Appendix

I. Ranking of World Openness Index Since 2008

（Sorted by the ranking in 2020; G20 Member States in bold）

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Singapore	1	1	1	1	1	1	2	2	2	2	2	2	2
Germany	**2**	**2**	**3**	**3**	**3**	**4**	**4**	**4**	**4**	**4**	**4**	**3**	**3**
Hong Kong, China	3	3	2	2	2	2	3	3	3	3	3	4	4
Ireland	4	4	4	4	4	6	5	7	7	8	8	9	11
Switzerland	5	6	5	6	5	8	6	5	5	6	7	7	10
Netherlands	6	7	9	8	8	7	9	8	8	7	10	8	8
Canada	**7**	**9**	**8**	**11**	**10**	**11**	**10**	**9**	**10**	**9**	**9**	**11**	**7**
Malta	8	10	10	14	12	12	12	12	12	11	6	6	6
France	**9**	**8**	**7**	**9**	**9**	**10**	**11**	**10**	**11**	**10**	**11**	**10**	**9**
United Kingdom	**10**	**5**	**6**	**5**	**6**	**9**	**7**	**6**	**6**	**5**	**5**	**5**	**5**
Belgium	11	12	12	15	14	15	14	14	15	14	14	17	16
South Korea	**12**	**14**	**15**	**17**	**19**	**22**	**19**	**28**	**36**	**41**	**43**	**50**	**51**
Luxembourg	13	20	31	7	15	5	8	11	9	27	23	15	41
Hungary	14	25	26	26	21	26	25	26	26	26	27	27	26
New Zealand	15	28	24	23	25	25	26	25	25	25	25	13	14
Czech	16	19	18	19	20	21	24	24	23	23	24	26	27
Australia	**17**	**16**	**14**	**12**	**11**	**14**	**17**	**18**	**21**	**22**	**22**	**25**	**25**
Austria	18	23	20	22	24	23	22	19	19	18	20	21	21
Cyprus	19	15	16	28	32	32	30	51	40	19	18	19	19
Denmark	20	24	23	24	23	24	23	23	20	21	21	24	23
Italy	**21**	**11**	**11**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**14**	**15**
Sweden	22	17	21	21	22	20	18	20	18	17	17	20	22
United States	**23**	**22**	**19**	**10**	**7**	**3**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Estonia	24	27	25	27	28	27	27	22	24	24	28	29	29
Israel	25	13	13	16	16	17	16	15	14	15	15	18	17
Japan	**26**	**21**	**28**	**25**	**26**	**16**	**15**	**16**	**16**	**12**	**12**	**12**	**12**
Lithuania	27	31	30	30	36	50	47	47	52	45	42	39	37

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	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Spain	28	18	17	18	17	19	20	21	22	20	19	22	20
Greece	29	49	51	55	55	56	33	32	30	32	33	33	33
Latvia	30	29	27	29	27	29	28	29	28	30	31	35	36
Costa Rica	31	30	29	31	30	33	59	43	43	43	59	57	58
Portugal	32	33	34	35	33	34	31	31	31	31	30	30	30
Norway	33	26	22	20	18	18	21	17	17	16	16	16	13
Finland	34	32	32	32	31	31	29	27	27	29	29	28	28
Chile	35	35	33	36	40	37	37	36	33	28	26	23	18
Nicaragua	36	36	36	38	37	36	44	42	41	42	39	40	40
Macao, China	37	37	40	43	48	47	42	44	50	44	44	46	48
Slovakia	38	42	41	42	41	40	40	38	39	39	41	41	47
China	**39**	**40**	**42**	**41**	**42**	**43**	**43**	**45**	**47**	**53**	**58**	**61**	**62**
Georgia	40	44	47	58	58	60	56	58	62	99	99	87	78
Bahrain	41	41	39	40	38	38	34	30	29	40	38	37	39
Peru	42	39	35	37	47	46	53	49	49	51	61	58	60
Malaysia	43	48	46	48	46	44	39	55	56	58	55	42	24
Poland	44	43	44	45	44	45	58	57	57	57	54	56	57
Uruguay	45	34	37	39	39	39	36	33	32	35	34	31	31
Mexico	**46**	**54**	**54**	**53**	**54**	**55**	**52**	**50**	**48**	**48**	**46**	**43**	**42**
Panama	47	38	38	34	35	30	35	37	37	34	36	36	34
Guatemala	48	46	43	46	43	41	51	48	51	49	45	45	46
Trinidad and Tobago	49	45	45	44	29	28	38	35	34	36	40	47	49
Slovenia	50	55	57	57	57	57	55	54	54	50	47	44	38
Iceland	51	50	49	49	62	78	73	73	76	75	79	80	83
Oman	52	47	48	47	45	42	45	41	44	47	50	51	52
Croatia	53	52	53	56	56	58	54	56	58	59	56	52	53
Bulgaria	54	51	52	33	34	35	32	34	35	33	32	34	35
Jordan	55	57	55	52	50	49	41	40	38	38	37	32	32
Cambodia	56	53	50	50	49	48	57	59	60	64	68	76	81
Mauritius	57	58	58	51	53	52	49	52	45	37	35	38	44
El Salvador	58	59	59	59	60	59	61	60	59	56	51	48	43
Antigua and Barbuda	59	56	56	54	52	53	50	53	53	52	52	67	71
Romania	60	63	63	64	64	65	63	67	67	67	72	72	77
Guyana	61	62	61	62	51	51	48	46	42	46	48	55	55
Kuwait	62	60	60	61	63	62	62	61	68	69	67	66	72
Botswana	63	61	62	63	61	61	60	63	55	55	49	53	59
Vietnam	64	75	75	72	76	80	81	82	84	87	86	88	90
Colombia	65	65	65	67	69	81	90	98	103	102	102	100	92

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	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Mongolia	66	69	70	69	70	70	72	71	70	80	83	86	80
Zambia	67	70	69	68	67	67	64	62	61	61	63	63	66
Dominican Rep.	68	71	68	70	78	75	70	70	65	62	60	73	76
Paraguay	69	72	72	74	72	74	76	75	74	71	69	60	61
Argentina	**70**	**66**	**71**	**76**	**80**	**87**	**88**	**89**	**90**	**78**	**78**	**77**	**79**
Saudi Arabia	**71**	**68**	**67**	**66**	**65**	**63**	**68**	**65**	**66**	**66**	**65**	**68**	**64**
Thailand	72	83	83	83	85	85	85	86	87	90	96	93	82
Armenia	73	79	80	79	81	69	67	68	69	68	70	65	68
Russia	**74**	**64**	**64**	**60**	**59**	**54**	**46**	**39**	**46**	**54**	**57**	**62**	**69**
North Macedonia	75	77	78	75	74	73	77	77	73	77	77	71	73
Ecuador	76	67	66	65	66	64	87	88	86	84	62	54	54
Barbados	77	74	73	77	71	76	82	81	82	82	88	96	100
Uganda	78	73	74	71	75	71	71	72	71	73	74	75	74
Honduras	79	78	77	81	83	84	91	90	93	91	91	79	56
Albania	80	81	81	80	82	82	83	80	75	76	87	99	102
Philippines	81	80	79	78	77	77	75	94	92	96	93	85	88
Indonesia	**82**	**76**	**76**	**82**	**79**	**79**	**79**	**78**	**79**	**85**	**66**	**70**	**67**
Jamaica	83	87	87	85	68	66	65	66	63	63	64	59	50
Gambia	84	85	86	84	84	83	80	79	81	83	81	81	86
Kyrgyz	85	89	91	91	91	108	104	104	97	74	73	74	70
Ukraine	86	86	85	98	98	104	107	106	106	106	108	109	99
Morocco	87	88	88	88	89	91	92	91	91	92	90	91	93
Lebanon	88	93	92	90	88	89	69	69	72	72	71	64	63
Cabo Verde	89	104	105	120	128	128	128	128	128	128	127	127	126
Moldova	90	94	94	94	93	96	98	115	118	119	117	112	107
Turkey	**91**	**91**	**93**	**73**	**73**	**72**	**74**	**76**	**77**	**81**	**80**	**83**	**85**
Lesotho	92	98	99	102	101	106	105	102	107	104	101	101	106
India	**93**	**84**	**84**	**87**	**86**	**86**	**86**	**85**	**89**	**89**	**89**	**92**	**94**
South Africa	**94**	**90**	**89**	**95**	**95**	**94**	**93**	**92**	**94**	**94**	**94**	**89**	**91**
Belize	95	95	95	93	92	92	94	95	95	95	100	105	105
Egypt	96	92	90	89	105	103	103	100	83	60	53	49	45
Bolivia	97	97	96	96	90	88	84	83	85	88	85	78	75
Kenya	98	96	97	92	94	90	89	87	88	86	84	84	87
Papua New Guinea	99	82	82	86	87	68	66	64	64	65	76	82	89
Azerbaijan	100	103	104	99	97	100	101	101	102	103	112	116	101
Sudan	101	108	109	109	122	122	121	124	125	127	128	129	125
Samoa	102	101	103	105	106	105	109	109	109	107	107	106	109
Bosnia and Herzegovina	103	106	100	103	102	99	97	84	80	70	82	90	84

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	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Kazakhstan	104	109	111	107	110	113	112	111	113	113	116	111	112
Tunisia	105	100	101	100	99	95	95	93	96	98	92	97	96
Fiji	106	110	107	106	104	102	100	96	100	101	103	103	103
Brazil	**107**	**99**	**98**	**97**	**96**	**93**	**78**	**74**	**78**	**79**	**75**	**69**	**65**
Laos	108	102	102	101	100	101	99	103	104	110	113	117	119
Namibia	109	113	113	114	113	112	113	112	114	115	109	114	118
Zimbabwe	110	105	108	104	103	98	114	117	99	93	97	115	117
Mozambique	111	107	106	108	107	111	106	105	105	114	114	110	114
Belarus	112	114	114	113	114	120	123	116	116	117	118	118	115
Bangladesh	113	111	110	110	108	107	108	107	108	105	105	104	104
Nigeria	114	112	112	111	109	109	102	99	101	100	98	98	98
Algeria	115	115	115	112	111	110	110	108	110	108	104	102	108
Congo, Rep. of	116	121	121	119	119	118	122	122	122	121	121	119	120
Madagascar	117	116	116	115	116	97	96	97	112	111	111	95	97
Pakistan	118	119	117	116	115	114	111	110	111	109	106	107	110
Sri Lanka	119	120	120	118	117	116	117	119	98	97	95	94	95
Mali	120	117	118	117	112	115	116	113	117	118	115	113	113
Tanzania	121	124	124	122	118	117	115	114	115	116	119	120	116
Ghana	122	118	119	124	121	119	120	121	120	112	110	108	111
Ethiopia	123	123	123	123	123	123	118	118	119	120	120	121	122
Malawi	124	122	122	121	120	121	119	120	126	125	125	124	123
Côte d'Ivoire	125	125	125	126	125	125	125	123	121	122	122	122	121
Nepal	126	126	126	125	124	124	124	127	123	123	123	123	130
Gabon	127	128	128	128	127	127	127	126	127	126	126	126	127
Burundi	128	127	127	127	126	126	126	125	124	124	124	125	124
Central African Rep.	129	129	129	129	129	129	129	129	129	129	129	128	128

II. World Openness Index: 129 Economies, Selected Years Since 2008

（Sorted by the index in 2020 from top to bottom; G20 members in bold）

		2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
1	Singapore	0.8900	0.8646	0.8630	0.8536	0.8501	0.8557	0.8587	0.8571	0.8546	0.8438
2	**Germany**	**0.8591**	**0.8552**	**0.8508**	**0.8394**	**0.8352**	**0.8350**	**0.8365**	**0.8350**	**0.8259**	**0.8243**
3	Hong Kong, China	0.8442	0.8503	0.8580	0.8467	0.8471	0.8494	0.8579	0.8542	0.8486	0.8221
4	Ireland	0.8386	0.8371	0.8249	0.8266	0.8276	0.8272	0.8196	0.8054	0.7978	0.7802
5	Switzerland	0.8078	0.8133	0.8173	0.8100	0.8111	0.8071	0.8047	0.8078	0.8084	0.7814
6	Netherlands	0.8039	0.7997	0.7865	0.7916	0.7939	0.8072	0.7920	0.8000	0.7870	0.7856
7	**Canada**	**0.7998**	**0.7953**	**0.7867**	**0.7878**	**0.7848**	**0.7846**	**0.7896**	**0.7888**	**0.7864**	**0.7874**

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		2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
8	Malta	0.7971	0.7838	0.7809	0.7748	0.7751	0.7731	0.7849	0.7738	0.7745	0.7921
9	**France**	**0.7953**	**0.7986**	**0.7985**	**0.7904**	**0.7877**	**0.7862**	**0.7872**	**0.7864**	**0.7837**	**0.7848**
10	**United Kingdom**	**0.7952**	**0.8171**	**0.8080**	**0.8147**	**0.8026**	**0.8054**	**0.8036**	**0.8055**	**0.8063**	**0.7998**
11	Belgium	0.7878	0.7777	0.7765	0.7706	0.7711	0.7679	0.7701	0.7704	0.7652	0.7618
12	**South Korea**	**0.7862**	**0.7718**	**0.7695**	**0.7630**	**0.7577**	**0.7549**	**0.7572**	**0.7406**	**0.7279**	**0.6928**
13	Luxembourg	0.7850	0.7667	0.7503	0.7925	0.7675	0.8289	0.8013	0.7856	0.7868	0.7115
14	Hungary	0.7810	0.7632	0.7597	0.7537	0.7574	0.7530	0.7521	0.7479	0.7443	0.7374
15	New Zealand	0.7777	0.7622	0.7624	0.7568	0.7538	0.7537	0.7518	0.7484	0.7470	0.7656
16	Czech	0.7774	0.7668	0.7661	0.7591	0.7575	0.7562	0.7543	0.7501	0.7491	0.7367
17	**Australia**	**0.7765**	**0.7681**	**0.7722**	**0.7855**	**0.7761**	**0.7685**	**0.7643**	**0.7567**	**0.7500**	**0.7397**
18	Austria	0.7736	0.7664	0.7644	0.7582	0.7561	0.7548	0.7561	0.7552	0.7505	0.7459
19	Cyprus	0.7716	0.7696	0.7681	0.7527	0.7418	0.7420	0.7399	0.7065	0.7216	0.7481
20	Denmark	0.7708	0.7662	0.7634	0.7563	0.7566	0.7547	0.7546	0.7536	0.7501	0.7424
21	**Italy**	**0.7704**	**0.7814**	**0.7805**	**0.7754**	**0.7725**	**0.7729**	**0.7734**	**0.7728**	**0.7674**	**0.7618**
22	Sweden	0.7693	0.7674	0.7643	0.7583	0.7571	0.7565	0.7580	0.7550	0.7513	0.7453
23	**United States**	**0.7687**	**0.7666**	**0.7653**	**0.7904**	**0.7985**	**0.8370**	**0.8607**	**0.8681**	**0.8628**	**0.9328**
24	Estonia	0.7685	0.7628	0.7621	0.7528	0.7498	0.7499	0.7487	0.7546	0.7472	0.7296
25	Israel	0.7675	0.7772	0.7746	0.7672	0.7654	0.7646	0.7662	0.7654	0.7653	0.7575
26	**Japan**	**0.7673**	**0.7666**	**0.7593**	**0.7554**	**0.7533**	**0.7647**	**0.7677**	**0.7643**	**0.7631**	**0.7782**
27	Lithuania	0.7669	0.7568	0.7568	0.7475	0.7383	0.7220	0.7172	0.7131	0.7095	0.7202
28	Spain	0.7664	0.7669	0.7668	0.7611	0.7585	0.7577	0.7569	0.7546	0.7494	0.7466
29	Greece	0.7643	0.7300	0.7275	0.7163	0.7139	0.7116	0.7372	0.7351	0.7328	0.7243
30	Latvia	0.7641	0.7610	0.7595	0.7493	0.7502	0.7440	0.7427	0.7390	0.7375	0.7220
31	Costa Rica	0.7625	0.7595	0.7589	0.7458	0.7445	0.7413	0.6963	0.7217	0.7167	0.6868
32	Portugal	0.7597	0.7495	0.7485	0.7411	0.7400	0.7382	0.7383	0.7373	0.7325	0.7286
33	Norway	0.7571	0.7632	0.7635	0.7585	0.7582	0.7579	0.7567	0.7581	0.7564	0.7666
34	Finland	0.7570	0.7523	0.7501	0.7442	0.7441	0.7421	0.7427	0.7434	0.7398	0.7321
35	Chile	0.7527	0.7485	0.7491	0.7404	0.7351	0.7359	0.7342	0.7307	0.7320	0.7535
36	Nicaragua	0.7514	0.7459	0.7455	0.7380	0.7377	0.7365	0.7225	0.7218	0.7199	0.7122
37	Macao, China	0.7509	0.7456	0.7428	0.7322	0.7243	0.7250	0.7251	0.7192	0.7102	0.7038
38	Slovakia	0.7507	0.7413	0.7397	0.7328	0.7315	0.7288	0.7266	0.7246	0.7228	0.7071
39	**China**	**0.7507**	**0.7420**	**0.7392**	**0.7349**	**0.7299**	**0.7268**	**0.7248**	**0.7188**	**0.7107**	**0.6768**
40	Georgia	0.7484	0.7373	0.7345	0.7131	0.7107	0.6987	0.6984	0.6971	0.6797	0.6610
41	Bahrain	0.7477	0.7417	0.7431	0.7364	0.7376	0.7356	0.7368	0.7389	0.7347	0.7123
42	Peru	0.7450	0.7423	0.7456	0.7394	0.7250	0.7251	0.7113	0.7125	0.7104	0.6826
43	Malaysia	0.7447	0.7336	0.7361	0.7277	0.7261	0.7260	0.7289	0.6995	0.6944	0.7422
44	Poland,	0.7442	0.7380	0.7376	0.7298	0.7282	0.7255	0.6965	0.6973	0.6941	0.6876
45	Uruguay	0.7434	0.7488	0.7454	0.7365	0.7358	0.7355	0.7351	0.7345	0.7325	0.7274
46	**Mexico**	**0.7431**	**0.7222**	**0.7242**	**0.7192**	**0.7161**	**0.7123**	**0.7128**	**0.7117**	**0.7106**	**0.7114**
47	Panama	0.7426	0.7427	0.7440	0.7417	0.7389	0.7426	0.7362	0.7274	0.7273	0.7237

(Continued)

		2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
48	Guatemala	0.7396	0.7357	0.7387	0.7294	0.7284	0.7272	0.7129	0.7127	0.7100	0.7073
49	Trinidad and Tobago	0.7356	0.7368	0.7375	0.7312	0.7469	0.7441	0.7307	0.7310	0.7315	0.6964
50	Sloveniaf	0.7323	0.7219	0.7211	0.7131	0.7115	0.7090	0.7057	0.7023	0.6997	0.7162
51	Iceland	0.7296	0.7296	0.7320	0.7241	0.6953	0.6614	0.6650	0.6675	0.6622	0.6547
52	Oman	0.7275	0.7356	0.7330	0.7294	0.7277	0.7272	0.7224	0.7231	0.7156	0.6923
53	Croatia	0.7261	0.7257	0.7246	0.7150	0.7118	0.7081	0.7057	0.6991	0.6940	0.6923
54	Bulgaria	0.7249	0.7261	0.7252	0.7433	0.7397	0.7375	0.7379	0.7333	0.7301	0.7232
55	Jordan	0.7249	0.7197	0.7217	0.7197	0.7234	0.7221	0.7260	0.7238	0.7235	0.7273
56	Cambodia	0.7213	0.7248	0.7280	0.7223	0.7236	0.7242	0.6981	0.6934	0.6888	0.6563
57	Mauritius	0.7201	0.7137	0.7141	0.7216	0.7161	0.7177	0.7153	0.7041	0.7117	0.7092
58	El Salvador	0.7183	0.7119	0.7137	0.7045	0.7023	0.7007	0.6856	0.6854	0.6900	0.7101
59	Antigua and Barbuda	0.7172	0.7204	0.7212	0.7177	0.7191	0.7172	0.7150	0.7030	0.7021	0.6659
60	Romania	0.7075	0.6980	0.6959	0.6878	0.6859	0.6827	0.6815	0.6769	0.6743	0.6614
61	Guyana	0.7064	0.7000	0.7030	0.6941	0.7224	0.7195	0.7160	0.7169	0.7169	0.6915
62	Kuwait	0.7060	0.7039	0.7050	0.6974	0.6943	0.6892	0.6853	0.6828	0.6742	0.6658
63	Botswana	0.6997	0.7012	0.7029	0.6888	0.6981	0.6944	0.6932	0.6808	0.6949	0.6853
64	Vietnam	0.6943	0.6704	0.6700	0.6659	0.6616	0.6583	0.6560	0.6530	0.6511	0.6414
65	Colombia	0.6859	0.6940	0.6946	0.6790	0.6732	0.6574	0.6392	0.6227	0.6189	0.6379
66	Mongolia	0.6823	0.6813	0.6797	0.6705	0.6706	0.6680	0.6693	0.6717	0.6724	0.6573
67	Zambia	0.6768	0.6798	0.6799	0.6750	0.6775	0.6735	0.6806	0.6820	0.6852	0.6687
68	Dominican Rep.	0.6766	0.6796	0.6810	0.6693	0.6599	0.6631	0.6714	0.6720	0.6774	0.6631
69	Paraguay	0.6759	0.6746	0.6736	0.6658	0.6652	0.6641	0.6637	0.6650	0.6637	0.6800
70	**Argentina**	**0.6758**	**0.6880**	**0.6787**	**0.6643**	**0.6590**	**0.6432**	**0.6442**	**0.6424**	**0.6382**	**0.6578**
71	**Saudi Arabia**	**0.6754**	**0.6818**	**0.6827**	**0.6811**	**0.6823**	**0.6843**	**0.6728**	**0.6797**	**0.6766**	**0.6715**
72	Thailand	0.6742	0.6546	0.6565	0.6524	0.6499	0.6491	0.6508	0.6463	0.6486	0.6552
73	Armenia	0.6737	0.6631	0.6637	0.6614	0.6573	0.6707	0.6734	0.6746	0.6728	0.6681
74	**Russia**	**0.6725**	**0.6947**	**0.6953**	**0.7016**	**0.7069**	**0.7153**	**0.7223**	**0.7241**	**0.7113**	**0.6678**
75	North Macedonia	0.6724	0.6666	0.6669	0.6646	0.6638	0.6652	0.6637	0.6607	0.6644	0.6653
76	Ecuador	0.6711	0.6873	0.6891	0.6852	0.6821	0.6838	0.6444	0.6445	0.6489	0.6920
77	Barbados	0.6676	0.6708	0.6731	0.6643	0.6658	0.6624	0.6544	0.6540	0.6559	0.6153
78	Uganda	0.6666	0.6719	0.6714	0.6661	0.6638	0.6664	0.6711	0.6692	0.6695	0.6650
79	Honduras	0.6661	0.6634	0.6672	0.6584	0.6560	0.6544	0.6382	0.6361	0.6344	0.6913
80	Albania	0.6598	0.6624	0.6630	0.6595	0.6564	0.6553	0.6533	0.6542	0.6632	0.6140
81	Philippines	0.6582	0.6630	0.6645	0.6631	0.6611	0.6621	0.6642	0.6322	0.6357	0.6461
82	**Indonesia**	**0.6563**	**0.6668**	**0.6696**	**0.6571**	**0.6592**	**0.6587**	**0.6614**	**0.6586**	**0.6585**	**0.6681**
83	Jamaica	0.6537	0.6483	0.6493	0.6506	0.6755	0.6790	0.6791	0.6792	0.6782	0.6936
84	Gambia	0.6527	0.6518	0.6523	0.6515	0.6511	0.6548	0.6577	0.6543	0.6564	0.6497
85	Kyrgyz	0.6514	0.6430	0.6439	0.6386	0.6392	0.6122	0.6174	0.6166	0.6243	0.6662
86	Ukraine	0.6505	0.6491	0.6528	0.6287	0.6269	0.6180	0.6159	0.6139	0.6144	0.6156

(Continued)

		2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
87	Morocco	0.6418	0.6471	0.6470	0.6445	0.6414	0.6375	0.6348	0.6335	0.6374	0.6325
88	Lebanon	0.6417	0.6400	0.6422	0.6389	0.6417	0.6413	0.6723	0.6723	0.6684	0.6729
89	Cabo Verde	0.6410	0.6215	0.6225	0.5899	0.5569	0.5560	0.5577	0.5568	0.5585	0.5564
90	Moldova	0.6400	0.6385	0.6403	0.6337	0.6363	0.6267	0.6260	0.6022	0.6013	0.6051
91	**Turkey**	**0.6391**	**0.6420**	**0.6415**	**0.6658**	**0.6646**	**0.6658**	**0.6649**	**0.6628**	**0.6606**	**0.6498**
92	Lesotho	0.6371	0.6329	0.6344	0.6220	0.6200	0.6148	0.6165	0.6176	0.6139	0.6064
93	**India**	**0.6359**	**0.6524**	**0.6537**	**0.6450**	**0.6452**	**0.6476**	**0.6499**	**0.6507**	**0.6435**	**0.6256**
94	**South Africa**	**0.6342**	**0.6422**	**0.6458**	**0.6337**	**0.6329**	**0.6318**	**0.6339**	**0.6333**	**0.6323**	**0.6401**
95	Belize	0.6339	0.6382	0.6394	0.6361	0.6369	0.6367	0.6311	0.6292	0.6292	0.6070
96	Egypt	0.6331	0.6410	0.6448	0.6441	0.6179	0.6189	0.6201	0.6202	0.6542	0.7084
97	Bolivia	0.6319	0.6355	0.6361	0.6336	0.6398	0.6418	0.6526	0.6513	0.6495	0.6642
98	Kenya	0.6312	0.6358	0.6352	0.6364	0.6361	0.6386	0.6427	0.6452	0.6461	0.6465
99	Papua New Guinea	0.6304	0.6583	0.6607	0.6453	0.6449	0.6727	0.6756	0.6806	0.6776	0.6437
100	Azerbaijan	0.6294	0.6245	0.6249	0.6276	0.6290	0.6236	0.6215	0.6193	0.6193	0.6142
101	Sudan	0.6278	0.6166	0.6168	0.6134	0.5856	0.5831	0.5856	0.5801	0.5722	0.5629
102	Samoa	0.6273	0.6258	0.6253	0.6176	0.6172	0.6152	0.6115	0.6099	0.6086	0.6024
103	Bosnia and Herzegovina	0.6270	0.6180	0.6293	0.6219	0.6194	0.6236	0.6271	0.6509	0.6583	0.6525
104	Kazakhstan	0.6257	0.6163	0.6159	0.6144	0.6109	0.6054	0.6068	0.6051	0.6053	0.5982
105	Tunisia	0.6227	0.6283	0.6271	0.6267	0.6238	0.6285	0.6311	0.6329	0.6266	0.6252
106	Fiji	0.6226	0.6160	0.6213	0.6149	0.6183	0.6198	0.6218	0.6242	0.6230	0.6126
107	**Brazil**	**0.6189**	**0.6284**	**0.6348**	**0.6303**	**0.6325**	**0.6348**	**0.6632**	**0.6660**	**0.6604**	**0.6704**
108	Laos	0.6182	0.6246	0.6264	0.6228	0.6213	0.6216	0.6225	0.6175	0.6185	0.5907
109	Namibia	0.6176	0.6129	0.6148	0.6065	0.6046	0.6061	0.6067	0.6039	0.6033	0.5917
110	Zimbabwe	0.6166	0.6214	0.6203	0.6185	0.6186	0.6263	0.6039	0.5981	0.6233	0.5923
111	Mozambique	0.6160	0.6170	0.6218	0.6144	0.6163	0.6100	0.6161	0.6154	0.6147	0.5975
112	Belarus	0.6119	0.6095	0.6117	0.6067	0.6043	0.5848	0.5839	0.5999	0.6027	0.5932
113	Bangladesh	0.6100	0.6155	0.6167	0.6128	0.6115	0.6138	0.6139	0.6113	0.6088	0.6097
114	Nigeria	0.6036	0.6144	0.6150	0.6118	0.6112	0.6116	0.6206	0.6205	0.6198	0.6172
115	Algeria	0.6036	0.6074	0.6075	0.6079	0.6107	0.6106	0.6094	0.6105	0.6083	0.6033
116	Congo, Rep. of	0.6008	0.5961	0.5947	0.5960	0.5933	0.5944	0.5854	0.5827	0.5815	0.5848
117	Madagascar	0.5994	0.6058	0.6056	0.6051	0.6028	0.6264	0.6297	0.6230	0.6058	0.6184
118	Pakistan	0.5983	0.6042	0.6052	0.6040	0.6032	0.6040	0.6070	0.6062	0.6073	0.6009
119	Sri Lanka	0.5942	0.5983	0.5980	0.5988	0.5997	0.6007	0.5967	0.5933	0.6241	0.6254
120	Mali	0.5927	0.6045	0.6040	0.6012	0.6048	0.6032	0.6037	0.6038	0.6013	0.5981
121	Tanzania	0.5926	0.5867	0.5869	0.5857	0.5987	0.5965	0.6038	0.6029	0.6031	0.5930
122	Ghana	0.5864	0.6045	0.6017	0.5829	0.5879	0.5873	0.5858	0.5847	0.5898	0.6008
123	Ethiopia	0.5852	0.5885	0.5894	0.5851	0.5848	0.5821	0.5917	0.5946	0.5904	0.5822
124	Malawi	0.5830	0.5909	0.5917	0.5898	0.5890	0.5848	0.5892	0.5885	0.5676	0.5777
125	Côte d'Ivoire	0.5804	0.5843	0.5828	0.5735	0.5754	0.5749	0.5793	0.5804	0.5819	0.5823

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		2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
126	Nepal	0.5791	0.5785	0.5813	0.5784	0.5793	0.5789	0.5810	0.5661	0.5755	0.3132
127	Gabon	0.5706	0.5709	0.5705	0.5676	0.5679	0.5679	0.5676	0.5692	0.5659	0.5555
128	Burundi	0.5683	0.5723	0.5720	0.5710	0.5697	0.5690	0.5716	0.5729	0.5728	0.5671
129	Central African Rep.	0.5500	0.5508	0.5500	0.5488	0.5513	0.5491	0.5504	0.5519	0.5489	0.5470

III. Brief Introduction to World Openness Index

This section includes the following contents: concept and theory of opening-up to the outside world, indicator system, weight setting and sources of data, and nondimensionalization of indicators.

1. Concept and Theory of Opening-up to the Outside World

The basic meaning of "opening-up to the outside world" is clear and consistent, that is, the specific entities of at least two economies carry out exchanges at the economic, social and cultural levels to lead to the flow of goods, services, personnel, capital, information, knowledge, and technology. The subject of "opening-up to the outside world", mentioned in this report, mainly refers to the macro-level economy, that is, a specific economy. This means that the openness index takes the entire economy as the basic unit of observation.

The openness index measures cross-border economic openness and the related cross-border social openness and cross-border cultural openness.

In the field of economic openness, cross-border exchanges undoubtedly have the longest history, including, but not limited to, cross-border trade. Economic opening-up has long been dominated by the opening-up of cross-border trade, and cross-border trade has long been dominated by goods. In recent decades, the proportion of services has gradually increased, and it has almost become predominant in some economies. Foreign trade in goods has long been dominated by primary and final products, although the intermediate products have accounted for an increasing proportion and even become the main part of cross-border trade in some economies. Cross-border trade is actually a direct manifestation or extension of a country's endowment

of resources (including natural resources and human resources) and production technology endowments. This is exactly the basic principle discussed in the classical theory of international trade. Therefore, this report uses the cross-border trade theory as a starting point to construct a theoretical model of opening-up to the outside world.

Based on the summary of various frontier mainstream cross-border trade models by Costinot & Rodríguez-Clare (2014)[①], price of a product of economy i in economy j can be expressed as function of a number of variables, including those directly related to cross-border opening-up, such as the fixed and variable costs of entry of one economy into another. Those costs and the areas of cross-border opening-up that influence the costs are as follows:

— Variable trade costs: variable trade costs for export of final products are mainly influenced by trade opening-up policies of the importing economy, and variable trade costs for imports of intermediate goods are mainly influenced by trade opening-up policies of the importing economy.

— Productivity of production enterprises is subject to influence of the host economy's investment opening-up policies.

— Fixed costs of enterprises' exports and cross-border investments are subject to influence of financial opening-up policies.

— Total factor productivity is subject to influence of cross-border diffusion of knowledge and technology.

— The variable costs of corporate decisions are influenced by the quality of institutions, such as contractual improvement and property rights protection.

Accordingly, the areas affecting cross-border trade and economy can be put in the following three categories: First, it is economic openness, mainly trade openness, investment openness, and financial openness. Second, it is social openness, mainly tourism, studying abroad, and immigration opening-up. Third, it is cultural opening-up, mainly cultural trade and cultural exchange. Those three types of openness all include the opening-up of corresponding systems.

To highlight cross-border institutional openness, cross-border openness is divided into cross-border openness performance and complimentary openness policies, each covering economic, social and cultural openness.

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① Costinot. A., & Rodríguez-Clare, A. (2014). Trade theory with numbers: Quantifying the consequences of globalization, *Handbook of international economics, 4*, 197-261.

2. Indicator System, Weight Setting and Data Sources

a. Indicator system

The indicator system of external openness measurement is the core content of constructing the world openness index, and its setting principles follow the following principles: 1). scientific principle, including the two-way openness balance, the objectivity of openness data, and the heterogeneity of openness contents. 2). the principle of representativeness, including the representativeness of openness areas and the representativeness of openness subject. 3). the principle of sustainability, characterized by high data accessibility, stable data sources, high quality of data, and broad prospects for expansion and application.

Based on the above-mentioned concepts, theories and principles, the indicator system constituting the world openness index is divided into four levels, among which the details of the indicators of the second, third and fourth levels are shown in the table below.

Compared with other openness indicators, the world openness index, based on the aforementioned indicator system has the following characteristics. First, it measures economic openness and social and cultural openness that is intertwined with economic openness. Second, it focuses on both internal openness and external openness. Third, it focuses on both openness performance and openness policy.

b. Weight setting

The weight setting the indicator system at each level is based on expert survey. Based on a questionnaire survey of 41 Chinese experts in international economics, the weight setting of the indicator system is shown in the table below.

c. Sources of data

Sources of underlying indicator data include the World Bank, World Trade Organization, International Monetary Fund, United Nations Conference on Trade and Development, World Tourism Organization, UNESCO, United Nations Department of Economic and Social Affairs, World Intellectual Property Organization (WIPO), among others. The detailed breakdown is shown in the following table.

Indicators, weightings and sources of underlying data

Secondary indicator	Tertiary indicator	Tier-4 indicator	Weighting	Source of underlying data
Openness policy (0.518)	Economic openness policies	Weighted applied tariff rate	0.3390	WB
		Number of non-tariff trade barrier imposed by reporting economy	0.2590	WTO
		Inbound openness of concerned free trade agreement(s)	0.0510	WTO
		Outbound openness of concerned free trade agreement(s)	0.0510	WTO
		Inbound openness of concerned international investment agreement(s)	0.0500	UNCTAD
		Outbound openness of concerned international investment agreement(s)	0.0500	UNCTAD
		Financial openness policy	0.1000	Chinn-Ito Index
	Social openness policy	Cross-border visa openness policy	0.1000	Henley & Partners
	Cultural openness policy	(*Applicable at the appropriate time*)		
Openness performance (0.482)	Economic openness performance (0.69)	Import of goods	0.1690	IMF/WB
		Export of goods	0.1690	IMF/WB
		Import of services	0.1610	IMF/WB
		Export of services	0.1610	IMF/WB
		Foreign direct investment	0.1410	IMF/WB
		Outbound direct investment	0.1410	IMF/WB
		Portfolio investment inflows	0.0290	IMF/WB
		Portfolio investment outflows	0.0290	IMF/WB
	Social openness performance (0.17)	Inbound tourists	0.1896	World Tourism Organization/WB
		Outbound tourists	0.1896	World Tourism Organization/WB
		Inbound students	0.2150	UNESCO
		Outbound students	0.2150	UNESCO
		Immigrants	0.0954	UN DESA
		Emigrants	0.0954	UN DESA
	Cultural openness performance (0.14)	Import of IPR services	0.1830	IMF/WB
		Export of IPR services	0.1830	IMF/WB
		Patent application by residents of other economies	0.1710	WIPO
		Overseas patent application by residents of reporting economy	0.1710	WIPO
		International citations of science documents	0.1100	SCImago
		Cultural goods import	0.0910	UNESCO
		Cultural goods export	0.0910	UNESCO

Note: Numbers in parentheses are the weights of the indicators at the corresponding level.The weights of indicators on social openness performance are different from those in *World Openness Report 2021* (Page 49), which was wrong for typesetting error.

Despite the above sources, some values of some underlying indicators remain missing. The following approach was adopted to make up for those missing values.

— When an economy has a value for only one year in the entire sample period, this value is used for all other years.

— When an economy has a value for more than one uninterrupted year in the whole sample period, the data for the other years are taken in accordance with the principle of proximity. For example, if only values of 2011 and 2012 are available, then the value of 2011 is used for the year before 2011 and the value of 2012 is used for the year after 2012.

— For an economy that has a value in more than one year during the whole sample period and there is an interruption, the values between the two interrupted years are taken according to the principle of proximity (e.g., when only 2011 and 2014 have values, the value of 2011 is taken for 2012 and that of 2014 is taken for 2013); when the values are missing for an odd number of years, the value of the middlemost year is taken as the average of the two values at the two ends (e.g., when only values of 2011 and 2015 are available, the value of 2011 is taken for 2012, the value of 2015 is taken for 2014, and the average of the values of 2011 and 2015 is taken for 2013).

— For a country that has no values during the entire sample period, another country that is most similar to it in terms of economic development, social and cultural conditions, institutional characteristics, and geographical features should be picked so that the values of that country can be taken for the country with missing values.

3. Dimensionless treatment of indicators

a. Principles

Dimensionless treatment is a necessary step for underlying index data processing. It should abide by the following principles: the designing of the treatment method should be based on the economics principle of supply and demand.

Opening-up to the outside world is a two-way process. First, it is inward opening-up. That is, economy A opens its market to other economies to meet A's own needs, which is reflected by economy A importing goods, capital, technology, and personnel from other economies. Second, it is outward opening-up of other economies. That is, other economies open themselves to economy A to meet their own needs, which is reflected by economy A exporting goods, capital, technology, and personnel to those

economies.

Such a principle is, in essence, to make the openness indicators dimensionless based on market supply and demand conditions. First, if the value of economy A on certain inward opening-up indicator is an absolute one, it should be divided by the total value of this indicator for economy A. Second, if the value of the economy A on one certain outward opening-up indicator is an absolute one, it should be divided by the global value of the indicator after deducting the value of economy A. In this report, it is stipulated that the "corresponding aggregate indicator" for the openness indicator in the economic value category is GDP, and the "corresponding aggregate indicator" for the openness indicator in the headcount category is total population, and the rest can be deduced in the same vein.

b. Specific methods

1) Outflow measured by value

Such an indicator system includes six indicators, namely, export of goods, export of services, outbound direct investment, outbound portfolio investment, export of IPR services, and cultural product export.

It is calculated as follows:

$$y_{it} = \frac{x_{it}}{\sum_{j \neq i} GDP_{jt}}$$

In the equation, y_{it} is the final value of the indicator of Economy i during Period t; x_{it} is the original value of the indicator, and $\sum_{j \neq i} GDP_{jt}$ is the *GDP* summation of all the other economies in the world.

2) Inflow measured by value

Such an indicator system includes six indicators, namely, import of goods, import of services, foreign direct investment, foreign portfolio investment, import of IPR service, and cultural product import.

It is calculated as follows:

$$y_{it} = \frac{x_{it}}{GDP_{it}}$$

In the equation, y_{it} is the final value of of the indicator of Economy i during Period t; x_{it} is the original value of the indicator.

3) Outflow measured by headcount

Such an indicator system includes three indicators, namely, outbound tourists, outbound students, and emigrants.

It is calculated as follows:

$$y_{it} = \frac{x_{it}}{\sum_{j \neq i} POP_{jt}}$$

In the equation, y_{it} is the final value of the indicator of Economy i during Period t; x_{it} is the original value of the indicator; and $\sum_{j \neq i} GDP_{jt}$ is the summation of population of all the other economies in the world.

4) Inflow measured by headcount

Such an indicator system includes three indicators, namely, inbound tourists, inbound students, and immigrants.

It is calculated as follows:

$$y_{it} = \frac{x_{it}}{POP_{it}}$$

In the equation, y_{it} is the final value of the indicator of Economy i during Period t; x_{it} is the original value of the indicator; and *POP* refers to population.

5) Patent application

It includes two indicators: residents applying for patents abroad (patex) and non-residents applying for patents within the reporting economy (patim).

Patex is calculated as follows:

$$patex_{it} = \frac{abroad_{it}}{\sum_{j \neq i}(resi_{jt} + nonr_{jt})}$$

In the equation, $abroad_{it}$ refers to the number of patent applications of Economy i filed in other countries in Year t; $\sum_{j \neq i}(resi_{jt} + nonr_{jt})$ refers to the total number of patent applications approved by countries other than Economy i (*resi* refers to residents and *nonr* refers to non-residents).

patim is calculated as follows:

$$patim_{it} = \frac{nonr_{it}}{resi_{it} + nonr_{it}}$$

In the equation, $nonr_{it}$ is the number of patent applications by non-residents (those from abroad) in Economy i; $resi_{it}$+$nonr_{it}$ is the total number of patent applications in Economy i.

6) Cross-border citations of science papers

It is calculated as follows:

$$paper_{it} = \frac{Citations_{it}\text{-}Selfcitations_{it}}{\sum_{j} Documents_{jt}}$$

In the equation, $Citations_{it}$ refers to total citations of science papers of Economy i in Year t; $Selfcitations_{it}$ refers to self-citations; and $\sum_j Documents_{jt}$ is the total number of science papers of all the other economies except Economy i.

7) External openness based on international trade and investment agreements

There are two indicators and It is calculated as follows:

$$T_{it} = \sum_p T_{ipt} \frac{GDP_{pt}}{\sum_{j \neq i} GDP_{jt}}$$

In the equation, T_{it} is openness of Economy i in Year t, based on trade or investment agreements; GDP_{pt} is the GDP of the contracting partner; $\Sigma_{j \neq i} GDP_{jt}$ is the total GDP of all the other economies except Economy i; T_{ipt} is a dummy variable; it takes 1 when the agreement is effective for Economy i and p in Year t; otherwise it takes 0.

8) Internal openness of concerned international trade and investment agreements

There are two indicators and It is calculated as follows:

$$T_{it} = \frac{GDP_{it}}{\sum_p T_{ipt} \times GDP_{pt}}$$

In the equation, T_{it} is the openness of Economy I in Year t, based on trade or investment agreements; GDP_{it} is GDP of Economy i; GDP_{pt} is the GDP of the contracting partner; T_{ipt} is a dummy variable; it takes 1 when the agreement is effective for Economy i and p in Year t; otherwise it takes 0.

9) Non-tariff trade barrier

It is calculated as follows:

$$X_{it} = ntb_{it} \times hs_{it}$$

In the equation, X_{it} refers to non-tariff barriers imposed by Economy i in Year t; ntb_{it} refers to number of non-tariff measures; hs_{it} refers to quantity of concerned products.

10) Indicators not requiring additional treatment

They include three indicators, namely, weighted tariff rate, financial openness index, and passport convenience index.

c. Centralized treatment of indicators

To achieve consistency in standard indicator dimensions, indicators have been processed as follows:

$$y_{it} = \frac{x_{it} - min(x)}{max(x) - min(x)}$$

In the equation, y_{it} is indicator of Economy I in Year t after the centralization process; x_{it} is the pre-centralization indicator; $max(x)$ and $min(x)$ are the maximum value and minimum value, respectively, of indicator x during the entire sample period.

For some inverse indicators, such as weighted tariff rate and non-tariff measures, the larger the value is, the lower the level of openness; it is calculated as follows:

$$y_{it} = 1 - \frac{x_{it} - min(x)}{max(x) - min(x)}$$

This calculation method projects all indicators on [0, 1].

IV. Groupings of Economies Gauged by World Openness Index

(**Sorted by alphabetical name of economies**)

	Economy	Grouping by region							Grouping by income				Others						
		North America	East Asia & Pacific	Latin America & Caribbean	South Asia	Europe & Central Asia	Sub-Saharan Africa	Middle East & North Africa	High income	Upper Middle Income	Lower Middle Income	Low income	Belt and Road economies①	Advanced economies	EU	EA	G20	G7	BRICS
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Albania					√				√			√						
2	Algeria							√		√			√						
3	Antigua and Barbuda			√					√				√						
4	Argentina			√						√			√				√		
5	Armenia					√				√			√						
6	Australia		√						√					√			√		
7	Austria					√			√				√	√	√	√			
8	Azerbaijan					√				√			√						
9	Bahrain							√	√				√						
10	Bangladesh				√						√		√						
11	Barbados			√					√				√						
12	Belarus					√				√			√						
13	Belgium					√			√					√	√	√			
14	Belize			√						√									
15	Bolivia			√							√		√						
16	Bosnia and Herzegovina					√				√			√						
17	Botswana						√			√			√						
18	Brazil			√						√							√		√
19	Bulgaria					√				√			√		√				
20	Burundi						√					√	√						
21	Cabo Verde						√				√		√						

(Continued)

	Economy	Grouping by region							Grouping by income				Others						
		North America	East Asia & Pacific	Latin America & Caribbean	South Asia	Europe & Central Asia	Sub-Saharan Africa	Middle East & North Africa	High income	Upper Middle Income	Lower Middle Income	Low income	Belt and Road economies[1]	Advanced economies	EU	EA	G20	G7	BRICS
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
22	Cambodia		√								√		√						
23	Canada	√							√					√			√	√	
24	Central African Rep.						√					√	√						
25	Chile			√					√				√						
26	China		√							√			√				√		√
27	Colombia			√						√									
28	Congo, Rep. of						√				√		√						
29	Costa Rica			√						√			√						
30	Côte d'Ivoire						√				√		√						
31	Croatia					√			√				√		√				
32	Cyprus					√			√				√	√	√	√			
33	Czech					√			√				√	√	√				
34	Denmark					√			√					√	√				
35	Dominican Rep.			√						√			√						
36	Ecuador			√						√			√						
37	Egypt							√			√		√						
38	El Salvador			√							√		√						
39	Estonia					√			√				√	√	√	√			
40	Ethiopia						√					√	√						
41	Fiji		√							√			√						
42	Finland					√			√					√	√	√			
43	France					√			√					√	√	√	√	√	
44	Gabon						√			√			√						
45	Gambia						√					√	√						
46	Georgia					√				√			√						
47	Germany					√			√					√	√	√	√	√	
48	Ghana						√				√		√						
49	Greece					√			√				√	√	√	√			
50	Guatemala			√						√									
51	Guyana			√						√			√						
52	Honduras			√							√								
53	Hong Kong, China		√						√					√					

(Continued)

	Economy	Grouping by region							Grouping by income				Others						
		North America	East Asia & Pacific	Latin America & Caribbean	South Asia	Europe & Central Asia	Sub-Saharan Africa	Middle East & North Africa	High income	Upper Middle Income	Lower Middle Income	Low income	Belt and Road economies[1]	Advanced economies	EU	EA	G20	G7	BRICS
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
54	Hungary					√			√				√		√				
55	Iceland					√			√					√					
56	India				√						√						√		√
57	Indonesia		√								√		√				√		
58	Ireland					√			√					√	√	√			
59	Israel							√	√					√					
60	Italy					√			√				√	√	√	√	√	√	
61	Jamaica			√						√			√						
62	Japan		√						√					√			√	√	
63	Jordan							√		√									
64	Kazakhstan					√				√			√						
65	Kenya						√				√		√						
66	South Korea		√						√				√	√			√		
67	Kuwait							√	√				√						
68	Kyrgyz					√					√		√						
69	Laos		√								√		√						
70	Latvia					√			√				√	√	√	√			
71	Lebanon							√		√			√						
72	Lesotho						√				√		√						
73	Lithuania					√			√				√	√	√	√			
74	Luxembourg					√			√				√	√	√	√			
75	Macao, China		√						√					√					
76	Madagascar						√					√	√						
77	Malawi						√					√							
78	Malaysia		√							√			√						
79	Mali						√					√	√						
80	Malta							√	√				√	√	√	√			
81	Mauritius						√			√									
82	Mexico			√						√							√		
83	Moldova					√					√		√						
84	Mongolia		√								√		√						
85	Morocco							√			√		√						
86	Mozambique						√					√	√						
87	Namibia						√			√			√						
88	Nepal				√							√	√						
89	Netherlands					√			√					√	√	√			

(Continued)

	Economy	Grouping by region							Grouping by income				Others						
		North America	East Asia & Pacific	Latin America & Caribbean	South Asia	Europe & Central Asia	Sub-Saharan Africa	Middle East & North Africa	High income	Upper Middle Income	Lower Middle Income	Low income	Belt and Road economies①	Advanced economies	EU	EA	G20	G7	BRICS
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
90	New Zealand		√						√				√	√					
91	Nicaragua			√							√		√						
92	Nigeria						√				√		√						
93	North Macedonia					√				√			√						
94	Norway					√			√					√					
95	Oman							√	√				√						
96	Pakistan				√						√		√						
97	Panama			√					√				√						
98	Papua New Guinea		√								√		√						
99	Paraguay			√						√									
100	Peru			√						√			√						
101	Philippines		√								√		√						
102	Poland					√			√				√		√				
103	Portugal					√			√				√	√	√	√			
104	Romania					√				√			√		√				
105	Russia					√				√			√				√		√
106	Samoa		√							√			√						
107	Saudi Arabia							√	√				√				√		
108	Singapore		√						√				√	√					
109	Slovakia					√			√				√	√	√	√			
110	Slovenia					√			√				√	√	√	√			
111	South Africa						√			√			√				√		√
112	Spain					√			√					√	√	√			
113	Sri Lanka				√					√			√						
114	Sudan						√				√		√						
115	Sweden					√			√					√	√				
116	Switzerland					√			√					√					
117	Tanzania						√					√	√						
118	Thailand		√							√			√						
119	Trinidad and Tobago			√					√				√						
120	Tunisia							√			√		√						
121	Turkey					√				√			√				√		
122	Uganda						√					√	√						

(Continued)

	Economy	Grouping by region							Grouping by income				Others						
		North America	East Asia & Pacific	Latin America & Caribbean	South Asia	Europe & Central Asia	Sub-Saharan Africa	Middle East & North Africa	High income	Upper Middle Income	Lower Middle Income	Low income	Belt and Road economies①	Advanced economies	EU	EA	G20	G7	BRICS
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
123	Ukraine					√					√		√						
124	United Kingdom					√			√					√			√	√	
125	United States	√							√					√			√	√	
126	Uruguay			√					√				√						
127	Vietnam		√								√		√						
128	Zambia						√				√		√						
129	Zimbabwe						√				√		√						
	Subtotal	2	19	23	5	43	25	12	49	39	30	11	98	36	27	19	19	7	5
	Global Total②	3	37	42	8	58	48	21	80	54	54	28	149	40	27	19	19	7	5

Note: ① The list of the economies along the "the Belt and Road" is as of August 27, 2022. ② The number of global economies is 216 in the *World Development Indicators* of the World Bank and 196 in the *World Economic Outlook* of the International Monetary Fund, respectively.

Source: (i) The groupings by region or by income from the World Bank, see https://data.worldbank.org/country;

(ii) The list of WTO members from the World Trade Organization, see https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm;

(iii) The list of economies along the "Belt and Road" from the official website of China's Belt and Road network, see

https://www.yidaiyilu.gov.cn/info/iList.jsp?cat_id=10037;

(iv) The members of Advanced economies. European Union (EU), European Area (EA) or Group of Seven (G7) from the International Monetary Fund, see https://www.imf.org/en/Publications/WEO/weo-database/2022/April/select-country-group;

(v) The list of Group of Twenty (G20) from the G20 Summit (Indonesia, 2022), see https://g20.org/about-the-g20/#about.