

Key Findings of the Global Competitiveness Index 2017–2018

The Global Competitiveness Report has been measuring competitiveness for over four decades. This year also marks the 10th anniversary of the global financial crisis and comes at a time of increased uncertainty and rapid transformations for the global economy. With slow and uncertain growth recoveries, the end of the commodity boom, shifting geopolitics, global imbalances, and increasing inequality in some economies, understanding the factors that determine growth continues to be a pressing global issue.

In this chapter we present the methodology, the rankings, and the three main findings of the Global Competitiveness Index 2017–2018.

METHODOLOGY

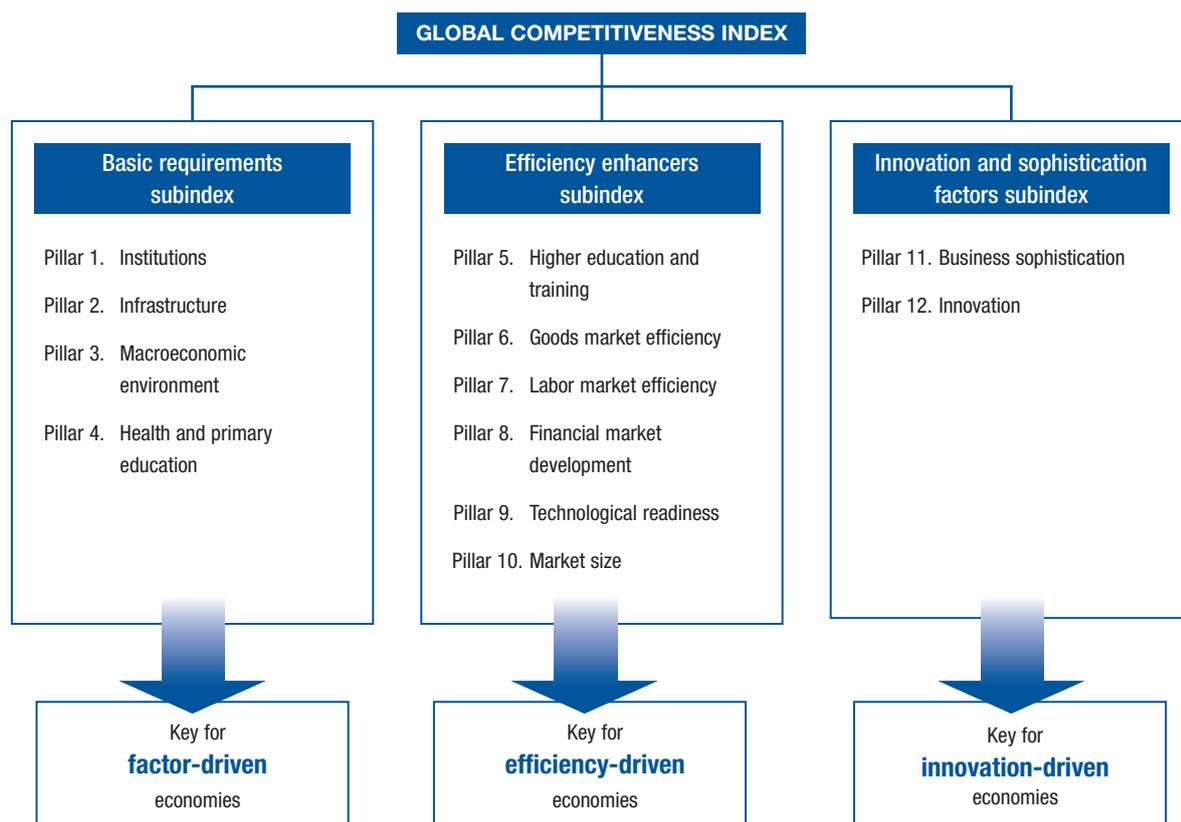
We define *competitiveness* as the *set of institutions, policies, and factors that determine the level of productivity of an economy*, which in turn sets the level of prosperity that the economy can achieve.

Building on Klaus Schwab's original work of 1979, the World Economic Forum has used the Global Competitiveness Index (GCI) developed by Xavier Sala-i-Martin in collaboration with the Forum since 2005. The GCI combines 114 indicators that capture concepts that matter for productivity and long-term prosperity (described in greater detail in Appendix A).

These indicators are grouped into 12 pillars (Figure 1): institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size, business sophistication, and innovation. These pillars are in turn organized into three subindexes: basic requirements, efficiency enhancers, and innovation and sophistication factors. The three subindexes are given different weights in the calculation of the overall Index, depending on each economy's stage of development, as proxied by its GDP per capita and the share of exports represented by raw materials. Appendix A presents a description of each pillar, a classification of economies by stage of development, the detailed structure of the GCI, and a description of the various steps of its computation, including normalization and aggregation.

The GCI includes statistical data from internationally recognized organizations, notably the International Monetary Fund (IMF); the World Bank; and various United Nations' specialized agencies, including the International Telecommunication Union, UNESCO, and the World Health Organization. The Index also includes indicators derived from the World Economic Forum's Executive Opinion Survey that reflect qualitative aspects of competitiveness, or for which comprehensive and comparable statistical data are not available for a sufficiently large number of economies (see Appendix C).

Figure 1: The Global Competitiveness Index framework



See Appendix A for the detailed structure of the GCI.

The *Report* this year covers 137 economies, based on data availability. Countries excluded because of insufficient data this year are Barbados, Bolivia, Côte d'Ivoire, Gabon, and FYR Macedonia. Reinstated countries are Guinea, Haiti, Seychelles, and Swaziland. Altogether, the combined output of the economies covered in the GCI accounts for 98 percent of world GDP.¹

Table 1 presents the rankings of the GCI 2017–2018.²

RESULTS OVERVIEW AND MAIN FINDINGS

Ten years after the financial crisis, what are the most pressing issues related to the health of the global economy and its ability to provide sustained economic growth and well-being? Analysis of the Global Competitiveness Index (GCI) points to three main challenges and lessons that are relevant for economic progress, public-private collaboration, and policy action.

First, **10 years after the crisis, the financial sector remains vulnerable.** GCI indicators of bank soundness have not recovered to pre-crisis levels, new sources of vulnerability have emerged—such as increasing private

debt in emerging economies and the growth of non-regulated capital markets—and governments have less bandwidth than they did 10 years ago to cope with another crisis. Maintaining a sound financial sector is not only important to prevent recessions with deep and long-lasting effects on productivity and growth, but also to sustain innovation. In fact, providing adequate funds and instruments to support the most productive and innovative ideas is essential to take advantage of the Fourth Industrial Revolution (4IR).

Second, **more countries are able to innovate, but they must do more to spread the benefits.** Major emerging markets such as China, India, and Indonesia are becoming centers for innovation, catching up with advanced economies. However, they would benefit from accelerating progress in increasing the readiness of their people and firms to adopt new technology, which is necessary to widely spread innovation's potential economic and societal benefits.

Third, **both labor market flexibility and worker protection are needed to ensure shared prosperity in the 4IR era.**

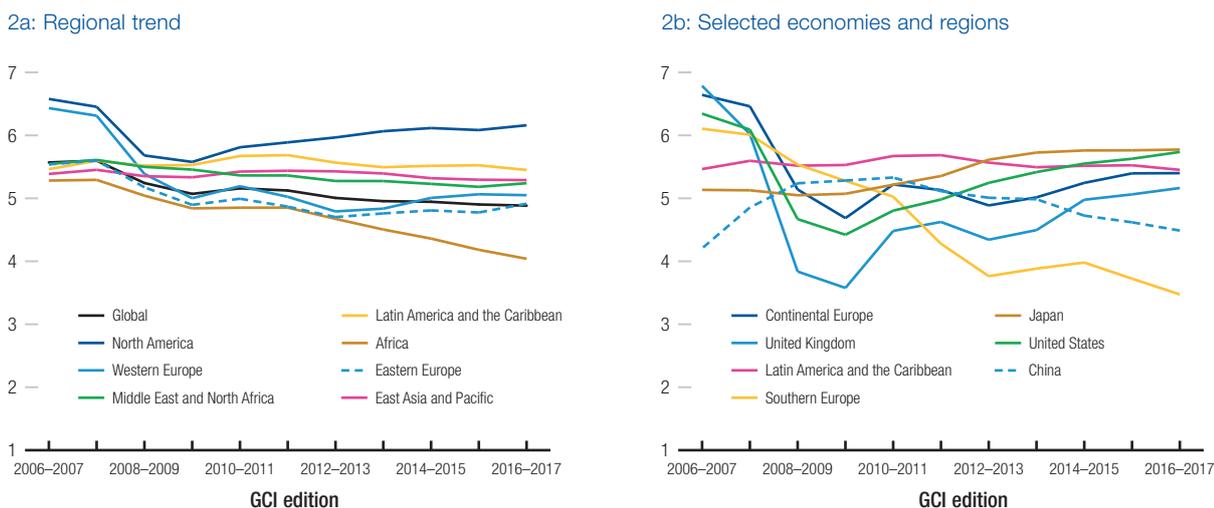
Table 1: Global Competitiveness Index 2017–2018 rankings and 2016–2017 comparisons

Economy	GCI 2017–2018		GCI 2016–2017		Economy	GCI 2017–2018		GCI 2016–2017	
	Rank (out of 137)	Score (1–7)	Rank (out of 138)	Score (1–7)		Rank (out of 137)	Score (1–7)	Rank (out of 138)	Score (1–7)
Switzerland	1	5.86	1	5.81	Jamaica	70	4.25	75	4.13
United States	2	5.85	3	5.70	Morocco	71	4.24	70	4.20
Singapore	3	5.71	2	5.72	Peru	72	4.22	67	4.23
Netherlands	4	5.66	4	5.57	Armenia	73	4.19	79	4.07
Germany	5	5.65	5	5.57	Croatia	74	4.19	74	4.15
Hong Kong SAR	6	5.53	9	5.48	Albania	75	4.18	80	4.06
Sweden	7	5.52	6	5.53	Uruguay	76	4.15	73	4.17
United Kingdom	8	5.51	7	5.49	Montenegro	77	4.15	82	4.05
Japan	9	5.49	8	5.48	Serbia	78	4.14	90	3.97
Finland	10	5.49	10	5.44	Tajikistan	79	4.14	77	4.12
Norway	11	5.40	11	5.44	Brazil	80	4.14	81	4.06
Denmark	12	5.39	12	5.35	Ukraine	81	4.11	85	4.00
New Zealand	13	5.37	13	5.31	Bhutan	82	4.10	97	3.87
Canada	14	5.35	15	5.27	Trinidad and Tobago	83	4.09	94	3.93
Taiwan, China	15	5.33	14	5.28	Guatemala	84	4.08	78	4.08
Israel	16	5.31	24	5.18	Sri Lanka	85	4.08	71	4.19
United Arab Emirates	17	5.30	16	5.26	Algeria	86	4.07	87	3.98
Austria	18	5.25	19	5.22	Greece	87	4.02	86	4.00
Luxembourg	19	5.23	20	5.20	Nepal	88	4.02	98	3.87
Belgium	20	5.23	17	5.25	Moldova	89	3.99	100	3.86
Australia	21	5.19	22	5.19	Namibia	90	3.99	84	4.02
France	22	5.18	21	5.20	Kenya	91	3.98	96	3.90
Malaysia	23	5.17	25	5.16	Argentina	92	3.95	104	3.81
Ireland	24	5.16	23	5.18	Nicaragua	93	3.95	103	3.81
Qatar	25	5.11	18	5.23	Cambodia	94	3.93	89	3.98
Korea, Rep.	26	5.07	26	5.03	Tunisia	95	3.93	95	3.92
China	27	5.00	28	4.95	Honduras	96	3.92	88	3.98
Iceland	28	4.99	27	4.96	Ecuador	97	3.91	91	3.96
Estonia	29	4.85	30	4.78	Lao PDR	98	3.91	93	3.93
Saudi Arabia	30	4.83	29	4.84	Bangladesh	99	3.91	106	3.80
Czech Republic	31	4.77	31	4.72	Egypt	100	3.90	115	3.67
Thailand	32	4.72	34	4.64	Mongolia	101	3.90	102	3.84
Chile	33	4.71	33	4.64	Kyrgyz Republic	102	3.90	111	3.75
Spain	34	4.70	32	4.68	Bosnia and Herzegovina	103	3.87	107	3.80
Azerbaijan	35	4.69	37	4.55	Dominican Republic	104	3.87	92	3.94
Indonesia	36	4.68	41	4.52	Lebanon	105	3.84	101	3.84
Malta	37	4.65	40	4.52	Senegal	106	3.81	112	3.74
Russian Federation	38	4.64	43	4.51	Seychelles	107	3.80	n/a	n/a
Poland	39	4.59	36	4.56	Ethiopia	108	3.78	109	3.77
India	40	4.59	39	4.52	El Salvador	109	3.77	105	3.81
Lithuania	41	4.58	35	4.60	Cape Verde	110	3.76	110	3.76
Portugal	42	4.57	46	4.48	Ghana	111	3.72	114	3.68
Italy	43	4.54	44	4.50	Paraguay	112	3.71	117	3.65
Bahrain	44	4.54	48	4.47	Tanzania	113	3.71	116	3.67
Mauritius	45	4.52	45	4.49	Uganda	114	3.70	113	3.69
Brunei Darussalam	46	4.52	58	4.35	Pakistan	115	3.67	122	3.49
Costa Rica	47	4.50	54	4.41	Cameroon	116	3.65	119	3.58
Slovenia	48	4.48	56	4.39	Gambia, The	117	3.61	123	3.47
Bulgaria	49	4.46	50	4.44	Zambia	118	3.52	118	3.60
Panama	50	4.44	42	4.51	Guinea	119	3.47	n/a	n/a
Mexico	51	4.44	51	4.41	Benin	120	3.47	124	3.47
Kuwait	52	4.43	38	4.53	Madagascar	121	3.40	128	3.33
Turkey	53	4.42	55	4.39	Swaziland	122	3.35	n/a	n/a
Latvia	54	4.40	49	4.45	Mali	123	3.33	125	3.46
Viet Nam	55	4.36	60	4.31	Zimbabwe	124	3.32	126	3.41
Philippines	56	4.35	57	4.36	Nigeria	125	3.30	127	3.39
Kazakhstan	57	4.35	53	4.41	Congo, Democratic Rep.	126	3.27	129	3.29
Rwanda	58	4.35	52	4.41	Venezuela	127	3.23	130	3.27
Slovak Republic	59	4.33	65	4.28	Haiti	128	3.22	n/a	n/a
Hungary	60	4.33	69	4.20	Burundi	129	3.21	135	3.06
South Africa	61	4.32	47	4.47	Sierra Leone	130	3.20	132	3.16
Oman	62	4.31	66	4.28	Lesotho	131	3.20	120	3.57
Botswana	63	4.30	64	4.29	Malawi	132	3.11	134	3.08
Cyprus	64	4.30	83	4.04	Mauritania	133	3.09	137	2.94
Jordan	65	4.30	63	4.29	Liberia	134	3.08	131	3.21
Colombia	66	4.29	61	4.30	Chad	135	2.99	136	2.95
Georgia	67	4.28	59	4.32	Mozambique	136	2.89	133	3.13
Romania	68	4.28	62	4.30	Yemen	137	2.87	138	2.74
Iran, Islamic Rep.	69	4.27	76	4.12					

Source: World Economic Forum.

Note: The Global Competitiveness Index captures the determinants of long-term growth. Recent developments are reflected only in so far as they have an impact on the data measuring these determinants. The Index should be interpreted in this context. See Chapter 3, Regional Analysis and Selected Economy Highlights, on pages 21–35 for a brief analysis of the performance of selected economies and the Economy Profiles for detailed results for all economies. "n/a" (not available) indicates that the economy was not covered in the 2016–2017 edition.

Figure 2: Soundness of banks, 2006–2017



Source: Calculations based on the results of the Global Competitiveness Index 2006–2007 through 2016–2017.

As globalization and rapid technological progress continue to test the ability of labor markets to reallocate workers between tasks and occupations, the GCI shows three parallel trends. First, measures of labor market flexibility are converging between advanced and emerging economies; second, more openness and economic integration has been accompanied by increased labor market flexibility; and third, contrary to widespread perception, greater labor market flexibility can coexist with protecting workers' rights and reducing inequality.

Together, these issues underscore the overall challenge for both advanced and emerging economies: to reallocate factors of production to be flexible and responsive to technological trends while protecting people's well-being during adjustment periods.

1: TEN YEARS AFTER THE CRISIS, THE FINANCIAL SECTOR IS STILL VULNERABLE

Financial stability matters for economic progress. As demonstrated by the prolonged slowdown in advanced economies since the 2007 crisis, it takes a long time to restore productivity and growth after a financial meltdown. Ten years ago, strained banking sectors affected the real economy first in countries where the crisis originated, and later in others. Access to credit was limited, which restrained productivity-enhancing investments and dampened appetite for high-risk, high-return ventures such as innovative companies and start-ups.

Today although progress has been made to make the financial sector sturdier, some concerns remain. First, despite the actions taken in the aftermath of the crisis—restructuring and regulation or macro-prudential policies

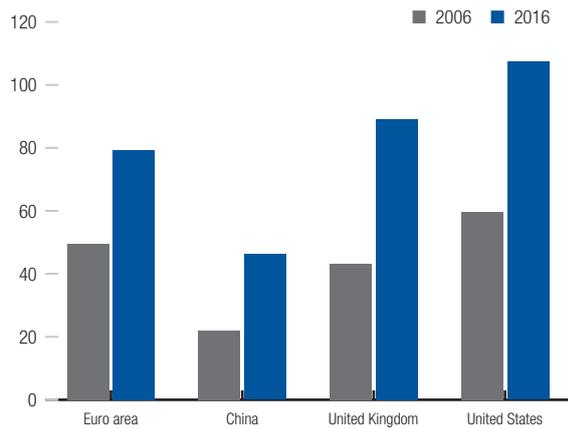
to increase capital requirements and clean up balance sheets—the banking sector has still not fully recovered. Second, new sources of potential risk are coming from emerging economies. Third, growing segments of the financial system not subject to regulation are a potential source of vulnerabilities. Fourth, the scope for public sector intervention has narrowed.

Analysis of the GCI shows that, despite sounder asset-to-equity ratios, the banking sector remains weaker than it was before the crisis. In general, there is still too much debt in parts of the private sector, and top global banks are still “too big to fail.” The largest 30 banks hold almost US\$43 trillion in assets, compared to less than US\$30 trillion in 2006, and concentration is continuing to increase in the United States, China, and some European countries.³ The GCI's soundness of banks indicator has not yet returned to its average pre-crisis level in any region (Figure 2a), though the picture in individual countries and subregions varies considerably (Figure 2b).

In the United States, where the crisis originated, a new wave of deregulation appears to be underway: the government is considering reducing provisions of the Dodd-Frank Act and reviewing rules on financial advisers' conflicts of interest.⁴ This may lead to the re-emergence of fragilities that post-crisis regulation aimed to tackle. In Europe, banks are still grappling with the consequences of 10 years of low growth and the enduring non-performance of loans in many countries.

Asian economies were less exposed to the global financial crisis, but they are facing new problems of their own. Amid a private-sector credit boom in India, the proportion of loans classed as non-performing went from 4 percent to 9 percent in two years; in China, business

Figure 3: General government debt
Percent GDP



Source: IMF 2017.

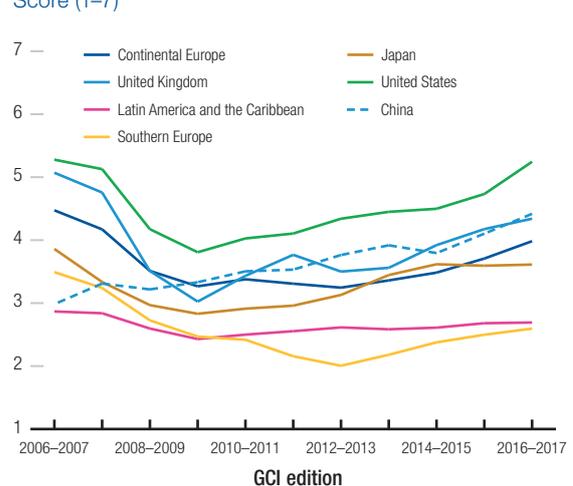
credit is building up similarly to the United States pre-crisis, and could be a new source of vulnerability. African banks, although not hit severely 10 years ago, have recently been affected by the weaker global financial system and lower commodity prices⁵—a factor also impacting the solidity of banks in Latin America.

Potential new sources of vulnerability also derive from the way in which post-crisis regulation of the banking sector has moved some activities to the non-bank sector, where supervisory and regulatory standards are less stringent.⁶ Liquidity could become a problem for non-bank systems with overleveraged positions if market sentiment suddenly changes. The possible implications of emerging and relatively less-regulated financial technologies, such as blockchain, are also not yet fully understood.

Compounding these reasons for concern, public authorities have less flexibility to respond to crises than they did 10 years ago. The space for intervention in case of another recession is somewhat reduced due to higher public debts and deficits in almost all countries (Figure 3), while non-conventional monetary policies may also reach a limit if another crisis hits. In this event, it may be harder today for governments to intervene than it was 10 years ago.

Maintaining stability in the financial sector is important not only for firm-level productivity,⁷ but also to stimulate investment in innovation. The financial crisis impacted both traditional loans and venture capital availability (Figure 4), leading to a decade-long stagnation in total investments in non-financial assets (Figure 5). Further development of Fourth Industrial Revolution technologies depends on sound foundations in the banking sector.

Figure 4: Venture capital availability, selected areas, 2006–2017
Score (1–7)



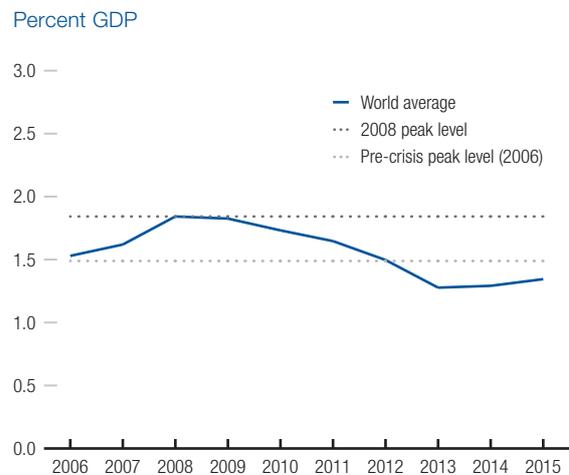
Source: Calculations based on the results of the Global Competitiveness Index 2006–2007 through 2016–2017.

2: MORE COUNTRIES ARE ABLE TO INNOVATE, BUT THEY MUST DO MORE TO SPREAD THE BENEFITS

The last decade has seen some important emerging markets move closer to the technology frontier—although a clear gap remains with the leading advanced countries, which continue to benefit from their historically strong innovation ecosystems.

Figure 6 shows how selected countries have performed over the last decade on the innovation environment pillar of the GCI, which comprises indicators on the capacity for innovation, the quality

Figure 5: Net investment in non-financial assets, 2006–2015
Percent GDP

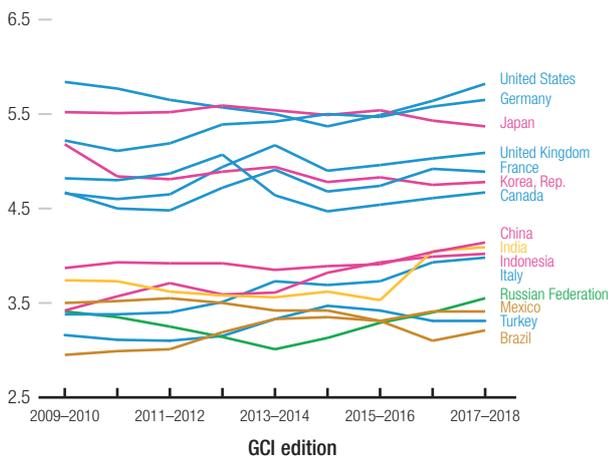


Source: Calculations based on World Bank, *World Development Indicators*, available at <https://data.worldbank.org/data-catalog/world-development-indicators>.

Note: Non-financial assets include fixed assets, inventories, valuables, and non-produced assets.

Figure 6: Evolution of innovation environment in large advanced economies and large emerging economies, 2009–2017

Score (1–7)



Source: Calculations based on the results of the Global Competitiveness Index 2009–2010 through 2017–2018.
 Note: Colors correspond to regional classifications: ■ Europe and North America; ■ East Asia and Pacific; ■ Latin American and the Caribbean; ■ Eurasia; and ■ South Asia.

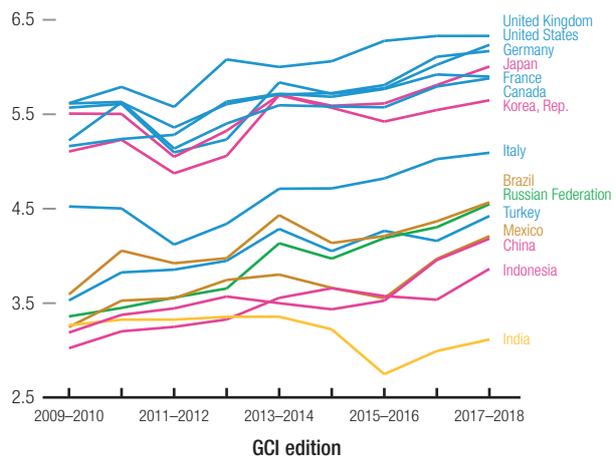
of scientific research institutions, company spending on R&D, university-industry collaboration, government procurement of advanced technology, the availability of scientists and engineers, and patent applications. Japan and the Republic of Korea, while still in this top group, appear to have lost ground. Among the emerging markets seen as having great potential in the early 2000s, Brazil and Turkey have now lost much of the ground they gained before 2013, but China, India, and Indonesia continue to improve.

Other sources confirm the growing importance of China and India as centers of innovation. In a recent study on which geographical clusters are generating the most patents,⁸ Shenzhen–Hong Kong comes in at 2nd place—between Tokyo–Yokohama and San Jose–San Francisco—while Beijing comes in 7th. In both cases activity is concentrated in the field of digital communications. Three Indian locations appear in the top 100 of the cluster study: Bengaluru at 43rd (with patent activity focused on computer technology), Mumbai at 95th, and Pune at 96th (both registering among the most patents in organic fine chemistry).

During the last decade, the nature of innovation has shifted: from being driven by individuals working within the well-defined boundaries of corporate or university labs, innovation increasingly emerges from the distributed intelligence of a global crowd.⁹ McAfee and Brynjolfsson (2017) identify this as one of three major trends, along with the move from product to platform and from brain to machine. High-profile successes in artificial intelligence (AI), such as AlphaGo’s improvement past the best human Go players, point to the expanding ability of machine intelligence to learn

Figure 7: Evolution of technological readiness in large advanced economies and large emerging economies, 2009–2017

Score (1–7)



Source: Calculations based on the results of the Global Competitiveness Index 2009–2010 through 2017–2018.
 Note: Colors correspond to regional classifications: ■ Europe and North America; ■ East Asia and Pacific; ■ Latin American and the Caribbean; ■ Eurasia; and ■ South Asia.

from ever-expanding datasets and improve themselves by running their own simulations.¹⁰

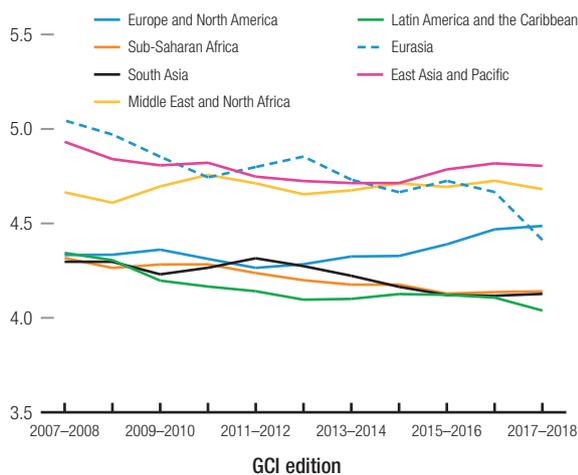
The economic impact of the current wave of innovation remains difficult to measure. Innovation should ultimately affect competitiveness and raise productivity, but does not yet appear to be doing so. There are two plausible reasons for this. One is that it will take time for systems to adapt to a new order so they can take full advantage of the advances: analogously, it took decades to realize productivity gains from electrification through complementary innovations such as the re-organization of production lines. The other reason is that many of the benefits of digital services—including the ability to use search engines, email, digital maps, and social media—do not have a market price, so they are not captured in GDP or reflected in productivity estimates, even though alternative measures confirm they are providing significant value to individuals.¹¹

One clear requirement for innovations to translate into broad-based economic and societal benefits is that a country’s people and firms must be capable of adopting them. The GCI’s technological readiness pillar captures this ability through indicators on the availability of latest technologies, firm-level technology absorption, foreign direct investment (FDI) and tech transfer, individuals using the Internet, fixed broadband Internet subscriptions, international Internet bandwidth, and mobile broadband subscriptions. Technological readiness also feeds back into innovation capacity, because it reflects the extent to which a core of professional researchers can tap into the crowd.

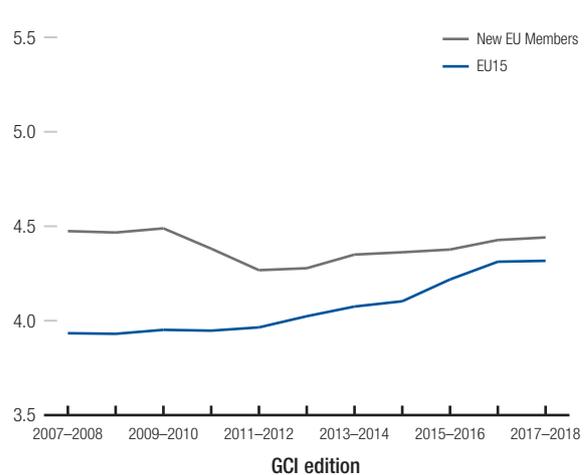
Although technological readiness is generally trending upward globally, Figure 7 shows that some

Figure 8: Evolution of labor market flexibility, 2007–2017

8a: By region, Score (1–7)



8b: Within the European Union, Score (1–7)



Source: Calculations based on the results of the Global Competitiveness Index 2007–2008 through 2017–2018.

Note to 8a: Based on a constant sample of 114 economies.

Note to 8b: New EU Members include Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, the Slovak Republic, and Slovenia. EU15 includes Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

of the large emerging markets that are doing well on innovation are leaving sections of their populations behind. The level of technological readiness of individuals and firms in China, India, and Indonesia remains relatively low, suggesting that the benefits of these innovative activities are not widely shared. Societal gains from innovation breakthroughs do not happen automatically: they need complementary efforts to ensure that more people and firms have the means to access and use new technologies.

3: THERE NEED BE NO TRADE-OFF BETWEEN LABOR MARKET FLEXIBILITY AND WORKERS' RIGHTS

In the 1990s, governments in many high-income countries—especially in Western Europe—began to discuss reforms intended to make labor markets less rigid. The financial crisis and restructuring imposed by technological change triggered a second round of reforms. Figure 8 shows how labor market flexibility (measured by business executives' perceptions of union-employer cooperation, flexible hiring and firing practices, and the alignment between wages and productivity) accelerated after 2013 in many advanced economies, with average flexibility in Europe and North America converging with East Asia and the Middle East and North Africa. In contrast, other regions tightened labor regulations, in particular Eurasia and Latin America and the Caribbean. Data collected by the International Labour Organization confirm these results.¹²

Although causal links are difficult to establish, the positive correlation between international openness and labor market flexibility suggests that economic

integration increases competitive pressure in labor markets. In the European Union (EU), over the past decade, flexibility in older EU members increased significantly to converge with the new members that joined between 2004 and 2007 (Figure 8b). This contributed not only to lower levels of unemployment in many countries, especially in Southern Europe, but also to a backlash against economic integration: it exacerbated some groups' perception that the EU project did not sufficiently prioritize labor protection.

However, GCI and labor protection data show that there need be no trade-off between flexible labor markets and the protection of workers' rights. Figure 9 on page 19 plots countries' labor market flexibility against the International Trade Union Confederation (ITUC) Global Workers' Rights Index, which proxies more inclusive decision making on labor markets. It overlays these indicators with data on inequality, as measured by the Gini coefficient and the share of the population who are employed. Two-thirds of countries with high levels of inequality have below-median protection of workers' rights, while two-thirds with lower levels of inequality protect rights more strongly.

Most importantly, 60 percent of countries in the top-right quadrant of Figure 9—that is, with high levels of both rights protection and flexibility—achieve both high employment and low inequality. These include Denmark, Norway, Sweden, Switzerland, the Netherlands and Germany. This pattern supports the finding that workers' rights can be well protected in flexible labor markets, and governments that pursue both these objectives can achieve efficient labor markets as well as low levels of inequality. Most of the countries that achieve

Box 1: How to use the GCI to accelerate competitiveness agendas

The Global Competitiveness Index (GCI) tracks over 100 indicators for close to 140 economies. By establishing a common framework and comparable data, and allowing decision makers to monitor their annual progress, the *Report* draws attention to the long-term determinants of productivity, growth, income levels, and well-being. How should policymakers and businesses use the GCI to accelerate competitiveness agendas and make progress?

- **Scores not only ranks.** The GCI measures all indicators on a 1–7 scale and aggregates the scores to find a final overall GCI score. This score leads to the ranking that is so widely reported. Although the ranking is useful to gauge relative performance, the score itself is more informative for policymakers as a guide to action: is the economy improving? Are we making progress on the subindexes, pillars, concepts, and individual indicators? The score is a better indication of the direction of change than the rank: because all countries could become more or less competitive simultaneously, countries can fall in the rankings even while improving their score or rise in the rankings despite a deteriorating score.
- **Aggregates rather than indicators.** The GCI seeks to promote improvements in the fundamental determinants of productivity and growth. While individual indicators reflect important levers for boosting competitiveness, it is critical not to lose sight of the bigger picture as captured in the concepts that are defined in the index pillars and subpillars. To make real progress, programs and action should target aggregates: concepts, subpillars, pillars, and subindexes.
- **Identifying priorities.** Because factors of competitiveness are complementary, an economy cannot make sustained progress without advancing simultaneously on all pillars—but governments and the private sector have limited resources, so they have to define priorities. The GCI is a good starting point to identify the most binding constraints, but only the first step of the analysis.

One method is to identify trends. Which pillar score is deteriorating? Which pillar is falling behind others? Another is to identify a reference economy or group for comparison. For example, policymakers could consider that the Organisation for Economic Co-operation and Development (OECD) is the appropriate benchmark representing best practices and decide to invest the most on those factors where their economy lags furthest behind the OECD average. Other possible references could be the regional leader, or the regional average, or the performance of economies with similar income levels.

More sophisticated methods are possible. For example, recent work by the OECD Development Centre, outlined in *The Global Competitiveness Report 2016–2017*, uses statistical techniques to identify the factors that set apart economies that have made it out of the middle-income trap from those that have not. Those economies could choose to prioritize the factors that seem to explain escape from the trap. We invite researchers and policymakers to further investigate how best to guide their prioritization efforts.

- **Understanding the drivers of competitiveness.** Policymakers and the private sector need to understand

the policies, actions, inactions, and external shocks that explain an economy's performance on the GCI. They should map these factors onto the GCI to get clues into the drivers of pillar score changes and evaluate, adjust, eliminate, or start programs and policies accordingly.

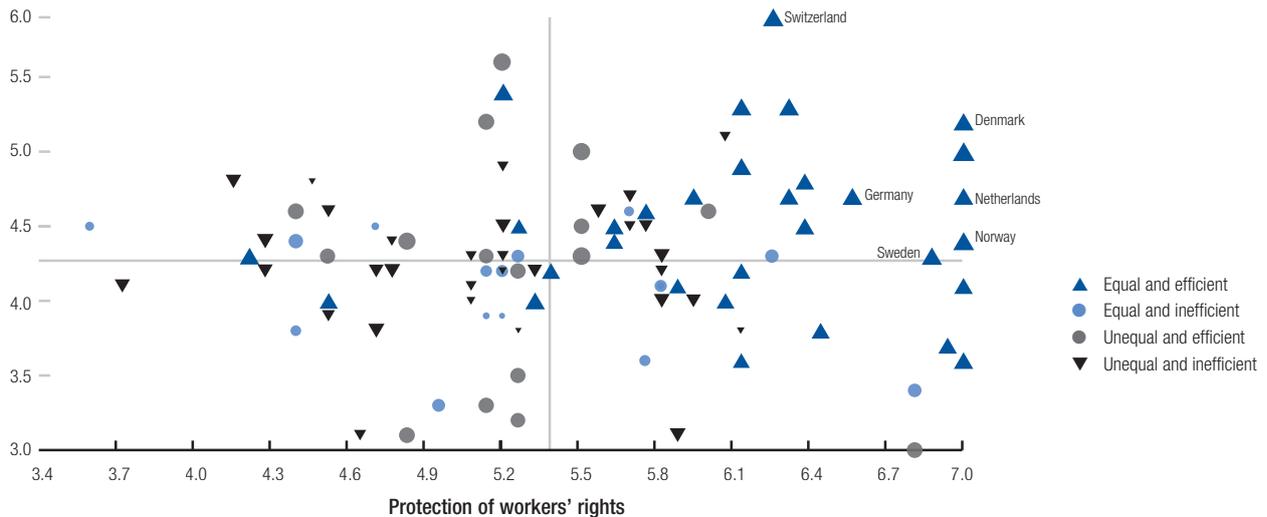
- **Solving market failures.** The GCI can help to identify areas that need improvement, but then the question is whether there is a role for government to enable the private sector to achieve an efficient outcome. Once the rationale for government action is identified—whether based on externalities, incomplete markets, information asymmetries, or coordination problems—the GCI can be used to allocate scarce government resources toward the resolution of the market failure.
- **Public-private collaboration.** Governments can resolve market failures more effectively if solutions emerge from an understanding between the public and the private sectors. The GCI can serve as a catalyst for collaboration. It can help to set the agenda, lead discussions, bring together actors around common objectives, and facilitate structured dialogue. It can change the nature of the interactions between the private and public sectors by focusing them on long-term objectives, rather than lobbying for short-term and sector-specific gains. The long-term focus tends to draw attention to elements of the economic policy space where everyone wins, not those where some gain but others lose (such as tariff protection).
The GCI can also be used independently by the private sector to keep government accountable, evaluate performance, and incentivize needed reforms. Some pillars in the GCI have a natural owner or leader within government—for example, the Minister of Infrastructure on road and port construction and maintenance—so the GCI can be used to catalyze action and help those leaders to identify areas of emphasis.
- **Coordination.** While some areas have natural leaders within government, most areas require coordinated efforts between several government agencies as well as timely information and efforts on the part of the private sector. By helping to identify issues and bring together decision makers, the GCI can be used to improve coordination and achieve faster progress.

- **Institutional arrangements.** Finally, the GCI can be the starting point for a permanent institutional arrangement for policy prioritization, coordination, and action. In many countries, “national competitiveness systems” with public and private participation have proved to be effective mechanisms to lead the design and implementation of competitiveness agendas. They have even used the GCI methodology to produce subnational competitiveness indexes and to identify local-level agendas for action.

The GCI is a starting point—a tool for policymakers and the private sector, providing information based on our best knowledge of what is needed to increase growth and drive poverty reduction. How exactly each economy uses it depends on the idiosyncrasies of its institutions, history, and culture. The principles apply to all countries; the specific implementation and policies must come from policy analysis and discussions within countries using the GCI as a point of departure.

Figure 9: Labor market flexibility, protection of workers' rights, inequality and employee population

Labor market flexibility, average



Sources: Calculations based on the results of the Global Competitiveness Index 2017–2018 and the 2017 ITUC Global Rights Index.

Notes: Countries with a Gini coefficient lower than the median have been defined as "Equal". Countries with an employee population ratio above the median have been defined as "Efficient". Size by ratio of employees to adult population.

both have strong active labor market policies in place. Governments should therefore not pull back from labor market reforms or economic integration, when faced with worsening social conditions. Rather they should introduce complementary active labor market policies that help workers who are between jobs to acquire new skills and competences.

THE ROLE OF THE GCI IN TURNING KEY FINDINGS INTO ACTION

Countries can use the GCI to reflect on the key findings that emerge from this year's analysis and determine how best they can advance the goal of implementing policies that help progress in competitiveness benefit their entire populations (Box 1). Taken together, the insights from the data can allow governments to design policies that support growth and encourage the reallocation of factors of production to take advantage of technological trends for the benefit of their populations.

NOTES

- 1 IMF 2017.
- 2 When interpreting the data, it is important to keep in mind that we consider economies with small changes in ranking of one or two places as stable because this small ranking change often reflects only small changes in score. This is the case in particular in the middle of the rankings, where economies' scores are relatively close together and small changes in score can translate to relatively large changes in rank. Another key consideration is that the ranking is relative, so both score and rank need to be considered together when interpreting the results.

3 Calculations are based on the *Bankers Almanac 2017* database, available at <https://www.bba.org.uk/about-us/associates/bankersalmanac-com/>, and the World Bank's *World Development Indicators*, Bank concentration (%).

4 Pozen 2017.

5 For details about the impact of the weaker global financial system, see Cetorelli and Goldberg 2011; Iyer and Peydró 2011; for details about the impact of lower commodity prices, see Christensen 2016.

6 This and the following statements are based on El-Erian 2016.

7 Dörr, Raissi, and Weber 2017.

8 Bergquist, Fink, and Raffo 2017.

9 Ito and Howe 2016.

10 Ito and Howe 2016; McAfee and Brynjolfsson 2017.

11 Brynjolfsson, Eggers, and Gannamaneni 2017.

12 ILO 2017.

REFERENCES

- Bergquist, K., C. Fink, and J. Raffo. 2017. "Identifying and Ranking the World's Largest Clusters of Inventive Activity." *WIPO Economic Research Working Paper* No. 34. WIPO (World Intellectual Property Organization), Economics and Statistics Division. Available at http://www.wipo.int/edocs/pubdocs/en/wipo_pub_econstat_wp_34.pdf.
- Brynjolfsson, E., F. Eggers, and A. Gannamaneni. 2017. "Using Massive Online Choice Experiments to Measure Changes in Well-being." referenced in the *Economist*, August 24, 2017: <https://www.economist.com/news/finance-and-economics/21727073-economists-struggle-work-out-how-much-free-economy-comes-cost>.
- Cetorelli, N. and L. S. Goldberg. 2011. "Global Banks and International Shock Transmission: Evidence from the Crisis." *IMF Economic Review* 59 (1): 41–76. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1801096.
- Christensen, B. V. 2016. "Challenges of Low Commodity Prices for Africa." *BIS Papers* No. 87. BIS (Bank for International Settlements), Monetary and Economic Department. Available at <http://www.bis.org/publ/bppdf/bispap87.htm>.

- Dörr, S., M. Raissi, and A. Weber. 2017. "Credit-Supply Shocks and Firm Productivity in Italy." *IMF Working Paper WP/17/67*. Washington, DC: IMF.
- The Economist. 2017b. "The 'Free' Economy Comes at a Cost." *The Economist, Free Exchange*, August 24, 2017. Available at <https://www.economist.com/news/finance-and-economics/21727073-economists-struggle-work-out-how-much-free-economy-comes-cost>.
- El-Erian, M. 2016. *The Only Game in Town: Central Banks, Instability, and Avoiding the Next Collapse*. New York: Random House.
- ILO (International Labour Organization). 2017. Report of the Committee of Experts on the Application of Conventions and Recommendations, International Labour Conference, 106th Session, 2017. Available at http://www.ilo.org/ilc/ILCSessions/106/reports/reports-to-the-conference/WCMS_543646/lang--en/index.htm.
- IMF (International Monetary Fund). 2017. *World Economic Outlook Update, April 2017: Gaining Momentum?* Washington, DC: IMF. Available at <http://www.imf.org/en/Publications/WEO/Issues/2017/04/04/world-economic-outlook-april-2017>.
- Ito, J. and J. Howe. 2016. *Whiplash: How to Survive Our Faster Future*. New York: Grand Central Publishing.
- ITUC (International Trade Union Confederation). 2017. *The 2017 ITUC Global Rights Index*. ITUC. Available at <https://www.ituc-csi.org/ituc-global-rights-index-2017>.
- Iyer, R. and J.-L. Peydró. 2011. "Interbank Contagion at Work: Evidence from a Natural Experiment." *Review of Financial Studies* 24 (4): 1337–77.
- McAfee, A. and E. Brynjolfsson. 2017. *Machine, Platform, Crowd: Harnessing Our Digital Future*. New York: W.W. Norton and Company.
- Pozen, R. C. 2017. "What Will Happen to Dodd-Frank under Trump's Executive Order?" Brookings Up Front blog post, February 6, 2017. Available at <https://www.brookings.edu/blog/up-front/2017/02/06/what-will-happen-to-dodd-frank-under-trumps-executive-order/>.
- World Bank. *World Development Indicators*, available at <https://data.worldbank.org/data-catalog/world-development-indicators>.
- World Economic Forum. 2006. *The Global Competitiveness Report 2006–2007*. Basingstoke and New York: Palgrave Macmillan.
- . 2007. *The Global Competitiveness Report 2007–2008*. Basingstoke and New York: Palgrave Macmillan.
- . 2008. *The Global Competitiveness Report 2008–2009*. Geneva: World Economic Forum.
- . 2009. *The Global Competitiveness Report 2009–2010*. Geneva: World Economic Forum.
- . 2010. *The Global Competitiveness Report 2010–2011*. Geneva: World Economic Forum.
- . 2011. *The Global Competitiveness Report 2011–2012*. Geneva: World Economic Forum.
- . 2012. *The Global Competitiveness Report 2012–2013*. Geneva: World Economic Forum.
- . 2013. *The Global Competitiveness Report 2013–2014*. Geneva: World Economic Forum.
- . 2014. *The Global Competitiveness Report 2014–2015*. Geneva: World Economic Forum.
- . 2015. *The Global Competitiveness Report 2015–2016*. Geneva: World Economic Forum.
- . 2016. *The Global Competitiveness Report 2016–2017*. Geneva: World Economic Forum.

Regional Analysis and Selected Economy Highlights

The Global Competitiveness Report has monitored and benchmarked the factors and institutions that determine productivity in close to 140 countries for the past 40 years. In this chapter, we present the results by region, as well as results for the top 10 ranked economies and G20 countries. Additional economies are described in the Economy Profiles.

The results show that growth is starting to recover, but still is not yet sufficient to provide the foundations needed for continued reductions in poverty and broad-based improvements in the quality of life of the many. With emerging markets having a greater participation in global production and growth, progress in competitiveness among the large growing economies of Asia, Africa, and Latin America will be fundamental to the ability to provide a new boost to global growth.

In the context of the global challenges presented in Chapter 1, understanding the determinants and priorities at a regional level is a necessity for striving for faster global convergence toward higher incomes and greater well-being. Making globalization work for all requires making progress in all the pillars of competitiveness across regions. Emerging economies need to close the gaps with advanced economies in order to benefit from the possibilities of international trade and mobility of labor and capital as well as the latest technological developments available worldwide. On the other hand, advanced economies need to prioritize competitiveness-enhancing reforms. In particular in the current rapidly changing and still challenging socioeconomic context, inaction will undermine future prosperity. Our data show that all countries have room for improvement while some are even falling back in specific areas.

EUROPE

Ten years on from the financial crisis, European economies are at last showing cautious signs of recovery, with the euro area predicted to grow by 1.9 percent this year (versus 1.8 percent in 2016) and emerging European markets by 3.5 percent (versus 3.0 percent in 2016).¹ However, the pick-up in economic activity still looks fragile, and sustained momentum cannot be taken for granted. In particular, European labor markets remain under pressure, with high levels of youth unemployment and a growing polarization of demand for skills as middle-skilled employment falls in several countries.² Investment levels are low compared with previous recovery periods, given the depth of monetary stimulus, with particular shortfalls in digital, energy, and transport infrastructure.³ The competitiveness landscape in Europe is shown in Figure 1.

The challenge now is to leverage the momentum of the current recovery to strengthen the fundamental drivers of competitiveness. To this end, Box 1