



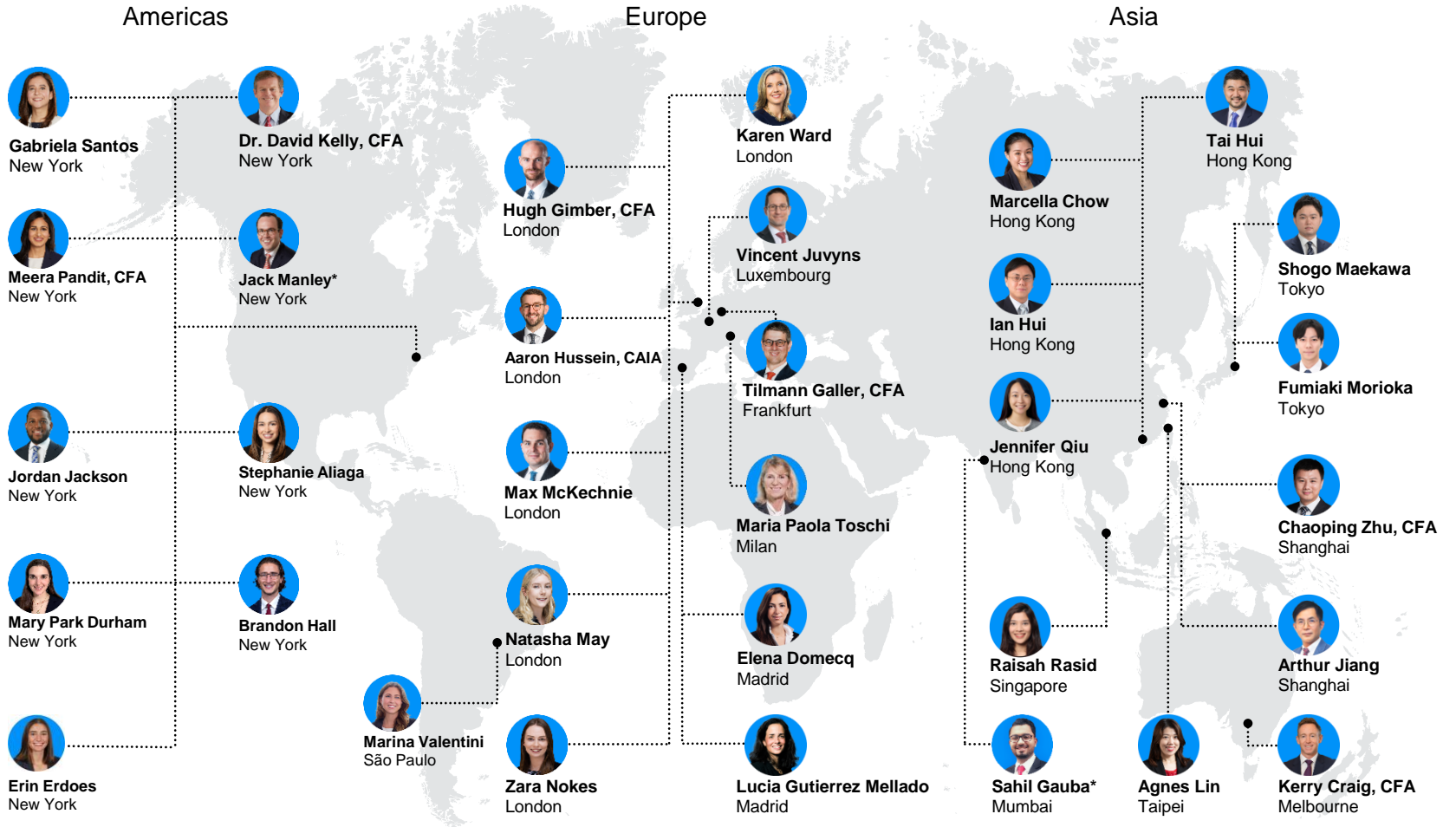
# Canada Economic and Market Update



U.S. | 2Q 2024  
As of April 30, 2024



# Global Market Insights Strategy Team



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# S&P/TSX Composite at inflection points

Equities

## S&P/TSX Composite price index



Source: Toronto Stock Exchange, Statistics Canada, FactSet, Standard & Poor's, J.P. Morgan Asset Management.

Forward price to earnings ratio is a bottom-up calculation based on the most recent S&P/TSX composite Index price, divided by consensus estimates for earnings in the next 12 months (NTM) provided by FactSet. \*September 2000 dividend yield is as of October 2000 due to a lack of data availability. Dividend yield calculation is current composite index price divided by forward 12-month consensus estimates for dividends. Returns are cumulative and based on S&P/TSX Composite Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns. Index level and returns are in local currency.

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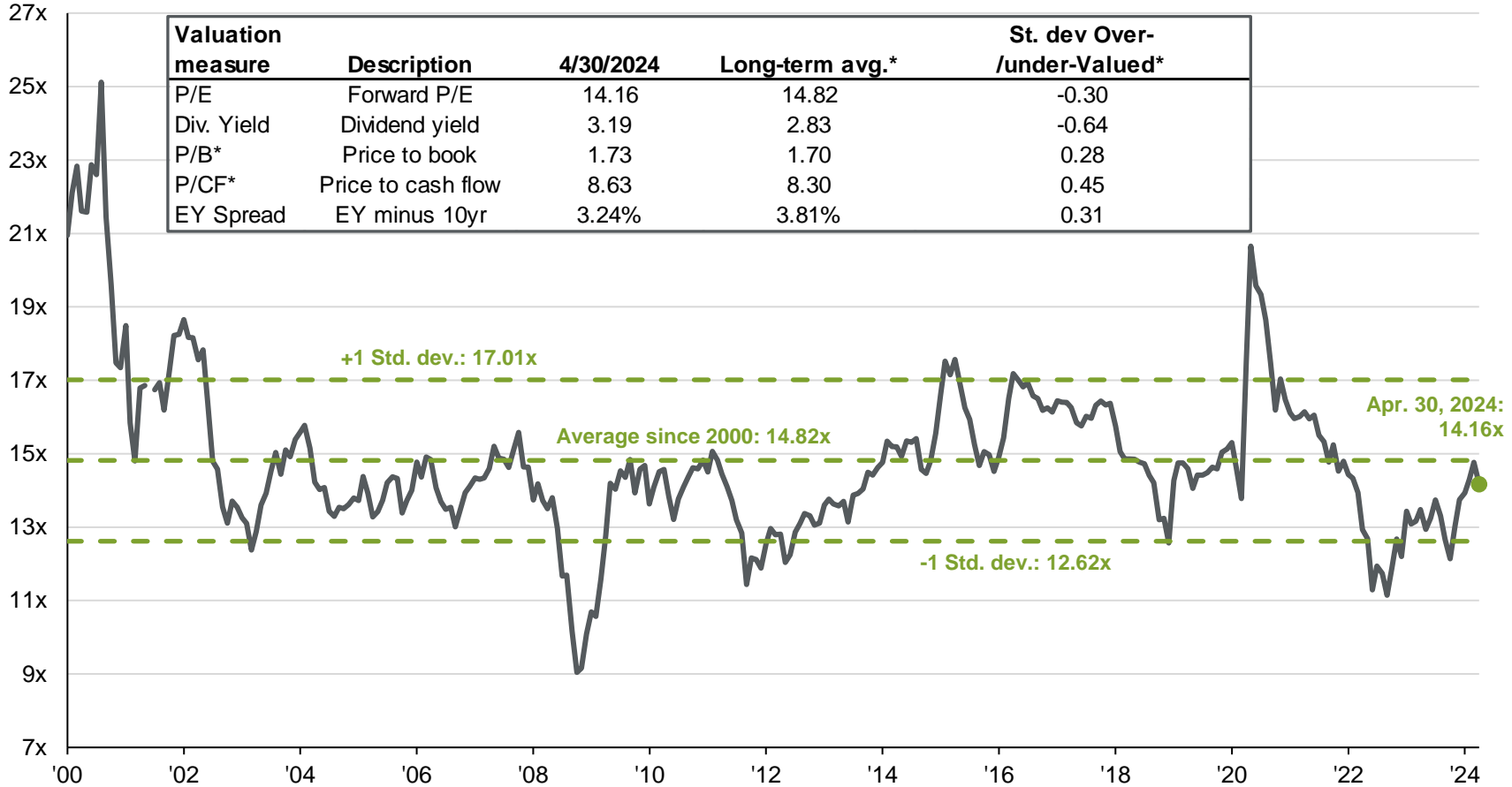
# S&P/TSX Composite valuation metrics

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Equities

## S&P/TSX Composite: Forward P/E ratio

Valuation measure	Description	4/30/2024	Long-term avg.*	St. dev Over-/under-Valued*
P/E	Forward P/E	14.16	14.82	-0.30
Div. Yield	Dividend yield	3.19	2.83	-0.64
P/B*	Price to book	1.73	1.70	0.28
P/CF*	Price to cash flow	8.63	8.30	0.45
EY Spread	EY minus 10yr	3.24%	3.81%	0.31



Source: Toronto Stock Exchange, Statistics Canada, FactSet, Standard & Poor's, J.P. Morgan Asset Management.

Forward price to earnings ratio is a bottom-up calculation based on the most recent S&P/TSX composite Index price, divided by consensus estimates for earnings in the next 12 months (NTM) provided by FactSet. \*Averages and standard deviations for forward P/E and dividend yield are since January 2000, while averages and standard deviations for price to book and price to cash flow are 15-year calculations. Dividend yield calculation is current composite index price divided by forward 12-month consensus estimates for dividends. Returns are cumulative and based on S&P/TSX Composite Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns. Index level and returns are in local currency.

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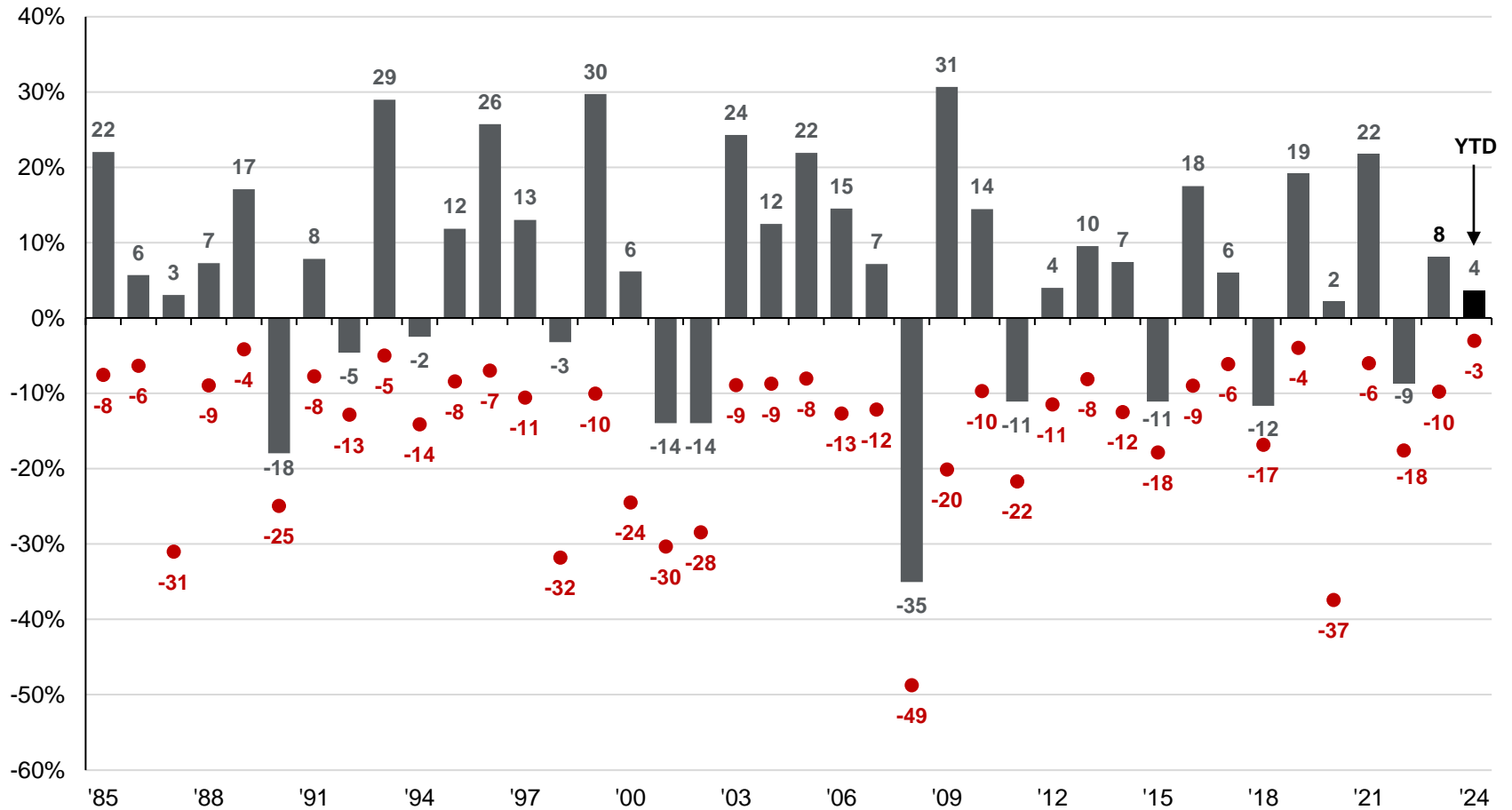


# Annual returns and intra-year declines

Equities

## Canada S&P/TSX Composite intra-year declines vs. calendar year returns

Despite average intra-year max drawdowns of 14.9%, annual returns have been positive in 28 of 39 years



Source: FactSet, Standard & Poor's/Toronto Stock Exchange, J.P. Morgan Asset Management.

Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1985 to 2023, over which time period the average annual return was 5.7%.

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# Returns and valuations by sector

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Equities

	Energy	Materials	Financials	Industrials	Cons. Disc.	Tech.	Comm. Services	Real Estate	Health Care	Cons. Staples	Utilities	S&P/TSX Index	
<b>S&amp;P/TSX weight</b>	18.6%	11.9%	30.4%	13.8%	3.6%	8.3%	3.2%	2.2%	0.3%	4.1%	3.7%	100.0%	Weight
<b>QTD</b>	14.3%	12.1%	2.6%	4.3%	3.6%	-1.3%	-10.2%	-5.3%	12.1%	3.2%	-4.4%	4.7%	Return (%)
<b>YTD</b>	14.3%	12.1%	2.6%	4.3%	3.6%	-1.3%	-10.2%	-5.3%	12.1%	3.2%	-4.4%	4.7%	
<b>Beta to S&amp;P/TSX comp.</b>	1.33	1.04	1.01	0.87	1.17	1.25	0.47	1.07	1.31	0.43	0.51	1.00	β
<b>NTM earnings growth</b>	7.0%	13.2%	4.4%	8.3%	11.4%	23.5%	3.2%	4.7%	94.4%	7.6%	7.4%	7.4%	EPS
<b>20-yr avg.</b>	74.5%	22.0%	8.9%	19.7%	15.7%	22.6%	6.8%	4.0%	62.2%	10.1%	12.1%	12.8%	
<b>Forward P/E ratio</b>	12.7	19.8	10.3	22.1	14.8	29.7	14.2	13.7	6.2	16.3	18.0	14.2	P/E
<b>20-yr avg.</b>	20.5	17.2	11.3	17.5	14.3	24.9	15.5	15.0	20.0	15.7	18.8	14.4	
<b>Dividend yield</b>	4.5%	1.8%	4.3%	1.2%	2.2%	#N/A	7.2%	4.0%	3.2%	1.6%	5.2%	3.2%	Div
<b>20-yr avg.</b>	3.6%	1.4%	3.9%	1.8%	2.4%	0.3%	4.6%	4.3%	1.7%	1.6%	4.6%	3.0%	

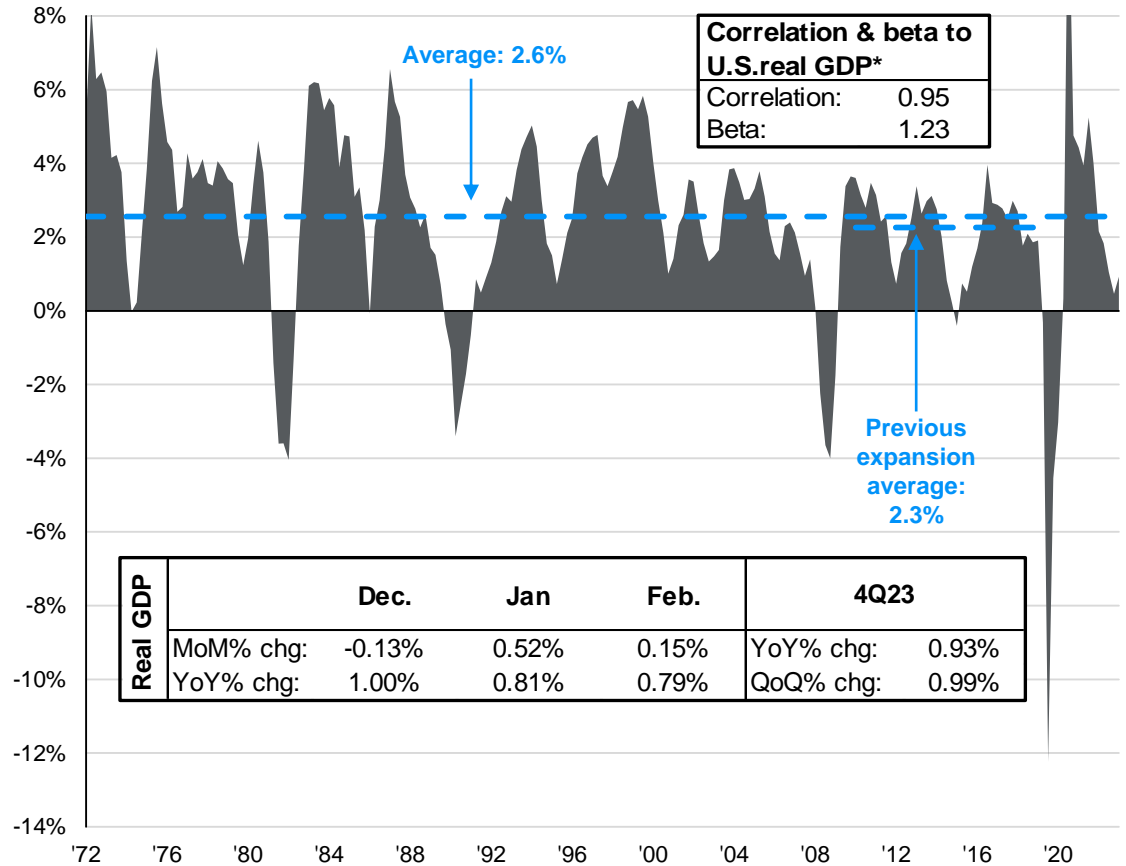
Source: Statistics Canada, BIS, Standard & Poor's, FactSet, J.P. Morgan Asset Management. YTD and QTD returns are total returns. 20-year average NTM earnings growth is smoothed to account for periods with outlier growth rates. Canada Economic and Market Update - Data are as of April 30, 2024.



# Economic growth and the composition of GDP

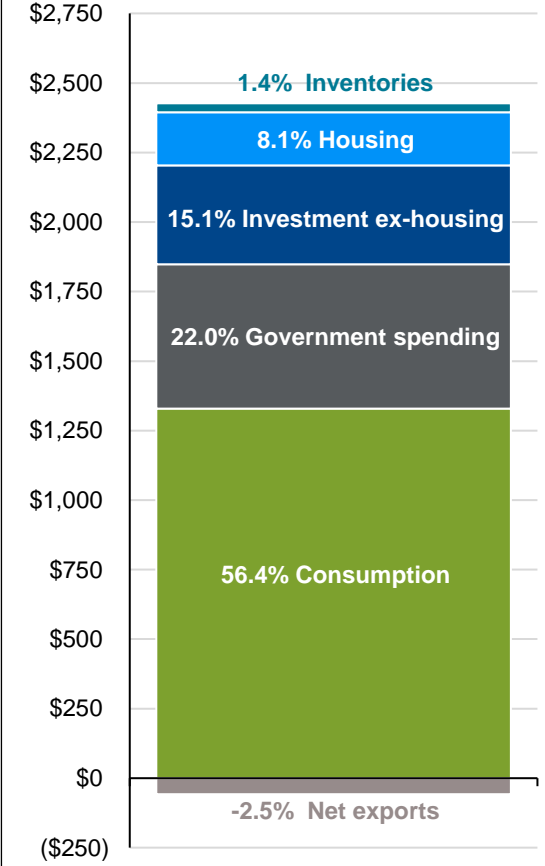
## Real GDP

Year-over-year % change, seasonally adjusted



## Components of GDP

4Q23 real GDP, CAD billions



Source: Bloomberg, Statistics Canada, FactSet, J.P. Morgan Asset Management.  
 Values may not sum to 100% due to rounding. Quarter-over-quarter percent changes are at an annualized rate. Average represents the annualized growth rate for the full period. Period used for the expansion period is defined as 3Q10 – 4Q19. \* Correlation and beta to U.S. real GDP are based on quarterly changes in GDP over the past 10 years.  
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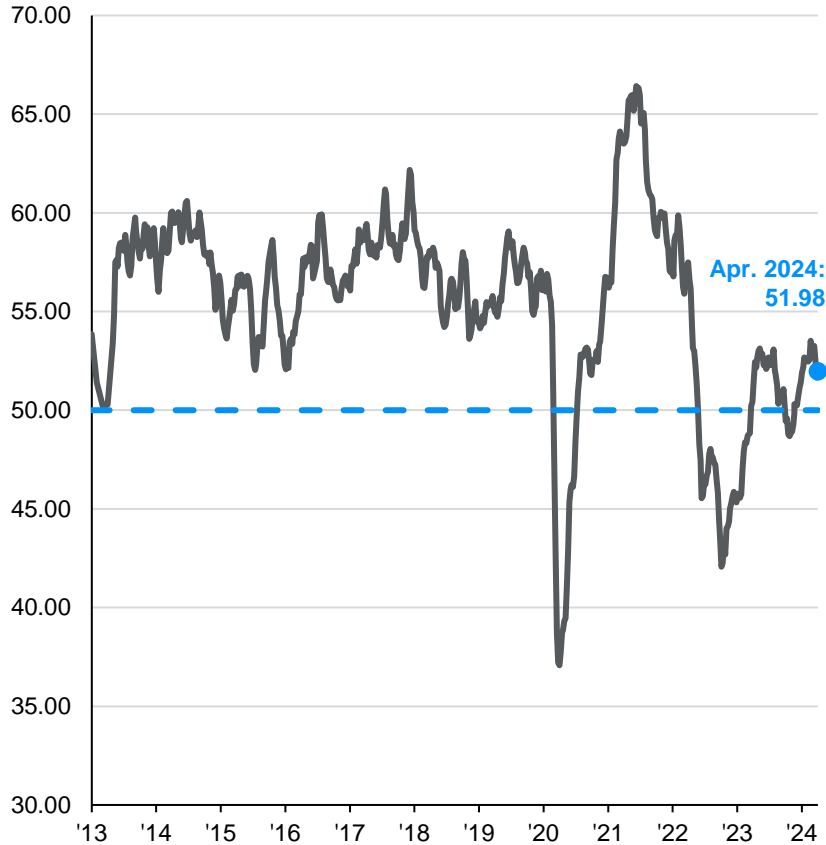
# Consumer activity

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Economy

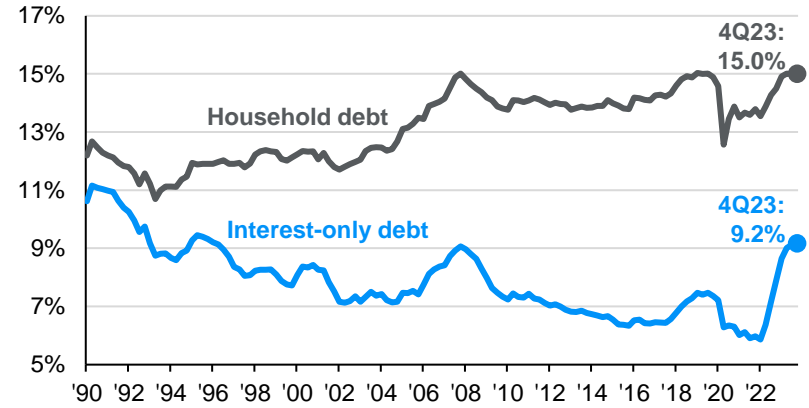
## Consumer sentiment

Bloomberg Nanos Economic Mood index, diffusion index, weekly



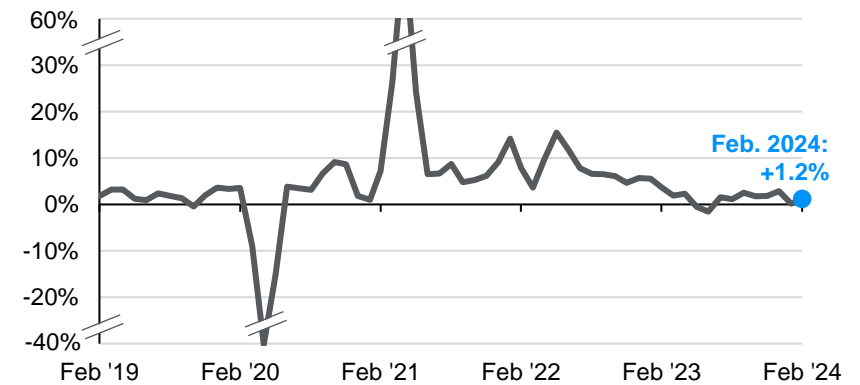
## Household debt and interest only debt service ratio

Debt payments as % of disposable personal income, SA



## Retail sales

Year over year % change, seasonally adjusted



Source: Statistics Canada, Bloomberg, FactSet, J.P. Morgan Asset Management.

The Bloomberg Nanos Economic Mood Index is based on a four-week rolling average of 1,000 telephone respondents, who are asked questions about their personal finances, job security, the outlook for the economy and real estate prices. Above 50 indicates net positive views, below 50 indicates net negative views. Latest data point is as of the most recent week in the current month. Debt payments include households and nonprofit organizations.

Canada Economic and Market Update - Data are as of April 30, 2024.

J.P.Morgan  
ASSET MANAGEMENT

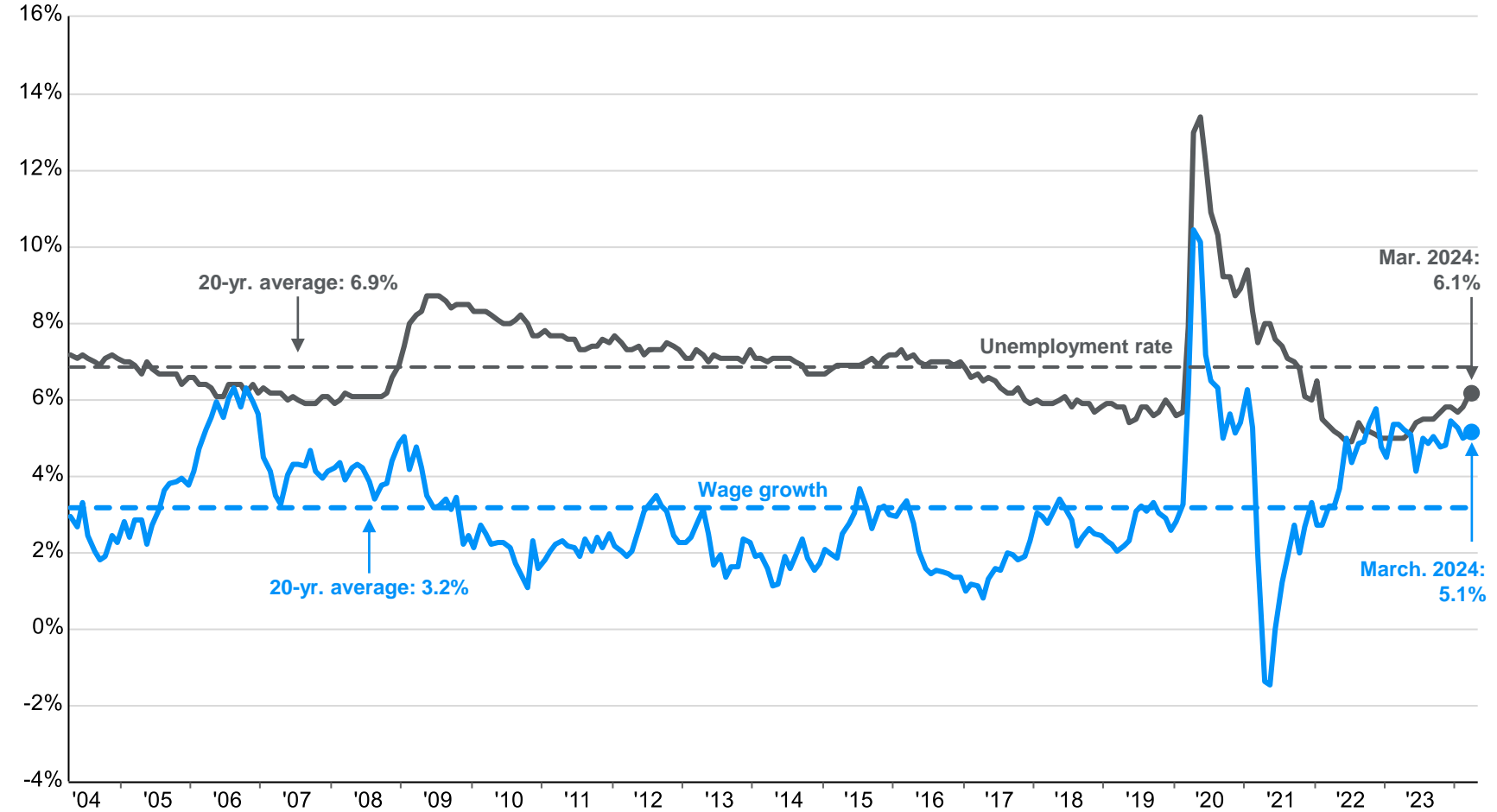


# Unemployment and wages

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## Unemployment rate and year-over-year growth in average hourly wages

All industries, seasonally adjusted



Economy

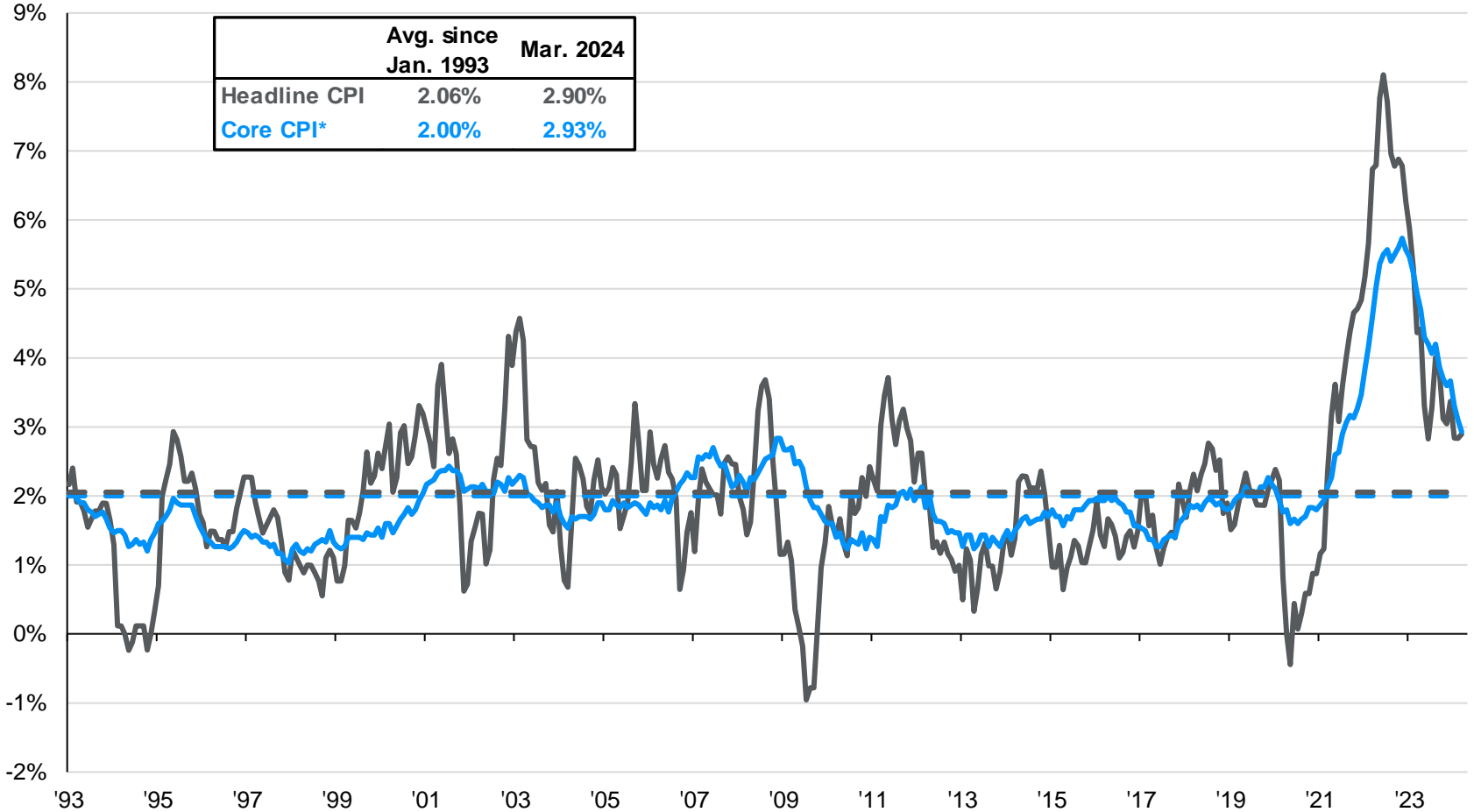
Source: Statistics Canada, FactSet, J.P. Morgan Asset Management. Canada Economic and Market Update - Data are as of April 30, 2024.



# Inflation

## CPI and core CPI

% change vs. prior year, seasonally adjusted



Source: Statistics Canada, FactSet, J.P. Morgan Asset Management.  
 CPI values shown are % change vs. one year ago. \*Core CPI is an average of the Bank of Canada's three preferred core inflation measures: trimmed mean, weighted mean and common component.  
 Canada Economic and Market Update - Data are as of April 30, 2024.



# Inflation heatmap

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## Consumer Price Index, components

m/m % change, seasonally adjusted

	2022												2023						2024					
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
<b>Headline CPI, y/y</b>	6.8%	7.8%	8.1%	7.7%	7.0%	6.8%	6.9%	6.8%	6.3%	5.9%	5.3%	4.4%	4.4%	3.3%	2.8%	3.3%	4.0%	3.8%	3.1%	3.0%	3.4%	2.8%	2.8%	2.9%
<b>Core CPI, y/y</b>	4.7%	5.1%	5.3%	5.5%	5.2%	5.4%	5.3%	5.4%	5.3%	4.9%	4.9%	4.6%	4.4%	3.9%	3.6%	3.4%	3.6%	3.3%	3.4%	3.5%	3.3%	3.2%	3.0%	2.9%
<b>Core CPI, y/y (BoC's preferred measures)*</b>	5.0%	5.4%	5.5%	5.6%	5.4%	5.5%	5.6%	5.7%	5.6%	5.5%	5.2%	4.9%	4.7%	4.3%	4.2%	4.1%	4.2%	3.9%	3.7%	3.6%	3.7%	3.3%	3.1%	2.9%
<b>Headline CPI, m/m</b>	0.3%	1.2%	0.6%	0.1%	-0.1%	0.4%	0.7%	0.3%	0.0%	0.4%	0.1%	0.2%	0.4%	0.1%	0.1%	0.6%	0.6%	0.2%	0.0%	0.3%	0.3%	-0.1%	0.1%	0.3%
<b>Core CPI, m/m</b>	0.5%	0.7%	0.4%	0.5%	0.1%	0.5%	0.2%	0.3%	0.3%	0.2%	0.3%	0.3%	0.3%	0.2%	0.1%	0.3%	0.3%	0.1%	0.3%	0.3%	0.2%	0.1%	0.1%	0.3%
<b>Food</b>	1.1%	0.5%	0.2%	0.8%	1.2%	1.2%	0.5%	0.8%	0.4%	1.1%	0.4%	0.4%	0.5%	0.5%	0.3%	0.3%	0.2%	0.3%	0.2%	0.3%	0.4%	0.0%	-0.1%	0.1%
<b>Shelter</b>	1.1%	0.7%	0.4%	0.4%	-0.1%	0.5%	0.8%	0.6%	0.4%	0.1%	0.2%	0.4%	0.6%	0.4%	0.5%	0.7%	0.8%	0.5%	0.9%	0.5%	0.4%	0.3%	0.4%	0.4%
<b>Household operations, furnishings and equipment</b>	0.1%	1.6%	0.3%	0.2%	0.2%	0.5%	0.2%	0.2%	-0.1%	-0.6%	0.8%	-0.1%	-0.2%	-0.3%	-0.5%	-0.3%	0.2%	-0.4%	-0.1%	0.0%	-0.2%	0.4%	-0.5%	-0.5%
<b>Clothing and footwear</b>	-0.4%	1.6%	0.3%	-0.5%	-0.3%	0.2%	0.7%	-0.7%	0.8%	0.0%	0.5%	0.1%	-0.2%	-0.3%	-0.1%	0.1%	0.4%	-0.3%	-0.6%	0.3%	0.9%	-1.8%	-2.3%	1.4%
<b>Transportation</b>	0.5%	2.5%	1.9%	-1.6%	-1.6%	-0.6%	1.7%	-0.1%	-1.5%	0.7%	-0.5%	-0.7%	1.0%	-1.1%	0.7%	0.8%	1.5%	0.4%	-1.5%	0.2%	1.5%	-0.8%	0.4%	0.2%
<b>Health and personal care</b>	0.7%	0.4%	0.5%	0.4%	0.4%	0.4%	0.7%	0.8%	0.7%	0.4%	0.5%	0.6%	0.4%	0.4%	0.3%	0.1%	0.4%	0.2%	0.1%	0.1%	0.2%	0.5%	0.4%	0.1%
<b>Recreation, education and reading</b>	-0.9%	1.0%	1.1%	0.2%	-0.2%	0.2%	-0.3%	0.4%	-0.1%	0.4%	-0.2%	0.2%	0.5%	0.7%	-0.6%	0.6%	0.2%	-0.2%	0.6%	1.4%	-1.9%	-0.6%	0.6%	0.6%
<b>Alcoholic beverages and tobacco products</b>	0.2%	0.2%	0.3%	0.6%	0.3%	0.3%	0.7%	0.5%	0.5%	0.5%	0.4%	0.7%	0.2%	0.4%	0.3%	0.4%	0.4%	0.3%	0.2%	0.4%	0.2%	0.3%	0.0%	0.2%
<b>Energy**</b>	0.6%	8.5%	3.9%	-5.4%	-6.5%	-4.4%	6.2%	-1.5%	-7.9%	1.3%	-1.2%	0.7%	3.4%	-0.8%	1.4%	1.7%	3.7%	-1.0%	-4.6%	-1.9%	-2.6%	-1.1%	2.8%	3.4%

Economy

Source: Statistics Canada, FactSet, J.P. Morgan Asset Management.

\*Bank of Canada's three preferred core inflation measures: trimmed mean, median and common component (nsa). The average of these three measures is shown. \*\*Energy series is not seasonally adjusted due to the unavailability of a seasonally adjusted series.  
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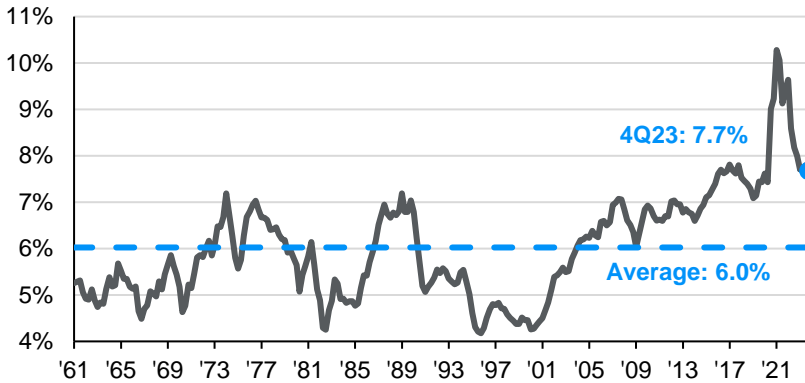


# Residential real estate

Economy

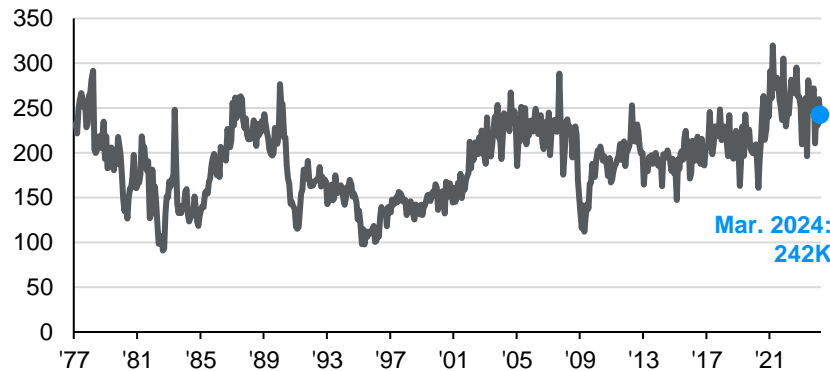
### Residential investment as a % of GDP

Quarterly, seasonally adjusted, 1961 - present



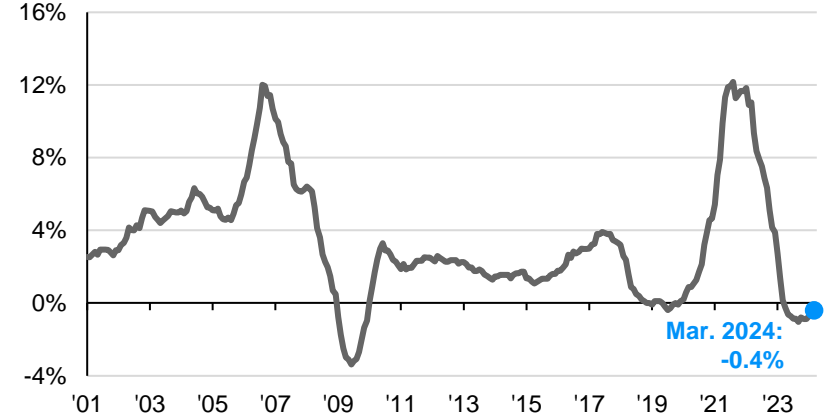
### Housing starts

Thousands, SAAR



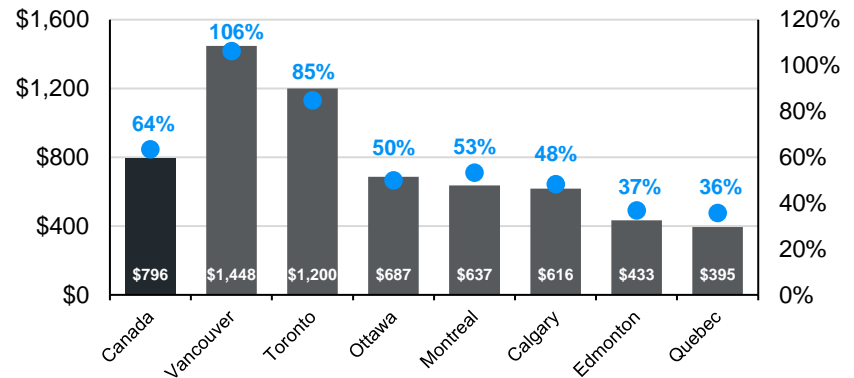
### New home prices

Year-over-year % change, all areas



### Current home prices and housing affordability\*\*

CAD thousands (left), affordability as percent of pre-tax income (right)



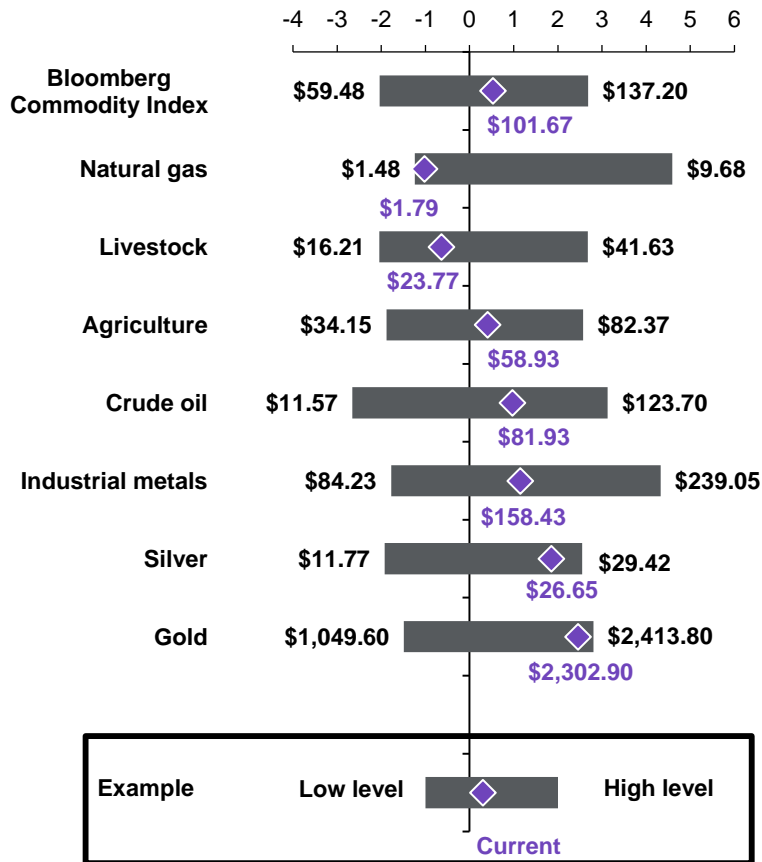
Source: (Top left) FactSet, Statistics Canada; (Bottom right) RBC – *Housing Trends and Affordability: March 2024*; (Top right) FactSet, J.P. Morgan Asset Management. \*Residential investment as a % of GDP is calculated by dividing gross residential structures capital formation by gross GDP. \*\*The RBC Housing Affordability Measures show the proportion of median pre-tax household income that would be required to service the cost of mortgage payments (principal and interest), property taxes, and utilities based on the average market price on an overall aggregate of all housing types in each market. Current home prices are sourced from RPS, and established from sales prices from monthly transactions, which are filtered to remove extreme values and other outliers. The affordability measures are based on a 25% down payment and a 25-year mortgage loan at a five-year fixed rate. (Bottom left) Bloomberg, CMHC; J.P. Morgan Asset Management. *Canada Economic and Market Update* - Data are as of April 30, 2024.



# Global commodities and oil

## Commodity prices

Commodity price z-scores



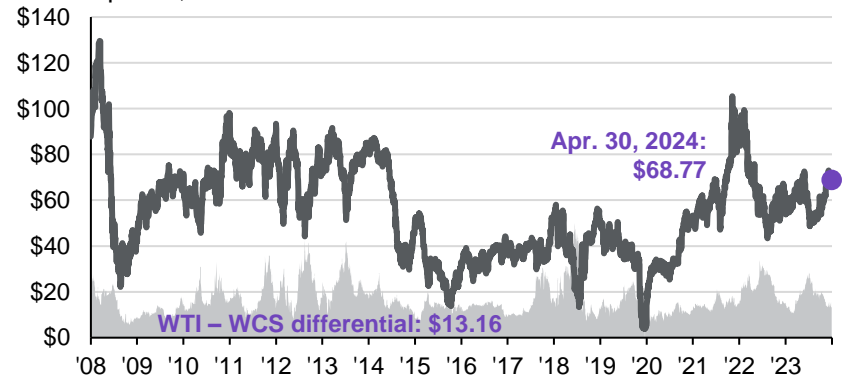
## Change in production and consumption of liquid fuels

Production, consumption and inventories, millions of barrels per day

Production	2021	2022	2023	2024	2025	Growth since '21
U.S.	19.0	20.3	21.9	22.3	23.1	21.9%
OPEC	30.5	32.9	32.2	32.2	32.6	7.0%
Canada	5.5	5.7	5.8	5.9	6.1	9.4%
<b>Global</b>	<b>95.7</b>	<b>100.0</b>	<b>101.8</b>	<b>102.7</b>	<b>104.6</b>	<b>9.3%</b>
Consumption						
U.S.	19.9	20.0	20.3	20.5	20.6	3.4%
Canada	2.3	2.4	2.5	2.4	2.4	4.0%
<b>Global</b>	<b>97.6</b>	<b>99.9</b>	<b>102.0</b>	<b>102.9</b>	<b>104.3</b>	<b>6.8%</b>
Inventory Change	<b>-1.9</b>	<b>0.0</b>	<b>-0.2</b>	<b>-0.3</b>	<b>0.3</b>	

## Western Canada Select

Nominal prices, USD/barrel

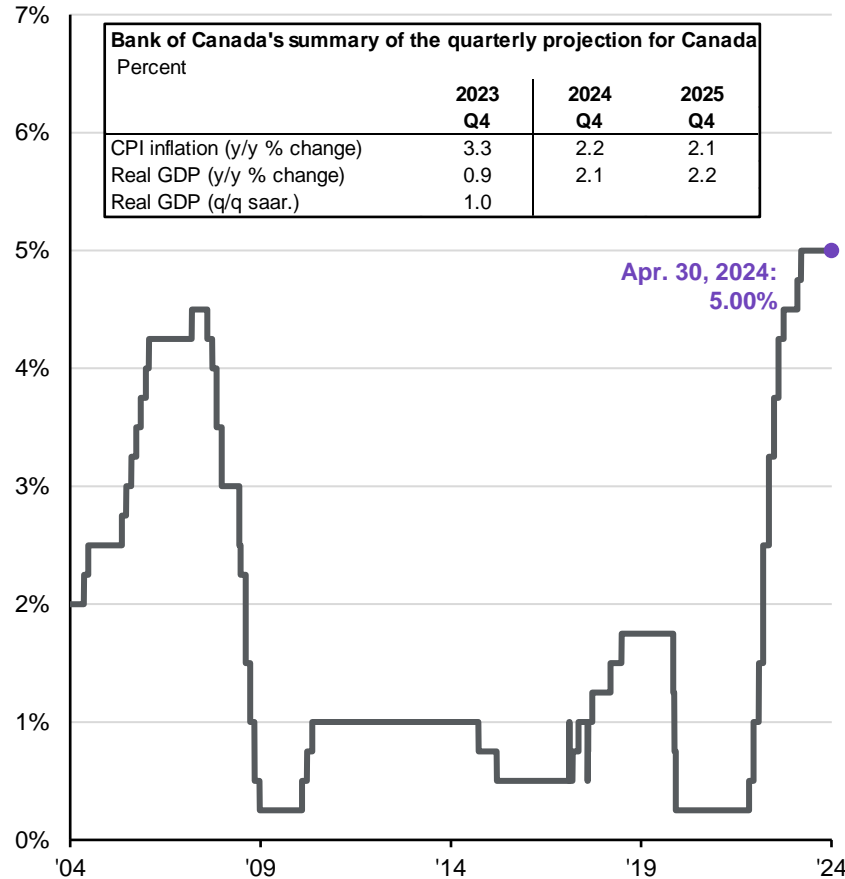


Source: FactSet, J.P. Morgan Asset Management; (Left) Bloomberg, CME; (Top right) EIA; (Bottom right) Bloomberg, BLS, Statistics Canada. Commodity prices are represented by the appropriate Bloomberg Commodity sub-index. Other commodity prices are represented by futures contracts. Z-scores are calculated using daily prices over the past 10 years. \*Oil consumption and production forecasts are from the EIA Short-Term Energy Outlook released in January 2024. Canada Economic and Market Update - Data are as of April 30, 2024.



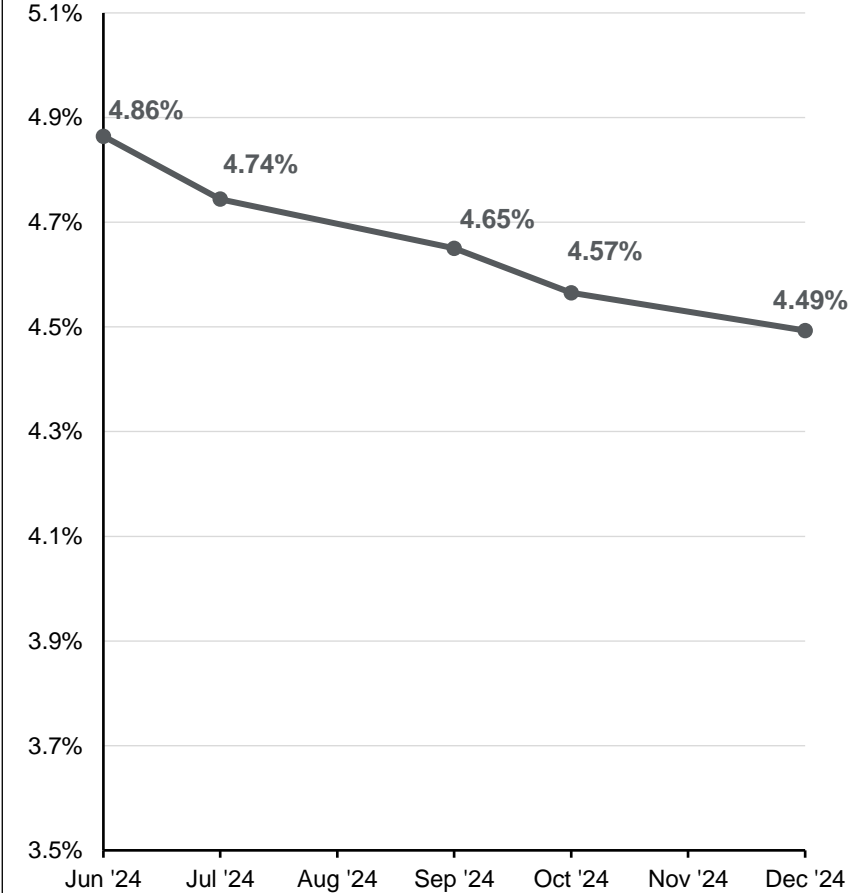
# The Bank of Canada and interest rates

## Bank of Canada target overnight rate



## Canada implied policy rates

Overnight index swap implied rate, by interest rate announcement



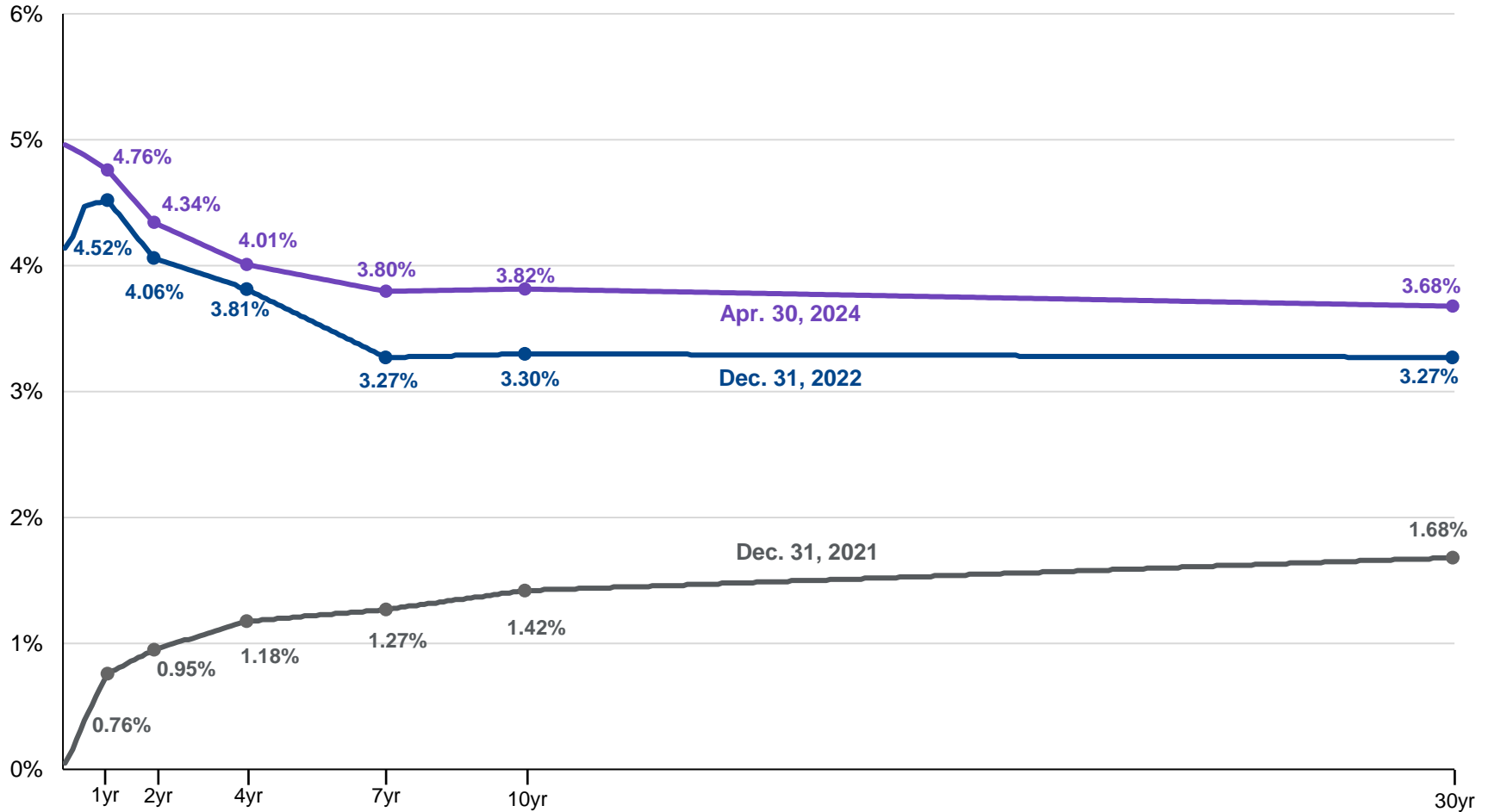
Source: Bank of Canada, Bloomberg, FactSet, J.P. Morgan Asset Management. Canada Economic and Market Update - Data are as of April 30, 2024.



# Yield curve

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## Canada benchmark bond yield curve



Fixed income, FX & Commodities

Source: Bank of Canada, FactSet, J.P. Morgan Asset Management. Canada Economic and Market Update - Data are as of April 30, 2024.



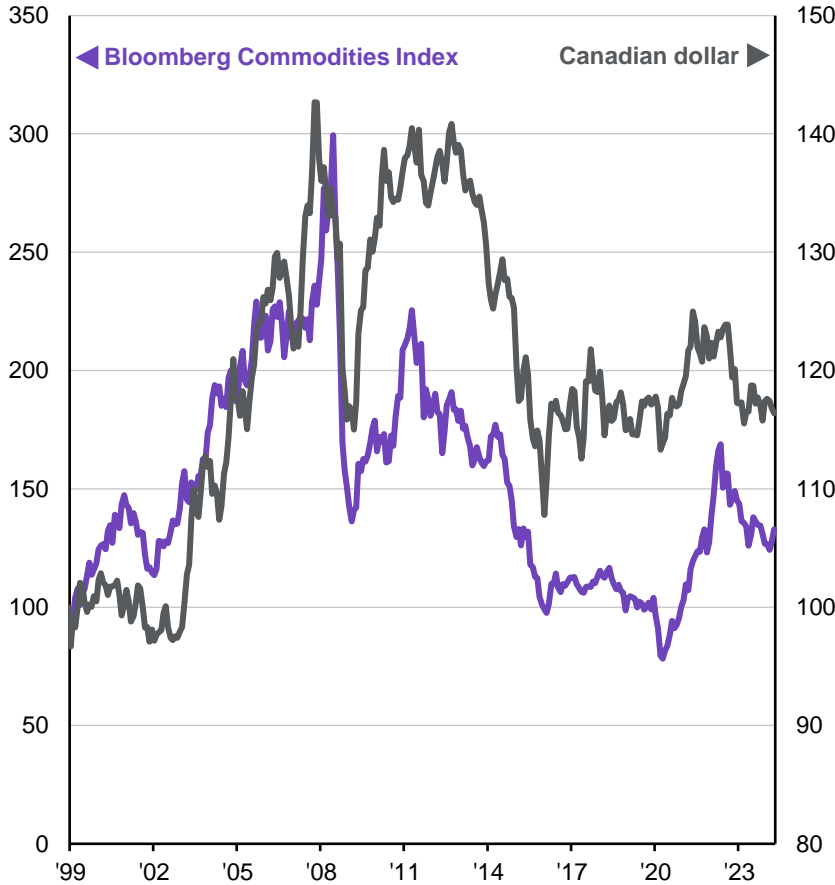


# Canadian dollar drivers

Fixed income, FX & Commodities

## Canadian dollar and commodities

Nominal CEER and the Bloomberg Commodity Index, Dec. 1998=100



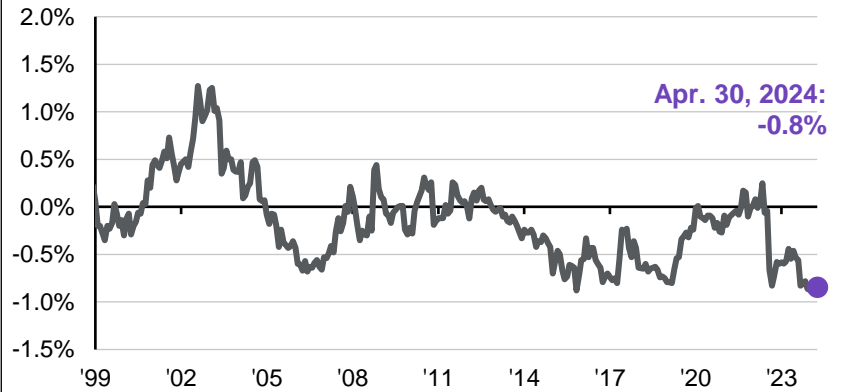
## Canada's trade balance

Current account balance, % of GDP



## Interest rate differentials

Difference between Canada and U.S. 10-year yields



Source: J.P. Morgan Asset Management; (Left) Bank of Canada, Bloomberg, FactSet; (Top right) FactSet, Statistics Canada; (Bottom right); FactSet. The CEER index is a weighted average of bilateral exchange rates for the Canadian dollar against the currencies of Canada's 17 major trading partners. These currencies include the US dollar, euro, Japanese yen, British pound, Swiss franc, Australian dollar, Swedish krona, Brazilian real, Chinese renminbi, Hong Kong dollar, Indian rupee, Malaysian ringgit, Mexican peso, Norwegian krone, Peruvian new sol, South Korean won and Thai baht.

Canada Economic and Market Update - Data are as of April 30, 2024.



# J.P. Morgan Asset Management – Index definitions

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All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

## Equities:

The **Dow Jones Industrial Average** is a price-weighted average of 30 actively traded blue-chip U.S. stocks.

The **MSCI ACWI (All Country World Index)** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.

The **MSCI EAFE Index (Europe, Australasia, Far East)** is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada.

The **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

The **MSCI Europe Index** is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe.

The **MSCI Pacific Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region.

The **Russell 1000 Index**® measures the performance of the 1,000 largest companies in the Russell 3000.

The **Russell 1000 Growth Index**® measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 1000 Value Index**® measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

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

The **Russell 2000 Growth Index**® measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 2000 Value Index**® measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 3000 Index**® measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

The **Russell Midcap Index**® measures the performance of the 800 smallest companies in the Russell 1000 Index.

The **Russell Midcap Growth Index**® measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth index.

The **Russell Midcap Value Index**® measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. The index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The **S&P 500 Index** focuses on the large-cap segment of the market; however, since it includes a significant portion of the total value of the market, it also represents the market.

## Fixed income:

The **Bloomberg 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon US Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non convertible.

The **Bloomberg Global High Yield Index** is a multi-currency flagship measure of the global high yield debt market. The index represents the union of the US High Yield, the Pan-European High Yield, and Emerging Markets (EM) Hard Currency High Yield Indices. The high yield and emerging markets sub-components are mutually exclusive. Until January 1, 2011, the index also included CMBS high yield securities.

The **Bloomberg Municipal Index**: consists of a broad selection of investment-grade general obligation and revenue bonds of maturities ranging from one year to 30 years. It is an unmanaged index representative of the tax-exempt bond market.

The **Bloomberg US Dollar Floating Rate Note (FRN) Index** provides a measure of the U.S. dollar denominated floating rate note market.

The **Bloomberg US Corporate Investment Grade Index** is an unmanaged index consisting of publicly issued US Corporate and specified foreign debentures and secured notes that are rated investment grade (Baa3/BBB or higher) by at least two ratings agencies, have at least one year to final maturity and have at least \$250 million par amount outstanding. To qualify, bonds must be SEC-registered.

The **Bloomberg US High Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

The **Bloomberg US Mortgage Backed Securities Index** is an unmanaged index that measures the performance of investment grade fixed-rate mortgage backed pass-through securities of GNMA, FNMA and FHLMC.

The **Bloomberg US TIPS Index** consists of Inflation-Protection securities issued by the U.S. Treasury.

The **J.P. Morgan Emerging Market Bond Global Index (EMBI)** includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

The **J.P. Morgan Domestic High Yield Index** is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.

The **J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI Broad Diversified)** is an expansion of the **J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI)**. The CEMBI is a market capitalization weighted index consisting of U.S. dollar denominated emerging market corporate bonds.

The **J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI Global Diversified)** tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The index limits the exposure of some of the larger countries.

The **J.P. Morgan GBI EM Global Diversified** tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by most of the international investor base.

The **U.S. Treasury Index** is a component of the U.S. Government index.



# J.P. Morgan Asset Management – Definitions

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## *Other asset classes:*

The **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.

The **Bloomberg Commodity Index** and related sub-indices are composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc

The **Cambridge Associates U.S. Global Buyout and Growth Index®** is based on data compiled from 1,768 global (U.S. & ex-U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2013.

The **CS/Tremont Hedge Fund Index** is compiled by Credit Suisse Tremont Index, LLC. It is an asset-weighted hedge fund index and includes only funds, as opposed to separate accounts. The Index uses the Credit Suisse/Tremont database, which tracks over 4500 funds, and consists only of funds with a minimum of US\$50 million under management, a 12-month track record, and audited financial statements. It is calculated and rebalanced on a monthly basis, and shown net of all performance fees and expenses. It is the exclusive property of Credit Suisse Tremont Index, LLC.

The **HFRI Monthly Indices (HFRI)** are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub strategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internal HFR Database.

The **NAREIT EQUITY REIT Index** is designed to provide the most comprehensive assessment of overall industry performance, and includes all tax-qualified real estate investment trusts (REITs) that are listed on the NYSE, the American Stock Exchange or the NASDAQ National Market List.

The **NFI-ODCE**, short for NCREIF Fund Index -Open End Diversified Core Equity, is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted.

## *Definitions:*

Investing in **alternative assets** involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

**Bonds** are subject to interest rate risks. Bond prices generally fall when interest rates rise.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

**Derivatives** may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

**Distressed Restructuring Strategies** employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

Investments in **emerging markets** can be more volatile. The normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

The price of **equity securities** may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

**Equity market neutral strategies** employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

**Global macro strategies** trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

**International** investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

**Merger arbitrage strategies** which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction.

**Mid-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

**Price to forward earnings** is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's future financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

**Real estate** investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

**Relative Value Strategies** maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

**Small-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.



# J.P. Morgan Asset Management – Risks & disclosures

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