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COMMENTARY

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Controlling the Public Purse: The Fiscal Accountability of Canada's Senior Governments, 2016

Accountability for public funds is a cornerstone of democracy. Despite progress over the past 15 years, Canadian legislators and citizens still face needless obstacles in understanding the financial reports of federal and provincial governments. Over that period, these governments spent some \$69 billion more than projected in their budgets. Canadians need further improvements in financial reporting, and better diligence by their elected representatives.

Colin Busby and William B.P. Robson

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THE STUDY IN BRIEF

With governments playing such massive roles in Canada's economy and Canadians' lives, we need transparency and accountability in fiscal policy as much as we need it anywhere. Over the past 15 years, 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 period show that failures of accountability have major real-world consequences.

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

It measures the quality of financial reporting by a number of criteria. The key question is whether an intelligent and motivated non-expert – a citizen, taxpayer or legislator – could find valid consolidated numbers for 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. The top presentation marks go to Alberta and Saskatchewan, with Ontario not far behind. British Columbia and New Brunswick also earn high marks for consistent and clear presentations, but auditor reservations push them out of the top tier. The federal government provides reliable numbers, but its budgets do not display them prominently, and the spending estimates members of parliament review are on an incompatible basis of accounting.

As for success or failure in hitting budget targets, the dominant theme of the 15-year period is major overshoots of both spending and revenue. Cumulatively, Canada's federal, provincial and territorial governments spent some \$69 billion more than projected, with the Prairie provinces and the territories showing the biggest over-runs relative to the size of their budgets. Over the same period, revenues overshoot budget projections by an even larger amount: \$118 billion.

More encouragingly, comparing the overshoots over the period shows some improvements: smaller misses generally, and less tendency for in-year revenue "surprises" to be accompanied by in-year spending "surprises." Legislators and Canadians generally should insist on better financial information from governments, and use that information to hold governments to a higher standard when it comes to hitting their budget targets.

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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Good financial management and reporting is critical in the public sector. Governments typically tax and spend close to half of national income in developed countries.

They provide a wide range of services, from policing, health and education, through to income supports. Financial accountability matters for businesses and charities as well, but governments collect taxes and have unique powers of compulsion. So ensuring that taxpayers and citizens can influence or expect good use of public money through their elected representatives is a critical democratic task.

Put in broader perspective, the challenges of ensuring that people with fiduciary responsibilities fulfil their duties have become a major concern. Principal-agent problems – imperfect alignment of interests between managers and shareholders of businesses, or between staff and donors of charities, or between government officials and citizens – are the subject of a burgeoning academic literature, and much practical attention.

Financial reports are a key tool for monitoring whether agents are faithfully serving their principals' interests. This study focuses on the financial reporting and performance of Canada's senior governments: the revenue federal, provincial and territorial governments raise, the amounts they spend, and how results compare with their budget targets and whether they receive unqualified, clean audits.¹ It is not about whether governments spend too much or too little, or give Canadians good value for the taxes they pay. It is a simpler but essential

starting point: 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 judging 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 principal financial documents: its beginning-of-year budgets and its public accounts with end-of-year results. We ask how readily that person – who might be a legislator or a concerned citizen – could find total revenue and spending projected at the beginning of the year, and total revenue and spending actually collected and disbursed by the end of the year, and compare one to the other.

If this reader were looking at the budgets and public accounts of Alberta and Saskatchewan, she would find the task easy. These jurisdictions prominently display the relevant numbers on the same accounting basis in their budgets and public accounts. Moreover, related elements of financial reporting – tables that reconcile results with budget intentions as well as clean audits – are relatively good there. These provinces also have tended to produce timely numbers: budgets before the start of the fiscal year, and public accounts reasonably soon after the end of the fiscal year.

We thank Jennifer Tsao for research assistance as well as Alexandre Laurin, members of the C.D. Howe Institute's Fiscal and Tax Competitiveness Council, and a great many anonymous reviewers for comments on earlier drafts of this paper. We are also grateful to the many people who provided advice and feedback on precursors of this study in past years. Responsibility for the conclusions and any errors is ours.

1 This *Commentary* updates previous work on Canadian governments' fiscal reporting and performance: see Busby and Robson (2008, 2009, 2010, 2011, 2013, 2014, 2015) and Adrian, Guillemette, and Robson (2007) for prior years' accountability rankings for senior governments. Dachis and Robson (2011, 2014) have undertaken a similar survey of fiscal reporting and performance in Canada's major municipalities.

Unfortunately, however, our reader would have a tougher time with other governments. Various problems arise: accounting may not be consistent between the budget and the public accounts; key revenue and spending figures may be buried hundreds of pages into the documents; and either or both documents may show multiple revenue and expense figures that would stump even experts. Timeliness can also be a problem, with governments producing budgets after substantial amounts of money have already been committed or even spent, and producing public accounts so late that much of the following fiscal year has elapsed before definitive year-to-year comparisons are possible.

We assign letter grades for the quality of these numbers. The “A”s earned by the top jurisdictions in the first camp represent progress. A couple of decades ago, no jurisdiction budgeted and reported on the same basis. Moreover, the improvements are continuing. Alberta and Saskatchewan topped the rankings for budget presentations this year, with consistent presentations of their budgets and public accounts using appropriate public-sector accounting standards. Quebec and Yukon also notably improved the consistency of their headline budget and public-accounts figures. Auditor reservations are much less common now than formerly. A key aim of this survey is to encourage further progress, so that all Canadian senior governments are achieving high levels of transparency.

That evaluation done, we turn to what our reader might conclude from the numbers she would likely identify as the definitive totals for revenue and spending – though we underline that in many jurisdictions, the numbers she might identify would not be the ones the legislated auditor general would endorse. The aim of the comparison is to see how closely each government’s results matched the goals in their budgets.

Here, too, our survey reveals past problems, and grounds for optimism about the future. A major problem is that Canada’s federal, provincial and

territorial governments have tended to overshoot their budget targets. Over the past 15 years, they spent some \$69 billion more than projected, with the Prairie provinces and the territories showing the biggest over-runs. Over the same period, revenues overshot budget projections by an even larger amount: \$118 billion.

More encouragingly, comparing the overshoots over time shows some important improvements over the past 15 years. We take comfort from the fact that improvements in financial reporting have coincided with apparent improvements in the reliability of budget projections. We cannot prove that one caused the other. Happily, however, that experience is consistent with a view that better transparency supports better management of public funds.

MEASURING FISCAL ACCOUNTABILITY

Financial reports only help monitor the behaviour of someone charged with acting on another’s behalf if they are comprehensible. For this exercise, a critical requirement is that our reader be able, without being a forensic accountant or devoting many hours to the task, to 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 principal 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. Legislatures ideally vote budgets before the beginning of the fiscal year. The public accounts, which present the audited results for revenues and spending, appear after the end of the fiscal year – typically in the summer or fall.

Governments produce other financial documents. The estimates that authorize spending are particularly important in the chain of

accountability that links voters and legislators and the officials who actually disburse funds. Main estimates arrive around the start of the fiscal year; supplementary estimates later in the year.² Many governments also produce interim fiscal reports, showing progress 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. For our principal measure of outcomes versus intentions, however, we see the budgets and the public accounts as the best choice.

Budgets are the core statement of a government's fiscal priorities. The budget vote is always a vote of confidence.

The public accounts – in particular, the consolidated financial statements within them – are the definitive report of the government's annual finances. Scrutinized by each jurisdiction's legislated auditor, they are the official record of what a government actually raised and spent over the course of the year. Ideally, they present a consolidated annual statement of all revenue and changes to expenses by the entities controlled by the government, and the difference between them represents the resulting change in the government's net worth.

Comparing the budget and public accounts totals should be straightforward. If it is, answering 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, is easy. If it is not, answering even these basic questions is hard – for our idealized reader, practically impossible.

Grading the Quality of Financial Reporting

So – can an intelligent and motivated, but non-

expert, Canadian find and compare the relevant numbers prepared by Canada's senior governments? It depends. In some jurisdictions, the relevant numbers appear prominently and early in the documents and are accessible in a matter of minutes. 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 one comprehensive set of revenue, spending and balance figures?
- If so, how prominent is that exhibit in the budget documents?
- Are the figures prepared according to the standards set by the Public Sector Accounting Board (PSAB)?
- Was the budget tabled before the start of the relevant fiscal year (April 1)?

With regard to the public accounts, we ask:

- Do they present one comprehensive set of revenue, spending and balance figures?
- If so, how prominent is that exhibit?
- Are the headline financial statements presented according to PSAB standards?
- Do the public accounts present revenue and spending figures that correspond to the ones highlighted in the budget documents?
- Do the public accounts prominently explain variances between the results and the budget?

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

- Are the estimates on the same accounting basis as the budget and public accounts?

2 This holds for most provinces in Canada; a standing order for the federal government requires Ottawa to publish main estimates no later than March 1st each year.

- If so, can a reader readily reconcile them to the budget?
- Does the government publish in-year updates showing deviations from budget plans?
- Did the legislated auditor give the public accounts a clean opinion?
- How soon after the end of the fiscal year were the public accounts tabled?

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 presentation in the principal financial documents is critical to the letter grades in Table 1. We award full or partial points when a criterion is fully or partially met. We award full marks for revenue and spending figures that appear no later than one-quarter of the way, by page count, into a budget or public accounts document (we award no partial points on that criterion). With regard to reporting schedules and audits, we deduct a full point when estimates are not comparable to budgets and partial points when they are not readily reconcilable to budgets. We deduct partial points for auditor objections and public accounts not tabled before the end of June. We weight the scores on each criterion (see row 1), and convert them to letter grades.

The top presentation marks go to Alberta and Saskatchewan, with Ontario not far behind. British Columbia and New Brunswick also earn high marks for consistent and clear presentations, but auditor reservations push them out of the top tier. Ottawa receives a solid grade as well: our reader would be able to compare the key figures, but would work unnecessarily hard to find them. 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

These results differ from those in previous iterations of this survey because of modifications in our grading system as well as changes in the financial

reports themselves. Both the modifications and the changes are, in a sense, good news stories.

For many years, the trend in the quality of financial reporting by Canada's senior governments has been positive. The spread of budget presentations that are consistent with governments' public accounts, and the adherence of both to PSAB standards is particularly notable. Two decades ago, all these governments used largely cash-based budgeting, which meant receipts and expenses were recorded when paid. This posed a particular problem with regard to the treatment of long-lived assets, which ought to be written down over their useful lives. Readers seeking to understand the economic impact of fiscal policy and the financial position of governments could not reconcile budgets with public accounts, which use accrual accounting, including the amortization of capital assets. Reservations by legislated auditors 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 last year's survey, recognizing the challenge legislators face connecting their votes on estimates to the overall spending plan in the budget if they cannot reconcile the numbers, we added the criterion that the estimates should be consistent with budgets. This year, we added a quantitative measure of the location of the key tables to highlight how easy (or hard) it is for readers to find and compare those figures. These changes hurt the relative position of the federal government, which scores well otherwise, but still presents cash-based estimates, and buries its key fiscal figures deep in its budgets. We also added the date of budget presentations this year, which further affects the rankings.

Turning to changes in the quality of the presentations themselves, Alberta and Saskatchewan moved up the rankings this year. In 2013, Alberta dropped badly in our rankings when it replaced PSAB-consistent headline numbers in its budget with a confusing array of "operating," "saving" and "capital" accounts. Alberta's 2015 budget, however,

Table 1: Evaluating the Reporting Practices and Fiscal Documents of Senior Governments in Canada

	Presentation							Reporting Schedule and Audit					Overall Grade
	Does Budget Prominently Present Consolidated Figures?	Page of Appearance	Date 2015/16 Budget Tabled	Do Public Accounts (Vol. I) Report Consolidated PSAB-Consistent Figures?	Page of Appearance	Do Public Accounts (Vol. I) Present Figures that Match Budget Counterparts?	Do Public Accounts Clearly Reconcile Results with Budget Plans?	Are Estimates Consistent with Budget and Public Accounts?	Can Readers easily reconcile estimates to 2014/15 budget	Do Interim Reports Show Progress Toward Budget Targets? (monthly [M], half-year [H] quarterly [Q])	Number of Auditor Reservations in Past Decade (Most Recent Year)	Date that Public Accounts are Tabled	
Grading Weights	3	1	1	3	1	3	3	2	2	1	4	2	26
Federal	Yes	Page 268 of 419	21-Apr-15	Yes	Page 10 of 345	Yes	Yes. Tables and figures, supported by text, at beginning of document.	No	Estimates not consistent with budget presentation and not reconciled.	Yes (M,H)	0 (0) – No major reservations	7-Dec-15	B+
NL	No. Multiple revenue and spending figures	Page 17 of 65	20-Apr-15	Yes	Page 45 of 85	No. Public Accounts present revised budget estimates.	No. Estimates not consistent with budget presentation and partially reconciled.	No	Estimates not consistent with budget presentation and partially reconciled.	Yes (H)	0 (0) – No major reservations	28-Jan-16	E
PE	No. Multiple balance figures (surplus before interest and amortization in addition to consolidated deficit)	Page 10 of 160	19-Jun-15	Yes	Page 4 of 81	No. Public Accounts present revised budget estimates.	No	Yes	Estimates consistent with budget presentation.	Yes (H)	0 (0) – No major reservations	7-Oct-15	E



Table 1: Continued

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Presentation								Reporting Schedule and Audit					
	Does Budget Prominently Present Consolidated Figures?	Page of Appearance	Date Budget 2015/16 Tabled	Do Public Accounts (Vol. I) Report Consolidated PSAB-Consistent Figures?)	Page of Appearance	Do Public Accounts (Vol. I) Present Figures that Match Budget Counterparts?	Do Public Accounts Clearly Reconcile Results with Budget Plans?	Are Estimates Consistent with Budget and Public Accounts?	Can Readers easily reconcile them to 2014/15 budget	Do Interim Reports Show Progress Toward Budget Targets? (monthly [M], half-year [H] quarterly [Q])	Number of Auditor Reservations in Past Decade (Most Recent Year)	Date that Public Accounts are Tabled	Overall Grade
NS	Yes. But prominent balance figures add “consolidation and accounting adjustments for government units”.	Page 5 of 81	9-Apr-15	Yes	Page 11 of 116	No. Public Accounts present revised budget estimates.	Yes. But reconciliation tables compare revised budget estimates to actual results.	Yes	Estimates consistent with budget presentation.	Yes (H)	1 (0) – Latest objection, 2011/12: uncertainty related to accumulated sick leave benefits.	30-Jul-15	C-
NB	Yes	Page 21 of 25	31-Mar-15	Yes	Page 3 of 82	Yes	Yes. Tables and figures, supported by text, at beginning of document.	Yes	Estimates consistent with budget presentation.	Yes (Q)	2 (2) – Objections to treatment of shared risk pension plans as defined contribution plans.	30-Sep-15	B+

Table 1: Continued

	Presentation							Reporting Schedule and Audit					
	Does Budget Prominently Present Consolidated Figures?	Page of Appearance	Date Budget 2015/16 Tabled	Do Public Accounts (Vol. I) Report Consolidated PSAB-Consistent Figures?)	Page of Appearance	Do Public Accounts (Vol. I) Present Figures that Match Budget Counterparts?	Do Public Accounts Clearly Reconcile Results with Budget Plans?	Are Estimates Consistent with Budget and Public Accounts?	Can Readers easily reconcile them to 2014/15 budget	Do Interim Reports Show Progress Toward Budget Targets? (monthly [M], half-year [H] quarterly [Q])	Number of Auditor Reservations in Past Decade (Most Recent Year)	Date that Public Accounts are Tabled	Overall Grade
QC	No. Two budget balance figures are confusing.	Page 4 of 610	26-Mar-15	Yes	Page 15 of 189	Yes	Yes. Tables and figures, supported by text, at beginning of document.	Yes	But estimates not consistent with budget presentation, and not reconciled.	Yes (M,H)	5 (1) – Objections to recording of government transfers supporting capital investments and other debt-financed spending.	2-Dec-15	C+
ON	Yes	Page 261 of 393	23-Apr-15	Yes	Page 281 of 393	Yes	Yes. Tables and figures, supported by text, at beginning of document.	Yes	Estimates not consistent with budget presentation, but are reconciled.	Yes (Q)	0 (0) – No major reservations	28-Sep-15	A-

Table 1: Continued

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Presentation								Reporting Schedule and Audit					
	Does Budget Prominently Present Consolidated Figures?	Page of Appearance	Date Budget 2015/16 Tabled	Do Public Accounts (Vol. I) Report Consolidated PSAB-Consistent Figures?)	Page of Appearance	Do Public Accounts (Vol. I) Present Figures that Match Budget Counterparts?	Do Public Accounts Clearly Reconcile Results with Budget Plans?	Are Estimates Consistent with Budget and Public Accounts?	Can Readers easily reconcile them to 2014/15 budget	Do Interim Reports Show Progress Toward Budget Targets? (monthly [M], half-year [H] quarterly [Q])	Number of Auditor Reservations in Past Decade (Most Recent Year)	Date that Public Accounts are Tabled	Overall Grade
MB	No. Multiple revenue, spending and balance figures.	Page 2 of 42	30-Apr-15	Yes	Page 2 of 42	Yes	No. While reconciliation tables explain deviations from budget, they come late in document.	Yes	Estimates consistent with budget presentation.	Yes (Q)	2 (0) – Most recent reservation in 2006/07.	30-Sep-15	B
SK	Yes	Page 44 of 82	18-Mar-15	Yes	Page 7 of 77	Yes	Yes. Tables and figures, supported by text, at beginning of document.	Yes.	Estimates not consistent with budget presentation, and not reconciled.	Yes (Q)	22 (0) – Past reservations related to General Revenue Fund, not the consolidated financial statements.	26-Jun-15	A+

Table 1: Continued

	Presentation							Reporting Schedule and Audit					Overall Grade
	Does Budget Prominently Present Consolidated Figures?	Page of Appearance	Date Budget 2015/16 Tabled	Do Public Accounts (Vol. I) Report Consolidated PSAB-Consistent Figures?)	Page of Appearance	Do Public Accounts (Vol. I) Present Figures that Match Budget Counterparts?	Do Public Accounts Clearly Reconcile Results with Budget Plans?	Are Estimates Consistent with Budget and Public Accounts?	Can Readers easily reconcile them to 2014/15 budget	Do Interim Reports Show Progress Toward Budget Targets? (monthly [M], half-year [H] quarterly [Q])	Number of Auditor Reservations in Past Decade (Most Recent Year)	Date that Public Accounts are Tabled	
AB	Yes	Page 4 of 128	27-Oct-15	Yes	Page 28 of 130	Yes	Yes. Tables and figures, supported by text, at beginning of document.	Yes	But estimates not consistent with budget presentation, and not reconciled.	Yes (Q)	Auditor did not provide opinion on “constructed budget” figures in notes to tables that reconcile public accounts to budget.	7-Jul-15	A+
BC	Yes	Page 1 of 128	17-Feb-15	Yes	Page 11 of 145	No. Net earnings of crown corporations appear as separate line item.	Yes. But explanations for variances are limited.	Yes.	Estimates consistent with budget presentation.	Yes (Q)	21 (1) – Auditor cautions instances of departures from Canadian public sector accounting standards.	15-Jul-15	B+

Table 1: Continued

	Presentation							Reporting Schedule and Audit					
	Does Budget Prominently Present Consolidated Figures?	Page of Appearance	Date Budget 2015/16 Tabled	Do Public Accounts (Vol. I) Report Consolidated PSAB-Consistent Figures?	Page of Appearance	Do Public Accounts (Vol. I) Present Figures that Match Budget Counterparts?	Do Public Accounts Clearly Reconcile Results with Budget Plans?	Are Estimates Consistent with Budget and Public Accounts?	Can Readers easily reconcile them to 2014/15 budget	Do Interim Reports Show Progress Toward Budget Targets? (monthly [M], half-year [H] quarterly [Q])	Number of Auditor Reservations in Past Decade (Most Recent Year)	Date that Public Accounts are Tabled	Overall Grade
NT*	No. Multiple spending and balance figures.	Page 52 of 56	5-Feb-15	Yes	Page 13 of 145	No. Comparable budget figures are in non-audited, non-consolidated statements.	Yes. But explanations for variances are limited.	Yes	Estimates consistent with budget presentation.	No	0 (0) – No major reservations	22-Feb-16	E
YK*	No. Financial Summary shows both consolidated and non-consolidated figures.	Page 6 of 25	2-Apr-15	Yes	Page 24 of 67	Yes	Yes. Tables and figures, supported by text, at beginning of document.	Yes	Estimates consistent with budget presentation.	No	0 (0) – No major reservations	22-Oct-15	C+

NT – Budget Address and Papers, Medium-term outlook. YK – Consolidated summary. NU – Fiscal and Economic Indicators, Main estimates basis.

Total grade scores, letter (percentage equivalent): A+(90-100), A(85-89), A-(80-84), B+(77-79), B(73-76), B-(70-72), C+(67-69), C(63-66), C-(60-62), D+(57-59), D(53-56), D-(50-52), E(<50).

Table 1: Continued

Presentation								Reporting Schedule and Audit					
Does Budget Prominently Present Consolidated Figures?	Page of Appearance	Date Budget 2015/16 Tabled	Do Public Accounts (Vol. I) Report Consolidated PSAB-Consistent Figures?	Page of Appearance	Do Public Accounts (Vol. I) Present Figures that Match Budget Counterparts?	Do Public Accounts Clearly Reconcile Results with Budget Plans?	Are Estimates Consistent with Budget and Public Accounts?	Can Readers easily reconcile them to 2014/15 budget	Do Interim Reports Show Progress Toward Budget Targets? (monthly [M], half-year [H] quarterly [Q])	Number of Auditor Reservations in Past Decade (Most Recent Year)	Date that Public Accounts are Tabled	Overall Grade	
NU*	No. Multiple revenue, spending and balance figures.	Page 1 of 13	25-Feb-15	Yes	Page 8 of 64	No	No	Yes	Estimates consistent with budget presentation.	No	9 (0) – Previous complaints highlight late completion of consolidated financial statements.	5-Nov-15	E

NT – Budget Address and Papers, Medium-term outlook. YK – Consolidated summary. NU – Fiscal and Economic Indicators, Main estimates basis.

Total grade scores, letter (percentage equivalent): A+(90-100), A(85-89), A-(80-84), B+(77-79), B(73-76), B-(70-72), C+(67-69), C(63-66), C-(60-62), D+(57-59), D(53-56), D-(50-52), E(<50).

used PSAB-consistent numbers, and Alberta's score has rebounded accordingly. Saskatchewan used to highlight non-consolidated spending and revenue figures in its budgets and public accounts, which prompted objections from the provincial auditor (Provincial Auditor Saskatchewan 2013). It no longer does so, and scores appropriately higher.

Alberta and Saskatchewan's high grades also reflect their timely publication of audited results. They could improve their scores even further if they reconciled their estimates to their budget documents.

Quebec made an important improvement. It now produces a consistent set of headline figures in its budget and public accounts. It would rise further if it dropped a confusing second set and if it received a clean opinion from the provincial auditor general.

Yukon also deserves a compliment. Its budgets are now consistent with its public accounts, making it the one territory where our reader would be able to find the comparable numbers. It, too, could improve further by dropping a second set of numbers in its budgets, and by tabling them earlier.

In some respects, the Atlantic provinces contrast with their Prairie counterparts: 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.

Sadly, however, Newfoundland and Labrador and Prince Edward Island, with "Es", do poorly. Nunavut also gets a low grade. Although estimates consistent with budgets save PEI and Nunavut from outright failing grades, their budgets contain multiple revenue and spending figures that no non-expert could possibly reconcile with the headline figures in their public accounts.

To return to the good-news note in closing this section, we observe that some of what are now egregious instances of poor reporting used to be commonplace. Happily, improvements in presentation have been more typical than deteriorations, and our 2015 survey fits that pattern.

HOW MUCH DO BUDGET VOTES ACTUALLY MEAN? TARGETS VERSUS RESULTS

If the presentation of consolidated budget and public accounts numbers everywhere were consistent, now and in the past, comparing plans and results over time would be simple. We would look at the dollar amounts for spending or revenue in each document, and the differences between them. The only arithmetic required would be calculating percent differences in each case to allow comparisons between jurisdictions of different sizes.

Governments did not present consistent numbers in the past, and many still do not, however. So we oblige our non-expert reader to undertake a task that should not be necessary. To reduce the impact of differences in presentation between budgets and public accounts, we calculate two sets of percent changes in revenue and in spending – one from the headline figures presented in budgets, and the other from the figures in the public accounts.³ Contrasting the percent-change figures in the two documents is not a perfect measure (see Box 1), but lessens the distortions of inconsistent accounting over time.

Spending

Presuming our idealized reader is up to this task, we can assess how successfully Canada's senior governments have hit their budget targets over

3 More specifically, we calculate the percent changes in revenue and spending relative to the prior year's figures as presented in each budget. Likewise, we calculate annual percent changes in revenue and spending as they appear in each public-accounts document.

Box 1: Potential Objections to Percent-Change Comparisons of Budgets and Public Accounts

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, it represents the lesser of two evils.

The greater evil would be to compare budgets with public accounts that use different accounting. That would treat differences in dollar amounts that reflected items included, excluded, or expensed differently as over- 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 over- or under-shoots.

While the percent-change approach is a lesser evil, it could create spurious over- 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 upcoming 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 would show a perfect record, but percent changes would show a discrepancy.

While this problem could 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 it would typically 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) over-runs will look closer to the projections. We doubt, therefore, that this problem seriously distorts our conclusions about relative performance.

the past 15 years. Table 2 shows the key figures. Projected changes in spending for the year in each government's spring budget are in the first panel (the final row in the panel shows the 2015/16 year's projections, for reference). Actual changes in spending for the year reported in each government's public accounts are in the second panel. The differences between them are in the third panel. We summarize the results in Table 3, using two measures.

One is the bias: the average difference between projected and actual changes. This is the arithmetic mean of the differences in the third panel of Table 2. It says whether governments overshoot or undershot their targets on average over the period.

The other is accuracy, for which we use another standard statistical measure: the square root of the sum of squared differences from the third panel of

Table 2. This is a useful measure for distinguishing two records that might yield similar bias scores – if two governments had tended to over-shoot and under-shoot in offsetting directions year by year, but one missed by larger amounts than the other. Squaring the differences gives greater weight to larger misses and means that overshoots and undershoots do not offset each other.

On the key question of overshooting versus undershooting, the bias measure delivers a clear verdict: over the 15 years, Canada's senior governments tended to overshoot their budget targets. The average annual overshoot across all of them was 2.4 percentage points. That is not small: it cumulates to \$69 billion of unanticipated spending over the period.

To show how each jurisdiction's 15-year overshoot compares to its current budget, the final

Table 2: Budgeted and Actual Expenditures, 2000/01-2014/15

	Announced Spending Change (<i>percent</i>)													
	Federal	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	NT	YK	NU
2000/01	0.6	3.1	1.5	-0.6	-2.3	2.8	-1.2	-0.6	3.6	1.8	-1.3	4.8	-1.9	3.2
2001/02	5.1	5.4	-0.2	0.5	6.6	3.4	2.2	1.7	5.8	12.5	7.4	4.5	-1.1	1.8
2002/03	3.3	1.5	1.3	0.9	4.4	2.0	3.5	2.2	-0.8	-8.1	-0.3	5.1	-4.4	2.0
2003/04	2.8	5.5	4.7	3.8	4.3	4.3	7.1	4.1	3.4	0.2	-2.4	5.7	-6.8	3.2
2004/05	2.3	0.4	-3.6	4.9	2.3	3.1	6.9	1.1	0.9	2.9	-2.6	2.7	5.1	-6.5
2005/06	1.9	5.5	1.4	4.2	3.2	3.3	4.2	3.5	1.1	5.7	4.7	1.5	5.0	-2.3
2006/07	5.0	3.7	2.6	6.3	1.7	4.1	2.1	3.4	0.1	4.0	3.7	0.8	-3.1	2.6
2007/08	4.6	8.8	8.0	5.1	2.9	3.9	2.6	5.8	1.6	11.7	3.9	4.7	-0.6	2.8
2008/09	2.3	11.1	6.4	2.5	2.7	3.6	0.2	3.3	4.6	9.7	1.1	-1.5	-0.9	4.0
2009/10	8.9	12.2	9.2	6.7	5.9	3.3	11.9	1.8	-0.9	-1.8	4.9	1.0	4.4	1.3
2010/11	4.8	14.4	0.8	0.4	1.6	3.9	7.0	1.6	0.1	4.2	2.3	5.6	-0.8	-7.5
2011/12	3.6	11.8	1.3	6.2	-1.6	3.5	1.0	2.3	-2.5	0.5	2.2	2.9	-3.4	-2.5
2012/13	1.2	2.1	1.0	3.7	1.3	3.0	1.4	-3.9	1.6	3.3	-1.2	0.8	4.1	-7.8
2013/14	0.9	1.9	1.9	-0.9	2.5	2.6	2.9	3.1	1.4	-1.1	0.8	1.8	2.0	-0.5
2014/15	-0.5	3.3	0.8	1.1	1.9	1.9	2.7	1.5	1.5	-4.5	1.7	7.2	-1.6	-7.9
2015/16	2.7	2.3	-0.4	1.3	1.5	1.5	1.9	1.9	0.5	3.1	2.3	0.6	4.7	-3.0
	Actual Spending Change (<i>percent</i>)													
	Federal	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	NT	YK	NU
2000/01	5.7	6.1	10.4	0.2	-2.3	4.8	-0.5	2.8	2.5	9.5	1.1	5.8	4.3	10.3
2001/02	1.9	5.2	3.6	5.2	7.5	3.2	3.0	1.8	7.0	10.0	10.2	8.9	5.9	7.9
2002/03	3.7	6.2	2.2	1.9	4.3	3.7	4.0	3.1	0.6	-1.5	1.1	5.4	3.4	5.0
2003/04	3.4	8.2	12.0	6.2	3.9	3.6	7.4	7.2	6.2	6.0	1.1	5.5	9.6	7.2
2004/05	10.9	-3.1	0.3	6.6	2.1	4.8	7.5	2.6	3.8	11.2	1.5	5.4	11.6	3.0
2005/06	-0.7	7.7	1.7	6.2	5.9	4.3	5.7	7.3	9.3	11.8	7.2	7.0	1.8	8.8
2006/07	6.3	0.2	3.2	6.2	5.3	5.4	5.0	5.4	7.4	9.1	4.8	4.1	8.0	5.4
2007/08	4.8	6.3	8.1	8.9	7.4	5.9	9.5	8.8	3.9	20.4	7.3	10.6	7.4	7.5
2008/09	2.6	9.8	7.9	3.8	6.4	4.0	0.4	4.2	20.6	7.8	3.5	4.6	6.6	11.0
2009/10	14.8	16.7	11.3	3.7	5.8	9.9	11.3	4.4	-2.5	-1.0	2.8	2.9	10.3	4.1
2010/11	-1.4	3.5	1.1	-1.8	4.6	4.6	4.9	5.1	8.6	2.7	2.3	2.8	5.6	3.3
2011/12	0.4	3.2	3.5	6.3	-1.6	3.7	1.3	10.7	0.9	5.2	6.6	3.3	2.3	6.9
2012/13	0.1	-1.7	0.3	3.8	3.0	2.7	-0.1	-2.2	3.1	4.7	-1.0	5.9	5.4	5.7
2013/14	0.6	2.3	3.6	2.9	-0.4	5.1	3.1	4.0	-3.2	9.1	0.4	4.5	6.2	5.6
2014/15	1.3	0.4	0.5	-0.4	4.2	0.9	2.0	3.1	1.2	-2.8	2.4	12.4	2.0	4.1

Table 2: Continued

	Difference (percent)													
	Federal	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	NT	YK	NU
2000/01	5.0	3.0	8.9	0.8	0.0	2.1	0.7	3.4	-1.1	7.7	2.4	1.0	6.2	7.1
2001/02	-3.2	-0.1	3.9	4.7	0.9	-0.2	0.8	0.1	1.2	-2.5	2.8	4.4	7.1	6.1
2002/03	0.4	4.7	0.9	1.0	-0.1	1.7	0.5	0.9	1.3	6.5	1.4	0.3	7.8	3.0
2003/04	0.6	2.7	7.3	2.4	-0.4	-0.7	0.4	3.0	2.8	5.7	3.5	-0.2	16.4	4.0
2004/05	8.6	-3.6	3.9	1.6	-0.2	1.7	0.6	1.5	2.9	8.3	4.1	2.7	6.4	9.5
2005/06	-2.6	2.2	0.3	2.1	2.8	0.9	1.5	3.8	8.1	6.1	2.5	5.4	-3.3	11.1
2006/07	1.3	-3.5	0.6	0.0	3.7	1.3	2.9	2.0	7.3	5.1	1.1	3.2	11.1	2.8
2007/08	0.2	-2.5	0.1	3.9	4.5	1.9	6.9	3.0	2.3	8.7	3.4	5.9	7.9	4.7
2008/09	0.3	-1.2	1.5	1.3	3.7	0.4	0.2	0.9	16.0	-1.9	2.4	6.1	7.5	7.1
2009/10	5.9	4.4	2.2	-3.0	-0.1	6.6	-0.5	2.5	-1.5	0.9	-2.1	1.8	5.8	2.9
2010/11	-6.1	-10.9	0.3	-2.2	3.1	0.7	-2.1	3.5	8.5	-1.5	0.0	-2.8	6.5	10.9
2011/12	-3.2	-8.6	2.3	0.1	0.0	0.2	0.3	8.4	3.4	4.7	4.4	0.4	5.7	9.4
2012/13	-1.1	-3.8	-0.7	0.2	1.7	-0.3	-1.6	1.7	1.5	1.4	0.2	5.2	1.2	13.5
2013/14	-0.2	0.4	1.8	3.8	-2.9	2.5	0.2	0.9	-4.6	10.2	-0.4	2.7	4.2	6.2
2014/15	1.8	-2.9	-0.2	-1.5	2.3	-1.0	-0.7	1.6	-0.2	1.8	0.7	5.2	3.6	12.0

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

column of Table 3 compares it to projected 2015/16 spending. While we are not suggesting government can or should offset these overshoots in a single year, we think it is fair to observe, for example, that if the government of Alberta had hit its annual targets over the period, spending in the current fiscal year might have been up to one-third smaller.

As for the best and worst records, Ottawa's average overshoot of 0.5 percent gives it the best – that is, the smallest – bias score among the 14 governments. Ontario comes second and Nova Scotia third. Quebec, New Brunswick and British Columbia recorded average overshoots between 1 and 2 percent. Alberta and Saskatchewan had the largest overshoots – 4.1 and 3.2 percentage points respectively – among the provinces. Yukon and Nunavut – with average overshoots of 6.3 and 7.3 percentage points respectively – had the worst records of all.

The accuracy scores tell a slightly different story. Ontario and Quebec have the best – which again means the smallest – root average square deviations: 2.1 percentage points. New Brunswick, Nova Scotia and British Columbia also show respectable accuracy scores. Alberta, Newfoundland and Labrador, and Saskatchewan were the least accurate provinces over the period, and 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 result from surprises such as ups and downs in the economy.

Table 3: Bias and Accuracy in Budget Forecasts of Spending, 2000/01 to 2014/15

	Bias		Accuracy		Total Overrun (\$millions)	Ratio: Total Overrun to 2015/16 Expenditures
	Mean Error (percent)	Rank	Root Mean Square Error (percent)	Rank		
Federal	0.5	1	3.7	8	10,852	4
Newfoundland and Labrador	-1.3	6	4.6	10	-1,233	-15
Prince Edward Island	2.2	8	3.5	7	376	23
Nova Scotia	1.0	3	2.4	4	1,285	13
New Brunswick	1.3	5	2.3	3	1,223	14
Quebec	1.2	4	2.1	2	14,426	15
Ontario	0.7	2	2.1	1	7,288	6
Manitoba	2.5	9	3.1	6	3,974	26
Saskatchewan	3.2	11	5.8	12	3,735	26
Alberta	4.1	12	5.7	11	16,913	34
British Columbia	1.8	7	2.5	5	8,009	17
Northwest Territories	2.8	10	3.8	9	543	30
Yukon	6.3	13	7.5	13	675	53
Nunavut	7.3	14	8.1	14	1,376	82

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

A similar review of projected and actual revenue changes nevertheless yields some interesting observations.

Table 4 presents the revenue changes projected in governments' spring budgets over the past 15 years. Like Table 2 for spending, it shows budgeted changes in revenue in its first panel (along with fiscal year 2015/16 projections for reference), actual changes in its second panel, and the differences between them in its third panel. Table 5 summarizes figures in the third panel for the period. As before, bias is the average difference between projected and actual changes; accuracy weighs larger misses more heavily and sums without regard to sign.

Even more so than with spending, revenue over-shoots are the general experience. The average annual excess of actual over projected revenue across all governments was 3.0 percent over the period. This cumulates to a remarkable \$118 billion.

Some observers of fiscal policy expect governments to over predict revenue (Jochimsen and Lehmann 2015). Canada's experience is the opposite. Governments' tax take over the last 15 years has been much larger than legislators anticipated when they considered annual budgets.

Who was best, and who worst? Ontario, which was the only jurisdiction to under-predict revenue over the period, did so only marginally: its revenue bias was very small. Ottawa, Nova Scotia, New

Table 4: Budgeted and Actual Revenues

Announced Revenue Change (percent)														
	Federal	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	NT	YK	NU
2000/01	1.3	3.9	-1.7	0.2	-1.5	2.8	-0.7	1.3	9.8	-1.6	0.5	4.9	1.7	3.1
2001/02	-4.1	5.7	0.6	1.8	4.4	0.5	-1.0	0.6	-11.1	-10.7	2.3	1.6	0.9	5.5
2002/03	0.3	0.7	-0.4	3.1	1.2	2.0	4.9	0.6	2.3	-5.6	-3.6	-13.1	-2.4	-2.5
2003/04	3.4	1.8	4.6	3.8	4.4	4.3	7.8	4.6	-2.8	-2.9	4.1	10.3	1.1	10.4
2004/05	3.4	-3.8	3.1	4.2	4.6	3.1	14.8	4.0	1.8	-9.4	3.2	6.9	2.1	2.7
2005/06	2.3	3.5	3.1	4.4	2.8	3.3	5.9	-0.3	-9.2	-4.9	1.1	1.9	5.0	5.4
2006/07	2.8	2.3	3.1	5.1	0.1	4.4	2.1	3.4	-3.5	-6.3	-0.3	2.0	1.1	2.5
2007/08	1.9	12.2	8.0	5.8	2.8	1.2	2.6	5.8	-6.2	-4.7	-1.7	4.3	-3.3	2.9
2008/09	-1.1	-3.4	6.8	2.3	2.7	0.1	0.4	1.3	-0.3	2.2	-2.3	-4.5	1.0	4.5
2009/10	-4.9	-29.5	6.7	-1.0	-0.6	-0.4	2.7	-0.4	-12.4	-11.1	-1.9	3.4	5.3	5.6
2010/11	8.0	5.6	3.0	3.7	1.8	2.9	10.9	1.7	-0.8	1.3	5.8	5.0	7.9	5.9
2011/12	5.7	-1.1	2.1	-3.1	2.1	4.8	2.2	2.0	-1.8	4.7	3.6	3.0	5.6	7.0
2012/13	2.8	-10.9	1.3	4.3	5.2	5.9	2.7	0.3	1.9	4.6	2.8	9.5	7.3	8.0
2013/14	3.8	0.1	2.8	3.3	1.8	5.0	2.3	3.0	1.9	1.4	4.6	2.5	2.4	4.8
2014/15	4.7	0.5	1.6	3.7	4.3	2.9	2.8	1.1	-2.2	-1.5	1.9	10.8	3.7	4.0
2015/16	3.9	0.2	0.5	1.6	0.6	4.3	5.0	1.2	0.9	-11.5	1.3	-0.6	2.1	3.6
Actual Revenue Change (percent)														
	Federal	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	NT	YK	NU
2000/01	8.1	6.7	4.4	6.4	1.3	7.7	2.8	6.5	15.3	26.9	10.2	20.9	13.7	9.3
2001/02	-3.0	-1.3	4.2	1.0	7.9	-1.4	-1.2	-0.1	-10.3	-13.9	-5.5	9.1	-4.3	-4.2
2002/03	3.6	1.4	-2.7	0.5	-1.3	4.2	3.6	3.3	6.6	3.4	-3.3	-11.2	6.8	10.5
2003/04	4.4	2.9	5.4	6.8	4.2	4.3	-0.7	4.7	1.6	14.2	8.2	2.6	11.6	5.2
2004/05	6.6	6.3	9.3	8.7	9.8	4.3	13.8	11.5	18.8	13.3	14.4	12.4	12.4	9.7
2005/06	4.8	23.9	4.8	5.6	5.7	5.5	8.2	2.3	5.5	21.4	7.7	11.3	9.8	12.5
2006/07	6.2	-0.6	5.2	5.3	5.2	8.6	7.3	6.0	5.2	7.4	7.0	8.0	5.6	17.1
2007/08	2.7	29.3	5.7	11.6	4.8	5.2	7.4	9.2	13.9	0.0	3.4	11.9	2.2	-5.1
2008/09	-3.8	20.9	5.7	-0.7	2.1	-0.3	-6.8	3.4	24.9	-6.2	-3.7	-5.3	5.4	7.8
2009/10	-6.2	-15.5	8.4	0.8	-1.7	7.6	-1.2	-0.9	-16.7	0.2	-2.0	3.0	7.3	3.4
2010/11	8.5	11.5	2.6	7.2	6.4	5.5	11.3	4.4	7.7	-1.8	6.6	1.9	7.7	6.4
2011/12	3.5	6.5	2.7	-2.5	3.6	4.6	2.4	4.6	0.5	11.1	2.6	3.9	9.3	7.2
2012/13	3.0	-14.8	0.6	3.5	-0.3	2.0	3.3	0.7	2.7	-2.4	0.5	16.7	8.9	6.6
2013/14	5.9	-0.2	5.9	-0.7	-0.3	6.1	2.2	4.4	0.7	16.9	4.0	-0.9	3.1	6.9
2014/15	4.0	3.3	2.1	5.7	7.2	2.9	2.3	3.7	-2.5	0.1	5.5	12.6	2.3	5.2

Table 4: Budgeted and Actual Revenues

	Difference (<i>percentage points</i>)													
	Federal	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	NT	YK	NU
2000/01	6.8	2.8	6.1	6.2	2.8	5.0	3.4	5.3	5.5	28.6	9.6	16.0	12.0	6.2
2001/02	1.0	-7.0	3.5	-0.8	3.5	-1.9	-0.2	-0.7	0.8	-3.2	-7.8	7.5	-5.2	-9.6
2002/03	3.2	0.7	-2.3	-2.5	-2.5	2.2	-1.3	2.7	4.3	8.9	0.3	1.9	9.1	13.0
2003/04	1.0	1.1	0.8	3.0	-0.2	0.1	-8.5	0.1	4.3	17.1	4.1	-7.7	10.4	-5.2
2004/05	3.2	10.1	6.2	4.5	5.2	1.1	-1.0	7.5	17.0	22.7	11.2	5.5	10.3	7.0
2005/06	2.5	20.4	1.7	1.2	2.9	2.3	2.3	2.6	14.6	26.3	6.7	9.3	4.8	7.0
2006/07	3.4	-2.9	2.0	0.2	5.0	4.2	5.2	2.6	8.7	13.8	7.4	6.0	4.5	14.6
2007/08	0.8	17.1	-2.3	5.8	2.0	4.0	4.8	3.4	20.1	4.6	5.2	7.6	5.5	-8.0
2008/09	-2.8	24.3	-1.1	-3.0	-0.6	-0.4	-7.2	2.0	25.2	-8.4	-1.4	-0.8	4.4	3.3
2009/10	-1.4	14.0	1.7	1.8	-1.2	8.1	-3.9	-0.5	-4.3	11.3	-0.2	-0.3	2.0	-2.2
2010/11	0.4	5.9	-0.4	3.5	4.6	2.6	0.5	2.7	8.5	-3.1	0.8	-3.2	-0.2	0.5
2011/12	-2.3	7.5	0.7	0.6	1.4	-0.2	0.3	2.6	2.3	6.4	-1.0	1.0	3.6	0.2
2012/13	0.2	-3.9	-0.7	-0.8	-5.5	-3.9	0.6	0.4	0.8	-7.0	-2.2	7.2	1.6	-1.4
2013/14	2.1	-0.3	3.2	-4.0	-2.1	1.1	0.0	1.4	-1.2	15.5	-0.6	-3.4	0.7	2.1
2014/15	-0.6	2.8	0.5	2.0	3.0	-0.1	-0.5	2.5	-0.3	1.6	3.5	1.8	-1.4	1.2

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

Brunswick and PEI also recorded small biases – little more than one percent annually. Not surprisingly, provinces more dependent on natural resource revenues – which thanks to buoyant prices tended to surprise on the upside over the period – had sizeable positive biases: Newfoundland and Labrador, Saskatchewan, and Alberta were the worst.

As for accuracy in revenue projections, Ottawa's standard deviation of 2.7 percentage points puts it at the front of the pack. 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 over- and undershoots of spending

and revenue together lets us probe deeper into the nature of missed targets. Among other things, we can check if surprises on the revenue side, which we expect are less under a government's control, tend to correlate with surprises on the spending side, which are more under its control.

The record of the past 15 years suggests 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 6). In every jurisdiction but Nova Scotia and Nunavut, the coefficient of correlation is positive. In five jurisdictions it exceeds the 0.44 figure that standard statistical tests say is significant for the 15-year period.

This correlation is inconsistent with the normal prescription that governments should let "automatic stabilizers" work through the economic cycle. A government following that advice will let cyclical

Table 5: Bias and Accuracy in Budget Forecasts of Revenue, 2000/01 to 2014/15

	Bias		Accuracy		Total Overrun (\$millions)	Ratio: Total Overrun to 2015/16 Revenues
	Mean Error (percent)	Rank	Root Mean Square Error (percent)	Rank		
Federal	1.2	3	2.7	1	34,751	12
Newfoundland and Labrador	6.2	12	10.9	12	5,797	83
Prince Edward Island	1.3	5	2.9	2	235	14
Nova Scotia	1.2	2	3.2	4	1,534	15
New Brunswick	1.2	4	3.2	5	1,015	12
Quebec	1.6	6	3.3	6	17,808	18
Ontario	-0.4	1	3.7	7	-4,416	-4
Manitoba	2.3	8	3.1	3	3,343	22
Saskatchewan	7.1	13	10.9	13	8,598	60
Alberta	9.0	14	14.5	14	37,131	85
British Columbia	2.4	9	5.4	8	11,039	24
Northwest Territories	3.2	10	6.7	10	528	29
Yukon	4.1	11	6.2	9	390	30
Nunavut	1.9	7	7.0	11	447	26

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

swings push revenue and spending in opposite directions. Booms will boost revenue above target and will lower spending on social supports, while busts will do the opposite: the annual correlation between revenue and spending surprises will be negative.

The fact that we do not find that result is not necessarily evidence of trouble. But a cyclical explanation for a positive correlation – 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. That kind of impact on demand for services would affect multi-year performance more than the

annual measures we are investigating, since much of the higher or lower demand would affect capital spending, which is less subject to in-year surprises.

If that explanation of positive correlations is unconvincing, a less happy alternative deserves notice: that governments low-ball revenue in their budgets to leave room for in-year sprees. Worse yet would be manipulation of reported numbers. Budget balances typically get more attention than spending and revenue levels, tempting governments to massage revenue or spending, or both, to achieve a predetermined bottom line. Because negative correlations are more consistent with traditional fiscal stabilization and positive correlations more likely to signal trouble, we rank the results in Nova

Table 6: Correlation of Deviations, 2000/01 to 2014/15

	Federal	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	NWT	Yukon	NU
Correlation of surprises	0.33	0.04	0.63	-0.15	0.34	0.81	0.47	0.16	0.74	0.74	0.29	0.39	0.33	-0.08
Rank	6	3	11	1	8	14	10	4	12	13	5	9	7	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.

Scotia and Nunavut as relatively good, and those in PEI, Saskatchewan, Alberta and Quebec as relatively bad.

HAS CONTROL OVER SPENDING AND REVENUE IMPROVED?

The economic climate changed in many ways over the past 15 years. The first five years were generally benign, with relatively steady growth. The second five years featured an unsustainable boom, financial crisis and slump. The final five years 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

Although the picture is mixed, the overall answer is encouraging. Most indicators of fiscal management registered better during the last 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 7. 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, half 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. Thirteen of the 14 governments recorded smaller bias scores in the last five years than in the first five, with Newfoundland and Labrador, buoyed by the oil boom, the only exception. And accuracy scores improved almost everywhere, and 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 8). If negative correlations between revenue and spending surprises are suggestive of automatic stabilization, while positive correlations are suggestive of massaging the bottom line, more governments moved in a good direction than a bad one. That encouraging trend may be at risk, however, with most senior governments back in the red, which seems in the past to have coincided with less stabilizing fiscal policy.

IMPROVING FISCAL ACCOUNTABILITY IN CANADA

To summarize to this point, we note improvements in financial presentations by many governments, and a tendency for results closer to budget votes in more recent years. But remaining presentation

Table 7: Improvements and Deteriorations in Accountability, by Five-Year Periods 2000/01 – 2014/15

Expenditures (percent)															
	Federal	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	NT	YK	NU	National Average
Bias: First 5 years	2.3	1.3	5.0	2.1	0.0	0.9	0.6	1.8	1.4	5.1	2.8	1.6	8.8	5.9	2.8
Bias: Middle 5 years	1.0	-0.1	0.9	0.8	2.9	2.2	2.2	2.4	6.4	3.8	1.5	4.5	5.8	5.7	2.9
Bias: Last 5 years	-1.8	-5.2	0.7	0.1	0.8	0.4	-0.8	3.2	1.7	3.3	1.0	2.1	4.2	10.4	1.4
Difference (last – first 5 years)	-0.5	3.8	-4.3	-2.0	0.8	-0.5	0.2	1.4	0.3	-1.8	-1.9	0.5	-4.6	4.4	-1.4
Accuracy: First 5 years	4.7	3.2	5.7	2.5	0.5	1.5	0.6	2.2	2.0	6.5	3.0	2.3	9.6	6.4	3.6
Accuracy: Middle 5 years	2.9	3.0	1.2	2.4	3.3	3.2	3.4	2.6	8.7	5.3	2.4	4.8	7.6	6.5	4.1
Accuracy: Last 5 years	3.2	6.6	1.3	2.1	2.3	1.2	1.2	4.2	4.6	5.2	2.0	3.7	4.6	10.7	3.8
Difference (last – first 5 years)	-1.4	3.4	-4.4	-0.5	1.8	-0.2	0.6	2.0	2.6	-1.3	-1.0	1.4	-5.0	4.3	0.2
Revenues (percent)															
	Federal	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	NT	YK	NU	National Average
Bias: First 5 years	3.1	1.5	2.9	2.1	1.7	1.3	-1.5	3.0	6.4	14.8	3.5	4.6	7.3	2.3	3.8
Bias: Middle 5 years	0.5	14.6	0.4	1.2	1.6	3.6	0.2	2.0	12.9	9.5	3.5	4.4	4.2	2.9	4.4
Bias: Last 5 years	0.0	2.4	0.7	0.3	0.3	-0.1	0.2	1.9	2.0	2.7	0.1	0.7	0.9	0.5	0.9
Difference (last – first 5 years)	-3.0	0.9	-2.2	-1.8	-1.5	-1.2	-1.4	-1.0	-4.4	-12.1	-3.4	-4.0	-6.5	-1.8	-2.9
Accuracy: First 5 years	3.7	5.7	4.3	3.9	3.3	2.6	4.2	4.3	8.5	18.5	7.7	9.0	9.7	8.7	6.7
Accuracy: Middle 5 years	2.4	17.3	1.8	3.1	2.8	4.6	5.0	2.4	16.4	14.8	5.0	6.0	4.4	8.3	6.7
Accuracy: Last 5 years	1.4	4.8	1.5	2.6	3.6	2.1	0.4	2.1	4.0	8.3	2.0	3.9	1.9	1.3	2.9
Difference (last – first 5 years)	-2.3	-0.9	-2.8	-1.3	0.4	-0.5	-3.7	-2.1	-4.5	-10.3	-5.7	-5.1	-7.8	-7.4	-3.9

Note: Differences in biases are calculated from absolute values.

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

Table 8: Correlations of Surprises, by Five-Year Periods 2000/01 – 2014/15

	Federal	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	NT	YK	NU	National Average
First 5 Years	0.59	-0.39	0.54	-0.37	0.30	0.81	0.80	0.28	0.42	0.88	0.41	0.42	0.20	0.02	0.35
Middle 5 Years	-0.42	0.38	0.24	0.33	0.53	0.90	0.77	0.17	0.74	0.54	0.39	0.33	-0.04	0.12	0.36
Last 5 years	0.14	-0.71	0.65	-0.98	0.43	0.46	-0.47	0.53	0.94	0.91	-0.15	0.66	0.06	-0.79	0.12
Difference (last – first 5 years)	-0.46	-0.33	0.11	-0.61	0.13	-0.35	-1.27	0.25	0.52	0.04	-0.56	0.25	-0.14	-0.81	-0.23

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

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 present one set of headline budget numbers on the same basis of accounting as used 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 documents.

Legislators in jurisdictions with deficient presentations should insist on the change Alberta just made: one set of headline figures, prepared on the same PSAB-consistent basis, in both 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 in the chain of fiscal accountability. In most jurisdictions, this link is weaker than it could be.

Jurisdictions that present estimates inconsistent with budgets and public accounts create a huge information problem for legislators. Several Atlantic provinces 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 must table its main estimates by March 1st, which sometimes means the estimates precede the budget, and it presents its estimates on a different basis of accounting and aggregation 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.”⁴

The House of Commons Standing Committee on Government Operations and Estimates released a 2012 report (House of Commons 2012) discussing the merits of adopting accrual accounting in the federal government’s estimates. The change did not occur, defenders of the current set-up maintaining 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. Separate cash-flow statements are standard in accounting, and help users reconcile the accrual-based plans and results with sources and uses of cash. We note with optimism that estimates consistent with the public accounts were a plank in the federal Liberals’ electoral platform, and look forward to highlighting that improvement in Ottawa’s presentation score in future iterations of this report.⁵

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 produce meaningful improvements in accountability on their own. 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. Complaints that committees, in turn, do not always take the trouble or receive the support they need to vet the numbers before voting are of long standing (Aucoin and Jarvis 2005; Hepburn 2006). At the federal level, the “deemed rule” means that estimates are approved by default. As Page, Martin and Plamondon remark: “There are few jobs in which you are deemed to have done your work when you haven’t lifted a finger.” Genuine scrutiny would mean actively considering and voting, both in the relevant committee, and in the legislature as a whole.

Some commentators have suggested incenting committees to do their job more diligently by granting them power to change around 5 percent of the estimated allocation (House of Commons 2003, Good 2005). As matters stand, votes on estimates are yes, no or reduce votes, of which very 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

The persistent, large deviations between budget plans – which are presumably fairly faithfully reflected in (or reflective of) the main estimates – and results points to the particular need for legislatures and their committees to scrutinize, and vote responsibly on, supplementary estimates.

4 Kevin Page, Pat Martin and Bob Plamondon, “Why we must restore Parliament’s control of the public purse,” *The Globe and Mail*, 21 December 2015.

5 Treasury Board President Scott Brison recently stated his intention to ensure a new, more budget-consistent, federal estimates process for the 2016/17 fiscal year (“Scott Brison sets out to stop the budget’s March madness,” Janyce McGregor, CBC News, 22 February 2016).

Consider the fraught question of reserves for revenue shortfalls or contingent spending in budgets. When facing a commodity-related downturn in revenues, say, or events such as a natural disaster, including such reserves in the fiscal plan helps legislators protect the bottom line. The objection to them is that they provide cover for spending that might not otherwise pass inspection. On balance, we favour including modest contingency reserves in budgets, provided that better parliamentary scrutiny forestalls their use as slush funds.

Year-End Results Must be Timely

Finally, we underline the importance of timely publication of results. Everyone knows the importance of knowing where you are in getting where you want to go. 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 public accounts improves the prospects for a realistic budget plan.

Table 1 showed 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 that quickly. Alberta's legislation requires its public accounts to be made public before the end of June. Most, however, receive their auditors' approvals and produce their reports far later. In our view, June 30th would be a good deadline by which all governments should table and release their public accounts.

CONCLUSION

With governments playing such massive roles in Canada's economy and Canadians' 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, and whether they did what they planned.

Canada's senior governments provide better information than they 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 is more suggestive of managing the bottom line than of good macroeconomic management. 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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