

Performance Review

University of Guelph Endowment Funds

3rd Quarter 2018

UNIVERSITY
of GUELPH

CHANGING LIVES
IMPROVING LIFE

Prepared by:

Pavilion Advisory Group Ltd.
1250 René-Lévesque Blvd. West, Suite 4030
Montreal, Quebec
H3B 4W8 Canada



PAVILION

Endowment Funds Results Overview

(Net of fees returns for the 12 months ended September 30th, 2018)

The Total Endowment Funds gained 5.8% over the last 12 months, underperforming the unhedged benchmark by 1.9% and the hedged benchmark by 1.6%.

Canadian Equity

- The Canadian equity portfolio gained 5.3% over the past year, 0.6% below the return of the S&P/TSX index.
- The S&P/TSX index posted a 5.9% return over the past year. Burgundy and Sionna underperformed the benchmark by 0.8% and 0.3% respectively.

Non-North American Equity

- In Canadian dollars, non-North American equities in developed markets outperformed the Canada (5.9%) and underperformed the U.S. (21.9%) with a return of 6.7%, while emerging markets equities gained 2.9% over the past year.
- Tweedy Browne outperformed the MSCI EAFE index by 1.0% while LSV underperformed the benchmark by 4.0%.
- The emerging markets manager (LSV) underperformed the MSCI Emerging Markets index by 2.4% over the past year.

U.S. Equity

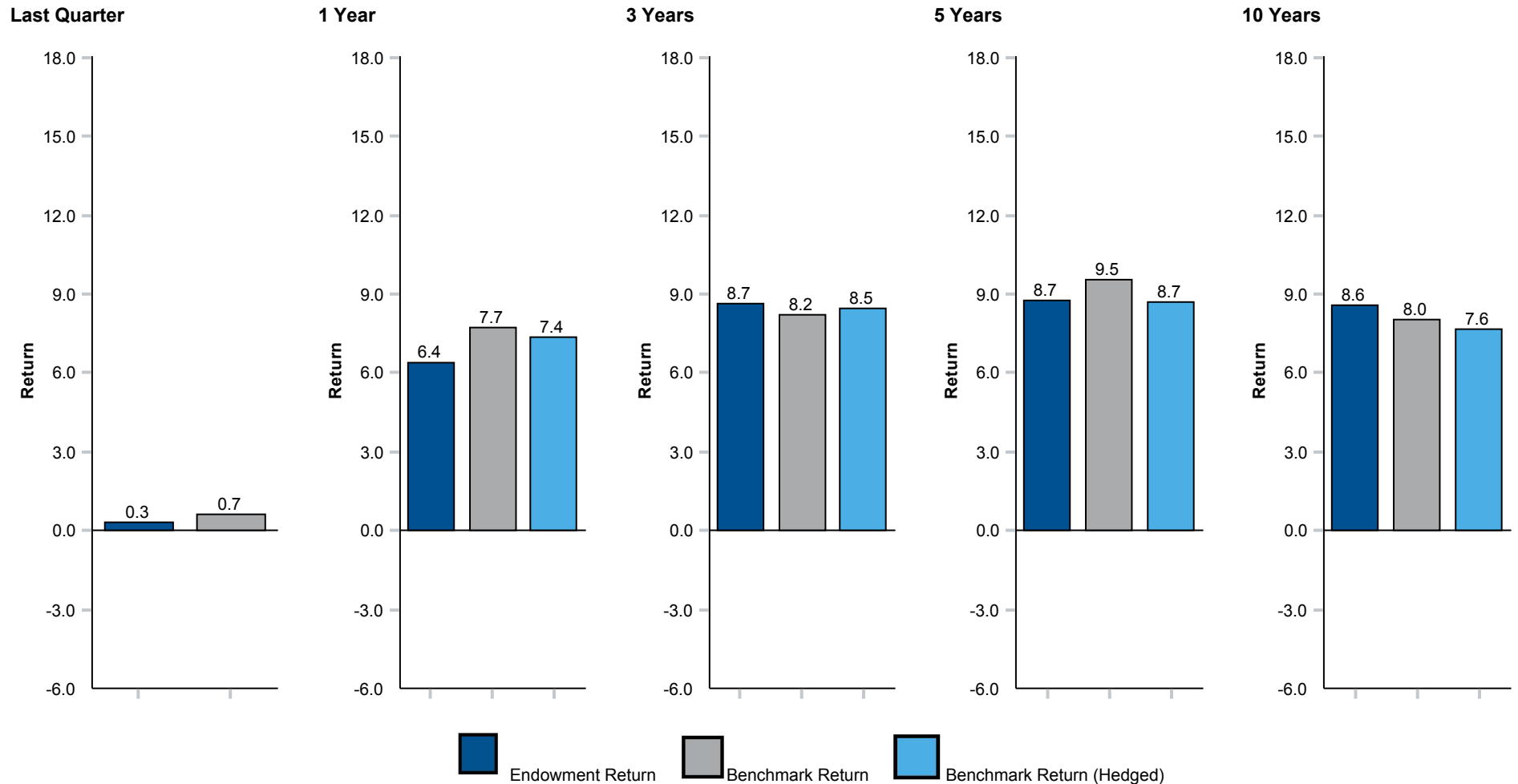
- The Endowment's U.S. equity investments gained 13.7% over the last year, underperforming the S&P500 index by 8.2%.
- All the plan's U.S. equities managers lagged their benchmarks. The U.S. large cap manager (Fiduciary) lagged the S&P 500 index by 5.1%. The mid cap mandate managed by Wedge lagged its benchmark by 1.1%, while Wedge's small cap strategy lagged its benchmark, the Russell 2000 Value Index, by 2.7% over the past year.

Fixed Income

- The Canadian fixed income portfolio matched the FTSE TMX Universe index return of 1.7%.
- The infrastructure portfolio managed by Brookfield outperformed its index by 5.5% over the past year. Short-term returns should be interpreted with caution due to the long-term nature and illiquidity of the investment.

Total Endowment Portfolio Vs Endowment Policy Benchmark

As of September 30, 2018 (Gross of Fees, Annualized for Periods over 1 Year)



Returns are presented gross of fees in CAD.

Endowment Policy Benchmark: 30% FTSE TMX Bond Universe + 7.5% Infrastructure (CPI+5%) + 17.5% S&P/TSX Composite + 20% S&P 500 (\$CAD) + 20% MSCI EAFE Net (\$CAD) + 5% MSCI Emerging Markets Index. The Hedged Endowment Policy Benchmark has the same composition as the Endowment Policy Benchmark, but all foreign indices are 50% hedged back to Canadian dollars from November 2010 to June 2017, 37.5% hedged from July to September 2017, 25% hedged from October to December 2017, 12.5% hedged from January 2018 to March 2018, 0% hedged since April 2018.

Asset Class Performance

As of September 30, 2018 (Gross of Fees)

	Allocation		Quarter To Date	Annualized Performance(%)					Annual Performance(%)				
	Market Value (\$)	% of portfolio		1 Year	3 Years	5 Years	10 Years	1 Year Ending Sep-2017	1 Year Ending Sep-2016	1 Year Ending Sep-2015	1 Year Ending Sep-2014	1 Year Ending Sep-2013	
Canadian Equity	81,352,993	18.4	0.8	5.8	11.0	7.3	7.5	11.7	15.8	-11.9	18.0	17.5	
S&P/TSX Composite Index			-0.6	5.9	9.7	7.8	6.3	9.2	14.2	-8.4	20.4	7.1	
<i>Relative Performance</i>			<i>1.4</i>	<i>-0.1</i>	<i>1.3</i>	<i>-0.5</i>	<i>1.2</i>	<i>2.5</i>	<i>1.6</i>	<i>-3.5</i>	<i>-2.4</i>	<i>10.4</i>	
US Equity	95,155,956	21.6	1.9	14.5	12.9	17.3	14.4	12.5	11.8	21.3	27.2	30.8	
S&P 500 Index (CAD)			5.8	21.9	15.9	19.3	14.2	12.9	13.2	19.2	30.2	24.7	
<i>Relative Performance</i>			<i>-3.9</i>	<i>-7.4</i>	<i>-3.0</i>	<i>-2.0</i>	<i>0.2</i>	<i>-0.4</i>	<i>-1.4</i>	<i>2.1</i>	<i>-3.0</i>	<i>6.1</i>	
Non-North American Equity	94,297,952	21.4	0.3	6.1	9.0	10.5	10.8	14.8	6.2	9.3	16.4	29.1	
MSCI EAFE Composite			-0.4	6.7	8.4	9.8	8.0	13.8	4.9	10.0	13.8	29.8	
<i>Relative Performance</i>			<i>0.7</i>	<i>-0.6</i>	<i>0.6</i>	<i>0.7</i>	<i>2.8</i>	<i>1.0</i>	<i>1.3</i>	<i>-0.7</i>	<i>2.6</i>	<i>-0.7</i>	
Emerging Markets Equity	22,054,522	5.0	-0.1	1.5	11.4	8.9	--	18.4	15.0	-5.5	17.4	9.2	
MSCI Emerging Markets Index			-2.7	2.9	11.4	8.9	7.9	17.0	14.9	-2.8	13.8	5.9	
<i>Relative Performance</i>			<i>2.6</i>	<i>-1.4</i>	<i>0.0</i>	<i>0.0</i>	<i>--</i>	<i>1.4</i>	<i>0.1</i>	<i>-2.7</i>	<i>3.6</i>	<i>3.3</i>	
Canadian Fixed Income	121,576,988	27.5	-1.0	1.7	1.8	3.4	4.8	-2.7	6.5	5.4	6.5	-1.1	
FTSE TMX Canada Universe Bond Index			-1.0	1.7	1.6	3.3	4.4	-3.0	6.3	5.3	6.3	-1.3	
<i>Relative Performance</i>			<i>0.0</i>	<i>0.0</i>	<i>0.2</i>	<i>0.1</i>	<i>0.4</i>	<i>0.3</i>	<i>0.2</i>	<i>0.1</i>	<i>0.2</i>	<i>0.2</i>	
Infrastructure	26,070,607	5.9	-0.5	14.4	9.4	--	--	14.2	0.1	30.7	--	--	
CPI + 5%			1.3	7.2	6.7	6.7	6.5	6.6	6.3	6.0	7.1	6.1	
<i>Relative Performance</i>			<i>-1.8</i>	<i>7.2</i>	<i>2.7</i>	<i>--</i>	<i>--</i>	<i>7.6</i>	<i>-6.2</i>	<i>24.7</i>	<i>--</i>	<i>--</i>	
Internal Cash	958,293	0.2	1.7	1.3	0.1	-0.7	1.1	-0.7	-0.3	-2.6	-1.0	-1.9	
FTSE TMX Canada 91 Day T-Bill			0.3	1.2	0.7	0.8	0.8	0.5	0.5	0.8	0.9	1.1	
<i>Relative Performance</i>			<i>1.4</i>	<i>0.1</i>	<i>-0.6</i>	<i>-1.5</i>	<i>0.3</i>	<i>-1.2</i>	<i>-0.8</i>	<i>-3.4</i>	<i>-1.9</i>	<i>-3.0</i>	

All returns are reported gross of fees in CAD except for the Total Endowment where returns are displayed both net and gross of fees. EAFE stands for Europe, Australasia and Far East. Cash amounts and percentages presented exclude residual manager cash balances and currency overlay (currency hedging).

Asset Class Performance

As of September 30, 2018 (Gross of Fees)

	Allocation		Quarter To Date	Annualized Performance(%)				Annual Performance(%)				
	Market Value (\$)	% of portfolio		1 Year	3 Years	5 Years	10 Years	1 Year Ending Sep-2017	1 Year Ending Sep-2016	1 Year Ending Sep-2015	1 Year Ending Sep-2014	1 Year Ending Sep-2013
Total Endowment												
Gross of Fees	441,467,311	100.0	0.3	6.4	8.7	8.7	8.6	9.8	9.9	2.8	15.3	16.0
Net of Fees			0.2	5.8	8.0	8.1	8.0	9.2	9.2	2.2	14.6	15.5
<i>Relative Performance</i>			0.1	0.6	0.7	0.6	0.6	0.6	0.7	0.6	0.7	0.5
Endowment Policy Benchmark (Hedged)			0.7	7.4	8.5	8.7	7.6	8.2	9.9	3.3	15.1	12.2
<i>Relative Performance</i>			-0.4	-1.0	0.2	0.0	1.0	1.6	0.0	-0.5	0.2	3.8
Total Endowment (Gross of Fees)	441,467,311	100.0	0.3	6.4	8.7	8.7	8.6	9.8	9.9	2.8	15.3	16.0
Total Endowment ex. FX Overlay			0.3	6.7	8.3	9.8	9.1	8.8	9.4	7.3	17.1	17.0
<i>Relative Performance</i>			0.0	-0.3	0.4	-1.1	-0.5	1.0	0.5	-4.5	-1.8	-1.0

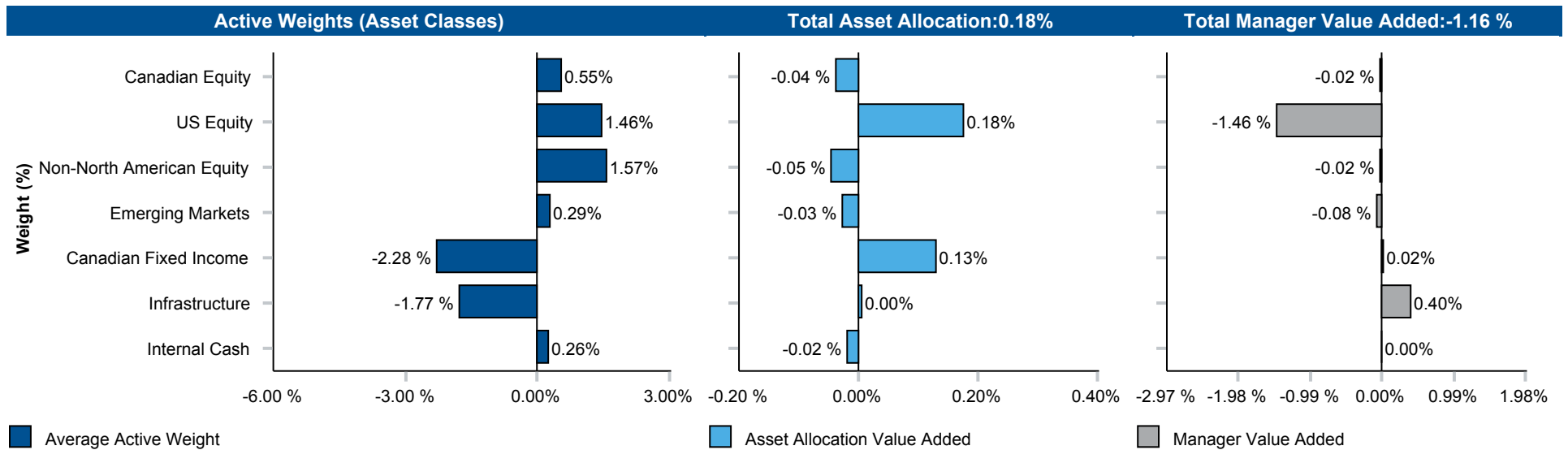
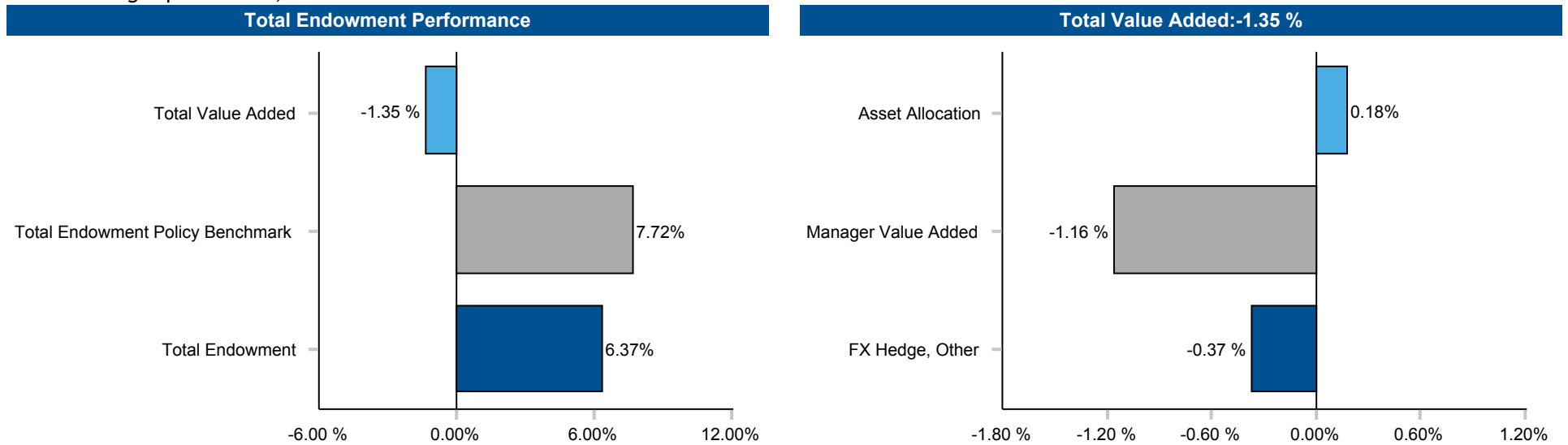
Endowment Policy Benchmark (Hedged): 30% FTSE TMX Bond Universe + 7.5% Infrastructure (CPI+5%) + 17.5% S&P/TSX Composite + 20% S&P 500 (\$CAD) + 20% MSCI EAFE Net (\$CAD) + 5% MSCI Emerging Markets Index. All foreign indices are 50% hedged back to Canadian dollars from November 2010 to June 2017, 37.5% hedged from July to September 2017, 25% hedged from October to December 2017, 12.5% hedged from January 2018 to March 2018, 0% hedged since April 2018.

All returns are reported gross of fees in CAD except for the Total Endowment where returns are displayed both net and gross of fees. EAFE stands for Europe, Australasia and Far East. Cash amounts and percentages presented exclude residual manager cash balances and currency overlay (currency hedging).

Performance Attribution

Total Endowment Funds Vs Endowment Policy Benchmark

1 Year Ending September 30, 2018



Returns are presented gross of fees in CAD.

Endowment Policy Benchmark: 30% FTSE TMX Bond Universe + 7.5% Infrastructure (CPI+5%) + 17.5% S&P/TSX Composite + 20% S&P 500 (\$CAD) + 20% MSCI EAFE Net (\$CAD) + 5% MSCI Emerging Markets Index.

The Benchmarks do not assume currency hedging.

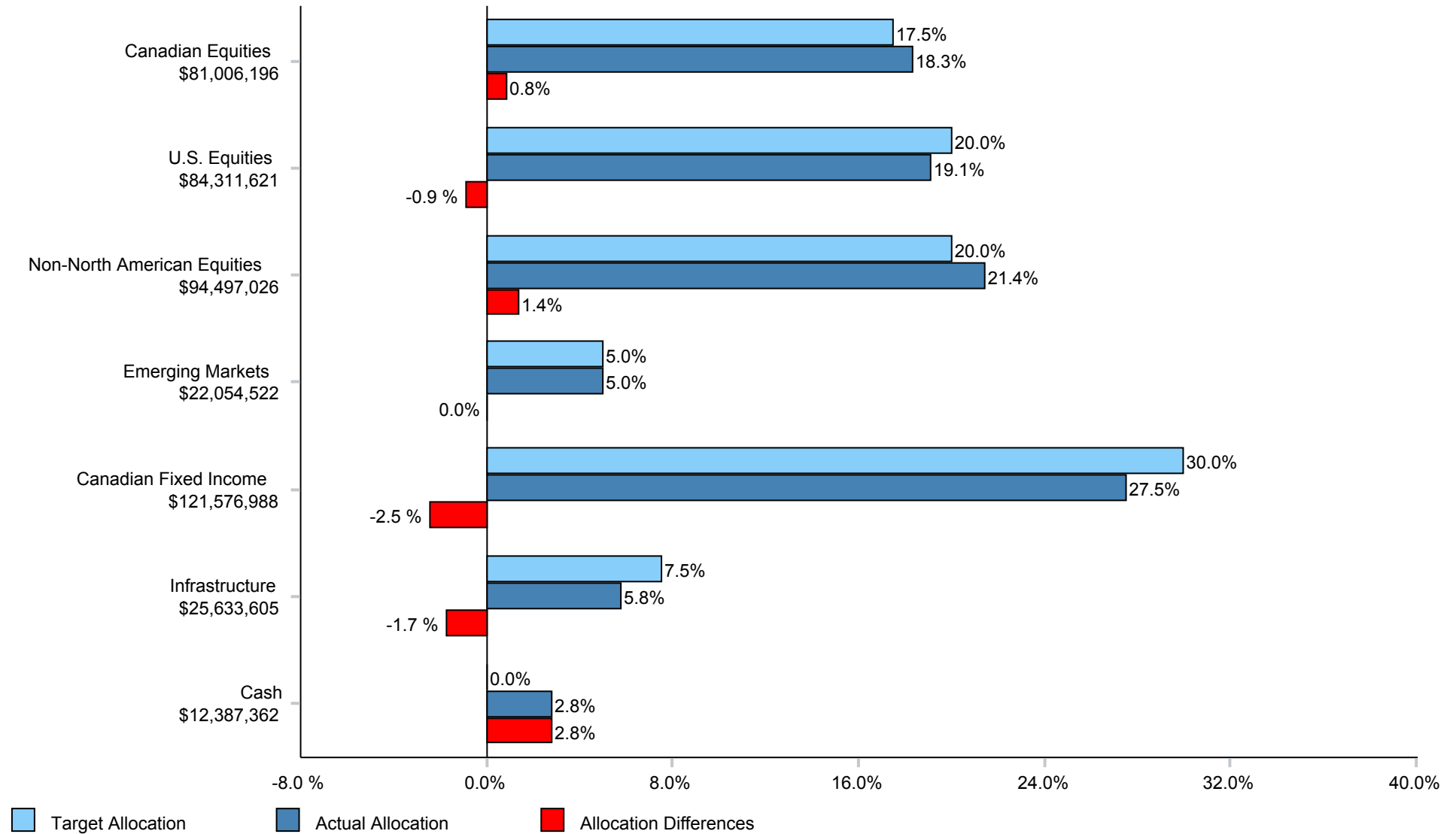
“Other” includes the effects of all other factors on the Total Endowment’s relative returns, including rebalancing and residual trading activity.

Endowment Asset Mix

Actual Allocation vs. Investment Policy Allocation

As of September 30, 2018

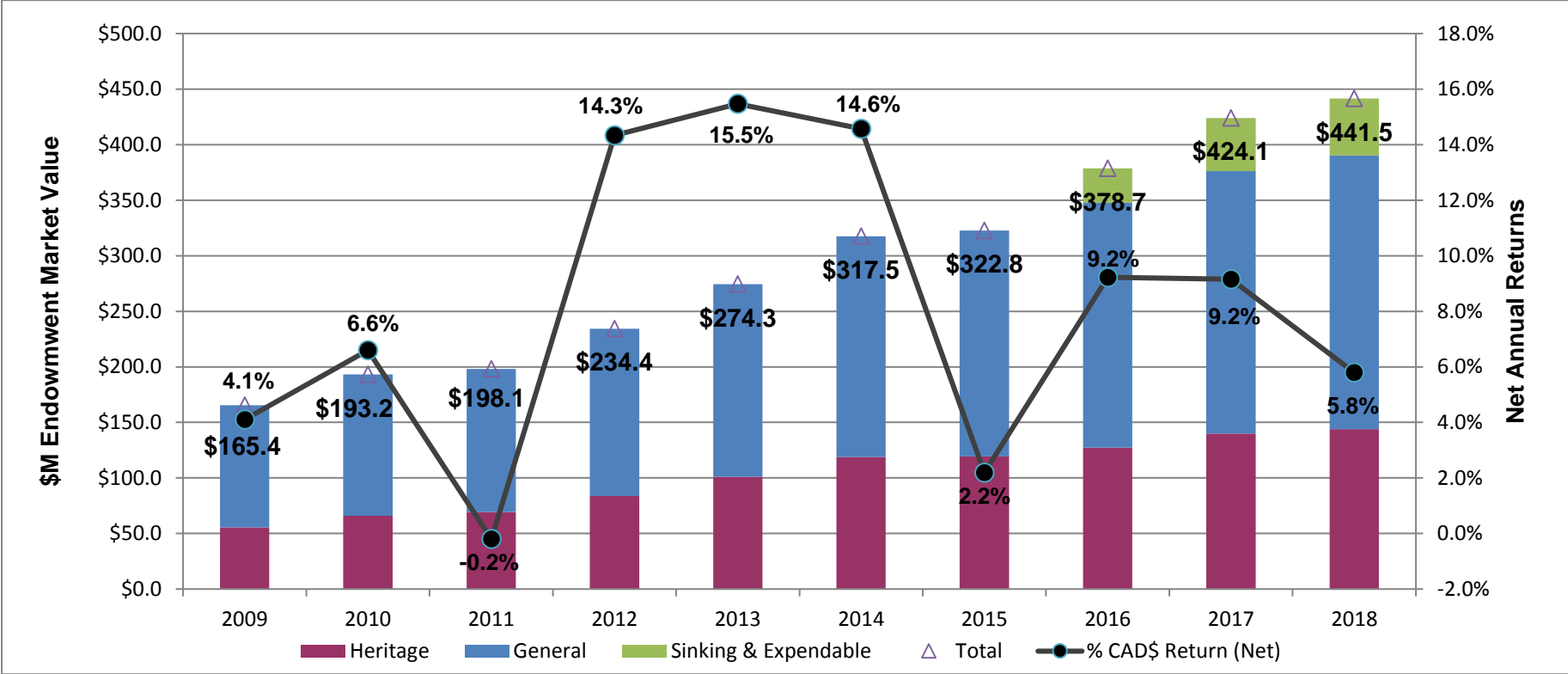
September 30, 2018 : \$441,467,319



Note: This actual allocation displays the aggregate managers' holdings regardless of their mandate. Cash includes internal cash directly owned by the Endowments and manager residual cash balances (data from CIBC Mellon).

Growth of Endowment Assets

September Market Values and Net 1-Year Returns to September 30th of Each Year



Over the last 12 months the total Endowment portfolio increased from \$424.1 M to \$441.5 M consisting of:
 – Total contributions of \$7.0 M and distributions of \$13.7 M.
 – 1-year return (net of investment management fees) of 5.8% compared to 9.2% one year ago.
 Per Expendable Fund Investment Policy approved by the Board on Jun. 3, 2016, all sinking funds and a portion of expendable funds are now invested in this portfolio.