

UBC FACULTY PENSION PLAN PENSION FORUM

MR. JOOST BLOM, CHAIR, BOARD OF TRUSTEES
MS. ORLA COUSINEAU, EXECUTIVE DIRECTOR, PENSIONS
MR. MIKE LESLIE, EXECUTIVE DIRECTOR, INVESTMENTS
MAY 16, 2018



Agenda

- **Welcome by Chair**
- **2018 Board Initiatives and Projects**
- **Plan's Financial and Membership Update**
- **2017 Operations Update and 2018 Operations Objectives**
- **Investment Review for 2017 and First Quarter 2018**
- **Board of Trustees**
- **Questions**



2018 Board Initiatives and Projects

- Reviewing the Plan's current Fixed Income Exposure (40% of the Balanced Fund)
- Member awareness and education about the benefits of the Plan, and the flexible retirement income options
- Continued oversight of Plan's investment managers



Role of the Board

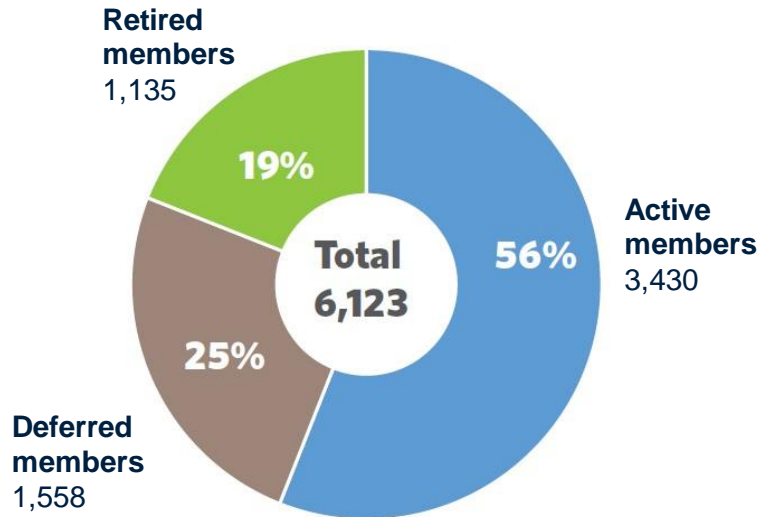
- Managed by independent Board of Trustees
- Board is responsible for oversight of the Plan
- Board selects and monitors the investment managers and the investment options available under the Plan
- Sun Life is the Plan's record keeper, and does not manage the investments



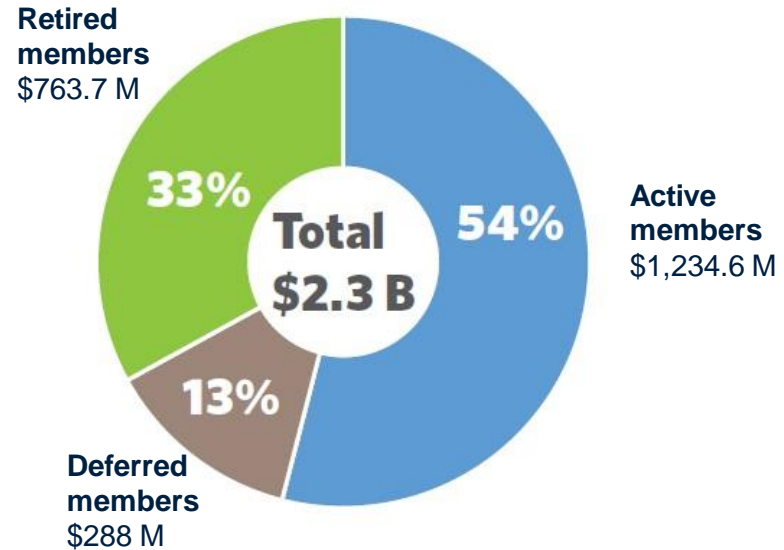
Plan Statistics December 31, 2017



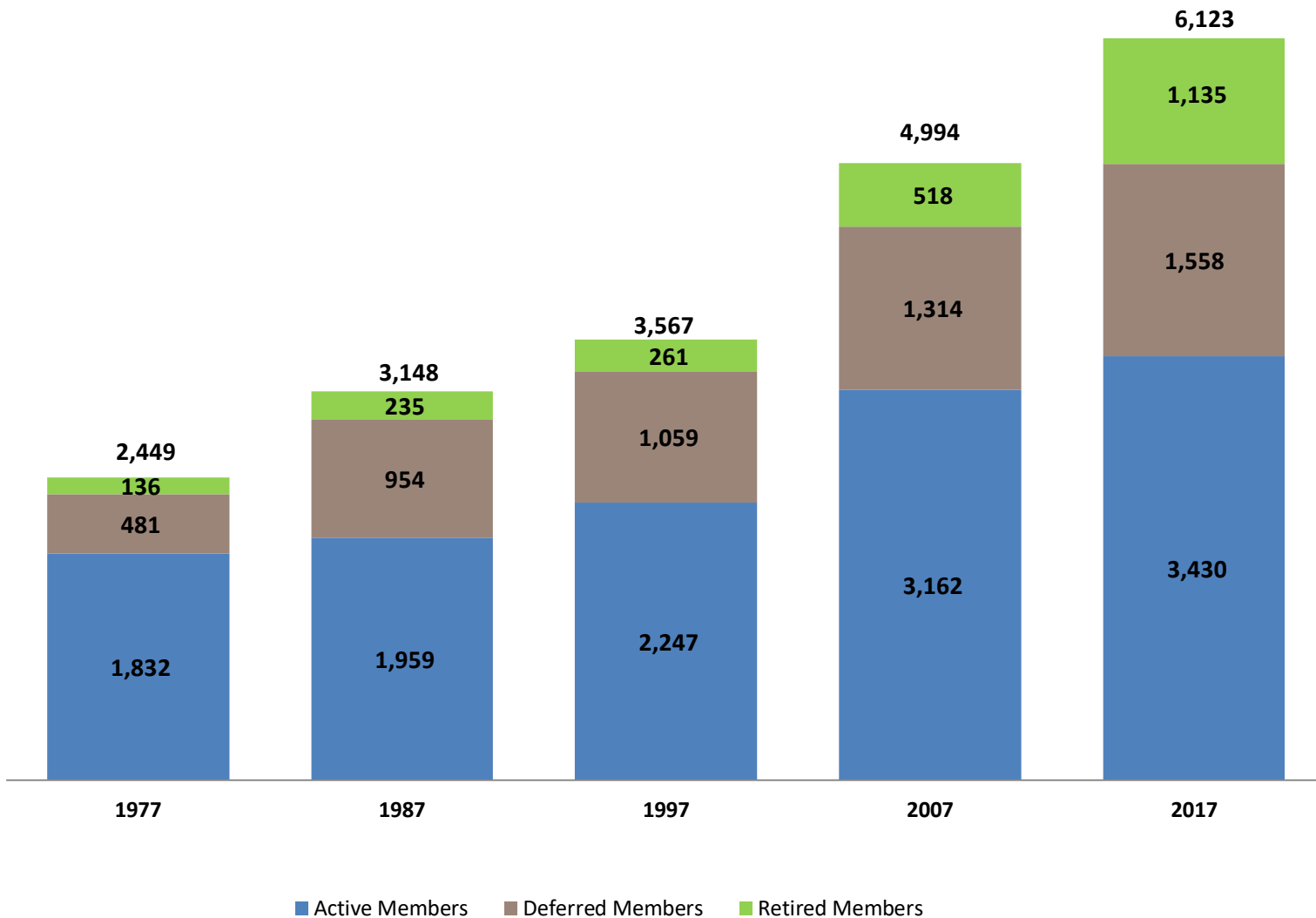
Total Plan Membership



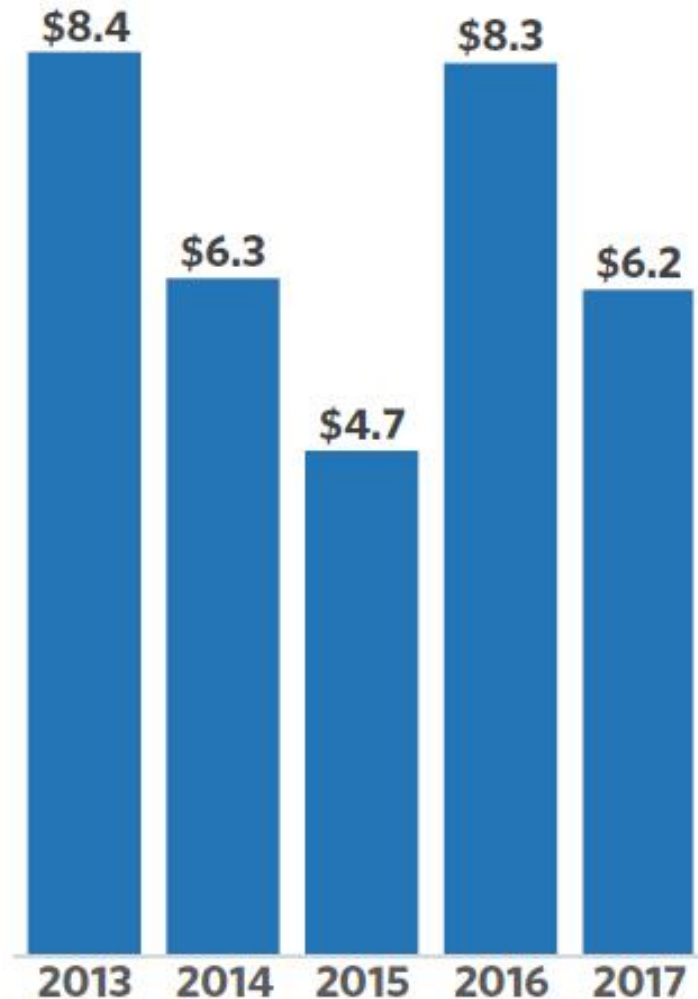
Plan Assets



Membership Growth – to December 31, 2017



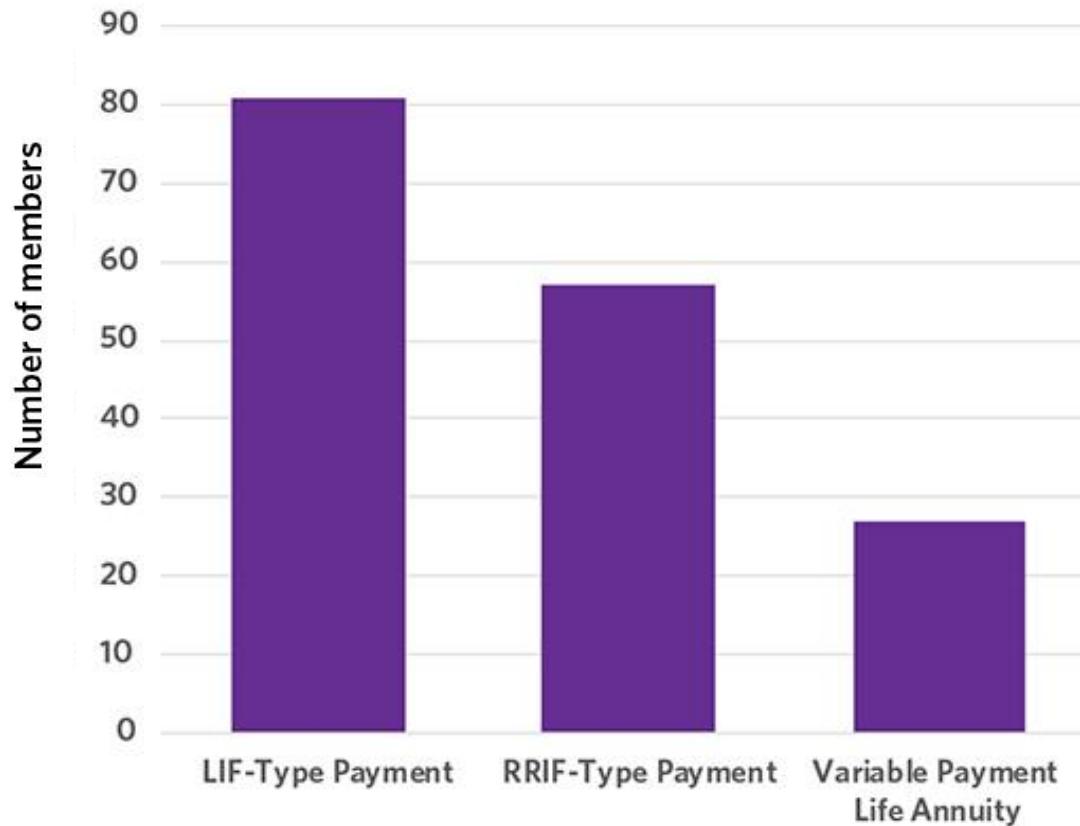
Total Transfers into the Plan* (\$millions)



***Registered money only**



Pensions Started in 2017



Total assets transferred to retirement income within the Plan \$91.5 M

Percentage of member assets that stayed in Plan for retiring members 70%



2017 Operations Update

- Changed to bi-weekly remittance of contributions on January 1, 2017
- Quarterly statements beginning with June 30, 2017 statement are now online
- Member communication promoting online Asset Allocation and Retirement Income Estimator tools



2018 Operations Objectives

- Plan is unique in that it offers members the flexibility to consolidate your retirement savings by transferring other retirement savings into the Plan (simplify your investing and save on fees) and offers retiring members a number of decumulation options within the Plan
- 70-80% of members retiring each year elect to leave their monies in the Plan and retain same low cost investment options after retirement
 - Want to ensure all members are aware of the benefits of the Faculty Plan



Sun Life

- Recordkeeper and custodian of the Plan, since June 2015
- Sun Life selected by the Board of Trustees
- Sun Life's website for the Plan
 - Online access to your pension account
 - View your account, check balances, beneficiaries, bank account, personal rates of return and statements
 - Investment changes
 - Tax slips
 - Address changes for retired members
 - Tools and calculators



Sun Life

- Co-administer the Plan with the UBC Pension Administration Office (PAO)
 - In person assistance
 - One on one meetings
 - New member and retirement workshops
 - Member communications
 - General inquiries and Plan information
- No change to the investment options or underlying investment managers in June 2015
- Short Term Investment Fund (STIF) was later changed from bcIMC to Sun Life for operational reasons and lower fees
- Board responsible for oversight of Sun Life and UBC PAO.



Investment Review of 2017

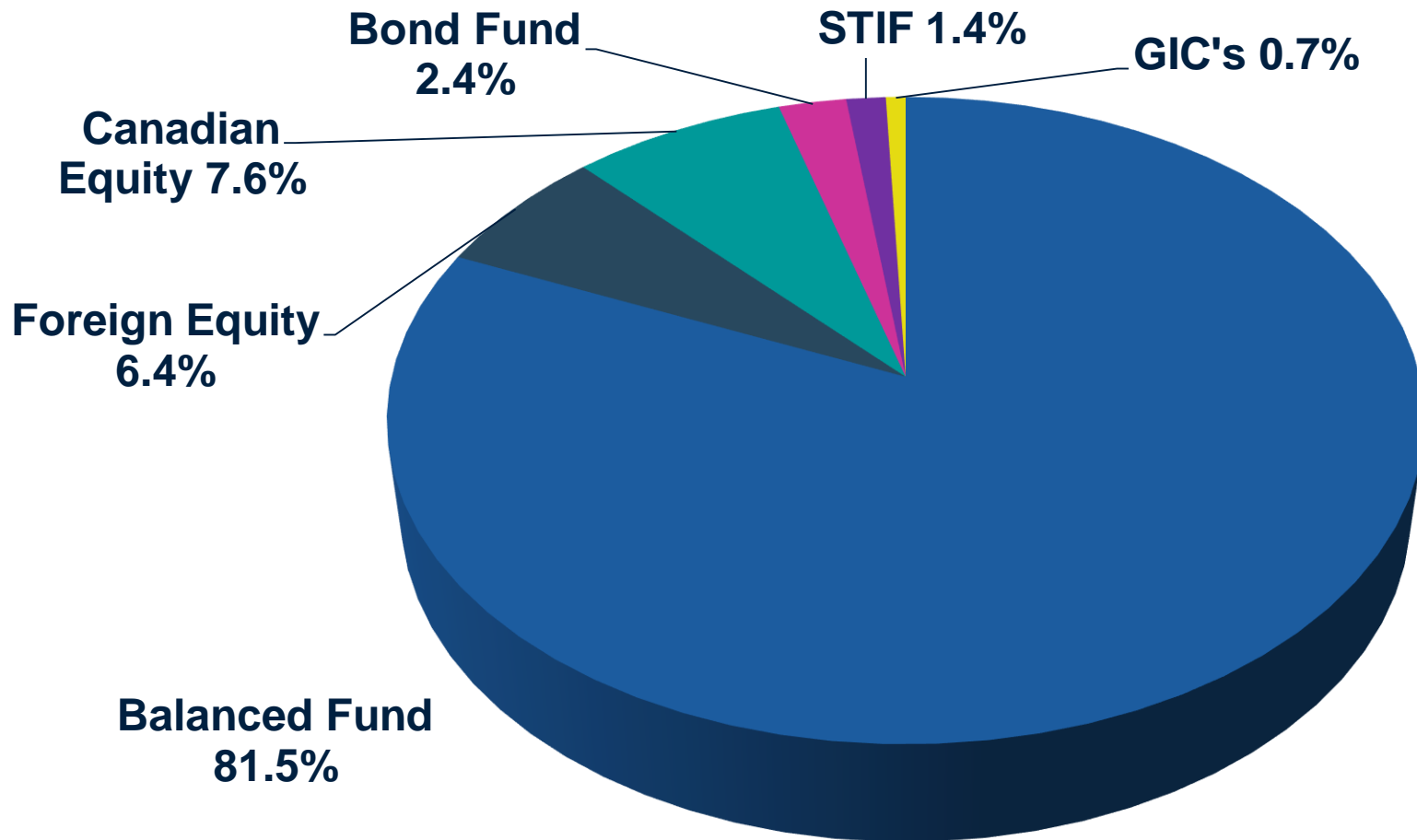


Agenda

- Plan – Fund Weightings & Asset Mix
- Setting Plan's Asset Mix
- Fund Returns
- Investment Market Update
- Question Period



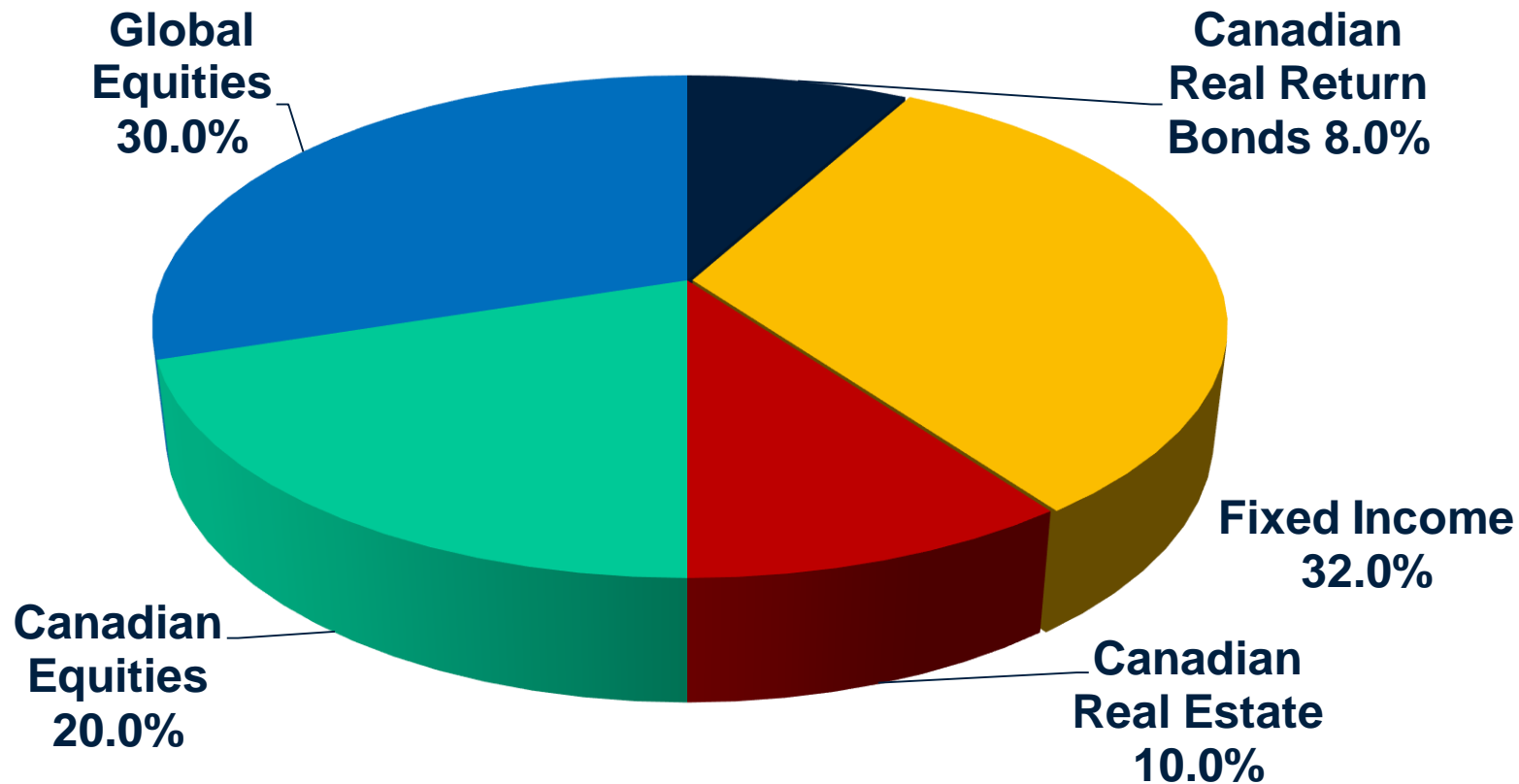
Plan's Fund Weightings as of December 31, 2017



*Total Assets \$2.3 Billion



Balanced Fund – Policy Asset Mix



* Global Equities includes investments in both U.S. Equities and Non-North American Equities

Setting Balanced Fund Asset Mix

Plan's Investment Objectives:

- A. Earn a return so “typical” member can achieve a >50% income replacement ratio (“IRR”) of final salary
 - “typical” = 30 years invested in Balanced Fund, retires at 65

- B. Mitigate the probability of a negative annualized 3-year return.

IRR – percentage of final monthly (or annual) income that the member's accumulated assets could replicate at retirement based on a 5.5% rate



Setting Balanced Fund Asset Mix



Asset Mix – weighting in each asset class (e.g. 20% Cdn stocks)

- Asset mix is reviewed every 3-5 years
- Formal modelling using external consulting firm
- Seek to achieve asset mix with highest probability of achieving Investment Objectives A & B
- Both risk and return metrics are evaluated
- Fees and operational issues also part of analysis
- We don't do short-term “market timing” shifts

Implementation of Asset Mix

- Number and Type of External Managers
- Active versus Passive (i.e. indexing) Approach
 - Depends on “efficiency” of the markets
- Investment Styles – Stocks
 - Diversification by investment styles (e.g. Growth versus Value)
 - Diversification geographically (Global and Canadian)
 - Diversification by number of managers
- Investments Styles – Bonds
 - Diversification by opportunity set
 - Active (53%) and passive (47%)
 - Inflation protection element - Real Return Bonds



Key Themes In 2017

- Synchronized Global Economic Growth
- Path Towards Monetary Policy Normalization
 - US/Canada increased policy interest rates, Central Bank asset accumulation slowing
- Canadian bond yields rose and yield curve flattened
- Commodity prices improved, particularly in the latter part of 2017
 - WTI – December 2016 – \$53
 - WTI – December 2017 – \$60
- Trump – NAFTA, Tax Cuts, Trade Wars
- Brexit
- Geopolitics



Review Of 2017

	Q1	Q2	Q3	Q4	1 Year
Canadian Equities	2.4%	-1.6%	3.7%	4.5%	9.1%
U.S. Equities (C\$)	5.2%	0.4%	0.5%	7.2%	13.8%
International Equities (C\$)	6.4%	3.4%	1.4%	4.8%	16.8%
Bonds	1.2%	1.1%	-1.8%	2.0%	2.5%



2017 Fund Returns / Peer Rankings

Fund	Returns (%)			Return Ranking (percentile)*		Risk** Ranking (percentile)*
	1 Yr	5 Yr	10 Yr	1 Year	10 Years	4 Years
Balanced	9.1	9.3	6.7	29 th	38 th	56 th
Bond	3.1	2.8	5.0	28 th	38 th	6 th
Canadian Equity	10.3	10.7	6.2	27 th	37 th	38 th
Foreign Equity	15.9	17.8	8.4	47 th	37 th	37 th
Short Term	0.8	1.0	1.2	57 th	63 rd	N/A

Gross returns to Dec. 31/17

* 1st percentile – highest ranking best performance, 100th percentile – lowest ranking

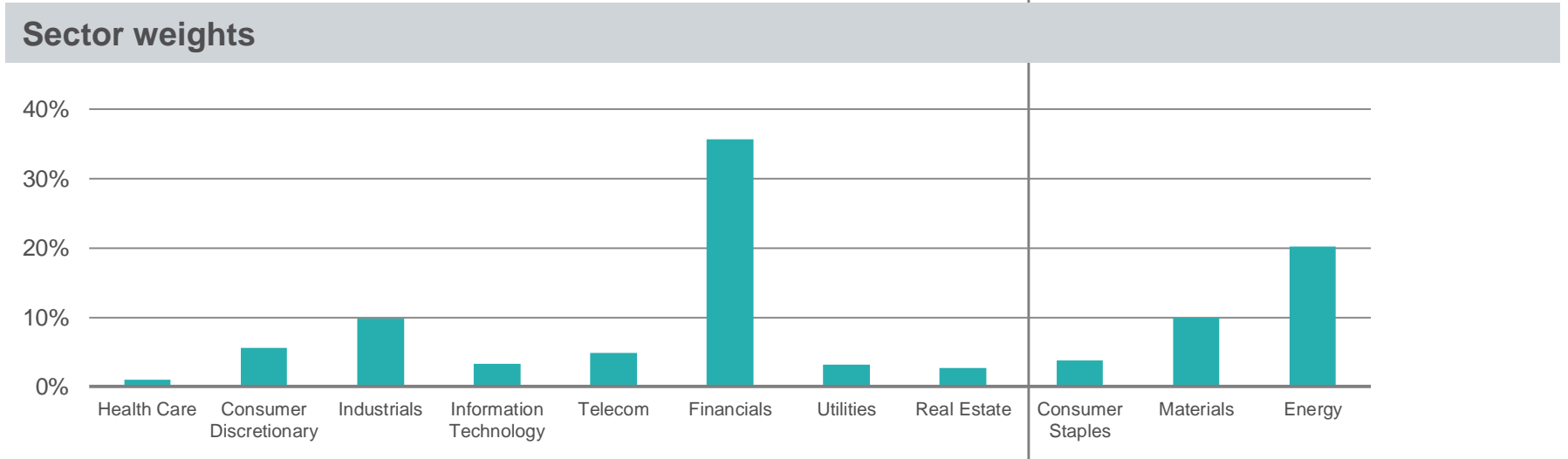
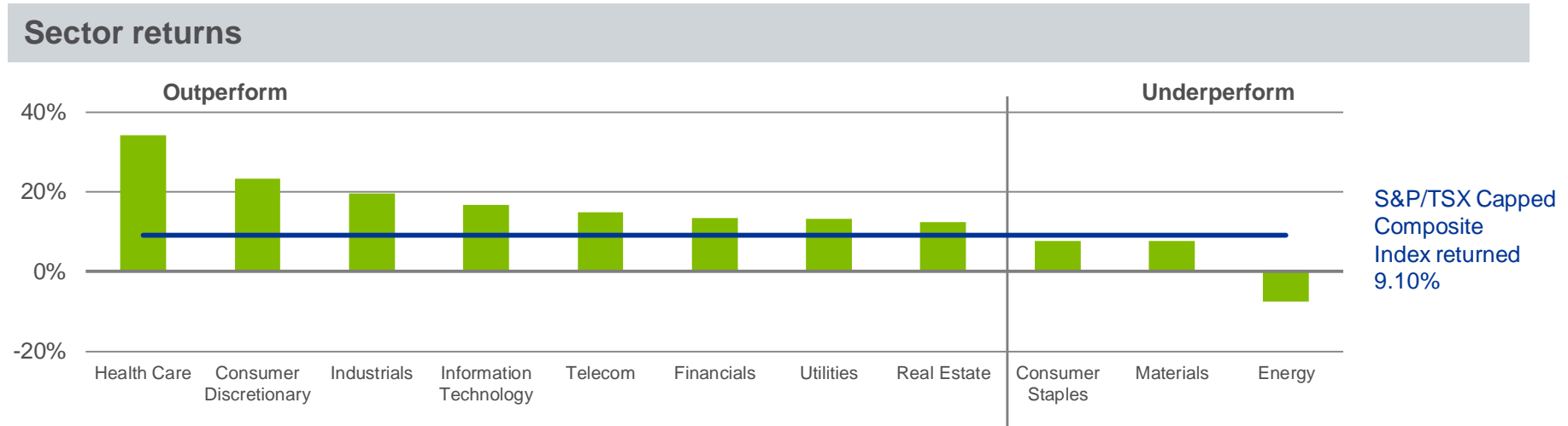
** Risk - as measured by annual standard deviation of returns

- a lower ranking number (say 80th percentile) means less risky



S&P®/TSX® Capped Composite Index

Sector returns vs. sector weights

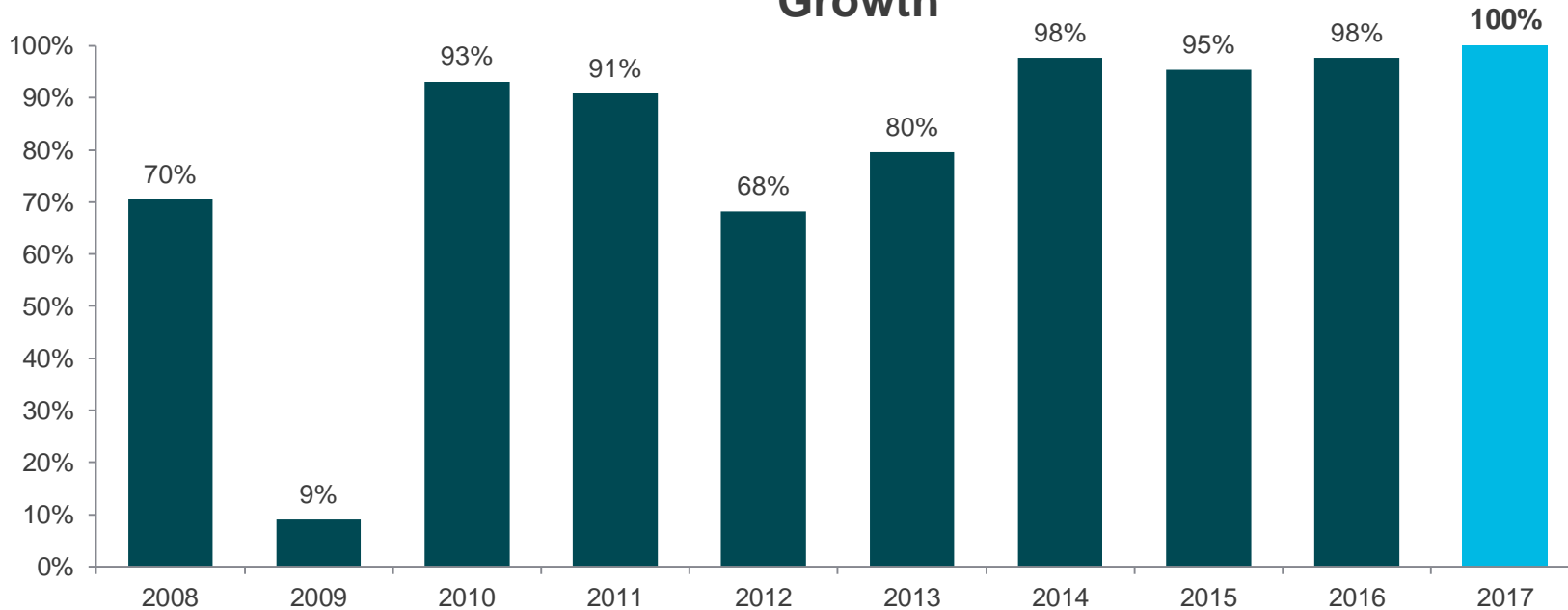


1 year ending 31 December 2017
 Past performance is not necessarily indicative of future performance
 Sources: FactSet Research Systems Inc., BlackRock

OECD Countries' GDP Growth



Percent of OECD Countries with Positive Annual GDP Growth



Economic growth was achieved by all 41 OECD countries in 2017.

Update on Global Market Performance in 2017



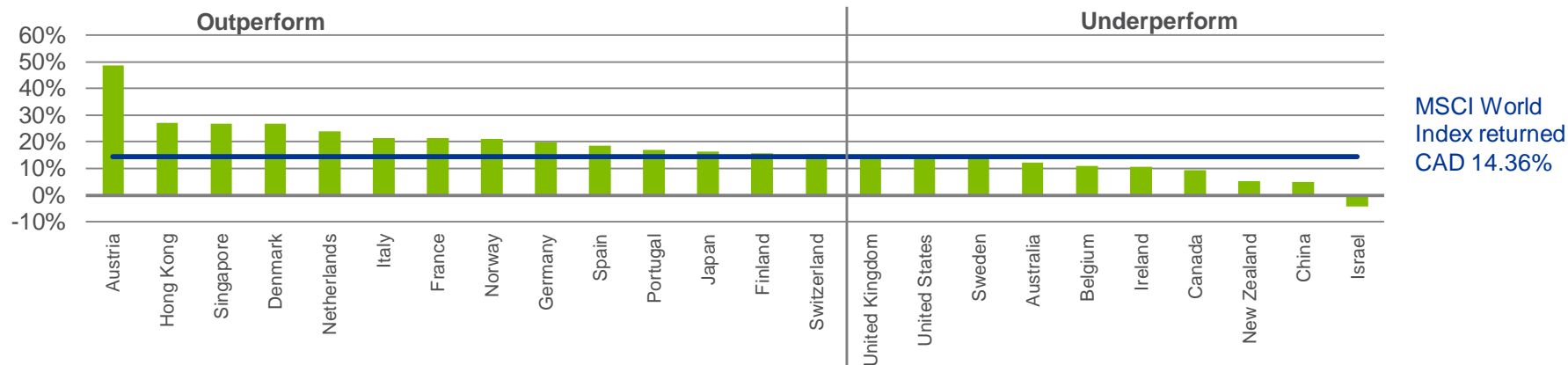
- Europe and the Pacific region led developed markets in 2017
- Canada lagged other markets around the globe during the year
- Emerging markets continued to outperform developed markets
- Currency detracted from performance as the Canadian dollar strengthened on balance against other currencies

Stock Market	Local Currency	Canadian Dollars
Europe (Ex. U.K.)	13.6%	18.5%
Pacific (Ex. Japan)	19.4%	17.6%
Japan	19.8%	15.8%
United Kingdom	11.7%	14.3%
United States	21.2%	13.2%
Canada	8.5%	8.5%
MSCI World	18.5%	14.4%
Emerging Markets	30.6%	28.3%

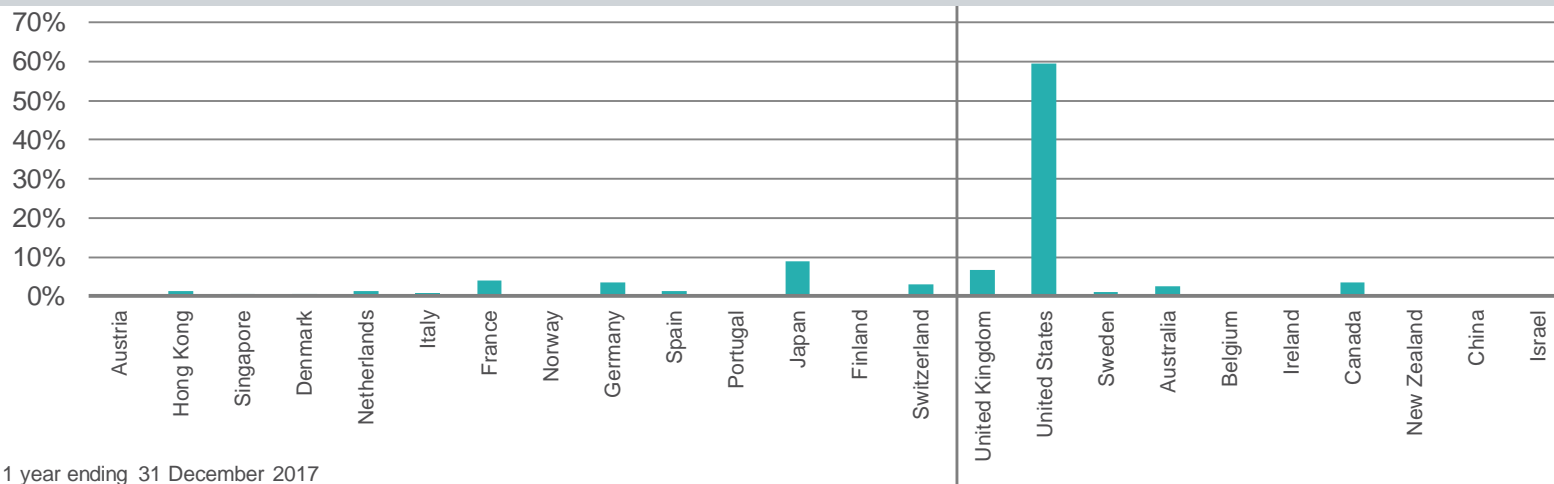
MSCI World Index

Country returns vs. country weights

Country returns

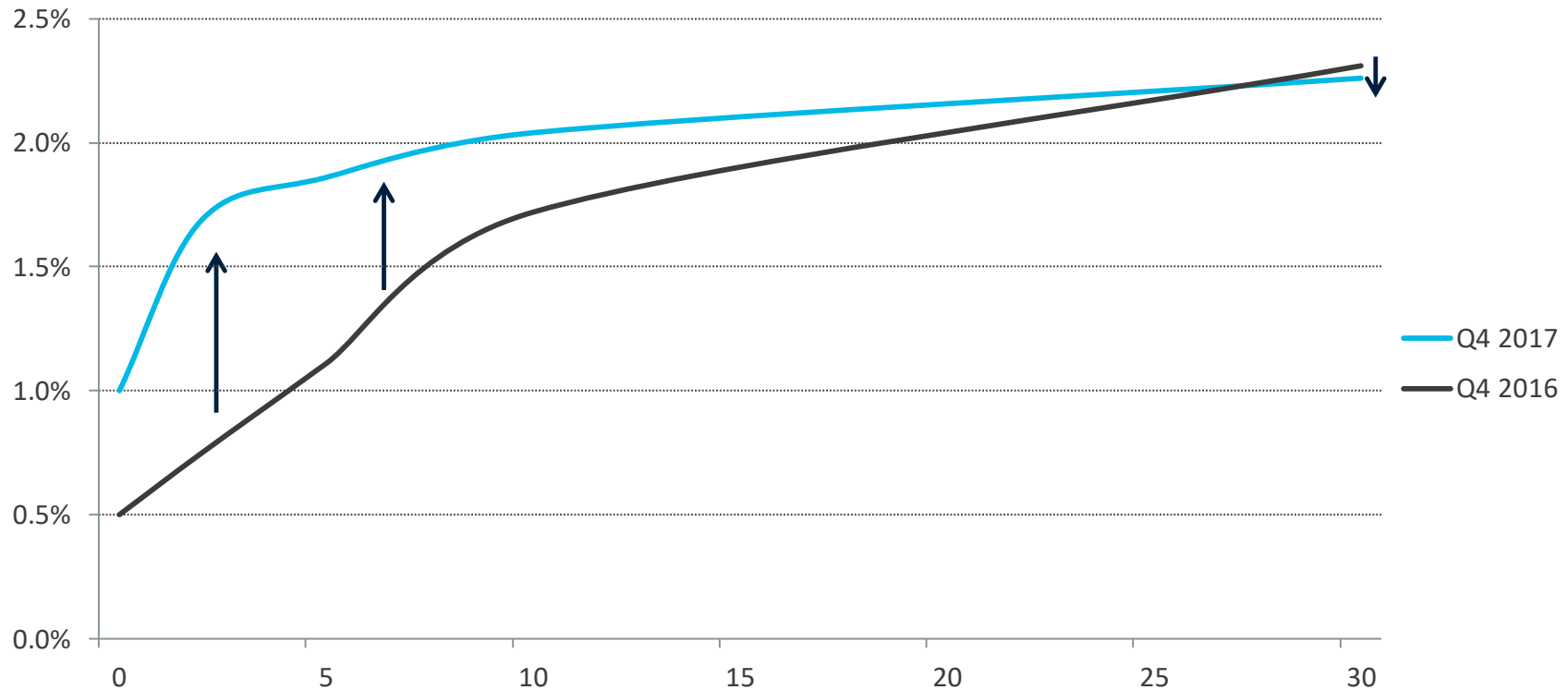


Country weights



1 year ending 31 December 2017
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 Sources: FactSet Research Systems Inc., BlackRock

Canadian Bond Yield Curve in 2017

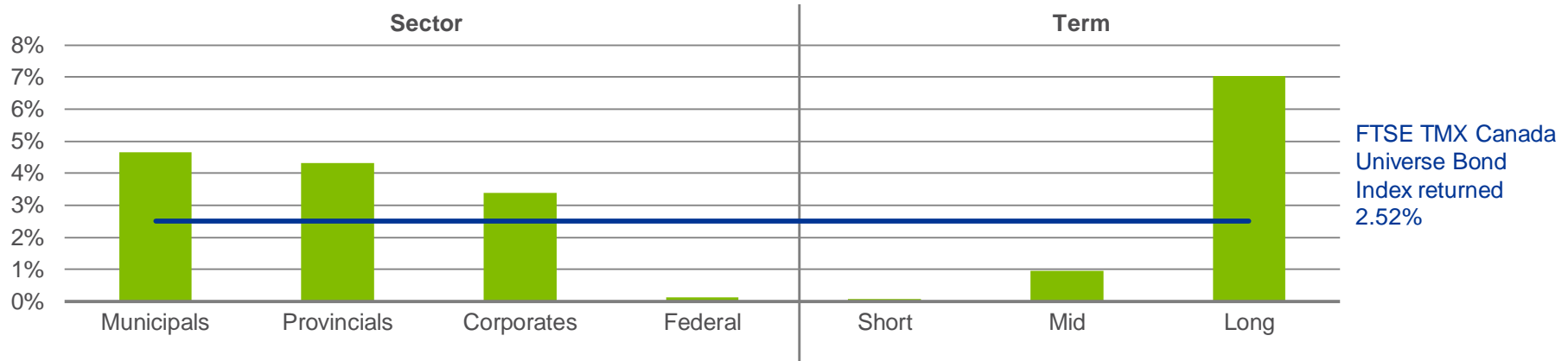


Short-Mid term bond yields increased during the year but longer term yields are actually lower.

Canadian bond market

Sector returns vs. sector weights

Sector & term returns



Sector & term weights



1 year ending 31 December 2017
 Past performance is not necessarily indicative of future performance
 Sources: BlackRock; FTSE TMX Global Debt Capital Markets Inc.

Bond Summary

- In this environment bond portfolios can be expected to deliver close to their yield at starting time of investment (+/- 1%). Current yield is approximately 2.5%



Commercial Real Estate

(Note: Approximately 10% of Balanced Fund)

Returns to December 31, 2017			
	<u>1 Year</u>	<u>5 Year</u>	<u>10 Year</u>
Gross	6.0%	6.2%	6.3%
Net	5.2%	5.4%	5.5%

Property Type (Overall) as at December 31, 2017	
Office	38%
Retail	24%
Industrial	19%
Residential-Multi	16%
Other	3%

By Region	
BC	27%
Prairies	24%
Ontario	44%
Quebec/Man	5%



FPP Fund Option Fees (as of April 2018)

(basis points) 1bp = 0.01%

	Administration	Investment Manager	Operating Expenses of I. M.	Total Fee
Balanced	14	22	11	0.47%
Bond	14	16	5	0.35%
Canadian Equity	14	24	6	0.44%
Foreign Equity	14	34	9	0.57%
STIF	14	2.5	0.5	0.17%

Note: All fees are unchanged from April 2017 except for Foreign Equity which has increased from 0.48%



Environmental, Social & Governance (“ESG”)

- FPP does not formally direct our managers to incorporate ESG criteria
- Each manager is asked:
 - If/how they incorporate ESG considerations into their investment process?
 - Each manager has confirmed they do assess ESG factors
- How ESG factors are considered/weighted is up to the manager



Asset Class Winners and Losers

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Highest	14.2	33.9	28.3	39.2	37.7	31.7	13.7	8.8	11.3	26.7	14.5	24.1	26.3	9.8	6.2	35.1	20.6	18.8	14.8	48.4	24.0	21.0	21.1	16.8
	7.4	26.3	23.4	27.7	28.5	19.7	7.4	5.7	2.5	20.5	12.0	14.0	18.3	4.4	3.3	14.4	17.6	4.4	13.8	41.5	17.9	18.3	17.7	13.8
	5.4	25.0	17.5	18.6	15.0	14.3	5.5	4.7	-7.1	13.4	10.2	10.4	17.3	4.4	-15.6	12.6	12.1	1.0	13.5	31.3	14.4	14.0	8.6	9.1
	4.0	19.9	16.9	16.2	13.4	14.1	3.4	-3.7	-12.4	12.4	10.2	10.0	15.7	0.9	-17.9	8.7	9.5	1.0	8.3	14.8	11.4	6.0	7.2	8.5
	1.8	14.5	14.1	15.0	4.7	12.8	0.8	-6.5	-16.6	8.0	9.0	2.6	13.0	-5.7	-21.9	8.1	9.3	-2.0	7.2	13.0	10.6	4.5	1.3	7.3
	-0.2	8.2	6.4	6.2	4.4	4.7	-5.5	-12.6	-21.1	5.3	3.3	1.6	4.0	-10.5	-29.8	1.2	2.4	-8.7	4.0	1.0	3.7	0.6	0.5	7.1
Lowest	-7.8	7.4	5.0	3.2	-1.6	-6.2	-10.8	-16.6	-22.7	2.9	2.3	1.3	3.9	-16.5	-33.0	0.6	0.5	-10.2	1.0	-7.0	0.9	-8.3	-2.0	0.6

Small Cap: Russell 2000 (C\$)	Large Cap: S&P 500 (C\$)	Large Cap: TSX Composite	International: MSCI EAFE - Net (C\$)	Long Term Gov't Bonds: FTSE TMX Canada Long Gov't	Treasury: 91 Day T-Bills	Diversified
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* Diversified: 25% TSX Composite, 20% S&P 500 (C\$), 15% MSCI EAFE – Net (C\$), 40% FTSE TMX Canada Universe Bond Index

Results to March 31, 2018



Fund Rates of Return* to March 31, 2018

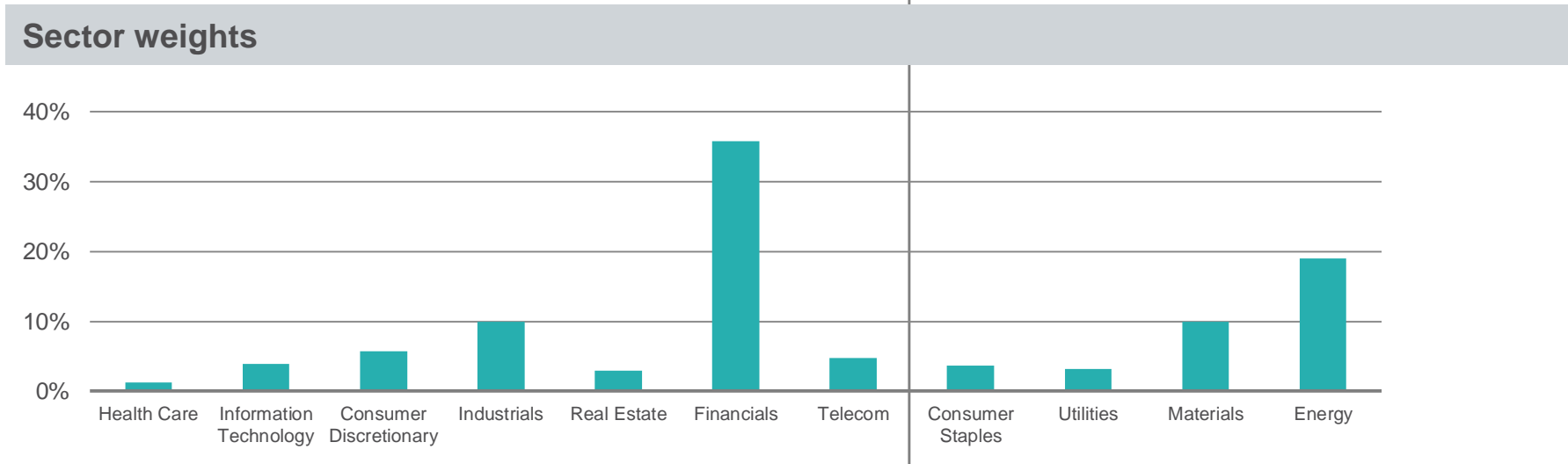
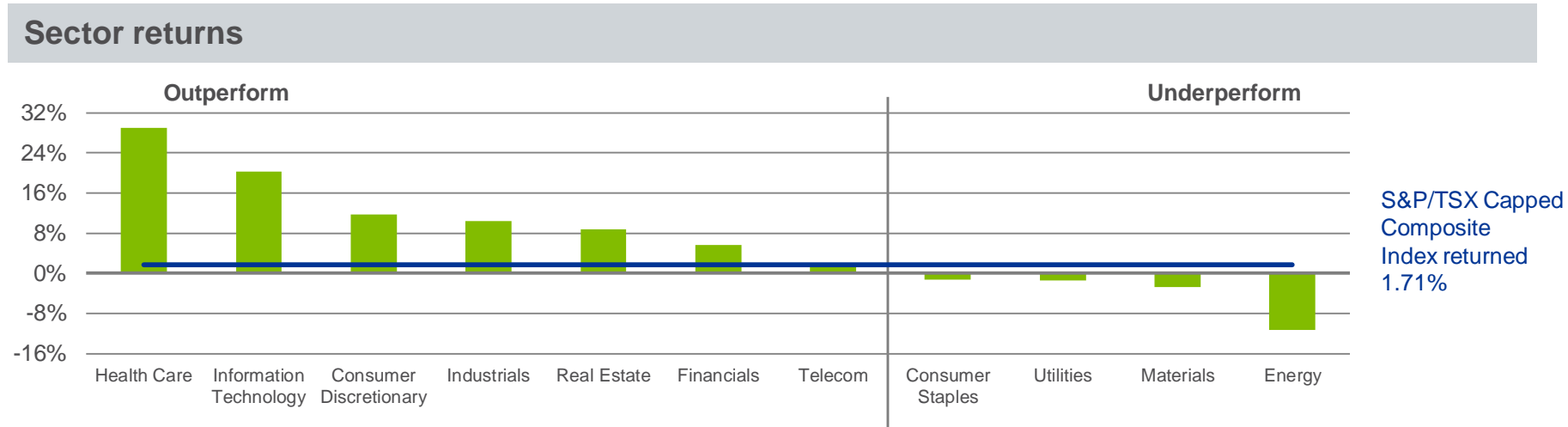
Fund	Q1/2018	1 Yr.	5 Yrs.	10 Yrs.
Balanced Fund	0.3%	5.8%	8.5%	6.8%
Bond Fund	0.4%	1.8%	2.8%	4.7%
Canadian Equity Fund	-3.1%	3.9%	9.0%	6.3%
Foreign Equity Fund	2.1%	11.7%	16.0%	9.2%
Short Term Investment Fund	0.3%	0.9%	1.0%	1.1%

* Before investment manager and administration fees



S&P®/TSX® Capped Composite Index

Sector returns vs. sector weights

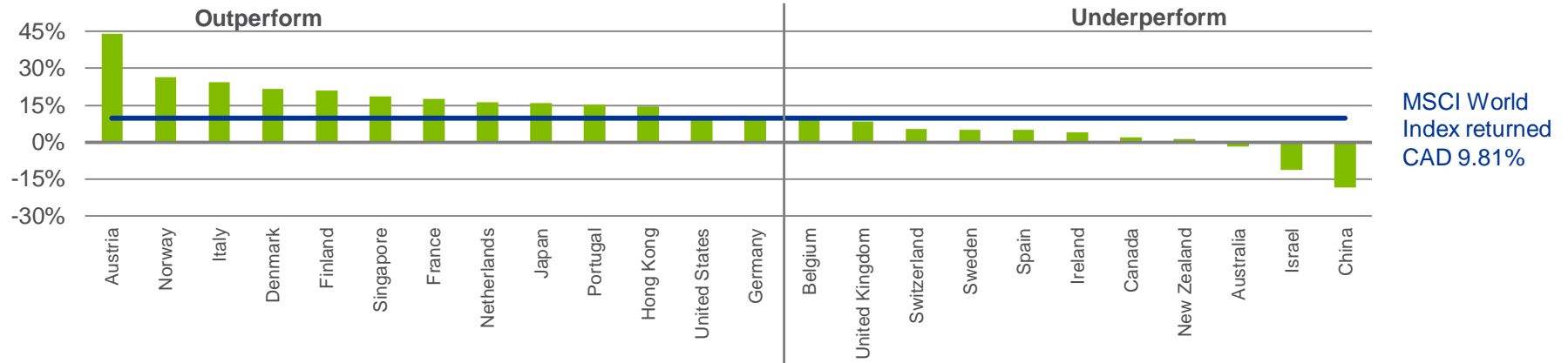


1 year ending 31 March 2018
 Past performance is not necessarily indicative of future performance
 Sources: FactSet Research Systems Inc., BlackRock

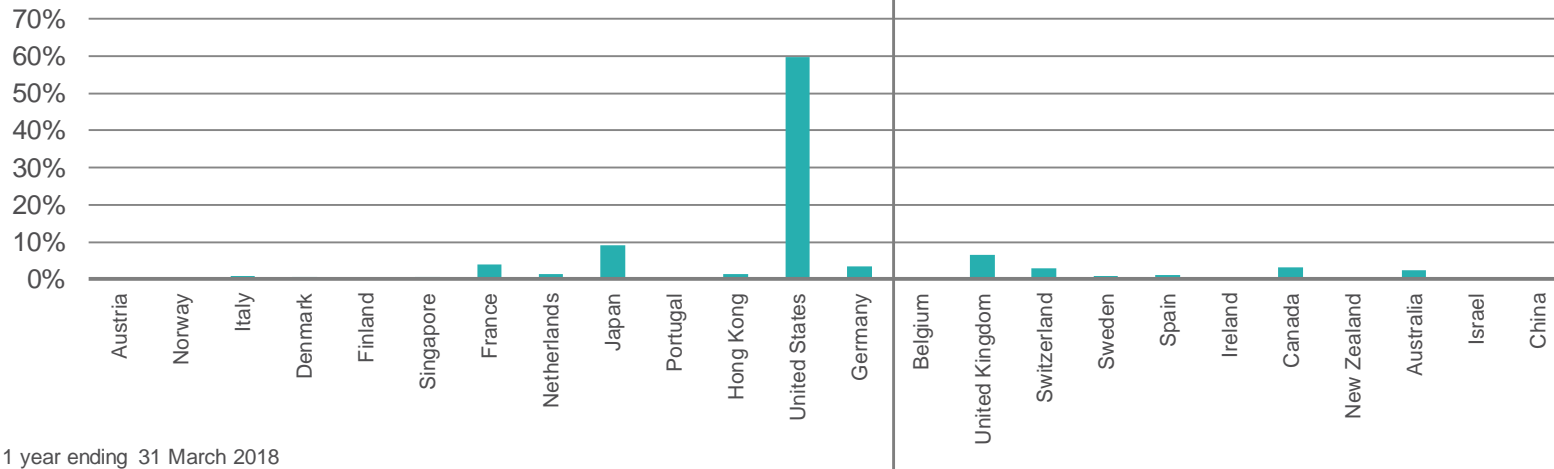
MSCI World Index

Country returns vs. country weights

Country returns



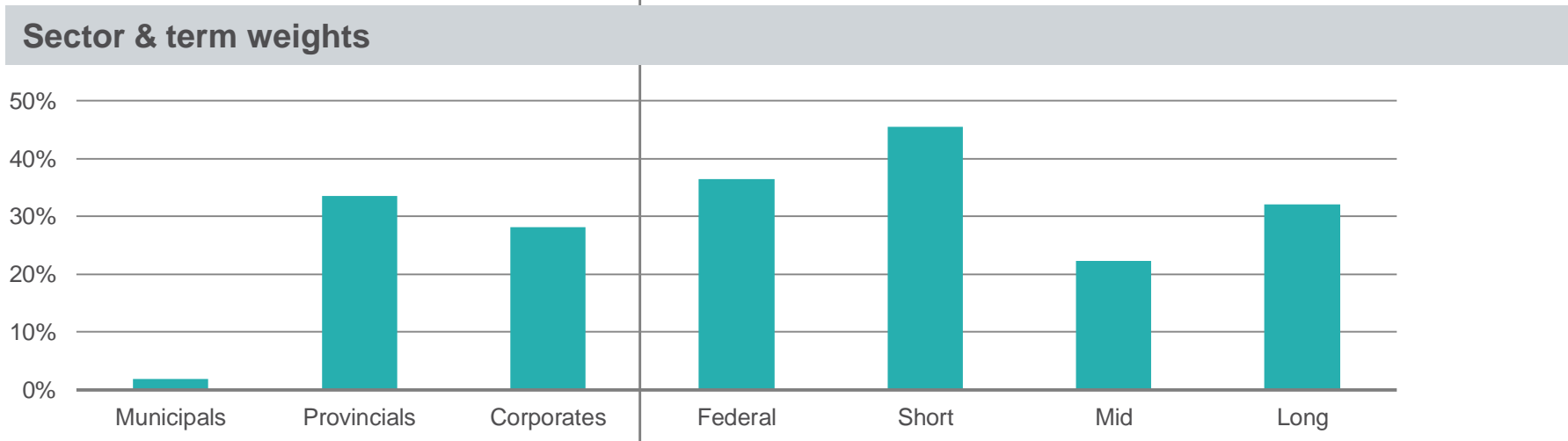
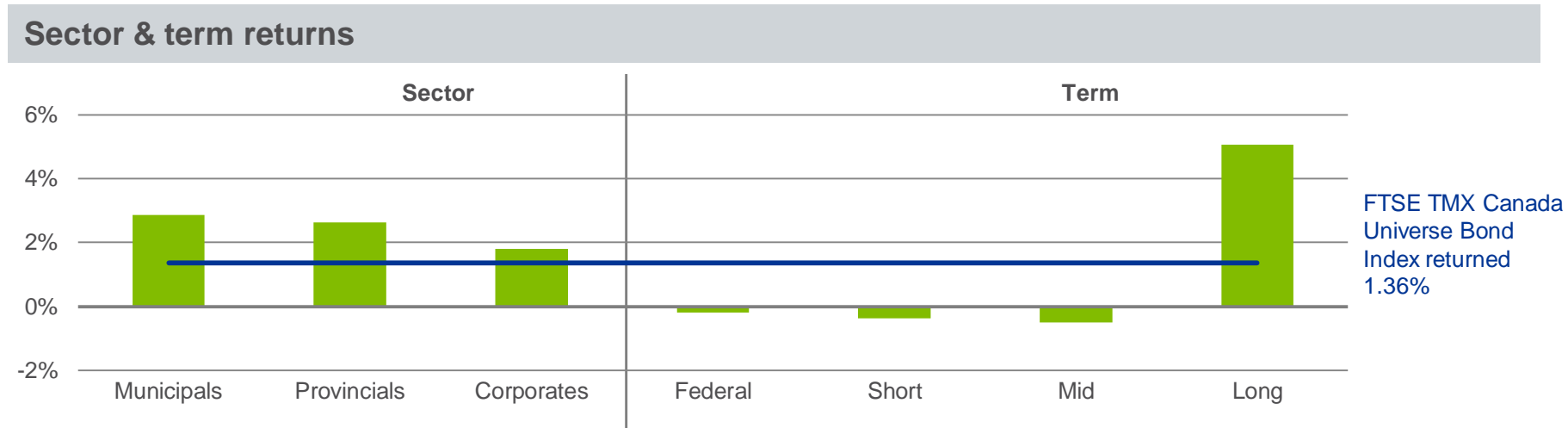
Country weights



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Canadian bond market

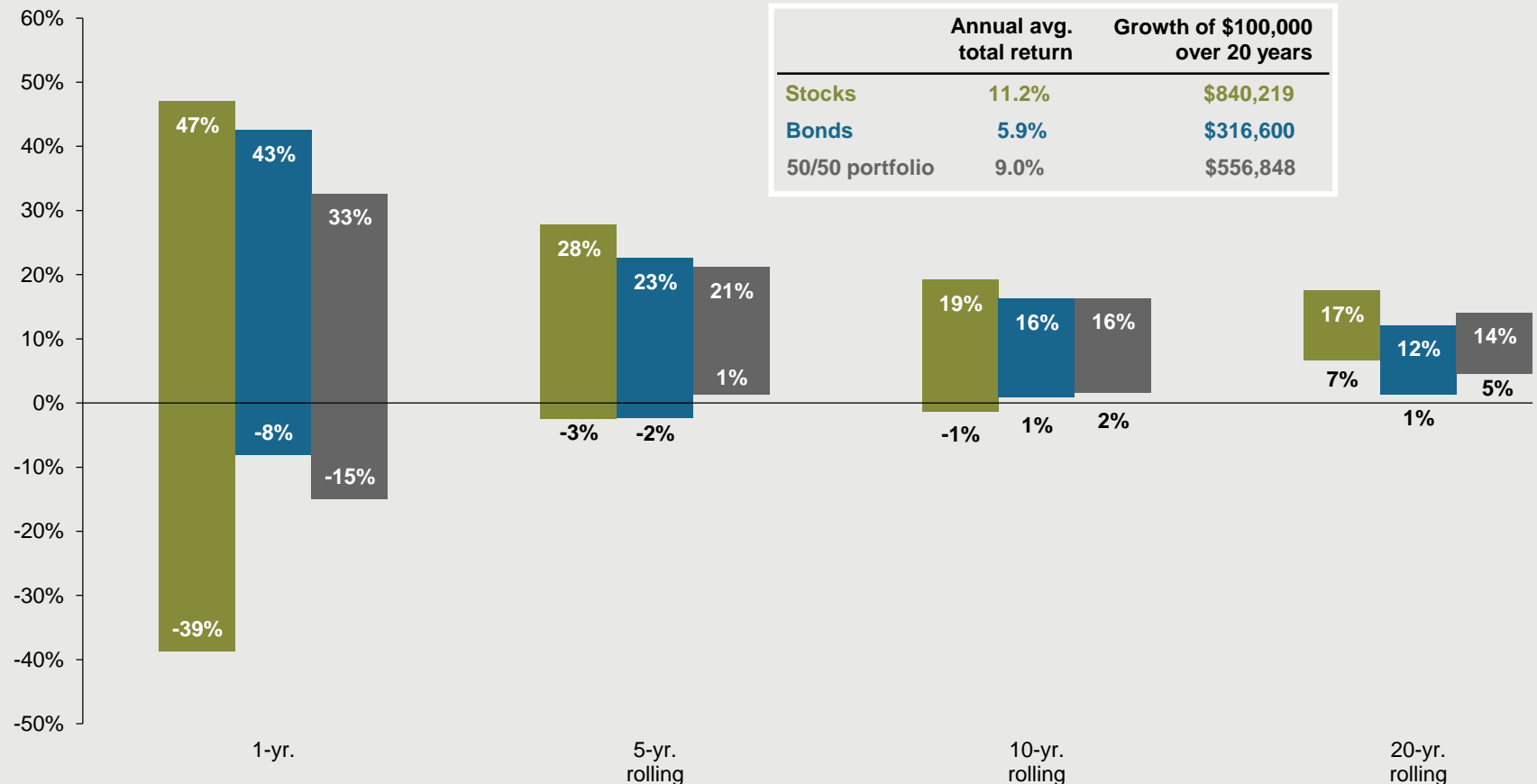
Sector returns vs. sector weights



1 year ending 31 March 2018
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 Sources: BlackRock; FTSE TMX Global Debt Capital Markets Inc.

Range of stock, bond and blended total returns

Annual total returns, 1950-2017



Source: Barclays, Bloomberg, FactSet, Federal Reserve, Robert Shiller, Strategas/Ibbotson, J.P. Morgan Asset Management. Returns shown are based on calendar year returns from 1950 to 2017. Stocks represent the S&P 500 Shiller Composite and Bonds represent Strategas/Ibbotson for periods from 1950 to 2010 and Bloomberg Barclays Aggregate thereafter. Growth of \$100,000 is based on annual average total returns from 1950 to 2017.

Guide to the Markets – U.S. Data are as of March 31, 2018.

Conclusions

- **Political uncertainty and government policy risks remain**
- **Equity Returns have been reasonably good over the last 5-10 years, Bond returns low**
- **Changes in interest rate policies may affect bond returns going forward**
- **No major changes to the Plan in 2017, or currently anticipated in 2018.**
- **Our large plan size (\$2.3 billion) allows for low fees and broad diversification by asset classes and managers**



Board of Trustees

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Dr. Lorenzo Garlappi

Associate Professor, Sauder
School of Business

Mr. Vijay Verma

Researcher Emeritus, TRIUMF



Thank You!

Questions?

Information Tables Open after
Presentation and Q&A

Presentation
Stage

Sun Life
Financial

UBC FPP
Retirement

UBC FPP
New to the Plan

You
are here

UBC Association
of Professors
Emeriti

UBC Faculty
Relations

UBC Health,
Wellbeing & Benefits
(EFAP, RSB)



Appendix



Administrative Staff

Orla Cousineau

Mike Leslie

Debbie Wilson

GV Fragante

Helena Huynh

Diana Iampietro

Lorraine Heseltine

Lily Lee

Louise Mah

Maricres De Leon

Kathy Pang

Chelsey Maher

Shirley Lim

Executive Director, Pensions

Executive Director – Investments

Director, Pensions

Systems Analyst

Systems Analyst

Faculty Pension Plan Manager

Member Services Specialist

Member Services Associate

Pension Clerk

Pension Plan Accountant

Communications Manager

Communications Assistant

Project Coordinator



Plan Considerations

- Lower risk through broad diversification
 - 11 Managers, 13 Mandates
- Provide flexibility regarding contribution, investment, retirement and withdrawal options
- Low cost
- High level of member service
- One part of member's overall retirement plan



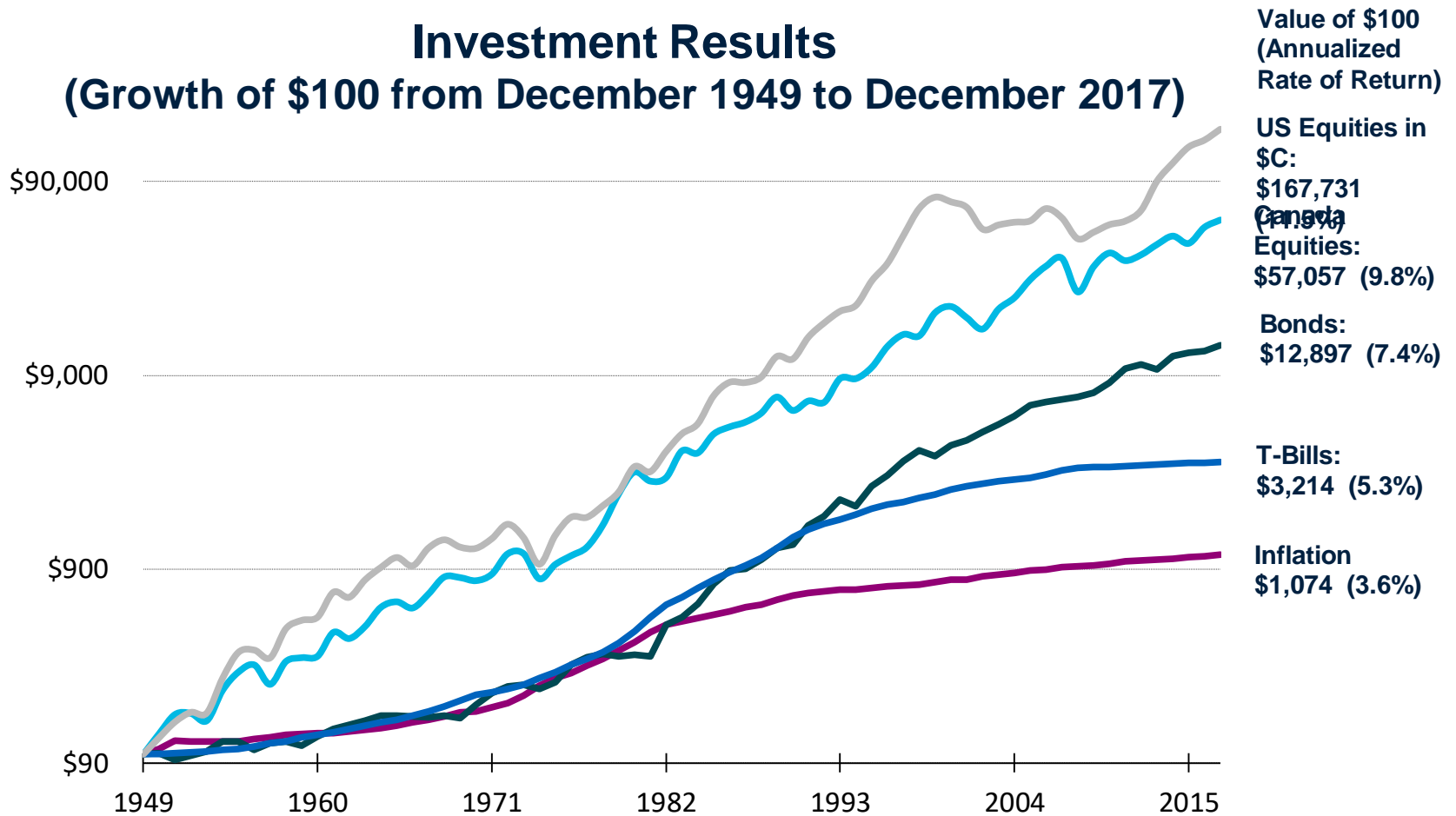
Proxy Voting

- As owners of shares of companies we have Proxy Voting rights pertaining to corporate matters.
- Voting the proxies is delegated to our investment managers
- Managers must vote in the best economic interests of our Plan
- Managers provide us with reports on how they voted the proxies



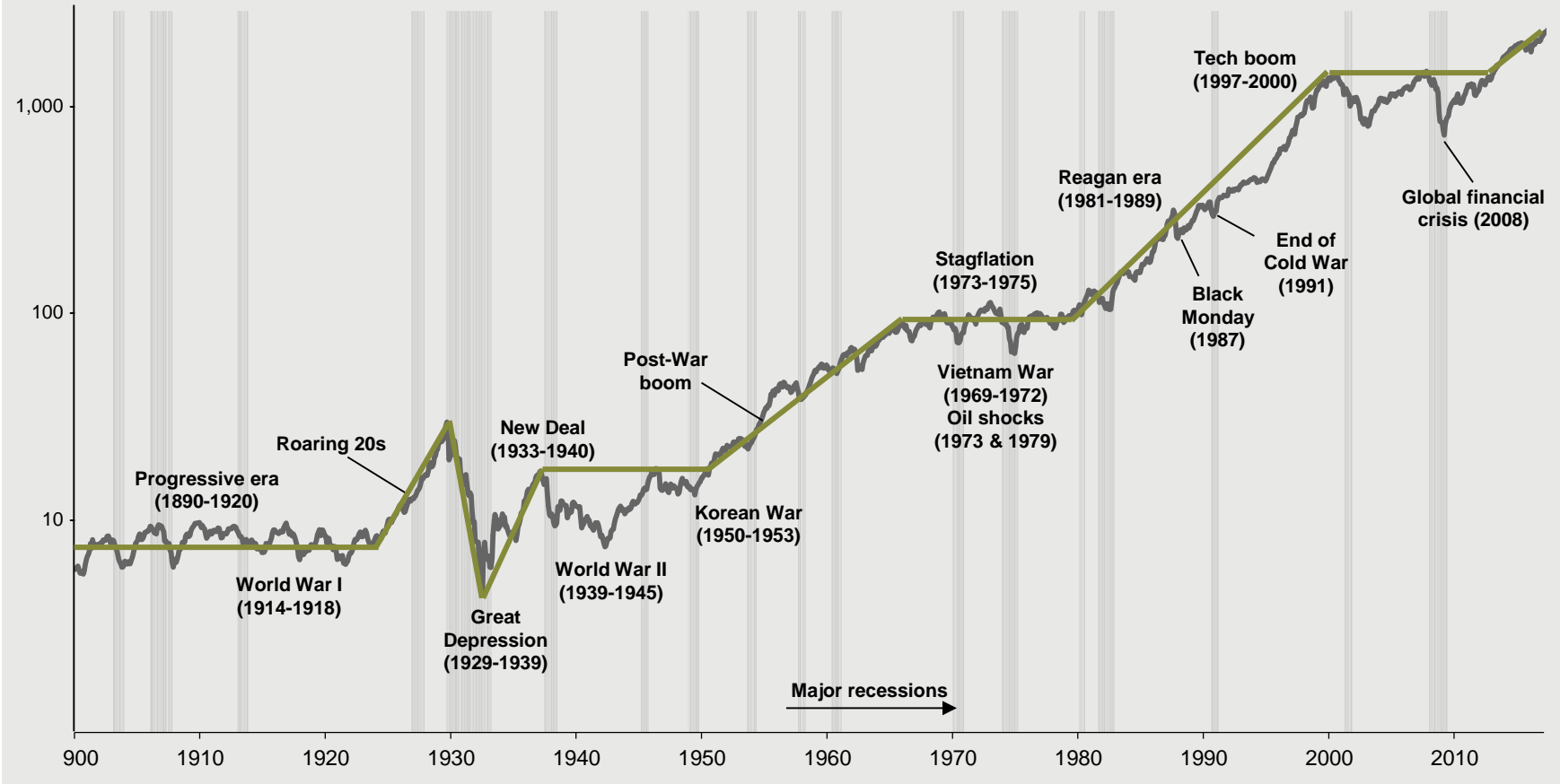
Long Term Asset Class Returns

Investment Results (Growth of \$100 from December 1949 to December 2017)



S&P Composite Index

Log scale, annual



Source: FactSet, NBER, Robert Shiller, J.P. Morgan Asset Management.
 Data shown in log scale to best illustrate long-term index patterns.
 Past performance is not indicative of future returns. Chart is for illustrative purposes only.
 Guide to the Markets – U.S. Data are as of March 31, 2018.