

**Justesen, Josh T FIN:EX**

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**From:** Dan Perrin <dan@perrinthorau.ca>  
**Sent:** February 21, 2018 4:07 PM  
**To:** Foster, Doug FIN:EX  
**Cc:** Wanamaker, Lori FIN:EX; Galbraith, David J SDPR:EX; Chris Trumpy  
**Subject:** FSR Report Final Version  
**Attachments:** FSR Final Report.pdf; ATT00001.txt

Doug,

Here is the final version of the report. s.22

# Fiscal Sustainability Review Report

Chris Trumpy  
Dan Perrin

January 31, 2018

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**TRANSMITTAL LETTER**

January 31, 2018

The Honourable Carol James  
Minister of Finance  
Parliament Buildings  
Victoria, British Columbia  
V8V 1X4

**Dear Minister James:**

Attached is the Fiscal Sustainability Review Report which addresses the question of whether you can rely on the forecasts of five major crown corporations and the major SUCH sector entities, and whether there are any undisclosed risks. We also examined SUCH sector cash balances to determine if there was a problem and if so, what could be done to address it.

Throughout our review we had great cooperation from everyone we met with and we are appreciative of the candour which participants brought to our discussions.

Yours sincerely,



Chris Trumpy



Dan Perrin

January 31, 2018

## Executive Summary

The Minister of Finance and Treasury Board rely on forecasts of revenue as well as both operating and capital spending in preparation of the annual budget. The annual budget includes current year detailed plans and three-year forecasts, and is one of government's main accountability documents. Government is held accountable for actual results compared to budget and for the transparency of its plans.

The characteristics of reliable forecasting include: a rigorous process and methodology to ensure that nothing is missed; clear, consistent and transparent assumptions so that the basis for the forecast is understood; and the disclosure of material risks. Forecasts are rarely one hundred percent accurate but are reliable if they are based on reasonable assumptions and provide a reasonable expectation that if assumptions do not change, projections will hold.

Our review looked at forecasting for five major Crown entities and the SUCH sector, which collectively represent about 16% of GRE revenues and 54% of GRE spending. We examined the processes used, sources and nature of material assumptions and the communications between Crown/SUCH entities, Ministries responsible and the Ministry of Finance.

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## Purpose

As set out by the Ministry of Finance in the terms of reference for this review, its purpose is to:

“enhance the Province’s ability to manage risks to its overall Fiscal Plans and fiscal sustainability. In this context, fiscal sustainability means the ability of the Province to meet its current and future service delivery and financial obligations and commitments.”

The scope includes five Crown corporations (BC Hydro, BC Housing, BCLC, LDB and ICBC) and the three sub-sectors that comprise the School, University, College and Health (SUCH) sector:

In effect, this mandate is asking two things:

1. Can recent and current forecasts of financial results of these sectors be relied upon for the purpose of fiscal planning?
2. Are there risks associated with the entities in question that may affect the fiscal sustainability of the Province in the short or medium term?

## Approach

This report is built upon a detailed understanding of budget processes used, gained through interviews and source document reviews. Once we understood the internal processes, assumptions and risks, we followed information from the entity to the ministry responsible and then to Treasury Board Staff. This provided the basis upon which to assess whether budgets and forecasts are prepared in a rigorous way that takes into account the nature of the business or service in question, uses reasonable assumptions and includes a thorough assessment of the risks associated with each entity. This process also allowed us to understand if information is effectively communicated and understood.

In addition, we spent time with Provincial Treasury and the Acting Comptroller General to better understand the sources of increasing cash balances in the SUCH sector and options for change.

## Budgeting and Forecasting

### Accountability and Transparency

BC has long been a leader within Canada in terms of financial administration, which refers to the system under which the public sector plans for and reports on its use of public funds. Financial administration is about both making the best use of taxpayer resources and being accountable for how those resources are used. Accountability also requires transparency about

what the government plans to do including underlying assumptions and what it actually has done.

In the late 1970's BC adopted a modern approach to financial management when it enacted the *Financial Administration Act* which, among other things introduced accrual accounting and capital budgeting. That was an important step in enhancing budgeting and reporting which improved both the ability to effectively manage the provision of public services and the ability for the public to understand and hold government accountable for their actions.

In 2000 an important additional step was taken with the passage of the *Budget Transparency and Accountability Act*. Included in that legislation is a requirement to disclosure assumptions underlying budget forecasts and the sign-off of forecasts by the Secretary to Treasury Board. It also introduced the concept of performance budgeting under which each Ministry and public sector entity prepares annual service plans and annually reports results against plans.

In 2004 full consolidation of all of the entities and agencies controlled by government into a broad reporting "entity" known as the "Government Reporting Entity" (GRE) was implemented.

The current system, most of which has been in place for almost two decades, ensures that there is fulsome disclosure of public sector activity in terms of both the assumptions underlying the plans and actual results, with detailed explanations. The level of transparency allows an assessment of the reasonableness of forecasts and reporting on a GRE basis limits the ability to move activities outside of direct government to hide problems or make results appear better or worse than they actually are.

Transparency is important so that the media, the public and interested parties, like lenders, are able to assess government's plans and performance. It should include full disclosure related to the degree of prudence within fiscal plans and the degree of risk associated with the plan.

## Forecasting Best Practices

### Budget Cycle

The budget process focusses on three different types of forecast – revenues, expenses and capital spending.

The budget cycle is a continual cycle of multi-year planning, budgeting and reporting that takes over two years start to finish for each fiscal year. Budgeting for the upcoming 2018/19 fiscal year started early in the current 2017/18 fiscal year as operating groups and cost centers were asked to submit requests for funding and estimates of their capital plans and expected costs and revenues for the next year. Those estimates are updated throughout the year based on actual monthly and quarterly results as they come in and are used to update the three-year fiscal plan forecasts in the quarterly report released in September each year. That process continues until the budget is eventually finalized early in the calendar year and presented in February. As mentioned, actual results are monitored and reported quarterly throughout the year. The final actual results for the year ending March 31 will then be compiled, audited and presented in July or August of 2019 for the 2018/19 fiscal year.

Budgeting is a widely distributed process that involves every distinct operating and administrative unit throughout the entire public sector. That includes ministries and all their components, Crown corporations, service delivery agencies such as school districts and the



schools they operate, post-secondary institutions, health authorities and the health facilities they operate, and the myriad other agencies and entities that are controlled by the government.

The budget building process is coordinated, and the aggregate budget built by Treasury Board Staff in the Ministry of Finance, with major decisions taken by the Minister of Finance and Treasury Board, a committee of Cabinet. Reporting on actual performance is also coordinated and aggregated by the Ministry of Finance through the Office of the Comptroller General. Finance functions in the various ministries generally coordinate the process for all of the units within each ministry and, for the most part, for the Crown corporations and service delivery entities for which the Minister is responsible.

#### Expense Forecasts

Expenses that we looked at for the purposes of this review generally fall into two categories:

- those that are subject to control through budget decisions about the amount available to be spent and thus the amount of service to be provided; and
- those that are driven by cost drivers outside government control, at least in the short-run.

For example, most health care spending falls into the first category (referred to in this report as services subject to rationing) while K-12 education, which is driven in legislation by enrollment, and forest fire costs driven by fire activity fall into the second category (referred to as demand-driven expenses).

In general, expenses that are subject to rationing pose less risk in the short-run to fiscal forecasts than demand driven forecasts. In the longer run, both types of expense can pose fiscal sustainability risks.

The standard approach consistent with best practices for forecasting expenses includes:

- Establishing strategic directions to which budgets and service plans must be aligned;
- Where appropriate, establishing forecasts for demand drivers that are based on consistent economic, demographic and other assumptions set by the Ministry of Finance;
- Providing cost centers with budget instructions that provide the parameters around how to build their budget submissions, including consideration of actual vs budget spending patterns, cost pressures and savings opportunities;
- Understanding, in advance, the impact of government policy changes on future expenses and incorporate those impacts in revenue forecasts and expense budgets;
- Using a consistent approach throughout the entire budget process cycle and updating forecasts based on the most recent information from current year-to-date actual results on an ongoing basis; and
- Understanding the risks associated with the forecast and how likely the forecast is to be higher or lower than the ultimate actual result.

Unforeseen government policy changes and changes in underlying assumptions can significantly impact actual results.

#### Revenue Forecasts

Most direct government revenues are driven by factors outside of direct government control in the short-run, including the level of economic activity, commodity prices for natural resources

and transfers from the federal government. As such revenues are usually considered to be more volatile than most expenses and forecasts depend crucially on assumptions about the factors that drive the various revenue sources. Many of the measures implemented in the *Budget Transparency and Accountability Act* are directed at making revenue forecasting transparent.

In terms of the entities subject to this review, the self-supporting Crown agencies (BC Hydro, BCLC, ICBC and LDB) are consolidated using the modified equity method, with their net income included in GRE revenues. These entities are businesses with revenues and expenses linked together through their business model in a way that is not true for most other public services. Forecasting their net income requires forecasting of revenues, costs directly associated with earning those revenues and operating expenses. As with direct government revenue sources, the assumptions used are crucial to the forecasts.

The taxpayer-supported entities within the scope of this review (BC Housing, school districts, post-secondary institutions and health authorities) are consolidated by including the entities' revenues and expenses in the GRE revenue and expenses respectively, after eliminating transfers between entities within the GRE to prevent double counting. Except for post-secondary institutions, most of the revenues of this group are provided by the provincial government. Only own-source revenues affect GRE revenues.

The standard approach consistent with best practices for forecasting revenues for the GRE includes:

- Understanding the factors that affect revenues;
- Where appropriate, establishing forecasts of underlying revenue assumptions that are consistent with economic, demographic and other assumptions set by the Ministry of Finance;
- Understanding, in advance, the impact of government policy changes on future revenues and incorporating those impacts in revenue budgets;
- Using a consistent approach throughout the entire budget process cycle and updating forecasts based on the most recent information from current year-to-date actual results and updated forecasts of revenue drivers on an ongoing basis; and
- Understanding the risks associated with the forecast and how likely the forecast is to be higher or lower than the ultimate actual result.

#### Capital Spending Forecasts

Capital spending creates the physical and information technology infrastructure needed to deliver many government services and for Crown commercial entities to operate their businesses. The resulting infrastructure generally has a useful life of many years and is often debt financed so that the costs are matched with the benefits over time. Capital spending is fully under government control in terms of the approval of capital projects and the funding of those projects as they are built. The difficult part of forecasting capital spending is the timing of approved projects which often cannot be started or completed as quickly as originally planned. The cost of projects can also be difficult to predict when construction activity is high in a region and when projects are delayed.

Maintenance of physical assets to ensure that they are useful for their entire planned life can become a concern. Such maintenance is easily deferred without significant effect in the short-run as a way to reduce capital and operating costs, with the potential to create longer-term risks

and deferred costs. That has been largely addressed across the public sector in recent years, often by combining ongoing measurement of the condition of facilities (i.e. by using the Facility Condition Index (FCI)) with consistent funding dedicated to maintaining facilities over time.

The standard approach consistent with best practices in forecasting capital spending includes:

- Understanding the likelihood that approved projects will be started and completed in accordance with project schedules established when projects are approved;
- In preparing the budget forecast, transparently adjusting the debt and debt service cost forecasts based on the likelihood that some of the capital spending will be delayed;
- Understanding the risks associated with the forecast and how likely the forecast is to be higher or lower than the ultimate actual result; and
- Using a measure of facility condition, such as the Facility Condition Index (FCI), to monitor the degree of deferred maintenance for the portfolio of infrastructure assets.

## Approach to GRE Forecasting

“Prediction is difficult, especially about the future.” Nils Bohr.

Predictions about future financial results are the fundamental building blocks of government fiscal plans. As mentioned above, BC operates in a full accrual accounting environment where financial predictions and results are presented on a fully consolidated basis for the GRE, including all of the entities controlled by the provincial government. Developing forecasts at the GRE level is an especially complex task given the aggregation and consolidation of diverse entities, revenue sources and functions, all of which involve some degree of risk.

Actual performance is watched closely by the media, the public and other interested parties such as lenders. Voters care that government is being well managed as do the credit rating agencies and lenders that government relies upon to enable it to deliver programs and build and maintain needed facilities and infrastructure.

There is usually a significant political penalty for the government when actual results are worse than the budget forecast (which we refer to as an adverse variance) and less political fallout when the result is better than expected. Those consequences naturally flow through to management throughout the public sector, whether in ministries, Crown corporations or other public sector entities.

Close scrutiny, together with the level of inherent uncertainty and risk that is always present, provides a powerful incentive for government to be prudent in preparing its budgets and forecasts. In BC, for decades there has been a “no surprises” approach by most Ministers of Finance under which actual results would only show an unfavorable variance compared to budget forecasts in exceptional circumstances.

## Sources of Conservatism

There are two reasons that forecasts are conservative. The first is that budgets are designed to be conservative by the Minister of Finance and her advisors. The second is behavioral in the

sense that there are incentives for all of the various agencies and entities throughout the system to outperform forecasts.

#### Institutional Conservatism – the first 2%

There are three main ways that the Ministry of Finance institutionally builds conservatism into the overall budget forecast:

- **Economic Forecast** – The economic forecast underpins much of the revenue forecast, some of the expenditure forecast and forecasts for some consolidated entities. The Ministry of Finance annually convenes a forecast council consisting of top economists in Canada to offer their views on the economic outlook for BC. The Ministry also develops an economic forecast. The official forecast presented is generally below the forecast council average by 0.1 – 0.4 percentage points annually in terms of real GDP growth, which flows through to conservative forecasts of other economic indicators. This represents \$25 – \$75M in revenues plus the ripple effect through some expenses and Crown corporation net income forecasts.
- **Contingencies Vote** – Unforeseen events can affect spending plans and government annually sets aside funding in a contingency vote to accommodate these. The 2017/18 September Update includes \$600M in the Contingencies Vote,<sup>1</sup> about 1.1% of direct government spending.
- **Forecast allowance** – Revenue volatility makes forecasting difficult, particularly when revenues are based on commodity prices like natural gas and lumber or the real estate market which drives the Property Transfer Tax revenues. The revenue forecast is reduced by a forecast allowance of \$300M for 2017/18, about 0.6% of direct government revenues. In addition, a further adjustment is made to the natural gas price forecast to base the forecast on prices that are below private sector forecasts.

#### Behavioral Conservatism

As noted above, ministries, Crown corporations and SUCH sector entities are inclined, and in some cases required, to be conservative.

In the SUCH sector, balanced budgets are required by legislation for the school districts, health authorities and post-secondary institutions that deliver services on behalf of the provincial government. Managers and boards of governors throughout the SUCH sector apply conservatism to ensure that an inadvertent deficit is not incurred as a result of an adverse event. This is accretive to governments' bottom line and, because the SUCH sector represents about 60% of government, small changes produce fairly large numbers. Each 1% of under or over spending in the sector is worth \$240M or 0.6% of direct government spending. Each 1% of own source revenue in the SUCH sector is worth about \$40M.

Ministries also are under strict instructions to operate within their approved budgets and are required to do so by the *Balanced Budget and Ministerial Accountability Act*. Excluding SUCH sector transfers, government spends about \$20B. Each 1% of under/over spending is worth \$200M.

Crown corporations have learned that their owner responds better to good news than bad news. This translates into budget forecasting that is generally cautious. In the case of BCLC and LDB,

<sup>1</sup> In the February 2017 budget the Contingency Vote was \$400M and the forecast allowance was \$350 million

both of which are designed to generate net revenue in support of public services, their combined revenues are about \$2B per year so each 1% is worth \$20M.

Lower borrowing is also a potential source of prudence. The government budgets for the full amount of approved capital spending, much of it funded by borrowing. If actual capital spending is below budget or operating surpluses are higher than forecast, it follows that borrowing is lower and interest costs are lower. In the past 7 years capital underspending has been, on average, \$900M annually. s.13

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### Capital Spending 2010/11 to September 2017 Fiscal Plan

\$ millions	2010/11	2011/13	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
<b>Taxpayer-Supported Capital Spending</b>										
Budget	5,388	4,105	3,757	3,723	4,030	3,731	4,253	4,946	4,855	4,814
Actual	<u>4,110</u>	<u>3,565</u>	<u>3,279</u>	<u>3,151</u>	<u>3,407</u>	<u>3,459</u>	<u>3,659</u>			
Difference	(1,278)	(540)	(478)	(572)	(623)	(272)	(594)			
<b>Self-Supported Capital Spending</b>										
Budget	2,771	3,243	3,346	2,613	2,590	2,518	3,108	2,701	2,635	3,154
Actual	<u>2,470</u>	<u>2,744</u>	<u>2,765</u>	<u>2,519</u>	<u>2,488</u>	<u>2,573</u>	<u>2,725</u>			
Difference	(301)	(499)	(581)	(94)	(102)	55	(383)			
<b>Total Capital Spending</b>										
Budget	8,159	7,348	7,103	6,336	6,620	6,249	7,361	7,647	7,490	7,968
Actual	<u>6,580</u>	<u>6,309</u>	<u>6,044</u>	<u>5,670</u>	<u>5,895</u>	<u>6,032</u>	<u>6,384</u>			
Difference	(1,579)	(1,039)	(1,059)	(666)	(725)	(217)	(977)			
Diff. as % of Budget	-19%	-14%	-15%	-11%	-11%	-3%	-13%			

### Analysis of Conservatism

Since 1999/2000 when the forecast allowance was introduced there has been a favourable variance in the surplus/deficit in every year except in 2011/12 and 2012/13. In the first of those years the province had to repay federal government HST transition funding and in the second year, contingencies plus forecast allowance were lower than usual.<sup>2</sup>

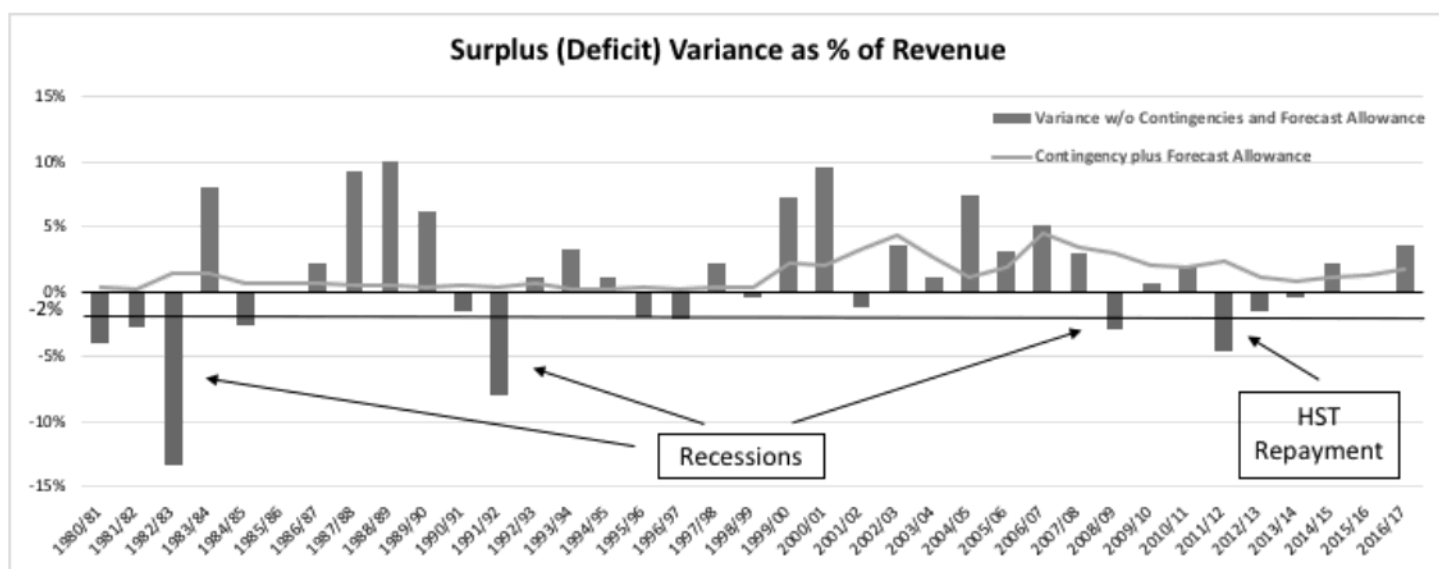
Over the 18 years from 1999/2000 to 2016/17, the aggregate favourable variance in the GRE bottom line was over \$23B, 3.9% of aggregate budget revenues during the period.

The chart below shows what the variances between actual and forecast would have been had there been no Contingency Votes or Forecast allowances. Variances are the extent to which the actual surplus/deficit result shown in the Public Accounts for each fiscal year differs from the

<sup>2</sup> Over the period contingencies plus forecast allowances were on average 2.4% of revenues but only 1.4% in 2012/13.

surplus/deficit forecast in the budget for the period 1980/81 to 2016/17.<sup>3</sup> That is, the actual surplus/deficit minus the forecast surplus/deficit, so that a positive number indicates a “favourable variance” (a “better” result than expected) and a negative number indicates an adverse variance. The variances are shown as a percentage of budgeted revenue to make then comparable over time.<sup>4</sup>

The variances shown in the chart have been adjusted to eliminate the effect of the contingency vote and forecast allowance. In other words, the bars in the chart show what the variance would have been if there was no contingency vote or forecast allowance to give a sense of how often adverse variances would have occurred without these prudence measures. The green line in the chart represents the combined contingency and forecast allowance levels, which has been higher since 1989/90 when the forecast allowance was introduced.



Since 1980, adverse variances would have occurred in 15 out of 37 years, and in only three years since 1990 did the adverse variance exceed 2%. That implies that a combined contingency vote plus forecast allowance equal to 2% of budget revenue, when coupled with the “behavioral” conservatism inherent in the budgeting process (discussed below) is enough to prevent adverse variances except in extraordinary circumstances. s.13

s.13

<sup>3</sup> Note that the budget and public accounts presentations changed in 1990, 1999 and again in 2004 but although the comparison is not perfect, by using surplus/deficit as a % of revenue, it does provide a useful 37-year time-series comparison.

<sup>4</sup> Inflation, population growth and changes to the structure of the economy have increased revenue significantly over time so that a \$1 million variance in 1980 was considerably more significant in 1980 than it is in 2018.

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## Entities Under Review

This report covers five Crown corporations and the three subsectors of the SUCH sector.

### Characteristics of Entities Under Review

	BCLC	LDB	ICBC	BC Hydro	BC Housing	Post Secondary Education	Health	K-12 Education
<b>Characteristics</b>								
Self Supporting Business	✓	✓	?	✓				
Public Service Delivery					✓	✓	✓	✓
Trade: Retail and/or Wholesale	Gambling	Liquor						
Monopoly Regulated as a Utility			Basic Insurance	Electricity				
Cost Controlled by Rationing Services					Affordable Housing	Post Secondary Education	Health Services	
Cost Driven by Demand								Student Enrolment
Export of Goods and Services				Electricity		Intern'l Students		Intern'l Students
Policy Affects Significantly	✓	✓	✓	✓	✓	✓	✓	✓
Economic Drivers	Disposable Income	Disposable Income	Income, Interest Rates	GDP, Income, Interest Rates	Interest Rates, Housing Cost	Demand Inversely Related to Economy		
Demographic Drivers Beyond Population Growth					Vulnerable Population	High School Graduates	Population, Esp. Seniors	School Age Population
Impact on GRE Results	Net Income 2.5% of GRE Revenue	Net Income 2.1% of GRE Revenue	Net Income < 1% of GRE Revenue	Net Income 1.3% of GRE Revenue	Expense 2.5% of GRE Expense	PSI Expense 12% of GRE Expense	HA Expense 28% of GRE Expense	SD Expense 12% of GRE Expense

While all of these entities meet the control test for inclusion in the GRE, they also all have some degree of independent governance or operational control. They also have a variety of characteristics. The foregoing chart provides some insight into those characteristics, as context for the review of forecasting and risks associated with each entity.



Of the eight entities, four are self-supporting commercial enterprises <sup>s.13,s.17</sup> and four are the service delivery vehicles in social policy fields. Of the self-supporting entities, two are monopoly distributors of products controlled by the government (liquor and gaming) from which significant profit is made while the other two are monopolies regulated by the BC Utilities Commission, at least in part. Of the four public service delivery entities, three deliver services <sup>s.13</sup> while K-12 education costs respond to changes in student enrollment.

### Entity Summaries

In the entity summaries below, for each entity there is a summary table showing forecasts and variances from 2012/13 to 2016/17 and the three-year fiscal plan from the September budget update, a description of the entity's activity and summaries of relationships, budgeting/forecasting process, process observations, risks to the forecasts and opportunities for fine tuning.

There are many kinds of risk, associated with potential future events happening, including environmental, legal, operational, financial and reputational risks. Whatever the source of the risk though, they all would have financial consequences if the risk was realized, and it is the financial aspect of the risks with which this report concerns itself.

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## Self-Supporting Business Summaries

## BC Hydro and Power Authority (BC Hydro)

Context: BC Hydro net income is about 1.3% of GRE revenue

## 5-year Budget vs. Actual and 3 year Forecasts

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
						September 2017 Service Plan		
Revenue								
Budget	5,220	4,925	5,829	6,086	5,949	6,298	6,489	6,587
Actual	4,898	5,392	5,748	5,657	5,874			
Difference	(322)	467	(81)	(429)	(75)			
Expense								
Budget	(4,654)	(4,380)	(5,247)	(5,433)	(5,257)	(5,600)	(5,777)	(5,875)
Actual	(4,389)	(4,843)	(5,167)	(5,002)	(5,190)			
Difference	265	(463)	80	431	67			
Net Income								
Budget	566	545	582	653	692	698	712	712
Actual	509	549	581	655	684			
Difference	(57)	4	(1)	2	(8)			
Capital Spending								
Budget	2,361	2,031	2,262	2,234	2,832	2,421	2,434	2,961
Actual	1,929	2,036	2,169	2,306	2,444			
Difference	(432)	5	(93)	72	(388)			
Diff. as % of Budget	-18%	0%	-4%	3%	-14%			

Note: many of the variances in the revenue and expense lines above relate to Powerex revenue and expenses. As Powerex trades electricity buying when prices are low and selling when prices are high to earn gross margin, these variances mostly offset, as shown by the relatively small variances in the net income line.

## Description of Structure and Activity:

BC Hydro is an integrated utility that generates, transmits and distributes electricity to 2M customers in British Columbia. Primarily a hydro based system, large reservoirs offer the opportunity to store and trade electricity which is done through a wholly owned subsidiary (Powerex). BC Hydro is regulated by the BC Utilities Commission (BCUC) although in recent years the government has frequently used Cabinet orders, known as Directions, to advance policy objectives without BCUC scrutiny.

BC Hydro is operating under a 10-year rates plan announced by the government in 2013. The stated purposes of the plan were to ensure that rate increases were predictable, to gradually reduce some regulatory accounts and strengthen BC Hydro's balance sheet by eliminating the dividend BC Hydro pays to government until a more typical debt to equity ratio of 60:40 is achieved. The plan also announced net income targets for BC Hydro over this period. Rate increases and rate caps for the first 5 years of the rates plan were imposed by Directions to BCUC, with BCUC resuming full rate setting authority for the second 5 years, beginning in 2020.

#### Relationships:

BC Hydro reports to the Ministry of Energy, Mines and Petroleum Resources (MEMPR) and has for many years. This relationship is the most stable of the major Crown corporations. The Ministry has deep knowledge of the Corporation and the regulatory process. The Ministry of Finance relies heavily on MEMPR and there is a good working relationship among the two Ministries and BC Hydro.

#### Regulatory Accounts:

BC Hydro has 27 regulatory accounts with a value of \$5.6B as at March 31, 2017. In the utility sector these accounts are generally used to smooth rate impacts for customers for events like major storm events or to match costs and benefits of spending initiatives including conservation programs. Costs and benefits are then amortized over time to avoid rate shocks and allocate costs to beneficiaries. While regulatory accounting is a fairly common feature for many utilities and is recognized in the IFRS accounting standard used by BC Hydro, the number and size of BC Hydro's regulatory accounts have been identified as a cause for concern by some observers, including the Auditor General who is currently conducting an examination of rate regulated accounting at BC Hydro.

The large number and nature of regulatory accounts has largely de-risked BC Hydro's net income forecast (and therefore its impact on Provincial revenues and net income) on a year-to-year basis. Most sources of volatility are eliminated through either increases or decreases in regulatory accounts. Interest rate, customer demand, trading income, impacts of water levels and storm related cost variances are all captured in regulatory accounts. Perhaps the most controversial regulatory account is the rate smoothing account that enables the rates plan to operate. One concern about the regulatory accounts is the period over which the deferrals are amortized. If amortization periods are too long, current costs are transferred onto future rate-payers and regulatory account balances could continue to grow to unacceptable levels.

The 10-year rates plan includes a 5% rate rider intended to reduce the total balance in BC Hydro's regulatory accounts after 10 years by paying off the balance in the rate smoothing account over the life of the plan. BC Hydro forecasts that its regulatory account balance will be approximately \$3.4B at the end of the 10 Year Rates Plan in 2024, approximately 40% lower than the balance at the end of Fiscal 2017 noted above.

#### BCUC

As mentioned above, BCUC has been significantly fettered by Provincial Special Directions which removed BCUC's discretion on many significant matters related to BC Hydro, including the approval of regulatory accounts such as the rate smoothing account. The government has recently indicated that it intends to let BCUC make regulatory decisions without government intervention.

There is a risk that BCUC may make decisions that challenge government policy intentions in an unfettered environment. It is currently considering BC Hydro's application for a rate freeze and will resume setting rates in 2020. It could decide not to approve the rate freeze for 2018/19 or to shorten the amortization period on the rate smoothing or other regulatory accounts which would tend to increase rates. Changes in rates do not represent a fiscal risk to the Province. However, BCUC also reviews costs on an ongoing basis, including capital costs and could decide to disallow costs that it does not believe are necessary or appropriate, which could affect BC Hydro's net income and thus the government's bottom line.

The Auditor General qualified the 2016/17 Public Accounts related to BC Hydro's use of regulatory accounts, especially those not considered by BCUC because of Directions issued by government. The Auditor General did not quantify the qualification because it would be impossible to know what the regulator would have approved, but it is unlikely BCUC would have withheld approval on all of the accounts directed by government. Thus, intervening in the work of the regulator also carries risks.

#### Budget/Forecast Process:

**Demand** – Energy demand forecasts are built from the “bottom up”. Forecast demand is looked at in three categories – residential where population growth and GDP are the prime drivers, commercial which has GDP as the prime driver and industrial. Industrial demand is forecasted at a much more granular level with BC Hydro looking at sector forecasts including commodity price forecasts. Industrial consumers represent about 23% of BC Hydro's load and any decisions to shut down or build an industrial facility can have a material impact on energy demand. There are regulatory accounts to deal with variances in customer demand and with the benefits and costs of Powersmart and other demand-side management programs.

**Supply** – Energy supply is based on energy generated by owned and contracted resources. Owned hydro-electric resources produce the majority of supply (about 60%) and average water levels are the basis of supply forecasts. A regulatory account exists to capture this and other supply variances, which are returned to or recovered from ratepayers in subsequent years.

**Revenues** – With prices established in advance (as per the rates plan) and conservation costs smoothed through regulatory accounts there are two potential sources of revenue volatility. The first is Powerex income. Trading income is inherently volatile because it depends on market opportunities. Powerex income is thus forecast based on a 5-year average. Variances to plan are handled through a regulatory account, which are returned to or recovered from ratepayers in subsequent years. The second is demand. BC Hydro has managed to stay within the 10 Year Rates Plan targets despite significantly reduced forecast demand through cost cutting programs. Variances to plan in a given year are also handled through a regulatory account, similar to trade income variances. The shareholder has also contributed to BC Hydro staying on the rates plan by accepting lower dividends than forecast in 2013, and flattening net income after 2017/18 rather than having it increase by inflation as originally planned.

**Capital Spending** – BC Hydro's capital spending program has been between \$1.8B and \$2.1B over the past 3 years (excluding Site C). BC Hydro operates within a capital envelope approved by the BC Hydro Board. Capital spending needed for operations is amortized but there are sometimes cases where capital spending does not result in a productive asset for various reasons, such as changes in other plans. For example, based on the former government's plan to build a bridge to replace the Massey Tunnel, BC Hydro began work to relocate transmission lines that use the current tunnel. The decision to replace the Massey tunnel is currently being reviewed. s.13

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## Process Observations:

BC Hydro's internal processes are robust. Regulatory accounts tend to mask most volatility. However, some unexpected events may flow to the bottom line such as capital cost write-offs required by changes in circumstances or regulatory decisions. This doesn't happen very often as evidenced by the fact that over the past 4 years net income has varied by less than 0.6% of net income and a tiny fraction of revenue.

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## Insurance Corporation of BC (ICBC)

Context: ICBC budgeted net loss is less than 1% of GRE revenue

## 5-year Budget vs. Actual and 3 year Forecasts

\$ millions	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
<b>Revenue<sup>1</sup></b>						<b>September 2017 Service Plan</b>		
Budget	4,206	4,479	4,768	4,886	5,356	5,926	6,465	6,919
Actual	<u>4,377</u>	<u>4,666</u>	<u>5,200</u>	<u>5,361</u>	<u>5,644</u>			
Difference	171	187	432	475	288			
<b>Expenses</b>								
Claims & claims related <sup>2</sup>								
Budget	(3,256)	(3,430)	(3,684)	(3,783)	(4,304)	(5,051)	(5,605)	(6,157)
Actual	<u>(3,316)</u>	<u>(3,680)</u>	<u>(3,738)</u>	<u>(4,671)</u>	<u>(5,179)</u>			
Difference	(60)	(250)	(54)	(888)	(875)			
Acquisition cost & DPAC								
Budget	(448)	(456)	(499)	(508)	(563)	(707)	(784)	(801)
Actual	<u>(479)</u>	<u>(537)</u>	<u>(477)</u>	<u>(615)</u>	<u>(688)</u>			
Difference	(31)	(81)	22	(107)	(125)			
Non-claims operating expense								
Budget	(356)	(336)	(334)	(385)	(394)	(393)	(378)	(372)
Actual	<u>(331)</u>	<u>(313)</u>	<u>(329)</u>	<u>(368)</u>	<u>(389)</u>			
Difference	25	23	5	17	5			
Net income / (loss)								
Budget	146	257	251	210	95	(225)	(302)	(411)
Actual	<u>251</u>	<u>136</u>	<u>656</u>	<u>(293)</u>	<u>(612)</u>			
Difference	105	(121)	405	(503)	(707)			
<b>Capital Spending</b>								
Budget	101	73	91	115	92	60	40	40
Actual	<u>73</u>	<u>82</u>	<u>88</u>	<u>90</u>	<u>62</u>			
Difference	(28)	9	(3)	(25)	(30)			
Difference as % of Budget	-28%	12%	-3%	-22%	-33%			

## Footnotes:

<sup>1</sup> Revenue includes investment income.<sup>2</sup> Claims & claims related costs include net claims incurred during the year, prior years' claims adjustments, claims services, road safety and loss management services.

## Description of Structure and Activity:

ICBC is the monopoly supplier of "Basic" automobile insurance in BC, responsible for ensuring that BC vehicles have a minimum level of liability insurance, as mandated under the *Insurance (Motor Vehicle) Act*. ICBC also provides "Optional" motor vehicle insurance (including additional liability coverage and property damage coverage) in competition with private sector insurers and operates the Motor Vehicle Branch, responsible for driver and vehicle licensing. ICBC has about a 90% market share in Optional insurance.

Basic insurance rates are regulated by the BC Utilities Commission (BCUC). BCUC's statutory mandate is to use accepted actuarial standards to set Basic rates to cover costs, after taking into

account estimated investment returns, and to maintain minimum capital at a level set by regulation. That mandate can be adjusted by government direction to the BCUC. There is a BCUC approved “rate smoothing” framework in place using ICBC’s Basic capital to reduce the volatility of Basic insurance rates compared to the actuarially indicated rates. Optional insurance rates are set by ICBC using accepted actuarial standards, with a higher capital target reflecting the risk profile of the Optional product in accordance with the capital requirements set for ICBC’s private competitors by the federal regulator.

Many vehicle insurance claims are not settled within a fiscal year, resulting in claims liabilities for unpaid claims costs that are inherently uncertain and are valued using actuarial techniques. These liabilities are offset by assets in the form of income generating assets (currently about \$16B), which grow steadily over time. In addition to reflecting current year revenue and expenses, ICBC’s net income reflects changes in expectations about future conditions, particularly the ultimate cost of settling claims incurred in the current and past years and the income generated by investments.

#### Relationships:

ICBC is a large, complex business that is quite far removed from the day-to-day business of the provincial government and most other public-sector enterprises. Effective exercise of the provincial government’s role as shareholder and owner, as well as its role in setting public policy related to motor vehicle insurance requires a good working understanding of ICBC’s business. Prior to the recent reorganization, the Ministry of Transportation and Infrastructure had responsibility for ICBC, which moved to the Ministry of Attorney General. There was a loss of expertise as a result, which the Ministry of the Attorney General is currently rebuilding. However, the Ministry of Finance has a good understanding of ICBC’s business and has maintained direct and frequent involvement with ICBC as concerns about its financial results have grown in the past few years.

#### Budget/Forecast Process:

The foundation of ICBC’s forecasting process for the purposes of the provincial budget and for the quarterly outlooks thereafter is the actuarial valuation of unpaid claims, which also is the basis for current year actual financial results and for rate regulation by BCUC. That valuation drives expectations about future claims costs. ICBC has sophisticated internal actuarial expertise which is reviewed constantly by independent outside actuaries working for ICBC, its financial auditors and BCUC.

The other key variable in the ICBC forecast is the discount rate used to recognize the time value of money in valuing future claims costs and other expected financial flows. The discount rate is based on yields in the ICBC investment portfolio. There is currently an accounting mismatch in that changes in claims liabilities are reported in net income but related changes in the fair values of the investment portfolio are not reported in net income as an offset but rather as other comprehensive income. ICBC does not recognize gains until investments are sold. Therefore, to mitigate adverse claims costs in a given period, ICBC has several times realized gains by triggering the sale of investments when needed to reduce adverse net income variances rather than when it would be optimal to sell for investment management purposes. Changes to accounting standards required to be adopted by ICBC in the next few years will provide the opportunity to mitigate these accounting mismatches.

Operating expenses, including the cost of operating the MVB, are budgeted and forecast using a standard cost budgeting approach.

### Process Observations

In preparing this report, we have been given access to confidential information about changes in ICBC's financial situation since the September Update and have been authorized to comment on that information, which will be reflected in the February 2018 Budget.

It now appears that the actual loss for 2017/18 will be about \$1B more than the \$225M loss predicted in the September update. That will be after losses in 2015/16 and 2016/17 which showed adverse variances of over \$500M in each year. The question is, given these adverse variances, can government rely upon the forecasts provided by ICBC?

In our view, ICBC has a sophisticated and professional approach to forecasting and financial control, as is required to appropriately manage a large insurance business, with the risks and complexities inherent in that business. In particular, its actuarial practices have been continually reviewed by a large number of independent actuaries in relation to rate applications, audits and independent reviews conducted at the request of the province have consistently supported ICBC's actuarially determined cost estimates. If it does a good job forecasting, how can these variances be explained?

First, ICBC is in the business of taking on risks in exchange for insurance premiums. In doing so it is inherently exposed to insurance claims risks and investment market risks, which are both sources of volatility on an ongoing basis. In other words, auto insurance has a significant amount of natural volatility and variances, positive and negative, are to be expected, regardless of the quality of the forecasting process. It seems that ICBC's risk profile is not consistent with its owner's risk tolerance, which has resulted in government intervention to reduce short-term variances that make the situation worse in the long run.

Second, every forecast is a combination of making assumptions and applying those assumptions through the forecasting methodology to generate a point estimate of net income and the factors that comprise net income. In ICBC's case, most of the significant assumptions, with the exception of interest rates and other investment returns, do not have external sources. The best available evidence is ICBC's own data and historical trends, which is the analysis that underlies actuarial practice. These assumptions include crash rates, proportion of crashes involving bodily injury, average severity of bodily injury, average claim costs for given severity levels, average property damage costs, litigation rate, claims closure rates and average time to closure, etc.

ICBC has faced unanticipated adverse changes in many of these variables since 2015, when the crash rate hit a low after falling for many years and began to rise again. That was compounded by increases in the proportion of crashes involving bodily injury, increases in average bodily injury and property damage costs, reduced closure rates as increased crash rates were not accommodated by increased adjuster resources, and increased litigation rates. ICBC's biggest challenge from a forecasting perspective is distinguishing a short-term "blip" from a new trend and setting its assumptions accordingly.

Could assumptions have been changed earlier and more significantly? It's easy to criticize with hindsight, but in an environment where government's focus was on limiting rate increases and using tools like using up capital to avoid indicated rate increases, and requiring that capital gains be triggered to support net income, ICBC may have had a disincentive to not prematurely recognize adverse trends.



Third, the effect of the most significant adverse trend is amplified by the fact that it increases not only current claims but all of the unpaid claims from past years. That is the cost of bodily injury claims. There may be several factors driving bodily injury costs, including lower closure rates driving longer times to settlement and increased litigation rates, both of which increase average claim costs. Talk about product reform, which might limit bodily injury claims as is the case in many jurisdictions, ironically may also have contributed to increased average bodily injury cost estimates. Those changes in trends affect the expected cost of virtually every unsettled claim from previous years, and it is those estimated costs that have driven most of the adverse variance. Increases to crash rates or property damage rates, in contrast, primarily affect current and future year costs.

In conclusion, ICBC has a robust forecasting methodology and the speed with which it has recognized changes in trends was not unreasonable given the circumstances. It has probably been affected by the degree of government intervention since 2015 and unwillingness to support some of the policy changes needed to address the issues underlying adverse variances. Had rates been increased to the degree required beginning in 2015 and subsequent years, while negative variances from forecast would still have occurred, the amounts of the losses themselves would have been substantially reduced.

As solutions to ICBC's underlying challenges are developed, forecasting the effects of any changes will be difficult since they will cause deflection-points in trends that will reduce the applicability of past trends. Especially in these circumstances, but also more generally given ICBC's natural volatility, it may be useful to forecast ranges based on scenarios and disclose those ranges along with the best estimate in ICBC's service plan and the budget documents.

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## British Columbia Lottery Corporation (BCLC)

Context: BCLC net income is about 2.5% of GRE revenue

## 5-year Budget vs. Actual and 3 year Forecasts

\$ millions	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Revenue						September 2017 Service Plan		
Budget	2,760	2,803	2,798	2,890	2,970	3,164	3,211	3,253
Actual	<u>2,732</u>	<u>2,808</u>	<u>2,904</u>	<u>3,102</u>	<u>3,144</u>			
Difference	(28)	5	106	212	174			
Expense								
Budget	(1,635)	(1,631)	(1,605)	(1,674)	(1,728)	(1,852)	(1,891)	(1,914)
Actual	<u>(1,604)</u>	<u>(1,634)</u>	<u>(1,650)</u>	<u>(1,788)</u>	<u>(1,805)</u>			
Difference	31	(3)	(44)	(115)	(77)			
Net Income								
Budget	1,125	1,172	1,193	1,216	1,243	1,311	1,321	1,339
Actual	<u>1,128</u>	<u>1,175</u>	<u>1,255</u>	<u>1,314</u>	<u>1,339</u>			
Difference	3	3	62	98	96			
Capital Spending								
Budget	116	120	90	90	90	90	105	105
Actual	<u>97</u>	<u>100</u>	<u>70</u>	<u>68</u>	<u>86</u>			
Difference	(19)	(20)	(20)	(22)	(4)			
Diff. as % of Budget	-16%	-17%	-22%	-24%	-4%			

## Description of Structure and Activity:

BCLC is the monopoly provider of legal gambling products and services in BC. Gambling activities include tables and slots, lottery (e.g. Lotto Max, Lotto 6/49 and Scratch & Win), Keno and e-Gaming. There is a wide distribution network that includes casinos, kiosks and retail outlets which operate under signed agreements between the retailer/service provider and BCLC. The online distribution network operates under revenue-sharing agreements with vendors.

## Relationships:

BCLC reports to the Attorney General as does the Gaming Policy and Enforcement Branch (GPEB), which is responsible for regulating gambling in BC. <sup>s.13</sup>

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#### Budget/Forecast Process:

BCLC forecasts revenues, net win commissions for each of its core products based on historical trends by product. National lotteries (Lotto Max and Lotto 6/49) are forecast nationally based on average number of large rollover jackpots, which significantly affect sales. Operating costs are budgeted using a modified zero-based budgeting process with management review to ensure any incremental costs are justified.

BCLC builds in a level of conservatism to their budgets and forecasts in order to manage risk associated with inherent volatility (e.g. years of jackpot drought which negatively impact sales).

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## Liquor Distribution Branch (LDB)

Context: LDB net income is about 2.1% of GRE revenue

## 5-year Budget vs. Actual and 3 year Forecasts

\$ Millions	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Revenue						September 2017 Service Plan		
Budget	2,918.7	2,898.5	2,972.0	2,856.2	3,135.4	3,496.6	3,596.3	3,698.7
Actual	<u>2,962.9</u>	<u>2,956.2</u>	<u>3,140.9</u>	<u>3,166.9</u>	<u>3,343.3</u>			
Difference	44.2	57.7	168.9	310.7	207.9			
Expense								
Budget	(2,012.6)	(2,047.6)	(2,109.9)	(1,975.6)	(2,152.1)	(2,401.9)	(2,485.0)	(2,571.1)
Actual	<u>(2,033.3)</u>	<u>(2,079.2)</u>	<u>(2,205.7)</u>	<u>(2,135.6)</u>	<u>(2,260.1)</u>			
Difference	(20.7)	(31.6)	(95.8)	(160.0)	(108.0)			
Net Income								
Budget	906.1	850.9	862.1	880.6	983.3	1,094.7	1,111.3	1,127.6
Actual	<u>929.6</u>	<u>877.0</u>	<u>935.2</u>	<u>1,031.3</u>	<u>1,083.2</u>			
Difference	23.5	26.1	73.1	150.7	99.9			
Capital Spending								
Budget	27	19	30	34	65	83	29	27
Actual	<u>10</u>	<u>13</u>	<u>25</u>	<u>23</u>	<u>27</u>			
Difference	(17)	(6)	(5)	(11)	(38)			
Diff. as % of Budget	-63%	-32%	-17%	-32%	-59%			

## Description of Structure and Activity:

The LDB operates under provincial legislation which gives it the sole right to purchase beverage alcohol both within the province and from outside the province. The LDB operates an extensive retail liquor store network throughout the Province and oversees a public/private distribution model for liquor to wholesale customers (the hospitality sector and private liquor stores). The LDB operates as a branch of government and is not a crown corporation, however is accounted for as if it were a separate commercial entity so that it is consolidated using the equity method, which includes LDB's net income in government's GRE revenue

## Relationships:

The LDB currently reports to the Attorney General as does the Liquor Control and Licensing Branch (LCLB) which has responsibility for regulating and monitoring the liquor industry. LDB works closely with LCLB and they generally have a good partnership. s.13

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## Budget/Forecast Process:

The main variables in LDB's forecast include operating costs (the costs of operating retail and wholesale functions), consumer preference, mark ups, and weather-related impacts on

consumer demand. The biggest operational cost is compensation and costs are managed closely. Consumer preferences are monitored both at the local store level and at the corporate level. Revenue forecasts incorporate store management's knowledge of their customers and neighbourhoods, which provides a useful reference point for assumptions made at the corporate level. Most recent sales trends, combined with an historical record of the impact of the timing of holidays on sales are used to estimate wholesale revenues.

#### Process Observations

LDB is unique among public sector entities providing significant levels of commercial net income to government in that it is not a Crown corporation and has no governance structure, reporting directly to the Deputy Attorney General who receives advice from the Ministry's financial services staff and the LCLB.

There is no evidence that the LDB is not well managed or that this structure has caused any problems. s.13

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## Public Service Delivery Entity Summaries

BC Housing Management Commission (BC Housing) and  
BC Rental Housing Corporation (PRHC)

Context: BC Housing expense represents about 2% of GRE expense

## 5-year Budget vs. Actual and 3 year Forecasts

\$ millions	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
						September 2017 Service Plan		
Revenue								
Budget	984	997	841	887	1,013	935	1,025	895
Actual	720	963	738	750	1,702			
Difference	(264)	(34)	(103)	(137)	689			
Expense								
Budget	(669)	(692)	(711)	(713)	(729)	(935)	(1,025)	(895)
Actual	(712)	(668)	(703)	(688)	(1,208)			
Difference	(43)	24	8	25	(478)			
Net Income								
Budget	314	305	130	174	284	-	-	-
Actual	8	295	35	62	495			
Difference	(306)	(10)	(95)	(112)	211			
Capital Spending								
Budget	56	71	129	87	115	303	360	183
Actual	92	65	107	127	184			
Difference	36	(6)	(22)	40	69			
Diff. as % of Budget	64%	-8%	-17%	46%	60%			

## Description of Structure and Activity:

BC Housing is a commission that also controls a Crown corporation, PRHC and is engaged in providing affordable and subsidized housing and regulating residential construction. It is in essence a service delivery arm of the provincial government with about 95% of funding comprised of federal and provincial grants. It owns, through PRHC, some buildings and leverages grants, partial ownership of buildings and rent subsidies to support not-for-profit agencies to mortgage finance the development of subsidized and affordable rent-geared-to-income housing. BC Housing's goal is to deliver the programs it is authorized to deliver and meet as much need as possible within available resources. As such, BC Housing is a provincial government service delivery vehicle with most of its spending predictable and subject to its control.

## Relationships:

BC Housing currently reports to the Ministry of Municipal Affairs and Housing through the Office of Housing and Construction Standards (OHCS). OHCS and BC Housing have moved as a unit through various government reorganizations over the past decade or so, maintaining continuity and historical context despite relatively frequent ministry changes. This is an effective

partnership with a clear understanding by both of the roles, responsibilities and main functions of the other.

BC Housing has been, from time to time, a focus of attention in the Ministry of Finance related to its property development activities and the use of housing subsidies to support mortgage financing of housing owned by not-for-profit agencies. The housing file has been a government policy priority for several years, with BC Housing being the service delivery agency for many of the resulting government policy and spending decisions, affecting both its budgeted and actual financial position. Variances between budgeted and actual results are due to either Treasury Board approved changes in provincial government contributions and spending authorizations or government policy decisions.

BC Housing has a good relationship with the Ministry of Finance.

#### Budget/Forecast Process:

Budgets are built from the bottom-up using a standard expenditure control budgeting approach consistent with best practices, based primarily on expected federal and provincial funding levels, which represent 95% of revenues. The remaining 5% is primarily due to residential construction regulatory fees. Forecasting for future years are based on status quo, adjusted for known changes in funding due to announced policy and program changes. The fact that spending is well managed, and revenues have little volatility s.13

s.13 makes forecasting relatively accurate.

The table above shows some significant differences between budget and actual revenues. Those are explained by either post-budget government decisions or, in the case of sale of properties to PRHC properties to not-for-profits in 2014/15 and 2015/16, delays in completion of transactions.

#### Process Observations

BC Housing has the ability to use or add to a long-standing CMHC receivable each year, providing a buffer that can be used to smooth financial results over time, ensuring that there is little risk of unexpected impacts on the provincial government's GRE net income.

BC Housing has a strong partnership with OHCS and they work collaboratively to deliver government direction. BC Housing also works closely with host municipalities and not-for-profit housing agencies.

BC Housing has several responsibilities that do not directly provide housing, including the regulation of new housing construction and the administration of the Shelter Aid for Elderly Renters (SAFER) program. However, these functions enhance BC Housing's capacity, in the case of construction regulation by ensuring up-to-date expertise in construction and SAFER provides another tool to help with affordable housing.

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## Advanced Education – Universities, Colleges and Institutes

Context: Post-Secondary Institutions expenses represent about 12% of GRE expense

## 5-year Budget vs. Actual and 3 year Forecasts

\$ millions	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
						September 2017 Service Plan		
Revenue								
Budget	5,208	5,265	5,407	5,480	5,753	6,037	6,176	6,293
Actual	5,142	5,320	5,376	5,551	5,797			
Difference	(66)	55	(31)	71	44			
Expense								
Budget	(5,146)	(5,206)	(5,316)	(5,446)	(5,676)	(5,940)	(6,111)	(6,224)
Actual	(5,046)	(5,216)	(5,276)	(5,436)	(5,619)			
Difference	100	(10)	40	11	58			
Net Income								
Budget	62	59	91	33	77	97	65	70
Actual	96	104	100	115	178			
Difference	34	45	9	82	101			
Government Funded Capital Spending								
Budget	144	80	147	244	344			
Actual	140	79	120	203	209			
Difference	(4)	(1)	(27)	(41)	(135)			
Underspending as % of Budget	3%	1%	18%	17%	39%			
Total Sector Capital Spending								
Budget	234	558	883	736	921			
Actual	558	512	689	695	789			
Difference	324	(46)	(194)	(41)	(132)			
Underspending as % of Budget	-138%	8%	22%	6%	14%			

## Description of Structure and Activity:

The Advanced Education subsector of the SUCH sector is comprised of 25 Post-Secondary Institutions (11 universities, 11 colleges and 3 institutes) which operate under four pieces of provincial legislation. All Post-Secondary Institutions are governed by boards of governors. The size, mandate and structure of the institutions varies significantly. Different institutions also offer different levels of trades training, under-graduate and post-graduate education, professional training and applied and basic research. Most institutions have both Canadian (domestic) and international students.

Post-secondary education and training in BC is partially funded by the Ministry of Advanced Education, Skills and Training, with direct provincial contributions accounting for about 35% of revenues across the sector. Domestic and international tuition currently account for 18.7% and 12.9% of revenues respectively. Domestic tuition increases have been limited by government policy to 2% for the past 12 years. International tuition revenues have increased rapidly from 6.8 % of total revenue in 2013/14, which is a reflection of government policy to double the number of international students. Other sources of revenue include, research funding, sales of goods and services, investment income, and capital grants.

*Sector Summary of Student Revenue as a % of Total Revenue*

	2012/13	2013/14	2014/15	2015/16	2016/17	5 Year Change
Domestic Students	19.2%	20.2%	20.5%	19.6%	18.7%	-2.7%
International Students	6.7%	6.8%	7.9%	10.5%	12.9%	92.9%
Total Tuition and Fees	25.6%	27.0%	28.4%	30.0%	31.5%	23.1%

## Relationships:

Post-Secondary Institutions operate with a considerable degree of independence from government. This independence reflects the powers granted by legislation to these institutions for academic and educational matters. The Ministry of Advanced Education, Skills and Training operates with a relatively light touch in terms of budgeting, forecasting and financial control of the institutions, although government does provide general direction and target funding to specific programs from time-to-time to align post-secondary education programming with government priorities. s.13,s.17

s.13,s.17

## Budget/Forecast Process:

The financial accountabilities of institutions are outlined in legislation (the *College and Institute Act*, the *University Act*, the *Royal Roads University Act*, the *Thompson Rivers University Act* and the *Budget Transparency and Accountability Act [BTAA]*). Institutions' financial and administrative staff prepare annual operating budgets which are approved by institutional Boards of Governors.

Capital budgets, which align with capital project approvals and are managed through the Certificate of Approval process, are developed based on Ministry budget instructions and are subject to more scrutiny. Aggregate reported capital budgets and forecasts are often adjusted by the Ministry of Advanced Education to reflect the fact that actual spending is almost always less than the approved budget, as is commonly the case, due to delays in implementing new capital projects. The Facility Condition Index is applied to post-secondary institution facilities, resulting in good insight into the state of these facilities in the province.

Legislation requires that an institution must be in an annual balanced or surplus financial position. This balanced budget requirement is communicated through the annual budget and Mandate letters issued to each institution. Institutions sometimes find themselves in a deficit position, which can be approved by both the Minister of Advanced Education, Skills and Training and the Minister of Finance provided there is a plan to remedy the situation. As a result of the deficit prohibition, budgets are generally conservative and result in aggregate surpluses. The Ministry has encouraged the institutions to increase net income forecasts to more realistic levels, which has been reflected in increased net income forecasts submitted.

## Process Observations

Funding for the sector is a modified block funding approach, with a portion of funding targeted to specific educational programs. s.13

s.13

Attaining enrolment targets at smaller institutions in different regions of BC is often inversely linked with the performance of the local economy. For example, when the local economy is thriving, institutional enrolment often decreases as jobs are plentiful whereas if the economy is experiencing challenges, enrolment increases as people seek retraining for new careers and occupations. Post-secondary is a competitive environment within which students apply, often to several institutions, institutions make offers to those students who meet their entrance requirements and then deliver the programs to those students who enrol. Institutions are continually adjusting their educational program offerings to meet labour market forecast demands.

s.13

## K-12 Education – School Districts

Context: School District expenses are about 12% of total GRE expense

## 5-year Budget vs. Actual and 3 year Forecasts

\$ millions	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Revenue						September 2017 Service Plan		
Budget	5,588	5,614	5,683	5,799	5,901	6,472	6,621	6,669
Actual	5,659	5,662	5,386	5,969	6,123			
Difference	71	48	(297)	170	222			
Expense								
Budget	(5,569)	(5,598)	(5,667)	(5,786)	(5,860)	(6,415)	(6,544)	(6,586)
Actual	(5,577)	(5,660)	(5,339)	(5,921)	(6,054)			
Difference	(8)	(62)	328	(135)	(194)			
Operating Income*								
Budget	19	16	16	13	41	57	78	82
Actual	82	2	47	48	69			
Difference	63	(14)	31	35	28			
Land Sales	12	9	49	32	7			
Capital Spending								
Budget	435	469	438	392	454	553	560	669
Actual	409	351	332	344	396			
Difference	(26)	(118)	(106)	(48)	(58)			
Underspending as % of Budget	6%	25%	24%	12%	13%			

\* Net Income includes the proceeds from land sales, but these are not included in the budget forecast so this table focusses on Operating Income.

## Description of Structure and Activity:

There are 60 School Districts operating under the School Act in BC. Boards of Education are independent governing bodies comprised of elected School Trustees. School Districts deliver programs mandated by the province with significant discretion in allocating money and the ability to offer supplemental programming. Labour costs represent the majority of School Districts' costs. Teacher contracts are bargained at the province wide level although residual provisions exist in agreements at the District level. Many elements of support staff contracts are also bargained locally.

Legislation requires that Districts balance their budget, although they are allowed to use surpluses accumulated over prior years to do so. Funding for the Districts is largely based on enrolment, with per student grants providing the majority of funding from the province. The province has established targeted grant programs to deal with provincially mandated programs or district specific needs, like transportation. School districts have some own source revenue, primarily tuition revenue received for international students. Province wide own-source revenue represents approximately 6.5% of annual operating revenues but is over 10% in ten school districts including several in the Lower Mainland.

The provincial government also provides funding for independent schools based on the per student funding in the district in which the school is located.

#### Relationships:

With a small staff the Ministry provides a balanced level of support that recognizes the independent nature of Districts, as well Ministerial accountability for public spending. s.13

#### Budget/Forecast Process:

Timing of required budget submissions based on the government fiscal year and the school year are not synchronized. The Ministry issues detailed budget instructions to School Districts in March for the school year starting the following July. The districts typically develop their budgets between November and the end of April through a process including input from interested stakeholders and based on projected enrolments. The provincial budget is released in February and grant levels are communicated to districts by the end of March. Board of Education approved budgets are submitted to the Minister of Education by June 30. This can lead to issues where unexpected enrolment changes take place.

Submitted budgets must be balanced, including use of accumulated surpluses where necessary. If a district submits a budget that is not balanced, it must be revised. Once actual September enrolment numbers are known on September 30 grant levels are adjusted, amended budget instructions are issued to districts, and districts submit amended balanced budgets by February 28.

There is a separate capital services group that is involved with capital project approval and monitoring, as well as developing the annual capital spending budget. The Facility Condition Index is applied to schools, resulting in good insight into the state of these facilities in the province.

s.13

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## Health – Health Authorities (HAs)

Context: HA expenses are about 28% of total GRE expense

## 5-year Budget vs. Actual and 3 year Forecasts

\$ millions	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Revenue						September 2017 Service Plan		
Budget	12,209	12,637	13,233	13,544	13,725	14,439	14,817	n/a
Actual	12,433	13,015	13,303	13,827	14,015			
Difference	224	378	70	283	290			
Expense								
Budget	(12,209)	(12,637)	(13,233)	(13,544)	(13,725)	(14,439)	(14,817)	n/a
Actual	(12,414)	(12,910)	(13,293)	(13,835)	(13,998)			
Difference	(205)	(273)	(60)	(291)	(273)			
Net Income								
Budget	-	-	-	-	-	-	-	n/a
Actual	19	105	10	(8)	17			
Difference	19	105	10	(8)	17			
Capital Spending								
Budget	485	455	516	573	647	461	595	467
Actual	460	352	505	451	520			
Difference	(25)	(103)	(11)	(122)	(127)			
Underspending as % of Budget	5%	23%	2%	21%	20%			

## Description of Structure and Activity:

There are six HAs: five regional HAs and the Provincial Health Services Authority. The HAs provide most health care service delivery in the province with the exception of medical services provided by physicians through the Medical Services Plan and drug coverage through the Pharmacare program. The Provincial government makes contributions to the HAs in the form of operating and capital grants as well as payments from the Medical Services Plan (for HA physician services) and PharmaCare (for HA community drug programs). HAs also earn revenues from other sources such as federal government contributions for specific programs, services to non-residents and co-payments associated with residential care and assisted living.

HAs are governed by Boards of Directors appointed by the provincial government.

## Relationships:

The Ministry has a close relationship with the HAs including monthly meetings of HA CFO's. There is a strict "no deficit" policy which ensures HAs bring any emerging issues early to the Ministry's attention. The Ministry has considerable control over the HAs' financial situations, including the Health Authority Management Information System which provides access to each HA's financial information and caseload statistics. The Ministry routinely exercises its authority to direct HAs in how money is to be spent.

s.13,s.17



Budget/Forecast Process:  
s.13

There is a separate capital services group that is involved with capital project approval and monitoring, as well as developing the annual capital spending budget. The Facility Condition Index is used for all health facilities, resulting in good insight into the state of facilities in the province.

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## Cash in the SUCH Sector

### Year End Cash Balances (\$M)

\$ millions	2012/13	2013/14	2014/15	2015/16	2016/17	Average Annual Growth Rate
School Districts	1,012	1,092	1,353	1,369	1,479	10%
Health Authorities	1,002	1,020	1,243	1,756	1,649	13%
Post Secondary	<u>701</u>	<u>706</u>	<u>694</u>	<u>760</u>	<u>793</u>	3%
<b>Total</b>	<b>2,715</b>	<b>2,818</b>	<b>3,290</b>	<b>3,885</b>	<b>3,921</b>	10%
CDP Program	-	858	1,530	1,984	2,097	
<b>CDP as a % of Total</b>		<b>30%</b>	<b>47%</b>	<b>51%</b>	<b>53%</b>	

### Description of Issue

The three SUCH subsectors differ significantly:

- School districts have elected trustees who are accountable to local voters. Many have relatively little own-source revenue, while a few districts have revenue from significant numbers of international students. School districts are uniquely able to budget a deficit up to the amount of their accumulated surpluses.
- Post-secondary institutions are a diverse group in terms of size, structure and autonomy. Governors all have a fiduciary responsibility to their institution and direct provincial contributions account for only about 35% of revenues across the sub-sector. As a result the institutions have a considerable degree of autonomy.
- Health authorities have the closest working relationship with the responsible ministry and relatively little own-source revenue.

The SUCH sector has accumulated large and growing cash balances, currently over \$4B and growing at an average annual rate of 10% since 2012/13. The cash balances arise from several sources, including:

- Accumulated operating surpluses – SUCH sector entities are required to balance budgets and to ensure that they do not end up with a deficit, they typically finish each year with small surpluses that accumulate over time, most of which is due to grant funding;
- Non-cash operating expenses – Government funding for the SUCH sector is in the form of cash which funds expenses accounted for on an accrual basis. Some of those expenses are non-cash expenses that give rise to liabilities such as future employee benefit costs. While those liabilities do eventually need to be paid out in cash, as they continue to arise and grow, there is a certain amount of money offsetting the liabilities that will not be needed in the foreseeable future; and

- Own-source revenues – SUCH sector entities generate income from activities not funded by the Province, including federal grants, revenue from the sale of goods and services, fees for programs (such as post-secondary tuition and K-12 international student tuition), investment income, donations for capital projects and rental income. Government funding accounts for most revenue in HAs and school districts but about 35% of post-secondary revenue. Any of that income that is not immediately required to cover cash expenses adds to cash balances.

A certain level of liquid assets must be kept on hand by any organization to meet day-to-day obligations to pay staff, suppliers and creditors.<sup>5</sup> The amount of cash on hand in the sector may exceed the amount required for working capital purposes.

This issue was highlighted by the Auditor General in a 2010 report<sup>6</sup> about working capital in school districts and post-secondary institutions. The Auditor General confirmed that at that time there was considerably more cash than required for working capital purposes. The main problem outlined in the report with the excess cash is that it is neither utilized to reduce government borrowing requirements, foregoing the opportunity to reduce debt service costs nor invested by the entities to earn income that could be used to fund government services.

Entities are prevented from using their cash balances to fund operations by their deficit prohibitions. Assuming a balanced budget, using available cash to increase spending would create a deficit, with expenses higher than revenues. In addition, as discussed below, there are capital needs that are not government funded, for which the entities save money.

Since the Auditor General's report, the Ministry of Finance has taken an interest in SUCH sector cash and has implemented two measures:

- Provincial Treasury introduced the Central Deposit Program (CDP) in 2013, a voluntary program accepting deposits from SUCH entities on an over-night basis, providing returns based on market interest rates for over-night money. About half of the cash currently held in the SUCH sector is invested in the CDP. CDP deposits are liquid assets (cash).
- Treasury Board requires school districts and post-secondary institutions to fund a portion of government approved capital projects, by investing some of their cash in physical assets. Post-secondary institutions made contributions to government-approved capital projects on a more voluntary basis even before this policy was introduced.

Health authorities sometimes ask the Ministry to, prior to year-end, effectively convert operating grants that have not yet been paid to capital grants. The effect of that is to reduce the size of surpluses, and ensure that the cash is invested in a physical asset. Future depreciation of the asset is matched by amortization of the capital grant so there is no future impact on the HA net income.

s.13

<sup>5</sup> For example, a significant grant payment is made to school districts shortly before year end when cash balances are traditionally measured which will largely be spent on operating costs over the coming months.

<sup>6</sup> Aspects of Financial Management, Office of the Auditor General of BC, August 4, 2010

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## Risks to GRE Forecasts

As noted above, while employee compensation is a risk, it is managed centrally through the PSEC Secretariat and not by the individual entities. It has therefore not been included in the risks related to each entity.

The following summarizes the risks for each of the entities reviewed, including providing an indication of the significance of those risks to the fiscal sustainability of the provincial government as a whole:

<b>BC Hydro</b>	<p><b>Moderate fiscal sustainability risk.</b> The electricity generation and transmission business has several sources of natural volatility, including industrial demand, water levels and interest rates, among other factors. In the case of BC Hydro, these sources of volatility have effectively been eliminated in the short-run through the use of regulatory accounts coupled with a 10-year rates plan.</p> <p>s.13</p>
<b>ICBC</b>	<p><b>High fiscal sustainability risk.</b> The insurance business has the highest level of natural volatility of any of the industries for BC's self-supporting entities as discussed in the summary above.</p> <p>s.13,s.17</p>
<b>BCLC</b>	<p><b>Low fiscal sustainability risk.</b> The nature of BCLC's business means that it is subject to considerable natural volatility and revenues are difficult to predict based on economic drivers, which contributes to their incentive to be conservative. A 10% reduction BCLC net income would be a 0.3% reduction in GRE revenue.</p> <p>s.13</p>

<b>LDB</b>	<p><b>Low fiscal sustainability risk.</b> Similar to BCLC, LDB is subject to a certain amount of natural volatility in revenues, in their case due to unpredictable events such as weather, which also contributes to LDB's incentive to be conservative in its forecasts. A 10% reduction in LDB net income would be a 0.2% reduction in GRE revenue.</p> <p>s.13</p>
<b>BC Housing</b>	<p><b>Low fiscal sustainability risk.</b> As a service delivery entity, BC Housing has little natural volatility. Variances associated with BC Housing are almost exclusively due to within-year government decisions.</p> <p>s.13</p>
<b>Post-Secondary Institutions</b>	<p><b>Low fiscal sustainability risk.</b> As service delivery entities, post-secondary institutions have little natural volatility, although the fact that grant funding accounts for only about one third of revenue does create some natural volatility.</p> <p>s.13</p>
<b>School Districts</b>	<p><b>Low fiscal sustainability risk.</b> As service delivery entities with a high proportion of grant funding, school districts have little natural volatility.</p> <p>s.13</p>
<b>Health Authorities</b>	<p><b>Moderate fiscal sustainability risk.</b> As service delivery entities almost fully funded by provincial grants, health authorities have little natural volatility.</p> <p>s.13</p>

It is important to be clear that all of the risks identified above were identified by the agencies responsible.

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## Appendix I – Terms of Reference

The mandate of the Fiscal Sustainability Review is to assess the quality of financial and other information produced and submitted by certain Crown corporations to the Province, to inform the Province in the development of its budget and Three-Year Fiscal Plan (collectively the Fiscal Plan), and identify options (e.g. public policy, operational and financial) that will enhance the Province's ability to manage risks to its overall Fiscal Plans and fiscal sustainability. In this context, fiscal sustainability means the ability of the Province to meet its current and future service delivery and financial obligations and commitments.

Review terms of reference include:

- 1) Review and compile research on reporting standards and best practices for the sector businesses that are subject of this review (e.g. insurance, utilities, gaming, real estate/housing/shelter development);
- 2) Review and provide an assessment of the period-to-date actual financial results; forecast financial results; underlying assumptions; sensitivities; identified and assessed risks and mitigation strategies; and decision-making processes used in preparing financial and other supporting information that Crown corporations provide to their Boards, the responsible ministries and ultimately to the Ministry of Finance for inclusion in the Budget and Three-Year Fiscal Plan, including the following subject areas:
  - a. Revenue and expenditure;
  - b. Capital project spending and commitments;
  - c. Debt and cash requirements; and
  - d. Other commitments, contingent liabilities and obligations.
- 3) Review and provide an assessment of the adequacy of forecast allowances, contingency, prudence measures and other assumptions and mitigation strategies that are incorporated into the fiscal plan information provided.
- 4) Prepare and submit a report to the Minister and Deputy Minister of Finance that provides an independent assessment and set of recommendations for each Crown corporation on:
  - a. Known or potential risks to the Crown corporation fiscal forecasts and to the fiscal sustainability of the Province;
  - b. Approaches to monitoring, reporting and assessing long-term fiscal sustainability (both at the Crown corporation and provincial levels);
  - c. Best practices in public and private sector corporate information disclosure generally and the specific industry within which the Crown corporation falls; and
  - d. Options for mitigating risks and improving the likelihood of achieving the government's fiscal plan targets, including capital spending, while ensuring the Crown corporation is financially healthy.
- 5) A similar review will be made for the schools, universities, colleges and health (SUCH) sector and its responsible ministries.

## Appendix II – Auditor General Recommendations

Excerpt from Aspects of Financial Management, Office of the Auditor General of BC, August 4, 2010

**We recommend that:**

1. Government should review how the accountability frameworks and the mechanisms for delivering funds interact to influence decision-making in colleges and school districts around working capital management. The framework should be designed so that appropriate incentives are in place to encourage good working capital management.
2. Government should pursue opportunities to access and reduce excess liquidity in colleges and school districts. For example, the timing of payments could be aligned with forecasted operating cash flow requirements and excess cash could be deposited with central government in order to improve investment returns or reduce government borrowing costs.
3. Government should pursue opportunities to improve investment management either by centralizing the management of investments or by providing clear direction and support to colleges and school districts.
4. Government should consider pursuing opportunities to allow colleges and school districts to share purchasing power and investment expertise they do not all have at present.