



York University Endowment Fund

Annual Investment Report to the Board of Governors

For Year Ended December 31, 2017

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The Endowment Fund (the Fund) is a pool of commingled assets held for the endowments in long-term investments. The endowments are permanent gifts and bequests to York University from donors, enhanced where eligible with matching capital provided by University and government programs. Annual distributions are generated by the Fund investments for support of scholarships and academic chairs.

The Fund is governed by objectives and constraints as documented in the Statement of Investment Policies and Procedures (the Policy). The Board of Governors annually approves the Policy and any changes to the investment strategy or asset mix as proposed by the Investment Committee. The Investment Committee oversees the investments, portfolio managers and implementation of investment strategy.

The Fund assets are allocated for investment to nine portfolio managers each assigned with distinct mandates. All mandates are actively managed with the exception of one-half of the Canadian bonds invested passively to track an index.

The Fund in Review - 2017

The market value of the Fund as at December 31, 2017 was \$476.7 million, an increase of \$37.9 million relative to the December 31, 2016 valuation of \$438.8 million. The increase in 2017 was the net effect from combined inflows, outflows and appreciation. Inflows of \$2.9 million in contributed capital plus income and appreciation of \$37.7 million increased the value of the fund. Investment expenses of \$2.7 million decreased the value of the fund. The distribution spending of \$12.7 million for 2017 was withdrawn in January 2018.

Distributions to support endowment beneficiaries form the greatest part of the withdrawals. Over the past four years, \$59.9 million has been directed specifically to the purposes established by the University's donors.

The Fund one-year rate of return as of December 31, 2017 was 8.6% compared to 7.7% as of December 31, 2016. The Fund performance for 2017 fell short of the benchmark one-year rate of return of 8.7% by 0.1%.

The Fund four-year rate of return as of December 31, 2017 of 7.7% trailed the annualized benchmark performance, for the same period, of 8.9% by 1.2%.

Major equity markets during 2017 set record highs amid a strong combination of synchronized global economic growth (for the first time since the 2008 financial crisis), modest inflation, and historically low market volatility. The global equity market, measured by the MSCI ACWI Index, gained 15.8% in Canadian dollars, followed by US market (Russell 2500, 9.1%) and Canadian equities (S&P/TSX, 9.1%).

Fixed income markets took a turn when the US Federal Reserves and the Bank of Canada raised key benchmark rates in the year. Yield curves flattened, while government bond yields rose. The search for yield drove credit spreads narrower, helping bond market total returns. The broad Canadian bond market measured by the FTSE TMX Universe Bond

Index returned 2.5%.

The US dollar depreciated by 7.0% during 2017 relative to the Canadian dollar, and 10% relative to a basket of major currencies. Strong economic performances by countries around the world made the dollar comparatively less attractive. Oil prices bounced from historic lows, resulting in appreciation in Canadian markets.

During 2017, the Fund return of 8.6% was driven by its asset allocation (benchmark 8.7%). The 0.1% performance shortfall was a function of the underperformance in three categories; US Small/Mid cap equity, Global High Yield bonds and one global equity manager, whereas all other portfolios contributed positively against their respective benchmarks.

The passive currency hedging strategy had a positive impact and increased the value of total fund by 0.3% in 2017. The rate of return was driven by the CAD appreciation of 7% vs the USD.

Direct expenses charged to the Fund for investment management, custody, performance measurement and investment consulting services during calendar 2017 were \$2.7 million for a total expense ratio of 0.58%. The 2017 expenses and expense ratio were higher than levels during the prior year, \$2.4 million and 0.57% respectively. The increase was the result of 1) the rising market value of the Endowment Fund and 2) the more expensive mandates added recently, such as Landmark and Bentall Kennedy.

The balance of this Report reviews the investments, asset mix and manager allocations. Performance of the Fund to December 31, 2017 is reviewed in absolute, relative and comparative terms. The Investment Committee's activities conducted during calendar 2017 are summarized in the last section.

Asset Mix

The Policy asset mix (Figure 1) effective throughout 2017, states the asset class weights set out in the Statement of Investment Policies and Procedures.

Figure 1

Policy Asset Mix		
<u>Asset Class</u>	<u>Target Weight</u>	
Equities		
Canadian	15%	
US Small/Mid Cap	20%	
Global	30%	65%
Fixed Income		
Canadian Universe Bonds	10%	
Canadian Short Term Bonds	10%	
Global High Yield Bonds	<u>10%</u>	30%
Real Estate		
Canadian Real Estate	<u>5%</u>	5%

The Policy asset mix, determined through a periodic process involving an asset-liability study that incorporates projections for capital markets returns over a ten-year horizon, is chosen for its expected ability to meet the Fund's investment objective of funding endowment commitments each year, into perpetuity. The asset mix is geared to provide income to the University for the annual payouts to support endowed spending and to preserve the value of endowed capital.

The Fund's actual asset mix compared to the Policy target weights effective throughout 2017, including currency overlay, as at December 31, 2017, is shown in Figure 2.

Figure 2

Actual Versus Target Asset Class Weights - December 31, 2017

<u>Asset Class</u>	<u>Market Value (\$Mil)</u>		<u>Actual Weight</u>		<u>Target Weight</u>		<u>Over/Under</u>	
Equities								
Canadian	\$	74.7		15.7%		15.0%		0.7%
US Small/Mid Cap		93.2		19.6%		20.0%		-0.4%
Global		159.2	\$327.1	33.4%	68.6%	30.0%	65.0%	3.4%
								3.6%
Real Assets								
Canadian Real Estate		29.7	29.7	6.2%	6.2%	5.0%	5.0%	1.2%
Fixed Income								
Canadian Universe Bonds		36.6		7.7%		10.0%		-2.3%
Canadian Short Term Bonds		36.2		7.6%		10.0%		-2.4%
Global High Yield Bonds		43.9		9.2%		10.0%		-0.8%
Short-Term Investments		3.2	119.9	0.7%	25.2%	0.0%	30.0%	0.7%
								-4.8%
Currency Hedge								
		-	-	0.0%	0.0%	0.0%	0.0%	0.0%
			\$476.7		100.0%		100.0%	

Asset class weights are permitted to vary within a range of +/- 5% of the target weights and are rebalanced periodically back to the target. The allocation in 2017 to Canadian direct real estate is accorded a 5% weight in the composite benchmark which shall be the case until the allocation reaches a meaningful level (10%), a function of manager capital calls.

The University has engaged nine investment managers to manage eleven specialty investment mandates including an allocation to handle operating liquidity held in a short-term investment fund. The managers have been selected to provide specific investment expertise. A specialty mandate is established for each that describes the asset class, investment objectives, constraints, and performance benchmark for that portfolio. The managers, their mandates, market values and fund weights are shown in Figure 3. The currency hedge applies to 50% of the USD exposure contained in the high yield bonds and global real estates. The passive overlay is composed of liquid three-month foreign exchange forward contracts and reported on a marked-to-market basis.

Figure 3**Specialty Mandates and Asset Allocations - December 31, 2017**

<u>Investment Manager</u>	<u>Mandate</u>	<u>Market Value (\$ Mil)</u>	<u>Weight</u>
Equities			
Foyston, Gordon & Payne	Canadian	37.3	7.8%
Mawer	Canadian	37.4	7.8%
Westwood	US Small/Mid Cap	93.2	19.6%
Pier 21 - Carnegie	Global Equity	83.6	17.5%
TDAM Epoch	Global Equity	75.6	15.9%
Real Assets			
Bentall Kennedy	Canadian Real Estate	26.3	5.5%
Landmark VIII	Global Real Estate	3.4	0.7%
Fixed Income			
TD Asset Management	Canadian Universe Bonds	36.6	7.7%
TD Asset Management	Canadian Short Term Bonds	36.2	7.6%
Stone Harbor	Global High Yield Bonds	43.9	9.2%
TD Asset Management	Short-Term Investments	3.2	0.7%
TD Asset Management	Currency Hedge	-	0.0%
		<u>\$ 476.7</u>	<u>100.0%</u>

Performance Objectives

The Fund's return objective is quantified in the form of a performance benchmark, which is a weighted composite of specified capital markets indices. Each asset class is assigned a specific index or index-relative target for performance measurement and evaluation. For portfolios of publicly-traded securities, representing 95% of the Fund, each component index is broadly representative of a specified market, and is a transparent and reproducible sample of publicly-traded investable equities or bonds. For assets in privately-held portfolios, specifically Canadian real estate, the target benchmark is based on a premium of 2% above the return generated by the broad fixed income market.

The Canadian real estate benchmark index was introduced in October 2016 coinciding with the allocation to real estate investments and the attainment of the measurable level of 5% of total fund.

The performance benchmark in effect throughout 2017 follows in Figure 4.

Figure 4**Performance Benchmark 2017**

<u>Asset Class</u>	<u>Weight</u>	<u>Index</u>
Canadian Equities	15%	S&P/TSX Composite
Small/Mid Cap US Equities	20%	Russell 2500
Global Equities	30%	MSCI ACWI
Canadian Universe Bonds	10%	FTSE TMX Canada Bond Universe
Canadian Short Term Bonds	10%	FTSE TMX Short Term Bond
Global High Yield Bonds	10%	Citigroup High Yield Market Capped
Canadian Real Estate	5%	Canada Bond Universe + 2%

The Fund return objective is to meet or exceed the four-year annualized rate of return of the Policy composite benchmark for the same period over most four-year annualized periods as measured year to year.

Fund performance is expressed as a total rate of return, gross of fees, in Canadian dollars. Fund rates of return are calculated by an independent performance measurement provider, CIBC Mellon.

Evaluating Absolute Performance

Performance evaluation is conducted regularly on a monthly basis. The total fund rate of return is compared to the return of the composite benchmark and reported for intervals spanning one month to ten years. A formal performance evaluation is conducted semi-annually for review by the Committee that focuses on one-year and four-year returns to assess recent performance and longer-term success toward meeting Policy objectives. The results of individual portfolios and managers are reviewed, incorporating comparisons to performance statistics for portfolio risk and return and to the objectives and targets specified in each of the manager mandates.

Figure 5 presents the Fund's performance record for 2017 and successive annualized periods out to ten years (2008-2017), providing a snapshot of the longer-term success of the investment program.

Figure 5

Endowment Fund Long-Term Performance										
Annualized Returns for Periods Ended December 31, 2017										
	<u>1 Yr</u>	<u>2 Yrs</u>	<u>3 Yrs</u>	<u>4 Yrs</u>	<u>5 Yrs</u>	<u>6 Yrs</u>	<u>7 Yrs</u>	<u>8 Yrs</u>	<u>9 Yrs</u>	<u>10 Yrs</u>
Fund	8.6%	8.2%	7.1%	7.7%	9.6%	10.1%	8.7%	9.2%	10.5%	7.1%
Benchmark	8.7%	9.0%	8.4%	8.9%	10.7%	10.8%	9.0%	9.5%	10.6%	7.3%
	<u>-0.1%</u>	<u>-1.9%</u>	<u>-1.6%</u>	<u>-1.2%</u>	<u>-0.9%</u>	<u>-0.8%</u>	<u>-0.3%</u>	<u>-0.1%</u>	<u>-0.1%</u>	<u>-0.1%</u>

In absolute terms, on a ten-year annualized basis, the 7.1% performance of the Fund has covered the sum of the approximated real spending target of 4.0%, expenses of 0.5%, and inflation of 2.0%. The return however is low relative to other 10-year periods as a consequence of the inclusion of several negative and low-return market periods, particularly in 2008, 2011, and to a lesser degree 2015 (see Annual Returns in Figure 6).

The Endowment Fund's investment program is fluid and developed in response to shifts in the investment environment, changes in the cash flows and evolving risks affecting various components of the Fund. The Committee has concentrated on revisiting the target asset mix that align with the investment objectives of preserving capital through a range of capital market outcomes and providing annual distributions for inflation-adjusted spending.

Measuring Relative Performance

Figure 6 shows annual one-year returns for ten years, 2008 to 2017, and the four-year annualized return to December 31, 2017 relative to the Policy benchmark approved by the Board that prevailed for each of those past years. Currency strategy was introduced as an integral element of investment strategy in 2010.

Figure 6

Endowment Performance - Annual Returns											
	One-Year Returns as at December 31										Annualized Four Years
	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2014-17
Fund	8.6%	7.7%	5.0%	9.7%	17.3%	12.5%	0.8%	12.8%	21.7%	-19.1%	7.7%
Benchmark	8.7%	9.4%	7.1%	10.6%	18.1%	11.4%	-1.5%	12.9%	20.2%	-18.6%	8.9%
	-0.1%	-1.6%	-2.1%	-0.9%	-0.8%	1.1%	2.3%	-0.1%	1.5%	-0.5%	-1.2%

The one-year total rate of return as at December 31, 2017 for the Fund and its benchmark were respectively 8.6% and 8.7%. Excluding the impact of currency hedging, they were 8.2% and 8.3%. The global high yield bonds portfolio and the global real estate portfolio are hedged 50% of their USD exposure. During this year of the depreciation of the USD to all world currencies including the Canadian dollar, the hedge increased overall results by 0.3%.

In 2017, the Fund was marginally below the funds' benchmark by 0.1%. Strong value-added from C Worldwide Global Equity, FGP Canadian Equity, and Mawer Canadian Equity were offset by weak performance of three other managers. US equities managed by Westwood underperformed the benchmark by 4.4% (4.7% return vs 9.1% benchmark). Global High Yield Bonds managed by Stone Harbor underperformed the benchmark by 1.1% (-1.2% return vs -0.1% benchmark). Epoch Global Equities underperformed the benchmark by 5.8% (10% return vs 15.8% benchmark). The combination of value and stock picking styles espoused by these managers was not rewarded during 2017.

Over four years to December 31, 2017, the annualized return for the Fund was 7.7%. This resulted in underperformance of the Policy benchmark four-year annualized return of 8.9% by 1.2%. With the effect of fees, the results were approximately 1.7% behind target.

Capital markets returns for the indexes composing the performance benchmark for the past four calendar years and annualized for the four-year period are shown in Figure 7.

Figure 7

Index Returns (CAD)					
	Annual Returns				Annualized Four Years
	2017	2016	2015	2014	2014-17
Equity Indices					
S&P/TSX Composite	9.1%	21.1%	-8.3%	10.6%	7.6%
Russell 2500	9.1%	13.5%	16.5%	16.7%	13.9%
MSCI ACWI (All Countries)	15.8%	4.1%	18.9%	14.4%	13.2%
Fixed Income Indices					
FTSE TMX Canada Bond Universe	2.5%	1.7%	3.5%	8.8%	4.1%
FTSE TMX Canada Short Term Bond	0.1%	1.0%	2.6%	3.1%	1.7%
Citigroup High Yield Markets Capped	-0.1%	13.5%	13.3%	11.1%	9.3%

Review of Comparative Performance

Aon provides data for comparison in the form of a sample of Balanced Funds. Comparative

performance results for one-year and multi-year periods ended December 31, 2017 are presented in Figure 8.

The Balanced Funds group is provided for comparison as constituents are most likely to have common asset mix characteristics with the Endowment Fund. Differences in investment strategy arise from constituent funds' unique purpose, investment objectives and philosophy, size and program resources. These lead to variation in investment holdings and divergences in returns among members constituting the peer group members. In terms of magnitude of divergence from the median, asset mix typically has the highest impact, followed by the currency strategy and active management.

Figure 8

Balanced Funds - Comparative Analysis as of December 31, 2017

	Annual Returns (%)				Annualized Returns (%)			
	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2 Yrs</u>	<u>3 Yrs</u>	<u>4 Yrs</u>	<u>10 Yrs</u>
Percentile Rank								
5th (highest)	11.7	13.6	8.3	13.1	10.7	8.9	9.6	8.1
25th	10.5	11.1	6.7	11.9	9.0	8.1	8.8	7.2
50th (median)	8.8	7.8	5.5	10.9	8.1	7.4	8.4	6.7
75th	7.3	6.6	3.6	9.8	7.1	6.9	8.0	6.1
95th (lowest)	5.1	4.7	-1.1	8.1	6.4	5.8	6.7	5.6
Comparative								
York University	8.6	7.7	5.0	9.7	8.2	7.1	7.7	7.1
Quartile Rank	Q3	Q3	Q3	Q4	Q2	Q3	Q4	Q2

The statistics presented in Figure 8 exclude outlier returns that fall outside the range between 5th and 95th percentiles.

The Fund's one-year rate of return of 8.6% ranked in the third quartile in 2017, unchanged from the ranking in 2016. The ten-year result ranked with a second quartile standing, demonstrating the Fund's performance exceeded more than one-half of the constituents' returns.

The comparative result for the latest year is due to manager underperformance while asset mix characterized by equities dominance was positive. The Endowment Fund's asset mix is overweight in equities and underweight in longer bonds relative to the average balanced fund, representative of pension fund policies.

The Fund's bias toward equities and multi-asset class asset mix are characteristic of the asset-liability structure adopted by endowment funds with perpetual investment horizons, a stance that performs well in many, but not all markets. The strategy is reviewed at regular intervals and is adapted when changes in capital markets structure indicate that a more efficient and appropriate strategy will serve more effectively over the long term.

Endowments Growth

Over the five years since 2013, the Endowment Fund capital (book value) has expanded by

\$10.9 million due to net contributions while market value has grown by \$71.4 million as a result of the contributed capital plus investment income and capital appreciation, net of distributions for endowed spending and investment expenses.

Figure 9

Pooled Endowments - Growth (\$ Millions)

	<u>Market Value</u>	<u>Book Value*</u>	<u>MV-BV Ratio</u>
December 31, 2017	\$ 476.7	\$ 271.4	1.76
December 31, 2016	438.8	269.2	1.63
December 31, 2015	410.7	253.2	1.62
December 31, 2014	434.1	264.9	1.64
December 31, 2013	405.3	260.5	1.56

* Donations and Matching Funds

Endowment Fund book value constitutes the historical value of capital received from donors plus the historical value of capital matches from government and University matching programs. The endowment accounting and record keeping for book value and market value of individual endowments is performed on a unitized market valuation system basis, as introduced on May 1, 2014.

The change in the market value of the Fund during calendar 2017, shown in Figure 10, illustrates the effects of cashflows and earnings during the year.

Figure 10

Change in Total Fund Market Value (\$ Millions)

Market Value, December 31, 2016		\$438.8
Contributions:		
Donations	2.9	
Reinvested Distributions		
Withdrawals:		
Regular Distributions	-	
Special Distributions	-	
Fund Expenses	(2.7)	
Earnings:		
Investment Income and Market Appreciation	<u>37.7</u>	
Net Change		<u>37.9</u>
Market Value, December 31, 2017		<u>\$ 476.7</u>

During the last four calendar years, \$59.9 million has been distributed from the Fund to endowment account beneficiaries. The conversion to the unitized market value system for accounts and the smoothed banded inflation methodology for calculating annual distribution has increased the amounts of the annual distribution as seen in Figure 11, from 2014-15 and on. The amount in 2015-16 was larger due to exceptional distribution of \$3.5 million.

The new spending model has resulted in a greater share of Fund earnings being made available for key spending toward beneficiary purposes, mainly the support of student scholarships and bursaries, and academic chairs.

Figure 11

**Distributions to
Endowment Beneficiaries**

	Annual Distributions
	\$ Million
2017-18	14.9
2016-17	13.9
2015-16	17.4
2014-15	13.7
Cumulative	<u>\$ 59.9</u>

To track the market value, unit holdings, and historical values of each individual endowment, the University uses the services of an external provider of specialized endowment fund accounting. At the end of 2017 there were 2,100 individual endowed accounts under management.

Oversight

The Investment Committee conducts activities in accordance with its terms of reference and the Board-approved Statement of Investment Policies and Procedures (SIP&P). The Committee's responsibilities are principally fund governance and investment strategy. Activities include regular monitoring of assets and performance, oversight and selection of portfolio managers, development of investment strategy and asset mix, review of fund expenses, and quarterly reporting to the Board. The Committee undertakes further initiatives as deemed timely and in the best interests of the Endowment Fund and its beneficiaries.

Investment Committee Activity – 2017

During 2017, activities undertaken by the Investment Committee and administration included:

- Continued allocation to real estate asset class toward its target weight of 10%.
 - Hiring of Landmark Real Estate Partners, as investment manager for provision of global real estate management by way of the Landmark Real Estate Fund VIII. Funding for the initial capital call of USD \$3.8 million was transferred in July 2017. This represented the 15% of committed capital of USD\$25 million.
- All the investment managers provided compliance reports confirming that their investments were in compliance with their mandates and with the SIP&P.
- Adoption of a 2018-19 payout rate of \$4.02 per unit for purpose of monthly accrual of

distribution during 2017-18. The payout rate is set by the Committee in advance for accrual in the leading fiscal period and the distribution occurs early in the following fiscal period. The amounts distributed to endowment accounts in Q1 2018, Q3 2016 and Q3 2015 were respectively \$3.96/unit, \$3.96/unit and \$3.90/unit.

- The sustainable investment program initiatives and developments are ongoing. Administration continued to review the expanding activities to integrate ESG considerations into investment processes.
 - Presented and recommended Carbon Footprint Analytics by MSCI ESG Research. The carbon footprint of an investment portfolio is an estimation of the total greenhouse gas (GHG) emissions produced by the companies held in that portfolio. The analysis of carbon footprint allows assessing the portfolio's exposure to climate change risk.

- Detailed review on US SMid Cap manager Westwood performance was conducted. In the short to mid-term, Westwood struggled in comparison to US SMid Cap universe and to the Russell 2500 and the Russell 2500 Value Indices. Over longer periods the strategy has outperformed the indices but falls short when compared to the broader US SMid Cap universe. Aon continues to hold a Buy rating on Westwood's SMidCap strategy. No change was made to the Westwood mandates pending the conclusion of the asset liability study in 2018.

- Launched an asset liability study to review and align the Fund's asset mix with the University's investment objectives. The current asset mix reflects the asset allocation decision from the 2013 asset liability study. Given the time that has elapsed, the evolving nature of capital markets and weak performance of US SMid Cap manager Westwood, the University seeks to identify appropriate asset mix that best suit the long-term risk and return objectives of the University.