York University Endowment Fund

Annual Investment Report to the Board of Governors

For Year Ended December 31, 2016

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The Endowment Fund (the Fund) is a pool of commingled assets composed of the University's endowments as held in long-term investments. The endowments are mainly permanent gifts and bequests to York University received from donors as enhanced, where eligible, with matching capital provided by University and government programs. University-designated endowments held for support of specific priorities are invested alongside donor-endowed assets. 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 eight portfolio managers each assigned with one or more distinct mandates. All mandates are actively managed with the exception of one-half of the Canadian bonds invested passively to track an index and the currency overlay.

The Fund in Review - 2016

The market value of the Fund as at December 31, 2016 was $438.8 million, an increase of $28.1 million relative to the December 31, 2015 valuation of $410.7 million. The increase in 2016 was the net effect from combined inflows, outflows and appreciation. Inflows of $12.9 million in contributed capital plus income and appreciation of $32.0 million increased the value of the fund. Investment expenses of $2.1 million together with University withdrawals of $14.7 million in regular distributions decreased the value of the fund.

Distributions to support endowment beneficiaries form the greatest part of the withdrawals. Over the past four years, $56 million has been removed cumulatively from the Fund and directed specifically to the purposes established by the University's donors.

The Fund one-year rate of return as at December 31, 2016 was 7.7% compared to 5.0% as at December 31, 2015. The Fund performance for 2016 fell short of the benchmark one-year rate of return of 9.4% by 1.6%.

The Fund four-year rate of return as of December 31, 2016 of 9.8% was short of the annualized benchmark performance for the same period of 11.2% by 1.4%.

Major equity and corporate credits markets during 2016 increased significantly. The return was dominated by strong Canadian Equities (S&P/TSX Composite, 21.1%), US markets (Russell 2500, 13.5%) followed by High Yield Bonds Markets (Citigroup HYM, 13.5%) and Global markets (MSCI ACWI, 4.1%).

The US dollar depreciated by 3.0% during 2016 relative to the Canadian dollar. Oil prices bounced from historical lows resulting in appreciation in Canadian markets.

Returns from Global fixed income markets were generally in low positive territory. The broad Canadian bond market measured by FTSE TMX Universe Bond Index returned 1.7%.

During 2016, the Fund return of 7.7% was an effect of its asset allocation (benchmark 9.4%). The 1.6% performance shortfall was a function of the relative underperformance in three categories, US Small/Mid cap equity, Global High Yield bonds and Global Equities. All other portfolios combined exceeded their respective benchmark indices, thus contributing positively to total fund performance. During Q3 2016, two new global equity portfolios were initiated with the funding of two specialist managers; in total $138 million was transitioned from the legacy manager of global equities and emerging markets equities.

The passive currency hedging strategy had a positive impact and increased the value of total fund by 0.2% in 2016. The rate of return was driven by the CAD appreciation of 2.7% vs the USD.

Direct expenses charged to the Fund for investment management, custody, performance measurement and investment consulting services during calendar 2016 were $2.1 million for a total expense ratio of 0.47%. The 2016 expenses and expense ratio were lower than levels during the prior year, respectively $2.4 million and 0.57%.

The balance of this Report reviews the investments, asset mix and manager allocations. Performance of the Fund to December 31, 2016 is reviewed in absolute, relative and comparative terms. The Investment Committee’s activities conducted during calendar 2016 are summarized in the final section.

Asset Mix

The Policy asset mix (Figure 1) effective throughout 2016, states the asset class weights set out in the Statement of Investment Policies and Procedures. Target weights are adjusted in accordance with the phase in period of Real Estate.

Figure 1

Policy Asset Mix

Asset Class	Target Weight	
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	10%	**30%**
Real Estate		
Canadian Real Estate	5%	**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, while preserving the real value of endowed capital.

The Fund's actual asset mix compared to the Policy target weights in effect as at December 31, 2016, is shown in Figure 2.

Figure 2

Actual Versus Target Asset Class Weights - December 31, 2016

Asset Class	Market Value ($Mil)		Actual Weight		Target Weight		Over/Under	
Equities								
Canadian	$ 72.1		16.4%		15.0%		1.4%	
US Small/Mid Cap	88.4		20.2%		20.0%		0.2%	
Global	136.1	**$296.7**	31.0%	**67.6%**	30.0%	**65.0%**	1.0%	**2.6%**
Real Assets								
Canadian Real Estate	24.8	**24.8**	5.7%	**5.7%**	5.0%	**5.0%**	0.7%	**0.7%**
Fixed Income								
Canadian Universe Bonds	35.7		8.1%		10.0%		-1.9%	
Canadian Short Term Bonds	36.0		8.2%		10.0%		-1.8%	
Global High Yield Bonds	44.4		10.1%		10.0%		0.1%	
Short-Term Investments	1.6	**117.8**	0.4%	**26.8%**	0.0%	**30.0%**	0.4%	**-3.2%**
Currency Hedge	(0.4)	**(0.4)**	-0.1%	**-0.1%**	0.0%	**0.0%**	-0.1%	**-0.1%**
		$438.8		**100.0%**		**100.0%**		

Actual asset class weights are permitted to vary within a range of +/- 5% of the Policy target weights and are rebalanced periodically back to the target.

The University has engaged eight investment managers to manage ten 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 class. 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, 2016

Investment Manager	Mandate	Market Value ($ Mil)	Weight
	Equities		
Foyston, Gordon & Payne	Canadian	35.8	8.2%
Mawer	Canadian	36.3	8.3%
Westwood	US Small/Mid Cap	88.5	20.2%
Pier 21 - Carnegie	Global Equity	67.4	15.4%
TDAM Epoch	Global Equity	68.7	15.7%
	Real Assets		
Bentall Kennedy	Canadian Real Estate	24.8	5.7%
	Fixed Income		
TD Asset Management	Canadian Universe Bonds	35.7	8.1%
TD Asset Management	Canadian Short Term Bonds	36.0	8.2%
Stone Harbor	Global High Yield Bonds	44.4	10.1%
TD Asset Management	Short-Term Investments	1.6	0.4%
TD Asset Management	**Currency Hedge**	(0.4)	-0.1%
		$ 438.8	100.0%

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 second transfer and full allocation to real estate investments and the attainment of the measurable level of 5% of total fund.

The performance benchmark follows in Figure 4.

Figure 4

Performance Benchmark 2016

Asset Class	Weight	Index
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 produced by 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.

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 2016 and successive annualized periods out to ten years (2007-2016), 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, 2016									
	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs	7 Yrs	8 Yrs	9 Yrs	10 Yrs
Fund	7.7%	6.4%	7.5%	9.8%	10.4%	8.7%	9.3%	10.8%	7.0%	6.2%
Benchmark	9.4%	8.2%	9.0%	11.2%	11.3%	9.0%	9.6%	10.8%	7.1%	6.6%
	-1.6%	-1.9%	-1.6%	-1.4%	-0.9%	-0.3%	-0.3%	-0.1%	-0.1%	-0.4%

In absolute terms, on a ten-year annualized basis, the **6.2%** performance of the Fund has approximated the sum of the real spending target of 4.0%, and inflation of 2.0%. The return generated by the Fund during the past ten years was low relative to other ten-year periods as a consequence of the inclusion of several negative and low-return market periods, particularly in 2007, 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 diversifying among selected strategies and managers 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 returns for the past ten years, 2007 to 2016, and the four-year annualized return to December 31, 2016. The returns are compared to the Policy benchmark as in effect 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
	2016	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**	**2009**	**2008**	**2007**	**2013-16**
Fund	7.7%	5.0%	9.7%	17.3%	12.5%	0.8%	12.8%	21.7%	-19.1%	-0.3%	**9.8%**
Benchmark	9.4%	7.1%	10.6%	18.1%	11.4%	-1.5%	12.9%	20.2%	-18.6%	1.9%	**11.2%**
	-1.6%	-2.1%	-0.9%	-0.8%	1.1%	2.3%	-0.1%	1.5%	-0.5%	-2.2%	**-1.4%**

The one-year total rate of return as at December 31, 2016 for the Fund and its benchmark were respectively 7.7% and 9.4%. Excluding the impact of currency hedging, they were 7.5% and 9.2%. The currency hedging of 100% of foreign exposures contained in the high yield bonds portfolio, was adjusted to a 50% hedge of USD exposure in October 2015 to reflect the equity-like element of the asset class. During this year of mildly declining foreign exchange rates, mainly the depreciation of the USD to all world currencies including the Canadian dollar, the hedge increased overall results by 0.2%.

The 1.6% shortfall of total fund versus its benchmark in 2016 was attributable to the underperformance of several investment managers, with some drag due to the transitioning of one-third of assets into target global equity and Canadian real estate portfolios. US equities managed by Westwood underperformed the benchmark by 6.3% (7.2% return vs 13.5% benchmark). Global high yield bonds managed by Stone Harbor underperformed the benchmark by 4.5% (8.9% return vs 13.5%

benchmark). Total global equities underperformed the benchmark by 3.4% (0.1% return vs 3.3% benchmark, including the period of reallocation from Aberdeen Global Equities and emerging markets to Carnegie Worldwide Equity and Epoch Global Equity Shareholder Yield mandates at end of July 2016. The combination of value and stock picking styles espoused by these managers was not rewarded during the latter part of 2016. In October 2016, $21.6 million was transferred into Bentall Kennedy representing the remaining 90% of assets originally queued for allocation in July 2014. Real estate outperformed the benchmark by 1.52% (5.2% vs 3.7% benchmark).

Over four years to December 31, 2016, the annualized return for the Fund was 9.8%. This resulted in underperformance of the Policy benchmark four-year annualized return of 11.2% by 1.4%. With the effect of fees, the results were approximately 1.9% behind target.

Capital markets returns for the principle 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**
	2016	**2015**	**2014**	**2013**	**2013-16**
Equity Indices					
S&P/TSX Composite	21.1%	-8.3%	10.6%	13.0%	**8.5%**
Russell 2500	13.5%	16.5%	16.7%	46.0%	**22.5%**
MSCI ACWI (All Countires)	4.1%	18.9%	14.4%	35.2%	**16.1%**
Fixed Income Indices					
FTSE TMX Canada Bond Universe	1.7%	3.5%	8.8%	-1.2%	**3.1%**
FTSE TMX Canada Short Term Bond	1.0%	2.6%	3.1%	1.7%	**2.1%**
Citigroup High Yield Markets Capped	13.5%	13.3%	11.1%	14.4%	**13.1%**

Review of Comparative Performance

Aon Hewitt 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, 2016 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, 2016

	Annual Returns (%)				Annualized Returns (%)			
	2016	**2015**	**2014**	**2013**	**2 Yrs**	**3 Yrs**	**4 Yrs**	**10 Yrs**
Percentile Rank								
5th (highest)	13.6	8.3	13.1	20.6	8.8	9.7	12.1	7.8
25th	11.1	6.7	11.9	18.3	7.5	8.6	10.6	6.6
50th (median)	7.8	5.5	10.9	16.1	6.5	8.1	9.7	6.0
75th	6.6	3.6	9.8	14.7	6.1	7.5	9.5	5.6
95th (lowest)	4.7	(1.1)	8.1	13.1	4.9	6.5	8.8	4.8
Comparative								
York University	7.7	5.0	9.7	17.3	6.4	7.5	9.8	6.2
Quartile Rank	Q3	Q3	Q4	Q2	Q3	Q4	Q2	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 7.7% ranked in the third quartile in 2016, unchanged from the ranking in 2015. The four-year result of 9.8% fared well compared to the sample group, ranking high in the second quartile. 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 emerging markets and total equities and underweight in US equities and longer bonds relative to the average balanced fund, representative of pension fund policies.

The Fund's more risky strategy, referring to degree of equities content, and 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 2012, the Endowment Fund capital (book value) has expanded by $12.7 million due to net contributions while market value has grown by $88.3 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)

	Market Value	Book Value*	MV-BV Ratio
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
December 31, 2012	350.5	256.5	1.47

* 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 2016, 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, 2015		$410.7
Contributions:		
Donations	12.9	
Reinvested Distributions		
Withdrawals:		
Regular Distributions	(14.7)	
Special Distributions		
Fund Expenses	(2.1)	
Earnings:		
Investment Income and Market Appreciation	32.0	
Net Change		28.1
Market Value, December 31, 2016		$438.8

During the last four calendar years, $55.8 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 distribution amount in 2015-16 was larger due to exceptional earnings distribution of $3.5 million. The normalized 2016-17 amount of $13.9 million is a 29% increase over the normalized amount, pre-unitization, of $10.8 million for 2013-14. The result is a greater share of Fund earnings has been made available for key spending toward beneficiary purposes being mainly the support of student scholarships and bursaries and academic chairs.

Figure 11

Distributions to Endowment Beneficiaries

	Annual Distributions
	$ Million
2016-17	13.9
2015-16	17.4
2014-15	13.7
2013-14	10.8
Cumulative	$ 55.8

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 2016, 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. 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 – 2016

During 2016, activities undertaken by the Investment Committee and administration included:

Revision of Statement of Investment Policy and Procedures, incorporating changes to the asset mix, target weights, and performance benchmark, to amend the global equities and Canadian real estate benchmark components and weights and align with Fund liquidity requirements. The changes placed into effect as of October 2016, approved by the Board of Governors were:

- Reduction from 35% to 30% allocation to global equities;

- Increase from 0% to 5% allocation to Canadian real estate asset class;
- Elimination of 20% allocation to global equities developed markets;
- Elimination of 10% allocation to emerging markets equities; and
- Introduction of 30% allocation to all-countries global equities, a capitalization-weighted index incorporating developed and emerging markets global equities (MSCI ACWI, all countries world index).

For the above changes to asset mix, the corresponding adjustments to the performance benchmark were adopted into Policy.

▪ Implementation of allocations to newly-hired investment managers based on search and selection processes begun in the previous year, including:

- Hiring of Epoch Investment Partners, Inc., as sub-advisor to investment manager TD Asset Management Inc., for provision of global equities specialty management by way of the TD Emerald Global Equity Shareholder Yield Pooled Fund Trust. Funding of $69 million was transferred at the end of July 2016.
- Hiring of Carnegie Asset Management (renamed C Worldwide Asset Management), as sub-advisor to investment manager Pier 21 Asset Management Inc., for provision of global equities specialty management by way of the Pier 21 Worldwide Equity Pool. Funding of $69 million was transferred at the end of July 2016.
- Funding for the new global equities mandates was allocated from the legacy Aberdeen global equities and emerging markets mandates and these accounts were closed permanently.
- Hiring of TD Asset Management Inc. as investment manager for the provision of the passive currency overlay.
- Transferring of the value of the overlay, represented by $36 million in currency hedges on US dollar exposures, to TDAM from the legacy manager Mesirow occurred in June 2016. The Mesirow account was closed permanently.

▪ Completion of allocation to Canadian real estate with the transfer of funds to Bentall Kennedy Prime LP in the amount of $21.6 million in October 2016. The committed tranche of $21.6 Million represented the remaining 90% of assets originally queued for allocation to the strategy since initial 10% funding in July 2014.

▪ Rebalancing of total fund to the revised asset mix weights contained in the October 2016 Policy included withdrawals from high-returns portfolios for reallocation resulting in reductions to the most overweight portfolios as managed by Westwood and Stone Harbor.

- Adoption of a 2017-18 payout rate of $3.96 per unit for purpose of monthly accrual of distribution during 2016-17. 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 Q3 2016 and Q3 2015 were respectively $3.96/unit and $3.90/unit.

- The responsible investment program initiatives and developments are ongoing. Administration continued to review the expanding activities and provide support to the York University Advisory Committee on Responsible Investing.

The Investment Committee launched the provision of a carbon footprint analysis of Endowment Fund equity holdings with the appointment of a specialist service provider for this purpose.

- Review of the Committee's Terms of Reference, last revised in 1998, was completed and revised Terms were adopted effective June 2016 that align beneficially with overall Board governance protocols.