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Numbers You can Trust? The Fiscal Accountability of Canada's Senior Governments, 2017

Despite improvements in the financial reporting of Canada's senior governments over the past 15 years, too many still present opaque numbers, fail to satisfy their legislative auditors, take too long to present budgets or report year-end results, and spend far more than they budgeted. Governments should provide better financial documents, and voters and legislators need to use those documents to hold governments to account for their use of public funds.

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THE STUDY IN BRIEF

Canadians entrust their governments with major responsibilities, and pay taxes and underwrite borrowing to fund them. Financial reports are a vital tool for understanding governments' financial plans and activities. Over the past 15 years, federal, provincial and territorial governments have done much to improve the transparency of their reports, and most of them have come closer to delivering on their budget promises. Yet too many continue to present opaque numbers, fail to satisfy their legislative auditors, take too long to present budgets or report, and spend far more than they budgeted.

This latest edition of the C.D. Howe Institute's annual report on the fiscal accountability of Canada's senior governments assesses the quality of their financial information, and their success or failure in achieving their budgetary goals over the past 15 years.

In looking at the quality of governments' financial reporting, it asks whether an intelligent and motivated non-expert – a citizen, taxpayer or legislator – can get valid, timely and readily understood figures for total revenue and spending in the budget each government presents at the beginning of the year, and in the financial statements released with its public accounts at the end of the year.

Alberta and New Brunswick earn the top scores for the quality and timeliness of their budgets and public accounts, with the federal government and British Columbia also doing well. Newfoundland and Labrador and Nova Scotia, though not in the top tier, have improved markedly. Quebec and Prince Edward Island do relatively poorly among the provinces, and Northwest Territories and Nunavut also present figures that our idealized reader would struggle to find and interpret.

On the question of accuracy in hitting budget targets, the overall record is one of significant overshoots of both spending and revenue. On average, over all governments and all 15 years, governments spent 2.3 percent more than budgeted, which cumulates to a remarkable \$69 billion. The Prairie provinces and the territories recorded the worst overruns; Ontario and Quebec did much better.

Over the same period, revenues also overshot projections by 2.3 percent annually, cumulating to \$95 billion more than budgeted. Although the overshoots tended to get smaller over the 15 years, a suspicious pattern of in-year spending “surprises” coinciding with in-year revenue “surprises” suggests less than prudent management of public funds.

Legislators and Canadians generally should push senior governments to produce timelier, more transparent and reliable financial information, and should use that information to hold governments to account – at budget time, and throughout the fiscal year.

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In virtually every area of organized society, we need some people to act on behalf of others. Especially when money is involved, ensuring that these guardians perform their fiduciary duties honestly, rather than serving their own private interests, is essential. Nowhere is this more important than in the case of governments acting as stewards of the public purse.

In Canada, governments provide a wide range of services, from national defence and policing through social services such as health and education to income supports. In 2016, program expenditures and interest payments on the public debt amounted to some 40 percent of gross domestic product (GDP). When it comes to that debt, the federal and provincial governments have legally unlimited authority to borrow to cover spending they do not fund with taxes and fees. Ensuring that taxpayers and citizens can monitor, influence and react to the resources their elected representatives and officials manage is central to democratic government.

As in many other areas of activity, financial reports are a key tool for monitoring agents' behaviour – whether they are acting in their principals' interests rather than their own. A key example: the audited financial statements senior governments publish in their public accounts after the end of each fiscal year. Among other useful information, these include statements of operations showing revenue and expenditure, as well as statements of financial position showing how the government's net worth has changed over the reporting period.

The audited statements provide another critical measurement when compared to the spending intentions governments present in their budgets at the beginning of the fiscal year. So the quality of federal, provincial and territorial governments' public accounts and budgets – how faithfully they reflect their actions and their plans, and how readily readers of those documents can find and interpret the information – is vitally important and the focus of this *Commentary*.

Our concern in the pages that follow is with the relevance, accessibility, timeliness and reliability of these government financial reports. It is not about whether governments spend and tax too much or too little, whether they should be running surpluses or deficits, or whether their programs are effective or misguided. It is instead about whether Canadians can get the information they need to make judgments on these issues and act to correct any problems they discover – more specifically, whether each government's budgets and financial reports let legislators and voters accurately understand its fiscal plans and hold it to account for fulfilling those plans.

We begin by assessing the clarity and reliability of governments' financial reporting. Our perspective is that of an intelligent and motivated, but non-expert, reader of a government's three principal financial documents: the budget it presents at the beginning of the fiscal year, the estimates legislators vote to approve specific program spending, and the audited financial statements in the public accounts that report the year-end results.¹ We ask how readily that person – who might be a legislator or a concerned citizen – could find and understand the numbers in each of these documents, and use them to compare the revenue and spending projected at the beginning of the year with what legislators voted, and with total revenue and spending collected and disbursed by year end.

Such a reader looking at the budgets and public accounts of Alberta and New Brunswick would find the task easy. These provinces display the relevant numbers prominently and use consistent accounting and aggregation in their budgets and public accounts. Moreover, related elements of their financial reporting – tables that reconcile results with budget intentions and auditors' reports that record no reservations – are also positive indicators. As well, these provinces have tended to produce timely numbers: New Brunswick tables its budget before the start of the fiscal year and Alberta releases its public accounts fairly soon after its end.

However, our reader would have a tougher time with other governments. The reasons vary. Accounting and/or presentation methods may differ among budget, estimates and public accounts documents; key revenue and spending figures may be buried hundreds of pages deep

into the document or confusingly mixed with other numbers. Timeliness can be a problem: governments sometimes present budgets after substantial amounts have already been committed or even spent, and public accounts can be so late that much of the following fiscal year has elapsed before a definitive baseline for comparisons is available.

We assign letter grades to governments for the quality of these numbers. The growing number of As represents progress in accountability. Two decades ago, none of Canada's senior governments budgeted and reported spending on the same accounting basis; today, consistent accounting is the rule. Moreover, the improvements are continuing. Alberta and New Brunswick, with A-pluses, topped the rankings this year for their consistent presentations of budgets and financial statements in their public accounts. Newfoundland and Labrador also notably improved the consistency of its headline budget and public-accounts figures.

A key aim of this annual survey is to encourage further progress. Ontario and British Columbia scored well with respect to the consistency and accessibility of their headline numbers, but qualified audits precluded overall high marks. They and many other Canadian senior governments have further to go toward the goal of financial transparency and reliability.

An additional survey element looks at what our reader would conclude from examining each government's performance in achieving the goals set out in its budget. A major ongoing problem is that Canada's federal, provincial and territorial governments tend to overshoot budget targets. Over

1 Strictly speaking, audited financial statements are only part of the public accounts and are often published in other documents such as annual reports. The public accounts also contain a great deal of other information, much of which is not audited. Because the release of the audited financial statements and the tabling of the public accounts are typically simultaneous, and since the financial statements are the centrepiece of the public accounts, we sometimes use the term "public accounts" to refer to both to streamline the exposition.

the past 15 years, their annual spending overruns add up to some \$69 billion, with the Prairie provinces and the Territories missing budget targets more than others. Over the same period, overall revenues also overshot budget projections, on this side of the ledger by even more, or \$95 billion.

Nevertheless, our findings demonstrate grounds for future optimism. Comparing the overshoots over the past 15 years shows important progress. Improvements in financial reporting have coincided with more reliable budget projections. We do not know that one caused the other, but we think it plausible that better transparency supports better management of public funds.

MEASURING FISCAL ACCOUNTABILITY

As everyone familiar with financial scandals in the private sector knows, financial reports allow a principal to monitor an agent's behaviour only if the vital information is clear and accessible. For this exercise, the critical requirement is that our reader can, without hiring a specialist or losing hours to the task, identify the total revenue and spending numbers in a government's principal financial documents and use those numbers to compare results to intentions.

Background on the Financial Cycle

The primary documents our reader would consult come at opposite ends of the fiscal cycle. Canada's senior governments have fiscal years that run from April 1 to March 31. Preferably, legislatures vote on budgets 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. Ideally, they present a consolidated annual statement of all revenue and expenses, with the difference between revenue and expenses representing the change in the government's net worth over the year.

Comparing total revenue and total expenditure in a government's budget and in its public accounts totals should be straightforward. If it is, the reader will easily be able to answer such basic questions as how close last year's results were to last year's plans or what kinds of increases or decreases this year's budget implies relative to last year's results. If the comparison is unclear, answering such basic questions is hard – even a smart and motivated but non-expert reader may find it impossible.

In addition to budgets and financial statements in public accounts, the estimates that authorize spending are important links in the chain of accountability from voters through legislators to government officials. Main estimates arrive near the start of the fiscal year, supplementary estimates later in the year. Many governments also produce interim fiscal reports, showing performance relative to budget plans and sometimes updating projections for the year. We comment on these other documents and how changes in their presentation and use could improve fiscal accountability.

Grading the Quality of Financial Reporting

So – can a smart and motivated but nonexpert reader find and interpret the relevant numbers prepared by Canada's senior governments? It depends. In some jurisdictions, the figures appear prominently and early in the documents and are accessible virtually immediately. In others, they are buried and/or scattered among many pages, tables and footnotes. In yet others, they do not appear at all.

Our approach is to locate the spending and revenue totals displayed prominently in budgets and in public accounts – the ones our reader might reasonably assume are the correct numbers – and

ask several questions about them. With regard to the budget, we ask:

- Does it present a comprehensive set of revenue, spending and balance figures?
- If so, how prominent is that presentation?
- Are the figures consistent with Public Sector Accounting Board (PSAB) standards?
- Was the budget tabled before the start of the fiscal year (April 1)?

With regard to the financial statements in the public accounts, we ask:

- Do they present a comprehensive set of revenue, spending and balance figures?
- If so, how prominent is that presentation?
- Are the figures consistent with PSAB standards?
- Do its headline figures correspond to their counterparts in the budget?
- Does the document clearly explain variances between the results and the budget?
- How soon after the end of the fiscal year were the public accounts tabled?

To round out our exploration of the quality of reporting, we also ask:

- Are the government's spending estimates presented on the same accounting basis as their counterparts in the budget and public accounts?
- If so, can a reader readily reconcile the estimates to the budget?

- Does the government publish in-year updates showing deviations from budget plans?
- Did the legislative auditor (auditor general) give a clean opinion to the financial statements in the public accounts?

Our assessments using these criteria, along with a letter grade calculated using a grade-point-average approach, appear in Table 1.

The quality of the headline revenue and spending presentations in the principal financial documents is critical to the grades in Table 1. We award full or partial points when a criterion is fully or partially met. We reward governments that show the key total revenue and spending figures within the first 10 pages of a budget or public accounts document. With regard to reporting schedules, timely presentations earn higher marks: we think it is particularly important for budgets and estimates to appear before the start of the fiscal year and for public accounts to appear within a few months after the fiscal year end.² With regard to consistency, we score jurisdictions higher when their budgets, estimates and/or financial statements in their public accounts conform to PSAB standards and when the estimates and/or the public accounts provide reconciliations to the budget. We give particular importance to the legislative auditor's opinion on the financial statements.³ We weight the scores on each criterion (see Row 1) and convert them to letter grades.⁴

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- 2 One key reason for preferring quick production of the annual financial statements is that it encourages faster gathering and compilation of the necessary data, which should facilitate presentation of reasonable estimate for the fiscal year not yet ended in the budget for the year about to start.
 - 3 The heavy weight we place on auditors' findings reflects the scope and rigour of their work. As in a non-government setting, a qualified audit opinion is a red flag to any user of financial statements. However, we do not make the audit opinion decisive in our grades for two reasons. While numbers that have passed inspection are in principle better than those that have not, their accessibility and timeliness still make a key difference to, say, legislators trying to perform their fiduciary duties – audited numbers that are utterly obscure and published very late are not helpful. Furthermore, compliance with public-sector accounting standards is a matter on which reasonable people can and do disagree. Indeed, not all of Canada's legislative auditors apply identical tests in evaluating their governments' financial statements, and judgments by any one of them may – and arguably should – change over time.
 - 4 Letter grades for each senior government are scaled up so that the top-performing province receives the highest possible mark.

Table 1: Evaluating the Fiscal Reporting of Canada's Senior Governments

Presentation								Reporting Schedule and Audit					
	Does budget prominently present consolidated figures?	Page of appearance	Date 2016/17 budget tabled	Do public accounts report consolidated PSAB consistent figures?	Page of appearance	Do public accounts present figures that match budget counterparts?	Do public accounts prominently display comparisons of results to budget?	Are estimates on a consistent accounting basis with budget and public accounts?	Can readers easily reconcile them to 2015/16 Budget?	Do interim reports show progress relative to budget?	Number of auditor reservations in most recent year	Date public accounts tabled	Grade
Grading Weights	3	1	1	3	1	3	3	2	2	1	4	2	26
Federal	Yes	Page 234 of 269	22-Mar-16	Yes	Page 4 of 344	Yes	Yes: Tables and figures, supported by text, on page 9 beginning of document.	No	Estimates are not consistent with budget presentation and not reconciled.	Yes, monthly	0 – None	2-Oct-16	A
NL	Yes	Page 2 of 24	14-Apr-16	Yes	Page 35 of 86	Yes	Yes: Budget figures reconciled but deviations of consolidated results not explained.	No	Estimates are not consistent with budget presentation and not reconciled.	Yes, semi-annually	0 – None	19-Oct-16	B
PE	No. multiple balance figures (surplus before interest and amortization in addition to consolidated deficit).	Page 7 of 162	30-May-16	Yes	Page 4 of 79	No	No: Budget figures reconciled late in document but deviations not shown or explained.	Yes	Estimates consistent with budget presentation.	Yes, semi-annually	0 – None	7-Dec-16	C-

Table 1: Continued

Presentation										Reporting Schedule and Audit			
	Does budget prominently present consolidated figures?	Page of appearance	Date 2016/17 budget tabled	Do public accounts report consolidated PSAB consistent figures?	Page of appearance	Do public accounts present figures that match budget counterparts?	Do public accounts prominently display comparisons of results to budget?	Are estimates on a consistent accounting basis with budget and public accounts?	Can readers easily reconcile them to 2015/16 Budget?	Do interim reports show progress relative to budget?	Number of auditor reservations in most recent year	Date public accounts tabled	Grade
NS	Yes. But prominent balance figures add “consolidation and accounting adjustments for government units” .	Page 3 of 92	19-Apr-16	Yes	Page 21 of 117	No	Yes. But reconciliation tables compare revised budget estimates to actual results.	Yes	Yes. Estimates consistent with budget presentation.	Yes, quarterly	0 – None	9-Aug-16	A-
NB	Yes	Page 20 of 26	2-Feb-16	Yes	Page 3 of 76	Yes, the figures match, although the auditor noted some deviations in accounting.	Yes. Clear budget to actual comparison tables and figures, supported by text, at beginning of document.	Yes, although the auditor recently noted some deviations in accounting.	Yes. Estimates consistent with budget presentation.	Yes, quarterly	0 – None	30-Sep-16	A+



Table 1: Continued

Presentation							Reporting Schedule and Audit						
	Does budget prominently present consolidated figures?	Page of appearance	Date 2016/17 budget tabled	Do public accounts report consolidated PSAB consistent figures?	Page of appearance	Do public accounts present figures that match budget counterparts?	Do public accounts prominently display comparisons of results to budget?	Are estimates on a consistent accounting basis with budget and public accounts?	Can readers easily reconcile them to 2015/16 Budget?	Do interim reports show progress relative to budget?	Number of auditor reservations in most recent year	Date public accounts tabled	Grade
QC	No. multiple balance figures (two budget balance figures).	Page 4 of 568	17-Mar-16	Yes	Page 15 of 190	Yes	Yes. Clear budget to actual comparison tables and figures, supported by text, at beginning of document.	Yes	Estimates not consistent with budget presentation, and not reconciled.	Yes, monthly	1 – Objections to recording of government transfers supporting capital investments and other debt financed spending.	25-Oct-16	C+
ON	Yes	Page 249 of 372	23-Mar-16	Yes	Page 9 of 112	Yes	Yes. Tables and figures, supported by text, at beginning of document.	Yes	Estimates not consistent with budget presentation, and not reconciled.	Yes, quarterly	1 – Qualified opinion due to accounting of accrued benefit pension assets.	6-Oct-16	B+
MB	No. Multiple revenue, spending and balance figures.	Page 2 of 30	31-May-16	Yes	Page 38 of 132	Yes	No: While reconciliation tables explain deviations from budget, they come late in document.	Yes	Estimates consistent with budget presentation.	Yes, quarterly	0 – None	30-Sep-16	B

Table 1: Continued

Presentation							Reporting Schedule and Audit						
	Does budget prominently present consolidated figures?	Page of appearance	Date 2016/17 budget tabled	Do public accounts report consolidated PSAB consistent figures?	Page of appearance	Do public accounts present figures that match budget counterparts?	Do public accounts prominently display comparisons of results to budget?	Are estimates on a consistent accounting basis with budget and public accounts?	Can readers easily reconcile them to 2015/16 Budget?	Do interim reports show progress relative to budget?	Number of auditor reservations in most recent year	Date public accounts tabled	Grade
SK	Yes	Page 40 of 73	1-Jun-16	Yes	Page 7 of 88	No	Yes. But reconciliation tables and figures compare revised budget estimates to actual results.	Yes	Estimates not consistent with budget presentation and not reconciled.	Yes, quarterly	0 – None	14-Jul-16	A-
AB	Yes	Page 10 of 134	14-Apr-16	Yes	Page 4 of 122	Yes	Yes. Tables and figures supported by text, at beginning of document.	Yes	Estimates not consistent with budget presentation and not reconciled.	Yes, quarterly	0 – None	29-Jun-16	A+



Table 1: Continued

Presentation								Reporting Schedule and Audit					Grade
Does budget prominently present consolidated figures?	Page of appearance	Date 2016/17 budget tabled	Do public accounts report consolidated PSAB consistent figures?	Page of appearance	Do public accounts present figures that match budget counterparts?	Do public accounts prominently display comparisons of results to budget?	Are estimates on a consistent accounting basis with budget and public accounts?	Can readers easily reconcile them to 2015/16 Budget?	Do interim reports show progress relative to budget?	Number of auditor reservations in most recent year	Date public accounts tabled		
BC	Page 1 of 135	16-Feb-16	Yes	Page 13 of 135	Yes	Yes. But explanations for variances are limited.	Yes	Estimates consistent with budget presentation.	Yes, quarterly	2 – Auditor's objections about inappropriate deferral of revenues.	21-Jul-16		A
NT*	Page 51 of 56	1-Jun-16	Yes	Page 13 of 86	No. "Budget" figures in consolidated statements do not match. Matching figures are in non-audited non-consolidated statements.	Yes. But explanations for variances are limited.	Yes	Estimates consistent with budget presentation.	No	0 – None	14-Nov-16		C

* NT – Budget Address.

Table 1: Continued

Presentation								Reporting Schedule and Audit					
	Does budget prominently present consolidated figures?	Page of appearance	Date 2016/17 budget tabled	Do public accounts report consolidated PSAB consistent figures?	Page of appearance	Do public accounts present figures that match budget counter-parts?	Do headline public accounts figures match budget counter-parts?	Are estimates on a consistent accounting basis with budget and public accounts?	Can readers easily reconcile them to 2015/16 Budget?	Do interim reports show progress relative to budget?	Number of auditor reservations in most recent year	Date public accounts tabled	Grade
YK*	No. Financial Summary shows both consolidated and non-consolidated figures.	Page 6 of 26	7-Apr-16	Yes	Page 2 of 45	Yes	Page 24 of 68	Yes	Estimates consistent with budget presentation.	No	0 – None	12-Jan-17	B+
NU*	No. multiple revenue, spending and balance figures.	Page 1 of 12	25-Feb-16	Yes	Page 8 of 60	No	No	Yes	Estimates consistent with budget presentation.	No	0 – None	7-Nov-16	C

* YK – Consolidated summary of financial information. * NU – Fiscal and Economic Indicators, Main estimates basis.

Source: Various government documents; authors' calculations.

As noted, the top presentation marks went to Alberta and New Brunswick. Ottawa and BC were not far behind: both also present consistent figures in the budget and public accounts documents, which would be easy for our idealized reader to find and interpret. But the federal government's headline revenue and spending figures are buried hundreds of pages into its budget, and its estimates are on a different accounting basis. BC has the fault of a qualified audit.

In contrast, PEI, the Northwest Territories and Nunavut all get low grades, Cs or C-minus. Although estimates consistent with budgets save these governments from outright fails, their budgets contain multiple revenue and spending figures that no non-expert could possibly reconcile with the headline figures in their public accounts. In the remaining jurisdictions, our reader would likely struggle to find and compare PSAB-consistent figures, or would not be able to find them at all.

Changes in Grading and Grades

For many years, the quality of financial reporting by Canada's senior governments has been improving. The spread of budget presentations that are consistent with governments' public accounts and the adherence of both to PSAB standards are particularly notable. Two decades ago, all these governments used largely cash-based budgeting, recording revenue when cash flowed in and expenses when cash flowed out, even if the activity related to the receipts and payments occurred in different fiscal years. This approach has major deficiencies: long-lived assets, for example, should not be expensed immediately but rather written down over their useful lives, while deferred compensation such as pensions for government employees should be recorded when the work that earns them is done, not later when they are paid.

At the time, as well, the financial statements in governments' public accounts were on an accrual basis, amortizing capital assets and recording deferred compensation as it was earned, meaning

that budgets did not match the public accounts. In addition, reservations by legislative auditors who found fault with the numbers presented in the financial statements used to be much more frequent and more serious.

As these problems have become less common and less serious, it makes sense to look more closely at other aspects of financial presentations. In recent iterations of this report, we have added the criterion that estimates should be prepared using accounting consistent with budgets – and, by extension, with the financial statements in the public accounts – and presented on a basis that permits ready comparison to budgets. We have also added the requirement that the key numbers appear early and prominently in the documents. These changes have hurt the relative position of the federal government, which scores well otherwise but presents its estimates on a different accounting basis, and buries its key fiscal figures deep in its budget documents. With the number of auditor reservations having dropped, we have abandoned our previous multi-year perspective on this latter criterion and focused only on the most recent year.

A number of improvements in the presentations themselves have also affected the rankings (Table 2). When Alberta topped the rankings in 2016, it followed a period when it scored poorly. In 2013, it replaced PSAB-consistent budget headline numbers with a confusing array of “operating,” “saving” and “capital” accounts that lowered its grade score. When it returned to PSAB-consistent numbers in its 2015 budget, its score rebounded sharply. Alberta's high grades are also due to the timely publication of audited results – it would score even higher if it released its budget prior to the beginning of the fiscal year.

New Brunswick has the opposite issue. Its February budget date is timely, but its public accounts for the fiscal year ending March 2016, which had in recent years appeared in August or even July, appeared only at the end of September.

Relative to last year's rankings, there were some big risers. New Brunswick recently had a

Table 2: Governments' Financial Reporting Grades Since 2015

	2017	2016	2015
Federal	A	B+	A-
Newfoundland and Labrador	B	E	D
Prince Edward Island	C-	E	D-
Nova Scotia	A-	C-	B-
New Brunswick	A+	B+	A
Quebec	C+	C+	D+
Ontario	B+	A-	A
Manitoba	B	B	C+
Saskatchewan	A-	A+	A
Alberta	A+	A+	C
British Columbia	A	B+	B-
Northwest Territories	C	E	D+
Yukon	B+	C+	C+
Nunavut	C	E	E

Note: Changes in grades reflect both changes in governments' financial reporting, and changes in our grading system, as described in the text.

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

qualified audit but the provincial auditor's prior objections to the province's treatment of shared-risk pension plans are no longer dragging it down. That said, even jurisdictions that top our list have important areas to work on. For example, New Brunswick's auditor recently noted inconsistencies in the application of accounting rules in the main estimates and the year-end financial statements, which might jeopardize the province's top position in future rankings.

Newfoundland and Labrador jumped up in this year's ranking, from a fail to a B. In previous reports, inconsistent figures in its budget and public accounts resulted in a failing grade. Now, those

numbers are consistent. If Newfoundland and Labrador also prepared its estimates consistently, it would join the high-end performers.

Yukon deserves a comment, being the one territory that presents its budget on the same basis as its public accounts. It falls short, however, in presenting a confusing second set of numbers in its budget and tabling the budget late: The result, B-plus instead of an A.

In some respects, the Atlantic provinces contrast with most of the others. They are generally better when it comes to estimates that match their budgets, but they tend to publish their public accounts later. Along with New Brunswick, Nova

Scotia is an eastern province that ranks relatively high with an A-minus.

There were also some provinces whose marks fell. Saskatchewan's dropped relative to recent rankings, from A to A-minus, because its 2016 budget presented headline figures that were not consistent with its public accounts and appeared much too late in the summer. Ontario also dropped – from third to seventh with a B-plus – due to a qualified audit in 2015/16.

To return to the good-news note in closing this section, we observe that some egregious instances of poor reporting used to be commonplace. Happily, presentation improvements have been more typical than deteriorations, and our 2017 survey fits that pattern.

HOW MUCH DO BUDGET VOTES ACTUALLY MEAN? TARGETS VERSUS RESULTS

If governments had continually presented consistent consolidated figures in their budgets and public accounts numbers, comparing plans and results over time would be simple. We would look at the dollar amounts for spending or 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 consistent numbers in the past, and many still do not do so today. So, we test our motivated but non-expert reader's commitment with a task – one that better presentations would render unnecessary – that reduces potential distortions from differences in presentation. We calculate percent changes in revenue and in spending from the two key documents: one from the headline figures presented in budgets, and the other from the figures in the public accounts. Contrasting the percent changes in the two documents is not a perfect measure (see Box 1), but it mitigates the problem that arises

when inconsistent accounting makes dollar amounts consistently higher or lower in one or the other.

Spending

Presuming she or he is up to this exercise, our idealized reader can assess how successfully Canada's senior governments have hit their budget targets over the past 15 years. Table 3 shows the key figures. Projected changes in spending from the previous year in each year's budget are in the first panel (the final column in the panel shows the 2016/17 year's projections, for reference). Actual changes in spending for the same year, as reported in the public accounts, are in the second panel. The differences between them are in the third panel. We summarize the results in Table 4, using two measures.

One measure is the average difference between projected and actual changes: the bias. This is the arithmetic mean of the differences in the third panel of Table 3. 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.

The other yardstick is accuracy, for which we use another standard statistical measure. We square the differences in the third panel of Table 3, add them up and take the square root of the sum to get an indicator of how far the results tended to be – over or under – from the projections. This measure helps distinguish governments with more or less erratic records. For example, two governments can overshoot and undershoot in largely offsetting directions year by year and, thus, earn similar bias scores, but one can miss by larger amounts than the other. Squaring the differences penalizes misses in either direction but penalizes larger misses more. Again, for this measure a smaller number is better.

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

Box 1: Potential Objections to Percent-Change Comparisons of Revenue and Spending

Using percent-change measures of revenue and spending to compare plans to results has drawbacks beyond imposing an unreasonable burden on our idealized reader. To us, however, it represents the lesser of two evils. The greater evil would be to compare budgets with financial statements in public accounts that use different accounting methods. That would treat differences in dollar amounts that reflected items included, excluded or expensed differently as overshoots or undershoots. When budgets are on a cash basis and public accounts are on an accrual basis, capital items alone can make dollar amounts very different, yielding spurious overshoots or undershoots.

While the percent-change approach is a lesser evil, it could nevertheless create spurious overshoots and undershoots for a different reason. For example, 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 with the results for that year when they become available would show a perfect record. But percent changes calculated for the budget would be based on inaccurate projections for the prior year, while the percent changes calculated from the public accounts would be based on accurate 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, the preliminary figures for the prior year in a budget will be too low. That means the projected percent increases calculated from the budget figures will be too high. And that, in turn, means that the 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.

targets. The average annual spending overshoot was 2.3 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, 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 4 compares the cumulative overshoot to budgeted spending in 2016/17. While we are not suggesting governments can or should offset these overshoots in a single year, we think it fair to underline that they represent the accumulation of annual budget target misses. If a government had budgeted rapid increases in spending and achieved them, its figure in this

Table 3: Budgeted and Actual Expenditures

Announced Spending Change (<i>percent</i>)														
	Federal	BC	AB	SK	MB	ON	QC	NB	NL	NS	PE	YK	NT	NU
2001/02	5.1	7.4	12.5	5.8	1.7	2.2	3.4	6.6	5.4	0.5	-0.2	-1.1	4.5	1.8
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	-0.5
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	-7.9
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	-3.0
2016/17	6.9	2.3	3.6	1.1	3.2	1.4	2.5	3.5	4.8	1.9	2.3	2.8	-3.9	-3.6
Actual Spending Change (<i>percent</i>)														
	Federal	BC	AB	SK	MB	ON	QC	NB	NL	NS	PE	YK	NT	NU
2001/02	1.9	10.2	10.0	7.0	1.8	3.0	3.2	7.5	5.2	5.2	3.6	5.9	8.9	7.9
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

Table 3: Continued

	Difference (percent)													
	Federal	BC	AB	SK	MB	ON	QC	NB	NL	NS	PE	YK	NT	NU
2001/02	-3.2	2.8	-2.5	1.2	0.1	0.8	-0.2	0.9	-0.1	4.7	3.9	7.1	4.4	6.1
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	6.2
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	12.0
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	7.6

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

column would be zero. So, whatever their planned rates of growth, a number of Canada's senior governments would be looking at up to one-third lower spending in the current fiscal year, if they had hit their budget targets over that period.⁵

As for the best and worst records, Ottawa's average overshoot of 0.4 percent gives it the best – that is, the smallest – bias score among the 14

governments. Ontario comes second at 0.7 percent, followed by Quebec, Nova Scotia and New Brunswick with average overshoots of 1 percent. Saskatchewan and Alberta had the largest overshoots – 3.8 and 3.4 percent respectively – among the provinces. Yukon and Nunavut – with average overshoots of 5.9 and 7.4 percent respectively – had the worst records of all.

5 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, and achieved, a reversal in the following year 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.

Table 4: Bias and Accuracy in Budget Forecasts of Spending

	Bias		Accuracy		Total Overrun (\$millions)	Ratio: Total Overrun to 2016/17 Expenditures
	Mean Error (percent)	Rank	Root Mean Square Error (percent)	Rank		
Federal	0.4	1	3.7	8	10,864	3
British Columbia	1.8	8	2.5	5	8,864	19
Alberta	3.4	11	5.5	11	14,652	29
Saskatchewan	3.8	12	6.0	12	4,886	34
Manitoba	2.3	9	3.0	6	3,974	24
Ontario	0.7	2	2.1	2	8,984	7
Québec	1.0	3	2.1	1	12,650	13
New Brunswick	1.0	5	2.4	4	944	11
Newfoundland & Labrador	-1.5	6	4.4	10	-1,279	-15
Nova Scotia	1.0	4	2.3	3	1,341	13
Prince Edward Island	1.7	7	3.4	7	328	19
Yukon	5.9	13	7.3	13	650	50
Northwest Territories	2.9	10	3.8	9	595	36
Nunavut	7.4	14	8.1	14	1,470	85

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

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

Revenue

We give spending a higher profile than revenue in this review because it is more 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 5: Budgeted and Actual Revenues

Announced Revenue Change (percent)														
	Federal	BC	AB	SK	MB	ON	QC	NB	NL	NS	PE	YK	NT	NU
2001/02	-4.1	2.3	-10.7	-11.1	0.6	-1.0	0.5	4.4	5.7	1.8	0.6	0.9	1.6	5.5
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	8.0
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	4.8
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	4.0
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	3.6
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	0.9
Actual Revenue Change (percent)														
	Federal	BC	AB	SK	MB	ON	QC	NB	NL	NS	PE	YK	NT	NU
2001/02	-3.0	-5.5	-13.9	-10.3	-0.1	-1.2	-1.4	7.9	-1.3	1.0	4.2	-4.3	9.1	-4.2
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

Table 5: Budgeted and Actual Revenues

	Difference (<i>percentage points</i>)													
	Federal	BC	AB	SK	MB	ON	QC	NB	NL	NS	PE	YK	NT	NU
2001/02	1.0	-7.8	-3.2	0.8	-0.7	-0.2	-1.9	3.5	-7.0	-0.8	3.5	-5.2	7.5	-9.6
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	-1.4
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	2.1
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	1.2
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	-1.0

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

Table 5 presents the revenue changes projected in governments' spring budgets over the past 15 years. As Table 3 does for spending, Table 5 shows budgeted revenue changes in its first panel (along with 2016/17 budget projections for reference), actual changes in its second panel and the differences between them in its third panel. Table 6 presents for revenue what Table 4 did for spending: a summary of each government's performance over the 15-year period. Bias is the average difference between projected and actual revenue changes. Accuracy records misses without regard to sign, and gives heavier weight to larger misses.

Even more than for spending, revenue overshoots are the general experience. The average annual excess of actual over projected revenue across all governments was 2.3 percent over the 15-year period. The total, as noted above, is a substantial \$95 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 under predict revenue over the period, did so only marginally: its revenue bias was very small. In over predicting revenue, Ottawa, Nova Scotia, New Brunswick and PEI also recorded small biases: one percent or less, annually. 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.

Table 6: Bias and Accuracy in Budget Forecasts of Revenue

	Bias		Accuracy		Total Overrun (\$millions)	Ratio: Total Overrun to 2016/17 Expenditures
	Mean Error (percent)	Rank	Root Mean Square Error (percent)	Rank		
Federal	0.8	2	2.0	1	24,525	9
British Columbia	1.9	8	4.7	8	9,816	20
Alberta	6.9	14	12.1	14	30,102	73
Saskatchewan	6.5	13	10.5	12	7,714	55
Manitoba	1.9	9	2.7	3	2,922	19
Ontario	-0.4	1	3.6	7	-2,648	-2
Québec	1.3	6	2.9	5	15,487	15
New Brunswick	0.9	4	3.1	6	773	9
Newfoundland & Labrador	4.3	12	11.2	13	3,923	58
Nova Scotia	0.8	3	2.7	4	1,357	13
Prince Edward Island	1.0	5	2.3	2	204	12
Yukon	3.2	11	5.3	10	301	23
Northwest Territories	2.3	10	5.1	9	463	26
Nunavut	1.4	7	6.6	11	394	23

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

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 – Saskatchewan, Newfoundland and Labrador, and Alberta – had poor accuracy scores. Ontario's revenue accuracy score is middle of the pack, suggesting some luck in its good bias score.

Are Revenue Surprises Associated with Spending Surprises?

Considering overshoots and undershoots of spending and revenue together lets us probe deeper into why governments miss their targets. Coming at it cold, someone might predict that revenue and spending 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 correlation 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 7).

In every jurisdiction but Nova Scotia and Nunavut, the correlation coefficient is positive. In seven jurisdictions it exceeds the 0.44 figure that standard statistical tests say is significant for a 15-year period. 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.

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 revenue and spending typically gets more attention than the levels of spending and revenue on their own, tempting governments to massage revenue or spending, or both, to achieve a predetermined bottom line. Because negative

Table 7: Correlation of Deviations

	Correlation of Surprises	Rank
Federal	0.16	5
British Columbia	0.26	6
Alberta	0.75	13
Saskatchewan	0.62	11
Manitoba	0.16	4
Ontario	0.50	10
Québec	0.81	14
New Brunswick	0.42	7
Newfoundland & Labrador	0.01	3
Nova Scotia	-0.15	1
Prince Edward Island	0.45	9
Yukon	0.44	8
Northwest Territories	0.64	12
Nunavut	-0.08	2

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

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

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 PEI, Ontario, Saskatchewan, Alberta, Quebec, Yukon and the Northwest Territories as relatively bad.

HAS CONTROL OVER SPENDING AND REVENUE IMPROVED?

The economic climate has changed in many ways over the past 15 years. The first five years were

generally benign, with relatively steady growth. The second five featured an unsustainable boom, financial crisis and slump. The final five featured slow, uncertain growth and widespread fiscal deficits. 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 8. 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 four of the 14 jurisdictions recorded smaller biases in the final five years than in the first five, lowering the national average figure. On average, nationwide, there was little change in accuracy over this time.

On the revenue side, improvements are 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 9). However, if negative correlations between revenue and spending surprises are suggestive of automatic stabilization and positive correlations are suggestive of massaging the bottom line, we can say that more governments moved in a positive than a negative direction.

IMPROVING FISCAL ACCOUNTABILITY IN CANADA

To summarize to this point, we note improvements in financial presentations by many governments and a tendency for results to be closer to budget votes in more recent years. But ongoing presentation deficiencies, the chronic nature of spending and revenue overshoots, and suspicious positive correlations between the two suggest scope for improvements in the information Canadians get about public finances and the way governments manage public funds.

Budgets Should Match Public Accounts

To begin with, all senior governments should prepare their financial reports consistent with PSAB standards and present headline budget numbers whose basis match those in their public accounts. Some governments confuse matters with more than one set of headline figures, making what should be a simple comparison of projections and results practically impossible. A director of a for-profit business or a well-run charity who accepted such poor information – and increasingly few would – would not remain a director for long. The numbers should, moreover, be clearly labelled and appear early in the main, not in separate, documents.

Legislators in jurisdictions with deficient presentations should insist on the change Alberta recently made: one set of headline figures, prepared on the same PSAB-consistent basis, in principal financial documents. Additional information, including in-year updates on the evolving situation and reconciliation tables explaining differences between projections and outcomes, can build on that base.

Estimates Should Match Both Budgets and Public Accounts

Approval of estimates by legislators is a key link

Table 8: Changes in Bias and Accuracy by Five-Year Periods

	Expenditures (<i>percent</i>)														National Average
	Federal	BC	AB	SK	MB	ON	QC	NB	NL	NS	PE	YK	NT	NU	
Bias: 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
Bias: 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
Bias: 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
Difference (last – first 5 years)	-0.7	-1.3	-1.6	-1.7	0.9	-0.8	-0.5	-1.0	-4.0	-1.7	-2.3	-3.8	0.7	3.0	-1.1
Accuracy: 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
Accuracy: 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
Accuracy: 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
Difference (last – first 5 years)	-2.1	-0.5	-0.9	0.2	1.6	0.2	0.1	1.0	1.4	-0.9	-2.5	-5.7	0.6	2.7	-0.4
	Revenues (<i>percent</i>)														National Average
	Federal	BC	AB	SK	MB	ON	QC	NB	NL	NS	PE	YK	NT	NU	
Bias: 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
Bias: 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
Bias: 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
Difference (last – first 5 years)	-2.2	-2.6	-11.6	-8.7	-1.2	2.5	-1.4	-2.6	-8.8	-1.3	-1.0	-5.5	-1.5	-2.2	-3.4
Accuracy: 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
Accuracy: 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
Accuracy: 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
Difference (last – first 5 years)	-1.0	-4.9	-9.6	-8.3	-2.0	-2.5	0.1	-0.2	-2.6	-0.7	-1.8	-6.1	-2.9	-7.5	-3.6

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

Table 9: Correlation of Surprises, by Five-Year Periods

	Correlation of Surprises			
	Correlation: First 5 years	Correlation: Middle 5 years	Correlation: Last 5 years	Difference (last – first 5 years)
Federal	0.55	-0.18	0.47	-0.08
British Columbia	0.49	0.36	0.07	-0.42
Alberta	0.83	0.58	0.90	0.06
Saskatchewan	0.66	0.70	-0.30	-0.95
Manitoba	0.06	0.16	0.54	0.48
Ontario	0.76	0.64	0.70	-0.06
Québec	0.73	0.89	0.39	-0.34
New Brunswick	0.31	0.50	0.18	-0.13
Newfoundland & Labrador	-0.10	0.41	-0.74	-0.64
Nova Scotia	-0.12	0.15	-0.96	-0.84
Prince Edward Island	0.28	0.46	0.65	0.37
Yukon	0.29	0.59	0.63	0.34
Northwest Territories	0.88	0.61	0.59	-0.29
Nunavut	0.16	-0.18	-0.46	-0.62
National Average	0.41	0.41	0.19	-0.22

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

in the chain of fiscal accountability. In most jurisdictions, this link is weaker than it should be.

Jurisdictions that present estimates inconsistent with budgets and public accounts create a huge information gap for legislators. The inconsistency may arise because of different accounting methods, or because subcomponents prepared using similar accounting methods are added up differently in the estimates. When it comes to reconciliation, 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. In Ontario,

a proper reconciliation of the spending figures in estimates to the budget is possible only with some additional work and guidance – a proper reconciliation table, early in the estimates, would help busy readers and legislators better follow the money.

The federal government must table its main estimates by March 1, which sometimes means the estimates precede the budget. Furthermore, it presents its estimates on a different accounting and aggregation basis than its budget and public accounts. As former Parliamentary Budget Officer Kevin Page, former MP Pat Martin and public accounting expert Bob Plamondon recently remarked: “You cannot add up department

spending plans and get to budget totals. It is well-nigh impossible for mere mortals to follow money.”⁶

In the 2016 Fall Economic Update, the federal government announced that it would “present cash and accrual accounting reconciliation tables” in the estimates so that “Parliamentarians and Canadians can better understand federal government spending.” Yet the change has yet to occur. Defenders of the current setup maintain that parliamentarians find cash-based appropriations easier to understand. This explanation is unconvincing: while it is true that capital outlays need to be approved and voting annual amortization makes no sense, estimates inconsistent with budgets are impossible for parliamentarians to understand in their proper context.

Meanwhile, separate cash-flow statements are standard in accounting and help users reconcile the accrual-based plans and results with sources and uses of cash. Estimates reconcilable with PSAB-consistent accounting, released at the same time as a timely budget, would help move Ottawa to the head of the class.

Less positively, the economic update also called for tabling the main estimates on May 1 each year instead of early March. Although the update justified this later timing on the basis that the estimates would likelier reflect budget initiatives, beginning the process of parliamentary approval so long into the fiscal year does not make sense. Far better would be a commitment to present budgets in February and present the estimates at the same time, as happens in the Atlantic provinces.

Legislators Should Consider Estimates in the Context of the Fiscal Plan

Improvements in the format and timing of the estimates would help legislators do their jobs better,

but will 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 – perhaps 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 any changes. Even marginal influence over the direction of funds might induce members to study the estimates harder and actually exercise the powers they have.

Legislatures Must Take Supplementary Estimates Seriously

Presuming that a government’s main estimates reflect its budget plans, a critical subsequent requirement for keeping fiscal policy on course through the year is for legislatures and their committees to scrutinize, and vote responsibly on, supplementary estimates.

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

6 “Why we must restore Parliament’s control of the public purse,” *The Globe and Mail*, 21 December 2015. For a more formal investigation of the problems of estimates inconsistent with the budget, see House of Commons (2012).

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 Must be Timely

Finally, we underline the importance of timely publication of results. Every organization needs timely operational and financial information to set and adjust its course. In the case of federal and provincial governments, speed in assembling the information that will appear in the audited public accounts' financial statements improves the prospects for a realistic budget plan.

Table 1 shows wide variation in the release of public accounts. There is no good reason why financial results for a year ending March 31 should still be a mystery 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. In our view, June 30 would be a good deadline by which all governments should table and release their public accounts.

CANADA'S SENIOR GOVERNMENTS CAN GET BETTER

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. Canadian governments have done much to improve their reporting and stewardship of public money. Yet major gaps remain, and the astonishing amounts by which revenue and spending have exceeded the amounts approved by legislators at budget time over the past 15 years shows that failures of accountability have major real-world consequences.

We close by returning to our idealized reader: an intelligent and motivated, but non-expert, Canadian seeking to understand her governments' operations. Such a person should be able, quickly and confidently, to find the key figures in budgets, estimates and public accounts, and use them to see what governments plan to do before the year starts and whether they did what they planned after the year has ended.

Canada's senior governments provide better information than they once did. They also came closer, by most of our measures, to their budget targets in the most recent five years than they had in the previous decade. Overshoots are still the norm, however, and the positive correlation between spending and revenue surprises in most jurisdictions in most periods looks less like managing the economy than "managing" the bottom line. Canada's senior governments can improve their financial reporting and their adherence to targets, and legislators and voters should hold them accountable for doing so.

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