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Economic Impact of British Columbia's Public Sector Pension Plans.



REPORT OCTOBER 2013



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of Canada

Economic Impact of British Columbia's Public Sector Pension Plans
by *Michael Grant, Matthew Stewart, and Erin Butler*

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Preface

This report analyzes the economic impact of British Columbia's public sector pension plans. It calculates two effects: 1) retirees' savings and consumption; and 2) investment and productive capacity. We focus on incremental impacts that flow from the nature of public sector pension plans. We work through implications for the welfare of British Columbians.

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Acknowledgements

This report has been prepared by The Conference Board of Canada under the direction of Dr. Michael Bloom, Vice-President, Organizational Effectiveness and Learning, and Glen Hodgson, Senior Vice-President and Chief Economist. The report was researched and written by Michael Grant, Director of Research, Organizational Effectiveness and Learning; Matthew Stewart, Principal Economist, Forecasting and Analysis; and Erin Butler, Research Associate, Organizational Effectiveness and Learning.

The authors would like to thank internal reviewers Vijay Gill and Pedro Antunes for their helpful comments. Thanks also go to external reviewers Brent Sutton and Mark Liew.

The report was prepared with financial support from the British Columbia Municipal Pension Plan. The authors thank the BC Pension Corporation and the British Columbia Investment Management Corporation for providing data and arranging interviews with representatives of portfolio companies.

Executive Summary

Economic Impact of British Columbia's Public Sector Pension Plans

At a Glance

- ◆ There is an ongoing debate in Canada about optimal pension design.
- ◆ This study considers, in detail, British Columbia's (BC) Public Sector Pension Plans.
- ◆ We show that the plans raise savings in British Columbia.
- ◆ This has two effects: plan members are better prepared for retirement; and the economy has more investment capital.
- ◆ Beyond these effects, plan members also benefit from efficient investment management by British Columbia Investment Management Corporation (bcIMC). This lowers their investment management costs

Since the mid-1990s, Canadian governments have made pension reform a priority. The first major change, in 1997, saw the Canada Pension Plan (CPP) move from a pay-as-you-go design toward a funded plan (called “steady state” funding) and the introduction of third-party fund management by the Canada Pension Plan Investment Board (CPPIB). More recently (2010), Canada's federal and provincial ministers of finance agreed to new rules designed to encourage Pooled Registered Pension Plans (PRPP's) in the private sector.

These changes are designed to improve Canadian's pension plans through better coverage and funding and lower investment management costs. In this study, we highlight how differences in pension design can significantly improve retirement income. We do so by focusing on the specific case of BC public sector pension plans. These plans have many of the characteristics that public policy-makers seek to extend to all Canadians through pension reforms.

In this study, we compared the average BC retirement saver to a typical BC public sector pension plan retirement saver. The key difference between these two groups is that the BC public sector pension plan saver is covered by a comprehensive defined benefit plan, which requires employees and employers to fund the plan to cover promised future benefits. These required savings are part of the total compensation of plan members.

This required saving means that the members of British Columbia's public sector pension plans effectively save more for retirement than does the typical RRSP saver. Only one-quarter of BC employees who do not have a trustee pension plan contribute to RRSPs. For those who contribute to RRSPs, the average savings rate is just 14.1 per cent, ranging from 24.2 per cent of income for those with income between \$1,000 and \$10,000 to 7.9 per cent of income for those with incomes over \$100,000.

We used member data provided by the BC Pension Corporation. This allowed us to construct a model of savings behaviour specific to each of the British Columbia public sector pension plans. Members are segmented by age, income, and type of plan, which determines their actual savings rate. We then simulated the same age and income profile for typical RRSP savers.

Required savings in the form of pension plan contributions result in BC public pension plan members accumulating about \$2.2 billion more in savings every year than similarly situated RRSP savers in BC. This is because they would have a higher likelihood of not saving at all (i.e., a lower participation rate) and make lower contributions when they did save (i.e., a lower savings rate). Simply put, the BC public sector pension plans are designed to encourage a high rate of retirement savings. BC residents of similar income simply do not save for retirement as well as British Columbia public sector pension members.

B.C. public sector pension plans result in higher contributions to retirement savings than RRSPs, as they are designed to encourage a high rate of retirement savings.

What is the economic impact of this saving? There are two—one that relates to the overall economy and another that relates to the individual plan member. In terms of the overall economy, the plans lead to a larger savings pool for investment, which raises the capital stock in the economy. An economy with more capital has a greater potential because the economy depends primarily on capital and labour to produce output and income.

Based on data from bcIMC, we estimate about 70 per cent of this additional savings (or around \$1.6 billion in 2012 dollars) finds its way into Canada's capital stock. This is consistent with other pension plan asset allocations that seek to manage risk through geographic

diversification. We then simulated our model to determine the impact of adding \$1.6 billion to the capital stock. Initially the additions to capital stock are marginal, resulting in greater Canadian GDP of just over \$200 million (in 2012 dollars). But over time, the impact grows because the additional savings build up an increasingly large capital stock.

In terms of the overall economy, the public sector plans lead to a larger savings pool for investment, which raises the capital stock in the economy.

So by 2035, we find Canadian GDP to be about \$7 billion (\$4.6 billion in 2012 dollars) higher than in the absence of the plans. Cumulatively, we estimate that these higher savings result in around \$60 billion more in investment (\$47.5 billion in 2012 dollars) and just over \$85 billion (\$65.6 billion in 2012 dollars) more in GDP over the 2012–35 period. These effects are for the overall Canadian economy. We estimate that the impact specific to the province of British Columbia is \$10.6 billion (\$8.1 billion in 2012 dollars) as the province's share of GDP is 12.4 per cent of Canada's GDP.

These savings impacts are significant. Yet the costs associated with managing the savings may also be important. We found that the average retail investor would pay, on average, just over 214 basis points (2.14 per cent) in management expenses if the investor sought to replicate bcIMC's asset mix. This compares with bcIMC's average management expense of 24.5 basis points (2007–10 average), which is just over 190 basis points less expensive than RRSP mutual funds. We did not undertake an analysis of the relative performance of bcIMC in relationship to retail mutual funds.

The difference in management expenses eats away at total savings over time, initially having a relatively small impact but growing over time with the stock of savings. This speaks to the efficiency of securing income in

retirement. In our model, a typical RRSP saver would have almost \$575,000 less retirement savings upon retirement because of management expenses. This effect would be reduced to the extent that retail mutual funds can achieve better average returns to compensate for their higher management fees, an issue we did not study in this report.

In terms of the impact on individual plan members, we calculate that a typical British Columbia public pension plan member can expect to earn over \$102,000 (nominal dollars) more per annum in retirement than a similarly situated RRSP saver by 2046 (or \$35,000 in today's dollars). By far the greatest impact is due to the higher level of saving realized in the British Columbia public sector pension plans. This

accounts for over 60 per cent of the difference between the British Columbia public sector pension plan saver and the RRSP saver (\$63,700 per annum in 2046, or just over \$22,000 in today's dollars). The impact of lower managerial fees is also significant, accounting for an annual increase in expected retirement income of over \$38,000 per annum (after 2046, or around \$13,000 in today's dollars).

The study also looks at specific investments in bcIMC's portfolio to illustrate how pension savings and resulting capital stock translate to stimulus to specific communities. British Columbians may have difficulty investing in specialized asset classes that are well suited to a retirement portfolio. So we feature bcIMC investments in commercial real estate and private equity.

Chapter 1

Introduction

Chapter Summary

- ◆ Pensions are the major source of savings in the Canadian economy.
- ◆ Pension plan design determines the level of savings, which in turn forms the basis for investment in the economy.
- ◆ Pension plans also support seniors' standards of living and interact with senior income support programs.
- ◆ This study considers these economic effects with reference to British Columbia's public sector pension plans.

Since the mid-1990s, Canadian governments have made pension reform a priority. The first major change, in 1997, saw the Canada Pension Plan (CPP) move from a pay-as-you-go design toward a funded plan (called steady-state funding) and the introduction of third-party fund management by the Canada Pension Plan Investment Board (CPPIB). More recently, in 2010, Canada's federal and provincial ministers of finance agreed to new rules designed to encourage Pooled Registered Pension Plans (PRPPs) in the private sector.

Hence, the thrust of recent policy interventions has been to improve Canadians' coverage in professionally managed, pooled pension plans. In effect, recent pension

policy is an attempt to move Canadians toward some of the characteristics of British Columbia's public sector pension plans.¹ These plans comprehensively cover teachers, employees of the Province of British Columbia, instructors of colleges, and WorkSafeBC. The Municipal Pension Plan, in particular, covers employees of BC municipalities, regional districts, health care, police, firefighters, and non-teaching staff of schools. Investments are professionally managed by the BC Investment Management Corporation (bcIMC) and the plans are administered by the BC Pension Corporation. The plans maintain a high funding ratio (the ratio of plan assets to accrued liabilities). They have relatively low administration fees. (A detailed description of the plans is provided in Appendix A.)

Pension plan design is exceptionally important to the economy. To illustrate, in 2005, aggregate household pension assets were \$3.2 trillion compared with principal residences valued at \$1.9 trillion.² Canada's largest public sector pension plans and the CPP add an additional \$1 trillion in assets to private household-held pension assets.³ Pensions are the major source of savings in the Canadian economy. Since savings provide

1 The current report is concerned with the plans under the administration of the BC Pension Corporation, which includes the BC Municipal Pension Plan, BC Teachers' Pension Plan, BC Public Service Pension Plan, BC College Pension Plan, and WorkSafeBC Pension Plan.

2 Statistics Canada, *Assets and Debts Held by Family Units*.

3 Benefits Canada, *Top 100 Pension Fund Report*, 19.

funds for investment, there is a direct connection between pension savings and capital investment. In turn, investment is a key determinant of the economy's future production, or its potential output as measured by gross domestic product (GDP).

Beyond these macro impacts on savings and investment, there are also the impacts on insuring retirement income. This is obviously important to individual retirees, whose living standards are supported through their pensions. It is also important to the communities where seniors live because income is the basis for spending. Finally, Canadian governments (and society) also have an interest in pension systems. Over the years, Canada has reduced seniors' poverty through various income support programs. The federal system of seniors' income support, the Old Age Security (OAS) and Guaranteed Income Supplement (GIS), is the single-largest federal expenditure program, accounting for about 16 per cent of federal spending. Provincial programs for seniors complement the federal programs. As the GIS claim depends on the recipient's other sources of income (i.e., it is means tested), there is a direct link between Canada's pension systems and draws on GIS. This means there is a connection between employer pension systems and the fiscal position of Canadian governments.

In this report, we seek to explore these economic links between pension plans and the economy, focusing specifically on British Columbia's public sector pension plans.

ABOUT THIS REPORT

The Municipal Pension Board of Trustees asked The Conference Board of Canada to conduct this analysis. The Board wanted an independent assessment of the economic impact of British Columbia's public sector pension plans. Based in Ottawa, The Conference Board of Canada is Canada's largest independent, not-for-profit economic and business research organization. It produces objective research and is not a lobby organization. The study's findings are the sole responsibility of The Conference Board of Canada.

The report is based on The Conference Board's economic analysis. We have conducted a thorough review of the relevant literature and data sources. We also generate specific estimates of the economic impact of British Columbia public sector pension plans, using proprietary econometric models of the Canadian and British Columbia economies. We are grateful to the BC Pension Corporation and bcIMC for providing data necessary for our estimates.

Our analysis focuses specifically on the economic impacts that flow from the design of the public sector pension plans. We recognize that there is considerable public debate about public sector compensation. In our view, this is a somewhat different issue than pension design. A common fallacy is that defined benefit (DB) plans like the British Columbia public sector pension plans are funded through a combination of members' earned income and employer contributions not earned by members.⁴ In fact, members earn the entire value of contributions, which are part and parcel of their total compensation.

There is a direct connection between pension savings and capital investment. In turn, investment is a key determinant of the economy's future production or potential output.

As, ultimately, the employers are funded by the taxpayer, taxpayers have a right to question the total compensation of public employees. Yet pensions are merely one element of total compensation. Pension plans can operate at many levels of total compensation. In this report, we do not assess the total compensation of British Columbia public sector employees.

We begin our analysis by situating British Columbia public sector pensions within the context of Canada's pension system. This is key because we are primarily interested in the *incremental* (or net) impacts that flow from pension design, as opposed to the *gross* impacts. As we will show, very few Canadians have pension plans like the British Columbia public sector pension plans. But Canadians find other ways to save for retirement.

4 Selody, *Vulnerabilities in Defined Benefit Plans*, 5.

From an economic perspective, it is erroneous to ascribe all savings, investment, and expenditure effects to a particular design because there would still be pension savings in the absence of public plans. Indeed, even public sector plans differ in their characteristics. By focusing on the incremental effects, we are able to identify the specific economic effects that flow from the specific public sector pension design.

Once this context is developed, we are in a position to calculate the incremental impacts on life-cycle savings and expenditures. The plans do not change total compensation, but rather the profile of savings and consumption over members' lifetimes. The plans may, however, achieve higher levels of lifetime income and consumption if they encourage a more efficient and effective way to save for retirement. This affects retirees' living standards and the communities where they live.

If the plans lead to a different savings profile, then, by definition, they affect the total level of savings in the economy. In any economy, savings provide resources for investments, which, over time, contribute to the stock of capital in the economy. The capital stock is a critical part of the overall productive capacity of the economy, which ultimately is reflected in potential GDP. In Chapter 3, we work through the implications for the British Columbia economy of all these effects that flow from plan design. We then look in detail at specific cases of plan investments in the province. This analysis, in Chapter 4, takes the form of a series of case studies of these investments. We draw some conclusions from our analysis in Chapter 5.

Chapter 2

British Columbia Public Sector Pension Plans—Context

Chapter Summary

- ◆ Retirement savings plans differ considerably in the way they manage risks and generate retirement income.
- ◆ British Columbia public sector pension plan members save more through the plans than other British Columbians are likely to through their plans. They also pay less in management fees.
- ◆ The higher level of savings and lower management fees results in higher retirement income for British Columbia's public sector plan members.

Most Canadians are aware of the need to save for retirement. Yet the execution of an optimal retirement savings plan is a challenge for many. Factors such as expected longevity, investment returns, and desired retirement income all play a part in saving choices. Evidence from the 2009 Canadian Financial Capability Survey shows that there is a significant gap between Canadians' awareness of the need for retirement savings and their confidence in executing a successful retirement savings plan.¹ In that survey, the scores on questions related to the *intention to save* for

retirement were about twice as high as the scores on the *confidence* that savings would be sufficient to support a comfortable retirement.

Canada's retirement income system is complex and constantly evolving. Canadians differ significantly in their pension plan coverage and in the nature of their plans. Individual discretion and judgment play very different roles depending on the plan coverage.

In this chapter, we explore the different options for retirement savings facing British Columbians. We position the British Columbia public sector pension plans in the context of different retirement saving systems.

CANADA'S RETIREMENT INCOME SYSTEM

Canada's retirement income system is tiered. The first tier consists of seniors' income support in the form of the federal OAS and GIS (and associated provincial supplements). The second tier, the Canada Pension Plan/Quebec Pension Plan (CPP/QPP), is a mandatory program for those in employment that is based on contributions by employees and employers. All Canadians have access to the OAS/GIS, whereas access to the CPP/QPP depends on employment.

Although most Canadians have access to these first two tiers of income support, they are designed to provide a basic level of income. (See tables 1 and 2.) For instance,

¹ Mackay, *Understanding Financial Capability*, 14.

a single retiree with no other source of income receives \$1,283.94 per month in OAS/GIS payments. Pensioners who qualify for CPP do somewhat better, but surrender their claim to the GIS as they receive CPP benefits. (See Chart 1.) For single pensioners, GIS payments are gradually reduced from \$738.96 per month for pensioners with no other source of income to zero for pensioners who earn \$19,988 (which includes \$3,500 in exempted income). As such, most Canadians employed full time will have little or no claim on the GIS, as their OAS/ CPP benefits will amount to \$18,379 and they are likely to have at least some other investment income.

Employer-sponsored pensions and private retirement savings play a key role for those who wish to maintain a decent standard of living in retirement.

To put this in context, in 2010, the low-income cut-off (LICO, a commonly used measure of poverty) for a single person living in a mid-sized community (with a population between 30,000 and 99,999) was \$19,375 before tax.² Today, the maximum amount for a single person on OAS/GIS/ CPP (which notably does not vary by community size) is \$18,379.80 before tax. To be sure, couples do somewhat better than singles because they are likely to have two pensions and share household expenses. However, even couples that depend solely on the first two tiers of the retirement income system will maintain a modest retirement lifestyle.

So, saving outside of the public system is important for those who wish to maintain a decent standard of living in retirement. This is where employer-sponsored pensions and private retirement savings play a key role. Employer-sponsored pension plans are, in the main, of two types³: 1) *defined benefit* (DB) plans that target retirement income (the first two tiers of Canada's retirement income system are, effectively, DB plans); and 2) *defined contribution* (DC) plans, where employees and employers contribute to a savings plan designed to achieve a target level of retirement savings.

2 Statistics Canada, *CANSIM Table 202-0801*.

3 There are a small number of registered hybrid plans that allow employees to combine features of DB and DC plans.

Table 1
Old Age Security Benefit Monthly Payment Amounts,
July to September 2012
(\$)

Type of benefit	Average amount (March 2012)	Maximum amount
Old Age Security pension	510.17	544.98
Guaranteed Income Supplement (GIS)		
Single	492.23	738.96
Spouse/common-law partner of someone who:		
Does not receive an OAS pension	466.79	738.96
Receives an OAS pension	309.53	489.98
Is an allowance recipient	400.37	489.98
Allowance	416.98	1034.96
Allowance for the survivor	643.31	1158.69

Source: Service Canada, *Old Age Security Payment Amounts*.

Table 2
Canada Pension Plan Monthly Payment Amounts, 2012
(\$)

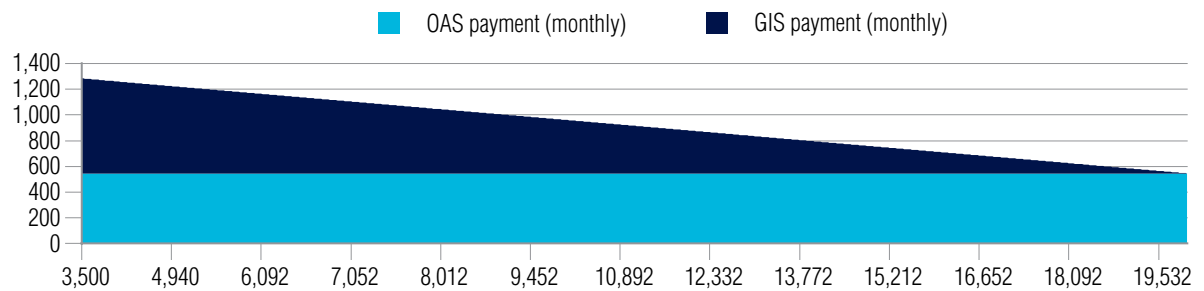
Type of benefit	Average amount (March 2012)	Maximum amount
Retirement (at age 65)	528.92	986.67
Disability	842.98	1,185.50
Survivor—younger than 65	378.38	543.82
Survivor—65 and older	308.80	592.00
Children of disabled contributors	224.62	224.62
Children of deceased contributors	224.62	224.62
Death (maximum one- time payment)	2,273.66	2,500.00
Combined benefits		
Survivor/retirement (retirement at 65)	723.83	986.67
Survivor/disability	973.67	1,185.50

Source: Service Canada, *Canada Pension Plan Payment Amounts*.

The third tier of Canada's retirement income system consists of a range of individual and employer-sponsored savings, some of which are tax-preferred savings plans, most notably Registered Retirement Saving Plans

Chart 1

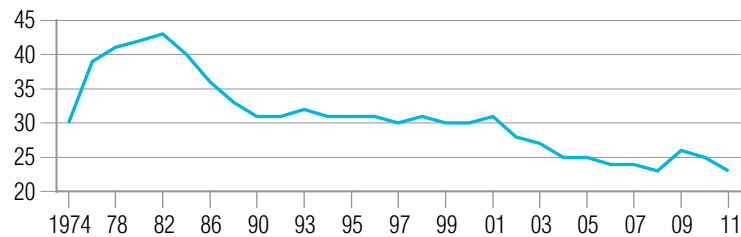
Old Age Security and Guaranteed Income Supplement Monthly Entitlement by Income Level, 2012 (\$)



Source: Service Canada.

Chart 2

Defined Benefit Pension Plans as a Share of Total Employment, British Columbia (per cent)



Sources: Statistics Canada; The Conference Board of Canada.

(RRSPs). These plans allow Canadians to defer tax on pension savings until they are withdrawn in retirement. RRSPs are the main vehicle for private retirement savings outside of employer-sponsored plans (indeed, even employer-sponsored plans often take the form of group RRSPs).

Retirement planning is complicated by periodic changes in retirement programs. For instance, the federal government recently announced changes that will see access to OAS/GIS change from age 65 to age 67 between 2023 and 2029.⁴ Meanwhile, the CPP has seen significant increases in contribution rates since the mid-1990s

designed to improve funding and sustainability. RRSP rules, too, have undergone numerous changes over the years.

However, arguably the greatest change has occurred in employer-sponsored plans. These have increasingly moved from DB plans toward DC plans of various types, especially in the private sector. (See Chart 2.) According to Statistics Canada, the number of employees covered by registered private sector DB plans fell from just over 2 million members in 2007 to about 1.5 million members in 2011.⁵ A recent study by the rating agency DBRS noted the challenge of managing DB plans and suggested that “fewer companies are offering defined benefits to new employees.” DBRS expects that over the next 40 years these plans will be slowly unwound. Over time fewer private sector employees will be covered by DB plans.⁶ This trend is not unique to Canada. It is a global trend that is even more apparent in, for example, the United States.

DESIGN ELEMENTS

From an economic perspective, it is important to understand the difference between pension plan designs because this affects members’ incentives to save, the impact of inflation, how savings are mobilized into investments, the methods of investment management,

4 Service Canada, *Changes to Old Age Security*.

5 Statistics Canada, *Registered Pension Plans (RPPs) and Members*.

6 DBRS, *Pension Plans*.

and costs. All these factors play into the economic impacts of pension plans, both for the broader economy and for individual members. We now review some of the key design elements that differentiate plans.

In their best-selling book *Nudge: Improving Decisions About Health, Wealth, and Happiness*, Thaler and Sunstein argue that “choice architecture” is critical to individual decisions, especially complex decisions like retirement.⁷ Choice architecture is the framework for individual decisions. The authors present evidence that individuals modify their decisions based on pension plan designs like enrolment policies, contribution rates, asset allocation, and plan withdrawals. They suggest that individuals suffer from cognitive and information biases that prevent many from constructing optimal retirement plans. Although some of Thaler and Sunstein’s hypotheses are contested, there is little doubt that choice architecture is an important consideration when assessing the economics of a pension plan.

RISK MANAGEMENT

As noted, DB plans target a stream of retirement income whereas DC plans target a level of savings. Under DB plans, plan sponsors (the employer, a union, a third party like an insurance company, or some combination) assume a high degree of management responsibility. Effectively, plan sponsors guarantee a stream of retirement income. They must secure these payments after employment has ended. The plan sponsors typically build up a fund as collateral to back these guaranteed payments. But in the final analysis, plan sponsors must respond to changes in economic conditions that affect the ability of the plan to fund retirement benefits.⁸

This design element effectively relinquishes the employee’s responsibility to manage his or her own retirement account. As pension liabilities are in the future, it means the plan sponsor assumes more risk and must continually ensure adequate funding to pay for future benefits. The methods for assessing these liabilities can be controversial and the necessary level of funding can be highly variable, depending on the state of financial

markets.⁹ For instance, today’s historically low interest rates have greatly reduced expected fund returns and also increased pension liabilities because the present value of pension liabilities go up as the discount rate falls. Still, it should be emphasized that a DB plan’s funding is an actuarial estimate based on a series of assumptions on member longevity and financial market returns.

There is a trend toward defined contribution plans, as DC plans are simpler than DB plans and relieve plan sponsors of the need to respond to changing fund conditions.

By contrast, DC plans are, by definition, fully funded, and that status does not change with financial market conditions. What does change, however, is the expected return on funded assets and therefore the funds available for retirement. The plan sponsor’s responsibility is defined by contractual obligations operating under labour and pension laws. Sponsors have some fiduciary responsibilities to design and competently administrate their DC plan. Many will encourage participation (through employer top-ups). But the management of inflation and longevity risks, and investment risk, are largely in the hands of the employee to manage on his or her own. As Bodie, Marcus, and Merton indicate, these risks are manageable in a DC plan and “... anything that could be accomplished with a DB plan could be replicated in a cleverly constructed DC plan.”¹⁰

Why the trend toward defined contribution plans? The main reason is that DC plans are simpler than DB plans and relieve plan sponsors of the need to respond to changing funding conditions. As Selody explains, changes to regulatory and accounting rules have made it more difficult for employers to maintain DB plans.¹¹ For example, accounting rules that require accounting for current market conditions (mark-to-market accounting) has the effect of making pension fund assets and

7 Thaler and Sunstein, *Nudge*, 147–56.

8 Selody, *Vulnerabilities*, 3.

9 Bodie, Marcus, and Merton, “Defined Benefit Versus Defined Contribution Pension Plans,” 144.

10 Bodie, Marcus, and Merton, “Defined Benefit Versus Defined Contribution,” 145.

11 Selody, *Vulnerabilities*, 9.

liabilities more volatile. Other accounting rules call for the consolidation of pension and company accounts. The combination of these rules may result in a volatile company balance sheet—a signal to capital markets of a risky company. That risk assessment may result in a higher cost of capital for the company.

In some situations, employees also prefer DC plans over DB plans. The reason is that DC plans are more flexible and portable than DB plans.¹² Although DB plans efficiently manage pension risks, they introduce *accrual risk* because of vesting rules and benefit policies. This accrual risk arises from the fact that benefits are designed to replace income in later years of employment. If an employee changes employers, they may not be able to transfer their pension and effectively receive a much-reduced pension. This can discourage workers in DB plans from moving between employers. A lack of labour mobility is bad for the economy because it may prevent labour from moving toward its best use. By creating disincentives to this movement, DB plans can reduce the efficiency in the overall economy.

Employer sponsorship of pension plans is a major incentive to participation, as many employers make matching contributions to employee plans.

Although DC plans clearly shift risk toward the employee, DB plans have drawbacks, too. Still, in the context of public sector employment, DB plans may be the best option. Governments are perpetual organizations—there is little chance British Columbia's public sector will go “out of business” during the life of the pension plan. They do not face the same balance sheet risks as commercial organizations because their balance sheet is much larger in relation to pension liabilities and they are not subject to the same accounting standards as private companies. Arguably, the vast majority of public sector workers also tend to be long-tenured employees, most likely reflecting a preference for secure employment than being constrained by DB plans.

12 Broadbent, Palumbo, and Woodman, *The Shift From Defined Benefit*, i–ii.

To be sure, government-backed plans may suffer from moral hazard problems, where plan risk may be transferred from members to the taxpayer. This is most likely to happen in situations where the government, effectively, underwrites the plan. For instance, the California Public Employees Retirement System (CalPERS) recently posted a return of only 1 per cent on its assets, when its actuarial assumptions were based on returns of over 4 per cent. According to one calculation, the probability of CalPERS assets falling short of obligations is 82 per cent. CalPERS must earn an annual average of 9 per cent for the next 16 years to achieve even odds that its assets are greater than or equal to 80 per cent of its liabilities.¹³ This creates a problem for the state government of California which is, de facto, the underwriter of the plan.

Moral hazard risk is manageable through sound plan governance that ensures plan funding is adequate to cover liabilities and that taxpayers do not have to make additional contributions to funding. As David Denison, former President and Chief Executive Officer of the CPPIB, recently noted, “... Canadian plans certainly aren't homogeneous with respect to governance structures but they are all vastly superior to the typical highly politicized structures we see elsewhere around the world.” For instance, Joe Dear, the CIO of CalPERS, which is the largest pension plan in the U.S., has stated that implementing policies consistent with the Canadian model is simply “not politically feasible” in the state of California.¹⁴

INCENTIVE TO SAVE

Employer sponsorship of pension plans is a major incentive to participation. Employer plans provide an organized way for people to save for retirement. More importantly, many employers make matching contributions to employee plans. These matching contributions act as a form of conditional subsidy to employee retirement savings. The employer's contribution is conditioned on the employee's own contributions. The level of this subsidy is directly proportional to the incentive to save

13 Nation, *Pension Math*, Chapter VI.

14 Denison, *Canadian Pension Funds as “Maple Revolutionaries,”* 11.

for retirement. For long-range planning like retirement, these incentives can help offset the tendency toward financial myopia.

FUND MANAGEMENT

In our discussion of the differences between DB and DC plans, we noted that DB plans largely remove fund management from plan members. DC plans, on the other hand, move fund management toward plan members. This introduces employee discretion into retirement planning.

Although, theoretically, a “cleverly constructed” (in the words of Bodie, Marcus, and Merton) DC plan can achieve the same results as a DB plan, employees often lack the information and expertise to construct such plans. The average retail investor rarely constructs an optimal portfolio, may trade excessively (which raises trading costs), or sell in depressed markets (follow-the-herd trading, which lowers returns).

DB plans efficiently manage the main risks of any pension plan, namely funding, longevity, and investment risk. They do so by pooling resources. Pooling has two main effects: first, it leads to a large investment fund that facilitates efficient long-term investment planning; second, it allows risk to be offset within the pool of plan members (some live longer, while others die early).

EXPENSES

Fund management expenses eat away at net investment returns and affect retirement income. These savings come from longevity risk pooling, portfolio management, and, most significantly, capital pooling, which affords fund managers the scale to trade in wholesale capital markets as opposed to costly retail markets.

Large DB pension plans’ administration costs are typically considerably less than the lowest-cost mutual funds. Retail annuities are also expensive. Although the introduction of exchange traded funds (ETF) have helped lower retail fund management expenses in Canada, these products do not constitute a large share of the Canadian retail mutual fund market. According to the

investment management company Blackrock, in 2011, ETFs accounted for roughly \$42 billion in a retail Canadian mutual fund marketplace of around \$650 billion.¹⁵

Actively managed mutual funds in Canada may involve investment expenses that are not commensurate with expected returns. A 2009 study by Morningstar found that Canada had among the world’s highest management expense ratios for mutual funds and gave Canada an “F” grade on that metric when compared with 15 other jurisdictions.¹⁶ Management expenses may be justified in instances where they create value in the form of higher savings or a better portfolio. We did not conduct an analysis of portfolio choices of retail funds in relationship to bcIMC management to determine whether higher mutual fund fees are justified by better portfolio decisions.

POSITIONING BRITISH COLUMBIA PUBLIC SECTOR PENSION PLANS

Having reviewed the retirement savings options facing British Columbians, we are in a position to situate the British Columbia public sector pension plans against other types of retirement savings.

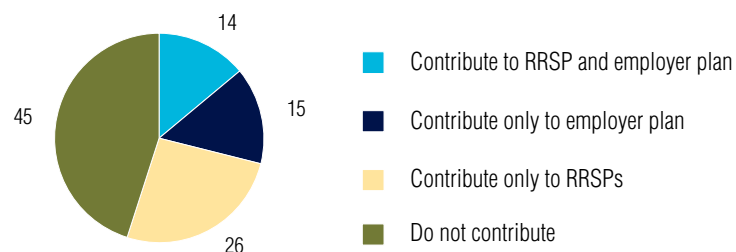
OVERALL PENSION COVERAGE

According to the Canada Revenue Agency (CRA), there are 598,210 people who contributed to a pension plan in British Columbia in 2008 and 524,950 people who contributed exclusively to RRSPs. (See Chart 3.) Of those who had a registered pension plan, 285,750, or 48 per cent, also contributed to an RRSP. This leaves an estimated 923,780 tax filers in British Columbia who had employment income but did not contribute to an RRSP or pension plan. Most employed people in the province are either not part of a pension plan or rely on tax deferred savings plans.

15 Blackrock, *ETF Landscape*, 20.

16 Rekenhaller, Swartzentruber, and Sin-Yi Tsai, *Global Fund Investor Experience*, 13.

Chart 3
Pension Plan Coverage, Share of Employed Population, British Columbia, 2008
(per cent)



RRSP = Registered Retirement Savings Plan
Source: Canada Revenue Agency.

One of the challenges in interpreting pension data is that it focuses on trustee pension plans. However, in the process of more employers moving to DC plans, many are now registered in non-trustee group RRSPs. This is a non-trustee form of an employer pension plan but has many of the same characteristics as trustee DC plans. Employers will often top up employee contributions and offer investment education and record-keeping services. Although Statistics Canada focuses on

trustee pension plans, the fact is that group RRSPs have many of the same features as trustee DC plans. This is important to keep in mind as we review the data. Some tax filers who claim that they have only RRSPs may, in fact, be covered by workplace group RRSPs.

Trustee DB plans like those of the British Columbia public sector pension plans apply to a small proportion of British Columbians. (See Table 3.) Public sector employees are much more likely to be covered both by any pension plan and, in particular, a DB pension plan. It is more likely to be a standard part of the terms of employment, whereas elsewhere in the economy these standards vary considerably from employer to employer.

According to Statistics Canada's Pension Plans in Canada survey, most British Columbian trustee pension members work for larger organizations. In fact, just 2.5 per cent of employees working for organizations with fewer than 50 employees have a pension plan while 80 per cent of employees working for organizations with more than 500 employees have a pension plan. Public entities, as large organizations, are therefore more likely to have DB pension plans.

Table 3
Coverage Rates in Trustee Pension Plans, British Columbia, 2011

	Membership (number)	Employment (number)	Coverage rate (per cent)
By employment status			
Private sector	309,236	1,439,400	21.5
Public sector	381,904	403,700	94.6
Self-employed	n.a.	427,800	n.a.
By plan coverage			
Defined contribution	93,861		4.1
Defined benefit	517,566		22.8
No coverage	79,713		
Total	691,140	2,270,900	30.4

n.a. = not available

Sources: Statistics Canada, *CANSIM tables 280-0008, 282-0087, and 282-0089.*

DEFINED CONTRIBUTION PLAN MEMBERSHIP

There are 519 registered DC plans in British Columbia. There are 93,861 members of DC plans employed in the province (4.1 per cent of employment). It is most common for these plans to require some contribution from employees. Only 19 per cent of DC plans in Canada require no contributions from plan members, whereas 43.8 per cent of DC plans in Canada require members to contribute a fixed share of their salary, with the majority of the rest contributing a variable share of their salary.

Those employees who are required to contribute range from less than 3 per cent to over 6 per cent (the average is around 4 per cent). In terms of employer contributions, just over half (53.4 per cent) of employer contributions are based on a share of earnings, while most of the remainder are based on a variable rate. Of those contributing a fixed share of income, there was a range with most employers contributing 6 per cent.

DEFINED BENEFIT PLAN MEMBERSHIP

Defined benefit pension plans represent 75 per cent of all trustee pension plans in British Columbia. Based on cross-Canada estimates, about two-thirds of DB pension plans are to be found in the public sector.

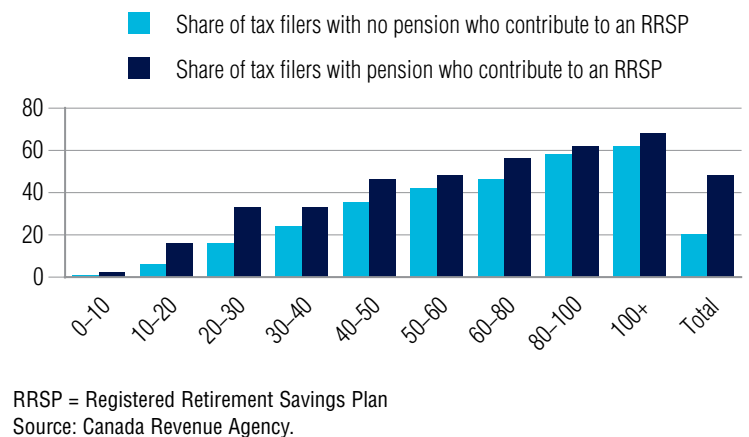
According to the Pension Plans in Canada survey, there were 517,566 members of DB plans in British Columbia in 2011. These figures include members of federally registered plans and of plans registered in other provinces. Membership is defined as active members of the pension plan currently making contributions to the pension plan or for whom contributions are being made. In total, members of DB plans accounted for 23 per cent of employment in the province in 2011. This number has steadily declined since 1982 when there were 543,000 members of DB plans, accounting for 43 per cent of the province's employment, in keeping with the Canada-wide trends.

REGISTERED RETIREMENT AND GROUP SAVINGS PLANS

In 2008, 810,690 people in British Columbia made RRSP contributions, or 24.7 per cent of all tax filers. Of this amount, 524,950 were not enrolled in a trustee pension plan. Just 20 per cent of tax filers with no trustee pension plan contributed to RRSPs compared with 47.8 per cent of trustee pension plan participants who also contributed to RRSPs. This can be explained by the fact that trustee pension plan participants have higher incomes and therefore are more likely to be covered both by an existing pension plan and make additional contributions through available RRSP room. (See Chart 4.)

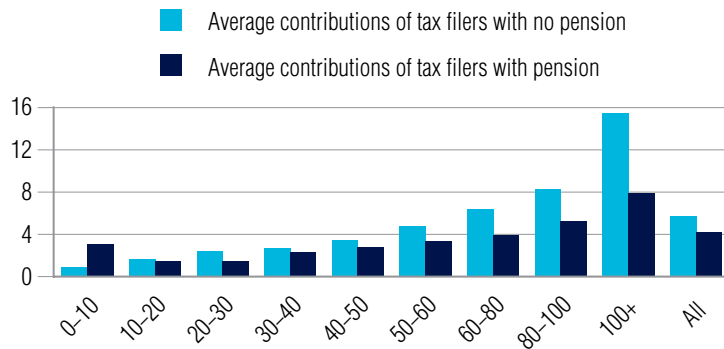
Chart 4

Share of Tax Filers Contributing to RRSPs by Pension Status, 2008
(income, 000s; share, per cent)



In 2008, the average contribution to RRSPs by those with no trustee pension was \$5,742. This was only slightly higher than the average contribution by those with a trustee pension plan, at \$4,214. For incomes less than \$50,000 a year, the annual contribution difference between these groups was small—less than \$650 a year. Contributors who were not covered by a pension plan saved approximately 9.8 per cent of income for those with incomes between \$20,000 and \$30,000 and 9.2 per cent for those with incomes between \$80,000 and \$100,000. (See Chart 5.) Overall, RRSP contributors had an average savings rate of 14.1 per cent, ranging

Chart 5
Registered Retirement Savings Plan Contributions by Income, 2008
(\$ 000s)



Source: Canada Revenue Agency.

from 24.2 per cent of income for those with incomes between \$1,000 and \$10,000 to 7.9 per cent of income for those with incomes over 100,000.

WHERE BRITISH COLUMBIA PUBLIC SECTOR PENSION PLANS FIT IN

According to data from 2011, British Columbia public sector pension plans have 499,515 members—290,940 are active members, 141,929 are retired, and 66,646 are inactive.¹⁷ These plans account for about 56 per cent of participants of all trustee DB pension plans in the province. British Columbia public sector pension plans have all the standard characteristics of well-funded DB pension plans. We summarize these characteristics in Table 4.

To begin, they clearly incent people to save for retirement. According to data from the British Columbia Pension Corporation, the total contribution (employer and member) averaged from 16 per cent to 27.5 per cent of total compensation, depending on the membership. Although not universal across all employment situations, enrolment is typically a required condition of employment.

17 Inactive members are those who no longer contribute to a pension plan and have left their previous contributions in the plan.

This high savings rate translates into more retirement security. The plans have a reasonably high benefit entitlement, which results in a relatively high rate of income replacement in retirement. As at September 2010, all beneficiaries are entitled to OAS (presently at age 65, rising to age 67) and many will be entitled to full CPP benefits (now \$986.67 per month for those aged 65).¹⁸ Depending on the plan, the average pensioner can expect a total (public and pension plan pension) of between \$38,400 and \$53,600. While not exorbitant, these pensions are sufficient to put the average British Columbia public pension plan recipient well above the poverty line for life. A typical retiree would replace about 70 per cent of their pre-retirement earnings through the combination of OAS, CPP, and the employment pension.

British Columbia public sector pension plans have all the standard characteristics of well-funded DB pension plans, and clearly incent people to save for retirement.

It is worth noting that unlike other DB pension plans, British Columbia public sector pension plans are well funded according to the most recent actuarial assessments. The funded status on a going-concern basis for all the BC public sector pension plans exceeds 95 per cent.¹⁹ In its 2011 review of 451 American and Canadian pension plans, DBRS found that more than two-thirds of plans reviewed were underfunded by a significant margin (which it defines as a funding level less than 80 per cent of pension liabilities). The main culprit was the significant decline in short- and long-term interest rates in response to the 2008 credit crisis.

CONCLUSION

British Columbia public pension plan members are among the best covered in the province. The main reason is that they are, for the most part, automatically enrolled in well-funded DB pension plans that replace

18 Service Canada, *Canada Pension Plan Payment Amounts*.

19 bclMC.

Table 4
 Characteristics of British Columbia Public Sector Pension Plans, 2011

	Municipal	Teacher's	Worksafe BC	Public service	College
Number of members					
Active	175,990	45,490	3,016	56,014	12,944
Inactive	31,376	12,122	486	15,816	4,234
Retired	66,969	30,983	1,293	37,610	4,824
Contributions					
Employees	6.8%, or 8.3% over YMPE*	8.2%, or 9.7% over YMPE	5%, or 6.5% over YMPE	6.28%, or 7.78% over YMPE	7.56%, or 8.31% over YMPE
Employer	Varies based on YMPE, group, and age (5.32 to 17.30%)**	12.2%, or 13.7% over YMPE	9.11%, or 10.61% over YMPE	6.28%, or 7.78% over YMPE	7.56%, or 8.31% over YMPE
Cost of living adjustment (non-guaranteed)*	Employees: 1% Employers: 1%****	Employees: 3% Employers: 1.13%	Employees 1% Employers 1%	Employees: 1.50%, Employers: 2.50%	Employees: 1.38% Employers: 1.38%
Benefit entitlement:					
Average annual pension (\$)	23,900	35,900	29,200	30,100	26,196
Net assets available for benefits (\$ billions)	28.0	16.9	1.2	18.7	2.7
Funding status	97% in 2009	96% in 2011	\$51 million net surplus as of 2009	98% in 2011	99% in 2009

YMPE = Year's maximum pensionable earnings

The Municipal Pension Plan and the Public Service Pension Plan have subgroups that differ somewhat in the nature of their plans.

*Rates shown are for groups 1, 2, and 4 only; G5 employee rates are 8.32 per cent, or 9.82 per cent over YMPE.

**Rates shown are for groups 1, 2 and 4 only; G5 employer rates vary based on YMPE and age (8.8 to 18.8 per cent) over YMPE.

***Cost of living adjustment is paid only if there are sufficient funds in the Inflation Adjustment Accounts.

****Rates shown are for groups 1, 2, and 4 only; G5 employee and employer rate is 1.42 per cent.

Sources: BC Pension Corporation; 2011 annual reports for the College, Municipal, Teachers, Public Service, and WorkSafe BC pension plans.

a high percentage of pre-retirement income. Over 70 per cent of the employed in the province either do not contribute to any pension plan or contribute only to a tax-deferred RRSP. This means that British Columbia public sector pension plan members save more for

retirement during their working lives, are likely to pay less in fund management fees, and are more likely to have more income in retirement.

Given this background, we now explore the broader economic implications that flow from British Columbia public sector pension plans.

Chapter 3

Economic Impacts

Chapter Summary

- ◆ There are two main economic impacts that flow from pension design; a substitution effect and an income effect.
- ◆ The substitution effect leads to higher savings during employment years. This results in a larger pool of investment capital (which raises potential output) and a larger stock of saving at retirement, which assures more retirement income.
- ◆ The income effect results from plan efficiencies that flow to plan members. These also result in higher retirement income.
- ◆ While higher savings inevitably mean lower consumer spending during employment years, this does not lead to lower output economy-wide.
- ◆ This chapter provides specific estimates of these effects.

The economic impacts of the British Columbia public sector pension plans flow from plan design. As we have shown, British Columbia public sector pension plan members effectively choose to save a relatively high portion of current income in the form of retirement savings. This leads to accumulation

of a fund that collateralizes a pension guarantee, freeing the member from the management of investment and longevity risk through fund (bcIMC) and benefit (BC Pension Corporation) management.

In this chapter, we present our calculations of the economic impacts of British Columbia public sector pension plans. We are interested in both macroeconomic impacts (through changes in aggregate savings) and microeconomic impacts (the impact on individual members and their communities).

APPROACH

There are two main economic effects that are derived from plan design. The first is a *substitution effect* in which plan members trade off lower current consumption today (higher savings) for higher future consumption tomorrow. A second effect is an *income effect* where plan efficiencies are effectively captured by plan members, resulting in higher retirement income.

As we are interested in incremental effects, we seek to contrast British Columbia public sector pension plans with the typical employee in the province who is not a member of a pension plan and who therefore relies on retail RRSPs for retirement saving and annuities for guaranteeing income in retirement.

We are interested in calculating effects across three key stages of retirement savings/expenditures:

1. **Fund accumulation**—Here we are interested in how a modelled British Columbia public sector pension plan member differs from non-plan members in the way they save over their working life.
2. **Fund management**—Once a fund has accumulated, we are interested in the efficiency effects from fund management.
3. **Retirement income**—Fund accumulation and management have implications for the expected living standard in retirement.

FUND ACCUMULATION

We have already demonstrated that British Columbia public sector pension plans result in higher contributions to retirement savings than RRSPs. This is due mainly to the substitution effect of plan members saving more during their working lives than the typical RRSP contributor. RRSPs generally have lower participation rates and lower contribution rates when contributing. Only one-quarter of employees who do not have a trustee

pension plan contribute to RRSPs. For those who contribute to RRSPs, the average savings rate is just 14.1 per cent, ranging from 24.2 per cent of income for those with incomes between \$1,000 and \$10,000 to 7.9 per cent of income for those with incomes over \$100,000.

To simulate these effects, we used member data provided by the BC Pension Corporation. This allowed us to construct a model of savings behaviour specific to each of the British Columbia public sector pension plans. Members are segmented by age, income, and type of plan, which determines their actual savings rate. We then simulated the same age and income profile for typical RRSP savers.

We present our findings in Table 5. If BC public sector plan members saved the same as typical RRSP savers in the province, they would accumulate about \$2.2 billion less in savings every year. This is because they would have a higher likelihood of not saving at all (i.e., a lower participation rate) and make lower contributions when they did save (i.e., a lower savings rate). Simply put, the BC public sector pension plans are designed to

Table 5
British Columbia Public Sector Pension Plan Members Save More

	(\$)	Savings rate (per cent)	Participation rate (per cent)
A) Estimated Savings in BC Public Sector Plans	2,737,116,086.87		
Estimated savings in RRSPs by income			
0 to \$10,000	181,935.94	24	1
\$10,000 to \$20,000	1,581,793.71	12	6
\$20,000 to \$30,000	9,712,720.98	10	16
\$30,000 to \$40,000	23,966,479.57	8	24
\$40,000 to \$50,000	53,069,506.63	8	35
\$50,000 to \$60,000	70,295,413.08	9	42
\$60,000 to \$80,000	189,468,844.74	9	46
\$80,000 to \$100,000	136,866,682.10	9	58
Over \$100,000	60,744,927.11	8	62
B) Total RRSP saving	545,888,303.89		
Savings impact (A–B)	2,191,227,782.98		
Average across all income cohorts		8.5	20

RRSP = Registered Retirement Savings Plan
Sources: Statistics Canada; The Conference Board of Canada.

encourage a high rate of retirement savings. BC residents of similar income simply do not save for retirement as well as British Columbia public sector pension members.

What is the economic impact of this saving? There are two—one that relates to the overall economy and another that relates to the individual plan member.

In terms of the overall economy, the plans lead to a larger savings pool for investment, which raises the capital stock in the economy. An economy with more capital has a greater potential because the economy depends primarily on capital and labour to produce output and income.

The B.C. public sector pension plan retirement saver accumulates substantially greater savings than the typical RRSP saver—saving almost \$2 million at retirement.

Based on data from bcIMC, we estimate about 70 per cent of this additional savings (or around \$1.6 billion in 2012 dollars) finds its way into Canada's capital stock. We then simulated our model to determine the impact of adding \$1.6 billion to the capital stock.

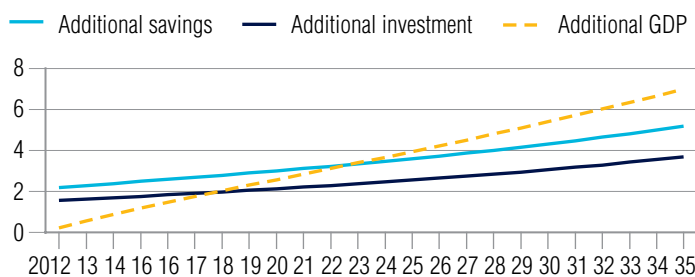
Initially the additions to capital stock are marginal, resulting in greater Canadian GDP of just over \$200 million (in 2012 dollars). But over time, the impact grows because the additional savings build up an increasingly

large capital stock. So by 2035, we find Canadian GDP to be about \$7 billion (\$4.6 billion in 2012 dollars) higher than in the absence of the plans. (See Chart 6.) Cumulatively, we estimate that these higher savings result in around \$60 billion more in investment (\$47.5 billion in 2012 dollars) and just over \$85 billion (\$65.6 billion in 2012 dollars) more in GDP over the 2012–35 period. These effects are for the overall Canadian economy. We estimate that the impact specific to the province of British Columbia is \$10.6 billion (\$8.1 billion in 2012 dollars) as the province's share of GDP is 12.4 per cent of Canada's GDP.

For simplicity, our estimate of the savings impact on the individual plan member is based on one of the plans, namely a modelled member of the Municipal Pension Plan.¹ We constructed a model of a member's lifetime savings based on the current realities facing those plan members. According to the BC Pension Corporation, the average member earned \$57,196 in 2011. We then grew the member's wages in line with the actuarial assumptions of the plan, specifically by 3.75 per cent per annum. Our typical member starts working in 2011 at age 30 and retires in 2046 at age 65. Holding these parameters constant, we were interested in how the member's retirement savings differed from the typical RRSP saver based on the savings rate data in Table 5.² We also grew the stock of savings for both by 6.5 per cent per annum, which is the actuarial assumption of the Municipal Pension Plan.

Not surprisingly, the British Columbia public sector pension plan retirement saver accumulates substantially more savings than the typical RRSP saver. The public sector plans actually create two funds: a basic retirement fund and an inflation fund used to protect retirement savings from inflation. By 2046, the modelled plan member would have saved over \$1.6 million in the basic account and about \$350,000 in the inflation fund, for total savings of almost \$2 million at retirement. An identical

Chart 6
Higher Savings, More Investment, Higher Gross Domestic Product, Canada, 2012–35
(\$ billions)

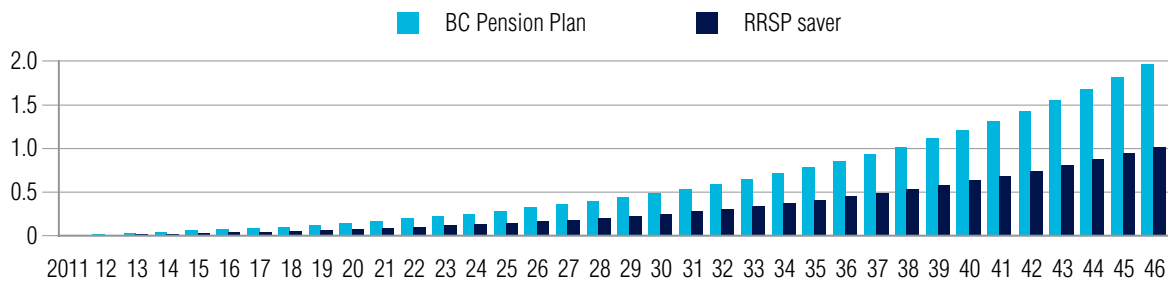


Source: The Conference Board of Canada.

1 This section is based on data provided by the BC Pension Corporation.

2 At this point, we are not concerned with the probability of saving, only the differences in savings for those who choose to save.

Chart 7
Individual Plan Members Build More Retirement Savings, 2011–46
(\$ millions)



RRSP = Registered Retirement Savings Plan

Sources: BC Pension Corporation; The Conference Board of Canada.

saver who saved like a typical RRSP saver would have saved only around half that, at just over \$1 million. (See Chart 7.)

FUND MANAGEMENT

These savings impacts are significant. Yet the costs associated with managing the savings may also be important. We have alluded to the high costs of retail retirement savings products like mutual funds, which many Canadians use for their RRSP savings. Since retirement savings are, by their nature, long term, seemingly small differences in fund management fees can lead to large differences in net savings over time.

Using Globe Investor fund data, we averaged the management expense ratios by asset class for over 2,300 retail mutual funds.³ We weighted these according to bcIMC's asset allocation to get the effective management expense ratio facing a typical RRSP investor who sought to mimic bcIMC's asset mix through retail mutual funds.⁴ We found that the average retail investor would pay, on average, just over 214 basis points (2.14 per cent) in management expenses if the investor sought to replicate

Table 6
Management Expense Fees by Asset Class, 2012

Retail fees	Number of funds surveyed	Basis points
Short-term money market	421	73.4
Global and Canadian fixed income	884	150.5
Canadian equity	453	229.6
Global equity	449	277.4
Real estate equity	80	215.9
Retail venture capital	89	434.8
Weighted average		214.7
BCIMC average management expenses (2007–10)		24.5
Difference		190.2

BCIMC = BC Investment Management Corporation

Sources: Globe Investor; BCIMC; The Conference Board of Canada.

bcIMC's asset mix. This compares with bcIMC's average management expense of 24.5 basis points (2007–10 average), which is just over 190 basis points less expensive than RRSP mutual funds. (See Table 6.)

Leaving aside the issue of the higher savings associated with the British Columbia public sector pension plans, we were interested in calculating the long-term effect on savings at retirement of this difference in management expenses. In this scenario, we kept the British Columbia pension plan savings constant and simply varied the management expenses.

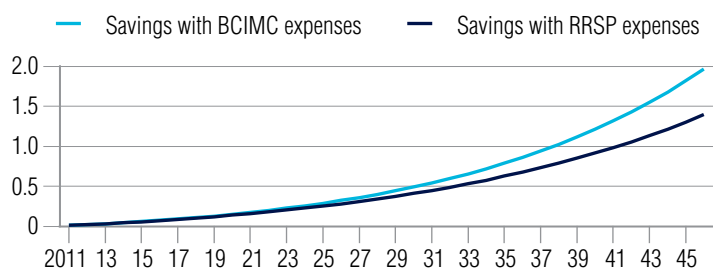
³ *The Globe and Mail*, "Fund Filter."

⁴ We combined the mortgage allocation into the bonds as there were no separate management expense ratios for mortgages. We excluded bcIMC's investments in alternative asset classes like infrastructure.

The difference in management expenses eats away at total savings over time, initially having a relatively small impact but growing over time with the stock of savings. This is because management expenses are typically priced in relation to assets under management, as opposed to level of effort (e.g., the amount of trading) or skill (i.e., higher than market investment returns). So a high saver is effectively penalized by high management expense ratios. To be sure, individual mutual funds may be able to justify these higher management fees through skill. We did not look at this issue directly. We made the assumption that bcIMC investment management was no better or worse than retail mutual funds.

Under these assumptions, for a typical plan member, the person is financially better off having bcIMC manage his or her pension assets. In our model, we calculate that the typical plan member who saved exactly the same amount in an RRSP would have almost \$575,000 less retirement savings upon retirement, just through higher management expenses. (See Chart 8.)

Chart 8
Management Expenses Eat Away at Cumulative Retirement Savings, 2011–46
(\$ billions)



BCIMC = British Columbia Investment Management Corporation
RRSP = Registered Retirement Savings Plan
Sources: BC Pension Corporation; The Conference Board of Canada.

RETIREMENT INCOME

These fund accumulation and managerial effects lead to higher income in retirement, which, in turn, results in higher spending in the communities where retirees live. To estimate these effects, we calculated different life annuities that may be purchased with different levels

of retirement savings.⁵ We disentangle two impacts—one of higher life savings and a second from the efficiency of fund management.

We assume that the retiree uses the accumulated savings to purchase a basic life annuity and lives until age 80 (i.e., retired from age 65 to 80).⁶ This life annuity is not adjusted for inflation, so its real value declines over time. Readers should note that Table 7 refers to nominal dollars in 2046 (we indicate the real dollars below).

Table 7
Incremental Impact for Typical Plan Member, 2046
(\$ 000s)

	Expected impact on ...	
	Retirement savings	Annuity
Higher saving	945	64
Lower fees	574	39
Total	1,519	102

Source: The Conference Board of Canada.

We calculate that a typical British Columbia public pension plan member can expect to earn over \$102,000 (nominal dollars) more in retirement than a similarly situated RRSP saver by 2046 (or \$35,000 in today's dollars⁷). By far the greatest impact is due to the higher level of saving realized in the British Columbia public sector pension plans. This accounts for over 60 per cent of the difference between the British Columbia public sector pension plan saver and the RRSP saver (\$63,700 in 2046, or just over \$22,000 in today's dollars). The impact of lower managerial fees is also significant, accounting for an annual increase in expected retirement income of over \$38,000 per annum (after 2046, or around \$13,000 in today's dollars).

5 It should be noted that the actual benefit levels paid by the BC public sector pension plans do not strictly mimic a retail life annuity. The reason is that benefit levels are typically determined by the last five years of pensionable earnings. Retirees who have increases in earnings in these years will do somewhat better than those who do not receive increases in these later years.

6 Based on RBC Insurance, Payout Annuity Calculator.

7 We assume an inflation rate of 3 per cent, which is based on the actuarial assumptions of the public sector pension plans.

IMPACT ON BRITISH COLUMBIA COMMUNITIES

The pension plan spills over to the communities where plan members live. This involves linking our macro-economic impact to the particular communities where members live.

According to data provided by the BC Pension Corporation, there were 146,814 beneficiaries of British Columbia pension plans, or roughly the same population as a medium-sized city like Abbotsford. The vast majority of these members are full member retirees, with smaller numbers of continuing beneficiaries and survivors. (See Table 8.)

Table 8

Beneficiaries of British Columbia Public Sector Pension Plans, October 2012
(number)

Member	133,441
Continuing beneficiary	9,952
Survivor	3,421

Source: BC Pension Corporation.

In Table 9, we look at the community profile of British Columbia pensioners, which was provided to us by the BC Pension Corporation. We compare the population of active members to the province's population. Members are less likely to live in Vancouver than the general population and are more likely to live in Victoria. Other communities where members are in relatively greater numbers include North Vancouver, Langley, Nanaimo, Delta, and Vernon. In most cases, there are small differences between the geographic profile of pension plan members and that of the underlying population, especially for smaller communities outside the top 25 locations, where the shares are roughly the same.

We wanted to understand how members' improved asset position in retirement affected spending in these communities. Using data on actual member benefits and our understanding of the impact of higher savings and lower investment management costs, we simulated The Conference Board of Canada's provincial forecasting

model to estimate the impact on the province's economy of British Columbia public sector pension plans. We calculated two separate effects: one that relates to the impact of higher income in retirement that flows from higher savings; and a second that relates to the higher net savings and income that flow from lower management fees.

We present our findings in Table 10. The savings effect results in \$1.28 billion higher provincial income than would exist without the plans. Our model estimates the effect on a range of economic indicators of this higher income. The multiplier effect is shown in substantially higher provincial personal income and disposable income. Provincial employment is over 8,000 higher in this scenario.

We estimate that the increased spending in retirement generates about \$60 million (2012 dollars) in higher provincial income tax revenues through the savings effect.

In the second scenario, we observe largely the same effects, albeit on a smaller level. In this case, we calculate about three-quarters of a billion in management expenses. bcIMC effectively retains these management expenses within the province and, overall, it charges members considerably less for investment management services and pays bcIMC employees based in British Columbia (whereas RRSP mutual funds are more likely to favour Ontario—particularly Toronto—which dominates Canada's financial services sector with a financial sector that is about three times larger than that of British Columbia).

It is important to distinguish these two effects. The first effect is largely a result of transferring consumption from employment years toward retirement through higher savings. This is, in fact, a substitution effect. The second effect is an efficiency effect—a lower cost of management. Although individuals are affected by giving up spending during their employment years, this negative effect would not be felt economy-wide. Even if aggregate consumer spending is lowered, this would release productive resources to other purposes. Essentially, lower household spending would be largely offset by stronger

Table 9

Geographic Distribution of Retired Plan Members of the British Columbia Public Sector Pension Plans, October 2012
(n = 146,814)

	Retired members	Population (2011)	Share of pension population (per cent)	Share of B.C. population (per cent)	Pension population share is ...
Victoria	17,106	344,615	11.7	7.8	Higher
Vancouver	12,343	603,502	8.4	13.7	Lower
Surrey	8,680	468,251	5.9	10.6	Lower
Burnaby	4,618	223,218	3.1	5.1	Lower
North Vancouver	4,488	132,608	3.1	3.0	Higher
Kamloops	4,214	98,754	2.9	2.2	Higher
Nanaimo	3,954	83,810	2.7	1.9	Higher
Kelowna	3,859	117,312	2.6	2.7	Lower
Richmond	3,761	190,473	2.6	4.3	Lower
Delta	3,524	99,863	2.4	2.3	Higher
Langley	3,335	129,258	2.3	2.9	Lower
Abbotsford	3,016	133,497	2.1	3.0	Lower
Coquitlam	2,944	126,456	2.0	2.9	Lower
Chilliwack	2,656	92,308	1.8	2.1	Lower
Prince George	2,471	71,974	1.7	1.6	Higher
Maple Ridge	2,442	76,052	1.7	1.7	Same
Vernon	2,150	38,150	1.5	0.9	Higher
New Westminster	1,960	65,976	1.3	1.5	Lower
Penticton	1,792	32,877	1.2	0.7	Higher
West Vancouver	1,577	42,694	1.1	1.0	Higher
Courtenay	1,489	24,099	1.0	0.5	Higher
Duncan	1,437	4,932	1.0	0.1	Higher
Port Coquitlam	1,392	56,342	0.9	1.3	Lower
Sidney	1,369	11,178	0.9	0.3	Higher
Campbell River	1,336	31,186	0.9	0.7	Higher
Other British Columbia	42,839	1,289,261	29.0	29.0	Same
Out of province	4,696				
Out of country	1,366				

Sources: BC Pension Corporation; Statistics Canada; The Conference Board of Canada.

investment. These effects would tend to impact the communities where British Columbia public sector retirees and other beneficiaries live. A good estimate of the actual effect can be gauged by dividing the aggregate effect in Table 10 by the distribution of plan members in Table 9. Communities where plan members are

a disproportionate share of the population are most likely to benefit particularly from these economic impacts. (See box “Do Higher Savings During Employment Impact the Economy?”)

Table 10

Impact on British Columbia's Economy of British Columbia Public Sector Pension Plans, Annual, 2012

	Savings rate effect	Management expense effect
Incremental Income (current \$ millions)	1,276.8	775.2
Real GDP at market prices (2002 \$ millions)	706.4	428.9
Real GDP at market prices (percentage difference)	0.4	0.3
GDP deflator (percentage difference)	0.0	0.0
GDP at market prices (current \$ millions)	850.4	516.3
Real GDP at basic prices (2002 \$ millions)	643.3	390.6
Real GDP at basic prices (percentage difference)	0.4	0.3
Consumer Price Index (percentage difference)	0.0	0.0
Average weekly wages industrial composite (percentage difference)	0.0	0.0
Personal income (current \$ millions)	1,671.9	1,015.1
Personal disposable income (current \$ millions)	1,434.3	870.8
Employment	8,562.0	5,198.5
Unemployment rate (basis point change)	15.0	9.0
Retail sales (current \$ millions)	367.6	223.2
Housing starts	12.8	7.8
Total indirect taxes (current \$ millions)	211.6	128.5
Federal personal income tax collections (current \$ millions)	146.8	89.1
Provincial personal income tax collections (current \$ millions)	61.4	37.3
Corporate profits (current \$ millions)	155.2	94.3
Corporate taxes (current \$ millions)	34.7	21.1

Source: The Conference Board of Canada.

Do Higher Savings During Employment Impact the Economy?

We alluded to the fact that the public sector pension plans create a substitution effect—higher saving during employment for more consumption in retirement. So how does that factor into the analysis?

If individuals save more during their employment years, inevitably they are forced to consume less during those years, even if eventually they consume more during retirement. Whether this is a net benefit or not to individuals depends entirely on how they value current versus future consumption—effectively, it depends on each individual's discount rate.

If one assumes that savers are well informed, then their choice is optimal and forcing them to save more would reduce their preferred life-cycle consumption. However, in Chapter 2, we discovered that individuals who

manage their own retirement might not have all the information necessary to optimize their savings plans—for many, current savings may not be sufficient to support the comfortable retirement they envision.

These issues make it difficult to discern whether increased savings through pensions would have a net positive impact on individuals whose savings behaviour is changed. However, there is no overall impact on the economy at first, even during those employment years when households are first forced to consume less. This is because the productive capacity of the economy is not negatively affected by reduced consumption. Instead, lower household spending is largely offset by stronger investment. The freed resources are available to do other productive things in the economy. However, investment does raise the productive capacity of the economy, and this impact grows over time.

Source: The Conference Board of Canada.

SOCIAL IMPACTS

The social impacts of British Columbia public sector pension plans are gauged at two levels. At a macro level, the savings and efficiency effects have positive spillover effects for government revenues that are used to fund social spending. At the micro level, the higher savings generated by British Columbia public sector pension plans mean that plan members are financially well prepared for retirement and are less likely to increase costs on the public purse through public senior income support programs.

The social impacts of British Columbia public sector pension plans are most likely to be felt at the macro level, as outlined in Table 10. Members have more income in retirement, they spend more, and this leads to a larger economy. Provincial and federal government revenues benefit by tens of millions of dollars through this expansion of the tax base. We estimate that the increased spending in retirement generates about \$60 million (2012 dollars) in higher provincial income tax revenues through the savings effect and over \$30 million through the efficiency effect per annum.

CONCLUSION

This chapter has presented our estimates of the economic impacts associated with British Columbia public sector pension plans. We have identified two main impacts that flow from the plans design: 1) higher lifetime savings; and 2) lower management expenses. Both these impacts tend to result in significantly higher income in retirement when compared with the typical RRSP saver. The saving effect results in about \$1.3 billion more provincial income and the lower management expenses result in \$775 million more provincial income annually. That creates a range of positive effects for the British Columbia economy and the communities where plan members reside.

Aside from leading to higher income in retirement, the pool of savings increases Canada's capital stock. Cumulatively, we estimate that this higher savings results in around \$60 billion more in investment and just over \$85 billion more in GDP (current dollars) over the 2012–35 period. These effects are for the overall Canadian economy. We estimate that the impact specific to British Columbia is \$10.6 billion (12.4 per cent of the total Canadian economy). In the next chapter, we explore specific investments by bcIMC that contribute to the province's economy and the welfare of plan members.

Chapter 4

British Columbia Public Pensions Plan Capital in Action

Chapter Summary

- ◆ To make our economic analysis more concrete, we have completed case studies of five specific investments funded through British Columbia public sector pension plans.
- ◆ These cases include Delta Hotels and Resorts, Puget Sound Energy, various real estate holdings, Broadway Tech Centre, and lululemon athletica inc.
- ◆ The impact of these investments on the community varies depending on the nature and timing of the investment and the use of the investment funds.

We selected these case studies in consultation with bcIMC. The cases were selected to showcase the impact of bcIMC investment on local economies. These impacts range from job development, to leadership in green buildings, to fostering British Columbia start-ups.

We conducted interviews with knowledgeable people who could relate to us the importance of pension plan funding and the impact of the investment on the immediate community. These case studies include Delta Hotels and Resorts, Puget Sound Energy, BC Real Estate Holdings, Broadway Tech Centre, and lululemon athletica inc.

BREATHING LIFE INTO A BRITISH COLUMBIA BRAND: DELTA HOTELS AND RESORTS

COMPANY BACKGROUND

Delta Hotels and Resorts (Delta), founded in 1962 in Richmond, British Columbia, is a Canadian leader in hotel management. For the first eight years, Delta focused on the British Columbia market, but by the early 1970s, it began an aggressive push eastward. Today, Delta has a portfolio of 43 downtown, airport, and resort properties across Canada.

The economic analysis of the public sector pension plans administered by the BC Pension Corporation is admittedly high level. This is natural for economic analyses that seek to uncover broad impacts that are attributable to specific plan designs. The concreteness of our analysis is helped by specific examples of investments funded by the plans. The purpose of this chapter is to highlight five examples of such investments.

In 1998, Delta was purchased by Fairmont Hotels & Resorts (Fairmont). At that time, Fairmont's parent company was Canadian Pacific Railway (CPR). CPR's diversified portfolio focused on transportation, energy, and hotels. Over the next nine years, the Delta brand had difficulty drawing management's attention and resources within the context of the larger Fairmont group. Delta was one step below Fairmont Hotels and Resorts, and both groups were fighting for their share of capital allocation to grow their businesses and develop their brands. In the battle over capital allocation, Delta lost more times than it won, however, and the overall quality of its product and its brand suffered as a result.

INVESTMENT STRATEGY

On October 2, 2007, bcIMC purchased Delta from Fairmont for an undisclosed price. bcIMC drove the acquisition because it saw the opportunity to improve Delta's operations and to achieve greater cash flow by enhancing Delta's existing assets and expanding its brand.

bcIMC chose to acquire Delta because it was looking to expand its "diversified portfolio to include hospitality."¹ Delta was a unique opportunity and an excellent addition to bcIMC's portfolio because the Delta brand is well known and respected in the Canadian hospitality industry. However, Delta's brand had suffered in the past because of the inconsistent quality of its product under Fairmont's ownership. bcIMC has been able to leverage Delta's name recognition, while repositioning key assets to improve the overall brand.

To reposition the brand, each asset that bcIMC owned had to be able to stand on its own. Delta developed a strategic plan in conjunction with bcIMC that reviewed each asset's strengths and weaknesses. Executing the strategic plan and elevating the Delta brand is critical for bcIMC to achieve its desired rate of return.

bcIMC has a unique role in that it is the corporate owner of a franchised business as well as an actual franchisee. In its role as the corporate owner, it is responsible for positioning the overall brand, attracting franchisees, and

providing managerial services to franchisees. It provides hotel management services to 34 properties across Canada. In its role as franchisee, it is responsible for investments in the actual hotels. In this role, bcIMC directly owns 11 of the 43 Delta properties across Canada. It owns two properties in BC as franchisee, and we focus on those properties in this case study because those are the ones in which they directly control investments in BC.

BENEFITS FOR THE TARGET OF INVESTMENT

bcIMC's investment has been extremely important for Delta. From a strategic perspective, bcIMC has detailed metrics that Delta has been able to use in analyzing its operations. In addition, bcIMC is able to provide Delta with a high level of functional expertise and oversight.

Since acquiring Delta from Fairmont in 2007, bcIMC has been able to leverage Delta's name recognition, while repositioning key assets to improve the overall brand.

This functional expertise has helped to redefine and drive Delta forward. bcIMC came into its ownership position understanding the need to invest in Delta's properties to drive cash flow from others. Since acquiring Delta, bcIMC has invested in seven company-owned projects. Two of those projects were the renovations to the Okanagan Grand and the Victoria Ocean Pointe Resort and Spa. Total renovation costs were \$14.2 million. By investing in their own properties, Delta has been able to show third-party owners that bcIMC and Delta are serious about increasing the value of the Delta brand. New properties in Thunder Bay and Kingston will soon be coming under Delta's management and brand. (See Table 11.)

Attracting quality third-party owners is an inherent challenge in the hotel management sector, where few brand owners own physical assets. However, because bcIMC owns 26 per cent of Delta properties, it has a unique credibility in the industry.

bcIMC is a hands-on owner, which has helped to create long-lasting value for Delta. bcIMC has been very involved in the strategic planning and brand management

¹ bcIMC, *Delta Hotels Acquired by British Columbia Investment Management Corporation*.

of Delta. It currently has two of the nine board seats and tries to use its knowledge and expertise to increase the value of its investment.

IMPACT ON BRITISH COLUMBIA

British Columbia is a key market for Delta. Victoria and Kelowna are two important tourist destinations in the province. In 2010, the two cities had \$126 million and \$70 million, respectively, in room revenue alone.² Drawing tourists to Canadian properties is as challenging as ever with the struggling global economy and high Canadian dollar. In British Columbia alone, Delta sold 475,000 room nights in 2011, and at least 15 per cent of guests used conference room space. Investment in existing properties helps to bring value to the entire community.

All seven Delta Hotel properties in British Columbia will benefit from the repositioning and elevated branding driven by bcIMC's acquisition.

Delta has invested millions in renovations to the Delta Okanagan Grand and Delta Victoria Ocean Pointe Resort and Spa. Guest rooms were redesigned to be more modern and were refitted with technology. Conference rooms and public areas like restaurants were also renovated. Since the renovations, Delta has experienced an increase in room and non-room revenue.

Both renovations used local construction companies and provided 75 full-time and 60 part-time jobs in 2012. Victoria and Kelowna both have lower unemployment than the national average.³ Investment in infrastructure like Delta properties helps to lower unemployment. Overall, Delta employed 1,397 people in British Columbia in 2011.

All seven Delta Hotel properties in British Columbia will benefit from the repositioning and elevated branding driven by bcIMC's acquisition. Developing world-class tourist destinations creates revenue dollars and ensures the long-term growth of the province's \$13-billion tourist industry.

² BCStats, *Tourism*.

³ BCStats, *Unemployment*.

Table 11
About the Investment In Delta Hotels and Resorts

Headquarters	Toronto
Date of initial investment	2007
Share of ownership (per cent)	100
Total investments	Undisclosed
British Columbia employment (number)	1,370
Value of British Columbia-specific projects	<ul style="list-style-type: none"> ◆ Delta Grand Okanagan, \$7.24 million (renovations) ◆ Delta Victoria Ocean Pointe Resort and Spa, \$6.94 million (renovations)
Total employment (number)	6,600
Increase in employment since investment	44
External British Columbia employment (number)	<ul style="list-style-type: none"> ◆ Delta Grand Okanagan Renovation; 35 full- and 35 part-time construction workers ◆ Delta Victoria Ocean Pointe Resort and Spa Renovation; 40 full- and 25 part-time construction workers

Source: Delta Hotels and Resorts.

CHARGING UP A UTILITY— PUGET SOUND ENERGY

COMPANY BACKGROUND

Puget Sound Energy (Puget), based in Bellevue (Washington State), is a regulated utility that provides electrical and natural gas service to the Puget Sound region of Western Washington. It is the subsidiary of Puget Energy that conducts operations. Puget meets the demand of almost 1.1 million electric customers in its 6,000 square mile service territory through a combination of internal power generation, contracted power generation, and purchases in the spot market. Hydro-electric power represents about 25 per cent of Puget's electric generation resources, while most of the remaining capacity comes from natural gas or coal. Puget also generates electricity through wind and owns three wind farm facilities in Washington, making it the second-largest

utility producer of wind power in the United States.⁴ Puget's gas business is primarily engaged in gas distribution and represents about one-third of operating revenue. The natural gas supplied to customers is sourced primarily from British Columbia and Alberta, with the remaining supply coming from the U.S. Rocky Mountain States.⁵

In October 2007, NYSE-listed Puget Energy Inc.'s Board of Directors consented to a "take-private" acquisition offer from Puget Holdings LLC, a private investment consortium. The take-private transaction and new ownership model was agreed to, in part, as a means to provide alternative sources of patient, long-term capital to help build out and rejuvenate the company's existing infrastructure. The Puget Holdings consortium, consisting of the Macquarie Group, Canadian Pension Plan Investment Board (CPPIB), bcIMC, and Alberta Investment Management Corporation (AIMCo), agreed to the October 2007 acquisition and closed the transaction in February 2009. The Macquarie Group is the largest shareholder, and bcIMC has a 15.8 per cent equity stake.

To efficiently service its customers' energy needs, Puget's infrastructure includes power generation sites, electricity and gas transmission and distribution assets, as well as gas storage facilities. With over 2,800 employees across Washington, it is an extensive infrastructure that requires ongoing maintenance and enhancement. The Puget Holdings acquisition introduced an ownership model that was well aligned with, and continues to support, Puget's obligation to provide for the growing needs of its electric and natural gas customers.

INVESTMENT STRATEGY

bcIMC's participation in the Puget Holdings consortium was a natural evolution of its relationship with other Puget consortium members. bcIMC partnered with each consortium member on a variety of other deals, including Thames Water in the United Kingdom (Macquarie and

AIMCo) and Transelec in Chile (CPPIB). Having previously worked with each consortium member, the Puget deal was viewed as a stable, long-term, like-minded investment consortium to bcIMC.

Two of Puget Holdings partners, CPPIB and AIMCo, add additional synergies for bcIMC because they are also pension investment management firms with similar investment philosophies, time horizons, and alignment of interests. As pension funds, each needs to provide its clients with long-term cash flow. As in the other case studies, bcIMC is often a patient investor, willing to invest over a longer-term horizon to better match the payout requirements of its pension client beneficiaries. Economically regulated utilities such as Puget can be highly suitable investments for pension funds because, when managed correctly, these types of assets provide the opportunity to earn stable, inflation-adjusted returns over the long term.

Two of Puget Holdings partners add additional synergies for bcIMC because they are also pension investment management firms with similar investment philosophies.

Puget is a natural monopoly and is therefore subject to regulation. Because it is granted monopoly rights to provide electric and gas service, its rates are set by an independent regulatory body (Washington Utilities and Transportation Commission, or WUTC)—to ensure Puget operates safely and efficiently, while charging fair rates and earning a reasonable return on its invested capital. At first glance, it may appear to be a challenge for Puget to maintain a reasonable profit margin under regulated rates; however, under the WUTC construct, gas and electric consumer rates are periodically adjusted to account for changes in demand, operating costs, and invested capital, resulting in more consistent, or less volatile, cash flows relative to unregulated businesses. This is one aspect of Puget that made the investment attractive to the acquisition consortium—namely, it will receive stable, inflation-protected cash flow from its investment.

4 Puget Energy, Inc., *Form 10-K*.

5 *Ibid.*

IMPACT ON THE TARGET

In addition to economic regulation by the WUTC, other aspects of Puget's operations are also under close regulatory scrutiny. For example, under Washington State renewable portfolio standards, a legal requirement was introduced requiring Puget to generate a greater amount of its power requirements from renewable energy sources, such as wind power. In order to comply with this requirement, the company had to make a long-term commitment to limit its share of carbon emissions and enhance its commitment to renewable generation. As a publicly traded company, Puget may have found it challenging to focus on these longer-term commitments without significantly diluting its current shareholders' equity. As a result of the transaction, Puget was recapitalized and US\$3.6 billion of senior credit facilities were put in place, including a \$1-billion Capex facility. Combined with initial equity capital of US\$3.4 billion, Puget was well capitalized and well positioned to support the company's longer-term capital needs. (See Table 12.)

Lenders saw Puget Holdings as a strong stable entity, backed by a group of strong investors who had the ability to weather economic fluctuations and downturns. Puget received the financing it needed for its capital expenditure facility at very competitive rates. It is important to note that when Puget was trying to capitalize in 2009, banks were tightening lending and increasing rates. Despite this environment, Puget was able to secure an attractive financing package, which may not have been available to it on such terms if it had remained a public company. With the new financing in place, Puget has been able to renew its plant, add 22 new turbines to its Wild Horse wind farm, and complete the 343-megawatt Lower Snake River wind project.

As a privately owned company with four large investors, Puget has been able to draw on a wealth of experience and business planning knowledge of investor representatives and independent members appointed to the Board of Directors. This business expertise and knowledge helped Puget as it faced increasing challenges in 2009. Due to the 2008/2009 financial crisis, energy consumption growth in Washington was down as housing starts

Table 12
About the Investment in Puget Sound Energy

Headquarters	Bellevue, Washington
Date of investment	February 2009
Investment (Puget Holdings consortium)	Total initial equity of US\$3.4 billion
Share of ownership (per cent) (bcIMC)	15.8
Investment (bcIMC)	US\$535 million
Value of capital expenditure facility	\$1 billion
Total employment 2011 (number)	2,800
Increase in employment since investment (number)	none

Source: Puget Sound Energy.

grinded to a halt and people began to monitor their energy use. Puget found the new Board to be very engaged and vital in mitigating the adverse effects of the economic slowdown on the utility. New strategies included matching costs, managing efficiencies, and a new focus on the customer.

IMPACT ON BRITISH COLUMBIA/WASHINGTON

Puget Sound Energy is a regulated utility; as such, its market is limited to Washington State. Since Puget does not operate in British Columbia, the province's residents are impacted only by Puget's actions indirectly because of a shared border directly south of British Columbia's two largest cities. For instance, British Columbia supplied about 50 per cent of the natural gas supplies purchased by Puget in 2012.

Although bcIMC's investment in Puget does not directly impact British Columbia, it has helped to revitalize the utility infrastructure in one of its neighbouring states. bcIMC and the consortium's considerable reinvestment in Puget's business and infrastructure since the 2009 acquisition has helped improve Washington's infrastructure, which has been beneficial to its businesses and residents.

Since the acquisition was completed, Puget has made and continues to make numerous contributions to the local economy and community. For example at the time of acquisition, Puget Holdings made a \$5 million donation to the Puget Sound Energy Foundation. Although the foundation's core focus is public safety and emergency preparedness, it does provide grants to a variety of groups, including education and workforce development, sustainability and environmental stewardship, arts and culture, and human services.

DEVELOPING THE BACKYARD—BRITISH COLUMBIA REAL ESTATE HOLDINGS

As of March 31, 2012, bcIMC real estate net assets were valued at \$13.3 billion, and 17 per cent of those holdings were located in British Columbia. bcIMC uses its real estate portfolio to create long-term sustainable cash flows. A core strategy includes the development of large value-added, mixed-use projects.

Since 1992, bcIMC has renovated or developed 13.7 million square feet of mixed-use projects in the province. The estimated total value of all projects is \$2.36 billion. We highlight a selection of these developments. Each was chosen to highlight the different strategies used to add the most value to the property and create long-term cash flow.

745 THURLOW (745 Thurlow Street, Vancouver)

745 Thurlow is the construction of a Leadership in Energy and Environmental Design (LEED®) Core and Shell Gold certified building in place of a building/parkade in downtown Vancouver. 745 Thurlow is going to have a major presence in downtown Vancouver, with 400,000 rentable square feet. The building will primarily consist of office space, but three floors will be retail. The design and architecture of the building is world-class, and will include features such as triple-glazed windows, green roofs on third-floor and top-level terraces, and a comprehensive waste management program. The LEED® designation is beneficial for residents of Vancouver and also helps to attract tenants. In 2011, SNC-Lavalin announced it will be relocating from 1075 W. Georgia to 745 Thurlow once the building is completed in 2015. According to

SNC-Lavalin, “Not only will this enable us to expand into more efficient space and help us achieve our commitment to sustainability, it will also raise our corporate profile in downtown Vancouver.”⁶

BAYVIEW @ COAL HARBOUR DEVELOPMENT (1529 West Pender Street, Vancouver); YALETOWN (939 Beatty Street, Vancouver); AND METROPOLITAN TOWERS (930 Seymour Street, Vancouver)

bcIMC has provided funding to renovate or build these three apartment buildings in Vancouver. For bcIMC, apartment buildings are prime investments. They can be relatively expensive to buy outright because they provide a strong consistent cash flow. Quality apartment buildings infrequently come up for sale, and command top prices when they do. bcIMC feels it is more cost effective to develop apartment buildings itself, so that it can ensure product quality. bcIMC differs from most apartment developers because most plan to sell once the development is finished. bcIMC is looking for long-term cash flow and therefore needs its buildings to stand the test of time. If bcIMC builds a better product than its competitors, it can charge higher rents for longer. Because of bcIMC's long-term ownership plan, it also needs to make sure it has the support of the community and has a sustainable design and cash flow.

Each of these three properties has gone through a different development process and each adds stability to the bcIMC portfolio. Apartments do relatively well in all phases of the economic cycle. They are defensive properties that add considerable value to bcIMC's portfolio.

BRAID STREET (New Westminster)

The Braid Street development will add value to an industrial site by creating three million square feet of residential, retail, and office space. While the site is still in the rezoning process, the development plan is to turn land currently occupied by a large warehouse into a world-class mixed-residential-use project. The site is located beside the Braid Street SkyTrain stop, ideal for high-density use. Development is projected to cost \$800 million, with two-thirds being residential and the balance being office and retail. bcIMC is currently in the master

6 Bentall Kennedy, *SNC-Lavalin to Relocate*.

planning stage. This stage includes working with the community and ensuring that the transformation of the area is in keeping with what the community wants by engaging all stakeholders. It is a unique area because there are many single-family homes surrounding the current Braid Street industrial area. The goal is to make Braid Street a part of the community as a town centre—a place for people to shop, work, and live.

EVERGREEN BUILDING (1285 West Pender Street, Vancouver)

The Evergreen building was a unique renovation to an iconic Arthur Ericson building. The previous owner had acquired zoning for a complete knockdown and condo rebuild. bcIMC purchased the building because of the opportunity to refurbish an architecturally significant building and turn it into Class A office space. Building Owners and Managers Association (BOMA) International defines Class A buildings as: “Most prestigious buildings competing for premier office users with rents above average for the area. Buildings have high quality standard finishes, state of the art systems, exceptional accessibility and a definite market presence.”⁷

Redeveloping a heritage building allowed bcIMC to receive a transferable bonus heritage density to apply to other developments. Coupled with the fact that it is currently 100 per cent leased, the Evergreen Building is a great example of bcIMC leveraging existing infrastructure through thoughtful redevelopment into long term sustainable returns for its clients.

NORTHWOODS BUSINESS PARK—2270 DOLLARTON HIGHWAY, NORTH VANCOUVER

Northwoods is a 24-acre transformation of heavy industrial land use into a mixed-use park with industrial, office, retail, and residential space. To date, 466,084 square feet of mixed-use development has been built or is currently under construction. Northwoods has helped to revitalize the area and “has been recognized by both the National Association of Industrial and Office Properties and the Urban Development Institute for the high level of design,

market acceptance, and community engagement.”⁸ The area has become an employment hub in North Vancouver, with companies like Arc’teryx and Rip Curl Canada leasing large portions. In Vancouver, proper land development is very important, and Northwoods has sustainably developed valuable land for a better use that will help stimulate the area.

INVESTMENT STRATEGY

bcIMC currently invests 15.9 per cent of its portfolio in real estate. Proper development will help to ensure the cash flow necessary to pay pension benefits to its clients. bcIMC has a globally diversified real estate portfolio, but development opportunities do arise in British Columbia and bcIMC understands the market well. bcIMC’s goal after development is to continue to own the property and receive steady cash flow in rents.

As a responsible developer, bcIMC considers the impact of its developments on the community and the environment, and is known for its excellent sustainable practices.

The long-term ownership goals of bcIMC make it different from other land developers. Since it wants to see steady income from its properties over the longer term, creating long-lasting, state-of-the-art developments is worth the extra investment. bcIMC has a long history of land development and has found it can achieve a higher rate of return by developing land itself instead of purchasing finished developments. However, this approach does increase the risk bcIMC assumes. To manage the risk, bcIMC typically obtains fixed-price construction contracts to mitigate budget overages and requires meaningful pre-leasing on its commercial developments to mitigate leasing risk. For a more detailed picture of bcIMC’s developments, please see Table 13.

Vacancy is a large risk for landlords. bcIMC manages this risk by ensuring each property is positioned in an area with long-term demand. It diversifies its vacancy risk by owning a variety of properties: residential, office, retail, industrial, and hospitality. Each type of property

7 BOMA International, *Building Class Definitions*.

8 Interviews with bcIMC.

Table 13
British Columbia Real Estate Holdings

	Location	Date of purchase	Prior land use	Current/intended use	Estimated total value of project (\$ millions)	Background/commentary
Northwoods Business Park	North Vancouver	November 4, 2003	Portion was woodlands; portion was a service station	Mixed-use (industrial, retail, residential)	120 (all lots/phases)	This value includes completed development under way, and future development only includes completed development under way but NOT future development
Fraserwood	Richmond	July 10, 1992	Portion agricultural; portion bare land	Industrial	62	bcIMC represented 50 per cent
Langley Distribution Centre	Langley	May 15, 2003	Expansion	Industrial	3	Cross dock added to facility in
Bayview @ Coal Harbour	Vancouver	May 19, 1998	Low-rise office	Apartment bldg.	89	Was going to be a structured deal so bcIMC took over development
Yaletown 939	Vancouver	August 29, 2002	Low-rise office	Apartment bldg.	57	Purchased with development p
Metropolitan	Vancouver	February 3, 2003	Bare land	Apartment bldg.	79	Bought at completion of development determined lease occupancy
Evergreen Building—full renovation	Vancouver	May 19, 2006	Existing office	Office	38	Renovation of existing office bu
Westshore Village	Langford	November 1, 2004	Bare land	Shopping centre	48	This represents the development and free-standing CIBC and Bri
Shaughnessy Station	Port Coquitlam	November 1, 1995	Bare land	Shopping centre	26	This was a structured deal. The development completed by another group then bcIMC took over at 6.75 per cent cap rate. Safeway so wasn't part of deal.
Residence Inn Vancouver	Vancouver	September 25, 2007	Existing hotel	Marriott Hotel	20	Renovation of existing hotel
745 Thurlow	Vancouver	May 15, 1996	Retail/parkade	Office	187	Demolition of existing structure new office tower
"Broadway Tech Centre"	Vancouver	February 1, 1995	Warehouse	Suburban office	355	Was an Eaton's distribution warehouse development into an eight-building
Royal Bay	Colwood	May 1, 2012	Gravel pit	Mixed use (residential, retail)	310–880	Square footage is strictly specu
Braid Street	New Westminster	October 3, 1995	Existing industrial	Mixed use (residential, retail, office)	746	Square footage is strictly specu this requires re-zoning approval been secured
Brighthouse	Richmond	December 21, 1994	Existing industrial	Mixed use (residential, retail, office)	277	Square footage is strictly specu this requires re-zoning approval been secured
3030 East Broadway	Vancouver	June 11, 2008	Existing industrial	Suburban office	255	Square footage is strictly specu this requires re-zoning approval been secured

Y = Yes; N = No
Source: bcIMC.

	Partners? Y/N	If "Y," who?	Employment in British Columbia			
			Square feet	Past	Current	Future
development, development; square feet development and development development	N		466,084	162	62	87
of total investment	Y	<ul style="list-style-type: none"> ◆ Beutel Goodman Pension Real Estate Equity Co (15 per cent) ◆ CMHC Pension Fund (20 per cent) ◆ McGill University Pension Fund (15 per cent) 	546,000	364		
2005	N		25,000	8		
deal, but developer failed development halfway through	N		189,769	127		
plan partially in place	N		110,511	74		
development or at pre-	N		273,157	182		
building	N		106,753	36		
development of Westshore Village development of office buildings only	N		111,842	75		
development was completed CMHC purchased it at at development owned its own store,	N		69,000	5		
	N		197,558	66		
development and development of	N		400,000		267	
warehouse; phased development of office park	N		1,100,000	586	133	
development at this point	N		3,700,000			2,467
development at this point, as development, which has not yet	N		3,000,000			2,000
development at this point, as development, which has not yet	N		2,500,000			1,667
development at this point, as development, which has not yet	N		900,000			600

has its value. However, apartments are particularly good investments due to their defensive nature during economic slowdowns. Since office space is a considerable part of bcIMC's real estate portfolio, it is pro-cyclical. Hence, bcIMC's role as a landlord allows it diversify portfolio vacancy risk.

IMPACT ON BRITISH COLUMBIA

Each of bcIMC's developments adds value to the surrounding residents and landowners. bcIMC does not develop real estate to make a quick return. It is happy to earn a good return annually over a short-term gain. As a responsible developer, it not only considers its own financial return, but also the impact on the community and the environment.

bcIMC has a strong history of developing state-of-the-art buildings with excellent sustainable practices. Two-thirds of its portfolio is certified in the LEED®, BOMA BESt, and the Hotel Association of Canada Green Key programs. bcIMC's focus on developing sustainable buildings supports British Columbia in two ways. First, it has less impact on the environment; second, it supports the development of expertise in the area. From architects to contractors and their suppliers, bcIMC's developments hire and support some of the leading minds in the construction sector.

The Lower Mainland (Vancouver and surrounding area) in particular has benefited in many ways. The development of Class A buildings helps to draw and keep companies in Vancouver. Leading companies want office space that is not only environmentally friendly, but also gives their employees a more enjoyable space in which to work. By providing added amenities, bcIMC can attract top companies as tenants whose objectives include increasing their employees' work-life quality.

bcIMC is also very focused on developing properties near existing transit lines. Employment hubs outside of the downtown core help to take the pressure off downtown roadways and transit systems. As discussed in the Broadway Tech Centre case, bcIMC sees development near transit lines as a way to attract new tenants and it is also aligned with its environmental stewardship model. A significant part of bcIMC's real estate portfolio is

residential. The Vancouver residential market, in particular, has few buildings for residential rentals only. Most downtown residential properties are developed as condos and sold to individual buyers. bcIMC is able to achieve great risk-adjusted returns on its apartment buildings as well as expand the more affordable rental pool in Vancouver.

ON BROADWAY—TECH CENTRE HOME TO BUSINESSES

PROJECT BACKGROUND

Broadway Tech Centre is an urban business campus located on an 18-acre city block in Vancouver, immediately adjacent to the Renfrew SkyTrain station on the Millennium Line of Vancouver's automated light rapid transit system (ALRT). The project comprises seven existing office buildings with an eighth and final office building under construction. When completed in late 2014, the project will have 1.1 million square feet of leasable area, including office, production and distribution, service retail, and a 5,000-square-foot daycare facility. It is a unique space that "focuses on the quality of both the external and the internal workplace."⁹ Bentall Kennedy has been bcIMC's real estate advisor since the acquisition of the property.

Eaton's previously used the property as an industrial distribution warehouse. bcIMC purchased the property from Eaton's in 1995 in a sale/leaseback transaction. However, Eaton's began to struggle in the mid-1990s and eventually relinquished its lease in late 1999. bcIMC's long-term strategy when purchasing the land was to redevelop the property to a higher and better use to increase revenue. Eaton's relinquishment of the lease allowed bcIMC to do it sooner than planned. (See Table 14.)

Initially, the higher and better use was determined to be for a high-tech business campus, given that technology companies were booming at that time and looking for dynamic, flexible, and efficient working spaces for their employees outside of the downtown core. bcIMC successfully rezoned the property to allow for occupancy

9 Broadway Tech Centre, *Quality, Efficiency, Lifestyle*.

primarily by high-tech firms. In addition, the multi-building phased redevelopment plan provided an opportunity for high-tech firms to incubate and potentially expand over time. Unfortunately, the first two buildings had just been completed as the “tech bubble” burst in the early 2000s, and one of the buildings had to be re-leased in its entirety.

As a result, bcIMC was forced to re-strategize. It went back to the City of Vancouver and eventually rezoned the property to allow more space to be leased for general office use. Despite the setbacks, bcIMC stuck to its original vision of an urban business campus, with numerous on-site amenities to complement the state-of-the-art buildings. By doing so, bcIMC was able to continue to attract companies looking for dynamic workspaces, albeit not all in high-tech. The current tenant list includes major companies like HSBC Bank Canada, BC Assessment, Bell Canada, Coastal Contacts, British Columbia Lottery Corporation, Klohn Crippen Berger, and Nintendo Canada, with Golder Associates committed to lease the majority of the final building under construction.

INVESTMENT STRATEGY

When purchasing land to develop, bcIMC looks for unique opportunities where it can add value. Broadway Tech Centre is a perfect example of this. It has been 13 years since the redevelopment began, and with a 10 per cent internal rate of return (IRR), Broadway Tech Centre is a financial success and fantastic calling card for bcIMC’s real estate development portfolio.

Broadway Tech Centre’s design has been paramount in its ability to attract tenants while charging competitive rents. bcIMC was in front of the curve with the design of Broadway Tech Centre. Every part of the design enables bcIMC to attract successful tenants that are looking for the best for their company and employees. The design must have the following attributes:

- ◆ Sustainability—incorporate sustainable development principles at all levels of design, construction, and operation; qualify for LEED, C2000, and BOMA BEST status
- ◆ Accessibility—be located right by a rapid transit stop, have direct access to a cycle path that connects Downtown Vancouver to New Westminster, and be situated near three major Vancouver arteries

Table 14
About the Investment in Broadway Tech Centre

Headquarters	Vancouver, British Columbia
Date of initial investment	1995
Share of ownership (per cent)	100
Total investment to date (\$ millions)	238.1
Initial land acquisition (\$ millions)	18.7
Future investments (\$ millions)	45
Onsite service jobs	45
Direct construction jobs	<ul style="list-style-type: none"> ◆ Building 1: 74 over 26 months ◆ Building 2: 97 over 27 months ◆ Building 3: 74 over 27 months ◆ Building 5: 50 over 27 months ◆ Building 6: 129 over 27 months ◆ Building 7: 66 over 27 months ◆ Building 8: 51 over 18 months
Tenant employment (number)	4,000

Source: bcIMC.

- ◆ Flexible office space—large floor-plate designs with areas up to 50,000 square feet to allow for tenant-specific space planning
- ◆ Amenities—outdoor sports courts, fitness facilities, green spaces, restaurants, and change rooms with shower facilities
- ◆ Room for growth—bcIMC purchased the neighbouring property, 3030 East Broadway, to continue development and allow tenants the option to lease additional space

Each aspect of the design has contributed to the zero per cent vacancy rate of Broadway Tech Centre. Tenants want all of the above attributes and are willing to pay a premium. Although Broadway Tech Centre is less expensive than downtown space, it is still a premium property.

Each aspect of the design has contributed to the zero per cent vacancy rate of Broadway Tech Centre, but rental rates are also a key consideration for tenants. Total occupancy costs at Broadway Tech Centre are less than equivalent options in the downtown core, which is very attractive

to tenants that do not really need to be located in the core. At the same time, tenants have demonstrated that they are prepared to pay more for Broadway Tech Centre space than other competitive developments in neighbouring municipalities.

bcIMC is leveraging its experience from Broadway Tech Centre to continue to develop unique office space. 3030 East Broadway, which is just across the street, is in the master planning stage and will become an extension of Broadway Tech. It is also taking its model into the Vancouver downtown core. 745 Thurlow (detailed earlier) will have many of Broadway Tech Centre's attributes, and construction has just begun.

IMPACT ON BRITISH COLUMBIA

Broadway Tech Centre has had a very positive impact in the Lower Mainland. An eight-building centre that spans 18 acres requires a substantial construction crew. Stuart Olson Dominion Construction Ltd., the general contractor for the final four buildings, estimates 541 direct or "hard" construction jobs were created over spans of 18 to 27 months. The jobs created over the past decade have been during the recession. Buildings 5 and 7 began in March 2008 and were completed in 2009 and 2010, respectively. Both buildings provided an estimated 101 jobs over 27 months.

Now that the majority of the buildings have been completed, there are 45 permanent operation jobs at the centre. Coupled with the 4,000 employees working for tenant companies, Broadway Tech Centre is a major hub of employment. Neighbouring areas have begun developing retail space, local food services, and other amenities. Another new development in the area, the Renfrew Business Centre, also completed Phase I in 2009, and is developing Phase II, predicted to be completed in early 2014.¹⁰ When bcIMC purchased the land for Broadway Tech Centre in 1995, it was the beginning of a revitalization of a prime Vancouver neighbourhood.

Broadway Tech Centre's surrounding area has benefited from the previously described attributes that have made it a financial success:

- ♦ Sustainability—lowers carbon footprint of the area and helps to develop construction expertise in sustainable practices and materials
- ♦ Accessibility—takes pressure off downtown roadways, and its closeness to rapid transit should help to decrease the number of cars on the roads
- ♦ Flexible office space—helps to attract new tenants to the area
- ♦ Amenities—improves quality of life for some 4,000 employees
- ♦ Room for growth—helps to attract new tenants to the area and continue revitalization of the area

Each of the above attributes has the ability to create long-lasting effects in Vancouver. Property taxes from Broadway Tech Centre alone average \$5 million in revenue for the City of Vancouver. As bcIMC continues to expand its development portfolio, using a number of the above strategies, the positive impacts will only increase in the province.

BEST-DRESSED INVESTMENT— LULULEMON ATHLETICA INC.

COMPANY BACKGROUND

lululemon athletica (lululemon) was founded in Vancouver, British Columbia, in 1998 by Chip Wilson after he identified an underserved market niche for women's high-performance athletic apparel. Chip used his prior experience with technical fabrics and athletic apparel to create a clothing line designed primarily for yoga originally, but eventually branching out to include other activities and casual wear.

The first store opened in 2000, and lululemon has experienced significant growth ever since. As of January 2012, lululemon has 174 corporate-owned stores in Canada, the U.S., New Zealand, and Australia. Its growth is due to a few strategies that have been at the core of the business since 1998.

¹⁰ Pacific Capital Real Estate Group, *Office*.

lululemon's strategy is to create athletic apparel that is performance-focused yet fashionable. As a result, it has developed trendsetting products that did not exist in the market. This strategy has been supported by grassroots marketing initiatives that engage the local community. Part of its marketing initiatives includes the creation of a unique retail experience. lululemon products are only sold through its own retail stores or the corporate website, which helps to reinforce the lululemon experience. Through community engagement and educational stores, lululemon attempts to sell customers on both a way of life and clothing that makes them look good while living.

Their strategies have been so successful that by 2004 lululemon began to reach the saturation point in the Canadian market. To continue growing, it began to look south to the American market. The executive team and founder had great understanding of the Canadian market but needed a partner to help finance growth into other markets, and provide knowledge and strategies on how to execute market expansion.

lululemon began shopping around for an investor in 2004 and found an investor and partner in Advent International (Advent). Advent is a private equity firm with over 27 years of international investing experience. Headquartered out of Boston, MA, the firm has raised a cumulative \$26 billion in capital. bcIMC is one of Advent's clients and helped fund the deal but provided no management expertise. In December 2005, Advent led a US\$93 million investment for a purported 48 per cent of the company. At this time, lululemon was valued at US\$195 million. With the support of Advent, lululemon experienced rapid growth over the ensuing two-year period and completed an initial public offering (IPO) in 2007. (See Table 15.)

INVESTMENT STRATEGY

bcIMC has been investing with Advent since the early 1990s. Its funds focus on mid- to upper-market buyouts that have plenty of room for growth. lululemon is a perfect example of Advent's ability to choose companies with high-growth potential.

Table 15
About the Investment in lululemon athletica, inc.

Headquarters	Vancouver, British Columbia
Date of initial investment	December 2005
Per cent ownership (Advent International)	48
Total investment (Advent International) (\$ millions)	93
Per cent ownership (bcIMC)	1.13
Total employment 2011 (number)	5,760
Increase in employment since investment (number)	4,560
British Columbia-specific employment (number)	950

Sources: lululemon athletica, inc; bcIMC.

Advent invests in global companies where it knows it can add management value. It has particular experience in the retail space. Knowledge and expertise of the American market was a large factor in lululemon's choice to partner with Advent. For bcIMC, investing through Advent allows it to benefit from the added value. Access to capital alone is often not enough for high-growth companies to be successful. While lululemon was certainly assessing its financing options at the time, it was Advent's past success in growing global retail companies that was a differentiator.

bcIMC needs investments that will provide long-term cash flow for its clients. Depending on the asset class, a pension investment manager like bcIMC will employ a combination of internal and external investment mandates. To increase returns for its clients, bcIMC invests a small portion of its portfolio with private equity funds like Advent. Using external managers is common within the private equity asset class given its relatively complex and resource-intensive nature. By doing so, bcIMC has been able to add some high-growth investments to its portfolio without having to develop the expertise internally.

BENEFITS FOR THE TARGET OF INVESTMENT

lululemon has grown from a single store in Vancouver to a global brand currently worth \$10.5 billion. This success can be somewhat attributed to Advent's role from 2005–07. Christine Day, the CEO, of lululemon stated, "Advent helped Chip [Wilson] build a team and a board with tremendous expertise at very early stages of growth. The result is a company that is delivering on profitable revenue growth while ensuring the unique attributes of culture and differentiation grew too."¹¹

lululemon knew in 2004 that if it wanted to grow to become a billion-dollar company, it needed to expand beyond the Canadian border. Making the step beyond the local market is a big one that has been the downfall of many companies. To grow while maintaining the core strategies that make the lululemon brand such a success, lululemon decided to look for a partner that could help attract new talent and choose new store locations.

Together, lululemon and Advent undertook many initiatives, including:

- ◆ Attracting and recruiting new executive team and board members, including a chief operating officer—a key position within a high-growth multiple national retail company
- ◆ Upgrading of lululemon's information technology ("IT") system—a critical element necessary for the effective management of any business, but particularly for a high growth and multi-location company like lululemon
- ◆ Completing the IPO process—Advent's experience with other portfolio companies that had become publicly listed was instrumental in lululemon's IPO process

IMPACT ON BRITISH COLUMBIA

lululemon is a home-grown British Columbia success story. Walking down the streets of Vancouver, it is easy to see the impact it has had on the fashion scene alone

in the region. However, lululemon's success has had much more impact on the Lower Mainland than simply dressing the local yogis.

At the core of lululemon is the strategy to "market on a grassroots level in each community, including through social media and influential fitness practitioners who embrace and create excitement around our brand."¹² Marketing through community engagement means that funds that would otherwise be used for billboard or television ads have been used on events such as free yoga classes, half-marathons, and other community programs. lululemon has nine stores in British Columbia that employ around 250 people. It is mandated for each store to get involved in the community and get its employees involved.

At the core of lululemon is the strategy to market on a grassroots level in each community. This means marketing through social media and community engagement.

An extreme example of lululemon's dedication to development of its staff and community is the recent \$12-million donation made by Chip Wilson and lululemon to the Kwantlen Polytechnic University in Richmond, British Columbia. The donation will be used to develop a school of design focusing on high-tech clothing. A school like this currently does not exist in Canada. It is a perfect way for lululemon to invest in Canadians rather than having to look elsewhere for talent.

lululemon is headquartered in Vancouver, a city that struggles to attract or maintain headquarters. The lululemon headquarters currently employs 700 people and will continue to need to hire new design talent. lululemon is actively developing its talent pipeline while simultaneously adding value to the community.

¹¹ Advent International, *lululemon athletica inc.*

¹² lululemon athletica inc., *2011 Annual Report*.

Chapter 5

Conclusion

Chapter Summary

- ◆ Defined benefit plans like the one covering many British Columbia public employees are a good way to save for retirement.
- ◆ Individual plan members save more for retirement and have a lower cost of plan administration than typical retirement savers in British Columbia
- ◆ By 2046, we estimate that the average individual retiree realizes over \$60,000 more per annum in pre-tax retirement income through higher savings (savings effect) and around \$40,000 more per annum due to lower fees (fee effect).
- ◆ This results in higher spending and income in British Columbia. The savings effect results in \$1.28 billion higher provincial income. And provincial employment is over 8,000 higher because of the plans. And the fee effect results in \$750 million in direct and indirect income for the province.

Defined benefit plans like the ones covering many British Columbia public sector employees are a good way to save for retirement. These programs remove almost all discretion from the employee to save for retirement. As we have seen in this report, the result is more retirement savings that lead to

higher disposable income in retirement. As such, British Columbia public sector employees will, on the whole, not face a precipitous drop in their standard of living in retirement.

We have shown that British Columbia's public sector pension plans are demonstrably good for the individual plan members. Higher savings lead to more capital investment, which raises the potential output of British Columbia's economy. We have identified two main impacts that flow from the plans' design: 1) higher lifetime savings; and 2) lower management expenses. These combine to provide retirees with higher income in retirement when compared with the typical RRSP saver. By 2046, we estimate that the average individual retiree realizes over \$60,000 more per annum in pre-tax retirement income through higher savings and around \$40,000 per annum more due to lower fees.

These savings and lower fees impacts mean that retirees have more money to spend in British Columbia. The savings effect results in \$1.28 billion higher provincial income. Our model estimates the effect on a range of economic indicators of this income. The multiplier effect is shown in substantially higher provincial personal income and disposable income. Provincial employment is over 8,000 higher because of the plans. To these effects we added the effect of bcIMC retaining investment management services in British Columbia, which we reckon is worth about three-quarters of a billion per annum to the BC economy in direct and indirect effects.

Appendix A

About the Plans

The BC public sector pension plans are some of the largest pension plans in Canada, with in excess of \$65 billion in assets. Contributing to the plans are more than 290,000 active members working for nearly 1,000 employers. Members include employees of BC municipal and health care workers, police and firefighters, non-teaching staff of schools and colleges, teachers, college instructors, provincial government employees, and employees of WorkSafeBC. More than 65,000 retired members are receiving their pensions.

HOW THE BC PUBLIC SECTOR PENSION PLANS ARE GOVERNED

All of the plans other than the WorkSafeBC Pension Plan are governed by joint trust agreements. Joint trusteeship is the shared governance of the plan.

Each plan has a board of trustees with joint representation from unions and employers. The boards of trustees are responsible for managing the pension plan and the pension fund. The boards may change the plan rules if they are directed to do so by the plan partners and if certain conditions are met. The board can also amend the plan rules if:

- ♦ there is no resulting increase in contribution rates for plan members or employers
- ♦ there is no creation of, or increase in, an unfunded liability
- ♦ the proposed amendment is consistent with the trustees' fiduciary responsibilities

The joint trust agreements set out conditions for the boards to follow in implementing certain changes.

ROLE OF THE BOARD OF TRUSTEES

The board of trustees has overall responsibility for managing and funding the pension plan, including providing direction to the BC Pension Corporation and the BC Investment Management Corporation.

ROLE OF THE BRITISH COLUMBIA PENSION CORPORATION

The BC Pension Corporation provides benefit administration services as an agent of the Board. It collects contributions, processes benefits, issues pension payments, and provides policy, financial, communication, and secretariat services to the Board.

ROLE OF THE BRITISH COLUMBIA INVESTMENT MANAGEMENT CORPORATION (BCIMC)

The BC Investment Management Corporation provides investment management services as an agent of the Board. One of Canada's largest investment managers, it administers more than \$80 billion in assets on behalf of public sector pension plans, the provincial government, public trusts, and insurance funds.

BENEFITS

DEFINED BENEFIT PENSION PLAN

The BC public sector pension plans are cost-shared defined benefit pension plans. This means the amount of a member's basic pension payment is calculated using a formula based on the member's highest average salary and years of service. Pension payments do not depend on how much a member contributes to the plan or on the performance of investment markets while the member is working or after the member retires.

With this type of pension plan, members can estimate well ahead of time how much their basic pension payment will be. This certainty allows members to make decisions and plan for retirement.

BASIC LIFETIME PENSION PAYMENT

The basic lifetime pension payment (the monthly payment each retired member receives) is paid for as long as the member lives and may continue to be paid to the member's spouse or dependant after the member's death.

The plans can make this promise because the boards of trustees manage the plan's assets to ensure there is enough money for current and future pensions. Every three years, an independent actuarial valuation is conducted by the plan actuary. The actuarial valuation is an assessment of the plan's assets and liabilities to determine if the plan has sufficient funds to pay promised pension benefits. If this valuation determines there will be insufficient funds to meet the board of trustee's basic pension promise to members, the board of trustees must increase employer and member contribution rates.

OTHER BENEFITS—NOT GUARANTEED

The boards of trustees annually consider a number of factors to determine if an annual cost-of-living adjustment will be provided. Once granted, a cost-of-living

adjustment becomes part of the basic pension. Cost-of-living adjustments are based on changes in the Canadian Consumer Price Index. Any cost-of-living adjustments granted are applied in January.

In some, but not all, of the plans, retired members have access to partially subsidized group extended health and dental plans. Subsidies are based on members' years of pensionable service. Group benefit coverage may be changed at any time by the board of trustees, including, but not necessarily limited to, increasing, decreasing, or eliminating coverage for people or benefits and amounts of premiums and deductibles.

It is important to note that subsidized dental and extended health benefits and cost-of-living adjustments are not part of the guaranteed basic pension benefit.

PENSION PLAN ACCOUNTS— HOW BENEFITS ARE FUNDED

The BC public sector pension plans are pre-funded pension plans. They are designed so each generation pays in advance for its own basic pension benefits. Plan sustainability is monitored and managed through its valuation process. An actuarial valuation is performed at least once every three years. If the valuation reports an unfunded liability, then plan member contribution rates and employer contribution rates are increased equally so as to pay off the unfunded liability over 15 years. The intent of this process is to keep the plan at or near a funding ratio of 100 per cent.

Three accounts are used to pay pension and other benefits: a basic account, an inflation adjustment account, and a supplemental benefits account.

Appendix B

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