



Economic Freedom, Prosperity, and Equality: A Survey

Steve H. Hanke and Stephen J. K. Walters

Steve H. Hanke is Professor of Applied Economics at The Johns Hopkins University and a columnist for *Forbes*. Stephen J. K. Walters is Professor of Economics at Loyola College in Maryland. The authors thank the Institute for Humane Studies Social Change Research Program for its support for this research, and Ian V. Squeez for helpful comments. A longer version of this paper first appeared as a report to the Senate Joint Economic Committee (Hanke and Walters 1997).

The best thing a society can do to increase its prosperity is to wise up. This means, in turn, that it is very important that economists, inside government and out, get things right. When we are wrong, we do a lot of harm. When we are right--and have the clarity needed to prevail against the special interests and the quacks--we make an extraordinary contribution to the amelioration of poverty and the progress of humanity. The sums lost because the poor countries obtain only a fraction of . . . their economic potentials are measured in the trillions of dollars.

--Mancur Olson

Economic growth is, quite literally, a matter of life and death. The relation between income growth and life expectancy is, of course, complex. Growth affects life expectancy through many channels: higher individual and national incomes produce favorable effects on nutrition, on standards of housing and sanitation, and on health and education expenditures. While it is true that reductions in mortality have sometimes been the result of "technological" factors, in the larger sense it is clear that sustained economic growth is a precondition for the kinds of investments and innovations that, over time, significantly reduce mortality. The evidence on this point is abundant and unequivocal (see, e.g., Schultz 1993).

Figure 1 shows, in a crude way, the positive linkage between per capita income and life expectancy for a cross-section of countries. Note that the relationship is characterized by diminishing returns: given increments in income yield smaller and smaller gains in life expectancy (see Preston 1975).[1] Nevertheless, the potential gains in life expectancy in

poorer countries are quite large. Based on the data shown in Figure 1, for example, increasing a representative country's per-capita annual income from, say, \$500 to \$1,000 might increase life expectancy in that country by over 6 percent--or 3 3/4 years.

It is for such reasons that policymakers and scholars have long been acutely interested in the process of economic development; indeed, interest even predates Adam Smith's publication of *An Inquiry into the Nature and Causes of the Wealth of Nations* in 1776. Unfortunately, the search for a recipe for growth often has overlooked some important ingredients.

In older models of economic growth, physical resources were all. In these formulations, output flowed from combinations of various inputs (land, labor, capital). In principle, then, it seemed logical to conclude that faster growth would result from infusions of additional inputs (chiefly capital) or better use of existing inputs (often thought to require centralized economic planning). In practice, however, such prescriptions often have been disastrous for less developed countries (see Bauer 1984). Newer ("endogenous growth") models have identified many other variables that contribute to differences in growth rates--e.g., knowledge spillovers resulting from increases in the stock of physical capital, technology transfers, and human capital investment. Yet even these sophisticated formulations often fail to explain observed patterns of development (see Olson 1996).

Most recently, however, some students of economic growth have returned to first principles. They have concluded that analysis of how markets operate may be a poor guide to how markets develop (see North 1990, 1994). They have focused on the nature of institutions and on the structure of rules and norms that constrain economic behavior as a way of understanding the development process. And they have rediscovered Smith's ancient insight that economic liberty is a crucial precondition for sustained, vigorous economic growth.

This is not to deny that abundant natural resources, a highly skilled labor force, and ready availability of new technologies may enhance growth. But these factors are neither necessary nor sufficient conditions for growth. If resource endowments determined a national economy's fate, Venezuela would be rich and Taiwan poor--and South Korea would be as destitute as North Korea. East Germany's highly skilled labor force should have enabled it to keep pace with West Germany before the Iron Curtain fell. And if access to sophisticated technology guaranteed prosperity, perhaps the Soviet Union would still exist.

As discussion of the linkage between economic liberty and economic growth has proceeded, there has been great interest in identifying the key components of economic liberty and, if possible, measuring it. That is the focus of this survey. In what follows, we will: (i) summarize the basic approaches to measuring economic liberty and discuss some of the methodological problems involved, (ii) identify the measurement efforts already undertaken and summarize their varying approaches to these problems, (iii) critically evaluate these measurement efforts, (iv) discuss the linkage between existing measures of

economic liberty and crucial economic performance indicators such as income level and inequality, and (v) discuss the usefulness of these measures as guides for policy.

Before doing so, however, we should clarify some terms. Note first that economic liberty is distinct from political or civil liberty. By most accounts, political liberty is present when citizens are free to participate in the political process on an equitable basis, there is meaningful competition in the political sphere, and elections are free and fair. Civil liberties include protection against unreasonable searches, access to fair trials, and rights of free assembly, expression, and practice of religion.

While such political and civil liberties may go hand in hand with economic liberties, we must also recognize that a country may be "free" or "democratic" in a civil or political sense, but lack economic freedom. At the same time, a country may lack political or civil liberties, yet possess abundant economic freedom. In this survey, we focus on economic liberty not because other liberties are unimportant, but simply because there is no conclusive evidence that they are preconditions for economic growth (see Przeworski and Limongi 1993).

Though scholars have yet to agree on a single, operational definition of economic liberty, there appears to be wide agreement on its central elements (see Rabushka 1991):

- Secure rights to property (legally acquired);
- Freedom to engage in voluntary transactions, inside and outside a nation's borders;
- Freedom from governmental control of the terms on which individuals transact; and
- Freedom from governmental expropriation of property (e.g., by confiscatory taxation or unanticipated inflation).

Clearly, these elements prescribe an important but balanced role for government. The institutions of government will create and enhance economic freedom by making and enforcing rules governing behavior in the economic sphere--e.g., by preventing Paul from stealing Peter's property. But government might also diminish economic freedom by itself robbing Peter, whether to pay Paul or achieve some other objective. Of course, reasonable people will differ about what constitutes a "balanced role" for government, and this will make the task of measuring economic liberty more difficult, as we shall see.

Measuring Economic Liberty: Basic Approaches and Problems

Unlike a country's Gross Domestic Product or a candidate's vote totals, economic liberty cannot simply be counted. Freedom is a quality rather than a quantity. In consequence, a certain amount of subjectivity and imprecision will be inevitable in any attempts to measure economic freedom.

This is why most such attempts have produced rankings of countries according to the amounts of economic liberty present, rather than numerical measurements of these

amounts. (In economics jargon, the focus is on "ordinal" rather than "cardinal" measures of freedom.) In effect, students of economic liberty are far more comfortable saying, e.g., "Switzerland is more economically free than Somalia" than saying "Switzerland contains 10.0 units of economic freedom while Somalia contains 0.5." Of course, the process of ranking countries may involve calculating liberty "scores" by some method, but no one, to our knowledge, has yet suggested such scores mean that "Switzerland is 20 times freer than Somalia."

There are infinitely many ways to develop such rankings (and/or calculate such scores). Perhaps the simplest way is via an opinion poll: ask a knowledgeable sample of individuals to rank countries based their perceptions of the degree of economic freedom present therein. The resulting individual rankings can be averaged to produce a "consensus ranking" of the sample.

On the surface, this method would appear to involve very high degrees of subjectivity and imprecision. No matter how carefully chosen is the sample of knowledgeable individuals, there will be variance in the degree of their expertise across countries, the factors they consider important in determining economic freedom, and the relative weights they attach to these factors in devising their rankings.

The desire to minimize such variance and to produce more objective and precise rankings has led to several alternative approaches that--at least on the surface--appear more sophisticated. In general, these efforts involve (a) identification of the crucial elements of economic liberty, (b) quantification of these elements, and (c) weighting these elements in some way so that a liberty index or score may be calculated for ranking purposes.

Note, however, that many crucial elements of economic liberty may not be observable or readily quantifiable, requiring the use of various "proxies" for these elements. These proxies may mirror the underlying element of liberty with some distortion. For example, we may decide that the absence of barriers to international exchange is an important element of economic liberty. Tariffs are one such barrier. In consequence, we may choose to measure this element of liberty with a discrete variable (e.g., zero if tariffs exist or exceed some threshold, one if not), a continuous variable (e.g., the average tariff rate), or some combination of variables. Our choice of proxies may crucially affect the resulting scores and rankings.

The weights attached to each element (or proxy) will do the same. We may decide, for example, that freedom of international exchange and freedom of domestic exchange are both crucial elements of economic liberty. But is one more important than the other? Which? Consider countries X and Y. X imposes immense barriers to international trade, but has no restrictions on domestic commerce, while Y has moderate barriers both internationally and domestically. Clearly, if we give great weight to international trade barriers in devising a liberty index or score, X will rank below Y. But can we say with confidence that individuals in X have less economic freedom than those in Y?

For such reasons, measurement efforts have proceeded slowly, amid considerable discussion about the nature of economic liberty, the best proxies for its crucial elements, and the most suitable weighting techniques for such elements. From a conceptual standpoint, it is far from clear that more mechanical, quantitative approaches are superior to well-designed opinion polls; indeed, some eminent scholars have argued that rankings derived from more mechanical approaches must be tested against informed opinion to see whether they "make sense" and "work" (see, e.g., Friedman and Friedman 1992). The goal has always been to develop indicators of economic freedom that are accurate, useful, and relatively easy to tabulate. In the next section, we will summarize the major efforts to accomplish these tasks thus far.

The Major Measurement Efforts

A First Approximation

The list of those who can validly claim to have contributed to the rediscovery of the link between free economic institutions and economic growth is long--far too long for this survey. But it is probably fair to say that the first attempt to systematically measure economic freedom was produced by Raymond Gastil and Lindsay Wright for Freedom House in 1983, and grew out of Freedom House's annual report on political and civil liberties around the world (Gastil 1984).

Gastil and Wright assigned countries scores of 1 to 7 (1 signifying most-free) for political and civil liberties, and then supplemented this data with information on a country's economic system in order to assign each country a score for economic freedom (Gastil and Wright 1988). Milton Friedman correlated their rankings for civil liberties (which included consideration of private property rights, business freedom, and freedom from "gross government indifference or corruption") with two measures of economic welfare: he found that each one-unit improvement in a country's civil liberties score was correlated with a 34 percent reduction in infant mortality and a 49 percent increase in GNP per capita (Friedman 1988: 122).

This was clearly an exciting finding; predictably, efforts to measure economic freedom proceeded with a greater sense of urgency. For its part, Freedom House supported additional work aimed at refining the measures of Gastil and Wright. Simultaneously, other organizations began work on alternative measures that would focus more on economic (rather than political or civil) liberties. Symposia on the topic were sponsored by such organizations as the Mont Pèlerin Society, the Liberty Fund, the Fraser Institute, the Cato Institute, and the Heritage Foundation.

Scully's Studies

Gerald W. Scully was the first to build on the work of Gastil and Wright, enhancing their measures of economic liberty and subjecting them to rigorous empirical analysis. His work provided irrefutable evidence of the strong linkage between free economic

institutions and various measures of economic and social welfare. In his first published report on the issue, Scully (1988: 661) concluded:

The choice of the institutional framework has profound consequences on the efficiency and growth of economies. Politically open societies, which bind themselves to the rule of law, to private property, and to the market allocation of resources, grow at three times (2.73 to 0.91 percent annually) the rate and are two and one-half times as efficient as societies in which these freedoms are circumscribed or proscribed.

More stunning findings would follow. In a later, book-length investigation of the topic, Scully (a) developed a more detailed theory of the relationship of a nation's constitutional setting and its economic performance, (b) produced more sophisticated measures of economic liberty, and (c) investigated the relationship of these measures to welfare. This work (Scully 1992) confirmed the favorable effects of economic liberty on income growth and efficiency, and also established that growth of the public sector has a depressing effect on economic growth. Finally, Scully (1992: 196-7) determined that liberty had favorable effects on the distribution of income as well as its level--a finding that was distinctly at odds with the common presumption that economic development and equity are incompatible:

The evidence is that free societies have much larger shares of income going to the middle 60 percent of the [population] distribution than is observed in societies where men are not free to choose. . . .Equally revealing as a matter of equity is the status of the poor and the rich in free and statist nations. The income share of the highest income group is much larger in nations that repress individual rights than in those where rights are protected. . . .Economic progress and equity are not incompatible. Nations can move to a less restrictive rights regime and increase economic efficiency, economic growth, and equity.

Scully's work remains the most academically thorough investigation of the theoretical and statistical issues related to this topic. The empirical relationships he uncovered have been confirmed in subsequent studies (see, e.g., Barro and Lee 1994). And his work confirmed the urgency and importance of larger-scale efforts to gauge the extent of economic liberty across countries.

Three Freedom Surveys

Today there are three major surveys that measure economic liberty on a systematic (and, one hopes, continuing) basis: the Fraser Institute's economic freedom index, Freedom House's economic freedom indicators, and the Heritage Foundation's indices of economic freedom. While all focus on crucial elements of economic liberty such as the security of property rights and freedom of exchange, they also have different emphases and approaches.

1. *The Fraser Institute's Economic Freedom Index*. Participants at various symposia on economic freedom felt the Gastil-Wright approach might over-emphasize democratic political procedures and civil liberties in measuring economic freedom, and worked tirelessly over several years to develop alternative measures (see Walker 1988, Block 1991, and Easton and Walker 1992). The culmination of this effort was the publication in 1996 of *Economic Freedom of the World: 1975-1995*, which constructed three indices of economic liberty (using different weighting schemes for 17 components) for more than 100 nations over a period spanning two decades (Gwartney, Lawson, and Block 1996). Since economic institutions are ever-changing, and since enhanced economic freedom is likely to have favorable effects on welfare only with a time lag, this effort to evaluate freedom over a fairly broad time span was important. The study's authors concluded:

Clearly, these data indicate that during the last two decades there has been a strong relationship between economic freedom and economic growth. Without exception, countries with either a high level or a substantial increase in economic freedom achieved positive growth. Correspondingly, the overwhelming majority of countries with low and/or contracting levels of economic freedom experienced declines in per capita GDP [Gwartney, Lawson, and Block 1996: 104].

2. *Freedom House's Economic Freedom Indicators*. Freedom House's efforts to supplement its annual reports on worldwide political and civil liberty eventually culminated in a free-standing publication, *World Survey of Economic Freedom: 1995-1996* (Messick 1996). Like Gastil and Wright's earlier efforts, the Freedom House index of economic freedom places significant emphasis on certain civil liberties (e.g., whether women or minorities are foreclosed from certain businesses or from owning or transferring property). Yet the *World Survey* confirms the importance of economic freedom as a determinant of prosperity:

Whereas only 27 of those nations sampled, with just 17 percent of the world's population, merited a "free" rating, these 27 nations produced 81 percent of total world output. By contrast, the 20 nations rated "not free" contain more than a third of the world's people yet produce only 5 percent of total output. The Survey thus joins a handful of recent studies in showing that economic freedom is the surest path to growth and development [Messick 1996: 9].

3. *The Heritage Foundation's Indices of Economic Freedom*. Starting in 1994, the Heritage Foundation began to publish an annual *Index of Economic Freedom* (Johnson and Sheehy 1995, 1996). Heritage's aim differed slightly from that of other surveys: it sought to provide evidence on the utility (or lack thereof) of externally funded "development assistance" in facilitating growth. Heritage's *Index* added to the weight of evidence on the relationship of freedom to growth, and the study's authors added the following observations on U.S. foreign aid and growth:

Of the 76 countries ranked as "mostly unfree" or "repressed" on the Index, 34 have received U.S. foreign aid for over 35 years, many for as long as 51 years. Of these 34 countries, 14 are poorer today than they were in 1965. Twelve more have essentially the same amount of wealth as they did some 30 years ago. Of the 34 long-term recipients of U.S. foreign aid ranked by the Index as lacking economic freedom, 26 are no better off than they were over three decades ago. . . .If development aid is essential to economic prosperity, why has there been so little progress by countries that are most dependent on foreign aid? The answer is simple: Economic freedom, not aid, is the key to economic development [Johnson and Sheehy 1996: 2].

Table 1 briefly summarizes the various indicators of economic liberty used in these surveys; Table 2 highlights the three surveys' rankings of "most-free" and "least-free" nations.

TABLE 1

INDICATORS OF ECONOMIC FREEDOM USED IN THREE 1996 SURVEYS

Fraser Institute	Freedom House	Heritage Foundation
-------------------------	----------------------	----------------------------

<p>Protection of money as a store of value and medium of exchange</p> <p>Low money supply growth Low inflation rate Foreign currency accounts OK Bank accounts abroad OK</p>	<p>Freedom to hold property</p> <p>Private property rights Intellectual property secure Free exchange of property</p> <p>Freedom to earn a living</p> <p>Free bargaining associations Absence of wage controls</p>	<p>Freedom of international exchange</p> <p>Low tariffs, trade barriers</p> <p>Freedom to earn a living</p> <p>Low income, corporate taxes Low value-added, other taxes</p>
<p>Freedom to decide what is produced and consumed</p> <p>Low government consumption Few state-owned enterprises Absence of price controls No market entry restrictions Secure property rights, enforceable contracts, non-</p>	<p>Freedom to operate a business</p> <p>Business formation easy No market entry restrictions Absence of price controls</p> <p>Freedom to invest earnings</p> <p>Market credit allocation Central bank independence No</p>	<p>Freedom to decide what is produced and consumed</p> <p>Low government consumption Few state-owned enterprises</p> <p>Protection of money as a store of value and medium of exchange</p> <p>Low inflation rate</p> <p>Free flows of capital</p>

<p>discriminatory courts No interest rate controls</p> <p>Freedom to earn a living</p> <p>Low transfers/subsidies Low top marginal tax rate No military conscription</p>	<p>profit/interest controls</p> <p>Freedom of international exchange</p> <p>Low tariffs, trade barriers Low travel barriers No exchange controls</p>	<p>No foreign ownership limits or entry barriers No discrimination between foreign and domestic firms</p> <p>Open banking system</p> <p>No entry barriers for foreign banks Limited regulation of banking</p>
<p>Freedom of international exchange</p> <p>Low tariffs No gap between official and black-market exchange rates Size of trade sector matches expectations No capital controls</p>	<p>Freedom to participate in the market economy</p> <p>Anti-discrimination rules Absence of corruption</p>	<p>Freedom to earn a living, operate a business</p> <p>Absence of wage controls Absence of price controls</p> <p>Freedom to hold property</p> <p>Private property rights Low</p>

		probabil ity of expropri ation Limited business regulation No market entry restricti ons Absence of corrupti on Limited black market
--	--	---

A scan of Table 1 makes clear that the three surveys of economic freedom share more similarities than differences. For example, all three surveys attach great importance to institutions which secure private property rights and enforce contracts. All three support freedom of international exchange of goods and capital. All three view barriers to entry into labor and product markets and controls on wages and prices with disfavor.

The chief differences have to do with the degree of emphasis on monetary stability and on the size of the government sector. Both the Fraser Institute and Heritage Foundation surveys take explicit account of the extent to which a country's monetary institutions have successfully controlled inflation; the Freedom House survey simply assesses whether

there is an independent central bank that *might* protect against citizens' savings losses via inflation. In addition, both Fraser and Heritage include (as negative indicators) measures of the size of the government sector and tax rates; Freedom House is more neutral on these indicators. The latter difference explains why, for example, the Freedom House survey ranks such countries as Sweden, France, Norway, and Spain more highly than Fraser and Heritage (see Table 2).

TABLE 2

**RANKINGS OF "MOST-" AND "LEAST-ECONOMICALLY FREE" COUNTRIES
IN THREE 1996 SURVEYS**

Fraser Institute	Freedom House	Heritage Foundation
"Most-Free" Countries		
1. Hong Kong	1. Denmark	1. Hong Kong
2. New Zealand	1. Netherlands	2. Singapore
3. Singapore	1. New Zealand	3. Bahrain
4. United States	1. Sweden	4. New Zealand
5. Switzerland	1. United Kingdom	4. Switzerland
6. United Kingdom	1. United States	6. Netherlands
7. Canada	7. Austria	7. United States
8. Ireland	7. Belgium	8. Denmark
9. Australia	7. Canada	8. Luxembourg
10. Japan	7. Czech Republic	8. Taiwan
11. Netherlands	7. France	8. United Kingdom
12. Germany	7. Germany	12. Bahamas
12. Belgium	7. Ireland	12. Canada
12. Malaysia	7. Norway	12. Czech Republic
15. Thailand	7. Spain	15. Austria
		15. Japan
"Least-Free" Countries		
88. Madagascar	67. Saudi Arabia	

88. Nigeria	67.	
90. Cote d'Ivoire	Turkmenistan	128. Sudan
90.	67. Vietnam	129. Haiti
Tanzania	70. Belarus	129. Syria
90. Haiti	70. Iran	129. Zaire
93. Zambia	70. Nigeria	132.
93. Uganda	70.	Myanmar
95.	Uzbekistan	133. Angola
Romania	74. Syria	134.
96. Burundi	74. Zaire	Azerbaijan
97. Brazil	76. China	134. Iran
98.	76.	134. Libya
Nicaragua	Kazakhstan	134.
99. Syria	78.	Somalia
100. Algeria	Azerbaijan	134.
101. Iran	78. Cuba	Vietnam
101. Zaire	80. Burma (Myanmar)	139. Iraq
103.	80. Iraq	140. Cuba
Somalia	80. North Korea	140. Laos
		140. North Korea

NOTE: The Fraser Institute ranked 103 countries; the Freedom House ranked 82; and the Heritage Foundation ranked 142.

Two Competitiveness Studies

Starting in 1989, the International Institute for Management Development (IMD) and the World Economic Forum, both based in Switzerland, jointly published an annual survey of the "competitiveness" of a reasonably large sample of nations' economies; in effect, the survey was an inventory of each country's competitive strengths and weaknesses. The survey aimed to provide information both to corporate leaders (so that they could make better investment decisions) and to political decision-makers (so that they could improve economic policy).

In a widely read article, however, Paul Krugman (1994) pointed out that nations really do not "compete" in the way most people conceive of that term. In most competitions, there is a winner and a loser: economists refer to this as a "zero-sum game." Yet trade and development is a "positive-sum game." Trading partners are both winners, and one nation can enjoy higher standards of living without undermining living standards in other countries. Failure to appreciate this fact, Krugman would argue, risks the kind of economic conflict in which beggar-thy-neighbor policies evolve rather than wealth-enhancing ones.

Both the IMD and the World Economic Forum are attentive to these concerns; they seem to agree that the goal is to identify factors that are conducive to economic growth and development. Yet the two groups have been unable to agree on precisely how to refine the competitiveness index. As a result, they have recently produced competing competitiveness surveys.

1. *The International Institute for Management Development's World Competitiveness Yearbook 1996*. IMD defines competitiveness as "the ability of a country to create added value and thus increase national wealth by managing assets and process, attractiveness and aggressiveness, globality and proximity, and by integrating these relationships into an economic and social model" (Decosterd et al. 1996: 6). The IMD ranking of 46 countries is based on a combination of survey data and quantitative information about each nation's economy; remarkably, 224 variables affect the rankings.

2. *The World Economic Forum's Global Competitiveness Report 1996*. The World Economic Forum defines competitiveness as "the ability of a national economy to achieve sustained high rates of economic growth as measured by the annual change in gross domestic product per person" (Schwab et al. 1996: 8). The Forum ranking of 49 countries is, like IMD's, based on a combination of survey and quantitative data relating to 155 variables.

Table 3 summarizes the key characteristics of these surveys and lists the "most-" and "least-competitive" countries in each. As with the three surveys of economic freedom, the competitiveness surveys have much in common: an emphasis on openness to international trade, on well functioning capital markets, and on a lean and efficient government sector. Both surveys also place great weight on a country's stock of intellectual and physical capital--e.g., the abilities of managers, the skills of workers, and support for basic research. The World Economic Forum survey, however, gives the greatest weight to institutional factors such as protection of private property rights, the rule of law, and the economic impact of political and regulatory considerations.

TABLE 3

CHARACTERISTICS OF TWO 1996 "COMPETITIVENESS" SURVEYS

IMD	World Economic Forum
<i>Indicators of Competitiveness</i>	
Domestic Economy	Openness
Productivity Capital formation	Absence of barriers to foreign trade

<p>Past economic performance Competition governed by market forces</p>	<p>and investment Government</p>
<p>Internationalization</p>	<p>Share of GDP spent by government</p>
<p>Openness to trade Export-led growth</p>	<p>Size of budget deficits Marginal tax rates</p>
<p>Integration with international economy</p>	<p>Finance</p>
<p>Government</p>	<p>Effect of financial markets on consumption and saving behavior</p>
<p>Minimal state intervention Predictable macroeconomic and social conditions</p>	<p>Infrastructure</p>
<p>Finance</p>	<p>Quality and quantity of physical assets</p>
<p>Internationally integrated financial sector</p>	<p>Technology</p>
<p>Infrastructure</p>	<p>R & D activities Support for higher education</p>
<p>Well-developed business support systems, information technology, and efficient environmental protection</p>	<p>Management</p> <p>Attributes of management that may affect success of domestic companies in global competition</p>

<p>Management</p> <p>Competitive price/quality ratio of products</p> <p>Long-run, efficiency orientation of management</p> <p>Entrepreneurial orientation</p> <p>Science & Technology</p> <p>Investment in basic research</p> <p>Innovative application of existing technologies</p> <p>People</p> <p>Skilled labor force</p> <p>Work ethic</p>	<p>Labor</p> <p>Labor costs relative to international norms</p> <p>Obstacles to hiring/firing workers</p> <p>Labor taxes</p> <p>Skill/education levels of labor force</p> <p>Civil Institutions</p> <p>Protection of property rights</p> <p>Rule of law respected</p> <p>Impact of political and regulatory legislation</p>
---	---

TABLE 3 (continued)

CHARACTERISTICS OF TWO 1996 "COMPETITIVENESS" SURVEYS

IMD	World Economic Forum
<i>Ranking of Most Competitive Countries</i>	
1. United States	1. Singapore
2. Singapore	2. Hong Kong
3. Hong Kong	3. New Zealand
4. Japan	4. United States
5. Denmark	5.
6. Norway	

7. Netherlands	Luxembourg
8. Luxembourg	6. Switzerland
9. Switzerland	7. Norway
10. Germany	8. Canada
	9. Taiwan
	10. Malaysia
<i>Ranking of Least Competitive Countries</i>	
37. Brazil	40.
38. India	Colombia
39. Hungary	41. Italy
40. Greece	42. Turkey
41. Indonesia	43. South Africa
42. Mexico	44. Poland
43. Poland	45. India
44. South Africa	46. Hungary
45. Venezuela	47. Venezuela
46. Russia	48. Brazil
	49. Russia

NOTE: The IMD ranked 46 countries; the World Economic Forum ranked 49.

Which Measure Is "Best?"

Differing Purposes

All five of these competing surveys of economic freedom and economic competitiveness are good; they are enormous intellectual undertakings which are carefully constructed and well executed. But each, to some extent, serves a different audience and purpose. We cannot reasonably discuss which is best without first asking: Best at what?

The IMD and World Economic Forum competitiveness surveys are essentially "growth forecasters" (where the relevant forecast horizon is the next five to ten years). They will be of primary value to business executives who are wondering, for example, where market growth is likely to be strongest or where productive facilities might be located most advantageously. They will be less helpful to scholars and policymakers who are considering what underdeveloped countries need (or need to do) in order to prosper.

Both IMD and the World Economic Forum base their surveys at least partly on quantitative data that is available only for developed economies. Thus, each ranks fewer than 50 countries--though these countries account for more than 90 percent of world output. But it is the countries they fail to rank in which the benefits of economic growth would be greatest and for which information about economic institutions would be most valuable.

More importantly, if the IMD and World Economic Forum surveys are used as guides for policymakers rather than as forecasting tools for managers, they might yield erroneous policy prescriptions. For example, in assessing the quality of a country's infrastructure, both surveys include a measure of the number of computers in use. Clearly, this is a variable that would be of great interest to a manager who contemplates marketing or producing a product in a particular country. But it would be wrong for a policymaker to reason that "competitiveness produces prosperity, and computers (at least in part) produce competitiveness; ergo we must invest heavily in computing capacity in order to generate prosperity in country X." Such logic (or illogic) is simply a variant of the "resources are all" fallacy that made early economic growth models such dangerous formulas for development assistance. No one would argue that computers cannot enhance productivity; the point is that they are neither necessary nor sufficient conditions for economic growth. Note, however, that we do not argue that the IMD and World Economic Forum surveys are "flawed" because they include this measure. Rather, we simply note that inclusion of this measure strongly suggests that the IMD and World Economic Forum surveys are intended for some uses and not others.

By contrast, the Fraser Institute, Freedom House, and Heritage Foundation surveys are all aimed at an audience of policymakers and scholars who are grappling with the following questions: What institutions are necessary preconditions for prosperity? And what policies can be put in place which will be most conducive to enhanced economic welfare for all citizens in both developed and developing nations?

In consequence, all three surveys of economic freedom focus on a smaller number of indicators and gather them for larger samples of countries than the two competitiveness surveys. Thus, all three have the advantage that they provide useful information about economic institutions in less-developed countries, where the benefits of growth would be greatest.

In addition, most of the indicators of economic freedom used in the Fraser Institute, Freedom House, and Heritage Foundation surveys concern matters that are directly related to government policy. Indeed, since these surveys make no attempt to gauge countries' endowments of infrastructure, managerial talent, or labor skills, it is hard to identify a single key indicator used which is not a direct outcome of the policymaking process--from tariff and tax rates to government spending to regulation of credit and product markets. Each indicator, then, reflects institutions which can be changed (though perhaps not easily or cheaply) by political means.

Finally, each of the three freedom surveys is based on variables thought to be necessary conditions for growth. Thus, these surveys reduce the risk that a policymaker or scholar might wrongly focus on resource inputs (e.g., "country X needs more computers! more roads! more R & D funding!") rather than institutions in devising a development strategy.

Statistical Correlations

Despite underlying differences in purpose, methodology, and philosophy, the various surveys produce rankings that have much in common. Table 4 shows Spearman rank correlation coefficients (denoted r_s) for the rankings in all five surveys. Each correlation coefficient in the table is calculated for the countries common to the relevant pair of surveys evaluated; a value of 1.00 would indicate that the paired surveys' rankings are identical.

TABLE 4
SPEARMAN RANK CORRELATION COEFFICIENTS FOR COUNTRY RANKINGS IN FIVE 1996 SURVEYS

	Fraser Institute	Freedom House	Heritage Foundation	IMD	World Economic Forum
Fraser Institute	--				
Freedom House	0.72** (n=62)	--			
Heritage Foundation	-0.85** (n=94)	-0.82** (n=75)	--		
IMD	0.82** (n=43)	0.62** (n=43)	-0.83** (n=45)	--	
World Economic Forum	0.86** (n=46)	0.49** (n=46)	-0.86** (n=46)	0.88** (n=46)	--

NOTES: n = number of countries common to both surveys; * indicates coefficient is statistically significant at the 95 percent confidence level; ** indicates coefficient is statistically significant at the 99 percent confidence level.

As one might expect (given the common heritage of these surveys) the IMD and World Economic Forum surveys produced the most similar rankings ($r_s = .88$). The World

Economic Forum, Heritage Foundation, and Fraser Institute surveys also have a great deal in common, with r s ranging from .82 to .86 (in absolute value). Note that the negative correlations between the Heritage survey and other surveys is not an indication of widely divergent findings about the level of freedom across countries. Rather, the Heritage survey's freedom scores were devised so that lower scores indicated more freedom; in contrast, all other surveys were devised so that higher scores indicated more freedom. As a result, the expected sign (+ or -) on all correlations between the Heritage survey's measure of freedom and any related variable will be the reverse of that expected for all the other surveys.

The Freedom House survey appears to have the least in common with the various other rankings; indeed, Freedom House is involved in every pairing for which the r_s falls below 0.80. To a large extent, this reflects Freedom House's historic emphasis on civil liberties and democratic institutions as crucial elements of economic freedom, and its relatively light emphasis on size of government in determining its rankings.

The high correlations among the surveys suggests that, when all is said and done, there is broad agreement about the institutions that are fundamental to economic freedom and growth. The fact that these correlations are not perfect (i.e., r_s is not equal to 1.00) suggests that there are differing views about what indicators matter most. But these differences provide us with a unique opportunity: If all the different survey measures turn out to have a statistically significant correlation with prosperity, then we will have additional evidence of the importance of economic institutions. Further, examination of each survey's explanatory power may tell us something about the most useful method of measuring freedom. It is to this task we now turn.

Liberty and Prosperity: What the Data Tell Us

The standard statistical technique for estimating the influence of one variable on another is ordinary least-squares (OLS) regression. Accordingly, we employ this method (following Friedman 1988) to estimate a simple model of liberty and prosperity, in which a country's GNP/capita (in log form) is a function of that country's level of economic freedom, its level of political/civil liberty (as measured by Freedom House surveys of this variable), and a constant term. That is, we use OLS regression techniques to estimate the coefficients a , b , and c in the following equation:

$$(1) \ln(\text{GNP/capita}) = a + b(\text{Economic Freedom}) + c(\text{Political/Civil Liberty}).$$

In Table 5, we display the estimated coefficients, and related regression statistics, for five different versions of equation (1)--one for each major survey measure of economic freedom (or competitiveness)--for the countries common to all the surveys. In Table 6 we display the regression results for the larger samples of countries specific to each survey (and for which current GNP per capita and political/civil liberty data are available).

TABLE 5

LIBERTY AND PROSPERITY: REGRESSION RESULTS FOR FIVE 1996
SURVEYS AND 29 COUNTRIES COMMON TO ALL FIVE SURVEYS
(DEPENDENT VARIABLE: LN(GNP/CAPITA))

Coefficient on Survey Measure of					
Survey	Constant Term	Economic Freedom	Political/Civil Liberty	Adjusted R-squared	F-statistic
Fraser Institute	6.6252** (13.34)	0.6160** (4.31)	0.2415** (4.91)	0.6519	27.16 (2, 29 d.f.)
Freedom House	7.9474** (9.07)	0.6768* (2.62)	0.1050 (1.18)	0.5385	16.92 (2, 29 d.f.)
Heritage Foundation	7.0245** (14.24)	-0.6931** (-4.86)	0.2003** (4.08)	0.6856	31.62 (2, 29 d.f.)
IMD	7.1751** (15.86)	0.7707** (5.89)	0.1848** (4.10)	0.7403	41.32 (2, 29 d.f.)
World Economic Forum	6.6174** (15.00)	0.7020** (5.53)	0.2423** (5.54)	0.7222	37.69 (2, 29 d.f.)

NOTES: t-ratios in parentheses below estimated coefficients; * indicates coefficient is statistically significant at the 95 percent confidence level; ** indicates coefficient is statistically significant at the 99 percent confidence level.

The results are quite remarkable. Table 5 shows that every one of our five survey measures of economic freedom has significant power to explain variation in per capita national income. The estimated equations explain from 54 to 74 percent of the cross-country variation in income; each coefficient on the survey measures of economic freedom carries the correct sign and is highly significant.

Note also that, in Table 5, the estimated coefficients on economic freedom range from 0.6160 to 0.7707 (in absolute value), while the estimated coefficients on political/civil liberty range from 0.1050 to 0.2423.[2] Thus, while both economic freedom and political/civil liberty contribute significantly to prosperity, *gains in economic freedom have a "prosperity dividend" that is three to six times greater than that which would be obtained from comparable gains in political/civil liberty.*

The regression results reported in Table 6 are even more impressive (as we might expect, given the fact that additional observations generally improve the precision of regression estimates). Each equation explains from 56 to 75 percent of the variation in income; every estimated coefficient on economic freedom has the expected sign and is statistically significant at the 99 percent confidence level.

TABLE 6

LIBERTY AND PROSPERITY: REGRESSION RESULTS FOR FIVE 1996 SURVEYS AND EACH SURVEY'S FULL SAMPLE OF COUNTRIES (DEPENDENT VARIABLE: LN(GNP/CAPITA))

Coefficient on Survey Measure of					
Survey	Constant Term	Economic Freedom	Political/Civil Liberty	Adjusted R-squared	F-statistic
Fraser Institute	2.7845** (3.10)	0.8847** (7.12)	0.3426** (5.37)	0.6960	101.9 (2, 89 d.f.)
Freedom House	2.3737* (2.11)	0.1746** (3.18)	0.2711* (2.45)	0.5631	44.47 (2, 69 d.f.)
Heritage Foundation	9.1615** (7.53)	-1.5295** (-8.56)	0.2108** (3.57)	0.6233	89.36 (2,108 d.f.)
IMD	2.8991** (4.00)	0.0281** (5.91)	0.3352** (6.08)	0.7476	57.76 (2, 39 d.f.)
World Economic Forum	3.0321** (4.10)	0.5946** (5.52)	0.4152** (7.95)	0.7546	64.58 (2, 42 d.f.)

NOTES: t-ratios in parentheses below estimated coefficients; * indicates coefficient is statistically significant at the 95 percent confidence level; ** indicates coefficient is statistically significant at the 99 percent confidence level.

Aside from providing strong evidence that liberty and prosperity are linked, the information in Tables 5 and 6 can be used to estimate the payoff from enhanced liberty. That is, we can use the aforementioned range of estimated coefficients on the economic freedom measures to calculate how much--holding all else constant--a given improvement in a country's economic freedom score is likely to raise that country's GNP per capita. Consider, for example, a representative country such as New Zealand, for which GNP per capita (\$13,350) is at the median in the sample of countries included in the regressions shown in Table 5. Based on the range of estimates in Table 5, a 10

percent increase in economic freedom in such a representative country can be expected to produce an increase in GNP per capita of 7.4 percent to 13.6 percent.[3]

Clearly, the estimates in Table 5 suggest that enhancing liberty yields very large improvements in living standards. And recent history provides ample supporting evidence. New Zealand--our aforementioned "representative country"--is a particularly instructive example. In the early to mid-1980s, New Zealand's economy was burdened by unstable monetary policy, high marginal tax rates, foreign exchange and capital market controls, and a large transfer sector. As a result, real GDP per capita fell for four of the five years from 1987-91. Since then, however, New Zealand has embarked on a program of monetary stabilization, market liberalization, and tax cutting. As a result, New Zealand's economic freedom score in the Fraser Institute survey improved by 33 percent from 1990 to 1993-95. The payoff has been phenomenal growth in real GDP per capita--exceeding 4 percent annually since 1992 (Gwartney, Lawson, and Block 1996: 178-9).

In sum, those who have been laboring in the "economic freedom vineyards" for these past years deserve praise; their efforts have been fruitful. They have proven that economic freedom is measurable; more importantly, careful examination of the data reveals that their measures are extraordinarily useful. It is true that differing points of view will produce (slightly) different freedom scores. But it is also true that these differences do not alter a finding which is of crucial importance: Economic freedom and economic wealth are inextricably linked. All signs point in the same direction: *those who would like people to enjoy greater prosperity must work to assure greater economic liberty.*

Liberty and Equality

The link between liberty and prosperity appears so strong, and the effects of prosperity on the quality (and length) of life appear so favorable, that it might be reasonable to ask: Why would anyone consider a development strategy that does anything other than enhance economic freedom? The answer has to do with concerns about the effects of economic growth on the distribution of income--on what, for better or worse, has come to be viewed as the level of "economic equality."

These concerns began in the 1950s, with some research by Simon Kuznets. Based on admittedly "scanty empirical evidence," Kuznets (1955: 18) opined that there would be "widening inequality in [the] early phases of economic growth" as economic development strategies took root. He was careful to qualify this view, noting that "[this] paper is perhaps 5 per cent empirical information and 95 per cent speculation," but concluded that "so long as it is recognized as a collection of hunches calling for further investigation rather than a set of fully tested conclusions, little harm and much good may result" (Kuznets 1955: 26).

The latter view would prove tragically wrong. Soon development officials accepted Kuznets' hunches as facts; they talked confidently about a "Kuznets U-curve of equality." As a country's income level grew, they presumed, there would be a painful period during which equality declined; only later would this disturbing trend toward inequality

moderate and, eventually, reverse--perhaps as a result of redistributionist government policies. The implication was that development policy ought to emphasize income redistribution from the start, in order to protect the poor from the "excesses" and "harshness" of growth (see, e.g., Chenery et al. 1974).

There were two problems. First, as we have seen earlier, the tools of redistribution (a large government sector, high marginal tax rates, and attenuated property rights) can abort the development process before it gets under way. Second, there really is no firm theoretical or empirical basis for Kuznets' presumptions about growth and equality; *the Kuznets curve is a myth*. It is certainly *possible* that economic growth can be accompanied by periods of rising income inequality; there are even theoretical models to explain why this might occur. But there is no general theory which says this *must* occur. Indeed, neoclassical growth theory implies that the share of total income going to wage earners should remain constant, or even rise slightly, with development.

Of course, what matters most is not some theorist's speculations, but what actually happens. And the evidence is quite strong that growth does not produce more inequality at all--it produces greater equality.

The most careful cross-sectional work on this topic has been conducted by Scully (though, for an interesting study of one country over time, see Jackson 1994). Scully analyzed various measures of inequality and liberty for a sample of 70 countries, and concluded that "income is more equally distributed within countries that are politically open, that have private property and market allocation of resources, and that are committed to the rule of law than in countries where these rights are abridged" (Scully 1992: 184). More specifically, Scully found that freer societies have significantly higher shares of national income going to the middle classes (i.e., the 20th to 80th income percentiles), and less income received by the wealthy (the 80th to 100th income percentiles). Interestingly, there was no statistically significant effect of a country's institutional framework on the share of income received by the poorest in society: whether they lived in a free or tyrannical society, the poor's relative share of national income did not change much (though, of course, their absolute level of income was higher in freer, more prosperous countries)

Scully calculated that the favorable effects of liberty on equity are substantial. The share of national income going to the middle classes is 30 to 50 percent higher in most-free nations compared to least-free nations. And in the most-free nations, the share of income going to the richest fifth of the population is 25 percent lower than it is in the least-free nations. Overall, Scully observed, "income inequality is somewhat more than 50 percent higher in societies where individual rights are restricted. The lack of rights of individuals to compete for income streams has a large and bad effect on the income distribution" (Scully 1992: 193-4).

Scully's work, of course, pre-dated the five surveys of economic freedom that are the main subject of this report. We have found, however, that *the recent survey data basically confirm the link between liberty and equality*. In Table 7, we report the results

of regressions which estimate a variant of equation (1), discussed earlier. Now the dependent variable is a measure of economic equality: the percent of national income that is received by the middle three quintiles of the population (i.e., the 20th through 80th income percentiles). As before, the explanatory variables are the various survey measures of economic freedom and the Freedom House measure of political/civil liberty. The results are not nearly so robust as those in Table 5 and 6; the equations explain from 12 percent to 30 percent of the variation in this measure of income equality. Nevertheless, all the coefficients on political/civil liberty are positive and significant at the 90 percent confidence level. And though only two of the five coefficients on economic liberty are statistically significant at the 90 percent confidence level, the weight of the collective evidence strongly suggests that economic freedom has a positive effect on this measure of economic equality.[4] In sum, while it is likely that political/civil liberty is a more potent contributor to economic equality than economic freedom, the latter has an important and salutary role to play as well.

TABLE 7

LIBERTY AND EQUALITY: REGRESSION RESULTS FOR FIVE 1996 SURVEYS AND EACH SURVEY'S FULL SAMPLE OF COUNTRIES (DEPENDENT VARIABLE: PERCENT OF NATIONAL INCOME RECEIVED BY MIDDLE THREE QUINTILES OF THE POPULATION)

Coefficient on Survey Measure of					
Survey	Constant Term	Economic Freedom	Political/Civil Liberty	Adjusted R-squared	F-statistic
Fraser Institute	28.775** (4.13)	0.0672 (0.07)	1.3376** (2.70)	0.1517	5.724 (2, 64 d.f.)
Freedom House	30.578** (4.07)	-0.2234 (-0.57)	1.4944* (1.97)	0.1199	3.677 (2, 54 d.f.)
Heritage Foundation	34.4762** (3.80)	-0.5772 (-0.43)	1.0667* (2.41)	0.1217	5.197 (2, 75 d.f.)
IMD	28.713** (3.73)	0.1112* (2.30)	1.0589 (1.81)	0.3020	6.921 (2, 32 d.f.)
World Economic Forum	32.2452** (4.22)	2.0023 (1.90)	1.1840* (2.19)	0.2484	5.783 (2, 35 d.f.)

NOTES: t-ratios in parentheses below estimated coefficients; * indicates coefficient is statistically significant at the 95 percent confidence level; ** indicates coefficient is statistically significant at the 99 percent confidence level.

We conclude: There is no reason to fear the process of development. Economic growth not only raises absolute standards of living but also improves the relative distribution of income as well. Prosperity is not the rival of equality but its partner.

Toward a "Pro-Freedom" Foreign Policy

For too long, policymakers have overlooked economic and political institutions that are crucial preconditions for economic growth. As a result, funds allocated to international development agencies and programs have produced extremely low rates of return; in some tragic cases, the returns have actually been negative.

Consider, for example, U.S. foreign aid expenditures. Though some of America's \$12 billion annual spending on foreign aid is for humanitarian aid and security assistance, about 62 percent is earmarked for various types of development and economic aid. Sixty-seven less-developed countries have been receiving such aid for 35 years or more (Johnson and Sheehy 1996: 7-8). Of these, 19 (28 percent) have shown negative growth in per-capita income since 1965. In every case, these increasingly impoverished countries show very low "freedom scores" on the various surveys of economic liberty discussed in this survey.

We would make two observations: (1) Absent the underlying institutions (secure property rights, freedom to transact, freedom from expropriation, etc.) that fuel productive investment and spur growth, no program of development assistance will meet its goals reliably and consistently. (2) It may be that aid actually slows the pace of reform by propping up those institutions (and their affiliated interest groups) most resistant to economic liberalization.[5]

There are hopeful signs that policymakers are rethinking development strategy, however. In 1993, Vice President Gore's "Reinventing Government" initiative recognized the need for reform of the U.S. Agency for International Development (AID). Partly in response, the Foreign Aid Reduction Act of 1995 included language that would have conditioned aid disbursements on attainment of some threshold level of economic freedom (based on the findings of a study similar to the various surveys reviewed earlier). Though approved by the Senate Foreign Relations Committee in 1995, the bill never came to a vote in the full Senate. Although it is clear that foreign aid is not a necessary condition for economic growth, the proposed bill at least recognized that aid can be useless or positively harmful.

The slow pace of change results from standard interest-group politics. Simply put, there is a constituency for the status quo. Many of the development-aid dollars expended each year flow to U.S. firms supplying equipment and services to recipient countries. By one estimate, out of every dollar we designate to help the poor overseas, 70 to 80 cents stays in the United States (Johnson and Schaefer 1997: 14). The firms and individuals who benefit from this spending, quite naturally, have a very strong interest in resisting changes in the nature of aid.

Changing this political calculus will not be easy. But we can take some encouragement from the recent debate about domestic welfare policy. In the early 1980s, when scholars such as Charles Murray (1984) began documenting the pernicious effects of U.S. social policy over 1950-80, reform was regarded as an impossible dream--and those who argued for change were lonely voices. Yet, within a decade, reform was underway, and it was the defenders of the status quo who were the lonely voices. Patiently and persistently, the reformers had produced a new intellectual (and, ultimately, political) consensus that had made change inevitable.

We are now well on our way to a similar consensus regarding economic liberty and foreign aid. Relatively few scholars doubt that economic freedom is a necessary condition for prosperity; the myth that economic growth endangers economic equality also is giving way to hard evidence to the contrary. More than ever before, policymakers appear ready to enshrine economic freedom alongside political and civil liberties as crucial elements of a decent and just society. Once we make enhanced economic liberty a central goal of foreign policy, the benefits of prosperity and equality will be enjoyed more widely than at any time in history.

Notes

[1] Because the relationship between income and life expectancy is nonlinear, the natural logarithm of each country's per-capita income is plotted on the horizontal axis in Figure 1.

[2] Note that the various surveys' freedom scores have been "standardized" (i.e., transformed by subtracting the mean and dividing by the standard deviation) in order to make the coefficients reported in Tables 5 and 6 directly comparable to each other in numerical value.

[3] Given the log-linear specification of equation (1) above, the elasticity of GNP per capita with respect to economic freedom equals the estimated coefficient times the relevant value of the economic freedom measure.

[4] We employ the Stouffer method of constructing a hypothesis test combining several independent estimates (see Rosenthal and Rosnow 1984). Based on this method, the hypothesis of no relationship between economic freedom and this measure of equality can be rejected at the 95 percent confidence level.

[5] In the language of a 12-step recovery program, aid is a form of "enabling behavior" that keeps a society from recognizing the kinds of institutional changes that need to be made, thus postponing the adoption of reforms that can lead to growth and development.

References

Barro, R.J., and Lee, J.W. (1994) "Sources of Economic Growth." *Carnegie-Rochester Series on Public Policy* 40 (June): 1-46.

Bauer, P.T. (1984) *Reality and Rhetoric: Studies in the Economics of Development*. Cambridge, Mass.: Harvard University Press.

Block, W., ed. (1991) *Economic Freedom: Toward a Theory of Measurement*. Vancouver, B.C., Canada: The Fraser Institute.

- Chenery, H. B., et al. (1974) *Redistribution with Growth*. New York: Oxford University Press.
- Decosterd, C.; Garelli, S.; Hediger, M.; Linard de Guertechin, M.; and Travers, C. (1996) *The World Competitiveness Yearbook 1996*. Lausanne, Switzerland: International Institute for Management Development.
- Easton, S. T., and Walker, M.A., eds. (1992) *Rating Global Economic Freedom*. Vancouver, B.C., Canada: The Fraser Institute.
- Friedman, M. (1988) "A Statistical Note on the Gastil-Wright Survey of Freedom." In M.A. Walker (ed.) *Freedom, Democracy and Economic Welfare*. Vancouver, B.C., Canada: The Fraser Institute.
- Friedman, M., and Friedman, R. (1992) "Milton and Rose Friedman's Experiment." In S.T. Easton and M.A. Walker (eds.) *Rating Global Economic Freedom*. Vancouver, B.C., Canada: The Fraser Institute.
- Gastil, R.D. (1984) *Freedom in the World: Political Rights and Civil Liberties, 1983-1984*. New York: Freedom House.
- Gastil, R.D., and Wright, L.M. (1988) "The State of the World: Political and Economic Freedom." In M.A. Walker (ed.) *Freedom, Democracy and Economic Welfare*. Vancouver, B.C., Canada: The Fraser Institute.
- Gwartney, J.; Lawson, R.; and Block, W. (1996) *Economic Freedom of the World: 1975-1995*. Vancouver, B.C., Canada: The Fraser Institute.
- Hanke, S.H., and Walters, S.J.K. (1997) *Liberty, Equality, Prosperity*. A Report to the Senate Joint Economic Committee. Washington, D.C.: U.S. Senate.
- Jackson, R.V. (1994) "Inequality of Incomes and Lifespans in England Since 1688." *Economic History Review* 47: 508-24.
- Johnson, B.T., and Schaefer, B.D. (1997) "Restructuring and Reforming the Foreign Aid Programs." In *Mandate for Leadership IV*. Washington, D.C.: The Heritage Foundation.
- Johnson, B.T., and Sheehy, T.P. (1996) *1996 Index of Economic Freedom*. Washington, D.C.: The Heritage Foundation.
- Krugman, P. (1994) "Competitiveness: A Dangerous Obsession." *Foreign Affairs* 94: 28-44.
- Kuznets, S. (1955) "Economic Growth and Income Inequality." *American Economic Review* 45: 1-28.
- Messick, R.E., ed. (1996) *World Survey of Economic Freedom, 1995-1996*. New Brunswick, N.J.: Freedom House and Transaction Publishers.
- Murray, C. (1984) *Losing Ground*. New York: Basic Books.
- North, D.C. (1990) *Institutions, Institutional Change, and Economic Performance*. Cambridge, U.K.: Cambridge University Press.
- North, D.C. (1994) "Economic Performance Through Time." *American Economic Review* 84: 359-68.
- Olson, M. (1996) "Big Bills Left on the Sidewalk: Why Some Nations Are Rich, and Others Poor." *Journal of Economic Perspectives* 10: 3-24.

Preston, S.H. (1975) "The Changing Relation between Mortality and Level of Economic Development." *Population Studies* 29: 231-48.

Przeworski, A., and Limongi, F. (1993) "Political Regimes and Economic Growth." *Journal of Economic Perspectives* 7: 51-69.

Rabushka, A. (1991) "Preliminary Definition of Economic Freedom." In W. Block (ed.) *Economic Freedom: Toward a Theory of Measurement*. Vancouver, B.C., Canada: The Fraser Institute.

Rosenthal, R., and Rosnow, R.L. (1984) *Essentials of Behavioral Research: Methods and Data Analysis*. New York: McGraw-Hill.

Schultz, T.P. (1993) "Mortality Decline in the Low-Income World: Causes and Consequences." *American Economic Review Papers and Proceedings* 83: 337-42.

Schwab, K.; Smadja, C.; Hu, F.; Levinson, M.; Erskine, B.; Li, Y.; Sachs, J.D.; Warner, A.M.; and Knobel, L. (1996) *The Global Competitiveness Report 1996*. Geneva, Switzerland: World Economic Forum.

Scully, G.W. (1988) "The Institutional Framework and Economic Development." *Journal of Political Economy* 96: 652-62.

Scully, G.W. (1992) *Constitutional Environments and Economic Growth*. Princeton, N.J.: Princeton University Press.

Walker, M.A., ed. (1988) *Freedom, Democracy and Economic Welfare*. Vancouver, B.C., Canada: The Fraser Institute.

The Cato Journal is published in the spring/summer, fall, and winter by the Cato Institute, 1000 Massachusetts Ave., NW, Washington, D.C. 20001-5403. The Views expressed by the authors of the articles are their own and are not attributable to the editor, editorial board, or the Cato Institute. Printed copies of the Cato Journal may be ordered by calling 1-800-767-1241. Back issues are also available on the Cato Institute Web site: <http://www.cato.org>. Email comments or suggestions to cato@cato.org.