

DIGITAL PUBLICATION

Economic Freedom of North America

2006 Annual Report



Amela Karabegović and Fred McMahon
with Christy G. Black



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Christy G. Black

The Fraser Institute
Canada



National Center for Policy Analysis
United States of America



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About the Participating Institutes

Co-publishers of *Economic Freedom of North America*

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Executive Summary

This is the fourth edition of the annual report, *Economic Freedom of North America*. The statistical results of this year's study persuasively confirm those published in the previous three editions: economic freedom is a powerful driver of growth and prosperity. Those provinces and states that have low levels of economic freedom continue to leave their citizens poorer than they need or should be.

Economic Freedom of North America rates economic freedom on a 10-point scale for two indexes. An all-government index captures the impact of restrictions on economic freedom by all levels of government (federal, state/provincial, and municipal/local). A subnational index captures the impact of restrictions by state or provincial and local governments. *Economic Freedom of North America* employs 10 components in three areas: 1. Size of Government; 2. Takings and Discriminatory Taxation; and 3. Labor Market Freedom.

Not only is economic freedom important for the level of prosperity: growth in economic freedom spurs economic growth. As expected, the impact of economic freedom at the all-government level is greater than the impact at the subnational level since the first index captures a broader range of limitations on economic freedom than the second.

The econometric testing shows that a one-point improvement in economic freedom on the all-government index increases per-capita GDP by US\$5,488 for US states and by US\$3,916 (C\$5,483, using a conversion rate of 1.40) [1] for Canadian provinces. On the subnational index, a one-point improvement in economic freedom increases per-capita GDP by US\$4,326 for US states and by US\$3,251 (C\$4,552) for Canadian provinces.

A 1.00% increase in the growth rate of economic freedom in the all-government index (e.g., from 4.00% per year to 4.04% per year), will induce an increase of 1.06% in the growth rate of per-capita GDP for US states and an increase of 0.57% in the growth rate of per-capita GDP for Canadian provinces. A 1.00% increase in the growth rate of economic freedom in the subnational index will induce an increase of 0.75% in the growth rate of per-capita GDP for US states and 0.53% increase in the growth rate for Canadian provinces.

The econometric results are remarkably stable and consistent through a number of sensitivity tests presented in this paper. The importance of these results is reinforced by their consistency with those of last year, despite the addition of data from a further year (2003). The similarity of results regardless of the structure of the index or year of the tests is quite remarkable.

[1] This is the average exchange rate for 2003, the most recent year for which data are available.

The results show that, while economic freedom has a powerful impact in Canada, its impact on US states is far greater. This is likely because of Canada's fiscal federalism. This system transfers money from rich to poor provinces. Since economic freedom spurs prosperity and growth, fiscal federalism in effect transfers money from relatively free provinces to relatively unfree provinces, muting the impact of economic freedom and perversely creating incentives for provincial politicians to limit economic freedom and, thus, economic growth since this increases the flow of federal transfers, which are directly controlled by these politicians. This enhances their power and their ability to reward friends and penalize enemies.

All provinces, except Alberta, are clustered at the bottom of the rankings of both the all-government and the subnational economic freedom indexes and also have low levels of prosperity. Alberta is tied for 9th in the sub-national index and for 2nd in the all-government index. The higher score in the latter index, which includes federal spending, is because Ottawa's expenditures in Alberta are very low, much lower than the federal tax take from Alberta. This lower level of spending increases economic freedom by leaving more economic space for transactions to which individuals and firms voluntarily agree.

Canada's second freest province, Ontario, ranks 47th in both the sub-national index and all-government index, ahead of a handful of states in both instances. British Columbia is the only other Canadian province ahead of one state (West Virginia) in both of the indexes in 2003.

The evolution of economic freedom in North America follows the expected pattern. In the United States, at the all-government level, economic freedom increases through the 1980s, the Reagan era. It falls in the early 1990s, following tax increases under the Bush and early Clinton administrations and then begins to rise again. At the subnational level, the pattern is the same but less pronounced. Many states embarked upon Reagan-like government restructuring, but not all, and often not at the same level of intensity, or in the same time frame.

In Canada, through the 1980s, economic freedom remained fairly constant at the subnational level while it increased somewhat at the all-government level, perhaps as a result of a change of federal government, and a resulting change in policy, in 1984. In both indexes, economic freedom falls in Canada in the early 1990s and then begins to rise. In early 1990s, Canadian governments began to address debt and deficit problems but more often through increased taxation than through lower spending. As debts and deficits were brought under control, governments began to reduce some tax rates through the mid- and, particularly, late 1990s. Also in this period, fiscally conservative governments were elected in Canada's two richest provinces, Alberta and Ontario.

Overall patterns in Canada and the United States are similar. However, during the late 1980s and early 1990s, Canadian governments relied on taxes to solve the deficit problem more than US governments did. Thus, the gap between Canada and the United States in economic freedom grew through this period, before returning to about its 1981 level in the late 1990s.

Chapter 1

Economic Freedom & the Index

The index of the *Economic Freedom of North America* is an attempt to gauge the extent of the restrictions on economic freedom imposed by governments in North America. This study employs two indexes. The first is the subnational index, which measures the impact of provincial and municipal governments on economic freedom in Canada and state and local governments in the United States. The second index, called the all-government index, includes the impact of all levels of government—federal, provincial/state, and municipal/local—in Canada and the United States. All 10 provinces and 50 states are included in both indexes.

The study examines the impact of economic freedom on both the level of economic activity and the growth of economic activity. The econometric testing presented in this paper shows that in North America economic freedom fosters prosperity and growth. Economic freedom increases the affluence of individuals. This finding is consistent with other studies of economic freedom. [1] The results are highly significant and remarkably stable through a number of different sensitivity tests.

The majority of US states have high levels of economic freedom and prosperity. Unfortunately, Canadian provinces are poorly positioned to benefit from economic freedom. With the exception of Alberta and, to a lesser extent, Ontario, they are all clustered at the bottom of the economic freedom ratings and are the poorest jurisdictions in North America. (Individual states and provinces will be discussed later in this study; see Appendixes B, page 48, and C, page 51.) Figures 1 and 2 (pages 11–12) illustrate economic freedom scores and the large differences between US states and Canadian provinces. Note that economic freedom is rated on a scale from zero to 10 with higher values indicating higher levels of economic freedom.

What Is Economic Freedom?

Writing in *Economic Freedom of the World, 1975–1995*, James Gwartney and his co-authors defined economic freedom in the following way.

[1] See Easton and Walker, 1997; De Haan and Sturm, 2000; and related papers at <http://www.freetheworld.com>. For the latest summary of literature on economic freedom, see Doucouliagos and Ulubasoglu, 2006.

Individuals have economic freedom when (a) property they acquire without the use of force, fraud, or theft is protected from physical invasions by others and (b) they are free to use, exchange, or give their property as long as their actions do not violate the identical rights of others. Thus, an index of economic freedom should measure the extent to which rightly acquired property is protected and individuals are engaged in voluntary transactions. (Gwartney, Lawson, and Block, 1996: 12)

The freest economies operate with a minimal level of government interference, relying upon personal choice and markets to answer the basic economic questions such as what is to be produced, how it is to be produced, how much is produced, and for whom production is intended. As government imposes restrictions on these choices, the level of economic freedom declines.

The research flowing from the data generated by the annual *Economic Freedom of the World* reports, [2] a project The Fraser Institute initiated 20 years ago, shows that economic freedom is important to the well-being of a nation's citizens. This research has found that economic freedom is positively correlated with per-capita income, economic growth, greater life expectancy, lower child mortality, the development of democratic institutions, civil and political freedoms, and other desirable social and economic outcomes. Just as *Economic Freedom of the World* seeks to measure economic freedom on an international basis, *Economic Freedom of North America* has the goal of measuring differences in economic freedom among the Canadian provinces and US states.

In 1999, The Fraser Institute published *Provincial Economic Freedom in Canada: 1981–1998* (Arman, Samida, and Walker, 1999), a measure of economic freedom in 10 Canadian provinces. *Economic Freedom of North America* updates, improves, and, by including the 50 US states, expands this initial endeavor. This study looks at 10 Canadian provinces—excluding Yukon, the Northwest Territories, and Nunavut—and the 50 US states from 1981 to 2003. Each province and state is ranked on economic freedom at the subnational and all-government levels. This helps isolate the impact of different levels of government on economic freedom in North America.

In extending the work on economic freedom, it would seem obvious to include the tried and tested measures used in *Economic Freedom of the World*. This is not as easy as it sounds. Some categories of the world index have too little variance from one North American jurisdiction to another to be measured accurately. For example, the stability of the legal system (one of the areas used in *Economic Freedom of the World*) does not differ much among states and provinces. Variables such as the private ownership of banks, avoidance of negative interest rates, monetary policy, freedom to own foreign currency, the right to international exchange, structure of capital markets, and black-market exchange rates are ineffective for an inquiry into the state of economic freedom within North America, particularly at a subnational level.

[2] A listing of many of these articles and additional information can be found at <<http://www.freetheworld.com>>.

Figure 1: Summary of 2003 Ratings—All-Government

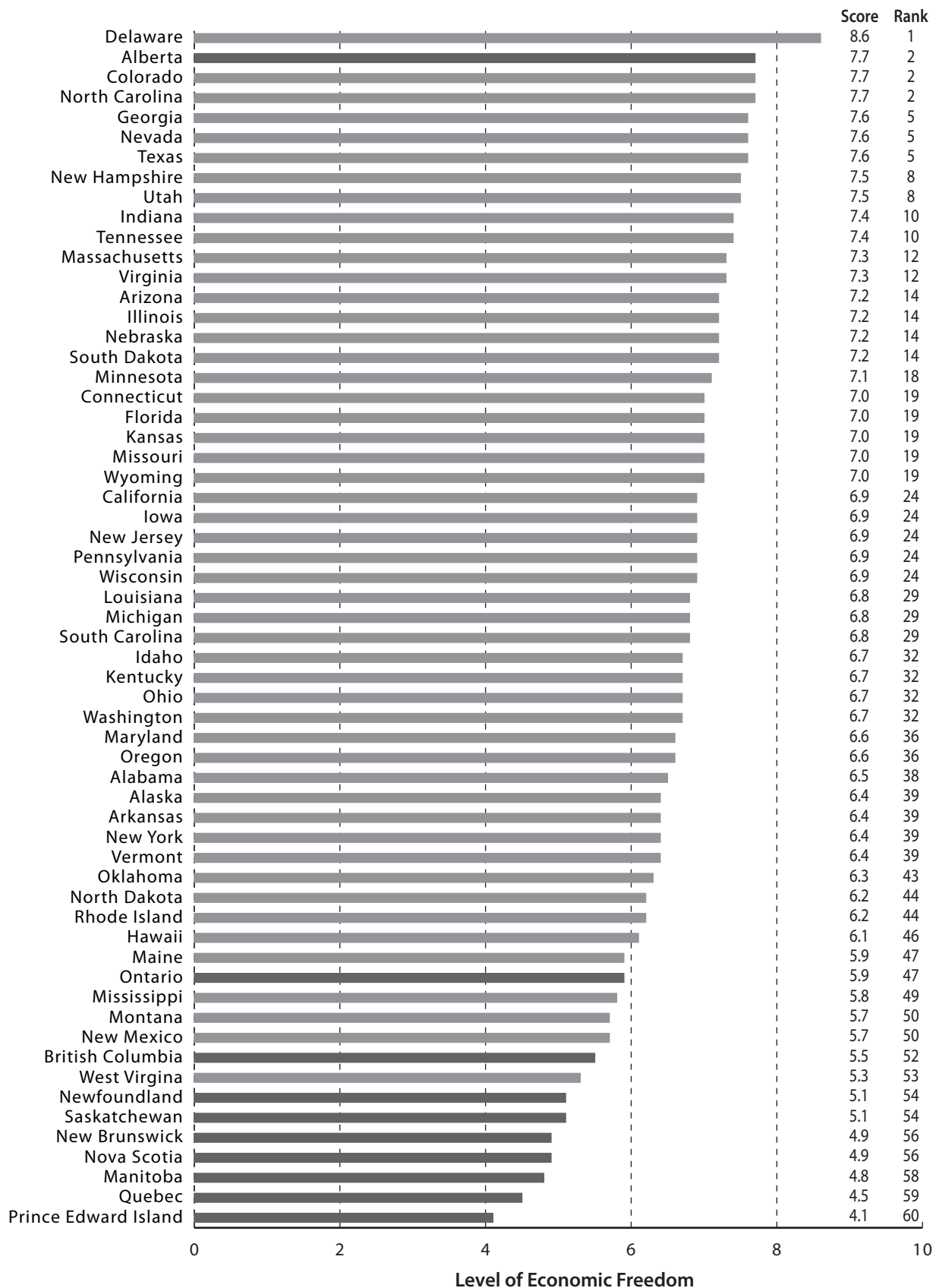
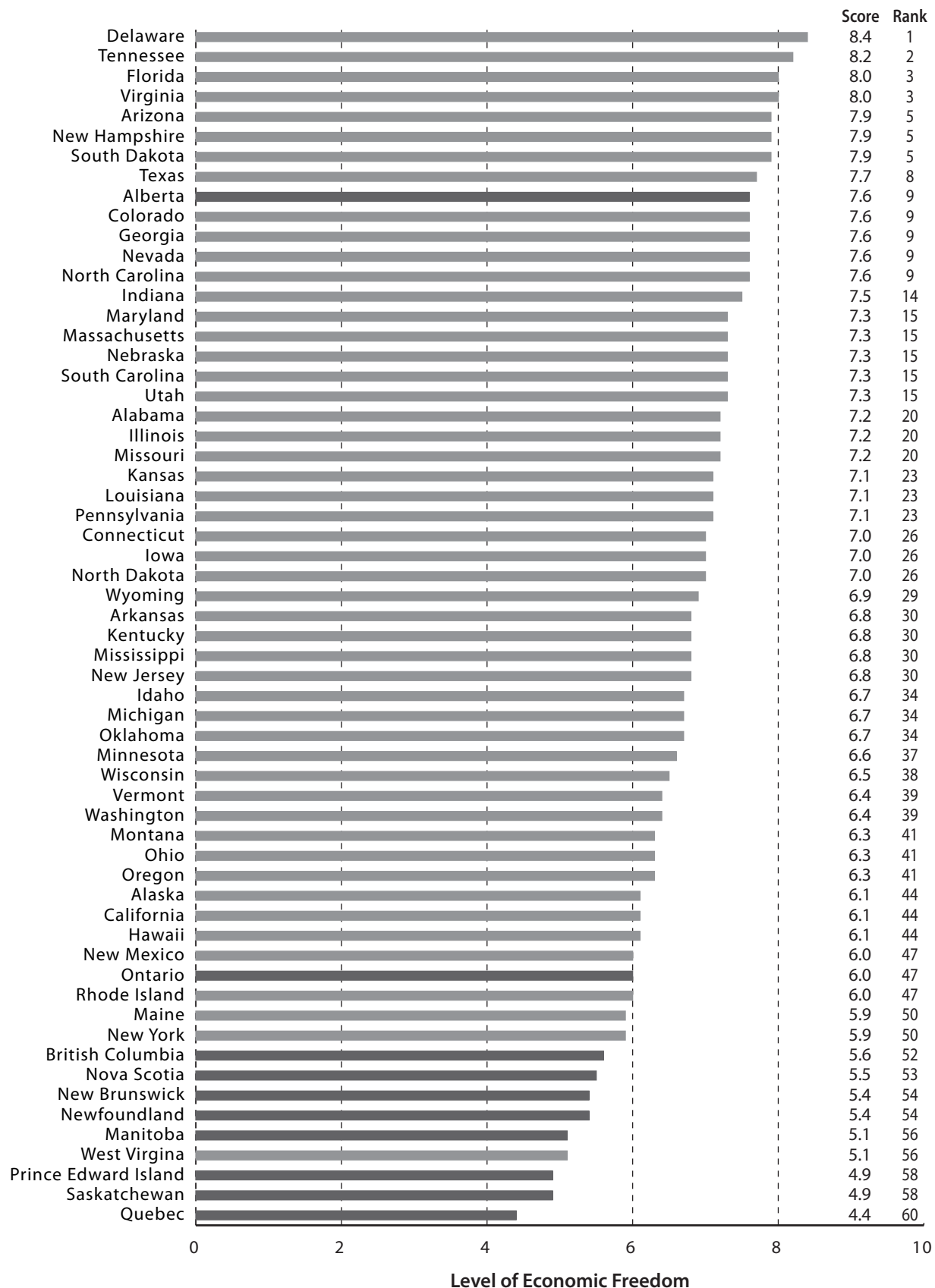


Figure 2: Summary of 2003 Ratings—Subnational



However, economic freedom varies across North America in three important aspects, which we attempt to capture in this index: size of government; takings and discriminatory taxation; and labor market freedom. A fourth, potentially important, area of difference, restriction on the movement of goods within North America, had to be left out due to lack of data. This may be particularly important in the Canadian context, since Canada retains a number of internal trade barriers (Knox, 2002).

Data limitations also create difficulties in testing relationships between economic freedom and key economic variables. For example, we are only partly able to construct a growth model. Data on investment for individual states, an important part of any growth model, are not available. Fortunately, as discussed later, the effect of omitting an investment variable on the estimated economic freedom coefficient is likely to be of little quantitative significance. High-school graduation rates are used as a proxy for human capital but in our testing this variable often does not have the expected sign and is seldom significant in the regressions in which it is included.

Due to data limitations and revisions, some time periods are either not directly comparable or are not available. When necessary, we have used the data closest to the missing time period as an estimate for the missing data. If there have been changes in this component during this period, this procedure would introduce some amount of measurement error in the estimate of economic freedom for the particular data point. However, omitting the component in the cases when it is missing and basing the index score on the remaining components may create more bias in the estimate of overall economic freedom.

The theory of economic freedom [3] is no different at the subnational and all-government level than it is at the global level, although different proxies consistent with the theory of economic freedom must be found that suit subnational and all-government measures. The 10 variables chosen fall into three areas: Size of Government, Takings and Discriminatory Taxation, and Labor Market Freedom. Most of the variables we use are calculated as a ratio of gross domestic product (GDP) in each jurisdiction and thus do not require translation between exchange rates or purchasing power parities (PPP). The exception is the income-tax rate variable, where purchasing power parity is used to calculate equivalent top thresholds in Canada and the United States.

Description of Variables

Using a simple mathematical formula to reduce subjective judgments, a scale from zero to 10 was constructed to represent the underlying distribution of the 10 variables in the index. The highest possible score is 10, which indicates a high level of economic freedom. [4] Thus, this index is a relative ranking. The rating formula is

[3] See Gwartney et al., 2004. The website, <<http://www.freetheworld.com>>, has references to a number of important papers and books that explore the theory of economic freedom.

[4] Due to the way variables are calculated, a mini-max procedure discussed in Appendix D: Methodology (page 67), 10 is not indicative of perfect economic freedom.

consistent across time to allow an examination of the evolution of economic freedom. To construct the overall index without imposing subjective judgments about the relative importance of the variables, each area was equally weighted and each variable within each area was equally weighted (see Appendix D: Methodology, page 67, for more details).

The index developed in this paper assigns a higher score of economic freedom when the variable, Size of Government, is smaller in one state or province relative to another. This would seem to contradict the theory of economic freedom, which does not predict that a government size of zero maximizes freedom. Indeed, important government functions, such as the enforcement of the rule of law, are necessary for economic freedom and freedom more broadly. However, all that the theory of economic freedom requires is that governments be large enough to undertake an adequate but minimal level of the “protective” and “productive” functions of government, discussed in the next section. It is unlikely that any government considered in this sample is too small to perform these functions at the minimum required level.

Area 1: Size of Government

1A: General Consumption Expenditures by Government as a Percentage of GDP

As the size of government expands, less room is available for private choice. While government can fulfill useful roles in society, there is a tendency for government to undertake superfluous activities as it expands: “there are two broad functions of government that are consistent with economic freedom: (1) protection of individuals against invasions by intruders, both domestic and foreign, and (2) provision of a few selected goods—what economists call public goods” (Gwartney et al., 1996: 22). These two broad functions of government are often called the “protective” and “productive” functions of government. Once government moves beyond these two functions into the provision of private goods, goods that can be produced by private firms and individuals, they restrict consumer choice and, thus, economic freedom (Gwartney et al., 1996). In other words, government spending, independent of taxation, by itself reduces economic freedom once this spending exceeds what is necessary to provide a minimal level of protective and productive functions. Thus, as the size of government consumption grows, a jurisdiction receives a lower score in this component.

1B: Transfers and Subsidies as a Percentage of GDP

When the government taxes one person in order to give money to another, it separates individuals from the full benefits of their labor and reduces the real returns of such activity (Gwartney et al., 1996). These transfers represent the removal of property without providing a compensating benefit and are, thus, an infringement on economic freedom. Put another way, when governments take from one group in order to give to another, they are violating the same property rights they are supposed to protect. The greater the level of transfers and subsidies, the lower the score a jurisdiction receives.

1C: Social Security Payments as a Percentage of GDP

When private, voluntary arrangements for retirement, disability insurance, and so on are replaced by mandatory government programs, economic freedom is diminished.

Area 2: Takings and Discriminatory Taxation*2A: Total Government Revenue from Own Source as a Percentage of GDP**2B: Top Marginal Income Tax Rate [5] and the Income Threshold at Which It Applies**2C: Indirect Tax Revenue as a Percentage of GDP**2D: Sales Taxes Collected as a Percentage of GDP*

Some form of government funding is necessary to support the functions of government but, as the tax burden grows, the restrictions on private choice increase and thus economic freedom declines. Taxes that have a discriminatory impact and bear little reference to services received infringe on economic freedom even more: “High marginal tax rates discriminate against productive citizens and deny them the fruits of their labor” (Gwartney et al., 1996: 30). In each of variables except 2B, a higher ratio lowers a jurisdiction’s score in this component. Top personal income-tax rates are rated by the income thresholds at which they apply. Higher thresholds result in a better score.

Examining the separate sources of government revenue gives the reader more information than just examining a single tax source or overall taxes. Nonetheless, total own-source revenue is included to pick up the impact of taxes, particularly various corporate and capital taxes, not included in the other three variables.

In examining the two areas above, it may seem that Areas 1 and 2 create a double counting, in that they capture the two sides of the government ledger sheet, revenues and expenditures, which presumably should balance over time. However, in examining subnational jurisdictions, this situation does not hold. In the United States, and even more so in Canada, a number of intergovernmental transfers break the link between taxation and spending at the subnational level. [6] The break between revenues and spending is even more pronounced at the all-government level, which includes the federal government. Obviously, what the federal government spends in a state or a province does not necessarily bear a strong relationship to the amount of money it raises in that jurisdiction. Thus, to take examples from both Canada and the United States, the respective federal governments spend more in Newfoundland and West Virginia than they raise through taxation in these jurisdictions. The opposite pattern occurs for Alberta and Connecticut.

[5] See Appendix D: Methodology (page 67) for further discussion of how the variable for the top marginal tax rate and its threshold was derived.

[6] Most governments have revenue sources other than taxation and national governments also have international financial obligations so that the relation between taxation and spending will not be exactly one to one, even at the national level. Nevertheless, over time, the relationship will be close for most national governments, except those receiving large amounts of foreign aid.

As discussed above, both taxation and spending can suppress economic freedom. Since the link between the two is broken when examining subnational jurisdictions, it is necessary to examine both sides of the government's balance sheet.

Area 3: Labor Market Freedom

3A: Minimum Wage Legislation

High minimum wages restrict the ability of employees and employers to negotiate contracts to their liking. In particular, minimum wage legislation restricts the ability of low-skilled workers and new entrants to the workforce to negotiate for employment they might otherwise accept and, thus, restricts the economic freedom of these workers and the employers who might have hired them.

This component measures the annual income earned by someone working at the minimum wage as a ratio of per-capita GDP. Since per-capita GDP is a proxy for the average productivity in a jurisdiction, this ratio takes into account differences in the ability to pay wages across jurisdictions. As the minimum wage grows relative to productivity, thus narrowing the range of employment contracts that can be freely negotiated, there are further reductions in economic freedom, resulting in a lower score for the jurisdiction. For example, minimum wage legislation set at 0.1% of average productivity is likely to have little impact on economic freedom; set at 50% of average productivity, the legislation would limit the freedom of workers and firms to negotiate employment to a much greater extent. Put another way, a minimum wage requirement of \$2 an hour for New York will have little impact but, for a third-world nation, it might remove most potential workers from the effective workforce. The same idea holds, though in a narrower range, for jurisdictions within North America.

3B: Government Employment as a Percentage of Total State/Provincial Employment

Economic freedom decreases for several reasons as government employment increases beyond what is necessary for government's productive and protective functions. Government, in effect, is using expropriated money to take an amount of labor out of the labor market. This restricts the ability of individuals and organizations to contract freely for labor services since potential employers have to bid against their own tax dollars in attempting to obtain labor. High levels of government employment may also indicate that government is attempting to supply goods and services that individuals contracting freely with each other could provide on their own. It may also be that the government is attempting to provide goods and services that individuals would not care to obtain if able to contract freely. It may also indicate that government is engaging in regulatory and other activities that restrict the freedom of citizens. Finally, high levels of government employment suggest government is directly undertaking work that could be contracted privately. When government, instead of funding private providers, decides to provide a good or service directly, it reduces economic freedom by limiting choice and by typically creating a government quasi-monopoly in provision of services. For instance, the creation of school vouchers may not decrease govern-

ment expenditures but it will reduce government employment, eroding government's monopoly on the provision of publicly funded education services while creating more choice for parents and students and, thus, enhancing economic freedom.

3C: Union Density

Workers should have the right to form and join unions, or not to do so, as they choose. However, laws and regulations governing the labour market often force workers to join unions when they would rather not, permit unionization drives where coercion can be employed (particularly when there are undemocratic provisions such as union certification without a vote by secret ballot), and may make decertification difficult even when a majority of workers would favor it. On the other hand, with rare exceptions, a majority of workers can always unionize a workplace and workers are free to join an existing or newly formed union.

To this point in time, there is no reliable compilation of historical data about labor-market laws and regulations that would permit comparisons across jurisdictions. In this report, therefore, we attempt to provide a proxy for this variable. We begin with union density, that is, the percentage of unionized workers in a state or province. However, a number of factors affect union density: laws and regulations, size of government employment, and manufacturing density. In measuring economic freedom, our goal is to capture the impact of policy factors, laws and regulations, and so on, not other factors. We also wish to exclude government employment—although it is a policy factor that is highly correlated with levels of unionization—since government employment is captured in component 3B above.

Thus, we ran statistical tests to determine how significant an effect government employment had on unionization—a highly significant effect—and held this factor constant in calculating the variable. We also ran tests to determine if the size of the manufacturing sector was significant. It was not and, therefore, we did not correct for this factor in calculating the variable. It may also be that the size of the rural population has an impact on unionization. Unfortunately, consistent data from Canada and the United States are not available. Despite this limitation, the authors believe this proxy variable is the best available at the moment. Its results are consistent with the published information that is available (see, for example, Godin, Palacios, Clemens, Veldhuis, and Karabegović, 2006).

We have eliminated one variable from the Labor Market Freedom area: Occupational licensing. It is true that as the number of regulated occupations increase, labor mobility and freedom declines. However, in occupations that are licensed, the restrictions in the regulations can vary broadly among jurisdictions and, even when the regulations are similar between two jurisdictions, their interpretations and enforcement can vary.

Most of the variables above exist in the two dimensions we have already mentioned: the subnational and the all-government level. Total revenue from own sources, for example, is calculated first for local/municipal and provincial/state governments, and then again counting all levels of government that capture revenue from individuals living in a given province or state.

Chapter 2

Overview of the Results

Prior to a detailed discussion of the econometric testing, we will present some simple graphics for illustrative purposes. These charts dramatically demonstrate the important links between prosperity and economic freedom, links that are more fully explored in the econometric testing.

Figure 3 breaks economic freedom into quintiles at the all-government level. For example, the category on the far left of the chart, “Bottom,” represents the jurisdictions that score in the lowest fifth of the economic freedom ratings, the 12 lowest of the 60 North American jurisdictions. Eight of these are Canadian provinces—all except Alberta and Ontario. The jurisdictions in this bottom quintile have an average per-capita GDP of just US\$27,453 (C\$38,434). [1] This compares to an average per-capita GDP of US\$40,082 (C\$56,115) for the 12 top-ranked jurisdictions. Figure 4 is the same type of chart as Figure 3 but represents economic freedom at the subnational level. Here, the bottom quintile has an average per-capita GDP of US\$29,287 (C\$41,002) compared to the top quintile with an average per-capita GDP of US\$39,117 (C\$54,764).

Another useful way to review economic freedom is through deviation from the mean. This examines the impact on economic activity of a jurisdiction’s being above or below the average ranking of other national jurisdictions, comparing Canadian provinces with the Canadian average and US states with the US average. Here scatter charts help illustrate the point, though a quick visual inspection will show these diagrams could easily be translated into column graphs like Figures 3 and 4.

Figures 5 and 6 relate prosperity to economic freedom, with economic freedom plotted along the horizontal axis and per-capita GDP plotted along the vertical axis. Once again these charts illustrate the connection between economic freedom and prosperity. As one might expect, the subnational relationship is weaker than the all-government one because only at the all-government level are all government restrictions on economic freedom captured.

Finally, in this illustrative section, we look at the relationship between the growth of economic freedom and the growth of a jurisdiction’s economy, another topic more fully explored in the following testing. In Figures 7 and 8, growth in economic freedom is plotted along the horizontal axis while growth in GDP per capita is plotted along the vertical axis. Again, the expected relationships are found, with economic growth strongly linked to growth in economic freedom.

[1] The most recent data available are from 2003. Note that an exchange rate of 1.40 was used throughout the study, based on the 2003 average exchange rate.

Figure 3: Economic Freedom at an All-Government Level and GDP per Capita, 2003

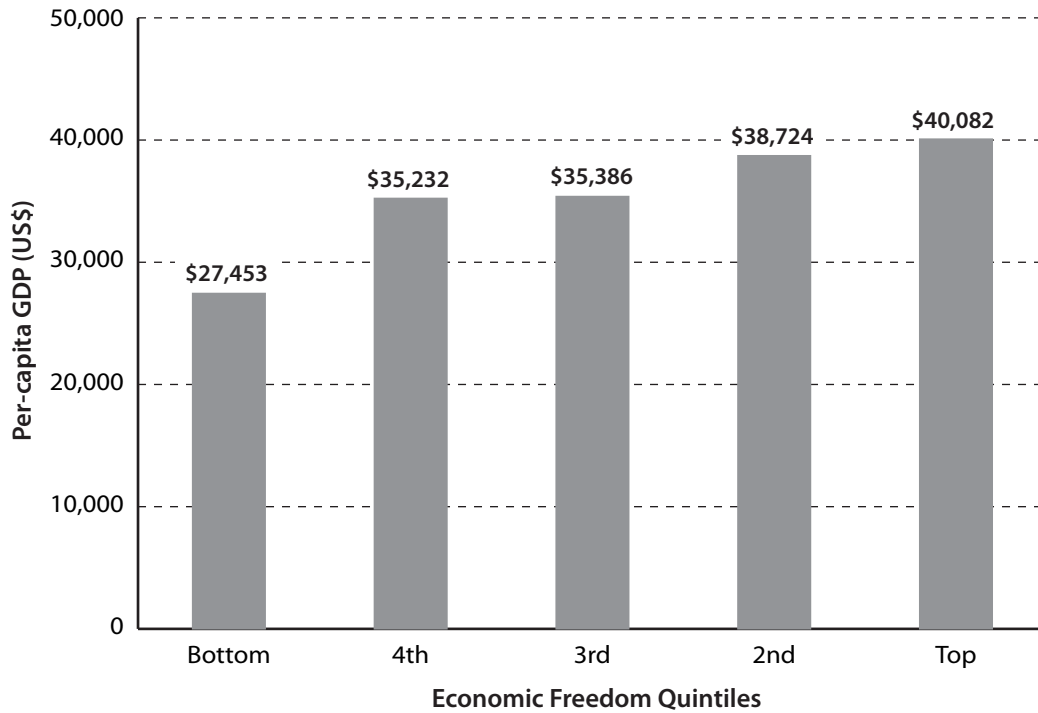


Figure 4: Economic Freedom at a Subnational Level and GDP per Capita, 2003

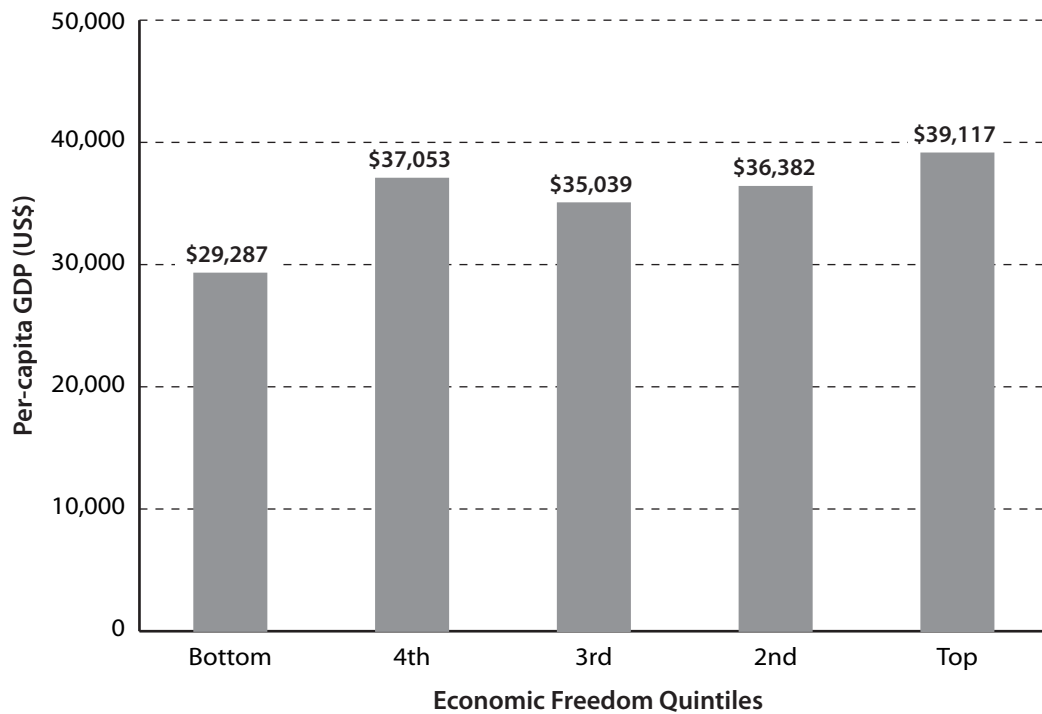


Figure 5: Average GDP per Capita and Average Economic Freedom at an All-Government Level, 1981–2003

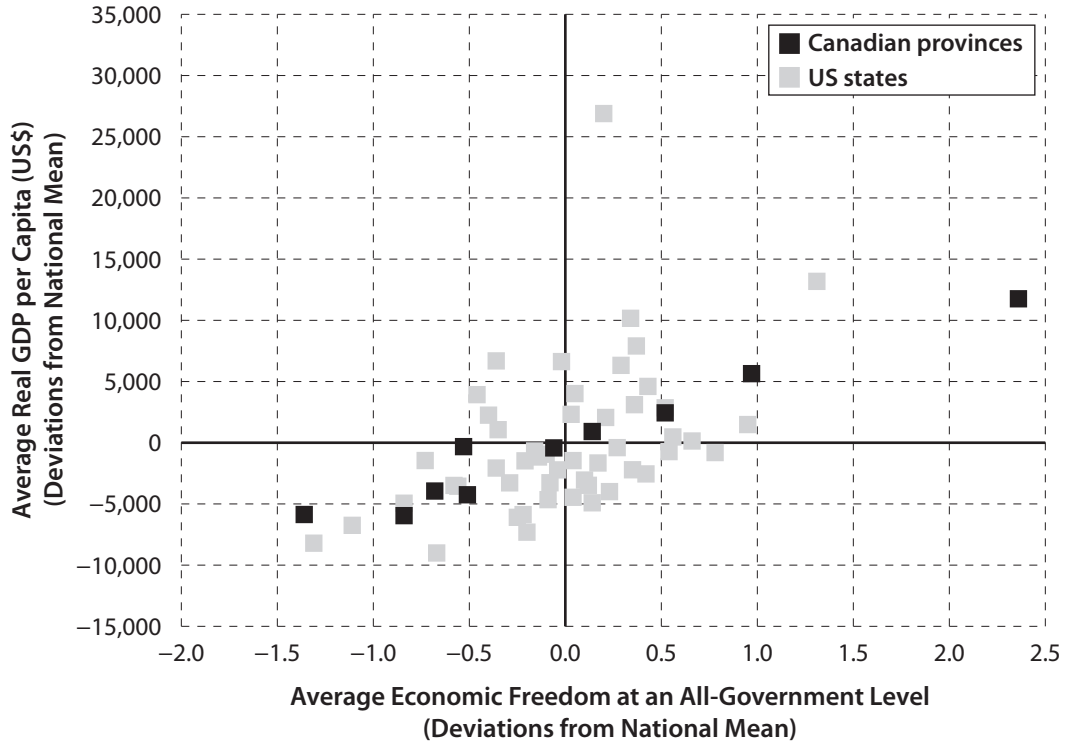


Figure 6: Average GDP per Capita and Average Economic Freedom at a Subnational Level, 1981–2003

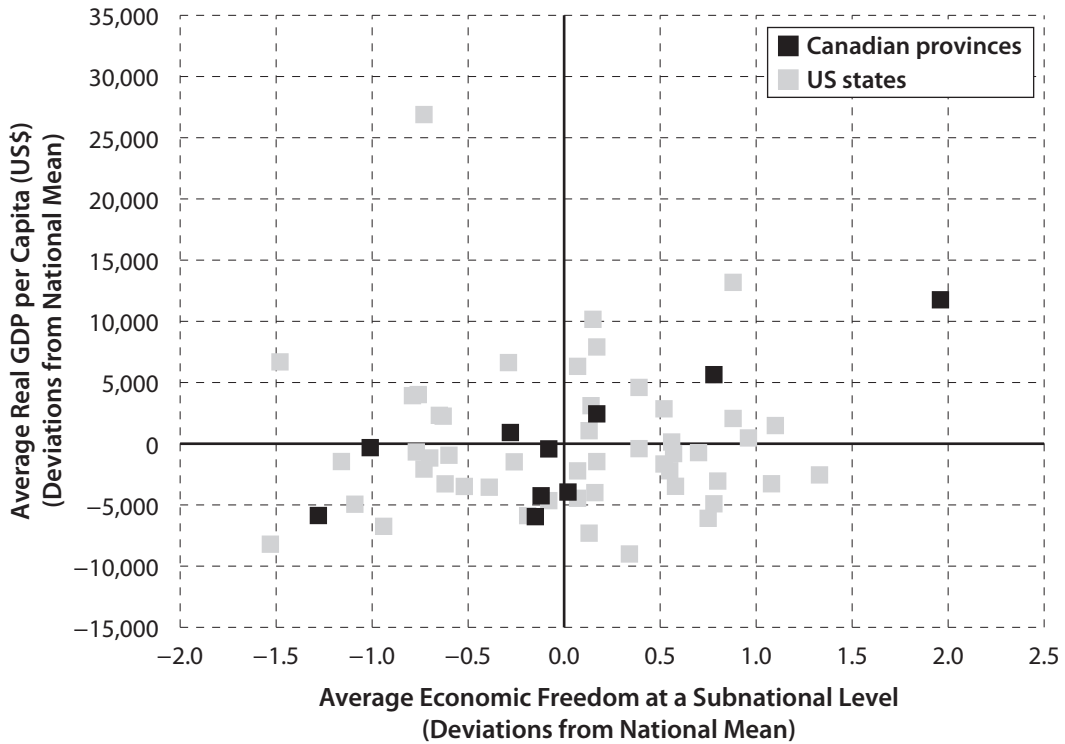


Figure 7: Average Growth in GDP per Capita and Average Growth in Economic Freedom at an All-Government Level, 1982–2003

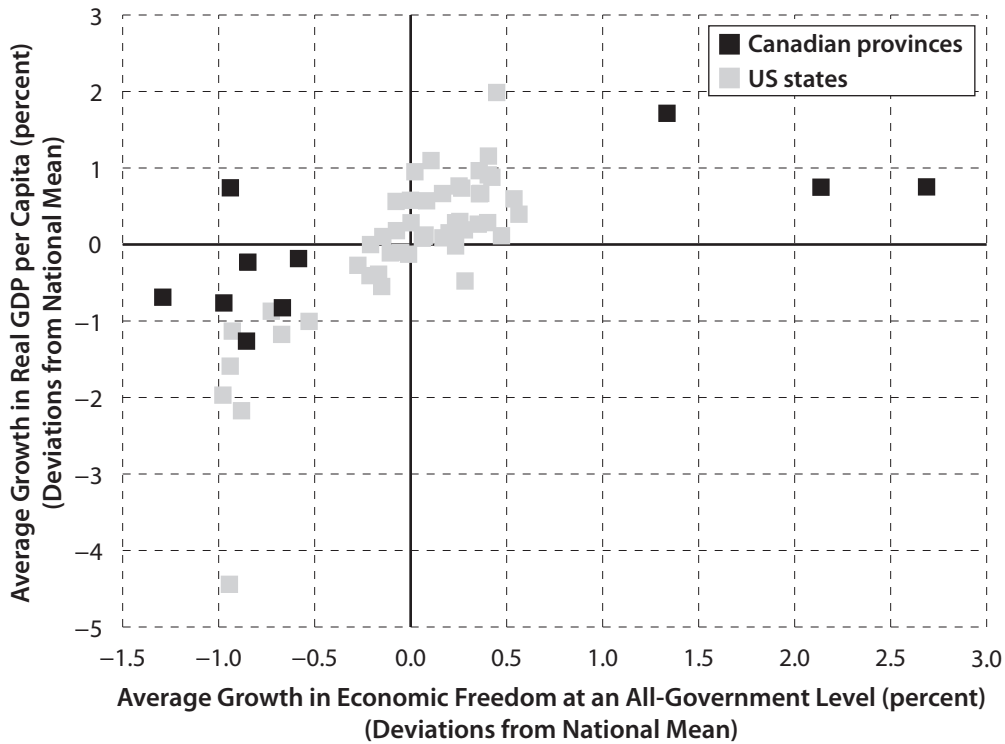
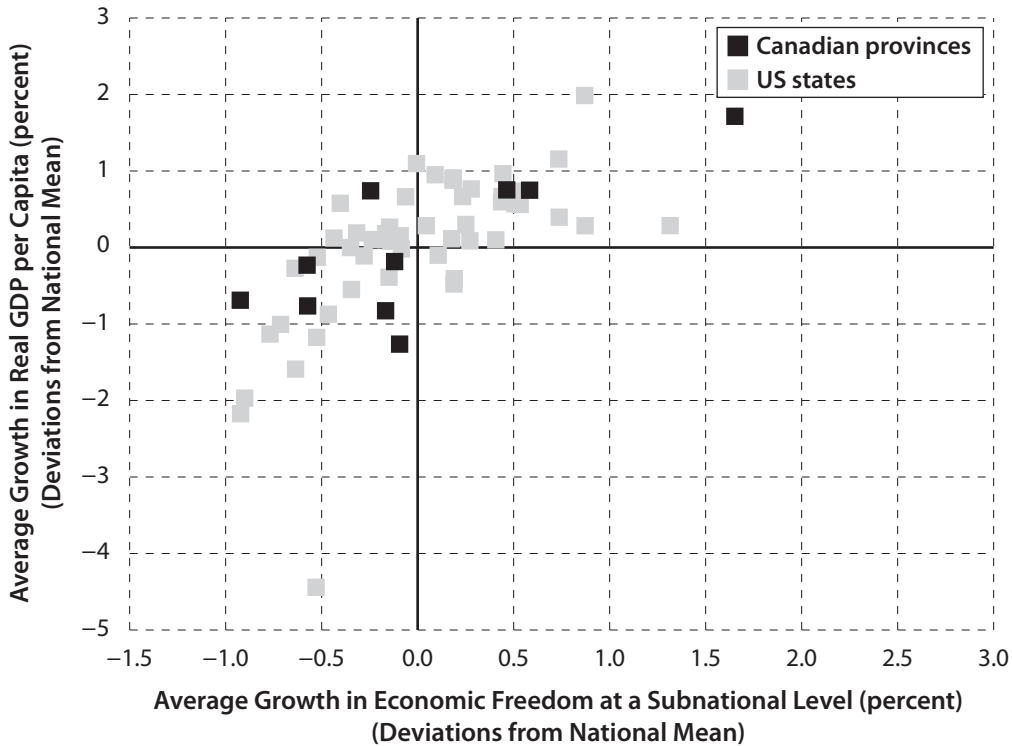


Figure 8: Average Growth in GDP per Capita and Average Growth in Economic Freedom at a Subnational Level, 1982–2003



Comparing the Two Indexes

In general, rankings at an all-government level are not drastically different from rankings at a subnational level when US states, as a group, are compared with Canadian provinces, as a group. This is partly due to the way the subnational variable is constructed. Subnational responsibilities in Canada and the United States differ. Thus, government spending and taxation patterns cannot be directly compared. Instead, an “adjustment factor,” explained in Appendix E: Adjustment Factors, page 69, is used.

The rankings on both the all-government and the subnational indexes are very similar, with correlation matrixes of 0.88 for the ranks of the two indexes and 0.90 for the scores of the two indexes in 2003. (Correlation between two identical data streams is 1.00.)

The Evolution of Economic Freedom in North America

As can be seen from Tables 1 and 2, the evolution of economic freedom in North America follows an expected pattern. In the United States, at the all-government level, economic freedom increases through the 1980s, coinciding with the Reagan era. It then falls in the early 1990s, following tax increases under the Bush and early Clinton administrations and then begins to rise again. At the subnational level, the pattern is the same but less pronounced, again as one might expect. Many states embarked upon Reagan-like government restructuring, but not all, and often not at the same level of intensity, or in the same time frame. [2]

In Canada through the 1980s, economic freedom remained fairly constant at the subnational level while it increased somewhat at the all-government level, perhaps as a result of a change of federal government, and a resulting change in policy, in 1984. In both indexes, economic freedom falls in Canada in the early 1990s and then begins to rise. In early 1990s, federal, provincial, and municipal governments began to address their debts and deficits but typically more through increased taxation than through lower spending. However, as debts and deficits were brought under control, governments began to reduce some tax rates through the mid-, and particularly the late, 1990s. Also in this period, fiscally conservative governments were elected in Canada’s two richest provinces, Alberta and Ontario.

Overall patterns in Canada and the United States are similar. Both nations fought debts and deficits in the early 1990s with tax increases. However, Canada raised taxes more aggressively, as can be seen from changes in economic freedom

[2] Gwartney and Lawson (2005) show rising scores for Canada and the United States through this period. This is because of variables such as price level that can only be examined at the national level. Obviously, states and provinces do not have their own independent monetary policy.

Table 1: Average Economic Freedom Scores at an All-Government Level

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Canada	4.4	4.4	4.4	4.5	4.5	4.5	4.6	4.9	4.9	4.7	4.2	4.1	4.1	4.3	4.5	4.6	4.6	4.7	4.9	5.1	5.1	5.2	5.3
United States	5.7	5.8	5.9	6.2	6.2	6.2	6.5	6.9	6.9	7.0	6.6	6.6	6.6	6.5	6.5	6.6	6.6	6.6	6.7	6.6	6.7	6.7	6.8
Difference	1.3	1.4	1.5	1.7	1.7	1.7	2.0	2.1	2.1	2.3	2.4	2.5	2.4	2.2	2.0	2.0	2.0	1.9	1.8	1.5	1.6	1.5	1.6

Table 2: Average Economic Freedom Scores at a Subnational Level

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Canada	5.0	4.7	4.6	4.7	4.8	4.8	4.8	4.9	5.0	4.8	4.6	4.3	4.4	4.6	4.7	4.8	5.0	5.1	5.3	5.5	5.5	5.4	5.5
United States	6.8	6.7	6.7	7.0	7.0	6.9	7.0	7.1	7.1	7.0	6.8	6.7	6.7	6.8	6.8	6.9	7.0	7.0	7.1	7.1	7.0	6.9	7.0
Difference	1.8	2.0	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.2	2.2	2.4	2.3	2.2	2.1	2.1	2.0	1.9	1.7	1.6	1.6	1.5	1.5

during this period. From 1981 to 2003, the gap between economic freedom in Canada and that in the United States at both the subnational and the all-government level first widened and then narrowed again until the late 1990s, when it was, roughly speaking, what it had been in 1981. The gap has remained more or less the same since then.

Overview of the Results for the United States

Most US states have maintained a high degree of economic freedom and only a handful have consistently not done so. West Virginia has the worst record but Hawaii, Maine, Montana, New Mexico, North Dakota, and Rhode Island also have consistently low levels of economic freedom in both the all-government and subnational indexes. Their average per-capita GDP was over US\$4,500 below the US average in 2003 and their total growth from 1981 to 2003 is eight percentage points below the US average of 48% total growth in real terms. This is particularly remarkable because poorer states under normal conditions will grow faster than rich states due to the well-known and empirically verified “convergence” effect. (See Barro and Sala-I-Martin, 1995 for US and other international results on convergence.)

The states that have consistently strong records in both indexes are Colorado, Georgia, Delaware, North Carolina, New Hampshire, Tennessee, and Texas. Their GDP per capita was over US\$4,500 above the US average in 2003 and their growth from 1981 to 2003 nearly 30 percentage points higher, a remarkable achievement given that economic theory and evidence shows that richer states should grow more slowly than poorer states due to the convergence effect noted above.

These indexes measure economic freedom, not growth factors, though the econometric testing does show that economic freedom itself is a powerful growth factor. However, there are exceptions. Among the low-ranked states, Rhode Island

and Maine have an average per-capita GDP growth rate that exceeds the national growth rate by about 30 percentage points from 1981 to 2003. Among the highly rated states, Texas' growth rate lags the national average by over 20 percentage points. However, this is at least partly due to the importance of oil in the Texas economy and the fact that oil prices were extremely high at the beginning of the period under study, 1981, and relatively low at the end of the period under study, 2003.

Overview of the Canadian Results

Canadian provinces consistently have lower scores than US states and thus are clustered near the bottom of the ranking. Alberta is the only province that has consistently done better than at least some states. It ranked 2nd at the all-government level and 9th at the subnational level in 2003. Although Alberta's economic freedom declined through the 1980s and early 1990s before recovering after the mid-1990s, in all years it has remained ahead of at least one state, usually West Virginia, in the rankings of both indexes.

Ontario placed ahead of several states at the all-government level in 1981. However, in the late 1980s and early 1990s, Ontario's economic freedom declined sharply. Economic freedom recovered through the mid- and late 1990s but only the scores in 1998 show Ontario regaining the level of economic freedom it had in 1981. Over the same period, average scores in the United States also rose, leaving Ontario further behind the US average than it was two decades ago. Ontario is now behind most of the states in both indexes.

Canadian Fiscal Federalism

The Government of Canada may well be unique in the amount of money it transfers among provinces and regions. For example, in Canada's Atlantic Provinces, the nation's most economically depressed region, *net* federal spending—the difference between federal revenues raised in the region and the amount of federal spending—typically equaled between 20% and 40% of regional GDP during the period under consideration. Although transfers between levels of government occur within the United States, the magnitude of these transfers is much smaller than in Canada. [3]

Inter-regional transfers in Canada create a fiscal drain on "have" regions. This is obvious at the federal level where tax revenues are, in effect, transferred from "have" to "have-not" provinces but transfers also occur at the provincial level. The federal taxation burden reduces room for provincial taxation in all provinces. This is a significant problem for "have" provinces but not for "have-not" provinces since a con-

[3] A discussion of fiscal federalism can be found in McMahon, 2000b: chapter 3. The US fiscal structure is discussed in McMahon, 2000a: chapter 4.

siderable portion of federal transfers to “have-not” regions go directly to provincial governments, which are thus more than compensated for the loss of taxation room.

Nonetheless, one would expect—and, indeed, the data confirms—that most of the negative impact of fiscal federalism would be found at the all-government level, which directly includes the impact of federal taxation and transfers. This is unfortunate because it is at the all-government level, which calculates the impact of all governments on economic freedom, where the effects of economic freedom are strongest.

Explaining a Puzzle

Canadian fiscal federalism may help explain a puzzle found in the following discussion of the econometric results. The beneficial effect of economic freedom upon Canadian provinces is considerably weaker than it is upon US states at both the all-government and subnational level. This may be because of the interaction between Canada’s fiscal structure, economic freedom, and economic growth.

To understand the impact of Canada’s fiscal federalism, consider a province that reduces economic freedom by, for example, increasing taxes. This will likely have a negative effect on the provincial economy, as both the following results and international testing show. However, the weaker provincial economy means the province will receive an increase in federal payouts (or a reduction in the fiscal outflow if the province in question is a “have” province). The greater the reduction in economic freedom, the greater the negative impact on the economy and the greater the amount of money the province will receive from the federal government. This inflow of funds will, at least in the short term, partly offset the negative impact on GDP and mute the effect of economic freedom, or its loss, on the economy. (In the longer term, the inflow of funds will also weaken the economy but this effect is likely beyond the time horizon of the tests conducted here.)

On the other hand, if a province increases economic freedom, for example by reducing taxes, and its economy grows, the result is an increased outflow of government revenues to other jurisdictions and a heavier tax burden, given the progressivity of Canadian taxes, which in turn suppresses increases in economic freedom and economic growth. In other words, fiscal federalism mutes the effect of economic freedom in Canada. However, despite the problems created by Canada’s fiscal structure, overall, economic freedom still proves to be a powerful stimulant for increasing prosperity in Canada.

Impact of Fiscal Federalism

Unfortunately, Canada’s fiscal federalism seems to harm both rich and poor provinces. The discussion above shows how fiscal federalism frustrates the ability of some provinces to improve their economic freedom and, thus, their prosperity. However, the effects are at least as unfortunate in the poorer provinces, where a rich menu of government spending pushes out other economic activity and politicizes the economy. As a result, the rate of convergence of Canada’s poorer regions is about a third to a half of the rate of convergence of poor regions in the United States, Europe, and Japan (McMahon, 2000a).

The incentives created by fiscal federalism are also damaging. Because fiscal federalism hinders movement towards economic freedom in the provinces and thus weakens the positive impact of economic freedom, the incentive for provinces to increase the freedom of their economies weakens.

Even worse, the elites in “have-not” provinces have incentives to limit economic freedom. Low levels of economic freedom reduce economic activity and increase the flow of federal transfers. These transfers are predominately captured by the political and business elites, meaning they face incentives to keep economic growth low. As well, Canada’s system of Employment Insurance (EI) alters the incentives facing many voters, since they can benefit from the structure of the EI system, which also weakens economic growth by removing large segments of the population from the year-round workforce so long as economic activity remains weak.

Chapter 3

The Relationship between Economic Freedom & Economic Well-Being

A number of studies have linked levels of economic freedom, as measured by the index published annually in *Economic Freedom of the World*, with higher levels of economic growth and income. For example, Easton and Walker (1997) found that changes in economic freedom have a significant impact on the steady-state level of income even after the level of technology, the level of education of the workforce, and the level of investment are taken into account. The results of this study imply that economic freedom is a separate determinant of the level of income. The Fraser Institute's series, *Economic Freedom of the World*, also shows a positive relationship between economic freedom and both the level of per-capita GDP and its growth rate.

Similarly, De Haan and Sturm (2000) show that positive and negative changes in economic freedom lead to positive and negative changes in rates of economic growth. Using the index of economic freedom from Gwartney et al. (1996) and per-capita GDP data for 80 countries, their results indicate that, after accounting for education level, investment, and population growth, changes in economic freedom have a significant impact on economic growth. [1] The calculation of the index of the economic freedom of North America allows us to investigate the relationship between economic freedom and prosperity within North America.

To test whether or not there is a positive relationship between economic growth and economic freedom, we use annual observations on each of the variables from 1981 to 2003. We run separate regressions for Canada and the United States to determine if economic freedom has different effects in the two nations. As the data for all US states and all Canadian provinces were used, the study is one of a defined population rather than a random sample of states and provinces, implying that the appropriate estimation technique is the fixed effects, rather than the random effects, model. Tables 3 and 4 show the regression results of the semi-growth models. Please note that the coefficients on regressions testing the level of GDP and economic freedom represent US dollars.

[1] For a sample of empirical papers investigating the impact of economic freedom, as measured by the index published annually in *Economic Freedom of the World*, and economic prosperity, see <<http://www.freetheworld.com>>. For the latest summary of literature on economic freedom, see Doucouliagos and Ulubasoglu, 2006.

Average investment share of GDP is missing from the model because investment data for separate US states is not available. [2] The proxy variable for human capital in our model is not statistically significant. Since the investment variable is missing from the model and the proxy variable for human capital is not significant, the data have to be adjusted. The fixed-effects model captures the unobserved or ignorance effects. It does not, however, account for missing relevant variables from a model.

To provide some adjustment for missing relevant variables, the data are transformed into deviations from their national means. In other words, the national mean is subtracted from each of the variables. Although this transformation does not adjust for the omission of the relevant variables completely, to the extent that jurisdictions within a national context are similarly affected by the same economic factors, the transformation—which reveals how each jurisdiction performs in relation to the national average—helps adjust for the impact of the missing relevant variables on other explanatory variables in the model.

The results from the regression analysis in Table 3 indicate that the degree of economic freedom has a substantial impact on per-capita GDP at a subnational and all-government level. As mentioned before, the high-school variable is not significant. The reader should also note the relatively small standard errors for the economic freedom variable, both in the regression results reported here and for those reported in the section on Sensitivity Analysis (see page 30ff.). On the whole, the US results are more statistically significant than the Canadian results, though even the Canadian results typically have a *p*-value well below 1%, meaning that the results, roughly speaking, are statistically significant more than 99 times out of 100. Somewhat lower statistical significance on the Canadian tests may reflect both the nature of Canada's fiscal federalism, which mutes the effects of economic freedom, and the fact there are obviously more data points for 50 states than 10 provinces.

At an all-government level, holding other variables constant, an increase of one point in economic freedom in a US state will increase that state's per-capita income by US\$5,488. An increase of one point in economic freedom in a Canadian province will increase its per-capita GDP by US\$3,916 (C\$5,483) (we have used an exchange rate 1.40, the average for 2003, the most recent year for which data are available). At a subnational level, an increase of one point in economic freedom in a US state will increase its per-capita GDP by US\$4,326, whereas an increase of one point in economic freedom in a Canadian province will increase its per-capita GDP by US\$3,251 (C\$4,552). The earlier discussion on Canada's fiscal federalism—and the negative impact this has on the effects of economic freedom—is a key reason why the effects are stronger in the United States.

[2] As already mentioned, the omission of the investment variable does not seriously affect the coefficients on economic freedom. We tested the impact of the exclusion of the investment variable from the model of Mankiw, Romer, and Weil (1992) enhanced by a variable for economic freedom from *Economic Freedom of the World*. The exclusion does not change the estimated coefficients on economic freedom nor their standard errors significantly.

Table 3: Level of Economic Freedom and GDP per Capita

Regressions at All-Government Level (ALLG)					Regressions at Subnational Level (SUBN)				
Dependent Variable: Real GDP per Capita (1981–2003)					Dependent Variable: Real GDP per Capita (1981–2003)				
Method: Pooled Least Squares					Method: Pooled Least Squares				
Sample: 1981–2003					Sample: 1981–2003				
Canada									
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
HG	–72.71	69.66	–1.04	0.30	HG	–42.04	73.22	–0.57	0.57
ALLG	3916.31	543.43	7.21	0.00	SUBN	3251.42	582.64	5.58	0.00
Adjusted R ² : 0.98					Adjusted R ² : 0.98				
United States									
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
HG	24.47	29.42	0.83	0.41	HG	8.24	28.04	0.29	0.77
ALLG	5488.21	551.47	9.95	0.00	SUBN	4326.25	605.47	7.15	0.00
Adjusted R ² : 0.98					Adjusted R ² : 0.98				

Notes

HG is the number of high school graduates 25 years and older as a percentage of the total population 25 years and older from 1981 to 2003; ALLG is an economic freedom index at an all-government level from 1981 to 2003; SUBN is an economic freedom index at a subnational level from 1981 to 2003. In the regression analysis presented in Tables 3 and 4, White Heteroskedasticity-Consistent Standard Errors & Covariance was used as well as AR term when Durbin-Watson statistics was low.

For both Canada and the United States, the impact of economic freedom on per-capita GDP is higher at an all-government level than it is at a subnational level. This is the expected result, since the all-government variable captures the impact of restrictions on economic freedom imposed at both the subnational and all-government levels.

While the coefficients may appear quite large, it should be noted that the overall index varies much less than its individual components, so that a one-point overall increase in economic freedom may not be as easy to achieve as might appear at first notice. The difference in scores between the highest and lowest rated state over the full period is only 3.50 points at the all-government level. Thus, a US state would have to improve its score by roughly one third within this range in order to achieve the one-point increase required to realize the US\$5,488 per-capita gain in income. In Canada, at the all-government level, the range is 5.0. At the subnational level, the range in Canada is 4.3; in the United States, it is 4.0.

Table 4 summarizes the results of the regression analysis used to determine the relationship between growth in economic freedom and growth in per-capita GDP at a subnational and all-government level. The main conclusion of the regression analysis is that growth in economic freedom has a significant impact on the growth in per-capita GDP.

A 1.00% increase in the growth rate of economic freedom in the all-government index (e.g., from 4.00% per year to 4.04% per year), will induce an increase of 1.06%

Table 4: Growth in Economic Freedom and Growth in GDP per Capita

Regressions at All-Government Level (ALLG)					Regressions at Subnational Level (SUBN)				
Dependent Variable: Growth in Real GDP per Capita (1982–2003)					Dependent Variable: Growth in Real GDP per Capita (1982–2003)				
Method: Pooled Least Squares					Method: Pooled Least Squares				
Canada									
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
HGG	-0.02	0.11	-0.19	0.85	HGG	0.11	0.12	0.94	0.35
POPG	0.55	0.41	1.34	0.18	POPG	0.48	0.39	1.24	0.22
ALLGG	0.57	0.07	8.40	0.00	SUBNG	0.53	0.087	7.22	0.00
Adjusted R ² : 0.44					Adjusted R ² : 0.34				
United States									
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
HGG	0.01	0.05	0.16	0.87	HGG	0.01	0.04	0.11	0.91
POPG	-0.45	0.18	-2.53	0.01	POPG	-0.01	0.22	-0.44	0.97
ALLGG	1.06	0.07	14.89	0.00	SUBNG	0.75	0.07	11.43	0.00
Adjusted R ² : 0.48					Adjusted R ² : 0.40				

Notes

HGG is growth in the number of high-school graduates 25 years and older as a percentage of total population 25 years and older from 1982 to 2003; POPG is growth in population from 1982 to 2003; ALLGG is growth in economic freedom at an all government level from 1982 to 2003; SUBNG is growth in economic freedom at a subnational level from 1982 to 2003. In the regression analysis presented in Tables 3 and 4, White Heteroskedasticity-Consistent Standard Errors & Covariance was used as well as AR term when Durbin-Watson statistics was low.

in the growth rate of per-capita GDP for US states and an increase of 0.57% in the growth rate of per-capita GDP for Canadian provinces. A 1.00% increase in the growth rate of economic freedom in the subnational index will induce an increase of 0.75% in the growth rate of per-capita GDP for US states and 0.53% increase in the growth rate for Canadian provinces.

Sensitivity Analysis

In order to determine the stability of the regression results in the Tables 3 and 4, further testing was done using moving averages rather than annual data. These results can be found below. The use of moving averages (reported in Tables 5 and 6) is important. Annual data in regression analysis may lead to misleading results because, depending on the period of study, business cycles may inflate or deflate the estimated coefficients. The data used in the regression analyses in Tables 5 and 6 are smoothed out through use of a moving average, minimizing the impact of business cycles. The variables are the same as before and significance levels remain high. The results are interesting in themselves in that they throw further light on the impact of fiscal federalism and the impact of economic freedom over time.

Results

The results of the regression in Table 5 indicate that the level of economic freedom has a strong impact on per-capita GDP, regardless of period used for calculating the moving averages. Further, the significance of the coefficient stays extremely high, regardless of the number of periods in the moving average, at both subnational and all-government levels. The results are also consistent with the earlier finding that the level of economic freedom has a stronger impact on US states than on the Canadian provinces.

Table 5: Level of Economic Freedom and GDP per Capita (Moving Averages)

Dependent Variable: Real GDP per Capita (1981–2003)

Method: Pooled Least Squares

	2-period backward moving average		3-period backward moving average		4-period backward moving average		5-period backward moving average		6-period backward moving average		
Canada at an All-Government Level											
Variable	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	
HG	-101.61	-1.34	-51.42	-1.27	-92.03	-1.41	67.73	1.49	64.99	1.43	
ALLG	4452.00	8.85	3077.80	8.96	3595.03	8.17	3559.87	7.48	3014.77	7.70	
Canada at a Subnational Level											
Variable	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	
HG	22.15	0.33	28.74	0.63	-112.08	-1.85	54.27	0.91	72.34	1.45	
SUBN	3793.35	8.52	3069.50	9.22	3235.51	7.10	3036.63	6.57	2642.11	6.05	
United States at an All-Government Level											
Variable	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	
HG	18.31	0.97	46.44	1.08	1.63	0.04	56.54	1.75	-25.24	-0.63	
ALLG	5210.49	12.34	5644.85	9.61	6470.11	10.56	5166.80	14.66	5533.78	8.56	
United States at a Subnational Level											
Variable	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	
HG	6.86	0.35	36.89	0.97	-29.94	-0.74	48.59	1.54	-48.54	-1.20	
SUBN	4373.74	9.46	4687.59	7.08	5358.47	7.36	3858.51	10.58	4163.87	7.51	

Notes

HG is the number of high-school graduates 25 years and older as a percentage of total population 25 years and older from 1981 to 2003; ALLG is an economic freedom index at an all-government level from 1981 to 2003; SUBN is an economic freedom index at a subnational level from 1981 to 2003.

Finally, the pattern differentiating all-government testing from subnational testing remains consistent regardless of period. For both Canada and the United States, the impact of economic freedom at the all-government level is greater than the impact at the subnational level throughout the period under consideration. The regression results in Table 6 indicate that the estimated coefficients on the growth in economic freedom using moving average data are very similar to the regression results using annual data.

Table 6: Growth in Economic Freedom and Growth in GDP per Capita (Moving Averages)

Dependent Variable: Growth in GDP per Capita GDP (1982–2003)

Method: Pooled Least Squares

	2-period backward moving average		3-period backward moving average		4-period backward moving average		5-period backward moving average		6-period backward moving average		
Canada at an All-Government Level											
Variable	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	
HGG	−0.06	−0.44	−0.03	−0.27	−0.11	−0.85	0.14	1.34	0.06	0.60	
POPG	1.12	2.10	−0.50	−0.81	0.51	0.84	0.78	1.49	0.99	2.01	
ALLGG	0.61	8.26	0.44	9.69	0.51	7.37	0.57	8.25	0.53	7.96	
Canada at a Subnational Level											
Variable	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	
HGG	0.06	0.40	0.07	0.60	−0.18	−1.43	0.16	1.45	0.18	1.75	
POPG	0.88	1.70	−0.32	−0.63	1.12	2.06	0.85	2.43	0.91	2.47	
SUBNG	0.59	7.10	0.41	7.99	0.51	7.17	0.46	8.58	0.45	7.46	
United States at an All-Government Level											
Variable	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	
HGG	0.00	−0.10	0.04	0.60	−0.06	−1.01	0.07	1.50	−0.03	−0.67	
POPG	−0.32	−1.32	0.06	0.38	−0.23	−1.01	0.08	0.05	−0.02	−0.17	
ALLGG	0.96	16.19	1.02	16.15	1.21	15.33	0.99	18.01	1.00	15.12	
United States at a Subnational Level											
Variable	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	
HGG	0.00	−0.07	0.05	0.84	−0.09	−1.53	0.08	1.54	−0.06	−1.11	
POPG	0.14	0.54	0.53	3.21	0.37	2.06	0.57	3.55	0.49	3.62	
SUBNG	0.72	12.38	0.73	12.47	0.83	10.56	0.65	12.31	0.64	11.97	

Notes

HGG is growth in the number of high-school graduates 25 years and older as a percentage of total population 25 years and older from 1982 to 2003; ALLGG is growth in economic freedom at an all-government level from 1982 to 2003; SUBNG is growth in economic freedom at a subnational level from 1982 to 2003.

The Importance of Economic Freedom

This paper has focused on the measurement of economic freedom and on empirical testing of the impact of economic freedom. However, the reader may wonder why economic freedom is so clearly related to growth and prosperity, a finding not just of this paper but also of many other empirical explorations of economic freedom.

In many ways, this debate goes back to the beginnings of modern economics when Adam Smith famously argued that each of us, freely pursuing our own ends, create the wealth of nations and of the individual citizens. However, during the twentieth century there was continual debate about whether planned or free economies produce the best outcomes. The results of the experiments of the twentieth century should now be clear. Free economies produced the greatest prosperity in human history for their citizens. Even poverty in these economically free nations would have been considered luxury in unfree economies. This lesson was reinforced by the collapse of centrally planned states and, following this, the consistent refusal of their citizens to return to central planning, regardless of the hardships on the road to freedom. Among developing nations, those that adopted the centrally planned model have only produced lives of misery for their citizens. Those that adopted the economics of competitive markets have begun to share with their citizens the prosperity of advanced market economies.

While these comparisons are extreme examples, from opposite ends of the spectrum of economic freedom, a considerable body of research shows that the relationship between prosperity and economic freedom holds in narrower ranges of the spectrum. While sophisticated econometric testing backs up this relationship, examples are also interesting. So, taking for example two peripheral European nations, the relatively free Ireland does much better than the relatively unfree Greece. In the United States, the relatively free Georgia does much better than the relatively unfree West Virginia. In Canada, an unfree Quebec does much worse than its freer neighbour, Ontario. As with anything in the real world, exceptions can be found but overall the strength of the statistical fit of this relationship is remarkable.

While this is hardly the place to review several centuries of economic debate, the mechanics of economic freedom are easy to understand. Any transaction freely entered into must benefit both parties; any transaction that does not benefit both parties would be rejected by the party that would come up short. This has consequences throughout the economy. Consumers who are free to choose will only be attracted by superior quality and price. Producers must constantly improve the price and quality of their products to meet customers' demands or customers will not freely enter into transactions with them. Many billions of mutually beneficial transactions occur every day, powering the dynamic that spurs increased productivity and wealth throughout the economy.

Restrictions on freedom prevent people from making mutually beneficial transactions. Such free transactions are replaced by government action. This is marked by coercion in collecting taxes and lack of choice in accepting services: instead of gains for both parties arising from each transaction, citizens must pay

whatever bill is demanded in taxes and accept whatever service is offered in return. Moreover, while the incentives of producers in a competitive market revolve around providing superior goods and services in order to attract consumers, the public sector faces no such incentives. Instead, as public-choice theory reveals, incentives in the public sector often focus on rewarding interest groups, seeking political advantage, or even penalizing unpopular groups. This is far different from mutually beneficial exchange although, as noted earlier, government does have essential protective and productive functions.

In some ways it is surprising the debate still rages because the evidence and theory favouring economic freedom match intuition: it makes sense that the drive and ingenuity of individuals will produce better outcomes through the mechanism of mutually beneficial exchange than the designs of a small coterie of government planners, who can hardly have knowledge of everyone's values and who, being human, are likely to consider first their own well-being and that of the constituencies they must please when making decisions for all of us.

Conclusion

The worldwide evidence on economic freedom suggests that the Canadian provinces are poorly positioned to take advantage of economic opportunity. The provinces are clustered near the bottom of the rankings in all three areas, indicating that their governments have consumed and transferred more resources, imposed higher tax rates, and created more rigid labor markets than the governments of US states.

The regression analyses indicate that growth in economic freedom and the level of economic freedom have a significant impact on the growth in per-capita GDP and the level of per-capita GDP. Since Canadian provinces have relatively low levels of economic freedom, Canadians are likely to continue to experience lower standards of living relative to American states. Only two provinces, Alberta and Ontario, have high levels of economic freedom in the Canadian context, and their residents have seen the benefits of this.

Chapter 4

Detailed Tables

The following tables provide more information on economic freedom in the provinces and states as measured by the all-government index, which measures the impact of all levels of government—federal, provincial/state, and municipal/local—in Canada and the United States, and the subnational index, which measures the impact of provincial and municipal governments on economic freedom in Canada and of state and local governments in the United States.

The first two tables provide a detailed summary of the scores for 2003. The remaining tables provide historical information both for the overall index and for each of Area 1. Size of Government; Area 2. Takings and Discriminatory Taxation; and Area 3. Labor Market Freedom. All the data included in this report is available on our website, <<http://www.freetheworld.com>>.

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Detailed Table 1: Scores on All-Government Index, 2003

	Overall Index	Area 1	Area 2	Area 3	1A	1B	1C	2A	2B	2C	2D	3A	3B	3C
Alberta	7.7	8.8	7.3	7.1	8.6	8.5	9.2	6.7	5.5	9.6	7.2	8.8	8.3	4.1
British Columbia	5.5	7.3	4.5	4.8	6.7	7.3	7.9	3.6	4.5	6.5	3.2	4.9	6.8	2.6
Manitoba	4.8	6.5	3.8	4.2	5.6	6.1	7.9	3.1	3.5	5.2	3.4	5.6	3.2	3.8
New Brunswick	4.9	5.8	3.8	5.2	4.8	6.5	6.0	3.3	3.5	5.5	2.8	5.7	4.6	5.2
Newfoundland	5.1	6.0	5.0	4.3	5.1	7.2	5.7	5.8	2.5	8.3	3.5	6.8	2.7	3.5
Nova Scotia	4.9	5.7	3.7	5.2	4.0	6.7	6.4	2.8	3.5	6.2	2.4	5.9	4.6	5.1
Ontario	5.9	7.9	4.0	6.0	7.5	7.8	8.3	2.7	3.5	5.9	3.7	6.8	7.7	3.4
Prince Edward Island	4.1	4.5	3.0	4.6	3.0	5.9	4.8	1.9	3.5	6.0	0.8	5.1	3.4	5.3
Quebec	4.5	6.7	2.6	4.2	6.3	6.4	7.5	1.0	2.5	4.1	2.9	5.3	6.1	1.2
Saskatchewan	5.1	6.4	4.4	4.5	6.2	5.1	8.1	4.1	4.5	5.0	4.1	6.4	2.7	4.5
Alabama	6.5	5.6	6.7	7.2	5.4	7.8	3.5	6.8	7.0	6.1	7.0	6.6	6.8	8.3
Alaska	6.4	5.6	7.8	5.8	4.1	5.7	7.1	8.3	8.0	5.6	9.2	7.6	3.0	6.8
Arizona	7.2	7.3	6.5	7.9	7.6	8.7	5.6	6.9	6.0	7.1	6.1	7.3	8.2	8.3
Arkansas	6.4	5.8	5.9	7.5	6.8	7.0	3.6	6.4	5.0	6.4	5.7	6.2	7.6	8.7
California	6.9	7.6	6.2	6.9	7.4	8.8	6.6	5.7	5.0	7.0	7.3	6.9	8.2	5.5
Colorado	7.7	8.1	6.9	8.0	8.1	9.3	6.9	6.7	6.0	7.7	7.4	8.3	7.9	7.8
Connecticut	7.0	8.0	5.7	7.4	8.0	9.1	6.8	4.2	6.0	4.8	7.8	7.9	8.5	5.8
Delaware	8.6	9.0	8.8	8.1	9.8	9.5	7.6	10.0	6.0	9.4	9.9	9.2	8.5	6.7
Florida	7.0	7.0	6.0	7.9	7.4	9.1	4.5	5.2	8.0	4.4	6.5	7.2	9.0	7.4
Georgia	7.6	7.8	7.1	8.0	8.0	8.9	6.6	7.3	6.0	7.9	7.1	7.9	8.0	8.0
Hawaii	6.1	6.4	6.0	6.0	5.6	8.5	5.2	6.5	5.0	6.8	5.6	6.9	5.7	5.3
Idaho	6.7	6.6	6.2	7.4	6.8	7.9	5.1	6.5	5.0	5.7	7.5	6.7	7.0	8.4
Illinois	7.2	7.9	6.5	7.3	8.5	8.9	6.3	5.9	7.0	5.2	8.0	8.1	8.5	5.3
Indiana	7.4	7.5	7.0	7.6	7.9	8.7	6.0	6.9	7.0	6.3	7.7	7.5	8.7	6.5
Iowa	6.9	6.9	6.5	7.3	7.8	7.4	5.4	7.0	6.0	5.7	7.5	7.6	7.8	6.6
Kansas	7.0	7.1	6.4	7.4	7.4	8.2	5.6	6.4	6.0	6.2	6.9	7.5	6.3	8.4
Kentucky	6.7	6.3	6.5	7.2	6.7	7.9	4.3	6.6	6.0	5.8	7.7	7.0	7.6	7.1
Louisiana	6.8	6.4	6.6	7.4	6.7	7.5	5.0	7.0	7.0	6.5	5.8	7.1	6.0	9.1
Maine	5.9	6.0	5.0	6.8	6.0	7.7	4.2	4.9	5.0	3.1	7.1	5.8	8.0	6.5
Maryland	6.6	6.8	5.9	7.2	5.6	9.1	5.7	4.8	6.0	4.6	8.3	8.0	6.9	6.6
Massachusetts	7.3	7.7	6.6	7.5	8.1	8.7	6.5	5.3	6.0	6.8	8.4	7.6	9.1	5.7
Michigan	6.8	7.3	6.4	6.8	7.7	8.8	5.5	6.2	6.0	6.2	7.2	7.7	8.5	4.2
Minnesota	7.1	7.8	6.1	7.4	8.2	8.6	6.5	6.0	5.0	5.8	7.7	8.3	8.7	5.3
Mississippi	5.8	4.8	5.6	7.0	4.6	6.6	3.1	6.0	6.0	4.5	5.9	5.6	5.8	9.5
Missouri	7.0	6.8	6.8	7.3	7.0	8.1	5.2	6.7	7.0	6.3	7.3	7.4	8.0	6.5
Montana	5.7	5.0	5.5	6.7	6.0	5.6	3.4	5.6	5.0	1.6	9.7	6.3	6.5	7.2
Nebraska	7.2	7.2	6.6	7.7	8.2	7.4	6.1	6.8	6.0	6.0	7.4	7.9	7.5	7.7
Nevada	7.6	8.3	6.7	7.7	8.9	9.6	6.4	6.5	8.0	5.5	6.8	8.2	9.6	5.3
New Hampshire	7.5	8.0	6.6	7.9	8.7	9.0	6.3	5.3	8.0	3.5	9.6	7.9	9.2	6.6
New Jersey	6.9	8.0	5.4	7.3	8.4	9.3	6.4	4.7	5.0	3.9	8.0	8.7	8.3	4.8
New Mexico	5.7	5.0	5.1	6.9	3.6	6.9	4.5	6.1	5.0	3.1	6.1	6.8	4.1	9.7
New York	6.4	7.1	5.5	6.7	7.3	8.0	5.9	4.5	5.0	4.8	7.5	8.5	7.4	4.2
North Carolina	7.7	7.7	7.2	8.2	8.3	8.7	6.0	7.9	5.0	8.0	8.0	7.9	7.5	9.3
North Dakota	6.2	5.1	6.1	7.4	6.5	3.2	5.4	6.7	6.0	4.1	7.5	7.5	5.8	9.0
Ohio	6.7	7.0	6.0	7.1	7.6	8.6	4.8	6.0	5.0	5.5	7.6	7.6	8.3	5.5
Oklahoma	6.3	5.9	5.8	7.3	6.0	7.8	3.8	6.1	5.0	5.3	6.7	6.5	6.6	8.8
Oregon	6.6	6.7	6.7	6.6	7.0	8.5	4.5	6.2	6.0	4.8	9.7	5.7	7.9	6.1
Pennsylvania	6.9	6.8	6.4	7.4	7.1	8.6	4.6	5.8	7.0	5.0	7.8	7.7	9.1	5.5
Rhode Island	6.2	6.4	5.1	7.1	6.9	7.8	4.6	5.0	5.0	2.9	7.4	6.9	9.3	5.1
South Carolina	6.8	6.4	6.4	7.7	6.7	8.3	4.4	7.0	5.0	5.9	7.5	6.9	7.1	9.1
South Dakota	7.2	6.6	7.3	7.9	8.0	5.9	5.8	7.7	8.0	6.5	6.9	7.7	7.0	8.9
Tennessee	7.4	7.1	7.3	7.8	7.4	8.4	5.5	7.7	8.0	7.1	6.4	7.5	8.2	7.6
Texas	7.6	8.0	7.0	8.0	8.1	9.0	6.8	7.1	8.0	5.6	7.2	7.9	7.7	8.4
Utah	7.5	7.6	7.2	7.7	7.4	8.9	6.6	7.8	6.0	8.2	6.9	7.2	7.0	8.8
Vermont	6.4	6.5	5.3	7.2	6.6	7.3	5.7	5.2	5.0	2.8	8.4	6.2	8.2	7.0
Virginia	7.3	6.9	7.0	7.9	5.6	9.3	5.9	6.9	6.0	6.5	8.5	8.3	6.6	8.8
Washington	6.7	7.4	6.3	6.4	7.7	8.8	5.6	5.8	8.0	6.2	5.3	6.7	6.9	5.6
West Virginia	5.3	4.2	5.1	6.5	5.6	7.1	0.0	5.1	6.0	1.9	7.4	5.8	6.3	7.5
Wisconsin	6.9	7.3	6.1	7.3	7.9	8.7	5.4	5.9	6.0	5.2	7.4	7.7	8.6	5.6
Wyoming	7.0	7.1	6.4	7.5	7.4	7.7	6.2	6.2	8.0	4.6	6.7	8.6	4.3	9.6

Detailed Table 2: Scores on Subnational Index, 2003

	Overall Index	Area 1	Area 2	Area 3	1A	1B	1C	2A	2B	2C	2D	3A	3B	3C
Alberta	7.6	8.0	8.6	6.3	6.8	8.6	8.6	8.4	7.0	9.5	9.4	7.1	7.6	4.1
British Columbia	5.6	6.4	6.2	4.2	4.3	7.6	7.2	4.9	6.5	8.4	5.1	4.0	5.9	2.6
Manitoba	5.1	6.6	5.3	3.4	3.4	7.8	8.6	3.5	5.5	7.6	4.6	4.5	2.0	3.8
New Brunswick	5.4	6.2	5.5	4.5	3.0	7.6	8.0	4.2	5.5	8.2	4.2	4.6	3.8	5.2
Newfoundland	5.4	6.6	6.0	3.4	2.7	8.4	8.8	5.8	4.5	9.3	4.4	5.4	1.3	3.5
Nova Scotia	5.5	6.7	5.1	4.7	3.7	7.9	8.5	3.6	4.5	8.4	3.8	4.8	4.3	5.1
Ontario	6.0	7.0	5.6	5.5	5.9	7.6	7.4	4.0	5.5	7.6	5.2	5.5	7.7	3.4
Prince Edward Island	4.9	5.8	4.7	4.3	1.2	7.7	8.3	3.5	4.5	8.9	1.8	4.1	3.6	5.3
Quebec	4.4	5.7	4.0	3.6	4.6	5.9	6.6	1.3	4.0	6.6	4.2	4.2	5.2	1.2
Saskatchewan	4.9	6.0	5.3	3.4	3.4	7.0	7.6	3.8	5.5	6.6	5.4	5.2	0.6	4.5
Alabama	7.2	5.8	7.7	8.2	4.6	5.9	6.8	7.5	8.0	9.2	6.1	10.0	6.4	8.3
Alaska	6.1	4.4	8.4	5.4	1.3	7.2	4.7	7.9	10.0	6.4	9.1	6.1	3.3	6.8
Arizona	7.9	7.8	7.2	8.7	7.2	8.6	7.7	7.1	8.0	9.0	4.7	10.0	7.9	8.3
Arkansas	6.8	6.9	6.5	6.9	4.9	8.5	7.2	6.3	6.0	9.4	4.3	5.0	7.0	8.7
California	6.1	6.1	6.1	6.2	5.6	7.1	5.6	6.0	4.0	8.1	6.4	5.6	7.6	5.5
Colorado	7.6	7.9	7.6	7.4	6.9	9.7	7.1	7.7	7.0	9.1	6.5	6.7	7.7	7.8
Connecticut	7.0	7.4	7.0	6.7	6.9	8.8	6.6	6.5	7.0	7.6	7.1	6.3	7.9	5.8
Delaware	8.4	8.8	9.1	7.3	8.5	9.4	8.5	9.8	7.5	9.3	9.9	7.4	7.9	6.7
Florida	8.0	7.8	7.4	8.7	6.3	9.1	8.1	7.0	10.0	7.3	5.3	10.0	8.8	7.4
Georgia	7.6	7.9	7.4	7.4	7.1	8.8	7.9	7.8	6.0	9.7	6.1	6.3	7.8	8.0
Hawaii	6.1	6.5	6.0	5.9	5.1	8.4	6.0	5.8	5.0	9.3	4.0	5.6	6.7	5.3
Idaho	6.7	6.9	6.4	6.7	5.3	8.7	6.8	6.2	5.0	7.7	6.7	5.4	6.4	8.4
Illinois	7.2	7.2	7.3	7.0	6.9	8.8	5.9	6.7	8.0	7.2	7.5	7.7	8.1	5.3
Indiana	7.5	7.9	7.8	6.9	6.0	9.3	8.4	7.3	8.0	8.7	7.1	6.0	8.1	6.5
Iowa	7.0	7.2	7.2	6.5	5.5	8.7	7.3	6.8	7.5	7.9	6.7	6.1	6.9	6.6
Kansas	7.1	7.4	6.8	7.2	5.9	8.6	7.7	6.6	6.0	8.5	5.9	7.9	5.3	8.4
Kentucky	6.8	6.7	6.9	6.6	5.6	8.4	6.1	6.4	6.0	8.4	7.0	5.6	7.1	7.1
Louisiana	7.1	6.3	6.9	8.0	5.2	7.7	6.1	6.3	8.5	8.6	4.3	10.0	4.8	9.1
Maine	5.9	6.1	5.3	6.3	3.8	7.4	7.0	3.9	5.0	6.0	6.2	4.7	7.7	6.5
Maryland	7.3	7.3	7.2	7.3	6.4	8.4	7.1	5.9	7.0	8.1	7.8	6.5	8.7	6.6
Massachusetts	7.3	7.4	7.5	6.9	7.2	9.1	5.9	6.8	7.0	8.2	7.9	6.1	8.9	5.7
Michigan	6.7	6.9	7.3	6.1	5.4	9.2	6.1	6.5	8.0	8.4	6.2	6.2	7.8	4.2
Minnesota	6.6	6.5	6.6	6.8	5.8	7.8	5.9	6.1	5.5	8.0	7.0	6.9	8.2	5.3
Mississippi	6.8	6.0	6.2	8.1	2.9	8.9	6.2	5.5	7.0	7.7	4.6	10.0	4.8	9.5
Missouri	7.2	7.4	7.6	6.8	6.5	8.5	7.1	7.2	8.0	8.8	6.4	6.0	7.7	6.5
Montana	6.3	6.0	6.8	6.2	3.7	8.5	5.7	5.7	6.5	5.1	9.9	5.1	6.3	7.2
Nebraska	7.3	8.1	6.8	6.9	6.4	9.3	8.8	6.7	6.0	8.0	6.6	6.4	6.8	7.7
Nevada	7.6	8.3	7.5	7.1	7.6	9.7	7.6	7.2	10.0	6.9	5.8	6.6	9.5	5.3
New Hampshire	7.9	8.2	8.3	7.2	7.2	9.0	8.5	7.7	10.0	5.9	9.8	6.3	8.7	6.6
New Jersey	6.8	7.3	6.6	6.5	6.7	9.3	5.9	6.0	6.0	6.7	7.4	7.0	7.8	4.8
New Mexico	6.0	5.7	6.0	6.4	3.6	7.2	6.3	6.0	5.0	8.3	4.8	5.9	3.4	9.7
New York	5.9	5.7	6.2	5.9	4.6	8.2	4.2	4.4	6.0	7.8	6.6	6.9	6.6	4.2
North Carolina	7.6	7.5	7.7	7.4	6.7	8.5	7.5	7.9	6.0	9.4	7.4	6.3	6.7	9.3
North Dakota	7.0	7.3	6.9	6.7	4.7	9.3	7.8	6.3	8.0	6.6	6.8	6.0	5.3	9.0
Ohio	6.3	5.7	6.4	6.7	5.6	7.8	3.8	5.3	6.0	7.5	6.8	6.8	7.7	5.5
Oklahoma	6.7	6.8	6.5	6.8	4.6	9.2	6.5	6.1	6.0	8.5	5.6	5.3	6.4	8.8
Oregon	6.3	5.4	7.5	6.0	4.1	8.7	3.6	6.3	7.0	6.8	9.8	4.6	7.4	6.1
Pennsylvania	7.1	6.7	7.6	6.9	5.7	8.6	5.6	6.5	9.0	7.8	7.2	6.2	9.0	5.5
Rhode Island	6.0	5.3	6.0	6.6	4.8	7.1	4.1	5.0	6.0	6.3	6.6	5.5	9.3	5.1
South Carolina	7.3	6.5	7.0	8.4	4.8	8.3	6.3	7.1	6.0	8.2	6.8	10.0	6.1	9.1
South Dakota	7.9	8.2	8.1	7.3	7.0	9.3	8.3	8.3	10.0	8.3	5.9	6.2	6.8	8.9
Tennessee	8.2	7.8	8.3	8.5	6.4	8.8	8.0	8.7	10.0	9.4	5.1	10.0	7.9	7.6
Texas	7.7	8.0	7.8	7.3	7.2	9.3	7.5	7.7	10.0	7.3	6.2	6.3	7.1	8.4
Utah	7.3	7.2	7.4	7.2	5.9	8.3	7.5	7.4	7.0	9.5	5.8	5.8	7.0	8.8
Vermont	6.4	6.5	6.2	6.6	4.3	6.9	8.2	5.6	5.0	6.0	8.0	5.0	7.9	7.0
Virginia	8.0	8.3	7.9	7.7	7.4	9.2	8.3	7.9	7.0	8.7	8.1	6.7	7.5	8.8
Washington	6.4	6.4	7.0	5.8	6.5	7.8	5.0	6.5	10.0	7.6	3.6	5.3	6.5	5.6
West Virginia	5.1	3.8	5.5	6.1	3.3	8.2	0.0	3.5	6.5	5.2	6.6	4.7	6.0	7.5
Wisconsin	6.5	6.3	6.7	6.6	5.4	8.4	5.0	5.6	7.0	7.6	6.6	6.2	7.8	5.6
Wyoming	6.9	7.1	7.1	6.6	5.1	9.4	6.7	6.5	10.0	6.2	5.6	6.9	3.2	9.6

Appendix A

Comparison of Economic Freedom Indexes

Recently, the *U.S. Economic Freedom Index: 2004 Report* (Huang et al., 2004) was published by the Pacific Research Institute (PRI). It differs from the index published in *Economic Freedom of North America* in that it does not include the Canadian provinces and covers only two years, 1999 and 2004. For those two years, however, correlations between the *Economic Freedom of North America* and the *U.S. Economic Freedom Index* are very low, suggesting the two indexes may not be measuring the same thing.

Economic Freedom of North America includes 10 variables, all with high relevance to economic freedom. The *U.S. Economic Freedom Index* begins with 143 different variables. Three sets of problems confront this selection of variables: many lack clear relevance to economic freedom; many are duplicative, which can lead to overweighting areas that are covered by a number of similar variables; and many others are affected by a range of miscellaneous problems.

One or more of these difficulties trouble over half the menu of variables. Examples of variables of suspect relevance to economic freedom include the Attorney-General's salary, the number of legislators per million population, and the number of government units, and so on. Examples of duplicative measures include two variables for tobacco taxes, several variables on purchasing preferences for various types of recycled products, two variables for taxes on alcoholic drinks, and several variables on workers' compensation, and so on. Finally, there are problem variables. For instance, a variable on per-capita tobacco revenues will penalize states with a high percentage of residents who choose to smoke as well as states with high tobacco taxes. In fact, depending on elasticity, high rates of tobacco tax can reduce tobacco revenues. A variable on land owned by the federal government penalizes states with large military bases. A variable on high health-care costs will penalize states with an aging population.

The selection from this menu of variables for inclusion in the *U.S. Economic Freedom Index* seems to have been determined rather oddly, based on their statistical relationship to migration. In other words, the selection process for these variables—like many of the variables themselves—is not based on economic freedom, what the index is supposed to be measuring. Economic freedom may motivate migration but so do many other factors including climate, generosity of welfare (a

counter indication of economic freedom), and resource endowment, to name a few. That Saudi Arabia has attracted many migrant workers does not attest to its economic freedom. Not surprisingly, basing the selection of variables on a statistical relation to migration has the effect of excluding some variables, like the capital-gains tax rate, that are relevant to economic freedom while including variables, like two that use the qualifying age for a driver's license, with questionable relevance.

Finally, the variables are weighted by principal component analysis, a method once used in *Economic Freedom of the World* but abandoned several years ago (Gwartney et al., 1996; Gwartney and Lawson, 2004). This approach increases the weight of individual variables based not on their relationship to economic freedom but rather on differences in variation—if only three variables are used, for example, the two variables that follow the most similar pattern will have the lowest weight; the outlier will have increased weight. This was less of a problem in *Economic Freedom of the World*, where all variables had a clear relation to economic freedom, than it is for the *U.S. Economic Freedom Index*, where not all variables have such a clear relation and where the heavily weighted outliers may well have the least relation to economic freedom.

To conclude, the *U.S. Economic Freedom Index* contains variables that have little relation to economic freedom and are often duplicative. Neither the selection nor the weighting of variables is based on economic freedom. Given all this—the lack of any relationship between economic freedom and many variables, the index's selection process, and its weighting procedure—it is unlikely that the *U.S. Economic Freedom Index* actually measures economic freedom. Thus, it should be no surprise that its correlation with *Economic Freedom of North America* is extremely low.

Appendix B

Economic Health of Canadian Provinces

Alberta

For a Canadian province, Alberta had high levels of economic freedom at the opening of the 1980s. However, through the 1980s and early 1990s, Alberta's policy mix shifted and the level of economic freedom declined. The province's economy weakened and unemployment rose to a national level, sometimes exceeding the national rate of unemployment. After a dozen years of decline, Alberta's economic freedom began to grow in 1994. At the same time, the gap between per-capita GDP in Alberta and the rest of Canada, which had been shrinking, once again started to grow in Alberta's favour and Alberta's unemployment fell significantly below the national average. In Area 1: Size of Government, which examines government spending, at the all-government level, Alberta typically scores highly because it has a very low level of federal expenditures. Over the last few years, Alberta's score in Area 2 improved drastically making it, in 2003 the third best jurisdiction in North America. This helped propel Alberta into the top five economically free jurisdictions in the all-government index in 2003.

British Columbia

British Columbia's economic freedom score fell in the early 1990s on both the all-government and subnational indexes. This led to a period of economic weakness for the province that, for the first time, became classified as a "have-not" province and began to receive equalization payments. British Columbia's relative affluence also declined sharply over the period, from 16% above the national average in 1993 to a virtual tie with the national average. Even though migration to British Columbia fell off sharply through the 1990s, the unemployment rate rose relative to the national average. Economic freedom rose in the early years of this new century. In the past few years, employment growth have been much stronger in British Columbia.

Manitoba

Manitoba significantly reduced its economic freedom in both indexes from 1981 to the early 1990s. Economic freedom recovered somewhat from the early to mid-1990s onward but Manitoba's score in 2003 was below its score in 1981 on both indexes.

Over the period, Manitoba's GDP per capita fell from just above the national average to more than US\$2,500 below. However, Manitoba's unemployment rate remained below the national average throughout the period, though this may be partially due to significant emigration from the middle of the 1980s onward. Manitoba's downward trend in economic freedom is more or less consistently reflected across the subindexes.

New Brunswick

Among the provinces, New Brunswick, along with Nova Scotia, had the strongest gains in economic freedom at an all-government level over the full period. Gains were reflected in both indexes though, between 1989 and 1993, New Brunswick did suffer some declines in economic freedom. After 1993, gains were consistent and large. However, because its score was initially so low, New Brunswick's score at the end of the period remained below the Canadian average in both the all-government subnational indexes. Nonetheless, just as New Brunswick significantly closed the economic-freedom gap with other provinces over the period, it also closed the income gap, rising from less than 70% of average provincial per-capita GDP in 1981 to 83% in 2003.

Newfoundland

Newfoundland began the period close to the bottom of the heap in both indexes and remained there until the late 1990s. Although Newfoundland's score improved over the 1990s, it was only keeping pace with improvements in other provinces. However, between 1998 and 2003, Newfoundland made substantive improvements and its ranking rose somewhat. Newfoundland rapidly gained on the rest of Canada in per-capita GDP at the end of the 1990s. But, Newfoundland's economy is small and undiversified. Thus, if key sectors suffer external shocks, it becomes difficult to disentangle general economic trends from the impact of these shocks. Both the oil and fishing industries are sensitive to exogenous shocks such as wide fluctuations in the price of oil or a depletion of resources, like the collapse of the northern cod stocks.

Nova Scotia

Among the provinces, Nova Scotia, along with New Brunswick, had the largest gains in economic freedom at an all-government level. Nova Scotia's scoring and ranking improved substantially in both indexes. It began the period third last in the subnational index and rose to fourth best among provinces. Nova Scotia's per-capita GDP also climbed significantly relative to the national average as well.

Ontario

Between 1989 and 1993, Ontario's economic freedom dropped dramatically. In 1981, Ontario had higher levels of economic freedom than at least some states in both indexes. Through to 2000, Ontario's score climbed in both indexes but then stagnated in 2003. Ontario's per-capita GDP declined significantly against the Canadian average between 1989 and 1993 but has remained largely stable since.

Prince Edward Island

In 1981, Prince Edward Island had the fourth worst performance at an all government level among the provinces and ended dead last in 2003. At a sub-national , Prince Edward Island was in the middle of the pack among Canadian provinces for most of the period. From 1981 to 2003, Prince Edward Island's per-capita GDP was below the national average, although the gap decreased over time. Furthermore, its unemployment rate was higher than the national average throughout the full period.

Quebec

Over the period, Quebec improved its score slightly in both the all-government and subnational indexes but not at the same pace as other provinces or states. In 1981, Quebec was in the middle of the pack among Canadian provinces at an all-government level but finished second last in 2003. At a subnational level, Quebec was either worst or second worst performer among the Canadian provinces throughout the period (except for 1988 when it was 3rd worst performer). Over the same period, Quebec's per-capita GDP increased in the late 1980s to the Canadian average but it declined in early 1990s and was unable to reach the Canadian average by the end of the period under consideration, 2003.

Saskatchewan

Saskatchewan has been consistently in the middle of the Canadian ranks in the all-government index through most of the period under examination and, in 2003, was the fourth-freest province (tied with Newfoundland). At a subnational level, Saskatchewan started in the middle of the pack but ended being the second-worst performer among the Canadian provinces (tied with Prince Edward Island). In 1981, Saskatchewan's per-capita GDP was US\$3,000 above the Canadian average but over time the gap decreased to about US\$900.

Appendix C

Economic Health of US States

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Alabama

Alabama ranked 38th overall in terms of economic freedom at the all-government level for the second year in a row and was 20th in the subnational index, up two places from the previous year. The state was undone primarily by its rankings in size of government, where it was 53rd in the all-government group and 51st subnational. Alabama moved back two spots to 14th for all-government rankings in takings and taxation and remained 10th in the state and local group. The all-government labor market freedom ranking of 33rd was a slip from 2002, but it is still an improvement over the previous several years. At a subnational level in more than 20 years of data, it has never been out of single digits and in 2003 was 5th for the eighth consecutive year. Another bit of good news: only 10 states had a lower effective state and local tax burden (8.4% compared to the national average of 9.4%), and Alabama was 35th out of the 50 states when the federal tax burden was added. The Yellowhammer State has a low general sales and use tax (4%) and is on the lower end of the list for both cigarette taxes (42.5¢ per pack of 20) and gasoline taxes (18¢ per gallon).

Alaska

After holding a strong, single-digit position throughout most of the 1980s, Alaska began a slide in the measurements of overall economic freedom, ranking 39th in 2003 in the all-government area. It has never been a player at the state and local level, where its 44th place showing is actually an improvement over two years earlier. Despite a No. 1 ranking for size of government in the first five years of data beginning in 1981, Alaska was 53rd of all states and provinces in 2003 in the all-government rankings, 59th subnational for the second year in a row (after four years at 60th). And in labor market freedom it ranked 52nd in both categories. The results are far better in takings and taxation, where the state was 2nd in all-government and 3rd in state and local. Not surprisingly, Alaska is close to last among the states in the size of its tax burden, in the top-five state and local, and moves to 2nd after federal taxes are figured in. There is no state-level sales tax and an extremely low gasoline tax (8¢).

However, the cigarette and spirits taxes are on the high end, while the table wine tax of \$2.50 per gallon is the highest in the country as is the state's tax on beer at a \$1.07 per gallon.

Arizona

Arizona maintained the gains it began making in the mid- and late 1990s, finishing 14th all-government and 5th in the subnational area in the overall rankings. The Grand Canyon State showed little change over the past few years in the three major measurements: it finished 19th all-government and 12th subnational in size of government; 21st and 23rd in takings and taxation; and 6th and 1st in labor market freedom. At the subnational level, Arizona has never been rated worse than 3rd in labor market freedom over the past two decades and moved into the No. 1 spot this year. The state has moved from 20th up to 35th in its combined state and local tax burden of 8.8%. It is about in the middle of the pack with its 5.6% general sales and use tax.

Arkansas

Arkansas placed 39th overall in the all-government category and 30th in the state and local comparisons. Its best showing was in labor market freedom, where it ranked 17th in all-government and 21st in state and local. Otherwise, the state fell into the bottom half in takings and taxation (39th in both all-government and state and local); and size of government area, where it ranked 50th in all-government (a measurement where it has never been higher than 41st). Arkansas's state and local ranking for size of government was better than the all-government, coming in at 28th. Its effective state and local tax burden of 9.8% is higher than average at 18th but, when federal taxes are added, its burden drops to 26th.

California

Overall, California's rankings have remained relatively consistent over the past several years, now standing at 24th for the all-government level and 44th state and local. This gap is also reflected in two of the three areas of measurement. The state ranked relatively high (15th) in terms of government size at the all-government level but fared worse at the subnational level (46th). Similarly, all-government placed higher in takings and discriminatory taxation (31st) than state and local (47th). Labor market freedom measurements were 41st at the all-government level and 43rd at the subnational level. California's state and local tax burden has dropped down from the middle of the states to 12th, and its state-level sales tax is high at 6.25 %.

Colorado

Colorado continues to play its role as one of the stars of economic freedom, holding on to 3rd in all-government overall and maintaining single-digit status in the subnational rankings at 9th. With one exception—takings and taxation—where it ranked 12th in both all-government and subnational, Colorado was in the top 10 in all comparisons. For size of government, it ranked 4th in the all-government list for the fifth straight year and dropped slightly to 9th in state and local. In labor market

freedom, it finished 3rd in the all-government group and 9th in state and local. The state's general use and sales tax (2.9%) remains the lowest in the country for those states that have one. Only nine states have a lower effective state and local tax burden. And Coloradoans can celebrate their good fortune cheaply: only three states have a lower tax on beer and most have higher taxes on wine and spirits.

Connecticut

Connecticut places 19th overall in the all-government ratings and 26th in the state and local comparison. Its size of government ranking has been in single digits in the all-government measurement since the mid-1980s (now standing at 5th) and it has been slowly improving in the subnational group to 16th. The 2003 ratings confirmed the fall-off in the state's one-time strong suit, labor market freedom, ranking 20th all-government and 29th subnational (although it is six places higher than 2002, when it dropped 14 places). The takings and taxation results were not much help to Connecticut's overall standings: 42nd all-government, 27th state and local. Its general sales and use tax is at the high end at 6%. Its gasoline tax of 25¢ per gallon is tied for eighth highest in the country. The effective state and local tax burden has dropped to 23rd highest in the country (from 9th) but its total tax burden (31.5% with federal taxes added) remains the worst.

Delaware

Delaware continues to go from strength to strength, placing 1st in overall economic freedom in both the all-government (an unbroken streak since 1986) and state and local rankings (a category where it began an undistinguished 31rd in 1981). In terms of government size, it was rated 1st both in all-government (another unbroken post-1986 run) and state and local (six years running). It was 1st in both measurements of takings and taxation (the all-government record stretching back to 1990) and stayed in 2nd in labor market freedom at the all-government level. The only double-digit blemish came in Delaware's state and local labor market freedom ranking at 12th. Delaware has no general sales and use tax. Its effective state and local tax burden (6%) is lower than every other state and it remains the lowest in the country even after adding the federal burden.

Florida

Florida has made a major improvement in its overall all-government economic freedom ranking since 2000 when it was 31st. In 2003, it placed 19th for the second year in a row, one spot away from its all-time best ranking in 1987. It has been in single digits in the subnational measurement since 1981 and has been in 3rd for the last two years. When size of government was taken into consideration, it ranked considerably higher in the state and local comparisons than in the all-government group, 12th as compared to 28th. That pattern held true in takings and taxation (18th subnational and 36th all-government) and labor market freedom (1st—and never below 2nd in the last 22 years—and 6th, respectively). Its effective state and local tax burden of 9% puts it on the lower half among the states. Florida's general sales and use tax is at

the high end (6%). Once the nation's lowest, its gasoline tax has increased but it is still among the top-10 lowest in the United States.

Georgia

Georgia has solid ratings on most measurements of economic freedom, placing 5th overall in the all-government area and 9th in state and local. Its rankings for size of government were 11th all-government and 9th subnational; in takings and taxation, Georgia ranked 8th and 18th. Its best showing was in the all-government rankings for labor market freedom, where it was 3rd, making 14 straight years in the top five. It was 9th in the state and local comparison. Georgia is one of several states tied for the second-lowest state-level sales tax (4%) among those that have one and its gasoline tax is the lowest in the country at 7.5¢. Its effective state and local tax burden of 8.2% is very low among the 50 states.

Hawaii

Hawaii may bask in the sunshine but the light doesn't brighten the picture much where economic freedom is concerned. The state was 46th in overall all-government ranking and ranked 44th in the subnational comparison. Hawaii never cracked 30th in any of the three major areas of comparison. In size of government, the state ranked 41st all-government and 37th subnational. Takings and taxation stood at 36th and 48th, respectively, with labor market freedom ranking 50th and 48th. Hawaii's combined state and local tax burden is 10th highest, although when combined with the federal tax burden, the state is slightly better than average. On the other hand, at 4%, the state-level sales tax is tied at second lowest of the states that impose one, and only six states have a lower gasoline tax. What beer drinkers save on gas tax, though, they'll need for suds: Hawaii's beer tax of 93¢ (once the highest by far) is now the second highest in the country.

Idaho

Idaho has shown little change over the past several years in its overall rankings, which in 2003 were 32nd in all-government and 34th in the subnational area, up one spot from last year. It ranked 37th in all-government and 28th in the state and local size of government comparison, and 31st and 41st in the takings and taxation category. The best showing came in labor market freedom, where it ranked 20th all-government, although it fell four places this year to 29th in state and local. Idaho may not be setting the world alight but at least it is consistent. The state has a fairly high combined state and local tax burden at 9.9% and its state-level sales tax at 5% is in the middle among states that have one.

Illinois

In the overall all-government measurement, Illinois ranked 14th in 2003 and ranked 20th in state and local, a two spot improvement over 2002. Takings and taxation were slightly down, moving from 18th to 21st in all-government but remaining steady at 21st subnational. There was a slight recovery, moving four places to 27th in all-government

labor market freedom after dropping 13 places to 31st in 2002. State and local ranked 20th for the second year in a row for labor market freedom. Illinois' best showing for years has been in the size of government national area where it ranked 9th in 2003 (single digits since 1984 with the exception of last year in 10th), while it ranked 23rd subnational. The combined state and local tax burden is slightly below the national average at 9.3% but, at 6.25%, its state-level sales tax is among the nation's highest.

Indiana

Overall, Indiana moved from 13th to 10th all-government but moved down two spots to 14th in the subnational rankings. In the size of government area, it was 17th and 9th, respectively; in takings and taxation, it was back in the single digits at 9th all-government (after spending a decade in the top 10 and slipping last year to 12th) and remained for the third year at 8th in the subnational rankings. Labor market freedom is historically Indiana's weak suit but the subnational numbers continued their rally to 21st from 25th, although after a slow rally last year the all-government rankings repeated 16th. Indiana's combined state and local tax burden has decreased to 8.7%, placing the state below the national average. Its 6% state sales tax puts it at the high end among states that impose one. The Hoosier State's 18¢ per gallon gasoline tax is toward the low end of the scale, as is its beer tax of 12¢ per gallon.

Iowa

Iowa's overall rankings on economic freedom were about the same as 2002, moving from 23rd to 24th in 2003 in the all-government area and falling from 24th to 26th in subnational. Most of Iowa's numbers are in the middle range. In terms of government size, Iowa stayed at 30th all-government and was unchanged at 23rd in the subnational area for the fifth straight year. Takings and taxation stayed at 23rd at the subnational level but fell three places to 21st all-governmental. Historically, labor market freedom was a reliable area. After being either 8th or 9th all through the 1980s, however, its subnational ranking of 31st in 2002 was the best since 1990. Unfortunately that did not hold and it slid back to 38th in 2003. The all-government ranking made a substantial move up to 16th in 2002 but also took a turn for the worse, falling to 27th in 2003. The state and local tax burden is just below the national average at 9.2%, although when the federal burden is added to the mix, only nine states tax less than Iowa.

Kansas

Kansas is another state in which economic freedom is neither supreme nor defeated: it ranked 19th in all-government overall (up from 23rd in 2002) and 23rd in the subnational grouping. Its best showing was in size of government, state and local, where it rated 16th (national was 24th). Takings and taxation finished 25th in all-government and 33rd in state and local. The state's labor market freedom ranking fell four places to 20th in the all-government area, while the subnational ranking (the state's strongest for several years) dropped two places and now stands at 16th. Kansas is at the national average in terms of combined state and local tax burden at 9.4%. Its sales

tax is in the middle among states that have one (5.3%). At 24¢ per gallon, its gas tax is slightly on the high side, but the ghost of Carry Nation no longer stalks the Kansas prairie: taxes on spirits, table wine, and beer are among the country's lowest.

Kentucky

Kentucky rates 32nd overall in the all-government list (confirming its drop-off there over the past several years) and 30th subnational. Both size of government measurements have fallen off, all-government to 46th, state and local to 32nd; takings and taxation were ranked at 21st and 30th. Labor market freedom rankings confirmed the state's middle-of-the-pack status, both at 33rd. The effective state and local tax burden of 9.7% is above the national average of 9.4% but, with the federal tax burden included, Kentucky improves, moving to 28th nationally. While the state sales tax is high at 6%, Kentucky's 30¢ cigarette tax is now tied for the country's fifth lowest, beer is tied for third lowest, and table wine is comparatively lightly taxed.

Louisiana

What's happened to Louisiana? A state that was in low single digits a decade ago in both overall groups has slid over the past 10 years but it is starting to show signs of improvement. Louisiana's rankings were up in 2003, jumping seven places to stand at 29th all-national and moving up one spot to 23rd subnational. The single good showing is in the state and local labor market freedom ranking, where it has been 7th since 1995. The all-government number has improved by 11 places and now stands at 20th (after slipping 13 places to 31st in 2002). The government size ranking in the all-government measurement is spending another year at its all-time-low of 41st. The state and local hit a bottom-scraping 43rd. Takings and taxation—no worse than 4th as late as 2000, and frequently 1st or 2nd—stood at 17th in 2003 all-government and 30th subnational (although the all-government is an improvement over its all-time worst ranking in 2002 of 24th). Louisiana's state and local sales tax burden is 9.7%, just above the national average, but it gets a break when the federal burden is added (10th lowest). Also on the bright side, although "bright" is relative, the state-level sales tax is tied for second lowest among states that have one, the spirits tax is low, the gas tax at 20¢ is about in the middle of national range, and the state tax on table wine is still the lowest in the country at 11¢ per gallon. That's gallon.

Maine

Maybe it's the winters but Maine continues to give a cold shoulder to economic freedom's sunny overtures. The state has never been above 40th in either of the overall categories and, in 2003, stood at 47th all-government and 50th subnational. The breakdowns were just as gloomy: size of government 47th and 46th, respectively; takings and taxation 51st and 55th; and labor market freedom was 43rd in all-government and 41st in subnational measurements. Maine hits residents with the second-highest state and local tax burden, at 12.3%, and has the fifth-highest tax rate when the federal burden is added. At 5%, the state sales tax is below that of the top-tier states (6% and above).

Maryland

The Old Line State's overall numbers both show modest improvement from three years ago, the all-government ranking moving from 39th in 2000 to 36th in 2003 and the subnational from 24th to 15th. The same three-year improvement holds for government size (42nd to 32nd all-government, 27th to 20th subnational). Changes in the other two major areas were less dramatic. All-government takings and taxation actually dropped two places to 39th while the state and local stayed at 23rd. Labor market freedom all-government also went down slightly from 31st to 33rd, while the subnational ranking, the state's best-performing measurement over the last decade, went from 14th to 12th. Maryland once hovered around the national average for combined state and local tax burden but has now exceeded it at 10.2%, placing Maryland at 11th highest. The state is even higher—No. 4—on the overall tax list after the federal burden is folded in. Its various alcohol taxes are at or below average, especially beer at 9¢.

Massachusetts

Over 20 years, Massachusetts has gradually worked its way into solid top-20, if not yet spectacular top-10, status in most areas— hovering close to the top 10 in 12th for overall all-government in 2003. It was 18th subnational in 2002 and hopped to 15th in 2003. Both of its government size rankings held steady (13th all-government, 16th state and local) while labor market freedom fell one spot this year in all-government (17th) and jumped up one spot in subnational (21st). Takings and taxation were about the same, where it was 15th in the subnational area and 17th in all-government. Not surprisingly, Massachusetts's combined state and local tax burden is below the national average at 9.2% (although once the federal tax burden is added only a handful of states have a bigger bill). Its cigarette and spirits taxes are relatively high, although the state tax on beer is among the lowest.

Michigan

Michigan is typical of states that have become gradually hospitable to economic freedom since the 1980s, although the state recently experienced a few setbacks. Until the mid-1990s, Michigan's overall numbers were in the 30s and 40s. Unfortunately, after being in the low 20s its overall all-government ranking slid in 2003 to 29th, while subnational hasn't moved out of the 30s and now stands at 34th. In government size, the all-government area stayed at 19th this year. And while 28th is still below the halfway point in the state and local rankings, Michigan spent the period from 1981 to 1991 (sometimes deep) in the 50s. In takings and taxation, the state was 25th in the national and stayed 21st subnational. The one area in which it has yet to catch fire (that is, rarely broken into the top 30) is labor market freedom. In 2003, its ranking was 43rd in all-government and 45th subnational. Michigan's state and local tax burden is slightly above the national average at 9.5% and the state sales tax is among the highest at 6%.

Minnesota

Minnesota's overall rankings fell slightly from 2002 to 18th all-government and 37th subnational. The state also shows wide variations between the two government

size measurements: all-government rank for government size is 11th and for state and local, it's 37th. Labor market freedom rankings are closer together at 20th in the national and 26th subnational; takings and taxation are 33rd and 37th, respectively. Minnesota's tax burden is relatively high—14th for combined state and local, 18th after federal taxes are added. At 6.5%, its state sales tax is tied as the nation's second highest. Its spirits tax is also high, although taxes on table wine (35¢) and beer (15¢) are among the lowest.

Mississippi

Mississippi's competitive score in the subnational labor market freedom measurement (6th place for the seventh consecutive year) was about the only high point for a state whose rankings have either never impressed or have fallen markedly over the past several years. The state has been in the 40s for the past six years in the all-government labor market freedom and came in at 40th in 2003. In the overall measurements of economic freedom, the all-government ranking has never topped 41st and is now 49th. The subnational, 15th in 1995, is now 30th. The all-government ranking for takings and taxation (consistently in the 20s until 1998) was 43rd in 2003; state and local has gone down almost yearly for a decade to 43rd. The subnational size of government ranking has dropped to 48th, while the all-government (which had a best-ever showing of 49th) now stands at 58th, better than only Prince Edward Island and West Virginia. The state is No. 6 on the state and local tax burden list and No. 19 on the local/state/federal tax-bite list. Mississippi imposed its own 7% sales tax, now tied for the highest in the nation, but at 18¢ each, the gasoline and cigarette taxes are among the lowest in the country.

Missouri

Missouri ranks 19th overall in the all-government rankings and 20th in state and local, with respectable scores in both takings and discriminatory taxation (13th and 12th) and somewhat lower ones in labor market freedom (27th and 26th). The state fares worst in the all-government measurement for size of government, coming in 32nd, although in the state and local rankings it placed 16th. It has the third-lowest state sales tax—4.2%—among the states that charge one. It's in the bottom quintile on the gas tax, has one of the lowest table wine taxes (36¢), and is tied for the second lowest tax nationally on beer (6¢). In the rankings where citizens want their state to finish far down the line, effective state and local tax burden, Missouri is below the national average at 8.8%.

Montana

Montana was 50th in the overall all-government rankings, which is about where it has languished since 1985. The subnational ranking has fought its way up to 41st. Takings and taxation rankings are 44th and 33rd (the latter the best showing in any area for the state), while labor market freedom rankings were 45th and 43rd. The all-government measure for government size dropped to the mid-50s in 1985 and is now 56th, while the subnational ranking for the category is 48th. The combined state

and local tax burden is well above the national average at 10.4% and the state is one of the five that imposes no state sales tax. Driving to a more economically friendly state will be pricey—only five states have a higher gasoline tax.

Nebraska

Nebraska's overall rankings for economic freedom have spent most of their time in the 'teens and did again in 2003: 14th in the all-government rankings and 15th in the state and local. After briefly peaking at 8th in the mid-1990s, the all-government measure of size of government has continued to fall and now sits at 23rd. The subnational figure—No. 1 for seven consecutive years starting in 1990—is spending another year at 6th. Takings and taxation ranked 17th all-government, 33rd subnational; in labor market freedom the state was 12th and 21st. Nebraska is slightly below the national average for its state and local tax burden (9.3 %), and the gasoline tax is relatively high at 26.1¢ (although it is adjusted periodically).

Nevada

Nevada was a solid performer across the board, not falling below 19th in any of the eight areas of measurement. In terms of overall economic freedom the state ranked 5th in all-government and 9th in the state and local measurement. Size of government provided the best showing, with Nevada finishing 3rd in the all-government rankings (it hasn't been below 5th since 1988), and coming in 2nd in state and local. In takings and taxation, Nevada fell two places all-government to 14th but moved up one spot subnational, from 16th to 15th. In labor market freedom it was 12th and 19th. Nevada, at 35th, is below the national average for the combined state and local sales tax burden, although the addition of the federal tax burden moves it to 28th on the most-taxed list. Nevada's state sales tax is near the top at 6.5%.

New Hampshire

New Hampshire has had the occasional stumble over the past 20-plus years but usually recovers quickly. In its welcoming of economic freedom, it has been a sound performer, finishing 8th overall in the all-government rankings and 5th in the state and local, and topping that in the government size area at 5th and 4th. The closest New Hampshire came to a let-down was in the all-government measurement of takings and taxation, where it finished 17th (though 4th in the subnational). The state was ranked 6th and 16th for labor market freedom. New Hampshire has a very low state and local tax burden at 8.2%, and there is no state sales tax.

New Jersey

New Jersey's modest improvements in 2002 gave the state its highest rankings in overall economic freedom in a number of years but the state back-tracked somewhat in 2003. It fell five places in the all-government area from 19th in 2002 to 24th in 2003 and remained 30th in the subnational. Size of government provided the best showing at 5th all-government and 20th subnational. New Jersey finished 27th (highest rank since 1998) and 38th (a seven-spot slide from 2002) in the labor market freedom

measurement. Takings and taxation has always been the state's trouble spot, at least in the all-government rankings, where it has been as low as the high 50s and in 2003 finished 46th, with a state and local ranking of 37th. New Jersey has the 14th highest state and local tax burden at 10% but, once the federal boom is lowered, the state is the third most taxed in the country and imposes a high 6% state sales tax. On the other hand, the 10.5¢ gasoline tax is bested by only two states.

New Mexico

New Mexico's climate for economic freedom has worsened steadily over the past two decades, to the point that, by 2003, its overall all-government ranking was 50th, while the subnational fell to 47th after five straight years at 44th. Size of government helped sink the overall ratings, coming in at 56th all-government and 53rd state and local. Takings and taxation provided no help, coming in at 48th all-government (in free fall since finishing 13th just three years earlier) and ranked 48th subnational. In the labor market freedom area, New Mexico was ranked 41st and 40th. At 10.1%, its state and local tax burden is well above average, unlike the gasoline tax at 17¢, which is below average. And don't try drowning your sorrows; all three alcohol-related taxes are among the highest in the nation.

New York

New York ranks 39th in the all-government figures for economic freedom and 50th in the subnational area, and little in any of the major measurements suggests a breakout is in the offing. In terms of government size, the state ranks 24th all-government, and in the subnational area, it's a dismal 53rd (and has never topped 47th). In takings and taxation, the state has tumbled to 44th all-government and is 43rd subnational; in labor market freedom, New York ranked 45th and 48th. Part of the sluggishness could be tax-related: the Empire State's 11.8% state and local tax burden is the nation's third highest and, when the federal tax burden is added, only Connecticut's citizens pay more. Its other tax rates are all over the board: a low 4% sales tax and a beer-friendly 11¢ per gallon tax on suds, but above average taxes on gas at 23.9¢ and spirits at \$6.44 per gallon.

North Carolina

North Carolina has never been out of single digits in its all-government ranking of overall economic freedom. In 2003, it was 2nd (only Delaware rated higher) while finishing 9th in the subnational area. Its rankings for size of government were 13th and 15th, respectively, and that's about as bad as the news gets for North Carolina. In takings and taxation the state finished 6th in the all-government group and had a third year at a best-ever 10th state and local. Measuring labor market freedom, North Carolina finished 1st all-government for the 16th time in the last 18 years, and 9th in the subnational group. The state and local tax burden is fourth lowest in the nation and the federal add-ons bump it up to third lowest. The Old North State's sales tax is low at 4.5% and the cigarette tax, at 30¢, is tied for fifth lowest in the country. Only a handful of states have a higher gasoline tax.

North Dakota

North Dakota ranks 44th in the all-government numbers for overall economic freedom and a considerably higher 26th in the state and local area. The disparity can be explained in part by its showing in government size where, despite the subnational ranking snapping back to 20th (its best showing in 21 years), the all-government ranking was 55th for the fourth year in a row. Takings and taxation were 33rd all-government and 30th subnational. Labor market freedom jumped 10 places from 30th to 20th all-government and moved up two places to 29th subnational. The state and local tax burden was above the national average (19th), while the federal additions were low enough that the overall burden was better than average—34th among the states. At 5%, the state sales tax was below that of the highest group of taxing states.

Ohio

Ohio dropped to 32nd overall in the all-government rankings of economic freedom after spending a half-decade in the mid-20s. Its subnational ranking has never topped 34th and in 2003 stood at 41st. The rest of the groups follow that same just-below-average pattern. The government size rankings are 28th all-government and a brutal 53rd in the state and local comparisons; and takings and taxation were 36th and 41st. Its labor market freedom rankings dropped in 2003, 31st to 37th all-government and 25th to 29th subnational. Ohio suffers the fifth-highest state and local tax burden at 10.8%. Its high 6% sales tax reverted to 5.5% in mid-2005. Only a handful of states have a higher tax on gasoline.

Oklahoma

If this were the 1985 report, looking back on the first four years of data, Oklahoma would be one of the country's stars. What a difference two decades make. Then, the state was in the mid-teens or better in all eight measurements. In the 2003 overall measurements of economic freedom, the state's all-government ranking was 43rd and it came in at 34th in the subnational group. Size of government yielded a 49th all-government and 31st state and local, while takings and taxation both stayed the same at 41st and 39th. Best showing was in the labor market freedom numbers, which moved out of the mid-30s and into the 20s, stopping at 27th all-government and 26th subnational. Its combined state and local tax burden of 10% puts it closer to the top than the bottom, and it comes in as the 21st most-taxed state when the federal tax burden is added. Its state sales tax is low at 4.5% and the gasoline tax is among the handful of lowest states at 16¢. The cigarette tax was lower than most states at 23¢ per pack but increased to \$1.03 in 2005, putting it on the higher end of the scale.

Oregon

Unlike Oklahoma, which started out golden and turned to lead, Oregon began far down the lists of economic freedom and has fought its way up to semi-respectability, although it has had a few recent relapses: 36th in the overall all-government rankings (from a first decade spent in the 40s and the last half decade in the high 20s or low 30s) and 41st subnational (a relapse from the period when it reached the 30s). "Relapse"

sums up the state's size-of-government experience, doing better earlier, now sitting 35th at all-government and 57th subnational. Labor market freedom doesn't provide the good news with its 47th in both all-government and subnational. The overall boost comes from the state's numbers in takings and taxation, a steady climb over time to 14th all-government and 15th state and local (the latter was off the scale at 52nd in the late 1980s). The state's 9.7% state and local sales tax burden is above the national average and the federal additions move the state to the middle of the pack at 24th. There's no state sales tax, the beer and wine taxes are low (especially beer at 8¢ per gallon) but at \$17.77 per gallon, only one state (Washington) taxes more for spirits. Only 11 states have a higher gasoline tax than Oregon's 24¢ per gallon.

Pennsylvania

Pennsylvania has been on an improving track regarding economic freedom but has put on a more concerted push the last five years. Its overall rankings in 2003 were 24th all-government and 23rd state and local (and this from a state that in 1981 was in the 40s in most categories). The state isn't doing it on its size of government showing (32nd in both indices), but the scores are better with labor market freedom (20th and 21st all-government and subnational, respectively) and are even a bit better in takings and taxation, where Pennsylvania ranked 25th and 12th, respectively (the latter measurement has always been its strongest). The state and local tax burden is a just above-average 9.6%, the sales tax a top-tier 6%. But few states say "get in the car and drive" like Pennsylvania with its fourth-lowest 12¢ gasoline tax. Beer is at the low end as well with the state's membership in the 8¢-a-gallon club.

Rhode Island

Rhode Island just refuses to improve: 51st overall in the all-government measurement in 1981, 44th in 2003; 51st subnational then, 47th now. Its size of government rankings bear out the overall assessment: 41st all-government, 58th state and local (and never better than 51st in the past decade-plus). Takings and taxation are a mostly-50s nightmare since 1981, finishing in 2002 at 51st in both areas but creeping up three spots to 48th in 2003. When a state's high points are in the mid-to-low 30s, it's a sign of trouble, and that's where Rhode Island is with labor market freedom: 37th all-government and 33rd state and local. The state has the fourth-highest state and local tax burden (11.2 %) and is No. 6 when federal taxes are added. At 7%, its state sales tax is tied with Tennessee as the nation's highest, and it is third at 30¢ for the highest gasoline tax. Table wine and beer taxes are on the cheap side. Otherwise, reach for your wallet.

South Carolina

South Carolina is an example of a state where a single excellent rating can nudge so-so numbers up to a decent overall position. The state ranks 29th overall in the all-government category and 15th in the state and local measurements (a drop from a 15-year single-digit run through 1995). Both size of government ratings dropped from 2001 to 41st all-government and 37th subnational; takings and taxation finished

at 25th and 27th. South Carolina's ace in the hole has always been labor market freedom. It ended its long single-digit run in the all-government area in 1997 but still came in at 12th in 2003. In the subnational measurement, the state was No. 1 except for two years at 2nd place every year from 1981 through 1995. It's now in its fifth year at an all-time low of 4th. South Carolina's state and local tax burden is fairly low at 8.9% and only eight states are more lightly taxed when the federal burden is added. The sales tax is down from the top tier at 5%, the gasoline tax low at 16¢, and the cigarette tax is now the nation's lowest at 7¢.

South Dakota

As has been noted here before, what a difference an adjective makes. The difference may not be quite as pronounced this year, but North Dakota still may have something to learn about economic freedom from its southern neighbor. South Dakota's ratings have either improved or remained in the single digits in almost every category. It ranks 14th all-government and 5th subnational in the overall measurements, a one-point loss and two-point gain. Its rankings would be higher but for one of the six area measurements, size of government, where the all-government ranking lagged at 37th for the second year in a row (and has never dipped below 30th). The subnational rating continued a 14-year single-digit run to finish 4th. Otherwise, the state was 3rd all-government in takings and taxation and 6th for the fifth year in the state and local group. Labor market freedom has slowly rounded into form over the years to reach 6th all-government and 12th subnational. The state and local tax burden is well below the national average, placing it in 3rd for least-taxed states. South Dakota is only the 5th least-taxed state when federal taxes are folded in. State sales taxes are low at 4%. Gasoline taxes were low until 2004, when taxes increased from 16¢ to 22¢.

Tennessee

Tennessee continues to display solid economic freedom credentials across the board, placing 10th overall for the fourth year in a row in the all-government category and spending a third year at 2nd subnational, where it had an unbroken No. 1 streak from 1988 to 2000. Once the state gets past size of government (24th all-government, 12th subnational) it is clear sailing: 3rd and 4th, respectively, in takings and taxation, 11th and 3rd in labor market freedom. In the subnational measurement for labor market freedom, Tennessee has been either 3rd or 4th every year since 1981, one of the few long, unbroken streaks of exemplary performance. Only one state (Delaware) has a lower state and local tax burden and only five states place lower than Tennessee for least-taxed status after the federal burden is folded in. The Volunteer State pulls it off despite being tied for highest state sales tax (7%). Its beer and cigarette taxes are on the low side and gas taxes are in the middle.

Texas

When a state's overall ratings for economic freedom draw attention by dropping to 5th all-government and 8th subnational, it can be forgiven for not breaking into a cold sweat just yet. That's where Texas finds itself. It has never been out of single digits

in either overall category since 1981, putting it in the longest-streak pantheon with Delaware and Tennessee. As for the three major measurements, pick a category, any category: in size of government, Texas ranks 5th all-government and 7th state and local; in takings and taxation, it's 9th and 8th (the latter another post-1981 single-digit streak); in labor market freedom, its 2003 rankings were 3rd (another single-digit run since 1981) and 12th, which is a disappointing fall from 8th in 2000. Texas does this with a high 6.25% state sales tax, but with moderate gasoline and sin taxes (including the third-lowest table wine tax). Its state and local tax burden is higher than only six other states and stays in about the same spot when the federal onus is added.

Utah

Utah ranked 8th in the all-government group overall in 2003 (after three consecutive years at 7th) and 15th in the state and local index, two spots away from its best showing ever in that measurement. It was a solid performer in all categories, beginning with size of government, where it pulled a 15th ranking all-government and 23rd state and local. In labor market freedom, it has chipped away at low scores over the years to reach 12th all-government and 16th subnational. Its best number comes in all-government takings and taxation, 6th, while its subnational ranking has fallen from 10th in 2002 to 18th in 2003. Utah has a low state and local tax burden of 8.6%, and it moves into least-taxed status (47th) with the federal taxes added. The sales tax is low at 4.75%, the gasoline tax on the high side at 24.5¢. Utah also has high alcohol taxes.

Vermont

Vermont rallies periodically, only to fall back in terms of economic freedom. In the overall measurement, it flirted with the 20s more than a decade ago in the all-government group, but finished in 2003 at 39th and managed a 39th in the subnational area as well. Another flurry years ago in the size of government category has faded and the state's all-government ranking was 39th while the subnational was 37th. Takings and taxation, never a strength, yielded another year at 47th and 43rd. In labor market freedom, Vermont is trying to recapture once-respectable numbers, moving up to 31st in both the all-government and subnational rankings in 2002 but falling back to 33rd in 2003 for both rankings. The local and state tax burden is seventh highest at 10.5% and it's No. 8 on the most-taxed list after federal taxes are added. Its sales tax is high at 6%.

Virginia

In its overall rankings for economic freedom, Virginia has marched steadily over the long haul to hover near the top 10 in the all-government ranks (11th in 2002 and 12th in 2003). It's been in single digits since 1983 in the subnational rankings and in 2003 moved up to the No. 3 spot. Historically, its state and local numbers have trended higher but currently most of the rankings in the three major subgroups meet in or near the top-10. In 2003, it was 9th in all-government and 7th in subnational for takings and taxation. Virginia was 6th in all-government (a drop from the No. 2 spot in

2001) and 8th in subnational (for the fourth straight year) in labor market freedom. The all-government showing for government size was the only flaw at 30th, although that was almost a historical low. The state and local ranking jumped to 2nd overall in 2002 and stayed there for 2003. Virginia's state and local tax burden is far below the national average at 8% and its state sales tax is 4%. The 17.5¢ gasoline tax is lower than most states.

Washington

The Evergreen State ranks 32nd and 39th overall in the all-government and subnational rankings for economic freedom and those below-average showings reflect most of the sub-categories. To lead with its best foot (size of government), Washington ranks 18th (fifth straight year at its all-time best) all-government and 41st subnational. Takings and taxation struggled out of years in the 40s to 30th all-government and came in at 27th state and local. The 40s have been home for its labor market freedom scores for a long time and Washington didn't leave home in the all-government, ranking 49th. It did, however, depart from the 40s in the state and local area, coming in at 50th. Washington's state and local tax burden is just under the national average but, in this case, the federal additions are killers, moving Washington up to 14th on the most-taxed list. The state sales tax is among the nation's highest at 6.5%, the gasoline tax is the second highest at 31¢ per gallon, and only two states make it more expensive to smoke. Washington also has the highest tax on spirits by far at \$21.15 per gallon.

West Virginia

If there is an economics version of life support, it's time to put West Virginia on it. Let's start with the good news: In labor market freedom, the state has bulled its way to 48th all-government and 45th subnational. Now that we've dispensed with the good news, West Virginia's overall rankings for economic freedom were a third year at 53rd all-government and another year at the record low 56th state and local. Takings and taxation were 48th (a slight improvement from 51st) and 53rd. The size of government ranking, always bad, is now last at 60th in both categories, hitting an all-time rock-bottom for the second year in a row. West Virginia is the No. 1 most taxed state with a state and local burden of 12.7%, although it falls to the 7th most taxed when federal taxes are added. The state sales tax is high at 6%.

Wisconsin

Wisconsin finished 24th in the national and 38th in the subnational ratings for overall economic freedom and in the size of government area was 19th and 43rd, respectively. The same split has held historically for labor market freedom, but the gap is steadily declining, with the all-government ranking at 27th and the state and local at 33rd in 2003. Takings and taxation were even closer, both having fought back from historically higher scores to 33rd and 36th. Wisconsin has the seventh-highest state and local tax burden in the nation at 10.5% and slaps the highest tax on gasoline at 32.9¢. On the other hand, wine and beer taxes (the latter the country's second lowest) are a bargain.

Wyoming

The economic freedom data show that 20 years ago Wyoming was one of the star performers. This is no longer the case. In 2002, the state had to rally to make 19th on the overall all-government list and maintained that gain for 2003. The state slipped slightly to 29th in the overall subnational measurement. Its early 1980s single-digit rankings for government size have been replaced by a 24th all-government and 26th subnational. A similar fate befell labor market freedom, now at 17th and 33rd. In takings and taxation, Wyoming's glory days are much more recent, though today's results are relatively the same as last year: 25th all-government (from 5th as recently as 1996) and 26th state and local (4th in 1996). The state has a slightly above average state and local tax burden at 9.6% and stays near the middle of the pack when federal taxes are added in. The 4% state sales tax is almost as low as it gets among states that have one, and only a handful of states charge a lower gasoline tax than Wyoming's 14¢. The nation's lowest tax on beer is so small they needn't bother: 2¢.

Appendix D

Methodology

To avoid subjective judgments, objective methods were used to calculate and weight the variables. For all variables, each observation was transformed into a number from zero to 10 using the following formula: $(V_{\max} - V_i)/(V_{\max} - V_{\min}) \times 10$, where V_{\max} is the largest value found within a variable, V_{\min} is the smallest, and V_i is the observation to be transformed. For each variable, the mini-max calculation included all data for all years to allow comparisons over time.

To transform the individual variables into areas and overall summary indexes, Areas 1, 2, and 3 were equally weighted, and each of the variables within each area was equally weighted. For example, the weight for Area 1 was 33.3%. Area 1 has three variables, each of which received equal weight in calculating Area 1, or 11.1% in calculating the overall index.

Calculating the income-tax variable was more complicated. The variable examining the top marginal income-tax rate and income threshold at which it applies was transformed into a score from zero to 10 using Matrix 1 and Matrix 2. Canadian nominal thresholds were first converted into constant 2003 Canadian dollars by using the Consumer Price Index and then converted into US dollars using the Purchasing Power Parity between Canada and US for each year. US nominal thresholds were converted into real 2003 US dollars using the Consumer Price Index. This procedure is based on the transformation system found in *Economic Freedom of the World: 1975–1995* (Gwartney et al., 1996), modified for this study to take into account a different range of top marginal tax rates and income thresholds.

Matrix 1 was used in calculating the score for Area 2B, Top Marginal Income Tax Rate and the Income Threshold at Which It Applies, at an all-government level; Matrix 2 was used to calculate the score for Area 2B at a sub-national level.

In setting the threshold levels for income taxes at the subnational level, we faced an interesting quandary. In the United States, most state thresholds were below US federal thresholds. In Canada, provincial thresholds were frequently higher than federal thresholds. Whenever the provincial or state threshold was higher than the federal threshold, the federal threshold was used at a sub-national level since, when a provincial threshold is above the national level, the cause is typically the imposition of a relatively small surcharge on high-income earners. Because of the structure of these matrixes, this can produce perverse scoring results. For example, in Matrix 2 a jurisdiction gets a score of 2.5 if it has a marginal income tax rate of, say, 12.5% for incomes over \$50,000. Let us say the jurisdiction imposes a surcharge for income

earners above \$100,000, increasing the marginal rate to 13%. In Matrix 2, even though additional taxes in the form of a surcharge have been imposed, the state's score perversely increases to 3.0 because of the increase in the threshold level.

Our decision to use the federal threshold as the default threshold when the provincial threshold was higher is, frankly, a matter of judgement. Thus, it was important to understand whether this would affect the results significantly. To see whether this was so, we calculated the overall index both ways and found that changes were small and that the overall results were not significantly affected. (Results of the tests are posted on our website, <<http://www.freetheworld.com>>.)

Matrix 1: Income Tax Matrix for Area 2B at an All-Government Level

Top Marginal Tax Rate	Income Threshold Level (US\$2003)		
	Less than \$50,000	\$50,000 to \$100,000	More than \$100,000
27% or less	10.0	10.0	10.0
27% to 30%	9.0	9.5	10.0
30% to 33%	8.0	8.5	9.0
33% to 36%	7.0	7.5	8.0
36% to 39%	6.0	6.5	7.0
39% to 42%	5.0	5.5	6.0
42% to 45%	4.0	4.5	5.0
45% to 48%	3.0	3.5	4.0
48% to 51%	2.0	2.5	3.0
51% to 54%	1.0	1.5	2.0
54% to 57%	0.0	0.5	1.0
57% to 60%	0.0	0.0	0.5
60% or more	0.0	0.0	0.0

Matrix 2: Income Tax Matrix for Area 2B at a Subnational Level

Top Marginal Tax Rate	Income Threshold Level (US\$2003)		
	Less than \$50,000	\$50,000 to \$100,000	More than \$100,000
1.5% or less	10.0	10.0	10.0
1.5% to 3.0%	9.0	9.5	10.0
3.0% to 4.5%	8.0	8.5	9.0
4.5% to 6.0%	7.0	7.5	8.0
6.0% to 7.5%	6.0	6.5	7.0
7.5% to 9.0%	5.0	5.5	6.0
9.0% to 10.5%	4.0	4.5	5.0
10.5% to 12.0%	3.0	3.5	4.0
12.0% to 13.5%	2.0	2.5	3.0
13.5% to 15.0%	1.0	1.5	2.0
15.0% to 16.5%	0.0	0.5	1.0
16.5% to 18.0%	0.0	0.0	0.5
18.0% or more	0.0	0.0	0.0

Note: The range of the top marginal tax rates in Matrix 1 and Matrix 2 should be written "27.00% to 29.99%" or "1.50% to 2.99%" and so on but for convenience we have written them as "27% to 30%" or "1.5% to 3.0%."

Appendix E

Adjustment Factors

Due to constitutional differences and variations in policy, in the United States subnational jurisdictions take a proportionately smaller share of overall government spending than in Canada. In 2002, for instance, provinces and local governments accounted for about 79% of government consumption in Canada while, in the United States, state and local government are responsible for 63% of government consumption, just 80% of the level in Canada to be precise: $0.63/0.79 = 0.80$. This is what we term the adjustment factor or, put more precisely, R_U/R_C , where R_U is the percent of total government spending at the state level in the United States, and R_C is the percent of total government spending at the provincial level in Canada. Because of this difference in government structure in the United States and Canada, a direct comparison would not be appropriate. Instead, we use this adjustment factor, multiplying provincial and local government consumption in Canada by 0.80 so that it will be comparable to United States data.

At the subnational level, similar adjustment factors are calculated for each year for each variable in Areas 1 and 2 as well as for variable 3B: Government Employment as a Percentage of Total State/Provincial Employment. For example, the adjustment factor for 2A: Total Tax Revenue as a Percentage of GDP, at a subnational level is calculated as the percentage of total government revenue at a state level in the United States divided by the percentage of total government revenue at a provincial level in Canada.

No adjustment factor is necessary at the all-government level because every level of government is counted. Note that 2D: Sales Tax as a Percentage of GDP is not adjusted because the United States does not have a federal general sales tax and Canada does.

We faced another common problem in comparing statistics across time, changes in the structure of some series over time. Similarly, some Canadian spending categories were not strictly comparable to those in the United States. This required the use of judgment in some cases. Spending on medical care, for example, is structured as government consumption in Canada and as a set of transfer programs in the United States. Given that the index captures the impact of both government consumption and of transfer programs, we decided the most accurate method of accounting was to reflect the actual nature of the spending, a transfer program in the United States and government consumption in Canada, rather than artificially include one or other in an inappropriate variable.

A further complication arose in applying the adjustment factor to the income-tax variable at the subnational level. To construct this adjustment factor, the Canadian top marginal tax rates at a subnational level are multiplied by the ratio of (a) the percentage of total personal tax revenue at a state level in the United States; and (b) the percentage of total personal tax revenue at a provincial level in Canada. For example, in 2002, in Canada, provinces collected 38% of the income-tax revenue raised in Canada. In the United States, states collected 19% of all income taxes. Thus, $\frac{19}{38}$ equals 50%. In Ontario, for example, the top marginal rate in 2002 was 17.4%. This is reduced to 8.7% when the adjustment factor is applied.

Appendix F

Explanation of Variables & Data Sources

Area 1 Size of Government

1A General Consumption Expenditures by Government as a Percentage of GDP

General consumption expenditure is defined as total expenditures minus transfers to persons, transfers to businesses, transfers to other governments, and interest on public debt.

Sources for Canada

Statistics Canada, *Provincial Economic Accounts, 2005*;

Statistics Canada, Public Institutions Division, Financial Management System, 2005;

Special request from Finance Canada, Federal-Provincial Relations and Social Policy Branch, Federal-Provincial Relations Division.

Sources for the United States

US Department of Commerce, Bureau of Economic Analysis, <http://www.bea.doc.gov/> (2005);

US Census Bureau, <http://www.census.gov/> (2005);

US Census Bureau, *Statistical Abstract of the United States* (various editions);

US Census Bureau, *Consolidated Federal Funds Report* (various editions).

1B Transfers and Subsidies as a Percentage of GDP

Transfers and subsidies include transfers to persons and businesses such as welfare payments, grants, agricultural assistance, food-stamp payments (US), housing assistance, etc. Foreign aid is excluded.

Sources for Canada

Statistics Canada, *Provincial Economic Accounts, 2005*;

Special request from Finance Canada, Federal-Provincial Relations and Social Policy Branch, Federal-Provincial Relations Division.

Sources for the United States

US Department of Commerce, Bureau of Economic Analysis,
<<http://www.bea.doc.gov/>> (2005);

US Census Bureau, <<http://www.census.gov/>> (2005);

US Census Bureau, *Statistical Abstract of the United States* (various editions);

US Census Bureau, *Consolidated Federal Funds Report* (various editions);

Special request from US Census Bureau, Governments Division, Federal Programs Branch.

1C Social Security Payments as a Percentage of GDP

Payments by Employment Insurance, Workers Compensation, and various pension plans are included in this component.

Sources for Canada

Statistics Canada, *Provincial Economic Accounts, 2005*.

Sources for the United States

US Department of Commerce, Bureau of Economic Analysis,
<<http://www.bea.doc.gov/>> (2005);

US Census Bureau, <<http://www.census.gov/>> (2005);

Special request from US Census Bureau, Governments Division, Federal Programs Branch.

Area 2 Takings and Discriminatory Taxation

2A Total Tax Burden as a Percentage of GDP

Total Tax Burden is defined as a sum of income taxes, consumption taxes, property and sales taxes, contributions to social security plans, and other various taxes. Note that natural resource royalties are not included.

Sources for Canada

Statistics Canada, *Provincial Economic Accounts, 2005*;

Special request from Finance Canada, Federal-Provincial Relations and Social Policy Branch, Federal-Provincial Relations Division.

Sources for the United States

US Census Bureau, <<http://www.census.gov/>> (2005);

US Department of Commerce, Bureau of Economic Analysis,
<<http://www.bea.doc.gov/>> (2005).

Sagoo, Sumeet (2004), *Federal Tax Burdens and Expenditures by State* (Special Report, December), Washington, DC: Tax Foundation, <<http://www.taxfoundation.org/taxingspending.html>> (2005) (note that the data was downloaded from the website rather than the report, which does not contain historical data).

2B Top Marginal Income Tax Rate and the Income Threshold at Which It Applies

See Matrix 1 and Matrix 2 in Appendix C for information on how the final scores were calculated.

Sources for Canada

Canadian Tax Foundation, *Finances of the Nation* (various issues);

Canadian Tax Foundation, *Canadian Tax Journal, Provincial Budget Roundup (2003, 2002, 2001, 2000)* (by Deborah L. Ort and David B. Perry);

Statistics Canada, *Provincial Economic Accounts, 2005*.

Sources for the United States

Tax Foundation, *Facts and Figures on Government Finances* (various editions);

US Department of Commerce, Bureau of Economic Analysis, <<http://www.bea.doc.gov/>> (2005).

2C Indirect Tax Revenue as a Percentage of GDP

Indirect tax revenue includes property taxes, contributions to social security insurance (i.e., Employment insurance, Workers Compensation, and various pension plans), and other various taxes. Note that income-tax revenue, sales-tax revenue, and natural resource royalties are not included in this component.

Sources for Canada

Statistics Canada, *Provincial Economic Accounts, 2005*.

Sources for the United States

US Census Bureau, <<http://www.census.gov/>> (2005);

US Department of Commerce, Bureau of Economic Analysis (2005);

Tax Foundation, *Facts and Figures on Government Finances* (various editions).

2D Sales Taxes Collected as a Percentage of GDP

Sales tax revenue includes revenue from general sales tax as well as revenue from liquor and tobacco taxes.

Sources for Canada

Statistics Canada, *Provincial Economic Accounts, 2005*.

Sources for the United States

US Census Bureau, <<http://www.census.gov/>> (2005);

US Department of Commerce, Bureau of Economic Analysis, <<http://www.bea.doc.gov/>> (2005);

Tax Foundation, *Facts and Figures on Government Finances* (various editions).

Area 3 Labor Market Freedom

3A Minimum Wage Legislation

This variable was calculated as minimum wage multiplied by 2,080, which is the full-time equivalent measure of work hours per year (52 weeks multiplied by 40 hours per week) as a percentage of per-capita GDP. For the Canadian provinces, provincial minimum wage was used to compute both of the indices (subnational and all-government). For US states, we use state minimum wage at a subnational level whereas at an all-government level federal minimum wage was used whenever the federal minimum wage was higher than the state minimum wage.

Sources for Canada

Human Resources Development Canada, <http://www110.hrdc-drhc.gc.ca/psait_spila/lmnc_eslc/eslc/salaire_minwage/report2/report2a_e.cfm> (2005);

Statistics Canada, *Provincial Economic Accounts, 2005*.

Sources for the United States

US Department of Labor Employment, Standards Administration, Wage and Hour Division, <<http://www.dol.gov/esa/minwage/america.htm>> (2005);

Special requests from various state Labor Departments (see <http://www.dol.gov/esa/contacts/state_of.htm> for a list of State Labor Offices);

US Department of Commerce, Bureau of Economic Analysis <<http://www.bea.doc.gov/>> (2005).

3B Government Employment as a Percentage of Total State/Provincial Employment

Government employment includes public servants as well as those employed by government business enterprises. Military employment is excluded.

Sources for Canada

Statistics Canada, Public Institutions Division, Financial Management System (various years);

Statistics Canada, *Provincial Economic Accounts, 2005*.

Sources for the United States

US Department of Commerce, Bureau of Economic Analysis,
<<http://www.bea.doc.gov/>> (2005);

US Department of Labor, Bureau of Labor Statistics,
<<http://www.bls.gov/lau/>> (2005).

3C Union Density

For this component, our goal was to determine the relationship between unionization and public policy, other than the level of government employment, which is captured in 3B. We regressed union density on the size of the manufacturing sector and on the size of the government sector. Data were not available to allow a regression on rural compared to urban populations. The manufacturing sector did not prove significant while the government sector proved highly significant. Thus, the scores were determined holding public-sector employment constant.

Sources for Canada

Statistics Canada, CANSIM; Statistics Canada, *Labour Force Historical Review 2005* (CD-ROM);

Statistics Canada, Public Institutions Division, Financial Management System (various years);

Union Stats Dataset, <<http://www.unionstats.com/>> (2005).

Sources for the United States

US Department of Commerce, Bureau of Economic Analysis,
<<http://www.bea.doc.gov/>> (2005);

US Department of Labor, Bureau of Labor Statistics,
<<http://www.bls.gov/lau/>> (2005).

Data Sources for Other Variables*Sources for Canada*

Statistics Canada, *Provincial Economic Accounts, 2005*;

Statistics Canada, *Labour Force Historical Review, 2001 and 2003* (CD-ROM).

Sources for the United States

US Department of Commerce, Bureau of Economic Analysis,
<<http://www.bea.doc.gov/>> (2005);

US Census Bureau, Population Division, Education & Social Stratification Branch,
<<http://www.census.gov/population/www/socdemo/educ-attn.html>> (2005).

References

- Arman, F., D. Samida, and M. Walker (1999). *Provincial Economic Freedom in Canada, 1981–1998*. Critical Issues Bulletin (January). The Fraser Institute.
- Barro, Robert, and Xavier Sala-i-Martin (1995). *Economic Growth*. McGraw-Hill.
- De Haan, Jakob, and Jan Egbert Sturm (2000). On the Relationship between Economic Freedom and Economic Growth. *European Journal of Political Economy* 16: 215–41.
- Doucouliafos, Chris, and Mehmet Ali Ulubasoglu (2006). “Economic Freedom and Economic Growth: Does Specification Make a Difference?” *European Journal of Political Economy* 22, 1: 60–81.
- Easton, Stephen, and Michael Walker (1997). Income, Growth, and Economic Freedom. *The American Economic Review* 87, 2: 328–32.
- Godin, Keith, Milagros Palacios, Jason Clemens, Niels Veldhuis, & Amela Karabegović (2006). *An Empirical Comparison of Labour Relations Laws in Canada and the United States*. Studies in Labour Markets 2 (May). The Fraser Institute.
- Gwartney, James, and Robert Lawson (2004). *Economic Freedom of the World: 2004 Annual Report*. The Fraser Institute.
- Gwartney, James, Robert Lawson, and Walter Block (1996). *Economic Freedom of the World, 1975–1995*. The Fraser Institute.
- Huang, Ying, Robert E. McCormick, and Lawrence J. McQuillan (2004). *U.S. Economic Freedom Index: 2004 Report*. The Pacific Research Institute.
- Knox, Robert (2002). Competitiveness Begins at Home. *Fraser Forum* (March): 15–16.
- Mankiw, N. Gregory, David Romer, and David N. Weil (1992). A Contribution to the Empirics of Economic Growth. *Quarterly Journal of Economics* 107 (May): 407–37.
- McMahon, Fred (2000a). *Retreat from Growth: Atlantic Canada and the Negative Sum Economy*. Atlantic Institute for Market Studies.
- McMahon, Fred (2000b). *Road to Growth: How Lagging Economies Become Prosperous*. Atlantic Institute for Market Studies.