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. Nine of these are Canadian provinces—all except Alberta. The jurisdictions in this bottom quintile have an average per-capita GDP of just US$21,056 (C$31,265). This compares to an average per-capita GDP of US$37,268 (C$55,337) for the 12 top-ranked jurisdictions.

Figure 4 is the same chart type as Figure 3 but represents economic freedom at the subnational level. Here, the bottom quintile has an average per-capita GDP of $22,383 (C$33,236) compared to the top quintile with an average per-capita GDP of $35,321 (C$52,446). As will be noted in the econometric testing, economic freedom has a smaller impact at the subnational level than at the all-government level. This is expected since only at the all-government level are all government restrictions on economic freedom captured.

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.

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

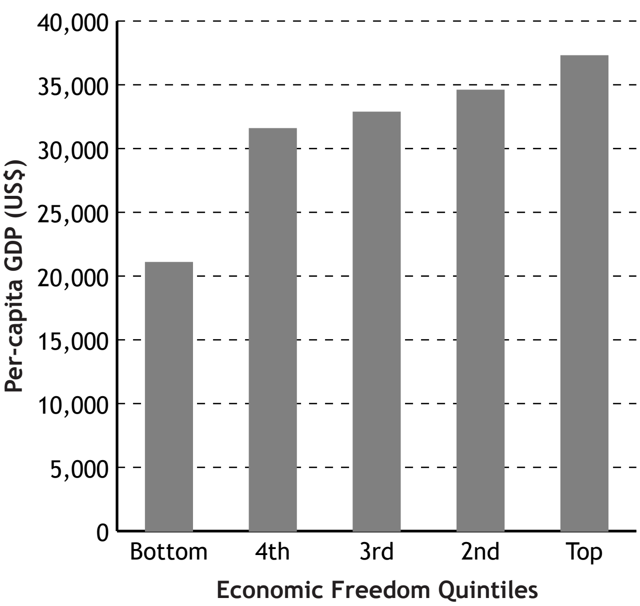
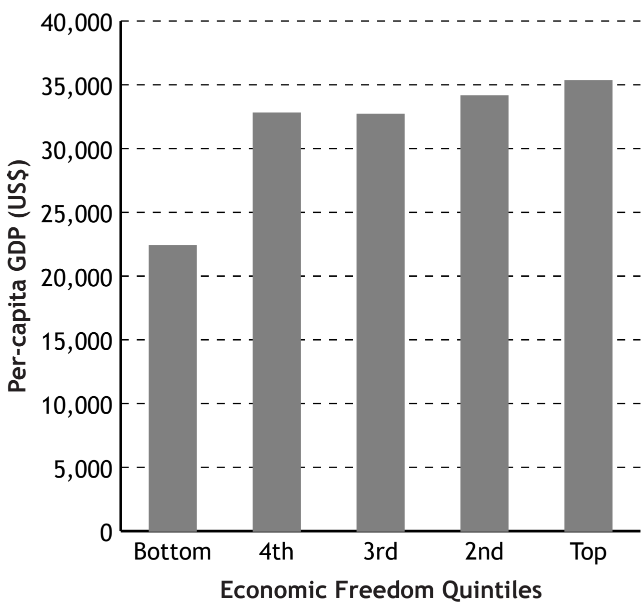


Figure 4: Economic Freedom at a Subnational Level and per-Capita GDP



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. Here too, as expected, the subnational relationship is weaker than the all-government one.

Finally, in this illustrative section, we look at the relationship between 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, changes in economic freedom are plotted along the horizontal axis while changes in economic growth are plotted along the vertical axis. Again, the expected relationships are found, with economic growth strongly linked to growth in economic freedom.

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 D: Adjustment Factors (p. 53), is used. One effect of this adjustment factor is to give Canadian provinces, on average, similar relative rankings to US states in both indexes. Nonetheless, the two indexes produce different results when the rankings of individual states and provinces is examined.

Rankings at a subnational level for individual Canadian provinces change somewhat when moving from the all-government to subnational levels. For example, in 2000, Nova Scotia, and New Brunswick decreased their ratings from 52nd and 54th at a subnational level to 54th and 56th, respectively, at an all-government level. Alberta and British Columbia, on the other hand, increased their ratings from 31st and 56th at a subnational level to 26th and 53rd, respectively, at an all-government level. In the United States in 2000, Virginia, Maryland, and Mississippi decrease their ratings from 17th, 25th, and 28th at a subnational level to 35th, 41st, and 41st, respectively, at an all-government level. Wyoming, California, and Oregon improved their ratings from 25th, 36th, and 42nd at a subnational level to 9th, 20th, and 29th, respectively, at an all-government level in 2000. Other states and provinces changed their ratings from subnational to all-government level and vice versa less drastically.

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.[1]

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

	1981	1985	1989	1993	1994	1995	1996	1997	1998	1999	2000
Canada	4.0	4.1	4.4	3.8	3.9	4.1	4.2	4.3	4.4	4.5	4.7
US	6.3	6.5	7.0	6.7	6.6	6.6	6.7	6.7	6.7	6.7	6.8
Difference	2.3	2.4	2.6	2.9	2.7	2.5	2.5	2.4	2.3	2.2	2.1

Table 2 Average Economic Freedom Scores at a Subnational Level

	1981	1985	1989	1993	1994	1995	1996	1997	1998	1999	2000
Canada	4.8	4.7	4.8	4.1	4.4	4.5	4.7	4.9	5.1	5.3	5.3
US	7.1	7.1	7.2	6.8	7.0	6.9	7.0	7.1	7.2	7.3	7.3
Difference	2.3	2.4	2.4	2.7	2.6	2.4	2.3	2.2	2.1	2.0	2.0

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

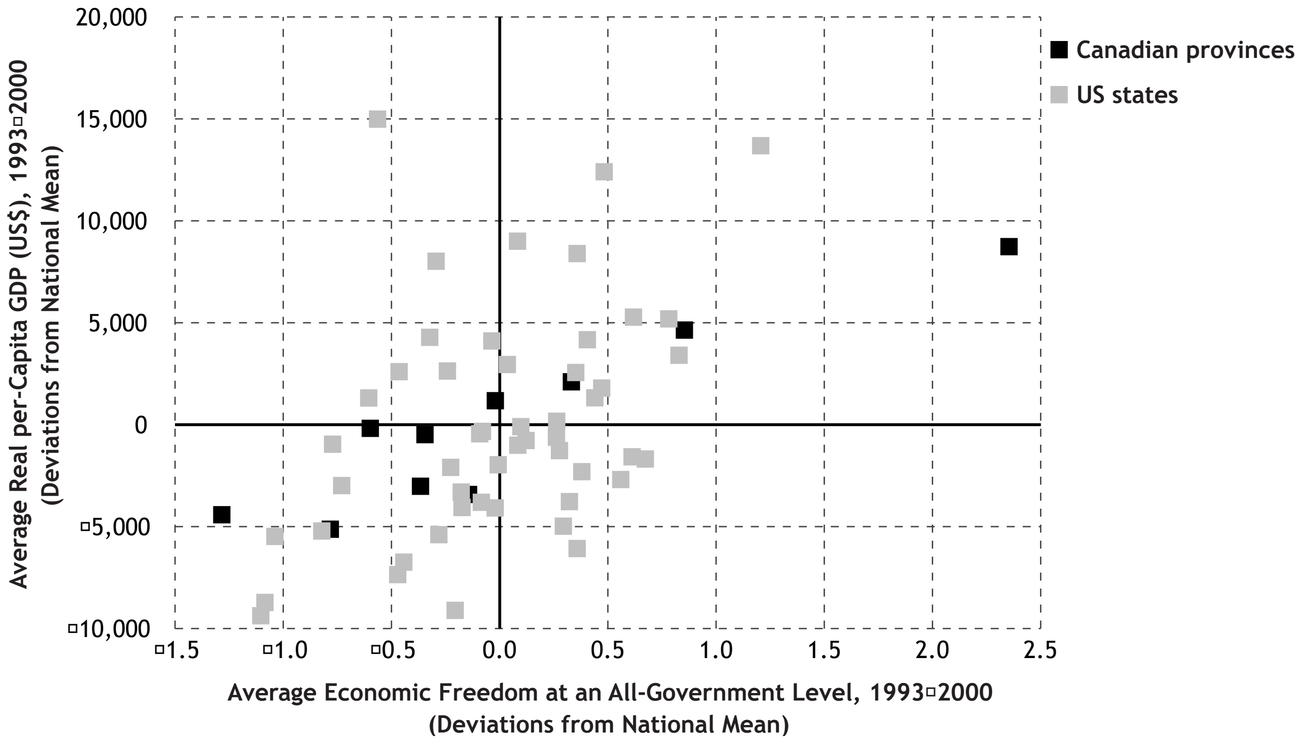


Figure 6: Average per-Capita GDP and Average Economic Freedom at a Subnational Level

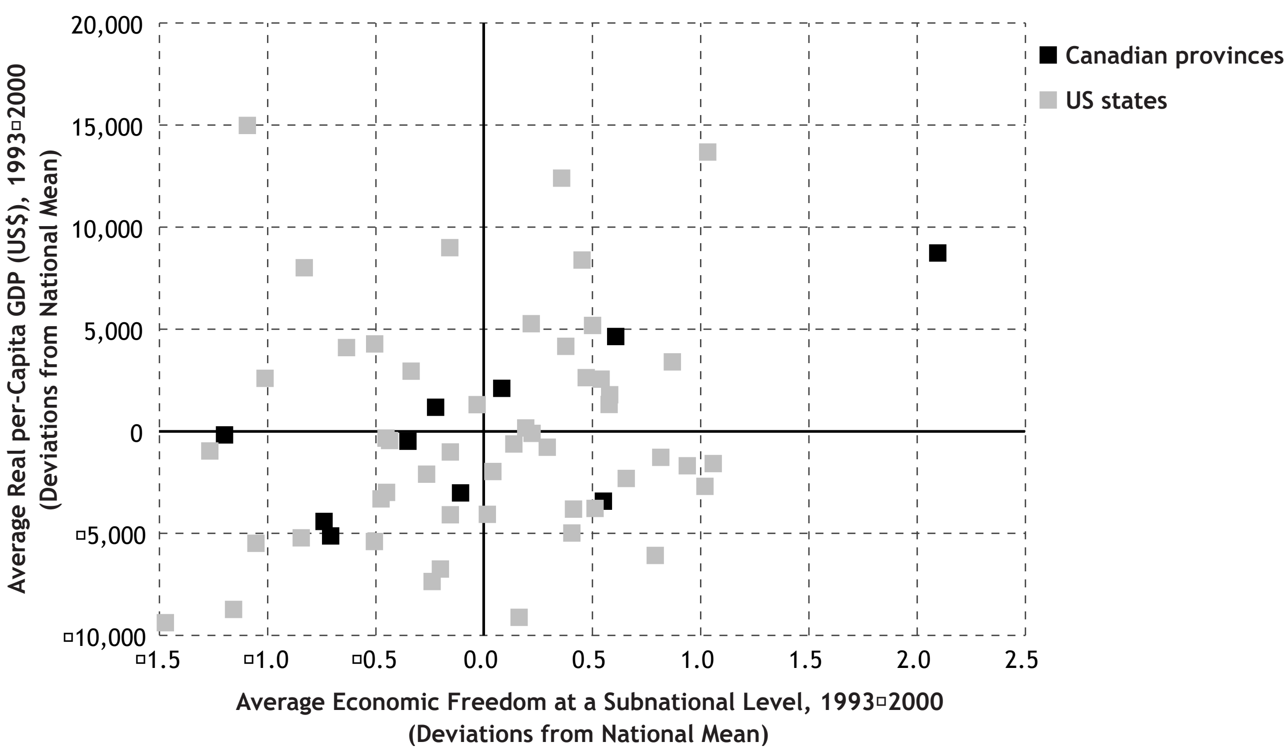


Figure 7: Average Growth in per-Capita GDP and Average Growth in Economic Freedom at an All-Government Level

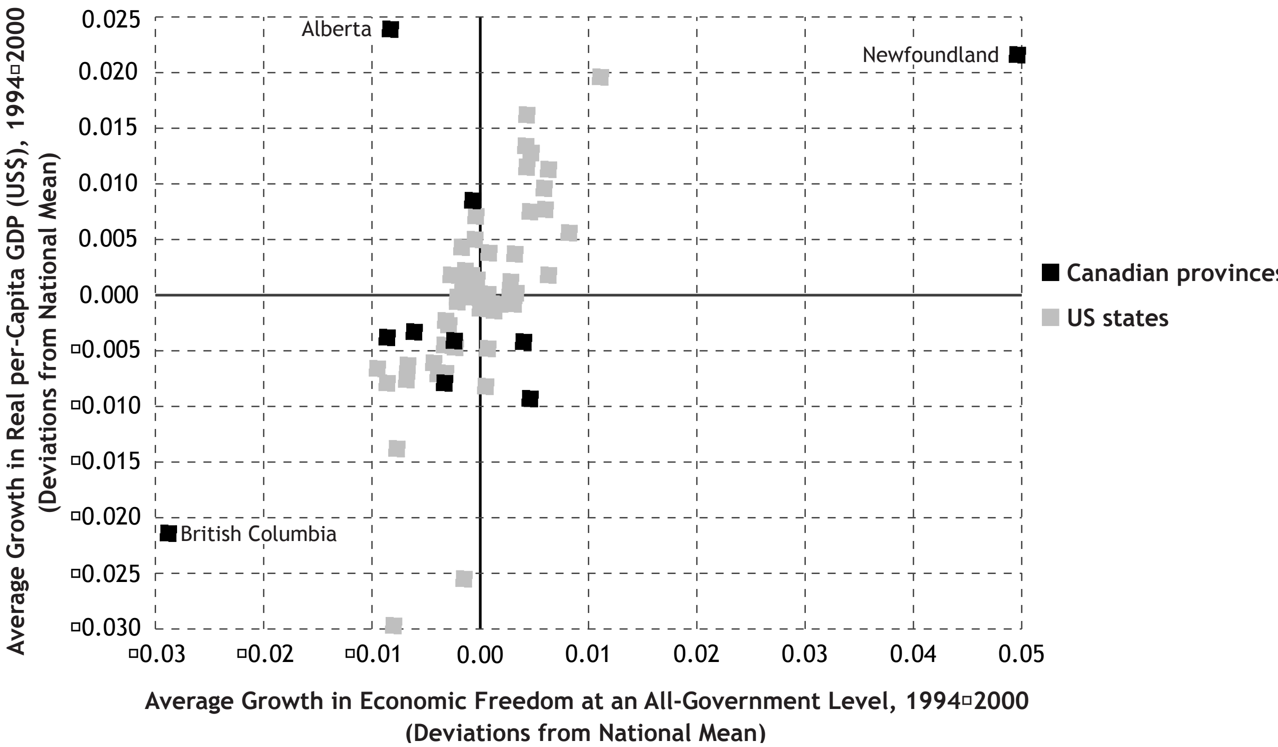
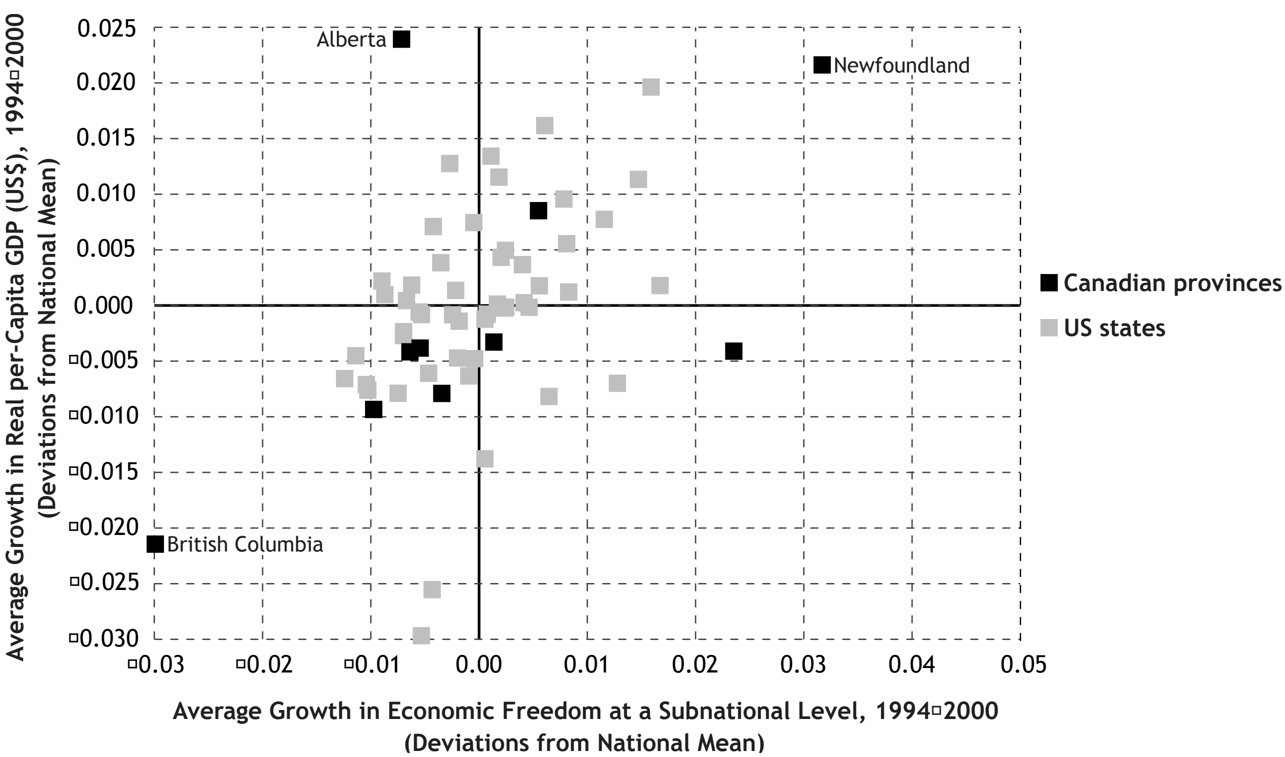


Figure 8: Average Growth in per-Capita GDP and Average Growth in Economic Freedom at a Subnational Level



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 in the increasing gaps in economic freedom in the two nations during this period. From 1981 to 2000, the gap between Canada and the United States in economic freedom at the subnational and the all-government level first rose and then fell back to just below its 1981 level.

Overview of the Results for the United States

US states can move up and down in the rankings quite substantially. For instance, Massachusetts was 47th in the all-government index and 34th in the subnational index in 1981, the beginning of the period under study. By 2000, it had risen to 5th in the all-government index and 7th in the subnational index. Massachusetts state income rose with the increase in economic freedom, from an income below the national average to one tied for 2nd highest in 2000.

Oklahoma's economic freedom suffered the worst decline. In 1981, it was 5th in the all-government index and 10th in the subnational index. By 2000, it has declined to 41st and 31st, and state income had fell from the 10th highest in the nation to the bottom of the ranks at 46th.

Although the econometric work in this paper shows a strong and highly significant link between economic freedom and economic activity, a link found in the vast majority of states, exceptions to this relationship also occur, since any number of external factors such as resource wealth and proximity to transportation routes affect economic growth. Such outriders will be discussed below.

Top States

Several states have remained in the top third of the rankings through all or most of the period. They are Delaware (since the late 1980s), Colorado, Tennessee, Nevada, Indiana, Georgia, Connecticut, Texas (though its relative rank among the top 16 states has deteriorated sharply), and Louisiana. A few of these states have per-capita GDP below the national average though, on average, the states in the top third exceed the US average per-capita GDP by 8%. Moreover, all consistently high-ranked states have seen their per-capita GDP increase relative to the national average, except Nevada, Louisiana and Texas, though for Texas this decline accompanied a relative weakening in economic freedom. (Whenever GDP is discussed in this section, it refers to per-capita GDP.)

Two states, New Hampshire, which gained sharply in the rankings over the period, and Georgia, which has been consistently free, have risen from just over 80% of the national per-capita GDP in 1981 to 109% and 115%, respectively. Massachusetts is an even more interesting story. In 1981, its level of economic freedom was among the worst of the states and its per-capita GDP was well below the national average. It improved its economic freedom rankings and income went up. In the early 1990s, Massachusetts reversed course again and both economic freedom and relative income fell. More recently, Massachusetts has moved up rapidly in the rankings to become one of the freest and richest states.

The Middle Ranks

The middling states, roughly speaking, have remained middling in both economic freedom and economic activity through most of the period. Since the late 1980s, most of these 17 states have had more or less stable economic freedom rankings while the average per-capita GDP of these states has not varied from the national average by much more than a percentage point.

There are exceptions. New Jersey and Michigan moved up in the rankings sharply, typically by 15 spots or more on both indexes. Both have also improved their per-capita GDP relative to the national average substantially. Florida is the only middling state, which fell by more than 10 rankings in both indexes, although its GDP has risen slightly against the national average.

Iowa, Mississippi, and Oklahoma are in the middle third of the subnational rankings and the bottom third of the all-government rankings. All three have declined in the rankings substantially. Oklahoma, as noted above, suffered the largest decline among the states. It has also suffered the greatest fall in per-capita GDP, from 7% above the national average to 12% below it. Iowa has also declined in both rankings and relative GDP substantially. Mississippi's economic freedom ranking rose into the early 1990s and then fell sharply. Its per-capita GDP relative to the rest of the nation followed the same pattern.

The Worst Performers

Some states seem to want to keep economic freedom at bay. West Virginia has by far the worst record. It also has the lowest per-capita GDP in the United States and has the worst economic record of all states through the 1990s. For Montana and North Dakota, the rejection of economic freedom is a relatively new taste. Both have gone from the middle of the pack to battling West Virginia for bottom spot. Over the same period, Montana and North Dakota have seen their per-capita GDP decline by 23 and 31 percentage points, respectively, against the national average. Other consistent under performers include Maine, New Mexico, Arkansas, Alaska, and Rhode Island.

The Outriders

Economic freedom does not, nor is it meant to, capture all things that affect economic activity. Thus other factors, resource wealth for instance, will break the strong relationship between economic freedom and economic activity discussed here and shown in the econometric testing. Among the outriders are Louisiana, with a weaker economy than its level of economic freedom would suggest, and Alaska and New York, with the opposite pattern. Indiana has weak economic growth compared to its high level of economic freedom. The purpose here is not to explain these anomalies—that would require a detailed discussion of each of state's economy—but rather to draw the reader's attention to the fact that exceptions exist.

Overview of the Canadian Results

Canadian provinces consistently have lower scores than US states and thus are clustered near the bottom of the ranking.

Top Provinces

Alberta is the only province that has consistently done better than at least some states. It ranked 26th at an all-government level and 31st at a subnational level in 2000. Although Alberta's economic freedom declined through the 1980s and early 1990s, in all years it has remained ahead of at least one state, usually West Virginia, in the rankings of both indexes. Alberta's lowest scores and rankings were 1989 and 1993. Since then, Alberta's score and ranking in both indexes have improved considerably.

Ontario placed ahead of three states at the all-government level in 1981 and one state, West Virginia, in 1985. At the subnational level, it ranked ahead of several states in the 1980s. 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 2000 scores show Ontario regaining, roughly speaking, 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 all states in the all-government index and ahead of only one state, West Virginia, in the subnational rankings.

The Middle Ranks

Despite declines in economic freedom relative to the rest of the nation, this deterioration was not large enough to push British Columbia below the 3rd highest ranking among Canadian provinces at the all-government level throughout the full period discussed in this report. However, at the subnational level, both British Columbia's score and ranking deteriorated relative to other Canadian provinces, falling to 6th spot among the provinces in 2000.

Manitoba's ranking has consistently trended downwards in both indexes, from roughly the middle of the Canadian pack in 1981 to the bottom rungs in 2000. The opposite pattern is found for New Brunswick, Newfoundland, and Nova Scotia, which roughly speaking have moved up from the bottom rungs to the middle of the pack.

The Worst Performers

On average, Prince Edward Island has been the second worst performer in Canada. Since 1994, it has scored dead last in the all-government index. In the subnational index, it has been the second last since 1998. Overall, Quebec has been the worst performing province. In the subnational rankings, Quebec has been in last spot for all years. At the all-government level, Quebec has been close to the bottom of the pack since 1993.

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.[2]

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 it also occurs 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 considerable 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 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. Indeed, this is what the data show. 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.

The results of fiscal federalism on economic freedom in Canada can be seen most clearly when examining Alberta and Ontario, the economically freest of the Canadian provinces. The point can be illustrated by examining the most recent data for the year 2000, at the all-government level, which includes the impact of the federal government and thus the impact of fiscal federalism on these provinces. Recall that high scores indicate low levels of taxation and expenditure, and vice versa.

In Area 1: Size of Government, Alberta and Ontario score quite highly in both the all-government and the subnational levels, at least for Canadian provinces. These comparatively good scores indicate relatively low levels of government expenditures in both provinces. If these levels of government spending indicate the preference of voters in these provinces for economic freedom, then both provinces would score highly in the overall index, if provincial voters were able to assert control over the province's fiscal decisions. Yet, fiscal federalism erodes the sovereignty of the electorate.

Despite the low levels of government spending, high levels of taxation dramatically reduce Ontario and Alberta's overall scores, possibly frustrating their electorates taste for economic freedom. At the all-government level, Alberta has the 10th best score on government spending while Ontario has the 24th best score in 2000. But taxation levels are much higher than the amount of government expenditure would indicate. In the Area 2: Takings and Discriminatory Taxation, Alberta falls to 15th spot while Ontario falls to 52nd spot. A comparison between these scores highlights both the low level of federal spending in these provinces and the high level of federal taxation.

High levels of taxation can occur even in cases of low government spending in Canada because the federal government transfers dollars from rich provinces to poor provinces. Given the relationship between economic freedom prosperity, this in effect means the federal government is transferring money from provinces with high levels of economic freedom to provinces with low levels of economic freedom. This perverse reward pattern frustrates the growth ability of economically free provinces and rewards provinces for limiting economic freedom.

Explaining a Puzzle

Canadian fiscal federalism may help explain a puzzle found in the following discussion of the econometric results. The impact of economic freedom on Canadian provinces is considerably weaker than on 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 impact 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 impact of economic freedom, or its loss, on the economy. (In the longer term, the inflow of funds will also weaken the economy but this impact 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 progressively of Canadian taxes, which in turn suppresses increases in economic freedom and economic growth. In other words, fiscal federalism mutes the impact of economic freedom in Canada. Economic growth itself, because of Canada's fiscal structure, reduces a province's economic freedom and thus brakes further growth. Despite the problems created by Canada's fiscal structure, 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[3] 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. (See Barro and Sala-I-Martin 1995 for international results on convergence.)

The incentives created by fiscal federalism are also damaging. Because fiscal federalism mutes the ability of provinces to move towards economic freedom 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 Employment Insurance system 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.

While all segments of the population would deny being influenced by such incentives, there has been no significant economic reform movement in Atlantic Canada, even though there is much evidence from around the world that the region's policy mix damages growth.

Notes

1 Gwartney and Lawson (2002) show steadily rising scores for Canada and the United States through this period. This is because of variables that can only be examined at the national level, such as price level. Obviously, states and provinces do not have their own independent monetary policy.

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

3 The rate of convergence is the rate at which poorer jurisdictions catch up to richer ones.