SCHOLARLY RESOURCE

Economic Freedom of the World, 2002

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For several years, the Economic Freedom of the World (EFW) annual reports published by a network of public-policy institutes, including the Fraser Institute and the Cato Institute, have presented an economic freedom index for a large set of nations around the world.[1] This index is designed to measure the degree to which a nation's policies and institutions protect its citizens' economic freedom. In this article, we explain the basic methodology employed in constructing the index and summarize the study's findings.

What Is Economic Freedom?

Any attempt to quantify economic freedom must begin with a solid theoretical understanding of the concept. The EFW report holds the key ingredients of economic freedom to be personal choice, voluntary exchange, freedom to compete, and protection of person and property. Institutions and policies are consistent with economic freedom when they provide an infrastructure for voluntary exchange and protect individuals and

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1. The most recent report is Gwartney and Lawson 2004. In this article, we draw heavily from the first chapter of that report.

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their property from aggressors who seek to use violence, coercion, and fraud to seize things that do not belong to them. Legal and monetary arrangements are especially important: governments promote economic freedom when they provide a legal structure and a law-enforcement system that protect the property rights of owners and enforce contracts in an even-handed manner. They also enhance economic freedom when they facilitate access to sound money. In some cases, the government itself may provide a currency of stable value. In other instances, it may simply remove obstacles that retard the use of sound money that is provided by others, including private organizations and other governments.

However, 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.

Measurement of Economic Freedom

Table 1 indicates the structure of the index used in *Economic Freedom of the World: 2004 Annual Report* (Gwartney and Lawson 2004). 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; and (5) regulation of credit, labor, and business. Within the five major areas, twenty-one components are incorporated into the index, but many of those components are themselves made up of several subcomponents. Counting the various subcomponents, the EFW index utilizes thirty-eight distinct pieces of data. Each component and subcomponent 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. The next few sections give brief explanations of the components incorporated into each of the five areas and their relationship to economic freedom.

Size of Government: Expenditures, Taxes, and Enterprises

The four components of this area indicate the extent to which countries rely on individual choice and markets rather than on 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 pertain to this issue. Government consumption as a share of total consumption (1A in the table 1 outline) and transfers and subsidies as a share of gross domestic

Table 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 GDP.
- D. Top marginal tax rate (and income threshold to which it applies).
  - i. Top marginal income tax rate (and income threshold at which it applies).
  - ii. Top marginal income and payroll tax rate (and income threshold at which it applies).

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 (GCR).
- B. Impartial courts: A trusted legal framework exists for private businesses to challenge the legality of government actions or regulation (GCR).
- C. Protection of intellectual property (GCR).
- D. Military interference in rule of law and the political process (ICRG).
- E. Integrity of the legal system (ICRG).

3: Access to Sound Money
- A. Average annual growth of the money supply in the past five years minus average annual growth of real GDP in the past ten years.
- B. Standard inflation variability in the past 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 (GCR).
  - ii. Costs of importing: the combined effect of import tariffs, licence fees, bank fees, and the time required for administrative red tape raises costs of importing equipment by (10 = 10 percent or less; 0 = more than 50 percent) (GCR).”
- 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 (GCR).
  - ii. Restrictions on the freedom of citizens to engage in capital-market exchange with foreigners—index of capital controls among thirteen International Monetary Fund categories.

Table 1
Continued

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 (GCR).
- 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 (GCR).

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 (GCR).
- ii. Hiring and firing practices: hiring and firing practices of companies are determined by private contract (GCR).
- iii. Share of labor force whose wages are set by centralized collective bargaining (GCR).
- iv. Unemployment Benefits: the unemployment benefits system preserves the incentive to work (GCR).
- 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 (GCR).
- iii. Time with government bureaucracy: senior management spends a substantial amount of time dealing with government bureaucracy (GCR).
- iv. Starting a new business: starting a new business is generally easy (GCR).
- 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 (GCR).

GCR = Global Competitiveness Report

ICRG = International Country Risk Guide

product (GDP) (1B) are indicators of the size of government. When government consumption is a larger share of the total, political choice has been substituted for private choice. Similarly, when governments tax some people in order to make transfers to others, they reduce individuals' freedom to keep what they earn. Thus, the greater the share of transfers and subsidies in an economy, the less economic freedom there is.

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 differ from those to which private enterprises are subject. They do not depend on consumers for their revenue or on investors for risk capital, and they often operate in protected markets. Thus, economic freedom is reduced when government enterprises produce a larger share of total output.

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

Taken together, these four components measure the degree of a country's reliance on personal choice and markets rather than on government budgets and political decision making. Therefore, countries with low levels of government spending as a share of total spending, with a smaller government enterprise sector, and with lower marginal tax rates earn the highest ratings in this area.

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 that indicate how well the protective function of government is performed were assembled from two sources: the *International Country Risk Guide* and the *Global Competitiveness Report* (various years for both). The ratings from both are based on surveys. The correlation coefficient between the two sets of data for countries included in both sets was 0.748. This high correlation increases our confidence in the reliability of the country ratings in this area even when they are based solely on data from the *International Country Risk Guide*.

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 that the fruits of their productive efforts will be 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.

Access to Sound Money

Money oils the wheels of exchange. An absence of sound money undermines gains from trade. Inflation is a monetary phenomenon that arises when the supply of money outstrips the demand for it. In addition, 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 use money creation to finance their expenditures, they are in effect expropriating citizens' property and violating their economic freedom.

The source of the sound money makes little difference. 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 stable 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.

The EFW index in Area 3 has four components. 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 components are designed to measure the consistency of monetary policy (or of 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.

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. Most of our current goods and services are 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 pleaders and special-interest politics, virtually all countries adopt various types of trade restrictions. Tariffs and quotas are obvious examples of the roadblocks that limit international trade. Because controls on the exchange rate reduce the convertibility of currencies, they also retard international trade. Administrative factors that delay the passage of goods through customs reduce the volume of trade. Sometimes these delays occur because of inefficiency; at other times, 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, exchange rate, and capital controls. 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 capital.

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 (ten of fifteen) of the subcomponents 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 in this area (5A) reflects conditions in the domestic credit market. The first two subcomponents provide evidence on the extent to which private firms dominate the banking industry and whether foreign banks are permitted to compete in the market. The final three subcomponents 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 use a private banking system to allocate credit to private parties and that refrain from controlling interest rates receive higher ratings for this component of the regulatory area.

Many types of labor-market regulations infringe on employees and employers' economic freedom. 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 on economic freedom are present across countries. In order to earn high marks in the component that rates regulation of the labor market, a country must allow market forces to determine wages and establish the conditions of dismissal, must avoid excessive unemployment benefits that undermine work incentives, and must 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 regulation-of-business components 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 must refrain from regulatory activities that retard entry into business and that increase the cost of producing products. They also must refrain from playing favorites—from using their power to extract financial payments from some businesses and to reward other businesses at their expense.

Summary Economic Freedom Ratings, 2002

Table 2 presents summary economic freedom ratings sorted from highest to lowest. These ratings are for the year 2002, the most recent year for which comprehensive data are available. Hong Kong and Singapore occupy the top two positions as usual. The other nations in the top ten are New Zealand, Switzerland, United Kingdom, United States, Australia, Canada, Ireland, and Luxembourg. At the bottom of the list are the Republic of Congo, Guinea-Bissau, Algeria, Venezuela, Central African Republic, Democratic Republic of Congo, Zimbabwe, and, in last place, Myanmar.

Area Economic Freedom Ratings (and Rankings), 2002

In detailed breakdowns of the data, not shown here but available in the full report, a number of interesting patterns appear. The high-income industrial economies generally rank quite high for legal structure and security of property rights (Area 2 in table 1), access to sound money (Area 3), and freedom to trade internationally (Area 4). Their ratings were lower, however, for size of government in expenditures, taxes, and enterprises (Area 1) and regulation of credit, labor, and business (Area 5). This pattern applies most noticeably for western European countries.

In contrast, a number of developing nations show the opposite pattern. Bolivia makes an interesting case study. This country shows that keeping the government to a reasonable size is not enough to reap the benefits of economic freedom. The institutions of economic freedom, such as the rule of law and property rights are required in addition to sound money, trade openness, and sensible regulation. Bolivia ranks twenty-second in size of government (Area 1) and twelfth for access to sound money. However, Bolivia scores poorly in all the other categories, especially legal structure and security of property rights, where it places 111th. In freedom to trade internationally, it ranks fifty-eighth, whereas in regulation it ranks eightieth. Despite high rankings in two areas, Bolivia's overall ranking is only fifty-eighth (see table 2, column 2).

Weakness in the rule of law and property rights is especially pronounced in sub-Saharan Africa, among Islamic nations, and in several nations that were part of the former Soviet bloc, although some of these nations have made strides toward improvement. For example, Estonia ranks thirty-second in rule of law and property rights. However, 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 have governments of reasonable size and sound money policies.

Table 2
Summary Economic Freedom Ratings, 2002

Countries	Rating	Rank
Hong Kong	8.7	1
Singapore	8.6	2
New Zealand	8.2	3
Switzerland	8.2	3
United Kingdom	8.2	3
United States	8.2	3
Australia	7.9	7
Canada	7.9	7
Ireland	7.8	9
Luxembourg	7.8	9
Estonia	7.7	11
Finland	7.7	11
Netherlands	7.7	11
Denmark	7.6	14
Iceland	7.6	14
Austria	7.5	16
Unit. Arab Em.	7.5	16
Belgium	7.4	18
Botswana	7.4	18
Kuwait	7.4	18
Oman	7.4	18
Chile	7.3	22
Germany	7.3	22
Hungary	7.3	22
Sweden	7.3	22
Taiwan	7.3	22

Countries	Rating	Rank
El Salvador	7.2	27
Mauritius	7.2	27
Panama	7.2	27
Portugal	7.2	27
Bahrain	7.1	31
Costa Rica	7.1	31
South Korea	7.1	31
Spain	7.1	31
Trinidad & Tob.	7.1	31
Italy	7.0	36
Japan	7.0	36
Jordan	7.0	36
Latvia	7.0	36
Norway	7.0	36
Czech Rep.	6.9	41
Greece	6.9	41
Jamaica	6.9	41
France	6.8	44
Lithuania	6.8	44
Malta	6.8	44
Peru	6.8	44
South Africa	6.8	44
Uruguay	6.8	44
Thailand	6.7	50
Cyprus	6.6	51
Dominican Rep.	6.6	51

Table 2
Continued

Countries	Rating	Rank	Countries	Rating	Rank
Israel	6.6	51	Fiji	6.0	78
Philippines	6.6	51	Haiti	6.0	78
Slovak Rep	6.6	51	Iran	6.0	78
Uganda	6.6	51	Sri Lanka	6.0	78
Zambia	6.6	51	Bangladesh	5.9	83
Bolivia	6.5	58	Croatia	5.9	83
Malaysia	6.5	58	Morocco	5.9	83
Mexico	6.5	58	Argentina	5.8	86
Guatemala	6.4	61	Cote d'Ivoire	5.8	86
Guyana	6.4	61	Indonesia	5.8	86
Honduras	6.4	61	Senegal	5.8	86
Kenya	6.4	61	Albania	5.7	90
Namibia	6.4	61	China	5.7	90
Nicaragua	6.4	61	Nigeria	5.7	90
Poland	6.4	61	Pakistan	5.7	90
Bahamas	6.3	68	Barbados	5.6	94
Belize	6.3	68	Cameroon	5.6	94
Ghana	6.3	68	Ecuador	5.6	94
India	6.3	68	Mali	5.6	94
Tanzania	6.3	68	Nepal	5.6	94
Tunisia	6.3	68	Pap. New Guinea	5.6	94
Brazil	6.2	74	Madagascar	5.5	100
Egypt	6.2	74	Malawi	5.5	100
Paraguay	6.2	74	Turkey	5.5	100
Slovenia	6.2	74	Benin	5.4	103
Bulgaria	6.0	78	Chad	5.4	103

Table 2
Continued

Countries	Rating	Rank
Romania	5.4	103
Syria	5.4	103
Colombia	5.3	107
Niger	5.3	107
Rwanda	5.3	107
Ukraine	5.3	107
Sierra Leone	5.2	111
Gabon	5.1	112
Togo	5.1	112
Russia	5.0	114
Burundi	4.9	115
Congo, Rep. Of	4.9	115
Guinea-Bissau	4.8	117
Algeria	4.6	118
Venezuela	4.6	118
Central Afr. Rep.	4.5	120
Congo, Dem. R.	4.4	121
Zimbabwe	3.4	122
Myanmar	2.5	123

The economies most open to foreign trade are Hong Kong, Singapore, and Ireland. Two former Soviet bloc nations also rank fairly high in openness to trade, Estonia in sixth place and Hungary in fourteenth. The least-regulated countries—those at the top in regulation of credit, labor, and business (Area 5)—are Hong Kong, Iceland, and the United States.

A Chain-Linked Summary Index

One of the most valuable aspects of this economic freedom index is that it can be calculated back to 1970 for many countries. We rate 53 countries for 1970; 70 for 1975; 102 for 1980; 109 for 1985; 113 for 1990; and 123 for 1995 and 2000–2002. Using these longitudinal data, researchers can better 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 situation resembles that of comparing GDP or a price index over time when we know that the underlying goods and services used to calculate these summary statistics are constantly changing. The problem of missing components threatens the comparability of the index ratings over time.

To correct for this problem, we have constructed a summary economic freedom index that uses 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 present in adjacent years. For example, the 1995 chain-linked rating is based on the 2000 rating, but it is adjusted according to the changes in the underlying data between 1995 and 2000 for those components 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 ratings for components were lower than those for 2000 for the overlapping components between the two years, then the 1995 summary rating was adjusted downward proportionately 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 2002. 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 overlapping years, as appropriate when one is making comparisons across time periods.

Table 3 presents this "chain-linked" economic freedom index for the years from 1970 to 2002. Researchers doing longitudinal studies of economic freedom should use these chain-linked data.

Has Economic Freedom Been Increasing or Decreasing?

The chain-linked index sheds light on this question. We have summary ratings for 104 countries (out of the 123 countries rated) from 1980 to 2002. This group includes all of the major economies except Russia, which had to be omitted because of discontinuity resulting from the breakup of the Soviet Union. The group's mean EFW rating rose from 5.1 in 1980 and 5.2 in 1985 to 5.6 in 1990, 6.1 in 1995, and 6.5 from 2000 to 2002. Thus, the summary rating has risen almost a point and a half since 1980.

Closer inspection of the components makes clear why the summary ratings have increased substantially during the past two decades. Consider the following:

- Monetary policy became more stable. The mean rating in the "Access to Sound Money" area rose from 6.0 in 1980 to 8.0 in 2002. In 2002, only 15 of the 104 countries had double-digit inflation rates, compared to 76 in 1980.

- The use of extremely high marginal tax rates fell sharply. In 2002, not a single country imposed a 60 percent marginal tax rate on personal income; in 1980, 49 countries did so.

- Exchange-rate controls were liberalized substantially. In 2002, only 4 countries had black-market exchange-rate premiums of 25 percent or more, compared to 36 countries with such a premium in 1980.

- Tariff rates were reduced. In 2002, the mean tariff rate was 10.4 percent, compared to 26.1 percent in 1980.

Table 3
A Chain-Linked Summary Index

Countries	1970	1975	1980	1985	1990	1995	2000	2001	2002
Albania					3.3	4.1	5.7	5.8	5.8
Algeria			3.8	3.8	3.4	3.6	4.3	4.8	4.7
Argentina	4.4	2.8	3.9	3.5	4.4	6.7	7.2	6.5	5.8
Australia	6.6	5.8	6.4	6.8	7.3	7.8	8.0	7.9	7.9
Austria	6.0	5.7	6.2	6.2	6.9	7.0	7.5	7.6	7.5
Bahamas		6.1	5.8	5.8	6.2	6.3	6.5	6.5	6.5
Bahrain			7.0	6.5	6.8	6.9	7.2	7.1	7.1
Bangladesh		2.8	3.1	3.3	4.2	5.0	5.7	5.7	5.9
Barbados		5.0	5.1	5.4	5.8	5.8	5.6	5.5	5.8
Belgium	7.3	6.6	6.8	6.9	7.2	7.2	7.5	7.4	7.4
Belize			5.0	4.8	5.7	6.3	6.2	6.2	6.5
Benin			4.9	4.6	4.9	4.5	5.6	5.8	5.5
Bolivia			4.4	3.5	5.2	6.5	6.7	6.5	6.5
Botswana			5.0	5.1	5.4	6.0	7.2	7.1	7.4
Brazil	4.8	4.0	3.7	3.2	3.9	4.1	5.9	5.9	6.2
Bulgaria				4.7	3.7	4.5	5.1	5.7	6.0
Burundi		3.9	4.0	4.5	4.7	4.3	5.1	5.3	5.1
Cameroon			5.4	5.6	5.7	5.2	5.5	5.9	5.7
Canada	7.4	6.6	7.0	7.0	7.7	7.8	8.1	8.1	7.9
Central Afr. Rep.				4.5	5.0	4.7	4.9	5.0	4.9
Chad				4.8	4.6	4.5	5.4	5.8	5.6
Chile	3.6	3.6	5.3	5.8	6.8	7.5	7.5	7.3	7.3
China			3.8	4.8	4.2	4.9	5.8	5.9	5.7
Colombia	5.4	5.0	4.8	5.2	5.0	5.6	5.4	5.5	5.3

Table 3
Continued

Countries	1970	1975	1980	1985	1990	1995	2000	2001	2002
Congo, Dem. R.	4.7	4.2	3.0	3.9	3.7	4.1	3.5	3.6	4.9
Congo, Rep. of			5.1	5.0	5.6	5.5	4.4	4.7	5.0
Costa Rica		5.6	5.0	4.7	6.5	6.7	7.3	7.2	7.1
Cote d'Ivoire			5.1	5.7	5.5	5.5	5.7	5.8	5.9
Croatia						3.8	5.8	6.2	5.8
Cyprus		5.3	5.2	5.2	5.9	6.1	6.2	6.2	6.8
Czech Rep.						5.9	6.7	6.9	6.9
Denmark	6.6	5.9	6.0	6.2	7.0	7.4	7.7	7.6	7.6
Dominican Rep.			4.8	4.6	4.4	6.2	6.5	6.5	6.6
Ecuador	3.6	4.7	5.0	4.1	5.0	5.9	5.4	5.3	5.6
Egypt		3.9	4.6	5.0	4.8	5.9	6.7	6.5	6.2
El Salvador			4.3	4.0	4.5	6.8	7.3	7.3	7.2
Estonia						5.3	7.1	7.4	7.7
Fiji		5.1	5.4	5.6	5.8	6.0	6.1	6.0	6.2
Finland	6.6	5.8	6.4	6.5	7.0	7.5	7.7	7.7	7.7
France	6.2	5.4	5.7	5.7	6.8	6.8	7.0	6.7	6.8
Gabon			4.0	4.7	5.0	5.0	5.0	5.3	5.2
Germany	7.3	6.8	7.0	7.1	7.3	7.5	7.6	7.3	7.3
Ghana		3.0	2.3	2.5	4.3	5.0	5.9	5.6	6.4
Greece	6.1	5.6	5.6	5.1	5.7	6.2	6.9	6.8	6.9
Guatemala	5.8	6.4	5.9	4.7	5.6	6.7	6.4	6.4	6.4
Guinea-Bissau					2.7	3.5	4.4	5.2	4.9
Guyana						4.8	6.6	6.7	6.4
Haiti			5.6	5.8	5.5	5.4	6.4	5.9	6.0

Honduras			5.5	5.3	5.2	6.0	6.4	6.3	6.4
Hong Kong	8.3	8.3	8.6	8.3	8.6	9.1	8.7	8.7	8.7
Hungary			4.2	4.9	4.8	6.2	6.7	7.1	7.3
Iceland	6.1	4.2	4.9	5.1	6.6	7.3	7.7	7.7	7.6
India	4.9	4.1	4.9	4.6	4.8	5.5	6.2	6.2	6.3
Indonesia	4.8	5.3	5.2	6.2	6.6	6.7	5.9	5.5	5.8
Iran	5.8	5.7	3.4	3.7	4.1	4.0	5.6	6.2	6.1
Ireland	6.5	5.8	6.2	6.2	7.0	8.2	8.1	7.9	7.8
Israel	4.9	4.2	3.7	4.3	4.4	6.0	6.5	6.5	6.6
Italy	5.8	5.1	5.2	5.4	6.4	6.5	7.1	7.0	7.0
Jamaica			3.9	4.3	5.4	6.3	7.0	6.9	6.9
Japan	6.2	5.9	6.4	6.5	7.1	6.9	7.3	7.0	7.0
Jordan		5.2	5.0	5.5	5.6	6.2	7.0	6.7	7.0
Kenya	4.7	4.5	4.7	5.0	5.3	5.7	6.5	6.6	6.7
Kuwait			5.8	7.9	5.1	6.6	6.7	7.3	7.4
Latvia						4.6	6.6	6.7	7.0
Lithuania						4.7	6.3	6.3	6.8
Luxembourg	6.9	6.9	6.8	7.2	7.4	7.6	7.8	7.7	7.7
Madagascar			3.8	4.1	3.9	4.0	5.8	6.2	5.7
Malawi		4.8	4.3	4.4	4.7	4.4	4.7	5.4	5.4
Malaysia	6.0	5.9	6.4	6.5	7.1	7.2	6.8	6.4	6.5
Mali		4.9	5.0	4.7	4.8	4.9	6.0	5.8	5.7
Malta			5.0	4.8	5.2	6.4	6.5	6.5	6.6
Mauritius		4.6	4.7	5.9	6.1	7.3	7.3	7.3	7.2
Mexico	6.0	5.3	5.1	4.3	5.7	6.2	6.3	6.3	6.5
Morocco	5.5	4.9	4.3	4.9	4.8	5.8	6.0	6.0	5.9
Myanmar			4.5	4.1	2.8	3.5	3.6	3.5	2.8
Namibia					5.3	6.6	6.3	6.5	6.3

Table 3
Continued

Countries	1970	1975	1980	1985	1990	1995	2000	2001	2002
Nepal			5.2	4.8	5.1	5.2	5.8	5.9	5.8
Netherlands	7.0	6.4	6.8	7.0	7.4	7.8	8.0	7.7	7.7
New Zealand	6.0	5.4	6.1	5.9	7.3	8.5	8.4	8.2	8.2
Nicaragua			3.7	1.7	2.4	5.3	6.6	6.4	6.4
Niger			4.9	5.3	4.7	4.6	5.8	5.6	5.4
Nigeria	3.4	3.6	3.5	3.7	3.5	3.8	5.3	5.5	5.7
Norway	6.0	5.5	5.8	6.3	7.0	7.5	7.2	7.1	7.0
Oman				6.2	6.1	6.8	7.4	7.4	7.4
Pakistan	4.3	3.7	4.5	5.1	5.0	5.7	5.4	5.6	5.8
Panama		6.4	5.2	5.7	6.3	7.2	7.1	7.1	7.2
Pap. New Guinea				5.9	6.3	6.3	5.9	5.9	5.7
Paraguay			5.5	4.9	5.5	6.6	6.3	6.4	6.2
Peru	4.6	3.8	3.9	2.9	3.6	6.2	6.9	6.9	6.8
Philippines	5.2	4.8	4.9	4.8	5.4	7.2	7.1	6.6	6.6
Poland				3.4	3.3	4.8	6.3	6.2	6.4
Portugal	6.0	3.7	5.5	5.3	6.0	7.2	7.3	7.2	7.2
Romania				4.5	4.0	3.6	4.9	5.0	5.4
Russia						3.7	4.9	4.9	5.0
Rwanda					4.6	3.6	5.1	5.4	5.4
Senegal			4.6	4.9	5.3	4.6	5.8	5.8	5.8
Sierra Leone		5.6	5.3	3.5	3.8	4.4	5.1	5.2	5.4
Singapore	7.4	7.3	7.5	7.9	8.5	8.8	8.5	8.5	8.6
Slovak Rep						5.1	6.3	6.3	6.6

Slovenia						4.7	5.9	6.0	6.2
South Africa	5.9	5.5	5.4	5.0	5.2	6.3	6.8	6.7	6.8
South Korea	5.3	5.3	5.6	5.6	6.2	6.7	6.7	7.1	7.1
Spain	6.1	5.5	5.7	5.8	6.2	7.0	7.4	7.0	7.1
Sri Lanka			4.9	5.0	4.9	6.1	6.1	6.0	6.0
Sweden	5.5	5.2	5.6	6.2	6.6	7.1	7.4	7.2	7.3
Switzerland	7.4	7.2	7.7	7.8	7.9	7.9	8.3	8.1	8.2
Syria	4.7	4.9	4.0	3.6	3.5	4.3	4.9	5.7	5.2
Taiwan	6.6	5.8	6.7	6.9	7.1	7.3	7.2	7.1	7.3
Tanzania	4.4	3.8	3.9	3.4	3.7	4.8	5.8	6.7	6.2
Thailand	5.7	5.6	5.9	5.9	6.8	7.2	6.7	6.7	6.7
Togo			4.2	5.4	5.1	4.8	5.1	5.3	5.2
Trinidad & Tob.		4.3	4.5	4.4	5.5	6.7	7.0	6.9	7.1
Tunisia	4.5	4.6	4.9	4.7	5.3	5.9	6.1	6.2	6.2
Turkey	3.6	3.8	3.5	4.7	4.8	5.8	5.8	5.3	5.5
Uganda			2.9	2.5	2.6	4.9	6.7	6.7	6.6
Ukraine						3.7	4.7	5.0	5.3
Unit. Arab Em.			5.8	6.6	7.3	7.3	7.6	7.5	7.5
United Kingdom	5.9	5.8	6.1	7.0	7.7	8.2	8.3	8.3	8.2
United States	7.0	7.1	7.4	7.5	8.1	8.3	8.6	8.3	8.2
Uruguay			5.3	5.4	5.8	5.8	6.6	6.6	6.8
Venezuela	7.3	6.2	6.7	6.2	5.6	4.3	5.8	5.7	4.6
Zambia		4.0	4.4	3.5	2.8	4.4	6.6	6.7	6.6
Zimbabwe			4.7	4.6	4.9	6.0	4.3	3.4	3.4

- The size of the trade sector expanded. Between 1980 and 2002, exports plus imports as a share of GDP increased by 25.2 percent on average.

- Controls on both capital markets and interest rates were relaxed. The average rating for the capital-controls component was 5.3 in 2002, compared to 2.2 in 1980. For the interest-rate-control component, the average rating was 9.1 in 2002, up from 5.4 in 1980.

These components paint a clear picture. During the past two decades, many countries have adopted a more stable monetary policy, cut marginal tax rates, reduced tariffs, and liberalized or eliminated controls on exchange rates, interest rates, and capital markets. As a result, the average EFW rating in 2002 is considerably higher than in 1980.

Changes in Country Ratings from 1980 to 2002

The chain-linked EFW index can also be used to track countries' levels of economic freedom. Some countries have registered high ratings consistently throughout the past two decades. Hong Kong, Singapore, Switzerland, and the United States provide examples. Germany's EFW rating has also been quite steady, between 7.0 and 7.6 from 1980 to 2002. Germany's rating in 2002 was 7.3, compared to 7.0 in 1980. However, because several other countries have made substantial improvements, Germany's ranking has been declining, receding to twenty-second (tied with four other countries) in 2002 (see table 2). France's experience has been similar. Since 1990, France's rating has been in the 6.7 to 7.0 range. Because other countries have been improving, however, France's ranking has receded. Its 6.8 rating in 2002 placed it forty-fourth (tied with five other countries) among the 123 countries included in the index (table 2).

What countries have improved their rating the most? When did the changes take place? The chain-linked index provides answers to these questions. The following countries have registered substantial gains in economic freedom during the past two decades.

- Australia registered steady improvement from 1980 to 2000 as its rating rose from 6.4 in 1980 to 7.3 in 1990 and 8.0 in 2000 (and 7.9 in 2001 and 2002).

- Botswana increased its rating from 5.1 in 1985 to 6.0 in 1995 and 7.4 in 2002.

- Chile's rating improved from 3.6 in 1975 to 5.8 in 1985 and 7.5 in 1995. Chile's 2002 rating was 7.3, more than three points above its 1975 level.

- China's rating rose from 3.8 in 1980 to 4.2 in 1990 and 5.8 in 2000. China's 2002 rating was 5.7, almost two full points above its rating in 1980.

- El Salvador improved its rating substantially during the 1990s, moving from 4.5 in 1990 to 6.8 in 1995 and 7.3 in 2000 (and 7.2 in 2002).

- Ghana's rating increased from 2.5 in 1985 to 5.0 in 1995 and 6.4 in 2002.
- Iceland increased its rating from 5.1 in 1985 to 7.3 in 1995 and 7.6 in 2002.
- India's rating has improved substantially since 1990. After stagnating between 4.1 and 4.9 from 1970 to 1990, its rating rose to 5.5 in 1995, 6.2 in 2000, and 6.3 in 2002.
- Ireland's rating jumped between 1985 and 1995. It rose from 6.2 in 1985 to 7.0 in 1990 and 8.2 in 1995. During the past few years, Ireland's rating has receded slightly to 7.8 in 2002.
- Mauritius's rating jumped from 4.7 in 1980 to 6.1 in 1990 and 7.3 in 2000 (and 7.2 in 2002).
- New Zealand's rating improved substantially between 1985 and 1995. It rose from 5.9 in 1985 to 7.3 in 1990 and 8.5 in 1995, before receding slightly to 8.2 in 2002.
- Trinidad and Tobago's rating rose from 4.4 in 1985 to 5.5 in 1990 and 6.7 in 1995. Its 2002 rating was 7.1, almost three points higher than in 1985.
- Uganda has improved its rating from 2.6 in 1990 to 4.9 in 1995, 6.7 in 2000 and 2001, and 6.6 in 2002. Thus, its rating jumped by four points during the 1990s.
- The United Kingdom was a big gainer during the period from 1980 to 1995 as its rating rose from 6.1 in 1980 to 7.0 in 1985, 7.7 in 1990, 8.2 in 1995, and 8.3 in 2000 and 2001.

The foregoing group is geographically and economically diverse. It contains the world's two most populous countries, India and China. It includes some of the world's poorest economies as well as some that are relatively well off. This diversity indicates the breadth of economic liberalization around the world.

In addition, several former centrally planned economies have made substantial moves toward economic liberalization since 1990. Among this group:

- Estonia's EFW rating jumped from 5.3 in 1995 to 7.7 in 2002.
- Latvia's rating jumped from 4.6 in 1995 to 7.0 in 2002.
- Lithuania's rating increased from 4.7 in 1995 to 6.8 in 2002.
- Hungary's rating rose from 4.8 in 1990 to 7.3 in 2002.
- The Czech Republic's rating increased from 5.9 in 1995 to 6.9 in 2002.
- Poland's rating rose from 3.3 in 1990 to 4.8 in 1995 and 6.4 in 2002.
- The Slovak Republic's rating increased from 5.1 in 1995 to 6.6 in 2002.

These countries now have relatively normal economies, and they have established the foundation for further moves toward economic liberalization. Although Bulgaria, Romania, Russia, and Ukraine lag farther behind, they too are showing some signs of movement toward economic freedom.

Because of the general trend toward liberalization, the EFW rating of most countries has risen over the past two decades. Only a few countries have experienced outright declines in their EFW rating since 1980. The following countries stand out for having less economic freedom today than twenty years ago: the Republic of Congo, Zimbabwe, Myanmar, and Venezuela. Astoundingly, Venezuela's rating in the chain-linked index has declined by more than two full points since 1980.

Since 1995, the general trend has been somewhat less positive. Ten countries' EFW rating declined by 0.5 or more between 1995 and 2002. The following countries fall in this category:

- Zimbabwe's rating plunged from 6.0 in 1995 to 3.4 in 2002.
- Indonesia's rating fell sharply from 6.7 in 1995 to 5.8 in 2002.
- Argentina's rating fell from 6.7 in 1995 to 5.8 in 2002.
- Malaysia's rating fell from 7.2 in 1995 (and 7.1 in 1990) to 6.8 in 2000 and 6.5 in 2002.
- Myanmar, the least-free economy among those included in our analysis, fell even lower, from 3.5 in 1995 to 2.8 in 2002.
- Papua New Guinea's rating fell from 6.3 in both 1990 and 1995 to 5.7 in 2002.
- The Philippines' rating fell from 7.2 in 1995 to 6.6 in 2002.
- Thailand's rating declined from 7.2 in 1995 to 6.7 in 2002.
- The already low rating of the Republic of Congo fell from 5.5 in 1995 to 5.0 in 2002.
- Norway's 7.5 rating in 1995 receded to 7.0 in 2002.

Although some of these changes are relatively small, these countries can expect to see their rankings continue to decline if the recent trend is not reversed.

Conclusion

Many factors influence the degree of economic freedom. Although no single statistic can capture all of them and their interrelations fully, the index presented here captures most of the important elements and provides a reasonably good measure of cross-country differences in economic freedom. The identification of these differences has been useful for researchers interested in the relationship between economic freedom and other economic variables such as income, economic growth, income equality, environmental quality, and so on. To date, dozens of scholarly articles and hundreds of policy and journalistic reports have made use of the index. Niclas Berggren (2003) summarizes much of the scholarly literature.[2] As researchers and policymakers continue to use the index, the future of the concept of economic freedom is bright.

References

Berggren, Niclas. 2003. The Benefits of Economic Freedom. *The Independent Review* 8, no. 2: 193–211.

Gwartney, James D., and Robert A. Lawson. 2004. *Economic Freedom of the World: 2004 Annual Report*. Vancouver: Fraser Institute.

2. A list of selected scholarly publications that use the index also appears in appendix 2 of Gwartney and Lawson 2004.