

# ECONOMIC AND MARKET REVIEW

**FIRST QUARTER 2024** 



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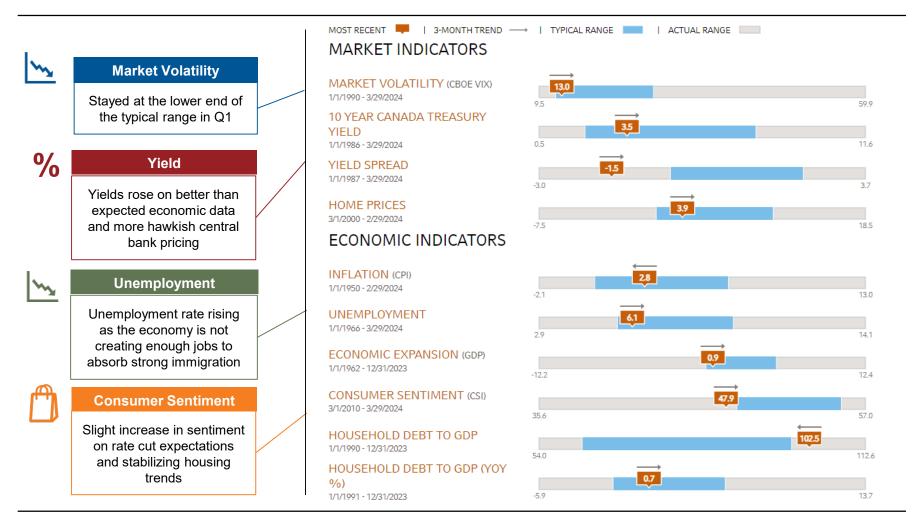
Date of first use: April 2024 CORPCA-00604 [EXP-04-2025]

## AGENDA

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### Economic indicators dashboard – Canada Q1 2024



Source: LSEG Datastream, St. Louis Fed, Russell Investments, as of March 31, 2024. See Slide 31 for category definitions. Russell Investments' Economic Indicators Dashboard charts several key indicators to help investors assess economic and market trends.

# Economic indicators dashboard – U.S. Q1 2024



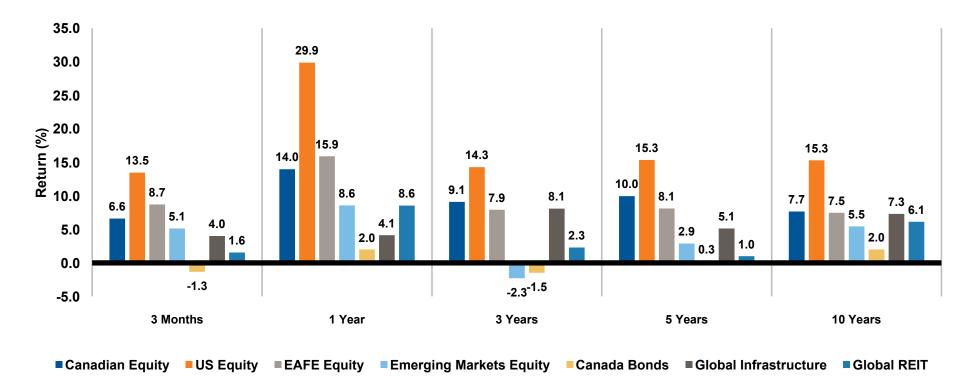
Source: http://www.russellinvestments.com, current state as of 04/02/2024. See Slide 32 for category definitions. Russell Investments' Economic Indicators Dashboard charts several key indicators to help investors assess economic and market trends.

### Capital markets

Periods ending March 31, 2024

### Capital market returns (%)

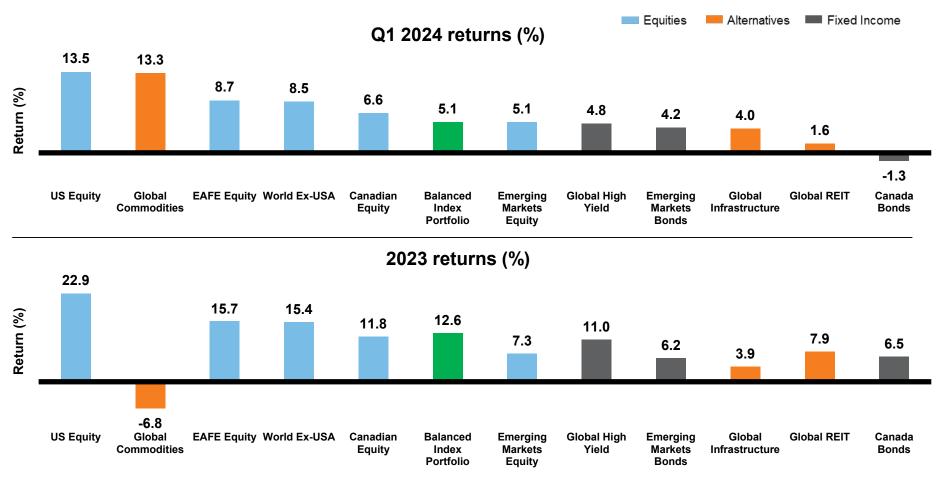
(Annualized for periods greater than 1 year)



Source: Russell Investments, Morningstar. In CAD. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment. Indexes are unmanaged and cannot be invested in directly. Definitions: Canadian Equity = S&P/TSX Composite Index, US Equity = S&P 500 Index, EAFE Equity = MSCI EAFE Index, Emerging Markets Equity = MSCI Emerging Markets Index, Canada Bonds = Bloomberg Canada Aggregate Index, Global Infrastructure = S&P Global Infrastructure Index, Global Real Estate Investment Trusts (REITs) = FTSE EPRA NAREIT Developed Index. Returns are annualized except for periods less than one year. EAFE is an acronym referring to Europe, Australasia and the Far East.

### What worked and what didn't

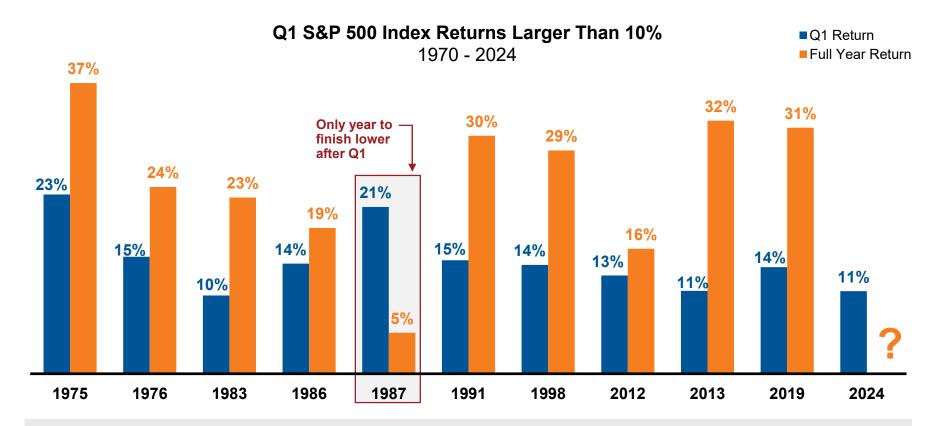
Q1 2024 vs. 2023



Source: Russell Investments, Morningstar. In CAD. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment. Indexes are unmanaged and cannot be invested in directly. Definitions: Canadian Equity = S&P/TSX Composite Index, US Equity = S&P 500 Index, Global High Yield= Bloomberg Global High Yield Bond Index, World ex-USA=MSCI AC World ex-USA Index, EAFE Equity = MSCI EAFE Index, Emerging Markets Equity = MSCI Emerging Markets Index, Canada Bonds = Bloomberg Canada Aggregate Index, Emerging Markets Bonds = Bloomberg EM USD Aggregate Index, Global Infrastructure = S&P Global Infrastructure Index, Global REIT = FTSE EPRA NAREIT Developed Index, Global Commodities=S&P Goldman Sachs Commodities Index. Balanced Index Portfolio: 20% Canadian Equity, 20% US Equity, 20% EAFE Equity and 40% Canada Bonds. Returns are annualized except for periods of less than one year.

### Too far, too fast?

Large gains in Q1 historically have not prevented markets from moving higher



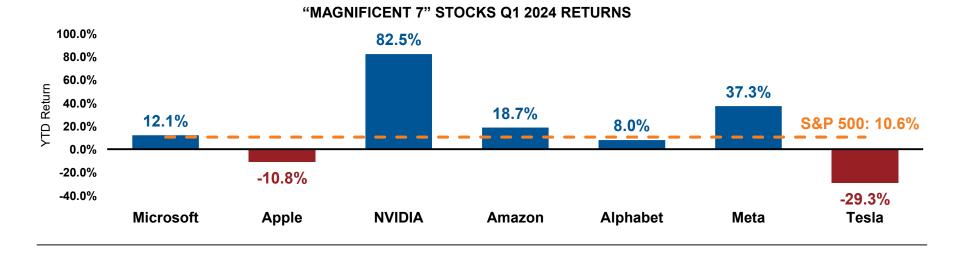
- The S&P 500 delivered back-to back double-digit quarterly returns for the first time since 2012
- After gaining more than 10% in Q1, the S&P 500 continued to move higher in 9 of 10 occurrences since 1970
- The average gain from Q2-Q4 was over 8.5%

Source: Morningstar. As of 3/31/2024. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment.



### "Magnificent 7" performance diverges

NVIDIA continues to outperform; however, others' results have been mixed



#### TOTAL RETURNS (%): 2022 - Q1 2024

= Outperformed S&P 500

TIME PERIOD	MICROSOFT	APPLE	NVIDIA	AMAZON	ALPHABET	МЕТА	TESLA	S&P 500
2022	-28	-26	-50	-50	-39	-64	-65	-18
2023	58	49	239	81	59	194	102	26
Q1 2024	12	-11	82	19	8	37	-29	11
2022 – Q1 2024	28	-2	208	8	5	45	-50	14

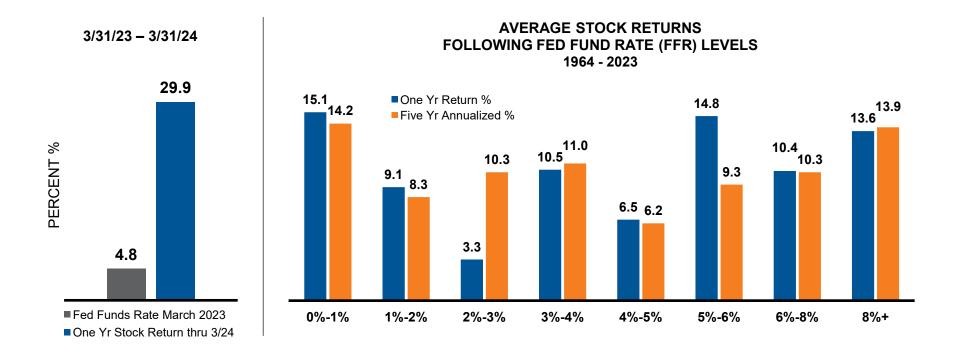
 Following a challenging 2022, markets in 2023 were driven higher by some of the largest technology-oriented companies known as the "Magnificent 7"

- Unlike previous years, Q1 2024 returns of the "Magnificent 7" diverged; NVIDIA remained the standout performer
- Strong market returns despite weakness within the "Magnificent 7" suggests some broadening of market leadership

Source: Morningstar. As of 3/31/24.. "Magnificent 7" refers to Apple, Microsoft, Alphabet, Amazon, NVIDIA, Tesla and Meta. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment

## Will "higher for longer" hurt U.S. stock returns?

Strong economic results may push back rate cuts

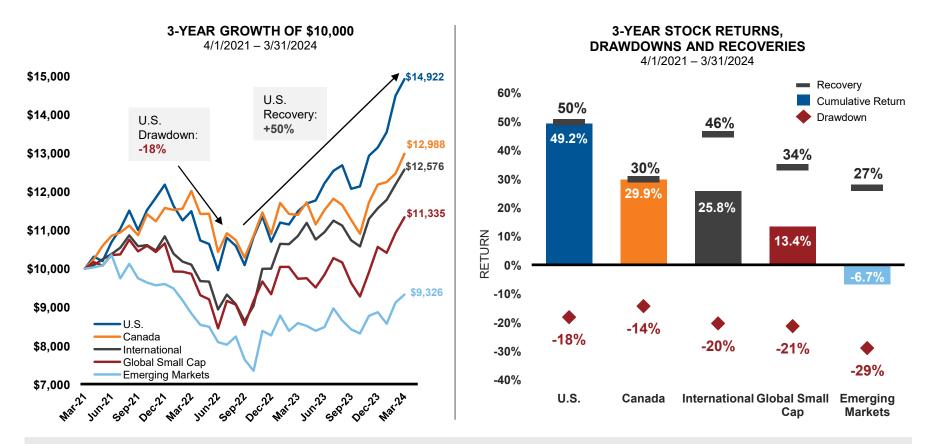


- U.S. stocks produced strong results over the last year, with a starting Federal Reserve Fund rate (FFR) of 4.8%
- FFR levels alone have not been a headwind to stock returns
- High and low returns have been achieved across the range of FFR levels
- Current FFR of 5.3% is close to 60-year average of 4.9%
- Earnings and fundamentals likely to have greater influence on future returns

Sources: St. Louis Federal Reserve and S&P 500 Index. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment

## Uneven paths of recovery

International and U.S. stocks have led the way from 2022 lows while others have lagged



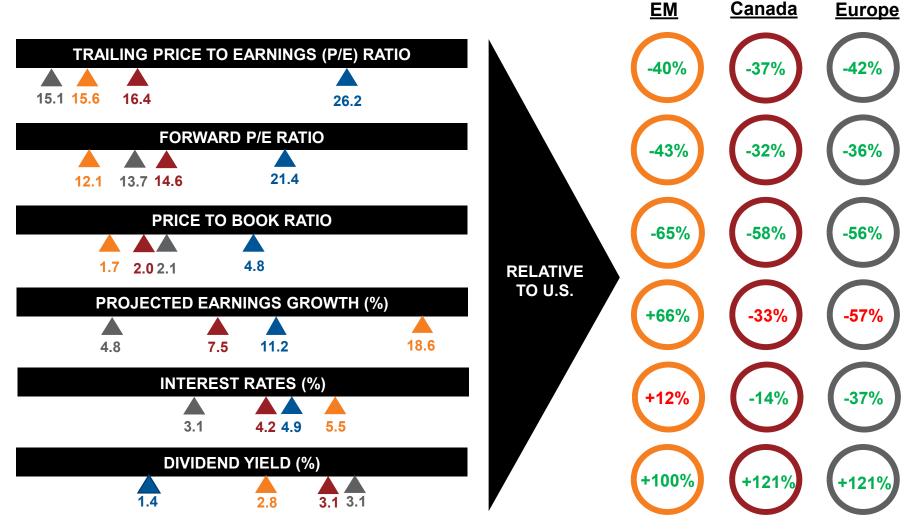
- Stock market results over the last three years have varied by cap size and region
- U.S. stocks have performed best, fueled by smaller drawdowns and larger recoveries
- Small cap and emerging market stocks remain below previous peaks as recoveries have not been as large

Source: Morningstar Direct. In CAD. Canada represented by S&P/TSX Composite Index, U.S. by S&P 500 Index, International by MSCI EAFE Index, Emerging Markets by MSCI Emerging Markets Index and Global Small Cap by MSCI World Small Cap Index. Drawdown and recovery based on monthly returns. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment.



### Market fundamentals

The U.S. market looks relatively expensive

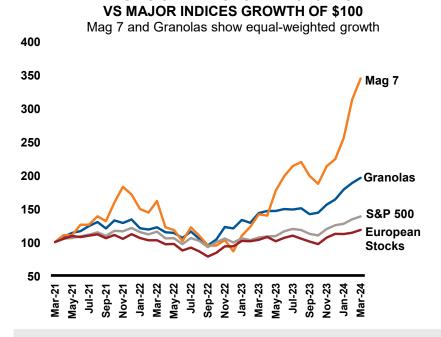


Data as of March 2024. Source: MSCI Country and regional Indexes, Bloomberg Barclays country and regional indexes. LSEG DataStream. Russell Investments calculations. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment. P/E = Price to Earnings Ratio. EM=Emerging Markets.

### Europe's answer to the "Magnificent 7": "The Granolas"

Top industry leaders have boosted returns in Europe, contributing to much of the region's recent performance and supporting an environment that favors global investing

Europe's top leaders have contributed a majority of returns for the region over the past year:



**TOP U.S. AND EUROPEAN STOCKS** 

Europe's most valuable stocks have delivered some strong returns but with broader sector diversification versus U.S. leaders:

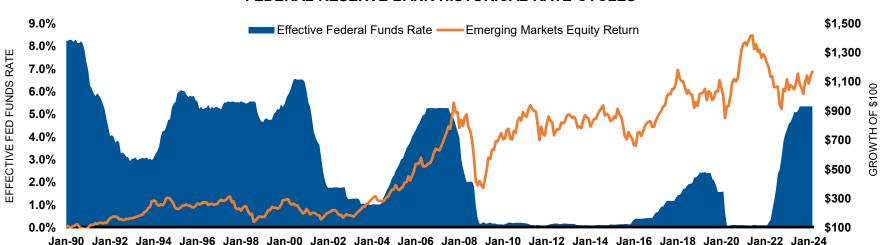
GRANOLAS STOCKS	2023 RETURN	YTD RETURN	SECTOR
GSK PLC	9.5%	16.8%	Healthcare
Roche Holding AG	-4.2%	-8.1%	Healthcare
ASML Holding NV	39.7%	28.4%	Technology
Nestlé	3.1%	-8.2%	Consumer Staples
Novartis	18.8%	-0.5%	Healthcare
Novo Nordisk	54.4%	25.0%	Healthcare
L'Oréal	41.4%	-4.6%	Consumer Discretionary
LVMH Moët Hennessy Louis Vuitton	14.0%	11.4%	Consumer Discretionary
AstraZeneca	1.5%	2.1%	Healthcare
SAP SE	52.0%	26.2%	Technology
Sanofi	6.6%	-2.3%	Healthcare

- Like the big tech names in the U.S., "the Granolas" have also dominated their market and contributed the bulk of returns in Europe's stock market, but with lower volatility
- · Europe's top leaders offer greater diversification across sectors and higher dividend yields

Source: Morningstar data as of March 31st, 2024. Growth of assets based on index data from S&P 500 Index TR and Euro Stoxx 600 NR Index USD. Alphabet represents combined A&C shares. "Magnificent 7" refers to Apple, Microsoft, Alphabet, Amazon, NVIDIA, Tesla and Meta. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment.

### Fed policy's impact on emerging market returns

Emerging market returns and U.S. open ended mutual fund flows during and after rate hike cycles



#### FEDERAL RESERVE BANK HISTORICAL RATE CYCLES

Start of Cycle	End of Cycle	Initial Target Fed Funds Rate	End Target Fed Funds Rate	Total Return, During Hike Cycle	1-Yr Return, Post- Hike Cycle	Growth of Mutual Fund Flows During Hike Cycle	Growth of Mutual Fund Flows 1-Year Post- Hike Cycle
2/3/1994	2/2/1995	3.00%	6.00%	-18.7%	13.6%	31.2%	18.9%
6/29/1999	5/16/2000	4.75%	6.50%	22.8%	-25.8%	6.9%	-6.5%
6/29/2004	6/29/2006	1.00%	5.25%	31.2%	56.0%	40.6%	9.7%
12/15/2015	12/20/2018	0.00%	2.25%	10.8%	15.2%	3.9%	2.1%
3/17/2022	7/27/2023	0.00%	5.25%	0.8%		-8.0%	

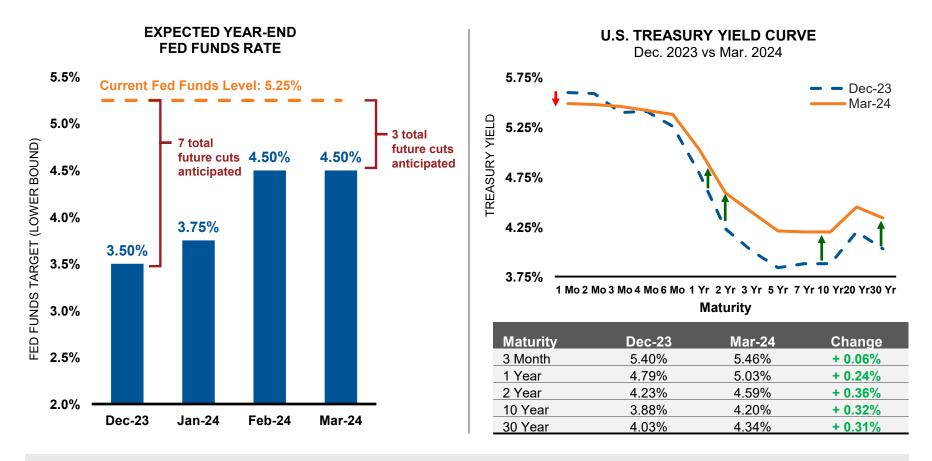
• Net mutual fund flows rose at a faster pace while the Fed was increasing rates than in the one year following the final rate hike

Post rate-hike returns in emerging markets have often outperformed returns during the hiking cycle

Source: St. Louis Fred. Performance is based on index data: MSC Emerging Markets GR. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment. Indexes are unmanaged and cannot be invested in directly. Net growth of mutual fund flow data from Morningstar and based on the Diversified Emerging Markets Category.

### Forecasting the Fed

Markets still project rate cuts in 2024, but fewer than to start the year

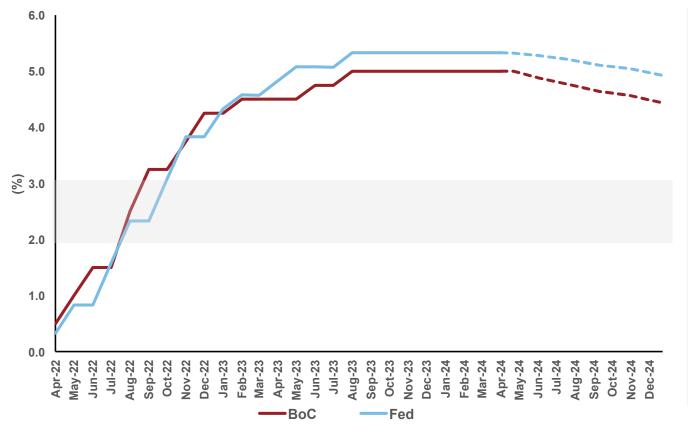


- Investors have been expecting the U.S. Federal Reserve to begin cutting interest rates in 2024
- A resilient economy and lingering high inflation have caused investors to rethink timing and amount of rate cuts
- Short-term rates have mostly been unchanged, longer rates have increased because of expectations

Source: U.S. Treasury and CME Group. Expected Fed Funds rate represents highest probability target range at each month end based on market pricing. Based on expectations for December 2024 Federal Reserve meeting. Forecasts are not guaranteed, and actual outcomes may differ

### **Central Bank Outlook**

Expectations diverge between the BoC and Fed



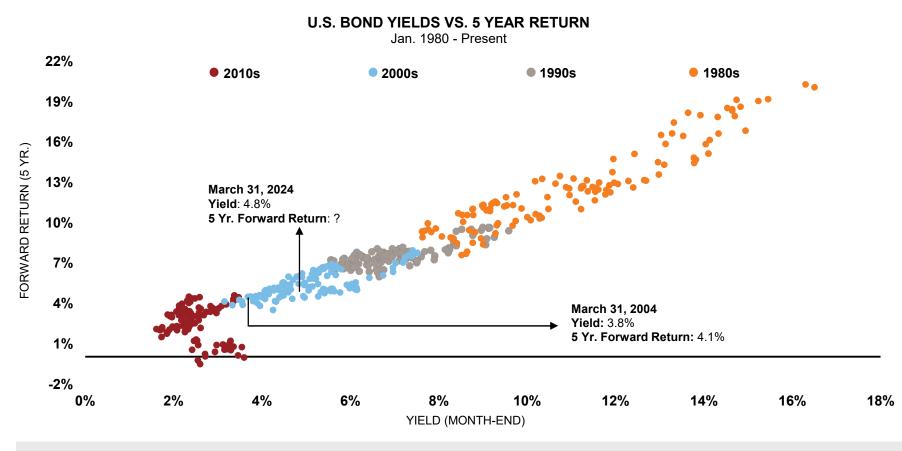
Target Rate & Market Pricing: BoC vs Fed

- Inflation surprises to the upside in the U.S. has priced out several Fed rate cuts
  - Markets have similarly reduced BoC rate cuts
- However, the Canadian economy is more susceptible to a recession, making market expectations for roughly two to three rate cuts by the BoC too optimistic

Source: LSEG DataStream, Russell Investments. Implied policy rate as of 4/10/2024. FED = US Federal Reserve, BoC = Bank of Canada

### Potential benefits of higher starting yields

Bond valuations look relatively attractive

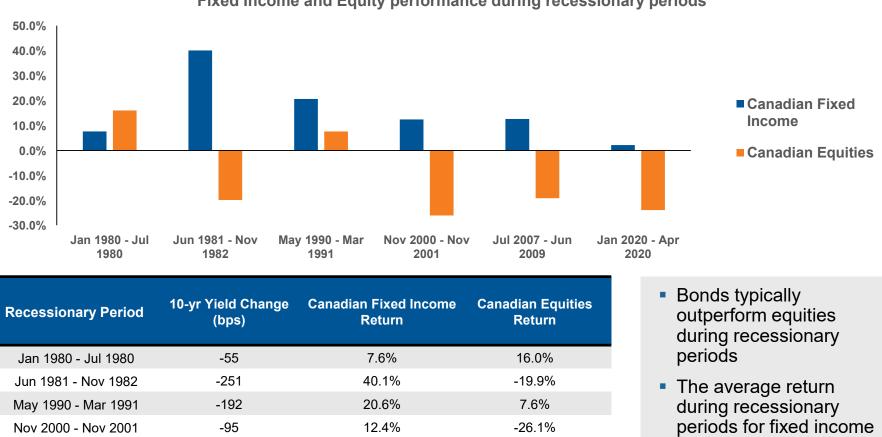


- Higher bond yields offer investors the opportunity for higher returns going forward
- Up until mid-2022, bond investors were earning yields well below long-term averages
- That is no longer the case as many fixed income sectors are providing attractive yields

Source: Barclays and Morningstar Direct, as of 3/31/2024. U.S. Bond: Bloomberg U.S. Aggregate Bond Index. Yield: Yield-to-worst; Forward Return: 5 year, annualized, starting in the following month of each yield measure. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment.

## Fixed income a crucial diversifier of equity market volatility

Falling yields during recessionary environments boost bond returns



Fixed Income and Equity performance during recessionary periods

Sources: LSEG DataStream, Russell Investments. Based on monthly data. BPS=basis point or 1/100<sup>th</sup> of a percent. The recessionary period used for bond and equity index returns is based on US recession dates. The 10-year yield change is based on the max yield within six months of the recession starting and the yield at the end of the recession. This was also utilized to calculate the cumulative returns for fixed income and equities. Canadian Fixed Income = FTSE Canada Universe Bond Index, Canadian Equities = S&P/TSX Composite Index.

-19.2%

-23.9%

12.6%

2.1%

-105

-107

Jul 2007 - Jun 2009

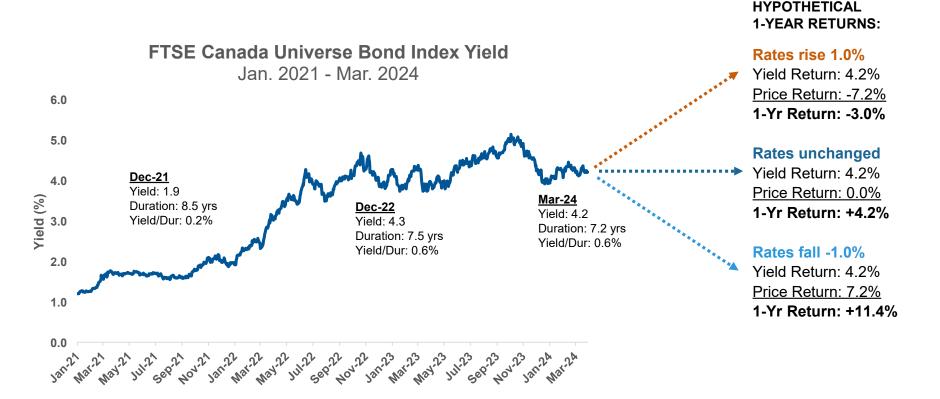
Jan 2020 - Apr 2020

was 15.9%, and -10.9%

for equities.

### Understanding the impact of changing rates

Falling rates can boost return from bonds



- Fixed income is a crucial diversifier of equity market volatility
- Higher yields help to offset the price impact of further rate increases
- If rates fall, price appreciation can boost returns as demonstrated in Q4 2023

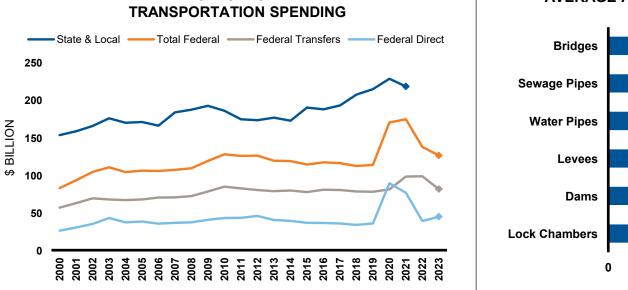
Source: LSEG DataStream. Data as of 3/29/2024. Yield-to-Worst and Duration of the FTSE Canada Universe Bond Index. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment. Indexes are unmanaged and cannot be invested in directly.

### Infrastructure spending is supporting U.S. economic growth

More room for additional spending could provide continued support

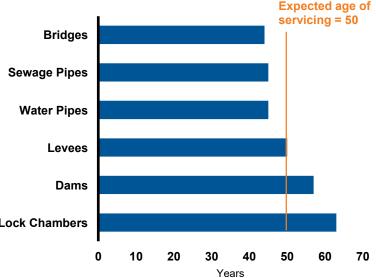
In 2023 the U.S. federal government spent \$44.8 billion on infrastructure and transferred an additional \$81.5 billion to states:

**INFRASTRUCTURE AND** 



The average age of various types on infrastructure shown is roughly 50.6 years as of 2021:

#### AVERAGE AGE OF U.S. INFRASTRUCTURE



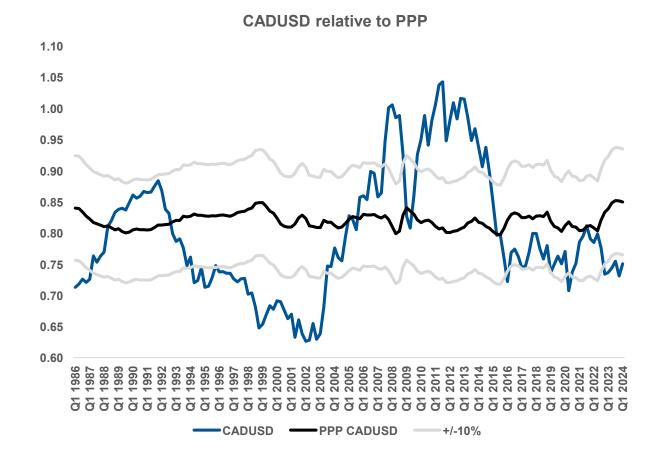
- The next decade could be the start of massive spending in infrastructure given both government spending initiatives and the need to upgrade existing structures
- The infrastructure Investment and Jobs Act provides for \$1.2 trillion in spending providing funding for critical needs to expand the current state of infrastructure in the U.S.

Source: USAFACTS, American Society of Civil Engineers, Statista. All figures in USD.



### Canadian dollar undervalued relative to PPP

However, cyclical headwinds will prevent substantive appreciation over a tactical horizon



- Canadian dollar is a cyclical currency that performs well during positive global growth cycles which benefits commodity prices and the domestic economy
- Our cautious view about the Canadian and global economies over next 12 to 18 months keeps us guarded about CAD prospects
- Over the medium term, however, we are constructive as CAD benefits from improving global growth and undervaluation relative to USD

Sources: LSEG DataStream, Russell Investments. As of March 29, 2024. PPP = Purchasing power parity.



### Russell Investments' global market outlook

#### **ECONOMIC VIEWS**



#### U.S. AND CANADA

- A recovery in labor supply has brought the U.S. economy back into better balance, and inflation progress should allow the U.S. Federal Reserve (Fed) to progress with gradual rate cuts later in the year
- The weak labor market in Canada and significant progress on inflation should allow the Bank of Canada (BoC) to ease by mid-year



#### EUROZONE

- Parts of Europe (eg Germany) may have already entered a technical recession, but some tentative signs from credit activity indicate things may be bottoming out
- Inflation is tracking toward central bank targets
- European Central Bank should be on track to cut interest rates later this year, but risk of rates being "too tight for too long" remains

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#### PACIFIC BASIN

- Wage growth and inflation expectations have moved toward Bank of Japan's inflation targets.
- China's announced 5% GDP target may be difficult to achieve without additional government stimulus.



#### FED and BoC

- Fed has hinted at 3 rate cuts for 2024, but exact timing to depend on data
- Markets expect 2 to 3 rate cuts by the BoC in 2024, but a weak labor market and household vulnerabilities could mean more

### ASSET CLASSES



#### **GLOBAL EQUITIES**

- Potentially limited upside given expensive multiples and overbought sentiment
- Non-U.S. developed stocks at discount compared to U.S., but still earnings uncertainties
- China's structural challenges and weak consumer confidence may hold Chinese equities back

### FIXED

#### **FIXED INCOME**

- Government bonds remain attractive as yields trade in excess of expected inflation – US Treasuries preferred
- Favorable government bond outlook in many non-U.S. developed markets too
- Credit spreads are very tight in the U.S., dampening return expectations for investment grade and high yield



#### **REAL ASSETS**

• REIT and infrastructure valuations appear attractive relative to broad equities. Will be a tailwind should central banks cut interest rates in 2024.

#### CURRENCIES

- USD appears expensive on a purchasing-power parity basis; however, a global recession in 2024 could result in further upside for the dollar as investors flock to safety
- CADUSD is undervalued, but a weaker Canadian economy will be a restraint over the near term

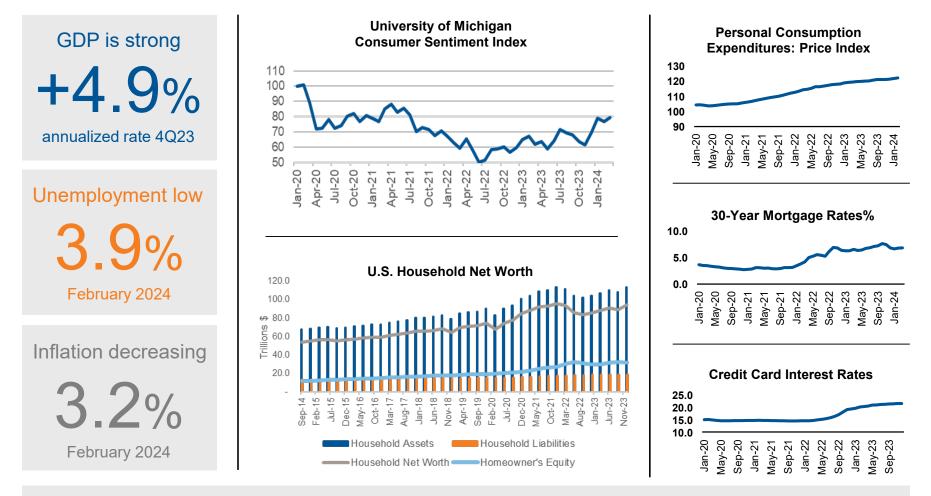
There is no guarantee the stated expectations will be met.

As of April 2024. Forecasting represents predictions of market prices and/or volume patterns utilizing varying analytical data. It is not representative of a projection of the stock market, or of any specific investment.



### Sentiment remains low despite solid U.S. economic data

Household finances on the uptick, but everyday pricing and financing remain elevated



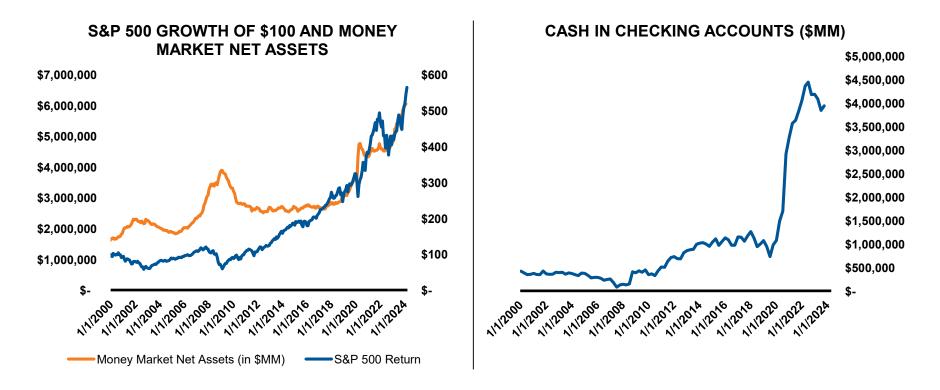
It may take lower interest rates to renew general consumer confidence

Sources: St Louis Federal Reserve for GDP, Unemployment, Inflations, Household Net Worth and Homeowner's Equity, Price Index, Mortgage and Credit Card Rates, University of Michigan for Confidence Index



### S&P 500 return and cash levels

Growth of cash assets has positive relationship with recent equity returns

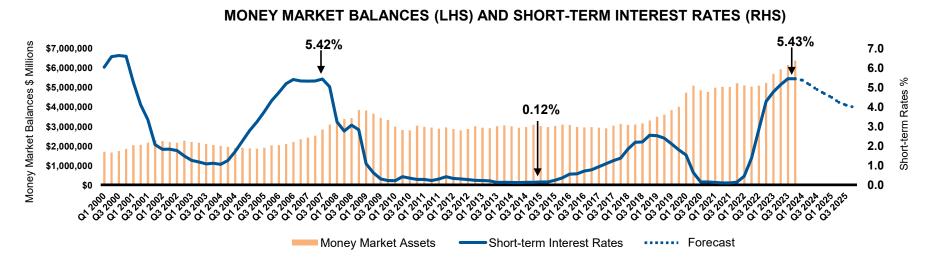


- Historically, asset growth in money markets has had a negative relationship with stock market returns
- Since 2021, this has changed and total assets in money market funds has trended up with stock market performance
- Cash available in checking accounts has increased dramatically over the same period: initially due to COVID-19 relief, but the level has remained high

Source: Money Market Net Assets from Investment Company Institute (ICI) U.S. Stocks: S&P 500 Index as of 3/31/2024. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment. Indexes are unmanaged and cannot be invested in directly. St. Louis Fred, Economic Research Division

### Money market balances at peak levels

Asset class returns have been strong following peaks in money market assets followed by falling rates



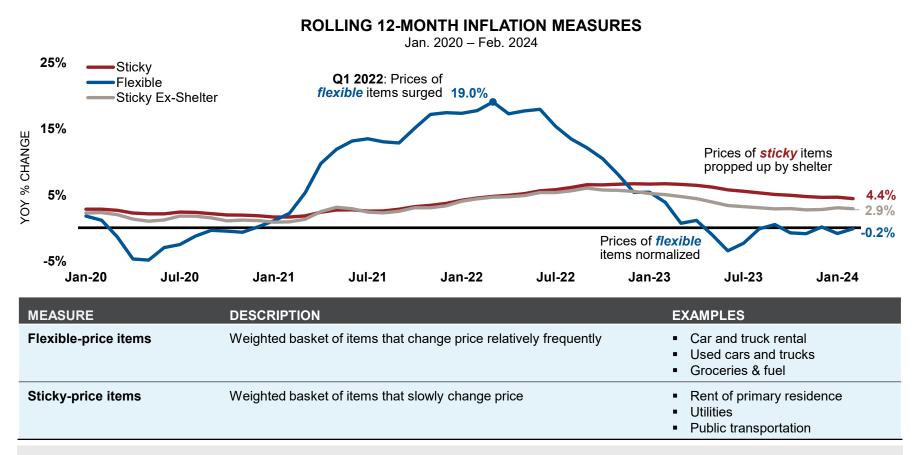
#### 1-YEAR FORWARD RETURN AT PEAK MONEY MARKET BALANCES PEAK MM **INTERNATIONAL** SMALL CAP **U.S. STOCKS DEV STOCKS** STOCKS **U.S. AGG BONDS IG MUNIS** ASSETS MONEY MARKET Q4 2002 27.1% 4.1% 4.1% 28.4% 40.0% 0.7% Q1 2009 26.5% 31.8% 27.2% 5.9% 8.9% 0.2% Q2 2020 58.2% 45.3% 97.8% 1.0% 5.0% 0.0% 10.6% 5.8% -0.8% 1.2% **YTD 2023** 5.2% -0.3%

- Money market assets have climbed to all-time highs, but may show sign of peaking, particularly as the Fed has signaled the end
  of its restrictive policy and that rate cuts may come as early as mid-2024
- While holding cash in money market and other cash-equivalent assets has been attractive given short-term rates, in the past
  most asset classes offered attractive one-year returns after money market assets peaked

Source: OECD, Federal Reserve Bank of St. Louis, Morningstar Direct. Returns based on index data: U.S. Stocks: S&P 500 TR, International Developed Stocks: MSCI EAFE NR USD, Small Cap Stocks: Russell 2000 TR USD, U.S. Agg bonds: Bloomberg U.S. Aggregate Index TR, IG Munis: Bloomberg Muni 1-15(1-17) TR USD, Money Market: Morningstar Category US Fund Money Market-Taxable

# What's the hold up?

#### Stubborn moderation

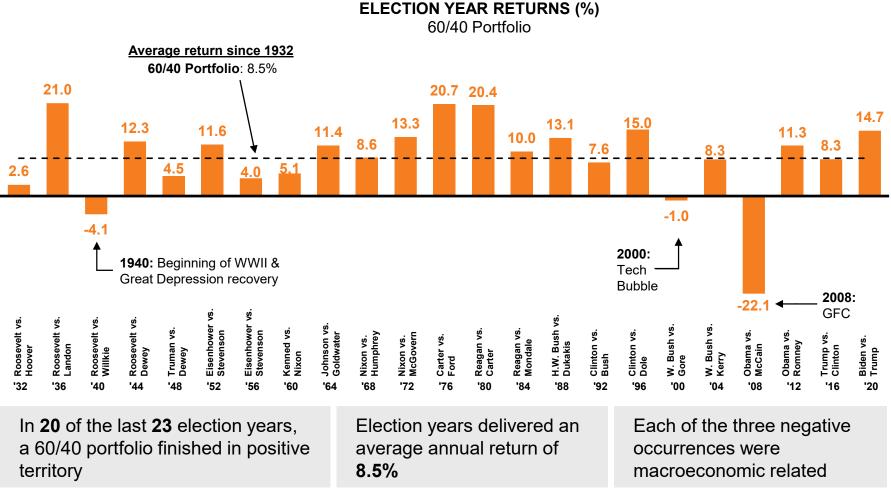


- While we continue to feel the pain of higher prices, inflation levels have moderated on a year-over-year basis
- Relative to flexible-price items, sticky price items are taking a slower path to normalization, specifically within shelter
- Continued normalization across inflation, unemployment and wage growth should help with the Fed's rate decisions

Source: St. Louis Fred and Federal Reserve Bank of Atlanta. Flexible price items: Weighted basket of items that change price relatively frequently (i.e. Car & truck rentals, used cars & trucks, groceries & fuel). Sticky price items: Weighted basket of items that slowly change price (i.e. Rent of primary residence, utilities, public transportation).

### Election year results

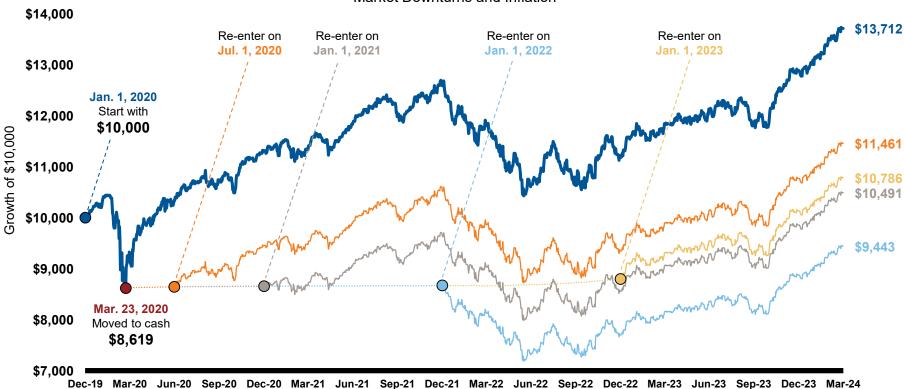
Sticking to the plan has historically provided strong returns in U.S. election years



Source: The American Presidency Project & Morningstar Direct: 60/40 Portfolio: 60% U.S. Equity / 40% Bonds. U.S. Equity: Ibbotson U.S. Equity Index (1932 – 1969), S&P 500 Index (1970 – Present). Bonds: Ibbotson Intermediate Bond Index (1932 – 1975), Bloomberg U.S. Aggregate Bond Index (1976-Present). Cash: Citigroup 1-3 Month T-Bill Index. Indexes are unmanaged and cannot be invested in directly. Returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment.

## Fear impacts opportunity

Moving to cash is costly



#### STAYING INVESTED Market Downturns and Inflation

- Despite high levels of uncertainty, staying invested through pandemic lows and the early 2020s has been rewarded
- If an investor exited the market at the 2020 bottom & re-entered later, the window to recover losses would have been missed
- . While short-term noise can induce the urge to exit the market, sticking to the plan tends to pay off over time

Source: Morningstar Direct. As of March 31, 2024. In CAD. Balanced Portfolio: 60% MSCI World Index & 40% Bloomberg Canada Aggregate Bond Index. Cash: S&P Canada Treasury Bill Index. Index returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment. Indexes are unmanaged and cannot be invested in directly. The performance shown does not include fees and other costs that would have reduced returns.

### Index definitions

**FTSE EPRA/NAREIT Developed Index:** A global market capitalization weighted index composed of listed real estate securities in the North American, European and Asian real estate markets.

**FTSE NAREIT All Equity Index:** Measures the performance of the commercial real estate space across the U.S. economy offering exposure to all investment and property sectors.

**JP Morgan Emerging Market Bond Index (EMBI):** Dollar-denominated sovereign bonds issued by a selection of emerging market countries.

**MSCI country indices**: Indices which include securities that are classified in that country according to the MSCI Global Investable Market Index Methodology, together with companies that are headquartered or listed in that country and carry out the majority of their operations in that country.

**MSCI EAFE (Europe, Australasia, Far East) Index:** A free floatadjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the U.S. and Canada.

**MSCI Emerging Markets Index:** A float-adjusted market capitalization index that consists of indices in 24 emerging economies.

**MSCI World Ex-US Index**: A broad global equity index that represents large and mid-cap equity performance across 23 developed market countries.

**Russell 1000® Growth Index:** Measures the performance of the broad growth segment of the U.S. equity universe. It includes those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

**Russell 1000® Value Index**: Measures the performance of the broad value segment of U.S. equity value universe. It includes those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

**Russell 2000® Index:** measures the performance of the 2,000 smallest companies in the Russell 3000 index.

**Russell 3000® Index:** Measures the performance of the largest 3000 U.S. companies representing approximately 98% of the investable U.S. equity market.

The **S&P Canada Aggregate Bond Index** tracks the performance of Canadian dollar-denominated investment-grade debt publicly issued in the eurobond or Canadian domestic market.

**S&P/TSX Composite Index**: The benchmark Canadian index, representing roughly 70% of the total market capitalization on the Toronto Stock Exchange.

**The S&P 500® Index:** A free-float capitalization-weighted index published since 1957 of the prices of 500 large-cap common stocks actively traded in the United States. The stocks included in the S&P 500® are those of large publicly held companies that trade on either of the two largest American stock market exchanges: the New York Stock Exchange and the NASDAQ.

**S&P Goldman Sachs Commodities Index:** A composite index of commodity sector returns representing an unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities.

The **S&P Global Infrastructure Index**: Provides liquid and tradable exposure to 75 companies from around the world that represent the listed infrastructure universe. To create diversified exposure across the global listed infrastructure market, the index has balanced weights across three distinct infrastructure clusters: Utilities, Transportation, and Energy.

**S&P Global Natural Resources Index**: The index includes 90 of the largest publicly-traded companies in natural resources and commodities businesses that meet specific investability requirements, offering investors diversified and investable equity exposure across 3 primary commodity-related sectors: agribusiness, energy, and metals & mining.

### Index definitions continued

**Bloomberg Global High Yield Index**: An index which provides a broadbased measure of the global high-yield fixed income markets. The Global High-Yield Index represents the union of the U.S. High-Yield, Pan-European High-Yield, U.S. Emerging Markets High-Yield, CMBS High-Yield, and Pan-European Emerging Markets High-Yield Indices.

The **Bloomberg Canada Aggregate Bond Index** measures the Canadian investment grade fixed income market and is comprised of government, government-related and corporate securities.

**Bloomberg Global Aggregate Index CAD Hedged:** measures the performance of the global investment grade, fixed-rate bond markets. The benchmark includes government, government-related and corporate bonds, as well as asset-backed, mortgage-backed and commercial mortgage-backed securities from both developed and emerging markets issuers.

**Bloomberg U.S. Corporate Bond Index TR:** Measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

**Bloomberg HY Muni TR:** An unmanaged index considered representative of noninvestment-grade bonds. Includes dollar-denominated, investment-grade, publicly issued securities with maturities of one to 10 years.

**Citigroup 1-3 Month T-Bill Index:** An unmanaged index that tracks short-term U.S. government debt instruments.

**FTSE Canada Real Return Bond Index** consists of semi-annual pay real return bonds denominated in Canadian dollars, with an effective term to maturity greater than one year.

**ICE BofA US 3M Treasury Bill TR:** measures the performance of a single issue of outstanding treasury bill which matures closest to, but not beyond, three months from the rebalancing date.

**ICE BofA Global High Yield Index Hedged (CAD):** Tracks the performance of USD, CAD, GBP and EUR denominated below investment grade corporate debt publicly issued in the major domestic or Eurobond markets.

### Economic Indicators Dashboard definitions - Canada

LSEG DataStream source for all data.

#### **Market Indicators**

**HOME PRICES –** Teranet - National Bank House Price: Composite 11, Index. The index is estimated by tracking the observed or registered home prices over time.

**MARKET VOLATILITY(VIX)** – CBOE VIX (Chicago Board Options Exchange Volatility Index) measures annualized implied volatility as conveyed by S&P 500 stock index option prices and is quoted in percentage points per annum. For instance, a VIX value of 15 represents an annualized implied volatility of 15% over the next 30 day period. The VIX measures implied volatility, which is a barometer of investor sentiment and market risk.

**10 YR. CANADATREASURY YIELD –** The yield on the 10 year Canadian Treasury note issued by the Canadian Government. It is important because it is seen as a benchmark for interest rate movements and borrowing costs in the economy.

**YIELD SPREAD** – The spread between 3 month Treasury bill yields and 10 year Treasury note yields measures the market outlook for future interest rates. A normal or upward-sloping yield curve, can imply that investors expect the economy to grow and inflation to eat into asset returns. They thus demand a higher yield for long-term Treasuries. An inverted yield curve has often been an indicator of coming recessions, but not always. For example, reduced inflation expectations could cause the yield curve to flatten.

#### **Economic Indicators**

**CONSUMER SENTIMENT –** The Thomson Reuters/Ipsos Consumer Sentiment Index (CSI) is based on a monthly random sample of consumer citizens in chosen countries who answer 11 standard quantitative questions. The eleven tracked questions are then used to create a series of Indexes.

**ECONOMIC EXPANSION (GDP) –** GDP (Gross Domestic Product) measures the total market value of a nation's output of goods and services during a specific time period. It is usually measured on a quarterly basis. Calculating Real GDP growth allows economists to determine if production increased or decreased, regardless of changes in the purchasing power of the currency.

**INFLATION** – The Consumer Price Index (CPI) is a measure of the average change in prices over time of goods and services purchased by households. This indicator value represents the trailing year over year % change in the CPI index as of last month-end.

**UNEMPLOYMENT** – Number of unemployed persons expressed as a percentage of the labour force. The unemployment rate for a particular group (age, sex, marital status, etc.) is the number unemployed in that group expressed as a percentage of the labour force for that group.

**HOUSEHOLD DEBT TO GDP –** Canada, Household Sector, Debt to Gross Domestic Product

### **Economic Indicators Dashboard definitions - US**

#### Market Indicators

HOME PRICES – The S&P/Case-Shiller Home Price Index is a measurement of U.S. residential real estate prices, tracking changes in top 20 metropolitan regions. This indicator value represents the trailing year over year % change in the home prices index as of last month-end. Residential real estate represents a large portion of the U.S. economy, and the Home Price index helps us monitor the value of real estate.

MARKET VOLATILITY(VIX) – CBOE VIX (Chicago Board Options Exchange Volatility Index) measures annualized implied volatility as conveyed by S&P 500 stock index option prices and is quoted in percentage points per annum. For instance, a VIX value of 15 represents an annualized implied volatility of 15% over the next 30-day period. The VIX measures implied volatility, which is a barometer of investor sentiment and market risk.

**10 YR. U.S. TREASURY YIELD** – The yield on the 10-year U.S. Treasury note issued by the U.S. Government. It is important because it is seen as a benchmark for interest rate movements and borrowing costs in the economy.

YIELD SPREAD – The spread between 3-month Treasury bill yields and 10-year Treasury note yields measures the market outlook for future interest rates. A normal or upwardsloping yield curve, can imply that investors expect the economy to grow and inflation to eat into asset returns. They thus demand a higher yield for long-term Treasuries. An inverted yield curve has often been an indicator of coming recessions, but not always. For example, reduced inflation expectations could cause the yield curve to flatten.

#### **Economic Indicators**

**CONSUMER SENTIMENT** – The University of Michigan Survey of Consumer Sentiment Index is an economic indicator which measures the degree of optimism that consumers feel about the overall state of the economy and their personal financial situation.

**ECONOMIC EXPANSION (GDP) –** GDP (Gross Domestic Product) measures the total market value of a nation's output of goods and services during a specific time period. It is usually measured on a quarterly basis. Current GDP is based on the current prices of the period being measured. Nominal GDP growth refers to GDP growth in nominal prices (unadjusted for price changes). Real GDP growth refers to GDP growth adjusted for price changes. Calculating Real GDP growth allows economists to determine if production increased or decreased, regardless of changes in the purchasing power of the currency.

**INFLATION –** The Consumer Price Index (CPI) NSA (nonseasonally adjusted) measures changes in the price level of a market basket of consumer goods and services purchased by households. This indicator value represents the trailing year over year % change in the CPI index as of last month-end.

**UNEMPLOYMENT –** The Bureau of Labor Statistics measures employment and unemployment of all persons over the age of 15 using two different labor force surveys conducted by the United States Census Bureau (within the United States Department of Commerce) and the Bureau of Labor Statistics (within the United States Department of Labor) that gather employment statistics monthly. The data reported here is seasonally adjusted (SA) to account for seasonal gains in employment leading up to Christmas.