Heywood Competition Appendix

This Appendix contains data to support the proposal based principally on data from the IMF[1] and the World Happiness Report[2]. Economic data are taken to 2019 so as not to be distorted by COVID.

It covers the following countries (where data are available):

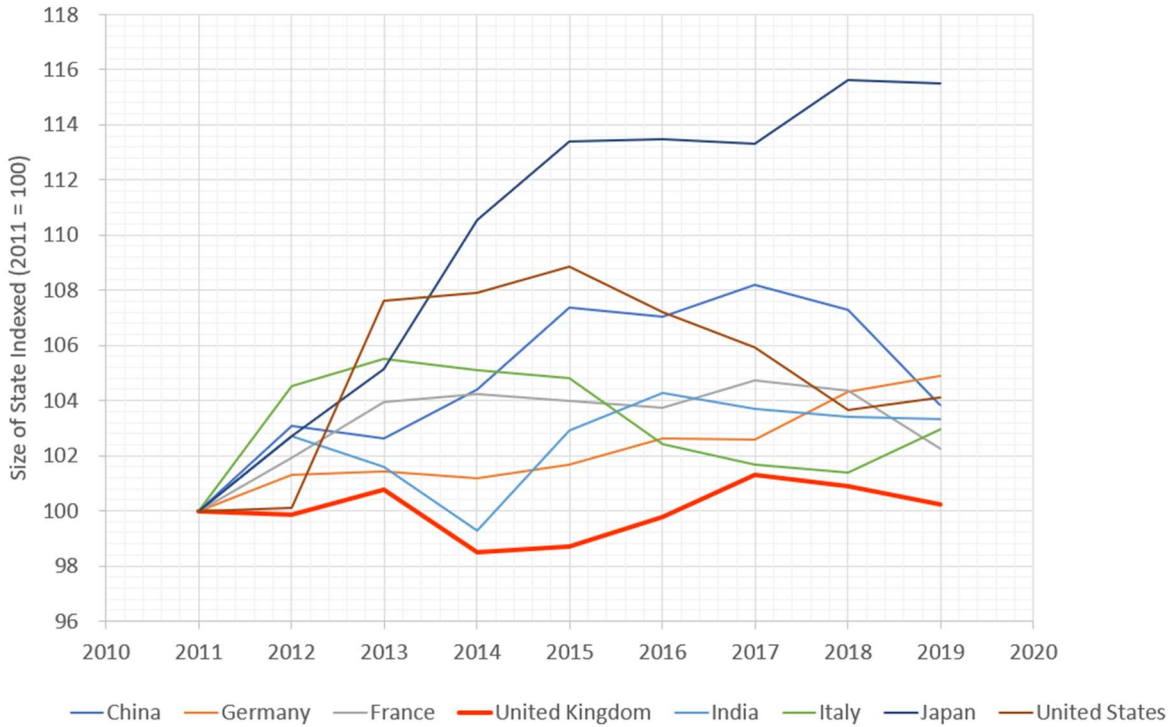| Top 10 in World Happiness Index	10 Largest Economies (2019)	Bottom 10 in World Happiness Index
Finland	USA	Zambia
Denmark	China	Malawi
Iceland	Japan	Tanzania
Switzerland	Germany	Sierra Leone
Netherlands	United Kingdom	Lesotho
Luxembourg*	France	Botswana
Sweden	India	Rwanda
Norway	Italy	Zambia
Israel	Brazil	Lebanon*
New Zealand	Canada	Afghanistan*

*Data not available

It makes the following points:

1. Since Austerity began, the UK has contained the size of the state to a greater degree than other leading economies
2. Countries with very low per capita GDP are less happy
3. Countries with higher median incomes tend to be happier
4. Lower poverty rates correlate with greater happiness
5. Life expectancy correlates strongly with happiness
6. There is a positive correlation between size of state and per capita GDP
7. In general, larger states deliver greater life expectancy
8. Social mobility is positively correlated with size of state
9. Poverty rates < 15% require at least a mid-sized state
10. Median incomes are not strongly correlated with size of state
11. There is a correlation between the size of the state and population happiness.

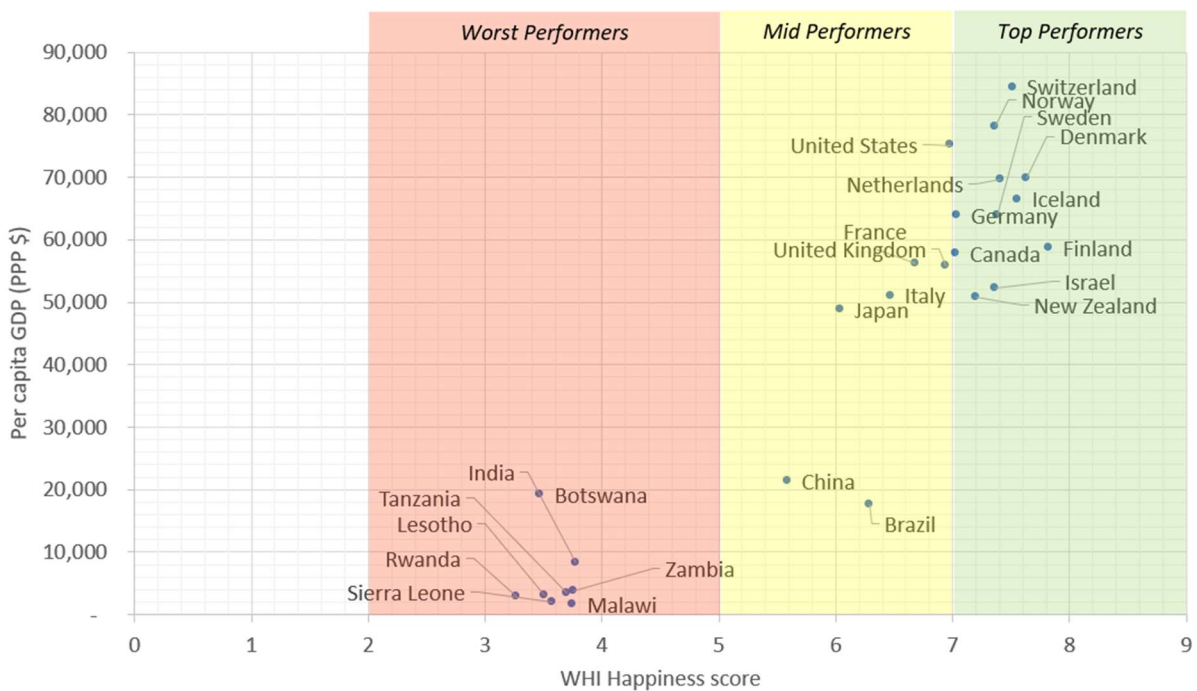[1] (International Monetary Fund, 2022)
[2] (Helliwell , et al., 2022)

Since Austerity began, the UK has contained the size of the state to a greater degree than other leading economies
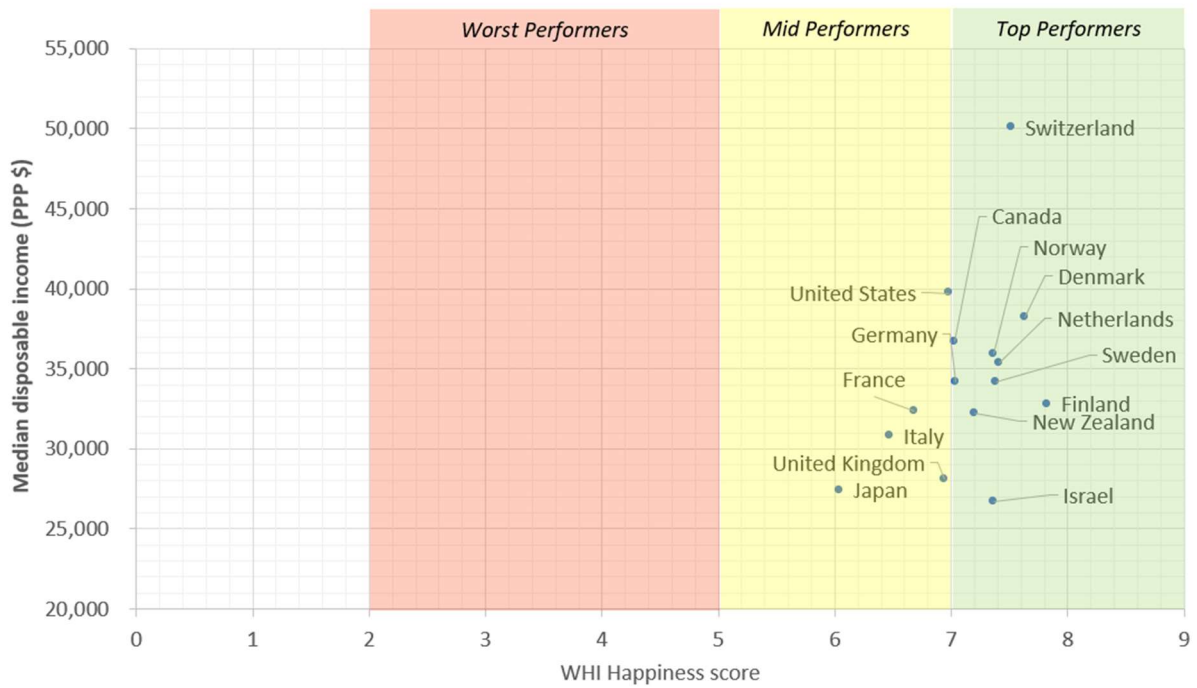

Source: IMF; 99% analysis
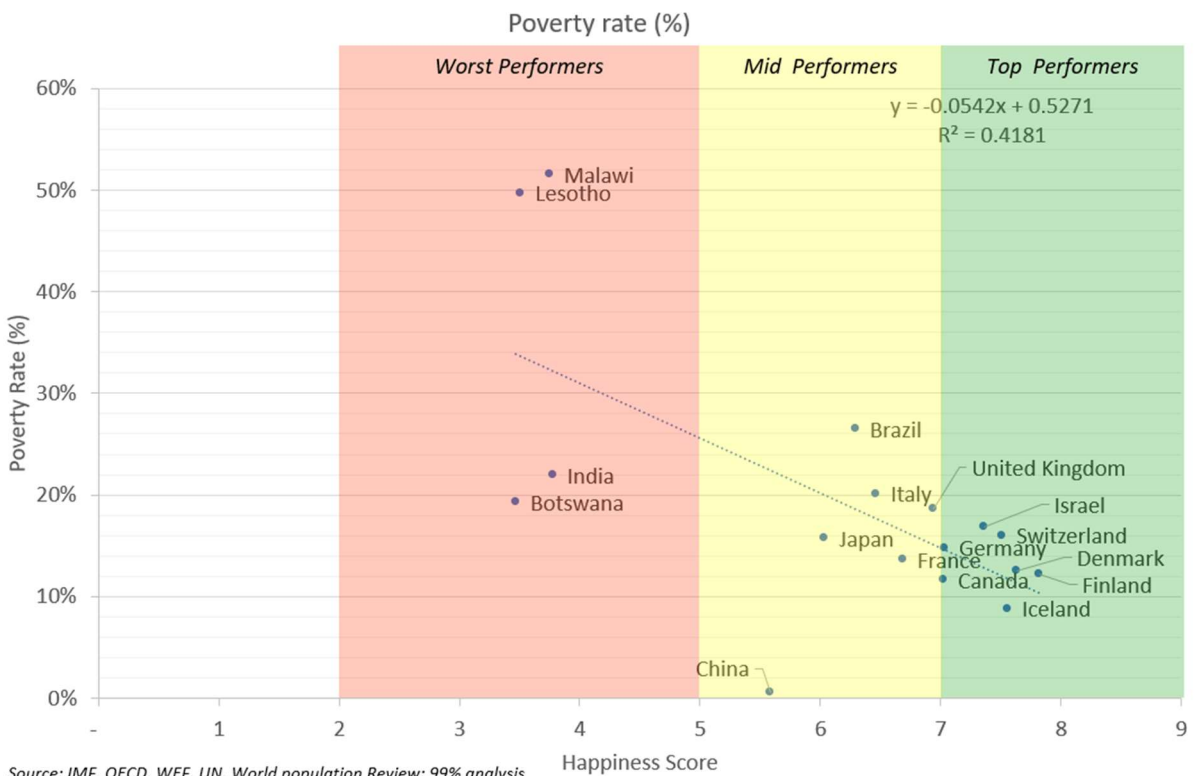
Countries with very low per capita GDP are less happy

Source: IMF, OECD, WEF, UN, World population Review; 99% analysis

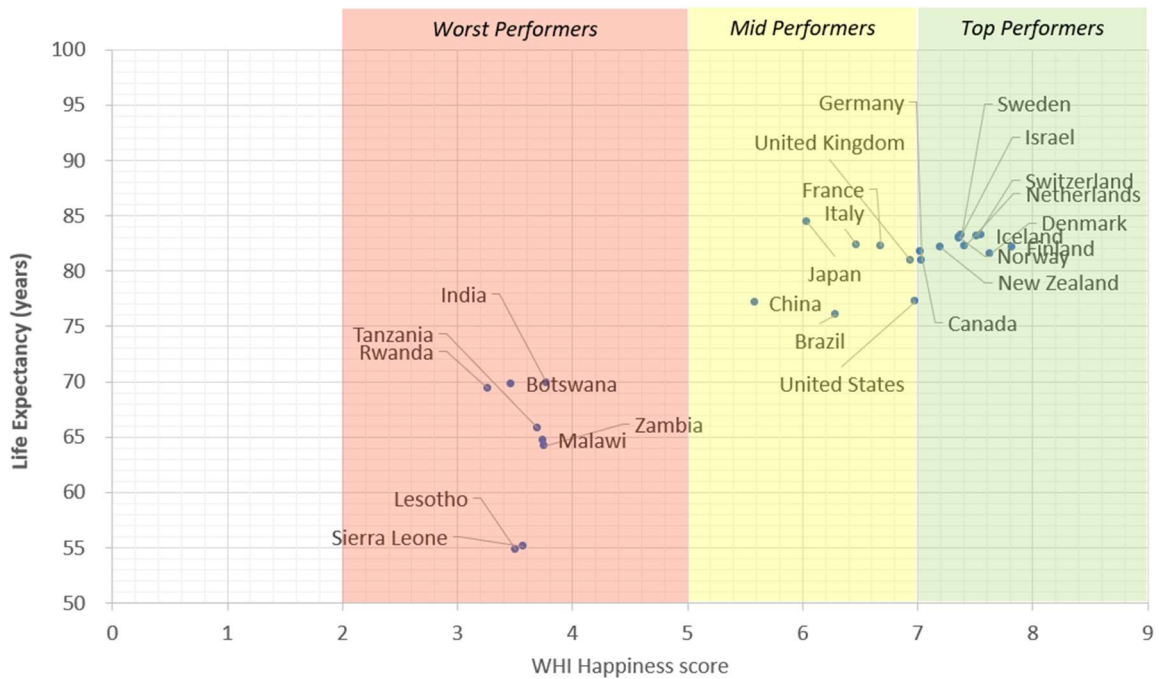# Countries with higher median incomes tend to be happier

Source: IMF, OECD, WEF, UN, World population Review; 99% analysis

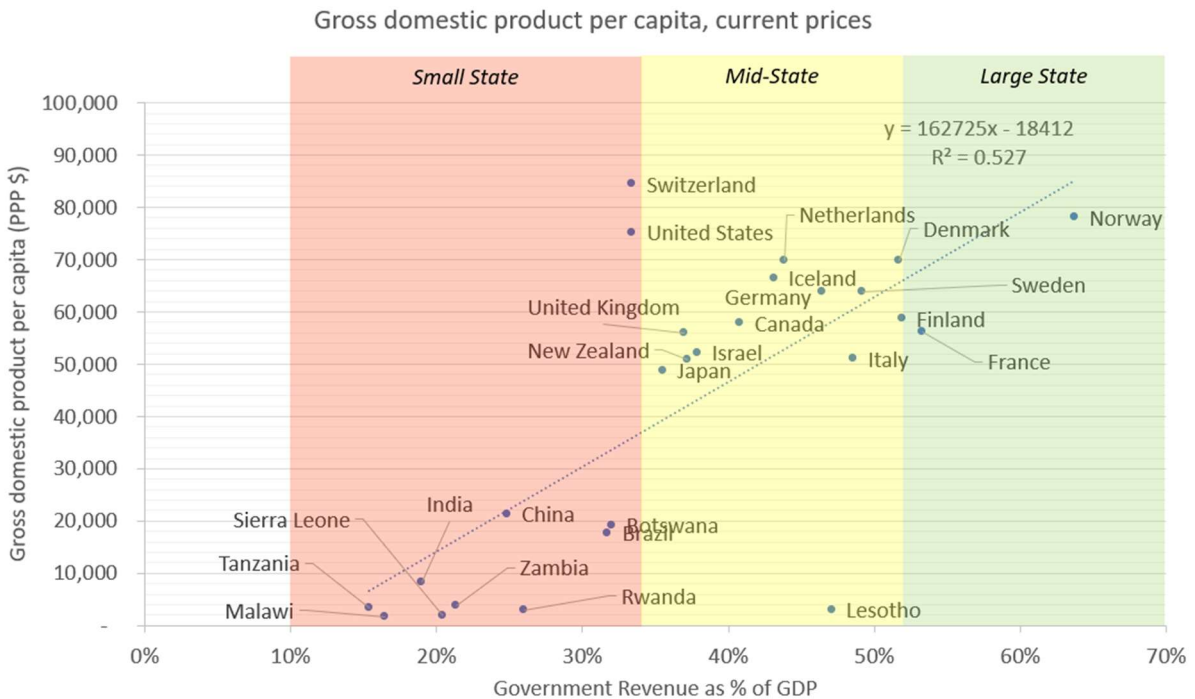# Lower poverty rates correlate with greater happiness

Source: IMF, OECD, WEF, UN, World population Review; 99% analysis
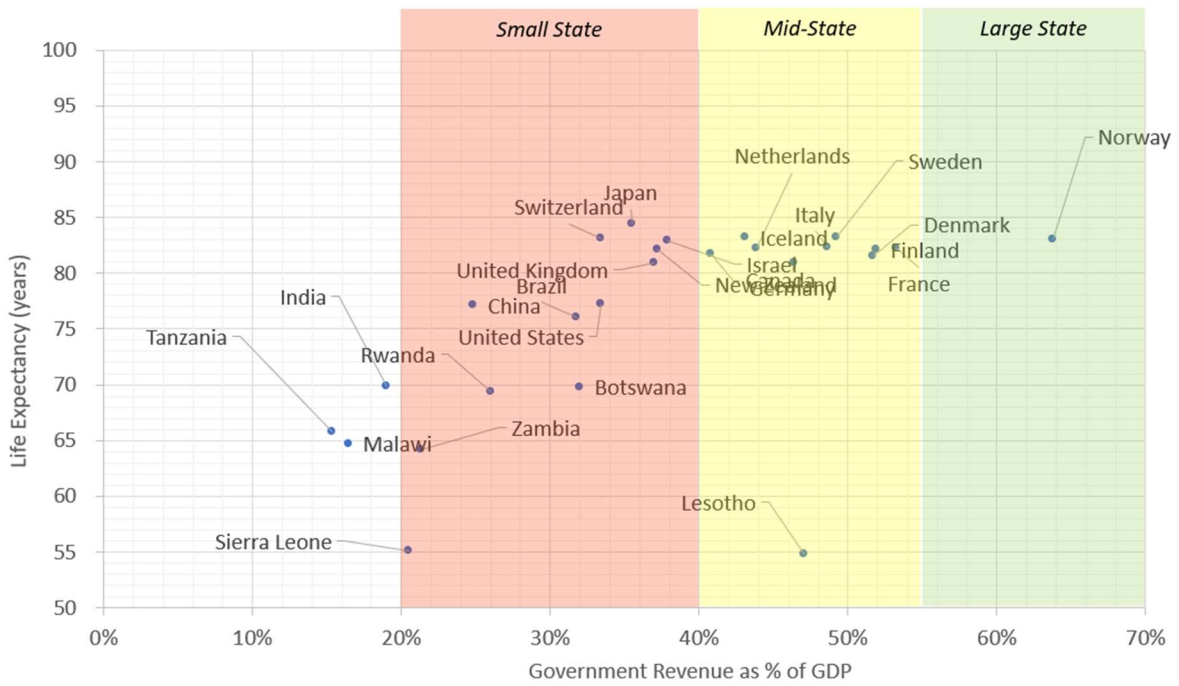
Life expectancy correlates strongly with happiness

Source: IMF, OECD, WEF, UN, World population Review; 99% analysis

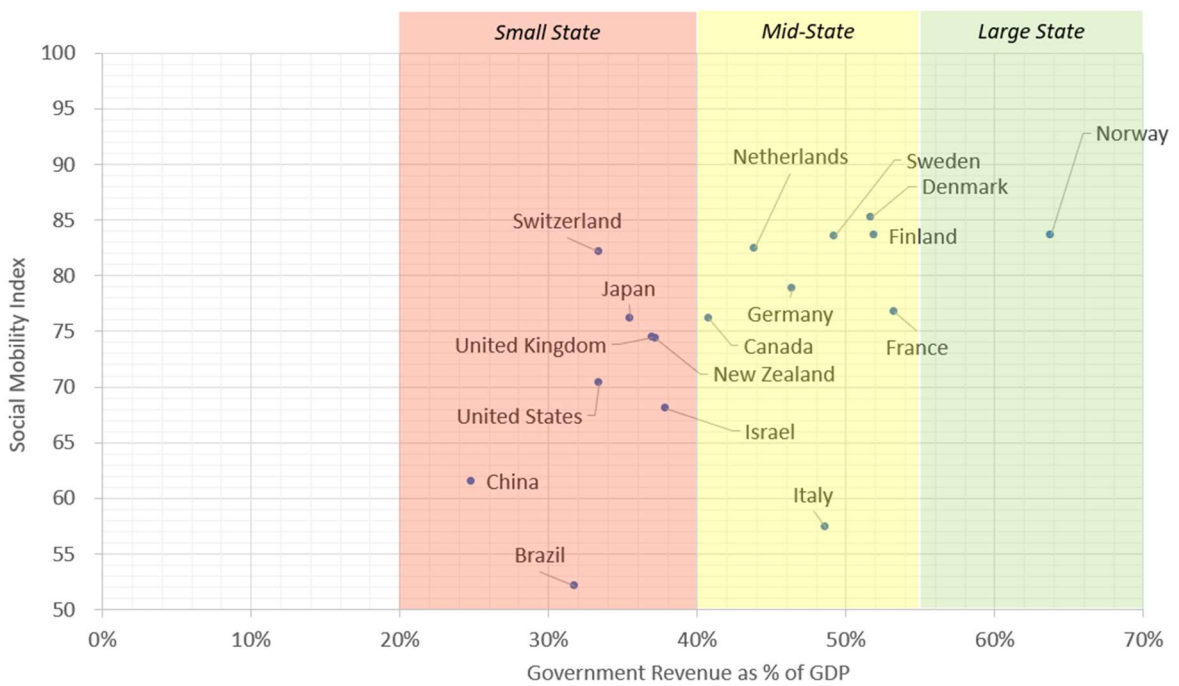# There is a positive correlation between size of state and per capita GDP

Gross domestic product per capita, current prices

$$y = 162725x - 18412$$
$$R^2 = 0.527$$

Source: IMF, OECD, WEF, UN, World population Review; 99% analysis

In general, larger states deliver greater life expectancy

Small State **Mid-State** **Large State**

Life Expectancy (years)

Norway
Netherlands — Sweden
Japan
Switzerland
Italy — Denmark
Iceland — Finland
Israel
United Kingdom
Brazil
India
China — New — Germany — France — Canada
Tanzania
United States
Rwanda
Botswana
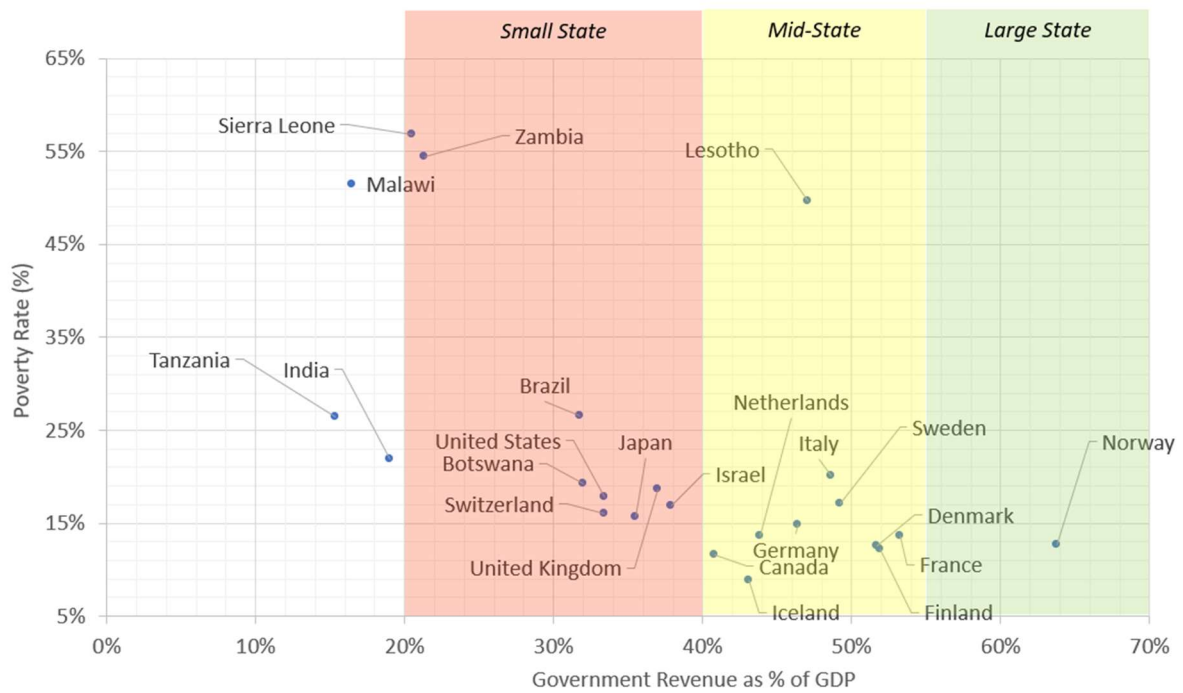Zambia
Malawi
Lesotho
Sierra Leone

Government Revenue as % of GDP

Source: IMF, OECD, WEF, UN, World population Review; 99% analysis

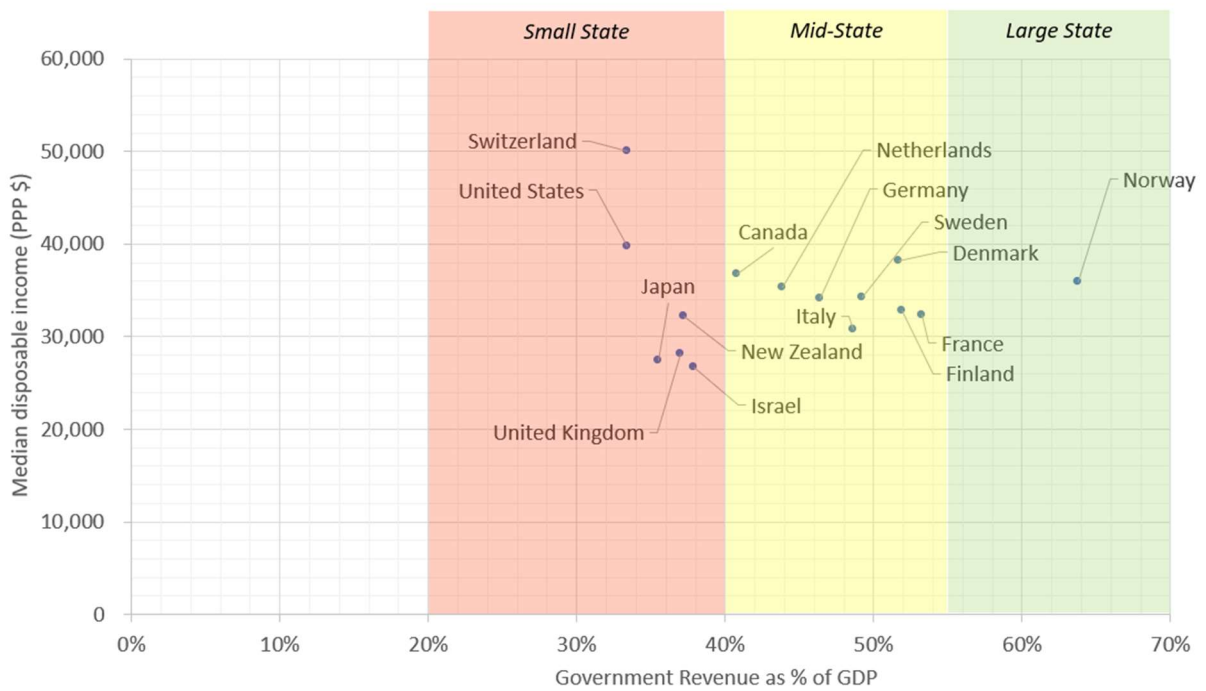# Social mobility is positively correlated with size of state

Small State **Mid-State** **Large State**

Social Mobility Index

Norway
Netherlands — Sweden
Denmark
Switzerland
Finland
Japan
Germany
United Kingdom
Canada
France
New Zealand
United States
Israel
China
Italy
Brazil

Government Revenue as % of GDP

Source: IMF, OECD, WEF, UN, World population Review; 99% analysis

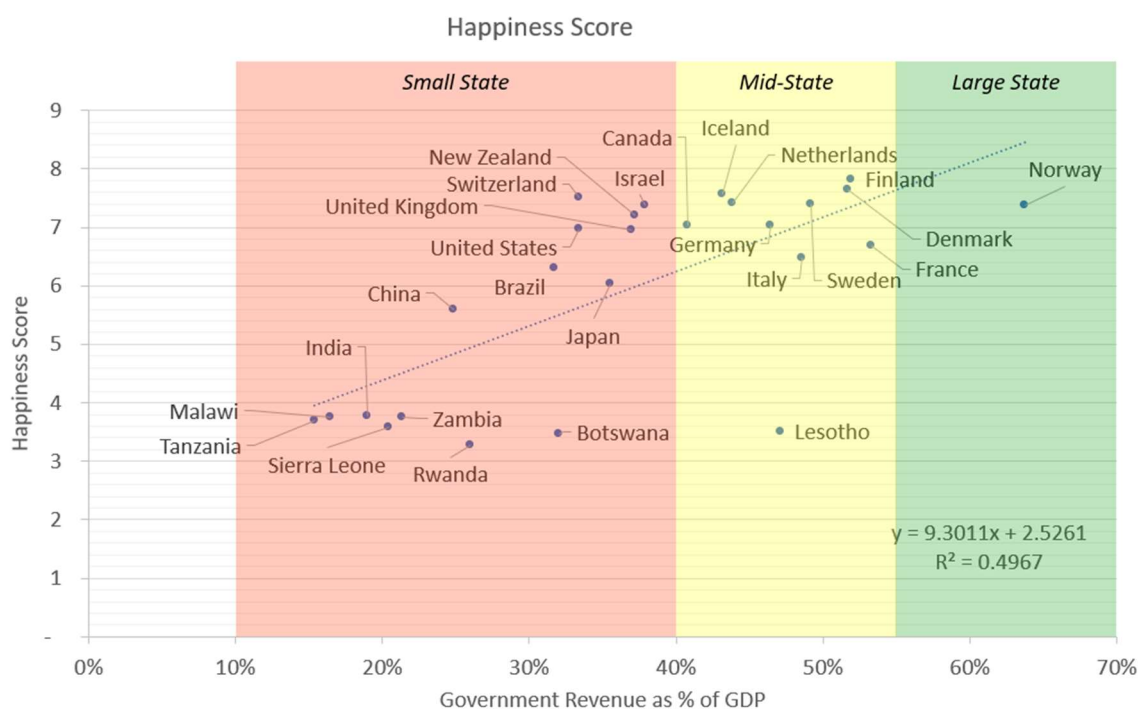# Poverty rates < 15% require at least a mid-sized state

Source: IMF, OECD, WEF, UN, World population Review; 99% analysis

Median incomes are not strongly correlated with size of state

Source: IMF, OECD, WEF, UN, World population Review; 99% analysis

There is a correlation between the size of the state and happiness

Happiness Score

Source: IMF, OECD, WEF, UN, World population Review; 99% analysis

References

Helliwell , J. F., Layard, R., Sachs, J. D., De Neve, J.-E., Aknin, L. B., & Wang, S. (2022). *World Happiness Report 2022.* New York: Sustainable Development Solutions Network.

International Monetary Fund. (2022, 4). *World Economic Outlook Database*. Retrieved from https://www.imf.org/: https://www.imf.org/en/Publications/WEO/weo-database/2022/April

Wikipedia. (2022). *List of countries by life expectancy*. Retrieved from https://en.wikipedia.org: https://en.wikipedia.org/wiki/List_of_countries_by_life_expectancy

World Economic Forum. (2020, 1). *The Global Social Mobility Report 2020*. Retrieved from https://www3.weforum.org/: https://www3.weforum.org/docs/Global_Social_Mobility_Report.pdf

World Population Review. (2022, 11). *Poverty Rate by Country 2022*. Retrieved from https://worldpopulationreview.com/: https://worldpopulationreview.com/country-rankings/poverty-rate-by-country