



# UNIVERSITY OF NEW BRUNSWICK REPORT ON LONG-TERM INVESTMENT FUND

2018-2019



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# SCHOLARSHIPS & BURSARIES

### THEOREM 3.15

If  $A$  is an invertible matrix, then there is a unique LU factorization  $A = LU$ , where  $L$  and  $U$  are unique. Here,  $L$  is a lower triangular matrix with ones on the diagonal, and  $U$  is an upper triangular matrix.

### EXAMPLE 3.38

Find the LU factorization of  $A = \begin{bmatrix} 0 & 0 & 6 \\ 1 & 2 & 3 \\ 2 & 1 & 4 \end{bmatrix}$ .  
Solution: First we reduce  $A$  to row echelon form. Clearly, we need at least one row interchange.

$$A = \begin{bmatrix} 0 & 0 & 6 \\ 1 & 2 & 3 \\ 2 & 1 & 4 \end{bmatrix} \xrightarrow{R_1 \leftrightarrow R_2} \begin{bmatrix} 1 & 2 & 3 \\ 0 & 0 & 6 \\ 2 & 1 & 4 \end{bmatrix} \xrightarrow{R_3 - 2R_1} \begin{bmatrix} 1 & 2 & 3 \\ 0 & 0 & 6 \\ 0 & -3 & -2 \end{bmatrix} \xrightarrow{R_2 \leftrightarrow R_3} \begin{bmatrix} 1 & 2 & 3 \\ 0 & -3 & -2 \\ 0 & 0 & 6 \end{bmatrix}$$

corresponding to interchanging rows 2 and 3, and let  $E$  be the product of the elementary matrices that then reduce  $EA$  to  $E'U$  (so that  $E^{-1} = E'$  with lower triangular). Thus  $EPA = U$ , so  $A = (EP)^{-1}U = P^{-1}E^{-1}U = P^{-1}E'U$ . Observe that  $P^{-1}E'$  is a permutation matrix. Such a matrix  $P$  is called a **permutation matrix**. Observe that a permutation matrix arises from permuting the rows of an identity matrix in some order. For example, the following are all permutation matrices:

$$\begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 \end{bmatrix}, \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 \end{bmatrix}, \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 \end{bmatrix}$$

$$x^2 + 4x + 2 = 0$$
$$x = \frac{-4 \pm \sqrt{16 - 4 \cdot 1 \cdot 2}}{2 \cdot 1}$$

**“At \$368.0 million, the Fund ranks in the top 30% of Canadian university endowments”**

We are pleased to present the Annual Report on the University of New Brunswick Long-term Investment Fund (“the Fund”) for the year ended April 30, 2019. Key sections include a report on Fund performance, an overview of key governance arrangements for the Fund, highlights of Board approved investment and endowment spending policies, and an overview of key activities carried out by the Investments Committee (“the Committee”) during the year.

## WHAT IS THE FUND?

The Fund is a pooled investment fund for philanthropic gifts provided by donors to the University of New Brunswick in support of its mission. This includes endowed gifts that are intended to be held in perpetuity, and expendable gifts that have a long-term spending horizon. The Fund also includes amounts generated from operations that have been restricted for a specific purpose by the University’s Board of Governors.

## WHAT IS THE SIZE OF THE FUND?

The Fund had a market value of \$368.0 million as at April 30, 2019, ranking in the top 30% of Canadian university endowments.

## WHAT DOES THE FUND SUPPORT?

Gifts are generally restricted by donors for specific purposes. Major categories of support include scholarships and bursaries, chairs and professorships, research, library support and capital projects. The university’s fundraising priorities are aligned with the key academic and research priorities of the institution. Of note, approximately 60% of UNB’s total annual spending on scholarships and bursaries is funded from donor support and related investment income.

Donor gifts may be endowed or expendable. An endowed gift is one where the gift capital must be retained and invested in perpetuity; only the income earned can be used for the purpose specified by the donor. Endowments are intended to create a sustainable and predictable long-term source of funding for high priority programs and activities. Expendable gifts are also important, providing support for immediate needs such as required investments in infrastructure, programs and activities that can have a long-term impact on the university.

The university has a fiduciary responsibility to ensure that expendable gifts and endowment income are used only for the purposes specified by the donor. In keeping with this fiduciary responsibility, individual gifts and major categories of gifts are tracked separately within the university’s trust accounting system. However, gifts are pooled for investment purposes.

## WHY ARE GIFTS POOLED FOR INVESTMENT PURPOSES?

The pooling approach provides a number of benefits for donors, beneficiaries, and the university:

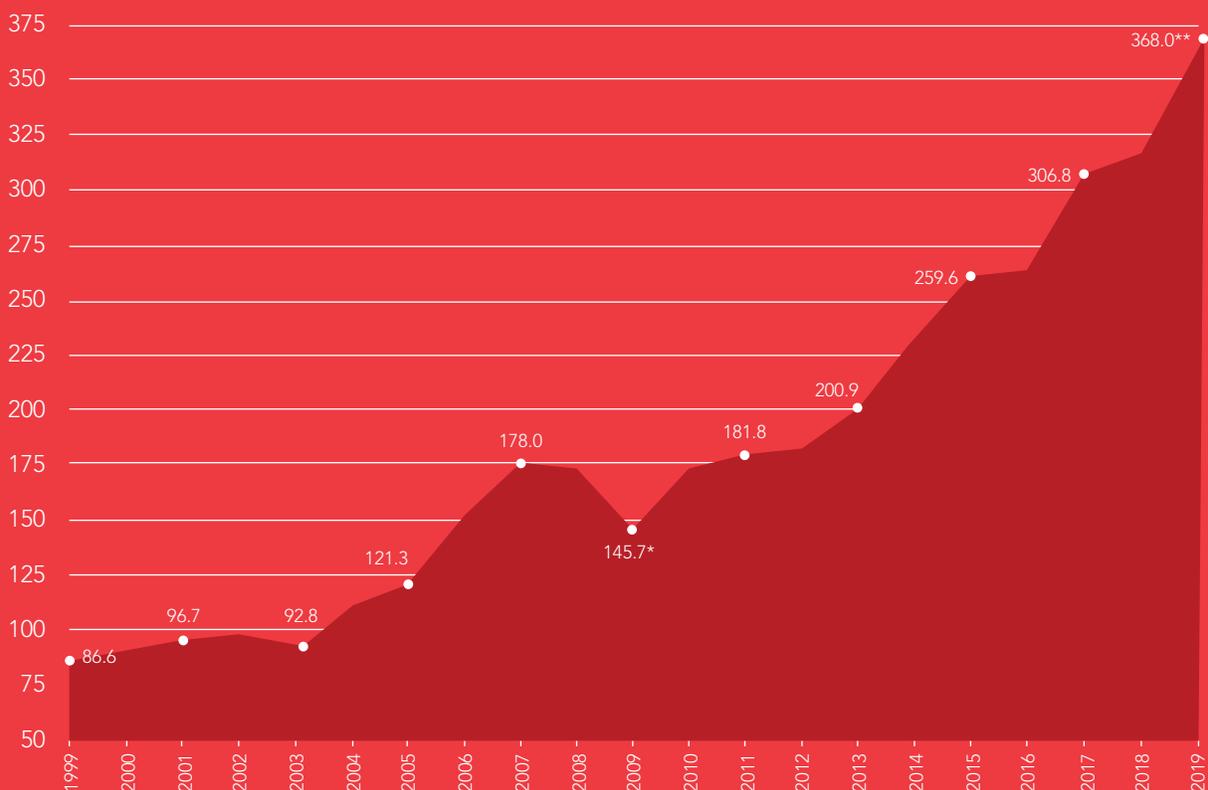
- provides opportunities for diversification, risk management, and economies of scale;
- allows access to best-in-class investment managers;
- provides opportunities for above-average long-term risk adjusted returns;
- supports a competitive annual spending rate; and
- facilitates prudent governance and oversight.

## WHO MANAGES THE FUND AND WHAT ARE THE PERFORMANCE GOALS?

All assets are managed by external professional investment management firms (see page 13) in accordance with a Board approved Statement of Investment Objectives and Policy, and within specific mandates approved by the Board Investments Committee. Performance targets are established by the Committee for each mandate and at the total fund level. Performance is monitored by the Investments Committee with the assistance of an independent performance measurement firm.

**Fig. 01 MARKET VALUE LONG-TERM INVESTMENT FUND (\$ MILLIONS)**

As at April 30, 2019



\* \$9.0 million transferred to the Short-term Investment Fund in 2010 - 2011

\*\* \$14.4 million transferred to the Long-term Investment Fund in 2018 - 2019

**Fig. 02 FISCAL YEAR RETURNS (%)**

	4-year periods ending April 30 (Annualized)		10-year (Annualized)
	2019	2015	2019
<b>Fund Nominal Return</b>	7.27	9.32	9.50
<b>CPI</b>	(1.87)	(1.30)	(1.78)
<b>Investment Management Costs</b>	<u>(0.41)</u>	<u>(0.42)</u>	<u>(0.42)</u>
<b>Fund Real Return</b>	4.99	7.60	7.30
<b>Target Real Return</b>	4.00	4.06	4.08

**Fig. 03 ANNUALIZED RETURNS (%)**

	1 YEAR	2 YEAR	3 YEAR	4 YEAR	10 YEAR
<b>Fund Return</b>	8.74	5.82	9.12	7.27	9.50
<b>Investment Policy Benchmark</b>	8.18	6.32	8.83	6.36	8.92
<b>Excess Return</b>	0.56	(0.50)	0.29	0.91	0.58

**“The Fund achieved a nominal annualized rate of return of 7.27% for the four-year period ending April 30, 2019.”**

The Fund had a market value of \$368.0 million as at April 30, 2019, a net increase of 15.8% over the April 30, 2018 value of \$317.8 million (see Fig. 01). This net growth resulted from a combination of new gifts, investment income net of spending, and operational transfers into the Fund.

## **FOUR-YEAR ANNUALIZED RETURN EXCEEDS PRIMARY RETURN OBJECTIVE**

The Fund achieved a nominal annualized return of 7.27% for the four-year period ending April 30, 2019. The resulting four-year annualized real return of 4.99% (after inflation and investment related expenses) exceeded the endowment spending rate target of 4.00%.

The Fund’s nominal return for fiscal 2018-2019 was 8.74%, outperforming the policy benchmark return by 0.56%. The policy benchmark return is the weighted average of the returns of the benchmark indices for each asset class.

## **CONTINUING STRONG RISK-ADJUSTED PERFORMANCE**

On a risk adjusted basis the Fund continues to compare favorably with similar funds in the RBC Investor & Treasury Services Endowment and Foundations Universe. For the four-year period ending March 31, 2019, the Fund’s standard deviation or volatility of returns was lower than 91% of measured funds.

## **REVIEW OF ADMINISTRATION FEES**

The Fund’s assets are managed by external professional investment management firms (see page 13). In addition, the Committee uses the services of an external custodian and a performance measurement firm. In 2018-19, the Committee completed a comprehensive review of investment management and other investment related fees, comparing costs to those of other Canadian university endowment funds.

The results of the review indicated that total investment related fees (which include investment manager, custodian, performance measurement and investment consultant fees) are equal to the average fees and slightly below the median fees paid by other Canadian university endowment funds of a similar size.

## **ENDOWMENT SPENDING POLICY STABLE**

An annual review of the endowment spending policy was completed in 2018-19. The long-term endowment spending rate target of 4.00% was confirmed, and endowment spending in 2019-20 was approved at the target rate.



**RESEARCH**

**“Over the long-term, the Fund compares favorably with similar funds on a risk adjusted basis.”**

The Committee regularly monitors the performance of the Fund against Committee approved performance objectives. Performance is reviewed at a total fund level, by manager, and by asset class.

## **PRIMARY PERFORMANCE OBJECTIVE:**

The total annualized portfolio real rate of return (net of inflation and investment related expenses) should meet or exceed 4.00% over moving four-year periods, with an acceptable level of risk. The 4.00% real return objective is consistent with the target endowment spending rate of 4.00% annually.

The Fund's annualized real rate of return over the four-year period ending April 30, 2019 was 4.99%, exceeding the 4.00% target. Over the longer term (10 years), the Fund achieved a real return of 7.30%.

## **SECONDARY PERFORMANCE OBJECTIVE:**

The annualized return on total assets over moving four-year periods should exceed the weighted aggregate return of the passive investment benchmark indices for the Fund.

Over the four-year period ending April 30, 2019, the Fund's annualized return of 7.27% exceeded the policy benchmark by 91 basis points (see Fig. 03). For the one-year period ending April 30, 2019 the Fund returned 8.74%, exceeding the policy benchmark by 56 bps. This followed returns of 2.97% for the year ended April 30, 2018 and 16.04% for the year ended April 30, 2017.

## **RISK ADJUSTED RETURNS**

The Committee also reviews and evaluates the Fund's risk exposure and risk adjusted returns on a quarterly basis. Risk adjusted returns are assessed at both a total fund and individual manager level, and are compared with comparable funds and mandates.

The Fund compares favorably on a risk adjusted basis with similar funds in the RBC Investor & Treasury Services funds universe over the long-term (see Fig. 04). The Fund ranked in the top quartile on all key risk metrics for the four-year period ending March 31, 2019. For example, the standard deviation or volatility of returns was in the bottom 100% of measured funds. Lower volatility is important when striving for consistency in spending.

## **ASSET CLASS PERFORMANCE**

2018-2019 was a period of good performance across most capital markets, albeit with much volatility within the period. Global equities, as measured by the MSCI World Index, returned 11.35% in Canadian dollars. Canadian equities, as measured by the S&P/TSX Composite Index, returned 9.60%. Canadian Bonds, as measured by the FTSE TMX Canada Universe Bond Index, returned 6.07%.

The Fund's external investment managers seek to add value to these benchmark index returns through active management of the portfolio. UNB's fixed income manager's return essentially mirrored the benchmark. Within the equity sector, results were mixed. The Canadian manager and one of three global managers were successful in adding value to their respective benchmarks while the remaining two global managers and the Total Equity manager trailed their benchmarks, (although with positive returns). Within the Fund's newest asset classes, Emerging Markets and Real Estate, managers added significant value to their benchmarks.

## **PERFORMANCE COMPARED TO OTHER UNIVERSITY ENDOWMENTS**

The Committee also compares performance at a total fund level to that of other Canadian university endowment funds and to a broader basket of Canadian endowment funds. Comparisons are made on the basis of both nominal and risk adjusted returns. Over the long term the Fund has performed well when compared with other funds. Of note, UNB's annualized policy returns for the four-year period ending March 31, 2019 outperformed the RBC Investor & Treasury Services Endowment and Foundation universe median policy returns by 42 basis points annually. The Fund's actual performance also exceeded the median actual performance by 111 basis points annually over this period.

## Fig. 04 KEY RISK METRICS

For rolling 4-year periods ending March 31

	2019			2018		
	UNB	MEDIAN	QUARTILE RANKING	UNB	MEDIAN	QUARTILE RANKING
<b>RISK EXPOSURE (Volatility)</b>						
Standard Deviation	5.18	6.20	4	4.57	4.57	3
<b>RISK ADJUSTED RETURNS</b>						
Tracking Error	1.40	2.20	4	1.12	2.25	4
Value Added	1.00	(0.06)	1	0.72	0.13	2
Information Ratio	0.71	0.00	1	0.64	0.05	1

## Fig. 05 COMPARATIVE RETURNS vs. RBC INVESTOR & TREASURY SERVICES ENDOWMENT AND FOUNDATION FUNDS UNIVERSE (%)

Annualized returns for periods ending March 31, 2019

	1-YEAR	4-YEAR		1-YEAR	4-YEAR
UNB Policy	5.94	5.55	RBC Universe Policy – Median	7.09	5.13
UNB Actual	6.60	6.55	RBC Universe Actual – Median	5.38	5.44

## Fig. 06 POLICY TARGETS AND ALLOWABLE RANGES (%)

	POLICY TARGET	ALLOWABLE RANGE	ACTUAL APR. 30, 2019
<b>FIXED INCOME</b>			
Canadian Bonds	20.3	15-35	27.3
Emerging Market Debt	4.5	0-10	0.8
High Yield Bonds	3.6	0-10	0.1
Mortgages	1.6	0-10	1.1
U.S. Treasuries	-	-	0.3
<b>EQUITIES</b>			
Canadian	15.0	10-20	15.5
Global	25.0	20-30	24.8
Low Volatility Global	15.0	10-20	15.1
Emerging Market	10.0	5-15	10.5
<b>OTHER</b>			
Canadian Real Estate	5.0	0-10	4.5

UNB's management of endowment accounts is based on an integrated approach to endowment spending policy and investment policy.

## ENDOWMENT SPENDING POLICY

The university's endowment spending objective is to maintain a reasonably stable, competitive, inflation-adjusted spending rate. The goal is to achieve intergenerational equity by ensuring that the endowment provides a similar level of support to future generations as it does to current beneficiaries. To this end, the university establishes a target endowment spending rate that reflects the Committee's expectations for a long-term sustainable real rate of return net of inflation and investment expenses.

The Committee completes an annual review of the endowment spending rate. The purpose of the review is to consider the appropriateness and sustainability of the long-term target spending rate, and to confirm the approved spending rate for the next fiscal year.

UNB's target spending rate was lowered from 4.25% to 4.00% in 2013-14. Following the 2018-19 review, the target rate remains at 4.00%. The Canadian Association of University Business Officers (CAUBO) conducts an annual investment survey of member institutions; at 4.00%, UNB's endowment spending rate is at the median of other Canadian universities. Spending in 2019-20 has been approved at the target rate of 4.00%. A one-time top-up of 0.25% has been approved for individual endowment accounts where spending reserves exceed a specified level.

## INVESTMENT POLICY

Investment policy for the Fund is set out in a Board approved Statement of Investment Objectives and Policy (SIOP). The SIOP establishes target allocations to major asset classes, and the allowable ranges within which actual allocations are allowed to deviate from the targets.

The target asset mix set out in the SIOP has been established to meet the endowment spending policy and capital preservation requirements, at an acceptable level of risk. Historical returns and capital market assumptions generally indicate that fixed income securities alone will not generate the returns necessary to provide income to fund current needs while maintaining the purchasing power of the endowment for future generations of students. To meet these dual objectives, the asset allocation is biased in favor of equities. However, to reduce volatility and diversify against adverse equity markets, the Fund's policy asset mix also includes a significant allocation to fixed income securities.

Asset mix is regularly reviewed by the Committee for appropriateness and for its ability to achieve the real return objective over the long term. The most recent comprehensive review of the Policy asset mix for the Fund was completed in 2016-17. As the changes to the Policy asset mix were only fully implemented in 2017 – 2018, a comprehensive review of the Policy asset mix will be conducted at a later date.



# CAPITAL PROJECTS

“ Investments Committee provides oversight within an approved policy framework. ”

## INVESTMENTS COMMITTEE

The Investment Committee, a standing committee of the University's Board of Governors, oversees the investment of the Fund. Members of the Committee are appointed under the authority of the Board, and are accountable to the Board. The Committee has been delegated responsibility and authority by the Board to make decisions within parameters established in the Committee's Terms of Reference.

The Committee meets at least four times per year. Agenda planning is informed by a rolling twelve-month work plan, which helps ensure the Committee stays focused on three key strategic areas: risk, returns and endowment spending rate.

## POLICY FRAMEWORK

The Committee has developed a policy framework for managing Fund investments and endowment spending. Key elements of the policy framework include:

- Statement of Investment Beliefs;
- Statement of Investment Objectives and Policy;
- Statement on Sustainable Investing;
- Risk Management Framework; and
- Endowment Spending Policy.

These policies and additional information about the governance and management of the Fund can be found on the university's website.

## FOCUS ON SUSTAINABLE INVESTING

The policy framework for managing Fund investments includes a Board-approved UNB Statement on Sustainable Investing. The statement provides a broad policy framework to guide UNB's approach to sustainable investing and provides a basis for communicating with stakeholders about sustainable investment practices at UNB. The framework also includes a Committee-approved Statement of Environmental, Social and Governance (ESG) Reporting Protocols for the Fund's investment managers. The statement sets out the Committee's approach to interacting with investment managers to achieve the Board's sustainable investment objectives.

External investment managers have been directed to consider environmental sustainability, high standards of corporate social responsibility and corporate governance when making investment decisions. The Committee also encourages fund managers to incorporate in their proxy voting guidelines policies that encourage issuers to increase transparency of their ESG policies, procedures, and activities.

## EXTERNAL PROFESSIONALS AND SERVICE PROVIDERS

All assets are managed by external professional investment management firms in accordance with mandates approved by the Committee. The Committee has engaged the services of an independent performance measurement firm. Other external specialists are used as required to provide advice on a variety of topics including asset allocation, risk management, endowment spending policy and investment manager searches.

## ROLE OF MANAGEMENT

Management's role is to:

- Support good governance by providing ongoing support and advice to the Committee with respect to investment policy, endowment spending policy, investment manager structure and related matters;
- Implement approved policies and decisions and provide regular reports on compliance and performance; and
- Carry out the day-to-day administration of the Fund including overseeing the work of external investment managers and other service providers.



# LIBRARY SUPPORT

# INVESTMENTS COMMITTEE MEMBERS

(AS AT APRIL 30, 2019)

## VOTING

### BRIAN E.H. BAXTER

*Past Chair of the Board of Governors  
President/CEO, Botsford Investments Inc.  
University of New Brunswick*

### NORM BETTS

*Member of the Board of Governors  
Associate Professor, Faculty of Business Administration  
University of New Brunswick*

### CHRISTOPHER W.J. BOYLE

*Advisor to the BOG Investments Committee  
Senior Vice-President, Institutional Sales & Service  
MacKenzie Investments*

### H.E.A. (EDDY) CAMPBELL

*Member of the Board of Governors  
President and Vice-Chancellor  
University of New Brunswick*

### BARRY COOPER

*Advisor to the Board of Governors  
Chairman of BMO Global Asset Management  
Bank of Montreal*

### DEANNA GRAVES-BROWN

*Member of the Board of Governors  
Controller, Scott's Nursery Ltd.*

### TOM GRIBBONS

*Member of the Board of Governors  
Vice-President, Branch Manager & Associate Portfolio Manager  
RBC Wealth Management, Dominion Securities*

### CHLOE JARDINE

*Member of the Board of Governors  
Student  
University of New Brunswick*

### KEVIN LEBLANC

*Advisor to the BOG Investments Committee  
Chief Operating Officer  
Investment Management Corporation of Ontario*

### PAUL MORRISON

*Member of the Board of Governors  
Consultant  
Chair, Investments Committee*

### SAMUEL PALMER

*Member of the Board of Governors  
Alternate Student  
University of New Brunswick*

### JOHN SINCLAIR

*Advisor to the BOG Investments Committee  
Chief Executive Officer  
Vestcor Inc.*

## NON-VOTING

### KAREN CUNNINGHAM

*Member of the Board of Governors  
Vice-President (Administration & Finance)  
University of New Brunswick*

### SARAH DEVARENNE

*Secretary of the Board  
University of New Brunswick*

### AIDEN JAMES BEST

*Student Advisor  
University of New Brunswick*

### JENNIFER MORRISON

*University Treasurer  
University of New Brunswick*

## COMMITTEE RESOURCE

### MICHELLE MCNEIL

*Acting Director, Senior Advisor, President's Office  
University of New Brunswick*

### BOB SKILLEN

*Vice-President (Advancement)  
University of New Brunswick*

### SHAUNA WOODSIDE

*Manager, Trust & Treasury Services  
University of New Brunswick*

# EXTERNAL SERVICE PROVIDERS

(AS AT APRIL 30, 2019)

## CUSTODIAN/PERFORMANCE MEASUREMENT

RBC Investor & Treasury Services

## INVESTMENT MANAGERS

Phillips, Hager & North Investment Management (Fixed Income)

Fidelity Investments Canada ULC (Canadian Equity)

Seamark Asset Management (Total Equity)

Hexavest Inc. (Global Equity)

Sprucegrove Investment Management Ltd. (Global Equity)

JP Morgan Asset Management (Global Emerging Markets)

Vestcor Inc. (Low Volatility Global Equity)

Fiera Properties Ltd. (Canadian Real Estate)

