

# Chapter 2

## New Brunswick Investment Management Corporation

### Investment Performance and Cost Analysis

#### Contents

Introduction .....	11
Assets and investment income .....	13
Expected future investment performance .....	34
Cost structure analysis .....	37

# New Brunswick Investment Management Corporation Investment Performance and Cost Analysis

## Introduction

**2.1** The New Brunswick Investment Management Corporation (NBIMC) acts as trustee for three of the legislated provincial pension plans which have a growing pool of investment assets, currently in excess of \$8 billion. The three legislated pension funds are the Public Service Pension Fund, the Teachers' Pension Fund and the Judges' Pension Fund.

**2.2** In the early 1990s the Province's three mentioned legislated pension plans had large unfunded liabilities. At the time, the Province set the goal of having the three pension plans fully funded by the year 2017. A fully funded position means that there are sufficient assets in a plan to cover the expected future payments for all pension benefits earned at a specific date.

**2.3** Because the Minister of Finance, as Chair of the Board of Management, has the responsibility to ensure there are sufficient funds to meet the future pension entitlements of the members of the legislated plans, the funding shortfall is the responsibility of government, and the government of that time chose to implement measures to reduce the shortfall. This included the introduction of equity investments to diversify the investment portfolio. Additional investment expertise was required to earn potentially higher investment returns from the diversified investment portfolio.

**2.4** In 1994, the Legislative Assembly passed the *New Brunswick Investment Management Corporation Act* to create an organization that would manage the pension assets of the three legislated plans for the Province. Up until then the Minister of Finance was the sole trustee of

the three funds, which were invested entirely in government or government guaranteed bonds.

**2.5** The primary purpose for creating NBIMC was to create a pool of investment expertise in the Province that would facilitate the achievement of the provincial goal of fully funded legislated provincial pension plans in a cost effective manner.

**2.6** In Volume 2 of our 2006 Report, we reported on our assessment of the governance structures and processes in place at NBIMC. This chapter is a follow-up study to that work. In this chapter we look at some indicators of NBIMC's investment performance, and we provide an analysis of the costs of the organization.

***NBIMC response***

**2.7** *We would like to point out our concerns with regards to the lack of a more defined scope for this report in that it actually includes the roles and actions of many parties outside of the mandate of our specific organization. Examples include those involved in the development of earlier provincial government policy and legislation, the pension plan sponsor, actuaries, and other related stakeholders. For example, while the title of the report points specifically to our organization, only three of the nine ultimate recommendations are specific to NBIMC's control. The inclusion of the actions of these parties complicates and confuses the actual issues for which NBIMC is responsible.*

**2.8** Evaluating the investment performance of an organization like NBIMC is complex, and we do not have the necessary expertise to provide a technical evaluation. We have, however, been able to prepare an analysis of investment performance based on some basic indicators and comparisons.

***NBIMC response***

**2.9** *We would strongly agree with the above comments. Evaluating the performance of an organization like NBIMC is complex and a proper technical valuation does require the necessary expertise in public sector institutional pension fund management practices. We would respectfully question why such expertise was not retained as permitted under the mandate of your office.*

**2.10** We believe that it is important for government to understand the cost of all of its programs and services. Many programs that do not generate revenue are often scrutinized for cost savings to determine if the same outcomes can be achieved for less cost. We believe it is equally important for government to understand the cost structure of

programs that are focused on earning income, and that may not have costs scrutinized to the same degree.

## Assets and investment income

**2.11** NBIMC was appointed trustee of the Public Service Superannuation Fund (PSSF), the Teachers' Pension Fund (Teachers') and the Judges' Pension Fund (Judges') on 11 March 1996 and assumed responsibility for management of the assets of the three pension funds on 1 April 1996. At that time, the Funds were invested in fixed income securities. New investment policies were put in place by NBIMC in December of 1996, with the goal of achieving asset class diversification. This was completed by 31 March 1997.

**2.12** On 1 April 1998, the assets of the Funds were transferred into unit trust funds established by NBIMC. As at 31 March 2007 there were 17 unit trust funds each with a specific investment mandate.

**2.13** The value of the assets NBIMC manages has grown significantly. The following table shows the value of the assets at 31 March for each of the past ten years.

### Assets held in trust at 31 March (\$ millions)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
5,175	5,140	6,216	5,773	5,835	5,289	6,565	7,056	8,099	8,718

**2.14** NBIMC earned the following gross rates of return for the three pension funds over the past ten years.

### Gross rate of return for the year ended 31 March (Percentage)

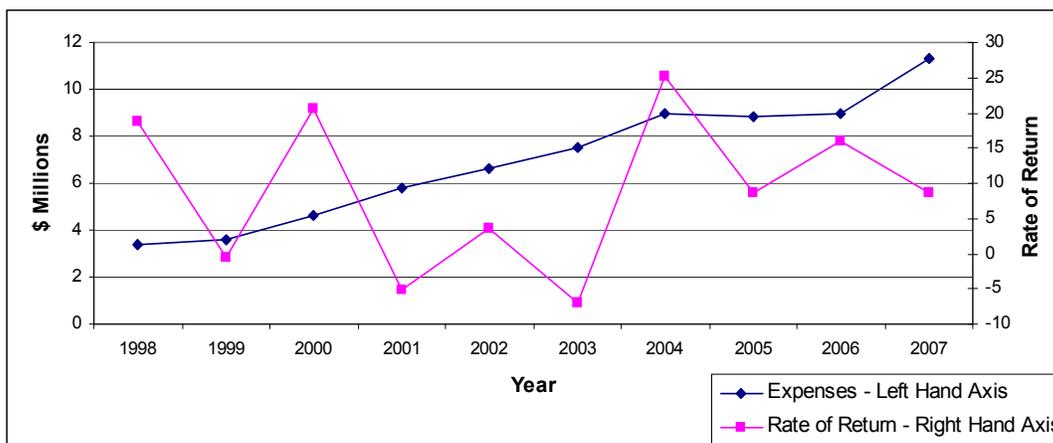
Fund	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
PSSF	18.93	(0.82)	21.49	(5.67)	3.41	(7.32)	25.51	8.53	16.05	8.77
Teachers'	18.41	(0.41)	19.60	(4.76)	3.50	(6.53)	24.98	8.47	15.67	8.58
Judges'	21.54	(1.60)	23.64	(7.17)	3.20	(8.92)	27.05	8.89	16.68	8.77
<b>Total</b>	<b>18.68</b>	<b>(0.62)</b>	<b>20.57</b>	<b>(5.23)</b>	<b>3.45</b>	<b>(6.95)</b>	<b>25.27</b>	<b>8.51</b>	<b>15.87</b>	<b>8.68</b>

**2.15** The following table shows that the value of the returns earned by NBIMC has been significantly higher than the amount of its annual costs, in all except for the three years with negative returns.

**Investment income and expenses for the year ended 31 March  
(\$ millions)**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Income	813.9	(31.9)	1,058.9	(318.5)	194.7	(402.9)	1,321.8	552.3	1,112.7	697.9
Expenses	3.4	3.6	4.6	5.9	6.6	7.5	9.0	8.8	9.0	11.3

**2.16** The following graph compares expenses to rates of return:



**2.17** However, NBIMC does not judge its investment performance by simply comparing investment income to costs. This section of the chapter analyzes the historical investment returns of the Corporation.

**Investment performance**

**2.18** The current mission of NBIMC as stated in their 2006-2007 Annual Report is “The prudent, innovative and cost efficient investment management of New Brunswick based public sector funds to ensure long-term growth that meets client investment challenges.”

**2.19** NBIMC has two main investment performance objectives. The primary objective is to achieve the actuarial long term rate of return requirements for the funds. The second investment performance objective is for the Corporation to add value, above its various asset class benchmarks, through active management strategies. This value added, relative to benchmark, is expected to first cover all of the Corporation’s operating costs, and subsequently add an additional target of 42 basis points per annum to each fund.

**NBIMC comment**

**2.20** We are please to point out that our primary and secondary objectives are directly linked to the Auditor-General comments on the

*first page of this report with respect to our primary purpose “to create a pool of investment expertise in the Province that would facilitate the achievement of the provincial goal of fully funded legislated provincial pension plans in a cost effective manner.”*

**2.21** In addition to measuring performance relative to these two investment objectives, NBIMC also compares its performance to other investment managers.

**2.22** Before looking at NBIMC’s performance relative to its objectives, we first looked at the Corporation’s ten year annualized return.

*Ten year annualized return*

**2.23** The annualized gross return earned by NBIMC over the ten fiscal years ending 31 March 2007, has been 8.30% before taking into consideration the actual operating costs of NBIMC. We have identified three broad components of this total return.

**2.24** First of all, when NBIMC was created, the pension fund portfolios consisted of fixed income securities only. It is for this reason we consider the ten-year annualized gross fixed income return to be our baseline for analyzing NBIMC’s performance.

**2.25** The second component is the amount of value added by the decision to diversify the portfolio and the choice of investments or “asset mix” to use in the particular set of circumstances of the three legislated pension plans. The asset mix decision is a responsibility of the NBIMC board.

**2.26** The third component is the active management component. Once the asset mix decision is made, the staff of NBIMC must manage the day to day investment decisions, and try to add value beyond the value of the benchmark return.

*NBIMC response*

**2.27** *We would note the lack of including investment costs as a component of the various investment return analysis conducted throughout this report. While we recognize that a review of costs is undertaken in isolation later in this report, it is important to include expenses as part of any overall comparative investment analysis as it is investment returns net of expenses that ultimately pays the pension obligations.*

**2.28** *NBIMC operating costs, as discussed in our Fiscal 2007-2008 Annual Report, are very low compared to alternative investment managers. This cost benefit aids our net investment returns, and*

*therefore improve our comparative position versus many of the other investment management alternatives identified later in this report.*

**2.29** Based on information that NBIMC tracks, we can attribute a ten-year historical value to each of the three components of the total return. Although a ten-year period provides a good representation of information it is still sensitive to beginning and end date bias. In this analysis we will refer to basis points, where the full 8.30% return equals 830 basis points.

**2.30** For the first component we identified the types of investments which NBIMC started with in March of 1996. We have estimated that type of portfolio would have earned approximately 701 basis points annually over the ten year time frame.

**2.31** It is also relatively easy to put a value on the third component of our analysis, the active management component. According to NBIMC's information, the ten year gross benchmark return has been 8.25% or 825 basis points. This means the active management value added component of NBIMC's total annualized ten year return was 5 basis points, i.e. 830 total basis points less 825 basis points for the benchmark return. Later in this chapter, we will discuss how NBIMC's performance looks better through a five year lens than it does through a ten year lens.

#### ***NBIMC response***

**2.32** *Please note that we have provided a response with respect to the above observation on the active management value added component later in this report.*

**2.33** Since the total ten year annualized return was 830 basis points, and we have attributed 701 basis points to the first component and 5 basis points to the third, the diversification and asset mix component would have a value of 124 basis points.

**2.34** This shows that the decision to diversify the portfolio was an appropriate decision. On an annual basis, it has added 1.24% to the fund returns. If we assume the three legislated plans have averaged \$6.5 billion in assets over the past ten years, then the decision to diversify, including the asset mix decisions made by NBIMC over that time frame, have added about \$806 million, or \$80.6 million per year, to the three pension funds.

**2.35** The asset mix decision is one of the most important roles played by NBIMC. In their 2006-2007 Annual Report, they provide

some insight into the types of issues that they deal with when setting the asset mix:

### Asset Mix

In late 2005 NBIMC changed the benchmark for our public Canadian equity exposure from the S&P TSX Composite Index to the S&P TSX Equity Only Index. This change came about due to the planned introduction of income trust securities into the Composite Index on December 16, 2005. At that time we determined that we were uncomfortable with the fit of income trust exposure in our asset mix and wanted to ensure that we managed purely equity-type securities. This benchmark change turned out to be a very good decision as it allowed us to avoid the significant price decline in income trust type securities that occurred on October 31, 2006 when the Federal Government announced changes to their taxation regime. While this change was made for portfolio benchmarking purposes, and therefore not part of our relative value-added return measures, we estimate that it saved the portfolio approximately \$50 million. Subsequent to the completion of our research analysis on income trusts, and also due to the decline in the composition of the companies making up the Equity Only Index, we reverted back to the S&P TSX Composite Index benchmark by the end of January 2007.

**2.36** The following table is a high level view of the asset mix for the last two years excluding the Student Investment Unit Trust Fund.

	2007	2006	2007	2006
	(\$ millions)	(\$ millions)	%	%
Fixed Income	3,890.8	3,726.8	44.7%	46.1%
Equities	3,811.4	3,497.7	43.8%	43.2%
Alternative Investments	1,004.8	863.1	11.5%	10.7%
<b>Total</b>	<b>8,707.0</b>	<b>8,087.6</b>	<b>100.0%</b>	<b>100.0%</b>

**2.37** The difficulty in analyzing NBIMC's performance is in trying to further attribute the 124 basis points that we placed on the diversification and asset mix component. How many of those 124 points should be attributed to government's decision to diversify the portfolio, and how many should be attributed to NBIMC's asset mix decisions? Since the Minister of Finance has not given NBIMC any explicit instructions about asset mix, we have attributed the full value of these 124 basis points to NBIMC.

### Benchmark return and benchmark index

**2.38** Before going further with our analysis, we will provide some information about the use of benchmark returns in assessing investment performance. A benchmark return is the return the

portfolio would have earned if each asset class achieved the return of its respective benchmark index and was at its target weight according to the investment policy.

**2.39** Benchmark indices are a tool for measuring performance of active managers. Active managers are hired with the expectation they will add value by exceeding a predetermined benchmark index, however, it is acknowledged that there will be some risk of underperformance in shorter time periods.

**2.40** It should be noted that some investment mandates (unit trust funds) of NBIMC are not active in nature, but rather employ a passive approach. In those instances, NBIMC through internal or external managers is to replicate the return of the index at a low cost.

**2.41** Measuring the performance of an investment portfolio, net of all expenses, and comparing it against a benchmark return are two important actions in the process of managing investment assets. These actions help to determine if the investment strategy is on track. They can also be used to make a decision to change investment managers and enable the stakeholders to have the information they need to take timely corrective action.

**2.42** Comparing actual investment performance to market performance during the measurement period is critical to understanding the result. Did the investment manager do better than the index because of prudent decision-making? Did the manager outperform because of skill or chance? Detailed attribution tools, which are beyond the scope of this study, can aid in understanding the portfolio construction and sources of manager performance.

**2.43** There is wide acceptance of a number of indices that cover marketable securities such as stocks and bonds. The S&P, MSCI and DEX indices (previously known as Scotia Capital) are reliable sources of performance measurement indices that are used as benchmarks to measure performance. These indices can, for the large part, be purchased as an investment, that means it is possible to passively purchase an indexed fund that will return exactly what the index earned. However, for real estate, hedge funds and private equity investments, indices are not generally investable. Establishing good performance benchmarks for these investments can be challenging. NBIMC has established what they feel to be reasonable benchmarks for their various investment securities. The indices provide an investment benchmark to evaluate the investment performance of NBIMC.

**2.44** To help explain the use of indices as benchmarks we will use an example. Assume an investor bought a mutual fund invested in Canadian companies. The mutual fund, during the last 10 years showed an annualized after cost return of 6%. Was the mutual fund a good choice among all the other mutual funds the investor could have purchased? Did the mutual fund manager do a good job in adding value? The answer lies in the benchmark. If, over that same 10 year period, the performance benchmark in Canada for that type of mutual fund was the S&P/TSX Composite Index, and if that index showed a return of 8% per year, then compared against the benchmark our hypothetical mutual fund manager underperformed by 2% per year. Anyone could have invested in the benchmark through an indexed fund or an exchanged traded fund (ETF) and almost matched the performance of the benchmark.

**2.45** Benchmark indices are important because the analysis of performance is very much dependant upon the benchmark index chosen for the evaluation. NBIMC'S independent internal auditors completed a review of benchmarks for the 12 month period ending September 7, 2007 and made the following statement "performance benchmarks are consistent and similar to those typically used by other institutional investors."

Unit Trust funds

**2.46** The 2006-2007 Annual Report of NBIMC contains the financial statements of the Net Assets Held in Trust for the three pension funds. The financial statements disclose the amount of investments and investment income earned by the funds. On April 1, 1998 the assets of the Funds were transferred to unit trust funds established by NBIMC. At 31 March 2007 there were 17 unit trust funds. The financial statements disclose the specific mandate, benchmark and return objective for each unit trust fund. The table below summarizes this information.

<b>Unit Trust Fund</b>	<b>Benchmark used by NBIMC</b>	<b>Return objective</b>
Public equity	Weighting of the respective country or regional indices	Benchmark plus 200 basis points over 4 year moving average
North American market neutral	93% Scotia Capital 91- day Treasury Bill index and 7% of the Call Loan rate	Benchmark plus 500 basis points over 4 year moving average
New Brunswick and Atlantic Canada equity opportunity	S&P/TSX Composite index	Benchmark plus 80 basis points over 4 year moving average
Private equity	A blend of S&P 500 and the MSCI Europe Net total return indices	Greater than benchmark
Canadian Real Estate	Percentage change in the 12 month CPI – Canada All Items Index	Benchmark plus 400 basis points
U.S. Real Estate	NAREIT equity Index	Benchmark plus 150 basis points
Commodity	Goldman Sachs Commodity Total Return Index (US\$)	Benchmark
Student investment	50% S&P/TSX 60, 45% Scotia Capital All Government index and 5% Scotia Capital 91- day Treasury Bill index	Benchmark

Unit Trust Fund	Benchmark used by NBIMC	Return objective
Nominal Bond	Scotia Capital All Government index	Benchmark plus 20 basis points over 4 year moving average
New Brunswick Fixed Income Opportunity	Scotia Capital All Government index	Benchmark plus 20 basis points over 4 year moving average
Inflation linked securities	Scotia Capital Real Return Bond Index	Benchmark plus 10 basis points over 4 year moving average
Money market	93% Scotia Capital 91- day Treasury Bill index and 7% of the Call Loan rate	Benchmark plus 20 basis points
Canadian equity	S&P/TSX Composite index	Benchmark
External Canadian equity	S&P/TSX Composite index	Benchmark plus 100 basis points over 4 year moving average
TSE Small-Cap	S&P/TSX Completion Index	Benchmark plus 100 basis points
Allocation equity international	Weighting of the respective country or regional indices	Benchmark
European equity index	MSCI Europe (Developed Markets) Index	Benchmark

**2.47** The notes to the financial statements state “This portfolio structure facilitates the collective investment management and administration of the assets.” What is missing from the annual report is the actual performance of the 17 unit trust funds. NBIMC does calculate the actual returns but chooses not to make them public in the annual report; they prefer to report the returns for each asset class. NBIMC did disclose in their 2006-2007 Annual Report, on page 14, a graph showing the value added after covering operating costs expressed in basis points. The 2006-2007 Annual Report also presents rates of return and benchmark returns by asset class on page 13.

### **Recommendation**

**2.48** We recommended NBIMC disclose the actual performance of the individual unit trust funds in the Corporation’s annual report.

**2.49** The 2006-2007 Annual Report of the British Columbia Investment Management Corporation (BCIMC) is an example of an annual report with this kind of disclosure.

### **NBIMC response**

**2.50** *The asset mix decision is the most important decision that NBIMC, as Trustee of the pension funds, can make. Therefore, reporting performance in terms of the asset mix decision is the most relevant message to communicate to our stakeholders. BCIMC*

*however does not serve in the role of trustee, but rather, is solely an investment manager for its clients, therefore reports the performance of its investment products in a fashion similar to a mutual fund.*

Primary objective – actuarial long-term rate of return

**2.51** NBIMC’s 2006-2007 Annual Report states on page 13 that: “The primary performance objective, as outlined by the plan actuary, is to achieve a long term real return (i.e. return before inflation) objective of more than 4%. This is the most significant hurdle that we measure our performance against and is the primary factor in the security of the pension plan benefits.”

**2.52** This objective is directly linked to the actuarial valuation of the three pension funds. The actuary, for the purpose of determining the going-concern financial position of these pension funds, has assumed the nominal rate of investment earnings to be 7.12%. This rate of investment earnings assumption is the combination of the real rate of return assumption of 4% and the inflation assumption of 3%.

**2.53** It is important to understand that, for all three pension plans, the Province of New Brunswick is the pension plan sponsor and is ultimately responsible to ensure there are sufficient financial resources in the funds to pay the pension benefits. The Chair of the Board of Management, the Minister of Finance, is the person with the responsibility for pension plan performance according to the terms of the PSSF and Teachers’ pension plans. The Minister of Finance is the plan governor for the Provincial Court Judges’ Pension Plan. Thus one would expect the Minister of Finance to be involved in approving investment policies. This is not happening.

*NBIMC response*

**2.54** *We respectfully suggest that the NBIMC legislation and the PSSA, TPA and PCJPA each clearly outline that NBIMC is to be trustee of the pension funds. As trustees, one of the most important decisions is to establish an investment policy. This is even a requirement of section 17(2) of the NBIMC Act. If someone other than the NBIMC Board were required to approve the investment policies, this would be a contravention to the Act.*

**2.55** NBIMC has adopted their primary objective of achieving a long term real return of more than 4% in the absence of any specific direction from the Minister of Finance. As we stated in our 2006 Report, because the Minister of Finance does not communicate provincial expectations to NBIMC, the Corporation uses other available sources of information in setting investment policies. These sources of information include actuarial reports and discussions with the actuary who is responsible for evaluating the three legislated

pension plans. Also, as we stated in 2006, we feel that in the circumstances NBIMC is using all means available to it to ensure that the investment policies are appropriate.

**Recommendation**

**2.56** We are repeating a recommendation we made in our 2006 Report on New Brunswick Investment Management Corporation Governance, that is, **we recommended the Minister of Finance provide NBIMC with clearly defined performance expectations including targets.**

**NBIMC response**

**2.57** *We reiterate our response to this recommendation in the 2006 report. While we support and encourage enhanced communication between ourselves and the pension plan governor, we feel it is important to point out that as an independent body that has fiduciary obligations solely to the funds under management, it should be the responsibility of our Board to ultimately set policies and performance expectations for the Corporation. It is our understanding that for this very reason the British Columbia Investment Management Corporation, a similar peer organization, is exempted from the Shareholder's Letter of Expectations process in British Columbia.*

**2.58** Ultimately the primary performance objective defines the level of risk taken by NBIMC when it decides upon its overall asset mix. The higher the real rate of return objective for the plans, the riskier the investment portfolio would have to be.

**2.59** The table below shows the ten year compound return of NBIMC, using 1 April 1997 as a starting point. This is then compared to the rate of return assumption for the three plans as a whole for the same ten year period.

	<b>Actual Annual Compound Return (ten year period)</b>	<b>Actuarial Performance Assumption</b>
Real rate of return	6.11%	4.00%
Inflation rate	2.06%	3.00%
Rate of investment earnings	8.30%	7.12%

**2.60** The table below provides the information for each of the three plans:

	Actuarial Performance Assumption	Actual annual compound return (10 year period)		
		PSSF	Teachers'	Judges'
Real rate of return	4.00%	6.15%	6.08%	6.33%
Inflation rate	3.00%	2.06%	2.06%	2.06%
Rate of investment earnings	7.12%	8.34%	8.27%	8.52%

**2.61** These tables show that for the ten year period ending 31 March 2007 NBIMC has exceeded its primary objective. The overall rate of investment earnings was 8.30% while the objective was 7.12%. Furthermore, for each of the three individual pension plans the actual rate of investment earnings for the ten year average is above the rate assumed by the actuary when calculating the funding position of the pension plans.

**2.62** The table below provides a comparison on a yearly basis showing NBIMC's performance compared to their primary objective. NBIMC has exceeded their primary objective in six of the past ten years and four of the past five years.

**Actual performance compared to primary objective  
(basis points)**

Year ended 31 March	Rate of investment earnings (loss)	NBIMC's primary objective	Return above (below) primary objective
2007	868	712	156
2006	1587	712	875
2005	851	712	139
2004	2527	712	1815
2003	(695)	712	(1407)
2002	345	712	(367)
2001	(523)	712	(1235)
2000	2057	712	1345
1999	(62)	712	(774)
1998	1868	712	1156

Second investment objective -  
add value

**2.63** NBIMC's second investment objective, as stated in its 2006-2007 Annual Report "...is to add value, above its various asset class benchmarks, through active investment management strategies."

Earlier in this chapter we referred to three components of the total return. This is also the third layer in our analysis of NBIMC's returns.

**2.64** NBIMC's goal is to add value by outperforming the various benchmarks after taking into consideration their costs. NBIMC uses active management strategies subject to constraints set by the Board of Directors. The annual report continues "This value added, relative to benchmark, is expected to first cover all of the Corporation's operating costs, and subsequently add an additional target of 42 basis points per annum to each fund."

**2.65** This second objective provides information about how well NBIMC actively managed the investment portfolio. The rate of investment earnings may be a reflection of how well the stock market performed over the last number of years. The challenge is not just to measure or value the returns earned by the Corporation, but to measure the performance of NBIMC as an investment manager.

**2.66** We have produced, from information obtained from NBIMC's annual reports, the table below which shows NBIMC's actual performance (rate of investment earnings) measured against NBIMC's performance benchmarks.

**Actual performance compared to benchmarks (basis points)**

Year ended 31 March	Rate of investment earnings (loss)	NBIMC's Benchmark	Return above (below) benchmark	Operating costs	Value added (lost)	NBIMC value added target	NBIMC Performance above (below) target
2007	868	800	68	14	54	42	12
2006	1587	1578	9	13	(4)	42	(46)
2005	851	814	37	14	23	42	(19)
2004	2527	2496	31	17	14	42	(28)
2003	(695)	(718)	23	13	10	42	(32)
2002	345	328	17	12	5	42	(37)
2001	(523)	(439)	(84)	10	(94)	42	(136)
2000	2057	2058	(1)	9	(10)	42	(52)
1999	(62)	(221)	159	7	152	42	110
1998	1868	2104	(236)	8	(244)	42	(286)

**2.67** The previous table shows that in seven of the past ten years, NBIMC's investment returns exceeded the benchmark return, and the investment returns in each of the past six years exceeded the benchmark. In six of the last ten years, and five of the last six years, the value added by NBIMC has exceeded the operating costs of the organization. However, only twice in the past ten years and only once

in the past eight years has NBIMC's performance exceeded its value-added target.

**2.68** It should also be noted that in 2003, despite a negative rate of return of 6.95%, NBIMC actually added value, after operating costs, when compared to their benchmark. Also, looking back to the earliest year of the investment approach, 1998, we see that even though the Corporation earned 18.68%, it significantly underperformed the benchmark. These two examples illustrate why the actual annual rate of investment earnings is an incomplete way to assess NBIMC's performance.

**NBIMC comment**

**2.69** *We would like to make two observations with respect to this analysis.*

**2.70** *First of all it is important to point out that it is quite difficult to outperform market benchmarks. Only half of all active managers can exceed performance benchmarks in any one year. The value obtained from those who exceed these benchmarks is gained from those who underperform the benchmark. The probability of exceeding the benchmark is further limited when operating costs are factored into the analysis. From our perspective we have designed our investment program to create consistent value over our benchmarks in excess of our operating costs, while working towards a targeted top-quartile long-term manager value added position of 42 bp/a.*

**2.71** *Our second observation is that in 2002 our investment process also underwent significant changes to manage investments in a more risk controlled manner and consistently work toward the top quartile (ie. 42 bp/a) target in a prudent fashion over time. We would point out that we feel the above analysis shows good progress in this regard.*

**2.72** The table below reports the performance of NBIMC against their various benchmarks in dollars.

**Actual performance compared to benchmarks (\$000)**

Year ended 31 March	Actual earnings (loss)	NBIMC's Benchmark	Return above (below) benchmark	Operating costs	Value added (lost)	NBIMC value-added target	Actual result above (below) target
2007	697,880	643,207	54,673	11,284	43,389	33,768	9,621
2006	1,112,742	1,106,432	6,310	9,049	(2,739)	29,449	(32,188)
2005	552,268	528,256	24,012	8,849	15,163	27,256	(12,093)
2004	1,321,768	1,305,553	16,215	9,037	7,178	21,968	(14,790)
2003	(402,925)	(416,259)	13,334	7,463	5,871	24,349	(18,478)
2002	194,666	185,074	9,592	6,573	3,019	23,698	(20,679)
2001	(318,469)	(267,319)	(51,150)	5,851	(57,001)	25,575	(82,576)
2000	1,058,856	1,059,371	(515)	4,620	(5,135)	21,620	(26,755)
1999	(31,900)	(113,708)	81,808	3,618	78,190	21,610	56,580
1998	813,931	916,762	(102,831)	3,438	(106,269)	18,300	(124,569)
<b>Total</b>	<b>4,998,817</b>	<b>4,947,369</b>	<b>51,448</b>	<b>69,782</b>	<b>(18,334)</b>	<b>247,593</b>	<b>(265,927)</b>

**2.73** Over the past ten years NBIMC's investment income has exceeded the benchmark by \$51 million.

**2.74** When looking at NBIMC's performance over the past ten years in dollars it seems that the results should be divided into two five-year periods. NBIMC exceeded the benchmark by \$114 million in the years 2003 to 2007, but underperformed the benchmark by \$63 million in the five years from 1998 to 2002.

**2.75** In the past five years, NBIMC has added value net of operating costs of \$69 million while in the first five years its net loss including operating costs was \$87 million. Overall, NBIMC has underperformed its own self-established value-added target by \$266 million over the past ten years. In the last five years the underperformance was \$68 million while in the first five years it was \$198 million.

**2.76** So, looking at NBIMC's performance through a five year lens we would conclude that it has added value of \$69 million. Going back ten years, underperformance in 1998 and 2001 means that in total over that period, NBIMC has not added value, in fact it has added a net cost to the Funds of \$18 million.

**2.77** This provides an indication that NBIMC went through some challenges in the early years of the organization, but has made changes

resulting in better performance relative to benchmarks in recent years. We have seen evidence of changes in investment managers both internally and externally over this period.

More detailed performance information **2.78** We have analyzed NBIMC's performance further by looking at returns by asset class and by looking at the performance of internal and external managers.

Analysis of performance by asset class **2.79** Best practice dictates that investment performance should be evaluated not only at the total fund level but also for every portfolio within the plan.

**2.80** The following is a summary of the information taken from an independent audit report entitled "Schedules of Composite Performance Results" for the year ended 31 March 2006. The 31 March 2007 information included in the table has not been audited. The returns are calculated as the number of basis points earned above the benchmark return. These are gross returns, that is, nothing has been deducted for operating costs.

**Asset class**  
**Returns above (below) benchmarks (in basis points)**

Year ended 31 March	Equity	Alternative investments	Nominal Bonds	Inflation Linked	Short-term assets	Total investments
2007	(7)	403	36	6	8	<b>68</b>
2006	(59)	41	16	1	17	<b>9</b>
2005	34	34	27	64	24	<b>37</b>
2004	123	(520)	17	15	7	<b>31</b>
2003	(43)	314	34	6	19	<b>23</b>
2002	37	(13)	11	21	43	<b>17</b>
2001	(242)	(289)	31	28	15	<b>(84)</b>
2000	330		(92)	(14)	23	<b>(1)</b>
1999	325		(76)	(79)	43	<b>159</b>
1998	(321)		(237)	5	33	<b>(236)</b>

**2.81** Alternative investments include investments made in the following six unit trust funds: Private equity, U.S. Real Estate, Canadian Real Estate, Commodity, North American market neutral, and New Brunswick and Atlantic Canada equity opportunity.

**2.82** Over the past seven years, NBIMC has been able to exceed the benchmark return every year for its fixed income investments. The fixed income investments include nominal bonds, inflation linked assets and short-term assets.

**2.83** However, in the last ten years NBIMC has only managed to meet their benchmark for equity investments five times, and only twice in the past five years.

**2.84** For the alternative investments asset class, returns were less than their benchmark in three of the first four years, however, performance in the last three years has been above the portfolio benchmark.

Investment performance by internal and external managers

**2.85** NBIMC uses its own staff as well as hires external investment managers to manage the investment assets. From information supplied by NBIMC we were able to identify the value added by internal and external managers for the years ended 2000 to 2007 in total. The following table summarizes the analysis. Value added by NBIMC is the actual amount calculated from our earlier table entitled “Actual Performance Compared to Benchmark”. The amount recorded in the column “Value added (lost) by external managers” reflects the actual revenue minus the benchmark return minus the fees paid to the external manager.

Year ended 31 March	Value added/(lost) by external managers	Value added/(lost) by internal managers	Value added/(lost) by NBIMC
	(\$ thousands)		
2007	\$ 730	\$ 42,659	\$ 43,389
2006	4,844	(7,583)	(2,739)
2005	1,823	13,340	15,163
2004	3,273	3,905	7,178
2003	(1,837)	7,708	5,871
2002	(188)	3,207	3,019
2001	(474)	(56,527)	(57,001)
2000	1,334	(6,469)	(5,135)
<b>Total</b>	<b>\$ 9,505</b>	<b>\$ 240</b>	<b>\$ 9,745</b>

**2.86** For this eight year period NBIMC added value of approximately \$9.7 million in total. In those same years the value added by external managers totaled approximately \$9.5 million, and the internal managers made a contribution of approximately \$0.2 million. Once again the picture is different if we look at the most recent five year period. During the last five years, NBIMC has added value of \$68.9 million with \$60.0 million coming from internal managers and \$8.9 million coming from external managers. It is also interesting to note that in the three years (2006, 2001 and 2000) when NBIMC lost value for the year, the external managers actually added value in two of them (2006 and 2000). On the other hand, in both 2002

and 2003 the internal managers were able to add value while the external managers were losing value.

**2.87** We analyzed the performance of the individual mandates of the external managers (EMM) and the results are shown below:

**Value added (lost) by external managers (in thousands \$)**

EMM	2007	2006	2005	2004	2003	2002	2001	2000	Total
1	942.0	3,992.7	150.2	920.3	20.1	(155.4)	(459.9)		<b>5,410.0</b>
2			(41.5)	(831.0)	(685.8)	7.1			<b>(1,551.2)</b>
3	18.5	(246.9)	144.9	1,217.3	(297.8)	186.9	(13.8)	1,333.5	<b>2,342.6</b>
4	(289.7)	(855.7)	516.5	726.2					<b>97.3</b>
5	(285.4)	825.5	117.9	494.2					<b>1,152.2</b>
6	(359.5)	1047.1	395.7	858.4					<b>1,941.7</b>
7	(14.7)	2.2							<b>(12.5)</b>
8	573.1	(127.3)	406.3	75.7					<b>927.8</b>
9	145.9	206.1	133.0	(188.1)					<b>296.9</b>
10					(873.1)	(226.5)			<b>(1,099.6)</b>
<b>All</b>	<b>730.2</b>	<b>4,843.7</b>	<b>1,823.0</b>	<b>3,273.0</b>	<b>(1,836.6)</b>	<b>(187.9)</b>	<b>(473.7)</b>	<b>1,333.5</b>	<b>9,505.2</b>

**2.88** This shows us that every external manager mandate implemented by NBIMC has had one or more years where they did not add value, however seven of the ten mandates implemented over the past eight years have added value in total since 2000. Of the other three, one was only added in 2006, and the other two were terminated after they were judged to be not satisfactory by NBIMC.

Comparison to other diversified funds

**2.89** NBIMC also compares its performance to other investment managers, although it does not include this information in its annual report. Comparison with other diversified funds is, by itself, not a reliable measure of performance because the risk taken by the portfolio managers and the cash flow requirements of each fund may not be the same. To be truly comparable the benchmark portfolios would have to be similar and the cost of the investment manager would have to be taken into consideration. However, such a comparison does provide a general indicator as to how well a pension fund is performing against somewhat similar types of funds.

**2.90** There is comparative data that can be used but most have a 31 December year end.

**2.91** In this section NBIMC has calculated their performance to a 31 December year end. We have not attempted to verify the accuracy of NBIMC's calculations.

**2.92** The following table compares NBIMC's annualized actual rates of return to the median returns earned by diversified fund managers as tracked by Morneau Sobeco and Mercer.

**Annualized actual rates of return (%)**

	<b>One Year (2007)</b>	<b>Two Years</b>	<b>Three Years</b>	<b>Four Years</b>	<b>Five Years</b>
NBIMC Annualized Return	5.08	7.64	9.70	10.11	11.62
Morneau Sobeco Diversified Pension Fund Returns – Median Return	2.13	7.21	8.96	9.22	10.16
Mercer Canadian Institutional Pooled portfolio – balanced portfolio – Median Return	1.6	7.3	8.9	9.1	10.1

**2.93** NBIMC's annualized returns for one, two, three, four and five year periods have exceeded the median annualized returns of fund managers tracked by Morneau Sobeco and Mercer in their data bases of diversified pension fund managers (all returns are for years ended 31 December). For the year ended 31 December 2007, NBIMC was in the top 25% of returns for diversified pension fund managers according to the Morneau Sobeco data base and in the top 25% in four of the years when using the Mercer data base.

**2.94** However if we just look at the benchmark return data we see that NBIMC's benchmark is consistently higher than the other two data bases. This would indicate that the actual asset mix of the NBIMC portfolio is not similar to the asset mix of the portfolios for the two external data bases. Because NBIMC's benchmarks are higher we would expect its actual returns to be higher as well. This also provides an indication that NBIMC is adding value through its asset mix decisions.

**NBIMC response**

**2.95** *We feel that it is important to further clarify that the choice and weighting of benchmarks is a decision made by NBIMC in setting Investment Policy in our role as Trustee for the funds under management. The value created by the asset mix decision, as outlined in the above analysis, typically plays the largest role in determining total fund returns.*

**Annualized benchmark rates of return (%)**

	<b>One Year (2007)</b>	<b>Two Years</b>	<b>Three Years</b>	<b>Four Years</b>	<b>Five Years</b>
NBIMC Benchmark	4.46	7.08	9.23	9.67	11.22
Morneau Sobeco Diversified Pension Fund Returns – Benchmark Return	2.74	7.22	8.71	8.80	9.66
Mercer Canadian Institutional Pooled portfolio – balanced portfolio – Passive Portfolio	1.7	6.9	8.2	8.4	9.2

**2.96** We also compared NBIMC's actual returns to AON Corporation's Survey of Canadian Pension Plans' Investment Managers. NBIMC's annualized returns for one, two, three, four and five year periods exceeded the median, however, consistent with our earlier analysis, NBIMC's seven and ten year annualized returns fell below the median. Again, all returns are for years ended 31 December.

**Annualized actual rates of return (%)**

	<b>One Year (2007)</b>	<b>Two Years</b>	<b>Three Years</b>	<b>Four Years</b>	<b>Five Years (2003)</b>	<b>Seven Years</b>	<b>Ten Years</b>
NBIMC Annualized Return	5.08	7.64	9.70	10.11	11.62	6.84	7.56
AON Survey of Canadian Pension Plans' Investment Managers – Balanced funds - Median Return	1.50	7.10	8.90	9.10	10.00	7.20	7.80
<b>Difference</b>	<b>3.58</b>	<b>0.54</b>	<b>0.80</b>	<b>1.01</b>	<b>1.62</b>	<b>(0.36)</b>	<b>(0.24)</b>

**2.97** The AON Survey indicated that NBIMC was in the top 25% of returns for the calendar year 2007 and the five year period starting in 2003.

**2.98** We also compared two other New Brunswick diversified pension funds to NBIMC's returns. Both funds have what can be classified as balanced or diversified investment portfolios.

**2.99** The investments of the other two plans were \$290.8 million in total at 31 December 2007 while NBIMC's were over \$8 billion.

<b>Rates of return (%)</b>			
<b>Year ended 31 Dec</b>	<b>NBIMC</b>	<b>Plan A</b>	<b>Plan B</b>
2007	5.08	2.2	2.4
2006	10.27	14.1	14.4
2005	13.93	13.1	11.3
2004	11.34	10.7	7.1
2003	17.89	15.9	14.2
2002	(3.85)	(1.2)	(4.6)
2001	(4.64)	7.3	4.0
2000	8.31	17.2	16.4
1999	14.5	16.6	20.9
1998	5.18	8.7	Not Available

**2.100** Over the ten year history NBIMC's returns were higher than both of the other plans in only four of the ten years. However those four years were all in the past five years.

**2.101** We also noted that the work of the Independent Review Panel on New Brunswick's Workplace Health, Safety and Compensation System, included a comparison of investment returns earned by the New Brunswick Workplace Health, Safety and Compensation Commission (WHSCC) to the returns of NBIMC. The panel commented that for the four year period they looked at, the investment performance of NBIMC was greater than WHSCC by 1.21%.

**2.102** When we looked at the ten year annualized real rate of return as compared to the real rate of return targets as at 31 December 2007 for the two organizations; we found:

	<b>Annualized real rates of return (%)</b>	
	<b>NBIMC</b>	<b>WHSCC</b>
	<b>%</b>	<b>%</b>
Ten year annualized rate of return (Dec 31, 2007)	5.50	4.14
Annual real rate of return target	4.00	3.80
Excess of actual return over target	1.50	0.34

**2.103** Because the two organizations have different purposes, we would not expect their approach to investment management to be identical. However, the comparison does provide an indication of the success that NBIMC has had in achieving its primary objective.

**2.104** We also compared NBIMC annualized returns to British Columbia Investment Management Corporation (BCIMC). We note again NBIMC's ten year return is below BCIMC but on the five year return NBIMC did better.

**Annualized rates of return (%) 31 March years ended**

<b>Year</b>	<b>NBIMC</b>	<b>BCIMC</b>
One year (31 March 2007)	8.68	12.2
Five year	9.76	9.2
Ten year	8.30	8.9

**2.105** We do not have the technical expertise to evaluate NBIMC's investment performance, however the information that we have looked at indicates to us that NBIMC's recent performance – over the last five years – has been good.

**Recommendation**

**2.106** We recommended the Minister of Finance commission an independent technical assessment of NBIMC's investment policy including the asset mix decision for each of the three pension funds.

**2.107** The Province of New Brunswick has numerous large pools of funds, including three School District pension funds. Based on our analysis of NBIMC and our knowledge of government operations, we believe there is an opportunity for additional returns to be earned by government on large funds held for the purpose of pre-funding future liabilities.

**Recommendation**

**2.108** We recommended the Minister of Finance re-examine the Province's approach to the investment management of its large funds and identify opportunities where NBIMC could provide advice, investment management and trustee services.

**NBIMC response**

**2.109** *Legislative authority is already in place as the NBIMC Act provides, via sections 15 and 16, the ability for NBIMC to take on additional investment mandates or to provide investment counseling services.*

**Expected future investment performance**

**2.110** The high level asset mix information that we presented earlier in this chapter is useful in assessing the difficulty NBIMC will face in achieving its primary return objective of a long term real return of more than 4% in the future.

**2.111** The real yield as of 31 March 2008 on the DEX real rate return bond index was approximately 1.65%. If we assume the real yield on fixed income investments will be 1.65% per year in the future, then, because they make up 44.7% of NBIMC's total portfolio, it means that NBIMC must earn a real return of about 5.90% per year on the other 55.3% of its portfolio to achieve an overall real rate of return of 4.0%.

**2.112** Turning to nominal returns, NBIMC's benchmark for its nominal bond portfolio is the DEX All Government Index. If we assume that fixed income investments will earn 3.63% per year in the future (the DEX all government bond index rate as of 31 March 2008), NBIMC must earn about 9.94% per year on the other 55.3% of its portfolio to achieve an overall return of 7.12%. It also means that NBIMC would have to earn 12.07% on the other 55.3% of its portfolio to maintain its ten year rate of return of 8.3%.

**2.113** If we assume that NBIMC can continue to add 20 basis points, the approximate average over the past five years, through the active management of investments in the future, and that the diversification of the portfolio continues to add 124 basis points per year, then the expected nominal return in the future would be:

**Projected future long term returns**

Component	Basis Points
Fixed Income	363
Diversification and Asset Mix	124
Active Management	20
<b>Total</b>	<b>507</b>

**2.114** On a real rate of return basis, this results in an expected return of 3.09% as shown in the following table. This is well below the 4.0% objective.

**Projected future long term real rate of return**

Component	Basis Points
Fixed Income	165
Diversification and Asset Mix	124
Active Management	20
<b>Total</b>	<b>309</b>

**2.115** In other words, in order for NBIMC to meet its primary investment objective in the future, it will have to increase the return it earns in excess of the real return on fixed income investments from 144 (124 + 20) basis points to 235 (400 - 165) basis points.

**2.116** These projected future returns highlight the importance of the plan sponsor communicating its expectations to NBIMC. Will the Sponsor lower the expected real rate of return from 4.00%, at least in the short term? Will it revalue its pension obligations by lowering the expected rate of return and the discount rate used to value the pension obligations, a decision that could significantly increase the accounting value of the pension obligation? Or will it expect NBIMC to take on more risk to try to achieve the 4.00% return?

**2.117** If NBIMC's real rate of return in the future is 3.09%, it will also have implications for the extra funding contributions that the Province makes to the Public Service Superannuation Plan and to the Teacher's Pension Plan. In the year ended 31 March 2007, the Province made extra contributions of \$132.3 million in total to the two plans.

**2.118** A real rate of return of 3.09% is 0.91% below the target real rate of return of 4.00%. On assets of about \$8.7 billion, this would mean an annual shortfall of investment income of about \$79.2 million. Also, both the plans are currently in positions where the cash paid out for benefits exceeds the cash coming in from regular employee and employer contributions. That net cash outflow coupled with a real rate of return that is below the target rate of return likely will mean that the extra contributions will have to be increased to keep the pension plans close to being fully funded.

**2.119** This highlights the need for the plan sponsor to have a documented formal pension plan funding policy for each of the three pension plans that specifies how plan shortfalls will be resolved. The Department of Finance has advised us that the Actuarial Valuation Committee delegated a working group to develop a funding policy for the Public Service Superannuation Plan. The Actuarial Valuation Committee is comprised of senior officials from the Department of Finance, the Office of Human Resources and the Office of the Comptroller and its role is to provide the Minister of Finance, as plan governor, advice on matters that affect the financing of pension benefits. We have been advised that the working group has engaged a consultant to develop financial models and explore various options. Once the Public Service Superannuation Plan funding policy has been finalized the format and approach will be used to develop funding

policies for the Teachers' and Provincial Court Judges' Pension Plans. The funding policies will be provided to NBIMC.

**Recommendation**

**2.120 We recommended the Minister of Finance document a formal pension plan funding policy for the Public Service Superannuation Plan, Teachers' Pension Plan and the Provincial Court Judges' Pension Plan.**

**Cost structure analysis**

**2.121** NBIMC acknowledges that containing costs is critical to their operations. In their 2006-2007 Annual Report, they state:

**Operating Costs**

Operating costs are an important element to be deducted in the determination of the final net returns for assets under management. When comparing performance between funds it is important to ensure one is comparing net fund returns, not gross returns. Lower costs result in higher comparative returns.

These expenses encompass all of the costs incurred by the Corporation to act as trustee for each pension fund, to manage the applicable assets, and to deploy our active management strategies. Cost minimization is an extremely important focus as it directly impacts each fund's net investment return, and is especially relevant in the current environment of lower return expectations across most asset classes. It is also important to note that NBIMC's active management performance is measured on a net basis after all of the Corporation's operating costs are accounted for.

**2.122** Over the eight fiscal years ended 31 March 2000 to 2007, NBIMC's expenses have been:

**Expenses (\$ millions)**

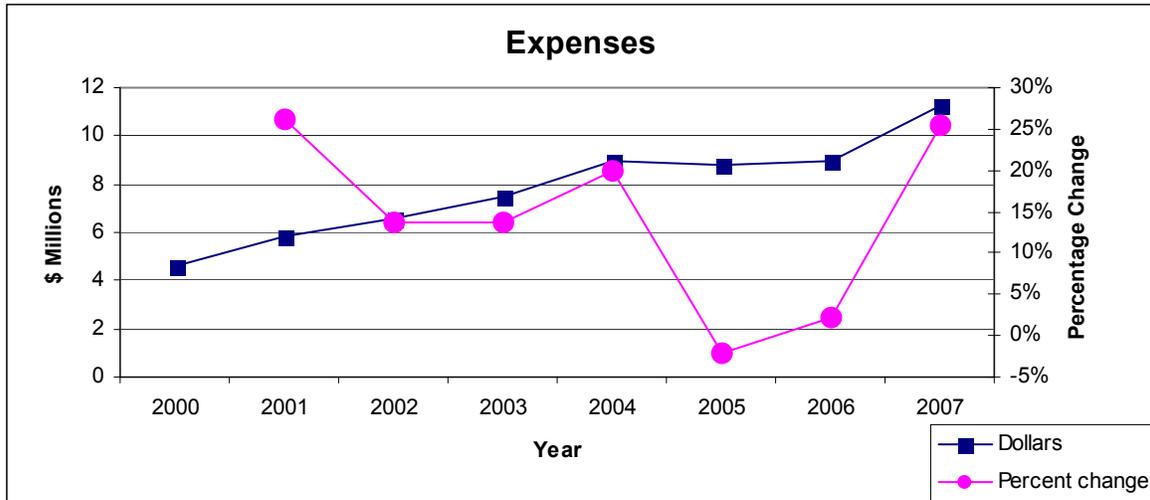
2000	2001	2002	2003	2004	2005	2006	2007
\$4.6	\$5.9	\$6.6	\$7.5	\$9.0	\$8.8	\$9.0	\$11.3

**2.123** The year-over-year percentage increase or decrease in expenses over that time period has been:

**Percentage increase (decrease) in expenses**

2001	2002	2003	2004	2005	2006	2007
28.3%	11.9%	13.6%	20.0%	(2.2%)	2.3%	25.6%

**2.124** The following graph provides a visual representation of both the amount of annual expenses and the annual percentage increase in expenses.



**2.125** The average annual percentage increase has been 13.7%. For this same time period the average annual percentage increase in the expenditures of the Province was 3.8%.

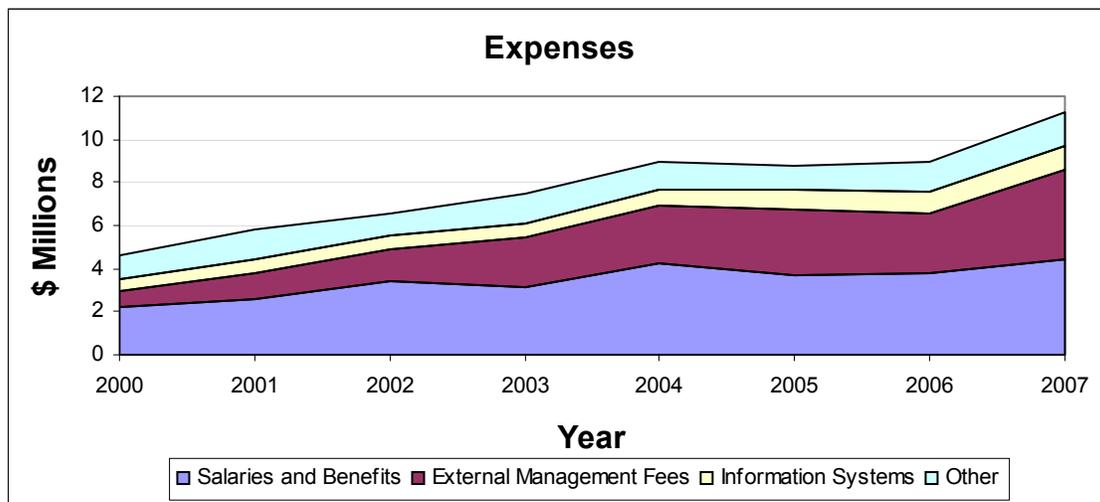
**2.126** It can be seen from this analysis that NBIMC went through a period of rapid growth in expenses from 2000 until 2004, during which time corporate expenses nearly doubled, and then leveled off in 2005 and 2006. 2007 saw a return to a large percentage increase in costs.

**2.127** In order to try to understand the reasons for the changes in expenses from 2000 until 2007, we first looked at the expenses by major category.

**Expenses by major category  
(\$ millions)**

	2000	2001	2002	2003	2004	2005	2006	2007
Salaries and Benefits	2.2	2.6	3.4	3.1	4.2	3.7	3.8	4.4
Materials and Supplies	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Amortization	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
External Management Fees	0.8	1.2	1.5	2.3	2.7	3.0	2.8	4.2
Custodial Services	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.4
Travel	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Office Rent	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3
Professional Services	0.2	0.5	0.3	0.4	0.2	0.3	0.3	0.4
Information Systems	0.5	0.6	0.6	0.7	0.8	1.0	1.0	1.1
Other	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2
<b>Total</b>	<b>4.6</b>	<b>5.9</b>	<b>6.6</b>	<b>7.5</b>	<b>9.0</b>	<b>8.8</b>	<b>9.0</b>	<b>11.3</b>

**2.128** This shows that the largest areas of expenses are Salaries and Benefits, External Management Fees and to a lesser extent Information Systems. In the year ended 31 March 2000, these three categories of expenses made up 76% of the Corporation's expenses; in 2007 they made up 86%. These expenses account for 92.5% of the total increase in expenses from 2000 to 2007.



**2.129** The year over year percentage increases in these three areas were:

**Yearly expenditure percentage increase/(decrease) by major category**

	2001	2002	2003	2004	2005	2006	2007
Salaries and Benefits	18.2%	30.8%	(8.8%)	35.5%	(11.9%)	2.7%	15.8%
External Management Fees	50.0%	25.0%	53.3%	17.4%	11.1%	(6.7%)	50.0%
Information Systems	20.0%	0.0%	16.7%	14.3%	25.0%	0.0%	10.0%
Other	36.4%	(26.7%)	27.3%	(7.1%)	(15.4%)	27.3%	14.3%
<b>Total</b>	<b>28.3%</b>	<b>11.9%</b>	<b>13.6%</b>	<b>20.0%</b>	<b>(2.2%)</b>	<b>2.3%</b>	<b>25.6%</b>

**2.130** In relation to the expenditure increases NBIMC senior management made the following comment, “NBIMC made some significant changes to how it implements the asset-mix decision over the past five years. Until 2003, NBIMC used derivative strategies to achieve exposure to many investment markets, such as European equities. Those derivative strategies, while an efficient means to achieve exposure, have high embedded costs. To reduce those costs, the portfolios have been shifted gradually to more physical holdings. Those physical holdings have lower embedded costs, but do incur budgetary expenses which end up being reflected in the above table.”

**2.131** We analyzed the Salaries and Benefits and External Management Fees areas of the Corporation’s expenses over this time period and have the following observations.

**Salaries and benefits**

**2.132** The following table reports the total Salaries and Benefits for the past eight years, and the percentage of total expenses that are incurred for salaries and benefits:

**Salaries and benefits**

	2000	2001	2002	2003	2004	2005	2006	2007
Expense (\$ thousands)	2,242.8	2,575.1	3,383.4	3,149.0	4,175.9	3,658.8	3,799.5	4,353.6
Percentage of Total Expenses	48.5%	44.0%	51.5%	42.2%	46.2%	41.3%	42.0%	38.6%

**2.133** Full-time regular salary and incentive pay are the largest components of the Salaries and Benefits category and these are each discussed below. Other components of Salaries and Benefits include employee development costs, casual pay, per diem payments for board members and benefits such as group life insurance, medical insurance,

pension plan benefits, vehicle and housing allowances, retirement allowances, and severance payments.

*Full-time regular salary*

**2.134** The table below provides salary and staff information for the eight year period 2000 to 2007.

**Full-time regular salary**

	2000	2001	2002	2003	2004	2005	2006	2007
Full-time Regular Salary (\$ thousands)	1,791.9	1,900.6	2,243.2	2,315.2	2,321.0	2,233.7	2,498.8	2,683.8
Number of Staff at year-end	30	31	31	32	32	34	36	37
Average (\$)	59,730	61,310	72,361	72,350	72,531	65,697	69,411	72,535
Percentage Increase/(decrease)		2.6%	18.0%	0.0%	0.3%	(9.4%)	5.7%	4.5%

**2.135** The average annual increase in the Full-time Regular Salary has been 2.8%. We observed that eleven staff members who were employed by NBIMC at 31 March 2000 were still employed at 31 March 2007, and there has been little staff turn over in the past four years.

**2.136** Another significant component of Salaries and Benefits is Incentive Pay. The following table analyzes the increase in the Incentive Pay.

## Incentive pay

	2000	2001	2002	2003	2004	2005	2006	2007
Incentive Pay (thousands \$)	133.7	303.7	504.0	326.8	614.0	712.7	755.3	1,100.0
Number of Staff Receiving Incentive Pay	10	15	30	30	29	32	33	34
Average Incentive Pay (\$)	13,370	20,246	16,800	10,893	21,172	22,272	22,898	32,353
Percentage Increase/(decrease) in average incentive pay		51.4%	(17.0%)	(35.2%)	94.4%	5.2%	2.8%	41.3%
Average Incentive Pay as a Percentage of Average Full-time Regular Salary	22.4%	33.0%	23.2%	15.1%	29.2%	33.9%	33.0%	44.6%

**2.137** The average annual increase in the Incentive Pay has been 13.5%.

**2.138** In 2007, incentive pay reached new highs in total dollars paid, as a percentage of average salary and in the value of the average incentive pay to each employee. Over the past seven years, gross incentive pay has increased more than eight times for an average annual percentage increase of about 35%. For the 2000 fiscal year, incentive pay was 2.9% of total corporate expenses; in 2007 it was 9.7%.

**2.139** By putting the average Full-time Regular Salary and average Incentive Pay together, we get a picture of the regular compensation at NBIMC.

## Average regular compensation

	2000	2001	2002	2003	2004	2005	2006	2007
Average Full-time Regular Salary (\$)	59,730	61,310	72,361	72,350	72,531	65,697	69,411	72,535
Average Incentive Pay (\$)	13,370	20,246	16,800	10,893	21,172	22,272	22,898	32,353
Average Regular compensation (\$)	73,100	81,556	89,161	83,243	93,703	87,969	92,309	104,888
Percentage Increase/(Decrease) of average regular compensation		11.6%	9.3%	(6.6%)	12.6%	(6.1%)	4.9%	13.6%

**2.140** The average annual increase in average regular compensation over the past seven years has been 5.3%.

**2.141** We compared this information to information about Part I of the New Brunswick civil service. For the purposes of this comparison we used the Management and Non-union Pay Plan for the Province of New Brunswick for the same periods.

**2.142** We first compared NBIMC's average annual increase in average salary of 2.8% to civil service pay bands, and discovered that it is essentially equal to the annual inflation component increase in the civil service pay bands over that same period. In other words, a Part I non-bargaining civil servant making \$59,730 in 2000 would be making approximately \$72,535 in 2007 without changing pay bands or even moving up any steps in a pay band. Therefore the increase in NBIMC's average annual full-time regular salary has been consistent with increases for Part I civil servants.

**2.143** However, when we look at the increase in average regular compensation at NBIMC over the same period, it shows an increase from \$73,100 to \$104,888. This type of increase would not have been achieved by a Part I civil servant over the same time period without moving through the upper pay bands, which would have meant significant changes in job responsibilities.

**2.144** Eleven of NBIMC's employees were continuously employed over the period from 31 March 2000 to 31 March 2007. Seven of them were in Finance and Administration and four were in Research and Investment. The increase in the annual full-time regular salary of the seven Finance and Administration staff was 39.5%. Increases in annual

salary for the Finance and Administration staff in six of the seven cases was consistent with the increases for the regular civil service, in fact they were all still at a pay level in 2007 that would have been within the same pay band as their 2000 compensation. In the seventh case, the individual progressed significantly to a level beyond the Part I civil service non-bargaining pay bands.

**2.145** The increase in the annual full-time regular salary of the four Research and Investment staff over the seven year period was 80.3%. The four Research and Investment staff have had their annual full-time regular salary move up significantly when compared to the Part I civil service pay bands. They have also earned annual incentive payments.

**NBIMC comment**

**2.146** *As noted by the Auditor-General on page 1 of this report, “The primary purpose for creating NBIMC was to create a pool of investment expertise in the Province that would facilitate the achievement of the provincial goal of fully funded legislated provincial pension plans in a cost effective manner.”*

**2.147** *Over the past ten years the NBIMC Board, with the help of its Human Resources and Compensation Committee, has been building a strong investment team to be able to realize its objectives as laid out in the New Brunswick Investment Management Corporation Act (the Act).*

**2.148** *Section 10 of the Act instructs the Board to administer the affairs of the Corporation on a commercial basis and that all decisions and actions of the Board are to be based on sound business practices.*

**2.149** *For a large institutional investor such as NBIMC the main assets of our organization are the intellectual human capital and expertise that the firm employs. In order to create this pool of expertise the NBIMC Board and its Human Resources and Compensation Committee, with the assistance of external compensation consultants, have focused our efforts on benchmarking the compensation programs of similar independent public sector investment managers to enable us to attract, motivate, and retain the expertise required.*

**2.150** *With respect to our compensation plans they have been carefully designed to reflect achievement of our primary and secondary investment objectives over a four year trailing period. They reward a prudent, long-term investment focus that contributes to those objectives while discouraging riskier decisions which could lead to greater short-term volatility. In this way, the design of our incentive*

*plans is a fundamental element of our overall risk management process, aligns with the long-term interests of the pension plans, and is also competitive with other peer public sector investment fund managers.*

*Incentive Pay* **2.151** Because Incentive Pay is becoming a significant cost component of NBIMC, we wanted to understand how the incentive program worked.

**2.152** NBIMC has two distinct incentive programs, one for Finance and Administration staff and the second for Research and Investment staff. Each full time staff is a member of one of the groups. Incentive pay is calculated as a percentage of regular salary at year end.

Finance and Administration staff **2.153** The incentive program for Finance and Administration staff was introduced in the 2002 fiscal year. The program assesses three areas of staff performance: investment, individual and team performance.

**2.154** If goals are achieved in all three areas, an individual will receive incentive pay of 10% of their regular pay. If goals are exceeded, Finance and Administration staff can earn up to 20% of their regular pay in incentives. If goals are not achieved in an area, incentive pay of less than 10% can still be earned. The following chart provides some details of the Finance and Administration Incentive Plan.

#### Finance and Administration incentive plan

Incentive	Information Systems		Non-information Systems	
	Target (%)	Max (%)	Target (%)	Max (%)
Investment performance	2	4	2	4
Team discretionary	3	6	5	10
Individual discretionary	5	10	3	6
<b>Total incentive</b>	<b>10</b>	<b>20</b>	<b>10</b>	<b>20</b>

Finance and Administration staff - investment performance incentive **2.155** The investment performance incentive for Finance and Administration staff is based on the actual income for the fiscal year on total investments. Incentives are earned when the actual return is greater than the benchmark return plus the recovery of corporate costs. Even though the Finance and Administration staff are not directly involved in the investment function of the organization, they can receive incentive pay for investment performance, although it is significantly less than the incentive pay that would be earned by Research and Investment staff.

Finance and Administration staff  
- discretionary incentive

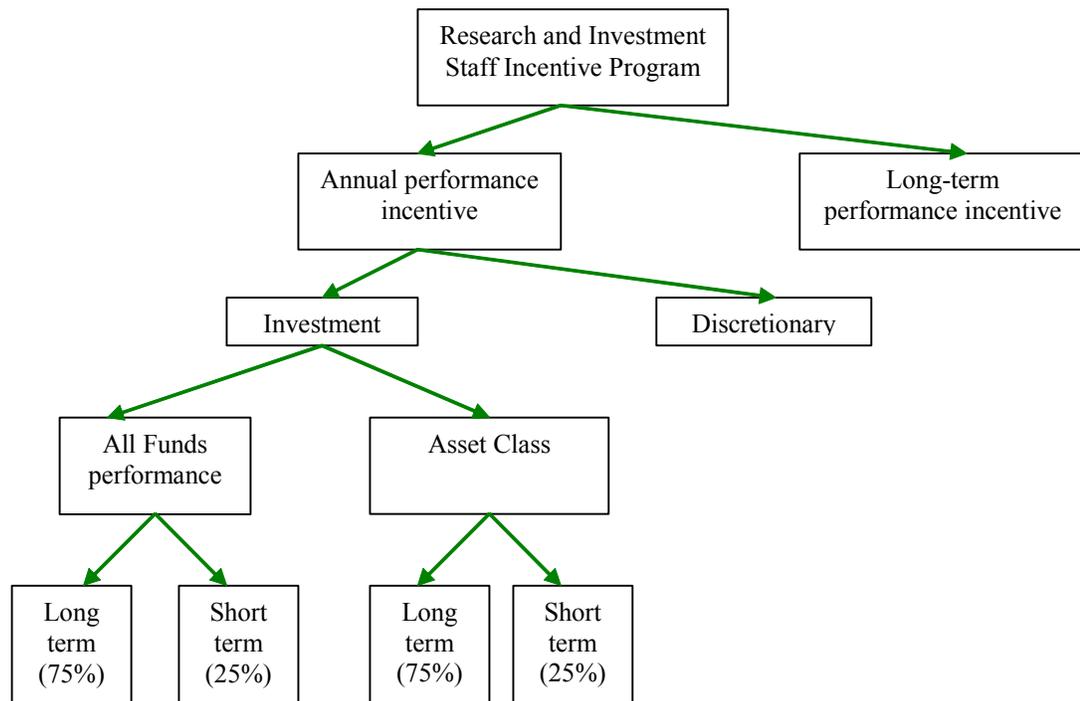
**2.156** Each individual and team in the Finance and Administration area has specific measurable objectives that they are expected to achieve. Scorecards are used to assess performance and to determine the level of incentive earned. Team and individual scorecards are reviewed and approved by the President.

**2.157** Based on 2007 salaries, the maximum incentives that were possible to be earned by Finance and Administration staff were \$188,300. The actual incentives received were \$156,992 or 83.4% of the maximum. Total investment performance incentives paid to Finance and Administration staff was \$26,816. The average discretionary incentive earned by each qualified employee was 12.8% for a total of \$130,176. The average total individual incentive earned as a percentage of salary was 15.5%.

**2.158** Rather than a pure incentive pay program, this compensation arrangement seems to be made up of an 'at risk' component of 10% and an incentive component of 10%. We would characterize it this way because the first 10% is earned if the expected goals are achieved so in most years an employee would expect to receive all of this extra payment. It is the second 10% that is really the incentive to achieve beyond the normal expected level of performance.

Research and Investment staff

**2.159** The incentive program for Research and Investment staff has been in existence since the 1998 fiscal year. Their incentive program is more complex than the Finance and Administration incentive program. We have attempted to diagram the major components of the plan in the chart that follows, and we have also provided a narrative explanation following the chart.



**2.160** The incentive program for Research and Investment staff has two components, long-term performance and annual performance.

Research and Investment staff -  
long-term performance  
incentive

**2.161** There are 15 staff positions eligible for this incentive. There are maximum percentage incentives set for each of the 15 positions ranging from 30 to 110 percent of year end salary. The table below summarizes the incentive for the positions which have a maximum incentive of 110%. Incentives start when the actual rate of investment earnings exceeds the benchmark performance plus the operating expenses of NBIMC over a four year cycle. Note that the term "basis point" means 0.01 percent, so 100 basis points equals one percent. Long-term incentives are only available after an eligible employee has been at NBIMC for four years and are based on total fund results as opposed to asset class results.

**NBIMC  
Long-term performance incentive**

Calculation: Actual performance compared to the benchmark plus operating expenses over a 4 year cycle	Incentive (% of salary at year-end)
Greater than 0 and less than 42 basis points	Prorated between 0% and 55%
Greater than 42 basis points and less than 75 basis points	Prorated between 55% and 110%
75 basis points and above	110%

**2.162** Regardless of whether or not benchmarks are achieved, if the four year return is negative, no investment performance incentives would be paid. For all types of investments the threshold is zero.

Research and Investment staff - annual performance incentive

**2.163** The annual performance component is itself broken down into an investment component and a discretionary component.

Investment incentive performance – annual incentive

**2.164** There is a maximum of three investment performance incentives that can be earned annually, with eligibility depending on the individual’s area of responsibility. The three possible incentives are: performance of all funds, performance of the appropriate asset class, and the performance of the specific portfolio. The evaluation of the performance in each of these three areas is a weighted average investment return calculation taking into consideration both annual investment performance and long-term investment performance relative to the length of time the employee had investment responsibilities in the area to a maximum of four years. The rate of incentive is set for each eligible individual employee.

**2.165** The majority of investment staff has only all funds and asset class responsibilities. The following table provides a typical example of investment incentives for an employee with investment responsibilities.

	All Funds		Asset Class		Total	
	target	max	target	max	target	max
Employee Incentive %	6	12	18	36	24	48

**2.166** Incentives are earned when the actual return is greater than the benchmark for Asset Class and portfolio investments and greater than benchmarks plus the recovery of corporate costs for All Funds investments. There are threshold, target and maximum incentive percentages set for each type of investment performance for each individual research and investment staff member.

**2.167** For example the All Funds component of the investment incentive would have the following:

Component	Benchmark	Threshold	Target	Maximum
All Funds	Varies	0% after costs	42 basis points after costs	84 basis points after costs

**2.168** We did notice a board directive issued on 13 November 2003 stating, "...that the All Funds component of the Long Term Incentive Plan be reset to zero for all years prior to April of 2002." This resulted in larger incentive payments than would have been paid without this board directive.

Discretionary performance –  
annual incentive

**2.169** The discretionary portion of the incentive program for Research and Investment staff establishes maximum discretionary incentive pay percentage limits for each staff position. NBIMC's incentive plan for investment staff does not include any guidelines as to how the discretionary incentive component is earned. However, NBIMC told us that "for the past three or four years, NBIMC has used its annual business plan and results achieved versus the business plan as the foundation for the annual discretionary incentives."

**2.170** For the year ended 31 March 2007, the sixteen Research and Investment staff members (which includes the position of the President and Chief Investment Officer) who were employed for the full year were awarded discretionary incentives that were in total equal to 88.0% of the maximum discretionary incentive pay available. This was significantly higher than incentive pay based on investment performance which was 41.8% of the maximum, and significantly higher than incentive pay based on long-term performance which was 35.7% of the maximum. Because the Research and Investment staff's value to the organization is in earning returns, we would expect that the discretionary incentive pay awarded would be more closely correlated to performance incentives.

**NBIMC response**

**2.171** *The discretionary incentive is purposely de-linked from value added and focuses on achievement of business plan objectives which*

include the primary objective of NBIMC: delivering a return sufficient to meet the actuarial requirements.

**2.172** Based on 2007 salaries, the maximum incentives that could have been earned by Research and Investment staff for 2007 would have been \$2,146,758. The actual incentives were \$966,585 or 45.0% of the maximum.

**2.173** The following table reflects the actual and projected maximum incentives for NBIMC staff for the 31 March 2007 year-end.

**NBIMC total potential incentives 31 March 2007**

	Research and Investment staff	Finance and Administration staff	Total
Investment performance	\$826,190	\$34,507	<b>\$860,697</b>
Discretionary incentive	286,323	153,810	<b>440,133</b>
Long-term	1,034,245		<b>1,034,245</b>
<b>Total</b>	<b>\$2,146,758</b>	<b>\$188,317</b>	<b>\$2,335,075</b>

**NBIMC total actual incentives 31 March 2007**

	Research and Investment staff	Finance and Administration staff	Total
Investment performance	\$345,149	\$26,816	<b>\$371,965</b>
Discretionary incentive	251,844	130,176	<b>382,020</b>
Long-term	369,592		<b>369,592</b>
<b>Total</b>	<b>\$966,585</b>	<b>\$156,992</b>	<b>\$1,123,577</b>

**2.174** While the Corporation is required to submit a budget to Board of Management, it has not historically included incentive pay as a line item in the budget. However, it was itemized in the Corporation's 2007-08 budget. Furthermore, there is no disclosure of the incentive program in the organization's annual report.

**2.175** In the Corporation's 2006-2007 Annual Report, the only discussion related to the employee incentive program, is in the Operating Costs discussion which says:

*Absolute operating expenses of approximately \$11.3 million were about \$2 million higher than the year prior, but within the fixed elements of our budget for the current year. The increase can essentially be attributed to variable expenses which are a function of the amount of assets under management and performance incentives for both internally and externally managed assets.*

**2.176** This does not explain how the incentive programs work for either external or internal managers, and it does not explain how much of the extra expenses were the result of incentives paid to each group or how those incentives relate to the returns earned by each of the external and internal managers.

**2.177** On 2 October 2007, the Board of NBIMC amended the terms of references for each of its sub-committees. These changes were made as a result of a previous audit conducted by the Office of the Auditor General. The terms of reference for the Human Resources and Compensation Committee were amended such that they are responsible to review and recommend to the board:

- any changes to the compensation philosophy and framework for the NBIMC;
- any changes to the compensation ranges for all positions;
- any changes to the incentive compensation plans for employees;
- the President's proposed annual salary and benefits expenses in the annual budget and the year-end Incentive Compensation pool for all employees;
- material changes to employee benefits or employee travel and expenses policies; and
- Directors and Officers' compensation disclosure in the Annual Report.

*Other salary related expenses*

**2.178** During the course of our work on Salaries and Benefits, we analyzed related expenses. We identified some situations that arose in the past concerning moving or relocation expenses that we brought to the Corporation's attention. The following is a summary of moving costs from 2000 to 2007.

### Moving costs

2000	2001	2002	2003	2004	2005	2006	2007
\$23,949	\$61,398	\$50,173	\$21,935	\$6,425	\$455	\$2,160	\$0

**2.179** Prior to June 2005 the Corporation did not have a policy on paying moving expenses for new or existing employees. Determining the amount of moving expenses to be paid or reimbursed was negotiated on a case by case basis, involving the new employee and NBIMC's management, with the President having final approval. Board approval was not required for any type of moving expense payments. NBIMC has informed us that these types of expenses were managed within the overall approved annual budget.

**2.180** There are certain types of relocation expenses which do not meet the definition of moving expenses under the *Income Tax Act*. When such expenses are reimbursed to employees they create a benefit to the employee and are taxable. As a result of our analysis we found one case where we felt it was unclear if the reimbursement should have resulted in a taxable benefit. In this case the President did approve these costs, and Board approval was not required. We asked NBIMC staff to investigate whether this case was properly reported to the Canada Revenue Agency.

#### NBIMC response

**2.181** *...one of the relocation claims to an employee is arguably a taxable benefit to the employee. The Board of Directors has been notified of the potential non-compliance with the Income Tax Act (Canada); external tax advice had been requested.*

**2.182** NBIMC's new Administration Policy entitled "Relocation of New Employee" covers the topic of moving or relocation expenses. We compared NBIMC's current policy with the Province's policy on reimbursing moving expenses, which is contained in the Province's Administration Manual. NBIMC's policy gives considerable latitude to the President for approving moving costs stating that NBIMC "will pay for all reasonable and necessary moving expenses." Provincial policy defines the types of allowable moving expenses, setting dollar limits and establishing Deputy Minister and Board of Management approval requirements. In the case of NBIMC, the President has final approval over all relocation costs within the approved budget.

## External management fees

**2.183** The following summarizes external management fees paid from 2000 to 2007.

### External management fees (\$ thousands)

2000	2001	2002	2003	2004	2005	2006	2007
760.8	1,213.2	1,451.3	2,295.6	2,743.7	2,954.1	2,806.5	4,183.7

**2.184** The majority of the external management fees are investment counsel fees. These are fees paid to external investment managers. NBIMC outlined in the 2002-2003 Annual Report the reasons for hiring external managers as being, to “achieve style and risk diversification” and secondly because the assets would be “difficult to manage in-house due to their very specialized nature.”

## External managers - fee structure

**2.185** The fee structure paid to external managers is covered in individual investment management agreements. In the majority of the cases the fee charged by the external managers is based on basis points earned, using a sliding scale. A typical fee structure for a hired external manager during the 31 March 2007 fiscal year is shown below.

### Fee structure

25 basis points (bp) plus incentive applied over rolling 4 year period

Fee of 30 bp for value added of 1%

35 bp for value added of 2% or more

22.5 bp for value loss of 1%

17.5 bp for value loss of 2%

12.5 bp for value loss of 3% or more

Where value added is between points, fee payable is interpolated.

**2.186** The table below provides summary information about the extent of the Corporation’s use of external investment managers over

the past eight years. It shows that external managers have become an integral part of the Corporation's asset management strategy.

**NBIMC - external manager information  
31 March year end**

	2000	2001	2002	2003	2004	2005	2006	2007
Number of external managers	1	2	4	4	8	7	8	7
Total assets managed by external managers (\$ millions)	197.8	265.8	441.2	706.9	1,274.1	1,143.1	1,613.6	1,316.2
% of total assets managed by external managers	3.2	4.6	7.6	13.4	19.4	16.2	19.9	15.1
NBIMC total investment income/loss (\$ millions)	1,058.9	(318.5)	194.7	(402.9)	1,321.8	552.3	1,112.7	697.9
Investment income/(loss) by external managers (\$ millions)	44.3	27.4	56.7	(72.7)	475.9	202.0	355.4	302.7
% of investment income earned by external managers	4.2	100.0	29.1	(18.0)	36.0	36.6	31.9	43.4

**2.187** From this information, it can be seen that during this eight year period, NBIMC has increased the number of external managers used from one in 2000 to as high as eight in 2004 and 2006. These external managers were managing 3.2% of total assets in 2000, which rose to a high of 19.9% at 31 March 2006. Furthermore, as would be expected, with the higher percentage of assets under the management of external managers these managers became an important contributor to the overall earnings on the investments held by the Corporation, reaching 43.4% in 2007.

**2.188** As part of our analysis of external managers, we did see evidence that NBIMC monitors the performance of external managers and replaces any external manager that is not performing as expected.

*Comparison of pension plan administration costs*

**2.189** We wanted to see if the total administration costs incurred by the two largest New Brunswick public service pension plans seemed to be in line with other public service plans across the country. The comparison that follows is at a summary level only. It compares all costs reported by the plans, not just investment management costs, and it is not possible to tell if every plan pays for exactly the same things. The table compares the two most recent years of data available at the

time of the analysis for each plan; the year ends for all of these plans are not the same.

**Comparison of pension plan costs  
(\$ millions)**

Plan	2005			2006		
	Assets at Beginning of Year	Fees	Fees as a % of Assets	Assets at Beginning of Year	Fees	Fees as a % of Assets
NB PSSF	3,466.0	7.0	0.20%	3,755.2	7.6	0.20%
NB Teachers	3,081.3	5.5	0.18%	3,281.9	5.9	0.18%
Alberta PSPP	4,480.9	7.1	0.16%	5,047.3	6.9	0.14%
NS Teachers	3,900.4	9.3	0.24%	4,384.4	10.5	0.24%
NS PSSF	3,035.8	8.2	0.27%	3,188.8	8.5	0.27%
Sask PEPP	3,072.3	9.2	0.30%	3,336.7	10.5	0.31%

**2.190** Based on this analysis, it appears that the total cost of administering New Brunswick's two largest pension plans, including the cost of investment management services provided by NBIMC, is at the lower end of the scale.

**NBIMC response**

**2.191** *We question why the analysis was not more specifically focused on the investment management costs that are specific to our organization and that our Board and management have the ability to manage.*

**2.192** *To provide this more specific comparison we have constructed the following table. It takes the same peer plans identified in your report, however only attributes the investment related costs that they publicly disclose in their respective financial statements. For comparative purposes we have included the expenses of NBIMC as reported in our Annual Report to get a proper investment cost to investment cost comparison for each of the plans under review.*

**2.193** *While the conclusion is similar to your comments of NBIMC being on the low end of the scale, the magnitude of the cost efficiency aspect of our organization is much larger in this analysis. This is an important distinction in that investment management costs are typically paid out of fund assets, thereby affect the net investment returns earned by the investment management function.*

**NBIMC Investment Cost Analysis****Comparison of Investment Management Costs Only (\$ millions)**

	2005			2006		
	Assets at Beginning of Year	Fees	Fees as a % of Assets	Assets at Beginning of Year	Fees	Fees as a % of Assets
NB PSSF	3,462.9	4.7	0.13%	3,751.5	5.3	0.14%
NB Teachers	3,078.7	4.3	0.14%	3,279.9	4.6	0.14%
Alberta PSPP	4,480.9	9.3	0.21%	5,047.3	12.9	0.25%
NS Teachers	3,900.4	7.9	0.20%	4,384.4	9.0	0.21%
NS PSSF	3,035.8	6.7	0.22%	3,188.8	7.3	0.23%
Sask PEPP	3,072.3	6.7	0.22%	3,336.7	7.4	0.22%

**2.194** *One final comment with respect to the cost effectiveness analysis is to note that the majority of the expenses paid by NBIMC are made within the Province through employee compensation, local goods and services purchases, and tax disbursements. Most alternative investment management options would result in expenses being paid to investment managers based in other jurisdictions.*

**Correlating expenses to performance results***Active management*

**2.195** We have seen that on a ten-year annualized basis, NBIMC has added five basis points through active management before operating costs. On an asset base of \$8.7 billion this would result in additional investment value of about \$4.35 million. In our opinion, this is not enough to justify spending \$11.3 million per year on NBIMC.

*NBIMC comment*

**2.196** *We would strongly point out that the investment services provided through our annual expenditures support not just our active management activity, but all of the activities of the corporation.*

**2.197** *For example, these expenses support our primary objective with respect to our asset mix decisions, which has been identified as a success earlier in this report. This report points out that our ten year annualized return to March 31, 2007 was 8.30% per annum. This realized annual return exceeded the actuarial return requirement of 7.12% per annum for the Funds under management by 1.18% per annum, equating to an approximate average excess return of \$75 MM per year or approximately \$1.05 B over the ten year period analyzed in this report. If we used the diversification and asset mix excess return of 1.24% per annum calculated earlier in this report by the Auditor-General, it would result in an even higher excess return calculation of approximately \$80 MM per year.*

**2.198** *We would strongly argue that our ability to generate this significant long-term excess return versus our actuarial requirements, and versus the other manager alternatives reviewed in this report, does more than justify spending the \$11.3MM in annual expenses.*

**2.199** Over the past five years, NBIMC's active management function has averaged approximately 30 basis points annually before operating costs which, on an asset base of \$8.7 billion would result in additional investment value of about \$26 million, and justifying the active management function of NBIMC. This illustrates why it is very important for the sponsor to set expectations for NBIMC and to clearly communicate those expectations. With clear expectations, the active management activities of NBIMC could be properly evaluated. For example, assuming an expectation of 20 basis points return above benchmark based on asset value of \$8.7 billion and operating costs of \$11.3 million, would mean an expectation that NBIMC adds approximately \$6.1 million in value after operating costs through the active management of its investments.

### ***Recommendation***

**2.200** **We recommended, as part of its performance expectations, the Minister of Finance establish value-added targets for NBIMC's function of actively managing investments.**

#### *Incentive Pay*

**2.201** We are of the opinion there should be a correlation between performance and incentive pay. As we previously explained, the incentive program has two main categories, a discretionary incentive and an incentive tied to relative value added investment returns. NBIMC's use of four year averages in its incentive program smoothes out some fluctuations, and puts a focus on longer term results. However, in order to try to understand how incentive pay correlates to performance, we first compared annual performance to incentive pay over the past few years. We then analyzed the two main categories of the incentive program using the four year averages. Our analysis of the four year averages was complicated by the fact that the incentive program has not been in existence long enough to have multiple four year periods to compare to.

**2.202** The two measures we first tried to correlate to the total incentives paid by NBIMC were annual value added and annual value added by internal managers. Value added is determined by calculating the excess of the actual return over the benchmark return for a period and then deducting the operating costs incurred for the period. The value added by internal managers is the portion of the total value added that was earned by NBIMC's internal managers as opposed to its external managers. Because returns can be negative, it is possible for

internal or external managers to add value in excess of the total value added by the whole organization.

**2.203** The following table shows the value added by NBIMC and by its internal managers over the past five years, as well as the total amount of incentive payments for those years.

**Value added and incentive pay (\$ millions)**

	2003	2004	2005	2006	2007
Value added	5.9	7.2	15.2	(2.7)	43.4
Value added by internal managers	7.7	3.9	13.3	(7.6)	42.7
<b>Total Incentive Pay</b>	<b>0.3</b>	<b>0.6</b>	<b>0.7</b>	<b>0.8</b>	<b>1.1</b>

**2.204** This table shows that it is not easy to see the correlation between annual value added and the amount of incentive pay issued.

**2.205** By breaking the incentive program into its two main categories and using four year averages of returns for each, we find better correlations.

**Investment incentives  
(\$ millions)**

	2003	2004	2005	2006	2007
Averaged value added used for incentive program	2.6	4.3	9.1	4.1	22.7
Investment incentive pay	0.1	0.3	0.5	0.5	0.7

**2.206** NBIMC provided “the average value added used for incentive program” in the above table. These amounts do provide a better correlation with the investment incentives paid, but it still includes some results that look unusual. For example even though the four year average value added decreased from \$9.1 million to \$4.1 million in 2006, the incentives paid for investment returns remained the same. Also even though the four year average value added increased from \$4.1 million in 2006 to \$22.7 million in 2007, the incentives paid only increased \$0.2 million.

**2.207** The following table shows the discretionary portion of the incentive pay. It compares the discretionary incentive pay to the four year average real rate of return for the Public Service Superannuation Plan. This is intended to see how the discretionary incentive pay has matched to the achievement of NBIMC's primary objective of achieving the actuarial long term rate of return:

### Discretionary incentive

	2003	2004	2005	2006	2007
PSSF four year average real rate of return	(0.2)	0.7	4.5	7.5	12.2
Discretionary incentive pay	0.2	0.3	0.2	0.3	0.4

**2.208** While this shows that the discretionary incentive pay increases have been reasonable compared to the improvement in the four year average real rate of return in the last three years, it also raises the question of why any discretionary incentives would have been paid in 2003 and 2004 when the average rate of return was well below the actuarial long term rate of return of 4.0%.

**2.209** This analysis shows that there are correlations between NBIMC's performance and its incentive pay, but it is only possible to see the correlation by looking at the details of the incentive program. NBIMC should ensure that its incentive program is well explained in its annual report.

#### **NBIMC comment**

**2.210** *The NBIMC Board and its Human Resources and Compensation Committee spend a significant amount of time with respect to the development and oversight of the compensation program. As noted earlier the program is designed to attract, motivate, and retain the investment management expertise we have developed within the corporation, while aligning the program to performance that is in the best interests of the funds under management.*

**2.211** *This performance can take the form of adding value over asset class benchmarks as discussed above, out performing the actuarial targets of the funds, or through ad-hoc actions such as the benchmark change recommendations noted by the Auditor-General on page 5 with respect to the \$50 MM saving realized in 2005. Multi-year return horizons and the 4-year service term requirement for participation in our long-term incentive plan can complicate a summary correlation analysis as noted above.*

#### **Recommendation**

**2.212** **We recommended NBIMC include, in its annual report, information about its incentive program.**

**2.213** The annual report of the British Columbia Investment Management Corporation includes this type of information.

**NBIMC response**

**2.214** *Our recently released Fiscal 2007-2008 Annual Report includes more comprehensive information concerning our compensation practices, including the objectives of our short-term and long-term incentive plans. We have also had a copy of our Compensation Philosophy posted on our web site since it was approved by our Board in early 2007.*

**2.215** *As the Auditor-General has indicated, it is not possible to easily correlate the annual incentive payments to our annual (short-term) investment performance. Instead, one needs to look to our long-term performance to understand the incentive correlation. Our incentive plans have been carefully designed, with the assistance of an independent investment management compensation consultant, to reflect achievement of our primary and secondary objectives over a four year trailing period. They reward a prudent, long-term investment focus that contributes to those objectives while discouraging riskier decisions which could lead to greater short-term volatility. In this way, the design of our incentive plans is a fundamental element of our overall risk management process and aligns with the long-term interests of the pension plans.*

**Recommendation**

**2.216** **We recommended NBIMC include more performance information in its annual report.**

**2.217** It could use some of the analysis we have prepared for this chapter as a starting point, along with some of the information disclosed in the British Columbia Investment Management Corporation annual report.

**NBIMC response**

**2.218** *Our annual report is focused on complying with the reporting requirements as laid out in Section 27 of the NBIMC Act and in reporting accurate, timely and relevant information to our key stakeholders. The investment industry is a complex one, as the Auditor General has observed in his report, and financial disclosures can be lengthy and challenging to understand fully. Our financial reporting objective is to deliver a high quality, comprehensive report of our results in a clear and easily understandable manner. We currently provide total pension fund performance information on both a nominal and real return basis, as well as asset class returns. We believe this is the information that is most useful to our pension fund clients, however we will consider possible future enhancement to this disclosure for Fiscal 2009.*

**Recommendation**

**2.219** We recommended the Minister of Finance and NBIMC agree on a formula to establish the total amount of incentive pay that NBIMC may distribute each year.

**2.220** NBIMC would be solely responsible for dividing the total incentive pay among its employees. In our opinion, the Province should, along with setting expectations for NBIMC, also establish the total incentive value of meeting or exceeding those expectations. Currently NBIMC's board is responsible to both determine the value of its results and distribute the incentives. We feel those two functions should be divided between the Board of Management and NBIMC's board.

**NBIMC response**

**2.221** *The design and oversight of the compensation program of a professional services firm is one of the primary responsibilities of a company's Board of Directors. According to section 13(2) of the NBIMC Act, "the remuneration and other conditions of employment of the employees of the Corporation shall be established by the by-laws of the Corporation." Section 4.01 of By-law Number Seven further states "the Board shall approve compensation plans, including regular pay, benefits and performance compensation arrangements for employees of the Corporation."*

**2.222** *The NBIMC Board has considered and approved the Incentive Plans for NBIMC as part of their oversight of the Corporation. To do otherwise would contravene one of the fundamental governance responsibilities of the NBIMC Board in their administration of the affairs of the Corporation on a commercial basis.*

**General comments from NBIMC**

**2.223** *We would again note our agreement with your comments in the third paragraph of page two of your report. We strongly point out that evaluating the performance of an organization like NBIMC is complex and a proper technical valuation does require the necessary expertise in public sector institutional pension fund management practices. Organizations such as ours employ complex investment and human resource strategies to ensure the required returns are realized in a prudent risk controlled fashion, and we feel a proper analysis requires the access to resources who can understand and analyze these complexities.*

**2.224** *Finally, in order to help summarize the issues that are specific to the mandate of our organization, we point to the primary purpose outlined in the opening paragraph of page two of your report, "The primary purpose for creating NBIMC was to create a pool of investment expertise in the Province that would facilitate the*

*achievement of the provincial goal of fully funded legislated provincial pension plans in a cost effective manner.” We are pleased to note that your report helps to confirm our opinion that NBIMC has been able to create pool of investment expertise in the Province, which has helped to generate long-term returns that have helped the Province work towards the goal of having fully funded plan plans by the year 2017, in a very cost effective manner.*

***Department of Finance  
comments***

**2.225** The Department of Finance provided the following response to our report:

*The Department of Finance will give consideration to the recommendations.*

*With regard to your recommendation.... that a funding policy be documented your office should be aware that the Department has commissioned an actuarial consultant to provide quantitative analysis and other assistance in the development of a funding policy for the Public Service Superannuation Plan. It is anticipated that the funding policy will be presented to the Actuarial Valuation Committee for their consideration in the late spring. It is the intention of the Department to use this funding policy as a template for other publicly sponsored pension plans.*