

Falling down the global ranks: life expectancy in the UK, 1952–2021

Lucinda Hiam^{1,2} , Danny Dorling¹ and Martin McKee² 

¹School of Geography and the Environment, University of Oxford, Oxford OX1 3QY, UK

²Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London WC1H 9SH, UK

Corresponding author: Lucinda Hiam. Email: Lucinda.hiam@kellogg.ox.ac.uk

In 1952, when Queen Elizabeth II came to the throne, the UK had one of the longest life expectancies (as measured from birth) in the world, ranking seventh globally behind countries such as Norway, Sweden and Denmark.¹ Indeed, for many in Britain, the 1950s were a good time to be alive. The country was recovering from the devastation of the war, and Harold Macmillan, Prime Minister in the second half of the decade, famously told the people that they had ‘never had it so good’.² Of course, not everyone was so lucky, with Blake’s ‘dark satanic mills’ still dominating many communities experiencing deep poverty. But compared with many other countries, the prospects seemed good. A survey in the city of York found that poverty had almost disappeared there by 1950, although of course it was not entirely gone.³ However, in marked contrast to the unemployment of the 1930s, the country was actively recruiting people from the Commonwealth to fill the many job vacancies.⁴

Objectively, Macmillan’s comments seemed justified. One of the best measures of the progress of nations is the health of their people, and with life expectancy at an all-time high and, globally, higher than in many other countries, the UK was faring well. It can, of course, be unfair to compare countries without taking account of their initial circumstances. Most obviously, given a biological limit to longevity, countries that have already achieved long life expectancy have less scope to improve. However, while this may be an issue now, it was much less relevant in 1952 when life expectancy (both sexes) in the UK was only 69.5 years. The UK also benefitted from the legacy of wealth that came from possessing the largest empire the world has ever known. However, other major colonial powers, such as France, were also advantaged.

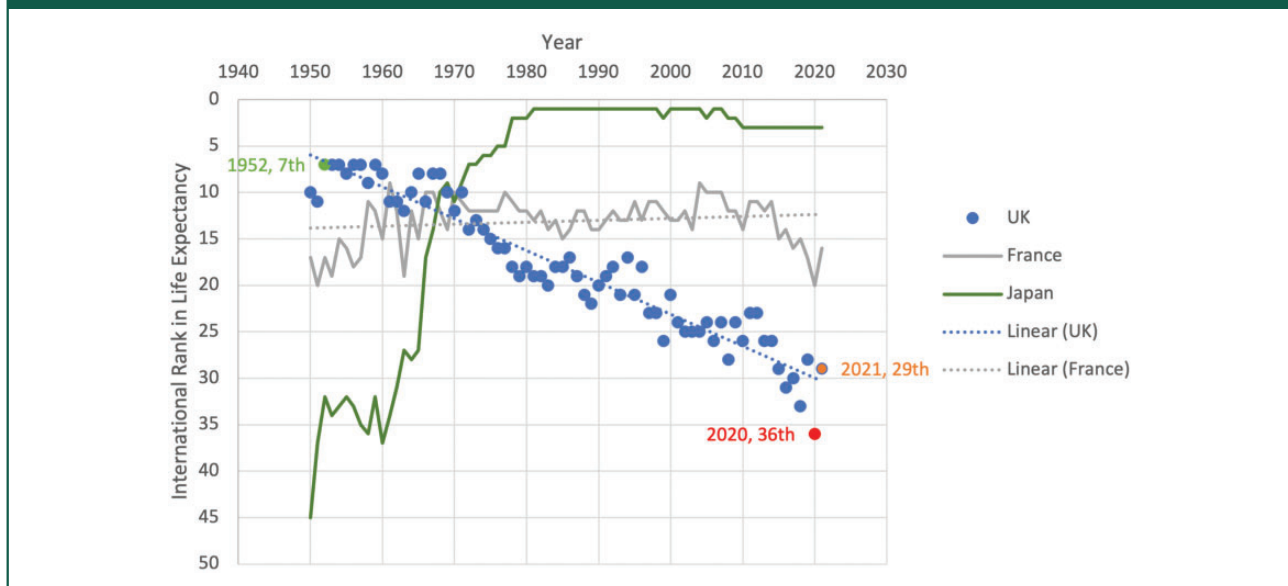
This favourable situation would not last. By the early 1960s, the UK was slipping down the global rankings in life expectancy (Figure 1). After particularly

marked falls in the 1970s and 2010s, it had fallen to 36th place in 2020 (red dot) during the COVID-19 pandemic, just above the Maldives, Chile, Costa Rica and Thailand. In 2021, the UK’s life expectancy rank rose seven places to 29th (orange dot), possibly linked to the arrival of vaccines against COVID-19 earlier in Britain than in the countries just above it. By rolling the vaccine out first to older people, who were especially likely to die from COVID-19, this may have provided a transient advantage before other countries caught up, but this is not yet clear. However, given the current challenges faced by the UK, there is no room for complacency. While life expectancy has increased in absolute terms over recent decades, other, now much more similar countries, are experiencing larger increases. It is hard to believe that the UK is facing diminishing marginal returns on its investment in health, while those other countries are at a point in the curve where returns are still much higher.

Some changes would have been expected in the decades from the 1950s until the present day. The post-war period saw remarkable economic progress in some parts of the world, such as Singapore, Hong Kong, South Korea and Taiwan giving rise to the term ‘Asian tigers’. So, is what happened in the UK simply a matter of other regions catching up? Certainly, this is part of the explanation, but not all. We can illustrate this by looking at two other trendlines in Figure 1. Japan has made remarkable progress, coming from 45th position in the early 1950s to occupy one of the top three positions since the 1980s, and regularly holds the top position in global rankings. Yet, France, which in many ways is very comparable to the UK (including, as noted above, benefitting from having a global colonial empire), started well below the UK and has now surpassed it.

France and Japan, along with the UK, Canada, USA, Germany and Italy, are members of the ‘Group of Seven’ (G7). The G7 is a collection of

Figure 1. UK rank in international life expectancy, 1950–2021, Source: UN Data, 2022.¹



countries with advanced economies that represent about half of global economic output.⁵ Figure 2 shows the rankings of the G7 countries at each decade from 1950 to 2020. Along with France and Japan, Germany and Italy have now surpassed the UK. In fact, the only G7 country to do worse than the UK is the USA. What has gone wrong?

As always, the first question is whether we can trust the data. Vital registration has improved immensely over this time, especially in low- and middle-income countries. However, while caution would be needed in analysing the causes of deaths seven decades ago, with a few exceptions (such as in Korea during the war in the early 1950s), the countries at the top of the rankings have long-established systems for collecting demographic data.⁶

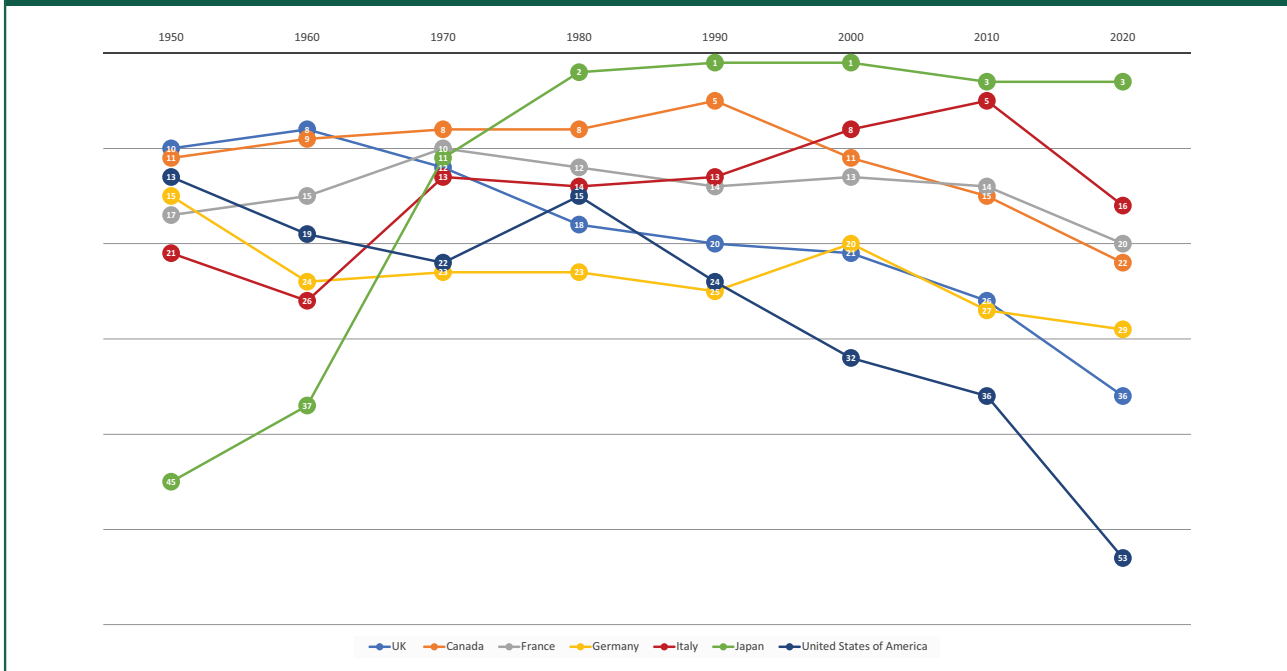
As far as we know, while these data are publicly available, the presentation, as rankings over seven decades, is new. This long-term perspective, with estimation of trends, overcomes the problem of short-term fluctuations of examining annual data. This is a particular problem in smaller countries but, even in larger ones, natural disasters or epidemics, for example, can produce quite substantial changes.

The relative decline of the UK portrayed in Figures 1 and 2 is stark. Yet, it may not be a surprise to scholars from some disciplines, such as political scientists and economic historians. In the international arena, Dean Acheson's 1962 observation that the UK had 'lost an empire and has not yet found a role' drew attention to the UK's loss of international influence after Suez.⁷ Since 2016, when it voted to leave the European Union, the UK has found itself

increasingly isolated, despite coining the slogan 'Global Britain'. For a long time it retained considerable soft power, taking advantage of the increasingly ubiquitous English language, but squandered this in the 2010s by disinvesting in its vehicles, such as the BBC and the British Council.⁸ Economically, while it came out of World War II in a much better position than the nations it helped to defeat, a combination of complacency and lack of vision meant that it failed to achieve Germany's *Wirtschaftswunder*, or 'miracle on the Rhine'⁹ and similar developments elsewhere. It was ill-prepared for the oil crisis of 1973, and by the end of the decade, the manufacturing industry was reduced to 3-day working.¹⁰ With its large financial sector, it was also vulnerable when the 2008 financial crisis hit, exacerbated by a misguided policy of austerity that shut off the transient initial recovery, resulting in the average UK household having lower incomes in 2012 than in France or Germany,¹¹ paving the way for a decade in which health and the economy stagnated.^{12,13}

Income inequalities rose greatly in the UK during and after the 1980s and that rise also saw an increase in the variation in life expectancy between different social groups. One reason why the overall increase in life expectancy has been so sluggish in the UK is that in recent years it has fallen for poorer groups, falling slightly overall between 2014 and 2018. According to the OECD, the UK is now the second most economically unequal country in Europe after Bulgaria.¹⁴ Perhaps we should not be surprised to see that inequality reflected in such wide health inequalities and a declining overall position?

Figure 2. Countries of the G7's international life expectancy rankings, 1950–2020. Source: UN data, 2022.¹ Note: The data shown are the annual data for the corresponding year – not an average for the decade.



Given this history, we can begin to understand why the UK has done so badly. But it poses an obvious question. What comes next? The third Prime Minister of 2022, Rishi Sunak, inherited a country in crisis that was partly of his making as a former Chancellor of the Exchequer. Commentators are asking whether large numbers of people will have to choose between ‘heating and eating’ even after some bills have been capped. Yet, despite the scale of the crisis, the UK government treaded water during the summer and autumn of 2022, with the ruling party immersed in two destructive leadership campaigns. While politicians invoke global factors, especially the effects of the pandemic and the invasion of Ukraine, the reality is that, as in the 1950s, the country suffers from major structural and institutional weaknesses. Despite being much less reliant on Russian gas than countries such as Germany, energy prices have risen much faster, in part reflecting ill-advised closure of storage capacity and failure to regulate the market. Although, in theory, the country was second best prepared for a pandemic in the world, it experienced one of the highest death rates in 2020, with multiple policy failures.¹⁵

It is not the case that ‘things can only get better’. There are many examples of once prosperous countries that experienced a long decline, such as Argentina in the 20th century.¹⁶ Worryingly, at

some point, countries can enter a vicious downward spiral, with worse health feeding into economic decline and vice versa. Meanwhile, a growing body of research is cataloguing how declining health threatens democracy itself.^{17,18}

The UK is at a crossroads. The cost-of-living crisis means that ‘business as usual’ is no longer an option. But politicians have choices, and we can only hope they make the right ones, although events in and since October 2022 have so far provided little reassurance. As they move forward the data we present should give pause for thought.

In early 2023, both the establishment newspaper *The Times* and the fringe *Morning Star* ran near identical headlines: ‘A&E delays are “killing up to 500 people a week”’.¹⁹ In the short term, the government has an acute crisis to address. In the medium term, there is an economic malaise that makes it harder to address the short-term problems. At some point, it might be realised that proceeding along a particular path is slowly but surely resulting in the UK falling down the ranks. The headlines may be now, but the real causes would appear to have been decades in the making.

Declarations

Competing Interests: None declared.

Funding: None declared.

Ethics approval: Not applicable.

Guarantor: All authors.

Contributorship: LH had the initial idea for the paper which LH, DD, and MM subsequently contributed to equally.

Provenance: Not commissioned; peer reviewed by Mujahid Shaikh.

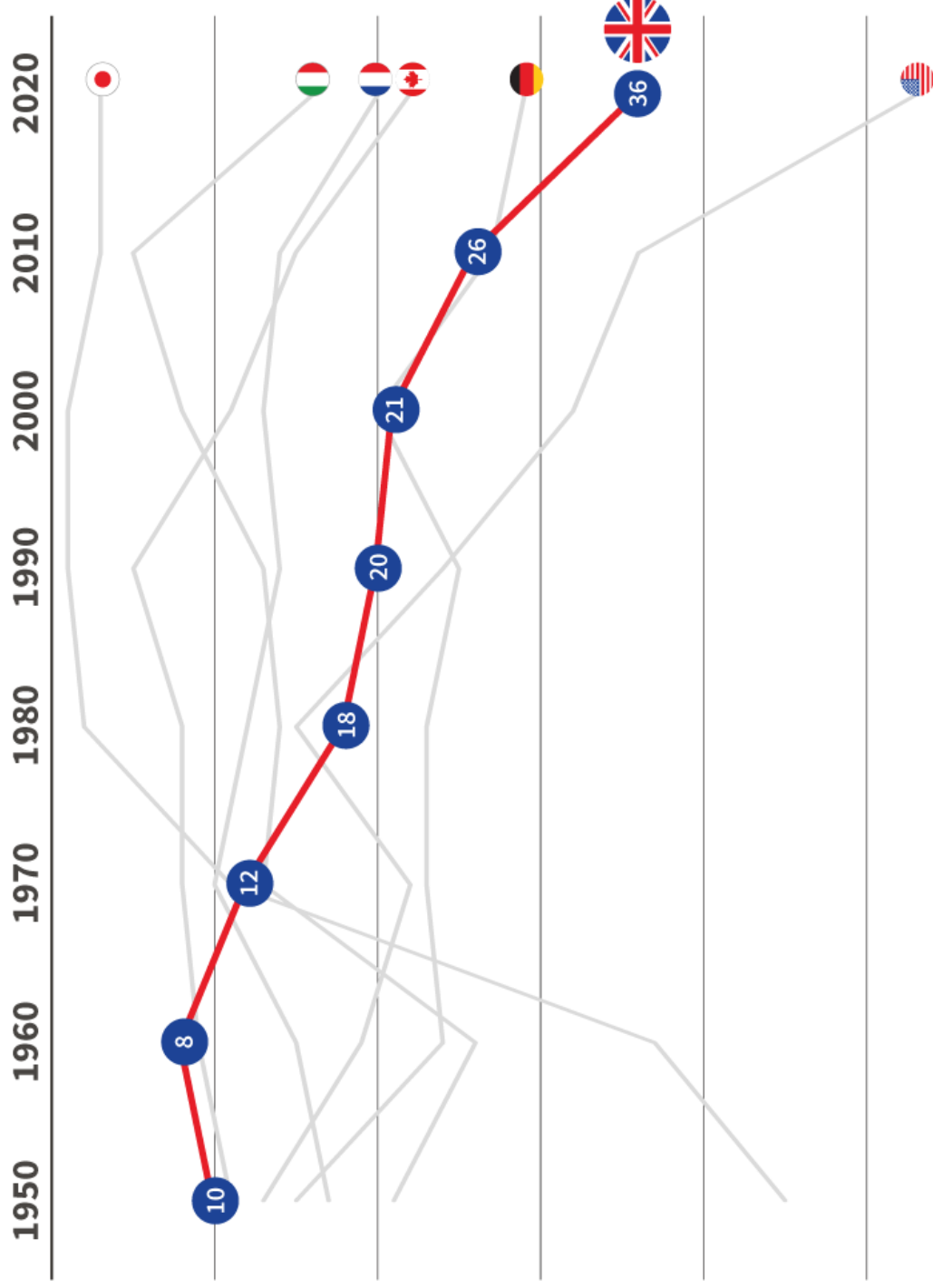
ORCID iDs: Lucinda Hiam  <https://orcid.org/0000-0002-6394-0978>

Martin McKee  <https://orcid.org/0000-0002-0121-9683>

References

- United Nations Population Division. World Population Prospects 2022. See <https://population.un.org/wpp/> (last checked 6 September 2022).
- Hennessy P. *Having It So good: Britain in the Fifties*. London: Penguin, 2007.
- Hatton TJ and Bailey R. Seebohm Rowntree and the postwar poverty puzzle. *Econ History Rev* 2000; 53: 517–543.
- Gentleman A. *The Windrush Betrayal: Exposing the Hostile Environment*. London: Faber & Faber, 2019.
- HM Treasury. What is the G7? See www.gov.uk/government/news/what-is-the-g7 (last checked 15 October 2022).
- Mikkelsen L, Phillips DE, AbouZahr C, Setel PW, de Savigny D, Lozano R, et al. A global assessment of civil registration and vital statistics systems: monitoring data quality and progress. *Lancet* 2015; 386: 1395–1406.
- Acheson D. Speech at the Military Academy, West Point. 5th December 1962 Various including <https://www.cambridge.org/core/journals/historical-journal/article/abs/dean-acheson-and-the-special-relationship-the-west-point-speech-of-december-1962/85DBA80C460E651B7A3981B511ECFF44> (last accessed 29 January 2023).
- Amaresh P. The fall of United Kingdom as the top ‘Soft power-Superpower’: Diplomatist, 2020. See <https://diplomatist.com/2020/07/23/the-fall-of-united-kingdom-as-the-top-soft-power-superpower/> (last checked 6 September 2022).
- Audretsch D and Fritsch M. Linking entrepreneurship to growth: the case of West Germany. *Indus Innov* 2003; 10: 65–73.
- Rivett G. 1968–1977: rethinking the National Health Service: Nuffield Trust, 2008. See www.nuffieldtrust.org.uk/chapter/1968-1977-rethinking-the-national-health-service-1 (last checked 6 September 2022).
- Dorling D. Income inequality in the UK: comparisons with five large Western European countries and the USA. *Appl Geogr* 2015; 61: 24–34.
- Stuckler D, Reeves A, Loopstra R, Karanikolos M and McKee M. Austerity and health: the impact in the UK and Europe. *Eur J Public Health* 2017; 27(suppl 4): 18–21.
- Hiam L, Harrison D, McKee M and Dorling D. Why is life expectancy in England and Wales ‘stalling’? *J Epidemiol Community Health* 2018; 72: 404–408.
- Dorling D. The “mini-budget” will make the UK the most unequal country in Europe. *BMJ* 2022; 378: o2318.
- McKee M, Hanson K and Abbasi K. Guided by the science? Questions for the UK’s Covid-19 public inquiry. *BMJ* 2022; 378: o2066.
- Taylor AM. The Argentina Paradox: microexplanations and macropuzzles. *Latin Am Econ Rev* 2018; 27: 3.
- Galofré-Vilà G, McKee M, Gómez-León M and Stuckler D. The 1918 influenza pandemic and the rise of Italian fascism: a cross-city quantitative and historical text qualitative analysis. *Am J Public Health* 2022; 112: 242–247.
- Galofré-Vilà G, McKee M, Bor J, et al. A lesson from history? Worsening mortality and the rise of the Nazi Party in 1930s Germany. *Public Health* 2021; 195: 18–21.
- Dorling D. How austerity caused the NHS crisis: Open Democracy, 2023. See www.opendemocracy.net/en/nhs-a-and-e-delays-austerity-emergency-care-hospitals-hunt-hancock-lansley/ (last checked 8 January 2023).

Countries of the G7's international life expectancy rankings, 1950–2020



The table to the right shows the ranks of the G7 countries each year out of the 200 countries below. Below is the life expectancy data for each year period as published by the UN. And below that are the ranks of each country for each year 1950–2020.

	1950	1960	1970	1980	1990	2000	2010	2020
UK	10	8	12	18	20	21	26	36
Canada	11	9	8	8	5	11	15	22
France	17	15	10	12	14	13	14	20
Germany	15	24	23	23	25	20	27	29
Italy	21	26	13	14	13	8	5	16
Japan	45	37	11	2	1	1	3	3
USA	13	19	22	15	24	32	36	53

Index	country or subarea of country								
		1950	1960	1970	1980	1990	2000	2010	2020
1	Norway	71.59	73.57	74.07	75.67	76.59	78.69	81.04	83.20
2	Iceland	71.22	73.78	73.55	76.54	78.16	79.89	81.70	82.58
3	Netherlands	71.44	73.35	73.63	75.77	77.01	78.12	80.82	81.64
4	Sweden	71.14	73.04	74.66	75.74	77.59	79.74	81.52	82.43
5	Denmark	70.31	72.20	73.36	74.13	74.86	76.81	79.25	81.55
6	New Zealand	69.25	71.23	71.22	72.86	75.42	78.68	81.10	82.74
7	United Kingdom	68.63	71.02	71.88	73.59	75.74	77.85	80.40	80.43
8	Australia	69.00	70.87	70.65	74.57	77.04	79.63	82.06	84.32
9	Switzerland	68.91	71.41	73.12	75.59	77.39	79.83	82.28	83.07
10	Canada	68.22	70.98	72.61	75.06	77.43	79.23	81.35	82.05
11	Israel	68.19	70.43	71.36	73.71	77.19	78.93	81.74	82.36
12	United States of America	68.06	69.81	70.74	73.72	75.37	76.81	78.77	77.41
13	Belgium	66.31	69.62	70.94	73.24	76.06	77.77	80.03	80.79
14	Germany	66.80	69.24	70.68	73.09	75.36	78.06	80.09	81.15
15	France	66.38	70.37	72.09	74.23	76.83	79.05	81.43	82.21

16	Ireland	65.58	70.17	70.84	72.54	74.84	76.54	80.52	82.47
17	Czechia	64.41	70.45	69.49	70.34	71.41	74.98	77.57	78.58
18	Cyprus	56.95	64.19	68.93	71.95	73.54	76.57	79.67	81.39
19	Austria	64.81	68.75	70.09	72.67	75.74	78.24	80.46	81.50
20	Italy	65.73	69.21	71.63	74.05	76.99	79.61	82.14	82.40
21	Finland	64.20	68.99	70.32	73.65	74.99	77.67	80.01	81.87
22	Uruguay	65.62	67.77	68.90	70.58	73.16	75.03	76.86	78.43
23	Luxembourg	66.37	68.58	69.58	72.31	75.61	77.81	80.57	81.43
24	Malta	61.58	68.29	69.12	72.12	75.99	77.58	81.81	83.36
25	Greece	66.45	69.35	72.82	74.58	77.30	78.38	80.51	80.91
26	Slovenia	57.82	64.87	68.28	70.44	73.52	76.20	79.70	80.44
27	Spain	61.75	69.21	72.15	75.53	77.00	79.42	82.02	82.29
28	Slovakia	60.78	70.34	69.72	70.38	70.82	73.14	75.50	77.01
29	Hungary	62.14	68.09	69.22	69.09	69.37	71.76	74.52	75.73
30	Puerto Rico	60.51	68.93	71.05	73.23	73.89	75.98	78.01	78.04
31	China, Hong Kong SAR	59.32	66.24	71.31	74.85	77.47	80.75	82.99	85.20
32	Bahamas	60.00	62.90	65.93	67.52	70.13	72.04	72.73	72.68
33	United States Virgin Islands	57.02	63.70	65.76	68.58	71.24	72.68	73.28	74.94
34	Armenia	59.26	61.43	63.87	66.18	68.82	70.62	73.16	72.17
35	Japan	59.23	67.69	71.99	76.13	78.98	81.18	82.92	84.69
36	Paraguay	58.53	60.42	62.68	64.75	67.94	69.75	71.89	73.18
37	Argentina	61.23	63.98	65.59	68.56	71.78	73.93	75.72	75.89
38	Latvia	68.64	70.72	70.01	68.92	69.20	70.25	72.95	75.45
39	Bulgaria	61.49	69.20	71.28	71.11	71.36	71.61	73.84	73.65
40	Seychelles	50.88	54.53	58.48	65.49	69.01	69.72	72.97	73.53
41	Ukraine	62.23	70.02	69.32	68.75	69.80	67.86	70.62	72.57
42	Estonia	67.08	69.52	69.87	69.12	69.83	71.33	75.75	78.34
43	Poland	59.14	67.83	69.59	69.95	70.68	73.73	76.32	76.94
44	Croatia	58.77	65.63	68.94	70.22	72.25	74.58	76.81	77.98
45	Romania	62.25	65.96	67.56	68.64	69.73	71.28	74.00	75.35
46	China, Macao SAR	59.80	64.97	69.20	73.50	77.42	80.96	83.11	85.18

47	Lithuania	66.12	70.84	70.67	70.40	71.01	72.09	73.42	75.07
48	Belarus	59.49	69.78	71.25	70.32	69.94	69.18	71.12	72.51
49	Curaçao	61.14	65.89	68.38	71.01	72.38	73.20	74.81	76.10
50	Georgia	57.74	61.22	64.43	67.17	68.39	69.58	72.13	72.77
51	Lebanon	61.04	64.84	66.76	59.67	64.48	73.93	78.16	77.80
52	Aruba	57.17	64.15	67.58	71.07	73.08	73.57	75.40	75.72
53	Portugal	58.48	64.15	67.06	71.67	74.30	76.83	80.04	81.06
54	Singapore	50.70	64.83	68.78	71.74	74.94	79.07	81.69	82.86
55	Montenegro	59.45	65.04	69.28	71.76	75.52	73.98	76.14	76.26
56	Jamaica	56.80	64.04	66.70	69.44	72.30	70.94	72.62	71.87
57	Cuba	60.11	64.17	68.40	72.75	74.04	76.18	77.66	77.57
58	Serbia	57.72	64.04	66.21	68.88	70.32	71.44	74.38	75.41
59	Republic of Moldova	56.14	61.07	63.89	65.17	68.07	66.42	69.36	70.17
60	Guyana	49.54	58.03	60.47	61.23	62.42	64.48	66.74	68.49
61	Grenada	45.87	59.89	63.51	63.42	63.72	67.47	70.33	72.28
62	Russian Federation	57.21	68.27	67.69	66.31	68.54	65.27	69.39	71.34
63	Azerbaijan	53.44	55.84	59.02	61.08	62.35	64.89	69.53	66.87
64 a,	Taiwan Province of China	55.67	62.53	69.22	72.04	73.97	76.20	79.17	80.89
65	Trinidad and Tobago	55.89	63.03	65.06	67.57	68.27	69.10	72.73	74.41
66	Antigua and Barbuda	57.14	61.55	70.06	73.18	73.49	74.61	76.82	78.84
67	Guam	55.94	60.90	64.83	69.86	72.47	74.42	76.88	76.61
68	Tonga	54.03	58.23	63.23	65.96	67.29	68.98	70.32	70.93
69	Panama	54.98	60.70	65.08	69.25	71.10	74.00	76.45	76.66
70	Philippines	53.36	59.23	61.69	62.50	65.91	69.41	70.75	72.12
71	Uzbekistan	54.77	57.47	60.93	63.04	65.35	65.72	69.24	70.33
72	Costa Rica	53.75	60.42	65.36	72.90	76.63	77.59	78.67	79.28
73	Suriname	50.44	57.10	60.40	62.03	64.23	65.51	69.89	72.56
74	Belize	50.43	58.16	63.47	67.76	70.74	68.56	72.27	72.85
75	Barbados	55.24	64.56	68.27	71.92	72.75	74.09	75.71	77.39
76	Martinique	54.16	60.75	65.89	70.59	75.09	77.73	81.59	83.05
77	Venezuela (Bolivarian Republic of)	51.13	58.65	64.30	68.76	71.53	72.48	72.89	71.10

78	Fiji	49.53	57.59	61.71	62.73	65.51	66.31	67.33	67.92
79	Qatar	52.70	58.93	66.53	70.80	73.98	74.83	78.43	79.10
80	Albania	44.74	54.44	64.82	70.48	73.14	75.40	77.94	76.99
81	Kazakhstan	56.05	58.35	60.51	62.65	64.88	64.18	68.12	70.03
82	Malaysia	47.00	56.50	63.11	68.25	71.31	72.78	74.44	75.94
83	North Macedonia	50.24	56.23	63.74	69.27	71.20	72.86	75.12	75.17
84	Chile	53.18	57.02	62.49	68.84	72.57	76.87	78.50	79.38
85	Sri Lanka	54.77	60.70	65.27	68.66	71.93	70.36	73.22	76.39
86	Samoa	47.73	54.69	60.18	64.75	67.66	70.75	72.25	72.77
87	Bosnia and Herzegovina	48.95	61.04	66.69	70.54	72.35	74.50	77.07	76.23
88	Kuwait	48.47	56.92	66.53	70.34	73.28	76.72	77.98	76.92
89	Viet Nam	49.21	59.66	56.22	66.20	69.21	72.46	73.51	75.38
90	Vincent and the Grenadines	51.43	56.44	68.57	70.18	72.38	71.38	74.72	72.13
91	Guadeloupe	49.71	60.56	64.61	70.06	74.15	77.43	80.52	82.44
92	French Guiana	49.18	56.40	63.65	66.11	70.56	73.37	75.80	76.98
93	Kyrgyzstan	52.47	55.19	58.18	61.26	64.27	65.40	68.25	69.63
94	Colombia	48.22	57.13	61.57	66.87	68.64	71.32	75.03	74.77
95	Micronesia (Fed. States of)	49.36	56.41	61.04	64.21	67.43	69.77	71.23	70.67
96	Turkmenistan	49.70	53.47	57.66	61.02	63.94	65.03	68.29	68.69
97	Brunei Darussalam	50.02	56.79	64.11	69.25	71.66	74.08	74.85	74.80
98	Brazil	48.12	52.66	57.17	61.78	65.99	69.74	73.18	74.01
99	Thailand	43.17	51.04	57.71	64.01	70.45	72.32	76.13	79.27
100	New Caledonia	48.63	55.40	61.12	65.94	69.45	74.60	78.21	80.83
101	Mexico	43.97	55.02	60.69	64.70	69.97	73.57	74.19	70.13
102	Saint Lucia	45.64	55.72	64.27	67.70	70.33	70.77	72.72	73.42
103	Mauritius	52.44	55.26	60.81	65.62	69.39	71.64	74.00	74.33
104	Zimbabwe	49.64	53.24	57.03	58.67	59.43	44.69	50.65	61.12
105	French Polynesia	51.94	59.68	62.43	67.14	73.98	79.54	81.04	82.22
106	Ecuador	49.20	53.36	57.15	63.19	69.35	72.84	75.43	72.15
107	Tajikistan	50.94	53.63	56.81	59.51	61.88	63.26	67.74	67.99
108	Réunion	46.77	55.47	62.53	67.74	73.01	75.77	79.89	82.10

109	Syrian Arab Republic	44.14	53.55	60.53	66.35	69.82	70.76	73.88	72.14
110	Cabo Verde	47.30	49.41	54.33	61.37	65.02	68.62	73.50	74.81
111	Mayotte	42.90	54.49	62.44	68.28	72.20	75.35	77.31	75.41
112	Sao Tome and Principe	40.07	43.04	56.52	59.74	61.47	61.66	65.25	67.79
113	State of Palestine	45.79	49.01	55.35	62.11	67.93	70.39	73.00	74.40
114	Jordan	39.96	52.62	59.87	66.26	69.85	71.92	74.00	75.18
115	Dominican Republic	44.30	50.26	56.15	61.75	67.11	69.42	72.09	72.89
116	Morocco	39.10	42.02	48.81	55.22	62.45	66.79	70.83	73.92
117	Vanuatu	44.55	49.63	55.19	61.08	66.68	68.97	69.62	70.30
118	Lesotho	44.83	50.36	51.01	56.06	59.40	48.43	45.60	54.69
119	Botswana	44.95	50.37	55.20	60.65	60.53	51.01	60.01	65.65
120	South Africa	43.47	52.67	55.58	59.81	63.38	58.47	58.90	65.25
121	El Salvador	42.40	48.08	51.41	47.98	62.55	69.87	71.85	71.06
122	Sudan	46.77	46.60	45.53	53.93	49.73	58.32	63.02	65.61
123	Peru	46.24	50.50	47.16	59.59	65.11	70.42	73.71	73.67
124	United Arab Emirates	41.07	48.81	60.02	68.53	71.90	74.38	78.33	78.95
125	China	43.74	33.28	56.61	64.42	68.01	71.88	75.60	78.08
126	Kiribati	45.67	47.87	54.53	57.29	60.92	64.41	65.02	67.27
127	Zambia	45.12	49.04	51.49	54.14	47.93	45.23	56.80	62.38
128	Mongolia	39.57	44.98	52.68	55.64	58.77	62.88	67.18	72.14
129	Bahrain	38.08	50.33	64.45	70.83	72.67	75.50	78.75	79.17
130	Guatemala	39.43	45.81	49.44	56.02	62.47	67.45	70.88	71.80
131	Algeria	42.36	40.53	43.16	53.26	67.42	70.48	73.81	74.45
132	Kenya	38.90	48.68	53.58	58.50	58.61	54.41	60.65	62.68
133	Nicaragua	41.03	46.13	54.95	57.91	63.10	67.23	72.01	71.80
134	Ghana	43.11	47.10	47.81	51.12	55.62	58.20	61.16	64.11
135	Saudi Arabia	40.99	45.94	52.72	62.70	68.95	72.47	75.76	76.24
136	Solomon Islands	40.03	47.74	56.07	62.80	65.39	67.23	68.73	70.20
137	Republic of Korea	21.31	54.32	62.27	65.38	71.94	76.47	80.76	83.61
138	Honduras	42.74	48.32	54.44	60.49	65.24	68.66	71.09	71.46
139	Indonesia	39.40	46.45	52.99	58.75	63.18	66.43	68.68	68.81

140	Egypt	35.37	45.37	50.01	56.63	64.15	68.01	69.66	70.99
141	Djibouti	40.57	43.43	47.51	51.95	55.50	56.57	60.26	62.69
142	Turkey	47.75	50.74	56.90	62.50	67.71	71.86	75.07	75.85
143	United Republic of Tanzania	41.30	42.94	46.45	51.20	51.49	52.36	60.11	66.41
144	People's Democratic Republic of Congo	38.70	40.79	43.56	48.08	53.71	58.38	63.97	68.50
145	Namibia	41.53	47.68	53.63	56.78	62.50	51.99	56.02	62.83
146	Iran (Islamic Republic of)	38.96	43.96	50.20	58.54	64.37	69.69	73.07	74.83
147	Bangladesh	38.18	44.74	42.59	51.85	55.99	65.78	68.64	71.97
148	Congo	40.06	47.98	53.63	56.59	55.93	53.68	61.68	63.79
149	Eswatini	42.97	45.81	50.80	57.85	63.07	47.26	46.62	59.69
150	Cambodia	38.94	42.36	39.13	47.57	55.43	58.63	67.71	70.42
151	Rwanda	43.34	47.18	47.15	47.96	48.43	47.13	62.54	66.77
152	Uganda	39.33	45.51	49.62	42.95	46.44	48.34	57.06	62.85
153	Colombia (Plurinational State of)	40.63	43.10	46.60	51.18	56.42	62.35	66.16	64.47
154	Mauritania	38.74	44.77	51.04	55.06	59.77	61.03	63.11	64.53
155	Democratic Republic of the Congo	38.31	40.86	43.28	45.47	48.60	51.78	56.42	59.74
156	Burundi	40.58	43.02	43.04	45.41	44.86	47.51	57.08	61.57
157	Tunisia	37.61	43.94	53.87	63.98	70.11	73.69	75.42	75.29
158	Comoros	36.55	39.69	44.86	50.80	55.84	58.76	61.12	64.17
159	Cameroon	34.46	34.82	47.58	51.04	54.87	52.93	56.58	60.83
160	Iraq	38.98	52.62	60.19	61.50	58.44	66.82	67.06	69.12
161	North Korea (Democratic People's Republic of)	13.82	54.05	60.57	66.16	70.21	60.76	70.42	73.27
162	Haiti	37.48	43.50	47.34	49.90	52.98	58.37	46.02	64.05
163	Pakistan	34.96	44.93	54.76	57.61	60.07	62.10	64.44	66.27
164	India	41.72	45.22	48.24	53.61	58.65	62.67	66.91	70.15
165	Gabon	39.63	46.58	52.56	57.45	60.31	61.07	63.90	66.53
166	Libya	33.59	40.27	55.19	64.89	69.42	70.68	72.37	72.47
167	Myanmar	35.44	43.91	50.71	54.36	56.66	60.16	63.33	66.80
168	Madagascar	39.65	43.24	47.51	49.82	51.70	57.94	62.87	65.18
169	Chad	36.21	38.37	40.60	43.06	44.69	47.44	49.58	52.78
170	Oman	29.67	35.45	47.68	60.45	69.78	73.47	76.27	74.76

171	Angola	36.35	38.21	40.19	42.45	41.89	46.02	56.73	62.26
172	Guinea-Bissau	35.62	37.46	38.03	43.75	47.08	50.12	56.23	60.00
173	Western Sahara	34.88	38.57	42.15	41.76	57.79	62.67	67.49	70.52
174	Senegal	36.43	39.88	40.83	49.14	56.95	56.94	64.62	68.01
175	Togo	40.92	42.69	46.12	51.23	54.37	54.74	57.30	61.04
176	Mozambique	37.26	41.22	41.76	42.80	44.47	49.49	54.20	61.17
177	Malawi	32.75	35.20	36.73	45.09	43.32	44.52	56.38	63.72
178	Nepal	37.68	38.56	42.83	47.89	54.83	62.61	66.81	69.25
179	Niger	36.25	36.40	36.06	39.68	41.85	49.32	58.37	61.45
180	Maldives	37.36	38.53	45.07	55.62	63.58	70.88	77.66	79.88
181	Ethiopia	36.35	40.33	42.82	43.22	44.56	50.54	59.73	65.37
182	Eritrea	33.35	37.50	41.09	44.59	49.77	56.11	63.79	67.13
183	Papua New Guinea	39.13	45.68	52.13	57.44	59.72	61.72	63.04	65.79
184	Somalia	41.40	43.45	45.56	47.49	47.11	50.66	50.56	55.97
185	Equatorial Guinea	39.33	41.73	30.25	47.56	50.86	53.23	57.88	60.71
186	Nigeria	35.81	37.37	39.71	46.35	46.04	47.19	50.95	52.89
187	Benin	34.95	38.18	42.19	47.88	53.29	56.58	58.36	60.09
188	Guinea	35.55	36.55	39.01	42.88	47.00	52.48	56.72	59.33
189	Central African Republic	35.39	39.24	45.07	49.89	49.64	45.41	49.26	54.60
190	Liberia	38.49	38.33	40.60	44.63	36.69	51.36	59.43	60.95
191	Bhutan	30.07	33.47	39.95	48.22	55.97	62.01	68.43	71.61
192	Burkina Faso	33.12	35.87	39.24	46.54	49.44	50.85	56.48	59.73
193	Gambia	31.76	35.10	39.87	45.15	51.32	56.94	60.72	62.61
194	Côte d'Ivoire	32.11	38.11	44.33	52.27	52.60	50.84	55.02	59.03
195	Timor-Leste	29.05	32.20	37.17	28.45	44.95	58.57	65.30	68.48
196	Yemen	31.66	33.68	40.50	50.65	58.70	62.59	67.28	64.65
197	Sierra Leone	29.57	33.96	38.79	43.13	44.06	45.05	53.69	59.76
198	Afghanistan	27.73	32.54	37.42	39.62	45.97	55.30	60.85	62.58
199	South Sudan	31.25	28.66	26.40	38.42	29.94	46.03	54.81	55.48
200	Mali	28.17	29.75	32.53	40.75	46.62	50.54	56.38	58.63

1950	1960	1970	1980	1990	2000	2010	2020	
1	2	2	5	16	15	17	7	Norway
3	1	4	1	2	4	10	12	Iceland
2	3	3	3	11	19	19	24	Netherlands
4	4	1	4	3	6	13	15	Sweden
5	5	5	13	29	31	34	25	Denmark
6	7	18	25	23	16	16	11	New Zealand
10	8	12	18	20	21	26	36	United Kingdom
7	10	25	11	10	7	6	4	Australia
8	6	6	6	7	5	4	8	Switzerland
11	9	8	8	5	11	15	22	Canada
12	14	14	16	9	14	9	17	Israel
13	19	22	15	24	32	36	53	United States of America
19	21	20	20	17	23	29	34	Belgium
15	24	23	23	25	20	27	29	Germany
17	15	10	12	14	13	14	20	France

23	17	21	28	30	35	22	13
25	13	34	50	62	46	49	45
57	48	42	32	38	34	33	28
24	30	27	27	19	18	25	26
21	26	13	14	13	8	5	16
26	28	26	17	27	25	30	23
22	36	43	43	42	45	53	46
18	31	33	29	21	22	21	27
31	32	40	30	18	27	8	6
16	23	7	10	8	17	24	31
50	44	48	46	39	38	32	35
30	25	9	7	12	10	7	18
36	16	31	48	69	67	67	55
29	34	37	62	90	81	77	70
37	29	19	21	37	40	44	49
43	38	15	9	4	3	2	1
39	57	60	79	77	77	100	103
56	55	62	70	65	71	91	81
44	60	77	87	96	95	94	109
45	37	11	2	1	1	3	3
48	69	84	97	103	103	110	98
33	54	63	71	59	59	64	68
9	12	29	63	93	100	98	72
32	27	16	37	63	83	85	94
81	101	108	93	94	105	97	95
28	18	35	67	84	118	118	104
14	22	30	61	82	86	63	47
46	35	32	55	71	60	57	58
47	41	41	52	54	50	55	50
27	39	52	69	86	88	83	76
40	43	39	19	6	2	1	2

Ireland
Czechia
Cyprus
Austria
Italy
Finland
Uruguay
Luxembourg
Malta
Greece
Slovenia
Spain
Slovakia
Hungary
Puerto Rico
China, Hong Kong SAR
Bahamas
United States Virgin Islands
Armenia
Japan
Paraguay
Argentina
Latvia
Bulgaria
Seychelles
Ukraine
Estonia
Poland
Croatia
Romania
China, Macao SAR

20	11	24	47	68	76	90	80
41	20	17	51	80	110	113	106
34	40	47	39	51	66	75	66
51	61	72	80	99	107	107	102
35	45	54	129	121	58	43	51
54	51	51	38	44	63	70	71
49	51	53	36	31	30	28	30
82	46	44	35	28	12	11	10
42	42	36	34	22	57	59	63
58	52	55	57	53	89	103	116
38	49	46	26	33	39	47	52
52	53	59	64	75	84	79	74
59	62	76	95	101	126	127	132
90	80	101	120	137	135	145	142
108	71	80	104	127	119	120	108
53	33	50	84	98	132	126	121
71	93	107	122	138	134	125	150
63	58	38	31	36	37	35	32
62	56	67	78	100	111	101	88
55	59	28	22	40	48	54	44
61	64	68	56	49	52	52	61
69	78	82	90	109	112	121	125
65	66	66	59	67	56	56	60
72	74	91	112	113	109	117	114
67	82	95	106	116	129	128	129
70	70	64	24	15	26	38	39
83	84	102	114	124	130	122	105
84	79	81	75	70	116	105	100
64	47	49	33	46	54	65	54
68	65	61	42	26	24	12	9
79	76	73	66	61	72	99	122

Lithuania
Belarus
Curaçao
Georgia
Lebanon
Aruba
Portugal
Singapore
Montenegro
Jamaica
Cuba
Serbia
Republic of Moldova
Guyana
Grenada
Russian Federation
Azerbaijan
China, Taiwan Province of China
Trinidad and Tobago
Antigua and Barbuda
Guam
Tonga
Panama
Philippines
Uzbekistan
Costa Rica
Suriname
Belize
Barbados
Martinique
Venezuela (Bolivarian Republic of)

91	81	90	108	114	127	139	146
74	75	57	41	35	47	40	42
115	103	69	45	43	43	46	56
60	77	100	110	120	137	135	135
104	88	83	74	64	70	78	67
85	92	78	58	66	68	71	79
73	85	86	65	48	29	39	38
67	67	65	68	57	99	92	62
102	100	104	98	106	93	106	101
96	63	56	44	52	51	51	65
98	86	58	50	41	33	45	59
93	73	119	86	92	74	88	75
78	89	45	53	51	85	76	113
87	68	70	54	32	28	23	14
95	91	79	89	72	65	61	57
75	98	109	119	123	131	134	136
99	83	92	82	97	87	73	85
92	90	94	101	107	102	112	126
88	108	111	123	126	133	133	140
86	87	75	60	60	55	74	84
100	112	112	115	112	104	93	91
123	115	110	102	73	75	60	40
97	96	93	91	87	49	42	33
119	99	97	99	79	63	80	134
111	94	74	77	74	91	102	96
76	97	96	92	89	82	82	90
89	110	114	133	147	199	194	181
77	72	88	81	34	9	18	19
94	109	113	105	91	69	68	110
80	106	116	131	139	138	136	145
105	95	85	76	45	41	31	21

Fiji
Qatar
Albania
Kazakhstan
Malaysia
North Macedonia
Chile
Sri Lanka
Samoa
Bosnia and Herzegovina
Kuwait
Viet Nam
Saint Vincent and the Grenadines
Guadeloupe
French Guiana
Kyrgyzstan
Colombia
Micronesia (Fed. States of)
Turkmenistan
Brunei Darussalam
Brazil
Thailand
New Caledonia
Mexico
Saint Lucia
Mauritius
Zimbabwe
French Polynesia
Ecuador
Tajikistan
Réunion

118	107	99	83	83	92	84	112
103	123	131	118	119	115	89	83
126	102	87	73	55	44	50	73
141	159	118	128	140	148	148	147
109	125	123	113	104	98	96	89
144	114	106	85	81	78	81	78
117	121	120	116	110	108	108	99
153	164	151	149	136	124	116	92
116	122	126	121	111	113	124	130
114	119	144	145	148	187	200	197
113	118	124	124	142	178	169	157
121	111	122	127	129	156	172	160
128	129	142	172	133	101	111	123
106	136	165	153	177	159	158	158
107	117	159	130	118	97	87	93
134	126	105	72	58	53	41	43
120	196	117	100	102	79	66	48
110	131	129	141	141	136	149	148
112	124	141	152	182	197	179	176
147	147	138	147	149	139	141	111
163	120	71	40	47	42	37	41
148	142	150	146	135	120	115	117
129	169	172	155	108	96	86	87
157	127	135	135	152	169	166	173
135	139	127	136	131	121	109	118
124	135	153	162	162	160	162	166
136	140	137	109	95	73	62	64
143	132	121	107	115	122	129	131
199	104	89	94	56	36	20	5
127	128	130	125	117	114	114	120
149	138	136	132	130	125	130	139

Syrian Arab Republic
 Cabo Verde
 Mayotte
 Sao Tome and Principe
 State of Palestine
 Jordan
 Dominican Republic
 Morocco
 Vanuatu
 Lesotho
 Botswana
 South Africa
 El Salvador
 Sudan
 Peru
 United Arab Emirates
 China
 Kiribati
 Zambia
 Mongolia
 Bahrain
 Guatemala
 Algeria
 Kenya
 Nicaragua
 Ghana
 Saudi Arabia
 Solomon Islands
 Republic of Korea
 Honduras
 Indonesia

180	145	148	143	125	117	123	124
140	156	156	157	163	165	167	172
101	116	115	111	105	80	72	69
133	161	162	160	173	174	168	154
159	168	170	171	168	157	152	141
131	133	134	142	134	175	188	171
155	151	147	134	122	106	95	82
162	150	176	158	158	128	131	115
142	130	133	144	160	170	161	168
125	141	145	137	132	191	198	191
156	163	190	176	164	154	137	128
122	134	160	173	181	193	160	152
150	144	149	191	187	188	178	170
138	158	161	161	157	144	146	164
158	149	143	150	145	150	156	163
161	167	171	181	180	176	184	189
139	160	173	182	191	189	177	178
165	152	132	103	78	61	69	77
169	173	168	164	161	153	163	165
184	192	155	163	165	172	182	184
154	113	103	117	153	123	142	138
200	105	98	88	76	151	119	97
166	154	158	166	170	158	199	167
181	148	128	138	144	145	151	155
130	146	152	154	151	141	143	133
146	137	139	139	143	149	153	153
185	171	125	96	88	94	104	107
178	153	146	151	156	152	155	151
145	157	157	168	172	161	159	161
174	178	182	190	192	190	196	200
194	189	154	126	85	64	58	86

Egypt
 Djibouti
 Turkey
 United Republic of Tanzania
 Lao People's Democratic Republic
 Namibia
 Iran (Islamic Republic of)
 Bangladesh
 Congo
 Eswatini
 Cambodia
 Rwanda
 Uganda
 Bolivia (Plurinational State of)
 Mauritania
 Democratic Republic of the Congo
 Burundi
 Tunisia
 Comoros
 Cameroon
 Iraq
 Dem. People's Republic of Korea
 Haiti
 Pakistan
 India
 Gabon
 Libya
 Myanmar
 Madagascar
 Chad
 Oman

172	180	185	194	197	195	180	177
176	184	193	187	184	184	187	187
183	175	178	195	154	141	138	127
170	172	181	169	155	162	150	144
137	162	163	159	167	168	176	182
168	166	179	193	194	185	191	180
188	190	196	184	196	200	186	169
164	176	174	174	166	142	144	137
173	187	197	197	198	186	173	179
167	177	167	148	128	90	48	37
171	170	175	188	193	183	170	159
186	183	180	186	176	166	154	149
152	143	140	140	146	147	157	156
132	155	164	178	183	181	195	195
151	165	199	177	175	171	175	185
175	185	188	180	188	192	193	199
182	181	177	175	169	164	174	186
177	186	191	192	185	173	181	192
179	174	166	167	178	196	197	198
160	179	183	185	199	177	171	183
193	195	186	170	159	146	132	119
187	188	189	179	179	179	183	190
190	191	187	183	174	163	165	174
189	182	169	156	171	180	189	193
196	198	195	200	190	155	147	143
191	194	184	165	150	143	140	162
195	193	192	189	195	198	192	188
198	197	194	198	189	167	164	175
192	200	200	199	200	194	190	196
197	199	198	196	186	182	185	194

Angola
Guinea-Bissau
Western Sahara
Senegal
Togo
Mozambique
Malawi
Nepal
Niger
Maldives
Ethiopia
Eritrea
Papua New Guinea
Somalia
Equatorial Guinea
Nigeria
Benin
Guinea
Central African Republic
Liberia
Bhutan
Burkina Faso
Gambia
Côte d'Ivoire
Timor-Leste
Yemen
Sierra Leone
Afghanistan
South Sudan
Mali