

## Chapter 1: Economic Freedom of the World, 2003

It has now been almost ten years since the first *Economic Freedom of the World* (EFW) report was published. Compared to the initial index, the current version is more comprehensive, ratings are available for more countries, and the chain-link version of the index provides for more accurate comparisons across time periods. The index has been widely used by researchers to address a diverse set of topics ranging from economic growth to the environment and peace. Approximately 200 scholarly articles have used the data. In addition, it has provided the central data base for several doctoral dissertations. Even after a decade, our objective remains the same: the measurement of differences in the consistency of institutions and policies with economic freedom across countries and time periods.

The roots of the EFW index go back to a series of conferences hosted by Michael Walker of The Fraser Institute and Nobel Laureate Milton Friedman from 1986 to 1994. These conferences focused on the development of a clear definition of economic freedom and the design of a tool for its measurement. Approximately 60 of the world's leading scholars, including Nobel Prize winners Gary Becker and Douglass North, also participated in the series.<sup>1</sup> Eventually the conferences led to the development of the EFW index. This year's index is available for 127 countries.

### The Concept of Economic Freedom

A consensus about the nature of economic freedom evolved from those early conferences. Participants agreed that the key ingredients—the four cornerstones—of economic freedom were

- ◆ personal choice rather than collective choice,
- ◆ voluntary exchange coordinated by markets rather than allocation via the political process,
- ◆ freedom to enter and compete in markets, and
- ◆ protection of persons and their property from aggression by others.

These four cornerstones require governments to do some things but refrain from doing others. A country's legal and monetary arrangements provide the infrastructure for voluntary exchange and the operation of markets. Governments promote economic freedom when they establish a legal structure that provides for the even-handed enforcement of contracts and the protection of individuals and their property from aggressors seeking to use violence, coercion, and fraud to seize things that do not belong to them. Governments also enhance economic freedom when they facilitate access to sound money. But, economic freedom also requires governments to refrain from many activities. They must refrain from actions that interfere with personal choice, voluntary exchange, and the freedom to enter and compete in labor and product markets. Economic freedom is reduced when taxes, government expenditures, and regulations are substituted for personal choice, voluntary exchange, and market coordination. Restrictions that limit entry into occupations and business activities also retard economic freedom.

While the concept of economic freedom provides the compass for the design of the EFW index, the index can be viewed in other ways. It can, for instance, be seen as a quality measure of a country's institutional and policy environment. For many years, Douglass C. North, Peter Bauer, Hernando de Soto, and Gerald Scully have highlighted the importance of institutions and related policy variables. This literature stresses the importance of rule of law, security of property rights, enforcement of contracts, monetary and price stability, free trade, open markets, and avoidance of excessive taxes and regulations. The components of the EFW index reflect these same factors.

Some may perceive of the index as an indicator of each country's position on a spectrum with the minimal state at one end and the dominant state at the other. When the functions of the minimal state—protection of people and their property from the actions of aggressors, enforcement of contracts, and provision of the limited set of public goods like roads, flood control projects, and

money of stable value—are performed well, but the government does little else, a country’s rating on the EFW summary index will be high. Correspondingly, as government expenditures increase and regulations expand, a country’s rating will decline.

## The Economic Freedom of the World Index

From 1997 to 2002, additional components were added and other modifications were undertaken to improve the comprehensiveness and accuracy of the Economic Freedom of the World (EFW) index. Most notable among these changes was the inclusion of survey data from the *International Country Risk Guide* and *Global Competitiveness Report* in order to incorporate legal structure and regulatory elements more fully into the index.<sup>2</sup> While we would prefer to have components that can be measured objectively, nonetheless we believe that incorporation of these data help us to better gauge cross-country differences in important elements of economic freedom that are highly difficult to measure with strictly objective data. The data from the *Global Competitiveness Report* are now available for approximately 100 of the 127 countries now covered by *Economic Freedom of the World*. In those cases where countries in the EFW index are omitted from the *Global Competitiveness Report*, the ratings of the countries omitted from the report are based on a smaller number of components. We are confident that the EFW index is the best available and that it provides a reliable measure of cross-country differences in economic freedom, using third-party data to help ensure objectivity.<sup>3</sup>

Exhibit 1.1 (page 9) indicates the structure of the *Economic Freedom of the World* index. The index measures the degree of economic freedom present in five major areas:

- 1 Size of Government: Expenditures, Taxes, and Enterprises
- 2 Legal Structure and Security of Property Rights
- 3 Access to Sound Money
- 4 Freedom to Trade Internationally
- 5 Regulation of Credit, Labor, and Business

Within the five major areas, 21 components are incorporated into the index but many of those components are themselves made up of several sub-components. Counting the various sub-components, the EFW index

uses 38 distinct pieces of data. Each component and sub-component is placed on a scale from 0 to 10 that reflects the distribution of the underlying data. The component ratings within each area are averaged to derive ratings for each of the five areas. In turn, the summary rating is the average of the five area ratings.<sup>4</sup> Methodological details are found in Appendix 1: Explanatory Notes and Data Sources (page 173).

As previously noted, the new survey data (18 sub-components) are not available for all of the countries covered by the EFW index. Thus, the ratings of the other countries are based on only a subset of the 38 different sub-components of this index. Two of the areas, Size of Government: Expenditures, Taxes, and Enterprises (Area 1) and Access to Sound Money (Area 3), are unaffected by the omitted variables. The omissions, however, could be important in Legal Structure and Security of Property Rights (Area 2) and Regulation of Credit, Labor, and Business (Area 5) and, to a lesser extent, in Freedom to Trade Internationally (Area 4). In Legal Structure and Security of Property Rights, only two of the five components are available for the countries not covered by the *Global Competitiveness Report*.<sup>5</sup> Only five of the 15 sub-components in Regulation of Credit, Labor, and Business are available for these countries. While we have made statistical adjustments that enhance the overall comparability among the 127 countries, comparisons between the nations that have the survey data and the nations that do not should be made with a degree of caution.<sup>6</sup>

Following is a brief explanation of the components incorporated into each of the five areas and their relationship to economic freedom. See Exhibit 1.1 for a list of all areas and components.

### Area 1: Size of Government: Expenditures, Taxes and Enterprises

The four components of Area 1 indicate the extent to which countries rely on individual choice and markets rather than the political process to allocate resources and goods and services. When government spending increases relative to spending by individuals, households, and businesses, government decision-making is substituted for personal choice and economic freedom is reduced. The first two components address this issue. Government consumption as a share of total consumption (1A) and transfers and subsidies as a share of GDP (1B) are indicators of the size of government. When government consumption is a larger share of the total, political choice is substituted for private choice. Similarly, when govern-

ments tax some people in order to provide transfers to others, they reduce the freedom of individuals to keep what they earn. Thus, the greater the share of transfers and subsidies in an economy, the less economic freedom.

The third component (1C) in this area measures the extent to which countries use private rather than government enterprises to produce goods and services. Government firms play by rules that are different from those to which private enterprises are subject. They are not dependent on consumers for their revenue or on investors for risk capital. They often operate in protected markets. Thus, economic freedom is reduced as government enterprises produce a larger share of total output.

The fourth component (1D) is based on (Di) the top marginal income tax rate and (Dii) the top marginal income and payroll tax rate and the income threshold at which the top marginal income tax rate applies. These two sub-components are averaged to calculate 1D. High marginal tax rates that apply at relatively low income levels are also indicative of reliance upon government. Such rates deny individuals the fruits of their labor. Thus, countries with high marginal tax rates and low income thresholds are rated lower.

Taken together, the four components measure the degree of a country's reliance on personal choice and markets rather than government budgets and political decision-making. Therefore, 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 Structure and Security of Property Rights

Protection of persons and their rightfully acquired property is a central element of both economic freedom and a civil society. Indeed, it is the most important function of government. Area 2 focuses on this issue. The key ingredients of a legal system consistent with economic freedom are rule of law, security of property rights, an independent judiciary, and an impartial court system.

Components indicating how well the protective function of government is performed were assembled from two primary sources: the *International Country Risk Guide* and the *Global Competitiveness Report*.<sup>7</sup>

Security of property rights, protected by the rule of law, is essential to economic freedom. Freedom to exchange, for example, is meaningless if individuals do not have secure rights to property, including the fruits of their labor. Failure of a country's legal system to provide for

the security of property rights, enforcement of contracts, and the mutually agreeable settlement of disputes will undermine the operation of a market-exchange system. If individuals and businesses lack confidence that contracts will be enforced and the fruits of their productive efforts protected, their incentive to engage in productive activity will be eroded. Furthermore, poor performance in this area is sure to deter investment. Therefore, it is highly unlikely that countries with low ratings in this area will be able to achieve and sustain high rates of growth.

## Area 3: Access to Sound Money

Money oils the wheels of exchange. An absence of sound money undermines gains from trade. As Milton Friedman informed us long ago, inflation is a monetary phenomenon, caused by too much money chasing too few goods. High rates of monetary growth invariably lead to inflation. Similarly, when the rate of inflation increases, it also tends to become more volatile. High and volatile rates of inflation distort relative prices, alter the fundamental terms of long-term contracts, and make it virtually impossible for individuals and businesses to plan sensibly for the future. Sound money is essential to protect property rights and, thus, economic freedom. Inflation erodes the value of property held in monetary instruments. When governments create money to finance their expenditures they are, in effect, expropriating the property and violating the economic freedom of their citizens.

It makes little difference who provides the sound money. The important thing is that individuals have access to it. Thus, in addition to data on a country's inflation and its government's monetary policy, it is important to consider how difficult it is to use alternative, more credible, currencies. If bankers can offer saving and checking accounts in other currencies or if citizens can open foreign bank accounts, then access to sound money is increased and economic freedom expanded.

There are four components to the EFW index in Area 3. All of them are objective and relatively easy to obtain and all have been included in the earlier editions of the index. The first three are designed to measure the consistency of monetary policy (or institutions) with long-term price stability. Component 3D is designed to measure the ease with which other currencies can be used via domestic and foreign bank accounts. In order to earn a high rating in this area, a country must follow policies and adopt institutions that lead to low (and stable) rates of inflation and avoid regulations that limit the use of alternative currencies should citizens want to use them.

#### Area 4: Freedom to Trade Internationally

In our modern world of high technology and low costs for communication and transportation, freedom of exchange across national boundaries is a key ingredient of economic freedom. The vast majority of our current goods and services are now either produced abroad or contain resources supplied from abroad. Of course, exchange is a positive-sum activity: both trading partners gain and the pursuit of the gain provides the motivation for the exchange. Thus, freedom to trade internationally also contributes substantially to our modern living standards.

Responding to protectionist critics and special-interest politics, virtually all countries adopt trade restrictions of various types. Tariffs and quotas are obvious examples of roadblocks that limit international trade. Because they reduce the convertibility of currencies, controls on the exchange rate also retard international trade. The volume of trade is also reduced by administrative factors that delay the passage of goods through customs. Sometimes these delays are the result of inefficiency while in other instances they reflect the actions of corrupt officials seeking to extract bribes.

The components in this area are designed to measure a wide variety of restraints that affect international exchange: tariffs, quotas, hidden administrative restraints, and controls on the exchange rate and capital. The regulatory items of component 4B (regulatory trade barriers) and component 4Ei (capital market controls) are based on survey data from the *Global Competitiveness Report*. The other components in this area can be quantified objectively. In order to get a high rating in this area, a country must have low tariffs, a trade sector larger than expected, efficient administration of customs, a freely convertible currency, and few controls on the movement of capital.

#### Area 5: Regulation of Credit, Labor, and Business

When regulations restrict entry into markets and interfere with the freedom to engage in voluntary exchange, they reduce economic freedom. The final area of the index focuses on this topic. Because of the difficulties involved in developing objective measures of regulatory restraints,

a substantial number (10 of 15) of the sub-components in this area are based on survey data.

Regulatory restraints that limit the freedom of exchange in credit, labor, and product markets are included in the index. The first component (5A) reflects conditions in the domestic credit market. The first two sub-components provide evidence on the extent to which the banking industry is dominated by private firms and whether foreign banks are permitted to compete in the market. The final three sub-components indicate the extent to which credit is supplied to the private sector and whether controls on interest rates interfere with the market in credit. Countries that used a private banking system to allocate credit to private parties and refrained from controlling interest rates received higher ratings for this component of the regulatory area.

Many types of labor-market regulations infringe upon the economic freedom of employees and employers. Among the more prominent are minimum wages, dismissal regulations, centralized wage setting, extensions of union contracts to nonparticipating parties, unemployment benefits that undermine the incentive to accept employment, and conscription. The labor market component (5B) is designed to measure the extent to which these restraints upon economic freedom are present across countries. In order to earn high marks in the component rating regulation of the labor market, a country must allow market forces to determine wages and establish the conditions of dismissal, avoid excessive unemployment benefits that undermine work incentives, and refrain from the use of conscription.

Like the regulation of the credit markets and labor markets, the regulation of business activities (component 5C) inhibits economic freedom. The sub-components of 5C are designed to identify the extent to which regulatory restraints and bureaucratic procedures limit competition and the operation of markets. In order to score high in this portion of the index, countries must allow markets to determine prices and refrain from regulatory activities that retard entry into business and increase the cost of producing products. They also must refrain from playing favorites—from using their power to extract financial payments and reward some businesses at the expense of others.

## Exhibit 1.1: The Areas and Components of the EFW Index

### 1 Size of Government: Expenditures, Taxes, and Enterprises

- A General government consumption spending as a percentage of total consumption
- B Transfers and subsidies as a percentage of GDP
- C Government enterprises and investment as a percentage of total investment
- D Top marginal tax rate (and income threshold at which it applies)
  - i Top marginal income tax rate (and income threshold at which it applies)
  - ii Top marginal income and payroll tax rates (and income threshold at which they apply)

### 2 Legal Structure and Security of Property Rights

- A Judicial independence—the judiciary is independent and not subject to interference by the government or parties in disputes
- B Impartial courts—a trusted legal framework exists for private businesses to challenge the legality of government actions or regulation
- C Protection of intellectual property
- D Military interference in rule of law and the political process
- E Integrity of the legal system

### 3 Access to Sound Money

- A Average annual growth of the money supply in the last five years minus average annual growth of real GDP in the last ten years
- B Standard inflation variability in the last five years
- C Recent inflation rate
- D Freedom to own foreign currency bank accounts domestically and abroad

### 4 Freedom to Trade Internationally

- A Taxes on international trade
  - i Revenue from taxes on international trade as a percentage of exports plus imports
  - ii Mean tariff rate
  - iii Standard deviation of tariff rates
- B Regulatory trade barriers
  - i Hidden import barriers—no barriers other than published tariffs and quotas
  - ii Costs of importing—the combined effect of import tariffs, licence fees, bank fees, and the time required for administrative red-tape raises the costs of importing equipment (by 10% or less = score of 10; by more than 50% = score of 0)

## Exhibit 1.1 continued: The Areas and Components of the EFW Index

- C Actual size of trade sector compared to expected size
- D Difference between official exchange rate and black-market rate
- E International capital market controls
  - i Access of citizens to foreign capital markets and foreign access to domestic capital markets
  - ii Restrictions on the freedom of citizens to engage in capital market exchange with foreigners—index of capital controls among 13 IMF categories

### 5 Regulation of Credit, Labor, and Business

- A Credit market regulations
  - i Ownership of banks—percentage of deposits held in privately owned banks
  - ii Competition—domestic banks face competition from foreign banks
  - iii Extension of credit—percentage of credit extended to private sector
  - iv Avoidance of interest rate controls and regulations that lead to negative real interest rates
  - v Interest rate controls—interest rate controls on bank deposits and/or loans are freely determined by the market
- B Labor market regulations
  - i Impact of minimum wage—the minimum wage, set by law, has little impact on wages because it is too low or not obeyed
  - ii Hiring and firing practices—hiring and firing practices of companies are determined by private contract
  - iii Share of labor force whose wages are set by centralized collective bargaining
  - iv Unemployment benefits—the unemployment benefits system preserves the incentive to work
  - v Use of conscripts to obtain military personnel
- C Business regulations
  - i Price controls—extent to which businesses are free to set their own prices
  - ii Administrative conditions and new businesses—administrative procedures are an important obstacle to starting a new business
  - iii Time with government bureaucracy—senior management spends a substantial amount of time dealing with government bureaucracy
  - iv Starting a new business—starting a new business is generally easy
  - v Irregular payments—irregular, additional payments connected with import and export permits, business licenses, exchange controls, tax assessments, police protection, or loan applications are very rare



## Summary Economic Freedom Ratings, 2003

Exhibit 1.2 presents summary economic freedom ratings, sorted from highest to lowest. These ratings are for the year 2003, the most recent year for which comprehensive data are available. Hong Kong and Singapore, once again, occupy the top two positions. The other nations in the top 10 (allowing for ties) are New Zealand, Switzerland, United States, United Kingdom, Canada, Ireland, Australia, and Luxembourg. New to the top 10 are Estonia and the United Arab Emirates.<sup>8</sup> At the other end of the spectrum, the lowest-rated countries are the Central African Republic, Republic of Congo, Algeria, Burundi, Guinea-Bissau, the Democratic Republic of Congo, Venezuela, Zimbabwe, and, in last place, Myanmar.

This year four new countries have been added to the index: Georgia, Macedonia, Mozambique and Vietnam. All four are examples of countries attempting to make the transition from socialist central planning to a more market-oriented economy. Georgia has been the

most successful among the four in making this transition, with a rating of 6.4 and a rank of 66<sup>th</sup>. Macedonia earned a rating of 5.6 and a rank of 98<sup>th</sup>. Mozambique and Vietnam both scored a 5.5 with a rank of 103<sup>rd</sup>. The criteria for adding new countries are fairly strict and the decision is dictated by the availability of the requisite data. In particular, countries that are not covered by the *Global Competitiveness Report* are not likely to be included in the EFW index. Nevertheless, the expectation is that a number of additional countries will be added in the years to come.

The EFW index is calculated back to 1970 as data availability allows; see the Country Data Tables (Chapter 3, page 45) or our website <<http://www.freetheworld.com>> for information from past years. Since some data for earlier years may have been updated or corrected, readers are always encouraged to use the data from the most recent annual report to assure the best-quality data.

### Economic Freedom in Montenegro

Because the EFW index relies primarily on published data from international sources, it is not possible to rate all countries because the data are not available. Montenegro is a case in point. As a part of a loose federation with Serbia, Montenegro is not represented as a distinct unit in the standard sources.

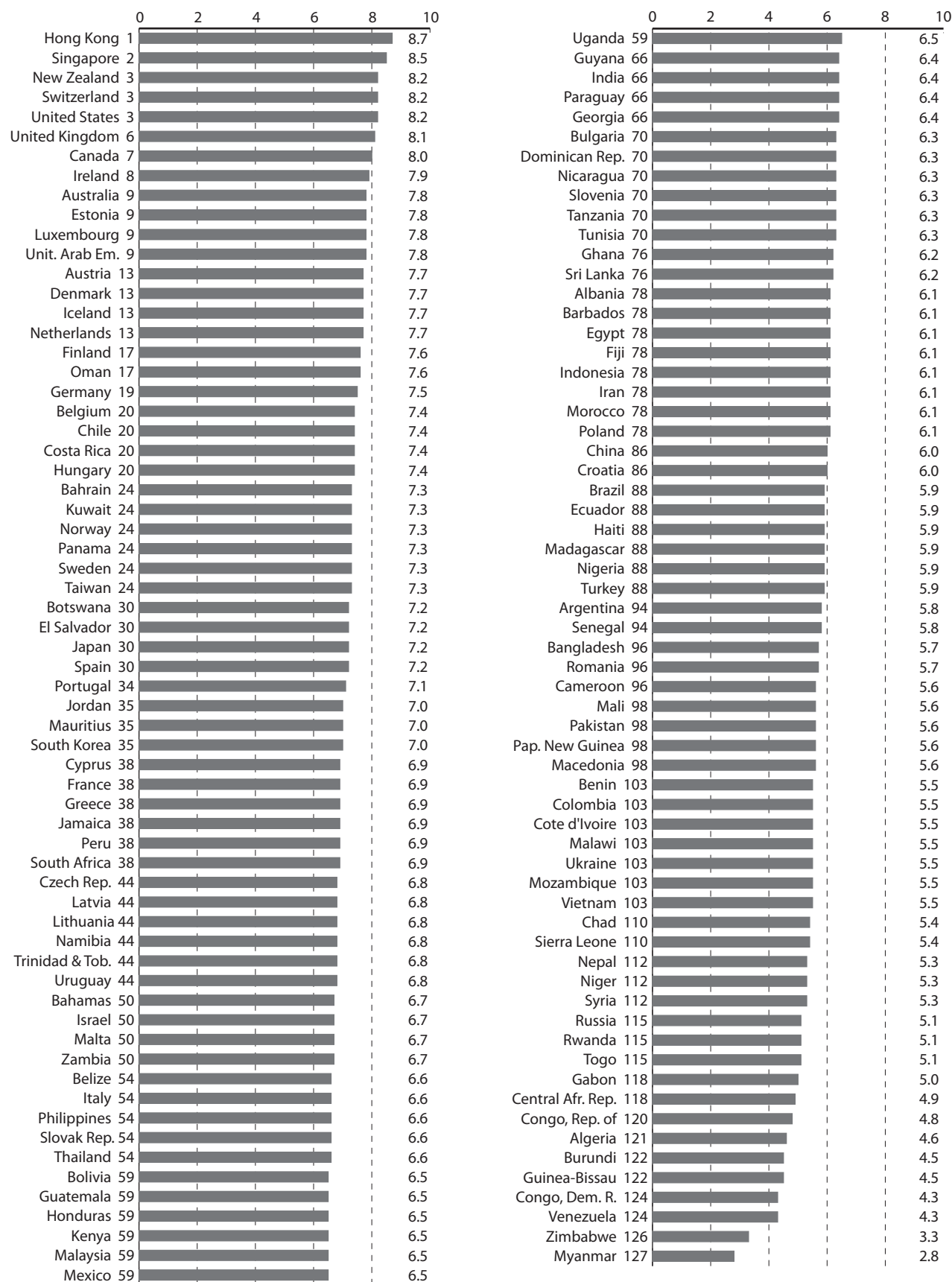
The Center for Entrepreneurship and Economic Development (CEED), a non-partisan research center in Montenegro, has collected data and conducted the requisite surveys in order to produce an economic freedom rating using the same methodology as the EFW index. Because the sources are different, care should be taken in comparing Montenegro's rating with those of the nations included in the EFW index.

The CEED computed an overall summary rating for Montenegro of 6.0, which would place the region in a tie with Croatia for 86<sup>th</sup> in the EFW index. The area ratings were as follows:

1. Size of Government	5.82
2. Legal Structure	3.38
3. Sound Money	9.23
4. International Trade	6.64
5. Regulation	4.82

For more information, contact the Center for Entrepreneurship and Economic Development via e-mail to [cfepg@cg.yu](mailto:cfepg@cg.yu) or visit its website at [www.visit-ceed.org](http://www.visit-ceed.org).

## Exhibit 1.2: Summary Economic Freedom Ratings, 2003





## Area Economic Freedom Ratings (and Rankings), 2003

Exhibit 1.3 presents the ratings (and, in parentheses, the 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. The high-income industrial economies generally rank quite high for Legal Structure and Security of Property Rights (Area 2), Access to Sound Money (Area 3), and Freedom to Trade Internationally (Area 4). Their ratings were lower, however, for Size of Government: Expenditures, Taxes, and Enterprises (Area 1) and Regulation of Credit, Labor, and Business (Area 5). This was particularly true for western European countries.

On the other hand, a number of developing nations show the opposite pattern. Bolivia makes an interesting case study. It shows that reasonably sized government is not enough to reap the benefits of 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 required. Bolivia was ranked 26<sup>th</sup> in Size of Government: Expenditures, Taxes, and Enterprises (Area 1) and 36<sup>th</sup> for Access to Sound Money. However, Bolivia scored poorly in all the other categories, especially Legal Structure and Security of Property Rights, where it placed 104<sup>th</sup>. In Freedom to Trade Internationally, Bolivia ranked 55<sup>th</sup>, while in Reg-

ulation, Bolivia ranked 80<sup>th</sup>. Despite high rankings in a couple of areas, Bolivia's overall ranking is only 59<sup>th</sup>.

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 part of the former Soviet bloc, though some of these nations have made strides toward improvement. For example, Estonia ranks 29<sup>th</sup> in rule of law and property rights. Many Latin American and Southeast Asian nations 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 categories, even though several of these nations have reasonably sized governments and sound money.

The economies most open to foreign trade were Hong Kong and Singapore, followed by a number of European nations such as Luxembourg, Ireland, Belgium and Germany. Some nations that were part of the Soviet bloc also rank fairly high in openness to trade, Estonia in 8<sup>th</sup>, Slovak Republic in 10<sup>th</sup>, and Hungary in 13<sup>th</sup>. Chile is also highly open to foreign trade ranking 9<sup>th</sup> in this area. The least regulated countries—those at the top in Regulation of Credit, Labor, and Business (Area 5)—were Hong Kong, Iceland, the United Arab Emirates, New Zealand, and the United States.

### Exhibit 1.3: Area Economic Freedom Ratings (and Rankings), 2003

	AREAS					COMPONENTS OF AREA 5		
	1 Size of Government: Expenditures, Taxes and Enterprises	2 Legal Structure & Security of Property Rights	3 Access to Sound Money	4 Freedom to Trade Internationally	5 Regulation of Credit, Labor, & Business	5A Credit Market Regulations	5B Labor Market Regulations	5C Business Regulations
Albania	5.8 (69)	4.8 (74)	9.3 (41)	5.0 (119)	5.5 (91)	6.6 (96)		
Algeria	3.6 (121)	2.7 (113)	6.8 (101)	5.6 (109)	4.2 (123)	4.7 (123)	3.6 (91)	4.2 (83)
Argentina	7.8 (12)	3.3 (100)	6.0 (114)	6.8 (73)	5.0 (111)	6.8 (89)	4.7 (66)	3.4 (100)
Australia	6.2 (54)	8.9 (10)	9.3 (40)	7.5 (39)	7.4 (8)	9.1 (12)	6.1 (32)	6.8 (7)
Austria	5.2 (88)	8.8 (12)	9.6 (11)	8.5 (12)	6.4 (36)	8.4 (33)	4.0 (83)	6.7 (10)
Bahamas	7.5 (17)	7.6 (22)	6.8 (100)	4.5 (124)	7.0 (18)	9.5 (6)		
Bahrain	6.6 (40)	6.0 (50)	8.8 (56)	7.8 (30)	7.2 (12)	8.9 (23)	7.1 (9)	5.5 (35)
Bangladesh	8.1 (9)	2.7 (112)	6.9 (93)	5.5 (112)	5.4 (96)	5.7 (113)	6.8 (18)	3.7 (96)
Barbados	3.8 (119)	8.3 (16)	6.9 (92)	4.8 (122)	6.7 (24)	8.1 (41)		
Belgium	4.4 (108)	7.9 (19)	9.6 (10)	8.8 (5)	6.1 (49)	8.4 (32)	4.7 (63)	5.2 (42)
Belize	6.3 (49)	6.5 (42)	8.1 (65)	5.5 (115)	6.9 (19)	8.6 (29)		
Benin	6.5 (45)	4.1 (90)	6.8 (102)	4.9 (121)	5.1 (106)	7.8 (58)		

**Exhibit 1.3 (continued): Area Economic Freedom Ratings (and Rankings), 2003**

	AREAS					COMPONENTS OF AREA 5		
	1 Size of Government: Expenditures, Taxes and Enterprises	2 Legal Structure & Security of Property Rights	3 Access to Sound Money	4 Freedom to Trade Internationally	5 Regulation of Credit, Labor, & Business	5A Credit Market Regulations	5B Labor Market Regulations	5C Business Regulations
Bolivia	7.2 (26)	3.1 (104)	9.3 (36)	7.3 (55)	5.7 (80)	7.9 (50)	4.6 (69)	4.5 (71)
Botswana	5.0 (92)	6.8 (34)	9.2 (45)	7.5 (40)	7.3 (10)	9.8 (1)	6.9 (14)	5.1 (45)
Brazil	6.3 (50)	4.9 (73)	7.0 (89)	6.7 (79)	4.8 (116)	5.5 (115)	4.5 (74)	4.5 (73)
Bulgaria	4.4 (105)	4.7 (75)	8.8 (55)	7.3 (51)	6.0 (67)	8.1 (43)	5.1 (56)	4.7 (61)
Burundi	6.0 (59)	1.6 (124)	6.0 (117)	3.2 (126)	5.9 (69)	6.5 (98)		
Cameroon	5.4 (78)	4.2 (86)	6.9 (94)	5.5 (114)	5.9 (68)	7.2 (74)	6.8 (16)	3.8 (90)
Canada	6.6 (39)	8.7 (14)	9.5 (29)	8.0 (26)	7.3 (9)	9.0 (19)	6.5 (25)	6.5 (15)
Central Afr. Rep.	4.2 (114)	3.5 (98)	7.1 (85)	5.4 (117)	4.5 (122)	7.0 (82)		
Chad	6.8 (36)	2.8 (110)	6.3 (111)	6.1 (98)	5.0 (108)	5.7 (112)	5.1 (53)	4.2 (84)
Chile	6.3 (48)	6.5 (44)	9.4 (35)	8.6 (9)	6.5 (31)	8.3 (37)	4.7 (67)	6.5 (18)
China	4.1 (116)	5.3 (64)	8.3 (63)	7.5 (38)	4.6 (121)	4.7 (124)	4.4 (76)	4.6 (68)
Colombia	4.7 (97)	3.2 (103)	7.5 (77)	6.5 (87)	5.4 (94)	7.1 (79)	4.0 (84)	5.0 (49)
Congo, Dem. Rep.	5.6 (71)	1.1 (126)	3.4 (125)	6.1 (97)	5.2 (102)	5.2 (120)		
Congo, Rep. of	4.1 (117)	1.9 (122)	6.0 (115)	6.7 (74)	5.2 (103)	5.6 (114)		
Costa Rica	7.3 (23)	6.6 (36)	8.7 (58)	8.0 (25)	6.1 (48)	6.6 (95)	6.2 (29)	5.5 (34)
Côte d'Ivoire	6.1 (56)	2.9 (109)	6.9 (91)	6.0 (100)	5.4 (95)	7.3 (70)		
Croatia	4.2 (113)	5.0 (71)	7.8 (73)	6.7 (77)	6.3 (40)	9.0 (18)	5.3 (48)	4.6 (65)
Cyprus	6.9 (32)	7.0 (31)	8.3 (64)	6.3 (93)	6.0 (58)	9.4 (7)	3.0 (99)	5.7 (30)
Czech Rep.	4.5 (102)	6.5 (40)	9.0 (50)	8.2 (21)	6.0 (59)	8.0 (47)	4.9 (59)	5.2 (43)
Denmark	4.2 (115)	9.5 (1)	9.7 (5)	8.1 (23)	6.8 (21)	9.4 (8)	4.6 (71)	6.5 (14)
Dominican Rep.	8.2 (6)	3.9 (93)	6.3 (110)	7.0 (61)	6.1 (52)	7.5 (64)	6.4 (27)	4.4 (76)
Ecuador	9.0 (1)	2.7 (113)	5.9 (118)	6.7 (78)	5.0 (109)	6.7 (91)	3.8 (87)	4.4 (75)
Egypt	6.8 (34)	4.7 (76)	9.3 (39)	5.1 (118)	4.7 (118)	5.3 (117)	4.7 (64)	4.1 (87)
El Salvador	8.7 (3)	4.3 (84)	9.6 (16)	7.4 (46)	6.0 (60)	7.3 (71)	5.2 (51)	5.6 (31)
Estonia	6.5 (42)	7.0 (29)	9.7 (6)	8.6 (8)	7.0 (15)	9.0 (16)	5.2 (50)	6.8 (8)
Fiji	5.8 (65)	5.4 (61)	6.9 (95)	6.1 (95)	6.0 (62)	6.7 (92)		
Finland	4.5 (103)	9.3 (2)	9.7 (7)	8.1 (24)	6.7 (25)	9.1 (15)	3.7 (90)	7.4 (5)
France	3.1 (125)	7.6 (23)	9.6 (17)	8.0 (27)	6.3 (39)	8.2 (40)	5.0 (58)	5.9 (26)
Gabon	4.2 (112)	3.9 (92)	5.0 (122)	5.8 (106)	6.0 (63)	7.3 (72)		
Georgia	8.7 (4)	2.6 (116)	8.6 (60)	7.3 (53)	4.9 (113)	6.0 (108)	5.0 (57)	3.8 (92)
Germany	4.4 (109)	8.9 (8)	9.6 (20)	8.7 (6)	5.7 (78)	7.9 (52)	2.8 (101)	6.4 (20)
Ghana	5.6 (70)	5.0 (71)	6.8 (98)	7.4 (44)	6.2 (41)	7.0 (85)	6.9 (13)	4.8 (56)
Greece	6.0 (58)	6.0 (49)	9.6 (15)	7.4 (47)	5.3 (101)	7.8 (56)	3.6 (94)	4.5 (74)
Guatemala	8.5 (5)	3.0 (107)	9.2 (43)	6.6 (81)	5.4 (92)	7.6 (60)	3.9 (86)	4.7 (59)
Guinea-Bissau	3.6 (123)	1.9 (123)	5.9 (119)	5.5 (113)	5.5 (89)	6.8 (87)		
Guyana	3.6 (120)	5.6 (59)	7.8 (74)	8.5 (11)	6.6 (27)	7.9 (53)		
Haiti	7.2 (27)	2.1 (121)	6.7 (103)	6.7 (80)	6.8 (20)	9.0 (17)	8.1 (4)	3.5 (99)
Honduras	7.4 (19)	3.1 (106)	9.1 (47)	7.2 (58)	5.8 (72)	8.2 (39)	5.3 (49)	4.0 (88)

**Exhibit 1.3 (continued): Area Economic Freedom Ratings (and Rankings), 2003**

	AREAS					COMPONENTS OF AREA 5		
	1 Size of Government: Expenditures, Taxes and Enterprises	2 Legal Structure & Security of Property Rights	3 Access to Sound Money	4 Freedom to Trade Internationally	5 Regulation of Credit, Labor, & Business	5A Credit Market Regulations	5B Labor Market Regulations	5C Business Regulations
Hong Kong	8.9 (2)	7.4 (26)	9.2 (44)	9.7 (1)	8.2 (1)	8.9 (21)	7.7 (5)	7.9 (2)
Hungary	5.8 (67)	6.6 (39)	9.5 (31)	8.4 (13)	6.6 (29)	8.1 (42)	5.5 (44)	6.1 (23)
Iceland	5.4 (79)	9.2 (5)	9.3 (38)	6.7 (76)	7.9 (2)	8.9 (25)	7.0 (12)	7.9 (1)
India	7.1 (28)	6.0 (52)	7.1 (88)	6.4 (89)	5.5 (87)	5.8 (110)	5.7 (39)	4.9 (53)
Indonesia	6.7 (37)	4.5 (79)	7.1 (86)	7.3 (56)	4.8 (114)	5.3 (116)	4.7 (65)	4.6 (69)
Iran	6.5 (44)	5.9 (53)	8.1 (66)	5.6 (111)	4.7 (119)	6.5 (97)		
Ireland	5.9 (64)	8.3 (15)	9.6 (14)	8.8 (4)	6.7 (26)	8.3 (36)	5.4 (47)	6.3 (21)
Israel	3.6 (122)	6.8 (35)	9.5 (30)	8.3 (19)	5.6 (82)	7.2 (76)	3.7 (88)	6.0 (25)
Italy	4.7 (98)	5.6 (57)	9.6 (25)	7.7 (34)	5.3 (97)	7.5 (63)	3.6 (95)	5.0 (52)
Jamaica	7.7 (14)	5.1 (69)	9.0 (49)	6.9 (66)	6.0 (66)	6.7 (93)	6.5 (26)	4.8 (57)
Japan	5.6 (72)	7.8 (21)	9.6 (24)	6.8 (72)	6.4 (34)	7.2 (77)	6.3 (28)	5.8 (28)
Jordan	4.8 (95)	6.6 (37)	9.6 (13)	7.6 (36)	6.2 (42)	6.5 (99)	6.5 (23)	5.7 (29)
Kenya	7.0 (31)	4.2 (85)	8.8 (57)	6.6 (84)	6.0 (65)	5.9 (109)	7.2 (8)	4.7 (60)
Kuwait	6.2 (55)	7.3 (27)	9.3 (37)	6.9 (67)	7.0 (16)	8.9 (22)		
Latvia	5.9 (62)	5.6 (56)	8.9 (54)	7.6 (35)	6.2 (45)	8.4 (34)	4.9 (60)	5.3 (38)
Lithuania	5.6 (74)	5.4 (63)	9.2 (42)	7.8 (33)	5.8 (74)	8.1 (46)	4.3 (78)	5.1 (46)
Luxembourg	4.2 (111)	8.9 (11)	9.7 (4)	8.9 (3)	7.2 (11)	9.1 (13)	6.1 (33)	6.5 (17)
Macedonia	5.1 (90)	2.6 (115)	7.8 (71)	6.3 (92)	6.0 (64)	7.9 (49)	5.7 (41)	4.2 (82)
Madagascar	6.8 (35)	3.2 (101)	7.8 (72)	6.3 (91)	5.5 (90)	7.7 (59)	4.4 (75)	4.2 (81)
Malawi	3.9 (118)	5.6 (57)	6.0 (116)	6.5 (88)	5.7 (79)	4.9 (122)	7.5 (6)	4.7 (62)
Malaysia	5.3 (81)	6.6 (37)	7.0 (90)	7.6 (37)	6.1 (46)	6.0 (107)	6.8 (15)	5.6 (33)
Mali	5.1 (91)	4.5 (82)	6.7 (104)	6.5 (86)	5.1 (104)	7.6 (61)	3.2 (97)	4.6 (67)
Malta	5.8 (68)	7.0 (29)	7.2 (79)	6.7 (75)	6.8 (22)	8.7 (27)	6.6 (20)	5.1 (47)
Mauritius	7.6 (16)	6.1 (48)	9.5 (27)	6.4 (90)	5.5 (86)	7.3 (69)	5.1 (55)	4.2 (80)
Mexico	8.0 (10)	3.9 (93)	7.6 (75)	7.5 (41)	5.3 (99)	7.3 (68)	4.6 (72)	4.0 (89)
Morocco	5.2 (84)	6.2 (47)	7.1 (87)	5.9 (102)	6.1 (55)	7.3 (73)	5.7 (40)	5.2 (41)
Mozambique	5.9 (61)	3.2 (102)	8.4 (62)	6.2 (94)	3.7 (127)	4.6 (125)	2.8 (100)	3.5 (97)
Myanmar	3.5 (124)	2.2 (120)	2.6 (126)	1.9 (127)	4.0 (125)	2.3 (127)		
Namibia	5.1 (89)	8.1 (18)	6.5 (107)	6.6 (83)	7.4 (6)	9.6 (3)	6.8 (17)	5.8 (27)
Nepal	5.2 (85)	2.5 (117)	6.8 (96)	5.7 (108)	6.0 (57)	6.8 (88)		
Netherlands	4.6 (100)	9.1 (7)	9.6 (21)	8.7 (7)	6.8 (23)	9.1 (14)	5.1 (52)	6.0 (24)
New Zealand	6.8 (33)	8.9 (8)	9.5 (28)	8.2 (20)	7.6 (4)	9.7 (2)	5.7 (38)	7.5 (4)
Nicaragua	6.1 (57)	2.9 (108)	9.0 (48)	7.4 (45)	6.1 (56)	7.2 (75)	6.5 (24)	4.5 (72)
Niger	5.2 (82)	3.7 (97)	6.8 (97)	5.6 (110)	5.0 (110)	7.0 (84)		
Nigeria	6.3 (47)	3.4 (99)	6.6 (106)	6.9 (68)	6.4 (32)	7.8 (55)	7.0 (11)	4.4 (77)
Norway	4.5 (104)	9.2 (4)	9.0 (51)	7.4 (43)	6.4 (33)	9.0 (20)	3.7 (89)	6.6 (11)
Oman	5.8 (66)	7.5 (24)	9.6 (12)	7.9 (28)	7.0 (17)	9.5 (4)		
Pakistan	7.3 (24)	2.3 (119)	6.8 (99)	5.8 (105)	5.8 (73)	7.1 (80)	6.6 (21)	3.8 (93)

**Exhibit 1.3 (continued): Area Economic Freedom Ratings (and Rankings), 2003**

	AREAS					COMPONENTS OF AREA 5		
	1 Size of Government: Expenditures, Taxes and Enterprises	2 Legal Structure & Security of Property Rights	3 Access to Sound Money	4 Freedom to Trade Internationally	5 Regulation of Credit, Labor, & Business	5A Credit Market Regulations	5B Labor Market Regulations	5C Business Regulations
Panama	8.2 (7)	4.5 (78)	9.8 (2)	7.4 (48)	6.4 (35)	8.7 (28)	5.9 (36)	4.6 (66)
Pap. New Guinea	6.5 (43)	3.7 (96)	6.1 (113)	5.9 (101)	5.8 (75)	6.1 (105)		
Paraguay	8.1 (8)	2.4 (118)	8.7 (59)	7.8 (31)	4.8 (117)	6.2 (102)	3.6 (93)	4.5 (70)
Peru	7.5 (18)	4.0 (91)	9.7 (3)	7.4 (50)	5.8 (76)	8.5 (30)	4.1 (80)	4.7 (63)
Philippines	7.0 (30)	3.8 (95)	9.6 (23)	7.3 (54)	5.6 (83)	7.5 (62)	5.5 (45)	3.8 (91)
Poland	5.5 (76)	5.2 (67)	8.1 (67)	6.5 (85)	5.3 (100)	8.1 (45)	4.3 (79)	3.5 (98)
Portugal	4.9 (94)	7.4 (25)	9.5 (26)	7.9 (29)	6.0 (61)	8.4 (35)	4.4 (77)	5.3 (36)
Romania	4.6 (99)	5.2 (68)	6.5 (108)	6.9 (70)	5.4 (93)	7.4 (65)	4.6 (70)	4.2 (85)
Russia	5.4 (80)	4.7 (77)	3.8 (124)	6.9 (65)	4.8 (115)	6.2 (104)	4.6 (68)	3.7 (95)
Rwanda	5.6 (73)	1.0 (127)	7.1 (84)	5.4 (116)	6.1 (47)	7.1 (81)		
Senegal	6.2 (52)	4.3 (83)	7.2 (80)	6.1 (99)	5.0 (107)	8.4 (31)	2.4 (102)	4.3 (79)
Sierra Leone	5.5 (77)	4.1 (88)	6.4 (109)	5.7 (107)	5.5 (88)	5.2 (119)		
Singapore	8.0 (11)	8.2 (17)	9.7 (8)	9.5 (2)	7.0 (14)	7.9 (54)	5.7 (42)	7.6 (3)
Slovak Rep	4.4 (110)	6.0 (51)	7.5 (76)	8.5 (10)	6.4 (37)	7.9 (51)	5.9 (35)	5.3 (37)
Slovenia	3.0 (126)	6.5 (43)	8.9 (53)	7.3 (52)	5.6 (84)	8.0 (48)	3.6 (92)	5.2 (44)
South Africa	5.6 (75)	7.1 (28)	8.0 (69)	7.4 (49)	6.6 (28)	8.8 (26)	5.6 (43)	5.6 (32)
South Korea	6.6 (41)	6.4 (46)	9.5 (32)	7.1 (59)	5.3 (98)	7.4 (66)	4.1 (81)	4.3 (78)
Spain	5.2 (86)	6.5 (41)	9.6 (18)	8.3 (18)	6.2 (44)	8.3 (38)	5.1 (54)	5.2 (39)
Sri Lanka	7.4 (20)	4.1 (89)	6.6 (105)	6.9 (64)	5.7 (77)	6.8 (90)	5.5 (46)	4.9 (54)
Sweden	3.0 (127)	9.3 (3)	9.6 (9)	8.3 (17)	6.5 (30)	9.2 (10)	3.2 (96)	7.0 (6)
Switzerland	7.3 (25)	8.7 (13)	9.6 (22)	8.1 (22)	7.1 (13)	8.9 (24)	6.0 (34)	6.6 (13)
Syria	4.9 (93)	5.1 (70)	7.9 (70)	4.9 (120)	3.7 (126)	4.2 (126)		
Taiwan	6.2 (53)	6.5 (44)	9.6 (19)	8.4 (14)	5.9 (71)	6.3 (100)	4.9 (61)	6.5 (19)
Tanzania	5.2 (83)	5.3 (65)	9.2 (46)	5.9 (103)	6.1 (50)	6.1 (106)	7.3 (7)	5.0 (50)
Thailand	6.7 (38)	5.7 (55)	7.1 (83)	7.5 (42)	6.1 (54)	7.0 (83)	6.2 (30)	5.0 (51)
Togo	4.4 (107)	3.1 (105)	7.2 (82)	5.9 (104)	4.9 (112)	6.9 (86)		
Trinidad & Tob.	6.2 (51)	5.4 (62)	9.4 (34)	6.6 (82)	6.4 (38)	7.4 (67)	6.5 (22)	5.2 (40)
Tunisia	5.2 (87)	6.8 (32)	7.3 (78)	6.1 (96)	6.1 (51)	8.1 (44)	4.0 (85)	6.2 (22)
Turkey	7.0 (29)	5.3 (66)	4.9 (123)	7.0 (62)	5.1 (105)	6.2 (103)	4.5 (73)	4.7 (64)
Uganda	6.0 (60)	4.5 (79)	9.0 (52)	6.9 (71)	6.1 (53)	5.0 (121)	8.4 (2)	4.9 (55)
Ukraine	4.8 (96)	4.5 (79)	5.6 (121)	7.0 (60)	5.5 (85)	7.2 (78)	6.1 (31)	3.4 (101)
Unit. Arab Em.	7.6 (15)	6.8 (32)	8.6 (61)	8.3 (15)	7.7 (3)	7.8 (57)	8.4 (1)	6.8 (9)
United Kingdom	6.5 (46)	9.2 (6)	9.4 (33)	8.3 (16)	7.4 (7)	9.2 (11)	6.6 (19)	6.5 (16)
United States	7.8 (13)	7.9 (20)	9.8 (1)	7.8 (32)	7.6 (5)	9.3 (9)	7.0 (10)	6.6 (12)
Uruguay	7.4 (21)	5.7 (54)	8.0 (68)	6.9 (63)	5.7 (81)	6.2 (101)	5.8 (37)	5.1 (48)
Venezuela	5.9 (63)	1.4 (125)	5.7 (120)	4.6 (123)	4.1 (124)	6.6 (94)	3.1 (98)	2.6 (102)
Vietnam	4.4 (106)	4.2 (87)	6.3 (112)	6.9 (69)	5.9 (70)	9.5 (5)	4.1 (82)	4.1 (86)
Zambia	7.4 (22)	5.5 (60)	7.2 (81)	7.2 (57)	6.2 (43)	5.7 (111)	8.2 (3)	4.8 (58)
Zimbabwe	4.6 (101)	2.8 (111)	1.3 (127)	3.4 (125)	4.6 (120)	5.3 (118)	4.8 (62)	3.8 (93)

## The Chain-Linked Summary Index

One of the most valuable aspects of this economic freedom index is that, for many countries, it can be calculated back to 1970. We compute a chain-linked summary index for 53 countries in 1970, 70 in 1975, 102 in 1980, 109 in 1985, 113 in 1990, and 123 for 1995 and 2000 to 2003.<sup>9</sup> These longitudinal data are useful to examine the impact of economic freedom over time.

One problem that arises, however, is that the underlying data are more complete in recent years than in earlier years. As a result, changes in the index ratings over time may reflect the fact that some components are missing in some years but not in others. This is similar to comparing GDP or a price index over time when we know that the underlying goods and services used to calculate these statistics are constantly changing. The problem of missing components threatens the comparability of the index ratings over time.

In order to correct for this problem, we have constructed a chain-link summary economic freedom index that is based on the 2000 rating as a base year. Changes to the index going backward (and forward) in time are then based only on changes in components that were present in adjacent years. For instance, the 1995 chain-linked rating

is based on the 2000 rating but is adjusted based on the changes in the underlying data between 1995 and 2000 for those components that were present in both years. If the common components in 1995 were the same as in 2000, then no adjustment was made to the 1995 summary rating. However, if the 1995 components were lower than those for 2000 for the over-lapping components between the two years, then the 1995 summary rating was adjusted downward proportionally to reflect this fact. Correspondingly, in cases where the rating for the common components was higher in 1995 than for 2000, the 1995 summary rating was adjusted upward proportionally. The chain-linked ratings were constructed by repeating this procedure backward in time to 1970 and forward through 2003. The chain-linked methodology means that a country's rating will change across time periods only when there is a change in ratings for components present during both of the over-lapping years. This is precisely what one would want when making comparisons across time periods.

Exhibit 1.4 presents this "chain-linked" economic freedom index for years from 1970 to 2003. Researchers using the data for long-term studies should use these chain-linked data.

### Exhibit 1.4: The Chain-Linked Summary Index

	1970	1975	1980	1985	1990	1995	2000	2001	2002	2003
Albania					3.3	4.1	5.5	5.8	5.8	6.0
Algeria			3.8	3.8	3.4	3.5	4.2	4.7	4.6	4.6
Argentina	4.4	2.8	3.9	3.5	4.4	6.7	7.2	6.5	6.0	5.8
Australia	6.6	5.8	6.4	6.8	7.3	7.8	8.0	7.9	7.9	7.8
Austria	6.0	5.7	6.2	6.2	6.9	7.0	7.4	7.6	7.5	7.7
Bahamas		6.1	5.8	5.8	6.2	6.3	6.5	6.5	6.4	6.5
Bahrain			7.0	6.5	6.8	6.9	7.3	7.1	7.2	7.1
Bangladesh		2.8	3.1	3.3	4.2	5.0	5.5	5.7	5.9	5.7
Barbados		5.0	5.1	5.4	5.8	5.8	5.6	5.5	5.8	5.8
Belgium	7.3	6.6	6.8	6.9	7.2	7.2	7.4	7.4	7.3	7.4
Belize			5.0	4.8	5.7	6.3	6.2	6.2	6.6	6.6
Benin			4.9	4.6	4.9	4.5	5.7	5.8	5.5	5.6
Bolivia			4.4	3.5	5.2	6.4	6.7	6.5	6.5	6.5
Botswana			4.9	5.1	5.4	6.0	7.0	7.2	7.3	7.2
Brazil	4.8	3.9	3.7	3.2	3.9	4.1	5.3	5.9	6.1	5.9
Bulgaria				4.7	3.7	4.5	5.3	5.7	6.0	6.3
Burundi		3.9	4.0	4.5	4.7	4.3	5.1	5.3	5.1	4.8
Cameroon			5.4	5.6	5.7	5.2	5.4	5.9	5.7	5.6

**Exhibit 1.4 (continued): The Chain-Linked Summary Index**

	1970	1975	1980	1985	1990	1995	2000	2001	2002	2003
Canada	7.4	6.6	7.0	7.0	7.7	7.8	8.1	8.1	7.9	8.0
Central Afr. Rep.				4.5	5.0	4.7	4.9	5.1	5.0	5.1
Chad				4.8	4.6	4.5	5.3	5.8	5.7	5.4
Chile	3.6	3.6	5.3	5.8	6.7	7.5	7.5	7.3	7.3	7.4
China			3.8	4.8	4.2	4.9	5.4	5.9	5.9	6.0
Colombia	5.4	5.0	4.8	5.2	5.0	5.6	5.5	5.5	5.4	5.5
Congo, Dem. Rep.	4.9	4.3	3.1	4.0	3.8	4.2	3.7	3.6	4.9	4.4
Congo, Rep. of			5.0	5.0	5.5	5.5	4.9	4.7	4.4	5.0
Costa Rica		5.6	5.0	4.7	6.5	6.7	7.3	7.2	7.1	7.4
Côte d'Ivoire			5.0	5.6	5.4	5.4	5.7	5.8	5.8	5.6
Croatia						3.8	5.5	6.2	5.9	6.0
Cyprus		5.3	5.2	5.2	5.9	6.1	6.1	6.3	6.8	6.6
Czech Rep.						5.9	6.8	6.8	6.7	6.8
Denmark	6.6	5.8	6.0	6.2	7.0	7.4	7.6	7.6	7.6	7.7
Dominican Rep.			4.8	4.6	4.4	6.2	6.7	6.5	6.6	6.3
Ecuador	3.4	4.5	4.8	4.0	4.8	5.7	5.2	5.5	5.9	5.9
Egypt		3.9	4.6	5.0	4.8	5.9	6.7	6.5	6.2	6.1
El Salvador			4.3	4.0	4.5	6.8	7.2	7.3	7.2	7.2
Estonia						5.3	6.9	7.4	7.7	7.8
Fiji		5.1	5.4	5.6	5.8	6.0	6.0	6.0	6.1	6.1
Finland	6.6	5.8	6.4	6.5	7.0	7.5	7.6	7.7	7.7	7.6
France	6.2	5.4	5.7	5.7	6.8	6.8	7.0	6.7	6.8	6.9
Gabon			4.0	4.7	5.0	5.0	5.3	5.3	5.1	5.1
Germany	7.3	6.8	7.1	7.1	7.4	7.5	7.6	7.3	7.4	7.5
Ghana		3.0	2.3	2.5	4.3	5.1	5.6	5.6	6.3	6.2
Greece	6.1	5.6	5.6	5.1	5.7	6.2	6.8	6.8	6.9	6.9
Guatemala	5.8	6.4	5.9	4.7	5.5	6.7	6.4	6.4	6.4	6.5
Guinea-Bissau					2.7	3.5	4.1	5.2	4.8	4.6
Guyana						4.7	6.5	6.8	6.5	6.3
Haiti			5.6	5.8	5.5	5.4	6.3	5.9	6.0	5.9
Honduras			5.5	5.3	5.2	6.0	6.3	6.3	6.4	6.5
Hong Kong	8.3	8.3	8.6	8.3	8.6	9.1	8.8	8.7	8.7	8.7
Hungary			4.2	4.9	4.8	6.2	6.6	7.1	7.3	7.4
Iceland	6.1	4.2	4.9	5.1	6.6	7.3	7.7	7.7	7.6	7.7
India	4.9	4.1	4.9	4.6	4.8	5.5	6.1	6.2	6.4	6.4
Indonesia	4.8	5.3	5.2	6.2	6.6	6.6	5.9	5.5	5.7	6.1
Iran	5.8	5.7	3.4	3.7	4.1	4.0	5.1	6.2	6.0	6.0
Ireland	6.5	5.8	6.2	6.2	7.0	8.2	8.1	7.9	7.8	7.9
Israel	4.9	4.2	3.7	4.3	4.4	6.0	6.7	6.5	6.8	6.7
Italy	5.8	5.1	5.2	5.4	6.4	6.5	7.1	7.0	7.0	6.6
Jamaica			3.9	4.3	5.3	6.3	6.9	6.9	6.9	6.9
Japan	6.2	5.9	6.4	6.5	7.1	6.9	7.3	7.0	7.0	7.2



**Exhibit 1.4 (continued): The Chain-Linked Summary Index**

	1970	1975	1980	1985	1990	1995	2000	2001	2002	2003
Jordan		5.2	5.0	5.5	5.6	6.2	7.2	6.8	7.0	7.0
Kenya	4.7	4.5	4.7	5.0	5.3	5.7	6.5	6.6	6.6	6.5
Kuwait			5.8	7.9	5.1	6.6	7.0	7.3	7.0	7.2
Latvia						4.6	6.5	6.7	7.0	6.8
Lithuania						4.7	6.2	6.3	6.8	6.8
Luxembourg	6.9	6.9	6.8	7.2	7.4	7.5	7.7	7.7	7.6	7.8
Madagascar			3.8	4.1	3.9	4.0	5.2	6.2	5.8	5.9
Malawi		4.8	4.3	4.4	4.7	4.4	4.6	5.4	5.4	5.5
Malaysia	6.0	5.9	6.4	6.5	7.1	7.2	6.7	6.4	6.5	6.5
Mali		4.9	5.0	4.7	4.8	4.9	5.7	5.8	5.6	5.6
Malta			5.0	4.8	5.2	6.4	6.4	6.6	6.6	6.7
Mauritius		4.6	4.7	5.9	6.1	7.3	7.3	7.3	7.2	7.0
Mexico	6.0	5.3	5.1	4.3	5.7	6.2	6.2	6.3	6.5	6.5
Morocco	5.5	4.9	4.3	4.9	4.8	5.8	5.9	5.9	5.9	6.1
Myanmar			4.5	4.1	2.8	3.5	3.4	3.5	3.0	3.1
Namibia					5.3	6.6	6.5	6.4	6.3	6.8
Nepal			5.3	4.8	5.1	5.2	5.6	5.9	5.7	5.4
Netherlands	7.0	6.4	6.8	7.0	7.4	7.8	8.0	7.8	7.7	7.7
New Zealand	6.0	5.4	6.1	5.9	7.3	8.5	8.2	8.2	8.2	8.2
Nicaragua			3.8	1.7	2.4	5.4	6.4	6.3	6.3	6.3
Niger			4.9	5.3	4.7	4.6	5.5	5.6	5.4	5.4
Nigeria	3.4	3.6	3.5	3.7	3.5	3.8	5.4	5.5	5.7	5.9
Norway	6.0	5.5	5.8	6.3	7.0	7.5	7.2	7.1	7.0	7.3
Oman				6.1	6.1	6.8	7.3	7.2	7.1	7.4
Pakistan	4.3	3.7	4.5	5.1	5.0	5.7	5.5	5.6	5.8	5.6
Panama		6.4	5.2	5.7	6.3	7.2	7.2	7.2	7.2	7.3
Pap. New Guinea				6.0	6.4	6.4	5.9	5.9	5.7	5.7
Paraguay			5.5	4.9	5.5	6.6	6.4	6.4	6.3	6.4
Peru	4.6	3.8	3.9	2.9	3.6	6.2	6.8	6.9	6.8	6.9
Philippines	5.2	4.8	4.9	4.8	5.4	7.2	7.1	6.7	6.6	6.6
Poland				3.4	3.3	4.8	5.8	6.2	6.4	6.1
Portugal	6.0	3.7	5.5	5.3	6.0	7.2	7.3	7.2	7.2	7.1
Romania				4.5	4.0	3.6	4.6	5.0	5.5	5.7
Russia						3.7	4.5	4.9	5.1	5.1
Rwanda					4.6	3.6	4.6	5.4	5.5	5.3
Senegal			4.6	4.9	5.2	4.6	5.8	5.8	5.9	5.8
Sierra Leone		5.6	5.4	3.5	3.8	4.5	5.2	5.2	5.6	5.6
Singapore	7.4	7.3	7.5	7.9	8.5	8.8	8.6	8.5	8.6	8.5
Slovak Rep						5.1	5.9	6.3	6.5	6.6
Slovenia						4.7	5.9	6.0	6.2	6.3
South Africa	5.9	5.5	5.4	5.0	5.2	6.3	6.7	6.7	6.8	6.9
South Korea	5.4	5.4	5.7	5.7	6.3	6.8	7.0	7.0	7.0	7.0

**Exhibit 1.4 (continued): The Chain-Linked Summary Index**

	1970	1975	1980	1985	1990	1995	2000	2001	2002	2003
Spain	6.1	5.5	5.7	5.8	6.2	7.0	7.3	7.0	7.1	7.2
Sri Lanka			4.9	5.0	4.9	6.1	6.1	6.1	6.0	6.2
Sweden	5.3	5.2	5.6	6.2	6.6	7.1	7.4	7.2	7.3	7.3
Switzerland	7.4	7.1	7.6	7.7	7.8	7.9	8.2	8.1	8.2	8.2
Syria	4.6	4.9	4.0	3.6	3.5	4.3	5.0	5.7	5.0	5.4
Taiwan	6.6	5.8	6.7	6.9	7.1	7.3	7.2	7.1	7.3	7.3
Tanzania	4.4	3.7	3.9	3.4	3.7	4.8	5.8	6.7	6.2	6.3
Thailand	5.7	5.6	5.9	5.9	6.8	7.2	6.6	6.7	6.7	6.6
Togo			4.2	5.4	5.1	4.8	5.0	5.3	5.2	5.2
Trinidad & Tob.		4.3	4.5	4.4	5.5	6.7	7.0	7.0	6.9	6.8
Tunisia	4.5	4.6	4.9	4.7	5.3	5.9	6.1	6.2	6.2	6.3
Turkey	3.6	3.8	3.5	4.7	4.8	5.8	5.8	5.3	5.5	5.9
Uganda			3.0	2.5	2.7	5.1	6.6	6.5	6.5	6.5
Ukraine						3.7	4.5	5.0	5.4	5.5
Unit. Arab Em.			5.8	6.7	7.3	7.3	7.6	7.4	7.4	7.3
United Kingdom	5.9	5.8	6.1	7.0	7.7	8.2	8.4	8.2	8.2	8.1
United States	7.0	7.1	7.4	7.5	8.1	8.3	8.5	8.3	8.2	8.2
Uruguay			5.3	5.4	5.8	5.8	6.5	6.6	6.9	6.8
Venezuela	7.4	6.3	6.8	6.3	5.7	4.3	5.8	5.6	4.5	4.3
Zambia		3.9	4.4	3.4	2.8	4.4	6.4	6.9	6.8	6.7
Zimbabwe			4.7	4.6	5.0	6.1	4.8	3.4	3.3	3.3

## Concluding Thoughts

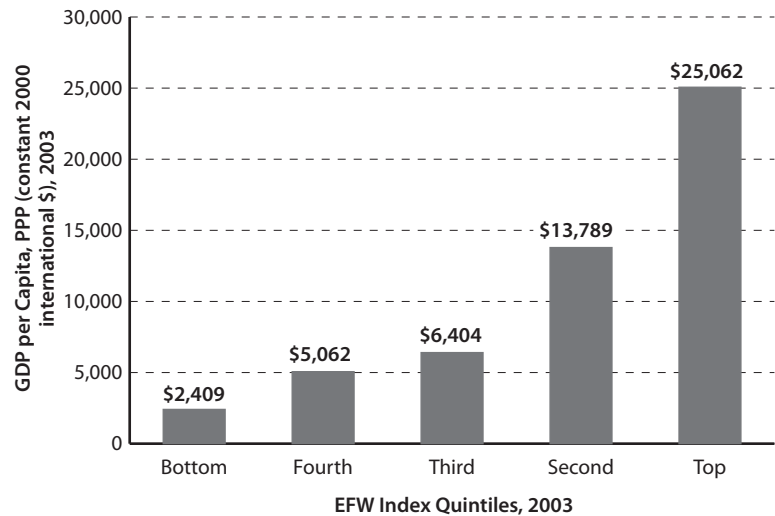
Finally this chapter presents some graphics illustrating simple relationships between economic freedom by quintile and various other indicators of human and political progress (exhibits 1.5 to 1.23). While the graphs use the 2003 EFW index, it should be noted that many of the relationships shown are long term and the current EFW index may not be the best indicator to use for this purpose. Also many of the relationships illustrated in these graphics 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 vari-

ables that influence economic freedom may also influence political factors like corruption 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 graphics provide some information on the nature and characteristics of market-oriented economies compared to controlled economies. At the very least, these figures suggest potential fruitful areas for future research.

### Exhibit 1.5: Economic Freedom and Income per Capita

*Countries with more economic freedom have substantially higher per-capita incomes.*

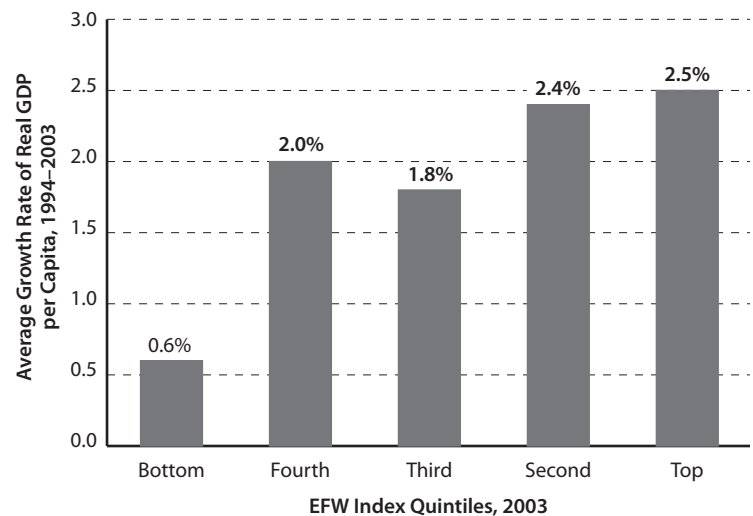
Sources: The Fraser Institute; The World Bank, World Development Indicators CD-ROM, 2005.



### Exhibit 1.6: Economic Freedom and Economic Growth

*Countries with more economic freedom have higher growth rates.*

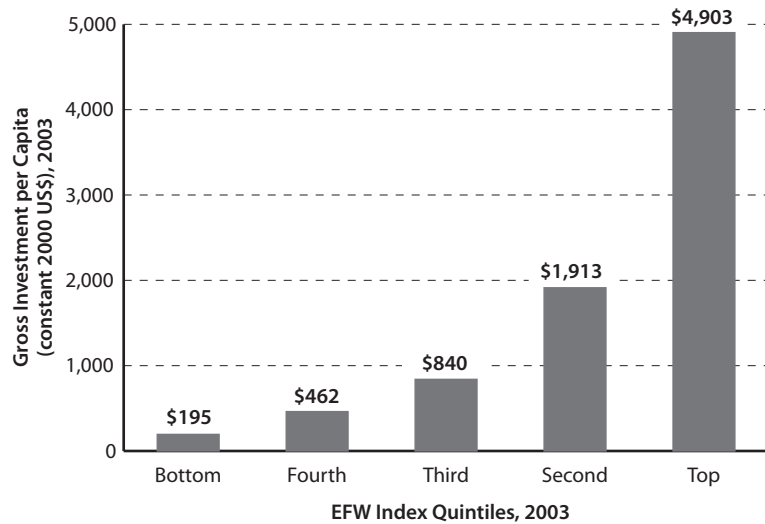
Sources: The Fraser Institute; The World Bank, World Development Indicators CD-ROM, 2005.



**Exhibit 1.7: Economic Freedom and Investment**

*Countries with more economic freedom have higher levels of investment per capita.*

Sources: The Fraser Institute; The World Bank, World Development Indicators CD-ROM, 2005.



**Exhibit 1.8: Economic Freedom and Unemployment**

*Countries with more economic freedom have lower levels of unemployment.*

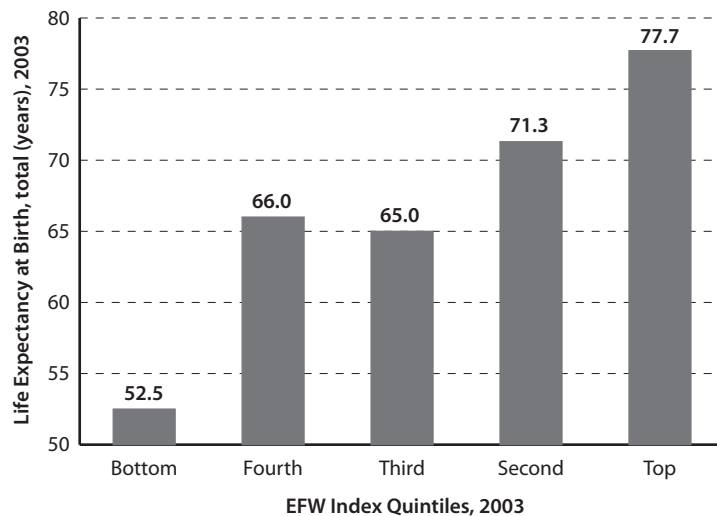
Sources: The Fraser Institute; The World Bank, World Development Indicators CD-ROM, 2005.



**Exhibit 1.9: Economic Freedom and Life Expectancy**

*Life expectancy is over 25 years longer in countries with the most economic freedom than it is in those with the least.*

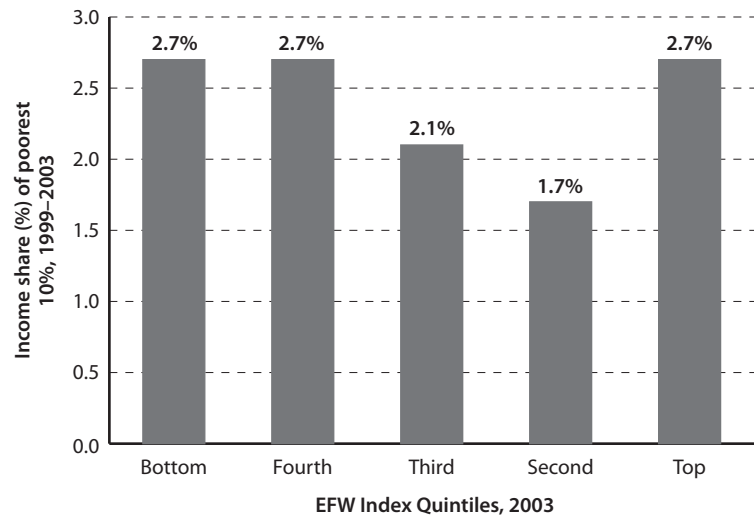
Sources: The Fraser Institute; The World Bank, World Development Indicators CD-ROM, 2005.



**Exhibit 1.10: Economic Freedom and the Income Share of the Poorest 10%**

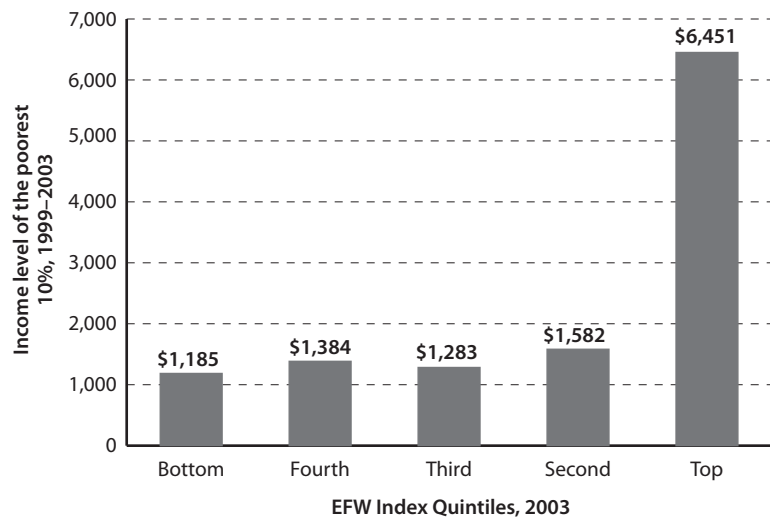
*The share of income earned by the poorest 10% of the population is unrelated to the degree of economic freedom in a nation.*

Sources: The Fraser Institute; The World Bank, World Development Indicators CD-ROM, 2005.

**Exhibit 1.11: Economic Freedom and the Income Level of the Poorest 10%**

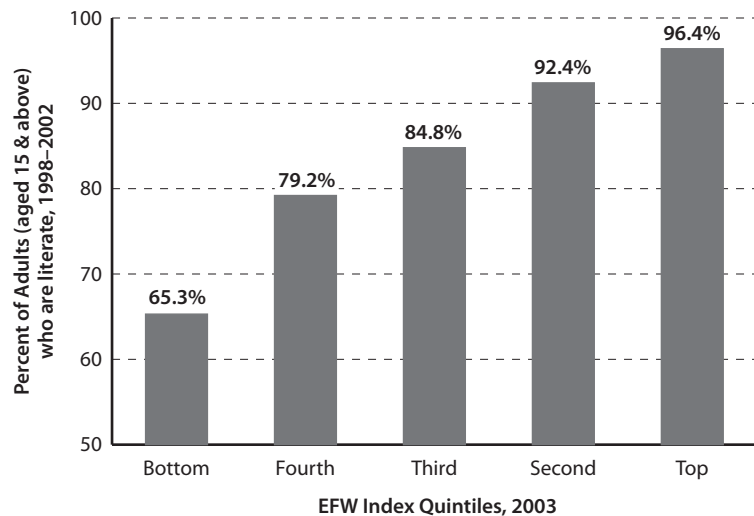
*The amount, as opposed to the share, of income going to the poorest 10% of the population is much greater in nations with the most economic freedom than it is in those with the least.*

Sources: The Fraser Institute; The World Bank, World Development Indicators CD-ROM, 2005.

**Exhibit 1.12: Economic Freedom and Adult Literacy**

*Adult literacy increases with economic freedom.*

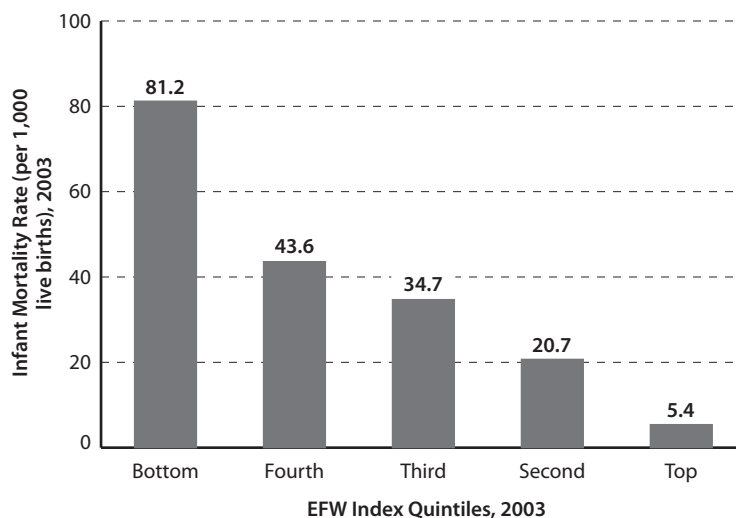
Sources: The Fraser Institute; The World Bank, World Development Indicators CD-ROM, 2005.



**Exhibit 1.13: Economic Freedom and Infant Mortality**

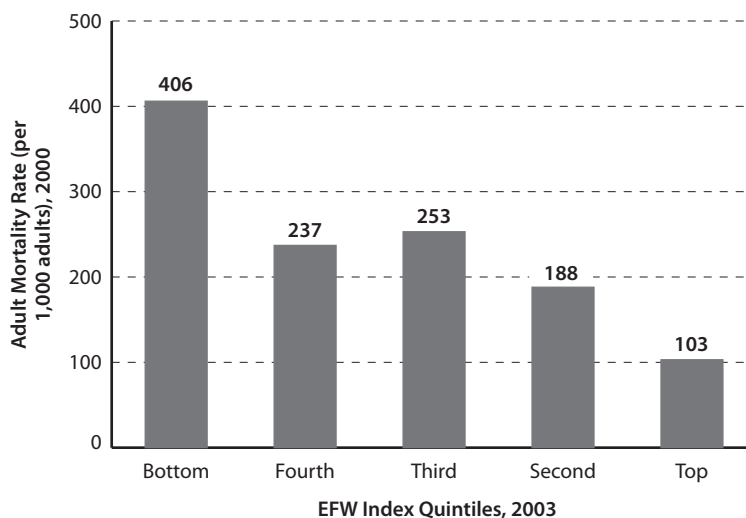
*Infant mortality is much lower in countries with high levels of economic freedom.*

Sources: The Fraser Institute; The World Bank, World Development Indicators CD-ROM, 2005.

**Exhibit 1.14: Economic Freedom and Adult Mortality**

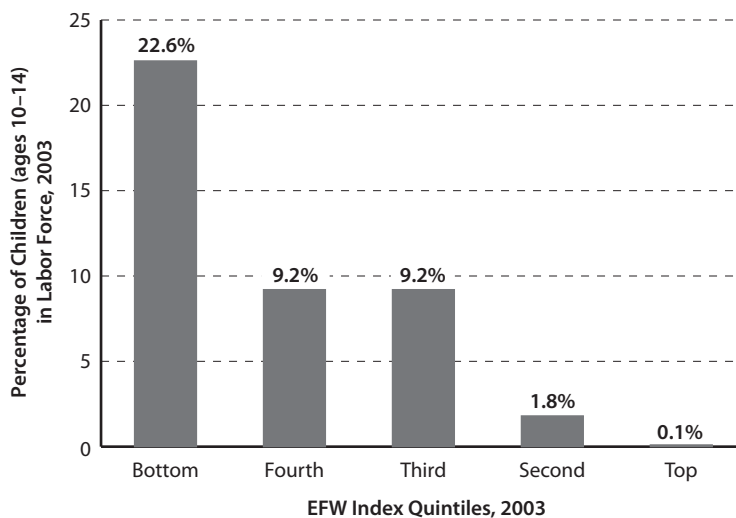
*Adult mortality is much lower in countries with high levels of economic freedom.*

Sources: The Fraser Institute; The World Bank, World Development Indicators CD-ROM, 2005.

**Exhibit 1.15: Economic Freedom and the Percentage of Children in the Labor Force**

*The incidence of child labor declines as economic freedom increases.*

Sources: The Fraser Institute; The World Bank, World Development Indicators CD-ROM, 2005.

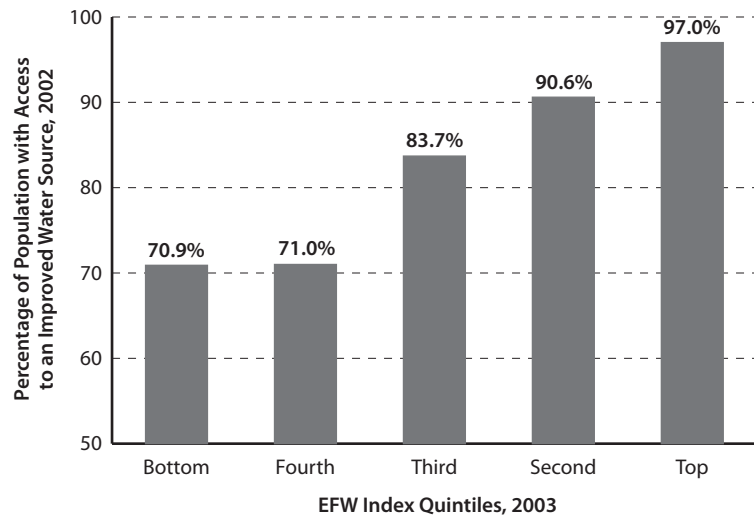




**Exhibit 1.16: Economic Freedom and Access to Improved Water Sources**

*Access to improved water increases with economic freedom.*

Sources: The Fraser Institute; The World Bank, World Development Indicators CD-ROM, 2005.

**Exhibit 1.17: Economic Freedom and "Human Development"**

*More economic freedom is related to greater "human development" as measured by the United Nations.*

Note: The United Nations' Human Development Index (HDI) is measured on a scale from zero to one: zero = least developed; one = most developed.

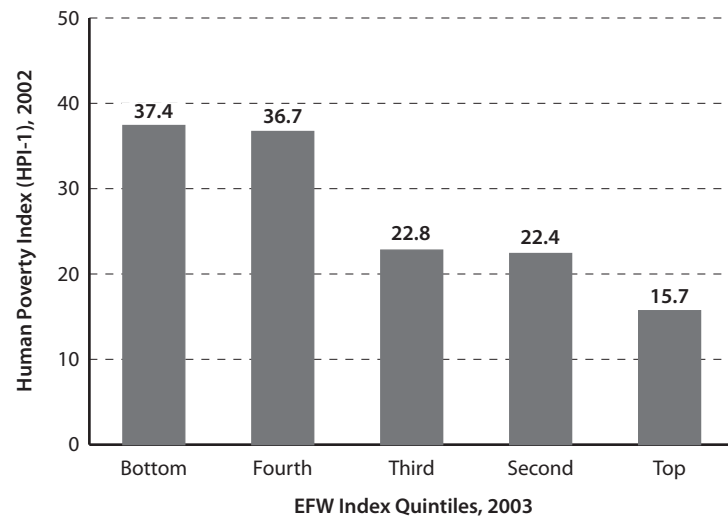
Sources: The Fraser Institute; United Nations Development Programme, *Human Development Indicators 2004* ([http://hdr.undp.org/statistics/data/index\\_indicators.cfm](http://hdr.undp.org/statistics/data/index_indicators.cfm), as of July 5, 2005).

**Exhibit 1.18: Economic Freedom and "Human Poverty"**

*More economic freedom is related to less "human poverty" as measured by the United Nations.*

Note: United Nations' Human Poverty Index (HPI-1) is a composite index measuring deprivations in the three basic dimensions captured in the HDI: a long and healthy life, knowledge, and a decent standard of living. The HPI value indicates the percentage of population deprived of these basic necessities.

Sources: The Fraser Institute; United Nations Development Programme, *Human Development Indicators 2004* ([http://hdr.undp.org/statistics/data/index\\_indicators.cfm](http://hdr.undp.org/statistics/data/index_indicators.cfm), as of July 5, 2005).

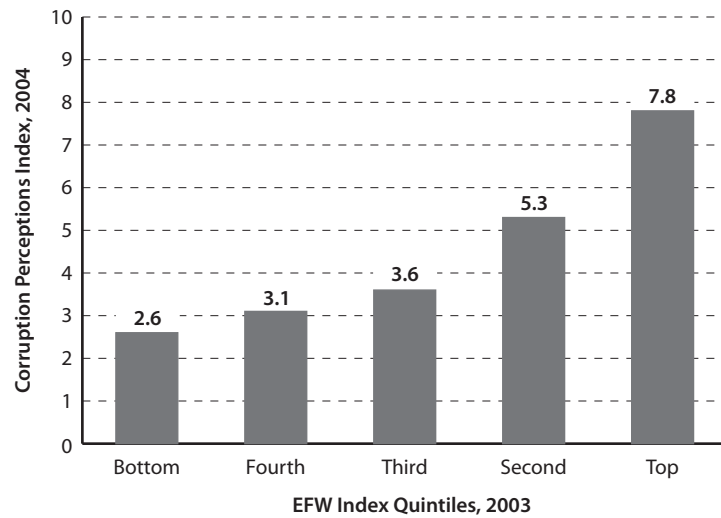


**Exhibit 1.19: Economic Freedom and Corruption**

*With fewer regulations, taxes, and tariffs, economic freedom reduces the opportunities for corruption on the part of public officials.*

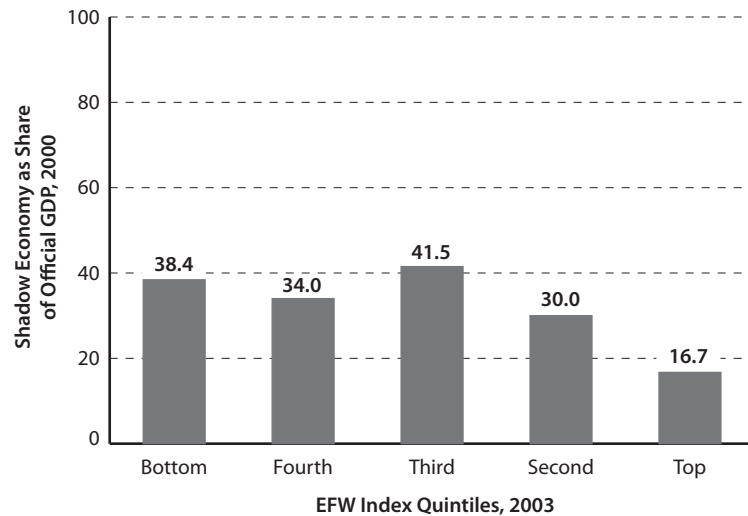
Note: Corruption is measured on a scale from zero to 10: 10 = little or no corruption; zero = highly corrupt.

Sources: The Fraser Institute; Transparency International, *Corruption Perceptions Index 2004* (<http://www.transparency.org/cpi/2004/cpi2004.en.html#cpi2004>, as of July 5, 2005).

**Exhibit 1.20: Economic Freedom and the Shadow Economy**

*The estimated size of the shadow (or underground) economy is lower in countries with more economic freedom.*

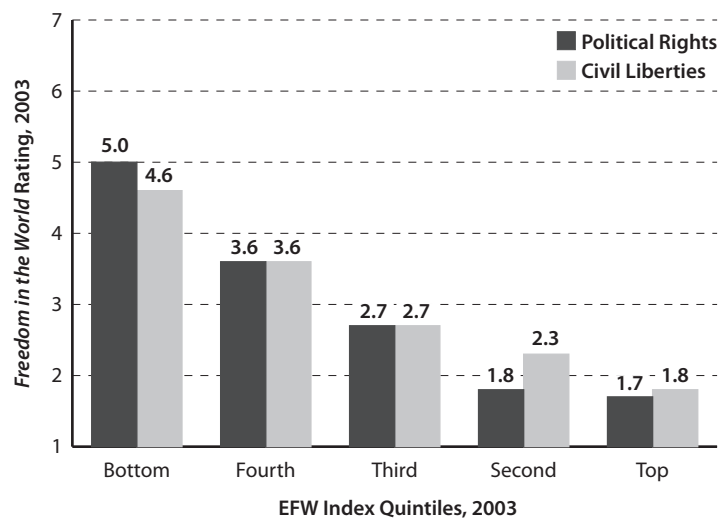
Sources: The Fraser Institute; Friedrich Schneider and Robert Klinglmaier (2004). *Shadow Economies around the World: What Do We Know?* CESifo Working Paper 1167. Munich: Center for Economic Studies & Ifo Institute for Economic Research.

**Exhibit 1.21: Economic Freedom and Political Rights and Civil Liberties**

*Political rights (e.g., free and fair elections) and civil liberties (e.g., freedom of speech) go hand in hand with economic freedom.*

Note: Political rights and civil liberties are measured on a scale from one to seven: one = the highest degree of political rights/civil liberties; seven = the lowest.

Sources: The Fraser Institute; Freedom House, *Freedom in the World Country Ratings, 1972 through 2003* (<http://www.freedomhouse.org/ratings/index.htm>, as of July 5, 2005).



**Exhibit 1.22: Economic Freedom and Political Stability**

*Political stability increases with economic freedom.*

Note: The ratings for political stability range from about -2.5 to 2.5, with higher values corresponding to higher political stability.

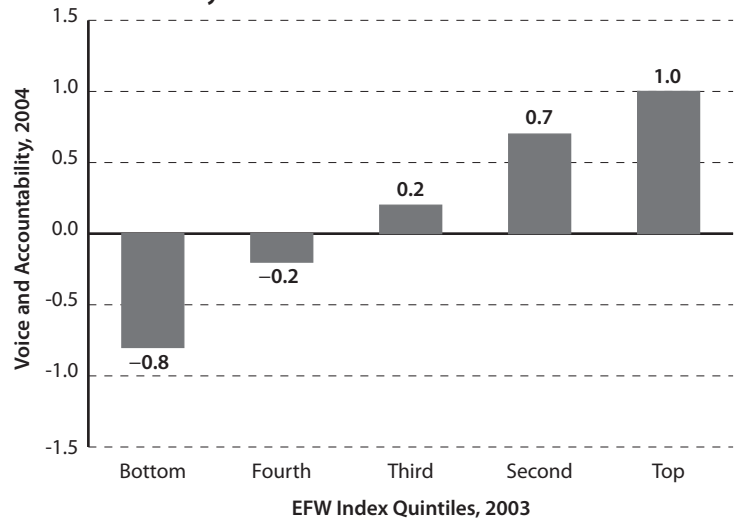
Sources: The Fraser Institute; The World Bank Group, *Governance & Anti-Corruption* (<http://info.worldbank.org/governance/kkz2004/tables.asp>, as of July 5, 2005).

**Exhibit 1.23: Economic Freedom and Voice and Accountability**

*Voice and accountability increases with economic freedom.*

Note: Voice and Accountability measures the extent to which citizens of a country are able to participate in the selection of governments and ranges from about -2.5 to 2.5, with higher values corresponding to higher voice and accountability.

Sources: The Fraser Institute; The World Bank Group, *Governance & Anti-Corruption* (<http://info.worldbank.org/governance/kkz2004/tables.asp>, as of July 5, 2005).



## Notes

- 1 For additional information on these conferences, see Michael A. Walker, ed., *Freedom, Democracy, and Economic Welfare* (Vancouver: The Fraser Institute, 1988); Walter Block, ed., *Economic Freedom: Toward a Theory of Measurement* (Vancouver: The Fraser Institute, 1991); and Stephen T. Easton and Michael A. Walker, eds., *Rating Global Economic Freedom* (Vancouver: The Fraser Institute, 1992).
- 2 The focus of these reports differs substantially from the emphasis of the *Economic Freedom of the World*. The *International Country Risk Guide* is directed toward investors seeking information about financial and political risks that might affect their investments in different countries. The primary focus of the *World Competitiveness Report* is the use of technology, quality of the physical infrastructure, skill of the labor force, and other factors influencing the attractiveness of a country for business activity. However, the two reports also provide information on legal structure, security of property rights, and the regulatory environment. This is the information that is of value for our purposes.
- 3 Researchers can find all the data at <http://www.freetheworld.com>. See Appendix 1: Explanatory Notes and Data Sources for a list of sources used in constructing the index.
- 4 Over the years, we have struggled with how to assign weights to various components and areas to construct a summary index. We have experimented with several weighting methods ranging from the subjective views of “experts” to principal component analysis. In most cases, the choice of weighting method exerts little impact on the rating and ranking of countries. As a result, we have concluded that it is best to keep the procedure simple and transparent. Therefore, we now use a simple average to combine the components into area ratings and the area ratings into summary ratings. By use of this procedure, we do not mean to imply that all components and areas of economic freedom are equally important. For some purposes, clearly some of the components are more important than others. Readers who want to weight the components and areas to suit themselves are invited to do so.
- 5 For the period from 1970 to 1995, we report the same legal structure and property rights rating as in the 2001 report.
- 6 In Areas 2, 4, and 5, we ran a regression among the countries for which we had complete data. The dependent variable was the area rating *with the survey data* and the independent variable was the area rating *excluding the survey data*. The regression relationship indicates how the omission of the survey data affects the area rating. The regression estimates were used to adjust the area ratings for the countries without survey data and, thereby, make them more comparable with the ratings of the countries for which the survey data were available. The same adjustments were performed in all years. This procedure was updated for the *2005 Annual Report*.
- 7 The *International Country Risk Guide* data are computed from an in-house panel of experts whereas the *Global Competitiveness Report* data are based on a survey of business decision-makers.
- 8 The United Arab Emirates saw a significant jump in its rating between 2002 and 2003, increasing from 7.4 (17<sup>th</sup>) to 7.8 (9<sup>th</sup>). The primary reason for this change was that the country was included in the *Global Competitiveness Report* for the first time. As a result, its rating for 2003 is based on more data than was available for the 2002 index. The case of the UAE illustrates why it is better to use the chain-link summary index to make comparisons over time. In the chain-link summary index, the Emirates rating actually fell slightly from 7.4 to 7.3 between 2002 and 2003.
- 9 Although we have a summary index computed for 127 countries in 2003, the chain-link summary index is computed only for the 123 countries receiving ratings in the year 2000.