



INSTITUT **C.D. HOWE** INSTITUTE

**COMMENTARY**

NO. 512

# Blown Budgets: Canada's Senior Governments Need Better Fiscal Controls

*Canada's federal, provincial and territorial governments routinely miss their budget targets by economically meaningful amounts. Over the past 15 years, senior governments' cumulative spending overshoot adds up to \$69 billion. Even larger is the cumulative revenue overshoot: \$104 billion. Governments in Canada are spending and taxing far more this year than they would have if they had delivered on their past budget commitments.*

**William B.P. Robson and Farah Omran**

# THE C.D. HOWE INSTITUTE'S COMMITMENT TO QUALITY, INDEPENDENCE AND NONPARTISANSHIP

## ABOUT THE AUTHORS

**WILLIAM B. P. ROBSON**  
is President and CEO  
of the C.D. Howe Institute.

**FARAH OMRAN**  
is Junior Policy Analyst,  
C.D. Howe Institute.

The C.D. Howe Institute's reputation for quality, integrity and nonpartisanship is its chief asset.

Its books, Commentaries and E-Briefs undergo a rigorous two-stage review by internal staff, and by outside academics and independent experts. The Institute publishes only studies that meet its standards for analytical soundness, factual accuracy and policy relevance. It subjects its review and publication process to an annual audit by external experts.

As a registered Canadian charity, the C.D. Howe Institute accepts donations to further its mission from individuals, private and public organizations, and charitable foundations. It accepts no donation that stipulates a predetermined result or otherwise inhibits the independence of its staff and authors. The Institute requires that its authors publicly disclose any actual or potential conflicts of interest of which they are aware. Institute staff members are subject to a strict conflict of interest policy.

C.D. Howe Institute staff and authors provide policy research and commentary on a non-exclusive basis. No Institute publication or statement will endorse any political party, elected official or candidate for elected office. The views expressed are those of the author(s). The Institute does not take corporate positions on policy matters.

COMMENTARY No. 512  
May 2018  
FISCAL AND TAX POLICY

\$12.00

ISBN 978-1-987983-67-8

ISSN 0824-8001 (print);

ISSN 1703-0765 (online)



A handwritten signature in black ink that reads 'Daniel Schwanen'.

*Daniel Schwanen*  
*Vice President, Research*

## THE STUDY IN BRIEF

In 2017, Canada's senior governments spent some \$782 billion on program expenditures and interest payments, amounting to 36 percent of gross domestic product. Control of public money is fundamental to democratic government, so it is natural to wonder how much of this activity – and the taxes, fees and borrowing that support it – reflects deliberate choices by voters and legislators.

Formal accountability exists. Governments typically present budgets before or shortly after the start of the fiscal year, and budget votes are votes of confidence on which governments stand or fall. Legislatures and their committees play a key role in authorizing many specific expenditures. Governments table their public accounts, which present the audited results for actual revenues and expenses, after the end of the fiscal year.

But comparing the expenses and revenues projected in the budgets of Canada's federal, provincial and territorial governments at the beginning of the year with the results reported in their public accounts after the end of the year reveals that governments routinely miss their budget targets by economically meaningful amounts. More significant, they miss their targets in predictable ways: expenses and revenue typically come in above what the budgets promised. Over the past 15 years, senior governments' cumulative spending overshoot adds up to \$69 billion, with the Prairie Provinces and the Territories showing the biggest overruns. Even larger is the cumulative revenue overshoot: \$104 billion. Governments in Canada are spending and taxing far more this year than they would have if they had delivered on their budget commitments.

Comparing the annual patterns of overshoots and undershoots over time raises a further concern. Rather than overshoots of expenses coinciding with undershoots of revenue, or vice versa, as would happen if government finances were responding to economic cycles, overshoots on either side of the ledger tend to coincide – which suggests that governments are spending “windfalls” and/or managing the bottom line.

Encouragingly, however, the tendency to overshoot and miss budget targets more generally, and the troubling annual patterns, seem to have become less pronounced over the past 15 years. Several steps, including estimates that are more timely and presented in the context of the government's fiscal plan, a stronger role for legislative committees that authorize spending, and faster and more frequent publication of actual results, could further improve the record. Canada's senior governments should improve the quality of their budget forecasts and their adherence to those forecasts, and legislators and voters should hold them accountable for doing so.

---

*C.D. Howe Institute Commentary*© is a periodic analysis of, and commentary on, current public policy issues. James Fleming edited the manuscript; Yang Zhao prepared it for publication. As with all Institute publications, the views expressed here are those of the authors and do not necessarily reflect the opinions of the Institute's members or Board of Directors. Quotation with appropriate credit is permissible.

To order this publication please contact: the C.D. Howe Institute, 67 Yonge St., Suite 300, Toronto, Ontario M5E 1J8. The full text of this publication is also available on the Institute's website at [www.cdhowe.org](http://www.cdhowe.org).

---

---

## Control over public money is central to democratic government. Canada's senior governments provide a wide range of services, from national defence and policing through social services such as health and education to income supports.

In 2017, their program expenditures and interest payments amounted to some \$782 billion, or 36 percent of gross domestic product. On its face, the assumption that this activity, and the configuration of taxes, fees and borrowing that supports it, reflects the will of Canadians seems reasonable. Budget votes near the beginning of each fiscal year are votes of confidence on which governments stand or fall. Legislatures also vote on estimates to authorize spending – which people might assume would give effect to the plans articulated in the budget. Yet an investigation of results as published in their audited financial statements after year-end reveals not just that governments often miss their budget targets, but that they do so in predictable ways, with spending and revenue routinely coming in above what budgets promised. Over the past 15 years, the cumulative spending overshoot adds up to some \$69 billion, with the Prairie provinces and the Territories showing the biggest overruns. Over the same period, revenue overshot budget projections by an even larger amount: a cumulative \$104 billion.

Despite these sizeable overshoots, there is some optimism to be derived from longer-term trends. Fiscal accountability has improved over the past 15 years. Most Canadian jurisdictions

have been overshooting or undershooting their budgeted spending and revenue figures by smaller amounts over time. Although the pattern of annual under- and overshoots suggests a tendency to spend “windfalls” and/or manage the bottom line, that tendency has become less pronounced over this period. Canadians should insist on more progress where it is occurring and turnarounds in the jurisdictions with bad misses and suspicious patterns. The spending and revenue overshoots remain significant, and the tendency for positive revenue “surprises” to generate positive spending “surprises” suggests that Canada’s senior governments are not exercising care over public funds consistent with their huge influence over Canada’s economy and Canadians’ lives.

### MEASURING FISCAL ACCOUNTABILITY

Formal control over public money is not the same as effective control. Legislatures and their committees do play an important formal role in approving fiscal plans and authorizing many specific expenses. They are critical in authorizing changes in the bases, rates, and other provisions of various taxes. While the bottom line – the difference

---

We thank Frédéric Chartrand, Alexandre Laurin, Kelley McCauley, members of the C.D. Howe Institute’s Fiscal and Tax Competitiveness Council, and several anonymous reviewers for comments on earlier drafts of this paper. We are also grateful to the many people who provided advice and feedback on previous publications in this project. We are responsible for the conclusions and any remaining errors. One of the authors, William Robson, is a member of the Senior Advisory Panel to the Auditor General of Ontario.

between revenues and expenses in the government's statement of operations – reflects many factors that affect both sides of the ledger, and is not something a legislature can control directly, it is also typically a major focus of the fiscal plan. But Norm Betts, a former Minister of Finance in New Brunswick, spoke for many counterparts across the country when he said: “Anyone can balance a budget; balancing the actuals is what is hard!” (Ferguson 2017). What ultimately matters – a critical test of whether control over public money is effective – is the outcome. So meaningful measures of fiscal accountability require comparing intentions to results.

Our investigation comparing intentions to results focuses on the two primary documents at either end of the annual fiscal cycle. Canada's senior governments have fiscal years that run from April 1 to March 31. Budgets come at the beginning of that cycle: legislatures should vote on them before the beginning of the fiscal year. The public accounts, which present the audited results for actual revenues and spending, appear after its end – typically in the summer or fall.

Budgets are the core statement of a government's fiscal priorities. Budget votes are votes of confidence. They typically get extensive legislative debate, wide media coverage and attention from the interested public.

The audited financial statements in the public accounts are the definitive report of the government's annual finances. They are the official record of what a government raised and spent. They should, and typically do, present a consolidated annual statement of all expenses and revenue, with the difference between revenue and expenses representing the change in the government's net worth over the year.

Comparing the spending and revenue projections in the budget at the beginning of the year with the actual amounts reported after year-end should be a straightforward and illuminating way to measure how reliable budgets are, and draw some lessons about narrowing any predictable gaps between projections and results.

## BUDGET PROJECTIONS VERSUS ACTUAL RESULTS

We say “should” in these descriptions, and will use the word several more times. If governments consistently presented expenses and revenue figures that captured the full extent of a government's activities using public sector accounting standards (PSAS), comparing plans and results over time would be simple. We would look at the dollar amounts for spending and revenue in each document and consider the differences between them. The only arithmetic required would be expressing changes in percentages to allow comparisons among jurisdictions of different sizes.

However, all governments did not present comprehensive PSAS-consistent numbers in the past, and many still do not do so today.<sup>1</sup> In those cases, our approach is to use the numbers that a numerate but non-expert reader would identify as the relevant numbers in the respective documents, and base our comparisons on those. To reduce potential distortions from differences in presentation, we calculate percent changes in spending and in revenue from the two documents. That is, in the case of the budget, we calculate the percent changes in expenses and revenue projected for the budget year relative to the year before. In the case of the financial statements in the public accounts, we calculate the percent changes in expenses and revenue for the reporting year (the

1 Evaluating the quality of governments' financial reports is a major project on its own. Our assessment of federal, provincial and territorial governments' financial reporting is in Robson and Omran (2018).

## Box 1: Percent-Change Comparisons of Expenses and Revenues – Some Wrinkles

Using percent-change measures of expenses and revenues to compare plans to results has drawbacks; we do it because it represents the lesser of two evils.

Comparing budgets with financial statements that use different accounting methods would create major distortions. It would treat differences in dollar amounts that reflected items included, excluded or treated differently as overshoots or undershoots. When budgets net items that appear gross in the public accounts, for example, a straightforward comparison of dollar amounts would suggest overshoots on both sides, even if the government had achieved its budget plans exactly.

The percent-change approach, although relatively better, is not free of fault: it could create spurious overshoots and undershoots of a different kind. Suppose a government that uses consistent accounting in its budgets and public accounts presents a budget with projections for the coming year that turn out to be spot on in dollar terms. But suppose also that the preliminary figures for the prior fiscal year in the budget turn out to be wrong. In that case, a comparison of dollar amounts for the upcoming year in the budget with the results for that year when they become available would show exact fulfilment of its commitment. But percent changes calculated from the budget would be based on inaccurate estimates for the prior year, while the percent changes calculated from the public accounts would be based on final numbers, so comparison of the percent changes would show a discrepancy.

While our percent-change method could in principle make governments appear less accurate than they really were, the pattern we find in our survey – that overshoots of budget targets are the typical experience – means that it is likelier to flatter them. More often than not, preliminary figures for the prior year in a budget turn out to be too low. That means projected percent increases calculated from those figures will be too high. And that, in turn, means that actual (even higher) overruns will look closer to the projections. If anything, then, this method may understate the seriousness of government's tendency to overshoot their targets.

same year the budget projections were for) relative to the year before. Contrasting the percent changes in the two documents is not a perfect measure (see Box 1), but it mitigates the danger of identifying over- or under-shoots in expenses or revenue due to differences in presentation, which make dollar amounts consistently different in the budget from what they are in the financial statements.

### Expenses

We look first at what these comparisons show for spending, since the connection between legislative action and financial results is more direct on the spending side. The key figures for the past 15 years appear in Table 1. Projected changes in expenses from the previous year in each year's budget are in the first panel. Actual changes in expenses for the same year, as reported in the public accounts, are

Table 1: Budgeted and Actual Expenses

|         | Announced Expenses Change (percent) |      |      |      |      |      |     |      |      |      |      |      |       |      |
|---------|-------------------------------------|------|------|------|------|------|-----|------|------|------|------|------|-------|------|
|         | Federal                             | BC   | AB   | SK   | MB   | ON   | QC  | NB   | NL   | NS   | PE   | YK   | NT    | NU   |
| 2002/03 | 3.3                                 | -0.3 | -8.1 | -0.8 | 2.2  | 3.5  | 2.0 | 4.4  | 1.5  | 0.9  | 1.3  | -4.4 | 5.1   | 2.0  |
| 2003/04 | 2.8                                 | -2.4 | 0.2  | 3.4  | 4.1  | 7.1  | 4.3 | 4.3  | 5.5  | 3.8  | 4.7  | -6.8 | 5.7   | 3.2  |
| 2004/05 | 2.3                                 | -2.6 | 2.9  | 0.9  | 1.1  | 6.9  | 3.1 | 2.3  | 0.4  | 4.9  | -3.6 | 5.1  | 2.7   | -6.5 |
| 2005/06 | 1.9                                 | 4.7  | 5.7  | 1.1  | 3.5  | 4.2  | 3.3 | 3.2  | 5.5  | 4.2  | 1.4  | 5.0  | 1.5   | -2.3 |
| 2006/07 | 5.0                                 | 3.7  | 4.0  | 0.1  | 3.4  | 2.1  | 4.1 | 1.7  | 3.7  | 6.3  | 2.6  | -3.1 | 0.8   | 2.6  |
| 2007/08 | 4.6                                 | 3.9  | 11.7 | 1.6  | 5.8  | 2.6  | 3.9 | 2.9  | 8.8  | 5.1  | 8.0  | -0.6 | 4.7   | 2.8  |
| 2008/09 | 2.3                                 | 1.1  | 9.7  | 4.6  | 3.3  | 0.2  | 3.6 | 2.7  | 11.1 | 2.5  | 6.4  | -0.9 | -1.5  | 4.0  |
| 2009/10 | 8.9                                 | 4.9  | -1.8 | -0.9 | 1.8  | 11.9 | 3.3 | 5.9  | 12.2 | 6.7  | 9.2  | 4.4  | 1.0   | 1.3  |
| 2010/11 | 4.8                                 | 2.3  | 4.2  | 0.1  | 1.6  | 7.0  | 3.9 | 1.6  | 14.4 | 0.4  | 0.8  | -0.8 | 5.6   | -7.5 |
| 2011/12 | 3.6                                 | 2.2  | 0.5  | -2.5 | 2.3  | 1.0  | 3.5 | -1.6 | 11.8 | 6.2  | 1.3  | -3.4 | 2.9   | -2.5 |
| 2012/13 | 1.2                                 | -1.2 | 3.3  | 1.6  | -3.9 | 1.4  | 3.0 | 1.3  | 2.1  | 3.7  | 1.0  | 4.1  | 0.8   | -7.8 |
| 2013/14 | 0.9                                 | 0.8  | -1.1 | 1.4  | 3.1  | 2.9  | 2.6 | 2.5  | 1.9  | -0.9 | 1.9  | 2.0  | 1.8   | 6.6  |
| 2014/15 | -0.5                                | 1.7  | -4.5 | 1.5  | 1.5  | 2.7  | 1.9 | 1.9  | 3.3  | 1.1  | 0.8  | -1.6 | 7.2   | 0.6  |
| 2015/16 | 2.7                                 | 2.3  | 3.1  | 0.5  | 1.9  | 1.9  | 1.5 | 1.5  | 2.3  | 1.3  | -0.4 | 4.7  | -2.7  | 2.2  |
| 2016/17 | 6.9                                 | 2.3  | 3.6  | 2.0  | 3.2  | 1.4  | 2.5 | 3.5  | 4.8  | 1.9  | 2.3  | 2.8  | -3.9  | 1.4  |
| 2017/18 | 4.8                                 | 2.3  | 2.1  | 2.4  | 3.3  | 4.7  | 3.6 | 3.6  | -3.4 | 3.6  | 3.5  | 1.7  | -10.6 | 4.1  |
|         | Actual Expenses Change (percent)    |      |      |      |      |      |     |      |      |      |      |      |       |      |
|         | Federal                             | BC   | AB   | SK   | MB   | ON   | QC  | NB   | NL   | NS   | PE   | YK   | NT    | NU   |
| 2002/03 | 3.7                                 | 1.1  | -1.5 | 0.6  | 3.1  | 4.0  | 3.7 | 4.3  | 6.2  | 1.9  | 2.2  | 3.4  | 5.4   | 5.0  |
| 2003/04 | 3.4                                 | 1.1  | 6.0  | 6.2  | 7.2  | 7.4  | 3.6 | 3.9  | 8.2  | 6.2  | 12.0 | 9.6  | 5.5   | 7.2  |
| 2004/05 | 10.9                                | 1.5  | 11.2 | 3.8  | 2.6  | 7.5  | 4.8 | 2.1  | -3.1 | 6.6  | 0.3  | 11.6 | 5.4   | 3.0  |
| 2005/06 | -0.7                                | 7.2  | 11.8 | 9.3  | 7.3  | 5.7  | 4.3 | 5.9  | 7.7  | 6.2  | 1.7  | 1.8  | 7.0   | 8.8  |
| 2006/07 | 6.3                                 | 4.8  | 9.1  | 7.4  | 5.4  | 5.0  | 5.4 | 5.3  | 0.2  | 6.2  | 3.2  | 8.0  | 4.1   | 5.4  |
| 2007/08 | 4.8                                 | 7.3  | 20.4 | 3.9  | 8.8  | 9.5  | 5.9 | 7.4  | 6.3  | 8.9  | 8.1  | 7.4  | 10.6  | 7.5  |
| 2008/09 | 2.6                                 | 3.5  | 7.8  | 20.6 | 4.2  | 0.4  | 4.0 | 6.4  | 9.8  | 3.8  | 7.9  | 6.6  | 4.6   | 11.0 |
| 2009/10 | 14.8                                | 2.8  | -1.0 | -2.5 | 4.4  | 11.3 | 9.9 | 5.8  | 16.7 | 3.7  | 11.3 | 10.3 | 2.9   | 4.1  |
| 2010/11 | -1.4                                | 2.3  | 2.7  | 8.6  | 5.1  | 4.9  | 4.6 | 4.6  | 3.5  | -1.8 | 1.1  | 5.6  | 2.8   | 3.3  |
| 2011/12 | 0.4                                 | 6.6  | 5.2  | 0.9  | 10.7 | 1.3  | 3.7 | -1.6 | 3.2  | 6.3  | 3.5  | 2.3  | 3.3   | 6.9  |
| 2012/13 | 0.1                                 | -1.0 | 4.7  | 3.1  | -2.2 | -0.1 | 2.7 | 3.0  | -1.7 | 3.8  | 0.3  | 5.4  | 5.9   | 5.7  |
| 2013/14 | 0.6                                 | 0.4  | 9.1  | -3.2 | 4.0  | 3.1  | 5.1 | -0.4 | 2.3  | 2.9  | 3.6  | 6.2  | 4.5   | 5.6  |
| 2014/15 | 1.3                                 | 2.4  | -2.8 | 1.2  | 3.1  | 2.0  | 0.9 | 4.2  | 0.4  | 0.4  | 0.5  | 2.0  | 13.6  | 4.1  |
| 2015/16 | 5.7                                 | 5.5  | 1.2  | 8.3  | 3.3  | 3.5  | 0.7 | -1.7 | 3.2  | 1.3  | 1.4  | 5.4  | -1.4  | 4.7  |
| 2016/17 | 5.0                                 | 4.1  | 8.4  | -2.0 | 3.7  | 1.4  | 2.1 | 4.2  | 1.5  | 1.2  | 3.8  | 3.4  | 0.0   | 2.4  |

Table 1: Continued

|         | Difference (percent) |      |      |      |     |      |      |      |       |      |      |      |      |      |
|---------|----------------------|------|------|------|-----|------|------|------|-------|------|------|------|------|------|
|         | Federal              | BC   | AB   | SK   | MB  | ON   | QC   | NB   | NL    | NS   | PE   | YK   | NT   | NU   |
| 2002/03 | 0.4                  | 1.4  | 6.5  | 1.3  | 0.9 | 0.5  | 1.7  | -0.1 | 4.7   | 1.0  | 0.9  | 7.8  | 0.3  | 3.0  |
| 2003/04 | 0.6                  | 3.5  | 5.7  | 2.8  | 3.0 | 0.4  | -0.7 | -0.4 | 2.7   | 2.4  | 7.3  | 16.4 | -0.2 | 4.0  |
| 2004/05 | 8.6                  | 4.1  | 8.3  | 2.9  | 1.5 | 0.6  | 1.7  | -0.2 | -3.6  | 1.6  | 3.9  | 6.4  | 2.7  | 9.5  |
| 2005/06 | -2.6                 | 2.5  | 6.1  | 8.1  | 3.8 | 1.5  | 0.9  | 2.8  | 2.2   | 2.1  | 0.3  | -3.3 | 5.4  | 11.1 |
| 2006/07 | 1.3                  | 1.1  | 5.1  | 7.3  | 2.0 | 2.9  | 1.3  | 3.7  | -3.5  | 0.0  | 0.6  | 11.1 | 3.2  | 2.8  |
| 2007/08 | 0.2                  | 3.4  | 8.7  | 2.3  | 3.0 | 6.9  | 1.9  | 4.5  | -2.5  | 3.9  | 0.1  | 7.9  | 5.9  | 4.7  |
| 2008/09 | 0.3                  | 2.4  | -1.9 | 16.0 | 0.9 | 0.2  | 0.4  | 3.7  | -1.2  | 1.3  | 1.5  | 7.5  | 6.1  | 7.1  |
| 2009/10 | 5.9                  | -2.1 | 0.9  | -1.5 | 2.5 | -0.5 | 6.6  | -0.1 | 4.4   | -3.0 | 2.2  | 5.8  | 1.8  | 2.9  |
| 2010/11 | -6.1                 | 0.0  | -1.5 | 8.5  | 3.5 | -2.1 | 0.7  | 3.1  | -10.9 | -2.2 | 0.3  | 6.5  | -2.8 | 10.9 |
| 2011/12 | -3.2                 | 4.4  | 4.7  | 3.4  | 8.4 | 0.3  | 0.2  | 0.0  | -8.6  | 0.1  | 2.3  | 5.7  | 0.4  | 9.4  |
| 2012/13 | -1.1                 | 0.2  | 1.4  | 1.5  | 1.7 | -1.6 | -0.3 | 1.7  | -3.8  | 0.2  | -0.7 | 1.2  | 5.2  | 13.5 |
| 2013/14 | -0.2                 | -0.4 | 10.2 | -4.6 | 0.9 | 0.2  | 2.5  | -2.9 | 0.4   | 3.8  | 1.8  | 4.2  | 2.7  | -1.0 |
| 2014/15 | 1.8                  | 0.7  | 1.8  | -0.2 | 1.6 | -0.7 | -1.0 | 2.3  | -2.9  | -0.7 | -0.2 | 3.6  | 6.4  | 3.5  |
| 2015/16 | 3.0                  | 3.2  | -1.9 | 7.8  | 1.4 | 1.7  | -0.8 | -3.2 | 0.9   | 0.0  | 1.8  | 0.6  | 1.3  | 2.5  |
| 2016/17 | -1.9                 | 1.8  | 4.8  | -4.0 | 0.5 | 0.1  | -0.4 | 0.7  | -3.3  | -0.7 | 1.5  | 0.6  | 3.9  | 0.9  |

Sources: Federal/Provincial/Territorial Budget and Public Accounts documents; authors' calculations.

in the second panel. The differences between them are in the third panel. We summarize the reliability of each government's budget projections over the entire period in Table 2.

Two measures capture key characteristics of governments' fiscal performance:

- Bias, or the average difference between projected and actual changes. This is the arithmetic mean of the differences in the third panel of Table 1. It shows whether governments tended to overshoot or undershoot their budget targets. From the point of view of fiscal accountability, a smaller number – less tendency either way – is better.
- Accuracy, for which we use another standard statistical measure. Squaring the differences in the third panel of Table 1, adding them up and taking the square root of the sum yields an indicator of how far the results tended to be over or under, regardless of direction, from the

projections. This measure penalizes governments with more erratic records. Suppose two governments overshoot and undershoot year by year so that their biases over the period were similar, but one had consistently larger overshoots and undershoots. The accuracy measure would award the government that missed by smaller amounts, as reflected in a smaller number – a better score – and the one that missed by larger amounts, as reflected in a larger number – a worse score.

On the key question of overshooting versus undershooting, the bias measure delivers a clear verdict: over the past 15 years, Canada's senior governments tended to overshoot their budget targets. The average annual spending overshoot was 2.1 percent. That is not a small amount. By comparing each year's actual change to the same year's budgeted change, we let bygones be bygones: each government resets its baseline every year,

Table 2: Bias and Accuracy in Budget Forecasts of Expenses

|                         | Bias                       |                                     |      | Accuracy                               |      | Total<br>Overshoot<br>(\$ millions) | Total<br>Overshoot<br>Compared<br>to 2017/18<br>Expenses<br>(percent) |
|-------------------------|----------------------------|-------------------------------------|------|--|------|-------------------------------------|---|
|                         | Mean<br>Error<br>(percent) | Mean<br>Absolute Error<br>(percent) | Rank | Root Mean<br>Square Error<br>(percent) | Rank |                                     |   |
| Federal                 | 0.5                        | 0.5                                 | 1    | 3.5                                    | 8    | 10,131                              | 3   |
| British Columbia        | 1.7                        | 1.7                                 | 8    | 2.5                                    | 6    | 9,101                               | 18  |
| Alberta                 | 3.9                        | 3.9                                 | 12   | 5.5                                    | 11   | 17,512                              | 32  |
| Saskatchewan            | 3.4                        | 3.4                                 | 11   | 6.2                                    | 12   | 4,231                               | 29  |
| Manitoba                | 2.4                        | 2.4                                 | 9    | 3.0                                    | 7    | 4,049                               | 24  |
| Ontario                 | 0.7                        | 0.7                                 | 3    | 2.2                                    | 3    | 8,676                               | 6   |
| Québec                  | 1.0                        | 1.0                                 | 4    | 2.1                                    | 2    | 12,361                              | 12  |
| New Brunswick           | 1.0                        | 1.0                                 | 5    | 2.5                                    | 5    | 966                                 | 10  |
| Newfoundland & Labrador | -1.7                       | 1.7                                 | 7    | 4.6                                    | 10   | -1,549                              | -19   |
| Nova Scotia             | 0.7                        | 0.7                                 | 2    | 2.0                                    | 1    | 1,041                               | 10  |
| Prince Edward Island    | 1.6                        | 1.6                                 | 6    | 2.5                                    | 4    | 318                                 | 18  |
| Yukon                   | 5.5                        | 5.5                                 | 13   | 7.1                                    | 14   | 620                                 | 47  |
| Northwest Territories   | 2.8                        | 2.8                                 | 10   | 3.9                                    | 9    | 625                                 | 32  |
| Nunavut                 | 5.7                        | 5.7                                 | 14   | 7.0                                    | 13   | 1,108                               | 57  |

Sources: Federal/Provincial/Territorial Budget and Public Accounts documents; authors' calculations.

so each year's surprise is a fresh addition to the surprises that accumulated in previous years. Add up all those annual surprises for all governments and it comes to the aforementioned \$69 billion of unanticipated spending over the period.

To show how each jurisdiction's 15-year overshoot compares to its current budget, the final column of Table 2 compares the cumulative overshoot to budgeted expenses in 2017/18.

While we are not suggesting governments can or should offset these overshoots in a single year, we think it is fair to underline that they represent the accumulation of annual missed targets. If a government had budgeted rapid increases in expenses and hit them, its figure in this column would be zero. So, whatever their planned rates of growth, a number of Canada's senior governments would be looking at spending one-third, or more,

less in the current fiscal year, if they had hit their budget targets over that period.<sup>2</sup>

As for the best and worst records, Ottawa's average overshoots of 0.5 percent gives it the best – that is, the smallest – bias score among the 14 governments. Ontario and Nova Scotia come second at 0.7 percent followed by Quebec<sup>3</sup> and New Brunswick with average overshoots of 1 percent. Saskatchewan and Alberta had the largest overshoots – 3.4 and 3.9 percent, respectively – among the provinces. Yukon and Nunavut – with average overshoots of 5.5 and 5.7 percent, respectively – had the worst records of all.

The accuracy scores tell a slightly different story. Nova Scotia, Quebec and Ontario have the best – which again means the smallest – root average square deviations: 2.0, 2.1, and 2.2 percentage points, respectively. Prince Edward Island, New Brunswick and British Columbia also show a respectable accuracy score of 2.5 percentage points. Alberta and Saskatchewan's budget projections were the least accurate among all provinces, while Yukon and Nunavut's were the worst guides to results among all jurisdictions.

## Revenue

Revenue is less straightforwardly under government control. Post-budget changes in tax rates, for example, are rare, so ups and downs in revenue relative to plan are likelier to reflect policy less, and surprises such as ups and downs in the economy more. A similar review of projected and actual revenue changes nevertheless yields some useful information, including valuable context for understanding misses on the spending side.

Table 3 presents the revenue changes projected in governments' spring budgets over the past 15 years. As Table 1 does for expenses, Table 3 shows budgeted revenue changes in its first panel, actual changes in its second panel and the differences between them in its third panel. Table 4 presents for revenue what Table 2 did for expenses: a summary of each government's performance over the 15-year period. Bias is the average difference between projected and actual revenue changes; accuracy is the square root of the summed squares of the differences, giving heavier weight to larger misses regardless of direction.

- 
- 2 An annual surprise due to an occasional one-time charge (for example, an immediate expensing of a large future liability) or a transitory spending commitment (for example, a response to an economic downturn) should, by its nature, not become part of the spending baseline for the following year. One possible objection to our adding the annual misses over a multi-year period is that after a one-time charge, a government that budgeted a reversal in the following year and achieved it would show no overshoot or undershoot in that following year, so its positive cumulative tally of misses would not indicate a permanent increase in the size of government. But the record of consistent overshoots across the country and over time suggests a more fundamental tendency to overshoot annual budget targets. If one-time events are raising the baseline for the following year, it is fair to say that the misses are causing faster spending trend growth than would have occurred otherwise.
  - 3 Although Quebec is not unique in having inconsistencies in its budget presentations over this period, it provides a notable example of the effect those inconsistencies can have on our measures. From 2004/05 to 2013/14, Quebec prominently and consistently presented General Fund figures in its budgets. The calculations in this report use the General Fund figures as the more prominent figures. If we had used the non-consolidated figures in the Public Accounts for historical years where the budget was presented on a non-consolidated basis, Quebec would rank first in both bias and accuracy of spending overshoots (a small improvement), and second in bias and first in accuracy of revenue overshoots (a significant improvement). Our most recent report card on the financial reports of Canada's senior governments awarded Quebec a C+, with the non-comparability of its budget with the financial statements in its public accounts being an area of weakness (Robson and Omran 2018).

Table 3: Budgeted and Actual Revenues

|         | Announced Revenue Change (percent) |      |       |       |      |      |      |      |       |      |      |      |       |      |
|---------|------------------------------------|------|-------|-------|------|------|------|------|-------|------|------|------|-------|------|
|         | Federal                            | BC   | AB    | SK    | MB   | ON   | QC   | NB   | NL    | NS   | PE   | YK   | NT    | NU   |
| 2002/03 | 0.3                                | -3.6 | -5.6  | 2.3   | 0.6  | 4.9  | 2.0  | 1.2  | 0.7   | 3.1  | -0.4 | -2.4 | -13.1 | -2.5 |
| 2003/04 | 3.4                                | 4.1  | -2.9  | -2.8  | 4.6  | 7.8  | 4.3  | 4.4  | 1.8   | 3.8  | 4.6  | 1.1  | 10.3  | 10.4 |
| 2004/05 | 3.4                                | 3.2  | -9.4  | 1.8   | 4.0  | 14.8 | 3.1  | 4.6  | -3.8  | 4.2  | 3.1  | 2.1  | 6.9   | 2.7  |
| 2005/06 | 2.3                                | 1.1  | -4.9  | -9.2  | -0.3 | 5.9  | 3.3  | 2.8  | 3.5   | 4.4  | 3.1  | 5.0  | 1.9   | 5.4  |
| 2006/07 | 2.8                                | -0.3 | -6.3  | -3.5  | 3.4  | 2.1  | 4.4  | 0.1  | 2.3   | 5.1  | 3.1  | 1.1  | 2.0   | 2.5  |
| 2007/08 | 1.9                                | -1.7 | -4.7  | -6.2  | 5.8  | 2.6  | 1.2  | 2.8  | 12.2  | 5.8  | 8.0  | -3.3 | 4.3   | 2.9  |
| 2008/09 | -1.1                               | -2.3 | 2.2   | -0.3  | 1.3  | 0.4  | 0.1  | 2.7  | -3.4  | 2.3  | 6.8  | 1.0  | -4.5  | 4.5  |
| 2009/10 | -4.9                               | -1.9 | -11.1 | -12.4 | -0.4 | 2.7  | -0.4 | -0.6 | -29.5 | -1.0 | 6.7  | 5.3  | 3.4   | 5.6  |
| 2010/11 | 8.0                                | 5.8  | 1.3   | -0.8  | 1.7  | 10.9 | 2.9  | 1.8  | 5.6   | 3.7  | 3.0  | 7.9  | 5.0   | 5.9  |
| 2011/12 | 5.7                                | 3.6  | 4.7   | -1.8  | 2.0  | 2.2  | 4.8  | 2.1  | -1.1  | -3.1 | 2.1  | 5.6  | 3.0   | 7.0  |
| 2012/13 | 2.8                                | 2.8  | 4.6   | 1.9   | 0.3  | 2.7  | 5.9  | 5.2  | -10.9 | 4.3  | 1.3  | 7.3  | 9.5   | 9.5  |
| 2013/14 | 3.8                                | 4.6  | 1.4   | 1.9   | 3.0  | 2.3  | 5.0  | 1.8  | 0.1   | 3.3  | 2.8  | 2.4  | 2.5   | 2.5  |
| 2014/15 | 4.7                                | 1.9  | -1.5  | -2.2  | 1.1  | 2.8  | 2.9  | 4.3  | 0.5   | 3.7  | 1.6  | 3.7  | 10.8  | 0.8  |
| 2015/16 | 3.9                                | 1.3  | -11.5 | 0.9   | 1.2  | 5.0  | 4.3  | 0.6  | 0.2   | 1.6  | 0.5  | 2.1  | -0.6  | 1.4  |
| 2016/17 | -1.2                               | 2.3  | -3.6  | 1.1   | 3.1  | 3.2  | 3.2  | 5.1  | 15.0  | 3.8  | 3.3  | 2.7  | -0.9  | 1.4  |
| 2017/18 | 4.3                                | -0.1 | 4.8   | 3.4   | 2.9  | 6.4  | 3.7  | 4.1  | 0.3   | 3.0  | 4.6  | 2.7  | 0.7   | 5.1  |
|         | Actual Revenue Change (percent)    |      |       |       |      |      |      |      |       |      |      |      |       |      |
|         | Federal                            | BC   | AB    | SK    | MB   | ON   | QC   | NB   | NL    | NS   | PE   | YK   | NT    | NU   |
| 2002/03 | 3.6                                | -3.3 | 3.4   | 6.6   | 3.3  | 3.6  | 4.2  | -1.3 | 1.4   | 0.5  | -2.7 | 6.8  | -11.2 | 10.5 |
| 2003/04 | 4.4                                | 8.2  | 14.2  | 1.6   | 4.7  | -0.7 | 4.3  | 4.2  | 2.9   | 6.8  | 5.4  | 11.6 | 2.6   | 5.2  |
| 2004/05 | 6.6                                | 14.4 | 13.3  | 18.8  | 11.5 | 13.8 | 4.3  | 9.8  | 6.3   | 8.7  | 9.3  | 12.4 | 12.4  | 9.7  |
| 2005/06 | 4.8                                | 7.7  | 21.4  | 5.5   | 2.3  | 8.2  | 5.5  | 5.7  | 23.9  | 5.6  | 4.8  | 9.8  | 11.3  | 12.5 |
| 2006/07 | 6.2                                | 7.0  | 7.4   | 5.2   | 6.0  | 7.3  | 8.6  | 5.2  | -0.6  | 5.3  | 5.2  | 5.6  | 8.0   | 17.1 |
| 2007/08 | 2.7                                | 3.4  | 0.0   | 13.9  | 9.2  | 7.4  | 5.2  | 4.8  | 29.3  | 11.6 | 5.7  | 2.2  | 11.9  | -5.1 |
| 2008/09 | -3.8                               | -3.7 | -6.2  | 24.9  | 3.4  | -6.8 | -0.3 | 2.1  | 20.9  | -0.7 | 5.7  | 5.4  | -5.3  | 7.8  |
| 2009/10 | -6.2                               | -2.0 | 0.2   | -16.7 | -0.9 | -1.2 | 7.6  | -1.7 | -15.5 | 0.8  | 8.4  | 7.3  | 3.0   | 3.4  |
| 2010/11 | 8.5                                | 6.6  | -1.8  | 7.7   | 4.4  | 11.3 | 5.5  | 6.4  | 11.5  | 7.2  | 2.6  | 7.7  | 1.9   | 6.4  |
| 2011/12 | 3.5                                | 2.6  | 11.1  | 0.5   | 4.6  | 2.4  | 4.6  | 3.6  | 6.5   | -2.5 | 2.7  | 9.3  | 3.9   | 7.2  |
| 2012/13 | 3.0                                | 0.5  | -2.4  | 2.7   | 0.7  | 3.3  | 2.0  | -0.3 | -14.8 | 3.5  | 0.6  | 8.9  | 16.7  | 6.6  |
| 2013/14 | 5.9                                | 4.0  | 16.9  | 0.7   | 4.4  | 2.2  | 6.1  | -0.3 | -0.2  | -0.7 | 5.9  | 3.1  | -0.9  | 6.9  |
| 2014/15 | 3.9                                | 5.5  | 0.1   | -2.5  | 3.7  | 2.3  | 2.9  | 7.2  | -7.5  | 5.7  | 2.1  | 2.3  | 14.4  | 5.2  |
| 2015/16 | 4.6                                | 3.2  | -14.1 | -3.0  | 0.6  | 8.3  | 4.4  | -0.6 | -13.7 | 2.6  | 1.9  | -0.4 | -0.1  | 2.6  |
| 2016/17 | -0.7                               | 8.1  | -0.5  | -0.1  | 4.4  | 3.4  | 2.8  | 6.2  | 19.7  | 2.7  | 4.4  | 3.5  | 2.3   | -0.6 |

Table 3: Continued

|         | Difference (percentage points) |      |      |      |      |      |      |      |       |      |      |      |      |      |
|---------|--------------------------------|------|------|------|------|------|------|------|-------|------|------|------|------|------|
|         | Federal                        | BC   | AB   | SK   | MB   | ON   | QC   | NB   | NL    | NS   | PE   | YK   | NT   | NU   |
| 2002/03 | 3.2                            | 0.3  | 8.9  | 4.3  | 2.7  | -1.3 | 2.2  | -2.5 | 0.7   | -2.5 | -2.3 | 9.1  | 1.9  | 13.0 |
| 2003/04 | 1.0                            | 4.1  | 17.1 | 4.3  | 0.1  | -8.5 | 0.1  | -0.2 | 1.1   | 3.0  | 0.8  | 10.4 | -7.7 | -5.2 |
| 2004/05 | 3.2                            | 11.2 | 22.7 | 17.0 | 7.5  | -1.0 | 1.1  | 5.2  | 10.1  | 4.5  | 6.2  | 10.3 | 5.5  | 7.0  |
| 2005/06 | 2.5                            | 6.7  | 26.3 | 14.6 | 2.6  | 2.3  | 2.3  | 2.9  | 20.4  | 1.2  | 1.7  | 4.8  | 9.3  | 7.0  |
| 2006/07 | 3.4                            | 7.4  | 13.8 | 8.7  | 2.6  | 5.2  | 4.2  | 5.0  | -2.9  | 0.2  | 2.0  | 4.5  | 6.0  | 14.6 |
| 2007/08 | 0.8                            | 5.2  | 4.6  | 20.1 | 3.4  | 4.8  | 4.0  | 2.0  | 17.1  | 5.8  | -2.3 | 5.5  | 7.6  | -8.0 |
| 2008/09 | -2.8                           | -1.4 | -8.4 | 25.2 | 2.0  | -7.2 | -0.4 | -0.6 | 24.3  | -3.0 | -1.1 | 4.4  | -0.8 | 3.3  |
| 2009/10 | -1.4                           | -0.2 | 11.3 | -4.3 | -0.5 | -3.9 | 8.1  | -1.2 | 14.0  | 1.8  | 1.7  | 2.0  | -0.3 | -2.2 |
| 2010/11 | 0.4                            | 0.8  | -3.1 | 8.5  | 2.7  | 0.5  | 2.6  | 4.6  | 5.9   | 3.5  | -0.4 | -0.2 | -3.2 | 0.5  |
| 2011/12 | -2.3                           | -1.0 | 6.4  | 2.3  | 2.6  | 0.3  | -0.2 | 1.4  | 7.5   | 0.6  | 0.7  | 3.6  | 1.0  | 0.2  |
| 2012/13 | 0.2                            | -2.2 | -7.0 | 0.8  | 0.4  | 0.6  | -3.9 | -5.5 | -3.9  | -0.8 | -0.7 | 1.6  | 7.2  | -2.9 |
| 2013/14 | 2.0                            | -0.6 | 15.5 | -1.2 | 1.4  | 0.0  | 1.1  | -2.1 | -0.3  | -4.0 | 3.2  | 0.7  | -3.4 | 4.4  |
| 2014/15 | -0.7                           | 3.5  | 1.6  | -0.3 | 2.5  | -0.5 | -0.1 | 3.0  | -8.0  | 2.0  | 0.5  | -1.4 | 3.6  | 4.3  |
| 2015/16 | 0.7                            | 1.9  | -2.6 | -4.0 | -0.6 | 3.3  | 0.0  | -1.3 | -13.9 | 1.0  | 1.4  | -2.5 | 0.4  | 1.2  |
| 2016/17 | 0.5                            | 5.8  | 3.1  | -1.2 | 1.3  | 0.1  | -0.4 | 1.1  | 4.8   | -1.1 | 1.1  | 0.9  | 3.2  | -2.0 |

Sources: Federal/Provincial/Territorial Budget and Public Accounts documents; authors' calculations.

Even more than for expenses, revenue overshoots are the general experience. The average annual excess of actual over projected revenue across all governments was 2.6 percent over the 15-year period. The total, as noted above, is a substantial \$104 billion.

Some observers of fiscal policy expect governments to over-predict revenue for the sake of producing healthier fiscal projections in their budgets (Jochimsen and Lehmann 2015). Canada's experience is the opposite. Governments' tax take over the past 15 years has been much larger than legislators anticipated when they approved annual budgets.

Who was best and worst? Ontario, the only jurisdiction to over-predict revenue over the period, did so only marginally: its revenue bias was very small, at a negative 0.4 percent. In under-predicting

revenue, Ottawa, Nova Scotia, New Brunswick and PEI also recorded small biases: 0.8 percent or less. Not surprisingly, provinces more dependent on natural resource revenues – which thanks to buoyant prices over most of this period tended to surprise on the upside – had sizeable biases: Alberta, Saskatchewan, and Newfoundland and Labrador were the worst.

As for accuracy in revenue projections, Ottawa's standard deviation of 2.0 percentage points puts it at the head of the class. Predictably, the natural-resource-dependent jurisdictions that are more affected by commodity price swings – Alberta, Saskatchewan and Newfoundland and Labrador – had poor accuracy scores. Ontario's revenue accuracy score is in the middle of the pack, suggesting some luck in its good bias score.

Table 4: Bias and Accuracy in Budget Forecasts of Revenue

|                            | Bias                       |                                     |      | Accuracy                               |      | Total<br>Overshoot<br>(\$ millions) | Total<br>Overshoot<br>Compared<br>to 2017/18<br>Revenues<br>(percent) |
|----------------------------|----------------------------|-------------------------------------|------|--|------|-------------------------------------|---|
|                            | Mean<br>Error<br>(percent) | Mean<br>Absolute Error<br>(percent) | Rank | Root Mean<br>Square Error<br>(percent) | Rank |                                     |   |
| Federal                    | 0.7                        | 0.7                                 | 2    | 2.0                                    | 1    | 24,650                              | 8   |
| British Columbia           | 2.8                        | 2.8                                 | 10   | 4.7                                    | 8    | 14,471                              | 28  |
| Alberta                    | 7.4                        | 7.4                                 | 14   | 12.5                                   | 14   | 32,299                              | 72  |
| Saskatchewan               | 6.3                        | 6.3                                 | 13   | 10.9                                   | 12   | 7,492                               | 53  |
| Manitoba                   | 2.1                        | 2.1                                 | 8    | 2.8                                    | 3    | 3,175                               | 20  |
| Ontario                    | -0.4                       | 0.4                                 | 1    | 3.7                                    | 7    | -2,009                              | -1  |
| Québec                     | 1.4                        | 1.4                                 | 6    | 3.0                                    | 5    | 16,074                              | 15  |
| New Brunswick              | 0.8                        | 0.8                                 | 3    | 3.1                                    | 6    | 710                                 | 8   |
| Newfoundland &<br>Labrador | 5.1                        | 5.1                                 | 12   | 11.5                                   | 13   | 4,486                               | 61  |
| Nova Scotia                | 0.8                        | 0.8                                 | 4    | 2.8                                    | 4    | 1,316                               | 12  |
| Prince Edward Island       | 0.8                        | 0.8                                 | 5    | 2.3                                    | 2    | 193                                 | 11  |
| Yukon                      | 3.6                        | 3.6                                 | 11   | 5.3                                    | 10   | 339                                 | 25  |
| Northwest Territories      | 2.0                        | 2.0                                 | 7    | 5.0                                    | 9    | 457                                 | 25  |
| Nunavut                    | 2.3                        | 2.3                                 | 9    | 6.5                                    | 11   | 506                                 | 26  |

Sources: Federal/Provincial/Territorial Budget and Public Accounts documents; authors' calculations.

## ARE REVENUE SURPRISES ASSOCIATED WITH SPENDING SURPRISES?

Considering overshoots and undershoots of expenses and revenue together lets us probe deeper into why governments miss their targets.

### Why Might Spending and Revenue Vary Together?

Coming at it cold, someone might predict that spending and revenue surprises would be negatively correlated. That would be consistent with a well-

known prescription for fiscal management: that governments should let revenues rise or fall with economic booms and busts and let spending do the opposite, falling when a robust economy reduces demand for income supports and discretionary stimuli and rising when a slump has the opposite effect. Whether that kind of countercyclical policy does much to stabilize the economy is a matter of debate, but it can certainly reduce disruptive changes in tax rates and programs.

The record of the past 15 years, however, shows the opposite pattern: positive correlations between surprises on the two sides of the ledger.

Governments reporting higher-than-projected revenues in a given year also tended to report higher-than-expected spending in the same year, with larger revenue surprises tending to coincide with larger spending surprises (Table 5).

In every jurisdiction but Nova Scotia and Nunavut, the correlation coefficient is positive. In six jurisdictions it exceeds the 0.44 figure that standard statistical tests say is significant for this many observations. Why might this pattern – so inconsistent with the well-known prescription for fiscal management – exist? A cyclical explanation for positive correlations – that economic booms (or busts) both unexpectedly boost (or depress) revenue and generate unexpectedly high (or low) demand for public infrastructure and facilities such as schools – seems implausible because we are looking at annual measures. Those impacts on demand for services would more likely affect multi-year performance, since much of the higher or lower demand would affect capital spending, which is less subject to in-year surprises.

### A Troubling Pattern: Spending and Revenue Surprises Tend to Coincide

If cyclical explanations are unconvincing, a less happy alternative deserves notice: that governments low-ball revenue in their budgets to leave room for in-year spending sprees. Another unhappy alternative explanation would be that governments are manipulating their reported numbers. The difference between expenses and revenue typically gets more attention than the levels of each on their own, tempting governments to massage one or the other or both to achieve a predetermined bottom line. Because negative correlations are more consistent with traditional fiscal stabilization and positive correlations are more likely to signal trouble of one kind or another, we rank the results in Nova Scotia and Nunavut as relatively good and those in Ontario, Saskatchewan, Alberta, Quebec, Yukon and the Northwest Territories as relatively bad.

**Table 5: Correlation of “Surprises”**

|                         | Coefficient | Rank |
|-------------------------|-------------|------|
| Federal                 | 0.18        | 5    |
| British Columbia        | 0.42        | 7    |
| Alberta                 | 0.72        | 13   |
| Saskatchewan            | 0.64        | 12   |
| Manitoba                | 0.08        | 4    |
| Ontario                 | 0.49        | 9    |
| Québec                  | 0.82        | 14   |
| New Brunswick           | 0.43        | 8    |
| Newfoundland & Labrador | 0.04        | 3    |
| Nova Scotia             | -0.05       | 2    |
| Prince Edward Island    | 0.40        | 6    |
| Yukon                   | 0.58        | 10   |
| Northwest Territories   | 0.64        | 11   |
| Nunavut                 | -0.09       | 1    |

Note: The 15-year period makes the statistically significant correlation about 0.44 with a two-tailed 10 percent significance level.

Sources: Federal/Provincial/Territorial Budget and Public Accounts documents; authors’ calculations.

### HAS CONTROL OVER SPENDING AND REVENUE IMPROVED?

The economic climate has changed in many ways over the past 15 years. The first five years featured robust growth. The second five featured the financial crisis and a slump. The final five featured slow, uncertain growth. Public attitudes toward fiscal policy and the political complexion of various jurisdictions shifted many times. It is natural to wonder if these differing circumstances affected Canadian governments’ performance in hitting their budget targets.

## Results versus Intentions

Most indicators of fiscal management registered better during the past five years than during the first five. We summarize the bias and accuracy scores for each government, separating the results into three five-year periods, in Table 6. Since our concern is not whether spending (or revenue) is too high or too low in general, we treat biases up or down as equally problematic and compare their absolute values.

On the spending side, all but two of the 14 jurisdictions recorded smaller biases in the final five years than in the first five, lowering the national average figure. Accuracy also improved nearly everywhere, with only the Northwest Territories showing a notable deterioration.

On the revenue side, improvements are even more pronounced. All of the 14 governments recorded smaller bias scores in the past five years than in the first five. Accuracy scores improved almost everywhere, typically by large amounts.

## Correlations between Spending and Revenue Surprises

A more mixed picture emerges from comparing the correlations of the surprises during the three five-year sub-periods (Table 7). However, if negative correlations between spending and revenue surprises are suggestive of automatic stabilization (good) and positive correlations are suggestive of massaging the bottom line (bad), we can say that more governments moved in a positive direction, towards a lower correlation, than in a negative direction through a higher correlation.

## IMPROVING FISCAL ACCOUNTABILITY IN CANADA

To summarize to this point, we note a tendency for end-of-year results to match budget projections more closely in more recent years. But the chronic

nature of spending and revenue overshoots, and suspicious positive correlations between the two, suggest scope for improvements.

## Estimates: A Weak Link in the Accountability Chain

One potential contributor to gaps between budget projections and actual results concerns the estimates. In most jurisdictions, the estimates that legislatures vote to authorize spending on particular programs do not straightforwardly link to the budget projections and to the fiscal plan.

In many cases, the estimates use different accounting methods – a legacy of the days when governments voted on a cash basis, despite the fact that PSAS now mandate accrual accounting. Another discrepancy between estimates and budget projections arises when subcomponents prepared using similar accounting methods are added up differently. To their credit, several Atlantic provinces generally set a good example in this regard, releasing estimates consistent with the budget projections simultaneously with their budgets. In western provinces, by contrast, the estimates generally come weeks later and are not easily reconciled to budget figures. The federal government is bringing its estimates into closer conformity with its budget, but if it reconciles a smaller total in its estimates with a larger total in its budget using a dollar figure of expenses for unspecified purposes, legislators cannot be truly said to be in control.

The timing of estimates is also an issue in many jurisdictions. As noted already, the Atlantic provinces release their main estimates simultaneously with their budgets. Other governments, however, do not. Ottawa releases its Main Estimates on March 1<sup>st</sup> – commendable in that it precedes the fiscal year, but unhelpful in not being synchronized with the federal budget. Worse, Ottawa proposes to delay tabling its Main

**Table 6: Changes in Bias and Accuracy by Five-Year Periods**

|  | Expenses (percent) |             |              |             |             |             |             |             |             |             |             |             |             |             | National Average |
|--|--------------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|
|  | Federal            | BC          | AB           | SK          | MB          | ON          | QC          | NB          | NL          | NS          | PE          | YK          | NT          | NU          |                  |
| <b>Bias:</b>                             |                    |             |              |             |             |             |             |             |             |             |             |             |             |             |                  |
| First 5 years                            | 0.8                | 2.8         | 4.8          | 3.3         | 1.9         | 0.8         | 0.7         | 0.6         | 1.2         | 2.4         | 3.2         | 6.9         | 2.5         | 6.7         | 2.8              |
| Middle 5 years                           | 0.3                | 1.0         | 2.3          | 6.5         | 2.4         | 1.5         | 2.2         | 3.0         | -2.7        | 0.0         | 0.9         | 7.8         | 2.9         | 5.7         | 2.4              |
| Last 5 years                             | 0.0                | 1.6         | 3.2          | 1.6         | 2.8         | 0.0         | 0.1         | -0.4        | -2.8        | 0.7         | 1.0         | 3.1         | 3.2         | 9.7         | 1.7              |
| <b>Difference (last – first 5 years)</b> | <b>-0.7</b>        | <b>-1.3</b> | <b>-1.6</b>  | <b>-1.7</b> | <b>0.9</b>  | <b>-0.8</b> | <b>-0.5</b> | <b>-1.0</b> | <b>-4.0</b> | <b>-1.7</b> | <b>-2.3</b> | <b>-3.8</b> | <b>0.7</b>  | <b>3.0</b>  | <b>-1.1</b>      |
| <b>Accuracy:</b>                         |                    |             |              |             |             |             |             |             |             |             |             |             |             |             |                  |
| First 5 years                            | 4.3                | 3.0         | 6.1          | 4.1         | 2.3         | 0.9         | 1.2         | 1.3         | 3.1         | 2.7         | 4.1         | 9.3         | 3.4         | 7.4         | 3.8              |
| Middle 5 years                           | 3.9                | 2.2         | 4.7          | 8.8         | 2.6         | 3.5         | 3.2         | 3.4         | 5.6         | 2.5         | 1.2         | 8.0         | 4.3         | 6.4         | 4.3              |
| Last 5 years                             | 2.2                | 2.4         | 5.2          | 4.4         | 3.9         | 1.1         | 1.2         | 2.3         | 4.4         | 1.7         | 1.6         | 3.6         | 3.9         | 10.1        | 3.4              |
| <b>Difference (last – first 5 years)</b> | <b>-2.1</b>        | <b>-0.5</b> | <b>-0.9</b>  | <b>0.2</b>  | <b>1.6</b>  | <b>0.2</b>  | <b>0.1</b>  | <b>1.0</b>  | <b>1.4</b>  | <b>-0.9</b> | <b>-2.5</b> | <b>-5.7</b> | <b>0.6</b>  | <b>2.7</b>  | <b>-0.4</b>      |
|  | Revenues (percent) |             |              |             |             |             |             |             |             |             |             |             |             |             | National Average |
|  | Federal            | BC          | AB           | SK          | MB          | ON          | QC          | NB          | NL          | NS          | PE          | YK          | NT          | NU          |                  |
| <b>Bias:</b>                             |                    |             |              |             |             |             |             |             |             |             |             |             |             |             |                  |
| First 5 years                            | 2.2                | 2.9         | 14.4         | 8.2         | 2.4         | -1.7        | 0.8         | 1.8         | 5.0         | 1.1         | 2.0         | 5.9         | 3.3         | 2.4         | 3.6              |
| Middle 5 years                           | 0.1                | 2.4         | 3.7          | 11.6        | 2.0         | -0.1        | 3.7         | 2.0         | 11.7        | 1.6         | 0.0         | 3.2         | 1.9         | 1.6         | 3.2              |
| Last 5 years                             | 0.0                | 0.3         | 2.8          | -0.5        | 1.3         | 0.7         | -0.6        | -0.9        | -3.7        | -0.2        | 1.0         | 0.4         | 1.8         | 0.2         | 0.2              |
| <b>Difference (last – first 5 years)</b> | <b>-2.2</b>        | <b>-2.6</b> | <b>-11.6</b> | <b>-8.7</b> | <b>-1.2</b> | <b>2.5</b>  | <b>-1.4</b> | <b>-2.6</b> | <b>-8.8</b> | <b>-1.3</b> | <b>-1.0</b> | <b>-5.5</b> | <b>-1.5</b> | <b>-2.2</b> | <b>-3.4</b>      |
| <b>Accuracy:</b>                         |                    |             |              |             |             |             |             |             |             |             |             |             |             |             |                  |
| First 5 years                            | 2.4                | 7.0         | 17.8         | 10.4        | 3.8         | 4.0         | 1.7         | 3.3         | 10.7        | 2.7         | 3.5         | 8.3         | 6.9         | 8.8         | 6.5              |
| Middle 5 years                           | 2.1                | 4.1         | 9.2          | 15.5        | 2.4         | 4.8         | 4.6         | 3.2         | 15.0        | 3.4         | 1.7         | 3.8         | 4.6         | 7.7         | 5.9              |
| Last 5 years                             | 1.4                | 2.1         | 8.2          | 2.2         | 1.8         | 1.5         | 1.8         | 3.1         | 8.1         | 2.1         | 1.6         | 2.2         | 3.9         | 1.3         | 3.0              |
| <b>Difference (last – first 5 years)</b> | <b>-1.0</b>        | <b>-4.9</b> | <b>-9.6</b>  | <b>-8.3</b> | <b>-2.0</b> | <b>-2.5</b> | <b>0.1</b>  | <b>-0.2</b> | <b>-2.6</b> | <b>-0.7</b> | <b>-1.8</b> | <b>-6.1</b> | <b>-2.9</b> | <b>-7.5</b> | <b>-3.6</b>      |

Sources: Federal/Provincial/Territorial Budget and Public Accounts documents; authors' calculations.

Table 7: Correlation of Surprises, by Five-Year Periods

|                         | Correlation of Surprises |                |              |                                      |
|-------------------------|--------------------------|----------------|--------------|--------------------------------------|
|                         | First 5 years            | Middle 5 years | Last 5 years | Difference<br>(last – first 5 years) |
|                         | (percent)                |                |              |                                      |
| Federal                 | 0.33                     | -0.24          | -0.21        | -0.55                                |
| British Columbia        | 0.50                     | 0.18           | 0.53         | 0.03                                 |
| Alberta                 | 0.33                     | 0.55           | 0.89         | 0.56                                 |
| Saskatchewan            | 0.42                     | 0.72           | -0.54        | -0.96                                |
| Manitoba                | -0.44                    | 0.28           | -0.14        | 0.30                                 |
| Ontario                 | 0.83                     | 0.61           | 0.71         | -0.11                                |
| Québec                  | 0.56                     | 0.94           | 0.37         | -0.19                                |
| New Brunswick           | 0.53                     | 0.36           | 0.22         | -0.31                                |
| Newfoundland & Labrador | 0.08                     | 0.65           | -0.43        | -0.50                                |
| Nova Scotia             | 0.53                     | 0.15           | -0.83        | -1.36                                |
| Prince Edward Island    | 0.22                     | 0.79           | 0.83         | 0.61                                 |
| Yukon                   | 0.48                     | 0.58           | 0.02         | -0.46                                |
| Northwest Territories   | 0.87                     | 0.64           | 0.66         | -0.21                                |
| Nunavut                 | -0.15                    | 0.54           | -0.60        | -0.46                                |
| National Average        | 0.36                     | 0.48           | 0.11         | -0.26                                |

Sources: Federal/Provincial/Territorial Budget and Public Accounts documents; authors' calculations.

Estimates until April 16<sup>th</sup>, which would begin the process of parliamentary approval well after the fiscal year has begun (Robson and Omran 2018).

### Legislators Should Consider Spending Votes in the Context of the Fiscal Plan

Improvements in the format and timing of the estimates would help legislators do their jobs better, but would not on their own produce meaningful improvements in accountability. Legislators need to devote more time and attention to the process of appropriating funds.

As the scale and scope of government spending expanded over the past half-century, legislatures delegated estimates approval and oversight to committees. Commentators regularly complain that committees do not always take the trouble, or receive the support they need, to vet the numbers before voting (Aucoin and Jarvis 2005, Hepburn 2006, Page, Martin and Plamondon 2015). Genuine scrutiny would mean actively considering and voting, both in the relevant committee and in the legislature as a whole.

Perhaps committees would do their job more diligently if they had power to change allocations –

by some limited amount such as 5 percent (House of Commons 2003, Good 2005). As matters stand, votes on estimates are “yes, no, or reduce” votes. Few result in changes. Even marginal influence over the direction of funds might induce members to study the estimates harder and actually exercise the powers they have.

The need for legislatures to consider the main estimates in the context of the fiscal plan applies with equal force to the supplementary estimates that authorize spending later in the fiscal year. These, coming at irregular intervals when legislatures are occupied with other matters, get even less scrutiny than the main estimates – yet are no less critical to determining whether a government will hit its budget targets.

Consider the fraught question of budgetary reserves for revenue shortfalls or contingent spending. Natural disasters are frequent contributors to budget overruns. Indeed, floods and wildfires were important factors in Alberta’s recent spending overshoots. In our view, the best course of action is for governments to prefigure some such spending by relevant departments in their budgets. Others will prefer to add a general contingency reserve.

Either way, legislators need timely and context-relevant information as the government’s spending rolls out during the fiscal year. If happy circumstances mean that some spending allocations lapse, that is all to the good – the relative absence of spending undershoots during the 15 years we review suggests that shortfalls in one area will usually offset some of the excesses elsewhere. Where governments use contingency reserves, parliamentary scrutiny is critical to preventing their use as slush funds to cover spending that would not otherwise pass inspection.

### **Year-End Results Should be Timely**

Another area that we think can foster better achievement of fiscal targets is timely publication of interim and final results. Much government

spending does not require annual authorization: seniors’ benefits and Employment Insurance are two prominent examples of federal programs that run on ongoing statutory authority. As noted already, ups and downs of revenue related to business cycles, commodity prices, and other economic developments outside governments’ control occur all the time. Governments that want to achieve their fiscal targets in the face of unexpected developments need – like any organization – timely operational and financial information to adjust course. In the case of federal and provincial governments, speed in assembling the information that appears in periodic updates and in the audited financial statements improves the prospects for a realistic budget plan.

There is no good reason why financial results for a year ending March 31 should still be a mystery more than one quarter later. Some governments table and/or publish quickly. Alberta’s legislation requires publication of its public accounts before the end of June. Most, however, receive their auditors’ approvals and produce their reports far later. Manitoba’s legislative date for tabling the public accounts is no later than September 30, which, not surprisingly, is the date that they are often released. Rarely are they produced earlier (Robson and Omran 2018). In our view, June 30 would be a good deadline by which all governments should table and release their public accounts. With modern information technology, there is no reason why all senior governments should not publish equally timely quarterly or even monthly fiscal monitors. Doing so would enhance the opportunities for legislators and the interested public to spot deviations between projections and results, and call governments to account for them.

### **CANADA’S SENIOR GOVERNMENTS CAN BETTER HIT THEIR TARGETS**

With governments playing such massive roles in Canada’s economy and our lives, we need

---

transparency and accountability in fiscal policy as much as we need it anywhere. The results summarized in this report suggest that Canada's senior governments have improved their stewardship of public money over the past 15 years. Yet the astonishing amounts by which spending and revenues have exceeded the amounts approved by legislators at budget time over that period shows that control of public funds in Canada is still far looser than it should be.

Not only are overshoots of spending and revenue chronic, the positive correlation of these "surprises" in most jurisdictions, in most periods, suggests that governments are more intent on managing their annual bottom lines than they are on managing their economies and keeping their eyes on the long term. Canada's senior governments should improve their adherence to targets, and legislators and voters should hold them accountable for doing so.

---

## REFERENCES

- Adrian, Reid, Yvan Guillemette, and William B.P. Robson. 2007. *Missed Targets: Canada's 2007 Fiscal Accountability Ranking*. Backgrounder 100. Toronto: C.D. Howe Institute. March.
- Aucoin, Peter, and Mark Jarvis. 2005. *Modernizing Government Accountability: A Framework for Reform*. Canadian School of Public Service.
- Busby, Colin, and William B.P. Robson. 2008. *Off The Mark: Canada's 2008 Fiscal Accountability Rankings*. Backgrounder 112. Toronto: C.D. Howe Institute. April.
- . 2009. *Near Hits and Big Misses: Canada's 2009 Fiscal Accountability Rankings*. Backgrounder 117. Toronto: C.D. Howe Institute. April.
- . 2010. *Target Practice Needed: Canada's 2010 Fiscal Accountability Rankings*. Backgrounder 129. Toronto: C.D. Howe Institute. May.
- . 2011. *Impulse Spending: Canada's 2011 Fiscal Accountability Rankings*. Backgrounder 142. Toronto: C.D. Howe Institute. September.
- . 2013. *Canada's 2012 Fiscal Accountability Rankings*. Commentary 373. Toronto: C.D. Howe Institute. February.
- . 2014. *Credibility on the (Bottom) Line: The Fiscal Accountability of Canada's Senior Governments, 2013*. Commentary 404. Toronto: C.D. Howe Institute. March.
- . 2015. *By the Numbers: The Fiscal Accountability of Canada's Senior Governments, 2015*. Commentary 424. Toronto: C.D. Howe Institute. April.
- Dachis, Benjamin, and William B.P. Robson. 2011. *Holding Canada's Cities to Account: An Assessment of Municipal Fiscal Management*. Backgrounder 145. Toronto: C.D. Howe Institute. November.
- . 2014. *Baffling Budgets: The Need for Clearer and More Comprehensive Financial Reporting by Canada's Municipalities*. Commentary 397. Toronto: C.D. Howe Institute. January.
- Ferguson, Michael. 2017. *Why is more attention not paid to government financial statements?* Presentation to the CPA Canada Public Sector Conference. Ottawa. October 23.
- Good, David. 2005. *Parliament and Public Money: Players and Police*. *Canadian Parliamentary Review*. 28 (1): 17-21.
- Hepburn, Wendy. 2006. *A Question of Confidence: Parliamentary Scrutiny of the Estimates of the Government of Canada in Theory and Practice*. Canadian Study of Parliament Group. National Essay Competition Winner.
- House of Commons. 2012. *Strengthening Parliamentary Scrutiny of Estimates and Supply*. Report of the Standing Committee on Government Operations and Estimates. Ottawa. June. Available at: <http://parl.gc.ca/HousePublications/Publication.aspx?Language=E&Mode=1&Parl=41&Ses=1&DocId=5690996&File=0>.
- . 2003. *Meaningful Scrutiny: Practical Improvements to the Estimates Process*. Report of the Standing Committee on Government Operations and Estimates. September.
- Jochimsen, Beate Regina, and Robert Lehmann. 2015. *Do OECD countries cheat with their national tax revenue forecasts?* Beiträge zur Jahrestagung des Vereins für Socialpolitik 2015: Ökonomische Entwicklung – Theorie und Politik – Session: Taxation, No. G15-V3.
- Provincial Auditor, Saskatchewan. 2013. *2013 Special Report: The Need to Change – Modernizing Government Budgeting and Financial Reporting in Saskatchewan*. Available at: [https://auditor.sk.ca/pub/publications/public\\_reports/2013/2013-SpecialReport-Government-Finances-Final.pdf](https://auditor.sk.ca/pub/publications/public_reports/2013/2013-SpecialReport-Government-Finances-Final.pdf).
- Robson, William B.P., and Farah Omran. 2018. *The Numbers Game: Rating the Fiscal Accountability of Canada's Senior Governments*. Commentary 511. Toronto: C.D. Howe Institute. May 1.

---

NOTES:

---

---

NOTES:

---

## RECENT C.D. HOWE INSTITUTE PUBLICATIONS

- May 2018 Robson, William B.P., and Farah Omran. *The Numbers Game: Rating the Fiscal Accountability of Canada's Senior Governments, 2018*. C.D. Howe Institute Commentary 511.
- May 2018 Blomqvist, Åke, and Frances Woolley. *Filling the Cavities: Improving the Efficiency and Equity of Canada's Dental Care System*. C.D. Howe Institute Commentary 510.
- avril 2018 Busby, Colin. *Pas seulement pour les enfants : comment améliorer la surveillance et la couverture vaccinale chez les adultes au Canada*. Institut C.D. Howe commentaire N° 509.
- April 2018 Busby, Colin. *Not Just for Kids: How to Improve Adult Vaccination Uptake in Canada*. C.D. Howe Institute Commentary 509.
- April 2018 Moore, Aaron A. "Buildings with Benefits: The Defect of Density Bonusing." C.D. Howe Institute E-Brief.
- April 2018 Kronick, Jeremy. *Productivity and the Financial Sector – What's Missing?* C.D. Howe Institute Commentary 508.
- April 2018 Robson, William B.P. "Healthcare Costs in Canada: Stopping Bad News Getting Worse." C.D. Howe Institute E-Brief.
- March 2018 Niblett, Anthony. *Regulatory Reform in Ontario: Machine Learning and Regulation*. C.D. Howe Institute Commentary 507.
- March 2018 Ambler, Steve, and Jeremy Kronick. *Faulty Transmissions: How Demographics Affect Monetary Policy in Canada*. C.D. Howe Institute Commentary 506.
- March 2018 Dachis, Benjamin. *Fiscal Soundness and Economic Growth: An Economic Program for Ontario*. C.D. Howe Institute Commentary 505.
- March 2018 Robson, William B.P., and Parisa Mahboubi. "Inflated Expectations: More Immigrants Can't Solve Canada's Aging Problem on Their Own." C.D. Howe Institute E-Brief.
- March 2018 Feldman, Michael K. *The Case for Longer Mortgages: Addressing the Mismatch between Term and Amortization*. C.D. Howe Institute Commentary 504.

## SUPPORT THE INSTITUTE

For more information on supporting the C.D. Howe Institute's vital policy work, through charitable giving or membership, please go to [www.cdhowe.org](http://www.cdhowe.org) or call 416-865-1904. Learn more about the Institute's activities and how to make a donation at the same time. You will receive a tax receipt for your gift.

## A REPUTATION FOR INDEPENDENT, NONPARTISAN RESEARCH

The C.D. Howe Institute's reputation for independent, reasoned and relevant public policy research of the highest quality is its chief asset, and underpins the credibility and effectiveness of its work. Independence and nonpartisanship are core Institute values that inform its approach to research, guide the actions of its professional staff and limit the types of financial contributions that the Institute will accept.

For our full Independence and Nonpartisanship Policy go to [www.cdhowe.org](http://www.cdhowe.org).



**C.D. HOWE**  
INSTITUTE

67 Yonge Street, Suite 300,  
Toronto, Ontario  
M5E 1J8

Canadian Publication Mail Sales  
Product Agreement #40003848