

Regional and Country Analysis

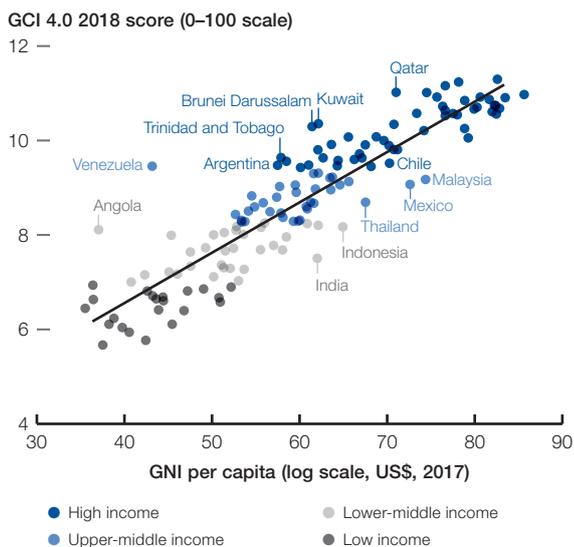
This chapter highlights global trends, regional highlights and selected country results from the inaugural edition of the Global Competitiveness Index 4.0.

The results demonstrate a strong correlation between competitiveness and income level.¹ High-income economies make up the entire top 20 (see Table 1 on page 25). Conversely, only three non-high-income economies feature in the top 40: Malaysia (25th), China (28th), and Thailand (38th). While the GCI 4.0 is not a proxy for current income, the index assesses the ability of economies to sustain growth over time. It therefore holds some predictive power. In Figure 1, economies that land relatively far *above* the trend line may have difficulty sustaining their current level of income without improving their competitiveness. Most of these outlying countries are mineral resource-rich. Qatar, Brunei Darussalam, Kuwait, Trinidad and Tobago, and Venezuela are the most striking examples. For example, despite having a similar level of income as Chile, Venezuela's GCI score is almost 30 points lower. Similarly, the lowest-ranked high-income country, Argentina, lags almost 20 points behind Malaysia and China. As for economies relatively far *below* the trend line—including Malaysia, Mexico, Indonesia and India—the results suggest their competitiveness performance, if maintained, will promote higher and sustained levels of income in the future.

Looking at regional patterns, the top 20 of the GCI 4.0 rankings is composed almost exclusively of economies from Western Europe (10 economies), North America (2), and East Asia and the Pacific (7). In fact, East Asia and the Pacific achieves the highest median score (72.6) among all regions, slightly higher than Europe and North America (70.8). At the other end of the spectrum, 17 of the 34 sub-Saharan African economies studied are among the bottom 20 globally, and the region's median is a low 45.2, less than halfway to the frontier. Yet the disparities within each region are profound (Figure 2). Mauritius (63.7, 49th), sub-Saharan Africa's best performer, is nearly 30 points and over 90 places ahead of Chad (35.5, 140th). Across the seven regions, the average score gap between the best and worst performer is almost 30 points. Contrasts are often stark within sub-regions. In the EU, Germany's overall competitiveness score (82.8, 3rd) is 20 points higher than Greece (62.1, 57th). In South-East Asia, Singapore (2nd, 83.5) is 34 points closer to the frontier than Lao PDR (49.3, 112th). In some cases, the score differential between two neighboring countries is large: approximately 20 points between the Dominican Republic (57.4) and Haiti (36.5), between Colombia (61.6) and Venezuela (43.2), and between Thailand (67.5) and Cambodia (50.2).

Finally, the breadth of the GCI 4.0 and its 12 pillars captures the extent and complexity of the competitiveness ecosystem. The results suggest that

Figure 1: Competitiveness and income



Sources: World Economic Forum analysis; World Bank 2018; national sources.

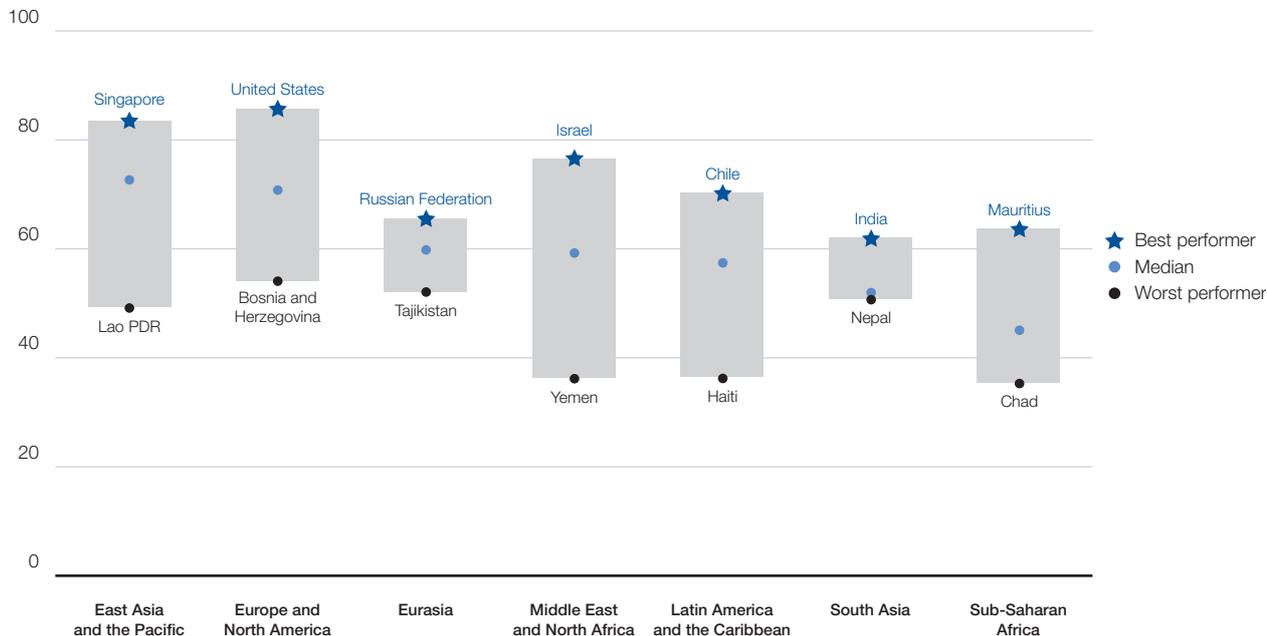
Note: GNI = gross national income (Atlas method), natural log transformation. 2014 data is presented for Venezuela, and 2016 data is presented for Taiwan (China). N=140, R² = 0.82.

the quality of the overall ecosystem is as good as the quality of its *weakest* component, which represents a binding constraint: the lowest score among the 12 pillars explains as much as 88% of the variation in the overall GCI 4.0 score. It is therefore not surprising that the most competitive economies tend to perform well on all pillars, whereas the least competitive economies tend to struggle in all areas. The *lowest* average pillar score of the top 10 economies is 72.2 (Product market pillar), while the *highest* average pillar score of the 10 least competitive economies is 54.4 (Macroeconomic stability pillar). These results reflect the need for holistic strategic planning among policy-makers and their partners. In order to increase competitiveness, no area can be neglected, because there is very limited compensability among them, although progress in one area is likely to have positive spillovers into other areas.

As Table 1 shows, the most competitive regions (Europe and North America and East Asia and the Pacific) attain the highest score across all pillars, while Sub-Saharan Africa attains the lowest scores in 10 of the 12 pillars.

Figure 2: Competitiveness gap within regions

Best, median and worst GCI 4.0 2018 scores (0-100), by region



Source: World Economic Forum analysis.

Note: See the At a Glance section on page xi for regional classification. Regions are arranged according to median scores.

Table 1: Regional performance, by pillar
Average score (0–100)

Region	Enabling environment				Human capital		Markets				Innovation ecosystem	
	Institutions	Infrastructure	ICT adoption	Macroeconomic stability	Health	Skills	Product market	Labour market	Financial system	Market size	Business dynamism	Innovation capability
East Asia and the Pacific	61.6	74.3	67.3	88.9	84.3	66.9	62.2	65.9	72.8	67.2	65.7	52.9
Eurasia	53.0	66.3	57.1	71.7	73.4	65.6	57.1	61.6	50.8	49.8	60.1	34.8
Europe and North America	64.5	78.7	68.0	91.8	90.7	74.2	62.0	66.2	69.5	59.6	68.3	58.1
Latin America and the Caribbean	47.8	61.1	46.4	74.0	82.7	57.5	53.9	55.3	59.5	52.5	52.4	33.8
Middle East and North Africa	54.3	69.0	54.1	79.6	80.0	61.4	54.7	52.3	61.8	60.3	56.7	39.9
South Asia	50.1	59.6	33.0	74.1	68.4	49.7	47.3	51.7	59.0	66.9	56.5	36.4
Sub-Saharan Africa	47.5	46.3	29.6	66.9	48.0	43.4	50.4	53.8	50.4	38.8	51.1	28.4

Source: World Economic Forum analysis.

Note: See the At a Glance section on page xi for regional classification. Darker shades indicate better performance.

REGIONAL ANALYSIS

The following sections provide an overview of the performance of each of the following regions (organized in alphabetical order): East Asia and the Pacific; Eurasia; Europe; Latin America and the Caribbean; Middle East and North Africa; North America, South Asia; and Sub-Saharan Africa. Each section features a brief commentary about the performance of selected economies, namely the region's best performer and members of the top 10 and G20 if any. Economies are in order of their GCI 4.0 rank (see the At a Glance section on page xi for regional classifications). Scores cited in the following sections are on a 0–100 scale, unless mentioned otherwise. Ranks are out of 140 economies, unless mentioned otherwise. Any comparison to the past is against the 2017 'backcast' edition, which was calculated using the GCI 4.0 methodology (See Appendix C for details).

East Asia and the Pacific

Home to some 2.3 billion people, the East Asia and the Pacific (EAP) region is characterized by profound diversity with respect to size, development level, political and economic system, geography, culture and history. One feature common across most economies in the region has been economic dynamism, which has contributed to rapid industrialization, a rise in living standards and a drastic reduction in extreme poverty, which fell from 30% to less than 10% over just a decade.

In 2017, the EAP was the fastest-growing region in the world and accounted for about one-third of global growth, due primarily to China's significant contribution. The region's developing economies grew at 6.6%, owing to a favourable global economic context that encouraged a rise in exports, strong consumption and high investment.² Nine of the region's 10 developing economies covered in the GCI 4.0 achieved at least 3% growth in 2017, and in five—Cambodia, China, Lao PDR, the Philippines, and Viet Nam—growth exceeded 6%. The region's seven advanced economies averaged a healthy 2.9% growth.

The results of the GCI 4.0 paint a mostly positive picture of the region's competitive landscape, confirming the widely shared view that overall growth momentum is set to last. Yet some of the region's economies continue to suffer major competitiveness deficits. The region's seven advanced economies all feature in the top 20 of the GCI 4.0 rankings and three of the world's seven most competitive economies—Singapore (83.5, 2nd), Japan (82.5, 5th) and Hong Kong SAR (82.3, 7th)—stem from the region. Most boast world-class physical and digital infrastructure and connectivity, macroeconomic stability, strong human capital and well-developed financial systems. However, performance on the innovation ecosystem is uneven. There is, for example, a 17-point score gap between Republic of Korea (78.2, 8th) and New Zealand (61.4, 27th) on the Innovation capability pillar. Still, the region's innovation hubs—Japan, Korea,

and Taiwan (China)—could improve on the so-called ‘softer’ drivers of innovation to attain the level of “super innovators” such as Germany, the United States and Switzerland (see the In Depth section on innovation in Chapter 1).

Among the region’s emerging markets, the picture is more diverse, with three distinct groups. Malaysia (74.4, 25th) and China (72.6, 28th) are less than 30 points to the competitiveness frontier (the highest score on the GCI) and on par with many advanced economies. The largest ASEAN economies—Indonesia, the Philippines, Viet Nam and Thailand—as well as Brunei Darussalam are 40 points or less to the frontier. Finally, Mongolia (52.7, 99th), Cambodia (50.2, 110th) and Lao PDR (49.3, 112th) are only halfway to the frontier, reflecting major weaknesses that threaten sustained growth. This makes them vulnerable to a sudden shock, such as a faster-than-expected rise in interest rates in advanced economies and escalating trade tensions, or, as in the specific case of Mongolia, lower commodity prices. The strengths of the region’s advanced economies are often weaknesses for most of the developing ones: infrastructure (average score on the Infrastructure pillar of 65.4 compared with 87.0 for advanced economies), ICT adoption (average pillar 3 score of 56.8 vs 82.4), education and skills (average score on the Skills pillar of 59.6 vs 77.2), financial system development (average pillar 9 score of 64.1 vs 85.3), and innovation capability (average pillar 12 score of 72.3 vs 39.3).

Singapore ranks second (score of 83.5) on the overall rankings behind the United States as a result of a very strong performance across the board. Singapore features in the top 10 of seven pillars and in the top 20 of a further four. Openness is the defining feature of this global trading hub and one of the main drivers of its economic success. Singapore leads the Infrastructure pillar with a near-perfect score of 95.7. In particular, it boasts world-class transport infrastructure, services and connectivity. It also tops the Product market pillar (81.2), where it leads the trade openness component. Singapore also punches well above its weight in terms of market size, when taking into account imports (71.0, 27th globally). Singapore also achieves a perfect mark in the Health pillar, thanks to a healthy life expectancy of 74 years, ahead of Japan. Singapore is a regional innovation house, but in order to become a global powerhouse, it will need to improve its ecosystem further: Skills (76.0, 20th), Business dynamism (74.7, 16th) and Innovation capability (75.0, 14th) are the three pillars—besides Market size—where Singapore scores below 80.

Japan ranks 5th overall (score of 82.5), and second in the region. It is the most improved of the top 10 economies, rising three places compared with the 2017 backcast edition. Japan appears in the top 10 of seven pillars. It ranks first in the Health pillar, and Japan’s digital (87.4, 3rd) and physical infrastructures (91.5, 5th) are top

notch. It notably ranks first on air transport infrastructure (92.5), while 93% of the adult population uses the internet on a regular basis. Japan boasts the world’s third-largest penetration rate of fiber-to-the-home internet connections (23 per 100 population), a remarkable feat given the size of the country. Japan’s two weakest pillars are Institutions (71.1, 20th)—where its performance is undermined by low levels of social capital (47.8, 95th) and relatively weak corporate governance (65.8, 40th)—and Skills (73.6, 26th), where it receives average marks for the quality of the current (63.0, 26th) and future (73.2, 55th) workforces. Japan is already an innovation hub (77.5, 6th), but it needs to nurture the ‘softer’ drivers of the innovation ecosystem in order to become a ‘super innovator’. For example, Japan scores low on several measures of entrepreneurial culture, including risk aversion (53.6, 47th) and creativity, as well as critical thinking (39.0, 70th).

Hong Kong SAR ranks 7th overall (score of 82.3) and third in Asia. Its competitiveness landscape is similar to that of Singapore, although it does slightly less well in terms of innovation and labour market efficiency. Hong Kong features in the top 10 of seven of the 12 pillars of the GCI 4.0. Remarkably, it ranks second in four pillars: Infrastructure (94.0), where it ranks first in terms of sea port infrastructure and connectivity; ICT adoption (87.9); Financial system (90.1), where it ranks first for stock market capitalization and second for stability (97.0); and Product market (79.0), where it ranks second in terms of trade openness (84.5). The main challenge for Hong Kong is to develop its Innovation capability (pillar 12), the weakest aspect of its performance (61.9, 26th).

Australia ranks 14th overall (78.9), up one spot from the 2017 backcast edition, and places fifth in the region, four places ahead of New Zealand. The country appears in the top 10 of three pillars. Notably, it shares the top spot of the Macroeconomic stability pillar (100.0). It achieves a near perfect mark on the Health pillar (98.5, 8th) and a very high score for the breadth, depth and stability of its financial system (85.6, 13th). Outside these areas, Australia’s performance shows room for improvement. The functioning of its labour market (68.5, 22nd) is notably affected by its rigidity: Australia’s innovation capacity (69.8, 18th) is ranked 20 points lower than the best performers in this category. The country does well when it comes to research and development (78.8) but struggles on the softer dimensions of the innovation ecosystem, including on the Interaction and diversity (60.8) and Entrepreneurial culture (61.6) sub-pillars.

The **Republic of Korea** ranks 15th overall (78.8), up two ranks compared with the 2017 backcast edition, and sixth in the East Asia and the Pacific region. The country leads the ICT adoption pillar, boasting some of the world’s highest penetration rates of ICTs. A global innovation powerhouse, Korea ranks 8th on

the Innovation pillar. Notably, it spends the equivalent of 4.2% of GDP on R&D spending, second only to Israel (4.3%). But like some of its regional peers, Korea struggles on the less tangible drivers of innovation: critical thinking (35.5, 90th), interaction and diversity (54.5, 80th) and entrepreneurial and corporate cultures (51.3, 50th). Within this last component, Korea ranks 77th for entrepreneurial risk-taking and 88th for employee empowerment. Korea's two weakest pillars are Product market (56.2, 67th), mostly due to the lack of domestic competition, and Labour market (62.4, 48th), due to its rigidity and sub-optimal utilization of human capital.

China ranks 28th overall (score of 72.6), leading the BRICS economies ahead of the Russian Federation (65.6, 43rd), India (62.0, 58th), South Africa (60.8, 67th), and Brazil (59.5, 72nd). As the world's second largest economy, the largest when taking trade into account, China is now at a critical juncture as it transitions to a new phase of its economic development—referred to as the “new normal” by President Xi Jinping—in which its economy is driven less by investments and exports and more by consumption and services. In this context, the country has been increasingly betting on innovation. It has become a prominent player in some specific areas, like artificial intelligence. With a score of 64.4 (24th) it already stands above many advanced economies, but still trails leaders like Germany, the United States and Switzerland by some 20 points. In order to catch up with these ‘super innovators’, China would need to improve performance on softer drivers of innovation, such as diversity, collaboration and various aspects of openness. Other relative strengths include the Infrastructure (78.1, 29th) and ICT adoption (71.5, 26th) pillars, two remarkable achievements given the sheer size of the country. On a less positive note, China's institutional framework (54.6, 65th) needs further improvement. Policy-makers should also offer a more level-playing field for companies by promoting domestic and foreign competition (57.4, 55th), and addressing various inefficiencies and rigidities in the labour market (59.3, 69th).

Indonesia ranks 45th overall (64.9), a gain of two places and 1.4 points compared with the 2017 backcast edition. South-East Asia's largest economy, Indonesia ranks 4th in the region behind Singapore (2nd), Malaysia (25th), and Thailand (38th). Indonesia benefits from the very large size of its market (81.6, 8th). It is also one of the world's most connected emerging economies (61.1, 50th), on par with many richer and much smaller economies, such as Chile and Georgia. Indonesia's score in that category is 20 points higher than the average score of the lower-middle income group to which it belongs. This factor, combined with a quite vibrant entrepreneurial culture (61.1, 24th) and overall business dynamism (69.0, 30th) bodes well for the future. However, innovation capability remains limited

(37.1, 68th). In particular, research and development activities remain extremely limited, with R&D spending amounting to less than 0.1% of GDP (112th). Within the other pillars of the index, performance is uneven. One area of specific concern is public health. A newborn in Indonesia can expect to live only 62 years in good health, one of the lowest figures outside sub-Saharan Africa.

Eurasia

Eurasia is growing at a moderate pace (slightly above 2%) and is expected to continue on this trend for the next few years. Data indicates that the region is firmly out of the 2015 recession and can look to the future with more optimism compared to the recent past. The Russian Federation, the largest economy in the region, is expected to grow at 1.7% in 2018, and China is strengthening its position as a key commercial partner for the region. The positive outlook in these two countries provides an anchor to the economic development of the region for the next few years. In addition, oil prices continuing to remain above US\$60 per barrel since the fourth quarter of 2017 have contributed to the growth of two other large economies in the region (Azerbaijan and Kazakhstan). These developments have backed the improvement in macroeconomic stability of most oil-exporting countries and provided additional space in public budgets. However, the region should consider some looming risks. Among them, the gradual normalization of monetary policy in Europe and the United States is likely to increase interest rates and tighten credit conditions. In addition, the potential increase in protectionism worldwide may indirectly reduce the growth prospects of the region and increase uncertainty on commodity prices.³

In this context, Eurasia has attained a moderate competitiveness performance (58.4 out of 100). Most countries in the region achieve a GCI score between 52 and 65, and all share strong performances on health (pillar 5, 73.4), education and skills (pillar 6, 65.6) and infrastructure (pillar 1, 66.3). Yet, to secure a stronger competitiveness position, Eurasian countries should diversify their economies and work to build upon these strengths to increase their presence in higher segments of the value chain. This will require improving their financial systems and upgrading their capabilities for innovation, the two main common areas of weakness in the region. In some countries (Armenia, Azerbaijan, Georgia and Kazakhstan, for example) reforms in the labour market can also contribute to improving the allocation and retention of skilled talent, which is pivotal for absorbing new technologies and increasing value added and productivity across industries. In addition, no country in the region achieves a score above 61 on the Institutions pillar. More specifically, all countries

except Georgia score below 35 in terms of transparency. More concerted efforts should be made to reinforce this dimension across the region.

Despite sharing similar strengths and development challenges, countries in Eurasia present significant competitiveness disparities. The regional leader, Russian Federation (43rd overall) ranks 59 places ahead of Tajikistan (102nd), achieving a significantly better performance on nine out of the 12 GCI pillars. In particular, the country's score on the ICT adoption pillar is 39.2 points better than that of Tajikistan, which translates into 83 places higher on the pillar ranking.

In fact, ICT adoption is, by far, the component of the index that reveals the greatest differences across the region. The performances of the region's top three countries (Russian Federation, Kazakhstan and Georgia) are approximately 20 points higher than those of the least ICT-ready countries (Kyrgyz Republic, Tajikistan and Ukraine). The GCI 4.0 also registers noteworthy inequalities across the region in terms of macroeconomic stability and infrastructure. With regard to the former, Ukraine and Azerbaijan perform considerably lower than the regional average, due to double-digit inflation and increasing or high public debt. As for infrastructure, the score of the most advanced countries in the region are at least 15 points higher than those with less developed infrastructures.

The best performer in Eurasia, the **Russian Federation** ranks 43rd overall with a score of 65.6 out of 100. This is a slight increase from 2017. Its competitiveness performance reflects better growth prospects; the country is growing at 1.7% in 2018, the highest in over five years. The stabilization of its macroeconomic context has played a central role in this process. Following 2014–2016, during which inflation was in double digits and the economy was in a recession, inflation is now slightly above 5.4%, while government debt is low (17.7%). Relying on a more stable macroeconomic environment (87.5, 55th), Russia can better leverage its large market size (84.0, 6th), its high level of ICT adoption (72.1, 25th) and its human capital (66.3, 85th). As stated by its Strategy 2030, the country plans to focus on structural change and work to improve its export capacity and develop a stronger financial system. The limited depth of the financial system (35.0, 73rd) is one of the factors constraining the investments necessary to achieve greater breadth and sophistication of value chains. In addition, the skills of the current workforce (54.0, 53rd) should be upgraded and modernized. This will certainly benefit the country's innovation ecosystem, which is currently penalized by a weak entrepreneurial culture (49.5, 64th) and limited interaction and diversity (43.2). The second weakest aspect of Russia's performance after innovation is the Institutions pillar (52.7, 72nd), in which Russia is only halfway to the frontier. Among the many issues in this

area, the very low level of transparency (29.0, 113th) is of particular concern and severely undermines the quality of the business environment.

Europe

When it comes to competitiveness, Europe is a story of contrasts, with four distinct groups: a very competitive north-west, including Switzerland; a relatively competitive south-west, led by France; a rising north-east region, led by Poland, Czech Republic and the Baltic countries, which rank on par with or higher than several Western European economies on several aspects of competitiveness; and the south-eastern region—in particular, the Balkan countries—which lags behind the other groups.

Real GDP growth was up for the majority of European countries in 2017, with current growth forecasts for the subset of euro area countries above 2% for 2018. While this looks like a continuation of the recovery, the situation remains fragile, as uncertainty over international cooperation and trade is dampening 2018's growth outlook. As a result of both trade tensions with the United States and rising energy prices, the European Central Bank has recently downgraded growth forecasts for the euro area for 2018 from 2.3% in May to 2.0% (vs growth of 2.4% in 2017).⁴

The consequences of the 2007-2010 financial crisis still linger in the form of broken trust between a large part of the European electorate and the continent's political elites—and more concretely in the form of continued overleveraged government balance sheets. Added fragility comes from continuing shifts in political alignment and ideology, with the appearance of a growing voter base for populist parties across Europe. In addition, Brexit remains unresolved. However, a recent positive milestone is Greece's successful exit from the IMF loan programmes.

While recent political shifts do give much reason for concern, the continent still has basic competitiveness factors firmly in place: Europe's public health indicators are strong across the board, including Spain at the global frontier. Education and skills outcomes are also solid. Finland tops this category globally, although these outcomes differ across the region as a whole.

Technology-related headlines coming out of Europe in the past year have mostly been related to efforts by the competition authorities to come to terms with new forms of market power exerted by platform companies and about the lack of local "unicorns". The greatest disparities across the continent lie in national innovation ecosystems, with countries in Eastern Europe and the Balkans lacking basic innovation infrastructure while countries such as Germany define the global frontier on innovation ecosystems (Germany tops the innovation rankings in this year's GCI). This divide extends to factors as varied as a country's diversity of interaction

(including cluster development, workforce diversity, patent applications and multistakeholder collaboration), research outcomes and commercialization opportunities. The distribution of outcomes on technology readiness is also relatively dispersed, and Europe is undeniably behind the global leader Korea. On a positive note, European economies on average fare relatively well on technology adoption.

On other factors of competitiveness, Europe is relatively far behind the global frontier when it comes to product market competition (where Singapore tops the global ranking) as well as business dynamism, where the United States ranks highest. The size of its market on the other hand represents a strong competitiveness advantage for Europe, especially in an age where economies of scale and network efficiencies are becoming ever more important.

Germany emerges as the strongest European performer in this year's competitiveness rankings and the third-strongest globally (overall score: 82.8). The country stands out in particular for its innovation ecosystem. It ranks first globally on the Innovation capability pillar (87.5). This result is driven by a strong performance on patents (5th, 100) and research publications (3rd, 100), by top-ranked research institutions (4th, 100), and by a very high degree of buyer sophistication (66.1, 5th), leading to firms constantly being challenged by their customers to innovate.

Innovators benefit from a vibrant business sector to bring innovations to market (81.6, 2nd). Germany's strong overall competitiveness performance is further explained by very solid fundamentals, such as a stable macroeconomic environment and a healthy, well-educated and highly-skilled population.

However, the country lags behind when it comes to ICT adoption, ranking only 31st globally with a score of 69.3. The gap is particularly marked on mobile broadband subscriptions (53rd) and on the provision of the latest ICT infrastructure in particular in terms of fiber connectivity to the home (66th).

Switzerland ranks 4th (score of 82.6) globally and second in Europe, behind Germany. It features in the top 5 of seven pillars. Switzerland is one of the world's 'super innovators' (82.1, 3rd, behind Germany and the United States). The country is home to large multinationals that are often leaders in their sector, as well as a dense network of SMEs with a reputation for quality and innovation. In addition to research excellence, intense collaboration between the academic and business worlds yields innovative products with commercial applications. An array of factors supports the innovation process, including a conducive institutional framework (77.1, 5th), top-notch transport and utility infrastructure (3rd), a sophisticated and stable financial system (89.4, 4th), and a well-functioning labour market (80.4, 2nd). In this last category, Switzerland

ranks first for the soundness of its active labour market policies and the quality of industrial relations, and second for flexibility. Switzerland's performance is adversely affected, however, by its poor showing in the trade openness category (60.5, 76th and worst among advanced economies), owing to the complexity of its tariff regime, for which it ranks last among the 140 economies studied. In terms of ICT adoption, Switzerland lags far behind the best (77.0, 15 points behind global leader Republic of Korea).

The Netherlands is the third-most competitive European economy and the sixth-best globally (82.4). The Netherlands performs particularly well on institutions (77.9, 4th), especially when it comes to checks and balances (including judicial independence, freedom of the press and government openness), protection of property rights, and ethics and transparency.

Its economy is particularly strong on openness, which manifests itself in many dimensions. The country's open innovation environment is marked by forgiving cultural attitudes towards entrepreneurial failure, a great willingness to delegate authority, entrepreneurs who are willing to embrace disruptive ideas, and fast-growing innovative companies (71.5, 6th). In the Netherlands, businesses are as easy to set up as they are to unravel.

Capitalizing on its high population density, the Netherlands is very well-connected internally through high-quality roads, railroads and waterways, as well as externally through digital technologies and physical infrastructure such as seaports and airports (92.4, 4th on the Infrastructure pillar). All of these factors support highly competitive product markets. A final contributing factor to the country's openness comes in terms of the mindset fostered among students. The quality of education offered is very high (84.5, 6th) and, evidently, encourages critical thinking, where the Netherlands ranks 7th globally (70.9).

The **United Kingdom** is the fourth-most competitive economy in Europe and eighth-strongest globally (82.0). The performance is largely explained by its traditional strengths: very well-functioning markets (78.7, 4th), a top innovation ecosystem (79.2, 7th) and vibrant business dynamism (79.0, 7th). Notably, the country's performance is equally strong across product, labour and financial markets. Independent of other effects of Brexit, the event will, by definition, weaken the United Kingdom's markets component as integration with the EU is rolled back. Other factors will need to compensate. While the UK has a strong innovation ecosystem and a vibrant business sector, it currently looks less prepared than some of its peers to leverage ongoing rapid technological change. ICT adoption is also one of the weakest pillars compared to the other eleven drivers, with the UK ranking only 28th globally (71.1). It also lags in terms of its provision of fiber to the home (75th), mobile broadband

subscriptions (40th) as well as the digital skills of the population (65.5, 32nd).

Sweden ranks ninth globally in this year's index and fifth within Europe (81.7). Its performance is even across the twelve drivers of competitiveness, with high scores and high rankings across all 12 pillars. Among its high-performing European peers, Sweden seems best prepared to leverage the opportunities brought by the accelerating technological change. The country ranks extremely high on ICT adoption (85.2, 5th), scoring highly both on levels of internet use (89.7, 14th) as well as the quality of its connectivity: 12th on mobile broadband connections, 13th on fixed broadband connection and 5th for fiber connectivity to the home. Remarkably, it ranks top globally in terms of the digital skills of its population (80.6). These high levels of tech readiness—combined with a strong performance on human capital, including education and skills (84.2, 7th) and public health (96.5, 17th)—provide a very good basis to capitalize on Sweden's strong innovation capacity (79.8, 5th).

Denmark, one of the smallest markets in Europe, ranks tenth globally (80.6). It stands out in the region for its very well-functioning labour markets (5th, 78.0), which form the basis of a strong social contract. A pioneer of flexicurity, the country manages to reconcile an effective market economy with strong worker protection and a welfare state, notably through active labor market policies (71.4, 7th). The country provides high levels of stability both for its citizens and the business sector. It scores high on the strength of its institutions (10th, 75.9), its infrastructure (86.3, 14th) as well as it's the stability of its macroeconomic environment (joint 1st with multiple economies). According to the perception of Denmark's business executives, the country also has one of the highest levels of social capital in the world (64.3, 4th). Further, the labour force is extremely well educated (84.9, 5th), with the educational system scoring high on the quality of vocational as well as graduate education. Digital skills among the population are strong, and both the level and quality of connectivity are high, placing the country among the top 10 tech-ready economies globally (82.3, 8th).

Denmark's business sector is one of the most dynamic in the world, thanks to very little red tape (the administrative burden of setting up and closing down a business is minimal) and a business culture marked by trust and collaboration as well as a willingness to embrace new ideas. Furthermore, its innovation outcomes in terms of the number of patents and trademarks are remarkable given the small size of the country.

France secures a place among the top twenty economies globally (78.0, 17th), having recently taken on an ambitious reform program that encompassed overhauling labour laws, reforming public services (most

notably the national railway operator) and making the country more attractive as a destination for high-tech investment.

As a host to world-class research institutions (3rd), the country performs very well on innovation capability (76.1, 11th), and ranks among the top countries in the world in terms of the number and quality of its research publications (5th). There is scope to boost this performance further by adapting the system to the digital age. This would entail focusing on 'soft' innovation factors, such as encouraging critical thinking in students (44.9, 48th), embracing disruptive ideas (46.7, 45th) and developing its entrepreneurial culture. In fact, France ranks a low 84th (46.2) on the GCI in terms of its tolerance for entrepreneurial failure. Currently, France's performance on the Interaction and diversity sub-pillar is also weaker than its peers.

In order to leverage this innovation strength, further bottlenecks need to be addressed in the area of market functioning. While labour market rigidities are being addressed, there is still a long way to go as the economy currently ranks 53rd on this dimension (61.5). Furthermore, product market functioning can be improved by reducing non-tariff barriers (53.2, 90th) and reducing services trade restrictiveness (73.6, 55th). The country's regulatory burden is perceived to be very high by the business sector, with France ranking 107th on this indicator (31.8). The country's performance on ICT adoption is mixed (71.1, 29th), with a high level of fixed broadband subscriptions, yet lagging on mobile broadband and fiber to the home.

Italy ranks 31st overall and 17th in Europe. The country's GDP is growing at 1.5%, the fastest rate since the 2008's financial crisis. Yet Italy remains the advanced economy that is growing the least. To improve its prosperity, Italy should indeed prioritize its competitiveness and growth agenda, building on its strength and addressing its weaknesses. Among Italy's strengths, the GCI highlights excellent health conditions (99.2, 6th), large market size (79.1, 12th), a top-tier innovation capability (65.8, 22nd), and good infrastructure (83.1, 21st). To further maximize its innovation potential Italy could further expand its ICT adoption (60.3), while the private sector should be more open to new business models and disruptive ideas (36.6) and assume a more positive risk-taking attitude (49.6). On the other hand, the improvement of Italy's competitiveness depends primarily on the modernization of its financial system (64.3, 49th) and public-sector administration (39.9, 107th). Low performance in these pillars translates, respectively, into insufficient resources to finance innovative investments and a high degree of red-tape that stifles business activity. In addition, macroeconomic stability (85.0, 58th) will, no doubt, be a key area of focus for policy-makers going forward. Although public finance appears to be under control,

overall, high public debt and uncertainties on the future management of fiscal policy may further increase the cost of access to capital for the public sector and for private companies.

Turkey ranks 61st on the overall GCI 4.0, with relative strengths on infrastructure (72.6), public health (86.2) and the innovation ecosystem (50.6). Grappling with near double-digit inflation and negative debt dynamics, Turkey's macroeconomic woes are compounded by trade sanctions established by the United States, which has triggered even higher inflation and a currency crisis. Turkey is ranked 116th on the Macroeconomic stability pillar, with a score of 67.4.

While its innovation performance is good, with strong research institutions (34.7, 19th) and a good publication record, ideas generated by Turkey's research community face many bottlenecks further down the value chain in terms of barriers to entrepreneurship and market functioning. Starting a business is relatively costly (93.6, 87th) and the business sector is cautious to embrace disruptive ideas (41.0, 74th). Further, the labour market is hindered by rigidities in terms of worker-employer relations (47.9, 113th), contracting (ranking 122st, with a score of 46.3 on the Redundancy costs indicator) and meritocracy (50.5, 116th). In particular, women's participation in the labour market is very low. For every 100 men, only 39 women are represented in the labour market.

Latin America and the Caribbean

Economic growth in Latin America picked up modestly in 2017. Commodity-exporting countries such as Brazil, Argentina and Chile have benefited from high commodity prices and high global demand. Inflation has been kept in check in most countries, with the exceptions of Argentina and, to a much larger extent, Venezuela.

The region's economic recovery remains fragile as multiple economic and geopolitical factors could jeopardize growth. Some of these risks include a rise of trade protectionism in the United States; a spillover of Venezuela's economic and humanitarian crisis; policy uncertainty emerging from elections in the region's largest economies, Brazil and Mexico; and disruptions from natural disasters threatening Caribbean economies still recovering from the devastating impacts of the fall 2017 hurricanes.

Strengthening institutions across the region must be a priority, as it can have far-reaching effects on the performance of other pillars (see Chapter 1). The region's average performance on the Institutions pillar is approximately the same as that of Sub-Saharan Africa. In many countries, high levels of perceived corruption reveal an important factor undermining the strength of institutions. Security also poses a significant challenge for the region, which includes countries that rank among the least secure in the world: El Salvador (140th),

Venezuela (139th) and Honduras (136th). With eight countries in the region holding presidential elections between November 2017 and December 2018, it is unclear whether this electoral cycle will lead to new opportunities or greater challenges for the coming years.

Other notable competitiveness gaps in the region are in ICT adoption and innovation. Though several outliers stand out in each pillar, Uruguay is the country with the highest level by far of ICT adoption in the region, topping advanced economies such as Taiwan (China) and Switzerland. Interestingly, however, Uruguay's performance on ICT has not translated to more innovation, further reinforcing the argument that innovation should be tackled with a multidimensional perspective.

For most countries, the current favourable macroeconomic conditions coupled with relatively positive economic growth may provide a window of opportunity to narrow performance gaps in other pillars—especially those requiring additional investments and popular support for competitiveness enhancing policies.

Chile ranks 33rd overall with a score of 70.3. The country is the most competitive in Latin America, ranking 1st among its peers in six out of 12 pillars. Chile's overall performance is driven by stable macroeconomic conditions (ranking 1st with a score of 100) and a relatively well-developed infrastructure (75.2, 41st).

Chile is among the top performers on the Product market pillar (68.2, 13th), primarily as a result of lower prevalence of non-tariff barriers and relatively low measures of tariff complexity. The country is relatively weaker on ICT adoption (61.3, 49th), but nonetheless performs above the regional average. Like many of its neighbors, Chile also lags behind on innovation capability (41.3, 53rd) as a result of low performance on both research and development and research collaboration metrics.

Mexico ranks 46th globally, with a score of 64.6, and is the second most competitive Latin American economy behind Chile. The country's competitiveness is largely driven by a stable macroeconomic environment (pillar 4 score of 99.4), and a large market size (80.6, 11th). There are other reasons to be optimistic about Mexico's growth trajectory: it outshines other Latin American countries in terms of business dynamism (65.5, 41st) due, in part, to the relatively favourable administrative environment for businesses (82.0, 33rd).

Weaknesses in the labour market, where it ranks 100th (54.4)—in particular its rigidity (54.4, 91st) and the difficulty in attracting and retaining a talented workforce (54.8, 107th)—weigh on Mexico's performance. The country also gets low marks on the Institutions pillar (47.7, 105th, 20 points lower than the OECD average), partly driven by a deteriorating security situation (46.0, 127th), which is characterized by violence, a high

homicide rate and low trust in law enforcement officials. Recent corruption scandals have also contributed to the very weak performance on the Transparency sub-pillar (29.0, 113th).

Brazil ranks 72nd overall, down three places from its 2017 score. As South America's largest economy, its score is driven by its relatively large market size (80.9, 10th) and performance on the Health pillar (79.6, 73rd). Brazil leads the region on the Innovation capability pillar (ranked 40th overall) yet remains below its potential. The poor integration of policies and the lack of coordination between the public and private sectors are among the institutional factors inhibiting its performance.

Conversely, Brazil ranks 9th in the region and 108th overall on the Business dynamism pillar with a score of 52.4. By promoting the inclusion of more businesses and firms in the innovation ecosystem, Brazil could further capitalize on its innovation potential and stimulate productivity growth. The country also fares poorly on the Product market pillar (48.9, 117th) as a result of a lack of market competition, the presence of distortive policies (subsidies), and Brazil's poor integration to global markets—reflected in very high import tariffs (12.5% on average, 125th) and high prevalence of NTBs (136th). Labour market performance also remains one of the biggest challenges for Brazil, and performance has declined over the last year. The pillar 8 score fell from 52.8 (99th) in 2017 to 51.0 (114th) in 2018, indicating that the reforms passed in 2017 aiming to enhance labour market flexibility have yet to produce their desired effects.

Argentina ranks 81st with an overall competitiveness score of 57.5, and ranks 11th among Latin American and Caribbean economies. Argentina's overall score is mainly driven by its human capital factors on the Health (85.1, 53rd) and Skills (68.4, 51st) pillars. Argentina also scores its highest marks on the Market size pillar (10) on which it ranks 34th overall, and 3rd in the region with a score of 68.8. A high inflation rate in 2017 (ranking 137th) has had a negative effect on the Macroeconomic stability pillar (44.9, 136th). Increased stress on the peso in 2018 is adding pressure on inflation and public debt, which may undermine the government's recent efforts to boost Argentina's competitiveness.

Middle East and North Africa

In recent years the pace of economic reforms in the Middle East and North Africa (MENA) has accelerated, after a combination of economic, social and political factors increased the urgency to diversify the economy and broaden the benefits of growth. A prolonged period of low oil prices forced resource-rich countries to take more concrete action to re-balance their economies. Social tensions and persistently high unemployment rates throughout the region turned the attention of governments towards the creation of private sector jobs,

particularly for the youth. Some countries also faced a large influx of refugees and displaced people who left areas of conflict and instability.

After a slowdown in 2017, growth in the MENA region is expected to bounce back this year. After facing the peak of financial turmoil, oil-exporting countries are continuing to reduce fiscal imbalances—but at a slower pace. Some of them are already benefitting from reforms introduced to structurally reduce expenses (especially subsidies) and increase revenues (i.e. the introduction of VAT in some countries). This is expected to improve domestic demand and economic activity in non-oil industries, while future trends for the oil sector remain unsure due to uncertainty on both prices and production levels. The rest of the region is currently benefitting from an increase in foreign demand (in terms of both export and tourism) particularly from Europe, where growth has gained momentum in 2017.

In order to ensure the sustainability of fiscal budgets and reduce distortions in the economy, most countries have decreased subsidies on electricity, natural gas and petroleum products. Yet, these remain significant and could represent a sizeable share of public spending in case of an increase in international prices for energy products. Other reform efforts include the introduction of VAT in the Gulf Cooperation Council members, improved bankruptcy laws in the United Arab Emirates, and more flexible visa regimes for foreign workers (such as the Flexi-Permit introduced in Bahrain) or tourists (such as the visa exemption scheme implemented in Qatar).

Today, the region remains quite diverse in terms of competitiveness performance across all components of the index. Israel and the United Arab Emirates are pulling ahead, and on many dimensions outperform most of the OECD countries. The region can generally count on good transport infrastructure, but improvements are necessary, especially in terms of intra-region connectivity. With a few exceptions, macroeconomic conditions are stable in most countries, which facilitates good financing conditions for the private sector, although these are mostly funneled to larger and well-established companies. This, together with limited technological and ICT readiness, hinders the region's capacity to innovate, currently its weakest spot on the GCI 4.0.

In spite of recent reforms, gaps remain also in terms of business dynamism and labour market efficiency. Weak insolvency frameworks are among the most urgent areas of reform for the region, as they inhibit businesses from entering the market, making appropriate investment decisions and thriving through business cycles. As a result, only five out of 15 MENA countries appear in the top half of the rankings of the Business dynamism sub-pillar: Israel (5th), United Arab Emirates (33rd), Qatar (40th), Oman (52nd) and Bahrain (54th). The segmentation of the labour market into different groups of workers, with little mobility among them, adds

to the rigidity of the economy in most countries in the region and reduces the utilization of available talent. Only four countries appear in the top half of the rankings of the Labour market pillar: Israel (15th), the United Arab Emirates (42nd), Bahrain (46th) and Qatar (54th). The participation of women in the workforce remains low throughout most of the region, in spite of improvements in education levels, and youth unemployment is untenably high, particularly in North Africa, with levels in both Egypt and Tunisia well above 30%.

Israel leads the Middle East and North Africa with a score of 76.6 (20th globally). The country has grown to become one of the world's innovation hubs thanks to a very strong innovation ecosystem (10th best in the world). Israel spends the most of any country in the index on R&D (4.3% of GDP), and is where entrepreneurial failure is most accepted and innovative companies grow the fastest. It can also rely on an extremely educated workforce, with an average of 13 years of schooling (8th globally) and where people acquire the appropriate skills that employers are looking for (2nd globally). This pool of talent is well integrated into the job market thanks to the low level of taxes on labour (5.9% of companies' profits), near-equal participation of women (6th globally) and reliance on professional management (19th). A well-developed financial sector (22nd), with the second-best availability of venture capital in the world, also supports a flourishing and innovative private sector. However, the dynamism of domestic markets could be hindered by the presence of large groups (51st globally in terms of dominance of few large companies), although competition within the service sector, particularly in professional services, remains vibrant (31st).

Ranked 27th globally with a score of 73.4, the **United Arab Emirates** is next in the region in terms of competitiveness. The economy's main strength lies in the quality of its enabling environment, as companies can operate under stable macroeconomic conditions (1st), make use of good infrastructure (15th) and one of the highest levels of ICT adoption in the world (6th). In all of these areas, the UAE is either at the global frontier or less than 20 points away from it. Sizeable investments in technological readiness have yet to fully turn into increased innovation capability (pillar 12), where the country lags further behind, ranking 35th globally and at only half the theoretical global frontier. The quality of the country's human capital remains a key constraining factor, with the current workforce having on average less than 10 years of schooling and the labour market still characterized by inefficient use of the available pool of talent (61st). To fully unlock the innovative potential of its economy, the UAE should consider continuing the path of reforms to spur business dynamism and increase the efficiency of product markets, particularly in the service sector. Recent improvements of the insolvency framework represent a positive step in this direction.

Saudi Arabia ranks 39th overall with a score of 67.5 and can rely on a conducive macroeconomic environment (1st) that has weathered well the turmoil of the recent years, which have been characterized by low oil prices. It boasts a modern infrastructure (75.5, 40th) and a large market size, MENA's largest and the 17th globally. The ambitious set of reforms included in its Vision 2030, once implemented, will increase private sector dynamism and innovation capability in the country, currently among its relative weaknesses. In particular, insolvency frameworks are currently penalizing business dynamism (51.2, 114th), while research institutions and formal education will both need to improve in order to spur the country's level of innovation. In past years, the country has significantly increased participation in the education system and, with a school-life-expectancy of 16.9 years (18th), its future workforce is set to be one of the most educated globally. However, it will be equally important for Saudi Arabia to improve the quality of its education programs and their correspondence to the needs of the economy to ensure that graduates have the right set of skills. Finally, labour market efficiency (102nd) is impaired by a number of constraints and regulations that segment the market and decrease the overall level of efficiency and talent utilization.

North America

The region is home to the United States, the GCI 4.0's top performer, and Canada, ranked 12th. With a score of 85.6 out of 100, the **United States** tops the 2018 rankings of the GCI 4.0, confirming its status of most competitive economy in the world (it also ranks first in the 2017 backcast edition), although with a notable gap to the frontier. The United States appears in the top 3 of seven pillars. It leads the Business dynamism pillar, with a score of 94.1, thanks to its vibrant entrepreneurial culture. It also ranks first on the Labour market (81.9) and Financial system (92.1) pillars, due to its depth, breadth and relative stability, and achieves a near perfect score on the Market size pillar (99.2, second behind China). All these factors contribute to the country's vibrant innovation ecosystem, making it a 'super innovator' (86.5, 2nd behind Germany). Although the country's institutional framework remains very conducive (74.6, 13th), there are indications of a weakening social fabric (63.3, down from 65.5) and worsening security situation (79.1, 56th)—the United States has a homicide rate five times the average for advanced economies—as well as relatively low checks and balances (76.3, 40th), judicial independence (79.0, 15th), and transparency (75.0, 16th). Aspects of corporate governance (70.0, 22nd) could also be improved. The country also lags behind most advanced economies on the Health pillar—a consequence of the country's unequal access to healthcare and broader socio-economic disparities.

Healthy life expectancy is 67.7 years (46th), slightly fewer than Sri Lanka and China, three years below the average of advanced economies, and six years less than Singapore and Japan. Finally, ICT adoption is relatively low compared to other advanced economies. With a score of 71.2, the United States trails Korea by a full 20 points. Only 76% of the adult population uses the internet on a regular basis, 7% below the OECD average.

Canada ranks 12th overall with a score of 79.9, behind three Scandinavian countries: Sweden (9th), Denmark (10th) and Finland (11th). Canada's performance across the 12 pillars is generally strong. Canada features in the top 10 of only two pillars: Macroeconomic stability, where the country has a perfect mark of 100, along with others, and Labour market (77.0, 6th). Canada's labour market is characterized by high flexibility, combined with very strong workers' protections and gender parity for labour force participation. The country is fairly innovative (75.0, 13th), but not yet an innovation powerhouse. It trails its neighbor and other leaders, Germany, Switzerland and Taiwan (China) by 10 points. Among the causes is the relatively low spending on R&D (1.6% of GDP, below the OECD average of 2%, and less than half the share of the biggest spenders). As for the softer drivers of innovation and competitiveness, Canada ranks first in terms of diversity (81.7). Yet its level of ICT adoption is very low (68.6, 34th) and represents the weakest aspect of Canada's performance. The cost of mobile data and services is one of the highest among advanced economies, which hinders adoption.

South Asia

South Asia continues to show strong economic growth and an improved macroeconomic outlook on the back of reforms in some of the world's largest countries. GDP growth is expected to pick up in 2018, reaching an average of 7.1%, confirming the region as one of the world's fastest-growing. India remains the region's main driving force, but the acceleration is widespread and encompasses all the countries in the region, with the exception of Nepal where a slowdown is expected after the fast recovery of 2017 when the country rebounded from the aftermath of the 2015 earthquake. On average, the region is burdened by both higher levels of public debt than other emerging economies, and—in some countries—large current account deficits. However, lower commodity prices have contributed to keep inflation low and international accounts more balanced in recent years.

In spite of growing international flows, South Asia remains the region with the lowest trade penetration in the world, with imports and exports of both services and merchandise goods amounting to approximately 39% of regional GDP in 2017. It is not surprising, then, that the country in the region that is most open to foreign competition—Bangladesh—ranks only 125th on this

component of the GCI 4.0, while South Asian economies apply an average tariff rate of 15% to imports from the rest of the world. Investment flows and integration into global value chains have also, so far, been rather limited.

While some countries in the region have managed to localize segments of global industries—in terms of both services and manufactured goods—all will need to increase their innovation capacity and technological readiness in order to move towards higher value-added processes and productions. ICT adoption and innovation capability are the two areas where the region lags even further behind the rest of the world, with the region's median performance at only one-third of the global theoretical frontier. Ranked 31st, India punches significantly above its weight in terms of innovation capability, and is an outlier in the region, with the second-best country, Pakistan, following far behind at 75th. Interestingly, these two countries demonstrate the region's lowest levels of technological readiness, confirming the challenge for large emerging economies to fully integrate their entire population—especially those living in the most remote areas—into modernization processes.

India leads the region in all other areas of competitiveness except for health, education and skills, where Sri Lanka boasts the highest healthy life expectancy (67.8 years) and the workforce with the highest amount of schooling (9.8 years). These two countries are also the ones that can rely on the most efficient infrastructure system. India has invested more heavily on transport infrastructure and services, while Sri Lanka has the most modern utility infrastructure.

India ranks 58th (62.0) and has demonstrated sizeable improvements over the past year. Compared with the 2017 backcast edition, India is up five places, the largest gain among G20 economies. India is a remarkable example of a country that has been able to accelerate on the pathway to innovation (where it now ranks 31st, with a score of 53.8), due, particularly, to the quality of its research institutions. In spite of a high degree of entrepreneurship (61.1, 23rd), business dynamism is hampered by administrative hurdles. While Indian companies can access the 3rd largest market in the world (which translates into a perfect mark of 100.0 on the Market size pillar), the country would benefit from increased trade openness (136th) to drive productivity growth. More investments will be necessary to spur innovation beyond hubs of excellence and diffuse economic growth more broadly. This includes continuing to widen the adoption of ICT technologies (28.0, 117th) and improving the quality and conditions of human capital across the country, taking advantage of an extremely young population. India currently ranks 108th on the Health pillar and 96th on the Skills pillar of the index.

Sub-Saharan Africa

The economic prospects of Sub-Saharan Africa are at a crossing point. The average GDP growth of the region has fallen below 5% since 2015 and is expected to grow at 3.4% in 2018. After having benefitted from a period of fast growth driven by strong foreign demand and high commodity prices, economies in the region need to strengthen their fundamentals to become more resilient to commodity price shocks and to compete successfully in the technology-driven global economy. To date, Sub-Saharan Africa, with an average score of 46.2, has the lowest GCI score among all regions and demonstrates the weakest average regional performance on 10 out of the 12 pillars. In only five pillars does the average score exceed 50, including in Labour market (53.8), Product market (50.4) and Business dynamism (51.1). These factors herald the possibility to leapfrog, by more adeptly tapping into digital business models and private sector development. However, to be able to do so and to digitally-transform their economies, countries in this region need to improve quickly on ICT adoption (29.6) and human capital. For example, less than half of the adult population has access to the internet, and subscriptions to broadband telecommunication services are extremely low in most of the region's economies. On the human capital side, the region still has the weakest health conditions in the World (46.4 on the Health pillar) while the skills of the population (43.4 on the Skills pillar) need to be updated to transform into a better-trained workforce. After successfully increasing participation in education, the next challenge for the region's economies will be to improve the quality of teaching and provide young people with the digital and cognitive skills required by the economy of the future.

In addition, the issue of unsustainable levels of public debt is returning as a source of concern following the period 2004–2014 when public debt seemed to be shrinking. After the end of the commodity super-cycle in 2015, public revenues have decreased, but public spending did not follow suit. On average, the public debt-to-GDP ratio in Sub-Saharan Africa shot up from 32.4% in 2014 to 45.9% in 2018.⁵ For some countries this trend has been particularly remarkable. For example, public debt in Zambia doubled between 2014 and 2015 and is currently at 65.5% of GDP. Similarly, public debt in Angola increased from 32.9% in 2013 to 79.8% in 2016, and in Mozambique it rose from 53.1% to 118.7%. Some countries have managed to maintain control on their public finance, showing that an alternative path is possible. Notably, Botswana, with a public debt of just 15.6% and inflation at just 3%, has maintained a very stable macroeconomic environment over the past decade. Nonetheless, the difficulty of most economies in the region to adjust to lower revenues and manage fiscal policy raises questions about the sustainability of public debt, with impending consequences for the attraction

of private investments and the availability of public capital necessary to develop infrastructure, improve the education system and provide social services.

Within Sub-Saharan Africa, Southern African countries have achieved a relatively higher competitiveness performance (48.0) compared to East Africa (46.8) and West Africa (44.5). Regional differences are greater when looking at ICT adoption, Skills and Financial System pillar scores, where Southern Africa performs, on average, 8.3, 8.9 and 8.7 points higher than West Africa. These differences are even more prominent at country level. The score attained by the regional leaders (Mauritius, 63.7, and South Africa, 60.8) are almost twice as large as those of the two least competitive economies. Some economies have emerged as regional leaders on specific domains. Kenya, the most competitive economy in East Africa, is developing into one of the region's strongest innovation hubs (36.5 on the Innovation capability pillar), comparable to South Africa and Mauritius. Rwanda, with a score of 64.4, leads Africa in terms of institutional quality, followed by Mauritius (62.8), Namibia (57.2) and Ghana (55.7), the most competitive economy in West Africa.

Mauritius ranks 49th globally. With a score of 63.7 out of 100 it achieves the best performance in Sub-Saharan Africa, in line with 2017. Mauritius's leading position in the region is reflected in a GDP growth consistently above 3% since 2006, and above 4% over the past three years. The competitiveness performance of Mauritius is relatively strong in eight of 12 GCI pillars, where it ranks 67th or higher. Among these eight pillars Mauritius has achieved its best score on the Product market pillar (65.6, 19th), thanks to a high degree of openness (6th) and a non-distortive fiscal policy (62.6, 16th). In addition, Mauritius is characterized by strong business dynamism (66.5, 35th) and sustained by lean administrative requirements (83.2) that enable companies to open and close with relative ease. Finally, Mauritius has achieved a strong performance on the Institutions pillar (38th, 62.9), second only to Rwanda in the region. This is a considerable competitive advantage in Sub-Saharan Africa, where 65% of economies score below 50. On the other hand, the pillars where Mauritius delivers a weaker performance are those related to human capital: the Labour market (58.3, 74th), Skills (61.0, 74th) and Health (77.7, 83rd) pillars. In particular, Mauritius is penalized by high redundancy costs (73.6 weeks of salary, 136th) and limited participation in the various levels of the educational system (6.8 mean years of schooling, 106th).

South Africa ranks 67th globally—with a score of 60.8—and attains the second spot in Sub-Saharan Africa. Among its strengths, South Africa is home to a large market size (68.4), good infrastructure (68.6) and a well-developed financial system (82.1, 18th). More specifically, South Africa's financial sector offers a

relatively balanced access to various sources of finance, including credit (100.0, 11th), venture capital (33.0, 63rd), equity (100.0, 2nd) and insurance (100.0, 3rd). In addition, South Africa's innovation capability is relatively advanced (44.3, 46th), although limited by insufficient research and development (37.5).

Among its weaknesses, South Africa's performances on the Health pillar (43.2, 125th) and Security (43.7, 132nd) sub-pillar are among the worst in the world. Driven by high incidence of communicable diseases and high rate of homicides (34 per hundred population, 135th), these factors are major challenges for the economic and human development of the country.

Low ICT adoption (46.1, 85th) is another important restraint on South Africa's competitiveness. Only 54% of the adult population has access to the internet, and only 70 out of 100 people have subscribed to mobile-broadband services (66th). Similarly, the digital skills (116th) and critical thinking skills (78th) of the current workforce are inadequate for the progress of a successful economy in the Fourth Industrial Revolution.

NOTES

- 1 Income level corresponds to gross national income (GNI) per capita, as established by the World Bank for the period 2018–2019.
- 2 World Bank, 2018.
- 3 IMF, 2018b.
- 4 See European Central Bank.
- 5 IMF, 2018b.

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