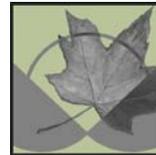


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Size of government and economic performance: What does the evidence say?

By Marc Lee

Introduction

"It is well known that taxes and transfers reduce productivity. Well known — but unsupported by statistics and history."

Peter Lindert (2004)

Due to federal and provincial tax cuts since the mid-1990s, Canadians now know all too well that there is a price to be paid for lower taxes: spending cuts. The timing may vary — the federal government put the brakes on spending first, then, when deficits turned to surpluses, brought in tax cuts, while provinces like BC and Ontario cut taxes first and then cut spending to balance their budgets. But the outcome has been the same: lower taxes accompanied by fewer public services.

Proponents of tax cuts argue that tax cuts will improve our economic performance — typically meaning a permanent increase in the long-run growth rate of GDP or productivity (growth of GDP per hour of work). Tax cuts, it is argued, will "grow the pie" faster, making everyone better off, even if spending cuts are necessary.

If smaller government means stronger economic performance, an expansion in the size of government (by, say, bringing in a national child care program) would undermine productivity and GDP growth, thereby weakening economic performance. All of this stems from the alleged superiority of the private sector in making decisions about resource allocation (a position that has suffered a great deal in recent years in the wake of corporate scandals such as Enron and WorldCom).

But what kind of evidence exists to back claims about the economic benefits of small government? As this brief will show, there is actually very little hard economic evidence in support of this view. There may be a moral argument for making government smaller, but there is no reason to expect an economic payoff

from doing so. And to the extent that studies are marshaled in favour of small government, closer inspection usually shows that the data have been tortured to wring out a confession.

The Big Picture on Small Government

At the broadest level, there is little correlation between economic performance and size of government. A number of studies have reviewed this relationship. Slemrod and Bakija (1996), in a survey of OECD countries (i.e., the most advanced industrialized countries in the world), found that, over the 1970-1990 period, there was no connection between taxes as a percentage of GDP (an indicator of government size) and either levels of GDP per capita or annual growth rates of GDP.

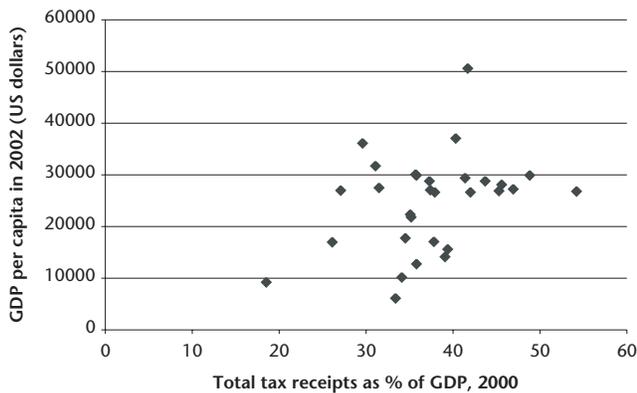
More recently, Jackson (2000) and Sharpe (2002) have found no correlation between taxes as a share of GDP and a number of economic performance indicators for OECD countries in the 1990s. Jackson notes:

Some high-tax countries have grown quite rapidly in the 1990s (e.g., Norway, the Netherlands, Denmark) and have achieved higher rates of productivity growth than lower tax countries. Relatively low tax jurisdictions, notably the U.S., have performed no better in economic efficiency terms than many higher-tax countries in the 1980s and 1990s.

Using more recent OECD data, I repeat this experiment for illustrative purposes. Figure 1 plots GDP per capita in 2002 (converted to U.S. dollars at purchasing power parities) against total tax revenues as a share of GDP in 2000 for 30 OECD countries.¹

A large number of countries clustered at just below US\$30,000 of per capita income display the full range of government size. This group includes Sweden

Figure 1: GDP per capita vs Tax revenue



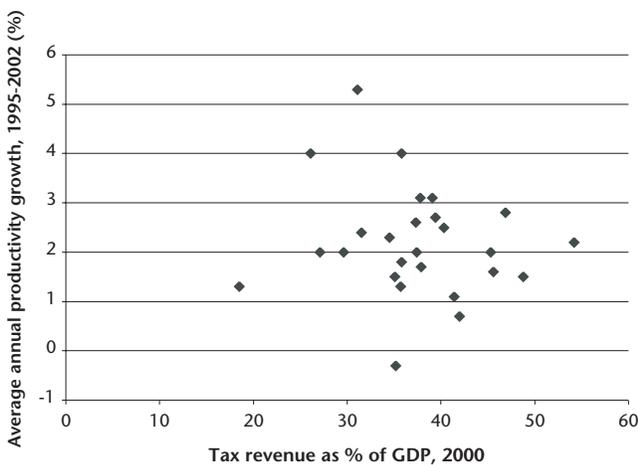
Note: GDP per capita figures are in US dollars and have been converted at purchasing power parities.

Source: OECD in Figures 2003.

and Denmark, the countries with the largest shares of taxes-to-GDP in the sample (54.2% and 48.8%, respectively), but also Japan and Australia, countries with shares of taxes-to-GDP closer to the low end (27.1% and 31.5%, respectively).

Canada is also in this grouping, with a tax share of 35.8%. Indeed, a total of 11 countries in the same income range had shares of taxes-to-GDP that were higher than Canada's, all the way up to Denmark and Sweden. Interestingly, the country with the lowest level of taxes to GDP, Mexico at 18.5%, was second-lowest in terms of income. Luxembourg, with a very high average income of US\$50,600, nonetheless had taxes that amounted to 41.7% of its GDP.

Figure 2: Productivity growth vs Tax revenue



Source: OECD in Figures 2003.

Figure 2 also looks at taxes-to-GDP levels but this time compares them to average productivity (defined as GDP per hour worked) growth rates over the 1995-2002 period. The core result is essentially the same: there is little obvious relationship between taxes-to-GDP and productivity growth.

A cluster of countries in the middle of the figure had taxes-to-GDP in the 30-to-40% range, accompanied by average annual growth rates in the 1-to-3% range. Canada is in this grouping. Some countries with tax shares about the same as Canada's are notable: Spain, with a tax share of 35.2%, was the worst performer in the OECD with negative productivity growth over the period averaging -0.3% per year; Slovakia, with a tax share of 35.8% (the same as Canada) had very good productivity growth of 4% per year.

It is possible to derive similar figures with different measures of size of government (such as total revenues, total expenditures, government consumption, and social security expenditures), and with different measures of economic performance (such as productivity levels and GDP growth rates). But the principal observation holds: *there is no basic correlation between size of government and economic performance.*

Econometric Studies

While this approach should be viewed as a first pass at the evidence, more detailed statistical tests uphold the result. There have been scores of studies on the determinants of economic growth. Combined, they do not lead to clear, unambiguous conclusions, much less a consensus about the role of government size on economic growth.

The empirics of economic growth, it turns out, are highly sensitive to changes in data-sets, time-frames, countries included, models used, and specification of econometric equations. Results are often highly nuanced: a large number of causal factors have been identified, but few have proven to be robust.

In a review of the growth literature, a well-known empirical economist, Xavier Sala-i-Martin (2001), concludes:

The size of government does not appear to matter much. What is important is the "quality of government" (governments that produce hyperinflations, distortions in foreign exchange markets, extreme deficits, inefficient bureaucracies, etc., are governments that are detrimental to an economy).

The single most robust variable in the growth literature is the initial level of income. Barro (1991) finds that poor countries tend to “catch up” to richer countries by experiencing faster growth (known as “convergence”), although even this point has spawned debates in the econometric literature.

Another finding is that the level of human capital (i.e., education) significantly raises growth rates. Given the substantial role played by government in education, this result runs counter to prescriptions for smaller government.

There are some more nuanced, and disputed, findings in the literature that have been misrepresented by advocates for small government. In a major cross-national study, Barro (1991) finds a negative relationship between economic growth and a measure he calls “government consumption.” This finding has been seized on as an indictment of “big government” by right-wing groups like the Fraser Institute (Clemens and Veldhuis 2002).

Barro's measure of government consumption, however, is much more limited: it does not include expenditures on defense, education, public investment, or transfer payments – a significant portion of what governments do. Instead, Barro's measure should be thought of as a measure of administration and bureaucracy. Large and cumbersome bureaucracies, in other words, have a negative impact on the economy.

Even this finding has been disputed. Barro's negative relationship between economic growth and government consumption reflects the inclusion of a large sample of Third World countries, where an abnormally high government take can be attributed to dictatorships or corruption, with real effects on growth performance. But, as Lindert (2004:233) points out, “the fact that such kleptocracies were bad for economic growth tells us nothing about Europe's welfare states.”

Beyond this, the econometric debate degenerates into competing claims about appropriate methodologies and data-sets. There is no overwhelming body of evidence that government size influences growth rates in either direction. The results are, at best, inconclusive.

A survey of nine empirical studies in the mid-1980s to early-1990s by Atkinson (1995:179) finds mixed results for the impact of government size on economic performance. Moreover, his review highlights the problem posed by differences in interpretation:

It may be poor economic performance that leads to high Welfare State spending, rather than *vice versa*. Slow growth, or output below trend, may cause reduced employment and hence

higher spending on unemployment benefits and other transfers. Alternatively, it may be successful countries, with high income per head, that can “afford” a more generous social security system. Or it may be that industrialization of the economy leads both to higher living standards and to the need for social security.

Empirical findings tend to be very nuanced, due to all of these considerations. There is certainly no clear, unequivocal evidence to support the notion that reducing government size will result in faster economic growth. But there are also good reasons to believe that certain types of government expenditure are *pro*-growth.

Looking for an aggregate relationship between size of government and economic growth is something of a red herring. Others have looked at the relationship between *specific functions* governments perform and economic growth. For example, some researchers find that income transfers have a positive effect on per capita income growth; others find no significant relationship.

A study by Easterly and Rebelo (1993) finds that public investment in transport and communications is robustly correlated with economic growth. They also find that the link between other fiscal policy variables and growth is statistically fragile and depends on what control variables are included in the regressions. They conclude: “The evidence that tax rates matter for growth is disturbingly fragile. This empirical fragility contrasts sharply with the robustness of the theoretical predictions: most growth models predict that income and investment taxes are detrimental to growth.” (1993:442)

A detailed review by Lindert (2004) considers why the welfare state has not had the negative effect on growth that many economists assume it should. He argues that the actual experience of countries with large public sectors has been towards implementing *pro*-growth taxation and spending policies.

On the tax side, these governments have tended to tax capital lightly to avoid capital flight. They also tend to rely more on consumption taxes, particularly those for gas, alcohol, and tobacco. These are regressive taxes, but are considered to be more efficient by many economists because they do not distort decisions about saving and consumption over time. More importantly, these regressive taxes were introduced as part of a *social bargain* that the proceeds would fund beneficial social transfers.

The flip side of taxation is public spending. On the spending side, welfare state countries have invested in public health care and child care systems that have

pro-growth impacts. They have also provided positive incentives for workers on social assistance to enter the labour market by allowing them to keep a large share of additional earned income. Benefits are phased out at a higher income level, whereas countries like Canada and the U.S. have tended to impose very high marginal tax rates on additional income received by social assistance recipients.

Questionable Sources

These findings are contrary to the claims of the right that the evidence unambiguously supports their view that smaller government means better economic performance. A look at the references cited by the Fraser Institute's Clemens and Veldhuis (2002) shows up some very questionable sources, and for the few reputable studies cited (such as the Barro 1991 mentioned above) the findings are misrepresented.

Many of Clemens and Veldhuis' sources are reports by the National Center for Policy Analysis, a Dallas-based think-tank with a market fundamentalist perspective similar to the Fraser Institute. Of the academic sources cited, most are from a journal called *Public Choice*, which provides a forum for an anti-government strand of economics. These studies are essentially a fringe of research outside the mainstream of economics.

The pioneer of this research is Gerald Scully (one-third of Clemens and Veldhuis' references are papers by Scully), who developed a simple model designed to derive an optimal size of government (see Scully 1998 and 1994). But this model is too simple: it states that economic output is merely a function of the tax share of GDP *and nothing else*. Scully does not bother controlling for *any additional factors* apart from the size of government that might influence economic growth.²

Most of this "research" is based on a single country, not on cross-national comparisons. The bulk of it focuses on the United States, and finds that it is in need of a smaller government. Clemens and Veldhuis cite only one study looking at Canada, by Fraser Institute fellow and former Reform Party MP Herb Grubel.

Another group of studies often cited by advocates of smaller government comes from computer simulations that find that an extra dollar of government revenue actually costs the economy something like \$1.38 or more in lost economic activity (see Dahlby 1994).

It is important to note that these results are not derived from real-world data. They are quasi-empirical studies that start with a theoretical model where taxes impose large deadweight costs to the economy, then put some real numbers to the model to enable them to

simulate what the cost of extra taxation is at the margin. They are "educated fiction" based on the virtual reality of computer models (Lindert 2004).

If these studies had found economic truths, the implication is that countries like Norway, Sweden and Denmark, which have much larger governments than Canada, should all be economic basket cases. But this is not the case. These countries have among the highest productivity and standards of living in the world.

Conclusion

The bottom line is that there are no simple answers to the puzzle of economic growth. It is possible to cherry-pick a handful of studies that support the view that smaller government equals better economic performance, but any claims that this represents a consensus are patently false. The lesson for those not engaged in technical, statistical debates about the determinants of economic growth is to beware simple answers to complex problems.

History and ideology are probably the main determinants of how big a country's government is, according to Lindert (2004). The United States has tended to oppose, on ideological grounds, expansion of public services funded by taxes except in a few narrow areas. In contrast, the Scandinavian countries chose to rapidly expand their public sectors in the post-war years, and, while they have tinkered with them, really have not looked back. Although a slew of reports in the 1990s commented on the demise of the Swedish welfare state, it turns out that Sweden still has a large public sector and in economic terms is doing just fine.

The enemies of "big government" do so on ideological grounds, often backed by wealthy individuals who would stand to gain a lot by shrinking government. Economically, the key questions seem to be not how much tax is taken as a percent of GDP, but what tax mix is used, and what the money is spent on. These considerations dwarf the simple idea that big government is bad for growth.

There is no economic reason why Canada could not expand its public sector from about 36% today by a significant margin — if there were compelling reasons to do so. This would not kill the Canadian economy, and in fact could greatly improve the economy if new expenditures went to pro-growth investments, such as a publicly-funded early childhood education and care program.

But, if Lindert is correct, we need to pay attention to the tax mix. An expansion of the public sector might require some elements of a Scandinavian strategic bargain that increases regressive consumption taxes

rather than income taxes broadly (this would not preclude increases in the top marginal income tax rate). This is precisely the deal that has been struck in big government countries.

What is refreshing about this research is that it reinforces the idea that public policy is about making choices. We can choose to engage in good social policy without fear that the economic sky will come falling down on us.

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About the Author

Marc Lee is an economist in the BC office of the CCPA. He is the author of numerous CCPA publications, including *Tall Tales about Taxes in BC*, *Snakes and Ladders: A Policy Brief on Poverty Dynamics* and *State of the BC Economy 2004*, and is a frequent media commentator on economic policy issues. Marc Lee has an M.A. in Economics from Simon Fraser University and a B.A. in Economics from the University of Western Ontario.

Endnotes

- 1 Choice of dates reflects the most recent comparative figures from the OECD.
- 2 Technically, Scully sets up a Cobb-Douglas production function, but instead of using capital and labour as the factors of production, he uses the public sector and private sector shares of output.

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