

# APPENDIX: RESEARCH METHODOLOGY AND LIMITATIONS

## METHODOLOGY

The Freedom Index and Prosperity Index are two separate indexes that rank one hundred and seventy-four countries around the world according to their levels of freedom and prosperity. The Freedom Index measures Economic Freedom, Political Freedom, and Legal Freedom. The Prosperity Index measures Income, Environment, Health, Minority Rights, and Happiness.

All index measurements are weighted equally, and the score for each index is the simple average of its parts. Scores range between zero and one hundred, with higher values indicating more freedom or prosperity. Where appropriate, raw data are converted to a 0–100 scale.

Countries on the Freedom Index are divided into four categories based on their overall score: those above a seventy-five-point score (Free), those with a score between fifty and 74.9 (Mostly Free), those with a score between twenty-five and 49.9 (Mostly Unfree), and those with score from zero to 24.9 (Unfree).

The same categorization is used for the Prosperity Index: those above a seventy-five-point score (Prosperous), those with score between fifty and 74.9 (Mostly Prosperous), those with a score between twenty-five and 49.9 (Mostly Unprosperous), and those with score from zero to 24.9 (Unprosperous).

The Freedom Index and the Prosperity Index are constructed from a diversified data and analytical basis, comprising different databases produced by the American Economic Journal, Center for Economic and Policy Research, the Credendo Group, the Fraser Institute, Freedom House, the Fund for Peace, the Heritage Foundation, the National Aeronautics and Space Administration (NASA), Transparency International, the United Nations, the V-Dem Institute, the World Bank, and the World Justice Project.

The 2021 Freedom and Prosperity Indexes use the most recent data available. Most of these data are from 2021. Where data from 2021 are not available, data from the most recent year available are used instead. We used the same methodology to create Freedom and Prosperity Indexes for 2016, 2011, and 2006.

## THE FREEDOM INDEX

The Freedom Index has three sub-indexes—Economic Freedom, Political Freedom, and Legal Freedom—each of which comprises multiple indicators. Indicators, in turn, can comprise multiple components and, in some cases, subcomponents. The indicators that go into the construction of each sub-index are listed below, together with the original sources of data, definitions, and analyses.

They are as follows.

### 1. Economic Freedom

Economic Freedom refers to an economic system that fairly upholds the rights of all businesses and economic actors. Economic Freedom is measured as an equally weighted average of four indicators: Property Rights, Trade Freedom, Investment Freedom, and Women’s Economic Freedom.

#### A. PROPERTY RIGHTS

This indicator assesses the extent to which a country’s legal framework allows individuals to acquire, hold, and utilize private property, secured by clear laws that the government enforces. Its component parts are protection of property rights and risk of expropriation.

Sources of data: James Gwartney, et al., “Economic Freedom of the World: Annual Report 2021,” Fraser Institute, 2021, <https://www.fraserinstitute.org/sites/default/files/economic-freedom-of-the-world-2021.pdf>; “Expropriation Risk—Country Rankings,” Credendo Group, 2019, [https://www.theglobaleconomy.com/rankings/expropriation\\_risk](https://www.theglobaleconomy.com/rankings/expropriation_risk).

#### B. TRADE FREEDOM

The Trade Freedom indicator measures a wide variety of trade restrictions: tariffs, quotas, hidden administrative restraints, and controls on exchange rates and the movement of capital.

Source of data: Gwartney, et al., “Economic Freedom of the World: Annual Report 2021.”

#### C. INVESTMENT FREEDOM

This indicator measures the ability of individuals and firms to move capital within and across a country’s border without restrictions.

Source of data: “2021 Index of Economic Freedom,” Heritage Foundation, 2021, <https://www.heritage.org/index/>.

## D. WOMEN'S ECONOMIC FREEDOM

This indicator captures inequality in legislation between men and women as it relates to economic activity. Its component measurements are mobility, pay, entrepreneurship, and assets.

Source of data: "Women, Business and the Law," World Bank, 2021, <https://wbl.worldbank.org/en/wbl>.

## 2. Political Freedom

Political Freedom refers to a political system that fairly protects the rights of all its citizens. Political Freedom is measured as an equally weighted average of the following three indicators: Constraints on Government, Political Rights, and Civil Liberties.

### A. CONSTRAINTS ON GOVERNMENT

This indicator assesses whether public and private actors have the independence, and the ability in practice to exercise effective checks on, and oversight of, the government. Its component parts are government powers, open government, and fundamental rights.

Source of data: "WJP Rule of Law Index 2021," World Justice Project, 2021, <https://worldjusticeproject.org/our-work/research-and-data/wjp-rule-law-index-2021>.

### B. POLITICAL RIGHTS

This indicator measures the ability of citizens to choose their leaders in free and fair elections, organize political opposition, and participate meaningfully in the political process.

Source of data: Sarah Repucci and Amy Slipowitz, "Freedom in the World 2021," Freedom House, 2021, <https://freedomhouse.org/report/freedom-world/2021/democracy-under-siege>.

### C. CIVIL LIBERTIES

This indicator captures the degree to which fundamental liberties are protected, including freedom of expression and belief, freedom of the press, and freedom of association and assembly.

Source of data: Repucci and Slipowitz, "Freedom in the World 2021."

## 3. Legal Freedom

Legal freedom refers to the effective implementation of a country's rule of law by encompassing specific rules, as well as the social capital and institutions that support the implementation of these rules. Legal freedom is measured as the equally weighted average of the following indicators: Judicial Effectiveness, Government Integrity, Regulatory Effectiveness, Order and Security, and State Capacity.

### A. JUDICIAL EFFECTIVENESS

This indicator measures the strength of an efficient and fair judicial system, which ensures that laws are fully respected and appropriate legal actions are taken against violations. It is made up of the components: efficient judiciary, civil justice, and criminal justice.

Sources of data: Repucci and Slipowitz, "Freedom in the World 2021"; "WJP Rule of Law Index 2021."

### B. GOVERNMENT INTEGRITY

This indicator captures the level of openness and transparency in government regulations, and the existence of corruption by government officials. Its components are perceptions of corruption, absence of corruption, and public disclosure by politicians. The public disclosure component constitutes two subcomponents: values publicly available and sources publicly available.

Sources of data: "Corruption Perception Index," Transparency International, <https://www.transparency.org/en/cpi/2021>; "WJP Rule of Law Index 2021"; Djankov, Simeon, Rafael LaPorta, Florencio Lopez-de-Silanes, and Andrei Shleifer. 2010. "Disclosure by Politicians." *American Economic Journal: Applied Economics* 2 (2): 179-209, <https://scholar.harvard.edu/shleifer/publications/disclosure-politicians>; Oriana Bandiera, Erica Bosio, and Giancarlo Spagnolo, eds., "Discretion, Efficiency and Abuse in Public Procurement in Ordinary and Extra-Ordinary Times," Center for Economic Policy Research, 2021, <https://voxeu.org/article/discretion-efficiency-and-abuse-public-procurement-new-ebook>.

### C. REGULATORY EFFECTIVENESS

This indicator measures the degree to which regulations and public services are properly implemented without being subject to bribery or other improper influence.

Source of data: "WJP Rule of Law Index 2021."

### D. ORDER AND SECURITY

This indicator reflects citizens' perceptions of safety and the ability of the state to protect citizens from crime, conflict, and terrorism.

Source of data: "WJP Rule of Law Index 2021."

### E. STATE CAPACITY

This indicator measures the extent of existing pressures that outweigh a state's capacity to manage those pressures.

Source of data: "Measuring Fragility," Fund for Peace Fragile States Index, <https://fragilestatesindex.org>.

## The Prosperity Index

The Prosperity Index attempts to capture both the average level of prosperity—through the level of Income, Health, and Happiness that an average citizen possesses—and shared prosperity through measures of Environment and Minority group wellbeing.

### A. INCOME

Income is measured as GNI per capita in current US dollars. It is calculated with the Atlas method.

Source of data: GNI Per Capita, Atlas Method (Current US\$), World Bank, <https://data.worldbank.org/indicator/NY.GNP.PCAP.CD>

### B. ENVIRONMENT

The Environment indicator measures water quality. It is calculated according to the amount of life years lost as a result of exposure to unsafe drinking water. This measure is used as a proxy for environment performance in general.

Source of data: “Environmental Performance Index,” NASA Socioeconomic Data and Applications Center, 2020, <https://sedac.ciesin.columbia.edu/data/set/epi-environmental-performance-index-2020/data-download>.

### C. MINORITY RIGHTS

Minority Rights are measured through surveys on the acceptance of religious minorities. The level of acceptance of religious minorities is used as a proxy for the acceptance of minorities in general.

Source of data: “The V-Dem Data Set,” Varieties of Democracy, V-Dem Institute, <https://v-dem.net/vdemds.html>.

### D. HEALTH

Health measures the number of years a newborn infant would be expected to live if the prevailing patterns of mortality at the time of its birth were to stay the same throughout its life. Life expectancy is used as a proxy for overall health.

Source of data: “Life Expectancy at Birth (Total Years),” World Bank, <https://data.worldbank.org/indicator/SP.DYN.LE00.IN>.

### E. HAPPINESS

The Happiness indicator measures the psychological aspects of wellbeing through survey questions that measure self-reported levels of happiness.

Source of data: “World Happiness Report,” United Nations, 2021, <https://happiness-report.s3.amazonaws.com/2021/WHR+21.pdf>.

## LIMITATIONS

The Freedom and Prosperity Indexes methodology is designed to be an easily replicable way to benchmark specific characteristics. But, it also has limitations that should be understood.

Ensuring comparability of the data across a global set of countries is a central consideration. When selecting sources to be included in the indexes, coverage has been a determining factor. In the rare case of missing data for a certain year, we have replaced them with data from the closest available year. All these instances are described in the dataset.

Data were collected over the past year, using the most recent information available. They might not reflect the latest political or economic developments. These indexes should not necessarily be taken as an accurate reflection of the most recent current events. We will, however, update the indexes over time to capture real-world changes on an annual basis.

We did our best to collect the most reliable information available. The objective of these indexes was to provide standardized measures that can be applied to every country. One might argue that the methodology or the data collected are irrelevant to certain types of political situations or specific countries. That might be the case in some instances, but rarely so. Moreover, there is an inherent tension between generalizable and specific knowledge. In this study, we self-consciously opted for the former. We would encourage other researchers to explain how our indexes illuminate or obscure country-specific dynamics.