METHODOLOGY

The *Index of Economic Freedom* focuses on four key aspects of the economic environment over which governments typically exercise policy control:

- **Rule of law,**
- **Government size,**
- **Regulatory efficiency**, and
- **Market openness.**

In assessing conditions in these four categories, the *Index* measures 12 specific components of economic freedom, each of which is graded on a scale from 0 to 100. Scores on these 12 components of economic freedom, which are calculated from a number of sub-variables, are equally weighted and averaged to produce an overall economic freedom score for each economy.

The following sections provide detailed descriptions of the formulas and methodology used to compute the scores for each of the 12 components of economic freedom.

RULE OF LAW

Property Rights

The property rights component assesses the extent to which a country's legal framework allows individuals to freely accumulate private property, secured by clear laws that are enforced effectively by the government. Relying on a mix of survey data and independent assessments, it provides a quantifiable measure of the degree to which a country's laws protect private property rights and the extent to which those laws are respected. It also assesses the likelihood that private property will be expropriated by the state.

The more effective the legal protection of property, the higher a country's score will be. Similarly, the greater the chances of government expropriation of property, the lower a country's score will be.

The score for this component is derived by averaging scores for the following five sub-factors, all of which are weighted equally:

- Physical property rights,
- Intellectual property rights,
- Strength of investor protection,
- Risk of expropriation, and
- Quality of land administration.

Each of these sub-factors is derived from numerical data sets that are normalized for comparative purposes using the following equation:

$$\text{Sub-factor Score } i = 100(\text{Sub-factorMax}-\text{Sub-factor}i)/(\text{Sub-factorMax}-\text{Sub-factorMin})$$

where Sub-factor*i* represents the original data for country *i*; Sub-factorMax and Sub-factorMin represent the upper and lower bounds for the corresponding data set; and Sub-factor Score *i* represents the computed sub-factor score for country *i*.

For a few countries, comparable data were not available for every sub-factor. In those cases, a score was computed for the missing sub-factor based on the relative percentile ranking of that country on the other sub-factors.

Sources. The *Index* relies on the following sources for assessing property rights: World Economic Forum, *World Competitiveness Report*; World Bank, *Doing Business*; and Credendo Group, *Country Risk Assessment*.

Judicial Effectiveness

Well-functioning legal frameworks are essential for protecting the rights of all citizens against unlawful acts by others, including by governments and powerful private parties. Judicial effectiveness requires efficient and fair judicial systems to ensure that laws are fully respected, with appropriate legal actions taken against violations. The score for the judicial effectiveness component is derived by averaging scores for the following three sub-factors, all of which are weighted equally:

- Judicial independence,
- Quality of the judicial process, and
- Likelihood of obtaining favorable judicial decisions.

Each of these sub-factors is derived from numerical data sets that are normalized for comparative purposes using the following equation:

$$\text{Sub-factor Score } i = 100(\text{Sub-factorMax}-\text{Sub-factor}i)/(\text{Sub-factorMax}-\text{Sub-factorMin})$$

where Sub-factor*i* represents the original data for country *i*; Sub-factorMax and Sub-factorMin represent the upper and lower bounds for the corresponding data set; and Sub-factor Score *i* represents the computed sub-factor score for country *i*.

For a few countries, comparable data were not available for every sub-factor. In each of these cases, a score was computed for the missing sub-factor based on the country's relative percentile ranking on the other sub-factors.

Sources. The *Index* relies on the following sources for assessing judicial effectiveness: World Economic Forum, *World Competitiveness Report*; World Bank, *Doing Business*.

Government Integrity

Corruption erodes economic freedom by introducing insecurity and uncertainty into economic relations. Of greatest concern is the systemic corruption of government institutions and decision-making by such practices as bribery, extortion, nepotism, cronyism, patronage, embezzlement, and graft. The lack of government integrity caused by such practices reduces economic vitality by increasing costs and shifting resources into unproductive lobbying activities.

The score for this component is derived by averaging scores for the following six sub-factors, all of which are weighted equally:

- Public trust in politicians,
- Irregular payments and bribes,
- Transparency of government policymaking,
- Absence of corruption,
- Perceptions of corruption, and
- Governmental and civil service transparency.

Each of these sub-factors is derived from numerical data sets that are normalized for comparative purposes using the following equation:

$$\text{Sub-factor Score } i = 100(\text{Sub-factorMax}-\text{Sub-factor}i)/(\text{Sub-factorMax}-\text{Sub-factorMin})$$

where Sub-factor*i* represents the original data for country *i*; Sub-factorMax and Sub-factorMin represent the upper and lower bounds for the corresponding data set; and Sub-factor Score *i* represents the computed sub-factor score for country *i*.

For a few countries, comparable data were not available for every sub-factor. In each of these cases, a score was computed for the missing sub-factor based on the country's relative percentile ranking on the other sub-factors.

Sources. The *Index* relies on the following sources for assessing government integrity: World Economic Forum, *World Competitiveness Report*; World Justice Project, *Rule of Law Index*; Transparency International, *Corruption Perceptions Index*; TRACE International, *The Trace Matrix*.

GOVERNMENT SIZE

Tax Burden

Tax burden is a composite measure that reflects marginal tax rates on both personal and corporate income and the overall level of taxation (including direct and indirect taxes imposed by all levels of government) as a percentage of gross domestic product (GDP). The component score is derived from three quantitative sub-factors:

- The top marginal tax rate on individual income,
- The top marginal tax rate on corporate income, and
- The total tax burden as a percentage of GDP.

Each of these numerical variables is weighted equally as one-third of the component score. This equal weighting allows a country to achieve a score as high as 67 based on two of the factors even if it receives a score of 0 on the third.

Tax burden scores are calculated with a quadratic cost function to reflect the diminishing revenue returns from very high rates of taxation. The data for each sub-factor are converted to a 100-point scale using the following equation:

$$\text{Tax Burden}_{ij} = 100 - \alpha\,(\text{Factor}_{ij})^2$$

where Tax Burden$_{ij}$ represents the tax burden in country *i* for factor *j*; Factor$_{ij}$ represents the value (a percentage expressed on a scale of 0 to 100) in country *i* for factor *j*; and α is a coefficient set equal to 0.03. The minimum score for each sub-factor is zero, which is not represented in the printed equation but was utilized because it means that no single high tax burden will make the other two sub-factors irrelevant.

As an example, in the 2017 *Index*, Mauritius has a flat rate of 15 percent for both individual and corporate tax rates, which yields a score of 93.3 for each of the two factors. Mauritius's overall tax burden as a portion of GDP is 18.6 percent, yielding a tax burden factor score of 89.6. When the three factors are averaged together, Mauritius's overall tax burden score becomes 92.

Sources. The *Index* relies on the following sources for information on tax rate data, in order of priority: Deloitte, *International Tax and Business Guide Highlights*; International Monetary Fund, *Staff Country Report*, "Selected Issues and Statistical Appendix," and *Staff Country Report*, "Article IV Consultation"; PricewaterhouseCoopers, *Worldwide Tax Summaries*; countries' investment agencies; other government authorities (embassy confirmations and/or the country's treasury or tax authority); and Economist Intelligence Unit, *Country Commerce* and *Country Finance*.

For information on tax burden as a percentage of GDP, the primary sources are Organisation for Economic Co-operation and Development data; Eurostat, Government Finance Statistics data; African Development Bank and Organisation for Economic Co-operation and Development, *African Economic Outlook*; International Monetary Fund, *Staff Country Report*, "Selected Issues," and *Staff Country Report*, "Article IV Consultation"; Asian Development Bank, *Key Indicators for Asia and the Pacific*; United Nations Economic Commission for Latin America, *Economic Survey of Latin America and the Caribbean*; and individual contacts from government agencies and multinational organizations such as the IMF and the World Bank.

Government Spending

The government spending component captures the burden imposed by government expenditures, which includes consumption by the state and all transfer payments related to various entitlement programs.

No attempt has been made to identify an optimal level of government spending. The ideal level will vary from country to country, depending on factors that range from culture to geography to level of economic development. At some point, however, government spending becomes an unavoidable burden as growth in the size and scope of the public sector leads inevitably to misallocation of resources and loss of economic efficiency. Volumes of research have shown that excessive government spending that causes chronic budget deficits and the accumulation of public debt is one of the most serious drags on economic dynamism.

The *Index* methodology treats zero government spending as the benchmark. As a result, underdeveloped countries, particularly those with little government capacity, may receive artificially high scores. However, such governments, which can provide few if any public goods, are likely to receive low scores on some of the other components of economic freedom (such as property rights, financial freedom, and investment freedom) that measure aspects of government effectiveness.

Government spending has a major impact on economic freedom, but it is just one of many important components. The scale for scoring government spending is nonlinear, which means that government spending that is close to zero is lightly penalized, while levels of government spending that exceed 30 percent of GDP lead to much worse scores in a quadratic fashion (for example, doubling spending yields four times less freedom). Only extraordinarily large levels of government spending (for example, over 58 percent of GDP) receive a score of zero.

The equation used for computing a country's government spending score is:

$$GE_i = 100 - \alpha\,(\text{Expenditures}_i)^2$$

where GE_i represents the government expenditure score in country *i*; Expenditures_i represents the average total government spending at all levels as a percentage of GDP for the most recent three years ; and α is a coefficient to control for variation among scores (set at 0.03). The minimum component score is zero.

In most cases, the *Index* uses general government expenditure data that include all levels of government such as federal, state, and local. In cases where data on general government spending are not available, data on central government expenditures are used instead.

Sources. The *Index* relies on the following sources for information on government intervention in the economy, in order of priority: Organisation for Economic Co-operation and Development data; Eurostat data; African Development Bank and Organisation for Economic Co-operation and Development, *African Economic Outlook*; International Monetary Fund, *Staff Country Report*, "Selected Issues and Statistical Appendix," *Staff Country Report*, "Article IV Consultation," and *World Economic Outlook Database*; Asian Development Bank, *Key Indicators for Asia and the Pacific*; African Development Bank, *The ADB Statistics Pocketbook*; official government publications of each country; and United Nations Economic Commission for Latin America, *Economic Survey of Latin America and the Caribbean*.

Fiscal Health

Widening deficits and a growing debt burden, both of which are caused by poor government budget management, lead to the erosion of a country's overall fiscal health. Deteriorating fiscal health, in turn, is associated with macroeconomic instability and economic uncertainty.

Debt is an accumulation of budget deficits over time. In theory, debt financing of public spending could make a positive contribution to productive investment and ultimately to economic growth. However, mounting public debt driven by persistent budget deficits, particularly spending that merely boosts government consumption or transfer payments, often undermines overall productivity growth and leads ultimately to economic stagnation rather than growth.

The score for the fiscal health component is based on two sub-factors, which are weighted as follows in calculating the overall component score:

- Average deficits as a percentage of GDP for the most recent three years (80 percent of score) and
- Debt as a percentage of GDP (20 percent of score).

The equation used for computing a country's fiscal health sub-factor scores is:

$$\text{Sub-factor Score}_i = 100 - \alpha\,(\text{Sub-factor}_i)^2$$

where $\text{Sub-factor Score}_i$ represents the deficit or debt score in country *i*; Sub-factor_i represents the factor value as a portion of GDP; and α is a coefficient to control for variation among scores (set at 2 for deficit and 0.01 for debt). The minimum component score is zero.

In most cases, the *Index* uses general government deficit and debt data that include all levels of government such as federal, state, and local. In cases where such general government data are not available, data on central government expenditures are used instead.

Sources. The *Index* relies on the following sources for information on government intervention in the economy: International Monetary Fund, *World Economic Outlook Database*, *Staff Country Report*, "Selected Issues and Statistical Appendix," and *Staff Country Report*, "Article IV Consultation"; Asian Development Bank, *Key Indicators for Asia and the Pacific*; African Development Bank, *The ADB Statistics Pocketbook*; Economist Intelligence Unit, Data Tool; and official government publications of each country.

REGULATORY EFFICIENCY

Business Freedom

The business freedom component measures the extent to which the regulatory and infrastructure environments constrain the efficient operation of businesses. The quantitative score is derived from an array of factors that affect the ease of starting, operating, and closing a business.

The business freedom score for each country is a number between 0 and 100, with 100 indicating the freest business environment. The score is based on 13 sub-factors, all of which are weighted equally, using data from the World Bank's *Doing Business* report:

- Starting a business—procedures (number);
- Starting a business—time (days);
- Starting a business—cost (% of income per capita);
- Starting a business—minimum capital (% of income per capita);
- Obtaining a license—procedures (number);[1]
- Obtaining a license—time (days);
- Obtaining a license—cost (% of income per capita);
- Closing a business—time (years);
- Closing a business—cost (% of estate);
- Closing a business—recovery rate (cents on the dollar);
- Getting electricity—procedures (number);
- Getting electricity—time (days); and
- Getting electricity—cost (% of income per capita).[2]

Each of these sub-factors is converted to a scale of 0 to 100, after which the average of the converted values is computed. The result represents the country's business freedom score in comparison to the business freedom scores of other countries.

Each sub-factor is converted to a scale of 0 to 100 using the following equation:

$$\text{Sub-factor Score}_i = 50\ \text{Sub-factor}_{average}/\text{Sub-factor}_i$$

which is based on the ratio of the country data for each sub-factor relative to the world average, multiplied by 50. For example, on average worldwide, it takes 14 procedures to get necessary licenses. Canada's 12 licensing procedures are a sub-factor value that is better than the average, resulting in a ratio of 1.17. That ratio multiplied by 50 equals the final sub-factor score of 58.3.

For the six countries that are not covered by the World Bank's *Doing Business* report, business freedom is scored by analyzing business regulations based on qualitative information from reliable and internationally recognized sources.[3]

Sources. The *Index* relies on the following sources in determining business freedom scores, in order of priority: World Bank, *Doing Business*; Economist Intelligence Unit, *Country*

Commerce; U.S. Department of Commerce, *Country Commercial Guide*; and official government publications of each country.

Labor Freedom

The labor freedom component is a quantitative measure that considers various aspects of the legal and regulatory framework of a country's labor market, including regulations concerning minimum wages, laws inhibiting layoffs, severance requirements, and measurable regulatory restraints on hiring and hours worked, plus the labor force participation rate as an indicative measure of employment opportunities in the labor market.[4]

Seven quantitative sub-factors are equally weighted, with each counted as one-seventh of the labor freedom component:[5]

- Ratio of minimum wage to the average value added per worker,
- Hindrance to hiring additional workers,
- Rigidity of hours,
- Difficulty of firing redundant employees,
- Legally mandated notice period,
- Mandatory severance pay, and
- Labor force participation rate.

In constructing the labor freedom score, each of the seven sub-factors is converted to a scale of 0 to 100 based on the following equation:

$$\text{Sub-factor Score}_i = 50\ \text{Sub-factor}_{average}/\text{Sub-factor}_i$$

where country *i* data are calculated relative to the world average and then multiplied by 50. The seven sub-factor scores are then averaged for each country, yielding an overall labor freedom score.

For the six countries that are not covered by the World Bank's *Doing Business* report, the labor freedom component is scored by looking at labor market flexibility based on qualitative information from other reliable and internationally recognized sources.[6]

Sources. The *Index* relies on the following sources for data on labor freedom, in order of priority: World Bank, *Doing Business*; International Labour Organization, *Statistics and Databases*; World Bank, *World Development Indicators*; Economist Intelligence Unit, *Country Commerce*; U.S. Department of Commerce, *Country Commercial Guide*; and official government publications of each country.

Monetary Freedom

Monetary freedom combines a measure of price stability with an assessment of price controls. Both inflation and price controls distort market activity. Price stability without sector-specific government intervention is the ideal state for the free market.

The score for the monetary freedom component is based on two sub-factors:

- The weighted average inflation rate for the most recent three years and
- Price controls.

The weighted average inflation rate for the most recent three years serves as the primary input into an equation that generates the base score for monetary freedom. The extent of price controls is then assessed as a penalty deduction of up to 20 points from the base score. The two equations used to convert inflation rates into the final monetary freedom score are:

$$\text{Weighted Avg. Inflation}_i = \theta_1 \text{ Inflation}_{it} + \theta_2 \text{Inflation}_{it-1} + \theta_3 \text{ Inflation}_{it-2}$$

$$\text{Monetary Freedom}_i = 100 - \alpha \sqrt{\text{Weighted Avg. Inflation}_i} - \text{PC penalty}_i$$

where θ_1 through θ_3 (thetas 1–3) represent three numbers that sum to 1 and are exponentially smaller in sequence (in this case, values of 0.665, 0.245, and 0.090, respectively); Inflation_{it} is the absolute value of the annual inflation rate in country *i* during year *t* as measured by the Consumer Price Index; α represents a coefficient that stabilizes the variance of scores; and the price control (PC) penalty is an assigned value of 0–20 penalty points based on the extent of price controls.

The convex (square root) functional form was chosen to create separation among countries with low inflation rates. A concave functional form would essentially treat all hyperinflations as equally bad, whether they were 100 percent price increases annually or 100,000 percent, whereas the square root provides much more gradation. The α coefficient is set to equal 6.333, which converts a 10 percent inflation rate into a freedom score of 80.0 and a 2 percent inflation rate into a score of 91.0.

Sources. The *Index* relies on the following sources for data on monetary policy, in order of priority: International Monetary Fund, *International Financial Statistics Online*; International Monetary Fund, *World Economic Outlook* and *Staff Country Report*, "Article IV Consultation"; Economist Intelligence Unit, *ViewsWire* and Data Tool; various World Bank country reports and blogs; various news and magazine articles; and official government publications of each country.

OPEN MARKETS

Trade Freedom

Trade freedom is a composite measure of the extent of tariff and nontariff barriers that affect imports and exports of goods and services. The trade freedom score is based on two inputs:

- The trade-weighted average tariff rate and
- Nontariff barriers (NTBs).

Different imports entering a country can (and often do) face different tariffs. The weighted average tariff uses weights for each tariff based on the share of imports for each good. Weighted average tariffs are a purely quantitative measure and account for the calculation of the base trade freedom score using the following equation:

$$\text{Trade Freedom}_i = 100(\text{Tariff}_{max} - \text{Tariff}_i)/(\text{Tariff}_{max} - \text{Tariff}_{min}) - \text{NTB}_i$$

where Trade Freedom_i represents the trade freedom in country *i*; Tariff_{max} and Tariff_{min} represent the upper and lower bounds for tariff rates (%); and Tariff_i represents the weighted average tariff rate (%) in country *i*. The minimum tariff is naturally zero percent, and the upper bound was set as 50 percent. An NTB penalty is then subtracted from the base score. The penalty of 5, 10, 15, or 20 points is assigned according to the following scale:

- **20**—NTBs are used extensively across many goods and services and/or act to impede a significant amount of international trade.
- **15**—NTBs are widespread across many goods and services and/or act to impede a majority of potential international trade.
- **10**—NTBs are used to protect certain goods and services and impede some international trade.
- **5**—NTBs are uncommon, protecting few goods and services, and/or have a very limited impact on international trade.
- **0**—NTBs are not used to limit international trade.

We determine the extent of NTBs in a country's trade policy regime using both qualitative and quantitative information. Restrictive rules that hinder trade vary widely, and their overlapping and shifting nature makes their complexity difficult to gauge. The categories of NTBs considered in our penalty include:

- **Quantity restrictions**—import quotas; export limitations; voluntary export restraints; import–export embargoes and bans; countertrade; etc.
- **Price restrictions**—antidumping duties; countervailing duties; border tax adjustments; variable levies/tariff rate quotas.
- **Regulatory restrictions**—licensing; domestic content and mixing requirements; sanitary and phytosanitary standards (SPSs); safety and industrial standards regulations; packaging, labeling, and trademark regulations; advertising and media regulations.
- **Customs restrictions**—advance deposit requirements; customs valuation procedures; customs classification procedures; customs clearance procedures.
- **Direct government intervention**—subsidies and other aid; government industrial policies; government-financed research and other technology policies; competition policies; government procurement policies; state trading, government monopolies, and exclusive franchises.

As an example, Bahrain received a trade freedom score of 82.8. By itself, Bahrain's trade-weighted average tariff of 3.6 percent would have yielded a score of 92.8, but the existence of NTBs in Bahrain reduced its score by 10 points.

Gathering tariff statistics to make a consistent cross-country comparison is a challenging task. Unlike data on inflation, for instance, some countries do not report their weighted average tariff rate or simple average tariff rate every year.

To preserve consistency in grading the trade freedom component, the *Index* uses the most recently reported weighted average tariff rate for a country from our primary source. If another reliable source reports more updated information on the country's tariff rate, this fact is noted, and the grading of this component may be reviewed if there is strong evidence that the most recently reported weighted average tariff rate is outdated.

The most comprehensive and consistent information on weighted average applied tariff rates is published by the World Bank. When the weighted average applied tariff rate is not available, the *Index* uses the country's average applied tariff rate; and when the country's average applied tariff rate is not available, the weighted average or the simple average of most favored nation (MFN) tariff rates is used.[7] In the very few cases where data on duties and customs revenues are not available, data on international trade taxes or an estimated effective tariff rate are used instead. In all cases, an effort is made to clarify the type of data used in the corresponding write-up for the trade freedom component.

Sources. The *Index* relies on the following sources to determine scores for trade policy, in order of priority: World Bank, *World Development Indicators*; World Trade Organization, *Trade Policy Review*; Office of the U.S. Trade Representative, *National Trade Estimate Report on Foreign Trade Barriers*; World Bank, *Doing Business*; U.S. Department of Commerce, *Country Commercial Guide*; Economist Intelligence Unit, *Country Commerce*; World Economic Forum, *The Global Enabling Trade Report*; and official government publications of each country.

Investment Freedom

In an economically free country, there would be no constraints on the flow of investment capital. Individuals and firms would be allowed to move their resources into and out of specific activities, both internally and across the country's borders, without restriction. Such an ideal country would receive a score of 100 on the investment freedom component of the *Index*.

In practice, however, most countries have a variety of restrictions on investment. Some have different rules for foreign and domestic investment. Some restrict access to foreign exchange. Some impose restrictions on payments, transfers, and capital transactions. In some, certain industries are closed to foreign investment.

The *Index* evaluates a variety of regulatory restrictions that typically are imposed on investment. Points, as indicated below, are deducted from the ideal score of 100 for each of the restrictions found in a country's investment regime. It is not necessary for a government to impose all of the listed restrictions at the maximum level to eliminate investment freedom. The few governments that impose so many restrictions that they total more than 100 points in deductions have had their scores set at zero.

Investment Restrictions

National treatment of foreign investment

• No national treatment, prescreening	25 points deducted
• Some national treatment, some prescreening	15 points deducted
• Some national treatment or prescreening	5 points deducted

Foreign investment code

• No transparency and burdensome bureaucracy	20 points deducted
• Inefficient policy implementation and bureaucracy	10 points deducted
• Some investment laws and practices nontransparent or inefficiently implemented	5 points deducted

Restrictions on land ownership

• All real estate purchases restricted	15 points deducted
• No foreign purchases of real estate	10 points deducted
• Some restrictions on purchases of real estate	5 points deducted

Sectoral investment restrictions

• Multiple sectors restricted	20 points deducted
• Few sectors restricted	10 points deducted
• One or two sectors restricted	5 points deducted

Expropriation of investments without fair compensation

• Common with no legal recourse	25 points deducted
• Common with some legal recourse	15 points deducted
• Uncommon but occurs	5 points deducted

Foreign exchange controls

• No access by foreigners or residents	25 points deducted
• Access available but heavily restricted	15 points deducted
• Access available with few restrictions	5 points deducted

Capital controls

• No repatriation of profits; all transactions require government approval	25 points deducted
• Inward and outward capital movements require approval and face some restrictions	15 points deducted
• Most transfers approved with some restrictions	5 points deducted

Up to an additional 20 points may be deducted for security problems, a lack of basic investment infrastructure, or other government policies that indirectly burden the investment process and limit investment freedom.

Sources. The *Index* relies on the following sources for data on capital flows and foreign investment, in order of priority: official government publications of each country; U.S. Department of State, *Investment Climate Statements*; Economist Intelligence Unit, *Country Commerce*; Office of the U.S. Trade Representative, *National Trade Estimate Report on Foreign Trade Barriers*; World Bank, *Investing Across Borders*; Organisation for Economic Co-operation and Development, *Services Trade Restrictiveness Index*; and U.S. Department of Commerce, *Country Commercial Guide*.

Financial Freedom

Financial freedom is an indicator of banking efficiency as well as a measure of independence from government control and interference in the financial sector. State ownership of banks and other financial institutions such as insurers and capital markets reduces competition and generally lowers the level of access to credit.

In an ideal banking and financing environment characterized by a minimum level of government interference, independent central bank supervision and regulation of financial institutions are limited to enforcing contractual obligations and preventing fraud. Credit is allocated on market terms, and the government does not own financial institutions. Financial institutions provide various types of financial services to individuals and companies. Banks are free to extend credit, accept deposits, and conduct operations in foreign currencies. Foreign financial institutions operate freely and are treated the same as domestic institutions.

The *Index* scores an economy's financial freedom by looking at five broad areas:

- The extent of government regulation of financial services,
- The degree of state intervention in banks and other financial firms through direct and indirect ownership,
- Government influence on the allocation of credit,
- The extent of financial and capital market development, and
- Openness to foreign competition.

These five areas are considered to assess an economy's overall level of financial freedom that ensures easy and effective access to financing opportunities for people and businesses in the economy. An overall score on a scale of 0 to 100 is given to an economy's financial freedom through deductions from the ideal score of 100.

- **90—Minimal government interference.** Regulation of financial institutions is minimal but may extend beyond enforcing contractual obligations and preventing fraud.
- **80—Nominal government interference.** Government ownership of financial institutions is a small share of overall sector assets. Financial institutions face almost no restrictions on their ability to offer financial services.
- **70—Limited government interference.** Credit allocation is influenced by the government, and private allocation of credit faces almost no restrictions. Government ownership of financial institutions is sizeable. Foreign financial institutions are subject to few restrictions.
- **60—Moderate government interference.** Banking and financial regulations are somewhat burdensome. The government exercises ownership and control of financial institutions with a significant share of overall sector assets. The ability of financial institutions to offer financial services is subject to some restrictions.
- **50—Considerable government interference.** Credit allocation is significantly influenced by the government, and private allocation of credit faces significant barriers. The ability of financial institutions to offer financial services is subject to significant restrictions. Foreign financial institutions are subject to some restrictions.
- **40—Strong government interference.** The central bank is subject to government influence, its supervision of financial institutions is heavy-handed, and its ability to enforce contracts and prevent fraud is weak. The government exercises active ownership and control of financial institutions with a large minority share of overall sector assets.
- **30—Extensive government interference.** Credit allocation is influenced extensively by the government. The government owns or controls a majority of financial institutions or is in a dominant position. Financial institutions are heavily restricted, and bank formation faces significant barriers. Foreign financial institutions are subject to significant restrictions.
- **20—Heavy government interference.** The central bank is not independent, and its supervision of financial institutions is repressive. Foreign financial institutions are discouraged or highly constrained.
- **10—Near-repressive.** Credit allocation is controlled by the government. Bank formation is restricted. Foreign financial institutions are prohibited.
- **0—Repressive.** Supervision and regulation are designed to prevent private financial institutions from functioning. Private financial institutions are nonexistent.

Sources. The *Index* relies on the following sources for data on banking and finance, in order of priority: Economist Intelligence Unit, *Country Commerce* and *Country Finance*; International Monetary Fund, *Staff Country Report*, "Selected Issues," and *Staff Country Report*, "Article IV Consultation"; Organisation for Economic Co-operation and Development, *Economic Survey*; official government publications of each country; U.S. Department of Commerce, *Country Commercial Guide*; Office of the U.S. Trade Representative, *National Trade Estimate Report on Foreign Trade Barriers*; U.S. Department of State, *Investment Climate Statements*; World Bank, *World Development Indicators*; and various news and magazine articles on banking and finance.

GENERAL METHODOLOGICAL PARAMETERS

Period of Study. For the current *Index of Economic Freedom,* scores are generally based on data for the period covering the second half of 2015 through the first half of 2016. To the extent possible, the information considered for each variable was current as of June 30, 2016. It is important to understand, however, that some component scores are based on historical information. For example, the monetary freedom component uses a three-year weighted average rate of inflation from January 1, 2013, to December 31, 2015.

Equal Weight. In the *Index of Economic Freedom,* the 12 components of economic freedom are weighted equally so that the overall score will not be biased toward any one component or policy direction. It is clear that the 12 economic freedoms interact, but the exact mechanisms of this interaction are not clearly definable: Is a minimum threshold for each one essential? Is it possible for one to maximize if others are minimized? Are they dependent or exclusive, complements or supplements?

These are valid questions, but they are beyond the scope of our fundamental mission. The purpose of the *Index* is to reflect the economic and entrepreneurial environment in every country studied in as balanced a way as possible. The *Index* has never been designed specifically to explain economic growth or any other dependent variable; that is ably done by researchers elsewhere. The raw data for each component are provided so that others can study, weight, and integrate as they see fit.

Using the Most Currently Available Information. Analyzing economic freedom annually enables the *Index* to include the most recent information as it becomes available country by country. A data cutoff date is used so that all countries are treated fairly. As described above, the period of study for the current year's *Index* considers all information as of the last day of June of the previous year (in this case, June 30, 2016). Any new legislative changes or policy actions effective after that date have no positive or negative impact on scores or rankings.[8]

DEFINING THE COUNTRY PAGES' "QUICK FACTS"

Each country page includes "Quick Facts," a statistical profile including the country's main economic and demographic indicators. In order to facilitate comparisons among countries, the GDP and GDP per capita figures in the "Quick Facts" section have been adjusted to reflect purchasing power parity (PPP). Caution should be used interpreting changes in these figures over time, as PPP conversion rates are subject to regular revision by the IMF and World Bank. In order to provide accurate estimates of annual and five-year GDP growth rates, these figures have been calculated using constant U.S. dollars for the most recent available years. Exact definitions and sources for each category of data reported are as follows:

Population: 2015 data from World Bank, *World Development Indicators Online*. For some countries, other sources include the country's statistical agency and/or central bank.

GDP: Gross domestic product (total production of goods and services) adjusted to reflect purchasing power parity. The primary source is International Monetary Fund, *World Economic Outlook Database, 2016*. The secondary source for GDP data is World Bank, *World Development Indicators Online*. Other sources include a country's statistical agency and/or central bank.

GDP growth rate: The annual percentage growth rate of real GDP derived from constant currency units. Annual percent changes are year-on-year. The primary source is International Monetary Fund, *World Economic Outlook Database, 2016*. Secondary sources include World Bank, *World Development Indicators Online*; Economist Intelligence Unit, Data Tool; and a country's statistical agency and/or central bank.

GDP five-year average annual growth: The average growth rate measured over a specified period of time. The five-year annual growth rate is measured using data from 2011 to 2015, based on real GDP growth rates. The primary source is International Monetary Fund, *World Economic Outlook Database, 2016*. Secondary sources are World Bank, *World Development Indicators Online*, and Economist Intelligence Unit, Data Tool.

GDP per capita: Gross domestic product (adjusted for PPP) divided by total population. The sources for these data are International Monetary Fund, *World Economic Outlook Database*, 2016; World Bank, *World Development Indicators Online*; U.S. Central Intelligence Agency, *The World Factbook 2016*; and a country's statistical agency and/or central bank.

Unemployment rate: A measure of the portion of the workforce that is not employed but is actively seeking work. Data are from International Labour Organization, *Global Employment Trends 2016*.

Inflation: The annual percent change in consumer prices as measured for 2015 (or the most recent available year). The primary source for 2015 data is International Monetary Fund, *World Economic Outlook Database, 2016*. Secondary sources are Economist Intelligence Unit, Data Tool; Asian Development Bank, *Asian Development Outlook 2016*; and a country's statistical agency and/or central bank.

Foreign direct investment (FDI) inward flow: The total annual inward flow of FDI in current 2015 U.S. dollars, reported in millions. FDI flows are defined as investments that acquire a lasting management interest (10 percent or more of voting stock) in a local enterprise by an investor operating in another country. Such investment is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments and both short-term and long-term international loans. Data are from United Nations Conference on Trade and Development, *World Investment Report 2016*.

Public debt: Gross government debt as a percentage of GDP, which indicates the cumulative total of all government borrowings less repayments that are denominated in a country's currency. Public debt is different from external debt, which reflects the foreign currency liabilities of both the private and public sectors and must be financed out of foreign exchange earnings. The primary sources for 2015 data are International Monetary Fund, *World Economic Outlook Database, 2016*; International Monetary Fund, *Article IV Staff Reports*, 2013–2016; and a country's statistical agency.

COMMONLY USED ACRONYMS

CARICOM: Caribbean Community and Common Market, composed of Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

CEMAC: Central African Economic and Monetary Community, which includes Cameroon, the Central African Republic, Chad, the Republic of Congo, Equatorial Guinea, and Gabon.

EU: European Union, consisting of Austria, Belgium, Bulgaria, Cyprus, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden.

IMF: International Monetary Fund, established in 1945 to help stabilize countries during crises; now includes 188 member countries.

OECD: Organisation for Economic Co-operation and Development, an international organization of developed countries, founded in 1948; now includes 34 member countries.

SACU: Southern African Customs Union, consisting of Botswana, Lesotho, Namibia, South Africa, and Swaziland.

WTO: World Trade Organization, founded in 1995 as the central organization dealing with the rules of trade between nations and based on signed agreements among member countries. As of November 2016, there were 164 member economies.

ENDNOTES:

1. Obtaining a license indicates necessary procedures, time, and cost in getting construction permits.
2. Infrastructure services such as roads, water, and power supplies are critical to the overall business climate of an economy. Among the key infrastructures, according to a recent World Bank study, securing electricity connection is often considered the most important aspect of facilitating private business. In an effort to measure business freedom more comprehensively, the 2016 *Index* adopted three sub-factors related to "getting electricity." Although the overall impact of this methodological refinement is minimal, the reader is urged to exercise caution in comparing business freedom scores over time.
3. The six countries that are not covered by the World Bank's *Doing Business* study are Burma, Cuba, North Korea, Libya, Macau, and Turkmenistan.
4. The assessment of labor freedom dates from the 2005 *Index* because of the limited availability of quantitative data before that time. In the 2016 *Index*, the labor freedom measurement added labor force participation rates to its sub-factors. According to the International Labour Organization, the labor force participation rate is defined as "a measure of the proportion of a country's working-age population that engages actively in the labour market, either by working or looking for work; it provides an indication of the size of the supply of labour available to engage in the production of goods and services, relative to the population at working age." "KILM 1. Labour Force Participation Rate," in International Labour Organization, *Key Indicators of the Labour Market, Eighth Edition* (Geneva: International Labour Office, 2014), p. 29, http://kilm.ilo.org/2011/download/kilmcompleteEN.pdf. In light of the labor freedom assessment's being refined with the addition of labor force participation rates, the reader is urged to use caution in comparing labor freedom scores over time.
5. The first six sub-factors specifically examine labor regulations that affect "the hiring and redundancy of workers and the rigidity of working hours." For more detailed information on the data, see "Employing Workers," in World Bank, *Doing Business*, http://www.doingbusiness.org/MethodologySurveys/EmployingWorkers.aspx. Reporting only raw data, the *Doing Business 2011* study discontinued all of the sub-indices of "Employing Workers": the difficulty of hiring index, the rigidity of hours index, and the difficulty of redundancy index. For the labor freedom component of the 2014 *Index*, the three indices were reconstructed by *Index* authors according to the methodology used previously by the *Doing Business* study.
6. See note 4, *supra*.
7. MFN is now referred to as permanent normal trade relations (PNTR).
8. Given the fact that the *Index* is published several months after the cutoff date for evaluation, more recent economic events cannot be factored into the scores. In the past editions, however, such occurrences have been uncommon. The impact of policy changes and more recently available macroeconomic statistics since the second half of 2016 have not affected the rankings for the 2017 *Index* but almost certainly will show up in scores for the next edition.