

METHODOLOGICAL NOTES

Transition indicators: six qualities of a sustainable market economy

The transition indicators reflect the judgement of the EBRD's Office of the Chief Economist and the Economics, Policy and Governance department on the transition progress in the economies where the EBRD invests. According to this approach a sustainable market economy is characterised by six qualities: Competitive, Well-governed, Green, Inclusive, Resilient and Integrated.

This approach measures the state of each quality and its components in a given economy, as compared with the other economies in the EBRD regions and a few select developed economies,¹ against a frontier. The frontier is set either by the best performance in this group of economies or by an unobserved theoretical value and provides a common benchmark against which all economies are assessed consistently and comparably. The same frontier values are also applied across the years to ensure that computed scores are comparable and capture changes in underlying indicators through time.

Assessments of Transition Qualities (ATQs) are composite indices combining information from a large number of indicators and assessments in a consistent manner. The underlying indicators within each ATQ are constructed using a wide range of sources, including national and industry statistics, data from other international organisations and affiliated databases (World Bank, IMF, UN); surveys (The Business Environment and Enterprise Performance Survey (BEEPS); Life in Transition Survey (LiTS) and assessments prepared internally by EBRD experts (see Table M.1 below for the list of indicators).

The computation of ATQ indices involves multiple steps, namely: data preparation, normalisation and aggregation. Details of each of these steps are provided below.

Data preparation and treatment of missing observations

The underlying data for the majority of indicators either enter the composite index directly or are scaled using a meaningful related measure. A number of indicators may themselves be composite indices (for example, EBRD SME index or EBRD Knowledge Economy index) and they enter the ATQ composites in index form. No further transformation is applied to the underlying indicators before normalisation. For some indicators no data is available for the current year and simple imputation methods are used.² One method of imputation uses the latest available observation from past years, thus assuming that no change from the latest available observation has been observed. When there are no past or present observations available for a particular indicator, then, based on the judgement of EBRD experts, either the regional mean (using the EBRD classification of regions for the economies where it invests) or the observed regional minima are used to impute the missing observations.

For the regional disparity component of the Inclusive ATQ, imputations for the southern and eastern Mediterranean (SEMED) economies and Turkmenistan are necessary due to the LiTS (source of the data for this indicator) not being administered in these economies. In particular, a new series is generated for a full set of economies including SEMED and

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¹ The group of comparator developed economies currently includes Canada, the Czech Republic, France, Germany, Japan, Sweden, United Kingdom and the United States of America.

² Due to lags in the availability of data, ATQ scores for a given year may not correspond fully to that calendar year. In particular, ATQ scores for 2020 reflect progress in transition based primarily on data available for the year 2019.

Turkmenistan based on available indicators on rural-urban disparities from other sources. Using the statistical relationship between the scores produced by this series and LITS-based regional inclusions scores, missing SEMED and Turkmenistan values were imputed. Further details of this imputation are available on request.

To mitigate the effect that extreme values may have on scores, observations that lie above the 98th percentile are considered outliers and replaced by the next value within the acceptable range. Outlier detection and replacement is only applied to select continuous variables.

Normalisation

The raw data for each indicator are normalised to the same scale using the min-max normalisation method as follows:

$$x' = \frac{x - x_{worst}}{x_{best/frontier} - x_{worst}}$$

The resulting scores are then rescaled from 1 to 10, where 10 represents the frontier for each quality. The frontier is taken to be the best performance, observed either in an economy where we invest, a comparator country or a theoretical value determined based on expert judgement.

If an observation for a country exceeds the selected frontier, then the normalised value of the indicator is capped at the frontier value. For indicators where any deviation from the frontier is undesirable, values either below or above the frontier are treated similarly (the same score is computed and assigned to two observations that are equally distant from the frontier).

Aggregation

Normalised indicators are aggregated to a single composite index (by quality) using weights determined by expert judgement (see Table M.1 for details of weights). A simple weighted averaging method is used for aggregation.

Changes to methodology from 2019

During the past year, further work on strengthening the methodology for computing ATQ indices was carried out. This work did not involve changes to the process of computation of ATQ indices and it focused largely on modifications to the set of underlying indicators. The primary purpose of this work has been ensuring that ATQs better capture the relevant phenomena and allow adequate monitoring of the pace of reforms and transformation in the region. This work resulted in the addition of new indicators, discontinuation of the use of others and use of equivalent data series from alternative sources. Details of these changes are provided below.

Competitive

- The indicator measuring the quality of the education system was removed. An alternative indicator measuring skills and education of the workforce was added to the composite index.
- An adjusted version of the “Competition Law, Institutions and Enforcement” index produced by the EBRD was added to the composite index.

Well-governed

- The following indicators were added to the composite index: budget transparency, e-government participation, political and operational stability, political stability and absence of violence/terrorism and assessment of governments in ensuring political stability.

- The following indicators were removed from the composite index: transparency of government policymaking, ethical behaviour of firms, one of the indicators measuring freedom of media and one of the indicators measuring perception of corruption.
- The weight of the corporate governance component of the composite index was revised downwards to 25 per cent, from 40 per cent.

Integrated

- A new indicator measuring road connectivity produced by the EBRD was added to the composite index. It replaced the previously used indicators on the quality of roads and connectivity.

The following tables show, for each quality, the components used in each quality index along the indicators and data sources that were fed into the final assessments.

TABLE M.1 List of indicators used to compute Assessment of Transition Qualities (ATQs) indices

COMPETITIVE						
Components	Sub-components	Indicators	Source	Frontier economy	Frontier value	Worst performance
Market structures [53%]		Applied tariff rates ^a (weighted average) [13%]	World Bank, World Development Indicators (WDI), International Trade Centre, Market Access Map, 2018	Georgia	0.67	9.35
		Subsidies expense ^a (share of GDP) [13%]	International Monetary Fund, Government Finance Statistics, 2018	Albania	0.13	7.05
		Ease of Doing Business (Distance to frontier (DTF) score) [13%]	World Bank, <i>Doing Business</i> , 2020	United States of America	84.99	51.84
		Doing Business - resolving insolvency score [13%]	World Bank, <i>Doing Business</i> , 2020	No economy was at the frontier in 2020	91.07	20.30
		Number of new business entries (scaled by population) [6%]	World Bank, WDI, 2018	Estonia	19.43	0.15
		Doing Business - starting a business [6%]	World Bank, <i>Doing Business</i> , 2020	Canada*	98.23	57.14
		SME index adjusted (1 = worst, 10 = best) [13%]	EBRD assessment, 2018	United Kingdom	7.73	3.52
		Competition Law, Institutions and Enforcement index adjusted (1 = worst, 10 = best) [13%]	EBRD assessment, 2019	United Kingdom	8.02	4.89
		Share of advance business services in services exports [13%]	World Bank, WDI, 2017	United Kingdom	72.08	6.60
Capacity to generate value added [47%]		Economic Complexity Index [14%]	Harvard, Centre for International Development, 2017	Japan	2.34	-1.52
		Knowledge economy index (KEI) adjusted (1 = worst, 10 = best) [14%]	EBRD, 2019	Sweden	8.02	1.92
		WB Logistics Performance Index (1 = worst, 5 = best) [14%]	World Bank, WDI, 2018	Germany	4.37	1.96
		Skills [14%]	World Economic Forum (WEF) Global Competitiveness Index, 2019	No economy was at the frontier in 2020	84.60	45.18
		Labour productivity (output per worker, GDP in constant 2011 int. US\$ PPP) [14%]	ILOSTAT, WDI, 2020	United States of America	112,007	8,496
		Credit to private sector ^b (per cent of GDP) [14%]	World Bank, WDI, 2018	Cyprus*	100	12.33
		Global value chain participation [14%]	UNCTAD, EBRD, 2018	Slovak Republic	0.81	0.33

WELL-GOVERNED						
Components	Sub-components	Indicators	Source	Frontier economy	Frontier value	Worst performance
National level governance [75%]	Quality of public governance [53%]	Regulatory quality (- 2.5 = worst, 2.5 = best) [13%]	World Bank Governance Indicators, 2018	Sweden	1.80	-2.09
		Government effectiveness (- 2.5 = worst, 2.5 = best) [13%]	World Bank Governance Indicators, 2018	Sweden	1.83	-1.21
		Budget transparency (1 = worst, 7 = best) [6%]	WEF Global Competitiveness Index, 2019	No economy was at the frontier in 2020	88.46	3
		Private property protection (1 = worst, 7 = best) [6%]	WEF Global Competitiveness Index, 2019	Japan	6.21	2.87
		Intellectual property protection (1 = worst, 7 = best) [6%]	WEF Global Competitiveness Index, 2019	No economy was at the frontier in 2020	6.01	2.91
		Burden of government regulation (1 = worst, 7 = best) [13%]	WEF Global Competitiveness Index, 2019	Azerbaijan	4.83	1.85
		Political instability ^a [4%]	World Bank/EBRD BEEPS, 2018-20	Azerbaijan	0	0.96
		Political stability and absence of violence and terrorism (-2.5 = worst, 2.5 = best) [4%]	World Bank Governance Indicators, 2018	Japan	1.06	-2.01
		Political and operational stability [4%]	Global Innovation Index, 2019	Canada*	93	43.90
		Government ensuring policy stability (1 = worst, 7 = best) [6%]	WEF Global Competitiveness Index, 2019	No economy was at the frontier in 2020	5.52	1.83
		World press freedom index ^a (100 = least free, 0 = most free) [13%]	Reporters Without Borders, 2020	Sweden*	12.16	85.44
	E-government participation [13%]	WEF Global Competitiveness Index, 2019	No economy was at the frontier in 2020	0.98	0.20	
	Integrity and control of corruption [20%]	Corruption perception index (0 = highly corrupt, 100 = not corrupt) [43%]	Transparency International, 2019	Sweden	84	19
		Perception of corruption ^a [14%]	World Bank/EBRD BEEPS, 2018-20	Sweden	2.70	68.20
		Informality ^a [14%]	World Bank/EBRD BEEPS, 2018-20	Azerbaijan	7.10	63.40
		Implementation of anti-money laundering (AML)/combating the financing of terrorism (CFT) and tax exchange standards ^a (0 = low risk, 10 = high risk) [29%]	International Centre for Asset Recovery, 2019	Estonia*	3.22	8.30
	Rule of law [27%]	Judicial independence (1 = worst, 7 = best) [22%]	WEF Global Competitiveness Index, 2019	No economy was at the frontier in 2020	6.19	1.99
		Efficiency of legal framework in settling disputes (1 = worst, 7 = best) [11%]	WEF Global Competitiveness Index, 2019	No economy was at the frontier in 2020	5.55	1.86
		Efficiency of legal framework in challenging regulations (1 = worst, 7 = best) [22%]	WEF Global Competitiveness Index, 2019	No economy was at the frontier in 2020	5.17	1.79
		Enforcement of contracts [11%]	World Bank <i>Doing Business</i> , 2020	Lithuania*	78.80	40.00
Rule of law (- 2.5 = worst, 2.5 = best) [22%]		World Bank Governance Indicators, 2018	Sweden	1.90	-1.49	
Effectiveness of courts ^a [11%]		World Bank/EBRD BEEPS, 2018-20	Montenegro*	0.60	42.80	
Corporate level governance [25%]	Corporate governance frameworks and practices [100%]	Structure and functioning of the board [20%]	EBRD Legal Transition Team (LTT) Corporate Governance Assessment, 2017	Czech Republic*	3.55	1.34
		Transparency and disclosure [10%]	EBRD LTT Corporate Governance Assessment, 2017	Czech Republic*	4.53	1.63
		Internal control [20%]	EBRD LTT Corporate Governance Assessment, 2017	Czech Republic*	4.03	1.53
		Rights of shareholders [10%]	EBRD LTT Corporate Governance Assessment, 2017	Czech Republic*	4.15	2.35
		Stakeholders and institutions [20%]	EBRD LTT Corporate Governance Assessment, 2017	Czech Republic*	4.06	0.98
		Strength of auditing and reporting standards (1 = worst, 7 = best) [10%]	WEF Global Competitiveness Index, 2019	No economy was at the frontier in 2020	6.03	3.33
		Protection of minority shareholders' interest [10%]	World Bank <i>Doing Business</i> , 2020	Georgia*	84	32

GREEN						
Components	Sub-components	Indicators	Source	Frontier economy	Frontier value	Worst performance
Mitigation [35%]	Physical indicators [37%]	Electricity production from renewable sources, including hydroelectric (per cent of total) [17%]	World Bank, International Energy Agency (IEA), 2017	Albania	100	1.25
		Value added from industry (construction, manufacturing, mining, electricity, water and gas) per unit of CO ₂ emissions from industry (GVA (US\$)/total CO ₂) [17%]	World Bank, IEA, 2017	Sweden	18,680	697
		MWh consumed per tonne of CO ₂ emitted from electricity and heat generation (MWh/total CO ₂) [17%]	World Bank, IEA, 2017	Sweden	18.79	0.50
		GDP per tonne of CO ₂ emitted from residential buildings (from fuel combustion) (GDP(US\$)/total CO ₂) [17%]	World Bank, IEA, 2017	Sweden	2,649,844	7,448
		Number of registered vehicles per tonne of CO ₂ emitted from transport [17%]	World Health Organization (WHO), IEA, 2012	Lebanon	7.38	0.79
		Agricultural sector GVA per tonne of GHG emissions from agriculture (GVA (US\$) / total CO ₂ eq) [17%]	World Bank, Food and Agriculture Organization of the United Nations (FAO), 2017	No economy was at the frontier in 2020	2,800	61
	Structural indicators [63%]	Market support mechanism for renewable energy production (0=no support, 0.5 regulatory support, 1=revenue support) [25%]	IEA, 2019	Canada*	1	0.50
		INDC rating (0 for no INDC, 0.5 for INDC but not ratified, 1 for ratified INDC) [25%]	World Resources Institute (WRI), CAIT, 2019	Canada*	1	0
		Carbon price (0 = worst, 1 = best) [25%]	World Bank, 2019	No economy was at the frontier in 2020	1	0
		Fossil fuel subsidies (per cent of GDP) a [25%]	IMF, 2017	Sweden*	0	11.91
Adaptation [30%]	Physical indicators [45%]	NDGAIN human habitat score ^a [25%]	Notre Dame Global Adaptation Initiative, 2017	Germany	0.25	0.63
		Aqueduct water stress index ^a [25%]	World Resources Institute (WRI), 2013	Slovenia	0.83	3.14
		NDGAIN projected change in cereal yield ^a [25%]	Notre Dame Global Adaptation Initiative, 2017	Canada*	0	0.85
		WDI Occurrence of droughts, floods, extreme temperatures ^a (per cent of population affected 1990-2009) [25%]	World Bank, WDI, 2009	Sweden*	0	5.38
	Structural indicators [55%]	NDGAIN agricultural capacity ^a [20%]	Notre Dame Global Adaptation Initiative, 2017	Turkmenistan	0	0.99
		World Governance Indicators: Institutional Quality (- 2.5 = worst, 2.5 = best) [40%]	World Bank, World Governance Indicators, 2018	Sweden	1.82	-1.61
Other environmental areas [30%]	Physical indicators [37%]	Population weighted mean annual exposure to PM2.5 ^a [22%]	World Bank, WDI, 2017	Sweden	6.18	88.15
		Waste intensive consumption (kg municipal solid waste/US\$ household expenditure) ^a [22%]	Waste Atlas, 2015	Japan	0.01	0.33
		Waste generation per capita (kg/cap) ^a [22%]	Waste Atlas, 2015	Armenia	118.90	777
		Number of animal (terrestrial and marine) species threatened as proportion of total number assessed ^a [17%]	IUNC Red list, 2019	Estonia	0.04	0.18
		Number of plant (terrestrial and marine) species threatened normalised by total number assessed ^a [17%]	IUNC Red list, 2019	Mongolia	0	0.27
		Structural indicators [63%]	Vehicle emission standards (0 = worst, 6 = best) [34%]	UN Environment Programme, 2018	Germany*	6
	Municipal solid waste collected (per cent of total generated) [34%]		Waste Atlas, 2015	Germany*	100	39
	Proportion of terrestrial protected area (per cent of total area) [16%]		World Bank, 2017	Slovenia	53.62	0.22
	Proportion of marine protected areas (per cent of total area) [16%]		World Bank, 2017	Slovenia	213.43	0
	Cross-cutting [5%]		Number of environmental technology patents (per cent of GDP (billion US\$)) [100%]	OECD, 2017	Japan	0.31

INCLUSIVE						
Components	Sub-components	Indicators	Source	Frontier economy	Frontier value	Worst performance
Gender equality [33%]		Women Business and the Law Index (0 = worst, 100 = best) [13%]	World Bank, 2020	Sweden*	100	26.30
		Social Institutions and Gender Index ^{a,b} (0 = best) [13%]	OECD, 2019	No economy was at the frontier in 2020	0	0.57
		Inequality of opportunity attributable to gender ^{a,b} [13%]	EBRD, LITS, 2016	No economy was at the frontier in 2020	0	0.08
		Women employers (per cent of employers) ^c [13%]	ILOSTAT, 2019	No economy was at the frontier in 2020	50.00	0
		Women in managerial roles (per cent of all in managerial roles) ^c [13%]	ILOSTAT, 2018	No economy was at the frontier in 2020	50.00	6.40
		Per cent of individuals that borrow from a financial institution [6%]	World Bank Financial Inclusion Database, 2017	No economy was at the frontier in 2020	35.66	0.84
		Per cent of individuals that save at a financial institution [6%]	World Bank Financial Inclusion Database, 2017	Sweden	75.43	0.12
		Percentage difference between female and male who have borrowed from a financial institution ^{a,c} [6%]	World Bank Financial Inclusion Database, 2017	No economy was at the frontier in 2020	0	0.68
		Percentage difference between female and male who have saved at a financial institution ^{a,c} [6%]	World Bank Financial Inclusion Database, 2017	No economy was at the frontier in 2020	0	0.74
		Labour force participation rate [6%]	ILOSTAT, 2019	No economy was at the frontier in 2020	73.20	34.10
		Percentage difference in labour force participation rate of men and women ^{a,c} [6%]	ILOSTAT, 2019	No economy was at the frontier in 2020	0	0.79
Opportunities for youth [33%]		Median age [17%]	UN-DESA, World Population Prospects, 2020	Japan	48.36	19.45
		Harmonised test scores [17%]	Human Development Index, 2018	Japan	563.36	355.99
		Perception of quality of education system (1 = worst, 7 = best) [17%]	WEF Global Competitiveness Index, 2017	United States of America	5.62	2.14
		Hiring and firing flexibility [17%]	WEF Global Competitiveness Index, 2019	No economy was at the frontier in 2020	5.65	2.37
		Unemployment rate ^a (15+) [8%]	ILOSTAT, 2019	Czech Republic	1.93	30.80
		Percentage difference between youth (15-24) and adult (25+) unemployment rates ^{a,c} [8%]	ILOSTAT, 2019	No economy was at the frontier in 2020	0	0.80
		Per cent of individuals with a bank account [8%]	World Bank Financial Inclusion Database, 2017	Sweden	99.74	0.40
	Percentage difference between number of youth (15-24) and adults (15+) with a bank account ^{a,c} [8%]	World Bank Financial Inclusion Database, 2017	No economy was at the frontier in 2020	0	0.78	
Regional disparities [33%]		Quality of transport and trade related infrastructure (1 = worst, 5 = best) [13%]	World Bank Logistics Performance Index (LPI) 2018	Germany	4.44	1.96
		Access to computer ^a [13%]	EBRD, LITS, 2016	Germany	0.25	0.79
		Access to internet ^a [13%]	EBRD, LITS, 2016	No economy was at the frontier in 2020	0.26	0.86
		Access to water ^a [13%]	EBRD, LITS, 2016	Germany*	0.00	0.97
		Percentage of establishments with checking or savings account ^a [13%]	World Bank/EBRD BEEPS, 2016	Russia	0.00	0.45
		Quality of administrative, health and education systems ^a [13%]	EBRD, LITS, 2016	Uzbekistan	1.25	3.05
		Household head labour market status (worked in the last 12 months) ^a [13%]	EBRD, LITS, 2016	Czech Republic	0.39	0.71
		Completed education of the household head in working age (25-65) ^a [13%]	EBRD, LITS, 2016	Estonia	0.07	0.87

RESILIENT							
Components	Sub-components	Indicators	Source	Frontier economy	Frontier value	Worst performance	
Energy sector resilience [30%]	Liberalisation and market liquidity [50%]	Sector restructuring, corporatisation and unbundling (0 = worst, 0.67 = best) [33%]	EBRD assessment, 2019	Germany*	0.67	0	
		Fostering private sector participation (0 = worst, 0.67 = best) [33%]	EBRD assessment, 2019	United States of America*	0.67	0	
		Tariff reform (0 = worst, 0.67 = best) [33%]	EBRD assessment, 2019	Czech Republic*	0.67	0	
	System connectivity [20%]	Domestic connectivity (0 = worst, 0.67 = best) [35%]	EBRD assessment, 2019	Czech Republic*	0.67	0.09	
		Inter-country connectivity (0 = worst, 0.67 = best) [65%]	EBRD assessment, 2019	Germany*	0.67	0	
	Regulation and legal framework [30%]	Development of an adequate legal framework (0 = worst, 0.67 = best) [50%]	EBRD assessment, 2019	Czech Republic*	0.67	0	
Establishment of an empowered independent energy regulator (0 = worst, 0.67 = best) [50%]		EBRD assessment, 2019	Czech Republic*	0.67	0		
Financial stability [70%]	Banking sector health and intermediation [65%]	Capital adequacy ratio [9%]	IMF Financial Soundness Indicators (FSI), IMF Article IV, IHS Markit, National Authorities, Fitch - Sovereign Data Comparator, EBRD FI Risk Reports, 2019	No economy was at the frontier in 2020	0.29	0.06	
		Return on assets [9%]	IMF FSI, IMF Article IV, IHS Markit, National Authorities, Fitch - Sovereign Data Comparator, EBRD FI Risk Reports, 2019	Ukraine	3.12	-12.47	
		Loan to deposits ratio ^c [9%]	IMF FSI, IMF Article IV, IHS Markit, National Authorities, Fitch - Sovereign Data Comparator, EBRD FI Risk Reports, 2019	No economy was at the frontier in 2020	1	0.33	
		Non-performing loans (NPLs) to total gross loans (per cent) ^a [9%]	IMF FSI, IMF Article IV, IHS Markit, National Authorities, Fitch - Sovereign Data Comparator, S&P BICRA, EBRD FI Risk Reports, 2019	Canada*	0.41	54.54	
		Loan loss reserves to NPLs (Provisions to NPLs) ^b [9%]	IMF FSI, IHS Markit, National Authorities, EBRD FI Risk Reports, 2019	North Macedonia*	100	15.14	
		Asset share of five largest banks ^a [9%]	World Bank Global Financial Development Database (GFDD), IMF FSSA, EBRD FI Risk Reports, 2019	Albania	41.75	100	
		Asset share of private banks [9%]	World Bank GFDD, EBRD FI Risk Reports, IMF Article IV, IMF FSSA, Bank Focus, 2019	Canada*	100	0	
		Financial sector assets ^c (per cent of GDP) [9%]	IMF FSI, EBRD, Internal Sovereign Risk Report, Bank Focus, National Authorities, IHS Markit, 2019	No economy was at the frontier in 2020	100	28	
		Credit to private sector ^c (per cent of GDP) [9%]	World Bank GFDD, S&P BICRA, IMF Article IV, WDI, 2017	No economy was at the frontier in 2020	80	4.02	
		Foreign currency-denominated loans ^a (per cent of total loans) [9%]	IMF FSI, IMF Article IV, IHS Markit, National Authorities, 2019	United States of America*	0	100	
	Alternative sources of funding [12%]	Other Financial Corporation's assets ^b (per cent of GDP) [50%]	IMF FSI, World Bank GFDD, IMF Article IV, National Authorities, EBRD FI Risk Overview, IMF FSSA, AFDB, 2018	Canada*	100	0.32	
			Stock market capitalisation ^b (per cent of GDP) [50%]	World Bank WDI, IMF FSSA, IMF FSI, 2018	United States of America*	79.24	0
		Regulation governance and safety nets [24%]	Is there a well-functioning deposit insurance scheme? (1 = worst, 10 = best) [25%]	EBRD assessment, 2019	Czech Republic*	10	1
			Do the banks have good risk management and corporate governance practices? (1 = worst, 10 = best) [25%]	EBRD assessment, 2019	Czech Republic*	10	1
			Is there an adequate legal and regulatory framework in place? (1 = worst, 10 = best) [25%]	EBRD assessment, 2019	Czech Republic*	10	1
			Is the supervisory body independent and competent? (1 = worst, 10 = best) [25%]	EBRD assessment, 2019	Czech Republic*	10	1

INTEGRATED						
Components	Sub-components	Indicators	Source	Frontier economy	Frontier value	Worst performance
External integration [50%]	Trade openness [33%]	Total trade volume (per cent of GDP, five-year moving average) [50%]	World Bank, WDI, 2019	Slovak Republic	185.91	27.23
		Number of Regional Trade Agreements [17%]	World Trade Organization (WTO), 2019	Germany*	44	1
		Binding overhang ratio ^{a, b} (%) [17%]	WTO, 2018	Germany*	0	46.30
		Number of non-tariff measures ^a [17%]	WTO, 2018	No economy was at the frontier in 2020	0	4,673
	Investment openness [33%]	FDI net inflows (per cent of GDP, five-year moving average) [50%]	IMF, International Investment Position Statistics, 2019	Cyprus	0.10	-0.02
		Number of bilateral investment agreements [25%]	UNCTAD, 2019	Germany	183	8
		FDI Restrictiveness indicator ^a [25%]	OECD, 2018	Slovenia	0.01	0.24
	Portfolio openness [33%]	Non-FDI inflows (per cent of GDP, five-year moving average) [50%]	IMF, International Investment Position Statistics, 2019	Cyprus	0.06	-0.05
Financial openness index (Chinn-Ito) [50%]		Chinn-Ito webpage, 2017	Germany*	2.35	-1.92	
Internal integration [50%]	Domestic transport [33%]	Road connectivity ^a [25%]	EBRD assessment, 2019	United States of America	107.53	309.27
		Quality of non-road transport infrastructure [25%]	WEF Global Competitiveness Index, 2019	Japan	89.92	24.25
		Competence and quality of logistics services (1 = worst, 5 = best) [13%]	World Bank, LPI database, 2018	Germany	4.31	1.96
		Tracking and tracing of consignments (1 = worst, 5 = best) [13%]	World Bank, LPI database, 2018	No economy was at the frontier in 2020	4.38	1.84
		Timeliness of shipments (1 = worst, 5 = best) [13%]	World Bank, LPI database, 2018	No economy was at the frontier in 2020	4.45	2.04
		Proportion of products lost to breakage or spoilage during shipping ^a [13%]	World Bank/EBRD BEEPS, 2018-20	Estonia	0	2.20
	Cross-border transport [33%]	Quality of customs and border management, trade and transport infrastructure and ease of arranging shipments (1 = worst, 5 = best) [50%]	World Bank, LPI database, 2018	No economy was at the frontier in 2020	4.14	1.95
		Cost of trading across borders [50%]	World Bank, <i>Doing Business</i> , 2020	France*	100	49.79
	Energy and ICT [33%]	Quality of electricity supply (1 = worst, 7 = best) [25%]	WEF Global Competitiveness Index, 2017	No economy was at the frontier in 2020	6.78	1.65
		Electric power transmission and distribution losses as percentage of domestic supply ^a [13%]	IEA, 2019	No economy was at the frontier in 2020	2.34	23.73
		Time required to get electricity ^a (days) [13%]	World Bank, <i>Doing Business</i> , 2020	Germany	28	267
		Broadband subscription (per 100 habitants) [13%]	International Telecommunications Union (ITU), 2018	France	44.78	0.07
		Number of internet users (per cent of population) [13%]	ITU, 2017	No economy was at the frontier in 2020	95.51	17.99
		Level of competition for internet services (50 = monopoly, 75 = partially competitive, 100 = competitive) [6%]	World Bank, <i>The Little Data Book 2017</i>	United States of America*	100	50
		Mobile broadband basket price ^a [6%]	ITU, 2017	No economy was at the frontier in 2020	0.22	5.38
		International internet bandwidth per internet user [6%]	ITU, 2018	Sweden*	253,090	0
		3G coverage (per cent of population) [6%]	ITU, 2017	Sweden*	100	94

* Additional economies are at the frontier. Further information is available on request.

^a Inverted before normalisation.

^b Capped at frontier.

^c Mirrored from frontier.