

# Chapter 1 Economic Freedom of the World in 2015

From the very beginning, the participants in the Economic Freedom of the World (EFW) project recognized that development of the best possible measure of economic freedom, both across countries and through time, would be an ongoing project. As Milton Friedman stated in his foreword to *Economic Freedom of the World: 1975–1995* (Gwartney, Lawson, and Block, 1996), additional work would be necessary to “bring the indexes of economic freedom up to date and to incorporate the additional understanding that will be generated”. This edition is a continuation of this process. Through the years, additional data related to the measurement of economic freedom has become available and insights about how to use it to improve the measurement of economic freedom has evolved.

This year’s annual report reflects our continued effort to improve the accuracy of the Economic Freedom of the World (EFW) measure. For the first time, differential legal treatment according to gender is integrated into the Economic Freedom of the World index. In recent years, the World Bank has developed a data set that makes this integration possible. Chapter 3 by Rosemarie Fike provides details on both the World Bank dataset and how it is used to more accurately measure economic freedom. We believe that this is a major step forward in our continuing efforts to improve the EFW index.

## What is economic freedom?

Economic freedom is based on the concept of self ownership. Because of this self ownership, individuals have a right to choose—to decide how to use their time and talents to shape their lives. On the other hand, they do not have a right to the time, talents, and resources of others. Thus, they have no right to take things from others or demand that others provide things for them.

The cornerstones of economic freedom are personal choice, voluntary exchange, open markets, and clearly defined and enforced property rights. Individuals are economically free when they are permitted to choose for themselves and engage in voluntary transactions as long as they do not harm the person or property of others. When economic freedom is present, the choices of individuals will decide what and how goods and services are produced. Put another way, economically free individuals will be permitted to decide for themselves rather than having options imposed on them by the political process or the use of violence, theft, or fraud by others.

The EFW index is designed to measure the degree to which the institutions and policies of countries are consistent with economic freedom. In order to achieve a high EFW rating, a country must do some things, but refrain from others. Governments enhance economic freedom when they provide an infrastructure for voluntary exchange, and protect individuals and their property from aggressors using violence, coercion, and fraud to seize things that do not belong to them. In this regard, the legal system is particularly important. The country's legal institutions must protect the person and property of all individuals from the aggressive acts of others and enforce contracts in an even-handed manner. Access must also be provided to money of sound value. But governments must also refrain from actions that restrict personal choice, interfere with voluntary exchange, and limit entry into markets. Economic freedom is reduced when taxes, government expenditures, and regulations are substituted for personal choice, voluntary exchange, and market coordination.

The EFW measure might be thought of as a measure of the degree to which scarce resources are allocated by personal choices coordinated by markets rather than centralized planning directed by the political process. It might also be thought of as an effort to identify how closely the institutions and policies of a country correspond with the ideal of a limited government, where the government protects property rights and arranges for the provision of a limited set of “public goods” such as national defense and access to money of sound value, but little beyond these core functions. To a large degree, a country's EFW summary rating is a measure of how closely its institutions and policies compare with the idealized structure implied by standard textbook analysis of microeconomics.

## The Economic Freedom of the World index—an overview

The EFW index provides a comprehensive measure of the consistency of a country's institutions and policies with economic freedom. It is an outgrowth of a series of six conferences hosted by Milton and Rose Friedman and Michael Walker from 1986 to 1994, which produced three books (Walker, 1988; Block, 1991; Easton and Walker, 1992) reporting the various prototypes and approaches examined in the discussions that culminated in the initial publication of *Economic Freedom of the World*. In addition to the Friedmans, several of the world's leading economists including Douglass North, Gary Becker, Peter Bauer, William Niskanen, and Gordon Tullock contributed to the development of the EFW measure. The index is published by a network of institutes spearheaded by the Fraser Institute in Canada. Members of the network and other interested parties meet annually to review the structure of the index and consider ideas for its improvement.

The construction of the EFW index is based on three important methodological principles. First, objective components are preferred to those that involve surveys or value judgments. With that said, given the multi-dimensional nature of economic freedom and the importance of legal and regulatory elements, it is sometimes necessary to use data based on surveys, expert panels, and generic case studies. To the fullest extent possible, however, the index uses objective components. Second, the data used to construct the index ratings are from external sources such as the International Monetary Fund, World Bank, and World

Economic Forum that provide data for a large number of countries. Data provided directly from a source within a country are rarely used. Importantly, the value judgments of the authors or others in the Economic Freedom Network are never used to alter the raw data or the rating of any country. Third, transparency is present throughout. The report provides information about the data sources, the methodology used to transform raw data into component ratings, and how the component ratings are used to construct both the area and summary ratings. Methodological details can be found in the Appendix: Explanatory Notes and Data Sources of this report (pp. 263–275). The entire data set used in the construction of the index is freely available to researchers at <[www.fraserinstitute.org/economic-freedom/dataset](http://www.fraserinstitute.org/economic-freedom/dataset)>.

Currently, 159 countries are covered by the EFW dataset. The data are available annually from 2000 to 2015 and for years ending in zero or five back to 1970. The data are available for approximately 100 countries back to 1980. This dataset makes it possible for scholars to analyze the impact of both cross-country differences in economic freedom and changes in that freedom across a time frame of several decades. The EFW measure is a valuable tool for scholars seeking to examine the contribution of economic institutions more thoroughly and better disentangle its influence from political, climatic, locational, cultural, and historical factors as determinants of growth and development.

### Structure of the EFW index

Exhibit 1.1 indicates the structure of the EFW index. The index measures the degree of economic freedom present in five major areas: [1] Size of Government, [2] Legal System and Property Rights, [3] Sound Money [4] Freedom to Trade Internationally, and [5] Regulation of credit, labor, and business.

Within the five major areas, there are 24 components in the index. Many of the components are themselves made up of several sub-components. In total, the index incorporates 42 distinct variables. Each component (and sub-component) is placed on a scale from 0 to 10 that reflects the distribution of the underlying data. When sub-components are present, the sub-component ratings are averaged to derive the component rating. The component ratings within each area are then averaged to derive ratings for each of the five areas. In turn, the five area ratings are averaged to derive the summary rating for each country.

Past reports have provided detailed explanations of why the components are included in each of the five areas. Therefore, we will keep the explanation of the underlying components in each of the five areas relatively brief.

**Area 1: Size of Government** focuses on how government expenditures and tax rates affect economic freedom. Taken together, the four components of Area 1 measure the degree to which a country relies on personal choice and markets rather than government budgets and political decision-making. Countries with low levels of government spending as a share of the total, a smaller government enterprise sector, and lower marginal tax rates earn the highest ratings in this area.

**Area 2: Legal System and Property Rights** focuses on the importance of the legal system as a determinant of economic freedom. Protection of persons and their rightfully acquired property is a central element of economic freedom. Many would argue that it is the most important function of government. The key ingredients of a legal system consistent with economic freedom are rule of law, security of

## Exhibit 1.1: Areas, Components, and Sub-components of the EFW Index

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### 1. Size of Government

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>A. Government consumption</li> <li>B. Transfers and subsidies</li> <li>C. Government enterprises and investment</li> </ul> | <ul style="list-style-type: none"> <li>D. Top marginal tax rate                             <ul style="list-style-type: none"> <li>(i) Top marginal income tax rate</li> <li>(ii) Top marginal income and payroll tax rate</li> </ul> </li> </ul> |
|---|---|

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### 2. Legal System and Property Rights

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>A. Judicial independence</li> <li>B. Impartial courts</li> <li>C. Protection of property rights</li> <li>D. Military interference in rule of law and politics</li> <li>E. Integrity of the legal system</li> </ul> | <ul style="list-style-type: none"> <li>F. Legal enforcement of contracts</li> <li>G. Regulatory costs of the sale of real property</li> <li>H. Reliability of police</li> <li>I. Business costs of crime</li> </ul> |
|---|---|

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### 3. Sound Money

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>A. Money growth</li> <li>B. Standard deviation of inflation</li> </ul> | <ul style="list-style-type: none"> <li>C. Inflation: most recent year</li> <li>D. Freedom to own foreign currency bank accounts</li> </ul> |
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### 4. Freedom to Trade Internationally

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>A. Tariffs                             <ul style="list-style-type: none"> <li>(i) Revenue from trade taxes (% of trade sector)</li> <li>(ii) Mean tariff rate</li> <li>(iii) Standard deviation of tariff rates</li> </ul> </li> <li>B. Regulatory trade barriers                             <ul style="list-style-type: none"> <li>(i) Non-tariff trade barriers</li> <li>(ii) Compliance costs of importing and exporting</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>C. Black-market exchange rates</li> <li>D. Controls of the movement of capital and people                             <ul style="list-style-type: none"> <li>(i) Foreign ownership / investment restrictions</li> <li>(ii) Capital controls</li> <li>(iii) Freedom of foreigners to visit</li> </ul> </li> </ul> |
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### 5. Regulation

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>A. Credit market regulations                             <ul style="list-style-type: none"> <li>(i) Ownership of banks</li> <li>(ii) Private sector credit</li> <li>(iii) Interest rate controls / negative real interest rates</li> </ul> </li> <li>B. Labor market regulations                             <ul style="list-style-type: none"> <li>(i) Hiring regulations and minimum wage</li> <li>(ii) Hiring and firing regulations</li> <li>(iii) Centralized collective bargaining</li> <li>(iv) Hours regulations</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>(v) Mandated cost of worker dismissal</li> <li>(vi) Conscriptation</li> <li>C. Business regulations                             <ul style="list-style-type: none"> <li>(i) Administrative requirements</li> <li>(ii) Bureaucracy costs</li> <li>(iii) Starting a business</li> <li>(iv) Extra payments / bribes / favoritism</li> <li>(v) Licensing restrictions</li> <li>(vi) Cost of tax compliance</li> </ul> </li> </ul> |
|--|---|

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Note: Area 2 ratings are adjusted to reflect inequalities in the legal treatment of women. In Chapter 2: Country Data Tables, the adjustment factor is shown in the row labelled *Gender Disparity Index*. See Chapter 3: Adjusting for Gender Disparity in Economic Freedom and Why It Matters (pp. 189–211) for methodological details.

property rights, an independent and unbiased judiciary, and impartial and effective enforcement of the law. The nine components of Area 2 are indicators of how effectively the protective functions of government are performed.

**Area 3: Sound Money** focuses on the importance of money and relative price stability in the exchange process. Sound money—money with relatively stable purchasing power across time—reduces transaction costs and facilitates exchange, thereby promoting economic freedom. The four components of this area provide a measure of the extent to which people in different countries have access to sound money. In order to earn a high rating in Area 3, a country must follow policies and adopt institutions that lead to low (and stable) rates of inflation and avoid regulations that limit the ability to use alternative currencies.

**Area 4: Freedom to Trade Internationally** focuses on exchange across national boundaries. In our modern world, freedom to trade with people in other countries is an important ingredient of economic freedom. When governments impose restrictions that reduce the ability of their residents to engage in voluntary exchange with people in other countries, economic freedom is diminished. The components in Area 4 are designed to measure a wide variety of trade restrictions: tariffs, quotas, hidden administrative restraints, and controls on exchange rates and the movement of capital. In order to get a high rating in this area, a country must have low tariffs, easy clearance and efficient administration of customs, a freely convertible currency, and few controls on the movement of physical and human capital.

**Area 5: Regulation** measures how regulations restrict entry into markets and interfere with the freedom to engage in voluntary exchange reduce economic freedom. The components of Area 5 focus on regulatory restraints that limit the freedom of exchange in credit, labor, and product markets.

### Construction of Area and Summary ratings

Theory provides us with some direction regarding elements that should be included in the five areas and the summary index, but it does not indicate what weights should be attached to the components within the areas or among the areas in the construction of the summary index. It would be nice if these factors were independent of each other and a weight could be attached to each of them. In the past, we investigated several methods of weighting the various components, including principle component analysis and a survey of economists. We have also invited others to use their own weighting structure if they believe that it is preferable. Our experience indicates that the summary index is not very sensitive to alternative weighting methods.

Furthermore, there is reason to question whether the areas (and components) are independent or work together like the wheels, motor, transmission, driveshaft, and frame of a car. Just as these interconnected parts provide for the mobility of an automobile, it may be the combination of interrelated factors that brings about economic freedom. Which is more important for the mobility of an automobile: the motor, wheels, or transmission? The question cannot be easily answered because the parts work together. If any of these key parts break down, the car is immobile. Institutional quality may be much the same. If any of the key parts are absent, the overall effectiveness is undermined.

As the result of these two considerations, we organize the elements of the index in a manner that seems sensible to us but we make no attempt to weight the components in any special way when deriving either area or summary ratings. Of course, the component and sub-component data are available to researchers who would like to consider alternative weighting schemes and we encourage them to do so.

For some time, we have been aware of a major shortcoming of the EFW index: in some countries, the law restricts the rights of women relative to men. In order to correct for this factor, this year's index includes an adjustment to the rating of Area 2 that reflects cross-country differences in legal rights according to gender. For several years, the Economic Freedom of the World network has been examining this issue and considering alternative ways the EFW index might be modified to more fully account for this factor. The authors of this report have organized sessions on this issue at both the annual international meeting of the Economic Freedom of the World network and at other scholarly conferences. Input has been obtained from a wide range of sources, including representatives from countries for which inclusion of this factor is likely to exert the greatest impact on the country's EFW rating.

These discussions resulted in agreement on three important considerations. First, the modifications should reflect formal legal differences, rather than informal traditional and cultural differences that exert an impact on outcomes according to gender. Second, the adjustments must be based on data on legal differences that withhold from women economic rights accorded to men. Third, to the fullest extent possible, the gender adjustment should be made for each year covered by the EFW data set.

Fortunately, the World Bank has recently developed a dataset on legal differences according to gender that covers a lengthy time frame (1960 to the present). The World Bank plans to update these data regularly in the future. As Chapter 3 notes, Rosemarie Fike used these data to construct a cross-country Gender Disparity Index of legal rights from 1970 to the present. Up to 41 questions from the World Bank dataset related to the legal rights of women compared to those of men were used in the construction of the gender disparity measure. Her results are used to adjust the Area 2 ratings presented in this edition. We recognize that others may favor alternative methods of accounting for this factor. Again, we invite other researchers to develop alternative methods believed to be superior to the one used here.

## Summary Economic Freedom ratings for 2015

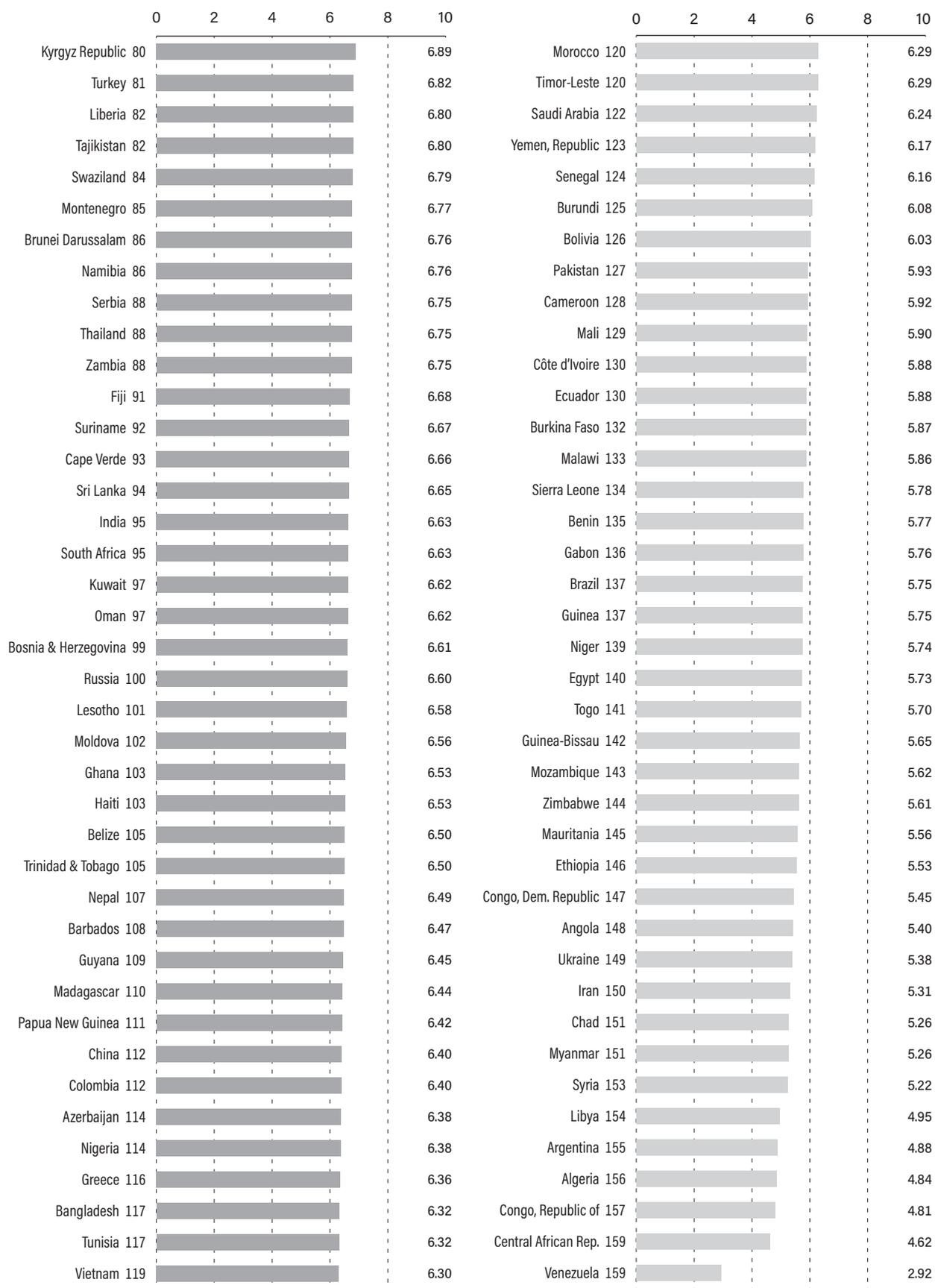
Exhibits 1.2a and 1.2b present the summary economic freedom ratings, sorted from highest to lowest, for the 159 countries of this year's report. These ratings are for 2015, the most recent year for which comprehensive data are available. Hong Kong and Singapore, once again, occupy the top two positions. New Zealand, Switzerland, and Ireland round out the top five. The United Kingdom, Mauritius, Georgia, Australia, and Estonia occupy ranks six through ten. Canada and the United States tie for the 11<sup>th</sup> rank.

The rankings of some other major countries are Germany (23<sup>rd</sup>), Japan (39<sup>th</sup>), France (52<sup>nd</sup>), Italy (54<sup>th</sup>), Mexico (76<sup>th</sup>), India (95<sup>th</sup>), Russia (100<sup>th</sup>), China (112<sup>th</sup>), and Brazil (137<sup>th</sup>). The 10 lowest-rated countries are: Iran, Chad, Myanmar, Syria, Libya, Argentina, Algeria, Republic of Congo, Central African Republic, and, lastly, Venezuela.

Exhibit 1.2a: Summary Economic Freedom Ratings for 2015, First and Second Quartiles



Exhibit 1.2b: Summary Economic Freedom Ratings for 2015, Third and Fourth Quartiles



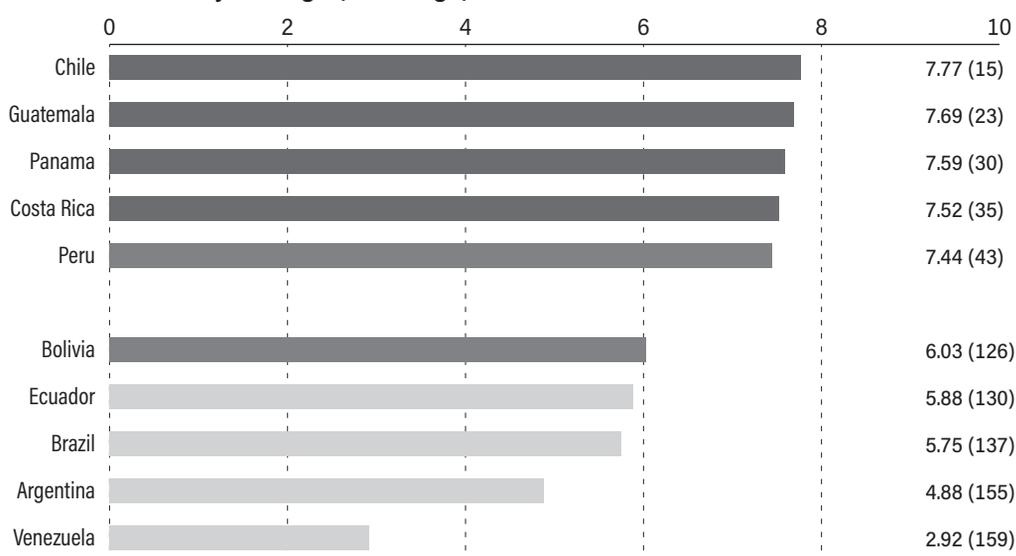
## Countries with high and low EFW ratings by region

Policymakers in various countries are often quite interested in how they rate relative to other countries in their region. This is understandable. Countries in the same region often have similar historical records of development, climate, and population characteristics. Researchers are also interested in differences in institutional and policy patterns within regions because this will often provide them with direction toward potentially important sources of factors contributing to differences in economic performance. Thus, this section will present the data for the countries with the highest and lowest summary ratings within various regions.

### Latin America

As Exhibit 1.3 shows, in Central and South America the five freest economies are Chile, Guatemala, Panama, Costa Rica, and Peru. The summary EFW ratings in 2015 for these countries ranged between 7.44 and 7.77. At the other end of the spectrum, Bolivia, Ecuador, Brazil, Argentina, and Venezuela are the least free Latin American economies. The summary EFW ratings of the bottom five in this region in 2015 range from Venezuela's 2.92 to Bolivia's rating of 6.03. Moreover, all five of the countries in the least free group rank in the Bottom 40 worldwide.

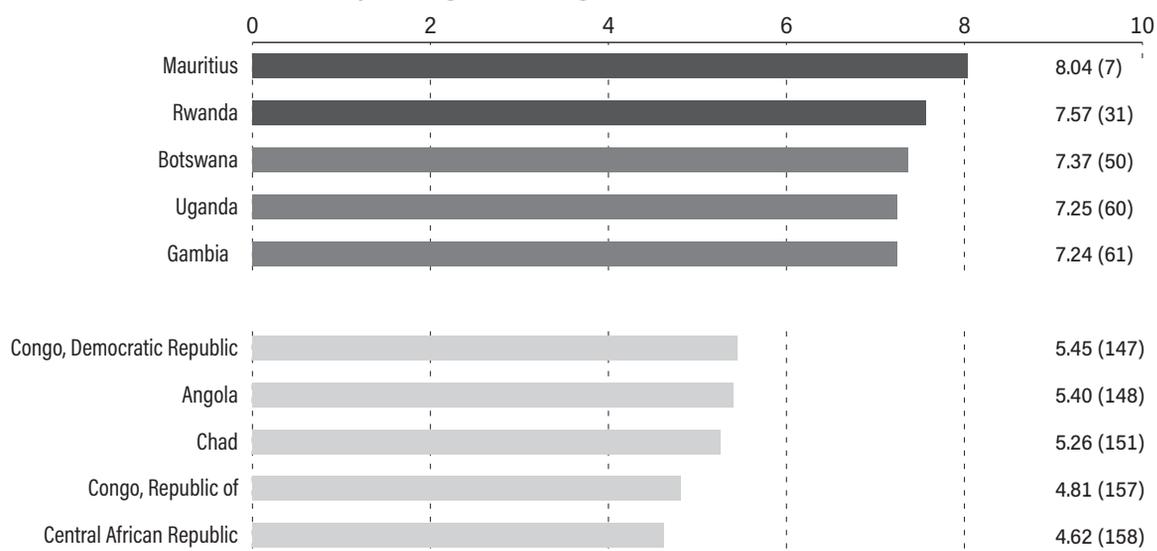
**Exhibit 1.3: Countries with the Five Highest and Five Lowest 2015 EFW Summary Ratings (Rankings) in Latin America**



### Sub-Saharan Africa

Worldwide, African economies dominate the least free group. Seventeen of the 30 least free economies and 11 of the 20 least free are located in Sub-Saharan Africa. As Exhibit 1.4 shows, the Democratic Republic of Congo, Angola, Chad, the Republic of Congo, and the Central African Republic are the five least free economies in this region. Each of these countries ranks in the bottom 15 worldwide. However, there are a few African countries with substantially higher levels of economic freedom. Mauritius ranks 7<sup>th</sup> worldwide. Rwanda (31<sup>st</sup>), Botswana (50<sup>th</sup>), Uganda (60<sup>th</sup>), and The Gambia (61<sup>st</sup>) complete the list of the five most free Sub-Saharan African countries.

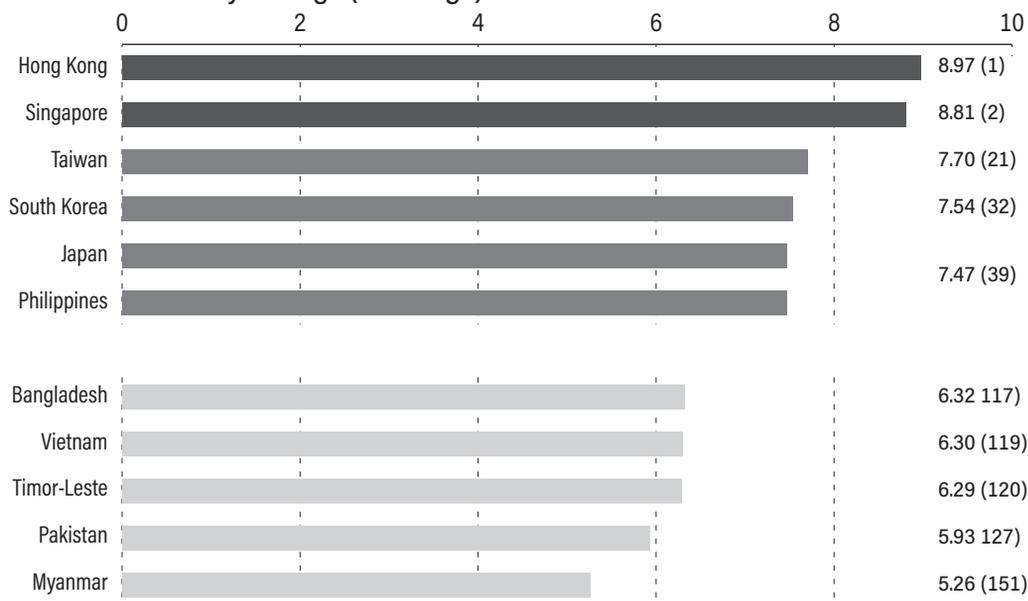
**Exhibit 1.4: Countries with the Five Highest and Five Lowest 2015 EFW Summary Ratings (Rankings) in Sub-Saharan Africa**



**Asia**

Exhibit 1.5 indicates the Asian countries with the highest and lowest summary ratings and rankings in 2015. Of course, Hong Kong and Singapore head the list of the freest economies in Asia, but Taiwan (21<sup>st</sup>), South Korea (32<sup>nd</sup>), and Japan and the Philippines (tied for 39<sup>th</sup>) also rank in the top quartile worldwide. In contrast, Myanmar (151<sup>st</sup>), Pakistan (127<sup>th</sup>), Vietnam (119<sup>th</sup>), and Bangladesh (117<sup>th</sup>) are the least free economies in Asia.

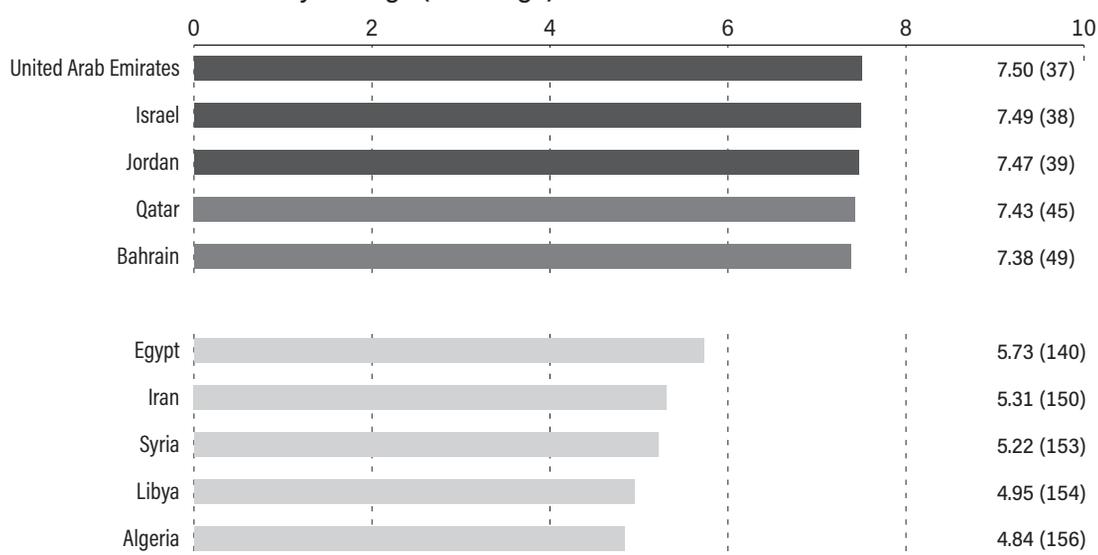
**Exhibit 1.5: Countries with the Five Highest and Five Lowest 2015 EFW Summary Ratings (Rankings) in Asia**



### Middle East and North Africa

Exhibit 1.6 presents the ratings and rankings for the five most free and least free economies in the Middle East and North Africa. The United Arab Emirates (37<sup>th</sup>), Israel (38<sup>th</sup>), Jordan (39<sup>th</sup>), Qatar (45<sup>th</sup>) and Bahrain (49<sup>th</sup>) make up the list of the five freest economies in this region. The rating of these countries ranges from a low of 7.38 to a high of 7.50. On the other hand, Algeria (156<sup>th</sup>), Libya (154<sup>th</sup>) Syria (153<sup>rd</sup>), Iran (150<sup>th</sup>), and Egypt (140<sup>th</sup>) are the five countries with the lowest summary ratings in this region in 2015. The EFW ratings of each of these countries are substantially lower than those of the five countries with the highest ratings in this region. The rankings of several other Middle Eastern and North African countries are also quite low. Yemen (123<sup>rd</sup>), Saudi Arabia (122<sup>nd</sup>), Morocco (120<sup>th</sup>), and Tunisia (117<sup>th</sup>) provide examples.

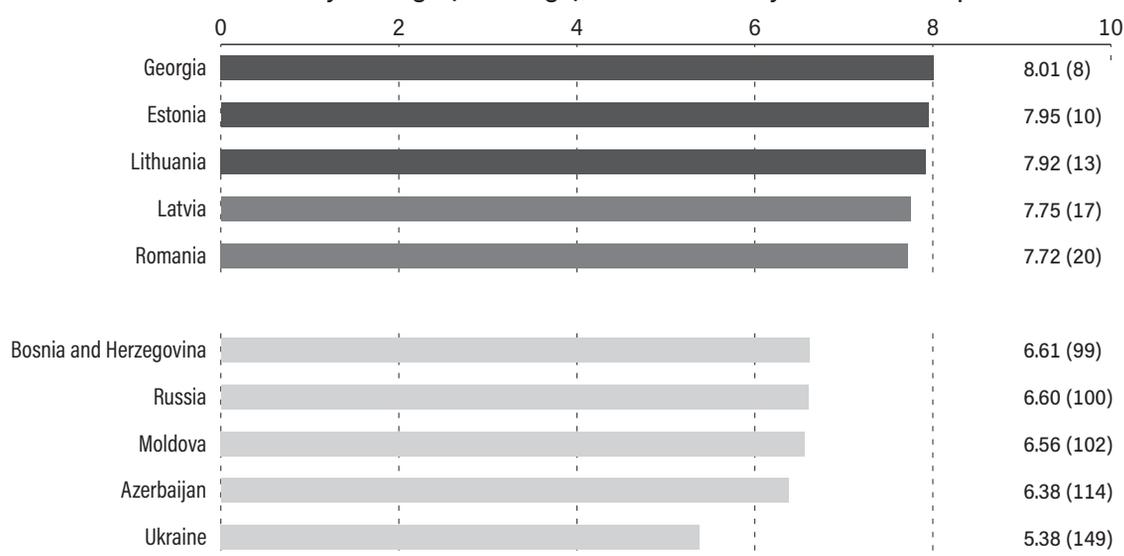
**Exhibit 1.6: Countries with the Five Highest and Five Lowest 2015 EFW Summary Ratings (Rankings) in the Middle East and North Africa**



### Former communist countries

A quarter of a century after the fall of communism provides an interesting time to consider the variation in economic freedom among former communist countries. As Exhibit 1.7 shows, the EFW summary ratings in 2015 of five former communist countries—Georgia, Estonia, Lithuania, Latvia, and Romania—place them among the 20 most free economies in the world. The EFW ratings of these countries in 2015 are all 7.72 and above. Other former communist countries, Armenia (29<sup>th</sup>), Albania (32<sup>nd</sup>), Czech Republic (42<sup>nd</sup>), Mongolia (45<sup>th</sup>) and Bulgaria (48<sup>th</sup>) rank in the top 50. But other former communist countries continue to lag well behind. The five former communist countries with the lowest summary ratings in 2015 are Bosnia and Herzegovina, Russia, Moldova, Azerbaijan, and Ukraine. The EFW rating of Ukraine is particularly low, and its ranking (149<sup>th</sup>) is one of the world's lowest.

**Exhibit 1.7: Countries with the Five Highest and Five Lowest 2015 EFW Summary Ratings (Rankings), in the Formerly Communist Sphere**



## Area Economic Freedom ratings and rankings for 2015

Exhibit 1.8 presents the ratings (and rankings) for each of the five areas of the index and for Components 5A, 5B, and 5C. A number of interesting patterns emerge from an analysis of these data. High-income industrial economies generally rank quite high for Legal System and Property Rights (Area 2), Sound Money (Area 3), and Freedom to Trade Internationally (Area 4). Their ratings were lower, however, for Size of Government (Area 1) and Regulation (Area 5), particularly regulation of labor markets (Component 5B). This was particularly true for the high-income countries of Western Europe.

On the other hand, a number of developing nations have a small fiscal size of government but rate low in other areas and, as a result, have a low overall rating. The lesson from this is clear: a small fiscal size of government is insufficient to ensure economic freedom. The institutions of economic freedom, such as the rule of law and property rights, as well as sound money, trade openness, and sensible regulation are also required.

As the area ratings show, weakness in the rule of law and property rights is particularly pronounced in Sub-Saharan Africa, among Islamic nations, and for several nations that were formerly part of the Soviet bloc, though several countries in the latter group have made impressive strides toward improvement. Many nations in Latin America and Southeast Asia also score poorly for rule of law and property rights. The nations that rank poorly in this category also tend to score poorly in the trade and regulation areas, even though several have reasonably sized governments and sound money.

## Exhibit 1.8: Area Economic Freedom Ratings (Rankings) for 2015

	Areas					Components of Area 5		
	1 Size of Government	2 Legal System and Property Rights	3 Sound Money	4 Freedom to trade internationally	5 Regulation	5A Credit market regulations	5B Labor market regulations	5C Business regulations
	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)
Albania	8.0 (18)	5.0 (83)	9.6 (28)	8.1 (36)	7.1 (80)	7.5 (120)	6.9 (63)	6.7 (58)
Algeria	3.6 (158)	4.6 (99)	6.9 (138)	4.0 (157)	5.2 (149)	5.2 (149)	4.9 (135)	5.7 (126)
Angola	6.0 (103)	3.0 (153)	6.9 (136)	5.1 (147)	6.1 (133)	8.7 (74)	4.6 (143)	4.9 (144)
Argentina	4.9 (141)	3.8 (131)	6.5 (144)	3.7 (158)	5.5 (146)	6.8 (131)	4.9 (136)	4.9 (143)
Armenia	7.1 (49)	5.8 (52)	9.5 (42)	8.2 (22)	7.4 (58)	9.0 (65)	6.4 (85)	6.8 (57)
Australia	6.6 (69)	8.0 (14)	9.4 (51)	7.6 (58)	8.4 (11)	9.6 (28)	7.5 (38)	8.1 (14)
Austria	5.1 (135)	8.0 (12)	9.6 (24)	8.1 (35)	7.4 (54)	9.1 (56)	5.7 (103)	7.5 (33)
Azerbaijan	5.2 (130)	5.3 (71)	7.3 (116)	7.1 (82)	7.0 (84)	7.6 (119)	6.4 (83)	7.0 (48)
Bahamas	8.0 (17)	6.8 (27)	6.8 (139)	6.7 (105)	8.2 (23)	8.6 (76)	8.4 (11)	7.5 (32)
Bahrain	6.8 (63)	5.3 (75)	9.2 (60)	7.4 (70)	8.2 (19)	8.4 (80)	8.2 (15)	8.1 (17)
Bangladesh	8.8 (2)	3.0 (151)	7.0 (125)	6.0 (130)	6.7 (95)	7.9 (109)	7.3 (50)	5.0 (139)
Barbados	6.3 (84)	5.8 (57)	6.7 (141)	7.1 (83)	6.5 (113)	6.3 (141)	7.0 (59)	6.2 (93)
Belgium	3.9 (155)	7.3 (21)	9.7 (16)	8.3 (19)	8.1 (26)	9.6 (24)	7.2 (53)	7.5 (34)
Belize	7.0 (54)	4.3 (113)	7.0 (131)	6.4 (122)	7.9 (38)	9.9 (11)	7.6 (35)	6.1 (97)
Benin	5.8 (107)	3.6 (139)	6.9 (134)	5.9 (134)	6.6 (104)	8.4 (80)	5.6 (113)	5.9 (116)
Bhutan	7.8 (28)	6.9 (25)	7.0 (126)	6.3 (124)	7.6 (49)	7.6 (116)	8.7 (7)	6.6 (65)
Bolivia	6.2 (91)	3.6 (138)	8.7 (73)	6.8 (97)	4.8 (155)	7.6 (117)	3.6 (154)	3.3 (157)
Bosnia & Herzegovina	5.3 (123)	4.2 (115)	8.4 (82)	7.8 (50)	7.2 (71)	9.5 (31)	6.9 (62)	5.3 (136)
Botswana	6.0 (101)	6.2 (40)	9.1 (64)	7.7 (51)	7.9 (39)	9.2 (54)	7.5 (41)	6.9 (49)
Brazil	5.3 (128)	4.5 (105)	8.0 (105)	6.9 (94)	4.2 (158)	5.2 (148)	3.8 (152)	3.5 (156)
Brunei Darussalam	5.0 (138)	5.2 (77)	8.5 (80)	7.0 (89)	8.1 (25)	8.3 (90)	8.6 (8)	7.4 (35)
Bulgaria	7.0 (53)	4.9 (87)	9.4 (53)	8.1 (34)	7.6 (50)	9.6 (25)	7.0 (60)	6.1 (96)
Burkina Faso	5.6 (115)	3.6 (137)	7.1 (123)	6.6 (109)	6.5 (112)	6.7 (133)	7.2 (55)	5.7 (120)
Burundi	6.1 (93)	3.1 (149)	7.8 (111)	6.1 (125)	7.3 (68)	8.3 (83)	7.6 (33)	5.9 (115)
Cambodia	7.9 (20)	4.4 (110)	9.3 (56)	7.3 (76)	7.2 (72)	10.0 (1)	6.7 (76)	4.9 (142)
Cameroon	8.0 (16)	3.3 (147)	7.1 (119)	5.0 (150)	6.3 (128)	6.8 (130)	7.3 (49)	4.7 (146)
Canada	5.9 (104)	7.9 (16)	9.6 (30)	7.9 (44)	8.5 (9)	9.7 (19)	8.3 (12)	7.6 (28)
Cape Verde	5.1 (133)	6.1 (43)	8.4 (86)	7.0 (86)	6.7 (100)	9.2 (53)	4.3 (146)	6.5 (68)
Central African Rep.	6.6 (70)	1.8 (159)	4.8 (157)	4.7 (155)	5.3 (148)	7.9 (110)	3.3 (157)	4.7 (150)
Chad	6.9 (56)	2.8 (155)	6.5 (143)	5.2 (146)	4.9 (154)	5.9 (145)	5.2 (125)	3.6 (155)
Chile	7.9 (19)	6.5 (35)	9.3 (55)	8.2 (28)	7.0 (85)	9.0 (67)	4.8 (139)	7.2 (44)
China	5.1 (136)	5.6 (63)	8.3 (91)	6.6 (108)	6.4 (124)	7.1 (128)	5.7 (101)	6.3 (87)

Ratings are shown rounded to the nearest tenth of a point, but the rankings are based on the unrounded ratings.

## Exhibit 1.8 (continued): Area Economic Freedom Ratings (Rankings) for 2015

	Areas					Components of Area 5		
	1 Size of Government	2 Legal System and Property Rights	3 Sound Money	4 Freedom to trade internationally	5 Regulation	5A Credit market regulations	5B Labor market regulations	5C Business regulations
	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)
Colombia	6.1 (94)	3.8 (132)	8.0 (103)	6.9 (92)	7.1 (77)	8.8 (72)	5.8 (98)	6.7 (59)
Congo, Dem. Rep.	5.4 (121)	2.7 (156)	8.0 (104)	5.4 (144)	5.7 (141)	6.3 (138)	5.6 (110)	5.3 (137)
Congo, Republic of	4.6 (145)	3.4 (144)	5.7 (154)	4.7 (154)	5.5 (145)	6.1 (142)	5.7 (109)	4.9 (145)
Costa Rica	7.6 (34)	5.8 (53)	9.8 (8)	8.0 (39)	6.5 (116)	6.7 (132)	6.3 (87)	6.4 (75)
Côte d'Ivoire	5.6 (116)	4.6 (98)	7.0 (129)	5.6 (141)	6.7 (99)	8.7 (75)	5.7 (104)	5.7 (125)
Croatia	4.7 (143)	5.7 (58)	9.3 (57)	8.2 (32)	7.2 (70)	9.4 (43)	6.1 (91)	6.2 (91)
Cyprus	7.2 (46)	5.8 (50)	9.7 (13)	8.2 (27)	8.0 (29)	9.5 (34)	7.7 (30)	6.8 (53)
Czech Republic	5.2 (129)	6.2 (39)	9.6 (31)	8.2 (29)	8.1 (24)	9.8 (17)	8.1 (18)	6.4 (71)
Denmark	4.1 (154)	8.2 (9)	9.6 (25)	8.4 (12)	8.5 (10)	9.8 (18)	7.8 (27)	7.9 (22)
Dominican Republic	7.8 (27)	4.1 (121)	9.5 (37)	8.2 (31)	6.5 (111)	8.0 (104)	6.0 (94)	5.6 (128)
Ecuador	5.3 (124)	3.9 (127)	8.1 (98)	6.5 (114)	5.6 (144)	8.5 (79)	3.5 (155)	4.7 (148)
Egypt	5.9 (105)	3.5 (141)	8.8 (72)	5.6 (140)	5.0 (153)	4.0 (156)	5.0 (132)	5.9 (114)
El Salvador	8.4 (8)	3.7 (133)	9.6 (29)	7.7 (53)	6.3 (130)	8.3 (88)	4.6 (141)	5.9 (112)
Estonia	6.0 (99)	7.5 (18)	9.5 (41)	8.5 (8)	8.2 (21)	10.0 (1)	6.3 (89)	8.3 (8)
Ethiopia	6.6 (66)	4.6 (97)	5.4 (155)	5.0 (148)	6.0 (134)	5.4 (147)	7.2 (52)	5.5 (130)
Fiji	5.5 (119)	6.1 (42)	6.3 (150)	6.6 (106)	8.8 (4)	9.6 (23)	9.0 (4)	7.8 (25)
Finland	4.2 (150)	8.9 (1)	9.6 (26)	8.2 (23)	7.8 (43)	9.4 (42)	5.5 (118)	8.4 (7)
France	4.2 (152)	7.1 (23)	9.8 (5)	8.2 (21)	7.4 (59)	9.4 (37)	5.4 (120)	7.3 (36)
Gabon	6.2 (89)	3.9 (126)	6.4 (145)	5.7 (138)	6.6 (108)	7.8 (113)	7.4 (46)	4.6 (151)
Gambia, The	7.6 (35)	5.3 (76)	9.2 (59)	7.4 (72)	6.8 (94)	6.3 (138)	8.0 (21)	5.9 (111)
Georgia	7.8 (25)	6.6 (30)	9.0 (68)	8.7 (5)	8.1 (28)	9.8 (15)	6.5 (81)	7.9 (23)
Germany	5.5 (117)	7.4 (19)	9.6 (19)	7.9 (42)	7.9 (34)	8.3 (83)	7.4 (47)	8.0 (19)
Ghana	7.0 (55)	5.4 (69)	6.9 (137)	6.5 (115)	6.8 (90)	7.4 (124)	6.8 (69)	6.4 (73)
Greece	3.4 (159)	6.0 (47)	8.3 (87)	7.6 (56)	6.4 (121)	7.9 (108)	4.8 (137)	6.4 (70)
Guatemala	9.5 (1)	4.5 (104)	9.6 (21)	8.2 (25)	6.6 (103)	9.6 (27)	4.0 (151)	6.3 (84)
Guinea	6.4 (82)	3.0 (152)	7.8 (109)	5.0 (151)	6.6 (105)	10.0 (1)	4.8 (138)	5.0 (141)
Guinea-Bissau	5.6 (113)	3.9 (129)	6.4 (147)	6.1 (127)	6.3 (125)	8.5 (78)	3.5 (156)	7.0 (45)
Guyana	6.5 (72)	4.3 (111)	8.2 (93)	6.4 (119)	6.7 (97)	6.3 (138)	7.9 (23)	6.0 (109)
Haiti	7.6 (32)	2.5 (157)	7.8 (112)	7.8 (49)	7.0 (81)	8.2 (93)	8.1 (19)	4.7 (147)
Honduras	8.8 (4)	4.0 (123)	9.4 (52)	7.4 (71)	6.9 (86)	9.4 (41)	5.2 (127)	6.2 (88)
Hong Kong	8.5 (6)	8.1 (11)	9.5 (36)	9.2 (2)	9.5 (1)	10.0 (1)	9.6 (1)	8.9 (3)
Hungary	5.3 (125)	6.0 (44)	9.5 (40)	7.9 (43)	7.8 (44)	9.7 (20)	7.3 (51)	6.3 (86)

Ratings are shown rounded to the nearest tenth of a point, but the rankings are based on the unrounded ratings.

## Exhibit 1.8 (continued): Area Economic Freedom Ratings (Rankings) for 2015

	Areas					Components of Area 5		
	1 Size of Government	2 Legal System and Property Rights	3 Sound Money	4 Freedom to trade internationally	5 Regulation	5A Credit market regulations	5B Labor market regulations	5C Business regulations
	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)
Iceland	5.2 (131)	8.5 (5)	7.2 (118)	7.1 (81)	8.2 (20)	8.3 (83)	8.2 (16)	8.1 (18)
India	7.8 (22)	5.1 (80)	8.1 (97)	5.6 (142)	6.6 (110)	6.6 (137)	6.7 (73)	6.3 (81)
Indonesia	7.7 (30)	4.5 (101)	9.4 (50)	7.0 (88)	6.4 (120)	8.1 (100)	4.7 (140)	6.4 (76)
Iran	5.3 (127)	4.5 (100)	7.1 (120)	4.5 (156)	5.1 (152)	4.7 (153)	5.0 (130)	5.6 (129)
Ireland	6.0 (102)	8.0 (13)	9.5 (34)	8.8 (3)	8.7 (7)	9.1 (55)	8.3 (13)	8.6 (4)
Israel	6.3 (85)	6.1 (41)	9.5 (39)	8.1 (37)	7.4 (56)	9.6 (29)	5.5 (117)	7.2 (42)
Italy	5.4 (122)	5.7 (60)	9.7 (10)	8.3 (20)	7.5 (52)	9.5 (32)	6.7 (74)	6.1 (98)
Jamaica	7.7 (29)	5.2 (78)	8.7 (75)	7.0 (87)	7.9 (37)	9.6 (30)	7.8 (26)	6.3 (82)
Japan	4.7 (144)	7.6 (17)	9.6 (22)	7.4 (69)	8.0 (30)	8.3 (89)	7.8 (24)	7.8 (26)
Jordan	7.4 (42)	4.8 (92)	9.7 (17)	7.6 (57)	7.9 (33)	8.8 (71)	7.9 (22)	7.0 (47)
Kazakhstan	7.5 (38)	5.6 (64)	8.6 (77)	6.4 (121)	7.8 (40)	8.6 (77)	7.6 (37)	7.3 (38)
Kenya	7.8 (24)	4.7 (93)	9.1 (62)	6.6 (107)	7.3 (66)	8.0 (103)	7.7 (28)	6.1 (102)
Korea, South	6.9 (59)	6.5 (34)	9.7 (15)	7.5 (61)	7.1 (75)	9.3 (50)	4.6 (142)	7.6 (31)
Kuwait	6.4 (83)	5.0 (84)	7.6 (114)	6.8 (102)	7.4 (61)	10.0 (1)	6.6 (77)	5.5 (132)
Kyrgyz Republic	7.6 (37)	4.2 (118)	8.6 (76)	7.4 (73)	6.7 (98)	8.4 (82)	5.8 (97)	5.9 (113)
Laos	8.5 (7)	6.0 (46)	7.3 (115)	6.7 (104)	6.3 (127)	8.3 (92)	4.9 (133)	5.7 (119)
Latvia	6.6 (68)	6.4 (36)	9.5 (43)	8.3 (15)	7.9 (32)	9.1 (61)	7.4 (43)	7.3 (39)
Lebanon	8.3 (10)	4.1 (122)	9.6 (32)	6.9 (93)	5.7 (142)	5.0 (151)	7.1 (58)	5.1 (138)
Lesotho	5.0 (137)	5.8 (55)	8.1 (95)	6.5 (117)	7.5 (51)	9.7 (21)	6.8 (70)	6.1 (103)
Liberia	8.1 (14)	4.7 (95)	9.1 (61)	6.1 (126)	6.0 (136)	4.5 (155)	6.9 (65)	6.6 (64)
Libya	4.8 (142)	3.2 (148)	6.9 (133)	4.8 (153)	5.1 (151)	6.7 (133)	5.8 (99)	2.9 (158)
Lithuania	7.2 (47)	6.5 (31)	9.4 (46)	8.2 (30)	8.3 (15)	9.9 (13)	7.4 (44)	7.6 (30)
Luxembourg	4.2 (153)	8.4 (6)	9.5 (44)	8.3 (16)	7.9 (36)	9.3 (45)	6.3 (86)	8.0 (20)
Macedonia	6.2 (86)	5.1 (81)	8.3 (90)	8.0 (41)	8.3 (16)	9.6 (26)	7.4 (45)	7.8 (24)
Madagascar	8.8 (3)	2.9 (154)	8.0 (102)	6.6 (110)	5.9 (138)	7.5 (122)	4.5 (144)	5.6 (127)
Malawi	6.7 (64)	4.6 (96)	6.2 (152)	6.0 (129)	5.8 (140)	4.7 (154)	6.9 (64)	5.7 (124)
Malaysia	6.9 (57)	5.8 (56)	7.0 (127)	7.5 (66)	8.7 (6)	9.6 (22)	8.2 (14)	8.3 (9)
Mali	5.3 (126)	3.6 (135)	7.0 (130)	6.8 (99)	6.7 (96)	9.0 (63)	5.1 (128)	6.1 (100)
Malta	5.8 (106)	6.6 (29)	9.7 (18)	8.4 (13)	8.1 (27)	9.8 (14)	7.8 (25)	6.6 (66)
Mauritania	4.6 (146)	3.3 (146)	7.6 (113)	6.0 (132)	6.4 (122)	8.3 (91)	6.3 (88)	4.6 (152)
Mauritius	7.6 (36)	6.5 (33)	9.6 (27)	8.4 (14)	8.2 (22)	9.4 (36)	7.5 (39)	7.6 (29)
Mexico	7.8 (23)	4.2 (117)	8.1 (96)	7.5 (64)	7.1 (79)	9.3 (49)	5.5 (116)	6.4 (74)

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## Exhibit 1.8 (continued): Area Economic Freedom Ratings (Rankings) for 2015

	Areas					Components of Area 5		
	1 Size of Government	2 Legal System and Property Rights	3 Sound Money	4 Freedom to trade internationally	5 Regulation	5A Credit market regulations	5B Labor market regulations	5C Business regulations
	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)
Moldova	6.5 (76)	4.2 (114)	7.8 (110)	7.4 (68)	6.9 (89)	9.4 (40)	5.2 (126)	5.9 (110)
Mongolia	8.2 (11)	5.6 (61)	9.0 (67)	7.2 (80)	7.1 (78)	8.1 (99)	6.7 (72)	6.4 (72)
Montenegro	5.1 (132)	4.8 (89)	8.4 (84)	8.1 (33)	7.3 (65)	8.3 (87)	6.9 (61)	6.7 (62)
Morocco	5.7 (112)	5.6 (65)	7.3 (117)	6.8 (98)	6.1 (132)	7.2 (126)	4.2 (148)	6.8 (54)
Mozambique	6.1 (96)	4.0 (124)	6.4 (148)	6.4 (118)	5.2 (150)	6.7 (133)	3.2 (158)	5.9 (117)
Myanmar	6.0 (100)	3.4 (142)	6.3 (151)	5.0 (149)	5.6 (143)	5.9 (144)	5.6 (112)	5.4 (135)
Namibia	6.4 (77)	6.5 (32)	6.6 (142)	6.4 (120)	7.8 (41)	9.0 (64)	8.1 (20)	6.4 (80)
Nepal	8.1 (13)	4.5 (103)	6.4 (146)	6.8 (103)	6.6 (102)	8.3 (83)	5.6 (114)	6.0 (105)
Netherlands	3.9 (156)	8.2 (10)	9.8 (9)	8.6 (6)	8.2 (18)	9.1 (59)	7.5 (40)	8.1 (15)
New Zealand	6.5 (75)	8.7 (3)	9.5 (38)	8.6 (7)	9.1 (2)	10.0 (1)	8.9 (5)	8.5 (6)
Nicaragua	8.1 (15)	4.4 (106)	8.9 (70)	7.8 (48)	7.2 (74)	9.4 (39)	6.6 (80)	5.5 (131)
Niger	6.2 (90)	3.4 (143)	6.8 (140)	5.5 (143)	6.8 (91)	9.4 (38)	4.3 (147)	6.9 (50)
Nigeria	7.1 (50)	3.6 (136)	7.9 (107)	5.9 (133)	7.3 (64)	8.9 (68)	9.0 (3)	4.1 (154)
Norway	4.6 (147)	8.8 (2)	9.5 (35)	7.7 (54)	7.8 (42)	10.0 (1)	5.3 (122)	8.1 (13)
Oman	4.5 (149)	6.0 (45)	8.3 (88)	7.6 (55)	6.6 (109)	6.7 (133)	5.7 (102)	7.3 (37)
Pakistan	7.9 (21)	3.3 (145)	6.4 (149)	5.8 (137)	6.3 (126)	8.1 (98)	5.0 (131)	5.8 (118)
Panama	7.5 (39)	5.4 (70)	9.4 (49)	8.7 (4)	6.9 (87)	9.1 (58)	5.0 (129)	6.7 (60)
Papua New Guinea	6.4 (78)	4.2 (119)	6.9 (132)	7.3 (74)	7.2 (73)	7.8 (114)	7.6 (34)	6.3 (85)
Paraguay	8.2 (12)	3.9 (128)	9.2 (58)	7.3 (77)	6.0 (137)	8.1 (97)	4.0 (150)	5.7 (121)
Peru	7.2 (45)	4.8 (90)	9.6 (33)	8.2 (24)	7.4 (60)	9.3 (48)	6.5 (82)	6.4 (79)
Philippines	8.7 (5)	4.4 (107)	9.4 (45)	7.3 (78)	7.4 (55)	9.3 (47)	6.8 (68)	6.2 (90)
Poland	5.7 (110)	5.8 (51)	9.6 (23)	8.0 (40)	7.6 (47)	8.8 (70)	7.6 (36)	6.5 (67)
Portugal	5.6 (114)	7.0 (24)	9.7 (14)	8.4 (10)	7.0 (83)	8.1 (101)	5.7 (106)	7.3 (41)
Qatar	6.5 (73)	6.3 (38)	8.4 (85)	7.6 (60)	8.4 (12)	10.0 (1)	6.6 (78)	8.6 (5)
Romania	7.0 (52)	5.9 (49)	9.4 (47)	8.5 (9)	7.7 (45)	9.8 (16)	7.1 (56)	6.3 (83)
Russia	6.6 (71)	4.8 (88)	8.5 (79)	6.6 (111)	6.5 (114)	7.8 (111)	5.6 (111)	6.0 (108)
Rwanda	5.8 (108)	7.3 (20)	9.4 (48)	7.0 (90)	8.4 (13)	8.2 (95)	8.7 (6)	8.3 (11)
Saudi Arabia	5.0 (138)	5.3 (72)	8.3 (89)	6.0 (131)	6.6 (107)	5.2 (150)	7.3 (48)	7.3 (40)
Senegal	6.9 (61)	4.2 (116)	7.1 (122)	6.6 (112)	6.0 (135)	9.1 (60)	3.6 (153)	5.4 (134)
Serbia	6.4 (79)	4.9 (85)	7.8 (108)	7.6 (59)	7.0 (82)	8.1 (102)	6.7 (71)	6.2 (89)
Seychelles	7.2 (48)	5.5 (67)	9.3 (54)	7.7 (52)	7.4 (57)	8.0 (104)	7.2 (54)	7.0 (46)
Sierra Leone	7.4 (41)	4.0 (125)	7.1 (121)	5.8 (136)	4.7 (156)	3.3 (157)	5.3 (123)	5.4 (133)

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## Exhibit 1.8 (continued): Area Economic Freedom Ratings (Rankings) for 2015

	Areas					Components of Area 5		
	1 Size of Government	2 Legal System and Property Rights	3 Sound Money	4 Freedom to trade internationally	5 Regulation	5A Credit market regulations	5B Labor market regulations	5C Business regulations
	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)	Rating (Rank)
Singapore	7.8 (26)	8.3 (8)	9.8 (2)	9.2 (1)	8.9 (3)	10.0 (1)	7.5 (42)	9.3 (1)
Slovak Republic	5.5 (118)	5.6 (62)	9.7 (11)	8.3 (17)	7.4 (63)	9.3 (52)	6.8 (67)	6.0 (106)
Slovenia	4.2 (151)	6.3 (37)	9.8 (4)	7.9 (45)	6.8 (93)	7.9 (107)	5.7 (100)	6.8 (55)
South Africa	5.1 (134)	5.8 (54)	8.1 (99)	6.9 (95)	7.4 (62)	10.0 (1)	6.1 (93)	6.0 (104)
Spain	5.7 (111)	6.8 (26)	9.8 (6)	8.0 (38)	7.3 (67)	9.0 (66)	6.1 (92)	6.8 (56)
Sri Lanka	8.3 (9)	5.3 (73)	6.9 (135)	5.9 (135)	6.8 (92)	7.5 (121)	6.3 (90)	6.7 (61)
Suriname	6.4 (81)	4.5 (102)	8.9 (69)	6.6 (113)	6.9 (88)	8.0 (106)	7.6 (31)	5.0 (140)
Swaziland	7.3 (44)	4.1 (120)	8.0 (106)	7.0 (91)	7.6 (48)	8.8 (73)	7.7 (29)	6.4 (77)
Sweden	3.6 (157)	8.3 (7)	9.7 (12)	8.3 (18)	8.3 (17)	9.9 (12)	6.8 (66)	8.1 (16)
Switzerland	7.7 (31)	8.6 (4)	9.8 (3)	7.5 (62)	8.6 (8)	9.3 (51)	8.2 (17)	8.3 (10)
Syria	6.2 (88)	4.4 (109)	4.9 (156)	4.9 (152)	5.8 (139)	5.6 (146)	5.7 (108)	6.0 (107)
Taiwan	6.9 (60)	6.8 (28)	9.6 (20)	7.5 (65)	7.7 (46)	9.1 (62)	6.0 (95)	8.0 (21)
Tajikistan	6.2 (87)	5.1 (79)	9.1 (63)	7.1 (84)	6.5 (115)	7.8 (112)	5.5 (115)	6.1 (99)
Tanzania	7.3 (43)	5.7 (59)	8.1 (101)	6.3 (123)	7.3 (69)	9.5 (34)	6.6 (79)	5.7 (122)
Thailand	6.6 (65)	4.8 (91)	8.5 (81)	6.8 (101)	7.1 (76)	9.3 (45)	4.9 (134)	7.2 (43)
Timor-Leste	4.5 (148)	3.5 (140)	8.8 (71)	7.1 (85)	7.5 (53)	9.5 (33)	6.7 (75)	6.2 (94)
Togo	6.1 (95)	3.7 (134)	7.0 (128)	5.4 (145)	6.2 (131)	7.6 (118)	4.2 (149)	6.9 (51)
Trinidad & Tobago	5.4 (120)	4.4 (108)	8.3 (92)	7.8 (47)	6.6 (106)	6.0 (143)	7.6 (32)	6.2 (92)
Tunisia	6.1 (97)	5.3 (74)	7.1 (124)	6.8 (100)	6.4 (123)	7.2 (127)	5.3 (124)	6.7 (63)
Turkey	6.6 (67)	4.7 (94)	9.1 (66)	7.2 (79)	6.4 (118)	8.1 (96)	4.4 (145)	6.8 (52)
Uganda	7.4 (40)	4.9 (86)	8.6 (78)	7.4 (67)	7.9 (35)	9.1 (57)	8.5 (10)	6.1 (101)
Ukraine	6.5 (74)	4.3 (112)	3.3 (158)	6.5 (116)	6.3 (129)	7.1 (129)	5.4 (119)	6.4 (78)
United Arab Emirates	6.9 (62)	6.0 (48)	8.4 (83)	8.2 (26)	8.0 (31)	7.7 (115)	7.1 (57)	9.0 (2)
United Kingdom	5.8 (109)	7.9 (15)	9.8 (1)	8.4 (11)	8.3 (14)	8.2 (94)	8.5 (9)	8.2 (12)
United States	6.4 (80)	7.2 (22)	9.8 (7)	7.5 (63)	8.8 (5)	9.3 (44)	9.3 (2)	7.7 (27)
Uruguay	6.9 (58)	5.5 (68)	9.1 (65)	7.8 (46)	6.4 (117)	7.2 (125)	5.7 (107)	6.4 (69)
Venezuela	4.9 (140)	2.0 (158)	1.9 (159)	3.3 (159)	2.4 (159)	3.3 (157)	1.5 (159)	2.3 (159)
Vietnam	7.6 (33)	5.0 (82)	6.2 (153)	6.0 (128)	6.7 (101)	8.9 (69)	5.4 (121)	5.7 (123)
Yemen, Republic	7.1 (51)	3.0 (150)	8.1 (100)	7.3 (75)	5.4 (147)	5.0 (151)	6.4 (84)	4.7 (149)
Zambia	6.2 (92)	5.6 (66)	8.7 (74)	6.9 (96)	6.4 (119)	7.5 (123)	5.7 (105)	6.1 (95)
Zimbabwe	6.1 (98)	3.8 (130)	8.2 (94)	5.7 (139)	4.3 (157)	2.7 (159)	6.0 (96)	4.3 (153)

Ratings are shown rounded to the nearest tenth of a point, but the rankings are based on the unrounded ratings.

## The EFW Panel Dataset

Over the years, the EFW index has become more comprehensive and the available data more complete. As a result, the number and composition of the components for many countries vary across time. This makes it difficult to directly compare index values from earlier periods with later periods.

To assist researchers who are interested in a consistent time-series for a particular country and/or longitudinal data for a panel of countries, we previously developed and reported a chain-linked version of the index. One of the problems with the chain-linked index was that it was limited to just the 123 countries that were available in the chain-link's "base year" of 2000. With this year's report, we are replacing the chain-linked index with the EFW Panel Dataset, which reports area and summary ratings for all countries for which we have a regular EFW index score in any given year.<sup>1</sup> The EFW Panel Dataset is our best attempt to provide scholars with consistent time-series/longitudinal data.

The EFW Panel Dataset adjusts the regular EFW index in two ways. (1) From the most-recent year annually back to 2000, whenever possible, we estimate any missing data by autoregressively "backcasting" the data, meaning we use actual values in later years to estimate the missing values for earlier years. For example, if a country is missing a data value for a particular component from 2000 to 2004, this method estimates the missing values based on data available in 2005 and thereafter. This approach allows us to have area and summary ratings for up to the entire 159 countries in the EFW index. (2) For 1970, 1975, 1980, 1985, 1990, and 1995, the index is chain-linked as described in previous editions. That is, using 2000 as the base year, *changes* in a country's scores backward in time are based only on *changes* in components that were present in adjoining years. It should be noted that the EFW Panel Dataset contains area and summary ratings only for those years in which the country received a regular EFW index rating.

One final note. Because some data for earlier years may have been updated or corrected, researchers are always encouraged to use the data from the most recent annual report to assure the most reliable figures.

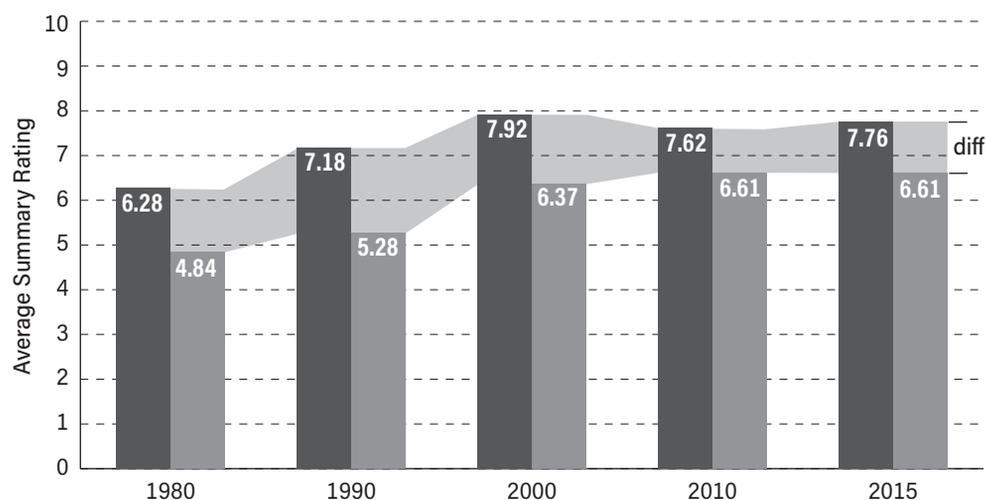
## Changes in the Summary ratings, 1980–2015

Worldwide, economic freedom has increased during the past three decades; moreover, the increase in economic freedom of developing economies since 1990 has been more rapid than the increase of high-income industrial countries. The institutions and policies of developing countries today are substantially more consistent with economic freedom than was the case in the 1980s. The EFW panel data are available for 102 countries continuously since 1980. The World Bank classified 21 of these countries as "high-income industrial" in 1985. The mean summary EFW rating of the 21 high-income industrial countries was 6.28 in 1980, compared to 4.84 for the 81 developing economies, a gap of 1.4 units. By 1990, the mean of the EFW summary index of the high-income countries had risen to 7.18 compared to 5.28 for the developing economies, a gap of 1.90. Since 1990, however, the gap between the high-income and the developing group has been shrinking. In 2015,

1 Find the EFW Panel Dataset on line at <<https://www.fraserinstitute.org/economic-freedom/dataset>>.

the mean summary rating of the high-income industrial countries was 7.76 compared to 6.61 for the developing economies, a gap of 1.15. Thus, since 1990, the EFW summary rating gap between the less developed economies and the high-income industrial countries fell by 40% (Exhibit 1.9).

**Exhibit 1.9: Difference between the Average EFW Summary Ratings of High-Income Industrial Countries and Developing Economies, 1980–2015**



Note: The average EFW summary ratings are derived from the EFW panel dataset. The calculations are for the 102 countries—81 developing and 21 high-income industrial—with continuous data from 1980 to 2015. The following 21 countries are classified as high-income industrial in the World Bank's 1985 classification: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, United Kingdom, and the United States.

The more rapid increases in the average EFW summary rating of the developing economies compared to the high-income industrial group have been driven primarily by gains in Area 3 (sound money) and Area 4 (trade liberalization). The EFW ratings of the developing economies in these two areas have improved substantially in recent decades. The gains in these areas are evidence that many developing countries have followed a more stable monetary policy, reduced tariff rates, eliminated exchange rate controls, and reduced other trade restrictions.

As the economic freedom gap between the high-income developed economies and the developing group has shrunk, the growth rate of the per-capita GDP of the developing group has accelerated and it now exceeds that of high-income countries. At the same time, poverty rates in the developing world are declining rapidly. Xavier Sala-i-Martin of Columbia University and Maxim Pinkovskiy of the Federal Reserve Bank of New York have examined the data on per-capita income levels and poverty rates in great detail. Their research indicates that worldwide income inequality and the poverty rate both declined during the 1980s and 1990s (Sala-i-Martin, 2006; Pinkovskiy and Sala-i-Martin, 2009). Both of these trends—the declining poverty rate in the less developed world and the more rapid growth of per-capita income of developing economies compared to the high-income group—have accelerated since 2000.<sup>2</sup>

<sup>2</sup> See Chapter 1 of *Economic Freedom of the World: 2016 Annual Report* (Gwartney, Lawson, and Hall, 2016) for additional evidence on this point.

The past 200 years have been a remarkable period of human history. During these two centuries, the per-person income of the world has expanded by more than tenfold, and in the West, per-capita income is now more than 20 times the figure of 1820 (Maddison, 2007). As incomes grew rapidly in the West and a few other regions during the 19<sup>th</sup> and most of the 20<sup>th</sup> century, most of the less developed world lagged behind. In 1820, the wealthy nations of the world had income levels five or six times those of poor countries but, by 1980, the income levels in the world's richest countries were 30 or 40 times those present in the less developed world. Thus, historic growth occurred from 1820 to 1980, but it was accompanied by decade after decade of expanding worldwide income inequality.

However, the pattern of income inequality during the period from 1820 to 1980 has changed during the past three decades. For the first time, the world has achieved both higher levels of per-capita income and a reduction in income inequality. As less developed countries have moved toward economic freedom, they have grown more rapidly, narrowed the income gap relative to high-income countries, and made historic reductions in poverty rates. Indeed, the past three decades have been a truly remarkable era of world history.

### The big movers 2000–2015

There were 123 countries for which the EFW summary ratings were continuously available during the period from 2000 to 2015. As we previously indicated, the mean EFW summary rating rose during this time period. Thus, it is not surprising that there were more countries (83) with rating increases than rating declines (40) during this time frame.

Exhibit 1.10 provides data for the ten countries with the largest increases and the ten with the largest declines in EFW summary ratings between 2000 and 2015. During this 15-year period, Romania and Bulgaria achieved the largest EFW summary rating increases, 2.35 and 1.87 units, respectively. The EFW rating of Rwanda increased from 6.02 in 2000 to 7.57 in 2015, an increase of 1.55 units. Albania, Cyprus, Indonesia, Lithuania, Guatemala, Malta, and Croatia round out the top 10. These seven countries registered EFW increases between 0.91 and 1.35 during this time frame.

Of the ten countries with the largest decreases in summary rating between 2000 and 2015, Venezuela and Argentina had the greatest, 2.83 and 2.31, respectively. The declines in summary rating of Bolivia, Iceland, Greece, Trinidad and Tobago, Egypt, United States, Japan, and Central African Republic were also quite large (between 0.88 and 0.40). The EFW data indicate that the economic institutions and policies of these countries have become less consistent with economic freedom since 2000.

## Exhibit 1.10: Countries with the Largest Changes in EFW Summary Ratings, 2000–2015

	2000		2015		Change
	Rating,	(Rank)	Rating	(Rank)	
<b>Ten countries with the largest increase</b>					
Romania	5.37	(109)	7.72	(19)	2.35
Bulgaria	5.52	(104)	7.39	(43)	1.87
Rwanda	6.02	(82)	7.57	(29)	1.55
Albania	6.20	(79)	7.54	(30)	1.35
Cyprus	6.66	(64)	7.79	(13)	1.13
Indonesia	5.87	(93)	7.00	(63)	1.12
Lithuania	6.90	(50)	7.92	(12)	1.03
Guatemala	6.73	(59)	7.69	(22)	0.96
Malta	6.80	(56)	7.70	(20)	0.91
Croatia	6.12	(81)	7.02	(62)	0.91
<b>Ten countries with the largest decrease</b>					
Central African Republic	5.02	(114)	4.62	(122)	−0.40
Japan	7.87	(14)	7.47	(37)	−0.41
United States	8.46	(4)	7.94	(10)	−0.52
Egypt	6.36	(75)	5.73	(109)	−0.63
Trinidad and Tobago	7.13	(37)	6.50	(81)	−0.64
Greece	7.02	(45)	6.36	(91)	−0.66
Iceland	8.00	(10)	7.23	(56)	−0.77
Bolivia	6.91	(49)	6.03	(97)	−0.88
Argentina	7.19	(35)	4.88	(119)	−2.31
Venezuela	5.75	(98)	2.92	(123)	−2.83

**Countries with large increases but not included** There were five countries—Democratic Republic of Congo, Guinea-Bissau, Burundi, Zimbabwe, and Russia—with very low EFW ratings in 2000 that achieved rating increases that would have placed them in the top-ten grouping. These countries were excluded from the list of countries with large increases in Exhibit 1.10 because, even after their rating increases, their 2015 rating was still exceedingly low—outside the group of 75 countries with the highest 2015 summary ratings.

**Rank** is among the 123 countries for which data were available in both 2000 and 2015.

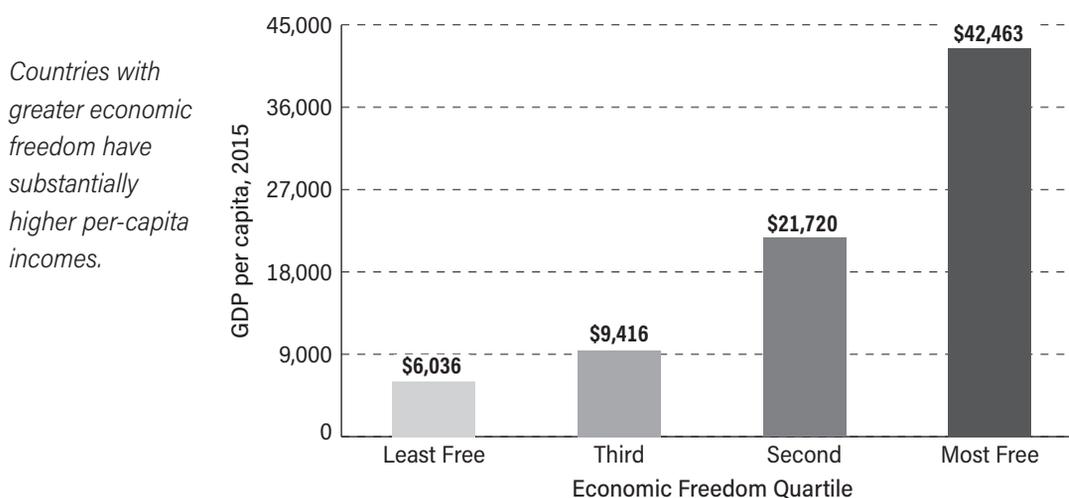
## Economic freedom and human progress

As is customary, this chapter concludes with some simple graphs illustrating relationships between economic freedom and various other indicators of human and political progress (Exhibits 1.11–1.19). The graphs use the average of the EFW panel dataset for the period from 1990 to 2015, breaking the data into four quartiles ordered from low to high. Because persistence is important and the impact of economic freedom will be felt over a lengthy time period, it is better to use the average rating over a fairly long time span rather than the current rating to observe the impact of economic freedom on performance.

The graphs begin with the data on the relationship between economic freedom and the level of per-capita GDP and economic growth. In recent years, numerous scholarly studies have analyzed these relationships in detail and, almost without exception, have found that countries with higher and improving economic freedom grow more rapidly and achieve higher levels of per capita GDP (Hall and Lawson, 2014).

Many of the relationships illustrated in the graphs below reflect the impact of economic freedom as it works through increasing economic growth. In other cases, the observed relationships may reflect the fact that some of the variables that influence economic freedom may also influence political factors like trust, honesty in government, and protection of civil liberties. Thus, we are not necessarily arguing that there is a direct causal relation between economic freedom and the variables considered below. In other words, these graphics are no substitute for real, scholarly investigation that controls for other factors. Nonetheless, we believe that the graphs provide some insights into the contrast between the nature and characteristics of market-oriented economies and those dominated by government regulation and planning. At the very least, these figures suggest potential fruitful areas for future research.

**Exhibit 1.11: Economic Freedom and Income per Capita**

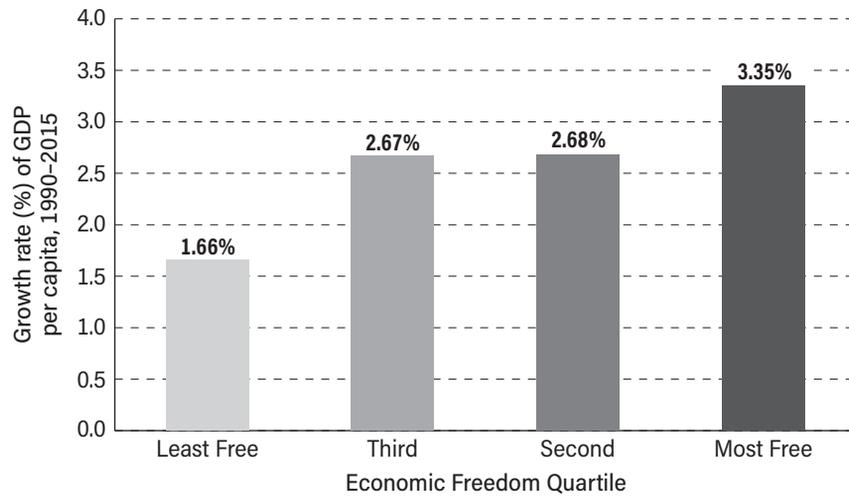


Note: Income = GDP per capita, (PPP constant 2011 US\$), 2015.

Sources: *Economic Freedom of the World: 2017 Annual Report*; World Bank, 2017, *World Development Indicators*.

### Exhibit 1.12: Economic Freedom and Economic Growth

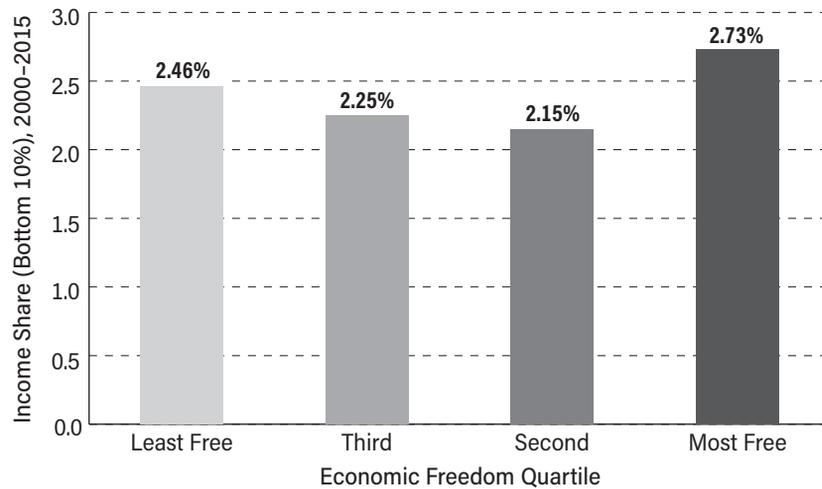
*Countries with greater economic freedom tend to grow more rapidly.*



Note: The growth data were adjusted to control for the initial level of income.  
 Sources: *Economic Freedom of the World: 2017 Annual Report*; World Bank, 2017, *World Development Indicators*.

### Exhibit 1.13: Economic Freedom and the Income Share of the Poorest 10%

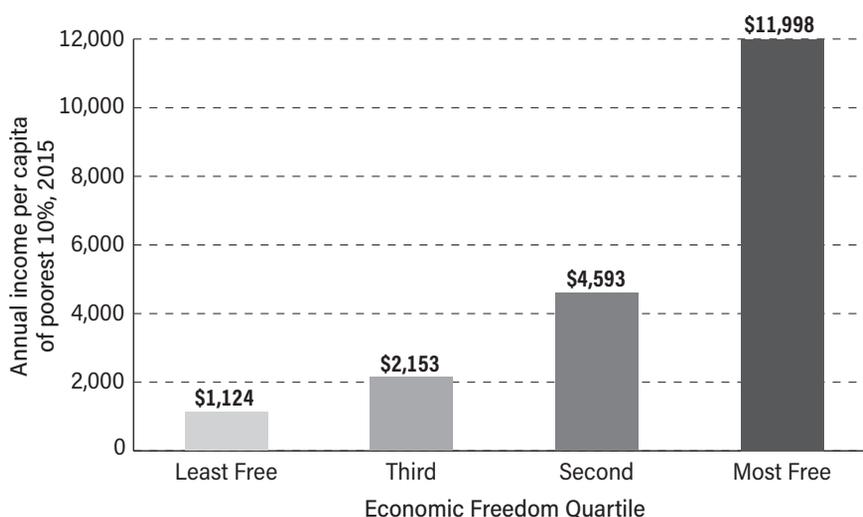
*The share of income earned by the poorest 10% of the population is unrelated to economic freedom.*



Sources: *Economic Freedom of the World: 2017 Annual Report*; World Bank, 2017, *World Development Indicators*.

### Exhibit 1.14: Economic Freedom and the Income Earned by the Poorest 10%

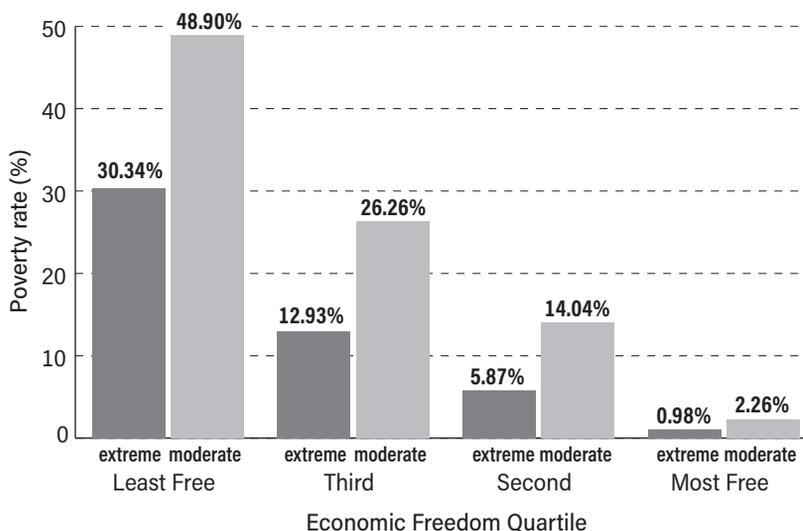
The amount of income, as opposed to the share, earned by the poorest 10% of the population is much higher in countries with higher economic freedom.



Note: Annual income per capita of poorest 10% (PPP constant 2011 US\$), 2015  
 Sources: *Economic Freedom of the World: 2017 Annual Report*; World Bank, 2017, *World Development Indicators*.

### Exhibit 1.15: Economic Freedom and Extreme and Moderate Poverty Rates

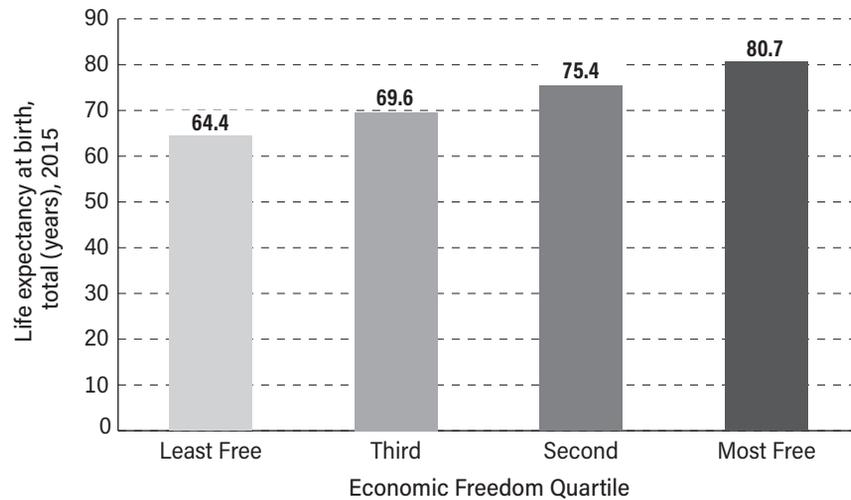
Extreme and moderate poverty are lower in countries with more economic freedom.



Note: The **extreme** poverty rate is the percentage of a country's population that lives on \$1.90 per day; the **moderate** poverty rate is the percentage that lives \$3.10 per day, in 2011 constant PPP-adjusted dollars.  
 Sources: *Economic Freedom of the World: 2017 Annual Report*; World Bank, 2017, *World Development Indicators*; for details, see Connors, 2011.

### Exhibit 1.16: Economic Freedom and Life Expectancy

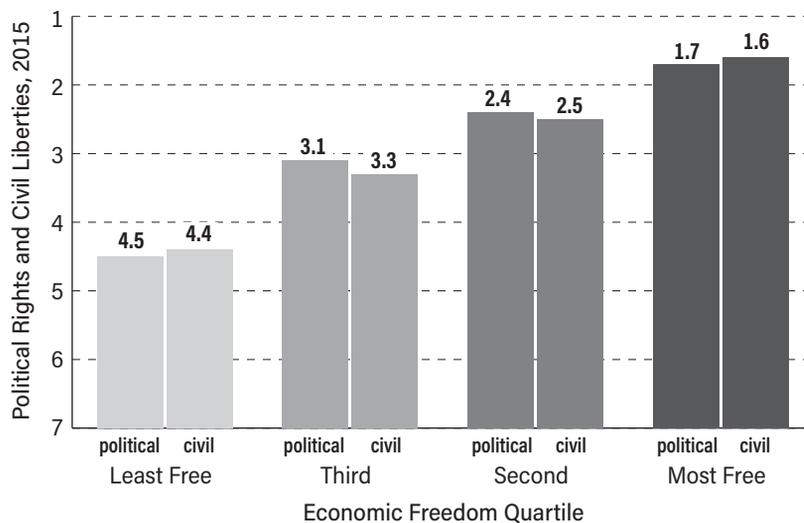
*Life expectancy is about 20 years longer in countries with the most economic freedom than in countries with the least.*



Sources: *Economic Freedom of the World: 2017 Annual Report*; World Bank, 2017, *World Development Indicators*.

### Exhibit 1.17: Economic Freedom and Political Rights and Civil Liberties

*Greater economic freedom is associated with more political rights and civil liberties.*

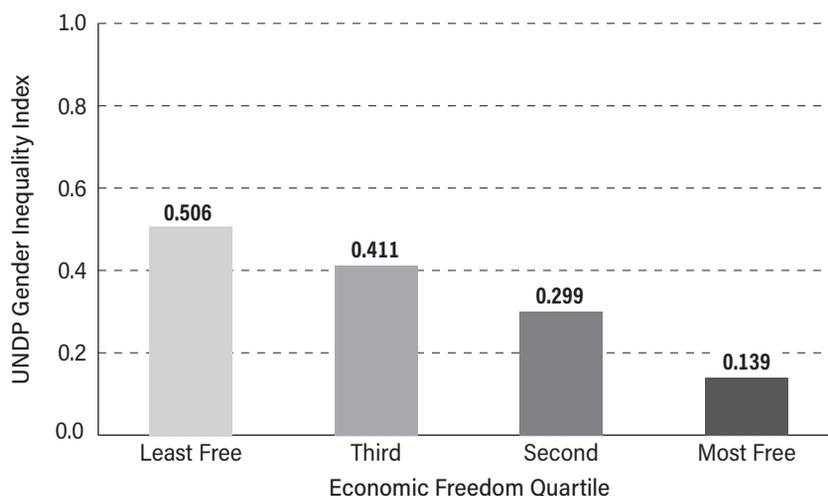


Note: **Political rights** and **civil liberties** are measured on a scale from 1 to 7: 1 = the highest degree of political rights and civil liberties; 7 = the lowest.

Sources: *Economic Freedom of the World: 2016 Annual Report*; Freedom House, 2017, *Freedom in the World 2017*.

### Exhibit 1.18: Economic Freedom and the UN Gender Inequality Index

*Men and women tend to fare equally in countries with greater economic freedom*

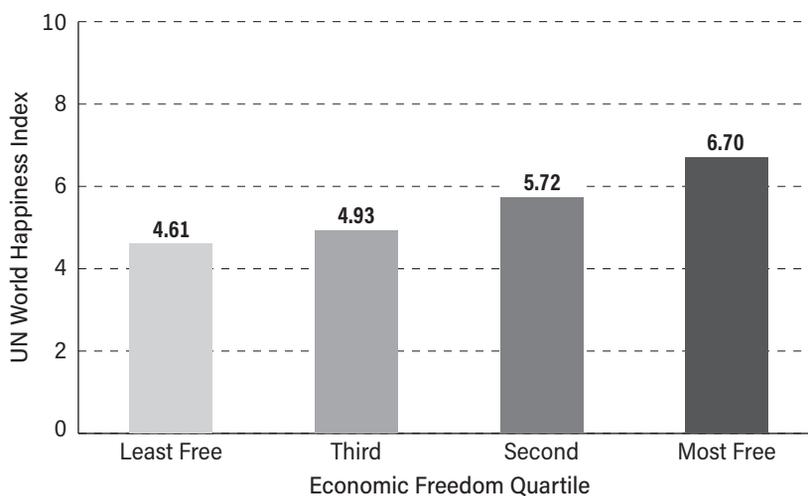


Note: "The Gender Inequality Index (GII) reflects gender-based disadvantage in three dimensions—reproductive health, empowerment and the labour market—for as many countries as data of reasonable quality allow ... It ranges from 0, where women and men fare equally, to 1, where one gender fares as poorly as possible in all measured dimensions." Data is for 2015.

Sources: *Economic Freedom of the World: 2017 Annual Report*; United Nations Development Programme, 2016, *Table 5: Gender Inequality Index*.

### Exhibit 1.19: Economic Freedom and the UN World Happiness Index

*People in countries with greater economic freedom tend to be happier about their lives.*



Note: "The rankings are based on answers to the main life evaluation question ... This is called the Cantril ladder: it asks respondents to think of a ladder, with the best possible life for them being a 10, and the worst possible life being a 0. They are then asked to rate their own current lives on that 0 to 10 scale." Data are for 2015.

Sources: *Economic Freedom of the World: 2017 Annual Report*; United Nations, 2016, *World Happiness Report 2016 Update*.

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## Data available to researchers

The full data set, including the data published in this report as well as data omitted due to limited space, can be downloaded for free at <[www.fraserinstitute.org/economic-freedom/dataset](http://www.fraserinstitute.org/economic-freedom/dataset)>. The data file available there contains the most up-to-date and accurate data for the *Economic Freedom of the World* index. Some variable names and data sources have evolved over the years since the first publication in 1996; users should consult earlier editions of *Economic Freedom of the World* for details about sources and descriptions for those years. All editions of the report are available in PDF and can be downloaded for free at <<https://www.fraserinstitute.org/studies/economic-freedom>>. However, users are always strongly encouraged to use the data from this most recent data file as updates and corrections, even to earlier years' data, do occur. Users doing long-term or longitudinal studies are encouraged to use the EFW Panel Dataset as it is the most consistent through time.

If you have difficulty downloading the data, please contact Fred McMahon via e-mail to <[freetheworld@fraserinstitute.org](mailto:freetheworld@fraserinstitute.org)>. If you have technical questions about the data itself, please contact Joshua Hall <[joshua.c.hall@gmail.com](mailto:joshua.c.hall@gmail.com)> or Robert Lawson <[robert.a.lawson@gmail.com](mailto:robert.a.lawson@gmail.com)>.

Please cite the data as: James Gwartney, Robert Lawson, and Joshua Hall (2017). Economic Freedom Dataset, published in *Economic Freedom of the World: 2017 Annual Report*. Fraser Institute. <[www.fraserinstitute.org/economic-freedom/dataset](http://www.fraserinstitute.org/economic-freedom/dataset)>.

### Published work using ratings from *Economic Freedom of the World*

A list of published papers that have used the economic freedom ratings from *Economic Freedom of the World* is available on line at <[www.fraserinstitute.org/economic-freedom/citations](http://www.fraserinstitute.org/economic-freedom/citations)>. In most cases, a brief abstract of the article is provided. If you know of other papers current or forthcoming that should be included on this page, or have further information about any of these papers or authors, please write to <[freetheworld@fraserinstitute.org](mailto:freetheworld@fraserinstitute.org)>.