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# D.R. JOHNSON FINANCIAL SERVICES

# **Quarterly Market Review**

Third Quarter 2022

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This report features world capital market performance and a timeline of events for the past quarter. It begins with a global overview, then features the returns of stock and bond asset classes in the Canadian, US, and international markets.

The report also illustrates the impact of globally diversified portfolios and features a quarterly topic.

# Overview:

**Market Summary** 

World Stock Market Performance

Canadian Stocks

**US Stocks** 

International Developed Stocks

**Emerging Markets Stocks** 

Country Returns

Real Estate Investment Trusts (REITs)

**Fixed Income** 

Global Fixed Income

Impact of Diversification

Quarterly Topic: What Drives Investment Returns? Start with Ingenuity.

**Appendix** 



# **Quarterly Market Summary**

Index returns



	Canadian Stock Market	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	Canadian Bond Market	Global Bond Market
Q3 2022			STOCKS			ВОІ	NDS
	-1.41%	1.76%	-3.45%	-5.81%	-5.33%	0.52%	-3.56%
Since Jan. 2001							
Average Quarterly Return	1.8%	2.4%	0.9%	2.1%	1.9%	1.1%	0.9%
Best	20.0%	16.8%	15.8%	27.9%	22.2%	5.9%	4.4%
Quarter	2009 Q2	2020 Q2	2009 Q2	2001 Q4	2009 Q3	2020 Q2	0.9% 4.4%
Worst	-22.7%	-14.0%	-16.8%	-23.5%	-25.8%	-7.0%	-5.0%
Quarter	2008 Q4	2022 Q2	2008 Q3	2008 Q3	2008 Q4	2022 Q1	2022 Q1

#### In CAD

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio.

Market segment (index representation) as follows: Canadian Stock Market (S&P/TSX Composite Index), US Stock Market (Russell 3000 Index [net of tax]), International Developed Stocks (MSCI EAFE Index [net dividends]), Emerging Markets (MSCI Emerging Markets Index [net dividends]), Global Real Estate (S&P Global REIT Index [net dividends]), Canada Bond Market (FTSE Canada Universe Bond Index), and Global Bond Market (Bloomberg Global Aggregate Bond Index [hedged to CAD]). S&P/TSX data © 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2022, all rights reserved. FTSE fixed income indices © 2022 FTSE Fixed Income LLC, all rights reserved. Bloomberg data provided by Bloomberg.



# Long-Term Market Summary

Index returns as of September 30, 2022

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	Canadian Stock Market	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	Canadian Bond Market	Global Bond Market
1 Year			STOCKS			ВОМ	NDS
	-5.39%	-10.66%	-18.80%	-22.03%	-13.76%	-10.48%	-12.30%
		+	-	-	-		
5 Years	•	·	•		•		•
	6.54%	10.68%	1.05%	0.06%	2.07%	0.66%	-0.09%
10 Years							
	7.30%	15.17%	7.19%	4.48%	7.10%	1.65%	1.68%

#### In CAD

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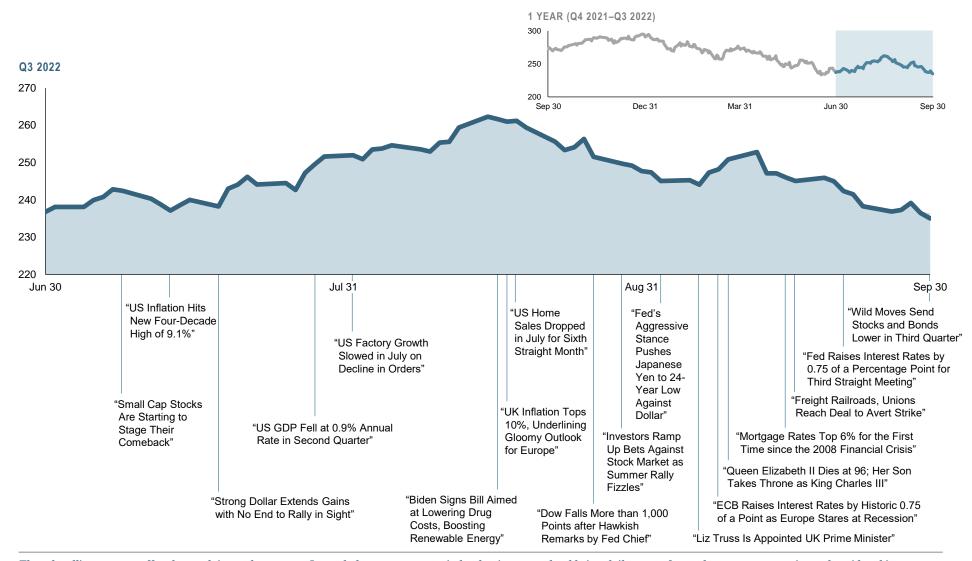
Market segment (index representation) as follows: Canadian Stock Market (S&P/TSX Composite Index), US Stock Market (Russell 3000 Index [net of tax]), International Developed Stocks (MSCI EAFE Index [net dividends]), Emerging Markets (MSCI Emerging Markets Index [net dividends]), Global Real Estate (S&P Global REIT Index [net dividends]), Canada Bond Market (FTSE Canada Universe Bond Index), and Global Bond Market (Bloomberg Global Aggregate Bond Index [hedged to CAD]). S&P/TSX data © 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2022, all rights reserved. FTSE fixed income indices © 2022 FTSE Fixed Income LLC, all rights reserved. Bloomberg data provided by Bloomberg.



# World Stock Market Performance

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MSCI All Country World Index with selected headlines from Q3 2022



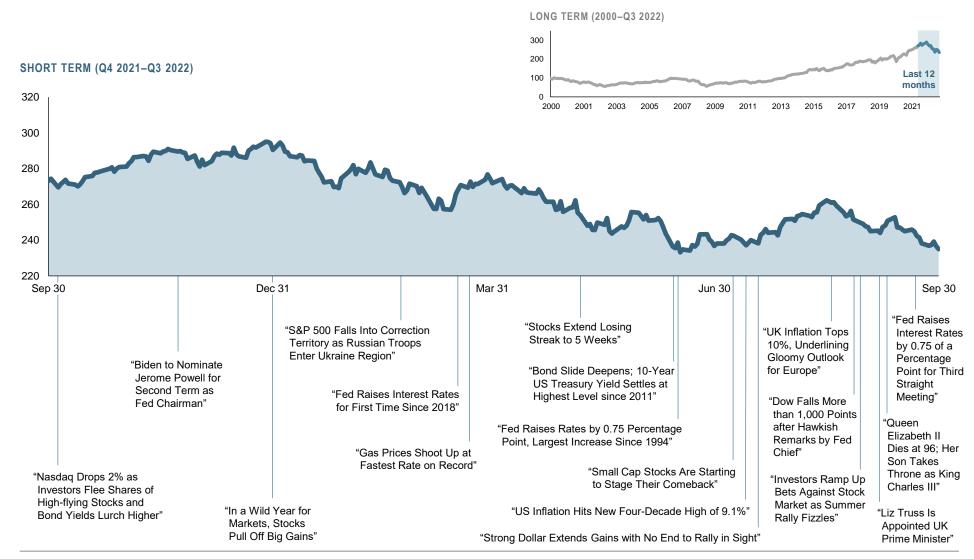
These headlines are not offered to explain market returns. Instead, they serve as a reminder that investors should view daily events from a long-term perspective and avoid making investment decisions based solely on the news.



# World Stock Market Performance

**III** Manulife Securities

MSCI All Country World Index with selected headlines from past 12 months



These headlines are not offered to explain market returns. Instead, they serve as a reminder that investors should view daily events from a long-term perspective and avoid making investment decisions based solely on the news.



# Canadian Stocks

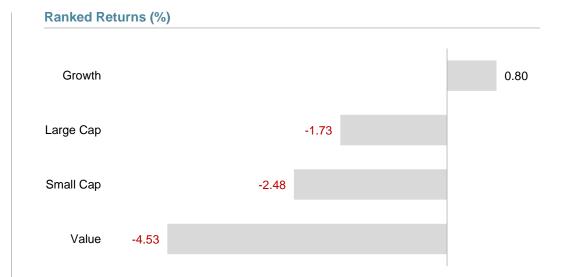
# Third quarter 2022 index returns

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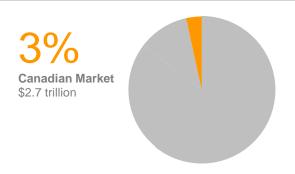
The Canadian equity market posted negative returns for the quarter and underperformed the US market, but outperformed international developed and emerging markets.

Value underperformed growth.

Small caps underperformed large caps.



### World Market Capitalization—Canada



### Period Returns (%)

-			
~	Δn	nual	lized

Asset Class	QTR	YTD	1 Year	3 Years*	5 Years*	10 Years*
Growth	0.80	-19.91	-15.37	3.10	4.18	5.28
Large Cap	-1.73	-11.18	-4.29	7.14	7.26	8.02
Small Cap	-2.48	-16.30	-13.76	6.47	2.43	3.19
Value	-4.53	-4.26	3.44	5.97	5.56	7.06

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio.

Market segment (index representation) as follows: Large Cap (S&P/TSX 60 Index), Small Cap (S&P/TSX Small Cap Index), Value (MSCI Canada Value Index), and Growth (MSCI Canada Growth Index). All index returns are net of withholding tax on dividends. World Market Cap represented by S&P/TSX Composite Index, Russell 3000 Index, MSCI EAFE IMI Index, MSCI Emerging Markets IMI Index. S&P/TSX data © 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. MSCI data © MSCI 2022, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.



# **US Stocks**

# Third quarter 2022 index returns

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The US equity market posted positive returns for the quarter and outperformed Canadian, international developed, and emerging markets.

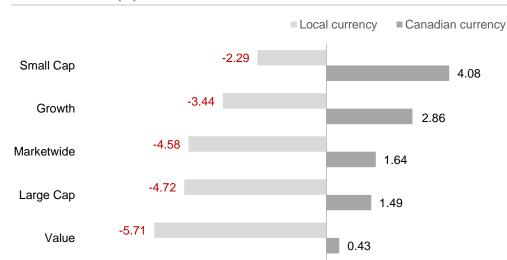
Value underperformed growth.

Small caps outperformed large caps.

### **World Market Capitalization—US**



### Ranked Returns (%)



### Period Returns (%)

\* Annualized

Asset Class	QTR	YTD	1 Year	3 Years*	5 Years*	10 Years*
Small Cap	4.08	-18.76	-17.33	5.21	5.13	11.81
Growth	2.86	-24.63	-16.71	11.24	13.34	16.76
Marketwide	1.64	-18.28	-11.05	8.54	10.13	14.55
Large Cap	1.49	-18.25	-10.61	8.78	10.51	14.76
Value	0.43	-11.20	-4.92	4.96	6.36	11.99

In CAD.

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Market segment (index representation) as follows: Marketwide (Russell 3000 Index), Large Cap (Russell 1000 Index), Small Cap (Russell 2000 Index), Value (Russell 3000 Value Index), and Growth (Russell 3000 Growth Index). Russell 3000 Index is used as the proxy for the US market. All index returns are net of withholding tax on dividends. World Market Cap represented by S&P/TSX Composite Index, Russell 3000 Index, MSCI EAFE IMI Index, and MSCI Emerging Markets IMI Index. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2022, all rights reserved.



# International Developed Stocks

Third quarter 2022 index returns

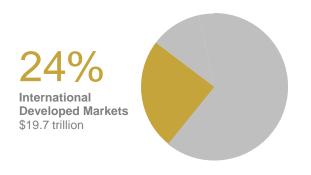
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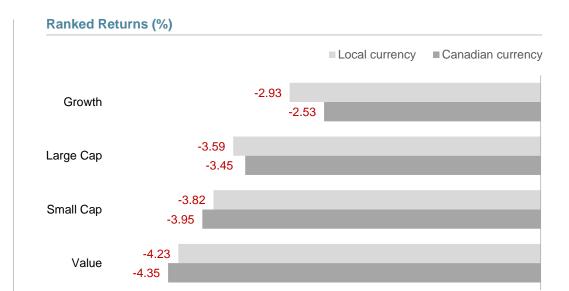
The international developed equity markets posted negative returns for the quarter and underperformed US and Canadian markets, but outperformed emerging markets.

Value underperformed growth.

Small caps underperformed large caps.

# **World Market Capitalization—International Developed**





### Period Returns (%)

\* Annualized

Asset Class	QTR	YTD	1 Year	3 Years*	5 Years*	10 Years*
Growth	-2.53	-27.14	-24.39	-0.27	2.59	8.26
Large Cap	-3.45	-20.69	-18.80	-0.61	1.05	7.19
Small Cap	-3.95	-26.15	-26.31	-0.95	0.08	8.85
Value	-4.35	-14.16	-13.41	-1.58	-0.89	5.87

### In CAD.

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Market segment (index representation) as follows: Large Cap (MSCI EAFE Index [net dividends]), Small Cap (MSCI EAFE Small Cap Index [net dividends]), Value (MSCI EAFE Value Index [net dividends]), and Growth (MSCI EAFE Growth Index [net dividends]). All index returns are net of withholding tax on dividends. World Market Cap represented by S&P/TSX Composite Index, Russell 3000 Index, MSCI EAFE IMI Index, MSCI Emerging Markets IMI Index. S&P/TSX data © 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. MSCI data © MSCI 2022, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.



# **Emerging Markets Stocks**

Third quarter 2022 index returns

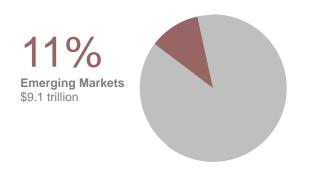
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The emerging equity markets posted negative returns for the quarter and underperformed Canadian, US, and international developed markets.

Value outperformed growth.

Small caps outperformed large caps.

# **World Market Capitalization—Emerging Markets**



# Small Cap Value -7.58 -5.15

### Period Returns (%)

-8.73

-6.40

Large Cap

Growth

-2-			
~ .	Annι	ıaliz	red .

Asset Class	QTR	YTD	1 Year	3 Years*	5 Years*	10 Years*
Growth	0.93	-17.58	-16.73	6.85	3.18	6.41
Large Cap	-5.15	-16.59	-17.17	-1.36	-0.27	2.97
Small Cap	-5.81	-20.76	-22.03	-0.85	0.06	4.48
Value	-6.40	-24.56	-26.34	-0.53	0.23	5.85

### In CAD.

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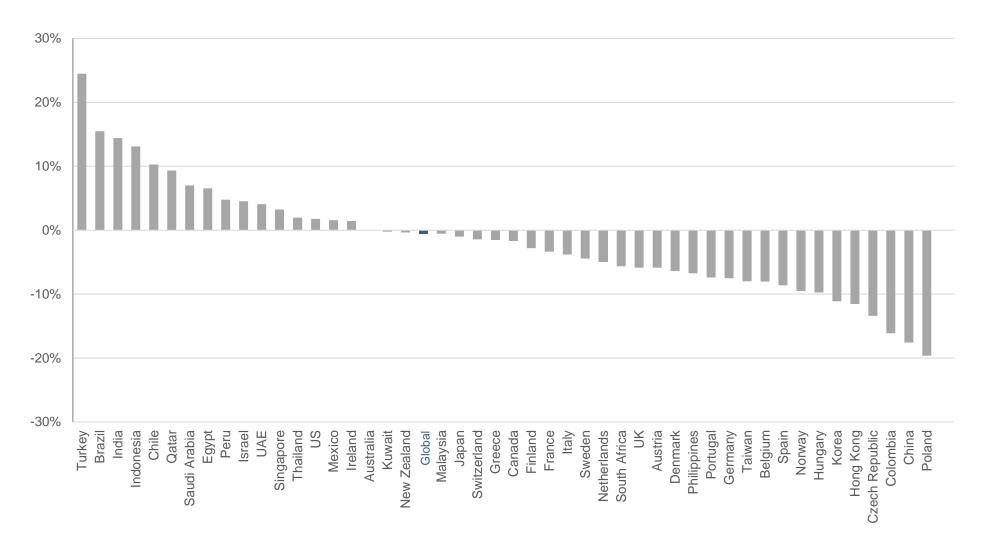
Market segment (index representation) as follows: Large Cap (MSCI Emerging Markets Index [net dividends]), Small Cap (MSCI Emerging Markets Small Cap Index [net dividends]), Value (MSCI Emerging Markets Value Index [net dividends]), and Growth (MSCI Emerging Markets Growth Index [net dividends]). All index returns are net of withholding tax on dividends. World Market Cap represented by S&P/TSX Composite Index, Russell 3000 Index, MSCI EAFE IMI Index, MSCI Emerging Markets IMI Index. S&P/TSX data © 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. MSCI data © MSCI 2022, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes.



# Country Returns

Third quarter 2022 index returns

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### In CAD.

### Past performance is no guarantee of future results.

Country returns are the country component indices of the MSCI All Country World IMI Index for all countries except Canada, where the S&P/TSX Composite is used, and the United States, where the Russell 3000 Index (net of tax) is used instead. Global is the return of the MSCI All Country World IMI Index. MSCI index returns are net dividend. Indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio. S&P/TSX data © 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. MSCI data © MSCI 2022, all rights reserved.



# Real Estate Investment Trusts (REITs)

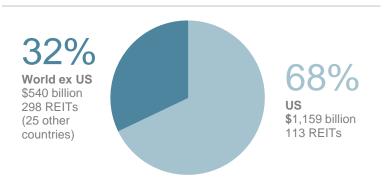
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Third quarter 2022 index returns

US real estate investment trusts outperformed non-US REITs during the quarter.



### **Total Value of REIT Stocks**



Period Returns (%)	riod Returns (%) * Annualized								
Asset Class	QTR	YTD	1 Year	3 Years*	5 Years*	10 Years*			
US REITS	-4.53	-23.12	-10.14	-2.09	3.88	9.08			
Global ex US REITS	-7.52	-24.38	-21.17	-8.60	-1.17	4.56			

### In CAD.

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio.

Number of REIT stocks and total value based on the two indices. All index returns are net of withholding tax on dividends. Total value of REIT stocks represented by Dow Jones US Select REIT Index and the S&P Global ex US REIT Index. Dow Jones US Select REIT Index used as proxy for the US market, and S&P Global ex US REIT Index used as proxy for the World ex US market. Dow Jones and S&P data © 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.



# **Fixed Income**

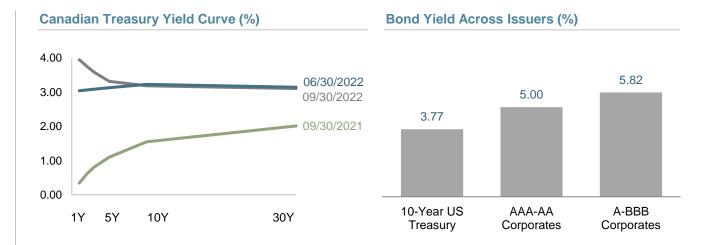
# Third quarter 2022 index returns

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Short-term interest rates increased in the Canadian government bond market during the quarter. The Canadian government yield curve inverted in the short- to intermediate-term segment and was relatively flat in the intermediate- to long-term segment.

Realized term premiums in Canadian dollar-denominated bonds were positive during the period as longer-term bonds outperformed their shorter-term counterparts.

Realized credit premiums were also generally positive in Canada during the period as corporate bonds outperformed their government counterparts on a duration matched basis.



# Period Returns (%) \*Annualized

Asset Class	QTR	YTD	1 Year	3 Years*	5 Years*	10 Years*
FTSE World Government Bond Index 1-5 Years (CAD)	1.43	-4.38	-6.00	-2.13	0.04	1.60
FTSE Canada 30 Day T-Bill	0.53	0.79	0.81	0.64	0.94	0.82
FTSE Canada Universe Bond Index	0.52	-11.78	-10.48	-2.51	0.66	1.65
FTSE Canada Short-Term Bond Index	-0.31	-4.69	-5.16	-0.15	0.93	1.32
FTSE World Government Bond Index 1-5 Years (hedged to CAD)	-1.87	-5.11	-5.62	-0.97	0.29	0.98
Bloomberg Global Aggregate Bond Index (hedged to CAD)	-3.56	-12.33	-12.30	-3.26	-0.09	1.68

In CAD.

One basis point (bps) equals 0.01%. Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Source: ICE BofA government yield. AAA-AA Corporates represent the ICE BofA US Corporates, AA-AAA rated. A-BBB Corporates represent the ICE BofA Corporates, BBB-A rated. Bloomberg data provided by Bloomberg. US long-term bonds, bills, inflation, and fixed income factor data © Stocks, Bonds, Bills, and Inflation (SBBI) Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefield). FTSE fixed income indices © 2022 FTSE Fixed Income LLC, all rights reserved. ICE BofA index data © 2022 ICE Data Indices, LLC.



# Global Fixed Income

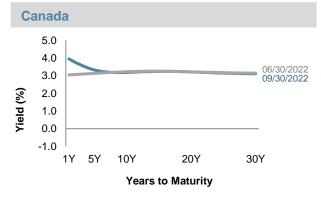
# Third quarter 2022 yield curves

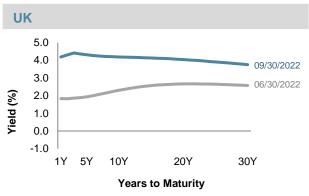
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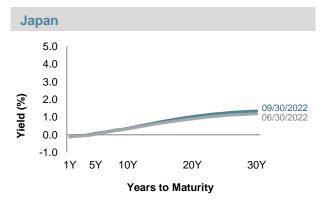
Interest rates generally increased within global developed markets for the quarter.

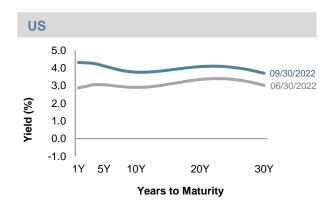
Realized term premiums were negative in global developed markets, with longer-term bonds generally underperforming their shorter-term counterparts.

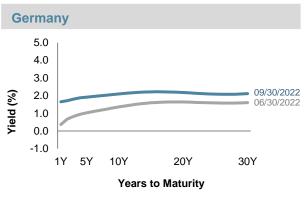
In Japan, short-term nominal interest rates remained negative. In Canada, the short-term segment of the yield curve inverted.

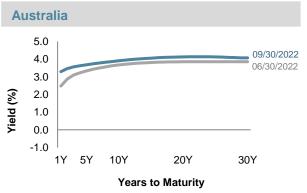












# Changes in Yields (bps) Since 6/30/2022

	1Y	5Y	10Y	20Y	30Y
Canada	90.6	18.6	-4.1	-0.6	-3.5
US	143.7	106.4	86.3	72.8	68.6
UK	235.1	238.0	188.6	137.8	117.5
Germany	128.0	88.7	73.9	53.5	50.9
Japan	-1.1	4.4	2.6	12.1	15.7
Australia	81.1	34.8	23.4	27.6	22.6
Germany Japan	128.0 -1.1	88.7 4.4	73.9 2.6	53.5 12.1	50. 15.



# Impact of Diversification

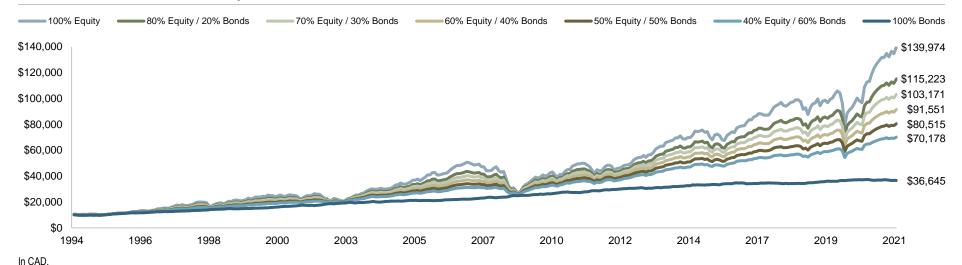
As of December 31, 2021

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These indices illustrate the performance of different global stock/bond mixes and highlight the benefits of diversification. Mixes with larger allocations to stocks are considered riskier but have higher expected returns over time.

Period Returns (%)					* A	Annualized
Dimensional Core Plus Wealth Index Model	3 Months	1 Year	3 Years*	5 Years*	10 Years*	10-Year STDEV <sup>1</sup>
100% Equity	5.83	24.07	16.88	10.87	12.19	12.02
80% Equity/20% Bonds	4.54	18.57	14.40	9.41	10.70	9.80
70% Equity/30% Bonds	3.88	15.87	13.04	8.61	9.88	8.67
60% Equity/40% Bonds	3.22	13.23	11.64	7.75	9.00	7.54
50% Equity/50% Bonds	2.55	10.64	10.17	6.85	8.07	6.42
40% Equity/60% Bonds	1.88	8.10	8.65	5.89	7.08	5.31
100% Bonds	-0.84	-1.93	1.76	1.41	2.34	1.94

### Growth of Wealth: The Relationship Between Risk and Return



Pariod Paturns (%)

1. STDEV (standard deviation) is a measure of the variation or dispersion of a set of data points. Standard deviations are often used to quantify the historical return volatility of a security or portfolio.

Diversification does not eliminate the risk of market loss. For illustrative purposes only. Past performance is no guarantee of future results. The index models are unmanaged and the model's performance does not reflect advisory fees or other expenses associated with the management of an actual portfolio. In particular, Model performance may not reflect the impact that economic and market factors may have had on the advisor's decision making if the advisor were actually managing client money. The models are not recommendations for an actual allocation. Indices are not available for direct investment. All performance results are based on performance of indexes with model/back-tested asset allocations; the performance was achieved with the benefit of hindsight; it does not represent actual investment strategies. Backtested performance results assume the reinvestment of dividends and capital gains. The performance reflects the growth of a hypothetical \$10,000. Assumes all models have been rebalanced monthly. See appendix for allocation information. See "Sources and Descriptions of Data" in the appendix for descriptions of Dimensional Index data. Sources: Dimensional Fund Advisors LP for Dimensional Indices. Copyright 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.



# **III** Manulife Securities

# What Drives Investment Returns? Start with Ingenuity.

Third quarter 2022

Weston Wellington, Vice President, Dimensional Fund Advisors

A recent news item reported that Frederick Smith intended to step down as Chairman and Chief Executive Officer of FedEx Corp., the largest air freight firm in the world.

As a Yale undergraduate in 1965, Smith wrote a term paper for his economics course outlining an overnight air delivery service for urgently needed items such as medicines or computer parts. His professor was not much impressed with the paper, but after a stint in the Air Force, Smith sought to put his classroom idea into practice. He founded Federal Express (now FedEx) in 1971, and one evening in April 1973, 14 Dassault Falcon jets took off from Memphis airport with 186 packages destined for 25 cities.

In retrospect, it was not an auspicious time to launch a new venture requiring expensive aircraft consuming large quantities of jet fuel. Oil prices rose sharply later that year following the Arab states' oil embargo, and the US economy fell into a deep recession. Most airlines struggled during the 1970s, and Federal Express was no exception.

But Smith's idea found favor with customers, and 49 years after its initial deliveries, the firm is a global colossus with over 650 aircraft, including 42 Boeing 777s—each of which can fly more cargo than 100 Falcons. Although it took over two years to turn its first profit, FedEx became the first start-up in American history to generate over \$1 billion in revenue in

less than 10 years without relying on mergers or acquisitions. The journey has proved rewarding for investors as well—100 shares purchased at the initial offering price of \$24 in 1978 has mushroomed to 3,200 shares worth over \$718,000 as of May 31, 2022.<sup>1</sup>

Fred Smith's idea is just one example of ingenuity that humans have exhibited for centuries. Sticks and stones led to hammers and spears, the wheel and axle, the steam engine, and eventually semiconductors and jet aircraft. The invention of writing made it possible to store and hand down information from one generation to the next, enabling ingenuity to compound into an ever-increasing body of knowledge. Although we often associate innovation with clever new technology. some remarkable developments have required little more than astute powers of observation. The curse of smallpox, for example, has afflicted humans with death or disfigurement for thousands of years. English doctor Edward Jenner noticed that milkmaids who had previously experienced cowpox did not catch smallpox, and in 1796, he took material from a milkmaid's cowpox sore and inoculated James Phipps, the nine-year-old son of his gardener. Later exposed to the virus, Phipps never developed smallpox, and Jenner published a treatise on vaccination in 1801. Smallpox vaccines gradually eliminated the disease in countries around the world, and the last known case was reported in Somalia in 1977.



# What Drives Investment Returns? Start with Ingenuity.

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(continued from page 16)

One innovation often paves the way for others:

- Charles Lindbergh took off from Long Island for his historic transatlantic flight to Paris on May 20, 1927. That same day, J.
   Willard Marriott opened a nine-stool lunch counter serving cold A&W root beer in Washington, D.C. Ten years later he began to supply box lunches to airlines flying from nearby Hoover airport and 20 years later opened the world's first motor hotel in Arlington, Virginia. Today, Marriott is the world's leading travel firm, with over 8,000 hotel properties in 139 countries.
- The now-ubiquitous microwave oven can trace its roots to a happy accident. While working on radar equipment in 1945 for Massachusetts-based Raytheon, electronics engineer Percy Spencer noticed that the chocolate bar in his pocket had suddenly melted. His curiosity led to the introduction of commercial-grade water-cooled microwave ovens in 1947 costing thousands and ultimately to countertop units available today for \$99.
- Frustrated by lengthy delays associated with loading and unloading cargo ships, trucking firm owner Malcolm McLean launched a shipping service in 1956 using standardized steel containers of his own design. Met with great skepticism when first introduced, his idea for theftproof stackable cargo boxes eventually transformed the global shipping industry—and world trade—by slashing dockside loading costs over 90%.

- On June 26, 1974, cashier Sharon Buchanan inaugurated the era of barcode inventory tracking when she scanned a pack of Juicy Fruit gum bearing a Universal Product Code at Marsh Supermarket in Troy, Ohio. Barcode scanners eliminated the drudgery and inevitable mistakes associated with manual entry by checkout clerks and provided store managers with powerful tools to track sales trends. As retailers such as Home Depot, Ross Stores, and Walmart expanded throughout the country in recent decades, barcode technology played a key role in matching inventory with local preferences at each location.
- In March 2022, a 20-year-old woman born with a small and misshapen right ear received a 3D-printed ear implant made from her own cells and shaped to precisely match her other ear. Although experimental, the procedure represented a significant advance in tissue engineering and could eventually lead to artificial organs such as lungs or kidneys.

The benefits of innovation are widely dispersed throughout the economy, often in unpredictable ways. Apple Inc. became one of the world's most valuable companies based on its clever marriage of the computer and the telephone; both iPhone users and Apple shareholders reaped substantial rewards.

On the other hand, suppose your fairy godmother had told you in 1935, at the dawn of commercial air travel, that this tiny sector of the



# What Drives Investment Returns? Start with Ingenuity.

(continued from page 17)

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economy would eventually become a gigantic industry with millions of passengers flying every year—including some flying from breakfast in New York to Los Angeles for dinner. What would your prediction be for industry pioneers such as TWA or Pan American? Most likely, bountiful prosperity and rewarding stock market performance. The millions of passengers materialized. The profits did not. Both firms went bankrupt. So innovation itself does not ensure prosperity in every case.

That's why it makes sense to diversify. Investors are often tempted to focus their attention on firms that appear poised to benefit from innovation. But it's difficult to predict which ideas will prove successful, and even if we could, it's unclear which firms will benefit and to what extent. Software giant Microsoft has been a big winner for investors, with the share value soaring more than 100-fold over the 30-year period

ending May 31, 2022. Discount retailer Ross Stores proved even more rewarding, as the stock price multiplied over 189 times during the same period. One firm developed powerful computer technology and the other applied it.

Civilization is a history of innovation—curious minds seeking to improve upon existing ways of meeting mankind's wants and needs. Public securities markets are just one example of such creativity, and they have a history of rewarding investors for the capital they supply to fund such innovation. But a significant fraction of the wealth created in public equity markets typically comes from only a small number of firms; therefore, we believe owning a broad universe of stocks is the most effective way to participate in the rewards of ingenuity and innovation, wherever and whenever it takes place.

Investments involve risks. The investment return and principal value of an investment may fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original value. Past performance is not a guarantee of future results. There is no guarantee strategies will be successful.

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Commissions, trailing commissions, management fees, and expenses all may be associated with mutual fund investments. Please read the prospectus before investing. Unless otherwise noted, any indicated total rates of return reflect the historical annual compounded total returns including changes in share or unit value and reinvestment of all dividends or other distributions and do not take into account sales, redemption, distribution, or optional charges or income taxes payable by any security holder that would have reduced returns. Mutual funds are not guaranteed, their values change frequently, and past performance may not be repeated.

D. R. JOHNSON FINANCIAL SERVICES

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# Appendix



# Dimensional Core Plus Wealth Index Models

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Weights (%)

Equity Total	0%	40%	50%	60%	70%	80%	100%
Dimensional Canadian Core Equity Index	0	9	11	13	16	18	22
Dimensional Canadian Vector Equity Index	0	4	5	6	7	8	10
Dimensional US Core Equity Index (Canada)	0	5	7	8	10	11	14
Dimensional US Core Equity Index (Canada) (Hedged to CAD)	0	5	7	8	10	11	14
Dimensional US Vector Equity Index (Canada)	0	5	5	6	6	6	6
Dimensional US Vector Equity Index (Canada) (Hedged to CAD)	0	0	1	1	2	4	6
Dimensional International Core Equity Index (Canada)	0	4	4	5	6	7	9
Dimensional International Core Equity Index (Canada) (Hedged to CAD)	0	4	4	5	6	7	9
Dimensional International Vector Equity Index (Canada)	0	3	3	4	4	4	4
Dimensional International Vector Equity Index (Canada) (Hedged to CAD)	0	0	0	1	2	2	4
S&P Global REIT Index	0	2	2	2	3	3	4
Fixed Income Total	100%	60%	50%	40%	30%	20%	0%
Dimensional Global Short-Term Government Variable Maturity Index (Hedged to CAD)	85	30	23	16	11	6	0
Dimensional Global Adjusted Investment Grade Index (Hedged to CAD)	15	15	15	14	12	9	0
Dimensional Global Targeted Credit Index (Hedged to CAD)	0	15	13	10	8	5	0



# Dimensional Core Plus Wealth Index Models

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Period Returns as of December 31, 2021 (%)

	1 Year	3 Years	5 Years	10 Years
Equity Total				
Dimensional Canadian Core Equity Index	28.43	16.62	8.77	8.28
Dimensional Canadian Vector Equity Index	32.03	17.13	7.97	7.82
Dimensional US Core Equity Index (Canada)	25.51	21.75	15.62	18.55
Dimensional US Core Equity Index (Canada) (Hedged to CAD)	26.02	23.15	15.54	15.30
Dimensional US Vector Equity Index (Canada)	27.72	16.93	10.81	16.59
Dimensional US Vector Equity Index (Canada) (Hedged to CAD)	28.03	17.94	10.52	13.25
Dimensional International Core Equity Index (Canada)	9.69	10.74	8.99	11.01
Dimensional International Core Equity Index (Canada) (Hedged to CAD)	15.68	13.37	9.68	11.20
Dimensional International Vector Equity Index (Canada)	11.00	9.47	8.02	10.81
Dimensional International Vector Equity Index (Canada) (Hedged to CAD)	16.94	11.96	8.64	10.95
S&P Global REIT Index	31.37	11.92	8.11	12.57
Fixed Income Total				
Dimensional Global Short-Term Government Variable Maturity Index (Hedged to CAD)	-2.00	1.06	0.89	1.72
Dimensional Global Adjusted Investment Grade Index (Hedged to CAD)	-1.55	5.75	4.35	5.87
Dimensional Global Targeted Credit Index (Hedged to CAD)	-0.24	4.22	3.13	4.40



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### DIMENSIONAL CORE PLUS 100/0 WEALTH INDEX MODEL (CANADA)

January 1994-Present: Dimensional Core Plus 100/0 Index Model. The index model combines the following indexes: Dimensional Canadian Core Equity Index, Dimensional Canadian Vector Equity Index, Dimensional US Core Equity Index, Dimensional US Vector Equity Index, Dimensional International Core Equity Index, Dimensional International Vector Equity Index, and the S&P Global REIT Index (gross div). The weight of the REIT index is based on the market capitalization weight of equity REITs within the global universe of eligible stocks and equity REITs, rounded to the nearest 1%. Within the remaining non-REIT allocation, Canadian equities are held at 33.33%, then rescaled and rounded to the nearest 1%. The weights of US and International equities are held at their respective market capitalization weights and then rescaled to sum to the total non-REIT, non-Canada weight of the Index Model, rounded to the nearest 1%. Regional weights are determined at each guarter-end and held constant for next three months. Within the Canadian allocation, each month the weights are allocated to the core and vector indexes at 70% and 30%, respectively. Within each of the US and International allocations, each month the weights are allocated to the core, core (hedged to CAD), vector and vector (hedged to CAD) indexes at 35%, 35%, 15% and 15%, respectively. The Index Model returns are calculated monthly as a weighted average of the returns of the underlying indexes. The Dimensional Core Plus 100/0 Index Model has been retrospectively calculated by Dimensional and did not exist prior to March 2020.

### DIMENSIONAL CORE PLUS 80/20 WEALTH INDEX MODEL (CANADA)

January 1994-Present: Dimensional Core Plus 80/20 Index Model: 80% of the weight is allocated to global equity indexes (described below) and 20% of the weight is allocated to the following fixed income indexes: Dimensional Global Short-Term Government Variable Maturity Index (hedged to CAD) (6%), Dimensional Global Adjusted Investment Grade Index (hedged to CAD) (9%), and Dimensional Global Targeted Credit Index (hedged to CAD) (5%). The equity allocation combines the following indexes: Dimensional Canadian Core Equity Index. Dimensional Canadian Vector Equity Index. Dimensional US Core Equity Index. Dimensional US Vector Equity Index, Dimensional International Core Equity Index, Dimensional International Vector Equity Index, and the S&P Global REIT Index (gross div). The weight of the REIT index is based on the market capitalization weight of equity REITs within the global universe of eligible stocks and equity REITs, rounded to the nearest 1%. Within the remaining non-REIT allocation, Canadian equities are held at 33.33%, then rescaled and rounded to the nearest 1%. The weights of US and International equities are held at their respective market capitalization weights and then rescaled to sum to the total non-REIT, non-Canada weight of the Index Model, rounded to the nearest 1%. Regional weights are determined at each quarterend and held constant for next three months. Within the Canadian allocation, each month the weights are allocated to the core and vector indexes at 70% and 30%, respectively. Within each of the US and International allocations, each month the weights are allocated to the core, core (hedged to CAD), vector and vector (hedged to CAD) indexes at 35%, 35%, 18% and 12%, respectively. The Index Model returns are calculated monthly as a weighted average of the returns of the underlying indexes. The Dimensional Core Plus 80/20 Index Model has been retrospectively calculated by Dimensional and did not exist prior to March 2020.

### DIMENSIONAL CORE PLUS 70/30 WEALTH INDEX MODEL (CANADA)

January 1994-Present: Dimensional Core Plus 70/30 Index Model: 70% of the weight is allocated to global equity indexes (described below) and 30% of the weight is allocated to the

following fixed income indexes: Dimensional Global Short-Term Government Variable Maturity Index (hedged to CAD) (10.5%), Dimensional Global Adjusted Investment Grade Index (hedged to CAD) (12%), and Dimensional Global Targeted Credit Index (hedged to CAD) (7.5%). The equity allocation combines the following indexes: Dimensional Canadian Core Equity Index, Dimensional Canadian Vector Equity Index, Dimensional US Core Equity Index, Dimensional US Vector Equity Index, Dimensional International Core Equity Index, Dimensional International Vector Equity Index, and the S&P Global REIT Index (gross div). The weight of the REIT index is based on the market capitalization weight of equity REITs within the global universe of eligible stocks and equity REITs, rounded to the nearest 1%. Within the remaining non-REIT allocation. Canadian equities are held at 33.33%, then rescaled and rounded to the nearest 1%. The weights of US and International equities are held at their respective market capitalization weights and then rescaled to sum to the total non-REIT, non-Canada weight of the Index Model, rounded to the nearest 1%. Regional weights are determined at each guarterend and held constant for next three months. Within the Canadian allocation, each month the weights are allocated to the core and vector indexes at 70% and 30%, respectively. Within each of the US and International allocations, each month the weights are allocated to the core. core (hedged to CAD), vector and vector (hedged to CAD) indexes at 35%, 35%, 18% and 12%, respectively. The Index Model returns are calculated monthly as a weighted average of the returns of the underlying indexes. The Dimensional Core Plus 70/30 Index Model has been retrospectively calculated by Dimensional and did not exist prior to March 2020.

### DIMENSIONAL CORE PLUS 60/40 WEALTH INDEX MODEL (CANADA)

January 1994-Present: Dimensional Core Plus 60/40 Index Model: 60% of the weight is allocated to global equity indexes (described below) and 40% of the weight is allocated to the following fixed income indexes: Dimensional Global Short-Term Government Variable Maturity Index (hedged to CAD) (16%), Dimensional Global Adjusted Investment Grade Index (hedged to CAD) (14%), and Dimensional Global Targeted Credit Index (hedged to CAD) (10%), The equity allocation combines the following indexes: Dimensional Canadian Core Equity Index. Dimensional Canadian Vector Equity Index, Dimensional US Core Equity Index, Dimensional US Vector Equity Index, Dimensional International Core Equity Index, Dimensional International Vector Equity Index, and the S&P Global REIT Index (gross div). The weight of the REIT index is based on the market capitalization weight of equity REITs within the global universe of eligible stocks and equity REITs, rounded to the nearest 1%. Within the remaining non-REIT allocation. Canadian equities are held at 33.33%, then rescaled and rounded to the nearest 1%. The weights of US and International equities are held at their respective market capitalization weights and then rescaled to sum to the total non-REIT, non-Canada weight of the Index Model, rounded to the nearest 1%. Regional weights are determined at each quarterend and held constant for next three months. Within the Canadian allocation, each month the weights are allocated to the core and vector indexes at 70% and 30%, respectively. Within each of the US and International allocations, each month the weights are allocated to the core, core (hedged to CAD), vector and vector (hedged to CAD) indexes at 35%, 35%, 24% and 6%, respectively. The Index Model returns are calculated monthly as a weighted average of the returns of the underlying indexes. The Dimensional Core Plus 60/40 Index Model has been retrospectively calculated by Dimensional and did not exist prior to March 2020.

Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. The returns of indices presented herein reflect hypothetical performance and do not represent returns that any investor actually attained. Changes in the assumptions upon which such performance is based may have a material impact on the hypothetical returns presented. Hypothetical backtested returns have many inherent limitations. Unlike actual performance, it does not represent actual trading. Since trades have not actually been executed, results may have under-or overcompensated for the impact since trades have not actually been executed, results may have under-or overcompensated for the impact since trades have not actually been executed, results may have under-or overcompensated for the impact since trades have not actually been executed, results may have under-or overcompensated for the impact since trades have not actually been executed, results may have an actually been executed, results may have actually act



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### DIMENSIONAL CORE PLUS 50/50 WEALTH INDEX MODEL (CANADA)

January 1994-Present: Dimensional Core Plus 50/50 Index Model: 50% of the weight is allocated to global equity indexes (described below) and 50% of the weight is allocated to the following fixed income indexes: Dimensional Global Short-Term Government Variable Maturity Index (hedged to CAD) (22.5%), Dimensional Global Adjusted Investment Grade Index (hedged to CAD) (15%), and Dimensional Global Targeted Credit Index (hedged to CAD) (12.5%). The equity allocation combines the following indexes: Dimensional Canadian Core Equity Index. Dimensional Canadian Vector Equity Index, Dimensional US Core Equity Index, Dimensional US Vector Equity Index, Dimensional International Core Equity Index, Dimensional International Vector Equity Index, and the S&P Global REIT Index (gross div). The weight of the REIT index is based on the market capitalization weight of equity REITs within the global universe of eligible stocks and equity REITs, rounded to the nearest 1%. Within the remaining non-REIT allocation. Canadian equities are held at 33.33%, then rescaled and rounded to the nearest 1%. The weights of US and International equities are held at their respective market capitalization weights and then rescaled to sum to the total non-REIT, non-Canada weight of the Index Model, rounded to the nearest 1%. Regional weights are determined at each guarter-end and held constant for next three months. Within the Canadian allocation, each month the weights are allocated to the core and vector indexes at 70% and 30%, respectively. Within each of the US and International allocations, each month the weights are allocated to the core, core (hedged to CAD), vector and vector (hedged to CAD) indexes at 35%, 35%, 24% and 6%, respectively. The Index Model returns are calculated monthly as a weighted average of the returns of the underlying indexes. The Dimensional Core Plus 50/50 Index Model has been retrospectively calculated by Dimensional and did not exist prior to March 2020.

### DIMENSIONAL CORE PLUS 40/60 WEALTH INDEX MODEL (CANADA)

January 1994-Present: Dimensional Core Plus 40/60 Index Model: 40% of the weight is allocated to global equity indexes (described below) and 60% of the weight is allocated to the following fixed income indexes: Dimensional Global Short-Term Government Variable Maturity Index (hedged to CAD) (30%), Dimensional Global Adjusted Investment Grade Index (hedged to CAD) (15%), and Dimensional Global Targeted Credit Index (hedged to CAD) (15%). The equity allocation combines the following indexes: Dimensional Canadian Core Equity Index, Dimensional Canadian Vector Equity Index, Dimensional US Core Equity Index, Dimensional US Vector Equity Index, Dimensional International Core Equity Index, Dimensional International Vector Equity Index, and the S&P Global REIT Index (gross div). The weight of the REIT index is based on the market capitalization weight of equity REITs within the global universe of eligible stocks and equity REITs, rounded to the nearest 1%. Within the remaining non-REIT allocation, Canadian equities are held at 33.33%, then rescaled and rounded to the nearest 1%. The weights of US and International equities are held at their respective market capitalization weights and then rescaled to sum to the total non-REIT, non-Canada weight of the Index Model, rounded to the nearest 1%. Regional weights are determined at each quarter-end and held constant for next three months. Within the Canadian allocation, each month the weights are allocated to the core and vector indexes at 70% and 30%, respectively. Within each of the US and International allocations, each month the weights are allocated to the core, core (hedged to CAD), and vector indexes at 35%, 35% and 30%, respectively. The Index Model returns are calculated monthly as a weighted average of the returns of the underlying indexes. The Dimensional Core Plus 40/60 Index Model has been retrospectively calculated by Dimensional and did not exist prior to March 2020.

### DIMENSIONAL CORE PLUS 0/100 WEALTH INDEX MODEL (CANADA)

January 1994-Present: Dimensional Core Plus 0/100 Index Model: Dimensional Global Short-Term Government Variable Maturity Index (hedged to CAD) (85%) and Dimensional Global Adjusted Investment Grade Index (hedged to CAD) (15%). The Index Model returns are calculated monthly as a weighted average of the returns of the underlying indexes. The Dimensional Core Plus 0/100 Index Model has been retrospectively calculated by Dimensional Fund Advisors and did not exist prior to March 2020.

### **DIMENSIONAL CANADIAN CORE EQUITY INDEX**

Compiled by Dimensional from Bloomberg securities data. Targets all the securities in the eligible markets with an emphasis on companies with smaller capitalization, lower relative price, and higher profitability, excluding those with the lowest profitability and highest relative price within their country's small cap universe. The index also excludes those companies with the highest asset growth within their country's small cap universe. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of each quarter of the year. Maximum index weight of any one company is capped at 10%. The country currently included is Canada. Exclusion: investment companies. The index has been retrospectively calculated by Dimensional and did not exist prior to April 2008. Accordingly, the results shown during the periods prior to April 2008 do not represent actual returns of the index. The calculation methodology for the index was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in November 2019 to include asset growth as a factor in selecting securities for inclusion in the index.

### **DIMENSIONAL CANADIAN VECTOR EQUITY INDEX**

Compiled by Dimensional from Bloomberg securities data. Targets all the securities in the eligible markets with an emphasis on companies with smaller capitalization, lower relative price, and higher profitability, excluding those with the lowest profitability and highest relative price within their country's small cap universe. The index also excludes those companies with the highest asset growth within their country's small cap universe. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of each quarter of the year. Maximum index weight of any one company is capped at 10%. The country currently included is Canada, Exclusions: REITs and investment companies. The index has been retrospectively calculated by Dimensional and did not exist prior to April 2008, Accordingly, the results shown during the periods prior to April 2008 do not represent actual returns of the index. The calculation methodology for the index was amended in January 2014 to include direct profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in November 2019 to include asset growth as a factor in selecting securities for inclusion in the index.

Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. The returns of indices presented herein reflect hypothetical performance and do not represent returns that any investor actually attained. Changes in the assumptions upon which such performance is based may have a material impact on the hypothetical returns presented. Hypothetical backtested returns have many inherent limitations. Unlike actual performance, it does not represent actual trading. Since trades have not actually been executed, results may have under-or overcompensated for the impact since trades have not actually been executed, results may have under-or overcompensated for the impact since trades have not actually been executed, results may have under-or overcompensated for the impact since trades have not actually been executed, results may have under-or overcompensated for the impact since trades have not actually been executed, results may have an actually been executed, results may have actually act



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### **DIMENSIONAL US CORE EQUITY INDEX (CANADA)**

January 1975-present: Compiled by Dimensional from CRSP and Compustat data. Targets all the securities in the eligible market with an emphasis on companies with smaller capitalization, lower relative price, and higher profitability, excluding those with the lowest profitability and highest relative price within the small cap universe. The index also excludes those companies with the highest asset growth within the small cap universe. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The eligible market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdag Global Market, Exclusions; non-US companies, REITs. UITs, and investment companies. The index has been retrospectively calculated by Dimensional and did not exist prior to November 2007, Accordingly, the results shown during the periods prior to November 2007 do not represent actual returns of the index. Other periods selected may have different results, including losses. The calculation methodology for the index was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in December 2019 to include asset growth as a factor in selecting securities for inclusion in the index. Prior to January 1975: Targets all the securities in the eligible market with an emphasis on companies with smaller capitalization and lower relative price. The eligible market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdag Global Market. Exclusions: non-US companies, REITs, UITs, and investment companies.

### DIMENSIONAL US CORE EQUITY INDEX (CANADA) (HEDGED TO CAD)

January 1975-present: Compiled by Dimensional from CRSP and Compustat data. Targets all the securities in the eligible market with an emphasis on companies with smaller capitalization, lower relative price, and higher profitability, excluding those with the lowest profitability and highest relative price within the small cap universe. The index also excludes those companies with the highest asset growth within the small cap universe. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The returns are hedged to CAD. The eligible market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdag Global Market. Exclusions: non-US companies, REITs, UITs, and investment companies. The index has been retrospectively calculated by Dimensional and did not exist prior to November 2007. Accordingly, the results shown during the periods prior to November 2007 do not represent actual returns of the index. Other periods selected may have different results, including losses. The index monthly returns are computed as the simple average of the monthly returns of 12 sub-indices, each one reconstituted once a year at the end of each month of the year. The index is unmanaged and is not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index. Past performance is no guarantee of future results. The calculation methodology for the index was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in December 2019 to include asset growth as a factor in selecting securities for inclusion in the index. Prior to January 1975: Targets all the securities in the eligible market with an emphasis on companies with smaller capitalization and lower relative price. The eligible market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market.

### **DIMENSIONAL US VECTOR EQUITY INDEX (CANADA)**

January 1975-present: Compiled by Dimensional from CRSP and Compustat data. Targets all the securities in the eligible market, excluding securities with the largest market capitalization and highest relative price. The index emphasizes companies with smaller capitalization, lower relative price, and higher profitability, excluding those with the lowest profitability and highest relative price within the small cap universe. The index also excludes those companies with the highest asset growth within the small cap universe. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The eligible market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdag Global Market, Exclusions; non-US companies, REITs, UITs, and investment companies. The index has been retrospectively calculated by Dimensional and did not exist prior to November 2009. Accordingly, the results shown during the periods prior to November 2009 do not represent actual returns of the index. Other periods selected may have different results, including losses. The index monthly returns are computed as the simple average of the monthly returns of 12 sub-indices, each one reconstituted once a year at the end of each month of the year. The index is unmanaged and is not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index. Past performance is no guarantee of future results. The calculation methodology for the index was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in December 2019 to include asset growth as a factor in selecting securities for inclusion in the index. Prior to January 1975: Targets all the securities in the eligible market excluding securities with the largest market capitalizations and highest relative price with an emphasis on companies with smaller capitalization and lower relative price. The eligible market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market. Exclusions: non-US companies, REITs, UITs, and investment companies.



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### DIMENSIONAL US VECTOR EQUITY INDEX (CANADA) (HEDGED TO CAD)

January 1975-present: Compiled by Dimensional from CRSP and Compustat data. Targets all the securities in the eligible market, excluding securities with the largest market capitalization and highest relative price. The index emphasizes companies with smaller capitalization, lower relative price, and higher profitability, excluding those with the lowest profitability and highest relative price within the small cap universe. The index also excludes those companies with the highest asset growth within the small cap universe. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The returns are hedged to CAD. The eligible market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdaq Global Market. Exclusions: non-US companies, REITs, UITs, and investment companies. The index has been retrospectively calculated by Dimensional and did not exist prior to November 2009. Accordingly, the results shown during the periods prior to November 2009 do not represent actual returns of the index. Other periods selected may have different results, including losses. The index monthly returns are computed as the simple average of the monthly returns of 12 sub-indices, each one reconstituted once a year at the end of each month of the year. The index is unmanaged and is not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index. Past performance is no guarantee of future results. The calculation methodology for the index was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in December 2019 to include asset growth as a factor in selecting securities for inclusion in the index. Prior to January 1975: Targets all the securities in the eligible market, excluding securities with the largest market capitalizations and highest relative price with an emphasis on companies with smaller capitalization and lower relative price. The eligible market is composed of securities of US companies traded on the NYSE, NYSE MKT (formerly AMEX), and Nasdag Global Market. Exclusions: non-US companies, REITs, UITs, and investment companies.

### **DIMENSIONAL INTERNATIONAL CORE EQUITY INDEX (CANADA)**

Compiled by Dimensional from Bloomberg securities data. Targets all the securities in the eligible markets with an emphasis on companies with smaller capitalization, lower relative price, and higher profitability, excluding those with the lowest profitability and highest relative price within their country's small cap universe. The index also excludes those companies with the highest asset growth within their country's small cap universe. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. Asset growth is defined as change in total assets from the prior fiscal year to current

fiscal year. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of each quarter of the year. Maximum index weight of any one company is capped at 5%. Countries currently included are Australia, Austria, Belgium, Brazil, Chile, China, Colombia, the Czech Republic, Denmark, Finland, France, Germany, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Korea, Malaysia, Mexico, the Netherlands, New Zealand, Norway, Peru, the Philippines, Poland, Portugal, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, and the UK. Exclusion: investment companies. The index has been retrospectively calculated by Dimensional and did not exist prior to April 2008. Accordingly, the results shown during the periods prior to April 2008 do not represent actual returns of the index. The calculation methodology for the index was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in November 2019 to include asset growth as a factor in selecting securities for inclusion in the index.

### DIMENSIONAL INTERNATIONAL CORE EQUITY INDEX (CANADA) (HEDGED TO CAD)

Compiled by Dimensional from Bloomberg securities data. Targets all the securities in the eligible markets with an emphasis on companies with smaller capitalization, lower relative price. and higher profitability, excluding those with the lowest profitability and highest relative price within their country's small cap universe. The index also excludes those companies with the highest asset growth within their country's small cap universe. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The returns are hedged to CAD. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of each quarter of the year. Maximum index weight of any one company is capped at 5%. Countries currently included are Australia. Austria. Belgium. Brazil. Chile. China. Colombia. the Czech Republic, Denmark, Finland, France, Germany, Hong Kong, Hungary, India. Indonesia, Ireland, Israel, Italy, Japan, Korea, Malaysia, Mexico, the Netherlands, New Zealand, Norway, Peru, the Philippines, Poland, Portugal, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, and the UK. Exclusion: investment companies. The index has been retrospectively calculated by Dimensional and did not exist prior to April 2008. Accordingly, the results shown during the periods prior to April 2008 do not represent actual returns of the index. The calculation methodology for the index was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in November 2019 to include asset growth as a factor in selecting securities for inclusion in the index.



# **III** Manulife Securities

### DIMENSIONAL INTERNATIONAL VECTOR EQUITY INDEX (CANADA)

Compiled by Dimensional from Bloomberg securities data. Targets all the securities in the eligible markets with an emphasis on companies with smaller capitalization, lower relative price, and higher profitability, excluding those with the lowest profitability and highest relative price within their country's small cap universe. The index also excludes those companies with the highest asset growth within their country's small cap universe. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of each quarter of the year. Maximum index weight of any one company is capped at 5%. Countries currently included are Australia, Austria, Belgium, Brazil, Chile, China, Colombia, the Czech Republic, Denmark, Finland, France, Germany, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Korea, Malaysia, Mexico, the Netherlands, New Zealand, Norway, Peru, the Philippines, Poland, Portugal, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, and the UK, Exclusions; REITs and investment companies. The index has been retrospectively calculated by Dimensional and did not exist prior to April 2008. Accordingly, the results shown during the periods prior to April 2008 do not represent actual returns of the index. The calculation methodology for the index was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in November 2019 to include asset growth as a factor in selecting securities for inclusion in the index.

### DIMENSIONAL INTERNATIONAL VECTOR EQUITY INDEX (CANADA) (HEDGED TO CAD)

Compiled by Dimensional from Bloomberg securities data. Targets all the securities in the eligible markets with an emphasis on companies with smaller capitalization, lower relative price, and higher profitability, excluding those with the lowest profitability and highest relative price within their country's small cap universe. The index also excludes those companies with the highest asset growth within their country's small cap universe. Profitability is defined as operating income before depreciation and amortization minus interest expense divided by book equity. Asset growth is defined as change in total assets from the prior fiscal year to current fiscal year. The returns are hedged to CAD. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of each quarter of the year. Maximum index weight of any one company is capped at 5%. Countries currently included are Australia, Austria, Belgium, Brazil, Chile, China, Colombia, the Czech Republic, Denmark, Finland, France, Germany, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Korea, Malaysia, Mexico, the Netherlands, New Zealand, Norway, Peru, the Philippines, Poland, Portugal, Russia. Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, and the UK. Exclusions: REITs and investment companies. The index has been retrospectively calculated by Dimensional and did not exist prior to April 2008. Accordingly, the results shown during the periods prior to April 2008 do not represent actual returns of the index. The calculation methodology for the index was amended in January 2014 to include profitability as a factor in selecting securities for inclusion in the index. The calculation methodology for the index was amended in November 2019 to include asset growth as a factor in selecting securities for inclusion in the index.

### **S&P GLOBAL REIT INDEX**

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# DIMENSIONAL GLOBAL SHORT-TERM GOVERNMENT VARIABLE MATURITY INDEX (HEDGED TO CAD)

Compiled by Dimensional using FTSE data. Includes securities in the FTSE World Government Bond 1–3 Years and 3–5 Years indices. Countries: Austria, Australia, Belgium, Canada, France, Germany, Japan, the Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, the UK, and the US. Countries with the steepest yield curves are overweight with respect to their market cap weight. For countries included, duration corresponds to the steepest segment of that country's yield curve. Currency exposure is hedged to CAD. Rebalanced monthly. The index has been retroactively calculated by Dimensional and did not exist prior to January 2019.

### DIMENSIONAL GLOBAL ADJUSTED INVESTMENT GRADE INDEX (HEDGED TO CAD)

February 1999–present: Compiled by Dimensional using data provided by Bloomberg. Based on securities in the universe of Bloomberg Global Aggregate Index, and includes global investment grade government bonds and global investment grade corporate bonds. Eligible currencies: AUD, CAD, CHF, EUR, GBP, JPY, and USD. Within the universe, the index identifies the yield curves that offer higher expected returns, and the duration ranges on those yield curves offering higher expected returns, and assesses the increased expected returns associated with allocation to bonds with different credit qualities. It then overweights (with respect to their market cap weight) bonds of yield curves, duration ranges, and credit qualities that offer higher expected returns. It also employs credit quality, currency, and duration requirements relative to the eligible market. Currency exposure is hedged to CAD. Rebalanced monthly. Prior to February 1999: Bloomberg Global Aggregate Index (Hedged to CAD). The index has been retroactively calculated by Dimensional and did not exist prior to January 2018.

### DIMENSIONAL GLOBAL TARGETED CREDIT INDEX (HEDGED TO CAD)

January 2003–present: Compiled by Dimensional using data provided by Bloomberg. Based on securities in the universe of Bloomberg Global Aggregate Index and Global High Yield Index, and includes global investment grade corporate bonds and global BB corporates only. Eligible currencies: AUD, CAD, CHF, EUR, GBP, JPY, and USD. Within the universe, the index identifies the yield curves that offer higher expected returns, and the duration ranges on those yield curves offering higher expected returns, and assesses the increased expected returns associated with allocation to bonds with different credit qualities. It then overweights (with respect to their market cap weight) bonds of yield curves, duration ranges, and credit qualities that offer higher expected returns. It also employs credit quality, currency, and duration requirements relative to the eligible market. Currency exposure is hedged to CAD. Rebalanced monthly. Prior to January 2003: Bloomberg US Credit 1–3 Year Index (Hedged to CAD). The index has been retroactively calculated by Dimensional and did not exist prior to January 2020.

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