart Farm

What is Government Competitiveness?

Emphasizing Government's Role

Frequently Asked Questions for GC

GC Methodology

GC Policy Areas

Preface

Again, it is a great pleasure to write a preface to yet another publication of the Government Competitiveness Report, the fifth-annual version that contains numerous data and indicators throughout 2017. Describing the competitiveness of governments from the members of the coveted club of OECD nations to rapidly developing industries in the third world, we claim that arguments and concerns in the report is largely consonant with the issues raised by all citizens who are living through the days of tremendous transformation in the realms of science, technology and political economy, just to name a few.

In describing the twilight of the nineteenth-century, a prominent political thinker Karl Polanyi wrote: "After a century of blind improvement, man is restoring his habitation...if industrialism is not to extinguish the race, it must be subordinated to the requirements of man's nature." Similarly, the current shifting of industrial civilization onto a new paradigm of scientific advancements is inseparable from a period of tumultuous transition, that is, the economic dislocation of the working class, declining of social status of the middle-income families, and the looming dangers of mass unemployment from automation. For every period of change, people unwittingly pay the price. Amidst the times of transformation, rapid changes can destroy old coping mechanisms, safety nets while creating a new set of unfulfilled demands, even before the discussions for new policy instruments are fully in place. Is scientific prowess, i.e., the Fourth Industrial Revolution, an empty word, predetermined to produce unbearable strains and stresses on the mankind, or can the humanity reassert its freedom and prosperity in

the face of that knowledge and strive for its fulfillment without lapsing into an inhumane fetishism of technological preponderance?

This anxious question sums up the current challenges of the mankind. It is hard, and probably inappropriate to summarize a set of concepts of such complexities in a few lines. Yet we attempt to distinguish certain parts of the institutional development of countries, through which a differential pattern of each nation's governmental responses, hence its competitiveness, can be encapsulated. This year's Government Competitiveness Report consists of three separate, yet related, parts. First, we start by providing a brief overview of the analyzed results with introductory explanation towards our research methodology and data sources. We then move onto the analysis of developing countries by policy areas. The second part describes series of country-based case studies of a number of countries. This year, the team has selected several countries per each policy area, through which we hope to provide both holistic and in-depth assessment on the competitiveness of their governments. Last part include two separate results of (1) OECD member-states and (2) non-OECD countries in the Third World.

A particular strength of the Government Competitiveness Report lies in its emphasis on the state's role, i.e., statecraft, in diverse sectors throughout each country. Providing a diverse array of commodities and services, a well-functioning government and its effective policy involvements are a critical precondition for the betterment of societies. Even in the most

fundamental form of laissez-faire economies, studies have repeatedly shown that it is utterly impossible to create and sustain a fully self-regulating market, and that government's management capacities and policy coordination have wide-ranging implications throughout its constituents. In this sense, developing and nurturing a comparative perspective towards contemporary governments is of a growing importance, especially when considering all the volatility and potentials for upcoming vicissitudes of the current generations.

While serving as director of the Center for Government Competitiveness, I saw case after case, from a Rwandan public official who was agonizing over ways to better manage the public sector workforce to a Middle Eastern diplomat's concerns on how to countervail the threats of Dutch Disease on its economy. Their discussions and questions point towards a single direction, that a more research is warranted on the public sector's vitality and practicality. All too often, scorecards were intensively kept on how fast different countries were promoting the growth of their private-sectors. But no systematic attempt has been made on recording different trials and errors of governments around the world. The Center for Government Competitiveness believe that the challenge facing the global community today is contingent upon the hands of governments on whether they can effectively redress the aforementioned imbalances – before it gets too late. Our research was kindly granted by the Social Science Korea Foundation in Seoul, Republic of Korea, as well as by wholehearted support and advice from co-researchers and students of public administration around the world. To all of them our thanks are due.

Tobin Im

Professor, Graduate School of Public Administration,
Seoul National University

Director, Center for Government Competitiveness

Overview: Focusing on OECD

World Economy Picking Up, But Subdued Wage Growth

The global economic pickup gained further momentum in early 2017, which started in the second half of 2016. The global economic upturn is strengthening, with global growth expected to rise to 3.7 percent in 2018 according to the IMF (IMF, 2017). Even though economic growth is still foreseen, recovery is not yet complete: growth is still weak in many countries, and inflation falls short of the target in most advanced economies. Moreover, nominal wage growth remains notably lower compared with that before the 2008-09 Great Recession. After the financial crisis, in major countries such as the US and Europe, wage growth has slowed despite economic recovery. The wage slowdown can be explained by several factors. One determinant of muted wage growth can be a generally recognized slowdown in labor productivity. Also, the persistence of low prices in the global market and the decline in expected inflation rates are suggested as factors that hinder wage growth. Lower nominal wage growth has usually coincided with a decrease in hours per work, often in the form of involuntary part-time employment and temporary employment. While underutilization of labor may have encouraged labor force participation, it also seems to have weakened wage growth.

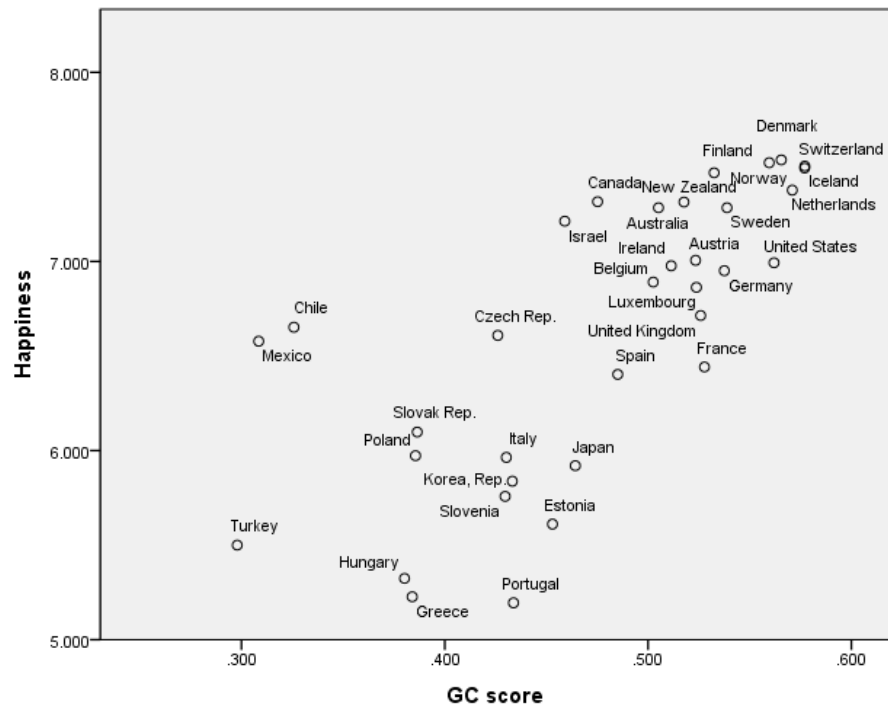
International Cooperation for Responding to Humanitarian Crisis

5 million people permanently migrated to OECD countries in 2016, which was the third year of

increase in a row, followed by 4.7 million entries in 2015 (OECD, 2017a). Humanitarian migration was the main factor that led to this rise. In particular, the international community had a consensus on the investment of political efforts to help the populations in Syria as well as Syrian refugees at the “Supporting the Future of Syria and the Region” conference in Brussels in April 2017. A joint declaration was adopted by the co-chaired including annexes on supporting the resilience of host countries and refugees in the context of the Syrian crisis for close countries such as Jordan and Lebanon. Participants of the conference agreed that in order to meet the huge needs of the affected civilians in Syria and populations nearby countries, and reinforce the resilience of host communities, significant financial support as well as novel and holistic approaches are required. This consensus led to the pledging of \$6 billion (€5.6 billion) for 2017, which aims to support humanitarian activities and stabilization and development programs in these regions (EU, 2017).

Making Growth More Inclusive: Basic Income Debates

Though we have seen strong economic growth over the past few decades, income inequality has deepened in many societies. Thus, governments are now investing their efforts into promoting inclusive growth. Against this backdrop, the idea of basic income has recently attracted growing interest in many OECD countries. Some countries have begun or are preparing pilots to assess the impact of specific basic income (BI) schemes. In



A positive correlation between 2015 GC score and happiness score ('14-16)

Finland, in order to decrease the unemployment rate and help the unemployed, experiments have been conducted, in which 2,000 current recipients of unemployment assistance benefits have received unconditional payments of EUR 560 per month since January 2017, approximately a quarter of median household income for a single person. The Finnish pilot study will help, particularly, understand the impact a BI is likely to have on recipients' behavior regarding employment as well as other time use (OECD, 2017b). In the Netherlands, in July 2017, experimental changes to current social assistance were authorized in several municipalities by the Dutch Ministry of Social Affairs, with an aim to evaluate outcomes such as employment, education, and health and well-being. In October 2017, two-year experiments have been initiated in four cities after successfully complying with federal legislation (BIEN, 2017). Universal basic income debate reflects that the traditional growth model is required to be changed, which revealed several limitations. The conventional model did not succeed in preventing the crisis as well as increased inequalities of income and opportunities. In addition, the current growth model generated expectations of being

better that are still largely unfulfilled. In this context, along with current experimental trials, BI proposals are also under policy consideration or in the public debate in different countries.

GC score and Subjective Well-being

Recently, many countries and international organizations began measuring quality of life or subjective well-being with an emphasis of happiness as an ultimate goal of public policy. OECD's Better Life Index (BLI) allows us to compare 11 key factors that enhance well-being in OECD countries. The BLI consists of 11 topics essential to well-being in two aspects, which are material living conditions (housing, income, jobs) and quality of life (community, education, environment, governance, health, life satisfaction, safety and work-life balance). Each topic is based on one to four specific indicators.

The ultimate goal of improving government competitiveness should be to contribute to higher well-being both in objective and subjective aspects. Previous studies have shown the positive relationship between the quality of governance and happiness (Ott, 2010; 2011). The

graph shows positive correlation between GC scores ('17) and happiness scores ('14-16) reported by 2017 World Happiness Report, supporting previous empirical findings. Based on these results, it is expected that higher GC possibly leads to higher happiness.

Latvia, the 35th OECD Member State

Latvia became a member of the OECD on 1st July 2016. At the early stage of the accession process, Latvia was already found to bear a resemblance to OECD members in various policy areas. In addition, because Latvia is a member of the European Union, Latvia's legislation and policies already met certain OECD standards. The Latvian economy is growing strongly, supported by progress with economic reforms. Yet, poverty and unemployment still need improvement. OECD membership is expected to contribute to fulfilling the OECD's ultimate goal of creating "better policies for better lives" of the citizens of Latvia, by providing policy advice and sharing the experiences of OECD Members.

Dynamics on Climate Agreement

The U.S. President Donald Trump announced in June that the U.S. would withdraw from the Paris Agreement on climate change. The U.S. State Department has officially informed the United Nations of the withdrawal. The strongest supporters of the Paris climate accord, such as German Chancellor Angela Merkel and French President Emmanuel Macron, have tried to sustain the accord among countries after Trump decided to withdraw from the agreement. At the G20 summit in Hamburg in July 2017, joint statement pointed to US decision to exit from Paris agreement while other G20 countries reaffirmed that the Paris Agreement would be irreversible. The communique also adopted G20 'Hamburg Climate and Energy Action Plan for Growth' that highlights the willingness of advanced economies to pursue and deliver on the aims of Paris Agreement.

Reference

BIEN (2017, October 19). Overview of Current Basic Income Related Experiments. Retrieved from <http://basicincome.org/news/2017/10/overview-of-current-basic-income-related-experiments-october-2017/>

EU (2017, October 18). "Supporting the Future of Syria and the Region" Brussels conference: post-conference financial tracking report published. Retrieved from <http://www.consilium.europa.eu/en/press/press-releases/2017/10/18-syria-conference-financial-tracking-report/>

IMF (2017). World Economic Outlook October 2017. Retrieved from <https://www.imf.org/en/Publications/WEO/Issues/2017/09/19/world-economic-outlook-october-2017>

OECD (2017a). International Migration Outlook 2017, OECD Publishing, Paris. Retrieved from http://www.keepeek.com/Digital-Asset-Management/oecd/social-issues-migration-health/international-migration-outlook-2017_migr_outlook-2017-en#.WfA_wU1ryUk

OECD (2017b). Basic income as a policy option: Can it add up?. Policy Brief on The Future of Work, OECD Publishing, Paris. Retrieved from <https://www.oecd.org/els/emp/Basic-Income-Policy-Option-2017.pdf>

Ott, J. C. (2010). Good governance and happiness in nations: Technical quality precedes democracy and quality beats size. *Journal of Happiness Studies*, 11(3), 353-368.

Ott, J. C. (2011). Government and happiness in 130 nations: Good governance fosters higher level and more equality of happiness. *Social indicators research*, 102(1), 3-22.

Overview:

Focusing on Non-OECD

The Government Competitiveness Report 2017 consists of a series of in-depth case studies of non-OECD countries, through which individual overview of each sub-sectors is conducted. This section provides an overview of relevant topics and politico-economic trends among the 89 non-OECD countries, categorized by the following geographical regions: [1] Latin America, [2] Sub-Saharan Africa, [3] Eastern Europe and [4] South Asia. Excluding the example of Singapore, an affluent city-state located in the tip of Malay Peninsula, and Qatar, the oil-rich kingdom of the Middle-East, the GC Report 2017 shows an apparent clustering of countries on the basis of regions. Among the 89 countries, most of the top-tier states are comprised of Eastern European countries, while those in Sub-Saharan Africa tend to score less favorably in all sub-sections of government competitiveness. In the middle, there exist countries in Latin America, Central Asia, and South Asia.

Political Turbulence and Economic Hardship in Latin America

Throughout the past year, South America has gone through a series of political turbulence and instability. It is nearly impossible to analyze such a complex topic in a few lines of summary. Yet, one of the most apparent trends in the Continent was the downfall of leftist governments in the region, which ranges from the epic downfall of President of Dilma Rousseff of Brazil and her Worker's Party. It was 31 August of 2016 when the Brazilian Senate finally removed the president from office, finding her guilty of breaking Brazil's budget laws. The definitive factor that led Brazil to the unprecedented political crisis since

democratization was the ruling party's involvement in the fiscal and budgetary corruption of the Federal Government. However, multiple sources point that the new President, Michel Temer of the Brazilian Democratic Movement Party, is also heavily involved in corruption, further worsening the accountability issue of the Brazilian government. Amidst the ongoing demonstration and protests, Brazil's GC score on "Safety" was ranked as being the 57th out of the 89 countries in the data-set. Our data, along with others, indicate that the combination of corruption and public safety is a pervasive social problem in Brazil. For instance, Brazil scored 38th among 175 countries on the 2016 Corruption Perceptions Index, tying with India and Bosnia and Herzegovina. In sum, Brazil's long-overdue problem of gang violence and police corruption has met with political instability in the nation, further aggravating the livelihood of ordinary Brazilians.

Among Brazil's northern neighbors, Ecuador has gone through a significant degree of economic hardship throughout the past year. Ecuador, a member-state of OPEC, has been suffering from low international price levels in crude oil and natural gas. Heavily dependent of mineral resources, Ecuador's economy actually shrank 1.5 percent in 2016, the first fall in a decade. Ecuador was ranked 34th in our GC Score, which contrasted with 28th and 18th in 2016 and 2015 GC data-sets, respectively. More specifically, it has been analyzed that Ecuador's economy was ranked in 47th out of 89 countries. Ecuador's disappointing economic performance is even starker when compared with Peru, its border-sharing neighbor with similar size in population and territory. Peru reduced poverty by 69 percent over the period between 2007 and 2016, while

Ecuador's poverty rate decreased only by 30 percent. Out data shows that the difference between the two countries might have resulted from politics and the governing party's proclivity towards public spending. For instance, public spending grew from 25 percent of Ecuador's total gross domestic product to 44 percent, while the number of public employees increased. At the same time, Ecuador's government departments and ministries grew from having 15 cabinet ministers to 30 in 2016. A flux of byzantine business regulations and low scores on governance transparency resulted in growing confusion among private investments, and when oil prices started to fall, Ecuador's economy came to a standstill. Peru's GC score on economy was recorded as being 9th.

Venezuela, with its soaring inflation and unrelenting political unrest, the leftist government of President Nicholas Maduro is experiencing extreme turbulence. The socialist regime of Venezuela is currently entangled with numerous scandals, including election fraud, and unlawful expansion of power towards the judiciary, just to name a few. The country is ranked as 55th overall, with its governance and economy competitiveness rankings scoring in 58th and 78th, respectively.

Among the Latin American nations, there exists a success story, however. Noticeable examples are Costa Rica and Uruguay, which scored 4th and 5th in total rankings, respectively. Both countries were ranked in the upper tiers among the non-OECD nations, illustrating a consistent trend over the last three years. While differing in its performance on each sub-section of government competitiveness, a common factor of Costa Rica and Uruguay that excelled other countries was their strength in governance competitiveness (Costa Rica's governance competitiveness was ranked 3rd, while Uruguay boasting its first place out of 89 nations worldwide). Regardless of the amount of natural resources or oil fields within one's territory, examples of these countries highlight the importance of public institutions' capabilities in conducting and managing public

affairs

Waiting for Godot: Sub-Saharan Africa's longing for sustainable growth

Despite international community's repeated attention given towards the 46 African countries located to the south of the Saharan Desert, it has been analyzed that a single dominant group in the bottom-tier of the GC report consists of Sub-Saharan countries. One of the most chronic problems of these African countries is that their economy is disproportionately dependent on commodities and natural resources. Excluding a cohort of few states with excessive oil and diamond reserves (e.g., Nigeria, Sierra Leone and Equatorial Guinea), majority of African countries depend on exporting agricultural goods, such as cocoa. This makes these countries prone to international price fluctuations. The recent drop of international cocoa prices have led to reduced exports and fiscal revenues in West African countries, such as Cote d'Ivoire and Ghana, while severe drought have hampered agricultural production in Kenya, Somalia and South Sudan. Experts note the solving the problem of macroeconomic stability, along the persistent issue of internal conflicts and corruption, as a key towards improving the growth outlook of these countries

Even Botswana, an African success story which boasts vibrant democracy and flourishing economy, scored far off (47th) from its counterparts with similar economic sizes, such as Thailand (19th) and Paraguay (39th). Notwithstanding its superior performance in governance (9th), its economy (55th) fared badly. This is due to the nation's disproportionate dependency towards natural resources and minerals, such as diamonds, and its structural weakness when facing adverse exogenous shocks and boom-and-bust cycles from international price levels.

Eastern Europe: Crossing the Threshold

Since the fall of the Berlin Wall, Eastern Europe

has been a region which social scientists in diverse fields, e.g., economists, political scientists and sociologists, concentrated their scholarly attention. Starting with Czech Republic, Estonia, Hungary, Poland, Slovakia, Slovenia and Latvia in 2004, multiple countries in this region have succeeded in acquiring the long coveted membership of the European Union, an often-used barometer of economic development and sociopolitical sustainability. Among the newly admitted members, seven countries also joined the OECD, further brightening the developmental prospect of the region. The results of Eastern European countries from GC 2017 Index reveal a consistent trend with the prior analyses: Among the top-ten countries, four are from the former Eastern-bloc: Bulgaria (6th), Lithuania (7th), Romania (9th), and Belarus (10th). Among these four, the first three are fully-democratized nations with vibrant freedom of speech and political participation, whereas citizens of Belarus are under the authoritarian regime of Alexander Lukashenko, who has been serving his term for the past 23 years in a row. As a result, Bulgaria, Lithuania, and Romania's scores on governance were all within the top 15. One noticeable distinction of Belarus, however, is its strength in ICT ranking (5th). More specifically, Belarus has received heavy attention from multiple international media sources on its recent success of the high-tech IT sector. Belarus, despite its occlusive political culture (the country is known as Europe's last dictatorship) and lack of transparent governance, boasts its favorable reputation throughout the European IT market. Belarusians are well-educated and there exist abundant number of relatively inexpensive IT specialists in the country. The success story is not a short-term invention, however. Belarus was well-known for the main supplier of high-tech engineers to USSR's software and computer industries, and the country's legacy on scientific research and electronic capabilities have been a major input towards transforming the country from a former satellite nation of Soviet Russia into Europe's main outsourcing destination of software and information and communication technologies.

Tracing Croatia (20th) and Serbia (22nd) from well behind, Moldova scored the least within the Eastern Europe. Moldova, a nation located in between the Russian Federation, Ukraine and Romania, has been struggling with the continuing problems in government integrity, trade openness and macroeconomic stability. This has largely resulted from a secession of trade connection with the Soviet Union in the early-twentieth century. In order to bring the nation's trajectory towards converging with the pathways of its neighbors in the region, it is being analyzed that more systemic reforms should be placed upon Moldova's economic and political sectors.

South- and Southeast Asia:

The People's Republic of Bangladesh, along with its eastern neighbor of Myanmar, is perhaps the country which received numerous attentions from the international community. The single most decisive factor that resulted in such spotlight is the ethnic conflict and large-scale migration issues of the Rohingyas. Heavily persecuted under the present-day government of Aung San Suu Kyi as well as the past military dictatorship, the Rohingyas have been escaping their homelands in Myanmar, escaping across the borderline of Bangladesh. Notwithstanding the extant population issue with ongoing crises in social welfare and safety (Bangladesh's population is approximately 160 million, which makes it one of the most densely populated nations in the world), the large influx of migrants are aggravating the competitiveness of Bangladeshi government. Its safety ranking was 52nd, while scoring 57th in social welfare. Especially the decrease in its safety scores is tremendous, as its performance in 2016 GC Report was recorded as being the 17th best non-OECD country in safety provision.

Moving towards the west, India has performed slightly worse (61st) than last year (56th), while its regional rival, Pakistan, struggling in the 77th position among the 89 countries. Both countries fared especially badly in environment: Scores were 80th and 77th for India and Pakistan,

respectively. However, India's relative strength came from its performance on governance (40th), while Pakistan did especially badly (85th). One explanation towards such a divergence could be the availability of pluralistic democracy in-place. For instance, India is known as the world's single largest democracy, ensuring its 1 billion populations an individual right to vote and participate in politics. On the opposite, a vast majority of Pakistani have limited access to quality-ensured public services from the government. Its history of repeated military coups and spill-over effects of radical Islam, i.e., Pakistani Taliban, from neighboring Afghanistan have been regarded as a persistent problem of the country, further exacerbating its dual-dilemmas of security with its archrival India and domestic threats of terrorism.

Overview:

The 4th Industrial Revolution in Agriculture and Food: Smart Farm

What We Can Sneak a Peek from ICT and Agriculture Indicator of OECD Countries

Beginning in the mid-1800s and early 1900s in the UK, the industrial revolution triggered by technological innovation transformed the economy in the world and served as a catalyst for modernization. Thanks to the technological advancement, existing industrial sectors prospered. New industries that could often bring about high economic returns emerged in many places. People also benefited greatly from the industrial revolution. A variety of new inventions, such as a telephone and a phonograph brought about major changes in everyday life. People could travel a great distance much faster at low costs using a ship with a steam engine.

Another industrial revolution, known as the digital revolution, was sparked by personal computer and Internet and Communication Technology (ICT) in the 1980s. ICT has played a pivotal role in the emergence of ICT-based firms, such as Google, Facebook, and Microsoft. With computers and the Internet, people have access to a vast amount of diverse information in virtual space and are able to do more things than they could imagine.

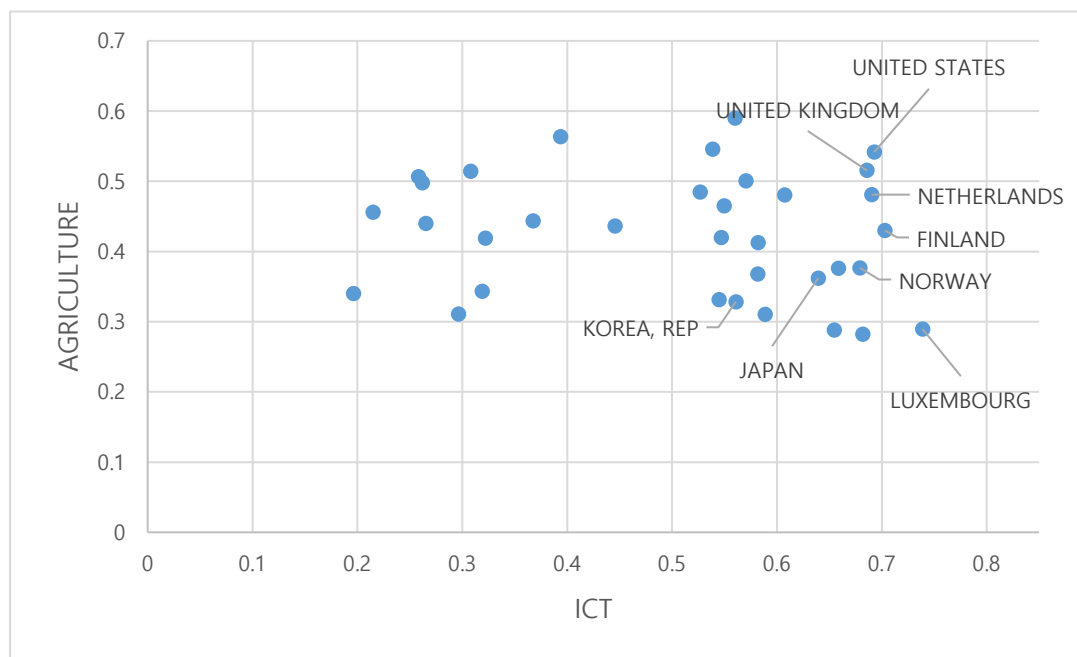
The industrial revolution, often triggered by radical innovation, can promote the rise of new industries, transform existing industries, and sometimes lead to the collapse of traditional manufacturing. Such economic changes would in turn dramatically change our daily life.

The world is now looking forward to the next industrial revolution, known as the fourth industrial revolution. It was first mentioned during World Economic Forum (WEF) in Davos,

Switzerland in 2016. The purpose of WEF is to discuss the world's issues with businessmen, politicians, and economists. The issue related to science and technology was chosen as the main agenda in 2016. It was the first time in the history of the Forum.

According to World Economic Forum (WEF), the fourth industrial revolution is a technological revolution, which is an extension of the third industrial revolution. WEF in the report of "The Future of Jobs" (2016) insists that the technologies, especially the digital technologies, such as cloud technology, big data, Internet of Things (IoT) and Artificial Intelligence (AI) will fuse the boundaries of other industries, accelerate technological convergence, and thus stimulate the next industrial revolution. In other words, one of the characteristics of the fourth industrial revolution is recombining emerging technologies with existing technologies. This is often referred to as technological complementary.

Internet and Communication Technology (ICT) has been heralded as one of the key technologies for the next industrial revolution because of its technological complementary. It can be widely applied to many existing technologies. Recently, agricultural sector combined with ICT, which is called smart farm, has drawn tremendous attention as a new production system that can create high added value and transform the current production system in agriculture. Smart farm is a relatively new area where growth potential is significantly high. Farmers can use resources more efficiently based on ICT, so they can harvest more from smart farm than existing farm. Looking closely at ICT competitiveness and agriculture



ICT Indicator and Agriculture and Food Indicator

and food competitiveness in OECD countries, we identify which OECD countries are relatively competitive in the fourth industrial revolution related to agriculture and food combined with ICT.

As seen from the Figure¹, some EU countries and the United States are expected to become the pioneer with regards to smart farm since the countries have relatively competitive advantage in both areas compared to other OCED countries. In this overview, the case of the United States, the Netherlands, Luxembourg and South Korea are discussed in more detail.

The United States has the best conditions for agriculture, with vast plains and excellent temperate climates, and it has the world's best oiled farmland. Due to its large land, various technologies have been applied to agriculture. For instance, farmers have used an air plane to spread fertilizer. In recent years, firms focusing on smart farm have emerged in California. If the United States, which has strong ICT competitiveness, is devoted more to combining

farming with ICT, it is expected that it will have competitive advantage in agriculture, producing a large amount of food.

While the Netherlands is a small country with only 35% of South Korea's area, it is the second largest exporter of agricultural products in the world. The Dutch Ministry of Economy has announced "the Smart Industry" as the national roadmap. It has 3 Action Line and 14 specific action agenda. One of the field labs that belong to Action Line 2 is "Smart Dairy Farming 3.0". Founded in 2011, the Smart Dairy Farming Foundation has promoted high-technology adoption in the dairy industry and is committed to leading to the fourth industrial revolution related to agriculture.

An exemplary case of smart farm in the Netherlands is dairy farming. For instance, in dairy farming, livestock are managed in an optimal manner based on ICT, and only a few workers are needed to manage the farm. This has resulted in improving cow's health, increasing

¹ Note: It should be noted that there is little relationship between two competitiveness indicators. Rather it hints at which countries have relatively high competitive

advantage and will be better positioned for the fourth industrial revolution in agriculture.

cow's life expectancy and producing more milk. In the Netherlands, the number of farmers adopting smart farm is increasing. Based on the relatively well-established ICT, it is anticipated that introducing ICT into agriculture will increase agricultural productivity and achieve food security, successfully taking a first-mover advantage.

When it comes to Information and Communication Technology, Luxembourg is not a well-known country among people. However, Luxembourg is one of the countries with strong ICT infrastructure. Many large ICT firms' head office, such as Amazon and Paypal, are located in Luxembourg, and Skype started in Luxembourg. Although ICT infrastructure in Luxembourg is well established, Luxembourg is not highly competitive in the agricultural and food sectors compared to other OECD countries with the high level of ICT. Among 34 OECD countries in the analysis, Luxembourg is ranked 31st in agriculture and food. The low level of agriculture and food competitiveness can be a great obstacle when the Luxembourg government develops smart farm. More visible policies in relation to agriculture and food are required. Furthermore, the Luxembourg government needs to implement new policies that facilitate the application of ICT to agriculture to increase agricultural productivity and enhance agricultural competitiveness. Otherwise, it is expected that Luxembourg will have difficulties introducing the new agricultural system and will not be strongly positioned for the fourth industrial revolution in agriculture.

South Korea is widely known as one of countries with the high level of ICT infrastructure in Asia. However, according to the research report by the Korea Rural Economic Institute, South Korea's ICT convergence level in agriculture is 65% (as of 2014) of the Netherlands. This can result from a lot of problems. South Korea's agriculture is still highly aging. Young people are reluctant to being engaged in agriculture. This is not a unique cultural phenomenon in South Korea, but the situation is relatively serious.

In recent years, South Korea has been devoted to implementing new policies regarding smart farm.

In September, 2015, the government established a new research center called "Convergence Research Center for Smart Farm Solution". It consists of 5 government funded research institutes including Korea Institute of Science and Technology (KIST), Electronics and Telecommunications Research Institute (ETRI), Korea Institute of Energy Research (KIER), Korea Institute of Industrial Technology (KITECH), and Korea Food Research Institute (KFRI), and 11 firms, such as KT and SK telecom. Due to the low level of agricultural competitiveness, and cultural phenomenon, it is expected to be difficult to successfully introduce diverse policies focused on "Smart farm" but if the policies are successful, South Korea will increase the level of competitiveness in agriculture. Along with the policies, the South Korean government needs to change the perception of young people about agriculture.

Due to aging in some countries, there is a lack of labor in agriculture. As the population in the world has increased, a demand for food has dramatically increased but the current level of food production has not changed much. As a result, an increase in the world's poverty level will be inevitable. In this sense, smart farm, a new production system in agriculture combined with ICT will be likely to become the answer to solve the world's problem.

This overview discusses only OECD countries, but it is also applicable to non-OECD countries. The fourth industrial revolution in agriculture will not be the only story of OECD countries or developed countries. Some non-OECD countries with relatively well-established ICT infrastructure are expected to be able to participate in the wave of industrial revolution through developed countries' support.

Agricultural policy officials in Vietnam, Indonesia and Philippine visited the Center for Creative Economy and Innovation in Sejong in order to benchmark smart farm operation system in South Korea. Officials who work for the World Bank and consider smart farm as the solution for poverty in developing countries visited the center

to learn about a case of smart farm in South Korea. It is true that most non-OECD countries are not highly competitive in ICT or agriculture. Nevertheless, if successful, from a long-term perspective, support from OECD or developed countries will help facilitate ICT-based economic growth and achieve food security for developing countries.

What is Government Competitiveness?

"The power of government to, in light of various constraints, take resources from in and outside of the country and improve social, economic and cultural conditions of the nation in order to sustainably enhance citizens' quality of life."

Government Competitiveness (GC)

Level of Analysis : Nation

Focus : Government

Future Oriented

Reflection of change by Government's Effort

Possibility of Compare between Each Nation



What makes some governments more competitive than others? At minimum, addressing this question requires a basic understanding of what government competitiveness means. The

term government competitiveness is often used interchangeably with a host of similar concepts, many of which have been employed by research institutes such as IMD and WEF. Studies of competitiveness focus primarily on the national level, but GC and national competitiveness are not the same. GC is also frequently confounded with other concepts, including government capacity, good governance, and quality of government, national power, government effectiveness, organizational competitive advantage, and performance management.

The academic literature reveals several challenges in measuring GC. For example, some related concepts and their measurement reflect an ideological bias, such as the virtues of a free-market economy. As a result, some indices of national competitiveness – a concept similar to GC – focus primarily on economic and market indicators such as business-friendly conditions and economic growth. They are therefore less likely to include indicators of effective government, such as human development outcomes like education, healthcare, and social capital.

In light of these weaknesses, the Center's approach to understanding GC necessitates a multi-dimensional approach to measuring government support of citizens' well-being. GC is, in turn, defined as "the power of government to, in light of various constraints, take resources from in and outside of the country and improve social, economic and cultural conditions of the nation in order to sustainably enhance citizens' quality of life." The concepts of "constraints" and "quality of life" can be interpreted flexibly, depending on a nation's unique setting.

Emphasizing Government's Role

Existing national competitiveness indices, while helpful, suffer from certain theoretical and methodological shortcomings. With a disproportionate focus on business-related factors, indices such those introduced by the International Institute Management Development and World Economic Forum emphasize industrial productivity over social outcomes. Government's role in and contribution to general welfare has been unduly overlooked.

As such, a burgeoning line of research has begun to broaden the concept of national competitiveness, by exploring additional dimensions. This developing line of research has also, in recent years, spurred interest in governments' relationship to different aspects of national competitiveness. In turn, several institutions have begun to develop indicators emphasizing the role of government in driving development and national competitiveness.

Prominent examples include the World Bank's Worldwide Governance Indicators (WGI) and the Quality of Government Institute's (QGI) (the University of Gothenburg) Quality of Government indicators (QoG). While these two indices represent important steps toward improving scholarly understanding about how government supports competitiveness, they also suffer from deficiencies that represent opportunities to improve on competitiveness studies.

The concept of GC adopts Easton's Systems Theory as a guiding theoretical framework. Systems theory assumes that a system, in a dynamic relationship with its environment, absorbs various inputs, transforms them in certain ways, generates outputs, and achieves certain

outcomes. This view suggests that organizations can accomplish their objectives with varying internal activities (conversion processes).

Based on the systems theory, the GC categorizes government roles into four sequential levels: input, throughput, output, and outcome. Most national competitiveness indices measure outputs as the main contributors to a country's competitiveness, but this method under-evaluates the competitive potential of countries with high information processing capacity or public management capability.

In contrast, the GC Index first analyzes competitiveness through each of the four levels – input, throughput (public management capacity), output, and outcome. The index then aggregates results from each level to produce an overall competitiveness score. This approach generates a variety of policy implications at each systemic level. The following are some sub-categories for each stage.

Input: resources, infrastructure, government expenditure, environment

Throughput: human capacity, management capacity, system, process

Output: policy, production, growth rate, improvement level, immediate goal achievement

Outcome: quality of life, satisfaction, social capital, ultimate goal achievement

Frequently Asked Questions for GC

1. How is GC different from other indices?

One of the Major issues that most previous indices share is that they have only been focusing heavily on market & business side. Due to this reason, those indices in ways lack serious effort of contemplating with the data and including the role of government in analysis.

To address this issues, GC suggests positive and normative aspects of government roles with GC system theory as a guiding theoretical framework. GC systems theory assumes that one system, in a dynamic relationship of government with its environment, absorbs various inputs and transforms them in certain ways that generate outputs and can achieve certain outcomes; the system incorporates the stage of development of OECD and Non-OECD countries.

2. How much does my county's overall ranking matter?

Your county's ranking is based on a *relative* score, which does not signify the absolute level of the performance. Also, a slightest difference in the actual scores may result in a huge difference in ranking.

In addition, oftentimes numerous policy areas have conflicting relationship. For example, when a developing country follows the GHG regulation, this may hinder their economic productivity. Therefore, we suggest you to focus on the result of each policy area rather than overall GC ranking.

3. How are subgroup categories formed? Why do subgroup rankings vary under a same policy area?

Subgroups in GC policy areas is designed to suggest more detailed policy suggestions.

Subgroups are classified through factor analysis of relevant indicators. Since one GC policy area is composed of a wide variety of indicators, subgroups reflect various aspects of policy area, and may present varied results.

4. Why do we care about *Throughput* results?

"Throughput" is a unique lens to look at the potentials of a government. GC has functions of (1) summarizing the current status of a government as well as (2) predicting the potential growth of it with the *Throughput* system. In the context of developing countries, the critical step is throughput, which determines the level of output with especially limited input.

5. How is GC Data collected?

We collected raw data published by international organizations along with NGOs and government reports. Among the collected data, those relevant to the roles of government are sorted into each GC policy areas for OECD and Non-OECD countries. These sorted data went through an in-depth assessment over their validity, availability, and substantiality of the data.

6. Does Center for GC produce their own data?

Yes, we produce our own data sets particularly on the developing countries. In 2017, GC Global Survey was conducted with government officials in the central government of 51 Non-OECD countries. The survey captured the government human, financial, and institutional capacity as well as official's perception and behavior. CGC is targeting to expand the number of participating countries up to 89 Non-OECD countries in 2018.

GC Methodology

Selecting Indicators

In general, government competitiveness (GC) score is calculated following the methodology from previous years. However, our researchers underwent a systematic and rigorous review, striving to improve our previous works. First, we collected raw data published by approximately thirty international organizations along with NGOs and government reports. Among the collected data, those pertinent to the roles of government are sorted into GC policy areas for OECD and Non-OECD countries. These sorted data went through an in-depth assessment over their validity, availability, and sustainability. Especially, data that are not updated at least biennially were excluded while new indicators that meet the selection criteria were added.

Policy Area Specific Throughput Indices

Since 2016 GC indices have made improvement in throughput indices that are policy area specific. In previous years GC throughput indices have mainly focused on government's overall human and physical capacities. This year each policy area includes area-specific throughput indices, so that throughput indices more precisely reflect different government's roles in diverse policy areas.

For a given index, z-scores for every country are computed using the mean and the standard deviation. Then, for a country l , the score of an index k in policy area l and stage j is calculated in the following way:

$$Score_{ijkl} = \frac{Z_{ijkl} - \min Z_{ijk}}{\max Z_{ijk} - \min Z_{ijk}}$$

where Z_{ijk} is a vector of the index's z-scores for all countries and Z_{ijk} is the index's z-score for country l . Note that the set of indices for OECD countries are different from that of developing countries and, hence, the scores for two groups are estimated separately. Following these steps, each score will range from 0 to 1.

Now, each index under a policy area is categorized into one of the four stages, namely input, throughput, output and outcome. We calculate the scores for each stage by averaging the scores of indices that fall under it. In other words, the score for the country l 's policy area l and stage j is:

$$\frac{1}{k_n} = \sum_{k=k_1}^{k_n} Z_{ijkl}$$

where k_1, \dots, k_n represents the indices that fall under policy area l and stage j . Then, following the same process, the score P_{il} for a country l 's policy area l will be calculated as an average of scores for the four stages. Finally, a country l 's GC score will be computed as follows:

$$GC Score_l = \frac{1}{i_m} \sum_{i=i_1}^{i_m} P_{il}$$

GC Policy Areas

Agriculture and Food

One of the most basic essentials for life is food. A competitive government needs to effectively intervene in strategic planning and priority setting for agricultural innovation and development, including the provision of incentives for private agents and technical assistance consultants.

Culture and Tourism

Culture can be a driver of economic growth through the promotion of creativity. Governments are now focusing on cultural development by providing education, engaging new audiences, and promoting tolerance and understanding.

Economy

Economic prosperity is a crucial dimension of competitiveness. Economic growth depends to a large extent on the behaviors of consumers and producers, but government activities are also crucial in maintaining economic stability.

Education

Quality human resources are important for a competitive economy. Governments should develop effective educational policies that value certain critical elements based on an integrated standard prioritizing equality of opportunity.

Environment

Economic growth sometimes occurs at the cost of environmental sustainability. A government is responsible for managing national environmental policy to foster sustainable development and protect the health and safety of citizens.

Governance

Government capacity for each activity area depends on the stability of a country's political system and civil society. Even for a government

that can produce effective public policies, efficient implementation is difficult if the country's political system and civil society are unstable.

Health and Welfare

A competitive government should develop an equitable health care and welfare system that provides social safety nets, adopts a life-long approach to health, and supports retirement stability.

Information & Communications Technology (ICT)

The potential benefits of ICT are well known. However, the costs of ICT infrastructure are typically high, so it is sometimes necessary for government to intervene.

Infrastructure

Infrastructure refers to the fundamental facilities, and a variety of social overhead capital (SOC). Given that the country's infrastructure requires a policy from a long-term perspective, and a certain executive administrative power.

Research and Development

Governments play an important role in providing funding for public R&D programs in support of industrial policies or science and technology development strategy. A government can be a financier of R&D activities as well as a performer of R&D itself.

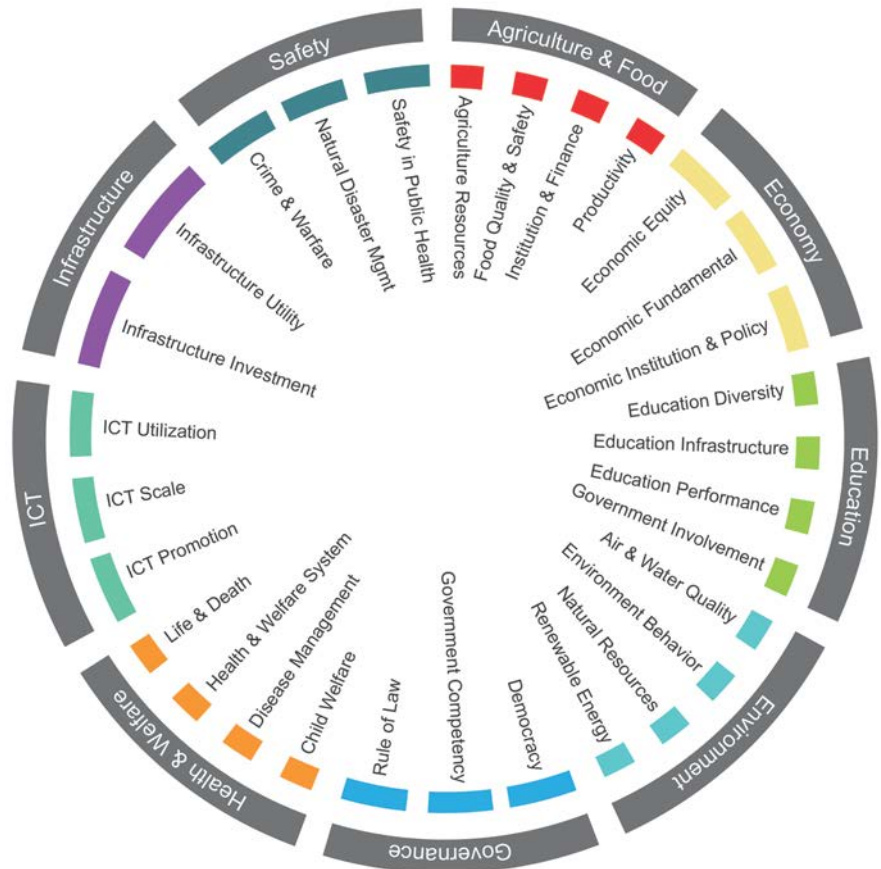
Safety

Government ability to manage disasters is increasingly important. Facing the increased likelihood of disasters, governments are under pressure to develop more sophisticated risk management systems.

OECD Countries



Non-OECD Countries



Agriculture & Food: Rankings of 2016-2017

Country	2017	2016	Change	Country	2017	2016	Change	Country	2017	2016	Change
Argentina	1	4	3	Peru	31	26	-5	Benin	61	66	5
Romania	2	15	13	Serbia	32	17	-15	Lebanon	62	60	-2
Oman	3	85	82	Uzbekistan	33	38	5	Mali	63	61	-2
Qatar	4	58	54	El Salvador	34	27	-7	Sierra Leone	64	62	-2
Brazil	5	7	2	Panama	35	22	-13	Kenya	65	57	-8
Kuwait	6	5	-1	Venezuela, RB	36	11	-25	Mongolia	66	64	-2
Malaysia	7	6	-1	Moldova	37	52	15	Senegal	67	65	-2
Uruguay	8	3	-5	Guatemala	38	34	-4	Mauritius	68	70	2
Korea, Rep.	9	2	-7	Jordan	39	32	-7	Angola	69	71	2
China	10	8	-2	Bangladesh	40	46	6	Latvia	70	72	2
Ukraine	11	19	8	Indonesia	41	42	1	Ethiopia	71	63	-8
South Africa	12	13	1	Colombia	42	35	-7	Lao PDR	72	69	-3
Russian Federation	13	14	1	Pakistan	43	45	2	Tanzania	73	84	11
Costa Rica	14	10	-4	Nigeria	44	54	10	Bosnia and Herzegovina	74	67	-7
Thailand	15	9	-6	Egypt, Arab Rep.	45	16	-29	Burkina Faso	75	74	-1
Tunisia	16	12	-4	Ecuador	46	36	-10	Jamaica	76	73	-3
Belarus	17	24	7	Dominican Republic	47	23	-24	Kyrgyz Republic	77	76	-1
Singapore	18	1	-17	Rwanda	48	48	0	Sudan	78	81	3
Vietnam	19	28	9	Nepal	49	51	2	Guinea	79	77	-2
Bahrain	20	40	20	Nicaragua	50	41	-9	Zambia	80	80	0
Bulgaria	21	20	-1	Uganda	51	49	-2	Timor-Leste	81	79	-2
Kazakhstan	22	25	3	Botswana	52	30	-22	Croatia	82	78	-4
Morocco	23	33	10	Albania	53	53	0	Mauritania	83	82	-1
India	24	18	-6	Cameroon	54	56	2	Georgia	84	83	-1
Paraguay	25	21	-4	Armenia	55	55	0	Mozambique	85	75	-10
Ghana	26	47	21	Lithuania	56	59	3	Liberia	86	87	1
Algeria	27	50	23	Bolivia	57	44	-13	Madagascar	87	86	-1
Sri Lanka	28	29	1	Cambodia	58	68	10	Zimbabwe	88	88	0
Philippines	29	31	2	Honduras	59	39	-20	Congo, Dem. Rep.	89	89	0
Azerbaijan	30	43	13	Malawi	60	37	-23				

Agriculture & Food: Rankings by Subgroup

Country	Food Quality Safety	Institution & Finance	Productivity	Country	Food Quality Safety	Institution & Finance	Productivity	Country	Food Quality Safety	Institution & Finance	Productivity
Argentina	10	3	68	Peru	41	19	29	Benin	62	65	13
Romania	9	8	85	Serbia	24	44	79	Lebanon	21	-	87
Oman	19	1	56	Uzbekistan	32	51	12	Mali	60	58	8
Qatar	25	9	32	El Salvador	47	54	69	Sierra Leone	80	67	1
Brazil	12	5	48	Panama	35	23	74	Kenya	72	49	26
Kuwait	11	11	2	Venezuela, RB	33	21	70	Mongolia	77	-	6
Malaysia	22	13	53	Moldova	38	-	72	Senegal	68	56	38
Uruguay	17	14	42	Guatemala	53	38	21	Mauritius	3	-	86
Korea, Rep.	8	4	84	Jordan	39	24	50	Angola	75	58	3
China	20	9	49	Bangladesh	78	31	31	Latvia	4	-	45
Ukraine	13	40	33	Indonesia	64	26	35	Ethiopia	84	46	9
South Africa	42	6	66	Colombia	44	29	71	Lao PDR	74	66	5
Russian Federation	16	7	61	Pakistan	65	43	22	Tanzania	82	62	4
Costa Rica	27	12	59	Nigeria	55	51	57	Bosnia and Herzegovina	2	-	82
Thailand	45	14	54	Egypt, Arab Rep.	30	36	58	Burkina Faso	70	70	25
Tunisia	23	28	75	Ecuador	46	39	65	Jamaica	28	-	83
Belarus	6	42	55	Dominican Republic	54	47	47	Kyrgyz Republic	40	-	67
Singapore	18	2	77	Rwanda	69	58	20	Sudan	63	69	40
Vietnam	48	18	30	Nepal	59	45	17	Guinea	79	71	36
Bahrain	37	16	15	Nicaragua	57	35	39	Zambia	83	62	11
Bulgaria	31	17	73	Uganda	71	53	76	Timor-Leste	67	-	60
Kazakhstan	15	33	52	Botswana	56	34	80	Croatia	1	-	88
Morocco	29	25	43	Albania	7	-	28	Mauritania	88	-	19
India	66	26	23	Cameroon	49	55	18	Georgia	26	-	89
Paraguay	36	40	14	Armenia	14	-	34	Mozambique	89	64	24
Ghana	50	37	37	Lithuania	5	-	51	Liberia	87	-	46
Algeria	34	22	16	Bolivia	58	48	27	Madagascar	86	68	44
Sri Lanka	61	20	62	Cambodia	73	50	10	Zimbabwe	76	-	81
Philippines	51	31	64	Honduras	52	57	63	Congo, Dem. Rep.	85	72	78
Azerbaijan	43	30	41	Malawi	81	61	7				

Agriculture & Food

1. Overview

One of the most basic essentials for life is food. However, the world is currently faced with an unprecedented call for action in providing this fundamental matter. Especially northeast Nigeria, South Sudan, Yemen and Somalia have been identified as countries at risk of famine, and demand for humanitarian and resilience assistance (FSIN, 2017). Also, it is known that numerous conflicts and unpredictable climate changes have impacted food security in sub-Saharan Africa (BBC, 2017).

A government that is “competitive” must realize the need of effectively intervening and strategically assisting the agricultural plan to maximize food and nutrition for all, despite its limited resources. Ultimately, competitive government would mitigate the risk of food crises and severity of such crises, which will eventually enhance the national competitiveness through their promotion of upright public health.

In agriculture and food section, the meaning of stage is as below. Each stage score can be a reference to see where improvements may be made.

First, ‘input’ stage is defined as a setting for agriculture, which means availability of the land for farming. Second, ‘throughput’ stage shows the government’s role in agriculture. Third, ‘output’ stage of agriculture sector is the safety level of food and water produced that could be consumed by people. Finally, ‘outcome’ stage signifies the evaluation of nutritional diversity and quality of food that people consume.

Overall Results

Since agriculture and food related issues are addressed in long-term, it is reasonable to see some consistency in top 10 and bottom 10 of the ranking.

Specifically, Oman(3rd) has entered in ranking top 10 with good grades and the scores from throughput stage has contributed greatly. Oman government received high score on indicators regarding the existence of policy for food safety and nutrition.

The GC ranking of Thailand(15th), which scored low on the output and outcome stage compared to input and throughput stages, is slightly lower than that of last year. However since the throughput stage score is high, it is likely to expect the output and outcome would get higher in the long run.

Tanzania(73rd) received 11 steps higher ranking in agriculture and food section compared to last year. Agriculture accounts for 26.7% of Tanzania’s GDP and this industry provides employment for the majority of nation’s population. Therefore, many opportunities exist in agriculture business across the domestic, regional and international markets (FAO, 2017c).

Evaluation of Subgroup Performance

The subgroup performance ranking is diversified and with careful analysis of the GC score in subgroup may help governments plan agricultural policy more strategically.

There are four subgroups in agriculture and food section. Food quality and safety includes diversity of nutrition and measurement of food and drinking

water quality. Food safety and quality have become essential components for the protection of public health. In this subgroup, Croatia and Bosnia & Herzegovina are top 2 countries.

Oman has ranked in 19th in food quality and safety subgroup. However this result is worse than expected since Oman had put in a great effort to propose the food safety and quality control issues. An example of this effort is Oman expo's first edition of Food safety Oman Conference, in which experts from Muscat Municipality, Ministry of Regional Municipalities and Water resources and many Hotels participate, being published.

In GC score, Institution and Finance is an important part in understanding the role of government, since it includes government policy and standards set out for the producer and consumer of agriculture product. In this subgroup, Oman and Argentina show best performance among developing countries. However, these governments still have problem in trying to protect their farmers with government policy, since the free trade system is selected by most OECD countries.

In productivity subgroup, Sierra Leone and Kuwait received the highest score in the developing countries. Productivity means the value created through farming or crop production, such as amount of cereal yields. It can be related to food self-sufficiency.

Also, Lao PDR(5th) is one of the high ranking countries in this subgroup. In specific, 5 million hectare land is suitable for Lao PDR's cultivation and this is a proof of their great potential in productivity. However even though 72 percent of their total cultivated area is dedicated to rice, they still face the challenge of competing with neighboring countries' imported goods and meeting the quality standard level(including food safety) (FAO, 2017a).

Resource is closely related to the natural environment, such as land and water source. In the subgroup of Resources Moldova and Bangladesh ranked first and second in the developing countries.

Comparison among Smaller Groups

Natural disasters and extreme weather events were primary drivers for food insecurity. In Southern Africa, El Nino-induced drought were severe in Malawi(60th), Ethiopia(71st), Mozambique(85th), Madagascar(87th), and Zimbabwe(88th) (FSIN, 2017).

However even in this similar situation, Malawi government took better effort in mitigating the damage on farming industry with their Disaster Risk Management in 2015; this is a powerful factor that placed Malawi in higher agriculture and food policy area ranking compared to the other countries mentioned. In contrast, the countries ranked lower on the list could enhance the GC ranking if they better deal with these situations by opening up their data and information more globally.

Southeast Asia is a region of agricultural diversity. Malaysia(7th), Thailand(15th), Vietnam(19th), Philippines(29th) are the countries that ranked relatively high in agriculture policy area. Malaysia is the world's second-largest palm oil producer, which is the most reliant on one production activity – rice and palm oil respectively. The Philippines is the only country where the share of rice in its total agricultural production value has increased, when other countries diversified in the kinds of agriculture (OECD & FAO, 2017).

2. Issues and Policy Implications

Viet Nam: Focusing On Farmers in Agriculture

Vietnam government showed concern about changing weather patterns last year, which is deleterious for long-period harvesting. Recently a large typhoon named Doksuri affects Vietnam, which is considered as the most powerful storm in a decade.

Because of the natural disaster, there are some damages on agricultural production. The productivity subgroup ranking(30th) is lower compared with agriculture resources(16th) and

institution and finance(18th) subgroup ranking.

It is predicted that the gravitation of population towards the cities would be stronger. The Viet Nam Living Standards Survey shows that per-capita income in urban areas is almost double than in rural areas. Consequently, Viet Nam shows a typical characteristic of a dual economy. On one side, the majority of the population has low income and lives in rural areas. On the other side, it is a fast growing economy along with industrialization and urbanization (FAO, 2017)

Despite rapid agricultural growth together with fast GDP growth and rise in agricultural exports, nearly 70% of the population is still classified as rural, and rural incomes are still far below the incomes of urban (FAO, 2017). If the government focuses on agriculture as well as industrialization in urban, there could be a more fair development across the country.

Considering Vietnam people's heavy dependency on rice as a staple food, the productivity of agriculture is very important. The result of GC score in agriculture section for OECD countries is closely linked to self-sufficiency. Therefore, Vietnam is not only trying to industrialize, but also trying hard to increase productivity through efficient use of fertilizer, irrigation development and technology.

Nigeria: Focusing On Basic Farming Technique

Nigeria is often referred to as the "Giant of Africa", owing to its large population and economy. With approximately 190 million inhabitants (CIA, 2017), it is the most populous country in Africa. Therefore Nigeria is the continent's leading consumer of rice, one of the largest producers of rice in Africa and simultaneously one of the largest rice importers in the world (FAO, 2017). However, many communities in Nigeria are experiencing dangerous level of hunger and malnutrition.

Even though Nigeria produces oil, agriculture still is the bases of the Nigerian economy, which provide the main source of livelihood for most

Nigerians. Agriculture employs two-thirds of the entire labour force. The sector faces many challenges, notably an outdated land tenure system that constrains access to land, a very low level of irrigation development, limited adoption of research findings and technologies, inefficient fertilizer procurement and distribution, inadequate storage facilities have all combined to keep agricultural productivity low (FAO, 2017). Additionally, there are conflicting communities, as well as rapid population growth that make the productivity of agriculture fail to keep up with the pace. As a result Nigeria now relies upon food imports to sustain itself.

Nigeria is generously endowed with abundant natural resources including biological and non-biological resources, but there has been a gradual decline in agriculture's contributions to the nation's economy (Manyong et al., 2005; Olajide, O.T. et al., 2012). According to the Olajide, O.T. et al.(2012) research, farmers are suffering from many problems such as insufficient access to modern techniques, markets, land and environmental degradation, inadequate research and extension services, and poor infrastructure. Although the research took place in 2012, the context still remains valid and can be proved by the GC score in 2017. Agriculture resources subgroup ranking(18th) is higher compared to the other subgroups such as institution and finance(51st), productivity(57th), and food quality and safety(55th).

In the last remark, Nigeria's agriculture output still accounts for large part of the GDP. However, since value of fertilizer consumption is the lowest in the resource sub-group data, it is recommended that government would provide funds to acquire sophisticated farm tools and increase budgetary allocation to this sector.

Economy: Rankings of 2016-2017

Country	2017	2016	Change	Country	2017	2016	Change	Country	2017	2016	Change
Singapore	1	1	0	Indonesia	31	33	2	Burkina Faso	61	72	11
Qatar	2	2	0	Bolivia	32	36	4	Belarus	62	62	0
China	3	10	7	Mongolia	33	26	-7	Zambia	63	68	5
Thailand	4	4	0	Honduras	34	47	13	Cameroon	64	69	5
Panama	5	3	-2	Bahrain	35	20	-15	Malawi	65	85	20
Vietnam	6	8	2	Dominican Republic	36	42	6	Egypt, Arab Rep.	66	67	1
Malaysia	7	7	0	Nepal	37	39	2	Zimbabwe	67	82	15
Costa Rica	8	14	6	India	38	46	8	Senegal	68	63	-5
Peru	9	9	0	Serbia	39	38	-1	Pakistan	69	71	2
Korea, Rep.	10	5	-5	Albania	40	27	-13	Benin	70	70	0
Lithuania	11	13	2	Ethiopia	41	55	14	Argentina	71	73	2
Kyrgyz Republic	12	28	16	Azerbaijan	42	23	-19	Lebanon	72	64	-8
Uruguay	13	11	-2	Sri Lanka	43	35	-8	South Africa	73	75	2
Kuwait	14	6	-8	Rwanda	44	54	10	Bosnia and Herzegovina	74	66	-8
Kazakhstan	15	25	10	Croatia	45	41	-4	Madagascar	75	79	4
Romania	16	17	1	Liberia	46	58	12	Tunisia	76	59	-17
Colombia	17	18	1	Ecuador	47	48	1	Guinea	77	86	9
Latvia	18	12	-6	Armenia	48	53	5	Kenya	78	77	-1
Cambodia	19	22	3	Moldova	49	45	-4	Jordan	79	60	-19
Brazil	20	29	9	Bangladesh	50	44	-6	Mali	80	76	-4
Lao PDR	21	19	-2	Tanzania	51	51	0	Algeria	81	74	-7
Paraguay	22	30	8	Mozambique	52	37	-15	Mauritania	82	88	6
Philippines	23	34	11	Jamaica	53	52	-1	Uganda	83	61	-22
Bulgaria	24	21	-3	Guatemala	54	56	2	Timor-Leste	84	78	-6
Georgia	25	24	-1	Botswana	55	50	-5	Congo, Dem. Rep.	85	87	2
El Salvador	26	31	5	Ukraine	56	65	9	Angola	86	81	-5
Nicaragua	27	32	5	Ghana	57	49	-8	Venezuela, RB	87	80	-7
Russian Federation	28	43	15	Uzbekistan	58	57	-1	Nigeria	88	83	-5
Oman	29	16	-13	Sierra Leone	59	84	25	Sudan	89	89	0
Mauritius	30	15	-15	Morocco	60	40	-20				

Economy: Rankings by Subgroup

Country	Economic Equity	Economic Fundamental	Economic Institution & Policy	Country	Economic Equity	Economic Fundamental	Economic Institution & Policy	Country	Economic Equity	Economic Fundamental	Economic Institution & Policy
Singapore	56	1	2	Indonesia	24	16	46	Burkina Faso	73	47	58
Qatar	46	2	25	Bolivia	26	24	57	Belarus	40	61	70
China	33	3	27	Mongolia	29	41	34	Zambia	86	43	44
Thailand	1	8	26	Honduras	48	44	35	Cameroon	60	22	77
Panama	23	12	15	Bahrain	70	11	29	Malawi	71	74	67
Vietnam	11	7	51	Dominican Republic	38	33	41	Egypt, Arab Rep.	31	78	64
Malaysia	13	9	12	Nepal	20	40	60	Zimbabwe	74	56	81
Costa Rica	17	26	11	India	47	5	49	Senegal	59	64	59
Peru	45	20	7	Serbia	54	68	8	Pakistan	27	54	82
Korea, Rep.	83	4	5	Albania	37	70	18	Benin	82	38	61
Lithuania	65	19	1	Ethiopia	5	27	84	Argentina	32	86	69
Kyrgyz Republic	30	32	32	Azerbaijan	43	60	50	Lebanon	75	59	48
Uruguay	10	50	14	Sri Lanka	8	45	45	South Africa	78	87	24
Kuwait	25	6	40	Rwanda	84	23	20	Bosnia and Herzegovina	63	88	23
Kazakhstan	3	39	30	Croatia	69	51	9	Madagascar	85	55	72
Romania	58	17	4	Liberia	68	63	76	Tunisia	52	82	52
Colombia	28	53	19	Ecuador	9	65	62	Guinea	80	72	71
Latvia	67	28	3	Armenia	76	66	22	Kenya	87	73	38
Cambodia	21	10	74	Moldova	34	58	21	Jordan	55	81	43
Brazil	4	42	31	Bangladesh	16	21	83	Mali	64	77	65
Lao PDR	7	15	66	Tanzania	53	30	63	Algeria	18	62	80
Paraguay	2	31	54	Mozambique	77	80	68	Mauritania	49	76	78
Philippines	15	14	47	Jamaica	61	69	33	Uganda	89	75	39
Bulgaria	50	29	6	Guatemala	41	52	56	Timor-Leste	36	35	86
Georgia	79	36	13	Botswana	88	48	17	Congo, Dem. Rep.	72	46	87
El Salvador	19	57	16	Ukraine	39	79	42	Angola	44	85	85
Nicaragua	14	34	53	Ghana	81	49	55	Venezuela, RB	6	89	89
Russian Federation	42	13	28	Uzbekistan	12	71	79	Nigeria	62	84	73
Oman	22	18	36	Sierra Leone	66	37	75	Sudan	51	83	88
Mauritius	57	25	10	Morocco	35	67	37				

Economy

1. Overview

Economy, which developed into the most important part of any society and every nation, is considered as one of the most critical areas in government competitiveness. The economy generally refers to all activities that produce, distribute and consume goods and services necessary for human life, and the system surrounding these activities. In other words, economic area is the substantial foundation for other policy sectors and is closely linked to other policy sectors. This is why GC in the economic realm is more important in the age of globalization with infinite competition. Especially in countries that markets and civil society are not as mature, the role of government in economic development is more important and influential.

The economic sector consists of four stages: input, throughput, output, and outcome. The definition of each stage is as follows.

First, input in the economic sector means basic conditions for the people's livelihood and income increase. Indicators for inputs include road paving rate, capital investment by GDP, labor force per population, etc.

Second, throughput is defined by the capacity, policies and efforts of the government for income increase and sustainable growth. Throughput includes indicators such as government and civilian capabilities, anti-monopoly policy, macro stability, registering property, etc. These indicators are closely related to the role of the government.

Third, the output is the direct and short-term result

of the previous phases of input and conversion. This step is a measure of indicators such as trade (% of GDP), current account balance (% of GDP), GDP growth (annual %), inflation, consumer prices (annual %), Poverty headcount ratio at national poverty line, etc.

Finally, the outcome shows the quality of life and sustainable economic growth. This step intends to reflect the long-term results such as GDP growth (5 years in average), GINI Index, Happiness Index, long-term unemployment, etc.

In the economy section of this year's GC Index, Singapore ranked first, followed by Qatar, China, Thailand, Panama, Vietnam, Malaysia, Costa Rica, Peru, South Korea. There is no substantial change in the top 10 of economy area except for China and Costa Rica. With their outstanding performances of the government, China rises seven places to 3rd place. from 10th last year. Costa Rica enters the top 10, ranking 9th.

The lower rank is mostly occupied by countries in Sub-Saharan Africa. Compared with last year, the rankings on the bottom-tier countries tend to fall further because of the falling prices of international oil and raw materials, and the government's fragmentary policies. Especially most sub-Saharan oil exporting nations, such as the Congo, Angola and Nigeria, have suffered extreme economic burdens due to weak oil prices in recent years. Most sub-Saharan oil exporting nations, such as the Congo, Angola and Nigeria, have suffered extreme economic burdens due to weak oil prices in recent years. The recession in these countries is spreading across the oil-related sector, then throughout the economy, and becoming fixed gradually.

2. Issues and Policy Implications

Ethiopia

This year's Ethiopia's government competitiveness in the economic sector remains strong. Ethiopia ranks 41st in the economy area, jumping 14 spots from 55th place last year. In the past, Ethiopia was known as the world's poorest nation. Only a decade ago, no one expected to see the continued rapid growth of the Ethiopian economy. But recently it has achieved double-digit economic growth over the past few years due to large investments in government-led public sector. Over the past decade, Ethiopia has been one of the fastest growing economies in the world, with an average growth rate of 10.9%. Ethiopian economy continues to grow remarkably. Real GDP (RGDP) has grown 8.0% in 2016 and is expected to grow 7.5% in 2017. Concerns over exports and food shortages are growing as the worst drought in 50 years continues, but it is unlikely to affect mid to long-term economic growth of Ethiopia.

Moreover, the newly constructed Addis Ababa-Djibouti railway line will improve the accessibility of Ethiopia, which is located in the inland highlands of northeastern Africa. With the opening of the railway, it took 7 days to transport goods from Addis Ababa to Djibouti on existing roads, but it will be reduced to 10 hours in the future. The government's increased focus on new industrial parks (Hawassa and Bole-Lemi Phase II) and the increasing capacity in power generation along with the completion of transmission lines to neighboring Sudan and Kenya are also projected to raise export performance and promote the short to medium-term growth (Africa Research Bulletin, 2017). Therefore, the economic growth of Ethiopia is expected to remain high for the time being.

The key point is that this high growth has mainly been achieved by public sector-led development. In 2011, the Ethiopian government poured effort into the GTP (Growth and Transformation Plan), resulting in double-digit growth. And from 2016 to

2020, a 5-year second GTP will be implemented.

Philippines

Recently, the Philippine government's competitiveness has been attracting attention as the economy of the Philippines has achieved high growth rates. During the six-year term of President Benigno Aquino III (2010–2016), the Philippines became one of the best economies in the region (Lawrence Agcaoili, 2016). Agriculture is still an important part of the economy, but industrial production in areas such as electronics, clothing and shipbuilding is growing rapidly. Remittances from overseas workers account for almost 10% of GDP.

The Philippines is one of the countries with the highest economic growth rates among Asian countries. The Philippines recorded the fastest gross domestic product growth (6.8%) last year among ASEAN-5 member countries and is expected to continue its high growth rate in 2017. The Philippine economy maintained the steady growth of domestic demand due to the benefits of a stable macroeconomic environment with low inflation and low debt to GDP ratio. And the revival of the Asia-Pacific region has increased exports close to one-third of GDP. The macroeconomic base of the country maintains its strength and monetary conditions support growth. But the decline in investment after President Duterte's war on drugs and the excessive amount of remittances from Overseas Filipino Workers sent abroad is a matter for the government to solve in the future.

Education: Rankings of 2016-2017

Country	2017	2016	Change	Country	2017	2016	Change	Country	2017	2016	Change
Singapore	1	1	0	Georgia	31	40	9	India	61	35	-26
Korea, Rep.	2	6	4	Albania	32	41	9	Egypt, Arab Rep.	62	77	15
Ukraine	3	29	26	Kyrgyz Republic	33	43	10	Rwanda	63	20	-43
Lithuania	4	15	11	Zimbabwe	34	49	15	Malawi	64	59	-5
Latvia	5	19	14	Brazil	35	69	34	Nepal	65	32	-33
Costa Rica	6	2	-4	Tunisia	36	52	16	Senegal	66	80	14
Qatar	7	4	-3	Azerbaijan	37	63	26	Guatemala	67	62	-5
Uruguay	8	30	22	Sri Lanka	38	12	-26	Tanzania	68	82	14
Philippines	9	11	2	Colombia	39	34	-5	Cameroon	69	60	-9
Belarus	10	33	23	Kuwait	40	64	24	Lao PDR	70	47	-23
Uzbekistan	11	8	-3	Paraguay	41	51	10	Uganda	71	72	1
Argentina	12	26	14	Botswana	42	25	-17	Bangladesh	72	44	-28
Mauritius	13	16	3	Panama	43	38	-5	Pakistan	73	75	2
Jordan	14	18	4	Indonesia	44	9	-35	Cambodia	74	28	-46
Russian Federation	15	57	42	Kenya	45	14	-31	Ethiopia	75	70	-5
Oman	16	56	40	Jamaica	46	50	4	Angola	76	86	10
Moldova	17	37	20	Venezuela, RB	47	13	-34	Mozambique	77	79	2
Malaysia	18	5	-13	Dominican Republic	48	54	6	Benin	78	73	-5
Kazakhstan	19	36	17	China	49	31	-18	Nicaragua	79	24	-55
Croatia	20	17	-3	Bosnia and Herzegovina	50	65	15	Madagascar	80	81	1
Bulgaria	21	55	34	South Africa	51	68	17	Nigeria	81	71	-10
Bolivia	22	22	0	Ghana	52	45	-7	Congo, Dem. Rep.	82	88	6
Serbia	23	42	19	Algeria	53	53	0	Burkina Faso	83	74	-9
Peru	24	67	43	El Salvador	54	23	-31	Sierra Leone	84	76	-8
Mongolia	25	39	14	Lebanon	55	27	-28	Mauritania	85	83	-2
Bahrain	26	10	-16	Vietnam	56	7	-49	Mali	86	85	-1
Romania	27	48	21	Zambia	57	46	-11	Liberia	87	84	-3
Thailand	28	3	-25	Honduras	58	61	3	Sudan	88	87	-1
Ecuador	29	21	-8	Morocco	59	58	-1	Guinea	89	89	0
Armenia	30	66	36	Timor-Leste	60	78	18				

Education: Rankings by Subgroup

Country	Education Diversity	Education Infrastructure	Education Performance	Country	Education Diversity	Education Infrastructure	Education Performance	Country	Education Diversity	Education Infrastructure	Education Performance
Singapore	1	1	4	Georgia	47	84	7	India	18	45	59
Korea, Rep.	26	44	3	Albania	25	65	16	Egypt, Arab Rep.	69	75	44
Ukraine	21	14	5	Kyrgyz Republic	55	51	33	Rwanda	31	2	70
Lithuania	11	47	2	Zimbabwe	41	36	61	Malawi	70	5	72
Latvia	19	61	6	Brazil	61	82	38	Nepal	29	39	63
Costa Rica	22	31	17	Tunisia	17	48	42	Senegal	35	37	81
Qatar	2	50	19	Azerbaijan	83	33	26	Guatemala	75	83	65
Uruguay	12	11	22	Sri Lanka	7	57	24	Tanzania	71	19	71
Philippines	24	8	28	Colombia	54	23	36	Cameroon	62	56	66
Belarus	44	25	1	Kuwait	30	64	34	Lao PDR	59	32	64
Uzbekistan	56	17	21	Paraguay	52	55	48	Uganda	87	16	69
Argentina	45	42	8	Botswana	79	41	50	Bangladesh	43	72	68
Mauritius	15	26	18	Panama	51	28	39	Pakistan	76	15	76
Jordan	28	22	23	Indonesia	34	69	40	Cambodia	86	7	67
Russian Federation	33	58	10	Kenya	36	66	47	Ethiopia	67	20	80
Oman	6	52	13	Jamaica	77	29	53	Angola	89	54	79
Moldova	40	24	41	Venezuela, RB	13	74	35	Mozambique	80	10	84
Malaysia	5	12	29	Dominican Republic	68	60	46	Benin	82	38	73
Kazakhstan	32	13	12	China	23	71	55	Nicaragua	88	87	74
Croatia	8	77	9	Bosnia and Herzegovina	58	81	45	Madagascar	53	86	75
Bulgaria	37	70	11	South Africa	60	76	54	Nigeria	74	85	82
Bolivia	39	79	31	Ghana	46	67	58	Congo, Dem. Rep.	84	4	78
Serbia	20	78	15	Algeria	49	49	43	Burkina Faso	66	3	88
Peru	50	43	27	El Salvador	63	27	51	Sierra Leone	4	88	77
Mongolia	14	9	32	Lebanon	9	46	52	Mauritania	64	53	83
Bahrain	10	35	14	Vietnam	72	18	56	Mali	78	59	89
Romania	16	63	20	Zambia	81	6	60	Liberia	73	80	85
Thailand	48	21	37	Honduras	42	68	57	Sudan	65	-	87
Ecuador	38	40	30	Morocco	57	30	62	Guinea	85	62	86
Armenia	27	34	25	Timor-Leste	3	73	49				

Education

1. Overview

Goals of Education in Developing Countries

As emphasized in an Oriental maxim that stresses education as a plan which spans a hundred years, education is one of the most important policy areas which can determine the future competitiveness of a nation. Education is also an essential asset in a knowledge-intensive information society, and when properly accumulated and developed, it can contribute towards enhancing the quality of other sectors throughout the government. The goals and objectives of state's education policies can vary. This is because education, which can be utilized to diverse policy arenas, could have different meanings to stakeholders. For instance, many studies have demonstrated that education tends to have positive spill-over effects towards relevant policy areas, such as public health, environment, governance and the economy. For developing countries, one of the most urgent policy imperatives is often placed on the accumulation of human capital. As well-explained in the economic growth theory, differences in the level of workers' education in developed and underdeveloped countries can lead to sizable differences in income levels.

Input in education can be understood as physical and human resources which are invested in formulating policies in relevant sectors of education. In order to measure such inputs, often used are the amount of investment in facilities and human resources. Transition means a variety of educational systems and policies implemented by

the government. Transition policy can be encapsulated through measuring the quality level of education policy. The competitiveness index operationalizes the following variables in addressing the input for education: (1) the years of compulsory education, (2) the proportion of education spending in government annual budgets, (3) and the quality of education system. Similarly, output in education can be understood as a direct achievement from the state's activities on education. It can be measured by the enrollment rate or the completion rate of pupils in primary- and secondary education. Also, the degrees of educational attainment in the intellectual level can be used. Among the OECD member-states, there exists an indicator which is used to assess the degree of state-level achievement in certain intellectual criteria, such as the PISA scores. Lacking such systemic information gathering, developing countries tend to rely on the enrollment rate and the expected years of education as key indicators for composing the index. In addition, the GC Index sought to enhance accuracy in describing the educational gap along the gender lines through accounting the school registration rate of men *versus* women. In terms of assessing the overall accumulation of human capital, average education level of the populace and their illiteracy rates are often used. In this sense, the GC Index uses the average years of education and illiteracy rates as proxies for gauging the policy outcomes.

Result of This Year

For the education section of the Government Competitiveness Index 2017, Singapore ranked

first, followed by South Korea, Ukraine, Lithuania and Latvia, respectively. The lower ranks are mostly occupied by countries in Sub-Saharan Africa. Results indicate that there is a close correlation between national education level and income level. Compared to the last year, the rankings on the top- and bottom-tier countries did not change much. In contrast, middle-ranking countries had significant fluctuation of performances as composition of indicators have gone through revisions and modifications.

2. Issues and Policy Implications

Costa Rica: Rich in Quantity, but Poor in Quality

Costa Rica, a country well-known for its natural environment, is famous for another distinctive trait: absence of military. This indicates that Costa Rica was able to utilize a large proportion of the budget on social welfare such as education and public health programs. Its K-12 education services are run costless for all citizens. It has been analyzed that approximately 7 percent of GDP is being used for the state-sponsored education system. Therefore, it can be concluded that Costa Rica's superb educational performances, best in Latin America, are attributable to the sheer size of the educational expenditure of the government. Costa Rica's impressive quantitative performances on education notwithstanding, actual quality of education reveals a different story. OECD report (2017) shows that Costa Rica's overall 8th grade PISA score in 2015 is only about a baseline achievement of those in OECD member-states. In addition, it has been shown that Costa Rica's PISA performance in 2015 actually decreased from that in 2009. Equity, which results from the nation's socioeconomic inequality, is also a major hindrance in Costa Rica's educational performances, as most of students from upper-middle class enjoy wealthy privileges in private schools. As a result, a high proportion of college students are comprised of those from high-income families. In this sense, the country's recent government plan, known as

Alberto Cañas Escalante 2015-2018, has renewed its emphasis on improving the competitiveness of Costa Rica's public education.

Pakistan: Education at Risk

In 2014, a 17-year old girl in Pakistan named Malala Yousafzai, was awarded the Nobel Peace Prize for her contribution towards education and human rights for women. Despite all the fanfares abroad, her entitlement to one of the most prestigious honor is actually a sign of disgrace for education system in Pakistan. Public education in Pakistan is in serious risk. As the Pakistani branch of the Taliban is gaining its operational momentum, even higher priority of government affairs is being placed on the homeland security, which eventually leads to poorer management its public schools and gender equality in classrooms. Pakistan's government spending on education was a mere 2.6 percent of the total GDP, exacerbating the country's chronic problems on the shortages of qualified teachers and lack of infrastructures. As a result, despite the 12 years of compulsory education system, Pakistani children's expected years of schooling are only 7.7 years. Increasing presence of Taliban in Pakistan is affecting students' lives as well as the state expenditure on educational policies. The number of student deaths is on the rise due to Taliban's increased attacks on schools. Such threats to safety are hampering the access of students and parents towards opportunities to learning (Washington Post. 29 Jan, 2016).

Noticing such difficulties, developed countries have continuously provided assistance towards Pakistan. Yet, the nation's rampant corruption and political complexities have made it even difficult to solve the problem. As Maslow's Hierarchy of Needs effectively demonstrates, security seems to be a more urgent issue than education in Pakistan.

Environment: Rankings of 2016-2017

Country	2017	2016	Change	Country	2017	2016	Change	Country	2017	2016	Change
Peru	1	3	2	Sri Lanka	31	63	32	Mauritius	61	59	-2
Bulgaria	2	9	7	Tanzania	32	20	-12	Nigeria	62	79	17
Costa Rica	3	5	2	Morocco	33	53	20	Latvia	63	1	-62
Croatia	4	12	8	Benin	34	56	22	Bahrain	64	77	13
Zambia	5	4	-1	Congo, Dem. Rep.	35	34	-1	Kyrgyz Republic	65	66	1
Brazil	6	2	-4	Nepal	36	48	12	Tunisia	66	65	-1
Lithuania	7	11	4	Burkina Faso	37	69	32	Albania	67	22	-45
Romania	8	16	8	Guinea	38	41	3	Mali	68	82	14
Venezuela, RB	9	7	-2	Guatemala	39	30	-9	Qatar	69	85	16
Colombia	10	6	-4	Russian Federation	40	18	-22	Liberia	70	25	-45
Panama	11	8	-3	Georgia	41	32	-9	Egypt, Arab Rep.	71	78	7
Ecuador	12	19	7	Kuwait	42	84	42	Algeria	72	75	3
Armenia	13	31	18	Jamaica	43	50	7	China	73	64	-9
Lao PDR	14	10	-4	Uganda	44	52	8	Bosnia and Herzegovina	74	51	-23
Zimbabwe	15	43	28	Indonesia	45	45	0	Uzbekistan	75	83	8
Nicaragua	16	33	17	Cameroon	46	44	-2	Pakistan	76	88	12
Malaysia	17	14	-3	Kenya	47	58	11	Ukraine	77	60	-17
Bolivia	18	13	-5	El Salvador	48	49	1	Mongolia	78	73	-5
Botswana	19	27	8	Mozambique	49	38	-11	Moldova	79	68	-11
Senegal	20	37	17	Rwanda	50	62	12	India	80	76	-4
Cambodia	21	36	15	Uruguay	51	23	-28	Jordan	81	74	-7
Ghana	22	35	13	Korea, Rep.	52	15	-37	Kazakhstan	82	80	-2
Paraguay	23	17	-6	Belarus	53	26	-27	Lebanon	83	72	-11
Thailand	24	39	15	South Africa	54	54	0	Bangladesh	84	87	3
Dominican Republic	25	29	4	Argentina	55	55	0	Madagascar	85	70	-15
Honduras	26	24	-2	Timor-Leste	56	67	11	Oman	86	81	-5
Vietnam	27	42	15	Serbia	57	28	-29	Angola	87	61	-26
Singapore	28	21	-7	Azerbaijan	58	57	-1	Sudan	88	86	-2
Malawi	29	47	18	Ethiopia	59	71	12	Mauritania	89	89	0
Philippines	30	40	10	Sierra Leone	60	46	-14				

Environment: Rankings by Subgroup

Country	Air & Water Quality	Environment Behavior	Natural Resources	Renewable Energy	Country	Air & Water Quality	Environment Behavior	Natural Resources	Renewable Energy
Peru	29	6	9	13	Cameroon	51	12	41	40
Bulgaria	7	56	5	12	Kenya	58	16	54	20
Costa Rica	6	7	26	10	El Salvador	19	39	64	8
Croatia	2	30	11	44	Mozambique	74	5	34	43
Zambia	49	9	1	16	Rwanda	73	26	58	15
Brazil	8	13	8	39	Uruguay	5	4	86	26
Lithuania	3	50	20	56	Korea, Rep.	15	87	43	34
Romania	25	43	16	18	Belarus	21	79	44	74
Venezuela, RB	37	44	2	70	South Africa	63	71	59	53
Colombia	28	10	15	35	Argentina	13	68	67	52
Panama	39	20	22	32	Timor-Leste	48	88	57	-
Ecuador	54	29	17	46	Serbia	41	53	61	55
Armenia	12	60	27	11	Azerbaijan	42	73	50	76
Lao PDR	75	8	3	65	Ethiopia	68	11	38	73
Zimbabwe	57	33	10	3	Sierra Leone	88	19	49	-
Nicaragua	24	18	19	33	Mauritius	22	65	72	58
Malaysia	32	69	14	72	Nigeria	64	38	48	57
Bolivia	53	41	7	78	Latvia	47	58	56	4
Botswana	50	57	18	68	Bahrain	26	83	83	85
Senegal	59	46	21	17	Kyrgyz Republic	35	35	65	21
Cambodia	52	27	6	14	Tunisia	9	66	79	67
Ghana	66	32	33	5	Albania	14	21	77	19
Paraguay	4	15	52	1	Mali	84	28	63	7
Thailand	11	59	30	71	Qatar	67	89	84	-
Dominican Republic	31	64	25	63	Liberia	81	1	74	65
Honduras	23	34	32	42	Egypt, Arab Rep.	16	75	70	45
Vietnam	45	37	40	27	Algeria	36	84	73	84
Singapore	1	81	60	83	China	77	72	47	54
Malawi	72	23	23	27	Bosnia and Herzegovina	43	52	75	30
Philippines	38	40	53	25	Uzbekistan	44	70	78	24
Sri Lanka	10	25	45	37	Pakistan	56	47	71	9
Tanzania	85	36	4	82	Ukraine	27	86	69	23
Morocco	60	61	29	29	Mongolia	87	82	39	48
Benin	70	55	12	22	Moldova	33	67	76	75
Congo, Dem. Rep.	76	3	13	51	India	78	48	68	47
Nepal	46	2	28	60	Jordan	34	74	87	77
Burkina Faso	86	54	36	1	Kazakhstan	62	85	80	81
Guinea	83	14	24	50	Lebanon	30	80	85	80
Guatemala	18	24	31	59	Bangladesh	69	42	81	49
Russian Federation	20	77	42	6	Madagascar	89	45	66	61
Georgia	17	17	51	36	Oman	61	76	88	69
Kuwait	65	63	55	85	Angola	80	51	62	64
Jamaica	40	62	46	62	Sudan	71	31	82	38
Uganda	82	22	37	79	Mauritania	79	78	89	41
Indonesia	55	49	35	31					

Environment

1. Overview

Environmental issues, such as climate change, biodiversity, deforestation and water contamination, are not any simple agenda that a single country can deal with, since the causes of problems are inter-related globally. For that reason to deal with such issues, individual countries' willful and voluntary efforts to achieve a greater, mutual goal while all participants putting fair and honest efforts are required. Therefore, both OECD and non-OECD countries continuously engage in the discussions about the way they can sustainably consume 'environmental public goods' while supporting each other's involvement, as a name of 'protocol', 'declaration' or 'agreement' more often than any other policy sectors.

In debate about putting more emphasis on economic benefit or consideration for better environment, OECD countries carefully approach such issue with great responsibility, since current environmental status reflects their past action of indiscreet urban development and economic growth. In that sense, Trump's recent decision to withdraw from the Paris climate agreement brought uttering disappointment to many countries' and people who worked together to come to the agreement.

However on a positive note, Habitat III, which is the United Nations Conference on Housing and Sustainable Urban Development, took place in Quito, Ecuador from 17 to 20 October 2016. For this event, as many as 45,000 delegates – including at least 200 city mayors, 140 national delegations, in addition of many world's leading academics, architects and urbanist thinkers –

have gathered to discuss how to make cities more "sustainable, inclusive and resilient". The main discussion issues were such as greenhouse gas reduction, energy consumption management, and urban resilience in response to climate change.

Overall Results

Environment sector index are structured as following: Inputs are the condition of current environmental, such as existing natural resources and forest area. Throughputs are government's policy or action. And finally, output is the measure of polluted natural resources and outcome is the quality of environment. Sub-groups are designated similarly as that of the OECD countries' and indexes are grouped by (1) Environment Behavior, (2) Environmental Health (3) Resource Protection and (4) Renewable Energy. For Non-OECD countries, natural resource was highlighted instead of resource protection, since the natural resource itself is directly connected to their economy. Non-OECD sub groups are (1) Air and Water Quality, (2) Environment Behavior, (3) Natural Resources and (4) Renewable Energy.

Overall, Non-OECD countries with high government competitiveness in the environment sector are Peru(0.6797), Bulgaria(0.6791), and Costa Rica(0.6534). The high competitiveness of these countries is due to their high 'throughput' capability and this signifies the importance of government's action in order to enhance the competitiveness, especially in the environmental policy area. Moreover, governments of non-OECD countries tend to perceive environment as

tourism resources or tool for economic growth, rather than something important that the country has responsibility to protect. Similarly even in the cases that government acknowledges the significance of protecting the environment and natural resources, low environmental consciousness of individuals' can make the way of reducing environmental pollution extremely challenging.

2. Issues and Policy Implications

Peru: Active Government's Action to Tackle Climate Change

Despite the fact that Peru is one of the fastest growing economies in Latin America, it faces long-term challenges such as a chronic underdevelopment of rural areas (IMF, 2016). Over the past decade, Peru's economic policies based on solid macroeconomic and responsible management have somewhat overcome the crisis of recession by introducing skilled technical bureaucrats. Especially in managing the environment recently, Peru has appeared as one of the Latin America's most proactive countries where government progressively supports to tackle the issues of forestry, energy, and waste sectors. Last year, Peru was the 3rd in GC environment ranking (2016), but this year Peru ranked 1st in this policy area. Particularly, Peru showed high score in the 'throughput' which is the effort reflection of long-term master plan called "Plan Nacional de Acción Ambiental; PLANAA" (National Environmental Action Plan 2011-2021).

Since the creation of Ministry of Environment in 2008, various ambitious actions and policies were developed and implemented for both, the country and local environmental management. Peru's inherited geographically diversified environment, including Andes Mountain, Amazon and Pacific Ocean, has been the core resource for agriculture, economy, tourism and environmental sustainability, which directly link to the country's long term development plan.; Peru's 2016 political

agenda and abundance of environment policies reflect this plan.

Peru's air pollution was becoming increasingly problematic not only in Lima, but also in cities such as Arequipa and Trujillo. The result for this severe air pollution is caused by the sudden increase in number of old model of vehicles. However, this is not a special phenomenon in a capital city. Like many other cities such as La Oroya, Cerro de Pasco, Ilo, Lima similarly experience the same issue.

Among many environmental problems, Peru's current urbanization has brought up the waste collection and transportation as the major issues that require urgent attention. Lack of waste sanitation landfill and waste collection facilities are other causes which requires government's action. Waste collection is not only a significant matter of keeping the hygiene level, but also an economic factor that can greatly influence the tourism industry.

The absence of environmental consciousness from individual citizen, such as carelessly throwing trash anywhere, is a more serious environmental problem in rural areas. Compared to other non-OECD countries, Peru has the long history of 'PAM (The Peruvian agro-ecological movement)'. The agro-ecological movement in Peru has defined its approach for over 30 years, in permanent motion, growth, and evolution. It has reconnected with traditional knowledge, small farmers, and rediscovered valuable plants and animals for the entire world. Yet, it has also encountered poverty and malnutrition, and identified the need to suggest an alternative agricultural model to the one taught in universities and experimental stations until now. This became a strong foundation for Peruvian's behavior towards environment and eventually gave them the honor of ranking the first in environment.

Zambia: Restoring Effort to Transform Polluted Environment as an Asset

Zambia was independent from Britain in 1964 and changed from socialism to capitalism in 1991.

Although the country contains about 70 different ethnic groups with different cultural characteristics, conflicts among other ethnic groups are very rare. Political stability is one of the Zambia's key characteristics. Unlike other African countries, they have not suffered great civil war. However, the long civil war in Congo and Angola affected Zambia, which has formed a refugee camp with a population of 250,000 in the border area (Taylor, 2006). Additionally, Zambia has one of the world's fastest growing populations with the UN projecting that its population of 13 million will triple by 2050.

Zambia's economy is divided into a mixed economic system in which the public sector and the private sector co-exist. However, the whole country's economy is heavily depended on the private copper production as Africa's second largest copper producer after the DR Congo.

Restoring Mining City Case: *Kabwe*

Kabwe is central to Zambia, approximately 130km north of the capital, Lusaka. During the 1960s and 1970s Zambia was considered as the largest copper producer in the non-OECD countries and the third largest in the world. During the expanding period from 1904 to 1994, it was Southern Africa's main lead-zinc producer, principally from the Kabwe Zinc and Lead mine. For 88 years of endless operation until the final closure in 1994, Kabwe was regarded as one of the famous mines in Africa. However, past activities at the Kabwe mine have left widespread pollution of the local area, including waterways which eventually lead to the notorious title as "The world's most toxic town". In order to tackle this issue, the Zambian government and the World Bank jointly launched the "ZMERIP- Zambia - Mining and Environmental and Improvement Project (MMMD, 2017)," with \$ 65.5 million.

Government agency such as the Zambia Mine Safety Bureau, Kabwe City Council and Zambia Environmental Management Agency (ZEMA) actively co-operated with the project and focused on reducing environmental risks through appropriate interventions. Mining Minister of

Zambia already stated that the project will be a new core business of the health sector and that the funds provided by the World Bank will be used to improve the sanitation of mining cities. GC score also reflects this situation that Zambia showed high inputs (0.886), although the levels of pollutions are extremely high compared to the standard.

E-waste and Government Authorities

Through Zambia Environmental Management Agency (ZEMA), government has taken a big step in order to prevent e-waste from being imported to the country for disposal. The ZEMA has stationed officers at all border checkpoints of the country as an attempt to prevent electronic waste from being brought into the country. On 29 April 2016, Zambia Information and Communications Technology Authority (ZICTA) signed a Memorandum of Understanding (MoU) with ZEMA. The MoU was established in order for the both parties to collaborate and interact with each other with respect to the effective management of the new and rapidly growing stream of electrical and electronic waste and to enable a sustainable environment insofar as it relates to ICTs.

The scope of the ZICTA-ZEMA MoU is outlined below:

- Developing and monitoring of standards and guidelines for environmentally sound management and disposal of electronic waste in order to avoid duplication of efforts and to also maximize benefits on the use of limited resources
- Developing standards and mechanisms to promote green ICTs, energy efficiency and environmental sustainability
- Protecting human health and the environment which shall be achieved by recognizing the mandate given to the Authority by the ICT Act to establish and publish technical standards relating to all electronic communications equipment and to perform type approval of all ICT equipment to be used in Zambia based on these standards.

Governance: Rankings of 2016-2017

Country	2017	2016	Change	Country	2017	2016	Change	Country	2017	2016	Change
Uruguay	1	1	0	Ecuador	31	40	9	Liberia	61	67	6
Singapore	2	8	6	Bolivia	32	32	0	Sierra Leone	62	72	10
Costa Rica	3	3	0	Tanzania	33	33	0	Jordan	63	69	6
Mauritius	4	6	2	Tunisia	34	36	2	Kenya	64	63	-1
Korea, Rep.	5	2	-3	Benin	35	26	-9	Mali	65	55	-10
Latvia	6	16	10	Thailand	36	30	-6	China	66	71	5
Argentina	7	5	-2	Belarus	37	52	15	Venezuela, RB	67	54	-13
Lithuania	8	11	3	Albania	38	41	3	Russian Federation	68	56	-12
Botswana	9	4	-5	Kuwait	39	20	-19	Mozambique	69	46	-23
Romania	10	18	8	India	40	37	-3	Cambodia	70	68	-2
South Africa	11	7	-4	Rwanda	41	53	12	Morocco	71	73	2
Bulgaria	12	14	2	Bosnia and Herzegovina	42	48	6	Angola	72	66	-6
Panama	13	10	-3	Ukraine	43	42	-1	Mauritania	73	75	2
Croatia	14	9	-5	Zambia	44	45	1	Nigeria	74	76	2
Brazil	15	13	-2	Vietnam	45	43	-2	Bangladesh	75	70	-5
Timor-Leste	16	17	1	El Salvador	46	31	-15	Algeria	76	74	-2
Paraguay	17	35	18	Nepal	47	38	-9	Cameroon	77	78	1
Jamaica	18	12	-6	Sri Lanka	48	49	1	Lao PDR	78	81	3
Malaysia	19	19	0	Moldova	49	57	8	Armenia	79	80	1
Ghana	20	15	-5	Malawi	50	50	0	Azerbaijan	80	77	-3
Mongolia	21	23	2	Guatemala	51	44	-7	Uzbekistan	81	82	1
Peru	22	29	7	Madagascar	52	62	10	Lebanon	82	79	-3
Georgia	23	39	16	Burkina Faso	53	47	-6	Ethiopia	83	83	0
Colombia	24	34	10	Kazakhstan	54	61	7	Egypt, Arab Rep.	84	85	1
Dominican Republic	25	27	2	Oman	55	51	-4	Pakistan	85	86	1
Indonesia	26	25	-1	Uganda	56	59	3	Guinea	86	88	2
Qatar	27	28	1	Nicaragua	57	58	1	Zimbabwe	87	87	0
Serbia	28	24	-4	Honduras	58	64	6	Congo, Dem. Rep.	88	84	-4
Philippines	29	22	-7	Kyrgyz Republic	59	60	1	Sudan	89	89	0
Senegal	30	21	-9	Bahrain	60	65	5				

Governance: Rankings by Subgroup

Country	Democracy	Gov't Competency	Rule of Law	Country	Democracy	Gov't Competency	Rule of Law	Country	Democracy	Gov't Competency	Rule of Law
Uruguay	1	2	3	Ecuador	51	26	37	Liberia	19	77	74
Singapore	45	1	2	Bolivia	36	24	54	Sierra Leone	43	60	56
Costa Rica	2	4	6	Tanzania	28	63	48	Jordan	73	57	32
Mauritius	5	7	5	Tunisia	30	61	35	Kenya	47	73	78
Korea, Rep.	13	12	4	Benin	50	47	69	Mali	37	83	55
Latvia	3	10	8	Thailand	59	18	47	China	89	20	44
Argentina	11	15	9	Belarus	69	37	22	Venezuela, RB	63	43	67
Lithuania	6	13	1	Albania	33	67	19	Russian Federation	75	48	42
Botswana	9	17	20	Kuwait	76	16	14	Mozambique	56	72	66
Romania	17	8	11	India	22	62	65	Cambodia	72	36	71
South Africa	4	30	26	Rwanda	66	50	73	Morocco	64	68	57
Bulgaria	15	11	12	Bosnia and Herzegovina	49	75	16	Angola	60	65	75
Panama	10	9	17	Ukraine	34	82	30	Mauritania	61	84	84
Croatia	24	19	10	Zambia	44	41	59	Nigeria	58	74	72
Brazil	23	6	15	Vietnam	78	33	18	Bangladesh	65	64	81
Timor-Leste	7	76	82	El Salvador	57	45	38	Algeria	62	70	33
Paraguay	31	22	58	Nepal	41	49	70	Cameroon	67	66	79
Jamaica	8	38	13	Sri Lanka	38	53	40	Lao PDR	88	34	63
Malaysia	55	5	21	Moldova	32	59	36	Armenia	70	79	51
Ghana	14	42	25	Malawi	35	54	61	Azerbaijan	84	51	45
Mongolia	21	32	24	Guatemala	52	28	50	Uzbekistan	86	35	68
Peru	26	23	29	Madagascar	54	58	60	Lebanon	48	87	62
Georgia	29	52	28	Burkina Faso	53	55	52	Ethiopia	79	80	86
Colombia	25	25	34	Kazakhstan	77	21	41	Egypt, Arab Rep.	85	81	77
Dominican Republic	18	31	27	Oman	87	14	23	Pakistan	71	88	83
Indonesia	20	29	49	Uganda	42	71	80	Guinea	68	78	88
Qatar	82	3	7	Nicaragua	46	44	64	Zimbabwe	80	85	85
Serbia	27	40	31	Honduras	40	46	76	Congo, Dem. Rep.	81	86	89
Philippines	16	39	46	Kyrgyz Republic	39	69	53	Sudan	74	89	87
Senegal	12	56	43	Bahrain	83	27	39				

Governance

1. Overview

The very definition of “Governance” can be defined as the summation of processes of governing which is undertaken by an official state-entity, i.e., government, over the legitimate jurisdiction of territory. The “Governance portion” of the Government Competitiveness Score 2017 mostly addresses the activities of governments around the world, specifically those of the 35 OECD member-states and 89 non-OECD countries. Research methodologies for the GC Governance Index are largely consistent with those from the previous reports: raw data were collected from a wide array of sources that consists of policy papers and statistics from several non-governmental organizations, intelligence agencies and international organizations, e.g., World Bank, CIA, Gallup Polls, EIU, etc. The collected data were then divided into three sub-groups: (1) Democracy, (2) Government Competency, and (3) Rule of Law, each belonging to the following dimensions of analysis: (a) input (b) throughput (c) output and (d) outcome. Following the series of in-depth discussions among the research participants, the team added Quality of Nationality Index both OECD member-states and non-OECD nations and World Happiness Index variables for non-OECD countries while excluding the following variables: (1) cash surplus/deficit (2) central government debt (3) cyclically adjusted primary balance and (4) tax revenues. Specifically, through adding the two aforementioned variables, this year’s GC report attempts to provide a more accurate depiction of the recent scholarly debates on happiness, well-being and quality of passport, i.e., visa exemption agreements and immigration

receptivity, in gauging the countries’ overall value of governance capabilities. In sum, total 25 indices were collected and analyzed for OECD member-states, while separate sets of 28 inputs were utilized for addressing the governance competitiveness of non-OECD nations.

First, the analysis-results for the OECD member-states indicate that Scandinavian countries in the Northern European region were among the top in terms of overall governance competitiveness, showing a strong degree of year-to-year consistency. Among the top 10 rankings, 5 countries were Northern European nations (Denmark as the 1st, Norway the 2nd, Sweden and Finland as 3rd and 4th, respectively, and Iceland being the 6th). In the “bottom-five” ranking exists countries with “relatively” low level of economic development within the OECD, which can also be categorized as newly industrialized economies such as Chile(30th), Hungary(31st), Greece(32nd) and Mexico and Turkey (33rd and 34th, respectively). Including Poland (27th) and Slovak Republic (28th), geographical concentration of these countries was identified as being mainly located in Eastern Europe and Latin America. Categorized as the continents of late-economic developments, it seems that such labeling also includes implications of relative underdevelopment of governance capabilities in terms of OECD grouping.

Specific data on each sub-section yields a consistent pattern throughout the OECD member-states. For instance, the Scandinavian countries have demonstrated high performance in all of the three policy sub-sectors, indicating tightly interwoven mutual relationship among democracy, government competence and the rule-of-law.

None of the four Scandinavian nations (i.e., Sweden, Norway, Finland and Denmark) scored lower than 10th position in the detailed comparative analysis of policy sub-sectors. On the contrary, the East European and Latin American countries have generally performed poorly on all of the sub-sectors. For example, Turkey was ranked as 34th out of 34 countries in democracy and government competence sectors, while scoring 33rd in the rule-of-law. One noticeable exception is Estonia. The country has demonstrated rather mediocre performances in democracy (22nd), yet showing relatively high standards in government competency (6th) and the rule-of-law (10th). The GC team attributes such imbalance to the role of digitalized e-government in Estonia, as its superb ICT infrastructure and the government's high fidelity and reliability of digitally provided public services have contributed to its overall rankings.

Second, the analysis on non-OECD states revealed a clear bifurcating trend upon the economic development on the performance of each country, as a high correlation exists between the given country's overall economic development level and its governance capabilities. Singapore, Qatar, Costa Rica and Uruguay were among the top-four in the non-OECD grouping, while Guinea, Zimbabwe, Democratic Republic of Congo and Sudan were those that underperformed than most of the countries on the list. Accordingly, most of the countries with low scores on governance competitiveness are concentrated in Sub-Saharan Africa (except for Mauritius and Botswana, the two African success-stories of simultaneous modernization in economic and political sectors). The result matches with the extant social science literatures, i.e., Modernization Theory, that emphasized the existence of a significant positive correlation between a country's economic development and the maturity of political/governmental sectors. Exceptions are People's Republic of China and Russia. Their recent acceleration on economic growth notwithstanding, the two countries' governance competitiveness scores remained

relatively low (66th and 68th, respectively). While both countries scored poorly on democracy sub-section (China is an authoritarian state which lacks participatory democracy, and Russia is an illiberal democracy that closely resembles the features of autocracy), the GC report 2017 posits that the widespread variances in the standards of living and rule-of-law status within the countries' geographical regions might have contributed to the present result.

Unlike its wealthier counterparts, the non-OECD group did not show a coherent, uniform alignment among its sub-categories, as the level of democracy did not match with the degree of government competency and the rule-of-law. One noticeable example is Singapore, which was ranked as 1st and 2nd in government competency and rule-of-law, respectively, while performing poorly on the democracy section (45th). This is because Singapore is an archetypal example of authoritarian developmental-state with the persistence of one-party rule and limited political freedom for its citizens. Similar patterns also appear in Qatar, a quintessential resource-rich despotic monarchy in the Middle East. The Kingdom of Qatar performed fairly well in government competency (3rd) and the rule-of-law (7th), while yielding 82nd in terms of performance in democracy. Opposite direction was also observed through the case of East Timor, a relatively newborn country in Southeast Asia. East Timor scored 7th in democracy, while yielding severe discrepancies in government competency (76th) and the rule-of-law (82nd).

2. Issues and Policy Implications

Botswana: An African Success Story

Botswana, widely known as the one of few success stories of the African Continent, is a vibrant middle-income country with a multi-party democratic system in its full-function. Botswana gained independence from Britain in 1966, marking its place in the Huntingtonian nomenclature of the Second Wave of Democratization (Huntington 1991). The country

is known for its large volumes of diamond reserves (diamond mining accounts for approximately one-quarter of the national GDP and 85% of export earnings) and a strong tradition of stable representative democracy. Accordingly, Transparency International has rated Botswana as the best perceived corruption ranking in Africa for the last four years (Transparency International 2016).

In Government Competitiveness Report 2017, Botswana's governance competitiveness was ranked 9th overall in terms of non-OECD countries, 9th in democracy, and 17th in government competency, and 20th in the rule-of-law indices. Specifically, it was analyzed that the country boasts its strength in *right to petition the government and public participation, press freedom, stability of democratic institutions and electoral process and pluralism*. Acknowledging that building strong and sustainable democracy depends on the existence of strong and effective political parties, the GC team posits that political parties in Botswana have indeed played a crucial role in bringing together diverse interests and providing alternative policy proposals from which voters can make an informed choice at the time of elections. Given that Botswana's economy is heavily focused in the mining sector (e.g., diamonds, gold, copper, nickel and soda ash), the presence of multi-party democracy has significantly contributed towards maintaining a systemic wealth investment by the central government, thereby effectively avoiding the Dutch Disease which are prevalent among other mineral rich economies in the Third World.

Three of the most prevalent problems in the governance of Botswana lie in (1) its public health status on the proportion of population who are suffering under the HIV/AIDS and cervical cancer, (2) gender inequality in politics and (3) the so-called "brain drain" issue. Regarding the first issue, the results from GC Report 2017 indicates that Botswana performed poorly on the overall life satisfaction (i.e., Happiness Score; 3.766) of its citizens. When compared with Thailand and Mauritius which yield similar numbers of PPP-

adjusted GDP per capita (\$16,800 for Thailand, \$20,500 for Mauritius), Botswana's mediocre performance on individual happiness is more striking, as these two countries have fared quite well in terms of life satisfaction levels (6.424 for Thailand and 5.629 for Mauritius). The Botswana case for women's health crisis has received much attention from the international community, and it was widely known that the former U.S. President George W. Bush has donated \$6.8 million towards the public health infrastructure in the nation (Harris 2017).

Secondly, gender inequality in Botswana is one of the recurring criticisms against the government of Botswana. For instance, during the second Universal Periodic Review (UPR) of the United Nations member-states, the panelists pointed out that three out of four women in Botswana are subject to gender-based violence. Accordingly, the GC Report 2017 indicates that there exists a significant gap between the proportion of women in the overall labor force (73.52%) and the percentage of women in the Parliament (9.5%). This can be interpreted as an evidence of glass ceiling along the gender line in the nation's public sector, as women's election to the legislative body remains deeply unlikely while increasing number of females are joining the nation's workforce.

Third, Botswana has yielded positive values for both *Human Flight* (5.5) and *Net Migration Rate* (3) indices. This indicates that the demographic trends in Botswana are showing a sharp bifurcation along the departure of intellectuals and those in the upper echelon of the socioeconomic ladder, while continuously experiencing a net inflow of low-skilled migrants from the neighboring states. Botswana is a landlocked nation which borders Namibia to the west, Zimbabwe to the east, and South Africa towards its southern direction. Among its neighbors, Botswana is in conflict with Zimbabwe, specifically with regards to the unrelenting flow of illegal immigrants across its borderlines. Zimbabweans are the most numerous nationalities among both the registered and unregistered aliens in Botswana, and most of the migrants are concentrated in agriculture and

mining industry, working as unskilled, manual laborers (Betz and Kaytaz 2009). Such issues have produced ongoing tensions between the two nations, which have been recently exacerbated by the Botswana's unilateral decision to construct a line of electric fence along the borderline, and deport illegal Zimbabwean migrants back to their country.

Mongolia: Populism Strikes Back

Amidst the fall of communism during the late twentieth-century, Mongolia gained its reputation as a success story in engendering a smooth transitioning from communist dictatorship to a multi-party democracy. A landlocked nation in East Asia, Mongolia boasts its rich history and tradition of the nomadic warriors who once built one of the largest empires in the history of mankind. The year of 2017 marks one of the significant milestones of the modern history of Mongolia, as the nation went through a presidential election that was largely known as the most heated and contested one since the establishment of democratic electoral system in Mongolia. While the nation of three million had been often referred as an oasis of democratic stability in the region, its politics have grown increasingly fractious amid a persistent economic crisis and corruption scandals within the ruling class (The Associated Press 2017). The nation has recently shown specific characteristics associated with economies with disproportionate emphasis on natural minerals as their primary source of income – fluctuation of growth rates. This issue is especially keen on the fact that foreign investment in Mongolia has slumped in recent years as the international price of metals decreased. As a result, Mongolian economy has generated just 1 percent growth rate in 2016, a stark contrast from 2011 when it showed a surprisingly robust growth rate of 17.3 percent. In terms of the overall GC score on the governance sub-sections, Mongolia scored 21st on democracy, 32nd on government competency and 24th on the rule-of-law.

Reviewing the GC-governance data results for Mongolia, it was analyzed that the nation has been experiencing “balkanization” of its social fabric along its political factions. For instance, the nation performed poorly on *Right to petition the government and public participation* variables, which measures the degree or intensity of illiberal elections and corruption in political competition and democratic receptivity of the government bodies. During the electoral cycle leading up to the Presidential inauguration of Khatmaa Battulga, the ex-Judo player, numerous incidents of voting fraud and incendiary remarks – especially those regarding signs of organized political movements of the police and military – were reported throughout the country. Both parties – the incumbent Mongolian People's Party (MPP) and the opposing Democratic Party (DP) – have engaged in overheated debates. Mr. Battulga's campaign closely resembled that of President Donald Trump of the United States, in a sense that one constant theme throughout the Mongolian candidate's road to the victory was a repeated emphasis on “Mongolia First” rhetoric and its strong favor towards gaining more returns from the country's mineral reserves.

The establishment of Mongolia's procedural democracy notwithstanding, additional emphasis is warranted on the human rights issues. Persistent human rights violation is often described as the “heritage from the old totalitarian regime” which continuously incurs negative influence on the consolidation of democratic principles throughout the day-to-day interaction between the government apparatus and the citizens. The 2010 Human Rights Report of the U.S. Department of State posits that Mongolia's human rights problems are concentrated in the police and security sectors, e.g., abuse of prisoners by police, uneven law enforcement, poor prison conditions, arbitrary arrests, judicial corruption and domestic violence, while multiple reports on discrimination case on the basis of socio-ethnic origins were received (US State Department 2010).

Women's participation in labor force and their

representation in the legislature yield a discrete trend. Mongolia's proportion of seats held by women in its parliament was recorded as 17.1% in 2017, while scoring 56.6 percent on the labor participation rate. The former statistics between 1990 and 2017 show a U-shaped curve, which indicate that women's social participation remained quite high during the latter periods of the communist regime, went through a steep decline as the nation was transforming itself into a capitalist democracy, and subsequently undergoing a rebound in the 2010s. For instance, 24.9 percent of the Mongolian parliamentary seats were filled with women in 1990, which was followed by a steep decline towards 3.9 percent in 2009. However, the labor force participation rate of women has remained largely unchanged between 1990 (52.5%) and 2017 (56.7%). This can be attributed to the effects of political transformation from communism that stresses gender equality towards capitalist democracy. Notwithstanding the changes in the political realm, i.e., the Parliament, the actual labor participation rate of women in Mongolia remained unchanged despite the ongoing transitions throughout the late twentieth- and the early twenty-first centuries. This results from Mongolia's heavy emphasis on the economic sectors of herding, in which both genders have traditionally taken equally active roles in producing.

Romania: Isomorphism towards the West - Fighting the Corruption's Tentacles

Romania, once a member of the Soviet Union-led Eastern-bloc throughout the latter half of the twentieth century, has shown a consistent trend of upward trajectory in government competitiveness throughout the recent two decades. For instance, its ranking has increased from being 24th in 2015 and 15th in 2016, and the country has finally entered the top-10 list among the 89 non-OECD nations in 2017 (2017 GC ranking: 9th). Ranked 10th, Romania's competitiveness in governance dimension has also shown a matching improvement with the overall trend. Located in the Southeastern portion of the European Continent,

Romania has strived for achieving a more fully consolidated democracy throughout its political system, while increasingly vying for friendship with the West, noticeably the United States. This is due to Romania's geographical location, which borders Ukraine to the East, and its proximity to the Russian Federation. Since 2000, Romania has joined the NATO – the North Atlantic Treaty Organization – and even allowed American military presence, including the controversial missile defense equipment, in its territories. The country also gained membership to the European Union in 2007, thereby further enhancing both bilateral ties with the United States and multilateral partnership with counterparts in the Western Europe.

One of Romania's challenges to its governance competitiveness has been the chronic presence of political corruption, specifically within the public sector. For instance, the Romanian National Assembly has attempted to adopt an emergency law in late-January of 2017 that would make official misconduct punishable by prison-time only in cases in which the financial damage is greater than approximately \$47,000. Given that corruption is a deeply entrenched problem throughout the Romanian society, the decree would have directly benefited politicians and its local machines which tend to often engage in unlawful financial transactions. In this context, the civil society in Romania has engaged in an unprecedented series of anti-government protests, drawing around 500,000 citizens in total. Romania's total population is little less than 20 million. Facing such uproars, the government backed down, and the Romanians were able to accomplish a significant political victory against the endemic corruption problem of the state. In May 2017, anti-corruption campaigners in Romania continued its struggle to hold public officials accountable, finally gaining two important milestones in the modern history of the nation. First, Romania's Senate has agreed to withdraw amendments to a bill that would have pardoned officials imprisoned for bribery offenses. Secondly, the Constitutional Court of Romania has upheld a

law on prohibiting those with criminal convictions from serving ministerial posts in the government. The series of conflicts between the civil society and the government, although turned violent in some incidents, symbolizes the continuing development of Romania's political capital, and the capacity of its civil society to generate momentum of social reform from the below. While political corruption remains an entrenched problem, Romania's state prosecutors are also striving for making progress in holding corrupted officials accountable in recent years. One of the youngest democracies in Europe (albeit categorized as "flawed" by 2016 Democracy Index), Romania's political culture seems to be undergoing a significant change towards a positive direction.

Acknowledging its transition from an authoritarian regime under Nicolae Ceaușescu towards a young democracy, the GC 2017 hereby provides a few areas of potential improvement. First, while the street protests were remarkable by themselves, political establishment must react in a swift manner in eradicating poverty throughout the nation. Many citizens consider their government's reform measures as weak and ineffective. Secondly, the Romanian government ought to increase its efforts in ensuring human rights of the citizenry. For instance, multiple reports point towards Romania's unfavorable performance-results in police brutality, prison conditions and human trafficking. In this sense, more resources should be placed upon relevant agencies in implementing more effective strategies and policies towards such problems, while increasing its openness and coordination with international agencies and watchdogs.

COSTA RICA: Nation of Peace, Stability and Democracy

Located in Central America, Costa Rica is a vibrant democracy with approximately 5 million populations. The country is known for its long history of stable democracy throughout the past 200 years, while boasting its strength in human rights and environment-friendly policies. Costa

Rica depends approximately 90 percent of its electricity production on renewable energies, such as wind, geothermal generators and hydroelectric power plants. Costa Rica is also a permanent neutral country, and the nation even does not own a formal military. The country has consistently allocated significant amount of governmental resources and efforts upon developing human resources through education and social welfare. For instance, Costa Rica operates universal healthcare system with strong social safety nets. Scholars point that the concentration of governmental resources and efforts on designing a well-functioning social system was made possible through minimizing its expenditures on military. When compared with its counterparts in the region, public safety is also a policy area which the country has its strength. For instance, the homicide rate (in 100,000 people) was recorded as 8.5, the lowest in the Latin American countries. However, it must also be noted that the rate is greater than world's average, 6.2 per every 100,000 people. In addition to the numbers, Costa Rica is facing exogenous effects of international drug trade, e.g., cocaine and heroin, along the North-South axis throughout the Latin American region. In this context, the government of Costa Rica ought to better devise a long-term strategic plan to fight against the threat of illegal trade of narcotics, as it can grow into a major public health and safety crisis if left unaddressed.

The aforementioned facts are well-reflected in the Government Competitiveness ranking 2017. Looking at the overall score, Costa Rica was ranked in the 4th place among the 89 non-OECD nations, and it has shown superior performance in governance (3rd), environment (3rd), and education (6th), in particular. Its relative weaknesses were concentrated in the areas of agriculture and food (14th), infrastructure (20th), and ICT (14th). Yet, it should be recalled that the country did not score below 20th in any of the sub-dimensions of government competitiveness.

One particular policy prescription for Costa Rica would be to improve and enhance its capabilities

in national-level infrastructure. Located in between the equator and the Tropic of Cancer, Costa Rica and its geographical condition is not well-suited for ensuring efficient infrastructures in traffic. Specifically, the country is experiencing hardship in enhancing its transportation network throughout its northern region, along the borderline with Nicaragua. At least part of this problem originates from the fact that over 70 percent of Costa Rica's territories are covered with protected rainforests and national reserves. In order to enhance its national prowess in economic power, Costa Rican government is currently pursuing a set of policies towards diversifying its main economic outputs from agricultural and light manufacturing towards innovation-driven ICT industries. Considering the fact that infrastructure on telecommunication, transportation and port facilities are critical for ensuring stable background for sustainable development, the dilemma between environmental conservatism and economic development will be one of the most critical debates which the Costa Rican government will get to face within the upcoming days.

Health & Welfare: Rankings of 2016-2017

Country	2017	2016	Change	Country	2017	2016	Change	Country	2017	2016	Change
Korea, Rep.	1	1	0	Panama	31	27	-4	Sudan	61	79	18
Uruguay	2	3	1	Oman	32	8	-24	Ghana	62	62	0
Uzbekistan	3	24	21	Croatia	33	5	-28	Ethiopia	63	71	8
Belarus	4	9	5	Malaysia	34	12	-22	Malawi	64	69	5
Kazakhstan	5	28	23	Mongolia	35	52	17	Kenya	65	67	2
Algeria	6	20	14	Colombia	36	35	-1	India	66	68	2
Brazil	7	30	23	Egypt, Arab Rep.	37	42	5	Burkina Faso	67	74	7
Russian Federation	8	33	25	Ecuador	38	41	3	Mauritania	68	70	2
Mauritius	9	11	2	Latvia	39	25	-14	Indonesia	69	56	-13
Costa Rica	10	7	-3	El Salvador	40	45	5	Philippines	70	53	-17
Tunisia	11	19	8	Paraguay	41	36	-5	Botswana	71	57	-14
Kyrgyz Republic	12	34	22	Sri Lanka	42	50	8	Benin	72	77	5
Venezuela, RB	13	21	8	Bolivia	43	54	11	Cameroon	73	72	-1
Nicaragua	14	44	30	Georgia	44	47	3	Uganda	74	78	4
Serbia	15	15	0	Nepal	45	60	15	Zimbabwe	75	75	0
Jordan	16	13	-3	Peru	46	46	0	Congo, Dem. Rep.	76	85	9
Albania	17	16	-1	Lebanon	47	39	-8	Mali	77	81	4
Argentina	18	18	0	Romania	48	14	-34	Lao PDR	78	66	-12
Bosnia and Herzegovina	19	26	7	Thailand	49	22	-27	South Africa	79	64	-15
Lithuania	20	23	3	Honduras	50	51	1	Sierra Leone	80	87	7
Moldova	21	43	22	Rwanda	51	55	4	Guinea	81	82	1
Bulgaria	22	10	-12	Bahrain	52	17	-35	Pakistan	82	76	-6
Azerbaijan	23	37	14	Guatemala	53	63	10	Liberia	83	86	3
Morocco	24	49	25	Senegal	54	59	5	Zambia	84	80	-4
Qatar	25	2	-23	Jamaica	55	38	-17	Madagascar	85	84	-1
China	26	31	5	Dominican Republic	56	48	-8	Mozambique	86	89	3
Armenia	27	29	2	Bangladesh	57	58	1	Nigeria	87	83	-4
Singapore	28	4	-24	Ukraine	58	40	-18	Timor-Leste	88	65	-23
Kuwait	29	6	-23	Tanzania	59	73	14	Angola	89	88	-1
Vietnam	30	32	2	Cambodia	60	61	1				

Health & Welfare: Rankings by Subgroup

Country	Child Welfare	Disease management	Health & Welfare System	Life and Death	Country	Child Welfare	Disease management	Health & Welfare System	Life and Death
Korea, Rep.	3	26	3	62	Peru	41	36	47	31
Uruguay	21	29	5	71	Lebanon	1	60	40	16
Uzbekistan	30	9	14	52	Romania	29	53	17	80
Belarus	7	6	1	77	Thailand	32	30	52	53
Kazakhstan	23	8	9	73	Honduras	51	39	60	2
Algeria	26	19	18	36	Rwanda	73	23	61	8
Brazil	9	28	19	46	Bahrain	-	56	35	26
Russian Federation	4	40	2	83	Guatemala	66	35	59	11
Mauritius	1	4	15	63	Senegal	44	54	71	1
Costa Rica	6	20	27	18	Jamaica	14	73	58	34
Tunisia	15	3	31	30	Dominican Republic	28	45	64	45
Kyrgyz Republic	22	21	24	17	Bangladesh	72	41	66	3
Venezuela, RB	20	38	25	47	Ukraine	5	87	6	81
Nicaragua	45	10	43	4	Tanzania	76	48	67	12
Serbia	10	49	7	79	Cambodia	62	62	65	6
Jordan	12	14	36	21	Sudan	82	43	72	20
Albania	47	7	21	48	Ghana	38	50	70	67
Argentina	13	57	16	72	Ethiopia	78	65	56	5
Bosnia and Herzegovina	16	63	11	61	Malawi	68	66	69	13
Lithuania	-	37	4	86	Kenya	53	70	62	42
Moldova	18	51	12	69	India	80	67	42	44
Bulgaria	17	33	8	84	Burkina Faso	70	42	88	25
Azerbaijan	43	15	22	64	Mauritania	50	74	76	49
Morocco	25	13	55	10	Indonesia	58	77	48	54
Qatar	-	11	30	28	Philippines	60	72	54	51
China	24	2	38	35	Botswana	59	81	53	74
Armenia	34	24	26	60	Benin	55	61	81	65
Singapore	11	32	23	66	Cameroon	52	69	68	76
Kuwait	8	5	44	27	Uganda	65	75	73	39
Vietnam	48	17	46	15	Zimbabwe	64	79	74	59
Panama	35	55	29	38	Congo, Dem. Rep.	79	64	82	55
Oman	31	1	49	19	Mali	63	71	87	68
Croatia	-	46	10	78	Lao PDR	75	58	84	40
Malaysia	39	31	33	41	South Africa	40	89	28	85
Mongolia	36	47	20	58	Sierra Leone	74	68	77	82
Colombia	27	34	41	29	Guinea	61	84	83	37
Egypt, Arab Rep.	37	25	45	32	Pakistan	77	78	78	43
Ecuador	46	59	32	24	Liberia	69	83	86	14
Latvia	-	22	13	87	Zambia	81	76	75	70
El Salvador	42	18	51	23	Madagascar	84	80	85	9
Paraguay	33	52	39	22	Mozambique	71	82	89	56
Sri Lanka	57	12	34	50	Nigeria	56	86	63	88
Bolivia	49	16	50	57	Timor-Leste	83	85	80	33
Georgia	19	27	37	75	Angola	54	88	79	89
Nepal	67	44	57	7					

Health & Welfare

1. Overview

The health and welfare sector has developed from the idea that the state should protect the dignity of the human being through minimum medical service and material support for basic rights of the people. Historically, health and welfare policies are one of the unique areas of government that cannot be totally left to the private sector. Since health policy refers to the creation of a basic environment for human life, it should not be judged by the market profit.

In health sector, government tries to enhance the status of health by using public health expenditure, number of doctors and nurses, and incidence of disease including the condition of the environment and resources. This health system means the process such as policy, organization, human and financial system, and health infrastructure that governments provide. Immediate health service outputs are presented as health service availability and quality, information availability and quality, coverage of the population with key health services. Ultimate goal in health sector that government pursue include standards related to mortality, morbidity, disability and well-being.

South Korea, Uruguay, Uzbekistan, Belarus and Kazakhstan are among the top five in the non-OECD group. Madagascar, Mozambique, Nigeria, Timor-Leste and Angola were those that underperformed than most of the countries on the list. Some Middle East and North African countries such as Algeria, Tunisia, Jordan, Morocco, and Qatar were in top quartile.

The overall ranking in health and welfare on non-OECD states revealed a clear distinction by

continent and region. Countries in Europe and Central Asia such as Russian Federation, Kyrgyz Republic, Serbia, Albania, Bosnia and Herzegovina, and Lithuania ranked relatively high above 25th place. While China(26th), Singapore(28th), Vietnam(30th), Malaysia(34th) and Mongolia(35th) demonstrated above average, India(66th), Indonesia(69th), Philippines(70th), Lao PDR(78th), Pakistan(82nd), and Timor-Leste(88th) under performed. Most sub-Saharan African countries are ranked below 60th place except Mauritius(9th) and Rwanda(51st). Countries in East Asia and Pacific region presented various performance.

The health and welfare area is divided into four sub-groups: (1) Life and Death, (2) Health and Welfare System, (3) Disease management, and (4) Child Welfare each belonging to the following dimensions of analysis: (a) input (b) throughput (c) output and (4) outcome.

Since GC health and welfare area consists of great variety of components, the overall ranking does not necessarily match the ranking of subgroups. Some countries which their overall ranking is in the top ten presented relatively low level of Child Welfare: Uruguay, Uzbekistan, Kazakhstan, and Algeria. Especially, Life and Death presented somewhat different results compared to other three sub-groups. For example, some Sub-Saharan African countries ranked high in Life and Death sub-group. This is attributed to the fact that Life and Death reflect indicators related to suicide rate, which was low in Sub-Saharan African countries. However, experts indicated that the quality of data on suicide rates in Africa and Southeast Asia is often questionable (Patel, V., Saraceno, B., & Kleinman, A., 2006).

Due to the weakness of knowledge on neuropsychiatric disorders in the region, there are cases where the basic human rights are violated in the process of treatment. Therefore, a lower suicide rate in African countries in areas requires more research.

2. Issues and Policy Implications

Community Disease Management of BRAC System in Bangladesh

Overall ranking of Bangladesh in Health and Welfare is 57th. Among sub-groups, Disease management presented relatively high result on the list(41st). In response to the low quality of service by the central government and its inability to reach the entire population, particularly the poor, a vibrant NGO sector has emerged as a third sector of health providers in Bangladesh (Ahmed, S. et al, 2015).

One of the NGOS, BRAC (formerly known as the Bangladesh Rural Development Committee) has been promoting rural economic development since Bangladesh's independence in 1971. Afterwards, the BRAC leadership realized a link between health care and national development, and began to invest in community health delivery systems by training women health workers, who are called as Shasthya Shebikas. Shebikas played a pivotal role in health education; they taught community members how to prepare medicines. BRAC trained Shebikas, supported transportation and medicine, and each shebikas took care of 250-300 households.

In the early 1980s, BRAC staff launched a tuberculosis control program with the Shebikas network; tuberculosis was considered as the most urgent disease to be dealt with in rural Bangladesh at the time. Shebikas regularly visited community members to check tuberculosis and report suspicious cases to the facility to help patients identify the disease and follow treatment. BRAC integrated the program into a government health system, which lent and supported drugs and laboratories in the public sector. BRAC's

tuberculosis program achieved a great success; 87,000 tuberculosis patients were treated in 2006 and with 92% cure rate. In today's tuberculosis control, the BRAC approach (based on a network of trained and payed Shebikas and integrated with public health system) is considered as the most successful and even a legendary case in international health related disease management.

More importantly recent Bangladesh government recognized high levels of out-of-pocket expenditure form a barrier to utilization; a Health Care Financing Strategy (2012–2032) has been developed to provide direction in achieving universal health coverage (Ahmed et al, 2015).

Effective Health Care System, India, Kerala

India has a vast health care system, but there remain many differences in quality between the rural and urban areas and health care services in public and private sectors. The health governance system in India have been divided between the union and the state governments. The Union Ministry of Health and Family Welfare is responsible for implementation of various programs on a national scale in the areas of health and family welfare, prevention and control of major communicable diseases. The state government deals with areas of public health, hospitals, sanitation and so on.

India has a mixed health-care system, including public and private service provider. Most of the private healthcare providers are concentrated in urban India, providing secondary and tertiary care health-care services. The public health-care infrastructure in rural areas has been developed as a three-tier system (sub-center, primary health centers and community health center) based on the population (Chokshi, M. et al, 2016).

National Rural Health Mission (NRHM) program aimed at increased public expenditure on health care, decreased inequity, decentralization and community participation in operationalization of health-care facilities in rural area by raising public spending on health 2-3% of GDP (Sharma, A. K., 2009). Special efforts were made to strengthen

community participation through the formation of health committees at the village level and patient welfare committees at public health-care facilities.

During the period 2005-2013, the total investment by the central government equaled nearly 17 billion USD. National government put much effort in rural health, it still has a long way to go; India's rank in Health and Welfare is 66th in 2017. However, health and welfare system presented ranked relatively higher (42nd) among the sub-groups.

One of the remarkable cases is found in the state Kerala, India, where the state government created a robust public health care system. Although private sector health plans have expanded since the mid-1980s, public programs have consolidated the local health system and have undertaken most of health care regulations and training. This approach, along with therapeutic management, focuses on prevention, immunization, and child and maternal care (Thankappan, K. R., 2001).

This Kerala model has accomplished excellent performance with low cost; in 2000, Kerala spent \$28 per person in health care. In 2005, infant mortality rate was 14 per 1,000, which is much small number compared to 91 infant deaths per 1,000 for low-income countries in general. The life expectancy in Kerala was 76 years for women and 70 years for men. , This data shows that the Kerala residents are receiving the best health care in the developing countries, with the effort of Kerala 's universal health care plan.

However, the criticism of the Kerala model is the high costs of the social sector. In 1990s, 15% of the state budget was allocated to health. However, the total budget of the provincial government itself is small, and actual amount of budget on health is not significant compared to developed countries. This per-capita expense emphasizes that if a national health system operates efficiently, high performance in health sector is possible with a reasonably small amount of investment. However, ironically, the highest suicide rate is reported in this area among Indian states. This result may be due to the fact that health care capacity has not

been reported before the expansion of health services (Sen, A., 2002). As mentioned in the preceding discussion, the quality of health data is still very limited. Thus it needs to be supplemented to analyze longitudinal effect. Nevertheless, the Kerala case illustrates the benefits of a robust public sector health system.

Romania: Government Lead Health Care System

Although overall ranking in Health and Welfare of Romania has fallen sharply in 2017 (48th), each indicator does not show much change except subsidies and other transfer. One assumption for the sudden drop in ranking may be that slightly lower performance in disease management subgroup caused the change of Romania's relative status in health and welfare. Another reason that Health and Welfare score has been sluggish may be attributed to the fact that subsidies and other transfer is continuously decreasing since 2010.

In trends in health expenditure as a share (%) of GDP in Romania in 1995–2013 compared to neighboring OECD countries such as Slovakia, Hungary, Czech Republic, Poland, and Non-OECD county, Bulgaria, Romania has shown lower share of GDP (ranges from 2.6% to 6%) steadily. However, the public sector accounts for the largest part of health expenditure (80% in

2014), which is lower than in the Czech Republic (83%) but higher than Slovakia (70%), Poland (70%), Hungary (64%), Bulgaria (59%) and the EU average of 76% (Vlădescu, C. et al, 2016).

The number of physicians and nurses are relatively small in Romania compared to the EU average, but compared to 89 other developing countries the number was well around the average. This has mainly been attributed to the high rates of workers emigrating abroad over the past decade, exacerbated by joining EU and the reduction of public sector salaries due to the economic crisis (Vlădescu, C. et al, 2016).

Relatively recent reforms (2008-2014) have

introduced cost-saving methods. The government attempted to shift some of the health care costs to drug manufacturers and to the population (through co-payments), and on improved the monitoring of health care expenditure.

Health Inequality in Developing Countries

Studies analyzing health indicators in developing countries have focused particularly on infant mortality. From now on, health indicators in developing countries need to be considered in the perspective of equality. Health inequalities is generally defined as differences in health status or in the distribution of health determinants between different population groups; for example, differences in mortality rates between people from different social classes.

Waldmann (1992) reported that infant mortality was high in countries with high inequality after controlling GNP per capital. Waldmann (1992) and Hales (1999) also indicated that regardless of the level of economic development, the equality of countries tends to lower the infant mortality rate.

In poor countries, as the per capita GNP increases, the infant mortality rate decreases rapidly. However, in rich societies, even if the GCP increases, the infant mortality rate changes slowly. In countries that already live well above a certain level, the infant mortality rate does not change much according to the economic growth. Health systems must be seen in terms of not only health improvement, but also equity and responsiveness to legitimate expectation.

ICT: Rankings of 2016-2017

Country	2017	2016	Change	Country	2017	2016	Change	Country	2017	2016	Change
Singapore	1	1	0	Brazil	31	28	-3	Venezuela, RB	61	57	-4
Korea, Rep.	2	2	0	Argentina	32	36	4	Paraguay	62	59	-3
Qatar	3	3	0	Ecuador	33	22	-11	Uganda	63	69	6
Bahrain	4	4	0	Rwanda	34	37	3	Lao PDR	64	60	-4
Belarus	5	5	0	Philippines	35	29	-6	Cambodia	65	70	5
Lithuania	6	6	0	Mongolia	36	46	10	Algeria	66	73	7
Malaysia	7	7	0	Ukraine	37	40	3	Bangladesh	67	67	0
Uruguay	8	9	1	Vietnam	38	33	-5	Cameroon	68	66	-2
Latvia	9	12	3	Croatia	39	38	-1	Tanzania	69	72	3
Kazakhstan	10	10	0	Indonesia	40	34	-6	Mali	70	71	1
Azerbaijan	11	8	-3	Morocco	41	43	2	Nepal	71	75	4
Russian Federation	12	13	1	Jamaica	42	49	7	Zimbabwe	72	64	-8
Kuwait	13	26	13	Tunisia	43	41	-2	Nigeria	73	65	-8
Costa Rica	14	14	0	Dominican Republic	44	45	1	Nicaragua	74	68	-6
Mauritius	15	15	0	Botswana	45	42	-3	Liberia	75	76	1
Bulgaria	16	18	2	Lebanon	46	55	9	Pakistan	76	74	-2
China	17	16	-1	Albania	47	48	1	Ethiopia	77	80	3
Oman	18	11	-7	Kenya	48	44	-4	Mozambique	78	78	0
Panama	19	17	-2	Peru	49	50	1	Burkina Faso	79	77	-2
Colombia	20	27	7	Kyrgyz Republic	50	61	11	Benin	80	86	6
Jordan	21	20	-1	El Salvador	51	47	-4	Sudan	81	82	1
Serbia	22	25	3	Honduras	52	63	11	Angola	82	83	1
Sri Lanka	23	24	1	India	53	53	0	Madagascar	83	81	-2
Uzbekistan	24	32	8	Guatemala	54	52	-2	Timor-Leste	84	85	1
Romania	25	30	5	Bosnia and Herzegovina	55	31	-24	Malawi	85	79	-6
Thailand	26	35	9	Ghana	56	54	-2	Mauritania	86	87	1
Armenia	27	19	-8	Egypt, Arab Rep.	57	62	5	Sierra Leone	87	84	-3
Georgia	28	21	-7	Senegal	58	58	0	Congo, Dem. Rep.	88	89	1
Moldova	29	23	-6	Bolivia	59	51	-8	Guinea	89	88	-1
South Africa	30	39	9	Zambia	60	56	-4				

ICT: Rankings by Subgroup

Country	ICT promotion	ICT scale	ICT utilization	Country	ICT promotion	ICT scale	ICT utilization	Country	ICT promotion	ICT scale	ICT utilization
Singapore	1	1	1	Brazil	46	19	39	Venezuela, RB	84	34	67
Korea, Rep.	7	2	2	Argentina	69	15	46	Paraguay	78	55	54
Qatar	2	9	3	Ecuador	31	40	21	Uganda	38	80	53
Bahrain	5	4	6	Rwanda	4	77	17	Lao PDR	39	71	64
Belarus	-	3	10	Philippines	27	46	27	Cambodia	58	58	73
Lithuania	6	7	5	Mongolia	25	37	37	Algeria	75	53	81
Malaysia	3	23	4	Ukraine	53	32	32	Bangladesh	63	73	60
Uruguay	11	6	12	Vietnam	33	41	30	Cameroon	49	74	72
Latvia	10	10	13	Croatia	30	20	49	Tanzania	57	85	62
Kazakhstan	18	13	14	Indonesia	23	52	38	Mali	41	63	78
Azerbaijan	17	17	7	Morocco	26	43	33	Nepal	71	65	70
Russian Federation	24	8	19	Jamaica	22	44	51	Zimbabwe	77	61	77
Kuwait	45	5	41	Tunisia	50	39	44	Nigeria	70	68	68
Costa Rica	20	16	16	Dominican Republic	52	45	36	Nicaragua	80	60	71
Mauritius	9	24	18	Botswana	43	35	63	Liberia	51	83	74
Bulgaria	32	12	20	Lebanon	72	18	61	Pakistan	66	79	69
China	15	33	9	Albania	42	38	55	Ethiopia	47	86	66
Oman	13	22	34	Kenya	21	67	25	Mozambique	65	82	79
Panama	12	26	24	Peru	55	50	42	Burkina Faso	67	78	75
Colombia	16	31	15	Kyrgyz Republic	62	42	59	Benin	56	76	84
Jordan	8	36	22	El Salvador	64	47	48	Sudan	-	64	80
Serbia	59	11	35	Honduras	36	59	47	Angola	83	81	82
Sri Lanka	14	54	11	India	28	69	31	Madagascar	76	88	76
Uzbekistan	-	48	8	Guatemala	61	57	26	Timor-Leste	79	70	85
Romania	34	21	43	Bosnia and Herzegovina	73	27	65	Malawi	74	89	83
Thailand	37	25	23	Ghana	44	51	58	Mauritania	82	72	86
Armenia	40	30	28	Egypt, Arab Rep.	60	49	57	Sierra Leone	-	66	88
Georgia	48	28	29	Senegal	29	62	50	Congo, Dem. Rep.	-	87	87
Moldova	54	14	45	Bolivia	68	56	52	Guinea	81	84	89
South Africa	19	29	40	Zambia	35	75	56				

Information and Communications Technology (ICT)

1. Overview

The fourth industrial revolution is currently ongoing at a dazzling speed. It is expected that a number of ICT based emerging technologies, such as Internet of Things (IoT), or Artificial Intelligence (AI), will improve the quality of life around the world. At the same time, however, this transition has risen concerns about unequal development among countries, as the new technologies require sufficient ICT infrastructure. Some developed countries with well-established ICT infrastructure are ready to lead the new economy while most developing countries will be left behind. Recognizing this problem, some developing countries have started to prioritize ICT policies aimed at infrastructure improvement and socio-economic growth.

Government's role in improving ICT area can be divided into four sequential levels: input, throughput, output, and outcome. Input can be measured by using the level of physical infrastructure and ICT-related education, and the number of ICT professionals. Available measures for throughputs include government investment, government regulations on ICT industry, policy priorities for ICT, and so on. Output is defined as the short-term result, so the number of ICT firms, mobile accessibility, and individual use of ICT can be considered. In the long-term, the improvement of ICT will lead to an increase in e-participation capabilities and the development of ICT industry.

The GC report in 2017 newly rearranges ICT indicators to systematically analyze where a country is positioned relative to other countries for the three different sub-dimensions and an overall competitiveness. Specifically, the overall score is

calculated by aggregating results from three sub-categories - scale, promotion, and utilization. The following are some examples for each category.

Scale: ICT-related infrastructure (e.g. internet, broadband, electricity, etc.), ICT experts

Promotion: ICT policy priorities (e.g. government vision, promotion)

Utilization: ICT use, impact of ICT on diverse area (e.g. education, business, e-participation.)

The costs and time required to build an adequate ICT infrastructure are generally high. In this sense, there is no significant change in the ranking of the top 10 countries in 2016 and 2017.

The ranking of 41 of the 89 countries has risen by at least one step. Kuwait (13th) is the biggest mover with jumping up 13 steps because of a high score for scale category (5th). This indicates that Kuwait has been sufficiently investing in ICT infrastructure. Honduras is the second biggest mover, ranking in 52nd. Another countries showing substantial increase are Mongolia (+10), Thailand, South Africa, Lebanon, and Kyrgyz Republic (+9).

Meanwhile, the ranking of 33 countries declines. Among them, Bosnia and Herzegovina falls greatly from 31st to 55th.

2. Issues and Policy Implications

Azerbaijan: Seeking Economic Opportunities through ICT

Azerbaijan is ranked 11th in the overall ICT competitiveness in 2017, which is three steps

lower than in 2016. In particular, utilization score (7th) is relatively higher than the other sub-categories (17th).

Azerbaijan is the second highest performance country among the Commonwealth of Independent States (CIS) in terms of ICT development. The Azerbaijan government has played a pivotal role to improve ICT, which is reflected in the higher ranking of utilization index in our analysis.

According to Executive Opinion Survey (2014-15) conducted by World Economic Forum, Azerbaijan has implemented clear and specific plans for utilizing ICTs to improve the country's overall competitiveness. For instance, the Azerbaijan government has jointly implemented a series of projects with UNDP, such as National ICT Strategy (2003-2012) and Modernization of Sustainability and Efficiency of ICT infrastructure and ICT services in the Republic of Azerbaijan (2013-2020). These projects have promoted the use of ICT tools and improved efficiency and transparency in the public sector.

Azerbaijan has made continuous progress in ICT area. Furthermore, the Azerbaijan government has plans to strength and diversify economy by shifting attention from oil industry to ICT industry often regarded as a high value-added industry. However, there is a lack of human capital. Therefore, investing in ICT training programs and higher education is vital to foster ICT industry.

Indonesia: Massive ICT Infrastructure Opportunity

Indonesia is ranked 37th in 2017 which is three steps lower than in 2016. The highest ranking of sub-category is promotion (23rd) while the lowest ranking is scale (52nd).

Indonesia has recognized the importance of ICTs. In the late 1990s, ICT related legislations were enacted to liberalize telecommunication sector: Indonesia Telecommunication Sector Policy (1999) and Telecommunication's Law no. 36 (1999). The government established task force

teams and institutions, such as the Coordination Team for ICT Development (2000), in order to encourage use of ICT in government organizations. Several programs as a part of Indonesia Broadband Plan (IBP) have implemented to build ICT infrastructure since 2014. Currently, Indonesia is developing and implementing open government policies to become the transparent, participatory and accountable government.

The geographical feature in Indonesia is a major obstacle to expanding ICT infrastructure. Indonesia is made up of more than 17,500 islands with a population of 250 million, and it requires substantial investments to increase connectivity within the country.

The Indonesian government announced plans to allocate a Rp 288 trillion (US\$ 24 billion) for broadband development in 2014. According to the World Bank, although Indonesia's Internet penetration has been gradually increasing since 2000. However, only 25.4% of the population used internet in 2016. This percentage is still low, compared to 47.5% in Thailand, 55.5% in Philippines, and 46.5% in Vietnam.

In February 2017, the Minister of Communications and Information Technology announced that Palapa Ring project in Indonesia aiming to build ICT infrastructure, will be completed by 2019 and as a result, internet accessibility and the connection speed will be improved. Expenditures in the ICT sector are also expected to increase every year. The Indonesia government will spend Rp 20.7 trillion (US\$1.5 billion) in 2017. Long-term government plans and a constant increase in ICT infrastructure investment will have a positive impact on the economy and society in the end.

Infrastructure: Rankings of 2016-2017

Country	2017	2016	Change	Country	2017	2016	Change	Country	2017	2016	Change
Singapore	1	1	0	Albania	31	44	13	Liberia	61	49	-12
Qatar	2	2	0	Azerbaijan	32	29	-3	Lao PDR	62	61	-1
Korea, Rep.	3	3	0	Romania	33	40	7	Pakistan	63	54	-9
Bahrain	4	5	1	Oman	34	7	-27	Senegal	64	69	5
Malaysia	5	8	3	Moldova	35	24	-11	Rwanda	65	63	-2
Mauritius	6	9	3	Brazil	36	38	2	Venezuela, RB	66	48	-18
Jordan	7	12	5	Colombia	37	42	5	Mozambique	67	71	4
Latvia	8	16	8	Morocco	38	31	-7	Timor-Leste	68	51	-17
Russian Federation	9	25	16	Algeria	39	30	-9	Cameroon	69	80	11
Georgia	10	6	-4	Vietnam	40	39	-1	Zimbabwe	70	74	4
Bulgaria	11	10	-1	South Africa	41	33	-8	Mauritania	71	79	8
Armenia	12	35	23	Sri Lanka	42	43	1	Burkina Faso	72	77	5
Lithuania	13	21	8	Paraguay	43	37	-6	Bangladesh	73	75	2
Tunisia	14	22	8	Jamaica	44	41	-3	Malawi	74	73	-1
Croatia	15	19	4	Ecuador	45	45	0	Kenya	75	81	6
Kazakhstan	16	15	-1	Peru	46	52	6	Mali	76	78	2
Kuwait	17	4	-13	Lebanon	47	36	-11	Cambodia	77	76	-1
Belarus	18	11	-7	Dominican Republic	48	50	2	Sudan	78	85	7
Uzbekistan	19	46	27	Philippines	49	56	7	Tanzania	79	84	5
Costa Rica	20	13	-7	Honduras	50	53	3	Benin	80	68	-12
Thailand	21	18	-3	Indonesia	51	58	7	Angola	81	82	1
China	22	32	10	Bolivia	52	62	10	Zambia	82	70	-12
Uruguay	23	26	3	El Salvador	53	47	-6	Uganda	83	83	0
Panama	24	20	-4	Guatemala	54	55	1	Sierra Leone	84	67	-17
Serbia	25	23	-2	Nicaragua	55	57	2	Guinea	85	86	1
Ukraine	26	17	-9	India	56	66	10	Ethiopia	86	72	-14
Egypt, Arab Rep.	27	27	0	Mongolia	57	60	3	Congo, Dem. Rep.	87	88	1
Bosnia and Herzegovina	28	14	-14	Botswana	58	59	1	Nigeria	88	87	-1
Kyrgyz Republic	29	28	-1	Ghana	59	64	5	Madagascar	89	89	0
Argentina	30	34	4	Nepal	60	65	5				

Infrastructure: Rankings by Subgroup

Country	Infra Investment	utility	Country	Infra Investment	utility	Country	Infra Investment	utility
Singapore	4	2	Albania	17	37	Liberia	1	86
Qatar	7	1	Azerbaijan	51	45	Lao PDR	30	61
Korea, Rep.	33	4	Romania	31	40	Pakistan	70	62
Bahrain	89	3	Oman	87	14	Senegal	34	67
Malaysia	67	7	Moldova	11	41	Rwanda	22	63
Mauritius	40	11	Brazil	39	38	Venezuela, RB	88	64
Jordan	3	27	Colombia	35	33	Mozambique	2	88
Latvia	15	15	Morocco	27	43	Timor-Leste	43	56
Russian Federation	19	20	Algeria	48	46	Cameroon	47	68
Georgia	5	31	Vietnam	69	24	Zimbabwe	10	76
Bulgaria	13	18	South Africa	38	35	Mauritania	8	79
Armenia	20	10	Sri Lanka	78	29	Burkina Faso	18	70
Lithuania	16	28	Paraguay	72	32	Bangladesh	82	66
Tunisia	25	25	Jamaica	46	52	Malawi	21	73
Croatia	12	22	Ecuador	57	48	Kenya	44	78
Kazakhstan	66	13	Peru	58	49	Mali	32	71
Kuwait	85	6	Lebanon	6	60	Cambodia	60	77
Belarus	50	9	Dominican Republic	62	36	Sudan	81	74
Uzbekistan	54	34	Philippines	76	39	Tanzania	45	82
Costa Rica	37	19	Honduras	26	57	Benin	55	81
Thailand	53	12	Indonesia	79	47	Angola	41	83
China	86	5	Bolivia	23	54	Zambia	80	72
Uruguay	59	8	El Salvador	68	51	Uganda	74	69
Panama	56	16	Guatemala	71	50	Sierra Leone	9	84
Serbia	28	21	Nicaragua	42	55	Guinea	73	75
Ukraine	29	30	India	75	53	Ethiopia	65	85
Egypt, Arab Rep.	64	26	Mongolia	36	58	Congo, Rep. Dem.	52	87
Bosnia and Herzegovina	77	17	Botswana	83	44	Nigeria	84	80
Kyrgyz Republic	24	42	Ghana	14	65	Madagascar	61	89
Argentina	49	23	Nepal	63	59			

Infrastructure

1. Overview

Infrastructure refers to the fundamental facilities, and a variety of social overhead capital (SOC), which serve cities, countries or areas. Given that countries' infrastructure require a policy from a long-term perspective, and a certain executive administrative power, the four phases of infrastructure focus on the capacity of governments.

In the input stage, governments' capacity to attract foreign investment and official development assistance (ODA) is as important as the capacity to switch them to government final consumption expenditure.

In the throughput stage, long-term infrastructure policies, such as the five-year economic development plan of Korea in 20th century, can be useful. One of the ways to measure the policy priority of infrastructure is to identify the share of the total budget. Regulations, such as obtaining necessary permits for construction or getting stable and permanent electricity connection for a new building, are one of the government controls that can affect the quality of infrastructure.

In the output stage, GC of infrastructure depends on a number of SOC, such as airports and railways per capita. Public housing is essential for the poor. Public squares provided for citizens to gather and relax is also important. Energy consumption and production are also included in the output. To avoid vulnerability of foreign relations, a country needs to have its own energy production facilities.

In the outcome stage, access to public transportation, energy, clean water and improved

sanitation facilities per capital is measured to confirm the further effects of governments' competitiveness.

Overall Results

The overall score of infrastructure is not much different from last year. Top ranked three countries in the last year, Singapore(1st), Qatar(2nd) and Korea(3rd), are still in their positions. Because of improved performance in the throughput stage, Bahrain(5th to 4th) and Malaysia(8th to 5th) are ranked one step and three steps higher than in 2016, respectively. Madagascar remains in the last group with Nigeria, Congo and Guinea. Ethiopia's and Sierra Leone's ranking fall from 72nd to 86th, and from 67th to 84th, respectively. Both countries have newly entered to the bottom group. Armenia (35th to 11th) and Uzbekistan (36th to 19th) show outstanding performance, jumping up more than twenty steps.

Subgroup categories of each GC area has been developed to provide a more robust evaluation this year. Infrastructure has two sub-group categories: Infra-investment and Utility. Infra-investment sub-group consists of indices related to infrastructure resources, such as government expenditure, and external resources, such as ODA and foreign investment. Utility sub-group is associated with indices that show how attentively infrastructure is functioning via carefully designed policies.

In subgroup of Infra-investment, Liberia is ranked first. ODA per capita seems to have played a major role. Liberia is considered one of the beneficiaries in ODA, receiving 242 million dollars

in 2015. Mozambique is ranked 2nd for the same reason like Liberia. However, Jordan(3rd) and Singapore(4th) are different from Liberia. The countries' high ranking come from their own government expenditure (% of GDP) rather than ODA per capital. In the top group of countries of intra-investment, this distinction can be one of reasons for Utility ranking. Countries where the high level of ODA and the low level of government expenditure exist have imbalance between the two subgroups.

In subgroup of Utility, Singapore(2nd) stays in the top-group, while Liberia(88th) and Mozambique(87th) fall down to the bottom-group. Jordan is ranked 27th, which is still in the position of the upper group, despite the shortage of port traffics and air freight handling due to political situations. Georgia(31st) also shows a big gap with subgroup of Infra-investment(5th). Nevertheless, Georgia shows a remarkable performance in throughput stage, even though international traffic is restricted for to the same reason as Jordan. Qatar, on the other hand, shows a balance of subgroup scores. It is ranked 7th in infra-investment and first in Utility for mainly public service provision.

Among the high-income group in developing countries, Singapore is ranked first, followed by Qatar(2nd), and Bahrain(4th). Oman belongs to the bottom of the high-income group, mostly due to low level of Infra-investment.

Low-income countries show low performance in infrastructure GC. Even though some low-income countries rank high in subgroup of Infra-investment, the overall ranking is low because throughput stage score is low. This implies that core GC does not work in those countries.

Jordan, Georgia, Armenia, and Tunisia are the top countries among lower-middle income countries. Except for Armenia, the countries are boosted by high ranking in subgroup of Infra-investment. On the other hand, some lower-middle income countries have lower GC score in infrastructure than lower-income countries, such as Zambia(80th), Angola(82nd) and Nigeria(88th).

Among upper middle-income countries, Malaysia is ranked first, followed by Mauritius(6th) and Bulgaria(10th). These countries have high outcome and throughput scores. It can be interpreted that, in the case of upper middle income countries, outcome of infrastructure might have accelerated the development of the countries, functioning as a basis of social communication and economic transportation.

2. Issues and Policy Implications

Armenia: Seeking for Independent Infrastructure

Armenia has long been aware of the importance of infrastructure ranging from energy production facilities to public transportation. As a member of Commonwealth of Independent States (CIS), Armenia has an asymmetrical relationship with Russia Federation in terms of infrastructure. However, Armenia has attempted to develop its own infrastructure and is ranked 11th in Infrastructure of GC. The performance in subgroup of utility(10th) is better than the subgroup of Infra-investment(20th).

Since 2017, there has been remarkable investment in infrastructure from foreign firms in Armenia. The Armenian Ministry of Energy Infrastructures and Natural Resources and the Ocean Holding LLC, a company in UAE, has signed Memorandum of Understanding (MoU), to develop the renewable energy sector in Armenia. The company is investing \$ 100 million dollars in Armenia's solar projects. Armenia has strived to not only build its own energy production facilities but also modernize its old transportation system mainly built in the Soviet era. According to one of the biggest broadcasters, Public Radio of Armenia, the Armenian government has received approximately \$ 1.19 billion dollars from Asian Development Bank (ADB). ADB has helped Armenia improve infrastructure.

The score of infrastructure in GC is determined mostly by electricity production and consumption. Significant amounts of ADB investment have

been used to build private sector electricity distribution and reduce distribution losses. Considering the history of Armenian electricity, which Russia owned 100% in 2008, this attempt can be regarded as a first step toward energy independence. Armenian electricity market is thriving, domestic consumption has increased by 7.2% in 2017, and the volumes of export has increased by almost 10 percent.

Among the four stages of infrastructure, Armenia performs best in the outcome stage. Access to basic facilities, such as water and sanitation, which plays a pivotal role in increasing Health and Welfare, is easy. This can be one of reasons why Armenia's GC score in Health and Welfare remains at the upper class.

There are three suggestions for Armenia. First, attracting foreign investment on Armenia's energy independence is inevitable. Despite the improved electricity consumption and production being effective on infrastructure GC score, Armenia is still behind these indicators compared to neighbor countries. It would be a good choice for Armenia to develop a variety of ways to deliver energy, just as in the case of Georgia and Iran.

Second, military conflicts often resulting from ethnic problems like Nagorno-Karabakh war could have negative effect on infrastructure policy. If this problem is not solved at all, not only foreign agents will be reluctant to invest but also citizens will not trust the government.

Finally, the privatization model that applies to Armenia's public infrastructure provision (PIP) should be treated with caution. The Armenia government owns airports and railways but private organization has operational function in a way of "Build-Rehabilitate-Operate-Transfer (BROT)." This "BROT" can be efficient for modernizing infrastructure but it could cause expensive cost. As a striking example, the Armenian government had obligation to reimburse the loss of South Caucasians Railways, which will reach 30% from 2016 to the end of the contract. The country has been striving to find well-organized PIP methods as stated in the

Government Program of the Republic of Armenia 2012-2017. Given South Korea' experience, careless privatization could cause corruption and unnecessary political dispute.

Malaysia: Healthy Governance for Infrastructure

Malaysia has been hailed in media and other country ranking index such as WEF, for its excellent infrastructure. Malaysia, is ranked 5th, shows outstanding score in the throughput(4th) and outcome(8th) stages. In subgroup of Utility, Malaysia is ranked 7th, carrying the country to the top group of GC infrastructure score. In subgroup of Infra-investment, however, it is ranked 67th due to low foreign investment. Considering its ranking in other policy areas (Education-18th, Agriculture-7th, Health & Welfare-34th), infrastructure score of Malaysia is also high. It is ranked three steps higher than last year in infrastructure area.

Malaysia is an open country to build its infrastructure to connect neighbor countries. The Malaysia government has been focusing on the connection of Brunei-Indonesia-Malaysia-Philippines East Asean Growth Area's (BIMP-EAGA) development since 2015. The project, called "Mammoth", aims to construct the Pan Borneo Highway. With the mammoth project, it is expected that transportation networks of Malaysia would be improved.

The country is constantly trying to develop rural and coastal areas by building bridges and paving roads. This process requires collaboration with local communities and the Ministry of Infrastructure Development and Transportation (MIDT). Malaysia has run a series of dialogues with local community leaders in 2017.

In 2017, Malaysia opened public transportation. It deregulated unnecessary restrictions, such as the taxi industry. Malaysia has been providing free CAT bus system to its citizens since 2008. The country will also introduce new technologies, such as vessels traffic system (VTS), a navigation system that can enhance safety and security of citizens.

The overall GC score for Malaysia's infrastructure relies largely on the indices in the outcome stage. Accessibility to basic facilities is almost 100% in Malaysia. The indicator in the throughput stage is also great. The Malaysian government is open to share information and listen to citizens' opinions. Compared to other countries, Malaysia provides faster permitting process for construction. Considering the population, however, the number of airports and the volume of air cargo are relatively small.

There are three suggestions for Malaysia. First, the Malaysia government should strive to establish governance in advance to building social overhead capitals (SOCs). Infrastructure has to be built through long-term policies that accurately calculate costs and benefits. If the government is open to listen citizen's opinions and reflect them in policies, the trust of the government will increase.

Second, Malaysia needs to simultaneously expand its infrastructure to the country's rural areas while introducing new technologies. In terms of infrastructure, Malaysia can be considered as the exemplary country in GC methodology.

Finally, deregulation and the introduction of new institutions should be done carefully. When deregulation is combined with unpredictable social phenomenon, aimed benefits could be offset by unanticipated costs. Introducing new institutions to the government should not be mimetic isomorphism. However, if Malaysia keeps to listen to its citizen's voice, mimetic isomorphism is not likely to happen.

Safety: Rankings of 2016-2017

Country	2017	2016	Change	Country	2017	2016	Change	Country	2017	2016	Change
Singapore	1	1	0	Moldova	31	55	24	Ghana	61	31	-30
Croatia	2	4	2	Uruguay	32	26	-6	Paraguay	62	35	-27
Qatar	3	3	0	Thailand	33	20	-13	Rwanda	63	34	-29
Romania	4	14	10	Argentina	34	33	-1	India	64	23	-41
Armenia	5	42	37	Colombia	35	58	23	Timor-Leste	65	83	18
Costa Rica	6	24	18	Ecuador	36	38	2	Senegal	66	66	0
Korea, Rep.	7	2	-5	Mongolia	37	53	16	Cambodia	67	41	-26
Jordan	8	25	17	Morocco	38	16	-22	Tanzania	68	63	-5
Oman	9	7	-2	Indonesia	39	6	-33	Ethiopia	69	65	-4
Kuwait	10	8	-2	Peru	40	48	8	Pakistan	70	71	1
Azerbaijan	11	44	33	Lithuania	41	21	-20	Zimbabwe	71	62	-9
Bulgaria	12	9	-3	Dominican Republic	42	67	25	Madagascar	72	77	5
Mauritius	13	22	9	Vietnam	43	30	-13	Mauritania	73	74	1
Bosnia and Herzegovina	14	11	-3	Russian Federation	44	57	13	Sudan	74	79	5
Lebanon	15	50	35	Nicaragua	45	37	-8	Mali	75	80	5
Latvia	16	15	-1	Lao PDR	46	49	3	Kenya	76	76	0
Belarus	17	13	-4	Ukraine	47	56	9	Angola	77	81	4
Albania	18	32	14	Philippines	48	27	-21	Zambia	78	84	6
Bahrain	19	28	9	Venezuela, RB	49	88	39	Burkina Faso	79	64	-15
Sri Lanka	20	29	9	El Salvador	50	69	19	Uganda	80	82	2
China	21	5	-16	Guatemala	51	70	19	Cameroon	81	54	-27
Georgia	22	10	-12	Bangladesh	52	17	-35	Malawi	82	72	-10
Serbia	23	12	-11	Malaysia	53	19	-34	Liberia	83	85	2
Algeria	24	39	15	Kyrgyz Republic	54	43	-11	Mozambique	84	60	-24
Egypt, Arab Rep.	25	51	26	Honduras	55	73	18	Benin	85	78	-7
Panama	26	47	21	Bolivia	56	68	12	Sierra Leone	86	86	0
Tunisia	27	45	18	Brazil	57	52	-5	Nigeria	87	61	-26
Jamaica	28	36	8	Botswana	58	75	17	Guinea	88	87	-1
Uzbekistan	29	18	-11	Nepal	59	40	-19	Congo, Dem. Rep.	89	89	0
Kazakhstan	30	46	16	South Africa	60	59	-1				

Safety: Rankings by Subgroup

Country	Crime & Warfare	Natural Disaster Management	Safety and Health	Country	Crime & Warfare	Natural Disaster Management	Safety and Health	Country	Crime & Warfare	Natural Disaster Management	Safety and Health
Singapore	1	1	8	Moldova	41	10	43	Ghana	10	70	69
Croatia	17	2	5	Uruguay	32	47	6	Paraguay	73	61	31
Qatar	6	26	1	Thailand	57	39	19	Rwanda	53	59	65
Romania	13	3	24	Argentina	52	19	15	India	84	60	60
Armenia	2	13	38	Colombia	66	23	32	Timor-Leste	47	62	66
Costa Rica	23	8	3	Ecuador	49	34	34	Senegal	54	73	62
Korea, Rep.	9	6	30	Mongolia	31	33	44	Cambodia	30	74	64
Jordan	7	38	9	Morocco	14	53	37	Tanzania	55	72	74
Oman	8	25	14	Indonesia	34	44	56	Ethiopia	80	66	71
Kuwait	5	12	11	Peru	71	22	40	Pakistan	87	69	68
Azerbaijan	11	17	25	Lithuania	46	20	18	Zimbabwe	39	87	72
Bulgaria	26	4	17	Dominican Republic	27	36	48	Madagascar	59	77	81
Mauritius	28	15	13	Vietnam	40	57	54	Mauritania	25	67	76
Bosnia and Herzegovina	18	7	23	Russian Federation	60	16	42	Sudan	88	79	67
Lebanon	24	21	47	Nicaragua	42	50	46	Mali	68	83	82
Latvia	29	24	22	Lao PDR	3	65	61	Kenya	78	82	70
Belarus	12	5	35	Ukraine	81	14	55	Angola	63	68	77
Albania	20	30	2	Philippines	79	37	50	Zambia	72	80	75
Bahrain	15	48	4	Venezuela, RB	85	29	26	Burkina Faso	65	75	80
Sri Lanka	16	64	7	El Salvador	82	41	36	Uganda	74	78	83
China	43	31	16	Guatemala	64	54	51	Cameroon	83	76	73
Georgia	35	18	29	Bangladesh	56	58	58	Malawi	69	71	79
Serbia	38	9	10	Malaysia	45	42	33	Liberia	62	86	84
Algeria	21	40	28	Kyrgyz Republic	36	28	52	Mozambique	67	85	85
Egypt, Arab Rep.	51	43	21	Honduras	70	52	41	Benin	77	89	78
Panama	48	11	49	Bolivia	58	46	53	Sierra Leone	61	81	88
Tunisia	50	27	12	Brazil	75	45	39	Nigeria	86	84	89
Jamaica	33	32	20	Botswana	37	55	57	Guinea	76	88	87
Uzbekistan	4	49	45	Nepal	44	56	63	Congo, Dem. Rep.	89	63	86
Kazakhstan	19	35	27	South Africa	22	51	59				

Safety

1. Overview

Safety refers to the state of no harm in physical and property of citizens and no threat to system stability. Safety in non-OECD countries can be divided into 3 parts: safety from crime and warfare, safety from natural disaster, and safety from communicable diseases.

Crime and warfare include violent crimes, such as murder, robbery, rape, and war-related threats such as terrorism and insurrection. Natural disaster includes meteorological disaster (i.e., storms), hydrological disaster (i.e., floods, landslide, and avalanches), and climatological disaster (i.e., extreme temperatures, droughts, and forest fires). A communicable disease is a disease that can spread among people through viruses in the air, contact with body fluids, or insect bites. HIV, malaria, measles, and coronavirus are some examples of communicable diseases.

Each part of safety index has its own 4 stages. Input stage is defined by the amount of resources (i.e., human resources, budget, and attention) that governments put into preventive or counter disasters. In order to capture input in safety, we aggregate index such as percentage of expenditure on routine immunization funded by government (%) [retrieved from WHO]. Throughput implies the capacity of public administration system to secure their people and system. Natural Hazard Risk Quality [retrieved from FM global] is considered in this stage. Output, as the result of throughput, includes index such as refugees by country of origin (thousand) [retrieved from UNDP]. Finally, the perceptions of safety walking alone at night [retrieved from

Gallup world poll] is one of the indices to calculate outcome. In this sense, outcome refers to the improvement of social capitals, such as psychological well-being through the removal or reduction of dangers and disasters.

Safety and non-OECD countries: Human beings pursue to fulfill their basic needs and achieve their higher needs, such as self-realization. According to Maslow's theory, the needs for safety is placed in 2nd level of the hierarchy. People would like to be protected from danger, and would like to be safe. This is the primary needs. To meet people's needs, countries carry out activities, such as defense, police, and healthcare. Even those who support the idea for a minimal country consider that governments should be responsible for the safety of people. However, in some developing countries where the political or economic situation is poor, the basic need for safety is often unsatisfactory.

Safety activities include preventive, reactive and post-restoration activities. None of the three activities should be neglected to ensure safety, but the most important activity is preventive activity. This is because it is impossible to return the damage to its original state once a disaster occurs. The biggest problem with preventive activities is that it is difficult to know the appropriate level. Even if the appropriate level is known, it is often hard to achieve the level in the context of developing countries. Therefore, it is significantly important to reflect the reality of developing countries in building safety indicators. In the following three areas, it is necessary for developing countries to make efforts to secure public safety: crime and warfare, natural disaster, and communicable disease.

Ranking in 2017 Government Competitiveness safety area is quite different from that in 2016. This is because the GC has newly reorganized a large subset of the constituent indicators. The main difference is that the index for 2017 includes part of the disease while in 2016 there were no indicators for communicable diseases in safety area.

In general, countries with the higher income level (based on World Bank) have the higher safety ranking. Singapore has maintained its first place this year since last year. Croatia, which was fourth in last year, climbs two steps higher and is ranked second this year. Qatar is ranked third as in last year, while Romania jumps to fourth place this year compared to 14th last year. Jordan(8th), Oman(9th), and Kuwait(10th) are the top countries in the safety competitiveness.

2. Issues and Policy Implications

[Qatar: Invest Oil Money for Future Safety](#)

Tuberculosis and hepatitis C are included in Qatar's foreign health checkups. Foreign workers should leave the country if a kidney disease is found(MOFA, 2016). This is a precautionary measure to block the influx of certain diseases and improve Qatar's public health environment.

Qatar had once spent less on military compared to other gulf region countries, but it is now putting a lot of resources on armament. Qatar has plans to double its air force fighters by 2025. For instance, Qatar has signed a fighter contract with United States and a naval contract with Italy (Capaccio, A., & Johnsson, J., 2016; Khatri, S. S., 2016). Qatar also has signed a coastal defense system contract with a pan-European defense company, MBDA.

Qatar has launched a project to build a total of 95,000 artificial forests in the northern part of Doha in 2015, and the project will be completed soon (Varghese, J., 2016). The artificial forest is prepared to overcome the environmental constraints (desertification) of extreme weather by creating buffer zones.

Qatar is ranked first in the field of public health in spite of the risks of MERS. This is because Qatar has paid mainly attention to infectious diseases by implementing policies such as foreign health checkups, and managed infected people well.

Qatar is located in a region where natural disasters are not frequent. However, there is a risk of earthquakes, and an extreme hot climate occurs in summer. In addition, because it is in a desert zone, there is a risk of water scarcity, desertification, land degradation, and sea level rise. Qatar is well aware of these risks and seems to be responding relatively well. Qatar's ranking in the natural disaster area is 26th.

Qatar is ranked sixth in crime and warfare. Qatar has maintained moderate relationship with its neighbors until the temporary interdiction of five Arab nations declared diplomatic cessation in 2017. In the Middle East where there is a danger of terrorism, Qatar professed 'Switzerland in the Middle East'. It has secured its position as a peace mediator. Qatar has been able to achieve good grades in crime and warfare because it has increased budget in defense and police and made great efforts.

So far, the citizens' desire for safety seems to have been met. However, there are some areas that need improvements. First, roads are not very safe, and there is an urgent need to protect the safety of pedestrians. Policies related to road safety need to be carried out. Along with the government' effort, driver's mature attitude is necessary.

Natural disasters do not occur much, but Qatar government need to recognize the desertification caused by climate change and prepare for the desertification before it is too late.

Qatar has been able to maintain a significant level of safety based on oil money. However, as oil price has fallen and many alternative energies have emerged, Qatar should pay more attention to how it maintains its current level of safety. In other words, it is time to consider how to improve the efficiency of public safety system.

Venezuela: Correct the Imbalance between Sub-Indices

Venezuela has suffered from currency collapse and economic crisis due to a decrease in oil price since 2014. Inflation rate in Venezuela rose from 275% in 2015 to 720% in 2016 (Werner, A., 2015). Such events have disrupted the country's economic base and threatened the safety of the people.

Robbery and assault have become commonplace in recent years. Anti-government demonstrations are taking place frequently, and pro-government protesters are continuing their violent activities. Crime cases are on the rise every year. There are many violent incidents involving illegal firearms in Caracas and the surrounding area of the capital. There is a heinous crime against an unspecified number of people, and kidnapping and drug-related crimes are frequent. The crime organizations are armed with weapons taken from the military and the police, overwhelming the local police (MOFA, 2017). In Venezuela, there is a black market for "Express Kidnapping". The kidnappers often demand \$ 10,000 to \$ 20,000 for a ransom for hostages and detain hostages for 48 hours.

For this reason, Venezuela is ranked 85th in crime and warfare, one of the sub index in safety field. This is the 5th lowest among the surveyed countries, followed by Nigeria, Pakistan, Sudan, and Democratic Republic of Congo. In detail, Venezuela's terrorism index ranking based on death, injury and property damage from crime and terror is very high. Considering the "perceptions of safety when walking alone at night." of the 89 countries surveyed, no country is ranked lower than Venezuela.

Safety in natural disaster, on the other hand, is well managed compared to safety in crime and warfare. Venezuela is located in a frequent disaster area. Natural disasters such as droughts, landslides and earthquakes occurred in 2016. Given the fact that Venezuela is ranked 29th in safety from natural disaster, it seems to be dealing with such natural disaster appropriately

compared to crime and warfare. Venezuela was focusing only on a specific natural disaster, such as earthquakes and trying to recover damaged areas after a disaster. In recent years, however, Venezuela has been more responsive efficiently to natural disasters by paying attention to overall natural disasters and by reducing potential risks through proactive prevention (Prevention Web, 2006).

Venezuela is ranked 26th in public health safety. Venezuelans are using relatively improved sanitized facilities. Immunization coverage of diphtheria, tetanus toxoid, and pertussis, which are prevalent in developing countries, are fairly high. Mortality rate due to communicable diseases and maternal, prenatal, or nutrition conditions are not very high. Life expectancy at birth is also not low at all.

There is serious imbalance between the 3 sub-indicators in the Safety field. Safety from crime and warfare is considerably lower than the other 2 sub-indicators. Venezuela is currently the lowest ranked group in crime and warfare. The GC Center suggests that Venezuela focuses on crime and war rather than natural disasters or diseases. Of course, the security situation in Venezuela will not be easily solved. Nevertheless, it should first deal with the imbalance among the three sub-indices. After that, it is reasonable to discuss the safety from natural disasters and communicable diseases. Despite the fact that Venezuela is in a bad situation, it has potential with recognizable scores in safety from natural disasters and diseases.

Romania: Priority is Safety in Public Health

Romania, which is ranked fourth in government competitiveness in safety, can be considered a safe country. Violent crimes, such as murder or rape rarely occur, and there is a high level of hygiene compared to other OECD countries in that Romania's government is deeply involved in all aspects of safety.

Romania is ranked 13th in crime and warfare. This indicates that Romania has a fairly high level of

safety. However, misdemeanors frequently occur in large cities in Romania. In particular, pickpockets against tourists are frequent in hotels, public transportation, money exchange, and airports. Romania is also a place where various kinds of drugs are distributed, so the likelihood of drug-related crimes is not low (OSAC, 2016). Romania, located in Europe, is likely to become the target of terrorism, just like many other European countries. However, considering the fact that there has been no terror in Romania so far, it can be argued that Romania is one of the safest countries from terrorism.

A 5.3-magnitude earthquake occurred in Vrancea County, Romania, on September 24th, 2016. It was the largest earthquake since 2009. Romania is one of the highest earthquake areas in Europe and most earthquakes occur in the Vrancea. Surprisingly, however, Romania is ranked 3rd in natural disaster management. That is because the government has constructed an effective disaster management system for a considerable period of time. Romania is one of the few countries with earthquake early warning system (Strauss, J. A., & Allen, R. M., 2016). Alert sounds in about 10 seconds to 1 minute before strong shake occurs.

Furthermore, Romania has adopted mandatory insurance for earthquake, landslides, and floods in 2008. The mandatory insurance is to insure every citizen, especially homeowners, from natural catastrophe. The policy is for the good purpose and reflects the government's effort to manage such safety issues. However, the policy seems to have some difficulties. It took more than 2 years to execute, and only 18% of people who were qualified were actually participated in the plan until October 2014 (Gavriletea, M. D., 2017). The government has amended the law to solve this problem.

Of all the 3 sub-index of safety area, Romania has the lowest in public health (24th). Romania is not a country with frequent disease outbreak. However, from February 2016 to January 2017, more than 2,000 people were infected by measles and 15 people died. Measles is a highly

contagious, but preventable. The WHO recommends two vaccinations for at least 95% of population are needed (WHO, 2017a). However, due to a lack of vaccines and the low accessibility of public health services to minorities, the measles vaccination rate was only 50% for the second dose (WHO, 2017). The government is now trying to solve the shortage of vaccine supply and establishing a long-term vaccine management system.

Although natural disasters, such as earthquakes and floods occur frequently, Romania is actively participating in prevention activities, such as an early warning system installation or compulsory disaster insurance. Given the fact, it can be argued that Romania has a relatively well-established natural disaster management system. However, in the case of contagious disease, the safety of public health system is not well-managed. Last year, not only measles, but also contagious influenza, such as H1N1 was running rampant. Measles is, preventable disease with low immunization costs, However, Romania was not able to handle it very well. Indeed, there are loopholes in infectious disease management system. It should be noted that in order to secure the safety of the people, it is necessary to manage infectious diseases, as well as natural disaster management, security and national defense.

Government Competitiveness of Korea

Overall Government Competitiveness ranking of Korea this year is 24th in the OECD countries. This result is the third consecutive year of decline, after ranking 21st in 2016 and 16th in 2015. The analysis results for each field are as below.

Economy

For three consecutive years including this year, Korea has been ranking 9th in the economy policy area in the GC index. Korea's high performance is without a surprise, however, 'equity or economic equality' is a sector that Korea showed relatively low result. Today in Korean society, a commonly used term for the economic issue related to equity is 'Gabjil(갑질)', meaning tyranny or violence of people with much money or power. The root cause of this sort of misbehavior is claimed as the serious economic polarization of people.

With the launch of new government in 2017, Korean society expects to actively discuss about such equality issue. The first area of discussion in the recent economic policy area is on tax equity. Specifically, income inequality is being addressed since the corporate and personal income tax has been increasing, and they are diversifying into categories of generational tax equity for the elderly and young adults. In addition, the taxation of religion, which was the center of controversy for a long time, is expected to come to a conclusion shortly.

The massively growing public interest on the topics of equity shows how this important issue was not addressed properly in the past. Since the global financial crisis in 2008, the economy in

global scale has been shrinking, therefore the most important focus for small countries like Korea was to achieve economic 'growth', rather than reaching the fairness of economic 'distribution'.

The new government recognizes that focusing on economic equality of people will lead to low-growth trend, but at the same time they try to push the job policy forward, which emphasizes on the distribution side as top priority. The government's assumption of low-growth is not a problem; however it's declaration to take action by increasing the number of jobs and at the same time rapidly expanding government fiscal spending is a serious matter that requires careful consideration.

In conclusion, it is necessary to pay close attention to the potential changes in the ranking of Korea, since it will show the relationship between the expansions of the government expenditure emphasizing distribution as the economic fundamental status of Korea. Also, it will be worth noting how the new government's efforts affect the future government competitiveness index of Korea.

Information and Communications Technology

The world is entering the fourth industrial revolution. The growth of information and communications technology(ICT) related industry is rapidly transforming our lives, improving the way people connect with each other, while increasing productivity and giving new possibilities for growth. Regarding this change, Korea is preparing, yet requires continuous effort

in strengthening the basis for the new revolution. Korea already has few of the world leading companies in the ICT market, and its government is paying close attention to the fourth industrial revolution, specifically supporting to build a fundamental system on top of what already exists, such as easy internet access and mobile phone subscriptions.

Technology convergence, including robot, AI, and IoT, is already leading issue related to economic growth. For instance, Seoul city, which is the biggest local government in Korea, coined the term “diginomics”(digital + economics) and held a forum titled “Open Digital Forum” in the City Hall of Seoul on Oct, 2016. Seoul metropolitan government, universities, the experts and citizen participated in this forum to compile the performance of ‘smart policy of Seoul’ in order to make citizen’s evaluation on current policy and plan the future together.

The moment when majority of Koreans realized the importance of technology was when the Artificial Intelligence (AI) program developed by Google, AlphaGo had a Go match with Lee Sedol(18-time world champion) in Seoul on March, 2016. This event made people understand to which level the AI technology has advanced and imagine how it can someday soon play a significant role in our everyday lives.

During this awakening moment, Korean government actively promoted the importance of ICT utilization and successfully vitalized digital contents market. As a result, very specific government policy in business sector was constituted and various tools such as conferences, open forums and public policy debates were initiated to discuss in-depth about such ICT related topics. However despite this effort, Korea ranked 16th in 2017 GC index, which is lower than the last year’s (10th). Notably, the promotion-related indicator rankings among the ICT indicators divided into the sub-group are significantly lower than those of the scale and utilization indicators (promotion 22nd, scale 12th, utilization 17th).

Korea’s overall ICT ranking is relatively high, but the ranking of indices related to promotions is lower than those of other indicators. This means that there is a lack of government-level institutional efforts to facilitate this, compared to the top-level indicators related to scale, such as access to the Internet or mobile data. For instance, the laws relating to ICT, intellectual property protection or software piracy rate are indicators showing the class of fundamental institutions in national level (KERI, 2016). These results show that efforts should be made to ensure the legal and institutional infrastructure that Korea can properly function.

Research and Development

Korea’s ranking of government competitiveness in Research and Development in 2017 has fallen drastically compared to last year. It ranked 11th in the previous year, but this year was 22nd. To understand this change it is necessary to look at the newly added indicators in 2017, since the sudden drop in ranking means there may be some intrinsic problems in Korea’s R&D system.

First, it is possible to notice the low protection level of intellectual property rights. Intellectual property protection has been an ongoing issue in Korea that has been consistently pointed out since the government competitiveness report was published.

Since 2015, the government has been actively enforcing policy on illegal sharing; however it still requires constant attention and effort for these policies to be properly implemented. In addition, there still lacks national interest in science education within the education system. Also, the result of the index showing the openness and tolerance of foreign ideas (as named National Culture) was extremely low.

In a different perspective, it is necessary to discuss about Korea’s R&D investing and evaluating system. First, Korean government’s direct spending of R&D expenditure has been high in the proportion, while the proportion of government funding for corporate R&D has been

low since 2015. The reason for this is likely that the action of government heavily depends on 'public's interest'. Second, Korea's current R&D system tends to focus on short-term achievements. Therefore, many researches are done in excessively performative manner; rather than looking into the future and trying to pursue a challenging research goal, simply rewarding and evident style of researches are more often carried out. Lastly, due to the goal oriented evaluation system, researchers are forced to focus work in manner they can 'win' rather than help and collaborate with each other.

To summarize, multiple indicators in the GC index pointed out many weaknesses of Korea and its system surrounding the R&D area. However, even though this problem cannot be solved immediately, Korea has reached the point where it needs to start changing the basis of R&D system.

Governance

We need to consider that the indicators included in GC index were measured before the Korean regime change. After a peaceful candlelight vigil demanding the impeachment of the President Park since October 2016, Korea imposed the President's impeachment for the first time in December 2016 and legally changed the regime through the presidential election in May 2017. The impeachment proceedings imposed by the National Assembly were cited by the Constitutional Court's ruling and the impeachment of the President was realized. More than 15 million people participated in candlelight vigils since the first protest (Ko, S., 2017). It means the political conflicts before the regime change in Korea were the most serious problems, and this is reflected by the fact that demographic-related indicators have the lowest score in GC index. The EIU's (Economist Intelligence Unit) annual Democracy Index report actually showed that Korea was demoted to a "flawed democracy" from a "full democracy" under Park.

Korea's Overall governance ranking(26th) among

OECD countries has dropped rapidly compared to 2015(15th) and 2016(20th). Especially, ranking of indices related to democracy is lower than score ranking of indicators related to government's competency. Besides, throughput(17th) focusing on government's administrative capacity is much stronger than outcome(32nd) as seeing ranking by policy stage. It means that the problems of the political sphere weakened the government's capability and led to low performance in outcome.

Domestic and international evaluations of democracy in Korea have been positive since the country underwent tremendous political changes (The Korean Times, Feb. 2017). So the undervaluation of the political part, which was the most problematic part, is likely to improve in the near future. However, Korea has to pursue minimization of political conflicts for the purpose of developing governance because the conflict among different generations in Korea has intensified. Also, economic problems related to the North Korean nuclear issue, the FTA with the US, and the China's restriction on trades as the cope with the THAAD (Terminal High Altitude Area Defense) deployment in Korea caused the social conflicts related to political positions, which are not optimistic.

Safety

The main response of the Korean government since the occurrence of the Sewol Ferry incident was to establish a ministry called Ministry of Public Safety and Security. Although it has been pointed out that the response to the national disaster situation needs to improve the fundamental system and related workers' awareness, the government's response has been limited to restructuring the organization itself. In the end, improving the fundamental system and related workers' awareness became a top priority for reorganizing the government after the presidential election. Most of the functions of the Ministry of Public Safety and Security returned to the ministries that they originally belonged to. As a result in 2016, Korea's disaster management

and response functions measured by the 2017 GC index did not change much; this is a problematic finding since newly created organization in government to support this task is not reflected for any positive change.

However, the overall safety ranking of Korea(21st) has improved compared to the ranking of 2016(22nd). Among the indicators in the safety area, the highest rankings are 'Crime and rebellion' indicators. As Korea is known to be a country of good security, the ranking(5th) of related indicator show reasonable result. On the other hand, the index results related to 'industrial accidents' remained high(11th). It is remarkable that Korea's industrial accident related work is not the task for the Ministry of Public Security (Ministry of Public Administration and Security) but for the Ministry of Employment and Labor. This implies that the roles of other government departments, rather than the role of the newly established organization, were more influential in the ranking of safety.

Korea's low-ranking(29th) sub-group includes natural disaster-related indicators. Although the frequency of natural disasters such as typhoons and floods is high, it seems to be the reason for the low ranking to have been relatively underestimated in response ability after disasters. Since the mid-2000s, Korea has been promoting the Four Rivers Project for the prevention of floods such as floods as a national project, but the controversy over its effects and adverse effects continues to the present. The low ranking of the natural disaster area shows that this controversy comes from a reasonable doubt. Therefore, the Korean government should move away from the existing approach to disaster prevention and make more efforts to better prepare for immediate and prompt response after the occurrence of disaster.

Education

Since 2014, Korea has enacted the Law for Normalization of Public Education, which prohibits educational institutions to require

students to be knowledgeable of materials outside of normal school curriculum. Korea's education, which was regarded as the "ladder of hierarchical movement" in the past, has recently been pointed out as a cause of social polarization. This is due to the fact that the market for private education has been strengthened since the 2000s and people who cannot afford such expensive education outside of normal schooling had disadvantage of being accepted into prestigious colleges in Korea.

However, this 'Public Education Normalization Act' has been criticized for only limiting the use of prior learning within schools, while the private education companies that offer such services do not face any kind of penalty. In addition, more confusion has been created when the colleges, which have the authority to design the entrance exam, made questionnaires more difficult than the high school curriculum. In this structure, students and parents who are eager to pass entrance exams are forced to rely more on private tutoring. Therefore, it seems clear that a government role is needed to strengthen public education and provide fair quality education for all.

Korea ranked 3 steps higher in Education area of GC compared to last year(from 30th to 27th). Since GC score has been measured, the scores of education area in Korea have been in the low side continuously. Especially, the ranking of 'government involving' among sub-groups of 'education' is the lowest(32nd). This also means that the role of government in the education sector in Korea is less than that of other OECD countries. This is also true to the 'education infrastructure' area(29th). This phenomenon is also evident by the lowest level of indicators (33rd) in the 'throughput' stage of policy.

While Korea is famous for people's high interest in education, the role of government in the education sector is not yet significant. Educational performance, which is a relatively high-ranking sub-group, also appears to be derived from indicators, such as an employment rate according to the economic situation, rather than the effect of education. Besides, the achievement of Korean

education is not only a question of how many people have received education and trained suitable to the country's economic level and situation, but also the current awareness of whether they are going to go to top universities or win the national competitions, such as World Olympiad contest. Therefore, it seems necessary for Korea to follow the social consensus on the purpose of education itself and design policy that coincide accordingly.

Environment

Recently, Koreans became alert of the condition of air, since fine and ultrafine dust grew as a major environmental issue. Korea's ultrafine dust concentration is the highest (with worst air condition) among the OECD countries, making air purifiers an indispensable appliance in most households. The four major rivers in South Korea are still suffering from water pollution, and the renewable energy sector is staying on the pace.

As a result, Korea has ranked 21st in the environment policy area of GC index in 2017, which shows no significant change for the third consecutive year.

First, Korean government is actively engaged in policy such as environmental-related taxes, which is a government's enforcement of taxation on actions/businesses against the well-being of environment. Despite the increasing demand from the international community for environmentally friendly energy policy, Korea still relies heavily on coal and nuclear power plants, which is not safe or environmentally friendly.

The new government plans to promote eco-friendly and sustainable renewable and natural gas development, instead of stopping the addition of nuclear power plants that threaten national security and reducing the proportion of coal-fired power generation that causes inhibition of national health and environmental problems. It is necessary to watch whether the level of renewable energy indicators will improve in the future.

The output and outcome sectors of this year are lower than those of input and throughout. These results are similar to those of the recent three years. This is a predictable result since Korea is a latecomer to OECD countries. In the end, it is time for the government to take a long-term perspective and it is time to shift the paradigm beyond economic logic.

Agriculture and Food

Living as farmer is difficult, yet the controversy of GMO food continues to grow. On the other hand, it is difficult for consumers to be free from food safety concerns. It is because the problem surrounding the food that is indispensable for human life. Koreans concern about such issue appeared as low ranking of Agriculture GC index in 2017. This year Korea ranked 29th, down from 11th in the previous year.

The sudden drop may be due to the relative ranking of GC Index, but it is fundamentally a clear indicator that Korea government lacks efforts to increase its competitiveness in agriculture and food sector. Regardless of this result, Korea's strengths and weaknesses are similar to those of the past.

The productivity of agricultural food sector of Korea, such as industrial competitiveness, is still low among OECD countries. Because Korea lacks natural resources, its ranking in the field of resources is inevitably low. However, many of the countries with high competitiveness maintain high productivity even though they are not ranked high in the resource sector. Given this, Korea should also focus on the essential ways to increase added value. To do so, producers' protection-oriented policies should be limited, since it is not helpful for the nation's agriculture sector competitiveness.

However, except for the producer protection policy, Korea ranked low in Institution and Finance area. As pointed out earlier in the GC report, consumer-oriented policies are still out of main focus. As a result, the government competitiveness in the agricultural and food

sector will change in the future depending on how past policy of producer-centered protection changes.

Culture and Tourism

Since 2010, Korean culture industry has been led by outperforming game industry, while Korea's tourism market has been occupied by Chinese tourists. This year Korea ranked as 21st in Culture and Tourism sector of GC Index, which is a rise from ranking 25th from the previous year. In detail, it ranked 9th in cultural goods sector and 24th in tourism sector.

Korea's cultural contents exports are steadily increasing, and it is expected that exports will expand in the future. This result of cultural goods sector has a great power in that it ranked high in the Government Competitiveness Index, which presents culture-related indicators related to import-export between countries.

In 2016, the number of foreign tourists visiting Korea reached about 17 million, the highest level ever. Especially, the number of Chinese tourists has grown steeply since 2013, and the contribution of Chinese tourists to the quantitative growth of 2016 is huge.

However, tourism revenues spent by foreign tourists visiting Korea are on a declining trend, and tourism revenues have fallen due to the increasing Korean overseas travelers. The rate of revisiting was 7.5% lower than in 2015, and the duration of stay in Korea was shortened by 0.2 days. In other words, it is true that quantitative growth, which is the increase in the number of foreign tourists, has been achieved, but the limit is revealed in terms of quality.

Korea is currently confronting serious problem for the future. Due to THAAD, tensions between Korea and China have formed, and tourism sector is expected to suffer greatly in the future. Although it is not included in the results of this year, Korea's tourism revenues are expected to decline due to the decrease in the number of Chinese tourists.

Most importantly, it is necessary to develop a

variety of tourism programs from the current shopping-oriented tourism program. According to the Survey on Foreign Tourists, many foreign tourists have started to take interest in a new way of sightseeing, experiencing and enjoying Korea, definitely not only with the shopping-oriented way. Also, it is already a long-standing fact that these new tourism program can contribute to the expansion of tourism income. Now seems like a right time for the moment when a paradigm shift is necessary in tourism policy.

Health & Welfare

The overall ranking of Korea's Health and Welfare is unchanged at 31st. The most important issue in this field is the basic pension for the elderly and childcare support policy.

It is expected to have stronger voice for welfare and policy demand requested from the elderly populations, since this population is growing rapidly. On the other hand, the problem of low birth rate, which is happening at the same time, is the most serious problem that Korean society faces today. Recently, policies that have changed most in relation to the health and welfare policies in Korea are for supporting the elderly and child care.

In fact, it is possible that Korea's interest in this specific welfare sector has not been sufficiently reflected in the calculation of the GC index. This is because the indicators of 'health' and 'welfare' sector of the index include not simply 'welfare', but more of 'health' related indicators. This is one of the limitations of the data collecting for this study, since data from evaluated countries is limited. Therefore, this restriction should be considered when understating the low ranking of Korea in Health and Welfare area. Nonetheless, this indicator is divided into two sub-groups, 1) the system of health and welfare and 2) life and death, which Korea ranked 30th and 27th respectively, all of which are the lowest among OECD countries.

Finally a suggestion to enhance the GC ranking of Korea's health and welfare sector is to take

consideration for the people in the class of receiving basic pension, which guarantees the least quality of life, more into account when designing policies. Also, greater effort should be made for developing and collecting diverse yet solid data on this topic; our study is expected to grow continuously and more in-depth analysis will be possible next year.

Reference

Agriculture & Food

BBC (2017, September 19). Food in a fragile world. BBC. Retrieved from <http://www.bbc.com/news/in-pictures-41306112>

Central Intelligence Agency (2017). World Factbook of Nigeria. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html>

OECD, & FAO (2017). OECD-FAO Agricultural Outlook 2017-2026. Retrieved from http://www.oecd-ilibrary.org/agriculture-and-food/oecd-fao-agricultural-outlook-2017-2026/southeast-asia-prospects-and-challenges_agr_outlook-2017-5-en

Food and Agriculture Organization of the United Nations (2017a). Laos at a glance. Retrieved from <http://www.fao.org/laos/fao-in-laos/laos-at-a-glance/en/>

Food and Agriculture Organization of the United Nations (2017b). Nigeria at a glance. Retrieved from <http://www.fao.org/nigeria/fao-in-nigeria/nigeria-at-a-glance/en/>

Food and Agriculture Organization of the United Nations (2017c). Viet Nam at a glance. Retrieved from <http://www.fao.org/vietnam/fao-in-viet-nam/viet-nam-at-a-glance/en/>

Wikipedia (2017). Typhoon Doksuri.. Retrieved from [https://en.m.wikipedia.org/wiki/Typhoon_Doksuri_\(2017\)#Vietnam](https://en.m.wikipedia.org/wiki/Typhoon_Doksuri_(2017)#Vietnam)

Food Security Information Network (2017). Global report on food crises 2017.

Economy

Agcaoili, L. (2016, May 4). IMF outlook for 2016: Philippine growth seen fastest in Asean. Philstar. Retrieved from <http://www.philstar.com/business/2016/05/04/1579478/imf-outlook-2016-philippine-growth-seen-fastest-asean>

Africa Research Bulletin: Economic, Financial and Technical Series (2017). Ethiopia: World Bank Group

Economic Update. View issue TOC, 53(11), 21491A-21491C. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-6346.2016.07386.x/full>

Education

Andrabe, T., & Khwaja, A. I. (2016, January 29). Education is becoming an extremist battleground in Pakistan. The Washington Post. Retrieved from https://www.washingtonpost.com/news/grade-point/wp/2016/01/29/education-is-becoming-an-extremist-battleground-in-pakistan/?utm_term=.057dcc0859fc

OECD (2017). Education in Costa Rica, Reviews of National Policies for Education. OECD Publishing, Paris. Retrieved from <http://dx.doi.org/10.1787/9789264277335-en>

Environment

Alvarado, F., Siura, S., & Manrique, A. (2017). Peru: agroecological movement history 1980–2015. *Agroecology and Sustainable Food Systems*, 41, 366–379, DOI: 10.1080/21683565.2017.1287148

International Monetary Fund. (2016, April 27). IMF Survey: Latin America's economic slowdown continues. IMF Country focus. Retrieved from <https://www.imf.org/en/News/Articles/2015/09/28/04/53/socar042716a>

Lusakatimes (2017, August 1). ZICTA and ZADP sign MoU. Lusakatimes. Retrieved from <https://www.lusakatimes.com/2017/08/01/zicta-zadp-sign-mou/>

Ministry of Mines and Minerals Development (2017). Zambia Mining and environmental Remediation and Improvement Project (ZMERIP). Retrieved from <http://www.mmmd.gov.zm/index.php/projects/zmerip>

Manual de Legislación Ambiental (2017). PLAN NACIONAL DE ACCIÓN AMBIENTAL - PLANAA PERÚ: 2011 – 2021. Retrieved from http://www.legislacionambientalspda.org.pe/index.php?option=com_content&view=article&id=822&Itemid=5317

Taylor, S. D. (2006). Culture and customs of Zambia.

Greenwood Publishing Group.

Governance

Betts, A., & Kaytaz, E. (2009). National and international responses to the Zimbabwean exodus: implications for the refugee protection regime. UNHCR, Policy Development and Evaluation Service..

Collister, H, & Zhang, C. (2013, January 29). Botswana struggles to achieve gender equality and ethnic minority rights. International Service for Human Rights. Retrieved from <http://www.ishr.ch/news/botswana-struggles-achieve-gender-equality-and-ethnic-minority-rights>

Harris, G. (2017, April 8). Bush steps back into spotlight to help Africa fight epidemics. The New York Times. Retrieved from https://www.nytimes.com/2017/04/08/world/africa/george-bush-africa-epidemics-pepfar.html?rref=collection%2Ftimestopic%2FBotswana&action=click&contentCollection=world®ion=stream&module=stream_unit&version=latest&contentPlacement=4&pgtype=collection

Huntington, S. P. (1991). Democracy's Third Wave. *The Journal of Democracy*, 2(2).

The Associated Press (2017, July 8). Ex-Judo Star Poised to Win Mongolia's Presidential Race. The New York Times. Retrieved from https://www.nytimes.com/2017/07/08/world/asia/mongolia-president-battulga.html?rref=collection%2Ftimestopic%2FMongolia&action=click&contentCollection=world®ion=stream&module=stream_unit&version=latest&contentPlacement=2&pgtype=collection

Transparency International (2016). Corruption Perception Index 2016. Retrieved from https://www.transparency.org/news/feature/corruption_perceptions_index_2016

US Department of State (2011, April 8). 2010 Human Rights Report: Mongolia". . Retrieved <https://www.state.gov/j/drl/rls/hrrpt/2010/eap/154394.htm>

Health & Welfare

Ahmed, S, Alam, B, Anwar, I, Begum, T, Huque, R, Khan, J, Nababan, H, & Osman F. (2015) Bangladesh health system review , *Health Systems in Transition*, 5(3)

Chokshi, M., Patil, B., Khanna, R., Neogi, S. B., Sharma, J., Paul, V. K., & Zodpey, S. (2016). Health Systems in India. *Journal of Perinatology*, 36, S9-S12.

Hales, S., Howden-Chapman, P., Salmond, C., Woodward, A., & Mackenbach, J. (1999). National

infant mortality rates in relation to gross national product and distribution of income. *The Lancet*, 354(9195), 2047.

Patel, V., Saraceno, B., & Kleinman, A. (2006). Beyond evidence: the moral case for international mental health.

Sen, A. (2002). Health: perception versus observation : Self-reported morbidity has severe limitations and can be extremely misleading. *BMJ : British Medical Journal*, 324(7342), 860–861.

Sharma, A. K. (2009). National rural health mission: time to take stock. *Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine*, 34(3), 175.

Thankappan, K. R. (2001). Some health implications of globalization in Kerala, India. *Bulletin of the World Health Organization*, 79(9), 892–893.

Vlădescu, C., Scîntee, S. G., Olsavszky, V., Hernández-Quevedo, C., & Sagan, A. (2016). Romania: Health system review. *Health systems in transition*, 18(4), 1-170.

Waldmann, R. J. (1992). Income distribution and infant mortality. *The Quarterly Journal of Economics*, 107(4), 1283-1302.

ICT

OECD (2016). OECD Open Government Review Indonesia 2016. Retrieved from <https://www.oecd.org/gov/open-gov-review-indonesia.pdf>

Oxford Business Group. (2017. March 20). Major infrastructure project opens doors for ICT in Indonesia. Retrieved from <http://www.oxfordbusinessgroup.com/news/major-infrastructure-project-opens-doors-ict-indonesia>

Sommer, A. (2015, November 2). Indonesia ICT sector assessment look. The Jakarta Post. Retrieved from <http://www.thejakartapost.com/news/2015/11/02/indonesia-ict-sector-assessment-outlook.html>

UNDP in Azerbaijan (2017). Modernization of Sustainability and Efficiency of ICT infrastructure and ICT services in the Republic of Azerbaijan. Retrieved from http://www.az.undp.org/content/azerbaijan/en/home/operations/projects/democratic_governance/modernization ICT_infrastructure_services.html

World Economic Forum. (2014). Executive Opinion Survey 2014. Retrieved from <http://reports.weforum.org/global-risks-2015/executive-opinion-survey-2014/>

World Bank (2017). Individuals Using the Internet (% of

population). Retrieved from <https://data.worldbank.org/indicator/IT.NET.USER.ZS>

Infrastructure

Asia Regional Integration Center (2017). Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area. Retrieved from <https://aric.adb.org/initiative/brunei-darussalam-indonesia-malaysia-philippines-east-asean-growth-area>

Badasyan, N. & Alfen, H. W. (2017). Development of the PIP Organizational Models: Examples from the Armenian Transport Sector, *International Journal of Public Administration*, 40(6), 516-525, DOI: 10.1080/01900692.2015.1136914

Borneo Post Online (2016, October 27). Connectivity critical to BIMP-EAGA's development. Borneo Post Online. Retrieved from <http://www.theborneopost.com/2016/10/27/connectivity-critical-to-bimp-eagas-development/>

Borneo Post Online (2016, July 26). Dialogue series on coastal road, bridges heads to Sarikei. Borneo Post Online. Retrieved from <http://www.theborneopost.com/2017/07/26/dialogue-series-on-coastal-road-bridges-heads-to-sarikei/>

Borneo Post Online (2017, September 19). UK, French companies impress Masing-led state delegation. (2017, Sep). Borneo Post Online. Retrieved from <http://www.theborneopost.com/2017/09/19/uk-french-companies-impress-masing-led-state-delegation/>

Cornish, L. (2017, January 9). The biggest funding trends from latest donor data. Devex. Retrieved from <https://www.devex.com/news/the-biggest-funding-trends-from-latest-donor-data-89416>

Ghazanchyan, S. (2017, March 22). UAE's Ocean Holding LLC to invest \$100 million in Armenia's solar energy sector. Public Radio of Armenia. Retrieved from <http://www.armradio.am/en/2017/03/22/uaes-ocean-holding-llc-to-invest-100-million-in-armenias-solar-energy-sector/>

Ghazanchyan, S. (2017, July 3). ADB approves \$ 80 million to help improve electricity distribution efficiency in Armenia. Public Radio of Armenia. Retrieved from <http://www.armradio.am/en/2017/07/03/the-asian-development-banks-adb-board-of-directors-has-approved-an-80-million-loan-to-electric-networks-of-armenia-cjsc-ena-to-help-improve-electricity-distribution-and-increase-energy-i/>

Malaysiakini (2017, September 20). Public transport is more than 'big toy' infrastructure. Malaysiakini. Retrieved from <https://www.malaysiakini.com/news/395737>

Nygren, B. (2008). Putin's use of natural gas to reintegrate the CIS region. *Problems of Post-Communism*, 55(4), 3-15.

Oh, T. H., Hasanuzzaman, M., Selvaraj, J., Teo, S. C., & Chua, S. C. (2017). Energy policy and alternative energy in Malaysia: Issues and challenges for sustainable growth—An update. *Renewable and Sustainable Energy Reviews*. Retrieved from <http://dx.doi.org/10.1016/j.rser.2017.06.112>

Panorama-am. (2017, September 27). Electricity export growing in Armenia. Panorama-am. Retrieved from <https://www.panorama.am/en/news/2017/09/27/Electricity-export-growing-in-Armenia/1840878>

Safety

Capaccio, A., & Johnsson, J. (2016, September 29). Fighter Jet Sales to Gulf Allies Backed by U.S. After a Wait. Bloomberg. Retrieved from <https://www.bloomberg.com/news/articles/2016-09-28/fighter-jet-sales-to-gulf-allies-backed-by-u-s-after-long-wait>

Gavriletea, M. D. (2017). Catastrophe risk management in Romania and Transylvania' specifics. Issues for national and local administrations. *Economic Research-Ekonomska Istraživanja*, 30(1), 261-776.

Khatri, S. S. (2016, July 3). Qatar's Emiri Naval Force signs \$1 billion deal for Italian missiles. Doha News. Retrieved from <https://dohanews.co/qatars-emiri-naval-force-signs-1-billion-deal-for-italian-missiles/>

Korea Ministry of Foreign Affairs (2016). Qatar Weekly Trends. Retrieved from http://qat.mofa.go.kr/webmodule/htsboard/template/list/legationkorlist.jsp?typeID=15&boardid=5431&seqno=&c=TITLE&t=&pagenum=7&tab_Code=0&tableName=TYPE_LEGATION&pc=&dc=null&wc=%22a=0&lu=&vu=&iu=&du=

Korea Ministry of Foreign Affairs (2017). Country Report – Venezuela. Retrieved from http://www.0404.go.kr/dev/country_view.mofa?idx=85

Medical Xpress, (2017, March 12). Measles outbreak in Romania has killed 17 children. Medical Xpress. Retrieved from <https://medicalxpress.com/news/2017-03-measles-outbreak-romania-children.html>

OSAC. (2016). Romania 2016 crime & Safety Report. Retrieved from <https://www.osac.gov/pages/ContentReportDetails.aspx?cid=19023>

Prevention Web. (2006). Venezuela: Componente de fortalecimiento de sistemas y políticas nacionales de prevención y atención de desastres. Retrieved from <http://www.preventionweb.net/english/professional/poli>

cies/v.php?id=9609

Strauss, J. A., & Allen, R. M. (2016). Benefits and Costs of Earthquake Early Warning. *Seismological Research Letters*, 2016. DOI: 10.1785/0220150149

Varghese, J. (2016, October 24). Biggest man-made forest in GCC coming up in Qatar. *Gulf Times*. Retrieved from <http://www.gulf-times.com/story/518610/Biggest-man-made-forest-in-GCC-coming-up-in-Qatar>

Werner, A. (2016). Latin America and the Caribbean in 2016: Adjusting to a harsher reality. *IMF Blog*. Retrieved from <https://blogs.imf.org/2016/01/22/latin-america-and-the-caribbean-in-2016-adjusting-to-a-harsher-reality/>

World Health organization (2017a). Measles Fact Sheet. Retrieved from <http://www.who.int/mediacentre/factsheets/fs286/en/>

World Health Organization. (2017b). Regional Director commits continuing support to Romania to stop

measles outbreak and improve immunization performance. Retrieved from <http://www.euro.who.int/en/mediacentre/events/events/2017/04/european-immunization-week-2017/news/news/2017/05/regional-director-commits-continuing-support-to-romania-to-stop-measles-outbreak-and-improve-immunization-performance>

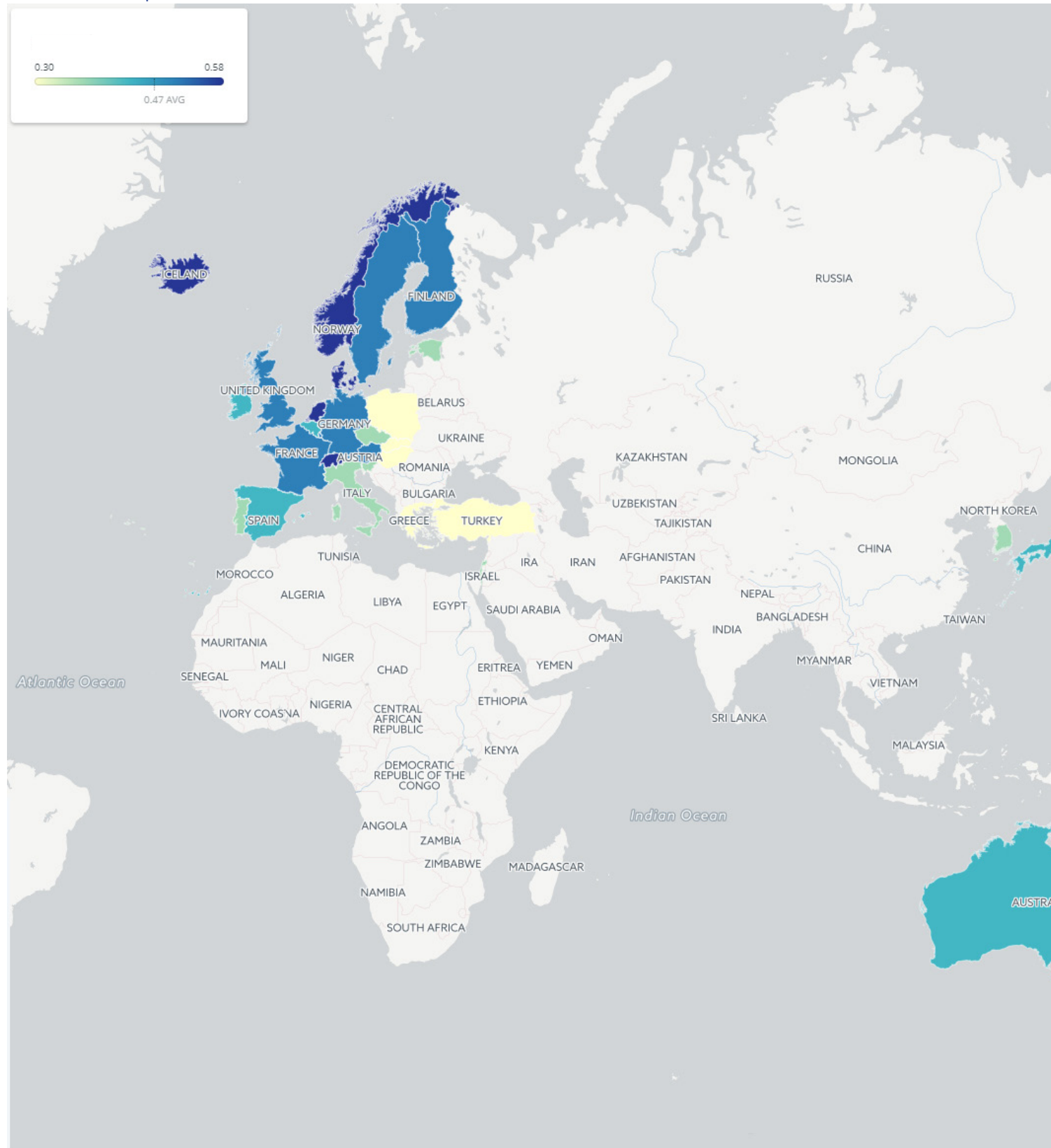
Government Competitiveness of Korea

KERI (2016). ICT Competitiveness International Comparison and Implications. Korea Economic Research Institute: Seoul

Ko, S. (2017, March 4). Accumulated total number of attendance of candle rallies exceed 15 million. *Kookminilbo*. Retrieved from <http://news.kmib.co.kr/article/view.asp?arcid=0011306744&code=611111111&cp=du>

Tourism Knowledge & Information System (2016). Statistics. Retrieved from <http://www.tour.go.kr/>

Government Competitiveness 2017



Iceland
Switzerland
Netherlands
New Zealand
Norway
United States

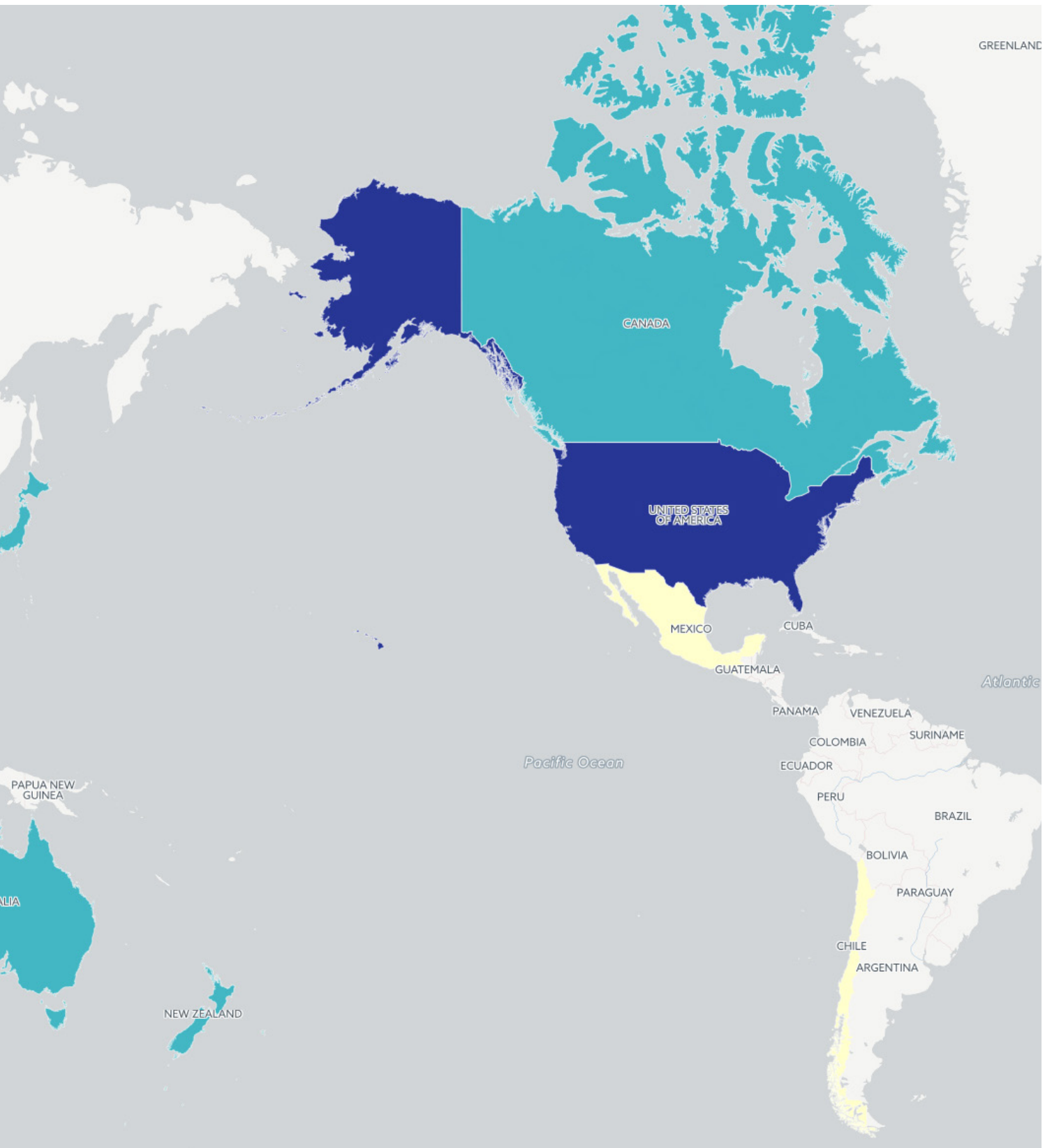
Denmark
Sweden
Germany
Finland
France
United Kingdom

Luxembourg
Australia
New Zealand
Ireland
Australia
Belgium

Spain
Canada
Japan
Estonia
Portugal
Korea, Rep.

Italy
Slovenia
Czech Rep.
Slovak Rep.
Poland
Greece

Hungary
Chile
Mexico
Turkey



2017 OECD
Government Competitiveness Score

Government Competitiveness Rankings

2016-2017: OECD Countries

Country	2017	2016	Change	Country	2017	2016	Change
Iceland	1	7	6	Spain	18	22	4
Switzerland	2	2	0	Canada	19	13	-6
Netherlands	3	8	5	Japan	20	18	-2
Norway	4	1	-3	Israel	21	23	2
United States	5	6	1	Estonia	22	16	-6
Denmark	6	11	5	Portugal	23	26	3
Sweden	7	3	-4	Korea, Rep.	24	21	-3
Germany	8	10	2	Italy	25	27	2
Finland	9	9	0	Slovenia	26	24	-2
France	10	19	9	Czech Rep.	27	25	-2
United Kingdom	11	15	4	Slovak Rep.	28	31	3
Luxembourg	12	5	-7	Poland	29	30	1
Austria	13	12	-1	Greece	30	28	-2
New Zealand	14	4	-10	Hungary	31	29	-2
Ireland	15	20	5	Chile	32	32	0
Australia	16	14	-2	Mexico	33	33	0
Belgium	17	17	0	Turkey	34	34	0

Iceland

1/34

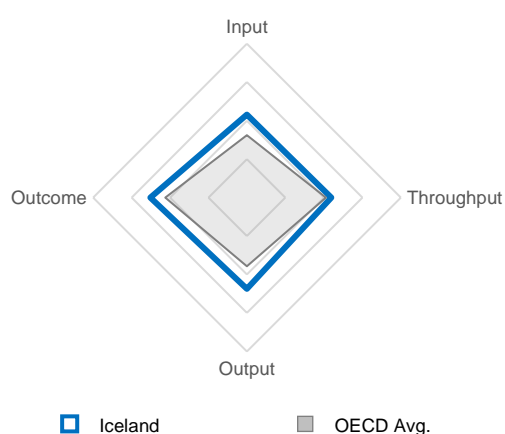
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	1	0.577
2015-16 Government Competitiveness	7	0.537
2014-15 Government Competitiveness	11	0.559
2013-14 Government Competitiveness	15	0.549

Capital City	Reykjavik
Population	334,252 (2016 est.)
GDP (PPP)	17,180,193,982 USD (2016 est.)
Unemployment rate	3.98% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	1	0.539
Throughput	15	0.548
Output	1	0.593
Outcome	6	0.628

	Rank	Score	Subgroup	Rank
Agriculture & Food	33	0.288	Agriculture Resources	27
			Institution & Finance	23
			Productivity	12
Culture & Tourism	8	0.393	Cultural Goods	31
			Tourism	4
Economy	1	0.612	Economic Institution & Policy	2
			Economic Equity	1
			Economic Fundamental	7
Education	1	0.726	Education Infrastructure	2
			Education Performance	1
			Government Involvement	7
Environment	18	0.491	Environment Behavior	34
			Environmental Health	23
			Renewable Energy	1
			Resource Protection	6
Governance	6	0.820	Democracy	2
			Government Competency	11
			Rule of Law	12
Health & Welfare	1	0.722	Health & Welfare System	3
			Life and Death	6
ICT	9	0.655	ICT Promotion	17
			ICT Scale	1
			ICT Utilization	13
R&D	12	0.403	Academic R&D	15
			Entrepreneurial R&D	15
			Governmental R&D	21
Safety	7	0.662	Crime & Warfare	4
			Industrial Disaster	22
			Natural Disaster Management	2
			Safety in Public Health	17

Switzerland

2/34

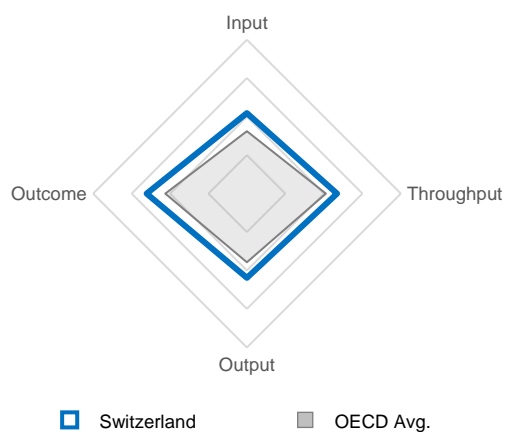
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	2	0.577
2015-16 Government Competitiveness	2	0.555
2014-15 Government Competitiveness	3	0.602
2013-14 Government Competitiveness	7	0.586

Capital City	Bern
Population	8,372,098 (2016 est.)
GDP (PPP)	526,449,749,808 USD (2016 est.)
Unemployment rate	4.55% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	2	0.523
Throughput	9	0.585
Output	3	0.547
Outcome	2	0.652

	Rank	Score	Subgroup	Rank
Agriculture & Food	23	0.376	Agriculture Resources	18
			Institution & Finance	25
			Productivity	27
Culture & Tourism	9	0.361	Cultural Goods	8
			Tourism	9
Economy	2	0.581	Economic Institution & Policy	3
			Economic Equity	15
			Economic Fundamental	2
Education	11	0.526	Education Infrastructure	33
			Education Performance	7
			Government Involvement	12
Environment	13	0.518	Environment Behavior	15
			Environmental Health	2
			Renewable Energy	5
			Resource Protection	10
Governance	9	0.781	Democracy	15
			Government Competency	9
			Rule of Law	3
Health & Welfare	4	0.680	Health & Welfare System	13
			Life and Death	1
ICT	8	0.658	ICT Promotion	7
			ICT Scale	8
			ICT Utilization	9
R&D	1	0.573	Academic R&D	1
			Entrepreneurial R&D	3
			Governmental R&D	9
Safety	2	0.716	Crime & Warfare	14
			Industrial Disaster	17
			Natural Disaster Management	3
			Safety in Public Health	1

Netherlands

3/34

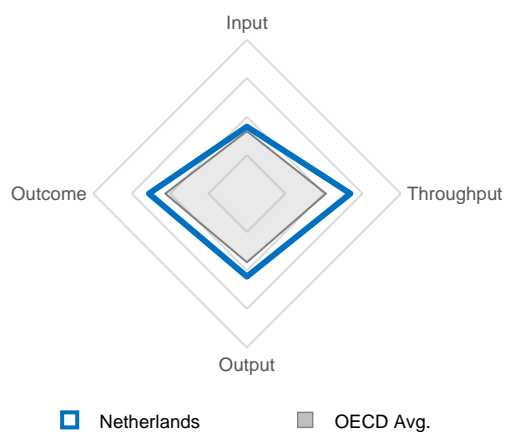
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	3	0.571
2015-16 Government Competitiveness	8	0.533
2014-15 Government Competitiveness	2	0.602
2013-14 Government Competitiveness	2	0.626

Capital City	Amsterdam
Population	17,018,408 (2016 est.)
GDP (PPP)	866,204,439,716 USD (2016 est.)
Unemployment rate	6.87% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	12	0.435
Throughput	1	0.672
Output	4	0.539
Outcome	5	0.637

	Rank	Score	Subgroup	Rank
Agriculture & Food	11	0.481	Agriculture Resources	14
			Institution & Finance	1
			Productivity	4
Culture & Tourism	17	0.287	Cultural Goods	5
			Tourism	22
Economy	11	0.509	Economic Institution & Policy	10
			Economic Equity	8
			Economic Fundamental	10
Education	13	0.518	Education Infrastructure	26
			Education Performance	15
			Government Involvement	5
Environment	6	0.542	Environment Behavior	23
			Environmental Health	4
			Renewable Energy	14
			Resource Protection	18
Governance	7	0.812	Democracy	7
			Government Competency	7
			Rule of Law	4
Health & Welfare	2	0.713	Health & Welfare System	1
			Life and Death	5
ICT	4	0.690	ICT Promotion	8
			ICT Scale	10
			ICT Utilization	3
R&D	3	0.474	Academic R&D	9
			Entrepreneurial R&D	8
			Governmental R&D	3
Safety	3	0.683	Crime & Warfare	8
			Industrial Disaster	5
			Natural Disaster Management	9
			Safety in Public Health	5

Norway

4/34

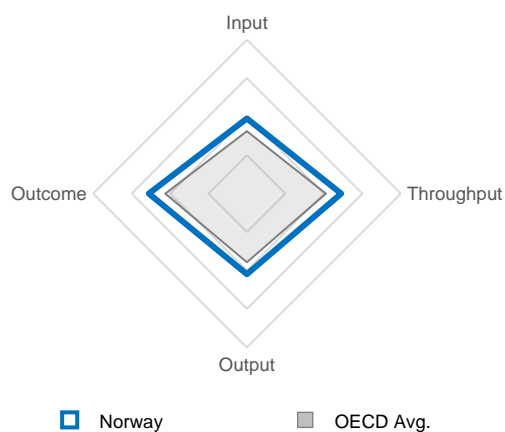
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	4	0.566
2015-16 Government Competitiveness	1	0.593
2014-15 Government Competitiveness	5	0.596
2013-14 Government Competitiveness	5	0.598

Capital City	Oslo
Population	5,232,929 (2016 est.)
GDP (PPP)	310,321,429,960 USD (2016 est.)
Unemployment rate	4.30% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	3	0.488
Throughput	4	0.612
Output	6	0.524
Outcome	4	0.638

	Rank	Score	Subgroup	Rank
Agriculture & Food	22	0.377	Agriculture Resources	33
			Institution & Finance	27
			Productivity	19
Culture & Tourism	14	0.306	Cultural Goods	16
			Tourism	16
Economy	3	0.576	Economic Institution & Policy	1
			Economic Equity	4
			Economic Fundamental	11
Education	5	0.591	Education Infrastructure	28
			Education Performance	6
			Government Involvement	4
Environment	16	0.502	Environment Behavior	25
			Environmental Health	14
			Renewable Energy	2
			Resource Protection	14
Governance	2	0.883	Democracy	1
			Government Competency	2
			Rule of Law	8
Health & Welfare	5	0.667	Health & Welfare System	10
			Life and Death	2
ICT	7	0.679	ICT Promotion	4
			ICT Scale	4
			ICT Utilization	10
R&D	11	0.406	Academic R&D	14
			Entrepreneurial R&D	13
			Governmental R&D	7
Safety	5	0.667	Crime & Warfare	2
			Industrial Disaster	24
			Natural Disaster Management	11
			Safety in Public Health	3

United States

5/34

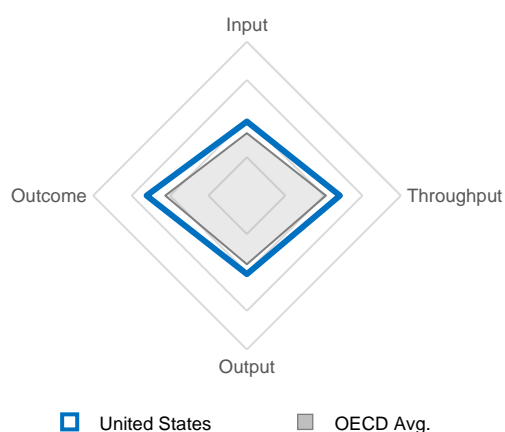
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	5	0.562
2015-16 Government Competitiveness	6	0.541
2014-15 Government Competitiveness	4	0.602
2013-14 Government Competitiveness	1	0.649

Capital City	Washington, D.C.
Population	323,127,513 (2016 est.)
GDP (PPP)	18,569,100,000,000 USD (2016 est.)
Unemployment rate	5.28% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	4	0.481
Throughput	5	0.604
Output	8	0.510
Outcome	1	0.653

	Rank	Score	Subgroup	Rank
Agriculture & Food	4	0.542	Agriculture Resources	25
			Institution & Finance	3
			Productivity	5
Culture & Tourism	1	0.758	Cultural Goods	1
			Tourism	2
Economy	18	0.444	Economic Institution & Policy	33
			Economic Equity	30
			Economic Fundamental	1
Education	12	0.519	Education Infrastructure	16
			Education Performance	13
			Government Involvement	9
Environment	31	0.371	Environment Behavior	31
			Environmental Health	29
			Renewable Energy	29
			Resource Protection	34
Governance	19	0.643	Democracy	16
			Government Competency	17
			Rule of Law	18
Health & Welfare	21	0.510	Health & Welfare System	25
			Life and Death	31
ICT	3	0.693	ICT Promotion	6
			ICT Scale	7
			ICT Utilization	7
R&D	2	0.482	Academic R&D	6
			Entrepreneurial R&D	1
			Governmental R&D	15
Safety	8	0.658	Crime & Warfare	17
			Industrial Disaster	3
			Natural Disaster Management	10
			Safety in Public Health	14

Denmark

6/34

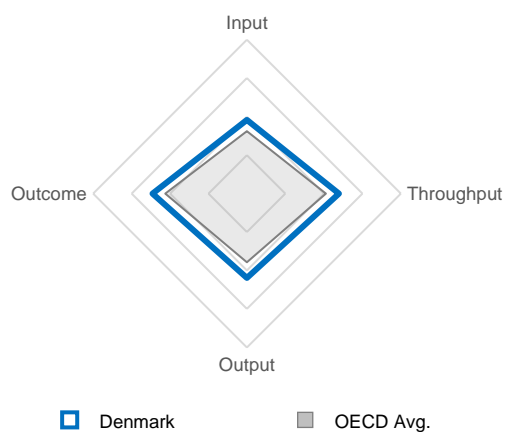
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	6	0.560
2015-16 Government Competitiveness	11	0.519
2014-15 Government Competitiveness	7	0.579
2013-14 Government Competitiveness	6	0.589

Capital City	Copenhagen
Population	5,731,118 (2016 est.)
GDP (PPP)	284,813,453,896 USD (2016 est.)
Unemployment rate	6.17% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	5	0.479
Throughput	6	0.598
Output	2	0.548
Outcome	8	0.614

	Rank	Score	Subgroup	Rank
Agriculture & Food	12	0.481	Agriculture Resources	9
			Institution & Finance	17
			Productivity	15
Culture & Tourism	30	0.164	Cultural Goods	28
			Tourism	29
Economy	5	0.557	Economic Institution & Policy	7
			Economic Equity	2
			Economic Fundamental	12
Education	2	0.658	Education Infrastructure	9
			Education Performance	8
			Government Involvement	1
Environment	17	0.494	Environment Behavior	20
			Environmental Health	11
			Renewable Energy	11
			Resource Protection	15
Governance	1	0.905	Democracy	5
			Government Competency	1
			Rule of Law	1
Health & Welfare	3	0.695	Health & Welfare System	2
			Life and Death	7
ICT	11	0.607	ICT Promotion	12
			ICT Scale	5
			ICT Utilization	18
R&D	7	0.417	Academic R&D	8
			Entrepreneurial R&D	12
			Governmental R&D	5
Safety	13	0.618	Crime & Warfare	7
			Industrial Disaster	32
			Natural Disaster Management	19
			Safety in Public Health	6

Sweden

7/34

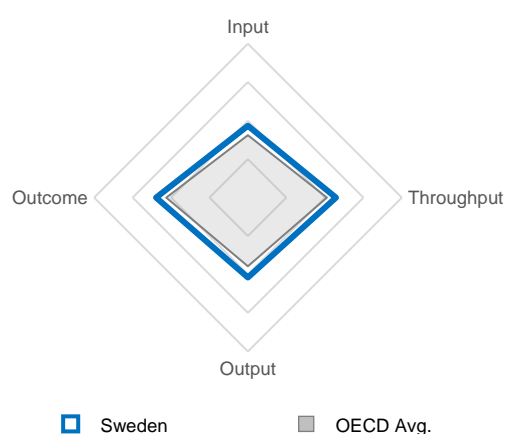
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	7	0.539
2015-16 Government Competitiveness	3	0.552
2014-15 Government Competitiveness	1	0.606
2013-14 Government Competitiveness	3	0.616

Capital City	Stockholm
Population	9,903,122 (2016 est.)
GDP (PPP)	486,984,675,459 USD (2016 est.)
Unemployment rate	7.43% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	6	0.467
Throughput	10	0.572
Output	7	0.519
Outcome	15	0.597

	Rank	Score	Subgroup	Rank
Agriculture & Food	34	0.282	Agriculture Resources	32
			Institution & Finance	17
			Productivity	32
Culture & Tourism	25	0.203	Cultural Goods	21
			Tourism	25
Economy	6	0.523	Economic Institution & Policy	9
			Economic Equity	7
			Economic Fundamental	13
Education	6	0.587	Education Infrastructure	7
			Education Performance	4
			Government Involvement	14
Environment	2	0.629	Environment Behavior	26
			Environmental Health	10
			Renewable Energy	3
			Resource Protection	2
Governance	3	0.830	Democracy	4
			Government Competency	3
			Rule of Law	11
Health & Welfare	7	0.642	Health & Welfare System	8
			Life and Death	4
ICT	6	0.682	ICT Promotion	9
			ICT Scale	6
			ICT Utilization	4
R&D	10	0.408	Academic R&D	7
			Entrepreneurial R&D	9
			Governmental R&D	8
Safety	16	0.602	Crime & Warfare	19
			Industrial Disaster	31
			Natural Disaster Management	16
			Safety in Public Health	4

Germany

8/34

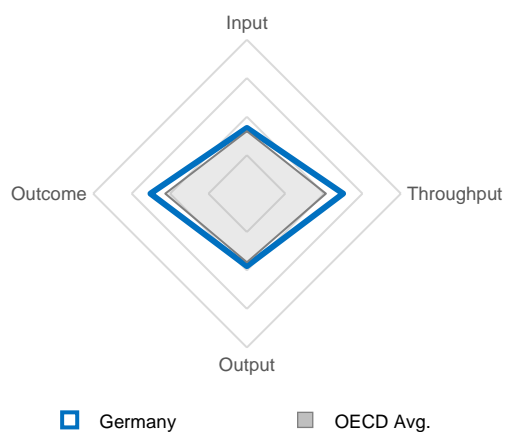
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	8	0.538
2015-16 Government Competitiveness	10	0.527
2014-15 Government Competitiveness	10	0.563
2013-14 Government Competitiveness	9	0.577

Capital City	Berlin
Population	82,667,685 (2016 est.)
GDP (PPP)	4,028,362,431,411 USD (2016 est.)
Unemployment rate	4.62% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	14	0.427
Throughput	2	0.625
Output	16	0.471
Outcome	7	0.627

	Rank	Score	Subgroup	Rank
Agriculture & Food	8	0.501	Agriculture Resources	22
			Institution & Finance	4
			Productivity	10
Culture & Tourism	5	0.430	Cultural Goods	2
			Tourism	14
Economy	8	0.516	Economic Institution & Policy	20
			Economic Equity	16
			Economic Fundamental	3
Education	21	0.418	Education Infrastructure	25
			Education Performance	22
			Government Involvement	16
Environment	3	0.564	Environment Behavior	19
			Environmental Health	8
			Renewable Energy	15
			Resource Protection	16
Governance	11	0.750	Democracy	12
			Government Competency	20
			Rule of Law	13
Health & Welfare	20	0.518	Health & Welfare System	29
			Life and Death	16
ICT	15	0.571	ICT Promotion	19
			ICT Scale	18
			ICT Utilization	11
R&D	6	0.427	Academic R&D	11
			Entrepreneurial R&D	6
			Governmental R&D	6
Safety	4	0.681	Crime & Warfare	18
			Industrial Disaster	1
			Natural Disaster Management	13
			Safety in Public Health	9

Finland

9/34

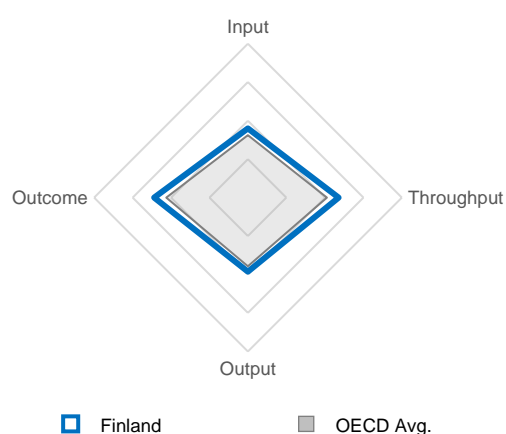
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	9	0.532
2015-16 Government Competitiveness	9	0.529
2014-15 Government Competitiveness	6	0.590
2013-14 Government Competitiveness	4	0.610

Capital City	Helsinki
Population	5,495,096 (2016 est.)
GDP (PPP)	236,578,866,806 USD (2016 est.)
Unemployment rate	9.38% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	10	0.450
Throughput	8	0.589
Output	13	0.481
Outcome	9	0.610

	Rank	Score	Subgroup	Rank
Agriculture & Food	18	0.430	Agriculture Resources	34
			Institution & Finance	15
			Productivity	20
Culture & Tourism	32	0.158	Cultural Goods	29
			Tourism	28
Economy	10	0.514	Economic Institution & Policy	6
			Economic Equity	3
			Economic Fundamental	26
Education	8	0.563	Education Infrastructure	5
			Education Performance	9
			Government Involvement	17
Environment	7	0.542	Environment Behavior	29
			Environmental Health	15
			Renewable Energy	10
			Resource Protection	5
Governance	4	0.827	Democracy	8
			Government Competency	5
			Rule of Law	2
Health & Welfare	18	0.553	Health & Welfare System	20
			Life and Death	14
ICT	2	0.703	ICT Promotion	3
			ICT Scale	3
			ICT Utilization	5
R&D	9	0.414	Academic R&D	3
			Entrepreneurial R&D	14
			Governmental R&D	4
Safety	12	0.622	Crime & Warfare	3
			Industrial Disaster	33
			Natural Disaster Management	24
			Safety in Public Health	7

France

10/34

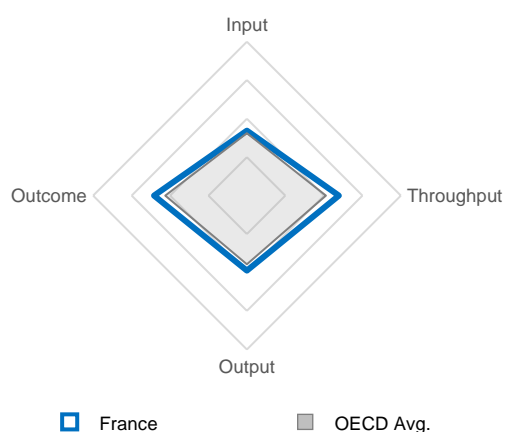
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	10	0.528
2015-16 Government Competitiveness	19	0.479
2014-15 Government Competitiveness	18	0.517
2013-14 Government Competitiveness	16	0.527

Capital City	Paris
Population	66,896,109 (2016 est.)
GDP (PPP)	2,773,931,830,825 USD (2016 est.)
Unemployment rate	10.36% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	16	0.422
Throughput	7	0.597
Output	10	0.487
Outcome	12	0.604

	Rank	Score	Subgroup	Rank
Agriculture & Food	3	0.546	Agriculture Resources	15
			Institution & Finance	4
			Productivity	8
Culture & Tourism	3	0.502	Cultural Goods	4
			Tourism	5
Economy	12	0.480	Economic Institution & Policy	11
			Economic Equity	17
			Economic Fundamental	18
Education	16	0.476	Education Infrastructure	23
			Education Performance	17
			Government Involvement	15
Environment	10	0.527	Environment Behavior	16
			Environmental Health	16
			Renewable Energy	19
			Resource Protection	3
Governance	20	0.637	Democracy	24
			Government Competency	12
			Rule of Law	26
Health & Welfare	17	0.555	Health & Welfare System	19
			Life and Death	15
ICT	21	0.539	ICT Promotion	20
			ICT Scale	20
			ICT Utilization	19
R&D	14	0.392	Academic R&D	18
			Entrepreneurial R&D	11
			Governmental R&D	
Safety	11	0.624	Crime & Warfare	25
			Industrial Disaster	4
			Natural Disaster Management	12
			Safety in Public Health	11

United Kingdom

11/34

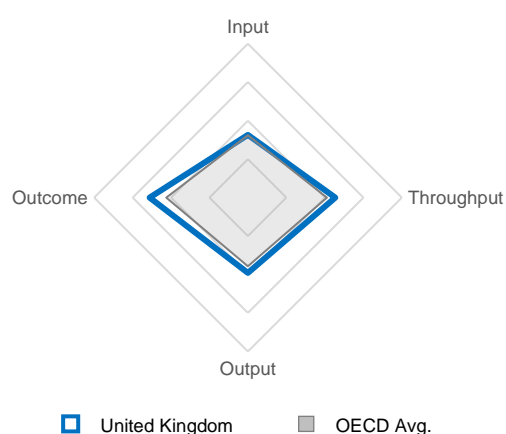
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	11	0.526
2015-16 Government Competitiveness	15	0.508
2014-15 Government Competitiveness	9	0.564
2013-14 Government Competitiveness	8	0.583

Capital City	London
Population	65,637,239 (2016 est.)
GDP (PPP)	2,796,731,825,411 USD (2016 est.)
Unemployment rate	5.30% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	20	0.408
Throughput	11	0.567
Output	9	0.489
Outcome	3	0.639

	Rank	Score	Subgroup	Rank
Agriculture & Food	5	0.515	Agriculture Resources	11
			Institution & Finance	10
			Productivity	11
Culture & Tourism	6	0.415	Cultural Goods	3
			Tourism	7
Economy	26	0.411	Economic Institution & Policy	32
			Economic Equity	26
			Economic Fundamental	14
Education	10	0.530	Education Infrastructure	21
			Education Performance	11
			Government Involvement	11
Environment	23	0.463	Environment Behavior	13
			Environmental Health	3
			Renewable Energy	28
			Resource Protection	20
Governance	10	0.756	Democracy	13
			Government Competency	8
			Rule of Law	9
Health & Welfare	24	0.501	Health & Welfare System	28
			Life and Death	22
ICT	5	0.686	ICT Promotion	2
			ICT Scale	9
			ICT Utilization	8
R&D	17	0.374	Academic R&D	4
			Entrepreneurial R&D	17
			Governmental R&D	
Safety	14	0.607	Crime & Warfare	24
			Industrial Disaster	2
			Natural Disaster Management	17
			Safety in Public Health	18

Luxembourg

12/34

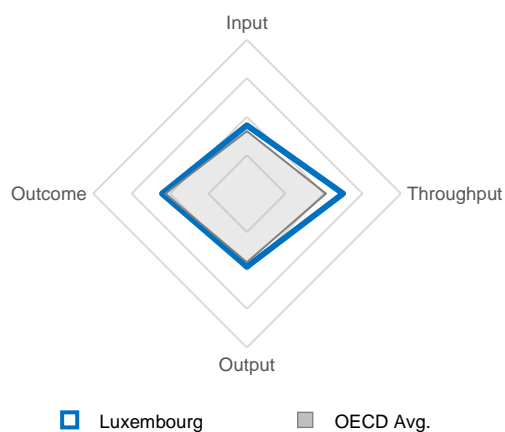
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	12	0.524
2015-16 Government Competitiveness	5	0.545
2014-15 Government Competitiveness	13	0.550
2013-14 Government Competitiveness	13	0.552

Capital City	Luxembourg
Population	582,972 (2016 est.)
GDP (PPP)	61,726,101,664 USD (2016 est.)
Unemployment rate	6.67% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	11	0.444
Throughput	3	0.624
Output	15	0.475
Outcome	17	0.552

	Rank	Score	Subgroup	Rank
Agriculture & Food	32	0.289	Agriculture Resources	7
			Institution & Finance	6
			Productivity	33
Culture & Tourism	24	0.207	Cultural Goods	18
			Tourism	31
Economy	4	0.561	Economic Institution & Policy	5
			Economic Equity	6
			Economic Fundamental	6
Education	17	0.463	Education Infrastructure	1
			Education Performance	18
			Government Involvement	30
Environment	19	0.486	Environment Behavior	33
			Environmental Health	9
			Renewable Energy	17
			Resource Protection	28
Governance	5	0.824	Democracy	3
			Government Competency	10
			Rule of Law	6
Health & Welfare	8	0.626	Health & Welfare System	4
			Life and Death	18
ICT	1	0.739	ICT Promotion	1
			ICT Scale	2
			ICT Utilization	6
R&D	4	0.462	Academic R&D	28
			Entrepreneurial R&D	7
			Governmental R&D	10
Safety	18	0.581	Crime & Warfare	29
			Industrial Disaster	18
			Natural Disaster Management	27
			Safety in Public Health	2

Austria

13/34

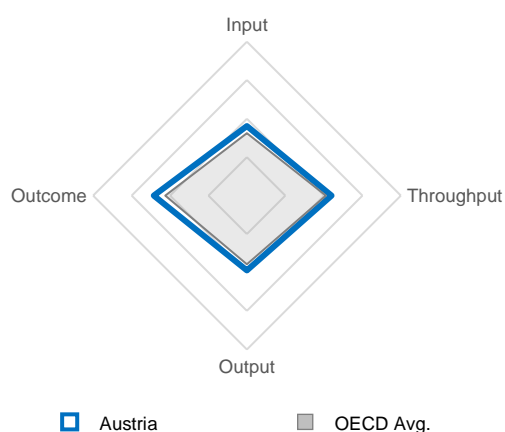
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	13	0.523
2015-16 Government Competitiveness	12	0.516
2014-15 Government Competitiveness	17	0.519
2013-14 Government Competitiveness	17	0.523

Capital City	Vienna
Population	8,747,358 (2016 est.)
GDP (PPP)	438,048,729,719 USD (2016 est.)
Unemployment rate	5.72% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	9	0.452
Throughput	14	0.550
Output	11	0.486
Outcome	11	0.606

	Rank	Score	Subgroup	Rank
Agriculture & Food	13	0.465	Agriculture Resources	24
			Institution & Finance	10
			Productivity	14
Culture & Tourism	13	0.324	Cultural Goods	13
			Tourism	13
Economy	13	0.472	Economic Institution & Policy	16
			Economic Equity	11
			Economic Fundamental	19
Education	19	0.429	Education Infrastructure	10
			Education Performance	23
			Government Involvement	24
Environment	4	0.557	Environment Behavior	22
			Environmental Health	5
			Renewable Energy	6
			Resource Protection	13
Governance	12	0.742	Democracy	14
			Government Competency	16
			Rule of Law	15
Health & Welfare	11	0.615	Health & Welfare System	6
			Life and Death	9
ICT	18	0.550	ICT Promotion	14
			ICT Scale	14
			ICT Utilization	20
R&D	20	0.353	Academic R&D	16
			Entrepreneurial R&D	16
			Governmental R&D	16
Safety	1	0.727	Crime & Warfare	1
			Industrial Disaster	19
			Natural Disaster Management	1
			Safety in Public Health	8

New Zealand

14/34

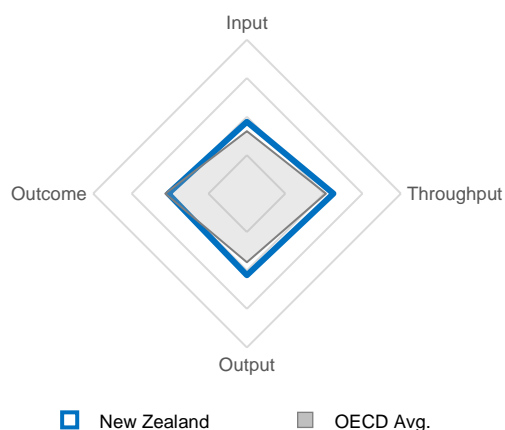
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	14	0.518
2015-16 Government Competitiveness	4	0.552
2014-15 Government Competitiveness	8	0.578
2013-14 Government Competitiveness	10	0.577

Capital City	Wellington
Population	4,692,700 (2016 est.)
GDP (PPP)	183,290,725,813 USD (2016 est.)
Unemployment rate	5.37% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	7	0.466
Throughput	12	0.562
Output	5	0.530
Outcome	22	0.512

	Rank	Score	Subgroup	Rank
Agriculture & Food	28	0.331	Agriculture Resources	4
			Institution & Finance	30
			Productivity	2
Culture & Tourism	19	0.256	Cultural Goods	20
			Tourism	17
Economy	21	0.437	Economic Institution & Policy	31
			Economic Equity	21
			Economic Fundamental	17
Education	4	0.594	Education Infrastructure	15
			Education Performance	2
			Government Involvement	10
Environment	5	0.545	Environment Behavior	21
			Environmental Health	18
			Renewable Energy	4
			Resource Protection	4
Governance	8	0.791	Democracy	6
			Government Competency	4
			Rule of Law	5
Health & Welfare	6	0.660	Health & Welfare System	9
			Life and Death	20
ICT	20	0.545	ICT Promotion	5
			ICT Scale	24
			ICT Utilization	12
R&D	18	0.369	Academic R&D	2
			Entrepreneurial R&D	21
			Governmental R&D	13
Safety	9	0.647	Crime & Warfare	10
			Industrial Disaster	16
			Natural Disaster Management	14
			Safety in Public Health	16

Ireland

15/34

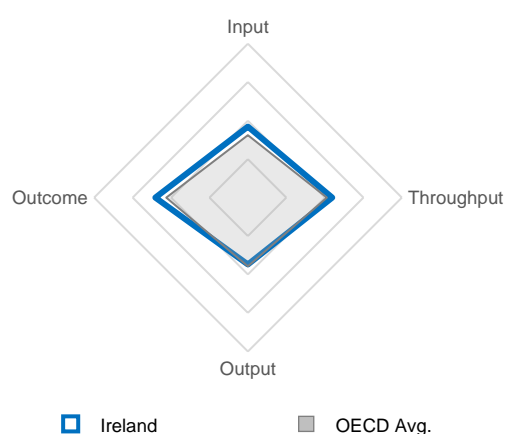
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	15	0.511
2015-16 Government Competitiveness	20	0.465
2014-15 Government Competitiveness	21	0.491
2013-14 Government Competitiveness	20	0.507

Capital City	Dublin
Population	4,773,095 (2016 est.)
GDP (PPP)	328,784,522,187 USD (2016 est.)
Unemployment rate	9.40% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	8	0.461
Throughput	16	0.548
Output	21	0.434
Outcome	13	0.602

	Rank	Score	Subgroup	Rank
Agriculture & Food	1	0.590	Agriculture Resources	3
			Institution & Finance	1
			Productivity	17
Culture & Tourism	20	0.244	Cultural Goods	25
			Tourism	19
Economy	7	0.521	Economic Institution & Policy	17
			Economic Equity	12
			Economic Fundamental	8
Education	14	0.516	Education Infrastructure	24
			Education Performance	12
			Government Involvement	18
Environment	32	0.357	Environment Behavior	11
			Environmental Health	32
			Renewable Energy	23
			Resource Protection	25
Governance	13	0.722	Democracy	10
			Government Competency	13
			Rule of Law	16
Health & Welfare	16	0.584	Health & Welfare System	18
			Life and Death	17
ICT	17	0.560	ICT Promotion	18
			ICT Scale	19
			ICT Utilization	14
R&D	5	0.449	Academic R&D	5
			Entrepreneurial R&D	10
			Governmental R&D	12
Safety	20	0.571	Crime & Warfare	30
			Industrial Disaster	21
			Natural Disaster Management	7
			Safety in Public Health	19

Australia

16/34

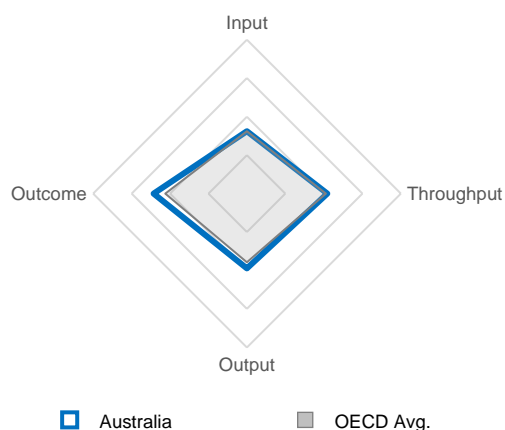
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	16	0.505
2015-16 Government Competitiveness	14	0.510
2014-15 Government Competitiveness	12	0.556
2013-14 Government Competitiveness	11	0.569

Capital City	Canberra
Population	24,127,159 (2016 est.)
GDP (PPP)	1,128,908,014,064 USD (2016 est.)
Unemployment rate	6.06% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	21	0.405
Throughput	18	0.522
Output	12	0.486
Outcome	10	0.607

	Rank	Score	Subgroup	Rank
Agriculture & Food	19	0.420	Agriculture Resources	23
			Institution & Finance	32
			Productivity	18
Culture & Tourism	15	0.304	Cultural Goods	22
			Tourism	11
Economy	19	0.440	Economic Institution & Policy	26
			Economic Equity	22
			Economic Fundamental	15
Education	7	0.569	Education Infrastructure	17
			Education Performance	3
			Government Involvement	6
Environment	26	0.442	Environment Behavior	30
			Environmental Health	1
			Renewable Energy	24
			Resource Protection	31
Governance	16	0.703	Democracy	9
			Government Competency	15
			Rule of Law	14
Health & Welfare	14	0.604	Health & Welfare System	12
			Life and Death	13
ICT	19	0.547	ICT Promotion	11
			ICT Scale	16
			ICT Utilization	21
R&D	19	0.360	Academic R&D	10
			Entrepreneurial R&D	20
			Governmental R&D	
Safety	6	0.664	Crime & Warfare	13
			Industrial Disaster	6
			Natural Disaster Management	5
			Safety in Public Health	10

Belgium

17/34

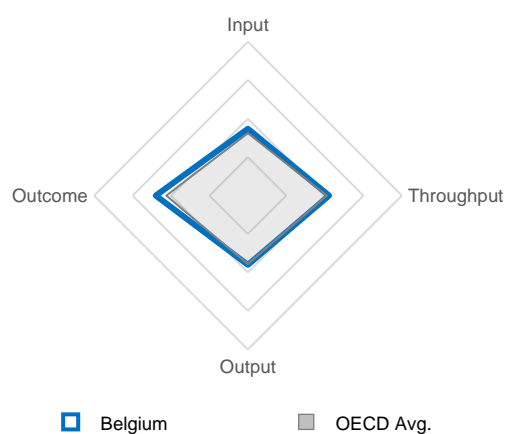
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	17	0.503
2015-16 Government Competitiveness	17	0.484
2014-15 Government Competitiveness	19	0.502
2013-14 Government Competitiveness	18	0.519

Capital City	Brussels
Population	11,348,159 (2016 est.)
GDP (PPP)	526,364,347,986 USD (2016 est.)
Unemployment rate	8.48% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	13	0.434
Throughput	17	0.527
Output	17	0.450
Outcome	14	0.599

	Rank	Score	Subgroup	Rank
Agriculture & Food	10	0.484	Agriculture Resources	21
			Institution & Finance	10
			Productivity	7
Culture & Tourism	27	0.196	Cultural Goods	10
			Tourism	27
Economy	22	0.435	Economic Institution & Policy	24
			Economic Equity	9
			Economic Fundamental	22
Education	9	0.542	Education Infrastructure	32
			Education Performance	10
			Government Involvement	8
Environment	9	0.531	Environment Behavior	27
			Environmental Health	12
			Renewable Energy	7
			Resource Protection	19
Governance	18	0.657	Democracy	18
			Government Competency	18
			Rule of Law	20
Health & Welfare	9	0.624	Health & Welfare System	17
			Life and Death	21
ICT	22	0.527	ICT Promotion	16
			ICT Scale	15
			ICT Utilization	22
R&D	13	0.397	Academic R&D	12
			Entrepreneurial R&D	18
			Governmental R&D	2
Safety	10	0.634	Crime & Warfare	21
			Industrial Disaster	8
			Natural Disaster Management	8
			Safety in Public Health	12

Spain

18/34

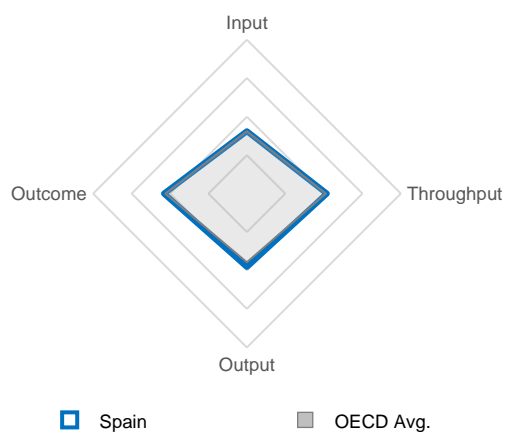
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	18	0.485
2015-16 Government Competitiveness	22	0.461
2014-15 Government Competitiveness	23	0.431
2013-14 Government Competitiveness	23	0.441

Capital City	Madrid
Population	46,443,959 (2016 est.)
GDP (PPP)	1,686,372,919,950 USD (2016 est.)
Unemployment rate	22.06% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	22	0.405
Throughput	20	0.519
Output	14	0.477
Outcome	18	0.540

	Rank	Score	Subgroup	Rank
Agriculture & Food	2	0.563	Agriculture Resources	2
			Institution & Finance	9
			Productivity	25
Culture & Tourism	2	0.537	Cultural Goods	12
			Tourism	1
Economy	29	0.387	Economic Institution & Policy	23
			Economic Equity	29
			Economic Fundamental	23
Education	29	0.359	Education Infrastructure	27
			Education Performance	25
			Government Involvement	22
Environment	15	0.505	Environment Behavior	6
			Environmental Health	6
			Renewable Energy	20
			Resource Protection	12
Governance	17	0.660	Democracy	19
			Government Competency	24
			Rule of Law	22
Health & Welfare	12	0.614	Health & Welfare System	5
			Life and Death	8
ICT	24	0.394	ICT Promotion	28
			ICT Scale	25
			ICT Utilization	25
R&D	26	0.252	Academic R&D	20
			Entrepreneurial R&D	31
			Governmental R&D	24
Safety	19	0.580	Crime & Warfare	11
			Industrial Disaster	26
			Natural Disaster Management	15
			Safety in Public Health	15

Canada

19/34

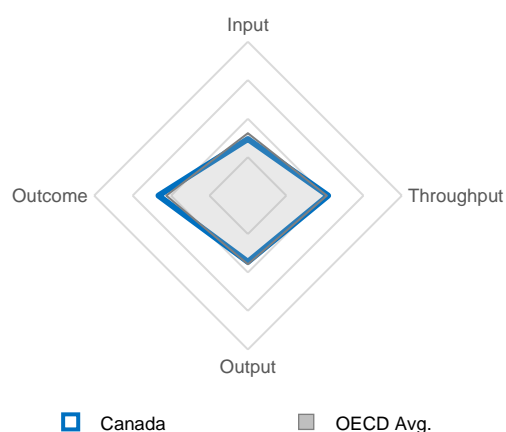
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	19	0.475
2015-16 Government Competitiveness	13	0.512
2014-15 Government Competitiveness	14	0.547
2013-14 Government Competitiveness	12	0.559

Capital City	Ottawa
Population	36,286,425 (2016 est.)
GDP (PPP)	1,597,516,516,505 USD (2016 est.)
Unemployment rate	6.91% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	26	0.368
Throughput	19	0.521
Output	22	0.430
Outcome	16	0.582

	Rank	Score	Subgroup	Rank
Agriculture & Food	31	0.310	Agriculture Resources	31
			Institution & Finance	29
			Productivity	24
Culture & Tourism	18	0.265	Cultural Goods	14
			Tourism	18
Economy	15	0.453	Economic Institution & Policy	28
			Economic Equity	20
			Economic Fundamental	16
Education	18	0.453	Education Infrastructure	31
			Education Performance	14
			Government Involvement	23
Environment	30	0.394	Environment Behavior	32
			Environmental Health	19
			Renewable Energy	9
			Resource Protection	33
Governance	15	0.704	Democracy	11
			Government Competency	14
			Rule of Law	7
Health & Welfare	13	0.610	Health & Welfare System	23
			Life and Death	10
ICT	12	0.589	ICT Promotion	10
			ICT Scale	17
			ICT Utilization	15
R&D	16	0.384	Academic R&D	13
			Entrepreneurial R&D	19
			Governmental R&D	11
Safety	17	0.589	Crime & Warfare	9
			Industrial Disaster	23
			Natural Disaster Management	18
			Safety in Public Health	13

Japan

20/34

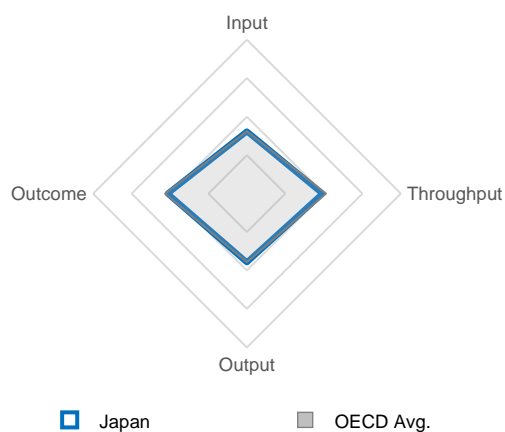
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	20	0.464
2015-16 Government Competitiveness	18	0.480
2014-15 Government Competitiveness	15	0.544
2013-14 Government Competitiveness	14	0.551

Capital City	Tokyo
Population	126,994,511 (2016 est.)
GDP (PPP)	5,266,443,919,742 USD (2016 est.)
Unemployment rate	3.33% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	23	0.404
Throughput	21	0.490
Output	18	0.447
Outcome	21	0.516

	Rank	Score	Subgroup	Rank
Agriculture & Food	25	0.362	Agriculture Resources	30
			Institution & Finance	24
			Productivity	30
Culture & Tourism	10	0.348	Cultural Goods	6
			Tourism	12
Economy	23	0.432	Economic Institution & Policy	34
			Economic Equity	14
			Economic Fundamental	4
Education	32	0.331	Education Infrastructure	34
			Education Performance	16
			Government Involvement	31
Environment	8	0.534	Environment Behavior	14
			Environmental Health	24
			Renewable Energy	32
			Resource Protection	9
Governance	23	0.590	Democracy	26
			Government Competency	23
			Rule of Law	17
Health & Welfare	30	0.412	Health & Welfare System	32
			Life and Death	12
ICT	10	0.639	ICT Promotion	13
			ICT Scale	11
			ICT Utilization	2
R&D	15	0.390	Academic R&D	30
			Entrepreneurial R&D	2
			Governmental R&D	
Safety	15	0.605	Crime & Warfare	22
			Industrial Disaster	14
			Natural Disaster Management	4
			Safety in Public Health	20

Israel

21/34

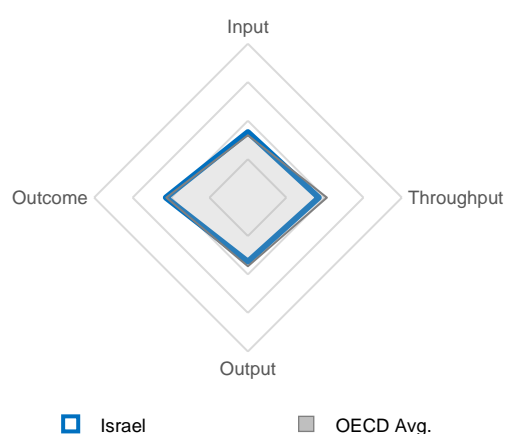
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	21	0.459
2015-16 Government Competitiveness	23	0.444
2014-15 Government Competitiveness	22	0.490
2013-14 Government Competitiveness	21	0.485

Capital City	Jerusalem
Population	8,547,100 (2016 est.)
GDP (PPP)	323,946,602,677 USD (2016 est.)
Unemployment rate	5.25% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	15	0.425
Throughput	26	0.460
Output	24	0.416
Outcome	19	0.534

	Rank	Score	Subgroup	Rank
Agriculture & Food	24	0.368	Agriculture Resources	19
			Institution & Finance	34
			Productivity	9
Culture & Tourism	28	0.176	Cultural Goods	15
			Tourism	32
Economy	27	0.400	Economic Institution & Policy	30
			Economic Equity	32
			Economic Fundamental	9
Education	3	0.600	Education Infrastructure	18
			Education Performance	5
			Government Involvement	3
Environment	29	0.400	Environment Behavior	17
			Environmental Health	7
			Renewable Energy	33
			Resource Protection	32
Governance	29	0.521	Democracy	17
			Government Competency	30
			Rule of Law	25
Health & Welfare	10	0.618	Health & Welfare System	11
			Life and Death	3
ICT	14	0.582	ICT Promotion	21
			ICT Scale	22
			ICT Utilization	1
R&D	8	0.414	Academic R&D	23
			Entrepreneurial R&D	4
			Governmental R&D	1
Safety	26	0.511	Crime & Warfare	6
			Industrial Disaster	20
			Natural Disaster Management	30
			Safety in Public Health	23

Estonia

22/34

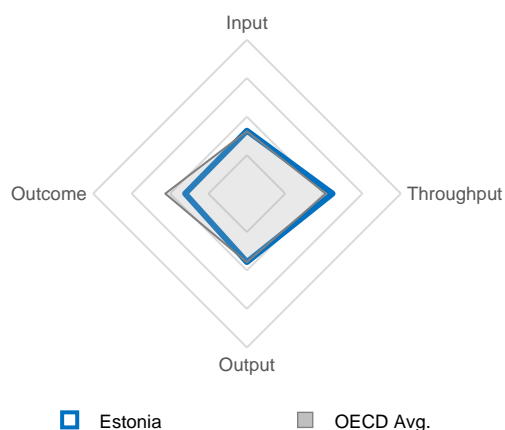
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	22	0.453
2015-16 Government Competitiveness	16	0.497
2014-15 Government Competitiveness	20	0.493
2013-14 Government Competitiveness	22	0.472

Capital City	Tallinn
Population	1,316,481 (2016 est.)
GDP (PPP)	38,658,097,408 USD (2016 est.)
Unemployment rate	6.19% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	19	0.409
Throughput	13	0.556
Output	19	0.445
Outcome	30	0.402

	Rank	Score	Subgroup	Rank
Agriculture & Food	21	0.412	Agriculture Resources	8
			Institution & Finance	6
			Productivity	3
Culture & Tourism	12	0.325	Cultural Goods	23
			Tourism	8
Economy	24	0.428	Economic Institution & Policy	12
			Economic Equity	28
			Economic Fundamental	25
Education	22	0.416	Education Infrastructure	6
			Education Performance	24
			Government Involvement	28
Environment	24	0.463	Environment Behavior	28
			Environmental Health	25
			Renewable Energy	22
			Resource Protection	27
Governance	14	0.716	Democracy	22
			Government Competency	6
			Rule of Law	10
Health & Welfare	28	0.441	Health & Welfare System	26
			Life and Death	33
ICT	13	0.582	ICT Promotion	15
			ICT Scale	13
			ICT Utilization	16
R&D	22	0.297	Academic R&D	17
			Entrepreneurial R&D	23
			Governmental R&D	28
Safety	31	0.449	Crime & Warfare	16
			Industrial Disaster	25
			Natural Disaster Management	32
			Safety in Public Health	30

Portugal

23/34

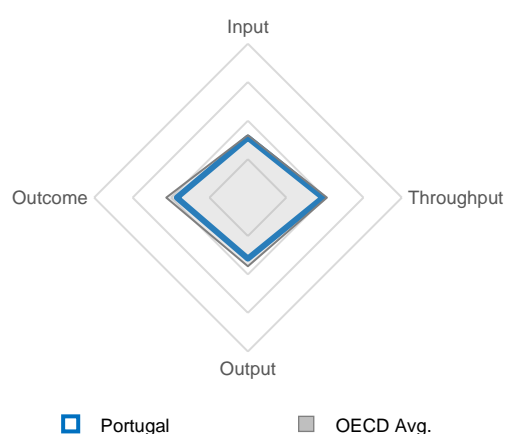
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	23	0.434
2015-16 Government Competitiveness	26	0.414
2014-15 Government Competitiveness	25	0.410
2013-14 Government Competitiveness	24	0.415

Capital City	Lisbon
Population	10,324,611 (2016 est.)
GDP (PPP)	316,182,690,910 USD (2016 est.)
Unemployment rate	12.44% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	24	0.389
Throughput	22	0.487
Output	27	0.397
Outcome	24	0.463

	Rank	Score	Subgroup	Rank
Agriculture & Food	17	0.436	Agriculture Resources	6
			Institution & Finance	13
			Productivity	31
Culture & Tourism	7	0.402	Cultural Goods	19
			Tourism	6
Economy	31	0.361	Economic Institution & Policy	29
			Economic Equity	24
			Economic Fundamental	31
Education	24	0.382	Education Infrastructure	19
			Education Performance	26
			Government Involvement	25
Environment	25	0.448	Environment Behavior	4
			Environmental Health	26
			Renewable Energy	12
			Resource Protection	17
Governance	21	0.637	Democracy	21
			Government Competency	19
			Rule of Law	24
Health & Welfare	22	0.507	Health & Welfare System	15
			Life and Death	26
ICT	23	0.446	ICT Promotion	23
			ICT Scale	29
			ICT Utilization	23
R&D	27	0.237	Academic R&D	19
			Entrepreneurial R&D	33
			Governmental R&D	23
Safety	29	0.482	Crime & Warfare	15
			Industrial Disaster	28
			Natural Disaster Management	31
			Safety in Public Health	26

Korea, Rep.

24/34

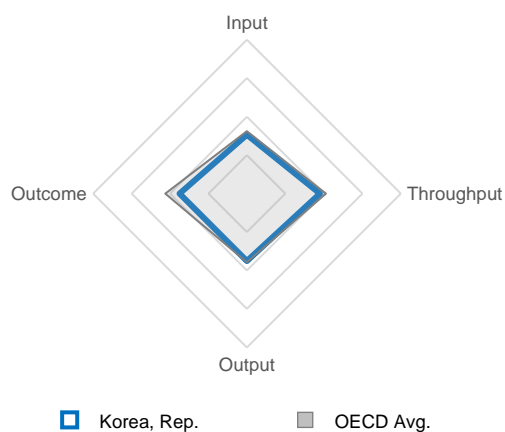
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	24	0.433
2015-16 Government Competitiveness	21	0.461
2014-15 Government Competitiveness	16	0.539
2013-14 Government Competitiveness	19	0.517

Capital City	Seoul
Population	51,245,707 (2016 est.)
GDP (PPP)	1,832,073,483,290 USD (2016 est.)
Unemployment rate	3.63% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	25	0.382
Throughput	23	0.474
Output	20	0.438
Outcome	26	0.439

	Rank	Score	Subgroup	Rank
Agriculture & Food	29	0.328	Agriculture Resources	26
			Institution & Finance	26
			Productivity	26
Culture & Tourism	21	0.236	Cultural Goods	9
			Tourism	24
Economy	9	0.514	Economic Institution & Policy	14
			Economic Equity	23
			Economic Fundamental	5
Education	27	0.376	Education Infrastructure	29
			Education Performance	20
			Government Involvement	32
Environment	21	0.475	Environment Behavior	24
			Environmental Health	20
			Renewable Energy	21
			Resource Protection	24
Governance	26	0.556	Democracy	25
			Government Competency	21
			Rule of Law	23
Health & Welfare	31	0.404	Health & Welfare System	30
			Life and Death	27
ICT	16	0.561	ICT Promotion	22
			ICT Scale	12
			ICT Utilization	17
R&D	21	0.325	Academic R&D	29
			Entrepreneurial R&D	5
			Governmental R&D	20
Safety	21	0.557	Crime & Warfare	5
			Industrial Disaster	11
			Natural Disaster Management	29
			Safety in Public Health	25

Italy

25/34

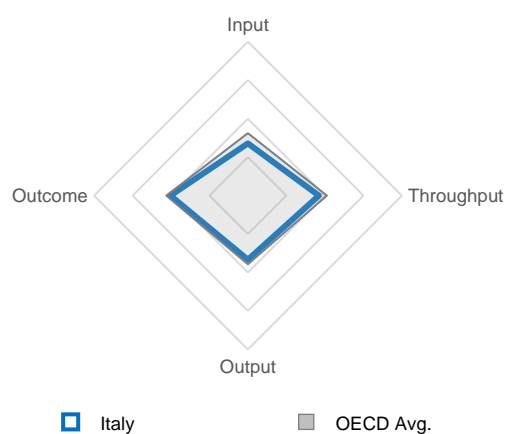
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	25	0.430
2015-16 Government Competitiveness	27	0.413
2014-15 Government Competitiveness	29	0.382
2013-14 Government Competitiveness	26	0.392

Capital City	Rome
Population	60,600,590 (2016 est.)
GDP (PPP)	2,312,559,334,097 USD (2016 est.)
Unemployment rate	11.90% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	27	0.339
Throughput	25	0.461
Output	23	0.417
Outcome	23	0.504

	Rank	Score	Subgroup	Rank
Agriculture & Food	6	0.514	Agriculture Resources	5
			Institution & Finance	13
			Productivity	28
Culture & Tourism	11	0.347	Cultural Goods	7
			Tourism	10
Economy	28	0.398	Economic Institution & Policy	27
			Economic Equity	25
			Economic Fundamental	21
Education	30	0.354	Education Infrastructure	13
			Education Performance	30
			Government Involvement	19
Environment	14	0.512	Environment Behavior	9
			Environmental Health	13
			Renewable Energy	18
			Resource Protection	11
Governance	25	0.575	Democracy	20
			Government Competency	28
			Rule of Law	32
Health & Welfare	25	0.499	Health & Welfare System	21
			Life and Death	11
ICT	28	0.308	ICT Promotion	31
			ICT Scale	23
			ICT Utilization	31
R&D	25	0.255	Academic R&D	21
			Entrepreneurial R&D	26
			Governmental R&D	25
Safety	24	0.541	Crime & Warfare	28
			Industrial Disaster	27
			Natural Disaster Management	6
			Safety in Public Health	22

Slovenia

26/34

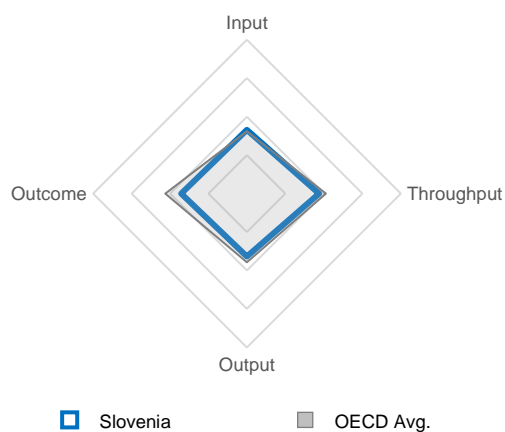
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	26	0.430
2015-16 Government Competitiveness	24	0.437
2014-15 Government Competitiveness	24	0.422
2013-14 Government Competitiveness	25	0.414

Capital City	Ljubljana
Population	2,064,845 (2016 est.)
GDP (PPP)	67,901,475,700 USD (2016 est.)
Unemployment rate	8.96% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	17	0.414
Throughput	24	0.468
Output	25	0.409
Outcome	28	0.428

	Rank	Score	Subgroup	Rank
Agriculture & Food	20	0.419	Agriculture Resources	12
			Institution & Finance	6
			Productivity	21
Culture & Tourism	23	0.221	Cultural Goods	24
			Tourism	23
Economy	25	0.426	Economic Institution & Policy	19
			Economic Equity	13
			Economic Fundamental	30
Education	20	0.423	Education Infrastructure	12
			Education Performance	19
			Government Involvement	27
Environment	1	0.646	Environment Behavior	12
			Environmental Health	27
			Renewable Energy	8
			Resource Protection	1
Governance	24	0.590	Democracy	31
			Government Competency	22
			Rule of Law	21
Health & Welfare	26	0.470	Health & Welfare System	27
			Life and Death	29
ICT	26	0.322	ICT Promotion	25
			ICT Scale	28
			ICT Utilization	27
R&D	30	0.223	Academic R&D	22
			Entrepreneurial R&D	25
			Governmental R&D	32
Safety	22	0.557	Crime & Warfare	12
			Industrial Disaster	29
			Natural Disaster Management	22
			Safety in Public Health	21

Czech Rep.

27/34

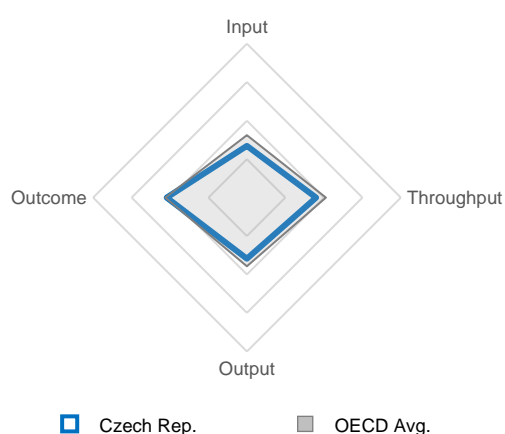
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	27	0.426
2015-16 Government Competitiveness	25	0.436
2014-15 Government Competitiveness	26	0.404
2013-14 Government Competitiveness	27	0.389

Capital City	Prague
Population	10,561,633 (2016 est.)
GDP (PPP)	366,607,831,342 USD (2016 est.)
Unemployment rate	5.05% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	29	0.336
Throughput	29	0.449
Output	26	0.397
Outcome	20	0.522

	Rank	Score	Subgroup	Rank
Agriculture & Food	15	0.444	Agriculture Resources	17
			Institution & Finance	17
			Productivity	23
Culture & Tourism	33	0.110	Cultural Goods	34
			Tourism	30
Economy	14	0.466	Economic Institution & Policy	13
			Economic Equity	5
			Economic Fundamental	27
Education	26	0.377	Education Infrastructure	20
			Education Performance	21
			Government Involvement	29
Environment	12	0.519	Environment Behavior	18
			Environmental Health	22
			Renewable Energy	13
			Resource Protection	22
Governance	22	0.614	Democracy	23
			Government Competency	26
			Rule of Law	27
Health & Welfare	19	0.549	Health & Welfare System	14
			Life and Death	24
ICT	25	0.368	ICT Promotion	24
			ICT Scale	21
			ICT Utilization	26
R&D	24	0.272	Academic R&D	25
			Entrepreneurial R&D	22
			Governmental R&D	19
Safety	23	0.543	Crime & Warfare	20
			Industrial Disaster	9
			Natural Disaster Management	26
			Safety in Public Health	24

Slovak Rep.

28/34

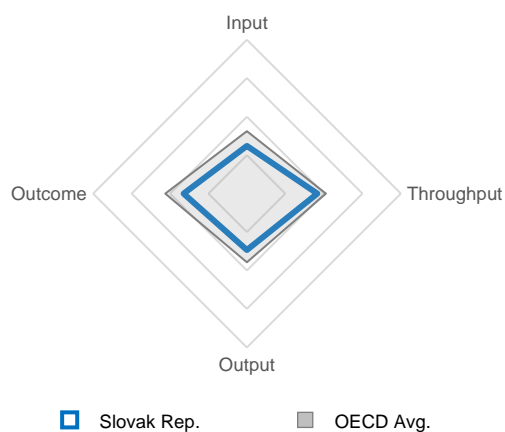
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	28	0.386
2015-16 Government Competitiveness	31	0.375
2014-15 Government Competitiveness	30	0.349
2013-14 Government Competitiveness	31	0.357

Capital City	Bratislava
Population	5,428,704 (2016 est.)
GDP (PPP)	166,291,810,707 USD (2016 est.)
Unemployment rate	11.48% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	31	0.310
Throughput	28	0.457
Output	29	0.367
Outcome	29	0.412

	Rank	Score	Subgroup	Rank
Agriculture & Food	26	0.343	Agriculture Resources	28
			Institution & Finance	17
			Productivity	29
Culture & Tourism	34	0.109	Cultural Goods	26
			Tourism	34
Economy	16	0.446	Economic Institution & Policy	15
			Economic Equity	10
			Economic Fundamental	29
Education	25	0.380	Education Infrastructure	4
			Education Performance	28
			Government Involvement	26
Environment	11	0.521	Environment Behavior	10
			Environmental Health	28
			Renewable Energy	27
			Resource Protection	7
Governance	28	0.546	Democracy	29
			Government Competency	25
			Rule of Law	29
Health & Welfare	23	0.506	Health & Welfare System	16
			Life and Death	25
ICT	27	0.319	ICT Promotion	26
			ICT Scale	26
			ICT Utilization	30
R&D	31	0.221	Academic R&D	27
			Entrepreneurial R&D	30
			Governmental R&D	33
Safety	30	0.472	Crime & Warfare	32
			Industrial Disaster	10
			Natural Disaster Management	25
			Safety in Public Health	29

Poland

29/34

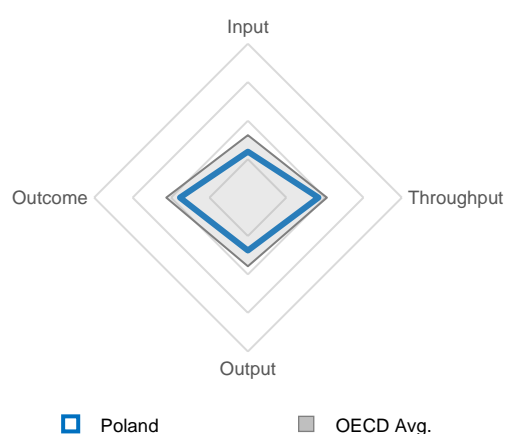
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	29	0.386
2015-16 Government Competitiveness	30	0.376
2014-15 Government Competitiveness	31	0.348
2013-14 Government Competitiveness	30	0.358

Capital City	Warsaw
Population	37,948,016 (2016 est.)
GDP (PPP)	1,055,353,929,932 USD (2016 est.)
Unemployment rate	7.50% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	32	0.298
Throughput	27	0.458
Output	31	0.344
Outcome	25	0.442

	Rank	Score	Subgroup	Rank
Agriculture & Food	9	0.498	Agriculture Resources	20
			Institution & Finance	15
			Productivity	13
Culture & Tourism	29	0.175	Cultural Goods	17
			Tourism	33
Economy	17	0.446	Economic Institution & Policy	21
			Economic Equity	18
			Economic Fundamental	20
Education	23	0.387	Education Infrastructure	11
			Education Performance	29
			Government Involvement	20
Environment	27	0.408	Environment Behavior	8
			Environmental Health	30
			Renewable Energy	30
			Resource Protection	29
Governance	27	0.549	Democracy	30
			Government Competency	29
			Rule of Law	19
Health & Welfare	32	0.402	Health & Welfare System	31
			Life and Death	28
ICT	31	0.262	ICT Promotion	30
			ICT Scale	27
			ICT Utilization	33
R&D	32	0.211	Academic R&D	32
			Entrepreneurial R&D	28
			Governmental R&D	29
Safety	25	0.517	Crime & Warfare	23
			Industrial Disaster	7
			Natural Disaster Management	23
			Safety in Public Health	31

Greece

30/34

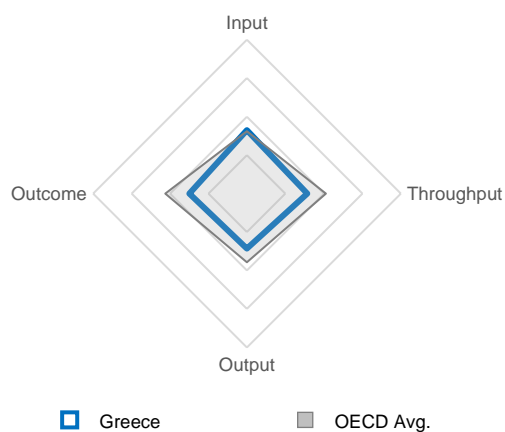
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	30	0.384
2015-16 Government Competitiveness	28	0.402
2014-15 Government Competitiveness	32	0.343
2013-14 Government Competitiveness	32	0.321

Capital City	Athens
Population	10,746,740 (2016 est.)
GDP (PPP)	287,830,201,511 USD (2016 est.)
Unemployment rate	24.90% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	18	0.412
Throughput	31	0.392
Output	30	0.357
Outcome	33	0.375

	Rank	Score	Subgroup	Rank
Agriculture & Food	27	0.340	Agriculture Resources	1
			Institution & Finance	17
			Productivity	34
Culture & Tourism	4	0.432	Cultural Goods	30
			Tourism	3
Economy	34	0.307	Economic Institution & Policy	25
			Economic Equity	27
			Economic Fundamental	34
Education	34	0.290	Education Infrastructure	8
			Education Performance	33
			Government Involvement	34
Environment	20	0.483	Environment Behavior	5
			Environmental Health	17
			Renewable Energy	25
			Resource Protection	21
Governance	32	0.469	Democracy	27
			Government Competency	32
			Rule of Law	31
Health & Welfare	15	0.602	Health & Welfare System	7
			Life and Death	19
ICT	34	0.196	ICT Promotion	34
			ICT Scale	31
			ICT Utilization	34
R&D	29	0.224	Academic R&D	26
			Entrepreneurial R&D	32
			Governmental R&D	27
Safety	28	0.497	Crime & Warfare	27
			Industrial Disaster	13
			Natural Disaster Management	21
			Safety in Public Health	27

Hungary

31/34

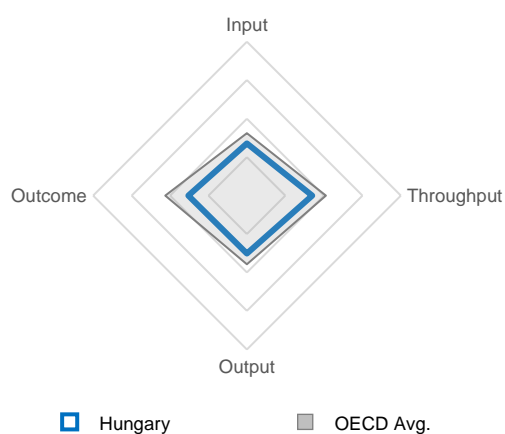
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	31	0.380
2015-16 Government Competitiveness	29	0.385
2014-15 Government Competitiveness	28	0.396
2013-14 Government Competitiveness	29	0.371

Capital City	Budapest
Population	9,817,958 (2016 est.)
GDP (PPP)	261,948,952,241 USD (2016 est.)
Unemployment rate	6.81% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	28	0.339
Throughput	30	0.424
Output	28	0.376
Outcome	32	0.381

	Rank	Score	Subgroup	Rank
Agriculture & Food	16	0.440	Agriculture Resources	13
			Institution & Finance	17
			Productivity	22
Culture & Tourism	22	0.230	Cultural Goods	27
			Tourism	21
Economy	20	0.437	Economic Institution & Policy	8
			Economic Equity	19
			Economic Fundamental	28
Education	31	0.337	Education Infrastructure	14
			Education Performance	27
			Government Involvement	33
Environment	22	0.473	Environment Behavior	3
			Environmental Health	31
			Renewable Energy	26
			Resource Protection	8
Governance	31	0.477	Democracy	32
			Government Competency	27
			Rule of Law	30
Health & Welfare	29	0.436	Health & Welfare System	24
			Life and Death	34
ICT	30	0.265	ICT Promotion	27
			ICT Scale	30
			ICT Utilization	32
R&D	33	0.206	Academic R&D	31
			Entrepreneurial R&D	29
			Governmental R&D	30
Safety	27	0.500	Crime & Warfare	26
			Industrial Disaster	15
			Natural Disaster Management	20
			Safety in Public Health	28

Chile

32/34

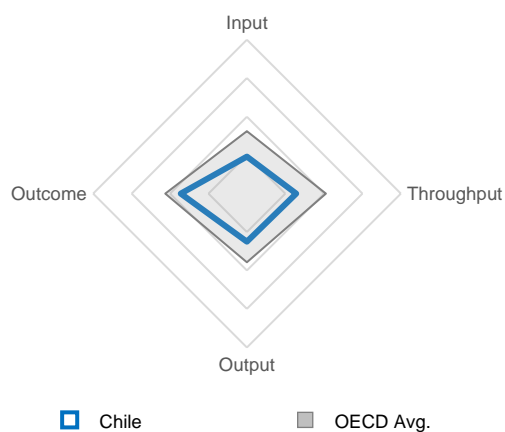
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	32	0.326
2015-16 Government Competitiveness	32	0.363
2014-15 Government Competitiveness	27	0.398
2013-14 Government Competitiveness	28	0.386

Capital City	Santiago
Population	17,909,754 (2016 est.)
GDP (PPP)	429,122,544,147 USD (2016 est.)
Unemployment rate	5.78% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	33	0.240
Throughput	33	0.320
Output	33	0.312
Outcome	27	0.431

	Rank	Score	Subgroup	Rank
Agriculture & Food	30	0.311	Agriculture Resources	29
			Institution & Finance	33
			Productivity	16
Culture & Tourism	31	0.162	Cultural Goods	33
			Tourism	26
Economy	33	0.317	Economic Institution & Policy	18
			Economic Equity	33
			Economic Fundamental	32
Education	28	0.374	Education Infrastructure	30
			Education Performance	31
			Government Involvement	13
Environment	28	0.407	Environment Behavior	7
			Environmental Health	21
			Renewable Energy	16
			Resource Protection	23
Governance	30	0.477	Democracy	28
			Government Competency	31
			Rule of Law	28
Health & Welfare	33	0.310	Health & Welfare System	34
			Life and Death	23
ICT	29	0.297	ICT Promotion	29
			ICT Scale	33
			ICT Utilization	24
R&D	23	0.273	Academic R&D	24
			Entrepreneurial R&D	24
			Governmental R&D	31
Safety	33	0.331	Crime & Warfare	33
			Industrial Disaster	34
			Natural Disaster Management	28
			Safety in Public Health	33

Mexico

33/34

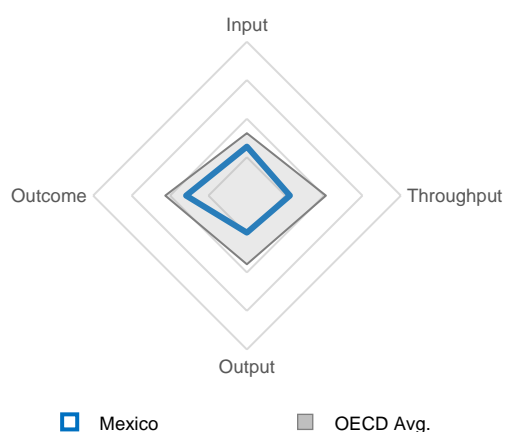
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	33	0.308
2015-16 Government Competitiveness	33	0.302
2014-15 Government Competitiveness	34	0.280
2013-14 Government Competitiveness	34	0.273

Capital City	Mexico City
Population	127,540,423 (2016 est.)
GDP (PPP)	2,278,072,027,969 USD (2016 est.)
Unemployment rate	4.34% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	30	0.318
Throughput	34	0.279
Output	34	0.241
Outcome	31	0.396

	Rank	Score	Subgroup	Rank
Agriculture & Food	14	0.456	Agriculture Resources	16
			Institution & Finance	31
			Productivity	6
Culture & Tourism	16	0.297	Cultural Goods	11
			Tourism	15
Economy	32	0.354	Economic Institution & Policy	22
			Economic Equity	34
			Economic Fundamental	24
Education	15	0.485	Education Infrastructure	3
			Education Performance	32
			Government Involvement	2
Environment	33	0.300	Environment Behavior	1
			Environmental Health	34
			Renewable Energy	34
			Resource Protection	26
Governance	33	0.283	Democracy	33
			Government Competency	33
			Rule of Law	34
Health & Welfare	34	0.258	Health & Welfare System	33
			Life and Death	30
ICT	33	0.215	ICT Promotion	33
			ICT Scale	34
			ICT Utilization	28
R&D	28	0.236	Academic R&D	33
			Entrepreneurial R&D	27
			Governmental R&D	26
Safety	34	0.200	Crime & Warfare	34
			Industrial Disaster	30
			Natural Disaster Management	33
			Safety in Public Health	34

Turkey

34/34

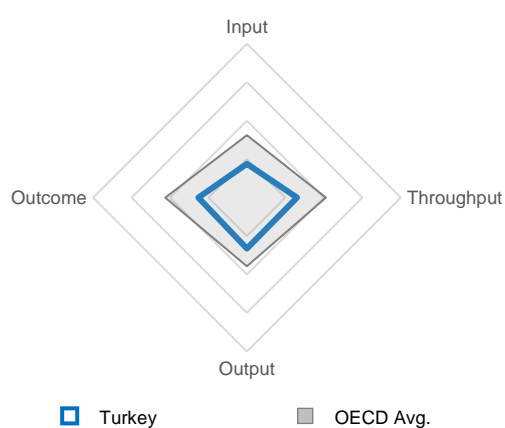
	Rank/34	Score(0-1)
2016-17 Government Competitiveness	34	0.298
2015-16 Government Competitiveness	34	0.299
2014-15 Government Competitiveness	33	0.324
2013-14 Government Competitiveness	33	0.312

Capital City	Ankara
Population	79,512,426 (2016 est.)
GDP (PPP)	1,927,693,211,930 USD (2016 est.)
Unemployment rate	10.24% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



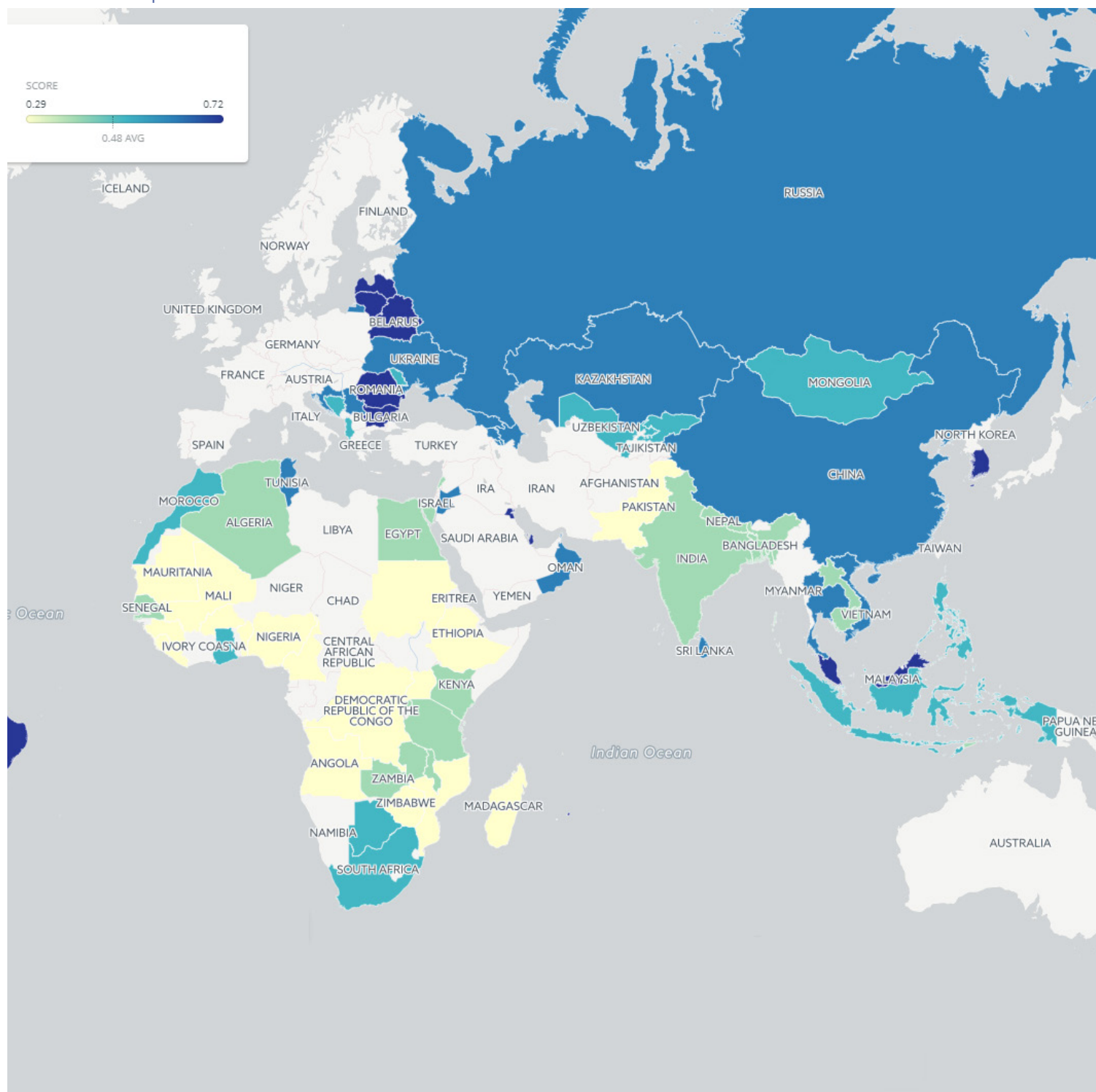
GC Ranking by Stage



	Rank	Score
Input	34	0.220
Throughput	32	0.325
Output	32	0.331
Outcome	34	0.316

	Rank	Score	Subgroup	Rank
Agriculture & Food	7	0.506	Agriculture Resources	10
			Institution & Finance	28
			Productivity	1
Culture & Tourism	26	0.198	Cultural Goods	32
			Tourism	20
Economy	30	0.366	Economic Institution & Policy	4
			Economic Equity	31
			Economic Fundamental	33
Education	33	0.291	Education Infrastructure	22
			Education Performance	34
			Government Involvement	21
Environment	34	0.271	Environment Behavior	2
			Environmental Health	33
			Renewable Energy	31
			Resource Protection	30
Governance	34	0.171	Democracy	34
			Government Competency	34
			Rule of Law	33
Health & Welfare	27	0.463	Health & Welfare System	22
			Life and Death	32
ICT	32	0.258	ICT Promotion	32
			ICT Scale	32
			ICT Utilization	29
R&D	34	0.082	Academic R&D	34
			Entrepreneurial R&D	34
			Governmental R&D	34
Safety	32	0.372	Crime & Warfare	31
			Industrial Disaster	12
			Natural Disaster Management	34
			Safety in Public Health	32

Government Competitiveness 2017



Singapore
Korea, Rep.
Qatar
Costa Rica
Uruguay
Lithuania
Bulgaria
Malaysia
Romania
Belarus
Latvia
Mauritius
Panama
Kuwait
Bahrain

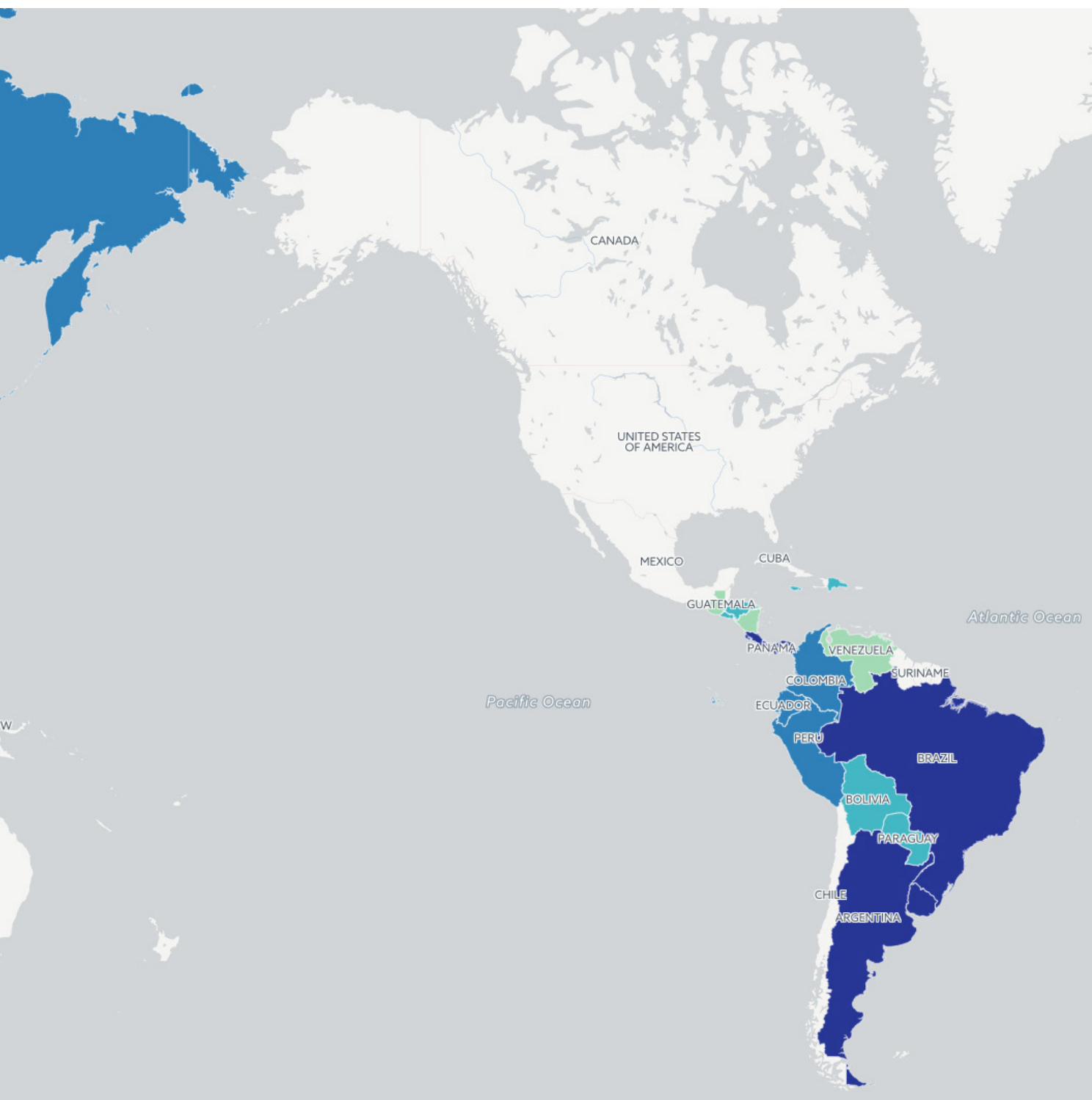
Brazil
Argentina
Russia
Croatia
Thailand
Kazakhstan
Serbia
Colombia
Oman
China
Peru
Azerbaijan
Armenia
Sri Lanka
Jordan

Vietnam
Tunisia
Ecuador
Georgia
Ukraine
Uzbekistan
Philippines
Moldova
Albania
Paraguay
Dominican Republic
South Africa
Indonesia
Morocco
Mongolia

Bolivia
Jamaica
Botswana
El Salvador
Kyrgyz Republic
Ghana
Bosnia and Herzegovina
Honduras
Algeria
Venezuela, RB
Rwanda
Guatemala
Egypt, Arab Rep.
Lebanon
Nicaragua

India
Nepal
Senegal
Lao PDR
Kenya
Cambodia
Tanzania
Zambia
Bangladesh
Malawi
Timor-Leste
Cameroon
Uganda
Zimbabwe
Benin

Burkina Faso
Ethiopia
Pakistan
Mali
Mozambique
Liberia
Sierra Leone
Nigeria
Mauritania
Angola
Madagascar
Guinea
Sudan
Congo, Dem. Rep.



2017 Non-OECD Government Competitiveness Score

Government Competitiveness Rankings

2016-2017: Non-OECD Countries

Country	2017	2016	Change	Country	2017	2016	Change	Country	2017	2016	Change
Singapore	1	1	0	Vietnam	31	22	-9	India	61	56	-5
Korea, Rep.	2	2	0	Tunisia	32	35	3	Nepal	62	61	-1
Qatar	3	5	2	Ecuador	33	28	-5	Senegal	63	66	3
Costa Rica	4	3	-1	Georgia	34	25	-9	Lao PDR	64	57	-7
Uruguay	5	6	1	Ukraine	35	38	3	Kenya	65	68	3
Lithuania	6	8	2	Uzbekistan	36	43	7	Cambodia	66	63	-3
Bulgaria	7	7	0	Philippines	37	26	-11	Tanzania	67	71	4
Malaysia	8	4	-4	Moldova	38	48	10	Zambia	68	67	-1
Romania	9	15	6	Albania	39	36	-3	Bangladesh	69	65	-4
Belarus	10	13	3	Paraguay	40	33	-7	Malawi	70	70	0
Latvia	11	9	-2	Dominican Republic	41	44	3	Timor-Leste	71	72	1
Mauritius	12	16	4	South Africa	42	50	8	Cameroon	72	69	-3
Panama	13	10	-3	Indonesia	43	30	-13	Uganda	73	73	0
Kuwait	14	12	-2	Morocco	44	47	3	Zimbabwe	74	76	2
Bahrain	15	14	-1	Mongolia	45	54	9	Benin	75	74	-1
Brazil	16	19	3	Bolivia	46	45	-1	Burkina Faso	76	77	1
Argentina	17	21	4	Jamaica	47	46	-1	Ethiopia	77	78	1
Russian Federation	18	24	6	Botswana	48	40	-8	Pakistan	78	79	1
Croatia	19	17	-2	El Salvador	49	42	-7	Mali	79	83	4
Thailand	20	11	-9	Kyrgyz Republic	50	55	5	Mozambique	80	75	-5
Kazakhstan	21	29	8	Ghana	51	52	1	Liberia	81	80	-1
Serbia	22	18	-4	Bosnia and Herzegovina	52	39	-13	Sierra Leone	82	82	0
Colombia	23	23	0	Honduras	53	59	6	Nigeria	83	81	-2
Oman	24	27	3	Algeria	54	62	8	Mauritania	84	86	2
China	25	20	-5	Venezuela, RB	55	41	-14	Angola	85	84	-1
Peru	26	32	6	Rwanda	56	53	-3	Madagascar	86	85	-1
Azerbaijan	27	37	10	Guatemala	57	58	1	Guinea	87	87	0
Armenia	28	49	21	Egypt, Arab Rep.	58	64	6	Sudan	88	88	0
Sri Lanka	29	34	5	Lebanon	59	60	1	Congo, Dem. Rep.	89	89	0
Jordan	30	31	1	Nicaragua	60	51	-9				

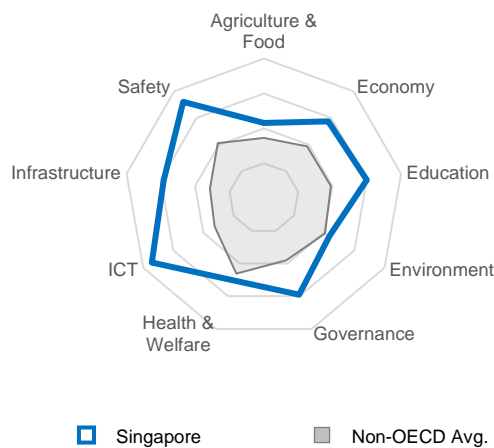
Singapore

1/89

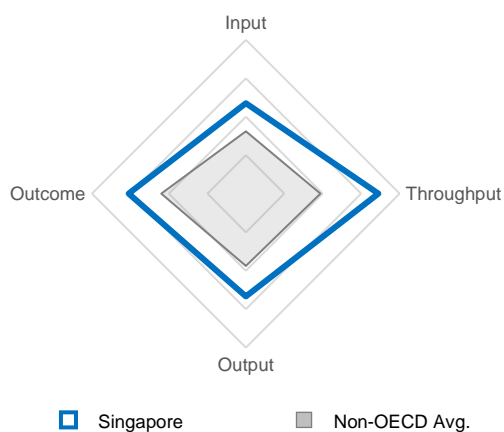
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	1	0.7196
2015-16 GC	1	0.7439
2014-15 GC	1	0.7345
2013-14 GC	1	0.7053

Capital City	Singapore
Population	5,607,283 (2016 est.)
GDP (PPP)	492,631,127,714 USD (2016 est.)
Unemployment rate	1.69% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	1	0.5882
Throughput	1	0.8616
Output	1	0.6673
Outcome	2	0.7613

	Rank	Score	Subgroup	Rank
Agriculture & Food	18	0.537	Agriculture Resources	89
			Food Quality & Safety	18
			Institution & Finance	2
			Productivity	77
Economy	1	0.719	Economic Equity	56
			Economic Fundamental	1
			Economic Institution & Policy	2
			Education Diversity	1
Education	1	0.751	Education Infrastructure	1
			Education Performance	4
			Government Involvement	27
			Air & Water Quality	1
Environment	28	0.544	Environment Behavior	81
			Natural Resources	60
			Renewable Energy	83
			Democracy	45
Governance	2	0.738	Government Competency	1
			Rule of Law	2
			Child Welfare	11
			Disease Management	32
Health & Welfare	28	0.630	Health & Welfare System	23
			Life & Death	66
			ICT Promotion	1
			ICT Scale	1
ICT	1	0.928	ICT Utilization	1
			Infrastructure Investment	4
			Infrastructure Utility	2
			Crime & Warfare	1
Safety	1	0.901	Natural Disaster Management	1
			Safety and Health	8

Korea, Rep.

2/89

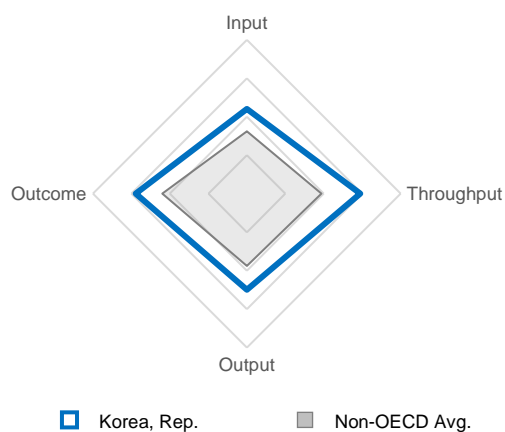
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	2	0.659
2015-16 GC	2	0.689
2014-15 GC	2	0.687
2013-14 GC	2	0.668

Capital City	Seoul
Population	51,245,707 (2016 est.)
GDP (PPP)	1,832,073,483,290 USD (2016 est.)
Unemployment rate	3.63% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	2	0.551
Throughput	2	0.738
Output	3	0.624
Outcome	3	0.722

	Rank	Score	Subgroup	Rank
Agriculture & Food	9	0.578	Agriculture Resources	57
			Food Quality & Safety	8
			Institution & Finance	4
			Productivity	84
Economy	10	0.554	Economic Equity	83
			Economic Fundamental	4
			Economic Institution & Policy	5
Education	2	0.729	Education Diversity	26
			Education Infrastructure	44
			Education Performance	3
			Government Involvement	3
Environment	52	0.500	Air & Water Quality	15
			Environment Behavior	87
			Natural Resources	43
			Renewable Energy	34
Governance	5	0.702	Democracy	13
			Government Competency	12
			Rule of Law	4
Health & Welfare	1	0.712	Child Welfare	3
			Disease Management	26
			Health & Welfare System	3
			Life & Death	62
ICT	2	0.784	ICT Promotion	7
			ICT Scale	2
			ICT Utilization	2
Infrastructure	3	0.668	Infrastructure Investment	33
			Infrastructure Utility	4
Safety	7	0.701	Crime & Warfare	9
			Natural Disaster Management	6
			Safety and Health	30

Qatar

3/89

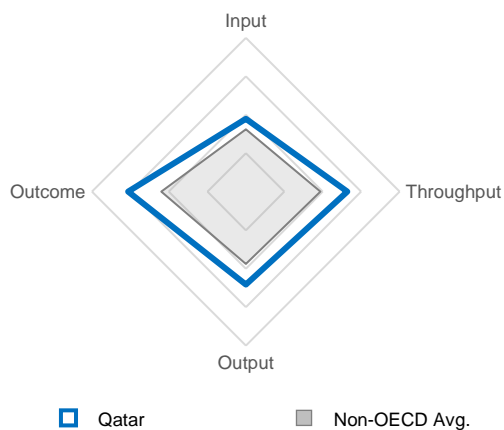
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	3	0.625
2015-16 GC	5	0.614
2014-15 GC	3	0.632
2013-14 GC	6	0.587

Capital City	Doha
Population	2,569,804 (2016 est.)
GDP (PPP)	327,708,270,399 USD (2016 est.)
Unemployment rate	0.16% (2015 est.)
Constitutional Form	Constitutional(or Absolute) monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	19	0.474
Throughput	7	0.660
Output	5	0.603
Outcome	1	0.765

	Rank	Score	Subgroup	Rank
Agriculture & Food	4	0.597	Agriculture Resources	25
			Food Quality & Safety	25
			Institution & Finance	9
			Productivity	32
Economy	2	0.621	Economic Equity	46
			Economic Fundamental	2
			Economic Institution & Policy	25
Education	7	0.656	Education Diversity	2
			Education Infrastructure	50
			Education Performance	19
			Government Involvement	29
Environment	69	0.444	Air & Water Quality	67
			Environment Behavior	89
			Natural Resources	84
			Renewable Energy	-
Governance	27	0.526	Democracy	82
			Government Competency	3
			Rule of Law	7
Health & Welfare	25	0.633	Child Welfare	-
			Disease Management	11
			Health & Welfare System	30
			Life & Death	28
ICT	3	0.750	ICT Promotion	2
			ICT Scale	9
			ICT Utilization	3
Infrastructure	2	0.690	Infrastructure Investment	7
			Infrastructure Utility	1
Safety	3	0.713	Crime & Warfare	6
			Natural Disaster Management	26
			Safety and Health	1

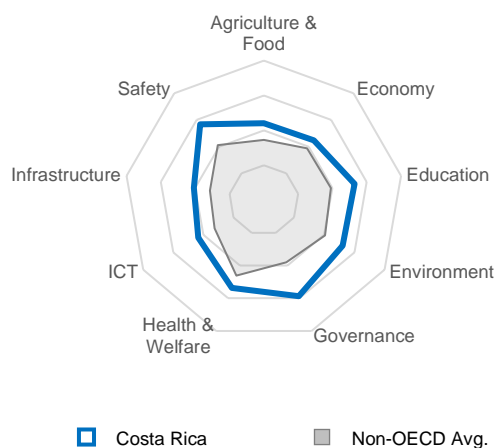
Costa Rica

4/89

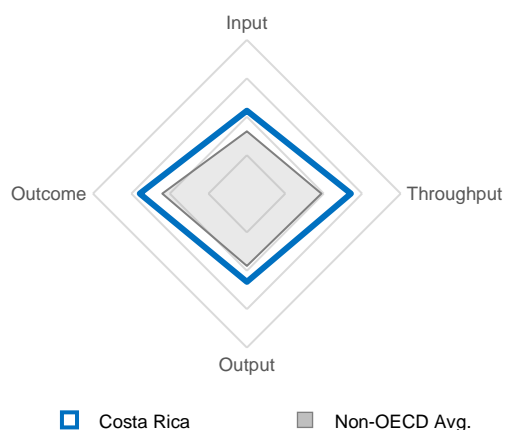
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	4	0.621
2015-16 GC	3	0.623
2014-15 GC	4	0.631
2013-14 GC	5	0.590

Capital City	San Jose
Population	4,857,274 (2016 est.)
GDP (PPP)	80,699,180,139 USD (2016 est.)
Unemployment rate	9.61% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	4	0.540
Throughput	5	0.677
Output	9	0.573
Outcome	4	0.696

	Rank	Score	Subgroup	Rank
Agriculture & Food	14	0.551	Agriculture Resources	57
			Food Quality & Safety	8
			Institution & Finance	4
			Productivity	84
Economy	8	0.559	Economic Equity	83
			Economic Fundamental	4
			Economic Institution & Policy	5
Education	6	0.661	Education Diversity	26
			Education Infrastructure	44
			Education Performance	3
			Government Involvement	3
Environment	3	0.653	Air & Water Quality	15
			Environment Behavior	87
			Natural Resources	43
			Renewable Energy	34
Governance	3	0.734	Democracy	13
			Government Competency	12
			Rule of Law	4
Health & Welfare	10	0.672	Child Welfare	3
			Disease Management	26
			Health & Welfare System	3
			Life & Death	62
ICT	14	0.542	ICT Promotion	7
			ICT Scale	2
			ICT Utilization	2
Infrastructure	20	0.509	Infrastructure Investment	37
			Infrastructure Utility	19
Safety	6	0.708	Crime & Warfare	23
			Natural Disaster Management	8
			Safety and Health	3

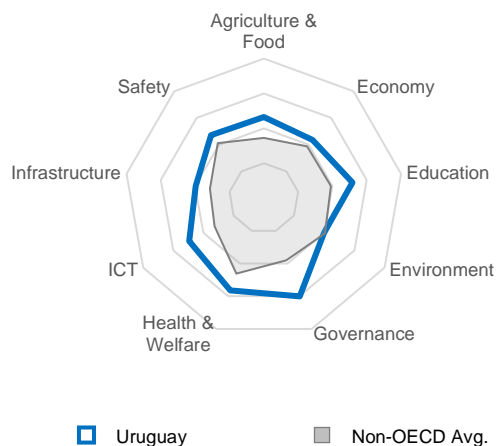
Uruguay

5/89

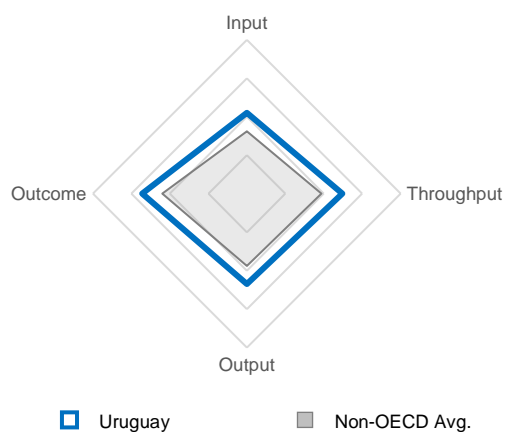
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	5	0.603
2015-16 GC	6	0.606
2014-15 GC	5	0.626
2013-14 GC	4	0.602

Capital City	Montevideo
Population	3,444,006 (2016 est.)
GDP (PPP)	74,477,555,803 USD (2016 est.)
Unemployment rate	7.49% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	5	0.526
Throughput	10	0.621
Output	7	0.587
Outcome	7	0.680

	Rank	Score	Subgroup	Rank
Agriculture & Food	8	0.581	Agriculture Resources	57
			Food Quality & Safety	8
			Institution & Finance	4
			Productivity	84
Economy	13	0.544	Economic Equity	83
			Economic Fundamental	4
			Economic Institution & Policy	5
Education	8	0.646	Education Diversity	26
			Education Infrastructure	44
			Education Performance	3
			Government Involvement	3
Environment	51	0.501	Air & Water Quality	15
			Environment Behavior	87
			Natural Resources	43
			Renewable Energy	34
Governance	1	0.751	Democracy	13
			Government Competency	12
			Rule of Law	4
Health & Welfare	2	0.705	Child Welfare	3
			Disease Management	26
			Health & Welfare System	3
			Life & Death	62
ICT	8	0.618	ICT Promotion	7
			ICT Scale	2
			ICT Utilization	2
Infrastructure	23	0.497	Infrastructure Investment	59
			Infrastructure Utility	8
Safety	32	0.588	Crime & Warfare	32
			Natural Disaster Management	47
			Safety and Health	6

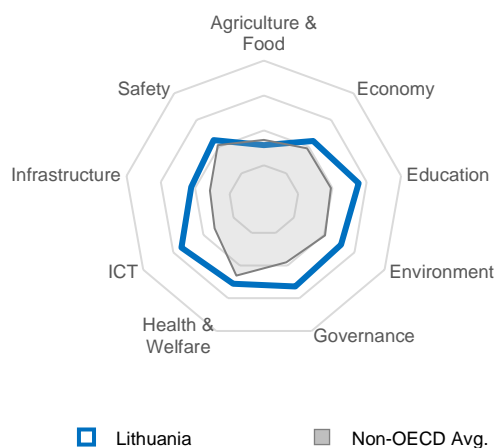
Lithuania

6/89

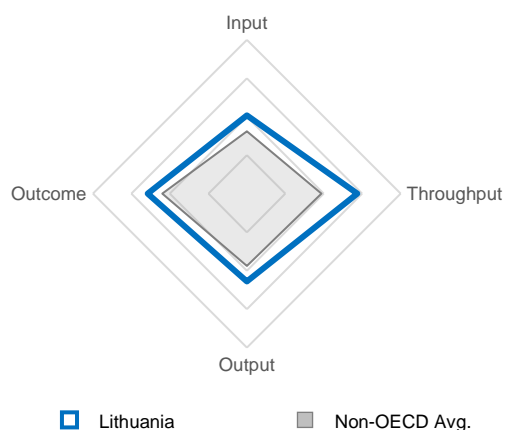
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	6	0.594
2015-16 GC	8	0.581
2014-15 GC	6	0.614
2013-14 GC	3	0.619

Capital City	Vilnius
Population	2,872,298 (2016 est.)
GDP (PPP)	86,071,646,855 USD (2016 est.)
Unemployment rate	9.12% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	7	0.509
Throughput	3	0.718
Output	10	0.570
Outcome	15	0.644

	Rank	Score	Subgroup	Rank
Agriculture & Food	56	0.394	Agriculture Resources	23
			Food Quality & Safety	5
			Institution & Finance	-
			Productivity	51
Economy	11	0.552	Economic Equity	65
			Economic Fundamental	19
			Economic Institution & Policy	1
Education	4	0.691	Education Diversity	11
			Education Infrastructure	47
			Education Performance	2
			Government Involvement	28
Environment	7	0.640	Air & Water Quality	3
			Environment Behavior	50
			Natural Resources	20
			Renewable Energy	56
Governance	8	0.660	Democracy	6
			Government Competency	13
			Rule of Law	1
Health & Welfare	20	0.640	Child Welfare	-
			Disease Management	37
			Health & Welfare System	4
			Life & Death	86
ICT	6	0.682	ICT Promotion	6
			ICT Scale	7
			ICT Utilization	5
Infrastructure	13	0.530	Infrastructure Investment	16
			Infrastructure Utility	28
Safety	41	0.561	Crime & Warfare	46
			Natural Disaster Management	20
			Safety and Health	18

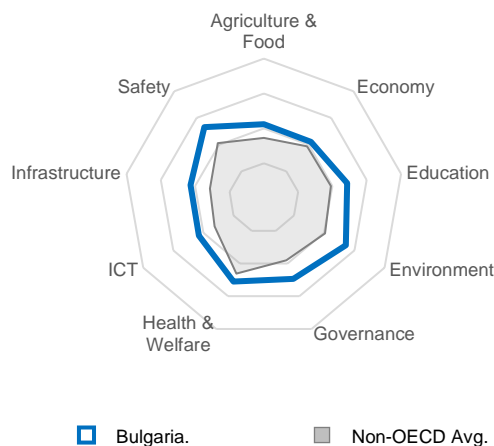
Bulgaria

7/89

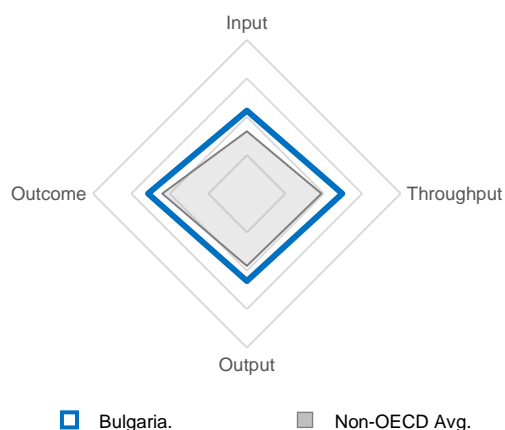
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	7	0.593
2015-16 GC	7	0.584
2014-15 GC	11	0.574
2013-14 GC	-	-

Capital City	Sofia
Population	7,127,822 (2016 est.)
GDP (PPP)	136,847,561,697 USD (2016 est.)
Unemployment rate	9.14% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	3	0.540
Throughput	11	0.620
Output	11	0.568
Outcome	16	0.642

	Rank	Score	Subgroup	Rank
Agriculture & Food	21	0.529	Agriculture Resources	22
			Food Quality & Safety	31
			Institution & Finance	17
			Productivity	73
Economy	24	0.525	Economic Equity	50
			Economic Fundamental	29
			Economic Institution & Policy	6
Education	21	0.607	Education Diversity	37
			Education Infrastructure	70
			Education Performance	11
			Government Involvement	35
Environment	2	0.679	Air & Water Quality	7
			Environment Behavior	56
			Natural Resources	5
			Renewable Energy	12
Governance	12	0.617	Democracy	15
			Government Competency	11
			Rule of Law	12
Health & Welfare	22	0.638	Child Welfare	17
			Disease Management	33
			Health & Welfare System	8
			Life & Death	84
ICT	16	0.538	ICT Promotion	32
			ICT Scale	12
			ICT Utilization	20
Infrastructure	11	0.534	Infrastructure Investment	13
			Infrastructure Utility	18
Safety	12	0.665	Crime & Warfare	26
			Natural Disaster Management	4
			Safety and Health	17

Malaysia

8/89

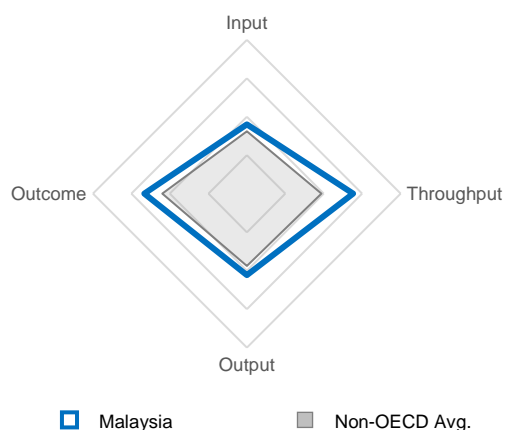
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	8	0.584
2015-16 GC	4	0.620
2014-15 GC	7	0.603
2013-14 GC	8	0.564

Capital City	Kuala Lumpur
Population	31,187,265 (2016 est.)
GDP (PPP)	863,287,467,785 USD (2016 est.)
Unemployment rate	3.10% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	24	0.451
Throughput	4	0.691
Output	26	0.529
Outcome	10	0.666

	Rank	Score	Subgroup	Rank
Agriculture & Food	7	0.587	Agriculture Resources	15
			Food Quality & Safety	22
			Institution & Finance	13
			Productivity	53
Economy	7	0.575	Economic Equity	13
			Economic Fundamental	9
			Economic Institution & Policy	12
Education	18	0.613	Education Diversity	5
			Education Infrastructure	12
			Education Performance	29
			Government Involvement	38
Environment	17	0.572	Air & Water Quality	32
			Environment Behavior	69
			Natural Resources	14
			Renewable Energy	72
Governance	19	0.556	Democracy	55
			Government Competency	5
			Rule of Law	21
Health & Welfare	34	0.620	Child Welfare	39
			Disease Management	31
			Health & Welfare System	33
			Life & Death	41
ICT	7	0.670	ICT Promotion	3
			ICT Scale	23
			ICT Utilization	4
Infrastructure	5	0.560	Infrastructure Investment	67
			Infrastructure Utility	7
Safety	53	0.505	Crime & Warfare	45
			Natural Disaster Management	42
			Safety and Health	33

Romania

9/89

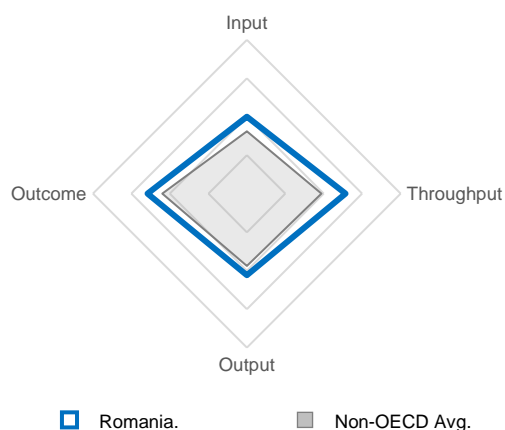
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	9	0.579
2015-16 GC	15	0.557
2014-15 GC	24	0.533
2013-14 GC	-	-

Capital City	Bucharest
Population	19,705,301 (2016 est.)
GDP (PPP)	465,564,786,366 USD (2016 est.)
Unemployment rate	6.81% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	10	0.501
Throughput	8	0.642
Output	24	0.529
Outcome	14	0.645

	Rank	Score	Subgroup	Rank
Agriculture & Food	2	0.612	Agriculture Resources	14
			Food Quality & Safety	9
			Institution & Finance	8
			Productivity	85
Economy	16	0.542	Economic Equity	58
			Economic Fundamental	17
			Economic Institution & Policy	4
Education	27	0.574	Education Diversity	16
			Education Infrastructure	63
			Education Performance	20
			Government Involvement	56
Environment	8	0.621	Air & Water Quality	25
			Environment Behavior	43
			Natural Resources	16
			Renewable Energy	18
Governance	10	0.624	Democracy	17
			Government Competency	8
			Rule of Law	11
Health & Welfare	48	0.591	Child Welfare	29
			Disease Management	53
			Health & Welfare System	17
			Life & Death	80
ICT	25	0.473	ICT Promotion	34
			ICT Scale	21
			ICT Utilization	43
Infrastructure	33	0.466	Infrastructure Investment	31
			Infrastructure Utility	40
Safety	4	0.709	Crime & Warfare	13
			Natural Disaster Management	3
			Safety and Health	24

Belarus

10/89

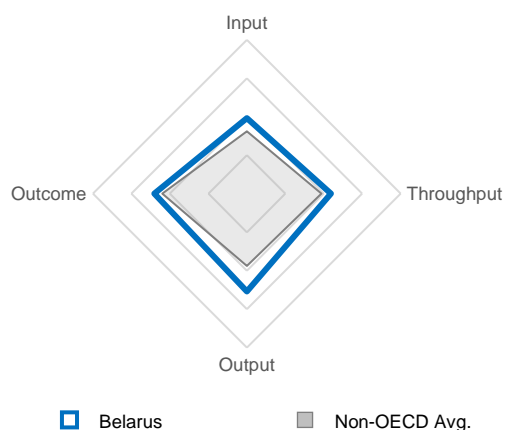
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	10	0.572
2015-16 GC	13	0.562
2014-15 GC	17	0.542
2013-14 GC	-	-

Capital City	Minsk
Population	9,507,120 (2016 est.)
GDP (PPP)	171,702,513,122 USD (2016 est.)
Unemployment rate	1% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	13	0.491
Throughput	28	0.547
Output	2	0.635
Outcome	37	0.601

	Rank	Score	Subgroup	Rank
Agriculture & Food	17	0.539	Agriculture Resources	27
			Food Quality & Safety	6
			Institution & Finance	42
			Productivity	55
Economy	62	0.445	Economic Equity	40
			Economic Fundamental	61
			Economic Institution & Policy	70
Education	10	0.642	Education Diversity	44
			Education Infrastructure	25
			Education Performance	1
			Government Involvement	51
Environment	53	0.499	Air & Water Quality	21
			Environment Behavior	79
			Natural Resources	44
			Renewable Energy	74
Governance	37	0.483	Democracy	69
			Government Competency	37
			Rule of Law	22
Health & Welfare	4	0.701	Child Welfare	7
			Disease Management	6
			Health & Welfare System	1
			Life & Death	77
ICT	5	0.688	ICT Promotion	-
			ICT Scale	3
			ICT Utilization	10
Infrastructure	18	0.513	Infrastructure Investment	50
			Infrastructure Utility	9
Safety	17	0.643	Crime & Warfare	12
			Natural Disaster Management	5
			Safety and Health	35

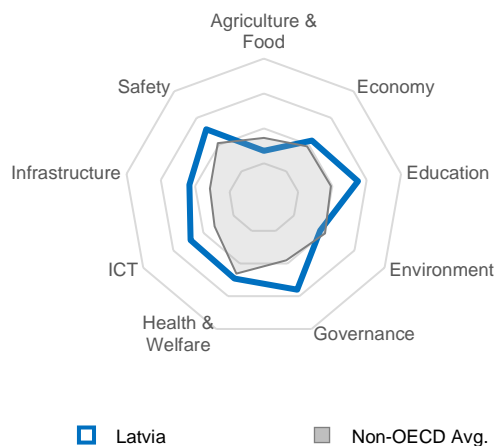
Latvia

11/89

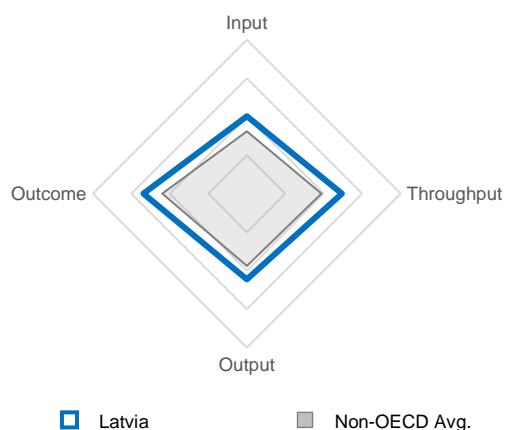
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	11	0.571
2015-16 GC	9	0.578
2014-15 GC	9	0.580
2013-14 GC	7	0.577

Capital City	Riga
Population	1,960,424 (2016 est.)
GDP (PPP)	51,031,805,807 USD (2016 est.)
Unemployment rate	9.87% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	8	0.504
Throughput	12	0.618
Output	13	0.557
Outcome	8	0.672

	Rank	Score	Subgroup	Rank
Agriculture & Food	70	0.339	Agriculture Resources	45
			Food Quality & Safety	4
			Institution & Finance	-
			Productivity	45
Economy	18	0.538	Economic Equity	67
			Economic Fundamental	28
			Economic Institution & Policy	3
Education	5	0.686	Education Diversity	19
			Education Infrastructure	61
			Education Performance	6
			Government Involvement	11
Environment	63	0.466	Air & Water Quality	47
			Environment Behavior	58
			Natural Resources	56
			Renewable Energy	4
Governance	6	0.700	Democracy	3
			Government Competency	10
			Rule of Law	8
Health & Welfare	39	0.615	Child Welfare	-
			Disease Management	22
			Health & Welfare System	13
			Life & Death	87
ICT	9	0.605	ICT Promotion	10
			ICT Scale	10
			ICT Utilization	13
Infrastructure	8	0.542	Infrastructure Investment	15
			Infrastructure Utility	15
Safety	16	0.644	Crime & Warfare	29
			Natural Disaster Management	24
			Safety and Health	22

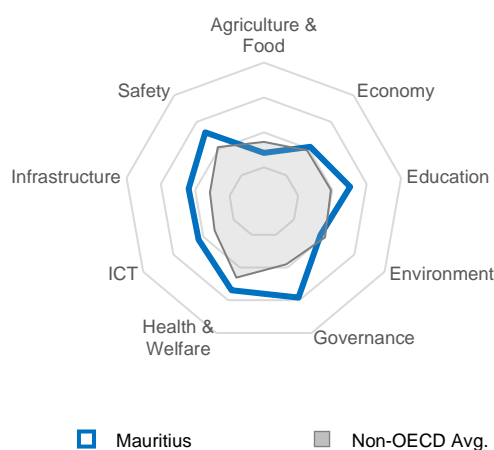
Mauritius

12/89

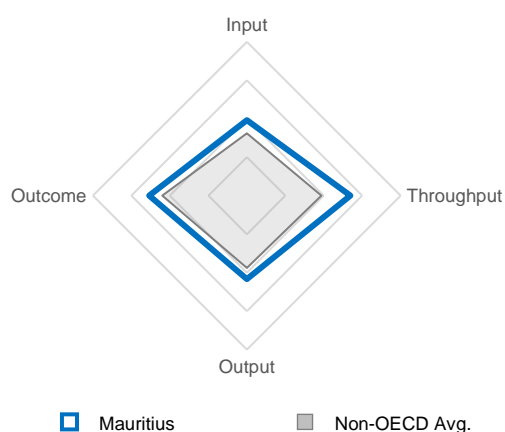
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	12	0.568
2015-16 GC	16	0.553
2014-15 GC	8	0.599
2013-14 GC	-	-

Capital City	Port Louis
Population	1,263,473 (2016 est.)
GDP (PPP)	26,643,801,685 USD (2016 est.)
Unemployment rate	7.92% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	14	0.491
Throughput	6	0.673
Output	17	0.542
Outcome	18	0.634

	Rank	Score	Subgroup	Rank
Agriculture & Food	68	0.353	Agriculture Resources	19
			Food Quality & Safety	3
			Institution & Finance	-
			Productivity	86
Economy	30	0.518	Economic Equity	57
			Economic Fundamental	25
			Economic Institution & Policy	10
Education	13	0.629	Education Diversity	15
			Education Infrastructure	26
			Education Performance	18
			Government Involvement	13
Environment	61	0.471	Air & Water Quality	22
			Environment Behavior	65
			Natural Resources	72
			Renewable Energy	58
Governance	4	0.730	Democracy	5
			Government Competency	7
			Rule of Law	5
Health & Welfare	9	0.673	Child Welfare	1
			Disease Management	4
			Health & Welfare System	15
			Life & Death	63
ICT	15	0.542	ICT Promotion	9
			ICT Scale	24
			ICT Utilization	18
Infrastructure	6	0.548	Infrastructure Investment	40
			Infrastructure Utility	11
Safety	13	0.652	Crime & Warfare	28
			Natural Disaster Management	15
			Safety and Health	13

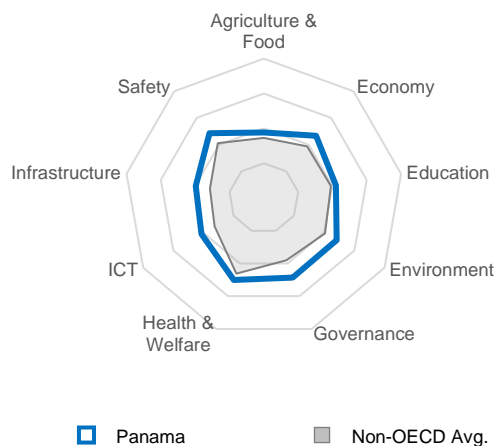
Panama

13/89

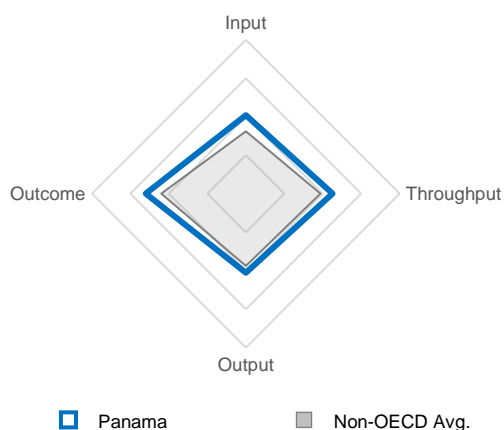
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	13	0.559
2015-16 GC	10	0.576
2014-15 GC	16	0.553
2013-14 GC	-	-

Capital City	Panama City
Population	4,034,119 (2016 est.)
GDP (PPP)	92,843,998,359 USD (2016 est.)
Unemployment rate	4.53% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	6	0.511
Throughput	20	0.564
Output	31	0.514
Outcome	13	0.650

	Rank	Score	Subgroup	Rank
Agriculture & Food	35	0.470	Agriculture Resources	56
			Food Quality & Safety	35
			Institution & Finance	23
			Productivity	74
Economy	5	0.583	Economic Equity	23
			Economic Fundamental	12
			Economic Institution & Policy	15
Education	43	0.527	Education Diversity	51
			Education Infrastructure	28
			Education Performance	39
			Government Involvement	64
Environment	11	0.604	Air & Water Quality	39
			Environment Behavior	20
			Natural Resources	22
			Renewable Energy	32
Governance	13	0.608	Democracy	10
			Government Competency	9
			Rule of Law	17
Health & Welfare	31	0.626	Child Welfare	35
			Disease Management	55
			Health & Welfare System	29
			Life & Death	38
ICT	19	0.516	ICT Promotion	12
			ICT Scale	26
			ICT Utilization	24
Infrastructure	24	0.496	Infrastructure Investment	56
			Infrastructure Utility	16
Safety	26	0.607	Crime & Warfare	48
			Natural Disaster Management	11
			Safety and Health	49

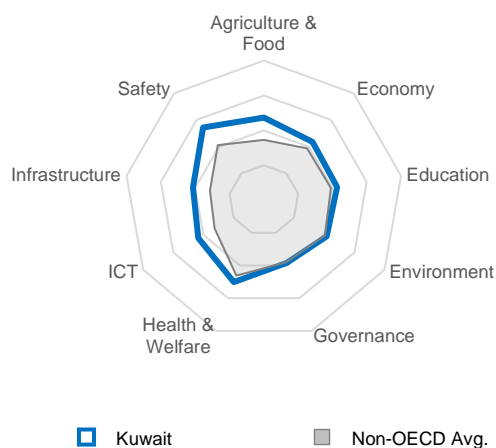
Kuwait

14/89

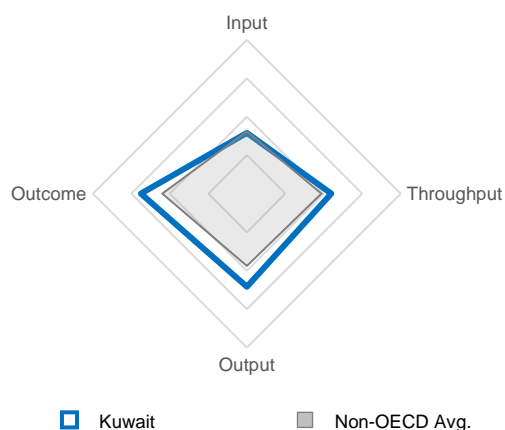
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	14	0.559
2015-16 GC	12	0.565
2014-15 GC	32	0.513
2013-14 GC	33	0.466

Capital City	Kuwait City
Population	4,052,584 (2016 est.)
GDP (PPP)	290,528,801,979 USD (2015 est.)
Unemployment rate	3.60% (2011 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	52	0.395
Throughput	26	0.549
Output	4	0.604
Outcome	6	0.688

	Rank	Score	Subgroup	Rank
Agriculture & Food	6	0.591	Agriculture Resources	73
			Food Quality & Safety	11
			Institution & Finance	11
			Productivity	2
Economy	14	0.544	Economic Equity	25
			Economic Fundamental	6
			Economic Institution & Policy	40
Education	40	0.534	Education Diversity	30
			Education Infrastructure	64
			Education Performance	34
			Government Involvement	43
Environment	42	0.520	Air & Water Quality	65
			Environment Behavior	63
			Natural Resources	55
			Renewable Energy	85
Governance	39	0.480	Democracy	76
			Government Competency	16
			Rule of Law	14
Health & Welfare	29	0.627	Child Welfare	8
			Disease Management	5
			Health & Welfare System	44
			Life & Death	27
ICT	13	0.543	ICT Promotion	45
			ICT Scale	5
			ICT Utilization	41
Infrastructure	17	0.516	Infrastructure Investment	85
			Infrastructure Utility	6
Safety	10	0.678	Crime & Warfare	5
			Natural Disaster Management	12
			Safety and Health	11

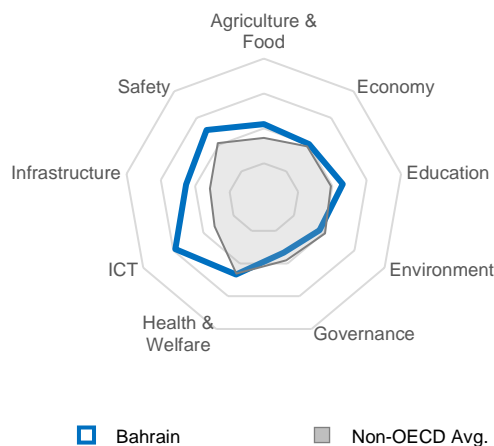
Bahrain

15/89

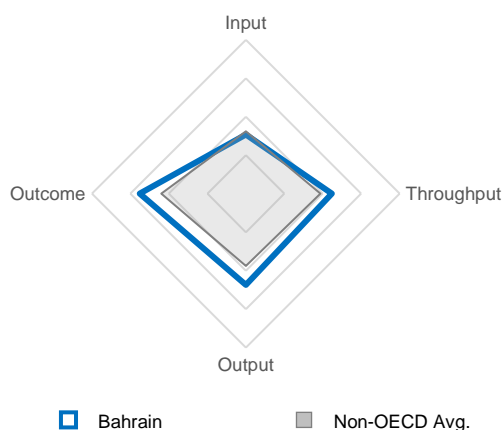
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	15	0.556
2015-16 GC	14	0.557
2014-15 GC	12	0.561
2013-14 GC	12	0.545

Capital City	Manama
Population	1,425,171 (2016 est.)
GDP (PPP)	64,935,176,089 USD (2015 est.)
Unemployment rate	1.20% (2012 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	55	0.385
Throughput	22	0.559
Output	6	0.593
Outcome	5	0.689

	Rank	Score	Subgroup	Rank
Agriculture & Food	20	0.530	Agriculture Resources	54
			Food Quality & Safety	37
			Institution & Finance	16
			Productivity	15
Economy	35	0.504	Economic Equity	70
			Economic Fundamental	11
			Economic Institution & Policy	29
Education	26	0.575	Education Diversity	10
			Education Infrastructure	35
			Education Performance	14
			Government Involvement	63
Environment	64	0.462	Air & Water Quality	26
			Environment Behavior	83
			Natural Resources	83
			Renewable Energy	85
Governance	60	0.416	Democracy	83
			Government Competency	27
			Rule of Law	39
Health & Welfare	52	0.584	Child Welfare	-
			Disease Management	56
			Health & Welfare System	35
			Life & Death	26
ICT	4	0.733	ICT Promotion	5
			ICT Scale	4
			ICT Utilization	6
Infrastructure	4	0.566	Infrastructure Investment	89
			Infrastructure Utility	3
Safety	19	0.637	Crime & Warfare	15
			Natural Disaster Management	48
			Safety and Health	4

Brazil

16/89

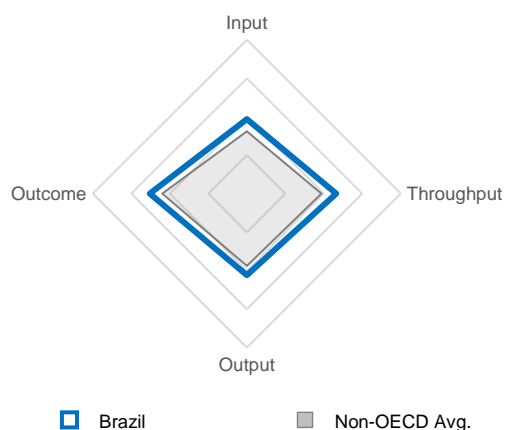
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	16	0.556
2015-16 GC	19	0.546
2014-15 GC	10	0.578
2013-14 GC	13	0.538

Capital City	Brasilia
Population	207,652,865 (2016 est.)
GDP (PPP)	3,141,333,107,725 USD (2016 est.)
Unemployment rate	6.85% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	16	0.485
Throughput	15	0.581
Output	25	0.529
Outcome	19	0.631

	Rank	Score	Subgroup	Rank
Agriculture & Food	5	0.592	Agriculture Resources	58
			Food Quality & Safety	12
			Institution & Finance	5
			Productivity	48
Economy	20	0.535	Economic Equity	4
			Economic Fundamental	42
			Economic Institution & Policy	31
			Education Diversity	61
Education	35	0.550	Education Infrastructure	82
			Education Performance	38
			Government Involvement	6
			Air & Water Quality	8
Environment	6	0.646	Environment Behavior	13
			Natural Resources	8
			Renewable Energy	39
			Democracy	23
Governance	15	0.586	Government Competency	6
			Rule of Law	15
			Child Welfare	9
			Disease Management	28
Health & Welfare	7	0.678	Health & Welfare System	19
			Life & Death	46
			ICT Promotion	46
			ICT Scale	19
ICT	31	0.465	ICT Utilization	39
			Infrastructure Investment	39
			Infrastructure Utility	38
			Crime & Warfare	75
Safety	57	0.496	Natural Disaster Management	45
			Safety and Health	39

Argentina

17/89

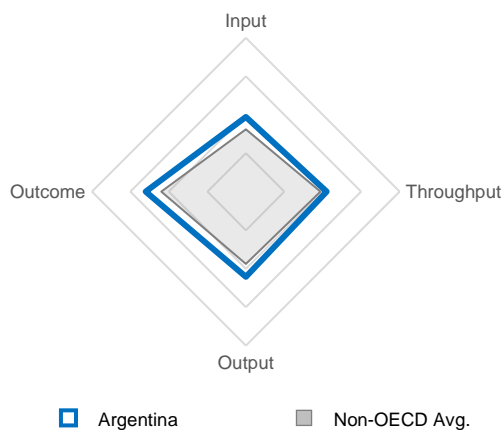
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	17	0.554
2015-16 GC	21	0.537
2014-15 GC	22	0.535
2013-14 GC	23	0.501

Capital City	Buenos Aires
Population	43,847,430 (2016 est.)
GDP (PPP)	874,071,002,223 USD (2016 est.)
Unemployment rate	7.02% (2014 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	15	0.486
Throughput	37	0.526
Output	15	0.553
Outcome	12	0.651

	Rank	Score	Subgroup	Rank
Agriculture & Food	1	0.613	Agriculture Resources	35
			Food Quality & Safety	10
			Institution & Finance	3
			Productivity	68
Economy	71	0.422	Economic Equity	32
			Economic Fundamental	86
			Economic Institution & Policy	69
Education	12	0.636	Education Diversity	45
			Education Infrastructure	42
			Education Performance	8
			Government Involvement	17
Environment	55	0.492	Air & Water Quality	13
			Environment Behavior	68
			Natural Resources	67
			Renewable Energy	52
Governance	7	0.662	Democracy	11
			Government Competency	15
			Rule of Law	9
Health & Welfare	18	0.644	Child Welfare	13
			Disease Management	57
			Health & Welfare System	16
			Life & Death	72
ICT	32	0.455	ICT Promotion	69
			ICT Scale	15
			ICT Utilization	46
Infrastructure	30	0.483	Infrastructure Investment	49
			Infrastructure Utility	23
Safety	34	0.577	Crime & Warfare	52
			Natural Disaster Management	19
			Safety and Health	15

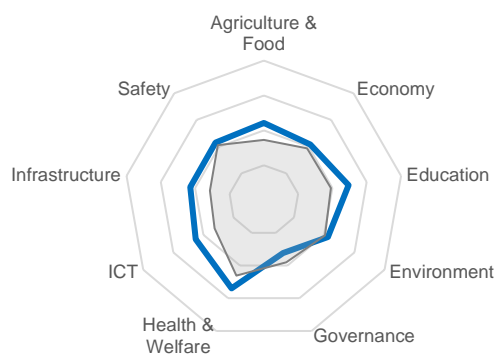
Russian Federation

18/89

	Rank/89	Score(0-1)
2016-17 Government Competitiveness	18	0.549
2015-16 GC	24	0.521
2014-15 GC	31	0.513
2013-14 GC	30	0.475

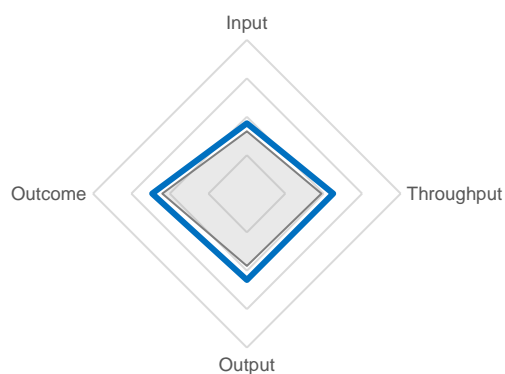
Capital City	Moscow
Population	144,342,396 (2016 est.)
GDP (PPP)	3,397,368,441,152 USD (2016 est.)
Unemployment rate	5.57% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



■ Russian Federation ■ Non-OECD Avg.

GC Ranking by Stage



■ Russian Federation ■ Non-OECD Avg.

	Rank	Score
Input	20	0.458
Throughput	21	0.562
Output	12	0.560
Outcome	29	0.615

	Rank	Score	Subgroup	Rank
Agriculture & Food	13	0.553	Agriculture Resources	69
			Food Quality & Safety	16
			Institution & Finance	7
			Productivity	61
Economy	28	0.519	Economic Equity	42
			Economic Fundamental	13
			Economic Institution & Policy	28
			Education Diversity	33
Education	15	0.618	Education Infrastructure	58
			Education Performance	10
			Government Involvement	42
			Air & Water Quality	20
Environment	40	0.531	Environment Behavior	77
			Natural Resources	42
			Renewable Energy	6
			Democracy	75
Governance	68	0.404	Government Competency	48
			Rule of Law	42
			Child Welfare	4
			Disease Management	40
Health & Welfare	8	0.675	Health & Welfare System	2
			Life & Death	83
			ICT Promotion	24
			ICT Scale	8
ICT	12	0.565	ICT Utilization	19
			Infrastructure Investment	19
			Infrastructure Utility	20
			Crime & Warfare	60
Safety	44	0.538	Natural Disaster Management	16
			Safety and Health	42

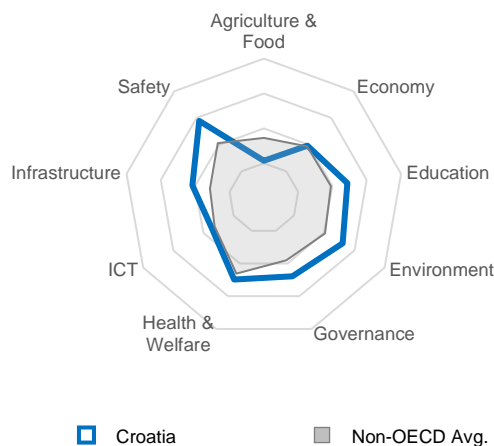
Croatia

19/89

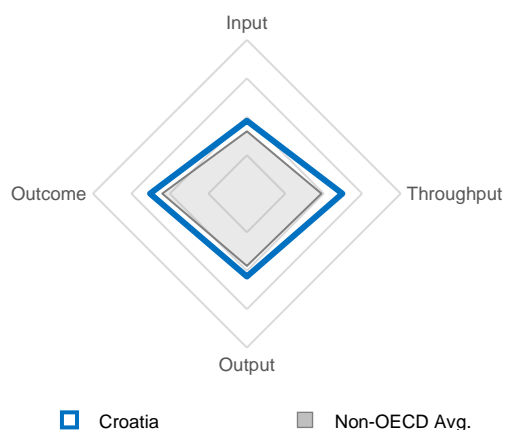
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	19	0.546
2015-16 GC	17	0.552
2014-15 GC	15	0.554
2013-14 GC	9	0.560

Capital City	Zagreb
Population	4,170,600 (2016 est.)
GDP (PPP)	98,410,499,024 USD (2016 est.)
Unemployment rate	16.28% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	18	0.474
Throughput	9	0.621
Output	20	0.538
Outcome	22	0.629

	Rank	Score	Subgroup	Rank
Agriculture & Food	82	0.268	Agriculture Resources	46
			Food Quality & Safety	1
			Institution & Finance	-
			Productivity	88
Economy	45	0.488	Economic Equity	69
			Economic Fundamental	51
			Economic Institution & Policy	9
			Education Diversity	8
Education	20	0.609	Education Infrastructure	77
			Education Performance	9
			Government Involvement	44
			Air & Water Quality	2
Environment	4	0.652	Environment Behavior	30
			Natural Resources	11
			Renewable Energy	44
			Democracy	24
Governance	14	0.598	Government Competency	19
			Rule of Law	10
			Child Welfare	-
			Disease Management	46
Health & Welfare	33	0.622	Health & Welfare System	10
			Life & Death	78
			ICT Promotion	30
			ICT Scale	20
ICT	39	0.430	ICT Utilization	49
			Infrastructure Investment	12
			Infrastructure Utility	22
			Crime & Warfare	17
Safety	2	0.722	Natural Disaster Management	2
			Safety and Health	5

Thailand

20/89

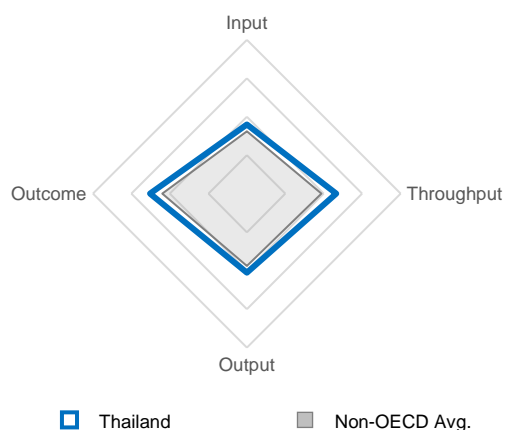
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	20	0.543
2015-16 GC	11	0.572
2014-15 GC	14	0.560
2013-14 GC	14	0.523

Capital City	Bangkok
Population	68,863,514 (2016 est.)
GDP (PPP)	1,164,928,290,123 USD (2016 est.)
Unemployment rate	0.19% (2015 est.)
Constitutional Form	n/a

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	26	0.450
Throughput	16	0.581
Output	32	0.513
Outcome	21	0.629

	Rank	Score	Subgroup	Rank
Agriculture & Food	15	0.551	Agriculture Resources	13
			Food Quality & Safety	45
			Institution & Finance	14
			Productivity	54
Economy	4	0.596	Economic Equity	1
			Economic Fundamental	8
			Economic Institution & Policy	26
Education	28	0.560	Education Diversity	48
			Education Infrastructure	21
			Education Performance	37
			Government Involvement	33
Environment	24	0.554	Air & Water Quality	11
			Environment Behavior	59
			Natural Resources	30
			Renewable Energy	71
Governance	36	0.484	Democracy	59
			Government Competency	18
			Rule of Law	47
Health & Welfare	49	0.590	Child Welfare	32
			Disease Management	30
			Health & Welfare System	52
			Life & Death	53
ICT	26	0.472	ICT Promotion	37
			ICT Scale	25
			ICT Utilization	23
Infrastructure	21	0.501	Infrastructure Investment	53
			Infrastructure Utility	12
Safety	33	0.582	Crime & Warfare	57
			Natural Disaster Management	39
			Safety and Health	19

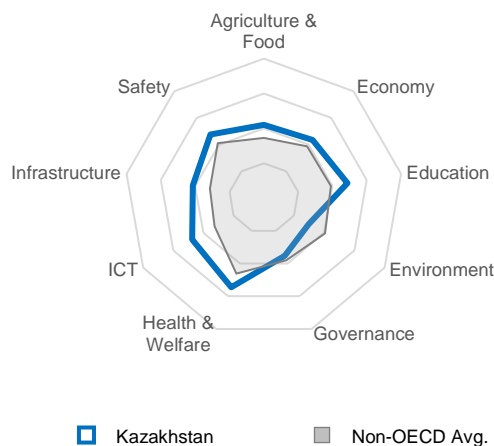
Kazakhstan

21/89

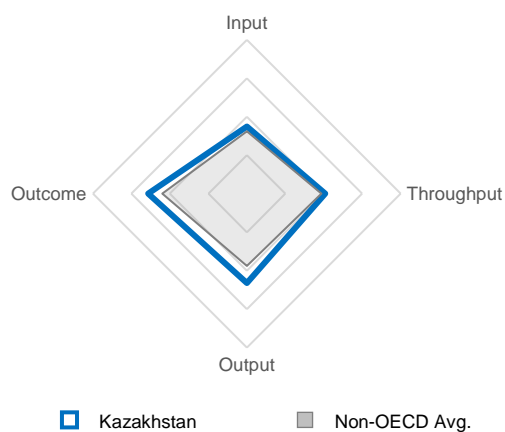
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	21	0.542
2015-16 GC	29	0.516
2014-15 GC	20	0.540
2013-14 GC	17	0.516

Capital City	Astana
Population	17,797,032 (2016 est.)
GDP (PPP)	449,620,839,326 USD (2016 est.)
Unemployment rate	4.97% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	34	0.437
Throughput	41	0.510
Output	8	0.580
Outcome	17	0.641

	Rank	Score	Subgroup	Rank
Agriculture & Food	22	0.525	Agriculture Resources	31
			Food Quality & Safety	15
			Institution & Finance	33
			Productivity	52
Economy	15	0.543	Economic Equity	3
			Economic Fundamental	39
			Economic Institution & Policy	30
Education	19	0.609	Education Diversity	32
			Education Infrastructure	13
			Education Performance	12
			Government Involvement	55
Environment	82	0.373	Air & Water Quality	62
			Environment Behavior	85
			Natural Resources	80
			Renewable Energy	81
Governance	54	0.442	Democracy	77
			Government Competency	21
			Rule of Law	41
Health & Welfare	5	0.682	Child Welfare	23
			Disease Management	8
			Health & Welfare System	9
			Life & Death	73
ICT	10	0.593	ICT Promotion	18
			ICT Scale	13
			ICT Utilization	14
Infrastructure	16	0.517	Infrastructure Investment	66
			Infrastructure Utility	13
Safety	30	0.594	Crime & Warfare	19
			Natural Disaster Management	35
			Safety and Health	27

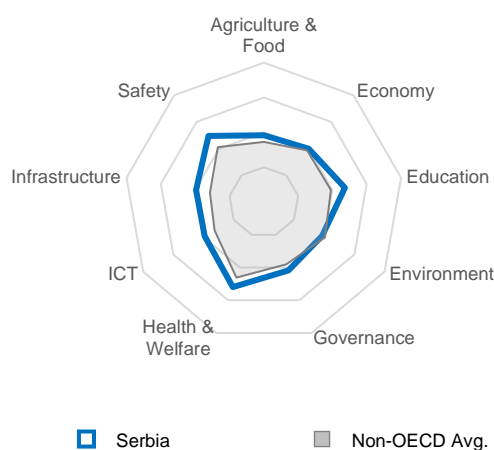
Serbia

22/89

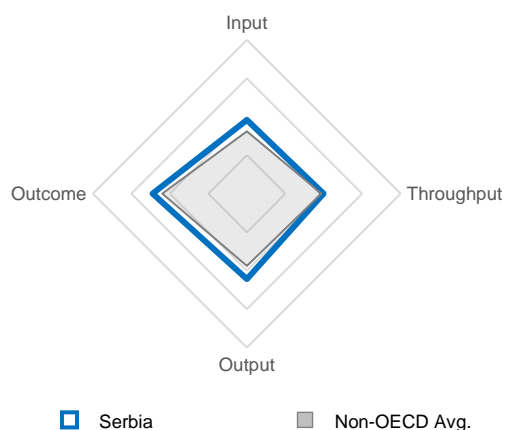
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	22	0.536
2015-16 GC	18	0.549
2014-15 GC	23	0.533
2013-14 GC	-	-

Capital City	Belgrade
Population	7,057,412 (2016 est.)
GDP (PPP)	102,415,691,154 USD (2016 est.)
Unemployment rate	17.66% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	17	0.479
Throughput	44	0.499
Output	14	0.555
Outcome	31	0.612

	Rank	Score	Subgroup	Rank
Agriculture & Food	32	0.479	Agriculture Resources	24
			Food Quality & Safety	24
			Institution & Finance	44
			Productivity	79
Economy	39	0.500	Economic Equity	54
			Economic Fundamental	68
			Economic Institution & Policy	8
Education	23	0.591	Education Diversity	20
			Education Infrastructure	78
			Education Performance	15
			Government Involvement	30
Environment	57	0.484	Air & Water Quality	41
			Environment Behavior	53
			Natural Resources	61
			Renewable Energy	55
Governance	28	0.521	Democracy	27
			Government Competency	40
			Rule of Law	31
Health & Welfare	15	0.650	Child Welfare	10
			Disease Management	49
			Health & Welfare System	7
			Life & Death	79
ICT	22	0.490	ICT Promotion	59
			ICT Scale	11
			ICT Utilization	35
Infrastructure	25	0.493	Infrastructure Investment	28
			Infrastructure Utility	21
Safety	23	0.618	Crime & Warfare	38
			Natural Disaster Management	9
			Safety and Health	10

Colombia

23/89

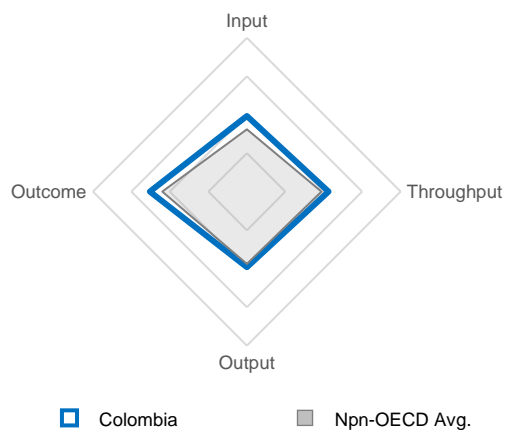
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	23	0.536
2015-16 GC	23	0.528
2014-15 GC	19	0.540
2013-14 GC	15	0.519

Capital City	Bogotá
Population	48,653,419 (2016 est.)
GDP (PPP)	688,817,300,979 USD (2016 est.)
Unemployment rate	8.29% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	12	0.492
Throughput	34	0.531
Output	39	0.490
Outcome	20	0.630

	Rank	Score	Subgroup	Rank
Agriculture & Food	42	0.445	Agriculture Resources	64
			Food Quality & Safety	44
			Institution & Finance	29
			Productivity	71
Economy	17	0.541	Economic Equity	28
			Economic Fundamental	53
			Economic Institution & Policy	19
Education	39	0.537	Education Diversity	54
			Education Infrastructure	23
			Education Performance	36
			Government Involvement	46
Environment	10	0.612	Air & Water Quality	28
			Environment Behavior	10
			Natural Resources	15
			Renewable Energy	35
Governance	24	0.531	Democracy	25
			Government Competency	25
			Rule of Law	34
Health & Welfare	36	0.619	Child Welfare	27
			Disease Management	34
			Health & Welfare System	41
			Life & Death	29
ICT	20	0.507	ICT Promotion	16
			ICT Scale	31
			ICT Utilization	15
Infrastructure	37	0.457	Infrastructure Investment	35
			Infrastructure Utility	33
Safety	35	0.576	Crime & Warfare	66
			Natural Disaster Management	23
			Safety and Health	32

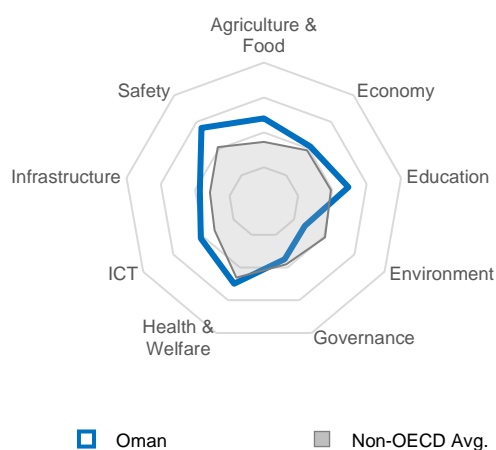
Oman

24/89

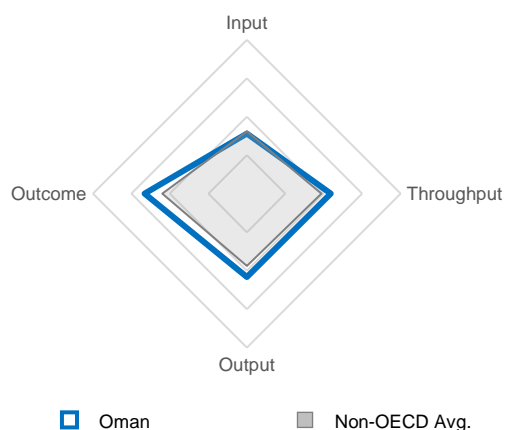
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	24	0.536
2015-16 GC	27	0.516
2014-15 GC	28	0.528
2013-14 GC	16	0.519

Capital City	Muscat
Population	4,424,762 (2016 est.)
GDP (PPP)	179,487,818,843 USD (2015 est.)
Unemployment rate	17.27% (1996 est.)
Constitutional Form	Absolute monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	54	0.391
Throughput	29	0.546
Output	18	0.541
Outcome	11	0.664

	Rank	Score	Subgroup	Rank
Agriculture & Food	3	0.600	Agriculture Resources	84
			Food Quality & Safety	19
			Institution & Finance	1
			Productivity	56
Economy	29	0.519	Economic Equity	22
			Economic Fundamental	18
			Economic Institution & Policy	36
Education	16	0.616	Education Diversity	6
			Education Infrastructure	52
			Education Performance	13
			Government Involvement	50
Environment	86	0.341	Air & Water Quality	61
			Environment Behavior	76
			Natural Resources	88
			Renewable Energy	69
Governance	55	0.437	Democracy	87
			Government Competency	14
			Rule of Law	23
Health & Welfare	32	0.624	Child Welfare	31
			Disease Management	1
			Health & Welfare System	49
			Life & Death	19
ICT	18	0.523	ICT Promotion	13
			ICT Scale	22
			ICT Utilization	34
Infrastructure	34	0.466	Infrastructure Investment	87
			Infrastructure Utility	14
Safety	9	0.695	Crime & Warfare	8
			Natural Disaster Management	25
			Safety and Health	14

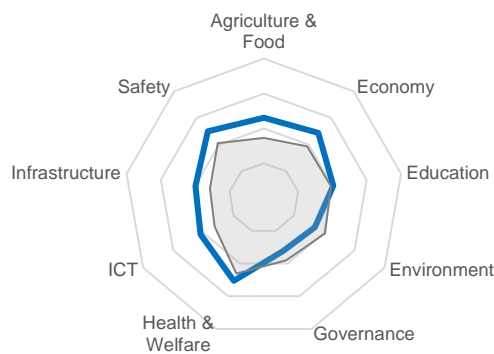
China

25/89

	Rank/89	Score(0-1)
2016-17 Government Competitiveness	25	0.533
2015-16 GC	20	0.540
2014-15 GC	25	0.532
2013-14 GC	21	0.503

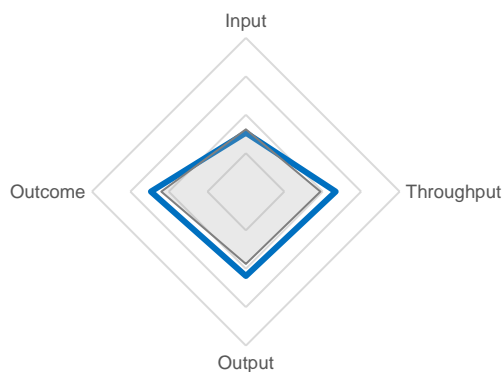
Capital City	Beijing
Population	1,378,665,000 (2016 est.)
GDP (PPP)	21,417,149,856,080 USD (2016 est.)
Unemployment rate	4.10% (2014 est.)
Constitutional Form	People's Democratic Republic

GC Ranking by Area



■ China. ■ Non-OECD Avg.

GC Ranking by Stage



■ China. ■ Non-OECD Avg.

	Rank	Score
Input	57	0.383
Throughput	13	0.584
Output	16	0.548
Outcome	28	0.617

	Rank	Score	Subgroup	Rank
Agriculture & Food	10	0.576	Agriculture Resources	38
			Food Quality & Safety	20
			Institution & Finance	9
			Productivity	49
Economy	3	0.609	Economic Equity	33
			Economic Fundamental	3
			Economic Institution & Policy	27
Education	49	0.506	Education Diversity	23
			Education Infrastructure	71
			Education Performance	55
			Government Involvement	5
Environment	73	0.422	Air & Water Quality	77
			Environment Behavior	72
			Natural Resources	47
			Renewable Energy	54
Governance	66	0.405	Democracy	89
			Government Competency	20
			Rule of Law	44
Health & Welfare	26	0.632	Child Welfare	24
			Disease Management	2
			Health & Welfare System	38
			Life & Death	35
ICT	17	0.524	ICT Promotion	15
			ICT Scale	33
			ICT Utilization	9
Infrastructure	22	0.498	Infrastructure Investment	86
			Infrastructure Utility	5
Safety	21	0.625	Crime & Warfare	43
			Natural Disaster Management	31
			Safety and Health	16

Peru

26/89

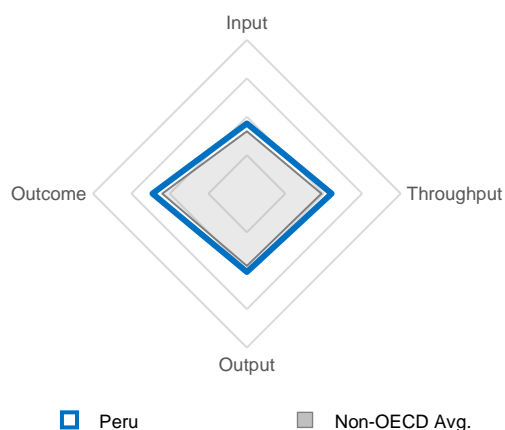
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	26	0.532
2015-16 GC	32	0.512
2014-15 GC	42	0.500
2013-14 GC	27	0.478

Capital City	Lima
Population	31,773,839 (2016 est.)
GDP (PPP)	413,759,485,937 USD (2016 est.)
Unemployment rate	6.44% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	22	0.457
Throughput	24	0.551
Output	33	0.509
Outcome	30	0.613

	Rank	Score	Subgroup	Rank
Agriculture & Food	31	0.483	Agriculture Resources	83
			Food Quality & Safety	41
			Institution & Finance	19
			Productivity	29
Economy	9	0.555	Economic Equity	45
			Economic Fundamental	20
			Economic Institution & Policy	7
Education	24	0.581	Education Diversity	50
			Education Infrastructure	43
			Education Performance	27
			Government Involvement	32
Environment	1	0.680	Air & Water Quality	29
			Environment Behavior	6
			Natural Resources	9
			Renewable Energy	13
Governance	22	0.541	Democracy	26
			Government Competency	23
			Rule of Law	29
Health & Welfare	46	0.595	Child Welfare	41
			Disease Management	36
			Health & Welfare System	47
			Life & Death	31
ICT	49	0.372	ICT Promotion	55
			ICT Scale	50
			ICT Utilization	42
Infrastructure	46	0.422	Infrastructure Investment	58
			Infrastructure Utility	49
Safety	40	0.561	Crime & Warfare	71
			Natural Disaster Management	22
			Safety and Health	40

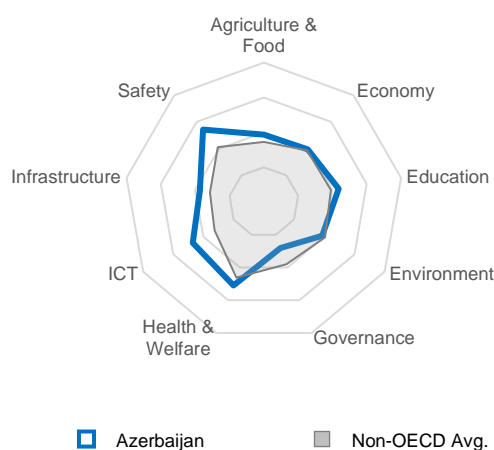
Azerbaijan

27/89

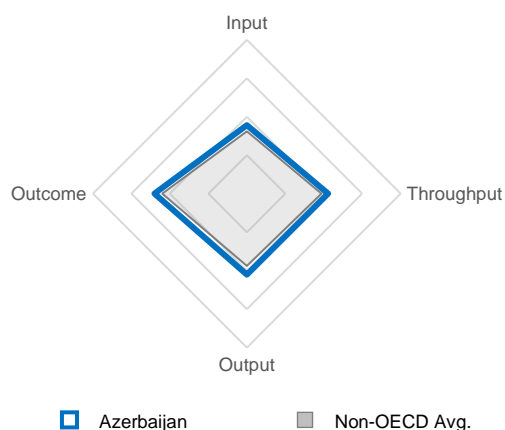
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	27	0.525
2015-16 GC	37	0.497
2014-15 GC	45	0.497
2013-14 GC	25	0.485

Capital City	Baku
Population	9,762,274 (2016 est.)
GDP (PPP)	168,431,012,758 USD (2016 est.)
Unemployment rate	4.96% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	27	0.446
Throughput	36	0.528
Output	28	0.526
Outcome	38	0.600

	Rank	Score	Subgroup	Rank
Agriculture & Food	30	0.484	Agriculture Resources	34
			Food Quality & Safety	43
			Institution & Finance	30
			Productivity	41
Economy	42	0.492	Economic Equity	43
			Economic Fundamental	60
			Economic Institution & Policy	50
			Education Diversity	83
Education	37	0.545	Education Infrastructure	33
			Education Performance	26
			Government Involvement	75
			Air & Water Quality	42
Environment	58	0.483	Environment Behavior	73
			Natural Resources	50
			Renewable Energy	76
			Democracy	84
Governance	80	0.350	Government Competency	51
			Rule of Law	45
			Child Welfare	43
			Disease Management	15
Health & Welfare	23	0.637	Health & Welfare System	22
			Life & Death	64
			ICT Promotion	17
			ICT Scale	17
ICT	11	0.588	ICT Utilization	7
			Infrastructure Investment	51
			Infrastructure Utility	45
			Crime & Warfare	11
Safety	11	0.678	Natural Disaster Management	17
			Safety and Health	25

Armenia

28/89

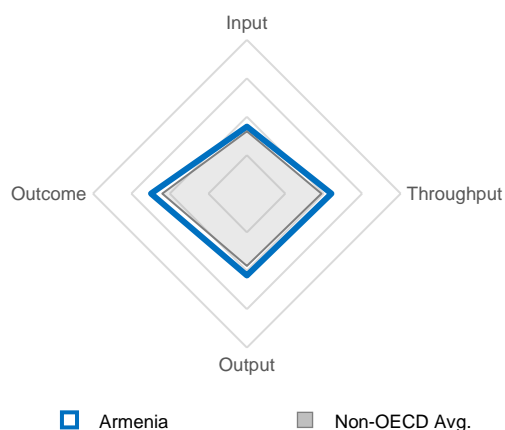
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	28	0.524
2015-16 GC	49	0.479
2014-15 GC	29	0.519
2013-14 GC	-	-

Capital City	Yerevan
Population	2,924,816 (2016 est.) (2016 est.)
GDP (PPP)	25,790,892,933 USD (2016 est.)
Unemployment rate	18.51% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	35	0.436
Throughput	25	0.550
Output	22	0.531
Outcome	26	0.622

	Rank	Score	Subgroup	Rank
Agriculture & Food	55	0.398	Agriculture Resources	26
			Food Quality & Safety	14
			Institution & Finance	-
			Productivity	34
Economy	48	0.476	Economic Equity	76
			Economic Fundamental	66
			Economic Institution & Policy	22
Education	30	0.559	Education Diversity	27
			Education Infrastructure	34
			Education Performance	25
			Government Involvement	62
Environment	13	0.588	Air & Water Quality	12
			Environment Behavior	60
			Natural Resources	27
			Renewable Energy	11
Governance	79	0.355	Democracy	70
			Government Competency	79
			Rule of Law	51
Health & Welfare	27	0.632	Child Welfare	34
			Disease Management	24
			Health & Welfare System	26
			Life & Death	60
ICT	27	0.470	ICT Promotion	40
			ICT Scale	30
			ICT Utilization	28
Infrastructure	12	0.533	Infrastructure Investment	20
			Infrastructure Utility	10
Safety	5	0.709	Crime & Warfare	2
			Natural Disaster Management	13
			Safety and Health	38

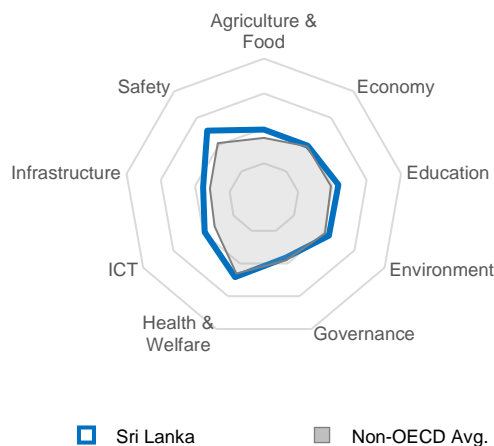
Sri Lanka

29/89

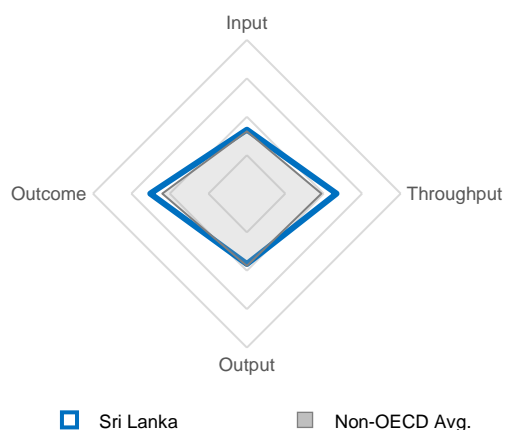
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	29	0.521
2015-16 GC	34	0.508
2014-15 GC	33	0.513
2013-14 GC	22	0.502

Capital City	Sri Jayawardenepura Kotte
Population	21,203,000 (2016 est.)
GDP (PPP)	261,139,627,723 USD (2016 est.)
Unemployment rate	4.67% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	43	0.416
Throughput	14	0.583
Output	52	0.457
Outcome	23	0.627

	Rank	Score	Subgroup	Rank
Agriculture & Food	28	0.491	Agriculture Resources	10
			Food Quality & Safety	61
			Institution & Finance	20
			Productivity	62
Economy	43	0.491	Economic Equity	8
			Economic Fundamental	45
			Economic Institution & Policy	45
Education	38	0.543	Education Diversity	7
			Education Infrastructure	57
			Education Performance	24
			Government Involvement	78
Environment	31	0.540	Air & Water Quality	10
			Environment Behavior	25
			Natural Resources	45
			Renewable Energy	37
Governance	48	0.457	Democracy	38
			Government Competency	53
			Rule of Law	40
Health & Welfare	42	0.604	Child Welfare	57
			Disease Management	12
			Health & Welfare System	34
			Life & Death	50
ICT	23	0.489	ICT Promotion	14
			ICT Scale	54
			ICT Utilization	11
Infrastructure	42	0.442	Infrastructure Investment	78
			Infrastructure Utility	29
Safety	20	0.630	Crime & Warfare	16
			Natural Disaster Management	64
			Safety and Health	7

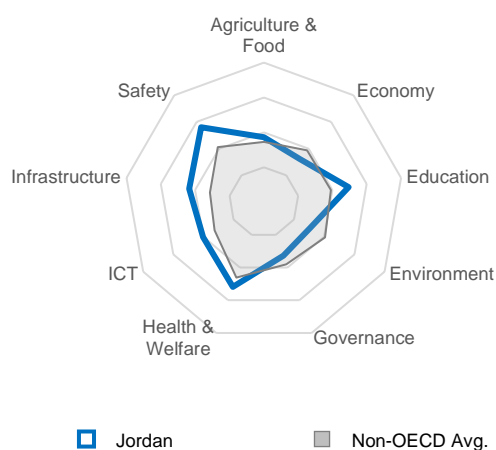
Jordan

30/89

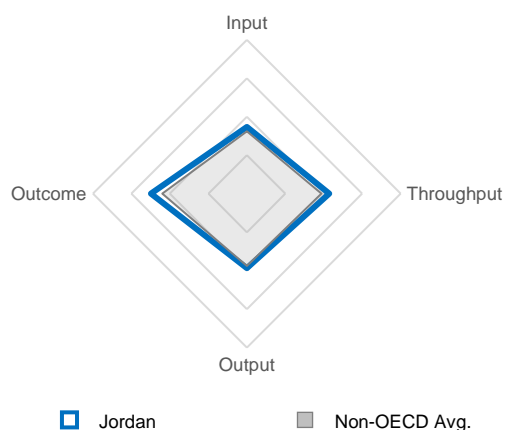
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	30	0.519
2015-16 GC	31	0.513
2014-15 GC	36	0.509
2013-14 GC	-	-

Capital City	Amman
Population	9,455,802 (2016 est.)
GDP (PPP)	85,575,688,577 USD (2016 est.)
Unemployment rate	11.90% (2014 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	36	0.434
Throughput	31	0.536
Output	43	0.484
Outcome	25	0.623

	Rank	Score	Subgroup	Rank
Agriculture & Food	39	0.466	Agriculture Resources	72
			Food Quality & Safety	39
			Institution & Finance	24
			Productivity	50
Economy	79	0.402	Economic Equity	55
			Economic Fundamental	81
			Economic Institution & Policy	43
Education	14	0.618	Education Diversity	28
			Education Infrastructure	22
			Education Performance	23
			Government Involvement	39
Environment	81	0.381	Air & Water Quality	34
			Environment Behavior	74
			Natural Resources	87
			Renewable Energy	77
Governance	63	0.411	Democracy	73
			Government Competency	57
			Rule of Law	32
Health & Welfare	16	0.648	Child Welfare	12
			Disease Management	14
			Health & Welfare System	36
			Life & Death	21
ICT	21	0.503	ICT Promotion	8
			ICT Scale	36
			ICT Utilization	22
Infrastructure	7	0.544	Infrastructure Investment	3
			Infrastructure Utility	27
Safety	8	0.700	Crime & Warfare	7
			Natural Disaster Management	38
			Safety and Health	9

Vietnam

31/89

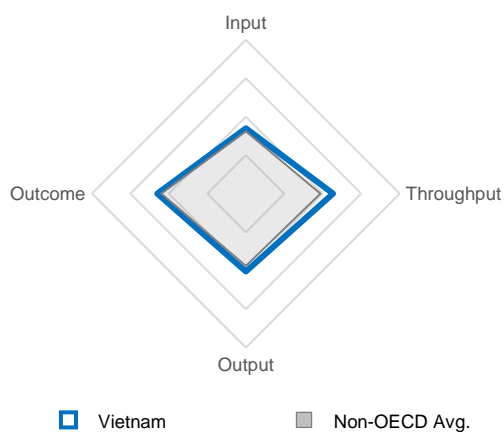
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	31	0.518
2015-16 GC	22	0.533
2014-15 GC	34	0.512
2013-14 GC	20	0.508

Capital City	Hanoi
Population	92,701,100 (2016 est.)
GDP (PPP)	595,524,266,875 USD (2016 est.)
Unemployment rate	2.12% (2015 est.)
Constitutional Form	People's Democratic Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	41	0.425
Throughput	19	0.567
Output	34	0.505
Outcome	46	0.575

	Rank	Score	Subgroup	Rank
Agriculture & Food	19	0.536	Agriculture Resources	16
			Food Quality & Safety	48
			Institution & Finance	18
			Productivity	30
Economy	6	0.582	Economic Equity	11
			Economic Fundamental	7
			Economic Institution & Policy	51
Education	56	0.487	Education Diversity	72
			Education Infrastructure	18
			Education Performance	56
			Government Involvement	19
Environment	27	0.548	Air & Water Quality	45
			Environment Behavior	37
			Natural Resources	40
			Renewable Energy	27
Governance	45	0.463	Democracy	78
			Government Competency	33
			Rule of Law	18
Health & Welfare	30	0.627	Child Welfare	48
			Disease Management	17
			Health & Welfare System	46
			Life & Death	15
ICT	38	0.435	ICT Promotion	33
			ICT Scale	41
			ICT Utilization	30
Infrastructure	40	0.448	Infrastructure Investment	69
			Infrastructure Utility	24
Safety	43	0.539	Crime & Warfare	40
			Natural Disaster Management	57
			Safety and Health	54

Tunisia

32/89

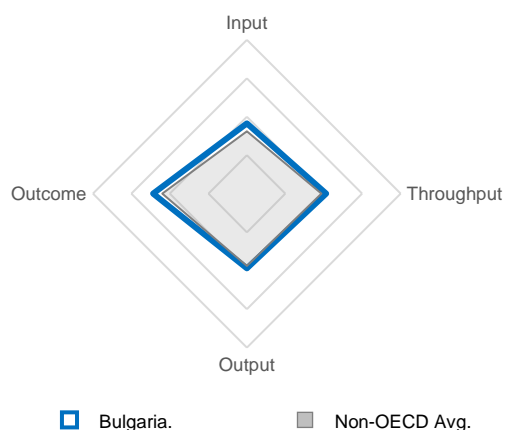
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	32	0.517
2015-16 GC	35	0.505
2014-15 GC	21	0.538
2013-14 GC	11	0.548

Capital City	Tunis
Population	11,403,248 (2016 est.)
GDP (PPP)	132,261,126,002 USD (2016 est.)
Unemployment rate	15.93% (2013 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	21	0.457
Throughput	39	0.516
Output	42	0.485
Outcome	33	0.609

	Rank	Score	Subgroup	Rank
Agriculture & Food	16	0.544	Agriculture Resources	6
			Food Quality & Safety	23
			Institution & Finance	28
			Productivity	75
Economy	76	0.415	Economic Equity	52
			Economic Fundamental	82
			Economic Institution & Policy	52
Education	36	0.549	Education Diversity	17
			Education Infrastructure	48
			Education Performance	42
			Government Involvement	10
Environment	66	0.451	Air & Water Quality	9
			Environment Behavior	66
			Natural Resources	79
			Renewable Energy	67
Governance	34	0.494	Democracy	30
			Government Competency	61
			Rule of Law	35
Health & Welfare	11	0.668	Child Welfare	15
			Disease Management	3
			Health & Welfare System	31
			Life & Death	30
ICT	43	0.399	ICT Promotion	50
			ICT Scale	39
			ICT Utilization	44
Infrastructure	14	0.524	Infrastructure Investment	25
			Infrastructure Utility	25
Safety	27	0.606	Crime & Warfare	50
			Natural Disaster Management	27
			Safety and Health	12

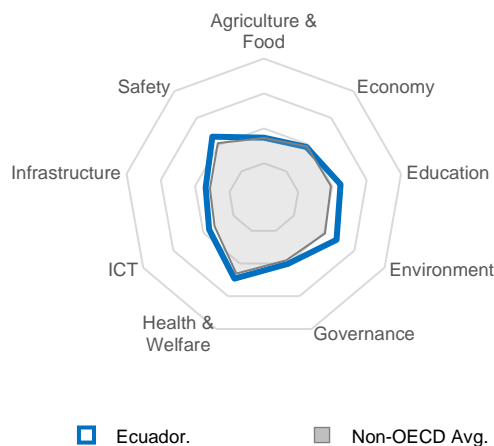
Ecuador

33/89

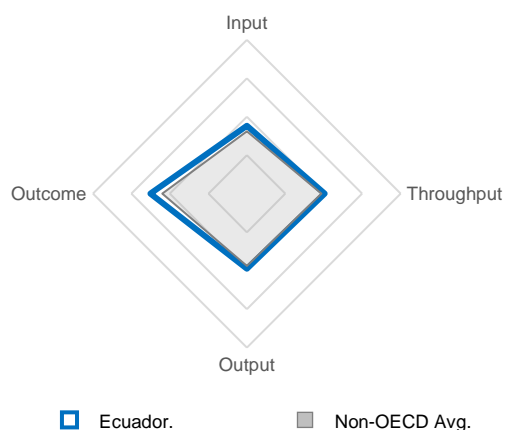
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	33	0.515
2015-16 GC	28	0.516
2014-15 GC	18	0.541
2013-14 GC	35	0.455

Capital City	Quito
Population	16,385,068 (2016 est.)
GDP (PPP)	184,924,730,509 USD (2016 est.)
Unemployment rate	4.77% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	31	0.442
Throughput	42	0.506
Output	41	0.487
Outcome	24	0.626

	Rank	Score	Subgroup	Rank
Agriculture & Food	46	0.432	Agriculture Resources	63
			Food Quality & Safety	46
			Institution & Finance	39
			Productivity	65
Economy	47	0.477	Economic Equity	9
			Economic Fundamental	65
			Economic Institution & Policy	62
Education	29	0.559	Education Diversity	38
			Education Infrastructure	40
			Education Performance	30
			Government Involvement	41
Environment	12	0.602	Air & Water Quality	54
			Environment Behavior	29
			Natural Resources	17
			Renewable Energy	46
Governance	31	0.503	Democracy	51
			Government Competency	26
			Rule of Law	37
Health & Welfare	38	0.615	Child Welfare	46
			Disease Management	59
			Health & Welfare System	32
			Life & Death	24
ICT	33	0.453	ICT Promotion	31
			ICT Scale	40
			ICT Utilization	21
Infrastructure	45	0.424	Infrastructure Investment	57
			Infrastructure Utility	48
Safety	36	0.574	Crime & Warfare	49
			Natural Disaster Management	34
			Safety and Health	34

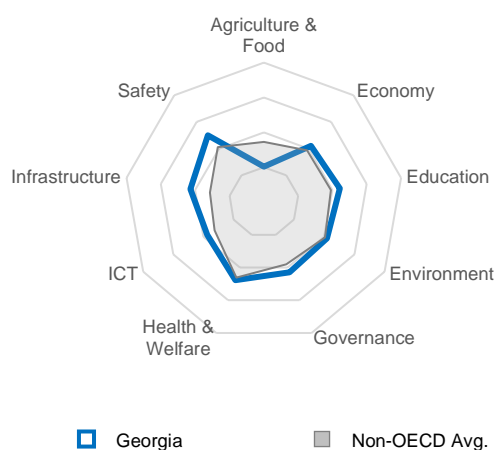
Georgia

34/89

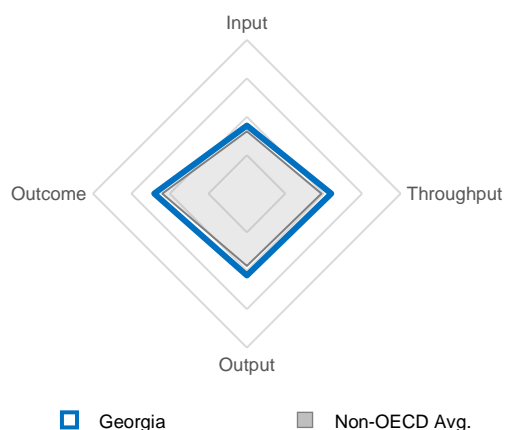
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	34	0.513
2015-16 GC	25	0.518
2014-15 GC	13	0.561
2013-14 GC	10	0.554

Capital City	Tbilisi
Population	3,719,300 (2016 est.)
GDP (PPP)	37,181,601,890 USD (2016 est.)
Unemployment rate	11.96% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	29	0.443
Throughput	27	0.549
Output	23	0.531
Outcome	36	0.602

	Rank	Score	Subgroup	Rank
Agriculture & Food	84	0.253	Agriculture Resources	44
			Food Quality & Safety	26
			Institution & Finance	#VA
			Productivity	89
Economy	25	0.524	Economic Equity	79
			Economic Fundamental	36
			Economic Institution & Policy	13
Education	31	0.554	Education Diversity	47
			Education Infrastructure	84
			Education Performance	7
			Government Involvement	76
Environment	41	0.524	Air & Water Quality	17
			Environment Behavior	17
			Natural Resources	51
			Renewable Energy	36
Governance	23	0.537	Democracy	29
			Government Competency	52
			Rule of Law	28
Health & Welfare	44	0.597	Child Welfare	19
			Disease Management	27
			Health & Welfare System	37
			Life & Death	75
ICT	28	0.470	ICT Promotion	48
			ICT Scale	28
			ICT Utilization	29
Infrastructure	10	0.535	Infrastructure Investment	5
			Infrastructure Utility	31
Safety	22	0.625	Crime & Warfare	35
			Natural Disaster Management	18
			Safety and Health	29

Ukraine

35/89

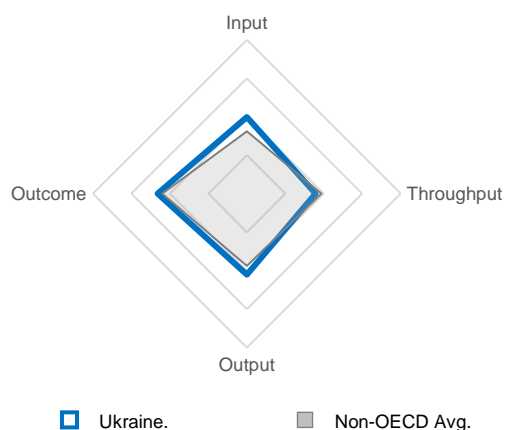
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	35	0.513
2015-16 GC	38	0.496
2014-15 GC	46	0.496
2013-14 GC	28	0.478

Capital City	Kyiv (also known as Kiev)
Population	45,004,645 (2016 est.)
GDP (PPP)	352,977,531,138 USD (2016 est.)
Unemployment rate	9.14% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	11	0.498
Throughput	56	0.447
Output	27	0.526
Outcome	44	0.580

	Rank	Score	Subgroup	Rank
Agriculture & Food	11	0.569	Agriculture Resources	4
			Food Quality & Safety	13
			Institution & Finance	40
			Productivity	33
Economy	56	0.458	Economic Equity	39
			Economic Fundamental	79
			Economic Institution & Policy	42
Education	3	0.699	Education Diversity	21
			Education Infrastructure	14
			Education Performance	5
			Government Involvement	16
Environment	77	0.413	Air & Water Quality	27
			Environment Behavior	86
			Natural Resources	69
			Renewable Energy	23
Governance	43	0.465	Democracy	34
			Government Competency	82
			Rule of Law	30
Health & Welfare	58	0.549	Child Welfare	5
			Disease Management	87
			Health & Welfare System	6
			Life & Death	81
ICT	37	0.444	ICT Promotion	53
			ICT Scale	32
			ICT Utilization	32
Infrastructure	26	0.489	Infrastructure Investment	29
			Infrastructure Utility	30
Safety	47	0.528	Crime & Warfare	81
			Natural Disaster Management	14
			Safety and Health	55

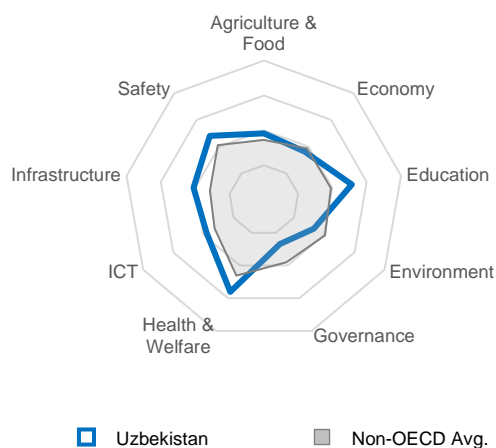
Uzbekistan

36/89

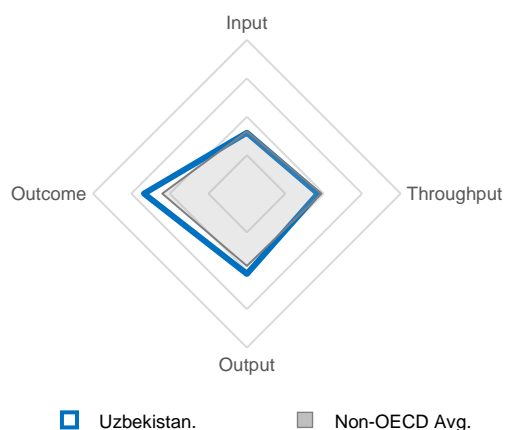
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	36	0.512
2015-16 GC	43	0.487
2014-15 GC	47	0.495
2013-14 GC	46	0.418

Capital City	Tashkent
Population	31,848,200 (2016 est.)
GDP (PPP)	207,469,559,570 USD (2016 est.)
Unemployment rate	0.40% (2008 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	50	0.396
Throughput	51	0.463
Output	29	0.521
Outcome	9	0.668

	Rank	Score	Subgroup	Rank
Agriculture & Food	33	0.478	Agriculture Resources	43
			Food Quality & Safety	32
			Institution & Finance	51
			Productivity	12
Economy	58	0.454	Economic Equity	12
			Economic Fundamental	71
			Economic Institution & Policy	79
Education	11	0.642	Education Diversity	56
			Education Infrastructure	17
			Education Performance	21
			Government Involvement	12
Environment	75	0.413	Air & Water Quality	44
			Environment Behavior	70
			Natural Resources	78
			Renewable Energy	24
Governance	81	0.337	Democracy	86
			Government Competency	35
			Rule of Law	68
Health & Welfare	3	0.701	Child Welfare	30
			Disease Management	9
			Health & Welfare System	14
			Life & Death	52
ICT	24	0.473	ICT Promotion	-
			ICT Scale	48
			ICT Utilization	8
Infrastructure	19	0.512	Infrastructure Investment	54
			Infrastructure Utility	34
Safety	29	0.601	Crime & Warfare	4
			Natural Disaster Management	49
			Safety and Health	45

Philippines

37/89

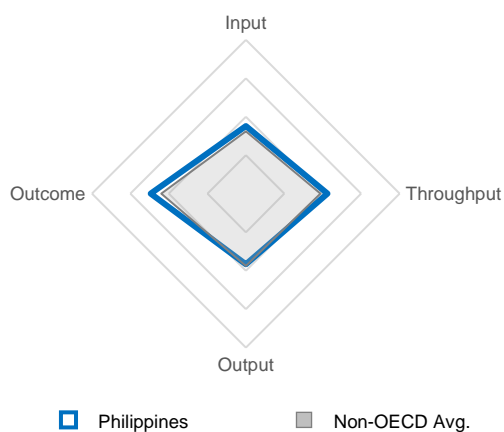
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	37	0.512
2015-16 GC	26	0.517
2014-15 GC	37	0.506
2013-14 GC	37	0.449

Capital City	Manila
Population	103,320,222 (2016 est.)
GDP (PPP)	806,539,481,635 USD (2016 est.)
Unemployment rate	6.29% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	32	0.440
Throughput	35	0.531
Output	51	0.458
Outcome	27	0.618

	Rank	Score	Subgroup	Rank
Agriculture & Food	29	0.490	Agriculture Resources	11
			Food Quality & Safety	51
			Institution & Finance	31
			Productivity	64
Economy	23	0.525	Economic Equity	15
			Economic Fundamental	14
			Economic Institution & Policy	47
Education	9	0.645	Education Diversity	24
			Education Infrastructure	8
			Education Performance	28
			Government Involvement	14
Environment	30	0.541	Air & Water Quality	38
			Environment Behavior	40
			Natural Resources	53
			Renewable Energy	25
Governance	29	0.515	Democracy	16
			Government Competency	39
			Rule of Law	46
Health & Welfare	70	0.509	Child Welfare	60
			Disease Management	72
			Health & Welfare System	54
			Life & Death	51
ICT	35	0.447	ICT Promotion	27
			ICT Scale	46
			ICT Utilization	27
Infrastructure	49	0.408	Infrastructure Investment	76
			Infrastructure Utility	39
Safety	48	0.528	Crime & Warfare	79
			Natural Disaster Management	37
			Safety and Health	50

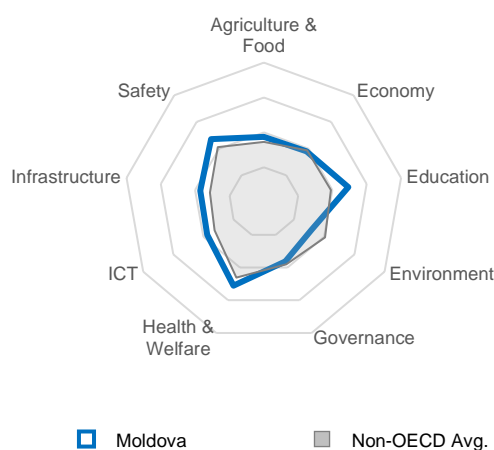
Moldova

38/89

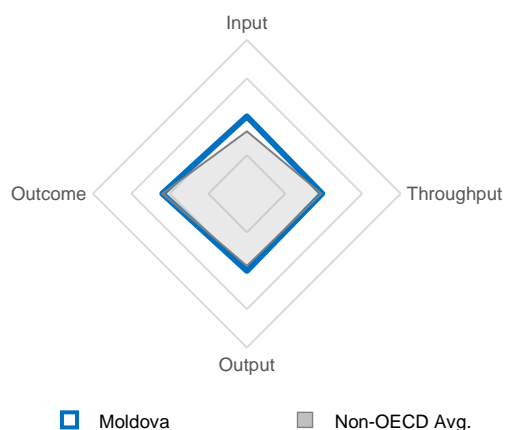
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	38	0.508
2015-16 GC	48	0.483
2014-15 GC	26	0.532
2013-14 GC	-	-

Capital City	Chisinau
Population	3,552,000 (2016 est.)
GDP (PPP)	18,945,000,212 USD (2016 est.)
Unemployment rate	4.90% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	9	0.502
Throughput	45	0.490
Output	36	0.501
Outcome	54	0.549

	Rank	Score	Subgroup	Rank
Agriculture & Food	37	0.467	Agriculture Resources	1
			Food Quality & Safety	38
			Institution & Finance	-
			Productivity	72
Economy	49	0.476	Economic Equity	34
			Economic Fundamental	58
			Economic Institution & Policy	21
Education	17	0.616	Education Diversity	40
			Education Infrastructure	24
			Education Performance	41
			Government Involvement	1
Environment	79	0.397	Air & Water Quality	33
			Environment Behavior	67
			Natural Resources	76
			Renewable Energy	75
Governance	49	0.453	Democracy	32
			Government Competency	59
			Rule of Law	36
Health & Welfare	21	0.639	Child Welfare	18
			Disease Management	51
			Health & Welfare System	12
			Life & Death	69
ICT	29	0.470	ICT Promotion	54
			ICT Scale	14
			ICT Utilization	45
Infrastructure	35	0.463	Infrastructure Investment	11
			Infrastructure Utility	41
Safety	31	0.590	Crime & Warfare	41
			Natural Disaster Management	10
			Safety and Health	43

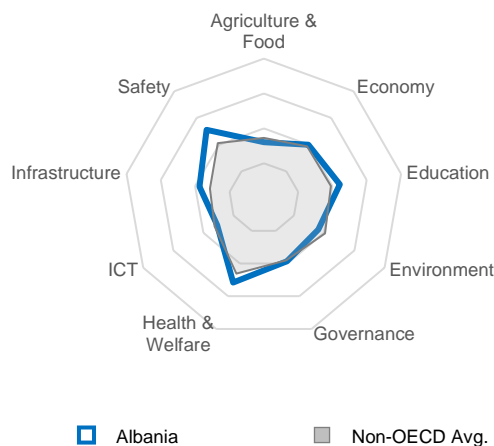
Albania

39/89

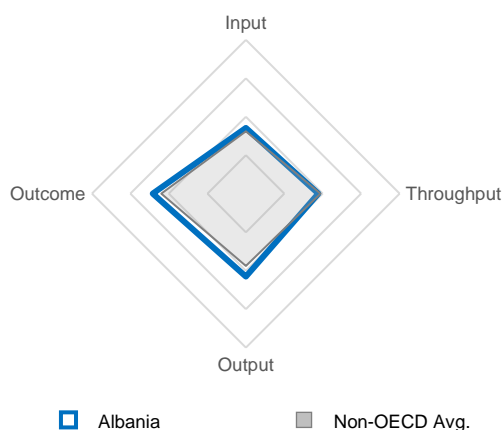
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	39	0.503
2015-16 GC	36	0.503
2014-15 GC	44	0.497
2013-14 GC	-	-

Capital City	Tirana
Population	2,876,101 (2016 est.)
GDP (PPP)	34,307,675,936 USD (2016 est.)
Unemployment rate	17.08% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	39	0.428
Throughput	47	0.471
Output	19	0.538
Outcome	34	0.605

	Rank	Score	Subgroup	Rank
Agriculture & Food	53	0.400	Agriculture Resources	29
			Food Quality & Safety	7
			Institution & Finance	-
			Productivity	28
Economy	40	0.499	Economic Equity	37
			Economic Fundamental	70
			Economic Institution & Policy	18
Education	32	0.554	Education Diversity	25
			Education Infrastructure	65
			Education Performance	16
			Government Involvement	67
Environment	67	0.451	Air & Water Quality	14
			Environment Behavior	21
			Natural Resources	77
			Renewable Energy	19
Governance	38	0.482	Democracy	33
			Government Competency	67
			Rule of Law	19
Health & Welfare	17	0.645	Child Welfare	47
			Disease Management	7
			Health & Welfare System	21
			Life & Death	48
ICT	47	0.387	ICT Promotion	42
			ICT Scale	38
			ICT Utilization	55
Infrastructure	31	0.469	Infrastructure Investment	17
			Infrastructure Utility	37
Safety	18	0.638	Crime & Warfare	20
			Natural Disaster Management	30
			Safety and Health	2

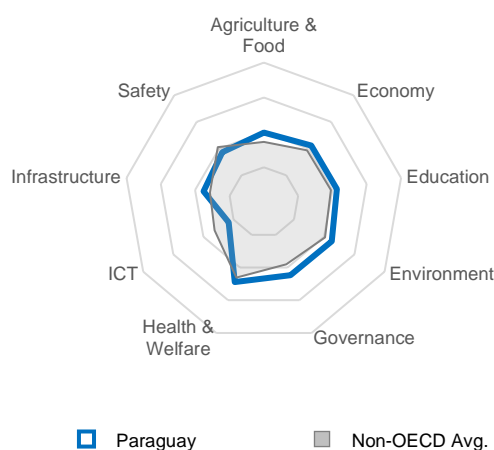
Paraguay

40/89

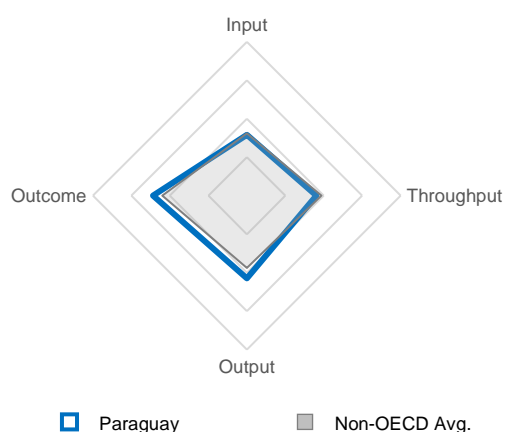
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	40	0.499
2015-16 GC	33	0.509
2014-15 GC	51	0.479
2013-14 GC	38	0.447

Capital City	Asunción
Population	6,725,308 (2016 est.)
GDP (PPP)	64,405,326,704 USD (2016 est.)
Unemployment rate	5.29% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	51	0.396
Throughput	53	0.452
Output	21	0.537
Outcome	32	0.610

	Rank	Score	Subgroup	Rank
Agriculture & Food	25	0.498	Agriculture Resources	40
			Food Quality & Safety	36
			Institution & Finance	40
			Productivity	14
Economy	22	0.529	Economic Equity	2
			Economic Fundamental	31
			Economic Institution & Policy	54
Education	41	0.532	Education Diversity	52
			Education Infrastructure	55
			Education Performance	48
			Government Involvement	23
Environment	23	0.562	Air & Water Quality	4
			Environment Behavior	15
			Natural Resources	52
			Renewable Energy	1
Governance	17	0.559	Democracy	31
			Government Competency	22
			Rule of Law	58
Health & Welfare	41	0.611	Child Welfare	33
			Disease Management	52
			Health & Welfare System	39
			Life & Death	22
ICT	62	0.291	ICT Promotion	78
			ICT Scale	55
			ICT Utilization	54
Infrastructure	43	0.439	Infrastructure Investment	72
			Infrastructure Utility	32
Safety	62	0.465	Crime & Warfare	73
			Natural Disaster Management	61
			Safety and Health	31

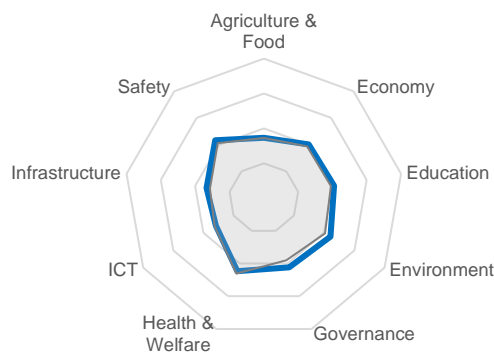
Dominican Republic

41/89

	Rank/89	Score(0-1)
2016-17 Government Competitiveness	41	0.494
2015-16 GC	44	0.485
2014-15 GC	39	0.503
2013-14 GC	-	-

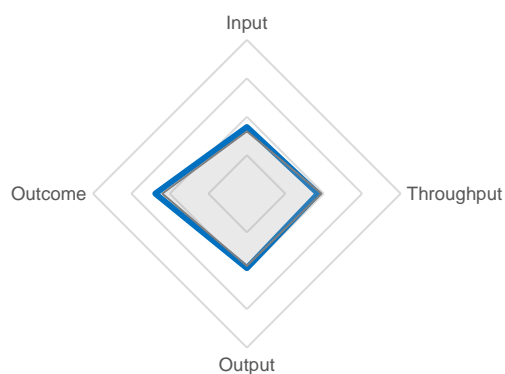
Capital City	Santo Domingo
Population	10,648,791 (2016 est.)
GDP (PPP)	161,956,544,155 USD (2016 est.)
Unemployment rate	5.41% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



■ Dominican Republic ■ Non-OECD Avg.

GC Ranking by Stage



■ Dominican Republic ■ Non-OECD Avg.

	Rank	Score
Input	37	0.433
Throughput	50	0.463
Output	44	0.483
Outcome	39	0.595

	Rank	Score	Subgroup	Rank
Agriculture & Food	47	0.432	Agriculture Resources	28
			Food Quality & Safety	54
			Institution & Finance	47
			Productivity	47
Economy	36	0.503	Economic Equity	38
			Economic Fundamental	33
			Economic Institution & Policy	41
Education	48	0.512	Education Diversity	68
			Education Infrastructure	60
			Education Performance	46
			Government Involvement	21
Environment	25	0.552	Air & Water Quality	31
			Environment Behavior	64
			Natural Resources	25
			Renewable Energy	63
Governance	25	0.530	Democracy	18
			Government Competency	31
			Rule of Law	27
Health & Welfare	56	0.559	Child Welfare	28
			Disease Management	45
			Health & Welfare System	64
			Life & Death	45
ICT	44	0.396	ICT Promotion	52
			ICT Scale	45
			ICT Utilization	36
Infrastructure	48	0.417	Infrastructure Investment	62
			Infrastructure Utility	36
Safety	42	0.542	Crime & Warfare	27
			Natural Disaster Management	36
			Safety and Health	48

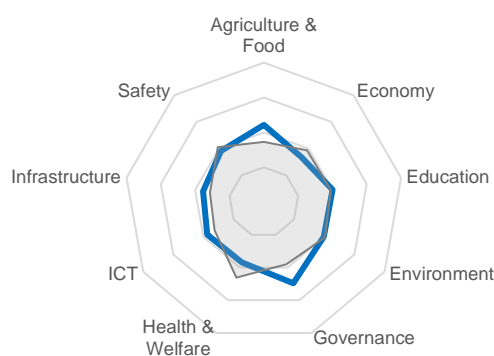
South Africa

42/89

	Rank/89	Score(0-1)
2016-17 Government Competitiveness	42	0.494
2015-16 GC	50	0.478
2014-15 GC	52	0.477
2013-14 GC	-	-

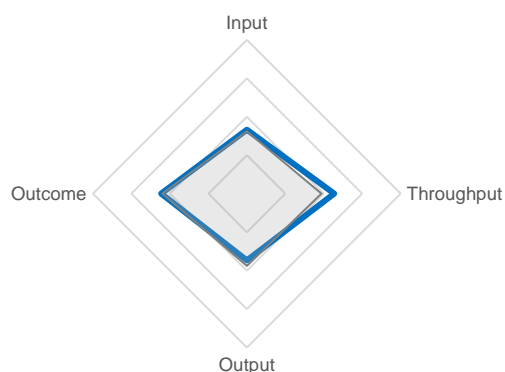
Capital City	Pretoria (administrative),
Population	55,908,865 (2016 est.)
GDP (PPP)	739,419,184,416 USD (2016 est.)
Unemployment rate	25.15% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



■ South Africa ■ Non-OECD Avg.

GC Ranking by Stage



■ South Africa ■ Non-OECD Avg.

	Rank	Score
Input	44	0.416
Throughput	18	0.568
Output	59	0.433
Outcome	51	0.557

	Rank	Score	Subgroup	Rank
Agriculture & Food	12	0.553	Agriculture Resources	36
			Food Quality & Safety	42
			Institution & Finance	6
			Productivity	66
Economy	73	0.421	Economic Equity	78
			Economic Fundamental	87
			Economic Institution & Policy	24
Education	51	0.501	Education Diversity	60
			Education Infrastructure	76
			Education Performance	54
			Government Involvement	25
Environment	54	0.497	Air & Water Quality	63
			Environment Behavior	71
			Natural Resources	59
			Renewable Energy	53
Governance	11	0.620	Democracy	4
			Government Competency	30
			Rule of Law	26
Health & Welfare	79	0.462	Child Welfare	40
			Disease Management	89
			Health & Welfare System	28
			Life & Death	85
ICT	30	0.468	ICT Promotion	19
			ICT Scale	29
			ICT Utilization	40
Infrastructure	41	0.442	Infrastructure Investment	38
			Infrastructure Utility	35
Safety	60	0.478	Crime & Warfare	22
			Natural Disaster Management	51
			Safety and Health	59

Indonesia

43/89

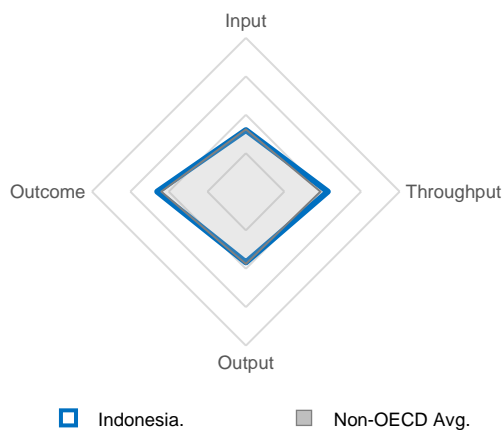
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	43	0.492
2015-16 GC	30	0.515
2014-15 GC	43	0.498
2013-14 GC	31	0.473

Capital City	Jakarta
Population	261,115,456 (2016 est.)
GDP (PPP)	3,032,090,005,363 USD (2016 est.)
Unemployment rate	6.18% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	48	0.400
Throughput	33	0.533
Output	50	0.459
Outcome	45	0.576

	Rank	Score	Subgroup	Rank
Agriculture & Food	41	0.457	Agriculture Resources	33
			Food Quality & Safety	64
			Institution & Finance	26
			Productivity	35
Economy	31	0.511	Economic Equity	24
			Economic Fundamental	16
			Economic Institution & Policy	46
Education	44	0.520	Education Diversity	34
			Education Infrastructure	69
			Education Performance	40
			Government Involvement	52
Environment	45	0.512	Air & Water Quality	55
			Environment Behavior	49
			Natural Resources	35
			Renewable Energy	31
Governance	26	0.527	Democracy	20
			Government Competency	29
			Rule of Law	49
Health & Welfare	69	0.512	Child Welfare	58
			Disease Management	77
			Health & Welfare System	48
			Life & Death	54
ICT	40	0.428	ICT Promotion	23
			ICT Scale	52
			ICT Utilization	38
Infrastructure	51	0.397	Infrastructure Investment	79
			Infrastructure Utility	47
Safety	39	0.566	Crime & Warfare	34
			Natural Disaster Management	44
			Safety and Health	56

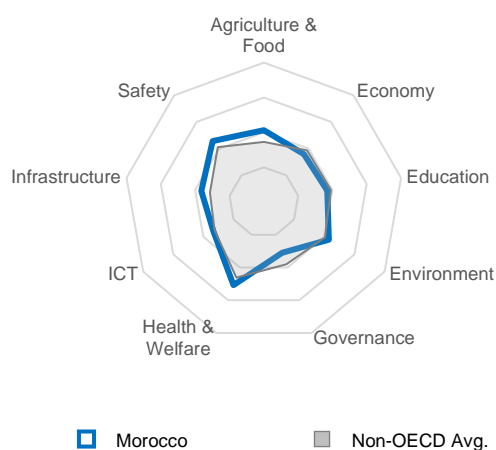
Morocco

44/89

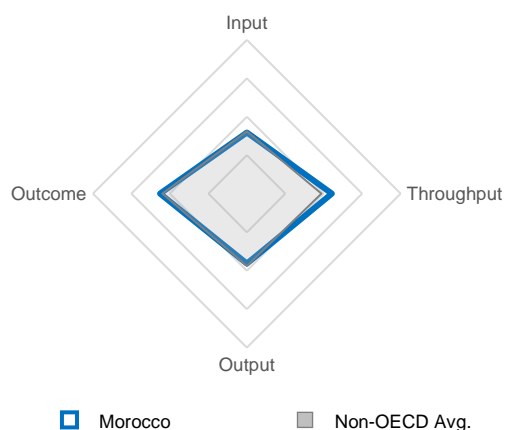
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	44	0.492
2015-16 GC	47	0.484
2014-15 GC	30	0.517
2013-14 GC	29	0.477

Capital City	Rabat
Population	35,276,786 (2016 est.)
GDP (PPP)	280,718,787,737 USD (2016 est.)
Unemployment rate	9.68% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	49	0.398
Throughput	23	0.553
Output	54	0.454
Outcome	48	0.564

	Rank	Score	Subgroup	Rank
Agriculture & Food	23	0.515	Agriculture Resources	39
			Food Quality & Safety	29
			Institution & Finance	25
			Productivity	43
Economy	60	0.447	Economic Equity	35
			Economic Fundamental	67
			Economic Institution & Policy	37
Education	59	0.462	Education Diversity	57
			Education Infrastructure	30
			Education Performance	62
			Government Involvement	20
Environment	33	0.539	Air & Water Quality	60
			Environment Behavior	61
			Natural Resources	29
			Renewable Energy	29
Governance	71	0.388	Democracy	64
			Government Competency	68
			Rule of Law	57
Health & Welfare	24	0.635	Child Welfare	25
			Disease Management	13
			Health & Welfare System	55
			Life & Death	10
ICT	41	0.418	ICT Promotion	26
			ICT Scale	43
			ICT Utilization	33
Infrastructure	38	0.455	Infrastructure Investment	27
			Infrastructure Utility	43
Safety	38	0.569	Crime & Warfare	14
			Natural Disaster Management	53
			Safety and Health	37

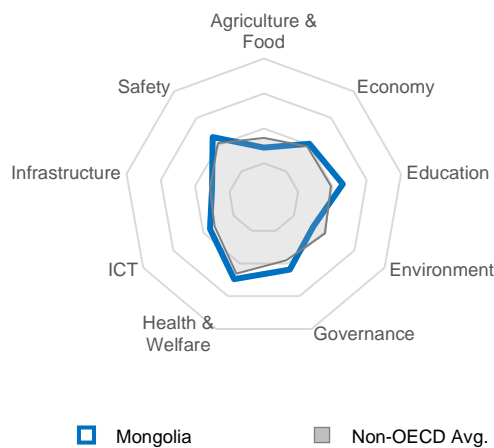
Mongolia

45/89

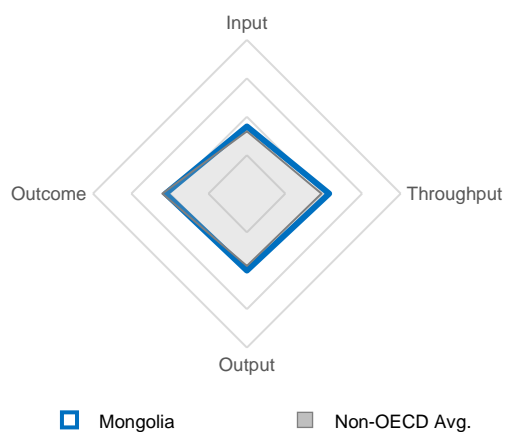
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	45	0.490
2015-16 GC	54	0.463
2014-15 GC	38	0.506
2013-14 GC	19	0.508

Capital City	Ulaanbaatar
Population	3,027,398 (2016 est.)
GDP (PPP)	36,995,994,768 USD (2016 est.)
Unemployment rate	7.45% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	33	0.437
Throughput	32	0.535
Output	37	0.499
Outcome	59	0.528

	Rank	Score	Subgroup	Rank
Agriculture & Food	66	0.361	Agriculture Resources	62
			Food Quality & Safety	77
			Institution & Finance	-
			Productivity	6
Economy	33	0.509	Economic Equity	29
			Economic Fundamental	41
			Economic Institution & Policy	34
			Education Diversity	14
Education	25	0.576	Education Infrastructure	9
			Education Performance	32
			Government Involvement	40
			Air & Water Quality	87
Environment	78	0.410	Environment Behavior	82
			Natural Resources	39
			Renewable Energy	48
			Democracy	21
Governance	21	0.547	Government Competency	32
			Rule of Law	24
			Child Welfare	36
			Disease Management	47
Health & Welfare	35	0.620	Health & Welfare System	20
			Life & Death	58
			ICT Promotion	25
			ICT Scale	37
ICT	36	0.446	ICT Utilization	37
			Infrastructure Investment	36
			Infrastructure Utility	58
			Crime & Warfare	31
Safety	37	0.570	Natural Disaster Management	33
			Safety and Health	44

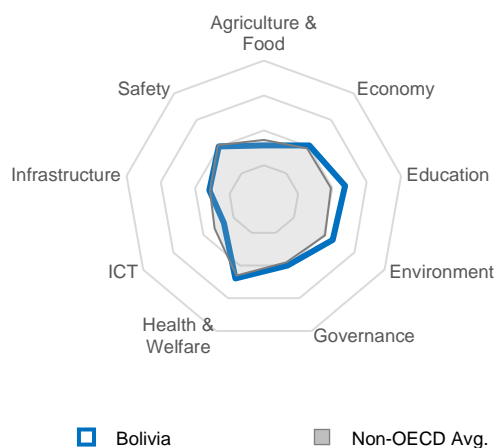
Bolivia

46/89

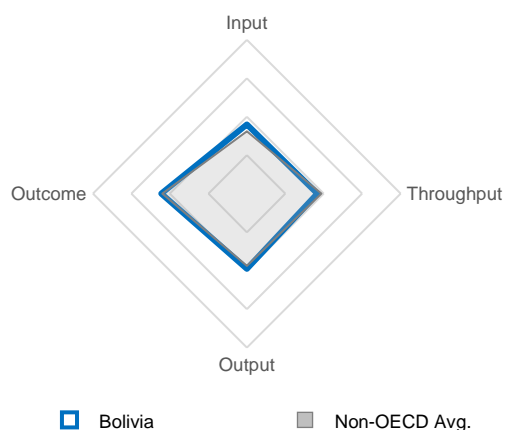
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	46	0.488
2015-16 GC	45	0.484
2014-15 GC	54	0.473
2013-14 GC	40	0.434

Capital City	Sucre
Population	10,887,882 (2016 est.)
GDP (PPP)	78,785,688,297 USD (2016 est.)
Unemployment rate	3.50% (2014 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	25	0.450
Throughput	52	0.459
Output	40	0.488
Outcome	52	0.556

	Rank	Score	Subgroup	Rank
Agriculture & Food	57	0.392	Agriculture Resources	71
			Food Quality & Safety	58
			Institution & Finance	48
			Productivity	27
Economy	32	0.510	Economic Equity	26
			Economic Fundamental	24
			Economic Institution & Policy	57
Education	22	0.592	Education Diversity	39
			Education Infrastructure	79
			Education Performance	31
			Government Involvement	7
Environment	18	0.571	Air & Water Quality	53
			Environment Behavior	41
			Natural Resources	7
			Renewable Energy	78
Governance	32	0.500	Democracy	36
			Government Competency	24
			Rule of Law	54
Health & Welfare	43	0.599	Child Welfare	49
			Disease Management	16
			Health & Welfare System	50
			Life & Death	57
ICT	59	0.330	ICT Promotion	68
			ICT Scale	56
			ICT Utilization	52
Infrastructure	52	0.397	Infrastructure Investment	23
			Infrastructure Utility	54
Safety	56	0.503	Crime & Warfare	58
			Natural Disaster Management	46
			Safety and Health	53

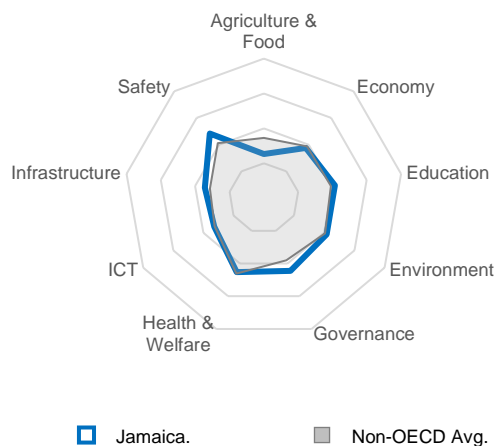
Jamaica

47/89

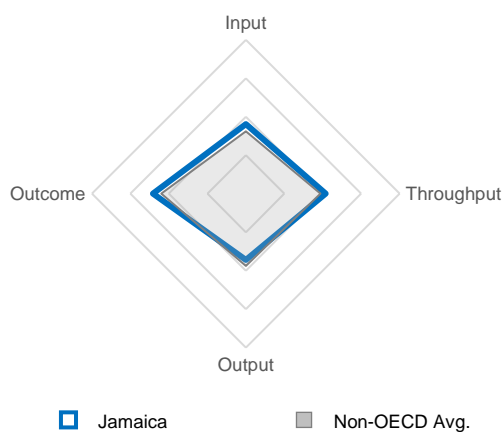
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	47	0.488
2015-16 GC	46	0.484
2014-15 GC	49	0.491
2013-14 GC	-	-

Capital City	Kingston
Population	2,881,355 (2016 est.)
GDP (PPP)	25,456,250,143 USD (2016 est.)
Unemployment rate	13.51% (2015 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	23	0.452
Throughput	38	0.519
Output	61	0.430
Outcome	35	0.604

	Rank	Score	Subgroup	Rank
Agriculture & Food	76	0.315	Agriculture Resources	30
			Food Quality & Safety	28
			Institution & Finance	-!
			Productivity	83
Economy	53	0.468	Economic Equity	61
			Economic Fundamental	69
			Economic Institution & Policy	33
Education	46	0.518	Education Diversity	77
			Education Infrastructure	29
			Education Performance	53
			Government Involvement	34
Environment	43	0.520	Air & Water Quality	40
			Environment Behavior	62
			Natural Resources	46
			Renewable Energy	62
Governance	18	0.557	Democracy	8
			Government Competency	38
			Rule of Law	13
Health & Welfare	55	0.566	Child Welfare	14
			Disease Management	73
			Health & Welfare System	58
			Life & Death	34
ICT	42	0.411	ICT Promotion	22
			ICT Scale	44
			ICT Utilization	51
Infrastructure	44	0.429	Infrastructure Investment	46
			Infrastructure Utility	52
Safety	28	0.604	Crime & Warfare	33
			Natural Disaster Management	32
			Safety and Health	20

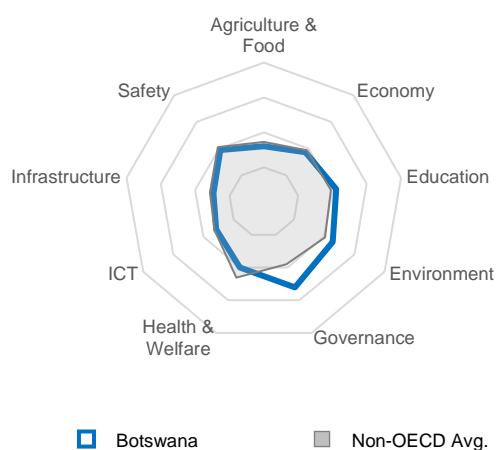
Botswana

48/89

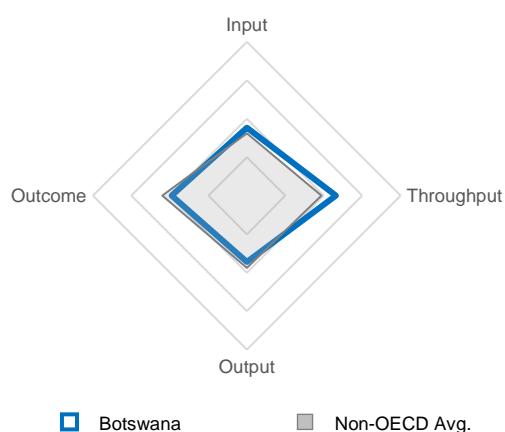
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	48	0.485
2015-16 GC	40	0.495
2014-15 GC	27	0.530
2013-14 GC	-	-

Capital City	Gaborone
Population	2,250,260 (2016 est.)
GDP (PPP)	37,657,768,014 USD (2016 est.)
Unemployment rate	17.86% (2010 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	30	0.442
Throughput	17	0.579
Output	62	0.430
Outcome	64	0.488

	Rank	Score	Subgroup	Rank
Agriculture & Food	52	0.400	Agriculture Resources	55
			Food Quality & Safety	56
			Institution & Finance	34
			Productivity	80
Economy	55	0.465	Economic Equity	88
			Economic Fundamental	48
			Economic Institution & Policy	17
Education	42	0.528	Education Diversity	79
			Education Infrastructure	41
			Education Performance	50
			Government Involvement	18
Environment	19	0.571	Air & Water Quality	50
			Environment Behavior	57
			Natural Resources	18
			Renewable Energy	68
Governance	9	0.652	Democracy	9
			Government Competency	17
			Rule of Law	20
Health & Welfare	71	0.500	Child Welfare	59
			Disease Management	81
			Health & Welfare System	53
			Life & Death	74
ICT	45	0.395	ICT Promotion	43
			ICT Scale	35
			ICT Utilization	63
Infrastructure	58	0.367	Infrastructure Investment	83
			Infrastructure Utility	44
Safety	58	0.486	Crime & Warfare	37
			Natural Disaster Management	55
			Safety and Health	57

El Salvador

49/89

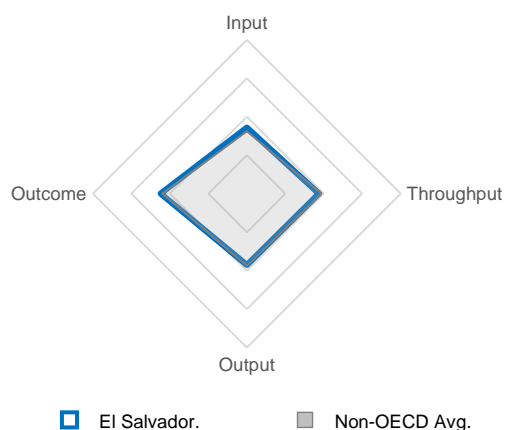
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	49	0.481
2015-16 GC	42	0.492
2014-15 GC	35	0.511
2013-14 GC	24	0.495

Capital City	San Salvador
Population	6,344,722 (2016 est.)
GDP (PPP)	54,685,594,636 USD (2016 est.)
Unemployment rate	5.93% (2013 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	38	0.430
Throughput	48	0.469
Output	48	0.463
Outcome	50	0.561

	Rank	Score	Subgroup	Rank
Agriculture & Food	34	0.474	Agriculture Resources	3
			Food Quality & Safety	47
			Institution & Finance	54
			Productivity	69
Economy	26	0.523	Economic Equity	19
			Economic Fundamental	57
			Economic Institution & Policy	16
Education	54	0.492	Education Diversity	63
			Education Infrastructure	27
			Education Performance	51
			Government Involvement	49
Environment	48	0.508	Air & Water Quality	19
			Environment Behavior	39
			Natural Resources	64
			Renewable Energy	8
Governance	46	0.460	Democracy	57
			Government Competency	45
			Rule of Law	38
Health & Welfare	40	0.612	Child Welfare	42
			Disease Management	18
			Health & Welfare System	51
			Life & Death	23
ICT	51	0.356	ICT Promotion	64
			ICT Scale	47
			ICT Utilization	48
Infrastructure	53	0.387	Infrastructure Investment	68
			Infrastructure Utility	51
Safety	50	0.514	Crime & Warfare	82
			Natural Disaster Management	41
			Safety and Health	36

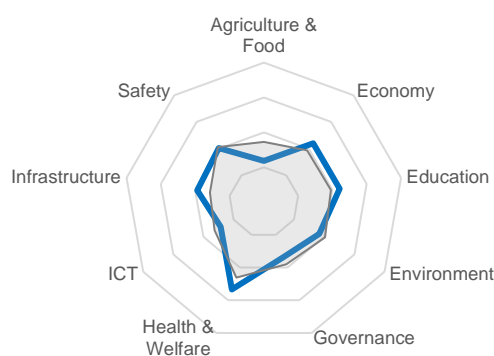
Kyrgyz Republic

50/89

	Rank/89	Score(0-1)
2016-17 Government Competitiveness	50	0.477
2015-16 GC	55	0.462
2014-15 GC	48	0.492
2013-14 GC	-	-

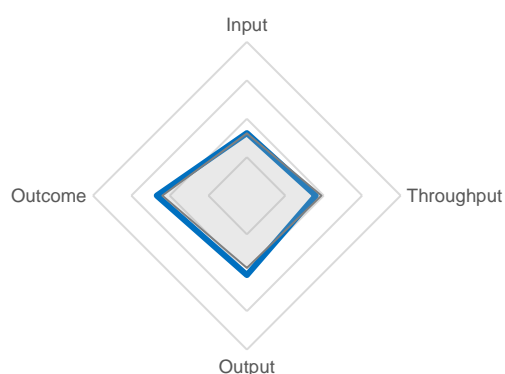
Capital City	Bishkek
Population	6,082,700 (2016 est.)
GDP (PPP)	21,600,596,554 USD (2016 est.)
Unemployment rate	7.56% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



■ Kyrgyz Republic ■ Non-OECD Avg.

GC Ranking by Stage



■ Kyrgyz Republic ■ Non-OECD Avg.

	Rank	Score
Input	46	0.407
Throughput	55	0.448
Output	30	0.516
Outcome	42	0.585

	Rank	Score	Subgroup	Rank
Agriculture & Food	77	0.295	Agriculture Resources	49
			Food Quality & Safety	40
			Institution & Finance	-
			Productivity	67
Economy	12	0.550	Economic Equity	30
			Economic Fundamental	32
			Economic Institution & Policy	32
Education	33	0.553	Education Diversity	55
			Education Infrastructure	51
			Education Performance	33
			Government Involvement	36
Environment	65	0.460	Air & Water Quality	35
			Environment Behavior	35
			Natural Resources	65
			Renewable Energy	21
Governance	59	0.419	Democracy	39
			Government Competency	69
			Rule of Law	53
Health & Welfare	12	0.668	Child Welfare	22
			Disease Management	21
			Health & Welfare System	24
			Life & Death	17
ICT	50	0.358	ICT Promotion	62
			ICT Scale	42
			ICT Utilization	59
Infrastructure	29	0.485	Infrastructure Investment	24
			Infrastructure Utility	42
Safety	54	0.504	Crime & Warfare	36
			Natural Disaster Management	28
			Safety and Health	52

Ghana

51/89

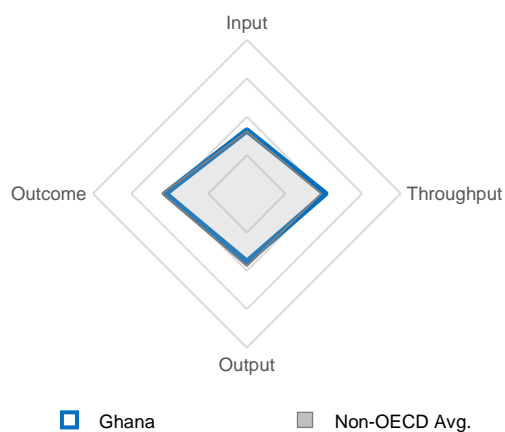
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	51	0.474
2015-16 GC	52	0.475
2014-15 GC	41	0.502
2013-14 GC	32	0.469

Capital City	Accra
Population	28,206,728 (2016 est.)
GDP (PPP)	121,107,641,525 USD (2016 est.)
Unemployment rate	5.20% (2013 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	45	0.412
Throughput	40	0.511
Output	56	0.442
Outcome	57	0.530

	Rank	Score	Subgroup	Rank
Agriculture & Food	26	0.495	Agriculture Resources	12
			Food Quality & Safety	50
			Institution & Finance	37
			Productivity	37
Economy	57	0.457	Economic Equity	81
			Economic Fundamental	49
			Economic Institution & Policy	55
Education	52	0.495	Education Diversity	46
			Education Infrastructure	67
			Education Performance	58
			Government Involvement	15
Environment	22	0.565	Air & Water Quality	66
			Environment Behavior	32
			Natural Resources	33
			Renewable Energy	5
Governance	20	0.547	Democracy	14
			Government Competency	42
			Rule of Law	25
Health & Welfare	62	0.532	Child Welfare	38
			Disease Management	50
			Health & Welfare System	70
			Life & Death	67
ICT	56	0.341	ICT Promotion	44
			ICT Scale	51
			ICT Utilization	58
Infrastructure	59	0.364	Infrastructure Investment	14
			Infrastructure Utility	65
Safety	61	0.467	Crime & Warfare	10
			Natural Disaster Management	70
			Safety and Health	69

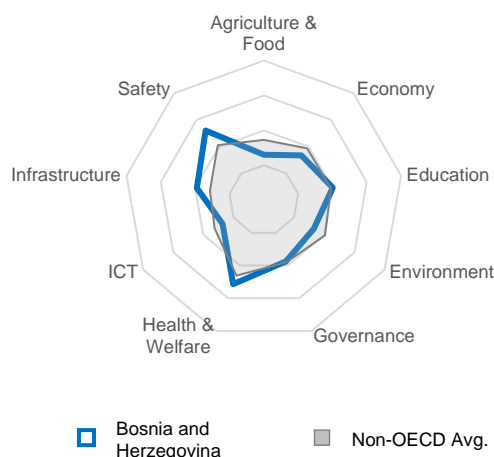
Bosnia and Herzegovina

52/89

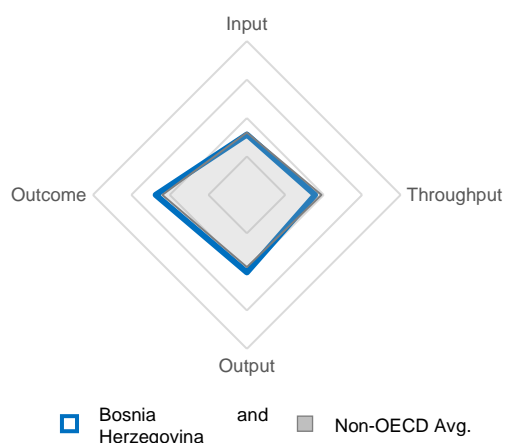
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	52	0.472
2015-16 GC	39	0.496
2014-15 GC	55	0.470
2013-14 GC	-	-

Capital City	Sarajevo
Population	3,516,816 (2016 est.)
GDP (PPP)	42,464,682,289 USD (2016 est.)
Unemployment rate	26.26% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	53	0.392
Throughput	57	0.444
Output	35	0.503
Outcome	40	0.592

	Rank	Score	Subgroup	Rank
Agriculture & Food	74	0.324	Agriculture Resources	32
			Food Quality & Safety	2
			Institution & Finance	-
			Productivity	82
Economy	74	0.419	Economic Equity	63
			Economic Fundamental	88
			Economic Institution & Policy	23
Education	50	0.502	Education Diversity	58
			Education Infrastructure	81
			Education Performance	45
			Government Involvement	47
Environment	74	0.414	Air & Water Quality	43
			Environment Behavior	52
			Natural Resources	75
			Renewable Energy	30
Governance	42	0.467	Democracy	49
			Government Competency	75
			Rule of Law	16
Health & Welfare	19	0.643	Child Welfare	16
			Disease Management	63
			Health & Welfare System	11
			Life & Death	61
ICT	55	0.342	ICT Promotion	73
			ICT Scale	27
			ICT Utilization	65
Infrastructure	28	0.488	Infrastructure Investment	77
			Infrastructure Utility	17
Safety	14	0.651	Crime & Warfare	18
			Natural Disaster Management	7
			Safety and Health	23

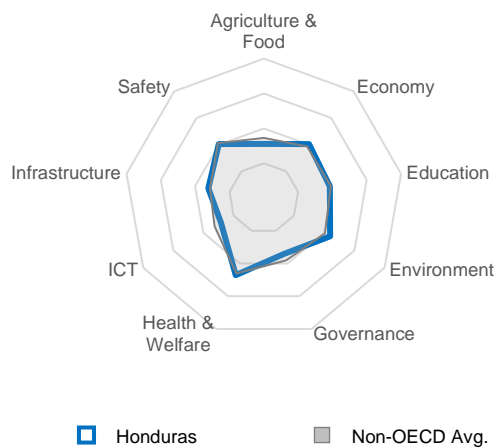
Honduras

53/89

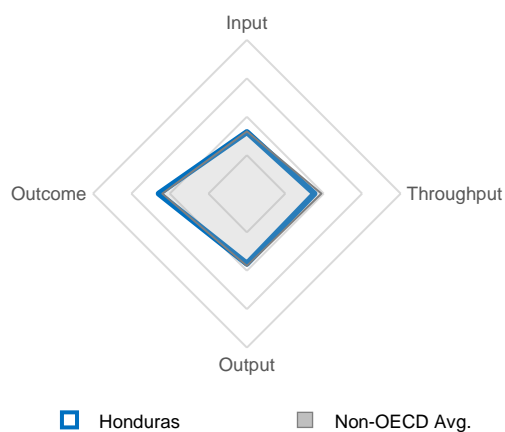
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	53	0.467
2015-16 GC	59	0.448
2014-15 GC	62	0.449
2013-14 GC	36	0.451

Capital City	Tegucigalpa
Population	9,112,867 (2016 est.)
GDP (PPP)	43,177,487,893 USD (2016 est.)
Unemployment rate	7.38% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	47	0.401
Throughput	59	0.440
Output	53	0.455
Outcome	47	0.572

	Rank	Score	Subgroup	Rank
Agriculture & Food	59	0.388	Agriculture Resources	52
			Food Quality & Safety	52
			Institution & Finance	57
			Productivity	63
Economy	34	0.505	Economic Equity	48
			Economic Fundamental	44
			Economic Institution & Policy	35
Education	58	0.480	Education Diversity	42
			Education Infrastructure	68
			Education Performance	57
			Government Involvement	26
Environment	26	0.550	Air & Water Quality	23
			Environment Behavior	34
			Natural Resources	32
			Renewable Energy	42
Governance	58	0.427	Democracy	40
			Government Competency	46
			Rule of Law	76
Health & Welfare	50	0.589	Child Welfare	51
			Disease Management	39
			Health & Welfare System	60
			Life & Death	2
ICT	52	0.355	ICT Promotion	36
			ICT Scale	59
			ICT Utilization	47
Infrastructure	50	0.404	Infrastructure Investment	26
			Infrastructure Utility	57
Safety	55	0.503	Crime & Warfare	70
			Natural Disaster Management	52
			Safety and Health	41

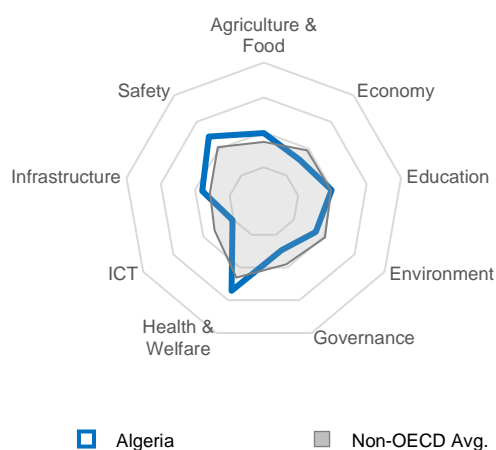
Algeria

54/89

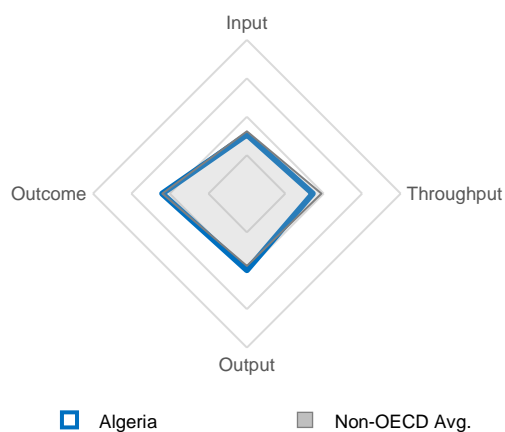
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	54	0.465
2015-16 GC	62	0.442
2014-15 GC	57	0.466
2013-14 GC	53	0.390

Capital City	Algiers
Population	40,606,052 (2016 est.)
GDP (PPP)	612,133,180,845 USD (2016 est.)
Unemployment rate	10.60% (2014 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	56	0.384
Throughput	61	0.429
Output	38	0.497
Outcome	53	0.550

	Rank	Score	Subgroup	Rank
Agriculture & Food	27	0.495	Agriculture Resources	80
			Food Quality & Safety	34
			Institution & Finance	22
			Productivity	16
Economy	81	0.397	Economic Equity	18
			Economic Fundamental	62
			Economic Institution & Policy	80
Education	53	0.494	Education Diversity	49
			Education Infrastructure	49
			Education Performance	43
			Government Involvement	48
Environment	72	0.432	Air & Water Quality	36
			Environment Behavior	84
			Natural Resources	73
			Renewable Energy	84
Governance	76	0.368	Democracy	62
			Government Competency	70
			Rule of Law	33
Health & Welfare	6	0.678	Child Welfare	26
			Disease Management	19
			Health & Welfare System	18
			Life & Death	36
ICT	66	0.258	ICT Promotion	75
			ICT Scale	53
			ICT Utilization	81
Infrastructure	39	0.449	Infrastructure Investment	48
			Infrastructure Utility	46
Safety	24	0.614	Crime & Warfare	21
			Natural Disaster Management	40
			Safety and Health	28

Venezuela, RB

55/89

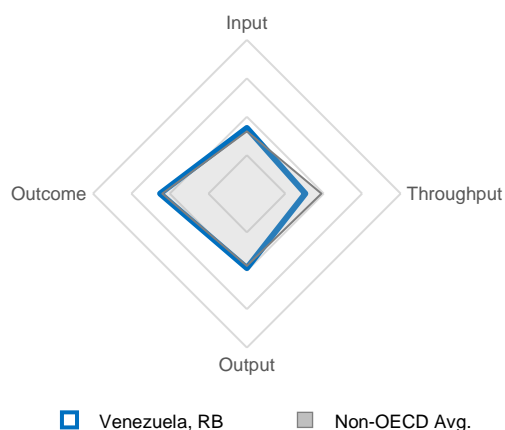
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	55	0.464
2015-16 GC	41	0.493
2014-15 GC	56	0.469
2013-14 GC	-	-

Capital City	Caracas
Population	31,568,179 (2016 est.)
GDP (PPP)	554,246,429,722 USD (2013 est.)
Unemployment rate	6.82% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	40	0.427
Throughput	74	0.380
Output	45	0.483
Outcome	49	0.563

	Rank	Score	Subgroup	Rank
Agriculture & Food	36	0.470	Agriculture Resources	76
			Food Quality & Safety	33
			Institution & Finance	21
			Productivity	70
Economy	87	0.370	Economic Equity	6
			Economic Fundamental	89
			Economic Institution & Policy	89
Education	47	0.517	Education Diversity	13
			Education Infrastructure	74
			Education Performance	35
			Government Involvement	53
Environment	9	0.614	Air & Water Quality	37
			Environment Behavior	44
			Natural Resources	2
			Renewable Energy	70
Governance	67	0.405	Democracy	63
			Government Competency	43
			Rule of Law	67
Health & Welfare	13	0.656	Child Welfare	20
			Disease Management	38
			Health & Welfare System	25
			Life & Death	47
ICT	61	0.294	ICT Promotion	84
			ICT Scale	34
			ICT Utilization	67
Infrastructure	66	0.323	Infrastructure Investment	88
			Infrastructure Utility	64
Safety	49	0.524	Crime & Warfare	85
			Natural Disaster Management	29
			Safety and Health	26

Rwanda

56/89

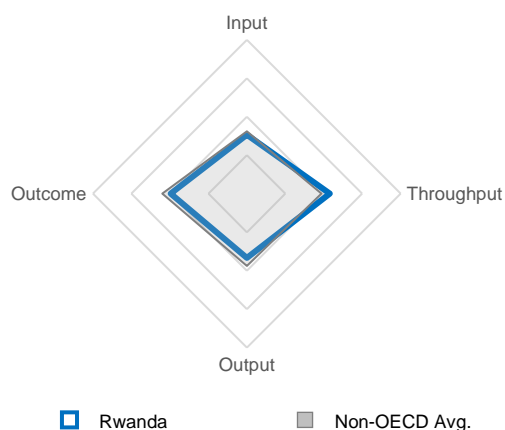
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	56	0.459
2015-16 GC	53	0.469
2014-15 GC	40	0.503
2013-14 GC	18	0.512

Capital City	Kigali
Population	11,917,508 (2016 est.)
GDP (PPP)	22,802,984,391 USD (2016 est.)
Unemployment rate	3.44% (2012 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	58	0.383
Throughput	30	0.540
Output	63	0.417
Outcome	63	0.495

	Rank	Score	Subgroup	Rank
Agriculture & Food	48	0.431	Agriculture Resources	5
			Food Quality & Safety	69
			Institution & Finance	58
			Productivity	20
Economy	44	0.491	Economic Equity	84
			Economic Fundamental	23
			Economic Institution & Policy	20
Education	63	0.417	Education Diversity	31
			Education Infrastructure	2
			Education Performance	70
			Government Involvement	60
Environment	50	0.501	Air & Water Quality	73
			Environment Behavior	26
			Natural Resources	58
			Renewable Energy	15
Governance	41	0.469	Democracy	66
			Government Competency	50
			Rule of Law	73
Health & Welfare	51	0.586	Child Welfare	73
			Disease Management	23
			Health & Welfare System	61
			Life & Death	8
ICT	34	0.448	ICT Promotion	4
			ICT Scale	77
			ICT Utilization	17
Infrastructure	65	0.325	Infrastructure Investment	22
			Infrastructure Utility	63
Safety	63	0.460	Crime & Warfare	53
			Natural Disaster Management	59
			Safety and Health	65

Guatemala

57/89

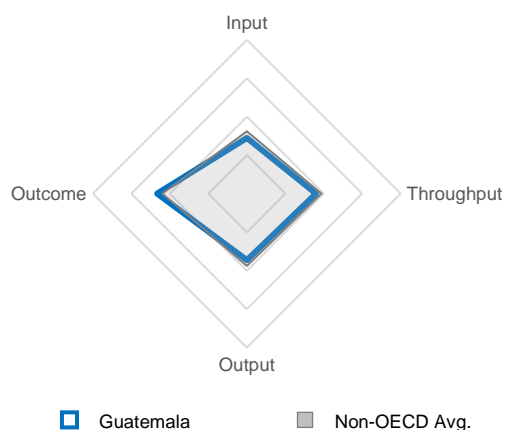
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	57	0.457
2015-16 GC	58	0.449
2014-15 GC	61	0.450
2013-14 GC	34	0.455

Capital City	Guatemala City
Population	16,582,469 (2016 est.)
GDP (PPP)	131,777,094,025 USD (2016 est.)
Unemployment rate	2.42% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	65	0.363
Throughput	54	0.450
Output	60	0.432
Outcome	43	0.583

	Rank	Score	Subgroup	Rank
Agriculture & Food	38	0.467	Agriculture Resources	37
			Food Quality & Safety	53
			Institution & Finance	38
			Productivity	21
Economy	54	0.466	Economic Equity	41
			Economic Fundamental	52
			Economic Institution & Policy	56
Education	67	0.381	Education Diversity	75
			Education Infrastructure	83
			Education Performance	65
			Government Involvement	59
Environment	39	0.533	Air & Water Quality	18
			Environment Behavior	24
			Natural Resources	31
			Renewable Energy	59
Governance	51	0.444	Democracy	52
			Government Competency	28
			Rule of Law	50
Health & Welfare	53	0.573	Child Welfare	66
			Disease Management	35
			Health & Welfare System	59
			Life & Death	11
ICT	54	0.351	ICT Promotion	61
			ICT Scale	57
			ICT Utilization	26
Infrastructure	54	0.385	Infrastructure Investment	71
			Infrastructure Utility	50
Safety	51	0.509	Crime & Warfare	64
			Natural Disaster Management	54
			Safety and Health	51

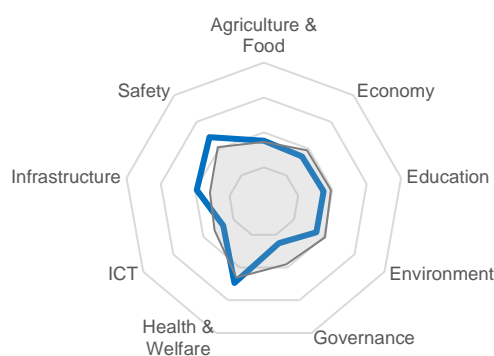
Egypt, Arab Rep.

58/89

	Rank/89	Score(0-1)
2016-17 Government Competitiveness	58	0.456
2015-16 GC	64	0.432
2014-15 GC	60	0.450
2013-14 GC	41	0.433

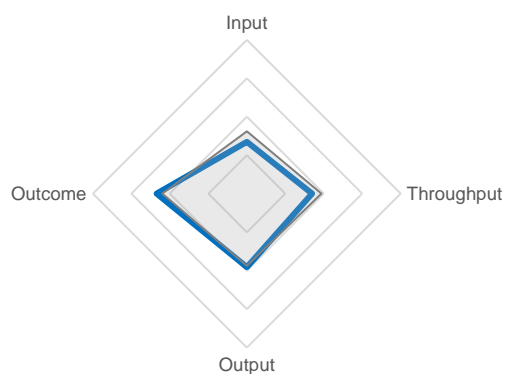
Capital City	Cairo
Population	95,688,681 (2016 est.)
GDP (PPP)	1,065,179,267,161 USD (2016 est.)
Unemployment rate	12.84% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



■ Egypt, Arab Rep. ■ Non-OECD Avg.

GC Ranking by Stage



■ Egypt, Arab Rep. ■ Non-OECD Avg.

	Rank	Score
Input	71	0.337
Throughput	65	0.424
Output	46	0.477
Outcome	41	0.586

	Rank	Score	Subgroup	Rank
Agriculture & Food	45	0.439	Agriculture Resources	68
			Food Quality & Safety	30
			Institution & Finance	36
			Productivity	58
Economy	66	0.428	Economic Equity	31
			Economic Fundamental	78
			Economic Institution & Policy	64
Education	62	0.436	Education Diversity	69
			Education Infrastructure	75
			Education Performance	44
			Government Involvement	61
Environment	71	0.437	Air & Water Quality	16
			Environment Behavior	75
			Natural Resources	70
			Renewable Energy	45
Governance	84	0.316	Democracy	85
			Government Competency	81
			Rule of Law	77
Health & Welfare	37	0.618	Child Welfare	37
			Disease Management	25
			Health & Welfare System	45
			Life & Death	32
ICT	57	0.337	ICT Promotion	60
			ICT Scale	49
			ICT Utilization	57
Infrastructure	27	0.488	Infrastructure Investment	64
			Infrastructure Utility	26
Safety	25	0.607	Crime & Warfare	51
			Natural Disaster Management	43
			Safety and Health	21

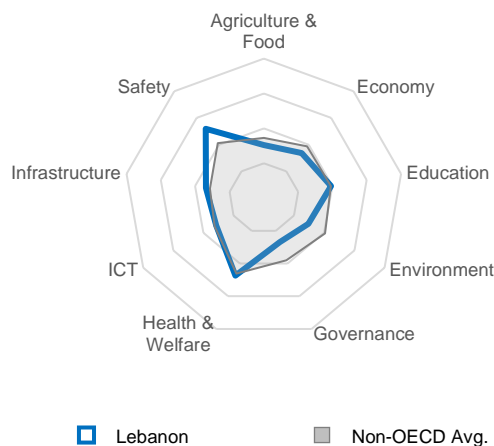
Lebanon

59/89

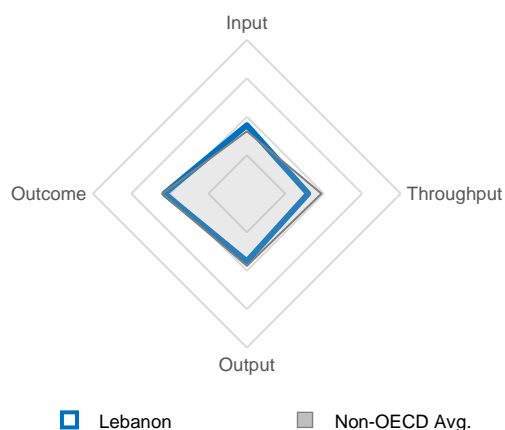
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	59	0.450
2015-16 GC	60	0.447
2014-15 GC	69	0.434
2013-14 GC	-	-

Capital City	Beirut
Population	6,006,668 (2016 est.)
GDP (PPP)	84,067,236,485 USD (2016 est.)
Unemployment rate	6.36% (2009 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	28	0.445
Throughput	67	0.399
Output	58	0.439
Outcome	56	0.535

	Rank	Score	Subgroup	Rank
Agriculture & Food	62	0.379	Agriculture Resources	9
			Food Quality & Safety	21
			Institution & Finance	-
			Productivity	87
Economy	72	0.421	Economic Equity	75
			Economic Fundamental	59
			Economic Institution & Policy	48
			Education Diversity	9
Education	55	0.490	Education Infrastructure	46
			Education Performance	52
			Government Involvement	72
			Air & Water Quality	30
Environment	83	0.369	Environment Behavior	80
			Natural Resources	85
			Renewable Energy	80
			Democracy	48
Governance	82	0.335	Government Competency	87
			Rule of Law	62
			Child Welfare	1
			Disease Management	60
Health & Welfare	47	0.593	Health & Welfare System	40
			Life & Death	16
			ICT Promotion	72
			ICT Scale	18
ICT	46	0.394	ICT Utilization	61
			Infrastructure Investment	6
			Infrastructure Utility	60
			Crime & Warfare	24
Safety	15	0.648	Natural Disaster Management	21
			Safety and Health	47

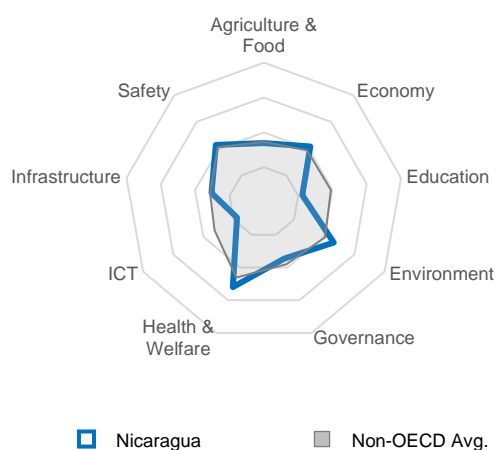
Nicaragua

60/89

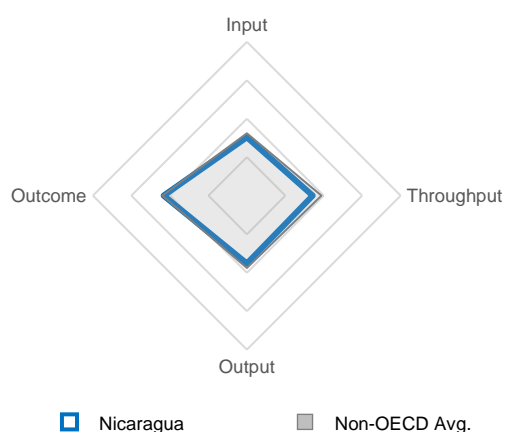
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	60	0.447
2015-16 GC	51	0.476
2014-15 GC	53	0.473
2013-14 GC	-	-

Capital City	Managua
Population	6,149,928 (2016 est.)
GDP (PPP)	34,078,456,323 USD (2016 est.)
Unemployment rate	5.28 (2013 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	59	0.380
Throughput	62	0.428
Output	57	0.440
Outcome	55	0.540

	Rank	Score	Subgroup	Rank
Agriculture & Food	50	0.423	Agriculture Resources	59
			Food Quality & Safety	57
			Institution & Finance	35
			Productivity	39
Economy	27	0.521	Economic Equity	14
			Economic Fundamental	34
			Economic Institution & Policy	53
Education	79	0.281	Education Diversity	88
			Education Infrastructure	87
			Education Performance	74
			Government Involvement	65
Environment	16	0.580	Air & Water Quality	24
			Environment Behavior	18
			Natural Resources	19
			Renewable Energy	33
Governance	57	0.433	Democracy	46
			Government Competency	44
			Rule of Law	64
Health & Welfare	14	0.650	Child Welfare	45
			Disease Management	10
			Health & Welfare System	43
			Life & Death	4
ICT	74	0.223	ICT Promotion	80
			ICT Scale	60
			ICT Utilization	71
Infrastructure	55	0.381	Infrastructure Investment	42
			Infrastructure Utility	55
Safety	45	0.534	Crime & Warfare	42
			Natural Disaster Management	50
			Safety and Health	46

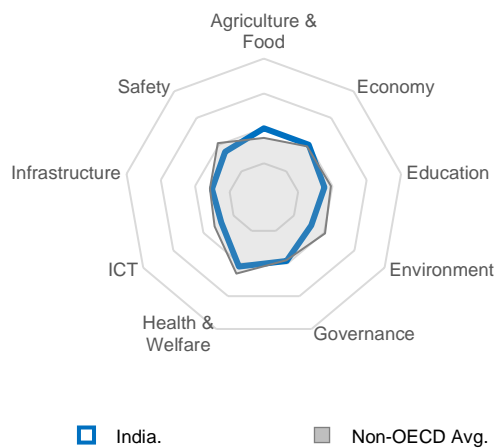
India

61/89

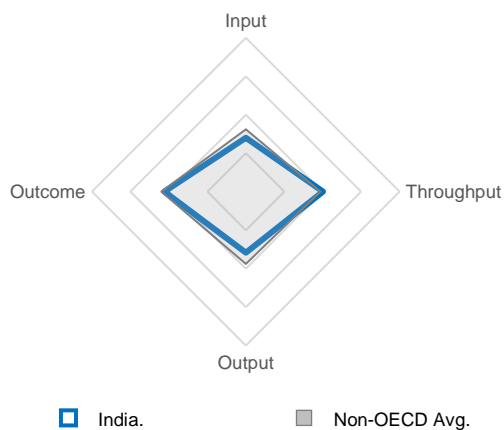
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	61	0.444
2015-16 GC	56	0.461
2014-15 GC	50	0.482
2013-14 GC	26	0.478

Capital City	New Delhi
Population	1,324,171,354 (2016 est.)
GDP (PPP)	8,702,900,012,352 USD (2016 est.)
Unemployment rate	4.90% (2014 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	70	0.351
Throughput	43	0.502
Output	68	0.396
Outcome	58	0.529

	Rank	Score	Subgroup	Rank
Agriculture & Food	24	0.500	Agriculture Resources	7
			Food Quality & Safety	66
			Institution & Finance	26
			Productivity	23
Economy	38	0.500	Economic Equity	47
			Economic Fundamental	5
			Economic Institution & Policy	49
Education	61	0.442	Education Diversity	18
			Education Infrastructure	45
			Education Performance	59
			Government Involvement	58
Environment	80	0.394	Air & Water Quality	78
			Environment Behavior	48
			Natural Resources	68
			Renewable Energy	47
Governance	40	0.480	Democracy	22
			Government Competency	62
			Rule of Law	65
Health & Welfare	66	0.523	Child Welfare	80
			Disease Management	67
			Health & Welfare System	42
			Life & Death	44
ICT	53	0.352	ICT Promotion	28
			ICT Scale	69
			ICT Utilization	31
Infrastructure	56	0.377	Infrastructure Investment	75
			Infrastructure Utility	53
Safety	64	0.432	Crime & Warfare	84
			Natural Disaster Management	60
			Safety and Health	60

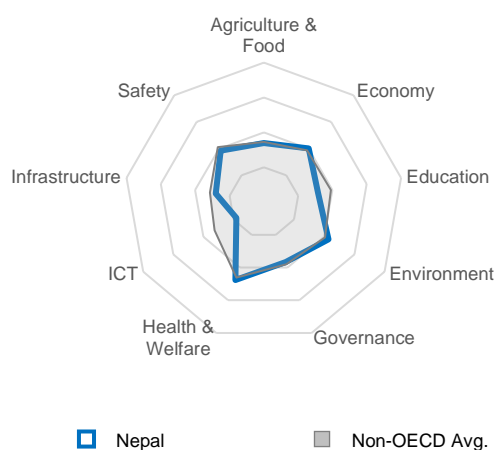
Nepal

62/89

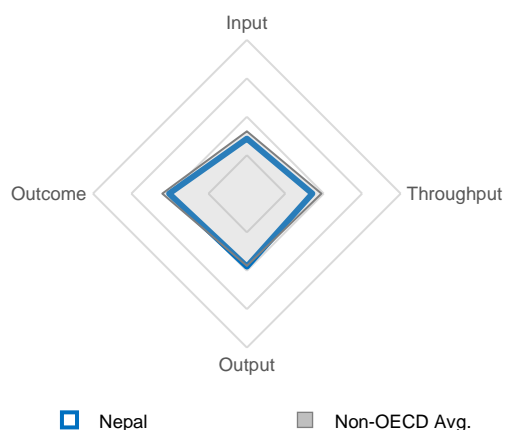
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	62	0.441
2015-16 GC	61	0.446
2014-15 GC	68	0.436
2013-14 GC	50	0.405

Capital City	Kathmandu
Population	28,982,771 (2016 est.)
GDP (PPP)	71,524,874,584 USD (2016 est.)
Unemployment rate	3% (2014 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	68	0.358
Throughput	63	0.426
Output	47	0.473
Outcome	62	0.505

	Rank	Score	Subgroup	Rank
Agriculture & Food	49	0.423	Agriculture Resources	51
			Food Quality & Safety	59
			Institution & Finance	45
			Productivity	17
Economy	37	0.500	Economic Equity	20
			Economic Fundamental	40
			Economic Institution & Policy	60
Education	65	0.395	Education Diversity	29
			Education Infrastructure	39
			Education Performance	63
			Government Involvement	69
Environment	36	0.536	Air & Water Quality	46
			Environment Behavior	2
			Natural Resources	28
			Renewable Energy	60
Governance	47	0.457	Democracy	41
			Government Competency	49
			Rule of Law	70
Health & Welfare	45	0.596	Child Welfare	67
			Disease Management	44
			Health & Welfare System	57
			Life & Death	7
ICT	71	0.227	ICT Promotion	71
			ICT Scale	65
			ICT Utilization	70
Infrastructure	60	0.350	Infrastructure Investment	63
			Infrastructure Utility	59
Safety	59	0.480	Crime & Warfare	44
			Natural Disaster Management	56
			Safety and Health	63

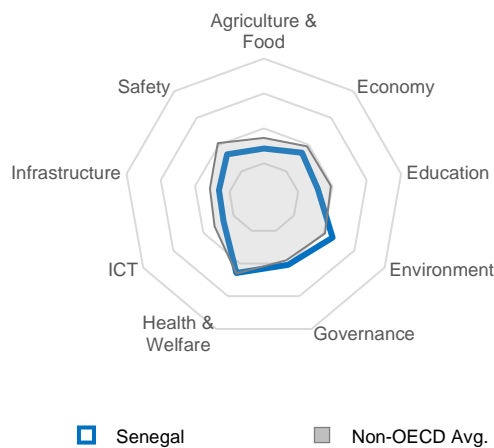
Senegal

63/89

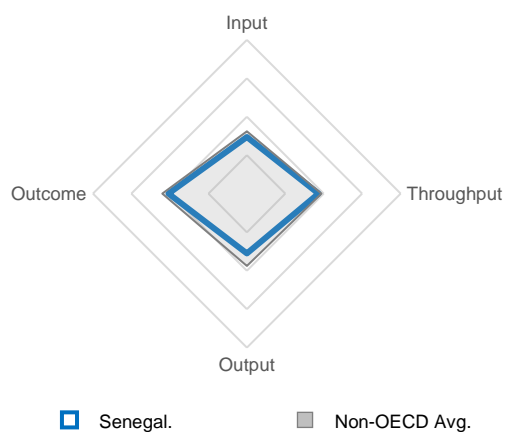
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	63	0.433
2015-16 GC	66	0.419
2014-15 GC	59	0.456
2013-14 GC	39	0.440

Capital City	Dakar
Population	15,411,614 (2016 est.)
GDP (PPP)	39,573,948,908 USD (2016 est.)
Unemployment rate	25.65% (2013 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	63	0.369
Throughput	49	0.466
Output	71	0.388
Outcome	61	0.509

	Rank	Score	Subgroup	Rank
Agriculture & Food	67	0.355	Agriculture Resources	60
			Food Quality & Safety	68
			Institution & Finance	56
			Productivity	38
Economy	68	0.425	Economic Equity	59
			Economic Fundamental	64
			Economic Institution & Policy	59
Education	66	0.393	Education Diversity	35
			Education Infrastructure	37
			Education Performance	81
			Government Involvement	9
Environment	20	0.570	Air & Water Quality	59
			Environment Behavior	46
			Natural Resources	21
			Renewable Energy	17
Governance	30	0.509	Democracy	12
			Government Competency	56
			Rule of Law	43
Health & Welfare	54	0.572	Child Welfare	44
			Disease Management	54
			Health & Welfare System	71
			Life & Death	1
ICT	58	0.335	ICT Promotion	29
			ICT Scale	62
			ICT Utilization	50
Infrastructure	64	0.327	Infrastructure Investment	34
			Infrastructure Utility	67
Safety	66	0.410	Crime & Warfare	54
			Natural Disaster Management	73
			Safety and Health	62

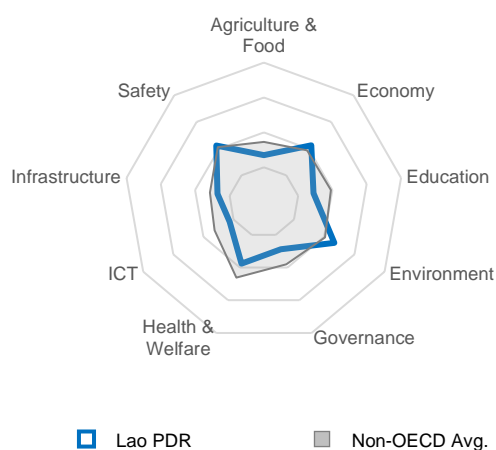
Lao PDR

64/89

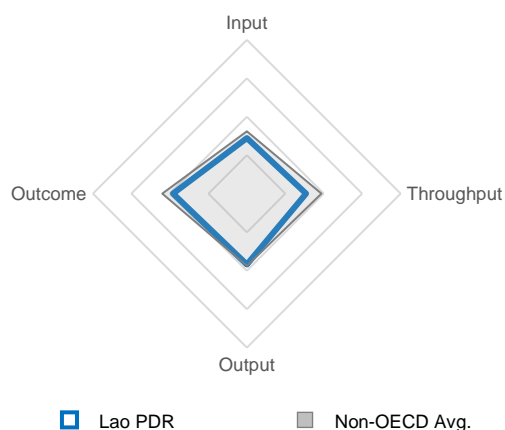
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	64	0.421
2015-16 GC	57	0.452
2014-15 GC	65	0.440
2013-14 GC	51	0.394

Capital City	Vientiane
Population	6,758,353 (2016 est.)
GDP (PPP)	41,807,740,454 USD (2016 est.)
Unemployment rate	1.35% (2005 est.)
Constitutional Form	People's Democratic Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	67	0.361
Throughput	70	0.385
Output	49	0.460
Outcome	67	0.480

	Rank	Score	Subgroup	Rank
Agriculture & Food	72	0.335	Agriculture Resources	22
			Food Quality & Safety	31
			Institution & Finance	17
			Productivity	73
Economy	21	0.531	Economic Equity	50
			Economic Fundamental	29
			Economic Institution & Policy	6
Education	70	0.362	Education Diversity	37
			Education Infrastructure	70
			Education Performance	11
			Government Involvement	35
Environment	14	0.584	Air & Water Quality	7
			Environment Behavior	56
			Natural Resources	5
			Renewable Energy	12
Governance	78	0.360	Democracy	15
			Government Competency	11
			Rule of Law	12
Health & Welfare	78	0.471	Child Welfare	17
			Disease Management	33
			Health & Welfare System	8
			Life & Death	84
ICT	64	0.283	ICT Promotion	32
			ICT Scale	12
			ICT Utilization	20
Infrastructure	62	0.337	Infrastructure Investment	30
			Infrastructure Utility	61
Safety	46	0.530	Crime & Warfare	3
			Natural Disaster Management	65
			Safety and Health	61

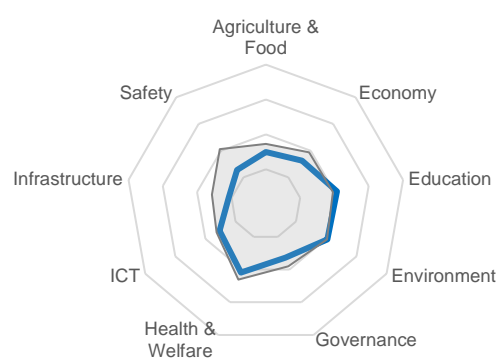
Kenya

65/89

	Rank/89	Score(0-1)
2016-17 Government Competitiveness	65	0.412
2015-16 GC	68	0.416
2014-15 GC	58	0.463
2013-14 GC	42	0.429

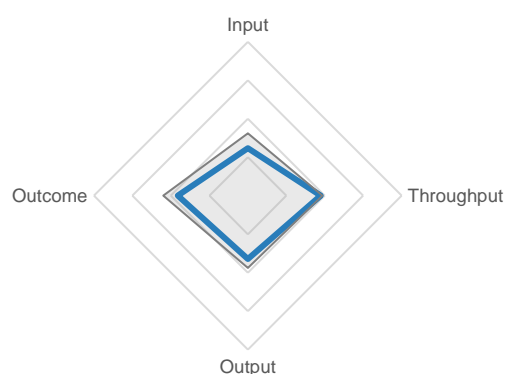
Capital City	Nairobi
Population	48,461,567 (2016 est.)
GDP (PPP)	152,941,817,637 USD (2016 est.)
Unemployment rate	12.17% (2009 est.)
Constitutional Form	Republic

GC Ranking by Area



■ Kenya ■ Non-OECD Avg.

GC Ranking by Stage



■ Kenya ■ Non-OECD Avg.

	Rank	Score
Input	77	0.309
Throughput	46	0.474
Output	64	0.411
Outcome	69	0.455

	Rank	Score	Subgroup	Rank
Agriculture & Food	65	0.373	Agriculture Resources	67
			Food Quality & Safety	72
			Institution & Finance	49
			Productivity	26
Economy	78	0.405	Economic Equity	87
			Economic Fundamental	73
			Economic Institution & Policy	38
Education	45	0.519	Education Diversity	36
			Education Infrastructure	66
			Education Performance	47
			Government Involvement	31
Environment	47	0.509	Air & Water Quality	58
			Environment Behavior	16
			Natural Resources	54
			Renewable Energy	20
Governance	64	0.410	Democracy	47
			Government Competency	73
			Rule of Law	78
Health & Welfare	65	0.523	Child Welfare	53
			Disease Management	70
			Health & Welfare System	62
			Life & Death	42
ICT	48	0.383	ICT Promotion	21
			ICT Scale	67
			ICT Utilization	25
Infrastructure	75	0.269	Infrastructure Investment	44
			Infrastructure Utility	78
Safety	76	0.320	Crime & Warfare	78
			Natural Disaster Management	82
			Safety and Health	70

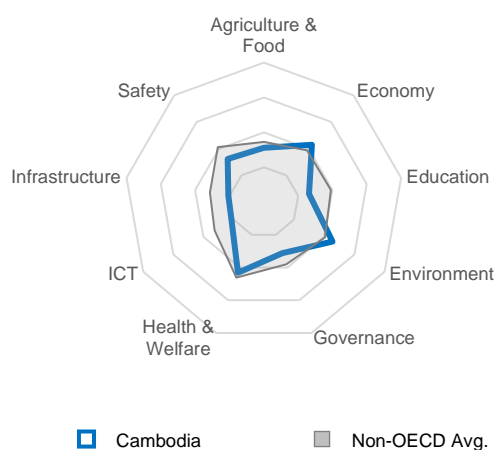
Cambodia

66/89

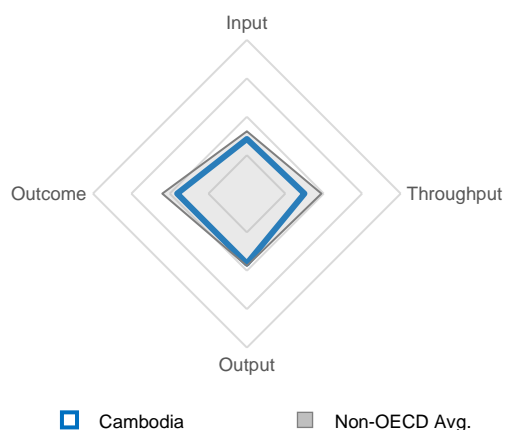
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	66	0.409
2015-16 GC	63	0.436
2014-15 GC	63	0.445
2013-14 GC	43	0.425

Capital City	Phnom Penh
Population	15,762,370 (2016 est.)
GDP (PPP)	58,879,996,176 USD (2016 est.)
Unemployment rate	0.18% (2014 est.)
Constitutional Form	Constitutional monarchy

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	69	0.356
Throughput	76	0.375
Output	55	0.453
Outcome	70	0.453

	Rank	Score	Subgroup	Rank
Agriculture & Food	58	0.388	Agriculture Resources	61
			Food Quality & Safety	73
			Institution & Finance	50
			Productivity	10
Economy	19	0.536	Economic Equity	21
			Economic Fundamental	10
			Economic Institution & Policy	74
Education	74	0.330	Education Diversity	86
			Education Infrastructure	7
			Education Performance	67
			Government Involvement	89
Environment	21	0.569	Air & Water Quality	52
			Environment Behavior	27
			Natural Resources	6
			Renewable Energy	14
Governance	70	0.390	Democracy	72
			Government Competency	36
			Rule of Law	71
Health & Welfare	60	0.540	Child Welfare	62
			Disease Management	62
			Health & Welfare System	65
			Life & Death	6
ICT	65	0.267	ICT Promotion	58
			ICT Scale	58
			ICT Utilization	73
Infrastructure	77	0.259	Infrastructure Investment	60
			Infrastructure Utility	77
Safety	67	0.403	Crime & Warfare	30
			Natural Disaster Management	74
			Safety and Health	64

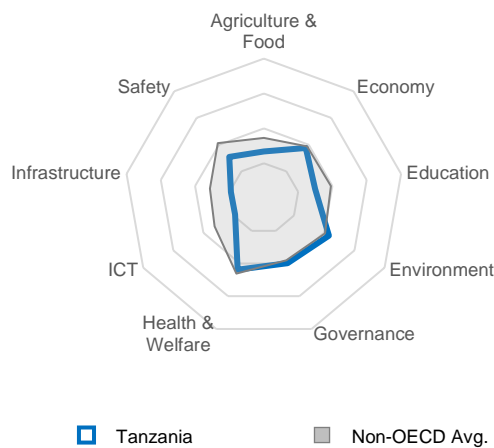
Tanzania

67/89

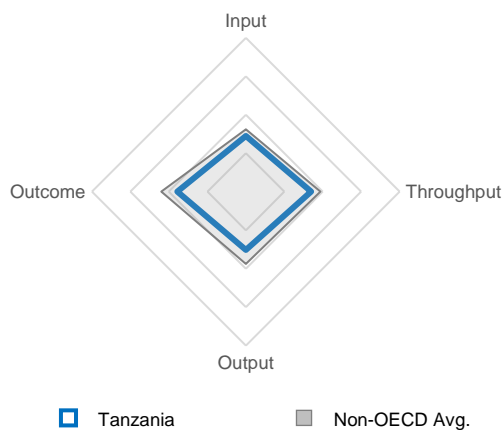
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	67	0.403
2015-16 GC	71	0.380
2014-15 GC	71	0.431
2013-14 GC	44	0.424

Capital City	Dodoma
Population	55,572,201 (2016 est.)
GDP (PPP)	150,336,018,559 USD (2016 est.)
Unemployment rate	5.20% (2014 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	66	0.362
Throughput	64	0.425
Output	74	0.378
Outcome	71	0.445

	Rank	Score	Subgroup	Rank
Agriculture & Food	73	0.333	Agriculture Resources	70
			Food Quality & Safety	82
			Institution & Finance	62
			Productivity	4
Economy	51	0.469	Economic Equity	53
			Economic Fundamental	30
			Economic Institution & Policy	63
Education	68	0.374	Education Diversity	71
			Education Infrastructure	19
			Education Performance	71
			Government Involvement	71
Environment	32	0.539	Air & Water Quality	85
			Environment Behavior	36
			Natural Resources	4
			Renewable Energy	82
Governance	33	0.499	Democracy	28
			Government Competency	63
			Rule of Law	48
Health & Welfare	59	0.547	Child Welfare	76
			Disease Management	48
			Health & Welfare System	67
			Life & Death	12
ICT	69	0.237	ICT Promotion	57
			ICT Scale	85
			ICT Utilization	62
Infrastructure	79	0.240	Infrastructure Investment	45
			Infrastructure Utility	82
Safety	68	0.385	Crime & Warfare	55
			Natural Disaster Management	72
			Safety and Health	74

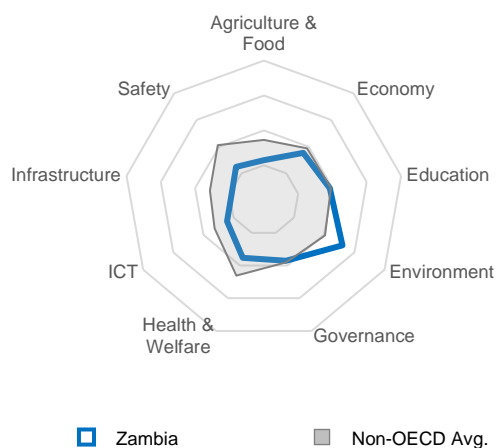
Zambia

68/89

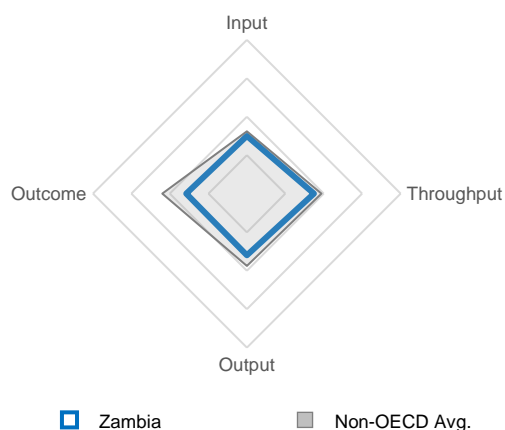
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	68	0.401
2015-16 GC	67	0.419
2014-15 GC	70	0.433
2013-14 GC	47	0.416

Capital City	Lusaka
Population	16,591,390 (2016 est.)
GDP (PPP)	65,076,994,820 USD (2016 est.)
Unemployment rate	7.85% (2012 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	61	0.375
Throughput	60	0.436
Output	67	0.400
Outcome	81	0.394

	Rank	Score	Subgroup	Rank
Agriculture & Food	80	0.285	Agriculture Resources	85
			Food Quality & Safety	83
			Institution & Finance	62
			Productivity	11
Economy	63	0.441	Economic Equity	86
			Economic Fundamental	43
			Economic Institution & Policy	44
Education	57	0.480	Education Diversity	81
			Education Infrastructure	6
			Education Performance	60
			Government Involvement	74
Environment	5	0.652	Air & Water Quality	49
			Environment Behavior	9
			Natural Resources	1
			Renewable Energy	16
Governance	44	0.464	Democracy	44
			Government Competency	41
			Rule of Law	59
Health & Welfare	84	0.441	Child Welfare	81
			Disease Management	76
			Health & Welfare System	75
			Life & Death	70
ICT	60	0.305	ICT Promotion	35
			ICT Scale	75
			ICT Utilization	56
Infrastructure	82	0.234	Infrastructure Investment	80
			Infrastructure Utility	72
Safety	78	0.309	Crime & Warfare	72
			Natural Disaster Management	80
			Safety and Health	75

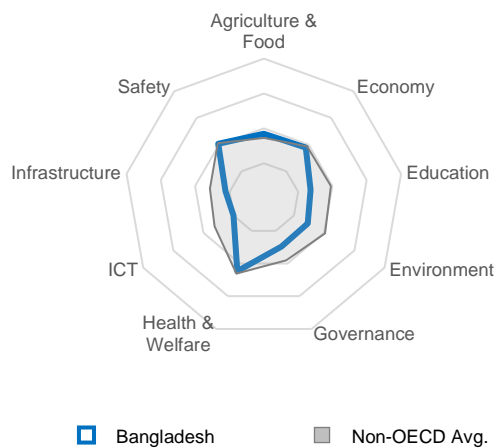
Bangladesh

69/89

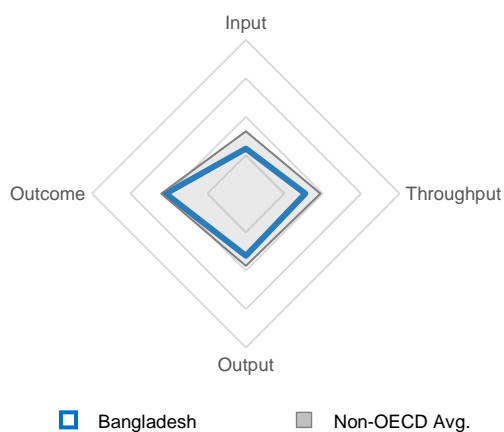
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	69	0.401
2015-16 GC	65	0.422
2014-15 GC	73	0.423
2013-14 GC	55	0.373

Capital City	Dhaka
Population	162,951,560 (2016 est.)
GDP (PPP)	583,479,693,959 USD (2016 est.)
Unemployment rate	4.26% (2013 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	81	0.293
Throughput	68	0.387
Output	66	0.403
Outcome	60	0.520

	Rank	Score	Subgroup	Rank
Agriculture & Food	40	0.461	Agriculture Resources	2
			Food Quality & Safety	78
			Institution & Finance	31
			Productivity	31
Economy	50	0.471	Economic Equity	16
			Economic Fundamental	21
			Economic Institution & Policy	83
Education	72	0.341	Education Diversity	43
			Education Infrastructure	72
			Education Performance	68
			Government Involvement	85
Environment	84	0.365	Air & Water Quality	69
			Environment Behavior	42
			Natural Resources	81
			Renewable Energy	49
Governance	75	0.372	Democracy	65
			Government Competency	64
			Rule of Law	81
Health & Welfare	57	0.559	Child Welfare	72
			Disease Management	41
			Health & Welfare System	66
			Life & Death	3
ICT	67	0.252	ICT Promotion	63
			ICT Scale	73
			ICT Utilization	60
Infrastructure	73	0.278	Infrastructure Investment	82
			Infrastructure Utility	66
Safety	52	0.509	Crime & Warfare	56
			Natural Disaster Management	58
			Safety and Health	58

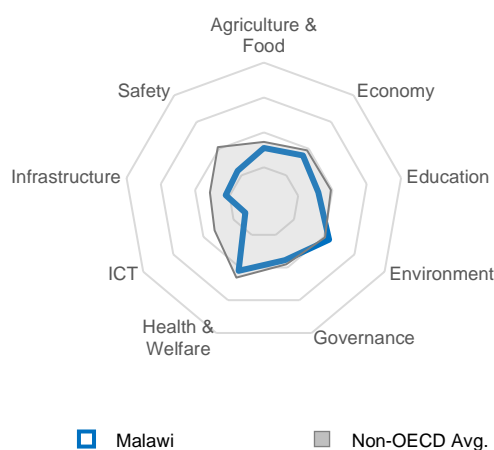
Malawi

70/89

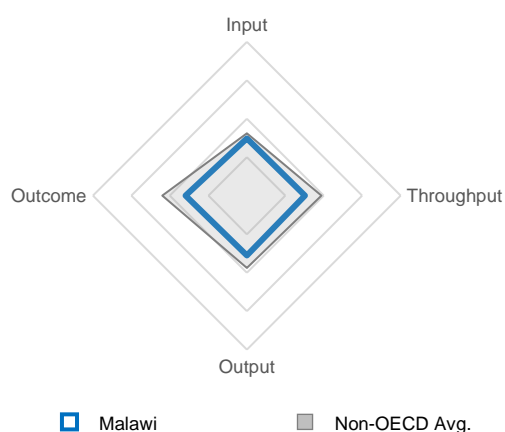
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	70	0.384
2015-16 GC	70	0.395
2014-15 GC	67	0.438
2013-14 GC	-	-

Capital City	Lilongwe
Population	18,091,575 (2016 est.)
GDP (PPP)	21,154,727,200 USD (2016 est.)
Unemployment rate	6.44% (2013 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	62	0.372
Throughput	75	0.378
Output	70	0.388
Outcome	79	0.398

	Rank	Score	Subgroup	Rank
Agriculture & Food	60	0.388	Agriculture Resources	17
			Food Quality & Safety	81
			Institution & Finance	61
			Productivity	7
Economy	65	0.437	Economic Equity	71
			Economic Fundamental	74
			Economic Institution & Policy	67
Education	64	0.397	Education Diversity	70
			Education Infrastructure	5
			Education Performance	72
			Government Involvement	37
Environment	29	0.541	Air & Water Quality	72
			Environment Behavior	23
			Natural Resources	23
			Renewable Energy	27
Governance	50	0.445	Democracy	35
			Government Competency	54
			Rule of Law	61
Health & Welfare	64	0.526	Child Welfare	68
			Disease Management	66
			Health & Welfare System	69
			Life & Death	13
ICT	85	0.153	ICT Promotion	74
			ICT Scale	89
			ICT Utilization	83
Infrastructure	74	0.278	Infrastructure Investment	21
			Infrastructure Utility	73
Safety	82	0.293	Crime & Warfare	69
			Natural Disaster Management	71
			Safety and Health	79

Timor-Leste

71/89

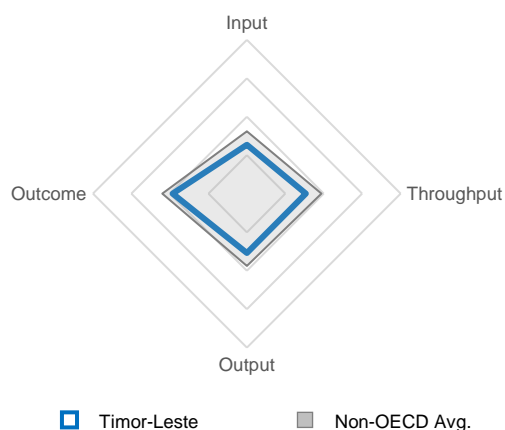
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	71	0.384
2015-16 GC	72	0.379
2014-15 GC	72	0.427
2013-14 GC	45	0.423

Capital City	Dili
Population	1,268,671 (2016 est.)
GDP (PPP)	2,842,268,279 USD (2015 est.)
Unemployment rate	3.05% (2010 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	75	0.318
Throughput	72	0.384
Output	72	0.385
Outcome	66	0.482

	Rank	Score	Subgroup	Rank
Agriculture & Food	81	0.282	Agriculture Resources	53
			Food Quality & Safety	67
			Institution & Finance	-
			Productivity	60
Economy	84	0.392	Economic Equity	36
			Economic Fundamental	35
			Economic Institution & Policy	86
Education	60	0.454	Education Diversity	3
			Education Infrastructure	73
			Education Performance	49
			Government Involvement	22
Environment	56	0.489	Air & Water Quality	48
			Environment Behavior	88
			Natural Resources	57
			Renewable Energy	-
Governance	16	0.569	Democracy	7
			Government Competency	76
			Rule of Law	82
Health & Welfare	88	0.399	Child Welfare	83
			Disease Management	85
			Health & Welfare System	80
			Life & Death	33
ICT	84	0.160	ICT Promotion	79
			ICT Scale	70
			ICT Utilization	85
Infrastructure	68	0.299	Infrastructure Investment	43
			Infrastructure Utility	56
Safety	65	0.411	Crime & Warfare	47
			Natural Disaster Management	62
			Safety and Health	66

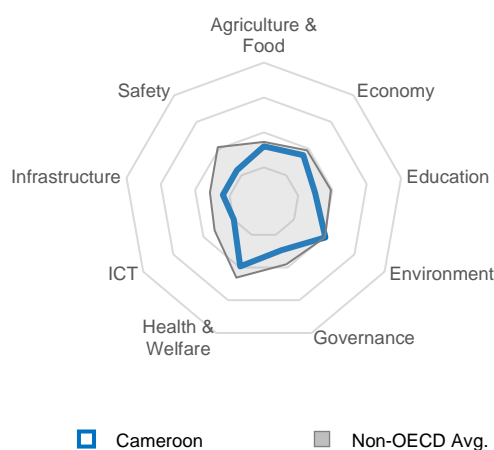
Cameroon

72/89

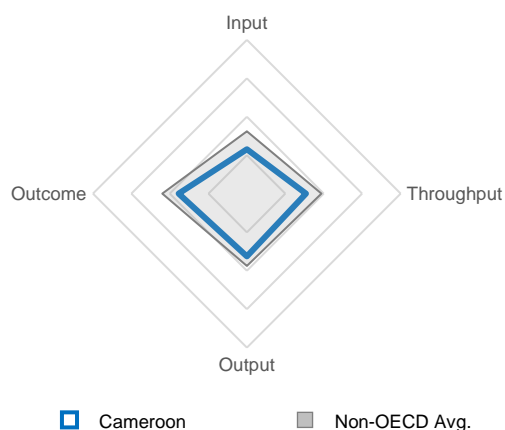
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	72	0.381
2015-16 GC	69	0.398
2014-15 GC	78	0.396
2013-14 GC	58	0.347

Capital City	Yaounde
Population	23,439,189 (2016 est.)
GDP (PPP)	77,014,883,946 USD (2016 est.)
Unemployment rate	4.11% (2010 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	82	0.289
Throughput	71	0.385
Output	65	0.407
Outcome	72	0.443

	Rank	Score	Subgroup	Rank
Agriculture & Food	54	0.399	Agriculture Resources	82
			Food Quality & Safety	49
			Institution & Finance	55
			Productivity	18
Economy	64	0.440	Economic Equity	60
			Economic Fundamental	22
			Economic Institution & Policy	77
Education	69	0.373	Education Diversity	62
			Education Infrastructure	56
			Education Performance	66
			Government Involvement	73
Environment	46	0.510	Air & Water Quality	51
			Environment Behavior	12
			Natural Resources	41
			Renewable Energy	40
Governance	77	0.368	Democracy	67
			Government Competency	66
			Rule of Law	79
Health & Welfare	73	0.492	Child Welfare	52
			Disease Management	69
			Health & Welfare System	68
			Life & Death	76
ICT	68	0.250	ICT Promotion	49
			ICT Scale	74
			ICT Utilization	72
Infrastructure	69	0.298	Infrastructure Investment	47
			Infrastructure Utility	68
Safety	81	0.299	Crime & Warfare	83
			Natural Disaster Management	76
			Safety and Health	73

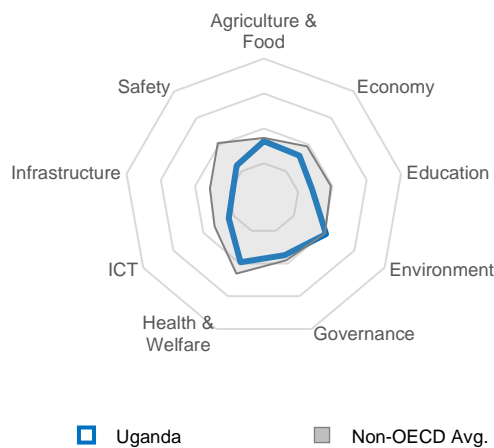
Uganda

73/89

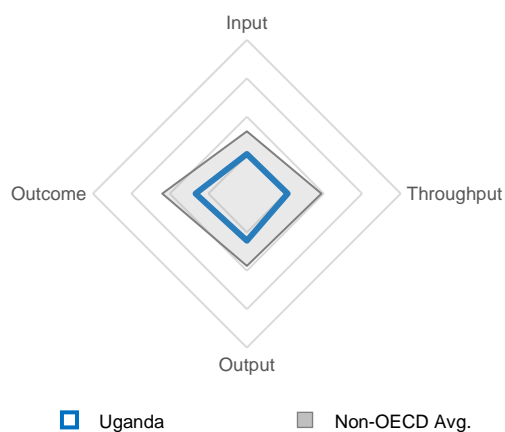
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	73	0.380
2015-16 GC	73	0.377
2014-15 GC	74	0.418
2013-14 GC	48	0.412

Capital City	Kampala
Population	41,487,965 (2016 est.)
GDP (PPP)	76,702,400,286 USD (2016 est.)
Unemployment rate	1.91% (2013 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	72	0.330
Throughput	58	0.440
Output	81	0.345
Outcome	76	0.406

	Rank	Score	Subgroup	Rank
Agriculture & Food	51	0.408	Agriculture Resources	8
			Food Quality & Safety	71
			Institution & Finance	53
			Productivity	76
Economy	83	0.396	Economic Equity	89
			Economic Fundamental	75
			Economic Institution & Policy	39
Education	71	0.352	Education Diversity	87
			Education Infrastructure	16
			Education Performance	69
			Government Involvement	79
Environment	44	0.516	Air & Water Quality	82
			Environment Behavior	22
			Natural Resources	37
			Renewable Energy	79
Governance	56	0.436	Democracy	42
			Government Competency	71
			Rule of Law	80
Health & Welfare	74	0.490	Child Welfare	65
			Disease Management	75
			Health & Welfare System	73
			Life & Death	39
ICT	63	0.291	ICT Promotion	38
			ICT Scale	80
			ICT Utilization	53
Infrastructure	83	0.229	Infrastructure Investment	74
			Infrastructure Utility	69
Safety	80	0.304	Crime & Warfare	74
			Natural Disaster Management	78
			Safety and Health	83

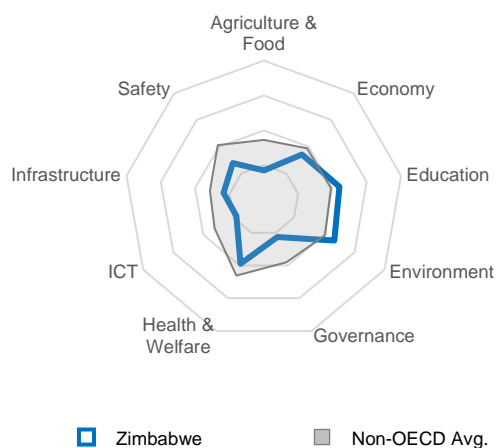
Zimbabwe

74/89

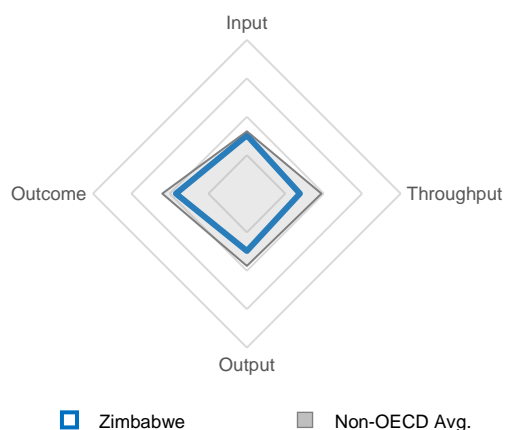
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	74	0.379
2015-16 GC	76	0.367
2014-15 GC	83	0.353
2013-14 GC	-	-

Capital City	Harare
Population	16,150,362 (2016 est.)
GDP (PPP)	32,403,678,096 USD (2016 est.)
Unemployment rate	11.32% (2014 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	60	0.380
Throughput	81	0.345
Output	76	0.372
Outcome	68	0.461

	Rank	Score	Subgroup	Rank
Agriculture & Food	88	0.213	Agriculture Resources	66
			Food Quality & Safety	76
			Institution & Finance	-
			Productivity	81
Economy	67	0.426	Economic Equity	74
			Economic Fundamental	56
			Economic Institution & Policy	81
Education	34	0.551	Education Diversity	41
			Education Infrastructure	36
			Education Performance	61
			Government Involvement	4
Environment	15	0.583	Air & Water Quality	57
			Environment Behavior	33
			Natural Resources	10
			Renewable Energy	3
Governance	87	0.282	Democracy	80
			Government Competency	85
			Rule of Law	85
Health & Welfare	75	0.487	Child Welfare	64
			Disease Management	79
			Health & Welfare System	74
			Life & Death	59
ICT	72	0.226	ICT Promotion	77
			ICT Scale	61
			ICT Utilization	77
Infrastructure	70	0.293	Infrastructure Investment	10
			Infrastructure Utility	76
Safety	71	0.347	Crime & Warfare	39
			Natural Disaster Management	87
			Safety and Health	72

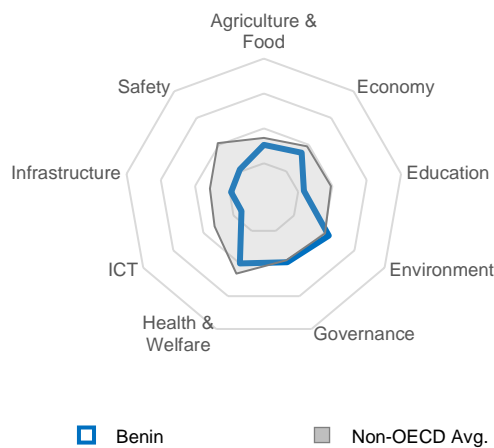
Benin

75/89

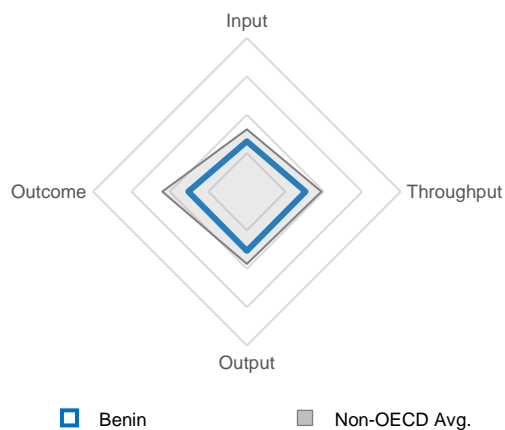
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	75	0.368
2015-16 GC	74	0.375
2014-15 GC	66	0.440
2013-14 GC	-	-

Capital City	Porto-Novo
Population	10,872,298 (2016 est.)
GDP (PPP)	23,573,429,668 USD (2016 est.)
Unemployment rate	1.04% (2010 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	73	0.328
Throughput	73	0.382
Output	73	0.384
Outcome	82	0.380

	Rank	Score	Subgroup	Rank
Agriculture & Food	61	0.381	Agriculture Resources	47
			Food Quality & Safety	62
			Institution & Finance	65
			Productivity	13
Economy	70	0.424	Economic Equity	82
			Economic Fundamental	38
			Economic Institution & Policy	61
Education	78	0.291	Education Diversity	82
			Education Infrastructure	38
			Education Performance	73
			Government Involvement	68
Environment	34	0.538	Air & Water Quality	70
			Environment Behavior	55
			Natural Resources	12
			Renewable Energy	22
Governance	35	0.491	Democracy	50
			Government Competency	47
			Rule of Law	69
Health & Welfare	72	0.500	Child Welfare	55
			Disease Management	61
			Health & Welfare System	81
			Life & Death	65
ICT	80	0.185	ICT Promotion	56
			ICT Scale	76
			ICT Utilization	84
Infrastructure	80	0.238	Infrastructure Investment	55
			Infrastructure Utility	81
Safety	85	0.268	Crime & Warfare	77
			Natural Disaster Management	89
			Safety and Health	78

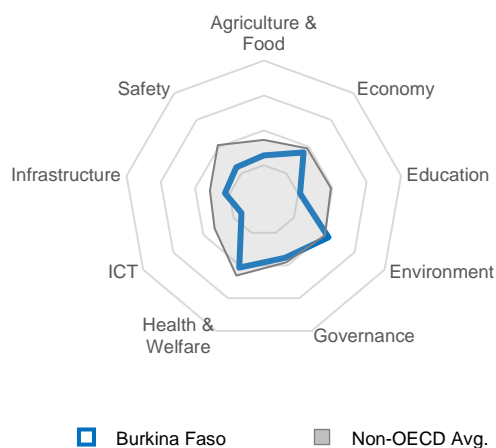
Burkina Faso

76/89

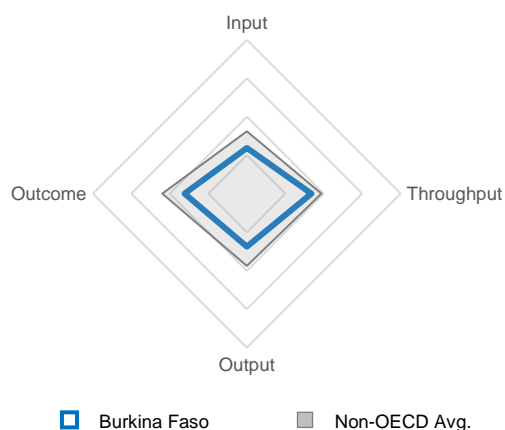
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	76	0.366
2015-16 GC	77	0.367
2014-15 GC	77	0.397
2013-14 GC	54	0.381

Capital City	Ouagadougou
Population	18,646,433 (2016 est.)
GDP (PPP)	32,074,131,886 USD (2016 est.)
Unemployment rate	3.30% (2007 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	79	0.297
Throughput	66	0.420
Output	82	0.344
Outcome	77	0.405

	Rank	Score	Subgroup	Rank
Agriculture & Food	75	0.319	Agriculture Resources	50
			Food Quality & Safety	70
			Institution & Finance	70
			Productivity	25
Economy	61	0.445	Economic Equity	73
			Economic Fundamental	47
			Economic Institution & Policy	58
Education	83	0.265	Education Diversity	66
			Education Infrastructure	3
			Education Performance	88
			Government Involvement	57
Environment	37	0.536	Air & Water Quality	86
			Environment Behavior	54
			Natural Resources	36
			Renewable Energy	1
Governance	53	0.442	Democracy	53
			Government Competency	55
			Rule of Law	52
Health & Welfare	67	0.516	Child Welfare	70
			Disease Management	42
			Health & Welfare System	88
			Life & Death	25
ICT	79	0.186	ICT Promotion	67
			ICT Scale	78
			ICT Utilization	75
Infrastructure	72	0.283	Infrastructure Investment	18
			Infrastructure Utility	70
Safety	79	0.307	Crime & Warfare	65
			Natural Disaster Management	75
			Safety and Health	80

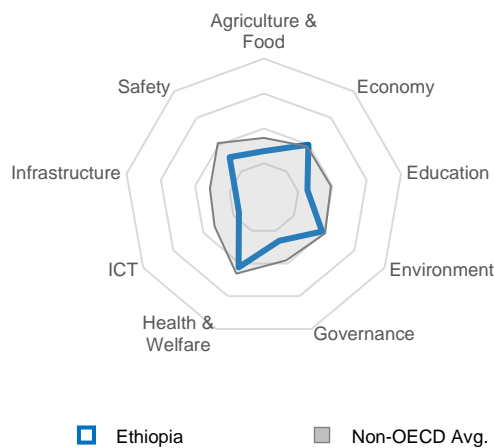
Ethiopia

77/89

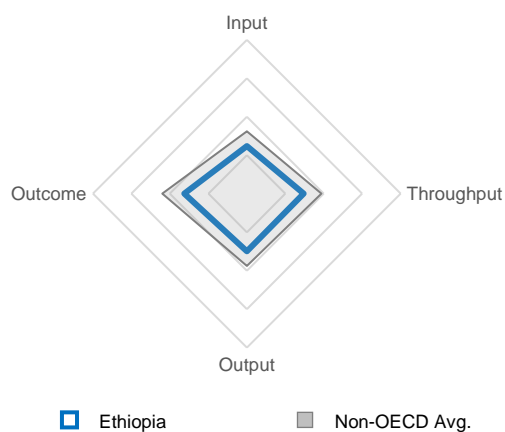
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	77	0.365
2015-16 GC	78	0.366
2014-15 GC	75	0.414
2013-14 GC	49	0.411

Capital City	Addis Ababa
Population	102,403,196 (2016 est.)
GDP (PPP)	177,661,171,828 USD (2016 est.)
Unemployment rate	17.64% (2014 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	76	0.310
Throughput	77	0.370
Output	75	0.374
Outcome	75	0.406

	Rank	Score	Subgroup	Rank
Agriculture & Food	71	0.336	Agriculture Resources	78
			Food Quality & Safety	84
			Institution & Finance	46
			Productivity	9
Economy	41	0.499	Economic Equity	5
			Economic Fundamental	27
			Economic Institution & Policy	84
Education	75	0.318	Education Diversity	67
			Education Infrastructure	20
			Education Performance	80
			Government Involvement	45
Environment	59	0.483	Air & Water Quality	68
			Environment Behavior	11
			Natural Resources	38
			Renewable Energy	73
Governance	83	0.327	Democracy	79
			Government Competency	80
			Rule of Law	86
Health & Welfare	63	0.530	Child Welfare	78
			Disease Management	65
			Health & Welfare System	56
			Life & Death	5
ICT	77	0.207	ICT Promotion	47
			ICT Scale	86
			ICT Utilization	66
Infrastructure	86	0.204	Infrastructure Investment	65
			Infrastructure Utility	85
Safety	69	0.382	Crime & Warfare	80
			Natural Disaster Management	66
			Safety and Health	71

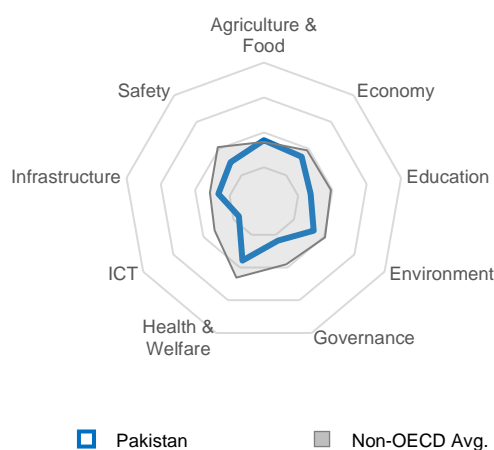
Pakistan

78/89

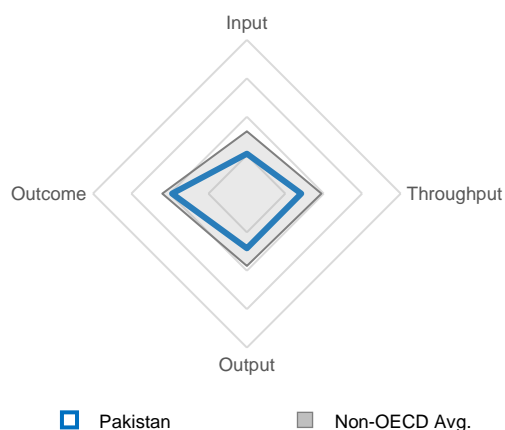
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	78	0.364
2015-16 GC	79	0.364
2014-15 GC	81	0.366
2013-14 GC	57	0.353

Capital City	Islamabad
Population	193,203,476 (2016 est.)
GDP (PPP)	1,014,180,695,173 USD (2016 est.)
Unemployment rate	5.9% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	86	0.260
Throughput	79	0.354
Output	78	0.355
Outcome	65	0.485

	Rank	Score	Subgroup	Rank
Agriculture & Food	43	0.443	Agriculture Resources	21
			Food Quality & Safety	65
			Institution & Finance	43
			Productivity	22
Economy	69	0.424	Economic Equity	27
			Economic Fundamental	54
			Economic Institution & Policy	82
Education	73	0.340	Education Diversity	76
			Education Infrastructure	15
			Education Performance	76
			Government Involvement	66
Environment	76	0.413	Air & Water Quality	56
			Environment Behavior	47
			Natural Resources	71
			Renewable Energy	9
Governance	85	0.295	Democracy	71
			Government Competency	88
			Rule of Law	83
Health & Welfare	82	0.447	Child Welfare	77
			Disease Management	78
			Health & Welfare System	78
			Life & Death	43
ICT	76	0.207	ICT Promotion	66
			ICT Scale	79
			ICT Utilization	69
Infrastructure	63	0.331	Infrastructure Investment	70
			Infrastructure Utility	62
Safety	70	0.372	Crime & Warfare	87
			Natural Disaster Management	69
			Safety and Health	68

Mali

79/89

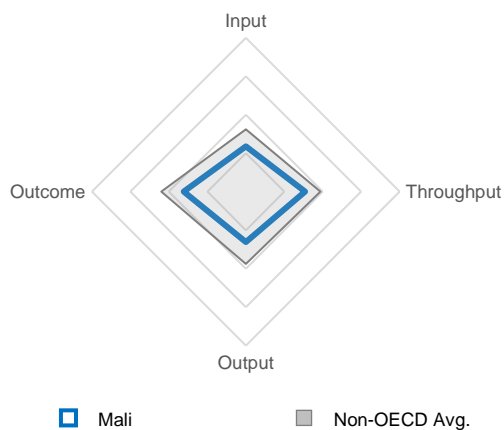
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	79	0.353
2015-16 GC	83	0.343
2014-15 GC	82	0.364
2013-14 GC	56	0.367

Capital City	Bamako
Population	17,994,837 (2016 est.)
GDP (PPP)	38,098,995,999 USD (2016 est.)
Unemployment rate	8.07% (2010 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	80	0.295
Throughput	69	0.385
Output	84	0.327
Outcome	78	0.404

	Rank	Score	Subgroup	Rank
Agriculture & Food	63	0.379	Agriculture Resources	81
			Food Quality & Safety	60
			Institution & Finance	58
			Productivity	8
Economy	80	0.401	Economic Equity	64
			Economic Fundamental	77
			Economic Institution & Policy	65
Education	86	0.233	Education Diversity	78
			Education Infrastructure	59
			Education Performance	89
			Government Involvement	54
Environment	68	0.451	Air & Water Quality	84
			Environment Behavior	28
			Natural Resources	63
			Renewable Energy	7
Governance	65	0.407	Democracy	37
			Government Competency	83
			Rule of Law	55
Health & Welfare	77	0.472	Child Welfare	63
			Disease Management	71
			Health & Welfare System	87
			Life & Death	68
ICT	70	0.234	ICT Promotion	41
			ICT Scale	63
			ICT Utilization	78
Infrastructure	76	0.267	Infrastructure Investment	32
			Infrastructure Utility	71
Safety	75	0.330	Crime & Warfare	68
			Natural Disaster Management	83
			Safety and Health	82

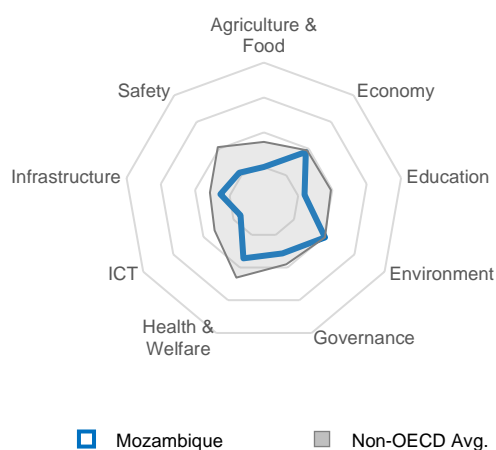
Mozambique

80/89

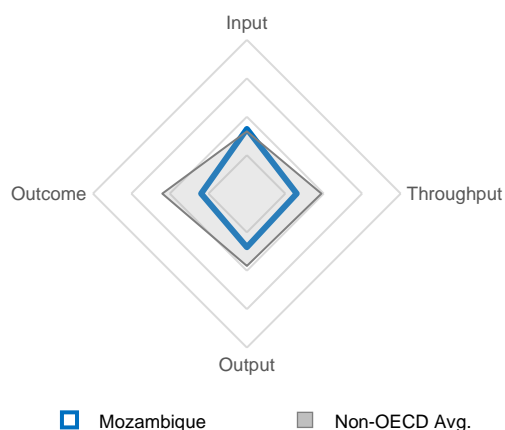
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	80	0.347
2015-16 GC	75	0.372
2014-15 GC	79	0.395
2013-14 GC	52	0.393

Capital City	Maputo
Population	28,829,476 (2016 est.)
GDP (PPP)	35,088,683,802 USD (2016 est.)
Unemployment rate	25.30% (2014 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	42	0.421
Throughput	82	0.325
Output	80	0.347
Outcome	89	0.297

	Rank	Score	Subgroup	Rank
Agriculture & Food	85	0.251	Agriculture Resources	79
			Food Quality & Safety	89
			Institution & Finance	64
			Productivity	24
Economy	52	0.468	Economic Equity	77
			Economic Fundamental	80
			Economic Institution & Policy	68
Education	77	0.297	Education Diversity	80
			Education Infrastructure	10
			Education Performance	84
			Government Involvement	24
Environment	49	0.507	Air & Water Quality	74
			Environment Behavior	5
			Natural Resources	34
			Renewable Energy	43
Governance	69	0.392	Democracy	56
			Government Competency	72
			Rule of Law	66
Health & Welfare	86	0.430	Child Welfare	71
			Disease Management	82
			Health & Welfare System	89
			Life & Death	56
ICT	78	0.192	ICT Promotion	65
			ICT Scale	82
			ICT Utilization	79
Infrastructure	67	0.316	Infrastructure Investment	2
			Infrastructure Utility	88
Safety	84	0.273	Crime & Warfare	67
			Natural Disaster Management	85
			Safety and Health	85

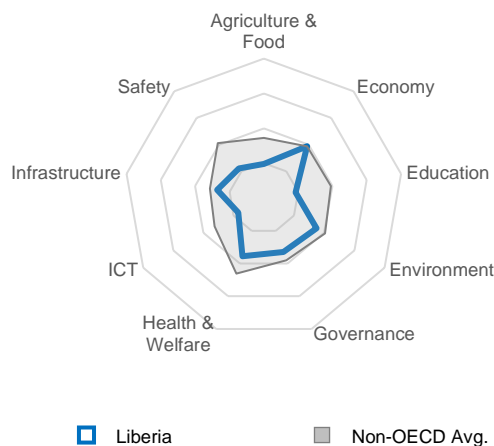
Liberia

81/89

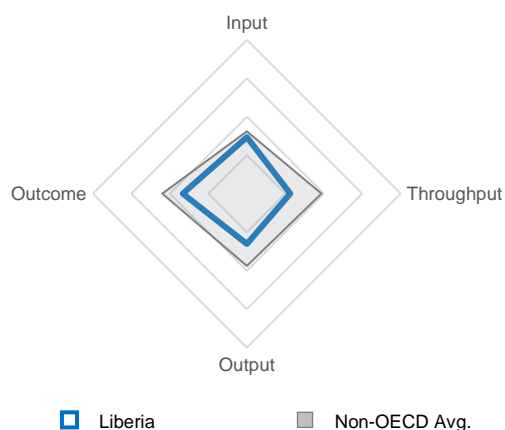
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	81	0.342
2015-16 GC	80	0.351
2014-15 GC	64	0.444
2013-14 GC	-	-

Capital City	Monrovia
Population	4,613,823 (2016 est.)
GDP (PPP)	3,750,515,525 USD (2016 est.)
Unemployment rate	3.71% (2010 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	64	0.368
Throughput	85	0.282
Output	85	0.326
Outcome	73	0.416

	Rank	Score	Subgroup	Rank
Agriculture & Food	86	0.243	Agriculture Resources	65
			Food Quality & Safety	87
			Institution & Finance	-
			Productivity	46
Economy	46	0.485	Economic Equity	68
			Economic Fundamental	63
			Economic Institution & Policy	76
Education	87	0.231	Education Diversity	73
			Education Infrastructure	80
			Education Performance	85
			Government Involvement	87
Environment	70	0.437	Air & Water Quality	81
			Environment Behavior	1
			Natural Resources	74
			Renewable Energy	65
Governance	61	0.412	Democracy	19
			Government Competency	77
			Rule of Law	74
Health & Welfare	83	0.445	Child Welfare	69
			Disease Management	83
			Health & Welfare System	86
			Life & Death	14
ICT	75	0.211	ICT Promotion	51
			ICT Scale	83
			ICT Utilization	74
Infrastructure	61	0.340	Infrastructure Investment	1
			Infrastructure Utility	86
Safety	83	0.277	Crime & Warfare	62
			Natural Disaster Management	86
			Safety and Health	84

Sierra Leone

82/89

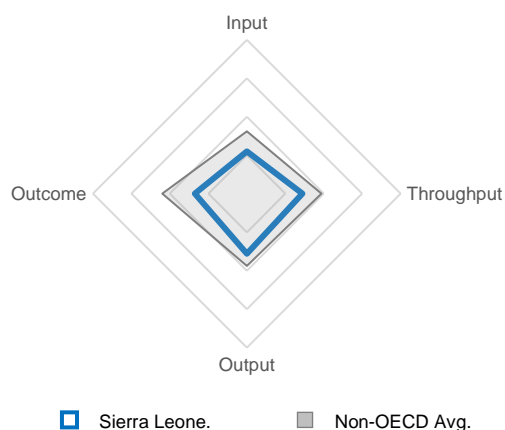
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	82	0.334
2015-16 GC	82	0.344
2014-15 GC	76	0.402
2013-14 GC	-	-

Capital City	Freetown
Population	7,396,190 (2016 est.)
GDP (PPP)	10,897,574,492 USD (2016 est.)
Unemployment rate	3.42% (2004 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	85	0.275
Throughput	78	0.361
Output	69	0.390
Outcome	85	0.338

	Rank	Score	Subgroup	Rank
Agriculture & Food	64	0.375	Agriculture Resources	41
			Food Quality & Safety	80
			Institution & Finance	67
			Productivity	1
Economy	59	0.451	Economic Equity	66
			Economic Fundamental	37
			Economic Institution & Policy	75
Education	84	0.261	Education Diversity	4
			Education Infrastructure	88
			Education Performance	77
			Government Involvement	77
Environment	60	0.471	Air & Water Quality	88
			Environment Behavior	19
			Natural Resources	49
			Renewable Energy	-
Governance	62	0.411	Democracy	43
			Government Competency	60
			Rule of Law	56
Health & Welfare	80	0.457	Child Welfare	74
			Disease Management	68
			Health & Welfare System	77
			Life & Death	82
ICT	87	0.095	ICT Promotion	-
			ICT Scale	66
			ICT Utilization	88
Infrastructure	84	0.227	Infrastructure Investment	9
			Infrastructure Utility	84
Safety	86	0.254	Crime & Warfare	61
			Natural Disaster Management	81
			Safety and Health	88

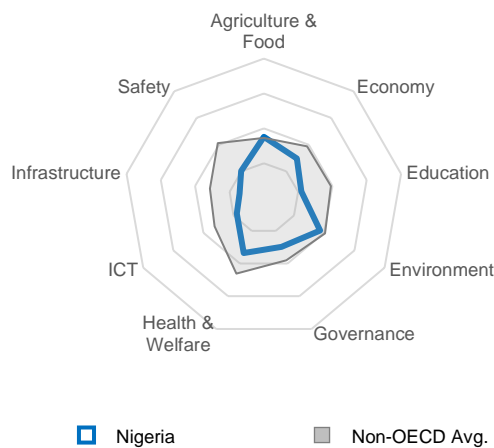
Nigeria

83/89

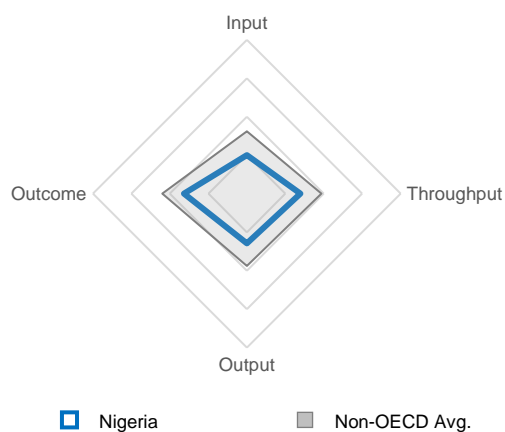
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	83	0.333
2015-16 GC	81	0.350
2014-15 GC	80	0.377
2013-14 GC	59	0.320

Capital City	Abuja
Population	185,989,640 (2016 est.)
GDP (PPP)	1,091,227,625,574 USD (2016 est.)
Unemployment rate	4.31% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	88	0.251
Throughput	80	0.348
Output	86	0.323
Outcome	74	0.408

	Rank	Score	Subgroup	Rank
Agriculture & Food	44	0.439	Agriculture Resources	18
			Food Quality & Safety	55
			Institution & Finance	51
			Productivity	57
Economy	88	0.369	Economic Equity	62
			Economic Fundamental	84
			Economic Institution & Policy	73
Education	81	0.273	Education Diversity	74
			Education Infrastructure	85
			Education Performance	82
			Government Involvement	70
Environment	62	0.466	Air & Water Quality	64
			Environment Behavior	38
			Natural Resources	48
			Renewable Energy	57
Governance	74	0.373	Democracy	58
			Government Competency	74
			Rule of Law	72
Health & Welfare	87	0.420	Child Welfare	56
			Disease Management	86
			Health & Welfare System	63
			Life & Death	88
ICT	73	0.224	ICT Promotion	70
			ICT Scale	68
			ICT Utilization	68
Infrastructure	88	0.177	Infrastructure Investment	84
			Infrastructure Utility	80
Safety	87	0.253	Crime & Warfare	86
			Natural Disaster Management	84
			Safety and Health	89

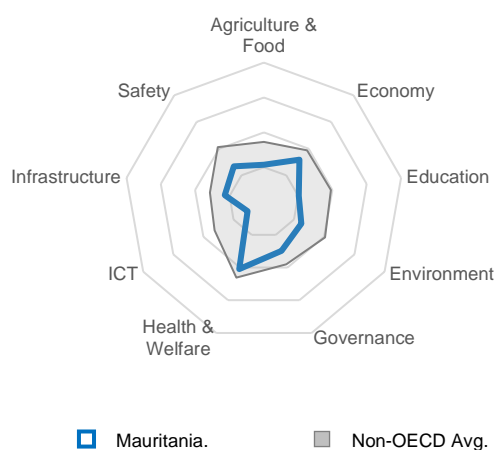
Mauritania

84/89

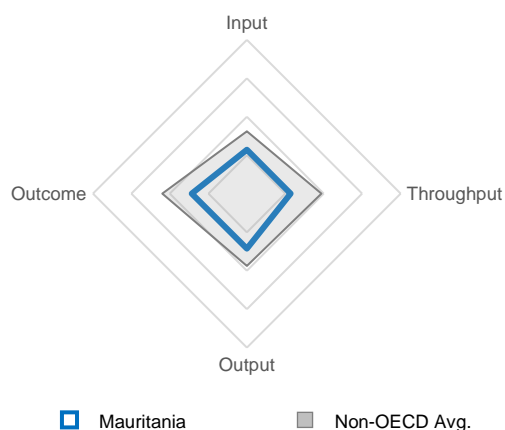
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	84	0.318
2015-16 GC	86	0.301
2014-15 GC	84	0.352
2013-14 GC	-	-

Capital City	Nouakchott
Population	4,301,018 (2016 est.)
GDP (PPP)	16,574,121,951 USD (2016 est.)
Unemployment rate	10.10% (2012 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	83	0.286
Throughput	84	0.285
Output	77	0.357
Outcome	84	0.358

	Rank	Score	Subgroup	Rank
Agriculture & Food	83	0.267	Agriculture Resources	75
			Food Quality & Safety	88
			Institution & Finance	-
			Productivity	19
Economy	82	0.396	Economic Equity	49
			Economic Fundamental	76
			Economic Institution & Policy	78
Education	85	0.254	Education Diversity	64
			Education Infrastructure	53
			Education Performance	83
			Government Involvement	80
Environment	89	0.311	Air & Water Quality	79
			Environment Behavior	78
			Natural Resources	89
			Renewable Energy	41
Governance	73	0.373	Democracy	61
			Government Competency	84
			Rule of Law	84
Health & Welfare	68	0.512	Child Welfare	50
			Disease Management	74
			Health & Welfare System	76
			Life & Death	49
ICT	86	0.134	ICT Promotion	82
			ICT Scale	72
			ICT Utilization	86
Infrastructure	71	0.284	Infrastructure Investment	8
			Infrastructure Utility	79
Safety	73	0.333	Crime & Warfare	25
			Natural Disaster Management	67
			Safety and Health	76

Angola

85/89

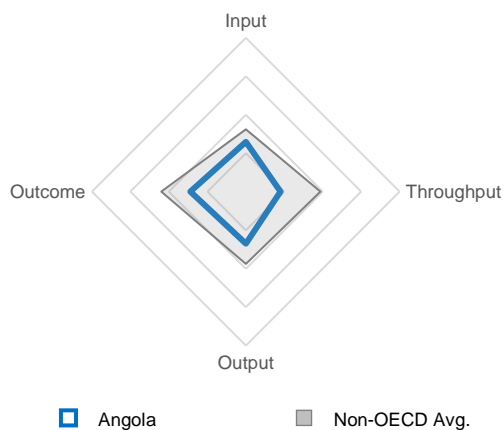
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	85	0.312
2015-16 GC	84	0.321
2014-15 GC	85	0.351
2013-14 GC	-	-

Capital City	Luanda
Population	28,813,463 (2016 est.)
GDP (PPP)	187,260,629,535 USD (2016 est.)
Unemployment rate	18.90% (1986 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	74	0.324
Throughput	89	0.226
Output	83	0.337
Outcome	83	0.360

	Rank	Score	Subgroup	Rank
Agriculture & Food	69	0.342	Agriculture Resources	87
			Food Quality & Safety	75
			Institution & Finance	58
			Productivity	3
Economy	86	0.378	Economic Equity	44
			Economic Fundamental	85
			Economic Institution & Policy	85
Education	76	0.301	Education Diversity	89
			Education Infrastructure	54
			Education Performance	79
			Government Involvement	88
Environment	87	0.337	Air & Water Quality	80
			Environment Behavior	51
			Natural Resources	62
			Renewable Energy	64
Governance	72	0.378	Democracy	60
			Government Competency	65
			Rule of Law	75
Health & Welfare	89	0.361	Child Welfare	54
			Disease Management	88
			Health & Welfare System	79
			Life & Death	89
ICT	82	0.162	ICT Promotion	83
			ICT Scale	81
			ICT Utilization	82
Infrastructure	81	0.234	Infrastructure Investment	41
			Infrastructure Utility	83
Safety	77	0.315	Crime & Warfare	63
			Natural Disaster Management	68
			Safety and Health	77

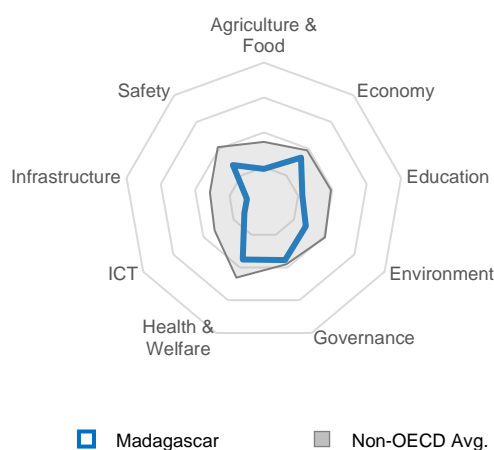
Madagascar

86/89

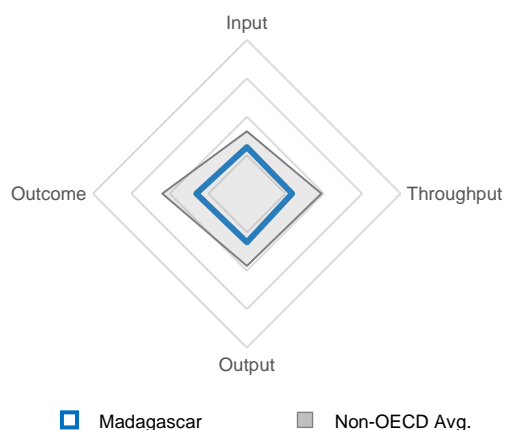
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	86	0.310
2015-16 GC	85	0.310
2014-15 GC	89	0.301
2013-14 GC	-	-

Capital City	Antananarivo
Population	24,894,551 (2016 est.)
GDP (PPP)	37,491,426,440 USD (2016 est.)
Unemployment rate	1.80% (2015 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	78	0.303
Throughput	83	0.295
Output	88	0.315
Outcome	88	0.328

	Rank	Score	Subgroup	Rank
Agriculture & Food	87	0.238	Agriculture Resources	74
			Food Quality & Safety	86
			Institution & Finance	68
			Productivity	44
Economy	75	0.416	Economic Equity	85
			Economic Fundamental	55
			Economic Institution & Policy	72
Education	80	0.280	Education Diversity	53
			Education Infrastructure	86
			Education Performance	75
			Government Involvement	86
Environment	85	0.348	Air & Water Quality	89
			Environment Behavior	45
			Natural Resources	66
			Renewable Energy	61
Governance	52	0.443	Democracy	54
			Government Competency	58
			Rule of Law	60
Health & Welfare	85	0.438	Child Welfare	84
			Disease Management	80
			Health & Welfare System	85
			Life & Death	9
ICT	83	0.161	ICT Promotion	76
			ICT Scale	88
			ICT Utilization	76
Infrastructure	89	0.124	Infrastructure Investment	61
			Infrastructure Utility	89
Safety	72	0.345	Crime & Warfare	59
			Natural Disaster Management	77
			Safety and Health	81

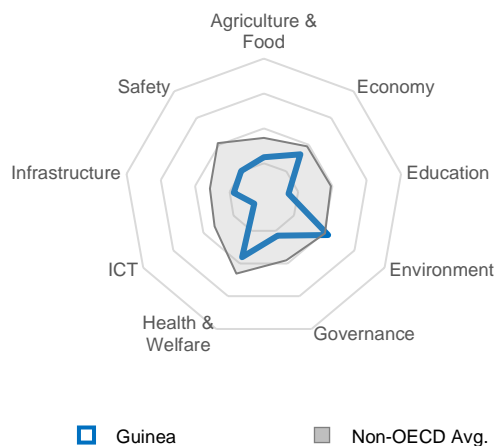
Guinea

87/89

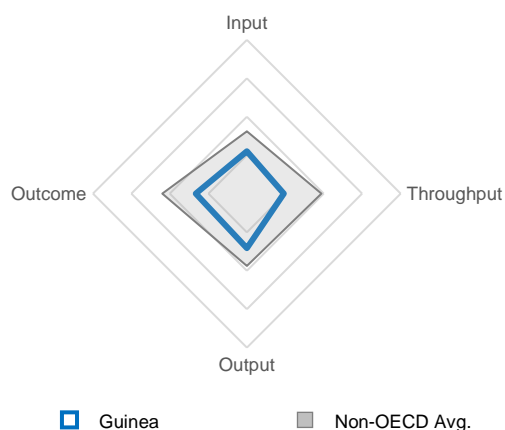
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	87	0.300
2015-16 GC	87	0.281
2014-15 GC	86	0.340
2013-14 GC	-	-

Capital City	Conakry
Population	12,395,924 (2016 est.)
GDP (PPP)	16,247,178,969 USD (2016 est.)
Unemployment rate	N/A
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	84	0.276
Throughput	88	0.241
Output	79	0.354
Outcome	87	0.332

	Rank	Score	Subgroup	Rank
Agriculture & Food	79	0.292	Agriculture Resources	48
			Food Quality & Safety	79
			Institution & Finance	71
			Productivity	36
Economy	77	0.409	Economic Equity	80
			Economic Fundamental	72
			Economic Institution & Policy	71
Education	89	0.180	Education Diversity	85
			Education Infrastructure	62
			Education Performance	86
			Government Involvement	82
Environment	38	0.533	Air & Water Quality	83
			Environment Behavior	14
			Natural Resources	24
			Renewable Energy	50
Governance	86	0.288	Democracy	68
			Government Competency	78
			Rule of Law	88
Health & Welfare	81	0.452	Child Welfare	61
			Disease Management	84
			Health & Welfare System	83
			Life & Death	37
ICT	89	0.080	ICT Promotion	81
			ICT Scale	84
			ICT Utilization	89
Infrastructure	85	0.219	Infrastructure Investment	73
			Infrastructure Utility	75
Safety	88	0.252	Crime & Warfare	76
			Natural Disaster Management	88
			Safety and Health	87

Sudan

88/89

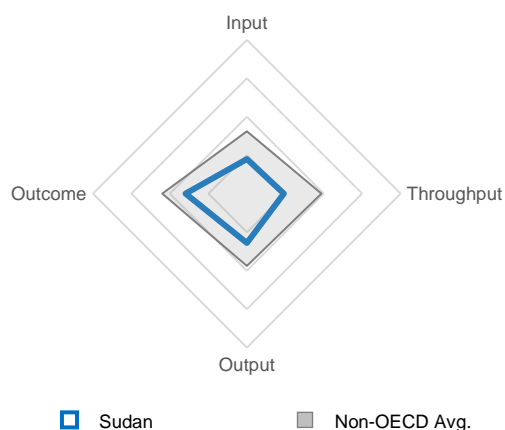
	Rank/89	Score(0-1)
2016-17 Government Competitiveness	88	0.293
2015-16 GC	88	0.270
2014-15 GC	87	0.310
2013-14 GC	-	-

Capital City	Khartoum
Population	39,578,828 (2016 est.)
GDP (PPP)	187,219,415,769 USD (2016 est.)
Unemployment rate	13% (2009 est.)
Constitutional Form	Republic

GC Ranking by Area



GC Ranking by Stage



	Rank	Score
Input	89	0.225
Throughput	87	0.241
Output	87	0.320
Outcome	80	0.398

	Rank	Score	Subgroup	Rank
Agriculture & Food	78	0.292	Agriculture Resources	86
			Food Quality & Safety	63
			Institution & Finance	69
			Productivity	40
Economy	89	0.326	Economic Equity	51
			Economic Fundamental	83
			Economic Institution & Policy	88
Education	88	0.182	Education Diversity	65
			Education Infrastructure	-
			Education Performance	87
			Government Involvement	83
Environment	88	0.334	Air & Water Quality	71
			Environment Behavior	31
			Natural Resources	82
			Renewable Energy	38
Governance	89	0.216	Democracy	74
			Government Competency	89
			Rule of Law	87
Health & Welfare	61	0.535	Child Welfare	82
			Disease Management	43
			Health & Welfare System	72
			Life & Death	20
ICT	81	0.176	ICT Promotion	-
			ICT Scale	64
			ICT Utilization	80
Infrastructure	78	0.245	Infrastructure Investment	81
			Infrastructure Utility	74
Safety	74	0.331	Crime & Warfare	88
			Natural Disaster Management	79
			Safety and Health	67

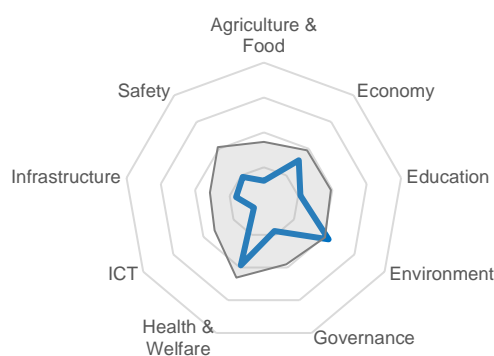
Congo, Dem. Rep.

89/89

	Rank/89	Score(0-1)
2016-17 Government Competitiveness	89	0.285
2015-16 GC	89	0.259
2014-15 GC	88	0.302
2013-14 GC	60	0.250

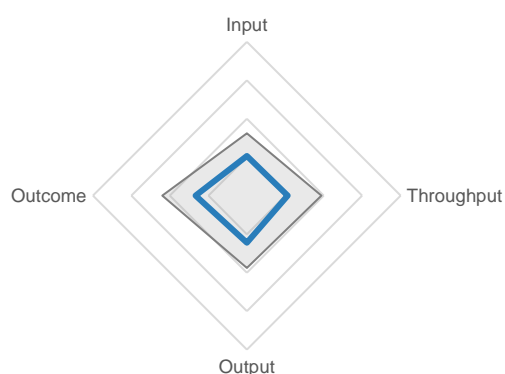
Capital City	Kinshasa
Population	78,736,153 (2016 est.)
GDP (PPP)	63,048,097,765 USD (2016 est.)
Unemployment rate	3.68% (2005 est.)
Constitutional Form	Republic

GC Ranking by Area



■ Congo, Dem. Rep. ■ Non-OECD Avg.

GC Ranking by Stage



■ Congo, Dem. Rep. ■ Non-OECD Avg.

	Rank	Score
Input	87	0.258
Throughput	86	0.266
Output	89	0.305
Outcome	86	0.333

	Rank	Score	Subgroup	Rank
Agriculture & Food	89	0.153	Agriculture Resources	88
			Food Quality & Safety	85
			Institution & Finance	72
			Productivity	78
Economy	85	0.390	Economic Equity	72
			Economic Fundamental	46
			Economic Institution & Policy	87
Education	82	0.266	Education Diversity	84
			Education Infrastructure	4
			Education Performance	78
			Government Involvement	84
Environment	35	0.537	Air & Water Quality	76
			Environment Behavior	3
			Natural Resources	13
			Renewable Energy	51
Governance	88	0.223	Democracy	81
			Government Competency	86
			Rule of Law	89
Health & Welfare	76	0.483	Child Welfare	79
			Disease Management	64
			Health & Welfare System	82
			Life & Death	55
ICT	88	0.080	ICT Promotion	-
			ICT Scale	87
			ICT Utilization	87
Infrastructure	87	0.202	Infrastructure Investment	52
			Infrastructure Utility	87
Safety	89	0.234	Crime & Warfare	89
			Natural Disaster Management	63
			Safety and Health	86

2016 Government Competitiveness Report

by Center for Government Competitiveness

© CGCenter

57-301, Graduate School of Public Administration,
Gwanak-ro 1, Gwanak-gu, Seoul, Korea

CONTRIBUTORS

Director

Im, Tobin

Co-Researchers

Campbell, Jesse
Cho, Wonhyuk
Choi, Taehyon
Christensen, Robert
Deslatte, Aaron
Jilke, Sebastian R.
Kum, HyunSub
Neshkova, Milena
Oh, Namkyung
Porumbescu, Gregory
Zeemering, Eric

Senior-Researchers

Choi, Jongmin
Kim, Hyeonjong
Lee, Jong Seon

Research Assistants

Ahn, Yongjin
Cha, Seyeong
Choi, Hyemin
Jung, Yunjin
Kim, Danee
Kim, Phil
Kim, Sehee
Kim, Yunho
Kwon, Hyoungkeun
Lee, Minah
Lim, Hyunkyung
Sohn, Wonbin
Yang, In

All rights reserved. No part of this book may be reprinted or reproduced in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

ISBN 979-11-959877-1-9

This work was supported by National Research Foundation of Korea Grant
funded by the Korean Government (NRF-2017S1A3A2065838)