

# The level of government spending matters most

*Michael Walker*

This chapter considers how the size of government affects Canada's ability to achieve high levels of productivity and sustained economic growth. The departure point is a consideration of the international evidence on why some countries succeed and other countries fail to attain these economic objectives. The discovery that a government's policy regime plays a crucial role in determining whether countries succeed or fail leads to an examination of how Canada's policies compare with global best practices. Finally, the chapter considers what Canada needs to do to improve its record of productivity growth and economic development.

## **Why do some countries succeed and others fail?**

*The Economist* magazine in its end-of-the-millennium edition (December 11, 1999) engaged in reflections on the twentieth century. One of the questions asked in this special edition was: Why do some countries succeed and others fail? *The Economist* considered a number of answers to this question. The answer they preferred derived from the Economic Freedom Index, published by The Fraser Institute in the annual reports, *Economic Freedom of the World*

(Gwartney and Lawson 2000, 2001). This Index catalogs 21 different policies of government from 1970 to the present time. It is, in effect, a measure of governmental competence. It is constructed through the use of published, objective data that reflect the conduct of government policy and of surveys that have been created by third parties for different purposes. The data used in the construction of the Index include measures of the following:

- the size of government and levels of taxation
- public versus private ownership of resources and the means of production
- the existence and extent of private property and the rule of law
- the extent of trade regulation and taxes and tariffs on trade
- the conduct of domestic monetary policy
- the ability of citizens to exchange their currency freely for foreign currencies
- the extent to which government has maintained a non-inflationary environment
- controls on sales of assets to foreigners and other interferences with capital markets
- the right of domestic citizens to engage in commerce with residents of other countries.

The Index is constructed in such a way that highest values for these measures are given when government interference is smallest and therefore, by assumption, economic freedom is the highest. The measures are designed to reflect the actions of governments, not the outcome. As a result, it is possible that the Index is correlated either positively or negatively with the economic performance of countries through time or in comparison with other countries.

The Index uses 21 variables and is constructed for up to 123 countries over the period from 1970 to 1999. The details and methodology of the construction of the Index are complicated and readers interested in more detail can consult the book, *Economic Freedom of the World 2001* (Gwartney and Lawson 2001), which is in print and can be found in its entirety on the Fraser Institute website ([www.fraserinstitute.ca](http://www.fraserinstitute.ca)). Suffice it to note that the weights given to each component of the Index for every country are determined through the use of a transparent, reproducible statistical technique involving first-principle components.

*The Economist* concluded that the policy regimes adopted by governments and as measured by the Index are a reliable and powerful explanation for the success and failure of economies. Economies in which governments permitted more economic freedom did better than countries that permitted less.

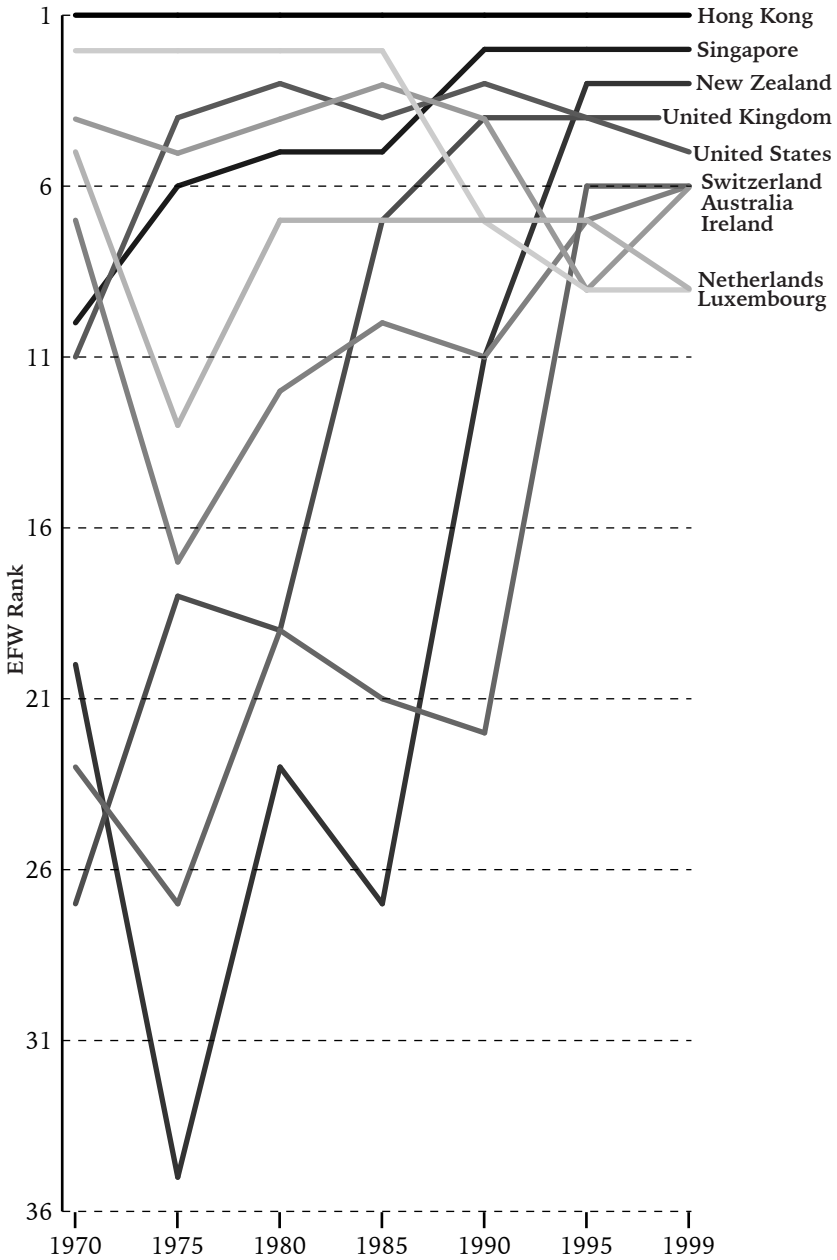
### **The ten best and worst performers**

Figure 1 shows the top ten ranked countries in 1999 and the path by which they got to their current position. As can be clearly seen, countries like Hong Kong have always enjoyed a very high rank whereas other countries enjoying a very high rank, such as New Zealand, Ireland, and the United Kingdom, came to that position after dramatic change in their policy regimes. The experiences of these latter countries are of special interest since they permit a study of the impact of variations in the level of economic freedom on economic performance through time.

### **Impact on economic growth and development**

In a technical analysis of the relationship between income growth and economic freedom published in the *American Economic Review* in May 1997, my colleague Stephen Easton and I (Easton and Walker 1997) were able to show that the level of economic freedom has a statistically significant impact on the level of income and its rate of growth. Economic freedom was a significant variable in the context

**Figure 1: The top ten and how they got there**



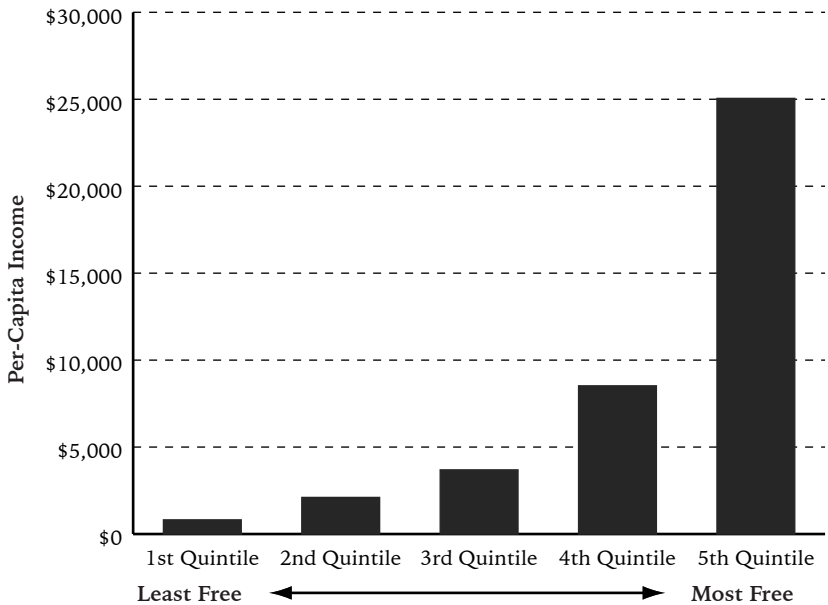
Source: Gwartney and Lawson 2001

of a standard neoclassic growth model that allows for differences in population growth, human capital, and investment. While that technical analysis shows that economic freedom is an important contributing factor to economic performance, it is difficult using that sort of analysis to depict the impact conveniently.

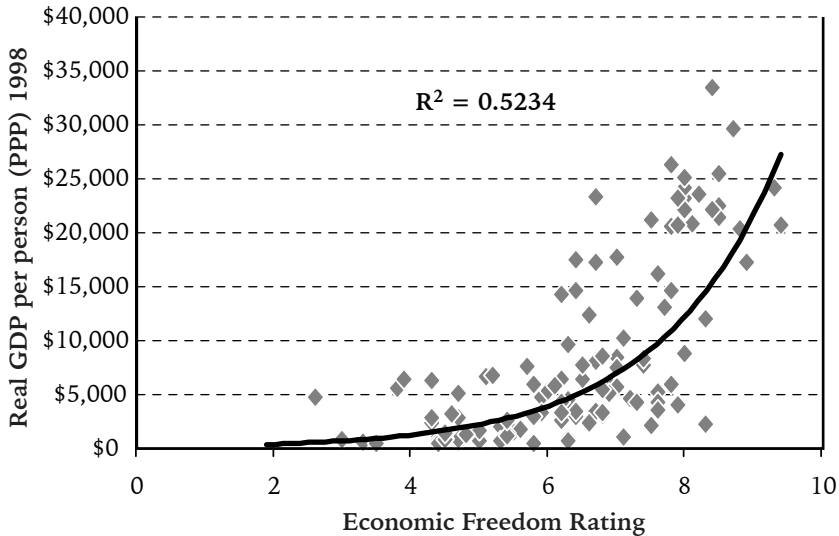
In order to make information about the impact of economic freedom more accessible, this section presents a number of charts that show the correlation between economic freedom and a variety of economic indicators by using quintile analysis. In this analysis, the countries of the world are arranged in ascending order of economic freedom and then grouped according into quintiles from the least to the most free. The average levels of income per capita are then calculated for the countries in each quintile. Figure 2 uses these data and shows clearly that per-capita income is an increasing function of economic freedom.

This same relationship also shows up in Figure 3, which uses a scatter diagram based on all countries used to construct the quintiles presented in figure 2. The level of economic freedom explains

**Figure 2: Per-capita income and economic freedom quintile**



Source: Gwartney and Lawson 2001

**Figure 3: Economic freedom and affluence**

Source: Gwartney and Lawson 2001

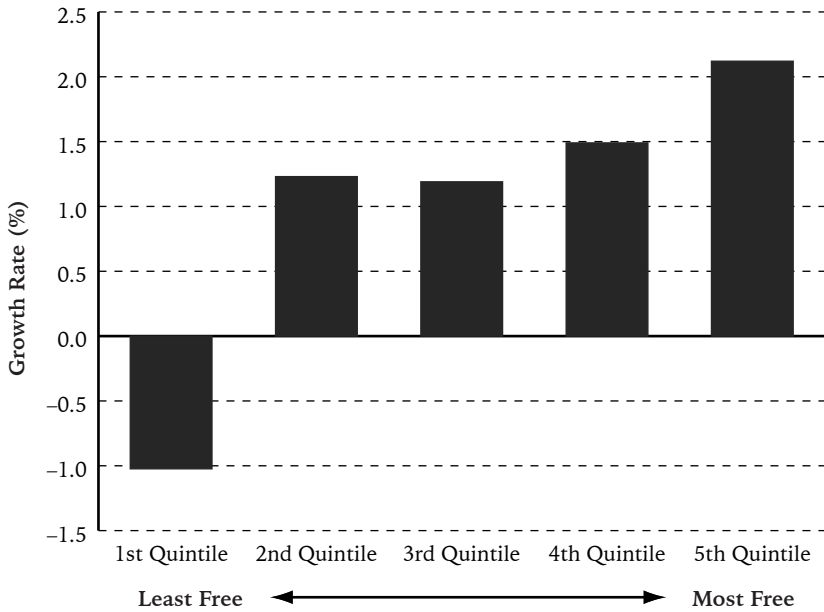
52% of the variation in the level of per-capita income amongst the 123 countries studied. The non-linear, best-fit curve in the chart shows the elasticity of the relationship, which is greater, the higher the level of per-capita income.

Figure 4 shows the relationship between growth in real GDP per capita and economic freedom. The correlation is not as strong as that found in figure 2 but it still supports strongly the earlier finding that economic success is an increasing function of economic freedom. It is interesting, but not surprising, that the extreme lack of economic freedom can actually result in negative economic growth.

### **Canada's level of economic freedom**

Figure 5 shows the scores for seven major subcomponents in the Economic Freedom Index for Canada, the United States, and Mexico. There are few surprises in this comparison. Canada and the United States have similar, high scores and Mexico is below these two countries for most components. In two areas, the size of gov-

**Figure 4: Growth in real GDP per capita in each economic freedom quintile**

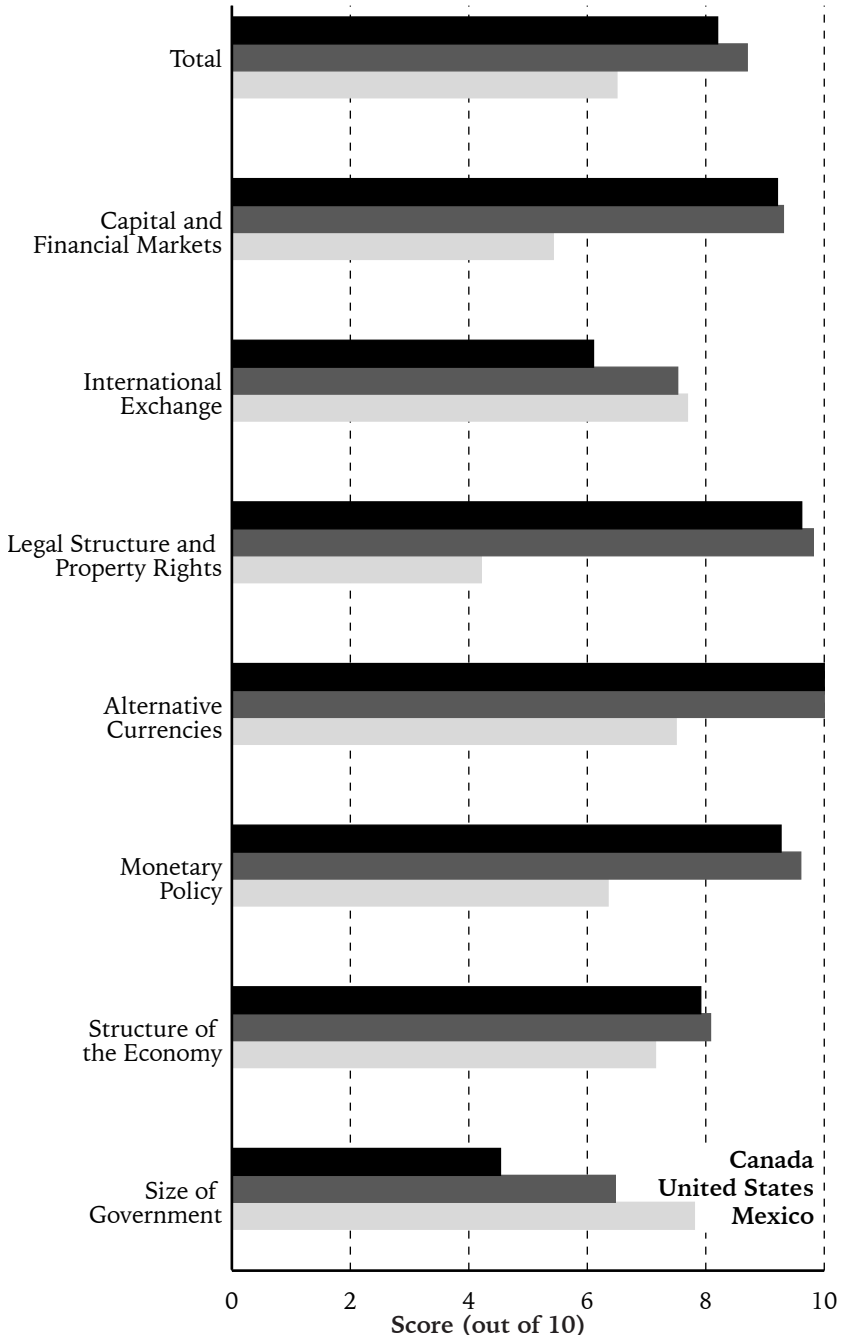


Source: Gwartney and Lawson 2001

ernment and international trade, Canada lags behind both Mexico and the United States. This result will be examined below in some more detail.

Figure 6 puts Canada's conditions in another important perspective by comparing it with the ten freest countries. It is not surprising to find that Canada scores below the average of the top ten since it does not belong in that group. Canada scores least well in comparisons involving international exchange and in the size of government, just as it did in the comparison with NAFTA countries. Comparisons of the indices for freedom of capital markets, the use of alternative currencies and the legal structure and the property rights, monetary policy, and the structure of the economy show that Canada performs quite well relative to the top ten countries. However, given the focus of this paper on the relationship between the size of government and economic growth, we find that Canada's index for the size of government scores 4.5, which is 25% lower than the score of 6 of the countries in the top ten.

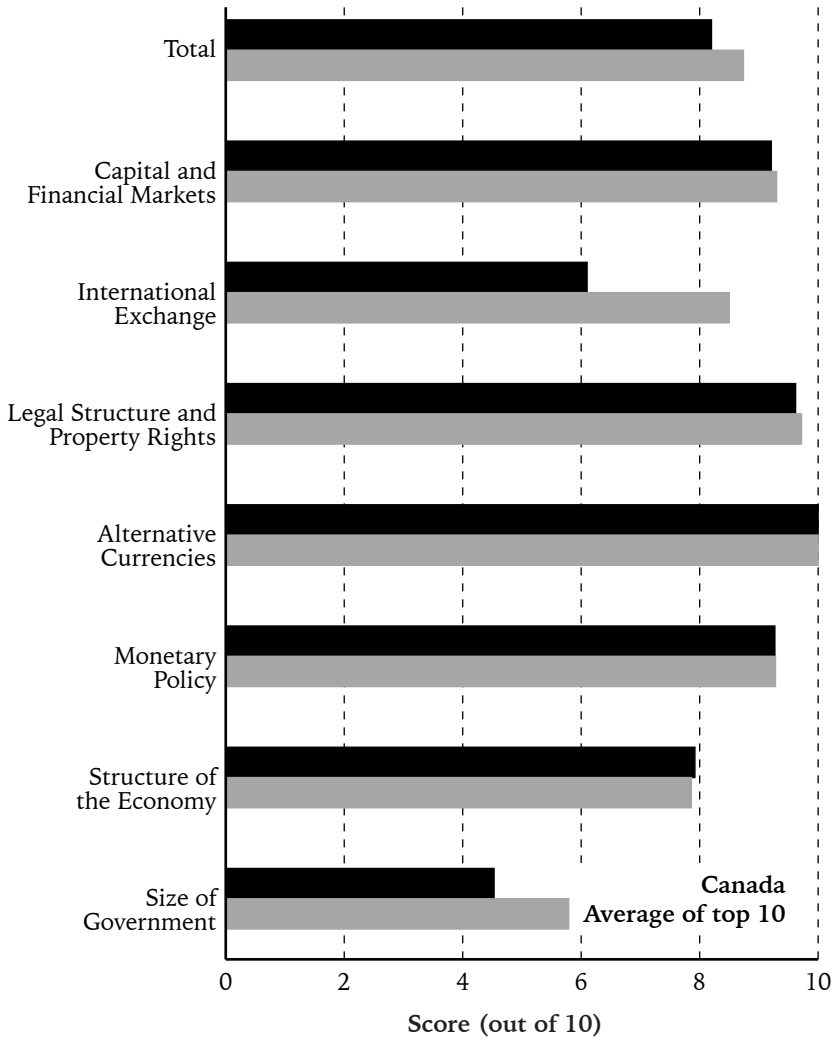
**Figure 5: Some measures of economic freedom for the United States, Canada, and Mexico**



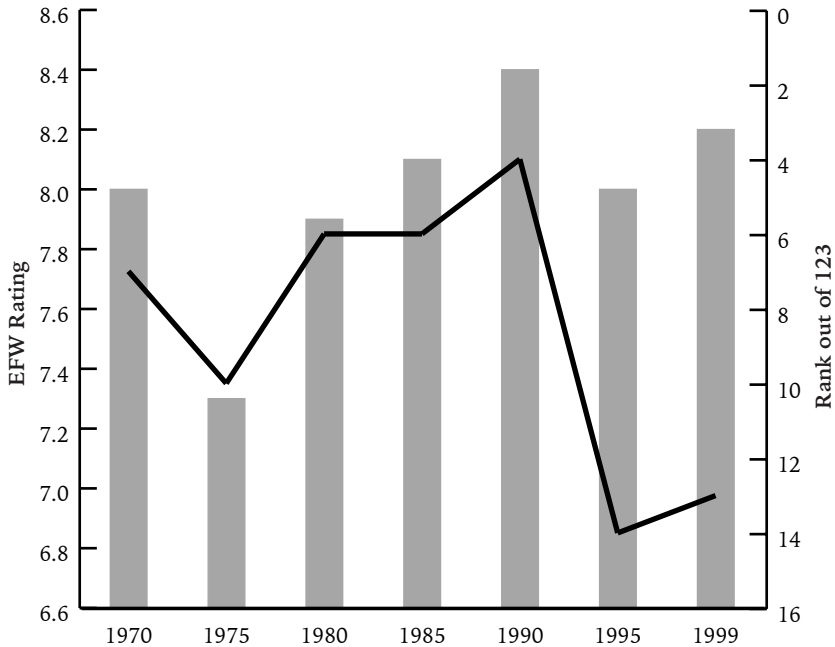
Source: Gwartney and Lawson 2001



**Figure 6: Some measures of economic freedom, Canada and the average for the top ten countries**



Source: Gwartney and Lawson 2001

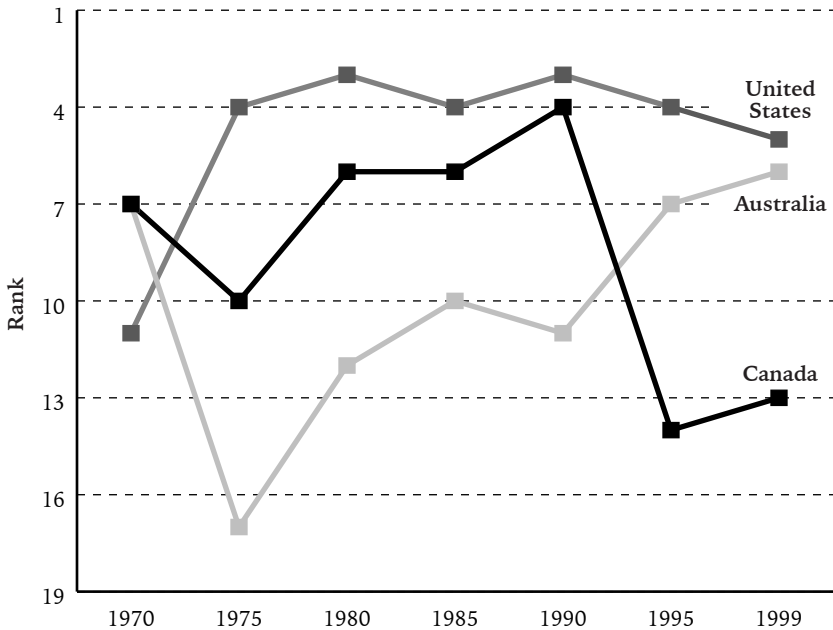
**Figure 7: Canada is falling behind**

Source: Gwartney and Lawson 2001

Figure 7 traces Canada's performance from 1970 to the present. The bars show the value of Canada's overall index. The thin line shows Canada's rank in the world, given the value of its index. It is interesting to note that there is no discernible trend in the value of the index, though there were some noticeable fluctuations. But there is a strong decline in Canada's ranking from fourth in 1990 to thirteenth in 1999, which suggests that Canada has not kept up with the growth in economic freedom experienced by many other countries.

Figure 8 compares the performance of Canada, Australia, and the United States. These two countries were chosen because Australia is a key competitor for Canada in the export of natural resources and the United States is Canada's largest trading partner. It is interesting to observe that during the entire period, but in particular since the 1990s, Canada's position has deteriorated relative to both of these countries: Australia has improved its overall rank from sixteenth in 1975 to sixth in 1999. The United States contin-

**Figure 8: Canada is losing ground to the United States and to Australia, a key competitor in the export of natural resources**



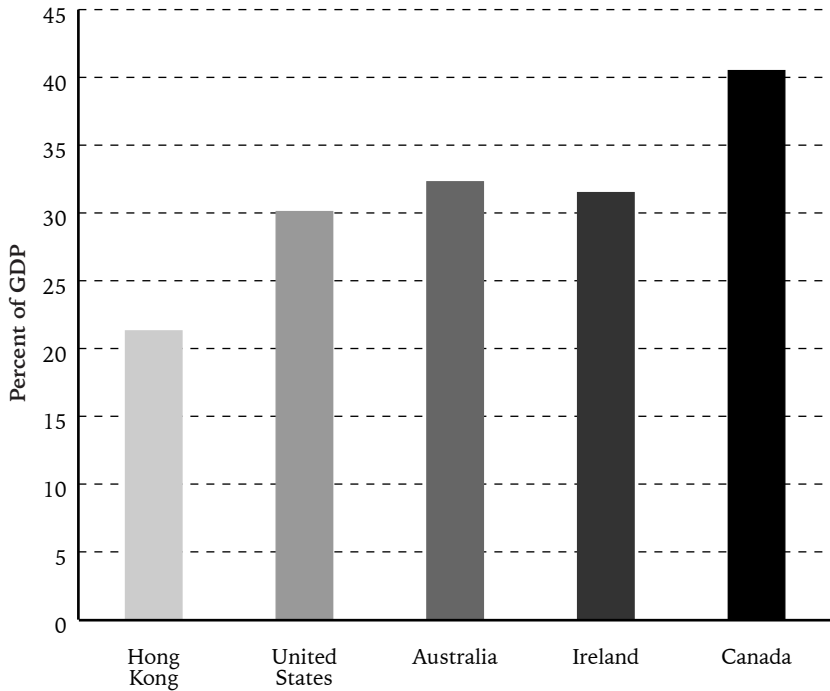
Source: Gwartney and Lawson 2001

ues to have a freer economy than Canada and, except for one year, has always been among the ten freest countries in the world.

### **The comparative size of the government sector**

In 1999, Canada's public sector equaled 40.2% of GDP while that of the ten freest countries displayed in figure 1 was only 35.6%. This gap of 4.6 percentage points is equal to 13%. Figure 9 shows the size of government in some countries that invite comparison with Canada. It can be seen that in 1999 the public sector in Canada was nearly twice as large as that in Hong Kong. More distressing is the fact that Canada's public sector is about one third larger than that of the United States, our most important trading partner. Canada's public sector is also larger than that of Australia, which has an economy that resembles ours in several important ways and that of Ireland, a

**Figure 9: Size of government in Hong Kong, the United States, Australia, Ireland, and Canada**



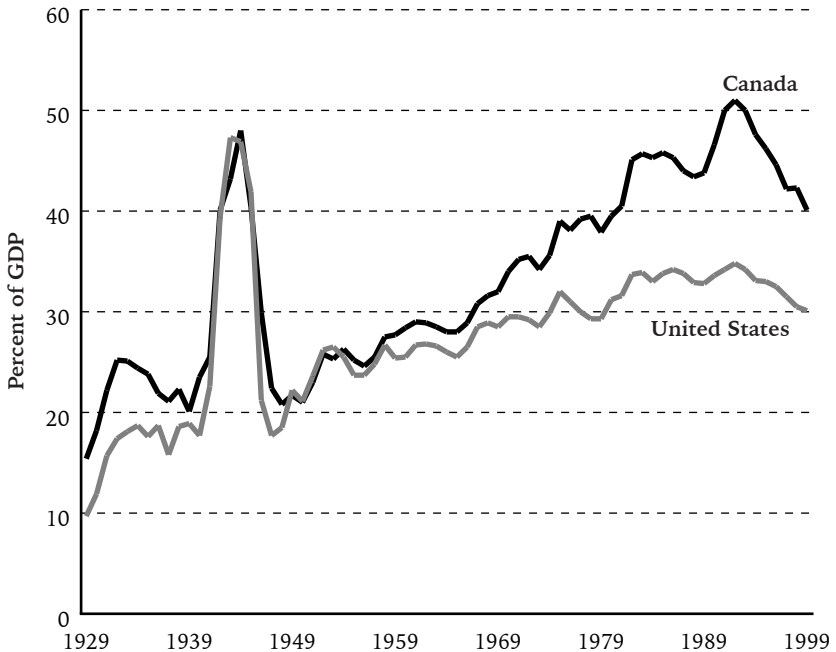
Source: Gwartney and Lawson 2001

small country that holds a position relative to the European Union much like the position Canada has vis-à-vis the United States.

Figure 10 depicts the relationship between the size of government in Canada and in the United States during the period from 1929 to 1999. The data show that the size of government in Canada and the United States was roughly the same during the Second World War and the immediate postwar years. Since about 1960, Canada's relative size of government began to exceed that of the United States gradually until it reached a maximum gap of 15 percentage points, or 43% above the United States in 1992. Since then, the gap has narrowed to ten points or one third.

Another way of measuring the relative burden of government in Canada and the United States involves the time it takes for the average tax payers in the two countries to reach tax freedom day. At this date, conceptually taxpayers have met their obligations to their

**Figure 10: Government spending as a percentage of GDP in Canada and the United States**

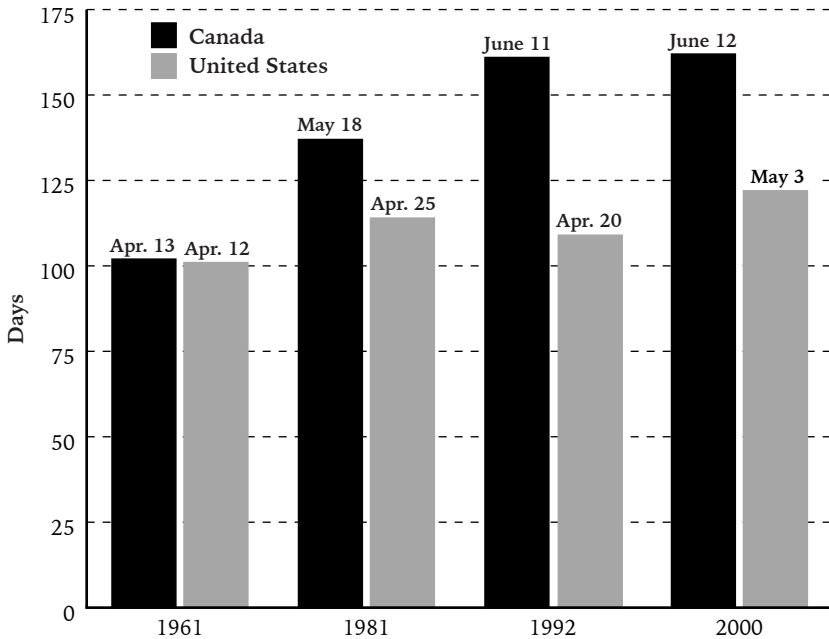


Source: Gwartney and Lawson 2001

governments and begin to keep additional earnings for their private use. Such a calculation is made annually by The Fraser Institute for Canada and by the National Tax Foundation for the United States. Figure 11 shows the tax freedom day for Canada and the United States from 1961 to 2000. As can be seen, tax freedom day in the two countries fell virtually on the same date in 1961 but, by the year 2000, tax freedom day in Canada was more than a full month later than in the United States.

It is often claimed that the main reason for the gap between the tax freedom days in the two countries is that Canada provides a tax financed public health-care system whereas the United States does not. Figure 12 shows clearly that this is not the case. In 1999, the United States government spent 6.1% of GDP on health care while the government of Canada spent 6.6%. The gap of 0.5 percentage point represents only 5% of the ten-point difference in overall taxation that year.

**Figure 11: Tax Freedom Day in Canada and the United States (US methodology)**

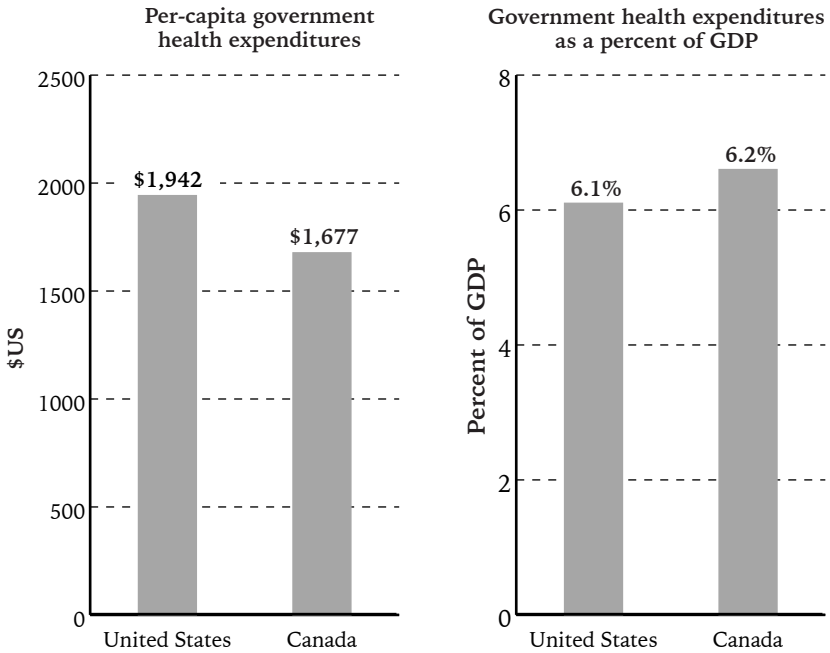


Source: Gwartney and Lawson 2001

### **Consequences of larger government and higher taxes**

Gerald Scully (1989) showed that theoretically and empirically the size of government spending (and taxation) is an important determinant of economic growth. An application of the Scully model is found in Grubel 1998. These studies argue that at low levels of spending, economic growth is slow because the government does not provide a sufficient services to make the economy function at optimal efficiency. At high levels of spending and taxation, the government replaces efficient private spending with inefficient public spending. In addition, the inefficiencies that accompany high tax rates become a large burden on the economy. Between these two extremes lies an optimal spending level where economic growth is maximized. The research for Canada showed strong evidence of the existence of a relationship of  $\cap$  shape between economic

**Figure 12: Government health spending in Canada and the United States**



Source: Organisation for Economic Cooperation and Development 2000

growth and spending levels. The optimal level was found to be at 34% of national income.

The data on economic freedom lend themselves to the testing of the Scully model for the world as a whole. For this purpose, figure 13 shows on the vertical axis the average level of economic growth in countries contained in the five quintiles shown along the horizontal axis. In this case, the quintiles were determined on the basis of the level of government spending in a sample of 123 countries. As can be seen, the relationship has a  $\cap$  shape predicted by Scully's theory. Countries in the fourth quintile by level of government spending have the highest rates of growth. Those with less spending grow more slowly as do those with more spending.

Figure 14 repeats figure 13 but is expanded to include information about the size of government chosen by, and the rate of economic growth of, some countries of interest to Canada. As can be seen, Hong Kong has the highest growth rate and its spending

**Figure 13: Size of government and average global economic growth**



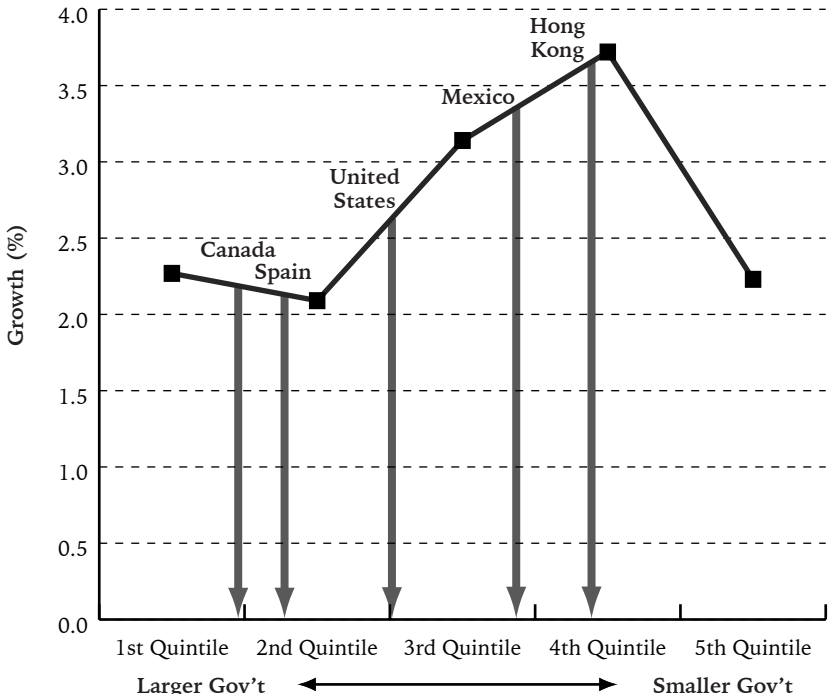
Source: Gwartney and Lawson 2001

puts it into the fourth quintile of countries by the size of government spending. Canada, in turn, has one of the lowest growth rates and is in the first quintile along with other countries that have the largest government sectors. The location of the United States and Mexico on the graph is also consistent with the Scully model.

The results in figure 14 imply that Canada can enjoy a significant improvement in its level of economic growth by perhaps as much as 2 percentage points if it reduced the size of its government to that of Hong Kong's. Such a shrinking of the size of government in Canada involves many important economic and social considerations but the data show clearly that the benefits believed to accompany the present level of government spending have exacted a very distinct growth penalty on all Canadians.



**Figure 14: Size of government and economic growth in Canada, Spain, the United States, Mexico and Hong Kong**

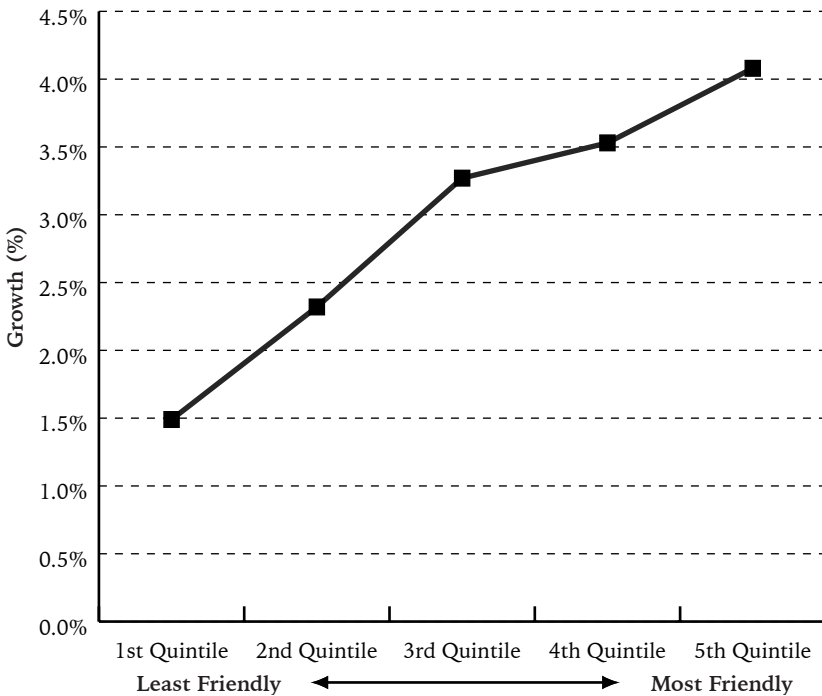


Source: Gwartney and Lawson 2001

### The structure of taxation

Economic growth is also affected by the strength of the disincentives to work, investment, and risk-taking caused by the progressivity of the personal income tax rates. Figure 15 shows along the vertical axis the rate of economic growth averaged for countries found in the quintiles on the horizontal axis. These quintiles reflect the “friendliness” of the personal income tax system as measured by the level of the tax rates and the brackets at which they apply. This chart shows that the friendlier the tax system, the higher the rate of economic growth. This relation does not appear to decrease in any way as the tax system becomes more and more friendly. Figure 16 shows where on the spectrum individual countries can be found.

**Figure 15: Economic growth and the “friendliness” of the personal income tax system as measured by the tax rates and the brackets at which they apply**



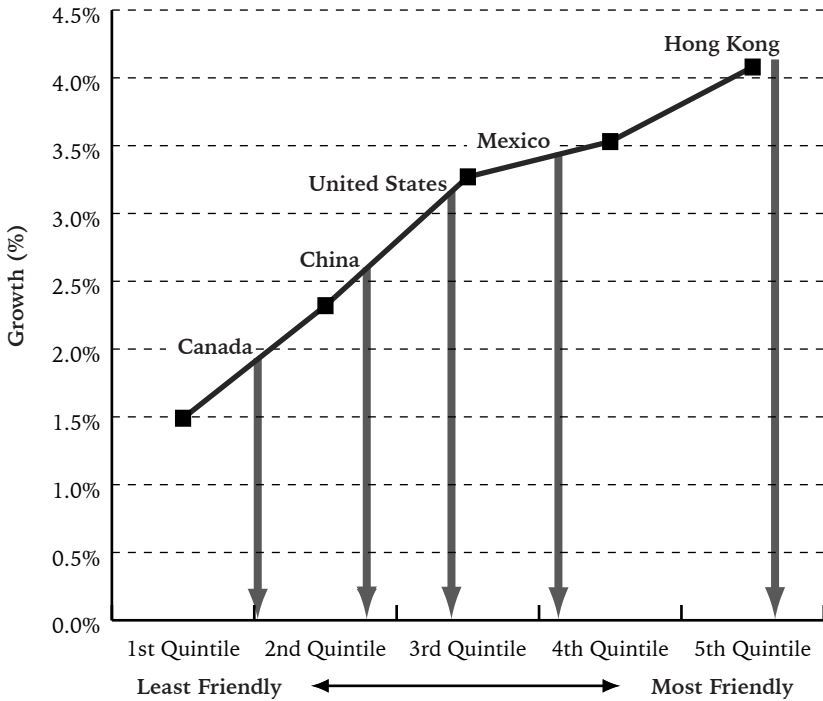
Source: Gwartney and Lawson 2001

Canada can be seen to have one of the least friendly tax systems while the United States is in the third quintile and Hong Kong in the top.

Economic growth is related not only to the level of taxation but also the mix of taxes used to collect given amounts. Consumption taxes and broad-based income taxes are the least distorting and, therefore, have the smallest effect on growth. Taxes on capital, profits, rental income, wealth, and the property of other small groups in society tend to be politically more popular than broad-based taxes but they also distort incentives the most and have the greatest negative effects on economic growth.

The capital tax has one of the most serious negative effects on incentives to invest. It is payable whether or not a company earns

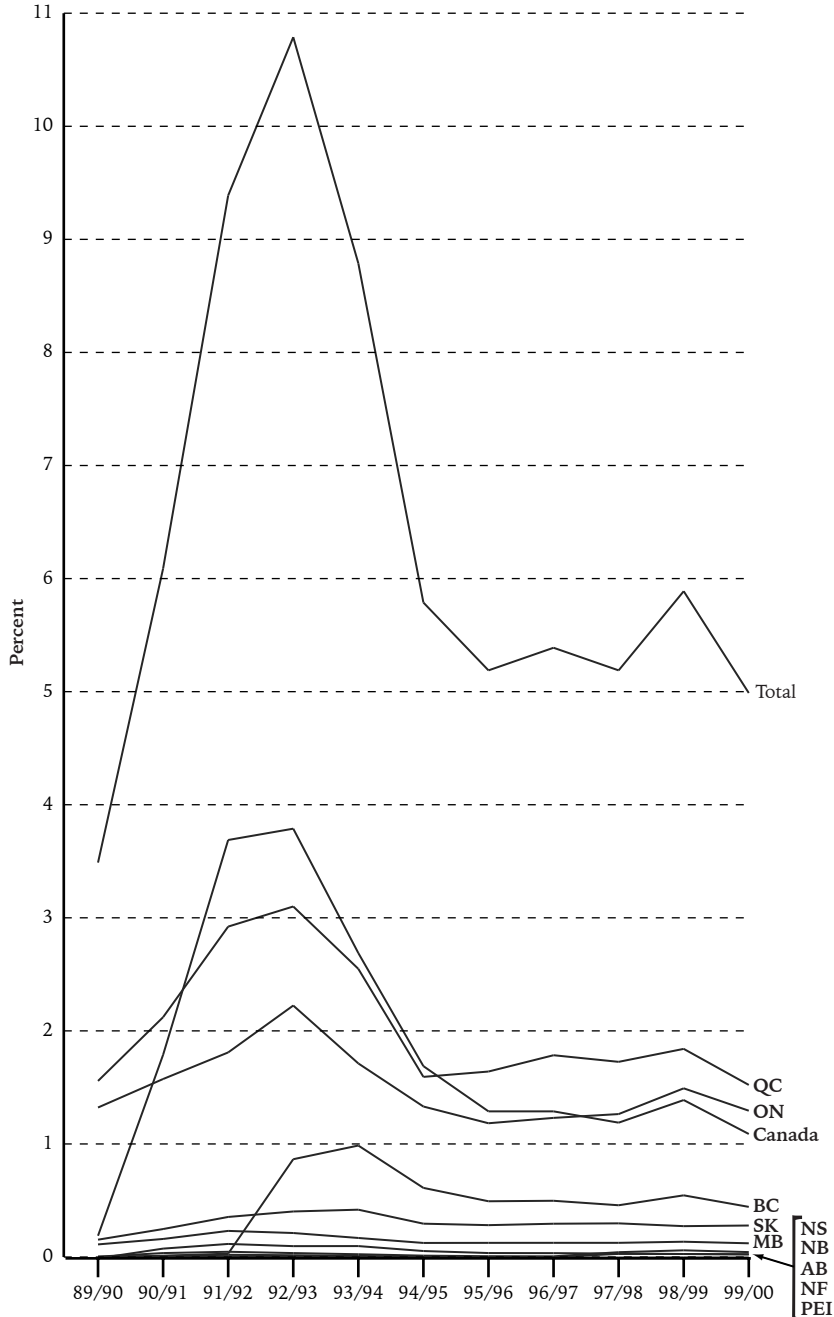
**Figure 16: Economic growth and the “friendliness” of the personal income tax system in Canada, China, the United States, Mexico and Hong Kong**



Source: Gwartney and Lawson 2001

a profit. The owners of capital show a special dislike for this tax: Canadians avoid it by investing abroad and foreigners by simply not coming to Canada. Figure 17 shows the burden of capital taxes in Canada during the period from 1989 to 1999. The burden is measured as a percentage of corporate profits for individual provinces and for Canada as a whole, where the national average is weighted by the provincial share of national corporate profits. As can be seen, over this period capital taxes as a percentage of corporate profits have trended up from about 3% to 5% of corporate profits. The level reached a peak of 11% in 1992 when the government sector in Canada as a percentage of GDP had also reached its highest level. (For a more detailed analysis of the size and effects of capital taxes, see Clemens 2002).

**Figure 17: Corporate capital taxes in Canada as a percent of corporate profits\***



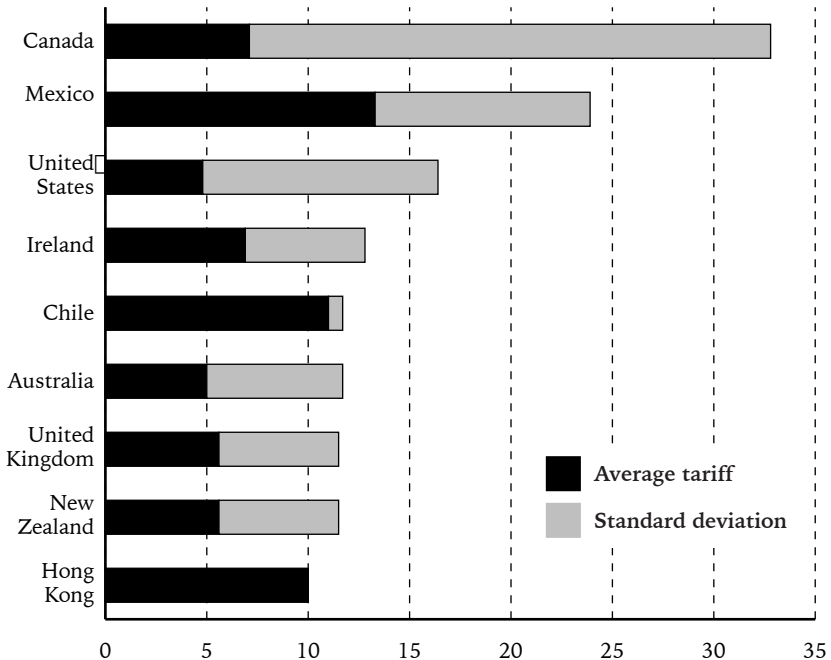
Source: Gwartney and Lawson 2001.

\* weighted by provincial share of corporate profits)

Tariffs on specific products are another form of taxation that is very distortionary and has a negative impact on efficiency because it keeps labour and capital in declining industries and away from use in new, more dynamic, and profitable employment. The extent of discrimination contained in a country's tariff structure is measured by the standard deviation of rates. The greater the standard deviation, the more targeted and discriminatory is a country's tariff structure.

Figure 18 shows for different countries the average level of tariffs and the standard deviation of the rates around that average. As can be seen, Canada's standard deviation is greater than that of any other of its important trading partners in the sample. In addition, Canada also has a fairly high average level of tariffs. The combination of the average tariff rate and the standard deviation provides an index on the basis of which Canada has by far the costliest system of protection of all of its major trading partners. There is little doubt that this implicit taxation has an important effect on Canada's economic growth.

**Figure 18: Tariffs and the extent to which they discriminate**



Source: Gwartney and Lawson 2001

## **Conclusions and policy implications**

The preceding analysis shows that the economic policy of Canada's government is falling behind that of its major trading partners and other major countries with which it is in competition. Canada once had one of the highest levels of economic freedom and placed among the ten freest countries in the world. In recent years, it has fallen to thirteenth. The biggest contributors to this declining rank are the size of government and trade-sector policies relative to those of other countries important to Canada.

Empirical evidence presented above shows that economic growth is positively related to economic freedom. Canada's relatively slow economic growth in recent years, therefore, can be attributed to Canada's lower ranking on the economic freedom index. In particular, the slower growth has been associated with the size of government and taxation, which have declined very little while those of competing countries have fallen substantially.

The preceding analysis and evidence from the experience of most countries of the world has clear policy implications. If Canadians want economic growth and per-capita incomes to return to their traditional levels and improve by international standards, the size of government and the associated tax burden must be reduced. In addition, the structure of the tax system, including tariffs, must be improved.

The preceding analysis also provided some information about an appropriate level of government spending and taxation and a number of other policies needed to achieve these objectives. Needed now is the political will to act on these findings.

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