

The City of Hamilton Master Trust Period Ending 31 December 2018

Performance Review and Investment Manager Evaluation

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Executive Summary

Executive Summary

Trailing Period Performance

As of 31 December 2018

	Allocation		Performance (%)							
	Market Value (\$000)	%	1 Quarter	1 Year	2 Years	3 Years	4 Years	5 Years	10 Years	
Total Fund	311,511	100.0	-5.5 (59)	-4.2 (83)	2.4 (75)	4.7 (38)	4.1 (88)	5.7 (63)	7.5 (76)	
Benchmark			-5.1 (52)	-2.6 (55)	2.8 (51)	4.7 (38)	4.6 (64)	6.4 (33)	7.6 (75)	
Value Added			-0.4	-1.6	-0.4	0.0	-0.5	-0.7	-0.1	
Canadian Equity	88,277	28.3	-12.4 (82)	-10.0 (74)	0.5 (32)	7.9 (10)	4.4 (13)	5.9 (23)	10.4 (23)	
Guardian (including cash)	37,807	12.1	-8.3 (21)	-6.3 (13)	1.5 (15)	6.8 (27)	4.0 (22)	5.7 (24)	8.7 (62)	
S&P/TSX Composite			-10.1 (49)	-8.9 (56)	-0.3 (56)	6.4 (37)	2.5 (69)	4.1 (65)	7.9 (86)	
Value Added			1.8	2.6	1.8	0.4	1.5	1.6	0.8	
Letko (including cash)	50,470	16.2	-15.2 (94)	-12.7 (92)	-0.4 (57)	8.3 (7)	4.6 (11)	5.9 (22)	11.1 (11)	
S&P/TSX Composite			-10.1 (49)	-8.9 (56)	-0.3 (56)	6.4 (37)	2.5 (69)	4.1 (65)	7.9 (86)	
Value Added			-5.1	-3.8	-0.1	1.9	2.1	1.8	3.2	
Global Equities	75,885	24.4	-6.9 (34)	-4.0 (71)	5.5 (64)	5.2 (67)	6.5 (91)	7.2 (92)	8.1 (99)	
Aberdeen	13,988	4.5	-4.9 (16)	-2.8 (63)	6.7 (53)	6.2 (40)	6.0 (94)	6.9 (93)	-	
MSCI World (Net)			-8.6 (58)	-0.6 (43)	6.6 (54)	5.7 (58)	8.8 (54)	9.9 (55)	10.8 (70)	
Value Added			3.7	-2.2	0.1	0.5	-2.8	-3.0	-	
Brandes	17,500	5.6	-6.7 (30)	-1.4 (51)	3.8 (84)	4.1 (84)	7.0 (84)	8.6 (77)	9.5 (92)	
MSCI World (Net)			-8.6 (58)	-0.6 (43)	6.6 (54)	5.7 (58)	8.8 (54)	9.9 (55)	10.8 (70)	
Value Added			1.9	-0.8	-2.8	-1.6	-1.8	-1.3	-1.3	
GMO	44,396	14.3	-7.6 (44)	-5.3 (80)	5.8 (61)	5.2 (66)	7.1 (82)	7.3 (91)	-	
MSCI World (Net)			-8.6 (58)	-0.6 (43)	6.6 (54)	5.7 (58)	8.8 (54)	9.9 (55)	10.8 (70)	
Value Added			1.0	-4.7	-0.8	-0.5	-1.7	-2.6	-	

*GMO returns are reported net-of-fees.
Parentheses contain percentile rankings.

Executive Summary

Trailing Period Performance

As of 31 December 2018

	Allocation		Performance (%)						
	Market Value (\$000)	%	1 Quarter	1 Year	2 Years	3 Years	4 Years	5 Years	10 Years
Canadian Fixed Income	145,575	46.7	0.2	-0.3	1.7	2.2	2.4	4.7	4.5
TDAM Long Bonds	75,357	24.2	1.6	-0.2	3.3	3.2	3.2	5.8	-
FTSE Canada Long Term Overall Bond			1.9	0.3	3.6	3.2	3.4	6.1	6.4
Value Added			-0.3	-0.5	-0.3	0.0	-0.2	-0.3	-
TDAM Real Return Bonds	70,165	22.5	-1.4	-0.3	0.1	1.1	1.5	3.7	-
FTSE Canada Real Return Bond			-1.1	0.0	0.3	1.2	1.6	3.8	5.0
Value Added			-0.3	-0.3	-0.2	-0.1	-0.1	-0.1	-
TDAM Cash	53	0.0	0.2	-	-	-	-	-	-
Operating Account	1,775	0.6							

*GMO returns are reported net-of-fees.
Parentheses contain percentile rankings.

Executive Summary

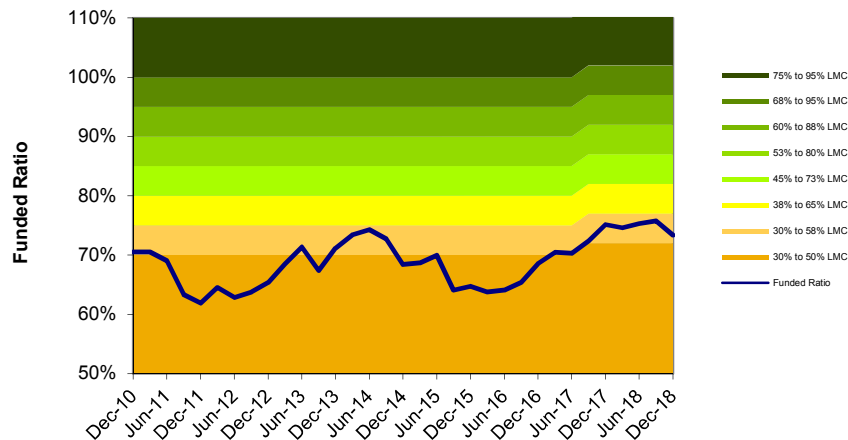
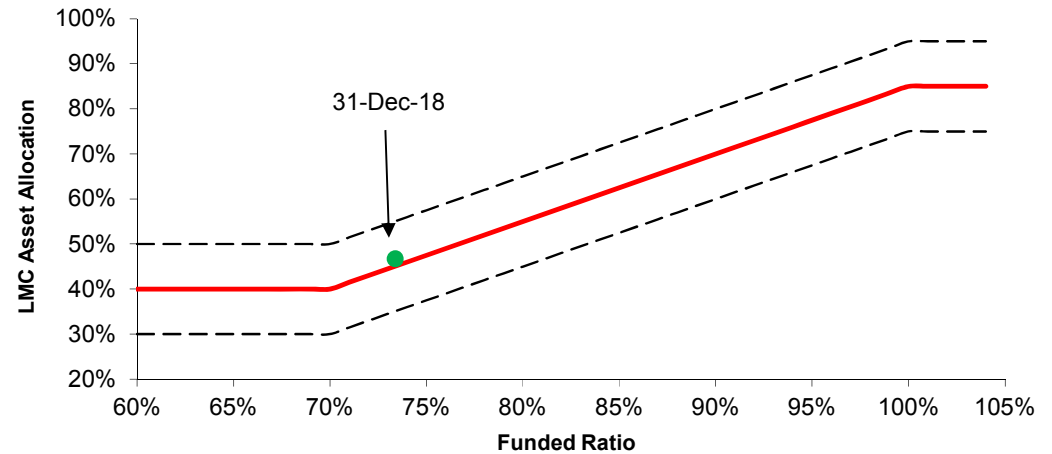
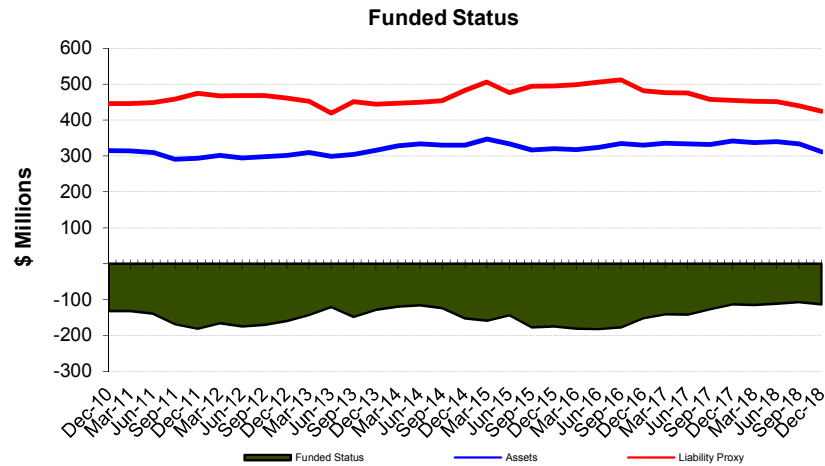
Trailing Period Performance

As of 31 December 2018

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total Fund	-4.2 (83)	9.5 (35)	9.3 (22)	2.6 (93)	12.0 (28)	13.0 (91)	10.5 (24)	0.5 (38)	9.6 (71)	14.3 (83)	-17.3 (64)
Benchmark	-2.6 (55)	8.6 (57)	8.4 (33)	4.3 (81)	13.9 (1)	9.7 (97)	8.4 (71)	0.4 (42)	10.3 (54)	16.7 (53)	-16.4 (52)
Value Added	-1.6	0.9	0.9	-1.7	-1.9	3.3	2.1	0.1	-0.7	-2.4	-0.9
Canadian Equities	-10.0 (74)	12.3 (8)	24.1 (17)	-5.3 (49)	11.9 (39)	25.3 (16)	17.1 (2)	-9.1 (51)	14.8 (79)	32.0 (61)	-29.8 (31)
Guardian (including cash)	-6.3 (13)	9.9 (31)	18.3 (59)	-4.0 (42)	13.0 (23)	13.8 (92)	13.7 (15)	-8.3 (46)	15.3 (73)	27.5 (88)	-30.0 (36)
S&P/TSX Composite	-8.9 (56)	9.1 (54)	21.1 (36)	-8.3 (82)	10.6 (57)	13.0 (95)	7.2 (81)	-8.7 (49)	17.6 (43)	35.1 (47)	-33.0 (61)
Value Added	2.6	0.8	-2.8	4.3	2.4	0.8	6.5	0.4	-2.3	-7.6	3.0
Letko (including cash)	-12.7 (92)	13.8 (2)	28.1 (6)	-5.9 (55)	11.5 (45)	31.5 (3)	18.4 (1)	-9.1 (51)	14.3 (86)	32.8 (57)	-26.5 (18)
S&P/TSX Composite	-8.9 (56)	9.1 (54)	21.1 (36)	-8.3 (82)	10.6 (57)	13.0 (95)	7.2 (81)	-8.7 (49)	17.6 (43)	35.1 (47)	-33.0 (61)
Value Added	-3.8	4.7	7.0	2.4	0.9	18.5	11.2	-0.4	-3.3	-2.3	6.5
Global Equities	-4.0 (71)	15.8 (52)	4.7 (35)	10.4 (92)	10.2 (82)	26.3 (92)	12.8 (69)	-0.1 (31)	6.6 (65)	1.5 (94)	-29.4 (72)
Aberdeen	-2.8 (63)	17.1 (43)	5.4 (31)	5.3 (97)	10.5 (81)	21.3 (98)	14.0 (57)	2.0 (19)	-	-	-
MSCI World (Net)	-0.6 (43)	14.4 (64)	3.8 (44)	18.9 (54)	14.4 (45)	35.1 (54)	13.3 (64)	-3.2 (51)	5.9 (74)	10.6 (70)	-26.0 (51)
Value Added	-2.2	2.7	1.6	-13.6	-3.9	-13.8	0.7	5.2	-	-	-
Brandes	-1.4 (51)	9.3 (92)	4.6 (35)	16.3 (73)	15.1 (37)	41.0 (20)	10.9 (81)	-2.9 (48)	6.2 (70)	1.5 (94)	-29.4 (72)
MSCI World (Net)	-0.6 (43)	14.4 (64)	3.8 (44)	18.9 (54)	14.4 (45)	35.1 (54)	13.3 (64)	-3.2 (51)	5.9 (74)	10.6 (70)	-26.0 (51)
Value Added	-0.8	-5.1	0.8	-2.6	0.7	5.9	-2.4	0.3	0.3	-9.1	-3.4
GMO	-5.3 (80)	18.1 (37)	4.2 (40)	12.9 (88)	8.1 (91)	29.1 (84)	12.5 (71)	0.9 (25)	-	-	-
MSCI World (Net)	-0.6 (43)	14.4 (64)	3.8 (44)	18.9 (54)	14.4 (45)	35.1 (54)	13.3 (64)	-3.2 (51)	5.9 (74)	10.6 (70)	-26.0 (51)
Value Added	-4.7	3.7	0.4	-6.0	-6.3	-6.0	-0.8	4.1	-	-	-
Canadian Fixed Income	-0.3	3.8	3.0	3.1	14.8	-7.4	5.5	9.5	7.1	7.7	4.7
TDAM Long Bonds	-0.2 (91)	7.0 (62)	2.8 (45)	3.4 (80)	16.8 (69)	-5.7 (55)	-	-	-	-	-
FTSE Canada Long Term Overall Bond	0.3 (42)	7.0 (61)	2.5 (80)	3.8 (48)	17.5 (27)	-6.2 (86)	5.2 (78)	18.1 (26)	12.5 (51)	5.5 (83)	2.7 (32)
Value Added	-0.5	0.0	0.3	-0.4	-0.7	0.5	-	-	-	-	-
TDAM Real Return Bonds	-0.3	0.6	3.1	2.6	13.0	-11.5	-	-	-	-	-
FTSE Canada Real Return Bond	0.0	0.7	2.9	2.8	13.2	-13.1	2.9	18.3	11.1	14.5	0.4
Value Added	-0.3	-0.1	0.2	-0.2	-0.2	1.6	-	-	-	-	-

Parentheses contain percentile rankings.

Quarterly Performance Report for the City of Hamilton Funded Status and Glide Path Information for December 31, 2018



Snapshot (Wind-Up)

	31-Mar-18	30-Jun-18	30-Sep-18	31-Dec-18
Market value of assets (\$ Millions)	\$337.4	\$339.9	\$333.8	\$311.5
Liability proxy (\$ Millions)	\$452.2	\$451.4	\$440.4	\$424.5
Funded status (\$ Millions)	(\$114.8)	(\$111.5)	(\$106.6)	(\$113.0)
Funded ratio	74.6%	75.3%	75.8%	73.4%
Current LMC Asset Allocation	42.2%	42.5%	43.5%	46.7%

Rebalancing

- The rebalancing strategy for this plan requires that assets be rebalanced to the target allocation (indicated by the red line) whenever the LMC Asset Allocation falls outside of the range deemed acceptable for a given funded ratio (indicated by the dashed lines).
- Because the LMC Asset Allocation as of December 31, 2018 is within the range determined acceptable for the current funded ratio (73.4%), the asset mix does not require rebalancing.

Capital Markets Performance

Capital Market Performance

Major Capital Markets' Returns

As of 31 December 2018

	1 Quarter	Year To Date	1 Year	2 Years	3 Years	4 Years	5 Years	10 Years
Equity								
S&P/TSX Composite	-10.1	-8.9	-8.9	-0.3	6.4	2.5	4.1	7.9
S&P 500	-8.7	4.1	4.1	8.9	8.6	11.7	14.1	14.3
S&P 500 (USD)	-13.5	-4.4	-4.4	7.9	9.3	7.2	8.5	13.1
MSCI EAFE (Net)	-7.7	-6.1	-6.1	4.7	2.3	6.2	5.7	7.4
MSCI World (Net)	-8.6	-0.6	-0.6	6.6	5.7	8.8	9.9	10.8
MSCI ACWI (Net)	-7.8	-1.3	-1.3	6.9	6.0	8.7	9.6	10.6
MSCI Emerging Markets (Net)	-2.2	-6.9	-6.9	9.3	8.6	6.9	6.9	9.1
Real Estate								
MSCI/REALPAC Canada Property (IPD)	2.6	7.9	7.9	7.6	7.1	7.3	7.2	8.5
MSCI/REALPAC Canada Property Fund (PFI)	1.5	8.3	8.3	8.1	7.5	7.1	6.9	8.0
Fixed Income								
FTSE Canada Universe Bond	1.8	1.4	1.4	2.0	1.9	2.3	3.5	4.2
FTSE Canada Long Term Overall Bond	1.9	0.3	0.3	3.6	3.2	3.4	6.1	6.4
FTSE Canada 91 Day TBill	0.5	1.4	1.4	1.0	0.8	0.8	0.8	0.8
Consumer Price Index								
Canadian CPI, unadjusted	-0.2	2.0	2.0	1.9	1.8	1.7	1.7	1.6

Canadian Equities

The S&P/TSX Composite Index returned -10.1% in the fourth quarter of 2018. Performance was negative across most sectors. Consumer Staples (+5.7%) was the best performing sector, followed by Communication Services (+2.0%) and Materials (+0.9%). Negative performing sectors included Health Care (-35.3%), Energy (-17.3%) and Industrials (-13.4%). Growth stocks slightly outperformed value stocks over the past quarter (-10.1% vs. -10.5% respectively) as well as over the year (-8.3% vs. -9.7% respectively). The S&P/TSX Composite Index returned -8.9% in 2018. The best performing sectors were Information Technology (+13.0%), Consumer Staples (+2.0%) and Real Estate (+2.0%) while Energy (-18.3%) was the worst performer.

U.S. Equities

The S&P 500 Index returned -8.7% in the quarter in Canadian dollar terms. Performance was negative across most sectors. Utilities (+7.1%) was the best performing sector while Energy (-19.5%) was the worst performing sector. The S&P 500 Index returned +4.1% in 2018 in Canadian dollar terms. The best performing sectors were Health Care (+16.1%) and Utilities (+13.5%) while Energy (-10.7%) was the worst performer.

Non-North American Equities

The MSCI EAFE Index returned -7.7% in the quarter in Canadian dollar terms. Sector returns were mostly negative with the best performer being Utilities (+5.6%) and the worst being Energy (-12.9%). For 2018, the Index returned -6.1% in Canadian dollar terms. The best performing sector was Utilities (+10.2%) while the worst was Financials (-12.9%).

Fixed Income

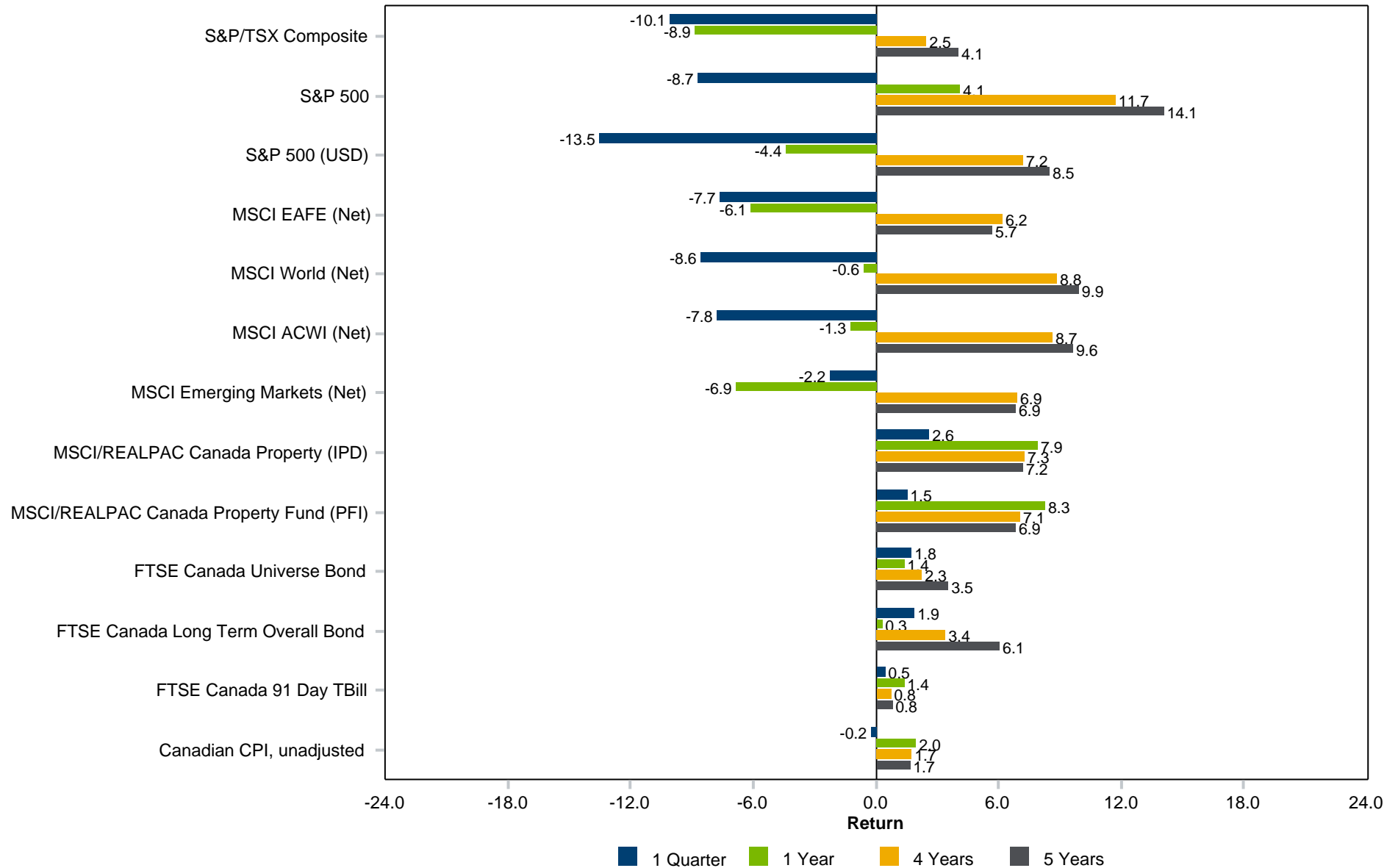
The Canadian bond market, as measured by the FTSE Canada Universe Bond Index, returned +1.8% over the quarter. Bond market performance was led by Federal bonds (+2.5%) which outperformed both Provincial bonds (+1.7%) and Corporate bonds (+0.9%). From a term perspective, medium duration bonds (+2.4%) outperformed both long duration bonds (+1.9%) and short duration bonds (+1.4%) in the quarter.

Returns for periods greater than one year are annualized. Sector returns are sourced from MSCI. Note: MSCI recently announced a reorganization of the Global Industry Classification Sectors or GICS sectors. The Telecommunications sector was renamed "Communication Services".

Capital Market Performance

Comparative Performance

As of 31 December 2018



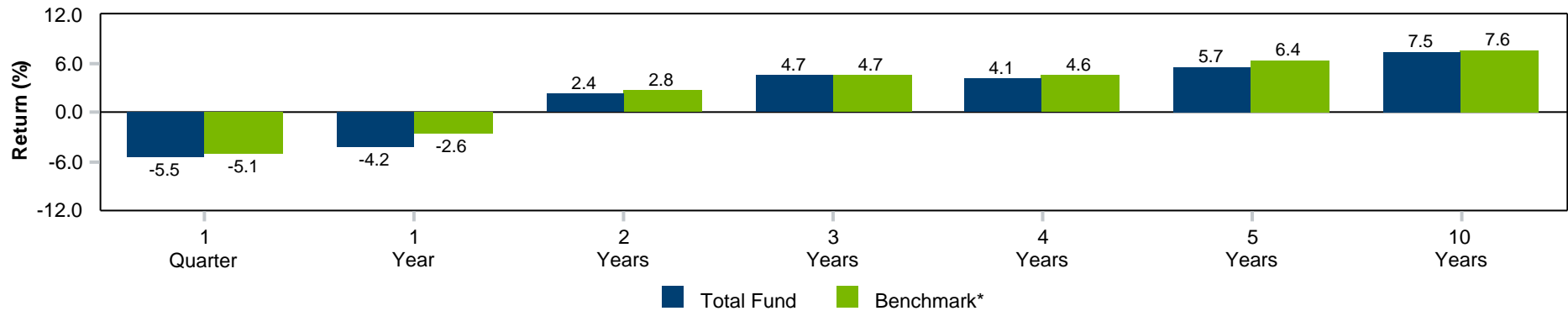
Total Fund Analysis

Total Fund

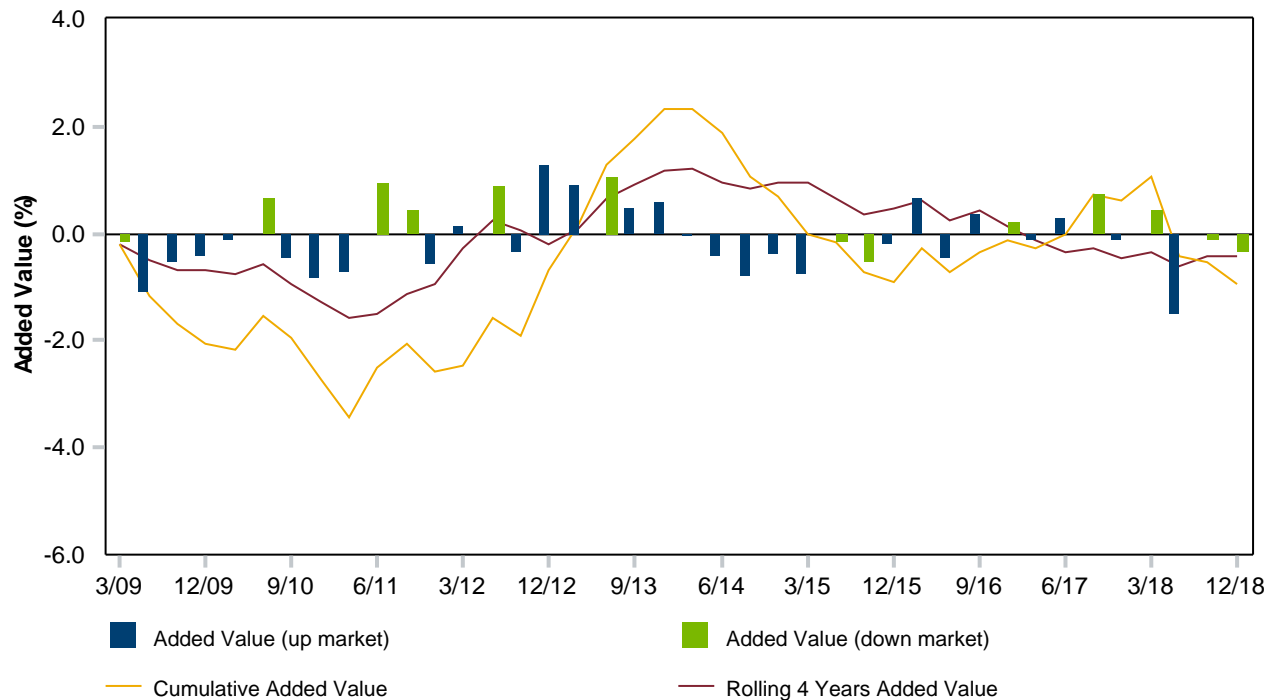
Total Fund Performance Summary

As of 31 December 2018

Return Summary



Added Value History (%)



Performance Statistics

	Quarters	%
Market Capture		
Up Markets	27	94.9
Down Markets	13	84.6
Batting Average		
Up Markets	27	29.6
Down Markets	13	61.5
Overall	40	40.0

Quarter

Detractors to Quarterly Performance:

- Weak relative performance of Canadian equities
- Overweight to Canadian equities

* See Appendix A for benchmark components.

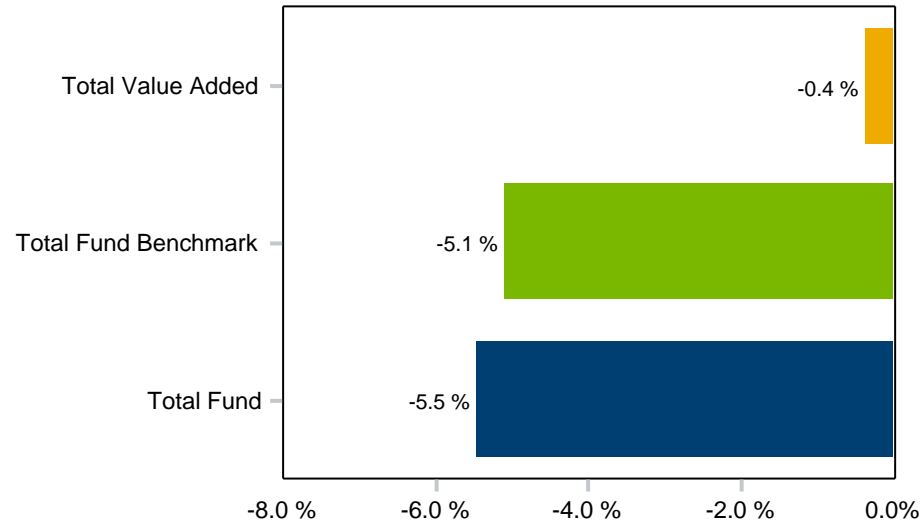
Total Fund

Total Fund Performance Attribution

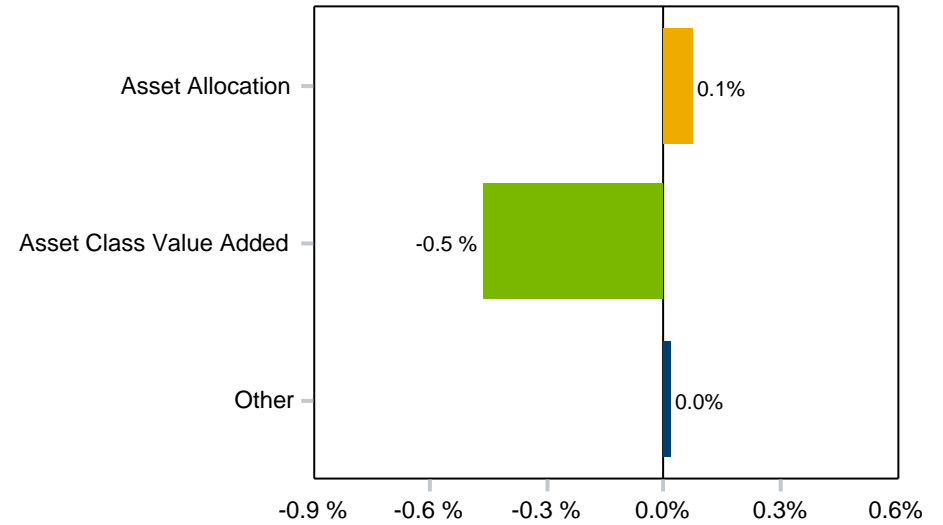
1 Quarter Ending 31 December 2018

Total Fund vs. Benchmark

Total Fund Performance



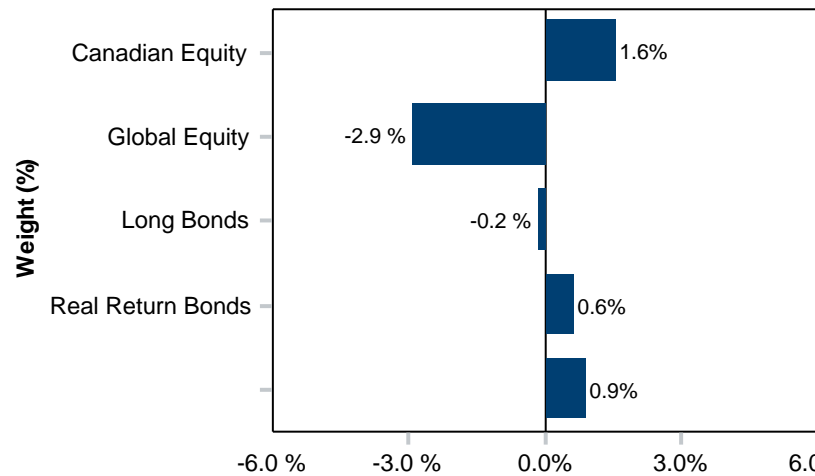
Total Value Added: -0.4 %



1 Quarter

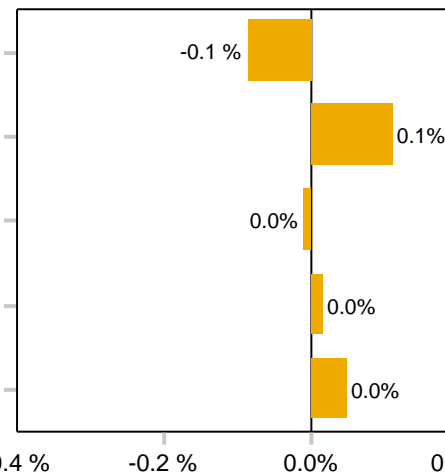
Total Asset Allocation: 0.1%

Total Asset Class Value Added: -0.5 %

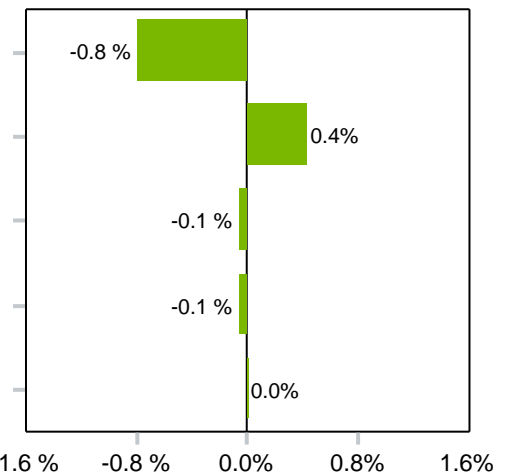


Weight (%)

Active Weight



Asset Allocation Value Added



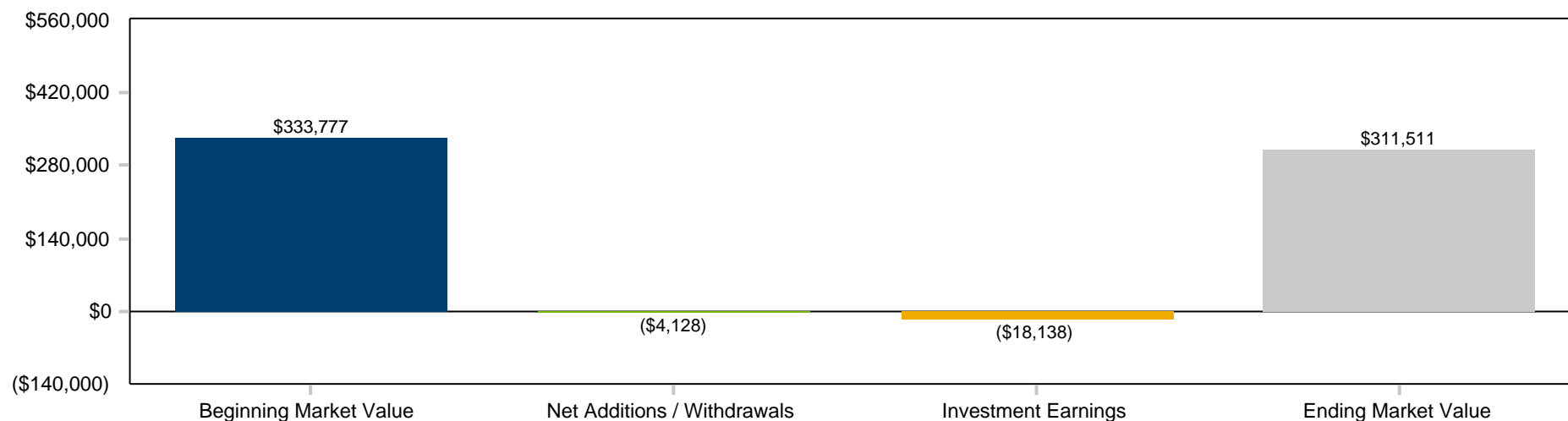
Asset Class Value Added

Total Fund

Total Fund Asset Summary

As of 31 December 2018

Change in Market Value (\$000)
From 1 October 2018 to 31 December 2018



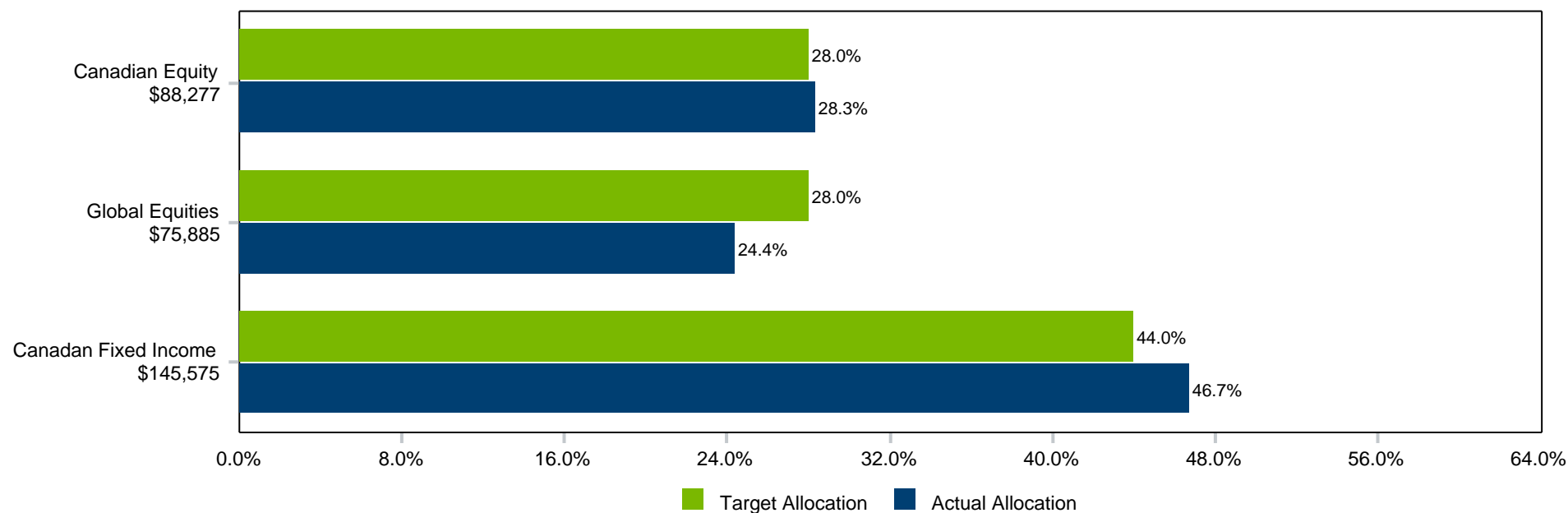
Summary of Cash Flows (\$000)

	1 Quarter	Year To Date	1 Year	4 Years
Total Fund				
Beginning Market Value	333,777	341,919	341,919	330,530
+/- Net Cash Flows	-4,128	-16,864	-16,864	-73,455
+/- Income	15,432	18,856	18,856	65,310
+/- Capital Gains / Losses	-33,570	-32,399	-32,399	-10,874
= Ending Market Value	311,511	311,511	311,511	311,511

Total Fund

Asset Allocation Compliance

As of 31 December 2018 (\$000)



	Market Value (\$000)	Market Value (%)	Target Allocation (%)	Differences (%)	Minimum Allocation (%)	Maximum Allocation (%)	Within Range
Total Fund	311,511	100.0	100.0	0.0			
Canadian Equity	88,277	28.3	28.0	0.3	23.0	33.0	Yes
Global Equities	75,885	24.4	28.0	-3.6	23.0	33.0	Yes
Canadian Fixed Income	145,575	46.7	44.0	2.7	34.0	54.0	Yes

Appendix A - Plan Information

Plan Information

Summary of Investment Objective

The investment policy contains specific performance objectives for the fund and the investment managers.

All investment rates of return are measured over moving four-year periods. Return objectives are net of fees and include realized and unrealized capital gains or losses plus income from all sources.

Returns will be calculated on a time-weighted basis and compared to the objectives described below.

The *objective* of the total fund is to outperform a benchmark portfolio that is comprised of the following weightings:

	1 October 2018 to 31 December 2018 (current period)	1 April 2018 to 30 September 2018	1 January 2018 to 31 March 2018	1 October 2017 to 31 December 2017	1 July 2014 to 30 September 2017	1 April 2012 to 30 June 2014	1 July 2011 to 31 March 2012	1 January 2008 to 30 June 2011	1 July 2006 to 31 December 2007	Up to 30 June 2006
S&P/TSX Composite	28.00%	27.00%	27.00%	27.00%	28.00%	30.00%	30.00%	30.00%	30.00%	25.00%
MSCI World (C\$)	28.00%	26.00%	27.00%	26.00%	28.00%	30.00%	30.00%	0.00%	0.00%	0.00%
MSCI World ex. Cda (C\$)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	15.00%	15.00%	17.50%
S&P 500 - hedged to C\$	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	7.50%	8.75%
MSCI EAFE - hedged to C\$	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	7.50%	8.75%
FTSE Canada Universe Bond	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	45.00%	40.00%	40.00%
FTSE Canada Long Bond	23.00%	22.00%	23.00%	22.00%	22.00%	25.00%	0.00%	0.00%	0.00%	0.00%
FTSE Canada Real Return Bond	21.00%	25.00%	23.00%	25.00%	22.00%	15.00%	0.00%	0.00%	0.00%	0.00%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Appendix B - Manager Updates

Manager Updates

Manager Updates

As of 31 December 2018

Aberdeen Standard Investments

Q4 2018

Business

There were no significant events during the quarter.

Staff

Xin-Yao Ng joined the Global Emerging Markets Equity team during the quarter as an Investment Manager, located in Singapore. He is part of the equities team in Singapore overseeing equity investments in APAC. Stella Li joined the Global Emerging Markets Equity team during the quarter as an Investment Manager. Stella is part of the Asian Equities team overseeing equity investments in HK/China. Muzhafar Muktar joined the Global Emerging Markets Equity team during the quarter as an Investment Manager. Muzhafar joined the company in 2018 from AmFunds Management where he was head of equity research. Fadzrul Salman, Investment Manager for the Global Emerging Markets Equity fund, left the company in December. Felicia Budiman, Investment Analyst for the Global Emerging Markets Equity fund, left the company in December. Christopher Wong, Investment Director for the Global Emerging Markets Equity fund, left the company in November. In November, it was communicated that Guy Stern, Head of the Multi-Asset Investing team and lead investment professional responsible for managing the Global Absolute Return Strategies (GARS) fund, will retire in 2019.

Brandes Investment Partners

Q4 2018

Business

There were no significant events.

Staff

Effective 31 December 2018, Ralph Birchmeier, head of financial institutions research team, has retired from the firm. Mr. Birchmeier was also a member of the Small Cap Investment Committee ("SCIC") and served as the SCIC representative on the All-Cap Investment Committee, which manages the Global Opportunities Value strategy at Brandes. Bryan Barrett, analyst on the financial institutions team, will join the SCIC as a non-voting member to replace Birchmeier. Michael Hutchens, limited partner at Brandes, will replace Birchmeier as the lead of financial institutions team. Mr. Hutchens has worked alongside Birchmeier on the financial institutions team for 17 years. Yingbin Chen, limited partner and another member of SCIC will become the SCIC representative on the All-Cap Investment Committee.

Manager Updates

Manager Updates

As of 31 December 2018

GMO

Q4 2018

Business

There were no significant events.

Staff

There were no significant events.

Guardian Capital

Q4 2018

Business

As a result of Mike Weir's retirement, the Guardian Canadian Small/Mid Cap Equity strategy has been closed.

Staff

Mike Weir, Managing Director of Canadian Equity, retired effective 31 December 2018.

Letko, Brosseau & Associates Inc. ("Letko, Brosseau")

Q4 2018

Business

There were no significant events.

Staff

During the fourth quarter, Olivier Brosseau joined the Investment management team.

Manager Updates

Manager Updates

As of 31 December 2018

TD Asset Management ("TDAM")

Q4 2018

Business

In November, TDAM finalized the acquisition of Greystone Capital Management Inc.

During the fourth quarter, the TD *Emerald* Systematic Alpha Hedged US Equity PFT and seven TDAM USA Money Market Funds were terminated.

Staff

There were no significant events.

Appendix C - Disclosure

Disclosure

Statement of Disclosure

As of 31 December 2018

Aon Hewitt Inc. reconciles the rates of return with each investment manager quarterly. Aon Hewitt Inc. calculates returns from the custodian/trustee statements while the managers use different data sources. Occasionally discrepancies occur because of differences in computational procedures, security prices, "trade date" versus "settlement date" accounting, etc. We monitor these discrepancies closely and find that they generally do not tend to persist over time. However, if a material discrepancy arises or persists, we will bring the matter to your attention after discussion with your money manager.

This report may contain slight discrepancies due to rounding in some of the calculations. All data presented is in Canadian dollars unless otherwise stated.

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