

Population:

209.5m

World Bank Income Group:

Upper middle income

The creation of Brazil's Sistema Único de Saúde (SUS) in 1989 was an early example of a middle-income country seeking to implement what is now called Universal Health Coverage (UHC).¹ In the subsequent three decades, the country has made some progress, but the journey is far from complete.

On the positive side:

- Brazil has reduced some socio-economic disparities in health. It gets a green traffic light in our study based on our proxy indicator—the number of mothers attended at birth by skilled clinicians—which has improved over the years. Twelve years ago, one in eight births were unattended, but this has now fallen to fewer than 1% of births.
- This should not obscure the ongoing socioeconomic differences in wholesale care which still exist—in particular between the care provided by the SUS and private insurers. It simply points to improvement in some basic key areas. Similarly, Brazil's score of 78.6 out of 100 in the WHO's Index of Average Coverage of Essential
- Health Services—which is derived from the geometric mean of the availability to the population of 14 key tracer interventions when needed— is close to the OECD average (80) and tied with China for highest among study countries, earning it another green light. Further greens arise because:
- Brazil's SUS has health councils at every administrative level which include patient representatives, making sure the latter's voice is heard.
- The country has an established and powerful Health Technology Assessment body, CONITEC.
- Brazil also gets a green light for the high number of doctors, nurses, and midwives

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¹ The WHO defines Universal Health Coverage as a situation where "all people and communities can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship". https://www.who.int/health_financing/universal_coverage_definition/en/

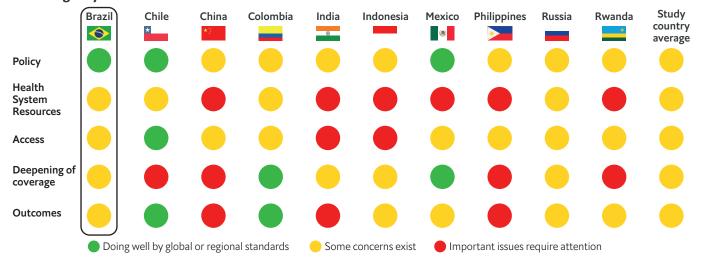
per 1,000 population (11.9). Unfortunately, the large concentration of these clinicians in the private sector and urban areas means that they do not bring the access benefits that one would normally expect (see below).

Pressing challenges remain, though, including:

- Funding has, in recent years, become a large concern. A 2016 constitutional amendment capped healthcare spending at that year's level for the next two decades, with rises allowed only for inflation. Given that government and compulsory spending as a proportion of GDP (4%) is currently lower than the commonly estimated necessary minimum of 5% to achieve UHC, this will leave the system underfunded over the long term.
- Already, informal rationing is a substantial problem and advanced equipment insufficient for the country's needs.
 For example, Brazil has just 59% of the radiotherapy capacity that it needs, giving it a

- red light. The funding freeze will make these problems difficult to address in future.
- The disparity in health resources between urban and rural areas also remains stark, with the most populous municipalities having more than 10 times the doctors per capita than low-population areas—resulting in another red light. The problem is not necessarily the number of clinicians per capita overall (for which Brazil gets green), but their willingness to work in rural or other impoverished areas. For example, the *Programa Mais Médicos*, which ran from 2013 to 2019 and sought to send doctors to such places, relied on clinicians sent by the Cuban government for about half its manpower.
- Finally, Brazil scores another red because of its lack of progress toward value-based healthcare.²
- After Russia, Brazil scores the most yellow lights across our five domains, meaning that some concerns exist across its health system in meeting UHC.





 $^{^{\}rm 2}$ For definition, see discussion of value-based care in Executive Summary below.

No	Indicator	Explanation and Scoring guidelines	Light	Analysis or Data (with date)
1.1	Existence of UHC Policy	This assesses whether countries have credible legislation, policy declarations or substantial programmes to pursue UHC. Green = this exists Yellow = commitment to substantial expansion of healthcare but not UHC Red = does not exist		SUS covers the population not covered by private insurers. It includes a specialist Family Health Programme providing primary car to poor citizens, as well as free medicines for certain conditions.
1.2	Transparency of Benefits	To move beyond aspiration, UHC programmes need to be clear on what they provide. Green= there is a clear statement of what is covered and no indication that informal rationing undermines this Yellow= clear statement exists but evidence of extensive informal rationing Red= no clear statement		Brazil's SUS formally covers all conditions but, given a lack of resources, long waiting times and other rationing are affecting care.
1.3	Financing sufficient for policy aspiration	A qualitative assessment of the extent to which health systems are struggling to meet current UHC commitments due to lack of funding. It does not look at the extent of commitments or whether government and compulsory funding meets the conventionally recommended level of GDP (5%) to achieve UHC. Green = funding sufficient for current ambition Yellow = long-term funding issues exist Red = a major current funding gap		Although the SUS has grown substantially in recent decades, government austerity measures have included a constitutional amendment freezing federal health spending for 20 years. Sigrare that austerity may increase. According to a Lancet article, "in 2017, for the first time in nearly 30 years, the government undershot the minimum health budget guaranteed by the Constitution by R\$692 million (approximately US\$210 million)". Various press articles report that the SUS in certain parts of the country is in great need of resources to provideven basic care.
1.4	Citizen/ Patient role in UHC governance	Effective health system must engage with citizens and patients. Green= there is evidence of a meaningful citizen/patient role in health system/UHC governance Yellow= policy that favours such a role, but limited actual engagement at best Red= no sign of engagement		Article 1 of Federal Law No. 8142/1990 reads: "Each level of th Unified Health System will have the following collegiate bodies II – health council. Paragraph 2: Health council, permanent and deliberative [and] collegiate body formed by government, service providers, health workers, and users' representatives, [to] act in the elaboration of health-related strategies and in the monitoring of policy implementation at the corresponding level of government, including in relation to funding matters, and council's decisions are subject to the relevant health authority for approval. A study of the council indicates that it works as intended
1.5	Monitoring	Effective UHC policy implementation requires monitoring. Using WHO Global Health Observatory data, we look at whether countries monitor the progress of their national health policy/strategy/plan regularly. Green= yes Red= no		Yes (2017)
1.6	Whole of Government Policy (with tobacco control as a Proxy)	Population health requires more than medical services. It also needs policies from across government. This indicator looks at tobacco control as a proxy for whole of government health thinking. The Economist Intelligence Unit drew data from the 2019 WHO Report on the Global Tobacco Epidemic to create a score based on five tobacco control factors. The global average is around 2.4. Green = score of between 3 and 4 Yellow = score between 2.5 and 3.0 Red = equal to or lower than the global average of 2.4		3.9 out of 4 (2019)
	Overall Pillar Score	, ,		

2.1	Government and Compulsory Spending	This indicator measures government domestic revenue allocated to health purposes, social insurance contributions and compulsory prepayment as a percentage of gross domestic product. Conventionally estimated necessary minimum target: 5% of GDP. Green = 5.0% or higher Yellow = between 2.5% and 5.0% Red = less than 2.5%	4.0% (2016)
2.2	Long Term Government/ Compulsory Spending Growth	This indicator measures the relative growth in government health spending per GDP (as defined in 2.1) between 2012 and 2016. This reflects government commitment to addressing funding issues. Green= if the relative increase in this spending is greater than 10% Yellow= if between 0% and 10% Red= if a decline	18.0% (2012-2016) NB Although Brazil's score would normally be green, because of budgetary changes after 2016 discussed above, it has been marked down to yellow.
2.3	3 Out-of-Pocket Payments	A high level of out-of-pocket payments as a proportion of total health expenditure indicates that those with low socio-economic status may be having difficulty accessing health care. The OECD average is 19.5%. Green=20% or lower Yellow= between 20% and 40% Red=over 40%	27.4% (2016)
2.4	Value-Based Care	Effective UHC needs to be value-based given the limited resources available. Countries score one point each if the national health system or major health provider have implemented: (A) Outcomes-based care / patient-centred care; (B) Bundled / block payments; payment for performance / linked to quality; (C) Quality standardisation; (D) A national policy that supports organisation health delivery in patient-centred units. Green = countries with 3 to 4 points Yellow = with 2 points Red = those with 0 or 1 points	0 out of 4 (2016)
2.6	Payer and Risk Pool Fragmentation	This indicator assesses whether payer and risk pool fragmentation is low, medium or high. The lower the better as this allows greater efficiency and more universal access. Scoring is based on Economist Intelligence Unit qualitative assessments. Green= relatively low fragmentation Yellow= medium fragmentation Red= high fragmentation	In the SUS system, pooling is unified. System covers all who want it, including about 75% of population.
2.6	General Medical Workforce per 1,000 population	This indicator is based on the overall health workforce—including doctors, nurses, midwives—per 1,000 population. WHO calculates that 4.45 doctors, nurses and midwives per 1,000 population represented the minimum density needed to deliver the Sustainable Development Goals in health, which include UHC. Green= above 4.75 per 1,000 population Yellow= between 4.25 and 4.75 Red= under 4.25	11.9 (2018)
2.7	Primary Care NCD Management	This indicator measures the ability of Primary Care to provide basic non-communicable disease (NCD) prevention and management, which is both important in itself and a proxy for the quality of primary care which the health system can provide. Countries get one point each for: General availability of diabetes testing (by HbA1c) at the primary health care level; General availability of urine testing for albumin; General availability of total cholesterol measurement at the primary health care level; Availability of cardiovascular risk stratification in 50% or more primary health care facilities; and General availability of peak flow measurement spirometry at the primary health care level. Green = 5 of 5 Yellow = 4 Red = 3 or lower	4 out of 5 (2017)
2.8	3 Surgical Capacity	This is a ratio of the estimated number of operations per 100,000 population conducted in a country and the estimated need for surgery per capita in that country's region. Green= ratio is higher than 1, so the health system has the capacity to perform all the needed surgery so long as it is allocated effectively, and the country scores green Yellow= ratio is less than 1 but above 0.7 Red= ratio is less than 0.7	1.2 (2010, 2012)
2.9	Equipment (using radiotherapy machines as a proxy)	This indicator updates previous calculations using an approach developed by the International Atomic Energy Agency to compare radiotherapy capacity and need in countries. Green= if the treatment capacity is 100% or higher, then the health system has the capacity to perform all the needed radiotherapy so long as it is allocated effectively Yellow= treatment capacity below 100% but above 70% Red= treatment capacity is 70% or below	58.9% (2019)
	Overall Pillar Score		

	3.1	Population Formally Covered	This indicator measures the proportion of the population that has formal access to healthcare. Ideally this should be 100%. Green = between 95% and 100% Yellow = 80% to 95% Red = below 80%	1	00% (2018)
			Rea = 50,000 80 %		
	3.2	Coverage of Essential Services	Formal coverage and actual access are not always the same thing. This indicator uses the WHO Index of Average Coverage of Essential Health Services. Its scoring is the geometric mean of the average coverage of 14 tracer interventions in healthcare. These are proxies for essential services more generally in areas that include reproductive, maternal, newborn and child health, infectious diseases, noncommunicable diseases, and service capacity and access. The OECD average score for the WHO Index is 80 (out of a possible 100). Green = score of 80 out of 100 or higher Yellow = between 70 and 80 Red = below 70	7	9 out of 100 (2017)
	3.3	Expansion of Essential Services Coverage	This measures the improvement in scoring in the WHO Index of Average Coverage of Essential Health Services between 2015 and 2017. It is difficult to compare percentage increases given that each country starts at a different place in 2015. We therefore use a 'distance to the frontier' methodology. The figures here give the reduction in the distance to the frontier between 2015 and 2017. The global average figure is 7.8%; the OECD one is 15%. Green=Results of 15% or better Yellow=7.8% to 15% Red=below 7.8%	7	% (2015-2017)
Access	3.4	Disparity by Socio- Economic Status (with proportion of attended live births as proxy)	This indicator measures the difference in the percentage of women giving birth in the highest wealth quintile who were attended by a skilled clinician and the percentage of women with similar health system support in the lowest wealth quintile. Green = if the percentage point difference in the proportions with a clinician attending is 5% or less Yellow = between 5% and 10% Red = more than 10%	A	t most 4.5% (2016)
	3.5	Urban-rural Disparity (with ratio of doctors in urban areas to rural areas used as proxy)	The ratio of urban to rural doctors is used as a proxy for how health resources are spread between the countryside and the city. Green= if the ratio is 1.5 (the OECD average in 2017) or below Yellow= if between 1.5 and 3 Red= higher than 3	1	0.3 (2018)
	3.6	Concern for Marginalised Groups (with refugees as a proxy)	This indicator looks at whether legally-recognised refugees have access to the country's UHC system. Green = yes in law and also generally in practice Yellow = yes in law, but limited in practice Red = no	Y	es, refugees have access
		Overall Pillar Score			

Deepening	4.1	Speed of Essential Drug Adoption	This measures the speed of national adoption of medications added to the WHO Essential Medicines list. We look at three representative drugs first added to the WHO Essential Medicines List in 2015 (bedaquiline, sofosbuvir, and trastuzumab) and three added in 2017 (sofosbuvir/velpatasvir combination, dolutegravir and budesonide/formoterol combination). For each we measure whether they are available at lower than market cost as a result of health system policy. The indicator gives one point each for drugs from the 2015 list and two points each for drugs from the 2017 list as a way of rewarding speed. The maximum score is 9. Green= 7 to 9 Yellow= 4 to 6 Red= 0 to 3	5 out of 9
	4.2	Regularity of Coverage Review	This indicator looks at how frequently the main UHC payer reviews the extent of coverage. For countries with a limited list of specific conditions covered, we look at how often those lists are reviewed or revised; for countries without such a list, we look at revisions to the essential drugs list. Green = annual reviews (whether in practice or by law) Yellow = reviews once every 1-5 years Red = reviews over 5 year period	Relação Nacional de Medicamentos Essenciais (Rename) by law must be updated at least every two years. In practice it appears to be annual.
	4.3	Health Technology Assessment	A Health Technology Assessment (HTA) agency or process is essential to value-driven deepening of care. This indicator scores the existence of a national HTA agency that is integrated into decision-making. Green= HTA agency in place and plays a role in decision making Yellow= some progress toward setting up an HTA agency Red= there is no national HTA agency (or it's in an embryonic phase)	CONITEC has played this role since 2011.
	4.4	Citizen/ Patient role in Benefit Decisions	This measures whether citizens or patients have a meaningful role in decisions on expanding benefits. Green = evidence of such a role Yellow = policy favours such a role, but limited engagement Red = no sign of any role	The National Health Council, which has patient representatives, has one of 13 seats on CONITEC board, but there is no specific patient representation. Also, there is room for public consultation. However, the large amount of patient litigation to gain access to treatment, especially drugs, indicates a lack of confidence in the fairness of the system.
		Overall Pillar		
		Score		

	5.1	Age-Adjusted Mortality relative to average for same income group	Age-standardised rates allow direct comparison, despite demographic differences, on success against the overall disease burden. However, income levels and mortality rates also correlate for reasons unrelated to health systems. This indicator therefore caculates scores based on how mortality rates in individual countries compare with the rates in their World Bank income group. For calculations and assumptions, see the online Workbook. Green the national average is better (lower) than the income group average by more than 5% Yellow the national average is better than the income group average by 5% or less Red the country's age-adjusted mortality rate is higher than the average figure for its income group	Country mortality (per 100,000) - 625 Comparator mortality* (per 100,000) - 640 Percentage difference - 2.4% *Upper middle-income country average
Outcomes	5.2	Preventable Deaths (with cervical and prostate cancer used as proxies)	Compared to other cancers, those of the prostate and cervix are both relatively easy to detect early and highly survivable if caught at an early stage. This makes them good proxies for the effectiveness of health systems in avoiding preventable deaths. Accordingly, we have calculated the mortality:incidence (M:I) ratio—a rough measure of survival—for each of these cancers for each country. For both cancers, the national M:I figures were compared to the average M:I ratios for high-income and upper middle-income countries as benchmarks, and an aggregate score calculated. For details see online workbook. Green—at least one cancer has a better M:I ratio than the high-income country average and the other is at least better than the upper middle-income country average. Yellow—at least one M:I ratio better than upper middle-income country average Red—neither M:I ratio better than upper middle-income country average	Cervical Cancer Country M:I ratio -49.6% OECD M:I ratio - 39.3% Upper middle-income M:I ratio - 46.6% Prostate Cancer Country M:I ratio -19.7% OECD M:I ratio - 18.8% Upper middle-income M:I ratio - 36.7% (All figures 2018)
	5.3	Patient Risk Management (with hypertension related deaths used as a proxy)	This indicator uses deaths related to hypertension as a proxy for blood pressure control. We took the age-standardised death rate for fatalities attributable to this risk factor for each country, and adjusted it to reflect the different levels of risk as measured in the summary exposure value. We then used the average results for high-income and upper-middle income countries to devise benchmarks. Green= adjusted mortality rate under 85 deaths per 100,000 (slightly higher than the average for high-income countries) Yellow= rate between 85 and 150 Red= rate above 150 For detailed calculations, see online workbook.	See online workbook for data and calculations
	5.4	Financial Protection	This measure combines results for catastrophic spending—using the latest available WHO data for out-of-pocket health spending representing 25% of household spending—and impoverishment—using the latest available WHO data for the percentage of the population whose ability to spend on other goods and services is driven below the poverty line (set at 2011 PPP\$1.90 per day) by out-of-pocket health spending. These are each assessed using OECD results as a benchmark. (For catastrophic spending, the figure is OECD figure is 1.25%, for impoverishment it is 0.016%). The scores for each are then averaged. For detailed calculations, see online workbook. **Green** at least one measure of financial protection meets or betters the OECD average and the other is at least within twice that average **Yellow** at least one measure of financial protection is within twice the OECD average **Red** neither measure of financial protection is within twice the OECD average	Percentage of population seeing out-of-pocket health spending exceeding 25% of household's total consumption or income Country figure: 3.5% (2008) OECD average: 1.25% (Calculation based on national figures for latest years) Percentage of the population whose ability to spend on other goods and services is driven below the poverty line (set at 2011 PPP\$1.90 per day) by out-of-pocket health spending Country figure: 1.04% (2008) OECD average: 0.016% (Calculation based on national figures for latest years)
		Overall Pillar Score		



Universal Health Coverage (UHC) is one of the health targets within the sustainable development goals (SDGs). It means that everyone who needs healthcare services receives ones of sufficient quality without having to experience financial hardship. Reaching this goal is a task both large and urgent: currently more than a half of the world's population lack access to at least some essential element of healthcare.¹

Nor is it easy. The move toward UHC requires far greater financial resources for healthcare than governments in middle- and low-income countries have previously committed. These funds typically come from increased general taxes or compulsory social insurance payments – both of which may be politically unpalatable. UHC also frequently requires that health care systems greatly improve their levels of organisational sophistication. Ideally, this should involve a shift away from traditional fee-for-service medicine to socalled value-based care. The latter involves getting the best outcomes on things which matter to the patient for the least cost.

Given the different moving parts involved, it is not surprising that no simple roadmap exists. Instead, UHC as a concept has a complex and diverse range of national roots, with the most prominent country examples dating back many decades. However, in the last 15 years, UHC has attracted growing international salience. Since 2005, for example, various World Health Assembly declarations and UN general assemblies have urged bold action.

In September 2019 the UN general assembly adopted a political declaration strongly recommitting to achieving UHC by 2030 with a "view to scaling up the global effort to build a healthier world for all".²

This is therefore an appropriate time for the Economist Intelligence Unit to consider how far ten key countries at different levels of economic development have come in the implementation of UHC. The countries are: Brazil, Chile, China, Colombia, India, Indonesia, Mexico, Philippines, Russia and Rwanda.

Such a review requires a multifaceted approach because the idea itself has various

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¹ World Bank and World Health Organisation (WHO), *Primary Health Care on the Road to Universal Health Coverage: 2019 Monitoring Report*, 2019, https://www.who.int/healthinfo/universal_health_coverage/report/uhc_report_2019.pdf?ua=1; ILO, Universal social protection for human dignity, social justice and sustainable development, 2019, https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_673680.pdf

² UN General Assembly, seventy-fourth session, Agenda item 126, 2019 https://undocs.org/en/A/RES/74/2

inter-related elements. The World Health Organisation (WHO) defines UHC as a situation where "all people and communities can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship".

Each country's results, and health challenges, inevitably have specific features. Nevertheless, several overarching themes appear often. These include:

In our study countries, UHC policies and formal coverage have become widespread.

Nine of our ten countries get a green traffic light for the existence of such policy. In the same number, at least 85% of the population have formal access to healthcare. The exception is India. Its healthcare reforms should greatly boost the number covered in the coming years but, even if all goes to plan, roughly 30% of the population will still be uninsured.

Financial and health system resources continue to lag behind. The current consensus estimate is that government and compulsory spending on health needs to be at least 5% of GDP for effective UHC. By 2016, only one of our ten study countries, Chile, reached this level, and that was after rounding up from 4.98%. More worryingly, four of the ten countries (Colombia, Mexico, Russia, and Rwanda) saw a decline in this measure between 2012 and 2016. Meanwhile. those states experiencing the greatest relative increases—Indonesia and the Philippines began from very low bases, 0.9% and 1.2% respectively in 2012. As a result, even after rapid growth in government and compulsory spending as a proportion of GDP, neither of the two topped 1.5% overall.

UHC also requires a sufficient healthcare workforce—a minimum of 4.5 doctors,

nurses and midwives per 1,000 population, according to WHO estimates. Only four study countries—Brazil, Mexico, Philippines and Russia—exceed that number, with the Philippines doing so just barely. Meanwhile, in only three—Chile, Colombia and the Philippines—can primary care facilities typically carry out and assess five basic tests that are important for the clinical management of certain key non-communicable conditions: diabetes, cardiovascular disease, chronic obstructive pulmonary disease and asthma. Finally, looking beyond the general to more advanced provision, no country has enough radiotherapy machines for its cancer burden.

Investing in health system resources may be the most difficult part of UHC, but there is no substitute.

Access takes time to build in general, with patients from rural areas and lower socio-economic groups too often not being reached. The WHO's Index of Average Coverage of Essential Health Services measures the ability of countries to provide citizens with 14 key tracer health interventions. On average, OECD countries score 80 out of a possible 100, which is the geometric mean of the proportion of the relevant need being met by use of each intervention. None of those in our study reached that level. On the other hand, Brazil, Chile, China, Colombia, Mexico and Russia all fall between 70 and 80 on this scale, suggesting reasonable access to the very basic provision covered in the WHO Index. Most of these countries have been working to improve health access for some time. Clearly, even essential care does not get rolled out overnight.

The bigger worry is that most study countries are still trying to find ways to reach those groups which are often underserved worldwide. Eight of these states received red lights because of their very high ratios of urban to rural doctors. Only Chile and Mexico

earned yellow here, with both falling short of the OECD average.

Socio-economic differences are another area of concern. Five countries received yellow or red lights here. Even this range of results likely reflects bigger disparities than it might at first appear. The metric we used was the difference in the number of births attended by skilled professionals for mothers in the highest and lowest economic quintiles of the population. Although an important measure, this is much easier to provide for those with lower income than, for example, comprehensive cancer care. That only five of our ten countries could do so raises concerns about socioeconomic disparities for more expensive or complicated interventions.

Decisions on deepening of what UHC provides often lack scientific or patient input. We looked at how different national systems select which health interventions to

cover or, where all are ostensibly included, which drugs to either subsidise or provide free. Only three countries—Brazil, Colombia and Mexico—have strong Health Technology Assessment bodies, although India, Indonesia, Philippines and Russia are currently developing in this area. Meanwhile, Mexico and Colombia are the only states to avoid red for how much patient input goes into deepening decisions.

Related to these issues is the very slow progress towards value-based care in the study countries. Just Rwanda and Colombia finish better than red here. Amid the strong policy commitment toward UHC, governments should be sure to build the patient-centred, evidence-based systems that are essential for value-based care. Otherwise, they will likely need to engage in yet more fundamental and difficult reforms sooner rather than later.

Methodology

This Economist Intelligence Unit study measures where 10 countries stand in five areas—which we call pillars—relevant to UHC. These were selected after an extensive literature review and consultation with an advisory board of experts in this field. The pillars are: policy, health system resources, access, deepening, and outcomes. Within each we look at a range of individual metrics, or "indicators". For each of these, we assign one of three scores modelled on traffic lights: a green means that the country in question is doing well by global or regional standards; a yellow that some concerns exist; and a red that important issues require attention. The indicator scores are then aggregated into pillar scores. For more detailed information on scoring and results, please see the workbook and country reports also published as part of this project available at the EIU Perspectives website.

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