ATTACHMENT 1

INSTITUT **C.D. HOWE** INSTITUTE

COMMENTARY

NO. 439

Building Better Budgets: Canada's Cities Should Clean Up their Financial Reporting

Canada's cities should clean up their budgets and financial reports so councillors and ordinary citizens can make sense of them. As things stand, city budgets lack accountability and transparency, and there are yawning gaps between what councils vote and what financial reports show actually gets spent.

Benjamin Dachis and William B.P. Robson

About The Authors

Benjamin Dachis
is a Senior Policy Analyst
at the C.D. Howe Institute.

William B.P. Robson
is President and CEO
of the C.D. Howe Institute.

The Institute's Commitment to Quality

C.D. Howe Institute publications undergo rigorous external review by academics and independent experts drawn from the public and private sectors.

The Institute's peer review process ensures the quality, integrity and objectivity of its policy research. The Institute will not publish any study that, in its view, fails to meet the standards of the review process. The Institute requires that its authors publicly disclose any actual or potential conflicts of interest of which they are aware.

In its mission to educate and foster debate on essential public policy issues, the C.D. Howe Institute provides nonpartisan policy advice to interested parties on a non-exclusive basis. The Institute will not endorse any political party, elected official, candidate for elected office, or interest group.

As a registered Canadian charity, the C.D. Howe Institute as a matter of course accepts donations from individuals, private and public organizations, charitable foundations and others, by way of general and project support. The Institute will not accept any donation that stipulates a predetermined result or policy stance or otherwise inhibits its independence, or that of its staff and authors, in pursuing scholarly activities or disseminating research results.

Daniel Schwanen
Vice President, Research

Commentary No. 439
November 2015
Public Governance and Accountability

$12.00
ISBN 978-0-88806-962-7
ISSN 0824-8001 (print);
ISSN 1703-0765 (online)

The Study In Brief

In nearly all Canada's major cities, what should be a simple exercise – comparing the spending voted by city council in its annual budget with the actual spending reported at year-end – will baffle any but the most expert reader. While most of Canada's federal and provincial governments now present their budgets on the same basis as their financial reports, municipal governments typically do not. As a result, judging whether a city over- or under-shot its budget targets, and by how much – which should be a simple matter of comparing headline numbers – is not possible for a typical councillor, taxpayer or citizen.

The critical common element is that most cities use an antiquated form of budgeting. Most of Canada's senior governments, when preparing budgets and end-of-year reports, use modern accounting methods that record the cost of long-lived assets such as buildings and infrastructure as those assets deliver their services. Municipal budgets, by contrast, budget capital on a cash basis, exaggerating projects' up-front costs and understating them later on expenses.

Largely for this reason, no major city in Canada offers a clear budget presentation, and none earns an "A" in our report card on budgeting practices. Among the cities that earn the worst grades for baffling budget presentations are Edmonton, Winnipeg, Windsor, Toronto, Vaughan and Ontario's Durham Region.

This study also shows how a reasonably intelligent but time-constrained non-expert user – a councillor or taxpayer – might understand the differences between budgeted and actual spending in Canada's major cities. The gaps are enormous – and indicate that opaque budgeting is a major obstacle to fiscal accountability at the municipal level.

Importantly, these cities' end-of-year financial reports, which use accounting similar to that used by senior governments, show a cumulative surplus of $41 billion since 2008. Their total surplus was $6 billion in 2014 alone. This record suggests that cash budgeting has led cities to over-charge today's taxpayers for long-lived capital projects. In Ontario, Vaughan, Halton Region, and Markham stand out in this respect; among major Western Canadian cities, Calgary, Saskatoon and Surrey, B.C. also appear not to be spreading the costs of capital over time as fairly as they could.

Changes in provincial legislation could foster better municipal budgeting, but cities also have the capacity to present more meaningful numbers on their own. Having comparable accounting standards among all levels of government is critical to understanding the relative fiscal health of each level – especially important if provinces look to give cities new tax powers or direct financial supports. Both provinces and municipalities should take steps to improve the fiscal accountability of municipalities and the stewardship of municipal funds.

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

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

How much does your municipal government plan to spend this year? How much did it spend last year? How does what it spent last year compare to what it said it would spend?

These should be simple questions for taxpayers, councillors and local media to answer. But in every major Canadian city, finding the answers is anything but.

Budget targets are a challenge for any organization to meet – Canada's federal and provincial governments do not hit their revenue and expenditure targets reliably. But if municipal government observers scrutinized cities' budget promises in the same way available to watchers of federal and provincial governments, they would find that the gaps between approved municipal budgets and actual results are typically far larger than those of senior governments. This *Commentary* shines light into this vital but murky area by surveying the financial-reporting practices of Canada's largest municipalities and – to the extent the published numbers permit – evaluates their track records in fulfilling their budget commitments.

The unsatisfactory nature of municipal financial reporting – the differences between how cities present their budget documents and how they report their results at year-end – is a major theme of this report. These differences are a concern not only for accountants. They have real-world consequences – notably budgets that exaggerate the costs of capital projects up front, thereby distorting investment decisions and obscuring the sustainability of city finances over time. More generally, inconsistent presentations hamper the ability of legislators, ratepayers and voters to hold their municipal governments to account.

At the beginning of the 2000s, the federal government and all the provincial and territorial governments used different accounting and presentations in their budgets than in their financial reports. Over time, thankfully, those differences are disappearing. This review of Canadian cities' fiscal reporting shows how local governments should and can move forward and improve their accountability for the money they raise and spend.

How to Build a Better Budget

Our key recommendation is that municipal governments should present their annual budgets on an accrual basis, the same accounting basis as their financial statements. Provincial governments exercise decisive control over cities, so those that impede accrual-based budgets at the municipal level should change their legislation. The coming year is an opportune time to make this change, with major reviews of the acts that govern municipalities underway in Alberta and Ontario. Even where the provincial environment is difficult, however, cities can release the relevant information on their own – and they should.

The accounting techniques in municipal budgets may sound arcane, but they matter on the ground. First, current practices likely bias decisions against

Many thanks to the reviewers of this and previous iterations of our work on municipal budget practices. Thanks in particular to Jonathan Pedde, Aaron Jacobs and Jennifer Tsao for help in collecting information on municipal budgets. Any remaining errors are our own.

investing in and paying for long-lived assets. Accrual accounting would give councillors and voters new insights about how to pay for, and maintain, infrastructure investments. Second, inconsistent budgeting among different levels of government muddies the comparison of their fiscal health. Better accounting would give everyone a clearer picture – especially important if cities are to get new tax powers or direct financial supports.

Municipal Budgets and Financial Reports

Public sector accountability has many dimensions: actual and potential reports range from on-time performance in public transit systems to how well students and patients fare in public schools and hospitals, and to audits of spending in government agencies. The focus of this *Commentary* is municipal governments' annual fiscal footprint: the aggregate figures for revenue and spending in a fiscal year. A municipality's fiscal footprint determines the taxes, user fees and other charges that citizens and businesses must pay, and is a critical element in assessing its impact on public services and the local economy.

Like the federal and provincial governments, Canadian cities produce two major documents in their annual fiscal cycles, budgets and financial reports. Budgets are the cornerstone of municipalities' fiscal plans. At the opposite end of the cycle, municipalities publish audited financial reports that show actual revenue and spending over the year.

Ideally, our investigation of fiscal accountability would begin by comparing budgeted revenue and spending to actual revenue and spending for the most recent year in each city and then extending that survey back in time to get a sense of average performance and trends. As with the C.D. Howe Institute's annual surveys of the fiscal accountability of Canada's federal, provincial and territorial governments, this ideal approach requires two things.[1]

First, without digging through dozens of pages, tables of numbers and footnotes, or doing lots of arithmetic, a person of reasonable intelligence – such as a motivated but time-constrained councillor – should be able to find the key revenue and spending totals in a city's budget and end-of-year financial reports.

Second, with no inordinate effort, expertise or resort to external experts, that person also should be able to compare the figures in the two documents to see how a city has managed relative to its financial goals.

Our survey treats the beginning-of-year budget as uniquely important. Budgets take months of preparation and are the principal opportunity for citizens, their elected representatives and the media to consider and provide input on municipal priorities. It is regrettably common for federal and provincial governments, like cities, to approve spending that is large and inconsistent with their budgets during the fiscal year. We treat these deviations from plan as problems – especially when neither the in-year documents nor the end-of-year financial reports itemize or explain them – rather than as changes of course that are automatically validated by the associated vote.

To reiterate, our key premise is that a smart non-expert should be able readily to compare municipal spending using only the main tables in the city's budget documents and financial statements. Giving municipal councillors and citizens straightforward information that allows a comparison of key budget items and year-end results seems a reasonable request of any municipality.

1 See, for example, Busby and Robson (2008, 2009, 2010, 2011, 2013, 2014, 2015).

A Basic Accounting Discrepancy

For virtually all Canadians, however, this ideal situation is, in fact, only an ideal. In most of Canada's major cities, our smart and motivated, but time-constrained, reader would find a simple comparison of spending numbers in budgets and financial reports impossible because the accounting is different. So our investigation first requires a look at the differences and their significance.

The best way to represent economic reality in financial reports is a subject of ongoing and energetic debate. Among the better-established principles – key in what is typically called "accrual accounting" – is that financial reports should anticipate, or report, revenues and expenditures during the period when the relevant activity occurs.

A salient example is the purchase of a long-lived asset such as a building. It makes no sense to record the entire construction cost as an expense at the time the cash is laid out. More sensible is to record the value of the building as an asset and amortize the expense, writing it off over time as the building delivers its services. Municipal governments can, and should, rely on other aspects of financial statements, such as cash-flow statements and changes in debt, to report the full impact of a spending promise.

Municipal governments have large capital assets – buildings, as well as equipment and infrastructure such as roads, bridges, and water and sewage facilities. In their financial reports, they do not record the entire cost of these items as expenses in the year of the cash outlay, but show the annual amortization over their useful lives. Among other virtues, this approach helps match the period during which taxpayers cover the cost of long-lived assets with the period during which the assets provide services, a straightforward tool to achieve fairness among taxpayers over time.

The Public Sector Accounting Board (PSAB) has required accrual accounting by Canadian governments since 2009.[2] These standards are not ideal for all purposes. A notable gap is the omission of the full cost of employee benefits earned but not yet paid, especially pension obligations.[3] Such gaps reduce the value of annual income statements and associated statements of net worth in determining how well a government is matching its revenues to its expenditures and avoiding unfair transfers of wealth over time. Because existing accrual accounting does a better job in this regard than alternatives such as cash accounting, however, and its embodiment in current standards signifies widespread acceptance, we accept this methodology as definitive.

Most municipalities do not use accrual accounting in their budgets. They use it for some items, such as accounts receivable. But they use cash accounting for others, most notably capital items. Unlike businesses and most senior governments – and unlike in their financial reports – municipalities typically show cash outlays on capital when they expect them to occur. A common practice is to show these expected cash outlays in a "capital" budget, while also producing an "operating" budget for items to be consumed and expensed during the year.[4] Some municipalities present and vote capital

2 Many provinces also require that municipalities submit their final financial results to its ministry responsible for municipal affairs. Ontario municipalities, for example, must file a provincial Financial Information Return, with standardized aggregations of municipal operations, and often use the same basis of departmental aggregation in their financial statements.

3 As Laurin and Robson (2014) note, the interest rate that the federal government uses to discount future pension liabilities does not provide an economically meaningful estimate of the present value of future pension payment obligations.

4 One rationale for this two-budget approach is that the provincial acts that govern cities generally require them to balance an annual operating budget, and issue debt only for long-term capital expenses.

and operating budgets together; others do so separately. Either way, the resulting budget totals are not comparable to what will appear in financial reports.

This discrepancy in accounting practices complicates comparing spending in budgets and financial reports. It also makes comparing revenue in the two documents largely pointless. "Capital financing" in municipal capital budgets includes all sources of funds, not just tax and other current revenue such as grants from other levels of government, but also funds raised by issuing debt. So it mixes an item such as a bond issue that does not add to an entity's net worth with items such as taxes, remitted profits of municipally owned enterprises and grants from other levels of government that do add to net worth. This confusion will frustrate even a personal familiar with financial reporting who wants to determine the magnitude of a municipality's claim on community resources.

A Further Complication: Gross versus Net Figures

Another obstacle to comparing actual to budgeted amounts is the netting of some revenues against expenditures. Netting is a problem in business financial statements and in the statements of some senior governments (for example when spending is disguised as a "tax credit" calculated with no reference whatever to taxes actually paid). It is a pervasive problem in city budgets – with documents typically presenting the spending of a department, or the city as whole, net of any non-property tax revenue they collect. Defenders of netting typically point to the centrality of property taxes in budget debates. "Tax-supported" services attract more attention than "rate-supported" services such as water and sewage, since homeowners and businesses typically consider rate-supported items as akin to a priced service, possibly one they can control by varying their use. Property taxes feel like more of an imposition outside the taxpayer's control. So it might appear sensible to deduct water, sewage and so on from revenue and spending to highlight the tax burden.

That reasoning might justify showing net amounts as supplementary information in budgets and financial reports. But highlighting net rather than gross figures – or, worse, not showing gross figures at all – understates a government's fiscal footprint.

Taxpayers and residents must pay the full cost of government, and a budget presentation that focuses on property taxes may lead councillors to raise other, perhaps more economically harmful, revenues from other sources. In the case of individual departments, showing only net figures can obscure important trends in gross revenue and spending. Budgets that obscure or omit the total revenues and expenses associated with rate-supported services, are hard to compare to end-of-year financial reports.[5]

Lack of Reconciliation between Budgets and Financial Statements

Even when accounting and gross reporting are consistent, it helps to have reconciliation tables in financial reports that itemize how actual expenses

5 Most municipalities report department-level spending at different levels of aggregation in their budgets than in their financial reports. For example, most set budgets for specific departments – say, policing and firefighting – each of which is at least notionally under the control of a department head. Financial reports, on the other hand, might aggregate such items into broader categories – for example, "protection services." We do not examine here whether municipalities provide the same departmental aggregation in budgets as in financial reports. However, our inaugural report (Dachis and Robson 2011) showed that hardly any do.

deviated from budget. Canada's senior governments increasingly show these reconciliations, which help legislators and citizens hold governments to account for their actions and, potentially, take steps to reduce the size of future surprises. When accounting and gross/net reporting are inconsistent, such reconciliation tables are critical.

Grading Canadian Municipal Budgets

This background sets the stage for our first cut at the financial information in municipal budgets. To let the non-expert reader quickly compare key revenue and spending totals, municipal financial documents should:

- present budget figures on the same accrual basis as is used in the financial report;
- show combined rate- and tax-supported gross expenditures on the same basis as in the financial report;
- reconcile results to budget projections, as originally reported, in the financial report;

In addition, councillors should vote the budget before – or failing that, very shortly after – the start of the fiscal year, so they are approving spending before it happens.

We focus on spending because, as noted already, municipalities combine borrowing with tax and other revenues in their capital budgets. The quality of the spending numbers also differs in important ways. A non-expert reader should not be expected to find and add multiple spending figures scattered throughout budget documents. Accordingly, we judge only the merits of the most prominently displayed aggregate figures in the most prominently displayed budget documents posted on a municipality's website.

For our budget clarity letter grade, we would give a city that meets all these criteria an A grade. Cities lose one-third of a grade for every "Partial" or "Sort of" (i.e. A to A-, or A- to B+). They lose a full grade for a "No." Cities lose one-third of a letter grade if the budget is approved in the budget year. Cities lose a full grade if the budget is approved more than three months into budget year.

As Table 1 shows, some cities presented their 2015 budgets better than others. Surrey, BC, Brampton, Ontario, and Ontario's Niagara Region are the only ones that at least partially fulfilled our criteria, notably of prominently presenting a budget on an accrual basis. However, they undercut what would otherwise have been a praiseworthy practice by displaying their accrual-basis spending figures in places where our non-expert reader would have trouble finding them.

Six municipal authorities – Edmonton, Winnipeg, Windsor, Toronto, Vaughan and Ontario's Durham Region – fulfilled none of our clarity criteria. Their online budgets use accounting that is inconsistent with their financial reports, do not present the municipality's full fiscal footprint in the headline estimates, and provide no reconciliation with budget numbers in their financial reports. These cities' documents would stump our reader at the outset.

A few cities approved their budgets before the fiscal year started. Calgary, Edmonton, Montreal, Saskatoon and Surrey all approved their 2015 fiscal year budgets before the end of 2014. By contrast, Brampton, Hamilton, Markham, Ontario, and Vaughan, Ontario, approved their budgets more than one quarter into their 2015 fiscal years. Admittedly, 2015 would have been a difficult year for municipalities to pass an early budget for cities in Ontario because they held elections in late 2014.[6]

6 This circumstance, however, does not excuse voting after so much spending has already occurred or been committed. An awkwardly timed election should prompt a city to complete its budget cycle earlier.

Table 1: 2015 Report Card – Clarity of City Budgets and Financial Statements

Municipality	Fiscal Year	Budget and Financial Reports on Same Accounting Basis	Budget Headline Total is for All Gross Expenses	Reconciliation Table in Most Recent Financial Statement*	Latest Budget Approval Date	Grade
Brampton	2015	Partial (g)	Yes	Yes	April 8, 2015	B-
Calgary	2015-18	No	Partial (a)	Sort of (b)	Dec. 11, 2014	C+
Durham Region	2015	No	No	No(f)	March 4, 2015	D-
Edmonton	2015	No (c)	No	No	Dec. 11, 2014	D
Halifax	2015-16	No	Yes	Yes	April 28, 2015	B-
Halton	2015	No	Yes	Sort of (b)	Jan. 28, 2015	C+
Hamilton	2015	No	Yes	Sort of (b)	April 8, 2015	C-
London	2015	No	Yes	No(d)	Feb. 26, 2015	C-
Markham	2015	No	Yes	No	April 1, 2015	D
Mississauga	2015	No	Yes	Yes	Feb. 11, 2015	B-
Montreal	2015 (e)	No	Yes	No	Dec. 10, 2014	C
Niagara	2015	Partial (g)	Yes	Yes	Feb. 20, 2015	B
Ottawa	2015	No	Yes	Yes	March 11, 2015	B-
Peel	2015	No	Yes	No (a)	Feb. 19, 2015	C-
Saskatoon	2015	No	Yes (h)	No	Dec. 9, 2014	C
Sudbury	2015	No	Yes	Sort of (b)	March 5, 2015	C+
Surrey	2015	Partial (i)	Yes	Yes (i)	Dec. 15, 2014	A-
Toronto	2015	No	No (j)	No (f)	March 11, 2015	D-
Vancouver	2015	No	Yes	Yes	March 3, 2015	B-
Vaughan	2015	No	No (j)	No (f)	April 1, 2015	F
Waterloo	2015	No	Yes	No (d)	March 4, 2015	C-
Windsor	2015	No	No	No	Jan. 20, 2015	D-
Winnipeg	2015	No	No	No	March 23, 2015	D-
York	2015	No	Yes	Yes	Feb. 27, 2015	B-

*Reconciliation compares 2014 financial statement to 2014 budget. (Halifax's budgets are for April–March.)
(a) Calgary financial information relegated to supplemental information, making headline figures hard to find. Calgary presents a multi-year budget online. (b) Financial statement contains reconciliation, but totals differ from operating totals in the originally approved budget by less than 0.5 percent of all approved spending. (c) Budget on same accounting basis but not posted in a prominent position. (d) London and Waterloo present reconciliation only of surplus in PSAB layout to balanced budget. (e) English "Budget at a glance". (f) Financial statement contains reconciliation, but totals differ from operating totals in the originally approved budget by more than 0.5 percent of total approved spending. (g) Budget on same accounting basis posted in a prominent position and well explained, but not headline figure. (h) Budget only presents in text the total operating expense. (i) Surrey's budget presents two headline totals, one that is comparable to financial statements and another that is not. (j) Introduction letter and most prominent summary tables discuss different gross and net numbers.
Source: Authors' interpretation of 2015 approved budgets as posted on municipal websites and 2014 financial statements.

These cities, with the exception of Halifax, have fiscal years that coincide with the calendar year. Most cities have fiscal years that do not coincide with federal or provincial fiscal years, which run from April 1 to March 31. As a result, federal and provincial budgets are often only presented in February or March or even later. As cities often wait for federal and provincial grants, which senior governments only finalize in their budgets, the result of the different fiscal years might be delays in the presentation of municipal budgets.

Measuring Fiscal Accountability

Clear and transparent financial presentations are important for fiscal policy accountability. The superior financial presentations followed by many of Canada's senior governments let legislators and taxpayers, without inordinate effort, assess how well actual results match budget plans. Having shown how inconsistent accounting makes this task harder at the local level, we now present the results of our attempt to do so.

We compiled spending data from annual budgets and end-of-year financial statements from 2005 through 2014 for 24 major cities. When municipalities were amalgamated – or, in Montreal's case, de-amalgamated – over this period, we used the budget amounts from the year after the change. Because municipal budgets and financial statements use inconsistent accounting, we cannot simply compare budgets to financial results using levels – dollar values – of spending. Furthermore, financial-report accounting presentations have changed over this period. We mitigate these distortions by assigning our non-expert reader an admittedly tedious task, and comparing projected and actual growth rates, rather than levels. In both budgets and financial reports, we calculated increases for the reference year from the prior year numbers shown in the same document.[7] The growth rates in budgets and in financial reports, and the difference between them, appear in Appendix Table A-1 (Box 1 provides additional details).

Comparing annual growth rates in budgets to those in financial reports lets us produce our main summary measure of how close a city's end-of-year results are to its budget commitments. We add up all the differences between budget and financial statement growth rates, treating overshoots and undershoots the same way – that is, a miss is a miss, regardless of direction.[8]

What does this measure of gaps between intentions and results reveal? Toronto, Halifax and Ontario's Waterloo Region earn top marks on this measure of budget accuracy: the annual average discrepancy between budgeted and actual spending for them is less than 5 percent (Table 2). Two considerations temper these good results, though. One is that we are using a highly imperfect measure of total budgeted spending. The other is that this standing is positive only relative to other Canadian cities. If we included the federal government, the provinces and territories, some of whose records at hitting budget targets are pretty poor themselves, Toronto, Halifax and Waterloo Region would place only eighth, 12th and 13th.[9]

7 That is, we used the current and prior year in the financial report to calculate the growth rate in the financial report. So our budget and financial reports date from 2004. And we used the current and prior year in the budget document to calculate the budget's growth rate.

8 Our measure uses the square root of the squared percentage deviations. Municipalities are subject to random surprises that could affect these results, but we have no reason to believe that, over the course of a decade, any one municipality should be more prone to such occurrences than others.

9 See Busby and Robson (2015) for the expenditure accuracy estimates of these governments from fiscal years 2004/05 through 2013/14.

Box 1: Methodology

In keeping with our goal of making municipal financial statements accessible for a reasonably intelligent and motivated, but non-expert, reader, we use the most conspicuously stated total gross expenditure figures from municipalities' capital and operating budgets. We add capital and operating budget totals when a city presents the two separately, as our reader would have great difficulty tracking the transfer of funds between budgets. Municipal budgets often show transfers of funds between capital and operating budgets: while adding the two can result in some double counting, these transfers are small compared with the totals.

As described in the text, we divide the difference between the current-year expenditure anticipated in a budget and the prior-year expenditure in the same document by the prior-year expenditure to get a percentage change. We do the same to get a percentage change from the figures in the financial statements. We ensure that our calculations use consistently presented numbers – for instance, the 2009 fiscal year accounting change in financial statements – by basing them on the restated amounts from the previous year's budgets or financial statements. Most cities do not report the previous year's budgeted capital expenses; in those cases, we use the amounts in the budget from the previous year for the comparison.

We do not compare municipal budget estimates of revenues to actual revenues, because municipal capital budgets often show cash from borrowing along with other sources of revenue that add to net worth, a regrettable mixing that produces a figure that is meaningless in the context of an income statement.

Our analysis covers cities with a population of more than 275,000 in 2011 or total end-of-year revenue of more than $500 million in that year, except for Laval and Longueuil in Quebec, along with Quebec City, for which we were unable to collect data for the full period, partly due to recent amalgamations and de-amalgamations.

Some data were unavailable for other municipalities. For example, we excluded Vaughan in 2009 because it did not present its 2008 expenses on a comparable basis in that year's budget, preventing a meaningful calculation of year-over-year changes. We also do not have complete budget books for Calgary for 2002 through 2005. We used the headline figures from Calgary's budget books for years in which we obtained budget books, but use the most prominently displayed gross expenditure figures from budget documents the city provided to the authors.

At the other end of the scale, Ontario's Halton Region and Ottawa have the worst accuracy results among all municipalities: their average annual discrepancies between budgeted and actual spending were larger than 22 percent. No senior government's discrepancies were anything like this big. Halton and Ottawa would be dead last in a survey of all major Canadian governments as well.

Why are so many cities so bad at hitting budget targets? One particular instance provides a clue. In 2013, the City of Ottawa budgeted $2 billion for light rail expansion, which looked like a 50 percent

Table 2: Summary of Spending Accuracy, 2005-2014

Jurisdiction	Accuracy (percent)	Rank	Jurisdiction	Accuracy (percent)	Rank
Toronto	3.6	1	Montreal	8.4	13
Halifax	4.6	2	Mississauga	9.3	14
Waterloo Region	4.7	3	Vancouver	9.8	15
Winnipeg	5.9	4	Surrey	10.2	16
Sudbury	6.1	5	York Region	12.0	17
Calgary	6.3	6	Peel Region	13.0	18
London	6.7	7	Edmonton	13.0	19
Niagara Region	6.9	8	Markham	14.3	20
Hamilton	6.9	9	Brampton	16.8	21
Saskatoon	6.9	10	Vaughan	20.3	22
Durham Region	7.3	11	Ottawa	22.0	23
Windsor	8.1	12	Halton Region	36.5	24

Note: We exclude 2009 for Vaughan, 2011 for Niagara Region and 2006 for Montreal.
Source: Authors' calculations from municipal budgets and financial statements.

increase in spending that year. However, Ottawa's 2013 financial statements showed a spending increase of less than 3 percent because the end-of-year report amortized capital projects over their expected life.

Halton in 2012 provides another example of unilluminating budgeting. Its budget that year proposed $690 million in capital spending. But Halton's 2013 budget showed a restated $176 million in capital spending for 2012 and proposed $965 million in capital spending for 2013.[10] As a result, Halton's 2012 and 2013 total combined operating and capital budgets showed spending increases of 52 percent and 90 percent. Yet, its financial reports for those two years showed increases of only 2 percent and 4 percent. These are stark examples of how capital budgeting that is inconsistent with financial reporting would lead a non-expert reader trying to compare a city's results with its commitments badly astray.

Why This Matters: The Myths and Realities of Strained Municipal Finances

Municipalities' flawed budget accounting not only messes up comparisons of budgets and financial

10 The 2013 Halton budget explains that this restatement resulted from a mid-year municipal report that recommended deferring most of the proposed 2012 capital projects due to delays in implementing a Development Financing Plan (Halton Region 2012).

results, it can have real consequences on their spending decisions. In particular, too much focus on cash outlays complicates councillors' ability to manage the inevitable tension between the desires and interests of current taxpayers and users of municipal services and those of future taxpayers and service users, notably in building and financing long-lived assets.

Inconsistent Budgeting Distorts Municipal Investment Choices

Decisions about how to finance assets are not necessarily linked to decisions about how to represent them in financial statements. But accrual accounting's basis for good decisionmaking is clear in a situation where a government borrows, say, $1 billion to finance an asset that will produce services for 20 years and amortizes the loan over the same 20-year period over which it writes off the asset. That approach straightforwardly tries to match costs and benefits over time.

Specifically, presenting councillors with capital budgets that show outlays on such assets as in-year expenses (as cash budgeting does), rather than capitalizing them and amortizing them as they deliver their services (as accrual accounting does), likely biases municipalities toward raising revenues up front to finance infrastructure expenditures that will yield benefits well into the future.

One type of upfront revenue is the infrastructure charges municipalities impose on developers.[11] Like other levies, these "development charges" make sense when they spread costs over the period during which people will enjoy the related benefits (see Bird, Slack, and Tassonyi 2012). Cash accounting, however, creates a bias toward levying these charges as the cash is being spent, which, given their size, would represent a significant subsidy to future service users at the expense of new homebuyers. Development charges are one of the main sources of capital financing of municipal capital assets. Indeed, Ontario municipalities collected $1.5 billion in development charges in 2013.[12]

The pattern of surpluses that is evident since 2009 when cities began following the PSAB requirement to use accrual accounting in their year-end financial statements suggests that they have since then collected more revenues than the value of their operating and capital services. Indeed, from 2008 through 2014, Canada's 24 largest municipal governments ran an aggregate cumulative surplus of $41.4 billion (Table 3).[13] The 2014 total surplus, $6.2 billion, was 12 percent of their revenues that year. The municipalities with the largest surpluses as a share of revenues in 2014 – Vaughan, Halton Region, Calgary, Markham, Saskatoon and Surrey – had surpluses of more than 20 percent of total revenues.[14] This does not mean that cities, in reality, have hugely positive net worth. Cities often

11 Ontario has a specific *Development Charges Act*, while other provinces have sections in their municipal acts that outline the types of charges cities can levy on developers. For example, Sections 42 and 37 of Ontario's *Planning Act* provide the option of in-kind contributions for parklands or other community amenities to secure planning approval for buildings that exceed zoning requirements. Many other provinces have similar provisions. As well, Ontario requires that municipalities allocate development charges to capital projects.

12 See Schedule 61 of the Ontario Financial Information Return.

13 Cities restated their 2008 revenues and expenditures on an accrual basis in their 2009 financial statements. This gives us an additional year of data to compare.

14 We include developer contributions, government capital transfers and in-kind developer contributions for all municipalities to present comparable annual surplus estimates. For 2009 through 2012, the financial statements of Calgary, Edmonton, Saskatoon and Winnipeg consider these as "other" revenues and include them in the annual surplus. Instead, we include these other revenues in total revenues in calculating annual surpluses.

Table 3: Budget Surplus as a Share of Revenues and Total, Selected Canadian Cities

	2014 surplus		2008-2014 surplus		2014 surplus		2008-2014 surplus
Municipality	($ millions)	As share of 2014 revenues (percent)	Cumulative ($ millions)	Municipality	($ millions)	As share of 2014 revenues (percent)	Cumulative ($ millions)
Toronto	788	7.0	5,281	Waterloo Region	87	9.0	455
Montreal	606	9.7	3,235	Halton Region	260	26.9	1,516
Calgary	1,091	24.0	6,499	Halifax	36	3.8	575
Ottawa	356	10.0	2,598	Saskatoon	202	23.2	1,431
Edmonton	488	15.7	3,893	Niagara Region	56	6.4	380
Peel Region	378	16.1	1,989	Surrey	189	22.4	1,272
York Region	317	13.8	2,491	Mississauga	(23)	-2.9	475
Hamilton	190	11.0	1,171	Brampton	125	16.5	978
Winnipeg	213	12.4	1,401	Windsor	18	2.5	439
Vancouver	215	13.8	987	Vaughan	211	33.8	957
Durham Region	153	12.3	1,189	Sudbury	28	5.2	273
London	117	10.6	1,030	Markham	87	23.7	850
				All major cities	**6,187**	**12.4**	**41,369**

Note: Cities ranked by 2014 revenues.

Source: Authors' calculations from municipal budgets and financial statements.

funnel cash from development charges or senior government grants into reserve funds that they are legally bound to dedicate to specific future expenses. However, the surpluses do suggest that current practices are not spreading the costs and benefits of municipal infrastructure to households as fairly over time as they should.

The appropriate share of financing infrastructure from up-front revenues as opposed to longer-term debt differs by type of government (see Dahlby and Smart 2015). An accounting practice that better shows the long-term distribution of infrastructure benefits will aid elected officials in making long-term decisions for their cities. Better accounting is a means to the end of better government decisionmaking.

Recommendations for Better Municipal Budgets

In seeking to improve municipal fiscal accountability in Canada, we turn once more to our smart but time-constrained non-expert. This person, a typical municipal councillor or motivated taxpayer, should be able to pick up the budget and the financial report for the same year, start at page one, easily pick out the key aggregate revenue and spending figures, and compare them to see how close the results are to the plan. The majority of Canada's senior governments now publish budgets and financial reports that make this exercise possible, and other public sector entities are following suit. School boards in Ontario, for example, have recently moved to full accrual budgeting. As in our previous surveys of municipal fiscal accountability (Dachis and Robson 2011, 2014), we have several suggestions to bring Canada's municipalities up to the same mark.

Adopt Accrual Accounting in Budgets

Clearly, the key first step is to use accrual accounting in establishing municipal budgets. Ideally, the provinces would relax their current requirements for cash accounting. Alternatively, they could mandate accrual accounting consistent with financial statements. But absent provincial action, individual municipalities could on their own present budget numbers consistent with their financial statements.[15]

Now that municipalities are presenting accrual-based financial results, there is no good reason not to present accrual-based budgets as well. This recommendation does not pre-empt presentations of other information, including figures net of rate-supported services, to show the effect of spending on property-tax rates. At the risk of repetition, we underline that accrual accounting is intended to match revenues to the services provided, now and in the future.

Accrual-based budgeting would also make multiyear budgets more meaningful. The multiyear capital budgets produced by all large cities (along with a handful that present multiyear operating budgets) are less helpful when they do not show the amortization of capital expenses. Accrual accounting would inform municipal councillors and taxpayers whether they are looking at the financing of long-lived infrastructure assets, for example, or wondering how future obligations such as pension entitlements of municipal employees or landfill decommissioning and other environmental liabilities affect their municipality's net worth. Accrual-based budgeting is especially useful when it comes to management of capital assets: it helps match who pays with who benefits.

As in the private sector, public sector accounting standards change as opinions about the best ways to represent economic reality change. Current public sector standards are open to criticism, for example, for valuing pension obligations using arbitrary, rather than market-based, discount rates, which typically make those obligations look smaller than the cost to pay them off at the valuation date (Laurin and Robson 2014). For municipalities to move, in both their budgets and their financial reports, to the standards currently followed by the federal government and most provinces and territories would nevertheless be a big step forward.

In some provinces, accrual accounting in budgets would create tension with the requirement that municipalities present balanced operating budgets. However, since accrual accounting consolidates all items affecting net worth into common revenue and

15 Provincial requirements, however, should not allow or mandate municipalities to deviate from established accounting practices for financial statements. For example, Ontario Regulation 284/09 of the *Ontario Municipal Act, 2001* allows municipalities to exclude from their annual budgets amortization expenses of post-employment benefit expenses as well as solid waste landfill closure and post-closure expenses. Currently, Ontario requires that municipal staff present to council a report on the extent of these costs. Alberta allows, but does not require, municipalities to produce their budgets on a comparable basis as their financial statements.

expense totals, it makes the concept of a separate operating budget irrelevant. One option would be to focus on the overall bottom line that, under accrual accounting, should represent change in net worth. This approach parallels that of the federal and most provincial governments, which target their budget balances on an accrual basis. Other measures related to fiscal prudence and sustainability, such as interest costs relative to revenues, are possible. Indeed, this debate about the appropriate public sector finance anchor, whether it is balanced budgets or a debt-to-GDP ratio, applies as well to federal and provincial budgets. The key point is that provincial legislation should not mandate budget targets that are inconsistent with the accrual accounting cities already use in their financial reports.

Show Gross, Consolidated, City-wide Spending

Municipal budgets should also show gross spending and revenue, so users of financial statements have one comprehensive overview of a government's fiscal footprint. As for what entities to include, senior governments typically distinguish between Crown corporations whose principal revenue source is the government and do not operate in a commercial environment and Crown corporations whose principal revenue sources are sales to outside parties and do operate in a commercial environment. These governments consolidate the former in their financial statements, while recording only transactions with, and equity investments in, the latter.[16] Applying this distinction at the municipal level suggests consolidating water and waste utilities, while showing transactions and equity investment in connection with many other government business enterprises, such as electricity utilities that are often standalone corporations.

Show Deviations from Budget Plans

Accounting differences aside, cities should prominently display tables reconciling year-end results with budget promises. Another valuable practice, followed by the federal and many provincial governments, is in-year reports showing results relative to plan. Many municipalities do produce regular reports that show the difference between budgeted and actual spending, but the inconsistent accounting in budgets and financial reports, which makes them useless to non-experts, reduces their value.

Present Budgets in a Timely Manner

Another important feature of accountability in spending is ensuring that cities have formally approved spending before that spending happens. Many municipal governments are slow in providing their final approval for government spending. Those cities that delay budget approval until many months into their fiscal years should approve their budgets sooner.[17]

Conclusion – The Need to Improve Municipal Fiscal Accountability

It is beyond time for Canada's cities to adopt budget practices that are becoming standard at senior levels of government. In many cases, provinces can facilitate that transition by changing the laws governing municipal financial reports. Whether

16 Canada Mortgage and Housing Corporation is an example in the former category; the Canadian Broadcasting Corporation an example of the latter.

17 Cities may want to consider in the future adjusting their fiscal years so that they coincide with the timing of federal and provincial budgets.

mandated by their provinces or not, cities should present accrual-based budgets consistent with their financial statements, thereby avoiding the baffling discrepancies and potentially biased decisions about revenue and spending that inconsistent cash budgeting creates.

The confusion created by different accounting in municipal budgets and financial reports might not be intentional, but it is real and its effect on transparency and accountability is deleterious. Clearer, more consistent figures and better adherence to budget targets would bring the financial management of Canada's municipalities into line with their fiscal impact and their importance in Canadians' lives.

Appendix – Table A1: Annual Expenditure Increase, 2005-2014, percentage

Fiscal Year	Brampton	Calgary	Durham	Edmonton	Halifax	Halton	Hamilton	London	Markham	Mississauga	Montreal	Niagara
Announced Spending Change												
2005	-8.0	2.3	18.7	1.6	16.1	21.3	11.3	14.5	4.7	7.6	4.6	12.0
2006	35.4	15.5	5.6	2.5	3.2	4.3	1.0	2.5	-0.1	15.8	0.0	1.9
2007	-8.5	19.4	1.9	16.9	6.7	-0.9	7.5	0.0	11.9	3.1	4.8	1.0
2008	22.0	12.9	4.4	13.7	3.7	24.2	-2.4	3.4	18.0	15.5	8.4	6.2
2009	10.0	2.7	9.0	22.6	-5.0	23.7	9.1	-0.4	-1.3	-6.4	5.5	7.9
2010	-4.9	-1.4	4.2	-0.6	4.3	-8.0	10.6	-5.9	-9.8	18.5	-3.0	-2.3
2011	-0.7	0.1	9.6	-4.5	2.2	-14.8	-4.0	-2.4	6.8	-7.1	11.5	N/A
2012	0.0	-2.4	1.7	1.7	2.0	52.4	14.1	0.4	15.0	-5.5	8.1	4.7
2013	14.0	4.7	-6.3	-6.3	7.3	89.6	1.2	2.3	25.7	1.9	4.5	10.1
2014	5.2	2.5	18.9	-8.8	0.0	-32.5	2.1	3.5	-12.1	9.4	-4.1	2.8
Actual Spending Change												
Fiscal Year	**Brampton**	**Calgary**	**Durham**	**Edmonton**	**Halifax**	**Halton**	**Hamilton**	**London**	**Markham**	**Mississauga**	**Montreal**	**Niagara**
2005	22.9	10.3	11.1	11.1	15.3	-0.8	12.9	6.6	22.8	12.7	5.1	3.9
2006	9.9	18.1	12.8	11.6	1.0	21.9	1.2	-4.0	-8.9	1.8	N/A	8.0
2007	9.2	11.7	-0.2	27.7	6.7	10.7	1.1	12.7	15.7	11.1	22.2	0.4
2008	2.7	19.0	-2.3	31.0	-3.6	1.6	4.2	4.9	-1.5	22.6	11.4	2.0
2009	4.4	12.0	4.9	2.7	4.0	3.7	5.4	1.9	7.5	-2.7	-1.5	6.6
2011	8.8	7.5	6.0	7.4	3.0	4.9	-1.4	4.6	-0.4	2.9	-3.8	7.2
2011	10.1	0.5	0.3	8.0	6.8	3.1	2.5	4.5	8.2	7.8	26.6	N/A
2012	8.9	1.6	4.7	2.8	1.0	1.7	0.5	-1.1	4.3	1.1	3.1	5.9
2013	4.7	10.9	0.0	8.6	4.4	4.4	0.3	1.0	0.9	4.1	5.3	-4.3
2014	10.0	2.7	4.0	7.5	6.0	1.7	4.6	6.9	6.2	9.1	-7.9	6.4
Difference												
Fiscal Year	**Brampton**	**Calgary**	**Durham**	**Edmonton**	**Halifax**	**Halton**	**Hamilton**	**London**	**Markham**	**Mississauga**	**Montreal**	**Niagara**
2005	30.9	8.0	-7.6	9.6	-0.7	-22.1	1.6	-7.8	18.1	5.1	0.5	-8.1
2006	-25.5	2.6	7.1	9.1	-2.2	17.6	0.2	-6.5	-8.8	-14.0	N/A	6.1
2007	17.7	-7.7	-2.1	10.8	0.0	11.7	-6.4	12.7	3.8	8.0	17.3	-0.7
2008	-19.3	6.1	-6.8	17.3	-7.3	-22.6	6.6	1.5	-19.5	7.1	3.0	-4.2
2009	-5.6	9.4	-4.1	-19.9	9.1	-20.1	-3.7	2.3	8.8	3.6	-7.0	-1.3
2011	13.7	9.0	1.8	8.0	-1.3	12.9	-12.0	10.4	9.4	-15.6	-0.9	9.4
2011	10.8	0.4	-9.3	12.6	4.5	17.9	6.4	6.9	1.5	15.0	15.2	N/A
2012	8.9	4.1	3.0	1.1	-1.0	-50.7	-13.7	-1.5	-10.7	6.6	-5.0	1.1
2013	-9.3	6.2	6.3	14.9	-3.0	-85.2	-0.9	-1.3	-24.8	2.2	0.8	-14.4
2014	4.8	0.3	-14.9	16.3	6.0	34.2	2.5	3.4	18.3	-0.3	-3.9	3.6

Table A1 Continued on next page.

Appendix – Table A1: Continued

Fiscal Year	Ottawa	Peel	Saskatoon	Sudbury	Surrey	Toronto	Vancouver	Vaughan	Waterloo	Windsor	Winnipeg	York
Announced Spending Change												
2005	22.6	-13.4	24.8	5.7	21.5	8.6	9.5	33.0	6.7	7.9	11.3	-10.0
2006	26.8	15.5	9.6	8.7	-2.6	8.1	2.3	-25.2	16.3	16.5	2.3	3.9
2007	-13.7	5.8	8.9	18.9	9.3	4.3	12.0	13.2	6.7	2.2	13.6	9.1
2008	9.1	16.0	8.2	6.7	12.1	5.2	-3.4	-4.3	3.2	2.5	1.8	10.9
2009	-2.2	19.1	10.3	1.7	2.1	7.6	5.9	N/A	21.3	9.9	6.4	21.2
2011	8.6	-12.2	19.4	-1.5	28.1	11.7	29.7	-24.5	5.5	2.9	-0.5	1.7
2011	4.4	21.4	8.5	-15.4	16.2	-2.6	-4.1	10.9	5.0	-9.0	-3.2	3.6
2012	6.3	0.0	1.1	3.5	4.1	2.9	-3.4	1.4	1.9	0.2	6.2	10.6
2013	47.2	8.7	16.4	2.8	15.0	-0.5	1.9	8.4	7.6	-0.3	0.9	5.9
2014	-34.2	16.9	-2.4	-1.8	-5.0	1.4	3.8	-7.8	3.6	8.9	4.0	0.5
Actual Spending Change												
Fiscal Year	Ottawa	Peel	Saskatoon	Sudbury	Surrey	Toronto	Vancouver	Vaughan	Waterloo	Windsor	Winnipeg	York
2005	10.7	9.3	14.2	2.6	14.0	4.3	10.8	3.7	2.5	12.3	3.1	13.4
2006	1.1	2.2	17.6	8.3	0.2	7.8	4.8	5.1	12.3	-3.3	2.3	0.8
2007	3.9	3.7	7.7	2.1	8.8	9.0	7.1	-0.9	5.7	6.4	4.9	1.8
2008	7.3	6.9	10.1	8.6	11.8	5.2	17.0	14.9	6.4	2.5	3.1	9.0
2009	-0.7	8.2	8.4	3.9	10.1	5.1	4.4	N/A	11.5	0.5	8.4	0.3
2011	4.6	7.1	5.4	1.5	9.3	5.9	9.4	9.1	-0.1	-0.2	3.0	3.1
2011	3.1	7.6	2.3	-9.1	8.5	1.0	4.7	8.4	0.9	-1.2	7.5	17.5
2012	3.2	4.6	4.2	0.1	3.6	-2.7	0.4	-0.1	7.1	3.0	2.1	6.7
2013	2.6	2.9	11.8	3.4	3.5	1.6	1.1	6.8	3.4	-0.1	7.5	10.7
2014	7.3	3.9	3.2	1.6	14.1	2.5	3.4	7.2	2.2	1.3	7.7	12.3
Difference												
Fiscal Year	Ottawa	Peel	Saskatoon	Sudbury	Surrey	Toronto	Vancouver	Vaughan	Waterloo	Windsor	Winnipeg	York
2005	-11.9	22.8	-10.7	-3.1	-7.5	-4.4	1.3	-29.4	-4.2	4.4	-8.1	23.5
2006	-25.7	-13.3	8.0	-0.4	2.8	-0.3	2.5	30.3	-4.0	-19.8	0.0	-3.1
2007	17.6	-2.1	-1.2	-16.8	-0.5	4.6	-4.9	-14.0	-1.0	4.2	-8.7	-7.4
2008	-1.8	-9.0	1.9	1.8	-0.3	0.0	20.4	19.2	3.2	0.1	1.3	-1.9
2009	1.5	-10.9	-1.9	2.2	8.0	-2.6	-1.4	N/A	-9.8	-9.4	2.0	-20.9
2011	-4.0	19.4	-14.0	3.0	-18.8	-5.8	-20.4	33.6	-5.6	-3.0	3.5	1.5
2011	-1.2	-13.8	-6.2	6.4	-7.7	3.6	8.8	-2.4	-4.1	7.9	10.6	14.0
2012	-3.1	4.7	3.0	-3.4	-0.5	-5.6	3.8	-1.5	5.2	2.8	-4.1	-3.9
2013	-44.6	-5.9	-4.6	0.6	-11.5	2.1	-0.8	-1.6	-4.2	0.1	6.6	4.9
2014	41.5	-13.0	5.6	3.5	19.0	1.1	-0.4	15.0	-1.3	-7.6	3.7	11.8

Note: Halifax's budgets are for April–March.
Source: Authors' calculations from municipal budget documents and financial statements.

References

Bird, Richard, Enid Slack, and Almos Tassonyi. 2012. *A Tale of Two Taxes: Property Tax Reform in Ontario*. Cambridge, MA: Lincoln Institute of Land Policy.

Busby, Colin, and William B.P. Robson. 2008. "Off the Mark: Canada's 2008 Fiscal Accountability Rankings." Backgrounder 112. Toronto: C.D. Howe Institute. February.

————. 2009. "Near Hits and Big Misses: Canada's 2009 Fiscal Accountability Rankings." Backgrounder 117. Toronto: C.D. Howe Institute. April.

————. 2010. "Target Practice Needed: Canada's 2010 Fiscal Accountability Rankings." Backgrounder 129. Toronto: C.D. Howe Institute. May.

————. 2011. "Impulse Spending: Canada's 2011 Fiscal Accountability Rankings." Backgrounder 142. Toronto: C.D. Howe Institute. September.

————. 2013. *Canada's 2012 Fiscal Accountability Rankings*. C.D. Howe Institute Commentary 373. Toronto: C.D. Howe Institute. February.

————. 2014. *Credibility on the (Bottom) line: The Fiscal Accountability of Canada's Senior Governments, 2013*. Commentary 404. Toronto: C.D. Howe Institute. March.

————. 2015. *By the Numbers: The Fiscal Accountability of Canada's Senior Governments, 2015*. Commentary 424. Toronto: C.D. Howe Institute. April.

Dachis, Benjamin, and William B.P. Robson. 2011. "Holding Canada's Cities to Account: An Assessment of Municipal Fiscal Management." Backgrounder 145. Toronto: C.D. Howe Institute. November.

————. 2014. *Baffling Budgets: The Need for Clearer and More Comprehensive Financial Reporting by Canada's Municipalities*. Commentary 397. Toronto: C.D. Howe Institute. January.

Dahlby, Bev, and Michael Smart. 2015. "The Structure and Presentation of Provincial Budgets." University of Calgary School of Public Policy 8 (25). May.

Halton Region. 2012. "CS-47-12 – Re: 2012 Development Water, Wastewater and Roads Capital Budget Update." November 7.

Laurin, Alexandre, and William B.P. Robson. 2014. *Ottawa's Hidden Deficit: The Widening Gap between Federal Government Pension Liabilities and Assets*. Commentary 406. Toronto: C.D. Howe Institute. April.

Notes:

Notes:

Recent C.D. Howe Institute Publications

November 2015	Veillard, Jeremy, Omid Fekri, Irfan Dhalla, and Niek Klazinga. *Measuring Outcomes in the Canadian Health Sector: Driving Better Value from Healthcare.* C.D. Howe Institute Commentary 438.
October 2015	Anand, Anita. "The Future of Poison Pills in Canada: Are Takeover Bid Reforms Needed?" C.D. Howe Institute E-Brief.
October 2015	Aragón, Fernando M. "The Effect of First Nations Modern Treaties on Local Income." C.D. Howe Institute E-Brief.
October 2015	Blomqvist, Åke, and Colin Busby. "Feasible Pharmacare in the Federation: A Proposal to Break the Gridlock." C.D. Howe Institute E-Brief.
October 2015	Richards, John, with Mark Krass. *First Nations Own-Source Revenue: How Is the Money Spent?* C.D. Howe Institute Commentary 437.
Octobre 2015	Ambler, Steve, et Craig Alexander. "Un pour cent? Vraiment? Ce que la théorie économique moderne laisse présager quant au rendement futur des investissements." Institut C.D. Howe Cyberbulletin.
October 2015	Ambler, Steve, and Craig Alexander. "One Percent? For Real? Insights from Modern Growth Theory about Future Investment Returns." C.D. Howe Institute E-Brief.
October 2015	Godbout, Luc, Yves Trudel, and Suzie St-Cerny. *The Benefits of Hindsight: Lessons from the QPP for Other Pension Plans.* C.D. Howe Institute Commentary 436.
September 2015	Boadway, Robin, and Benjamin Dachis. *Drilling Down on Royalties: How Canadian Provinces Can Improve Non-Renewable Resource Taxes.* C.D. Howe Institute Commentary 435.
September 2015	Parkin, Andrew. "Underperforming Adults? The Paradox of Skills Development in Canada." C.D. Howe Institute E-Brief.
September 2015	Johnson, David R. *Value for Money? Teacher Compensation and Student Outcomes in Canada's Six Largest Provinces.* C.D. Howe Institute Commentary 434.
September 2015	Howitt, Peter. *Mushrooms and Yeast: The Implications of Technological Progress for Canada's Productivity.* C.D. Howe Institute Commentary 433.

Support the Institute

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

A Reputation for Independent, Nonpartisan Research

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

For our full Independence and Nonpartisanship Policy go to www.cdhowe.org.

C.D. HOWE
INSTITUTE

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

Canadian Publication Mail Sales
Product Agreement #40008848