

Long-Term Investment Perspectives

CIO Office | As of March 29, 2024



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Long-Term

Market Expectations

Long-Term Market Expectations – Overview

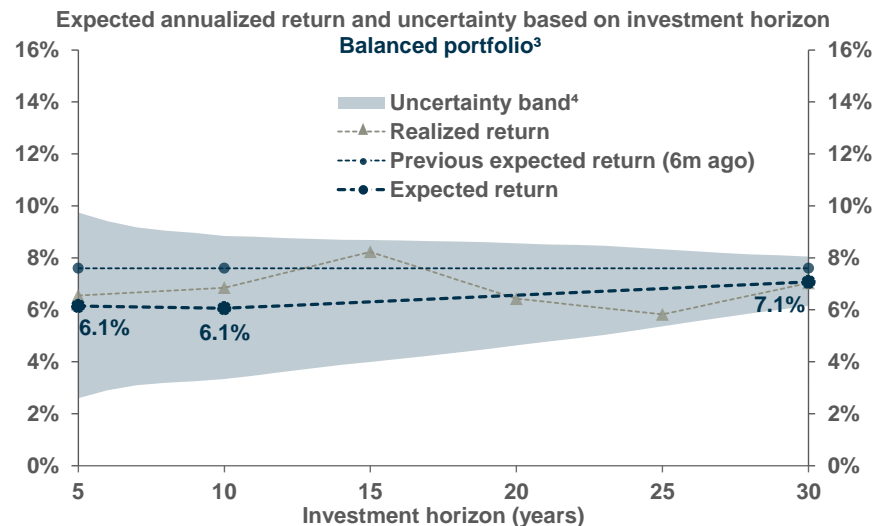
Long-Term Market Expectations: Spring 2024 Update

Twice a year (April, October), we update our Long-Term Market Expectations (LTMES) for major asset classes over a 5-year, 10-year and 30-year investment horizon¹. Based on our recently improved building-block methodology (5-year and 10-year) and risk premia methodology (30-year), these projections are the foundation of National Bank Investments' strategic asset allocation (SAA) and portfolio construction.

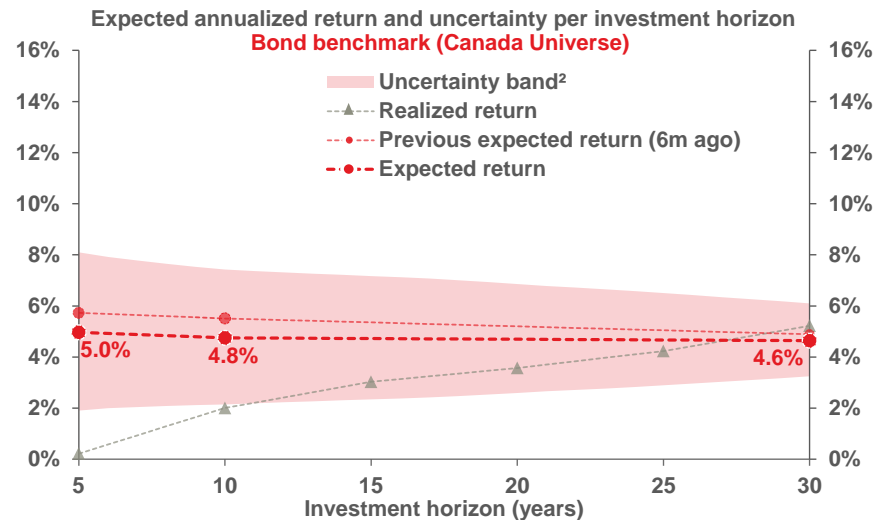
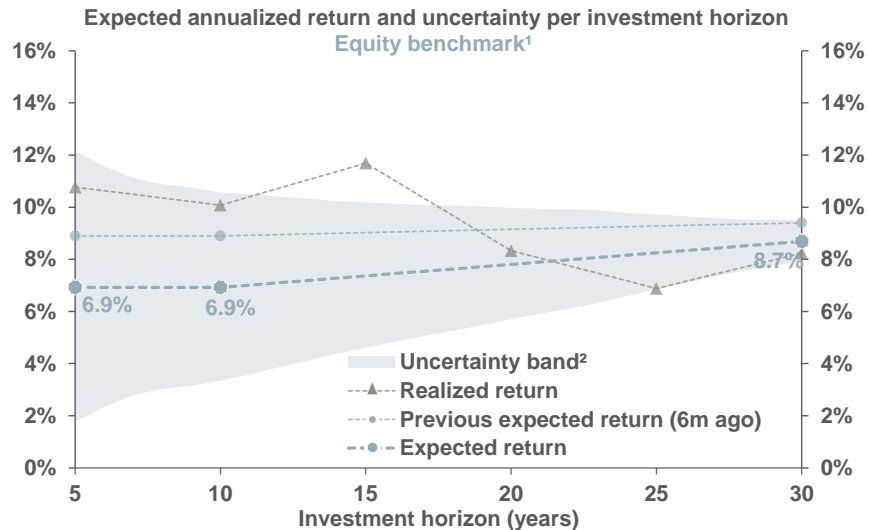
For the current edition, this results in an anticipated annual return of 6.1% for a benchmark balanced portfolio over a 5-year horizon, which is similar to the realized return of 6.5% over the past five years. However, this forecast is lower than the 7.6% we anticipated in the fall 2023 update, with a slightly less favorable outlook for bonds and equities.

Specifically, our model foresees an annual return of 5.0% for the Canadian bond universe over the next five years. On the equities front, the situation is far less promising than it was six months ago, due to significantly higher stock market valuations, with an expected annual return of 6.9% for our equity benchmark² - below the historical average.

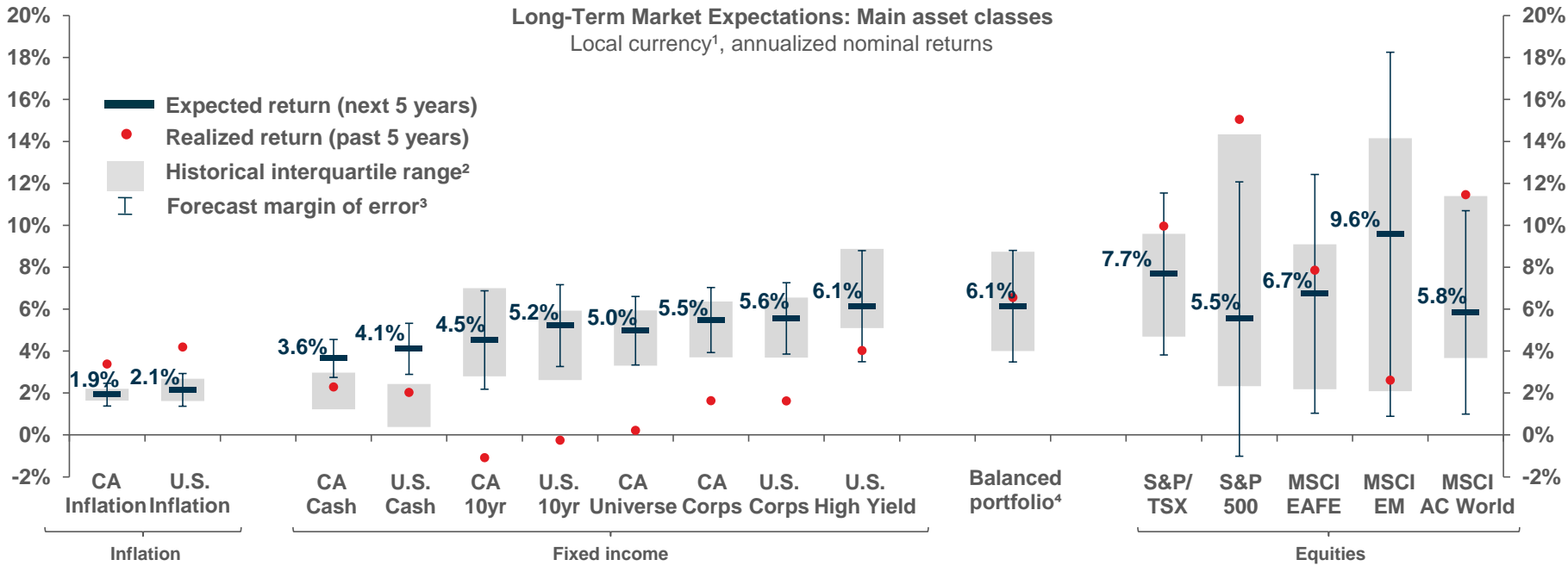
Ultimately, beyond the inevitable short-term fluctuations, projections for a balanced portfolio remain largely positive for long-term investors, with the relatively attractive outlook for bonds offsetting historically weaker forecasts for equities.



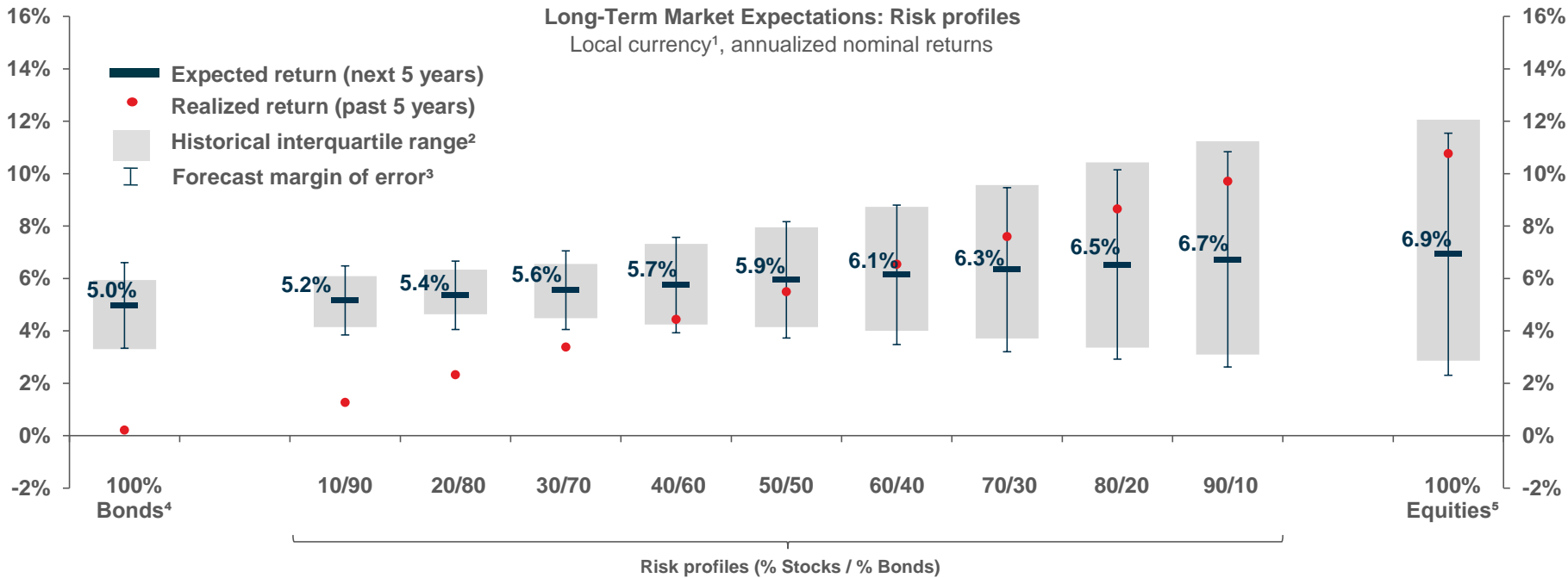
Long-Term Market Expectations – Overview (stocks & bonds)



Five-year market expectations – Main asset classes overview



Five-year market expectations – Risk profiles overview

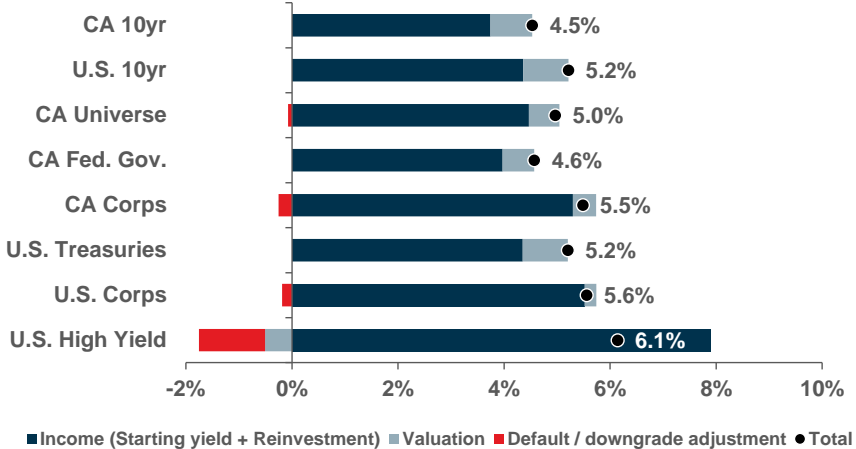


CIO Office (Data via Refinitiv). 1. With the exception of MSCI indices, which are in USD. 2. The area between the 25th and 75th percentile of realized return outcomes. In other words, 50% of all observations fall within this range. 3. The forecast margin of error is based on the back-tested predictive power of our return model and the historical volatility of the asset. 4. ICE BofA Canada Broad Market Index (Canada Bond Universe). 5. Equity benchmark: 35% S&P TSX, 35% S&P 500, 20% MSCI EAFE, 10% MSCI EM, all in CAD.

Five-year market expectations – Methodology

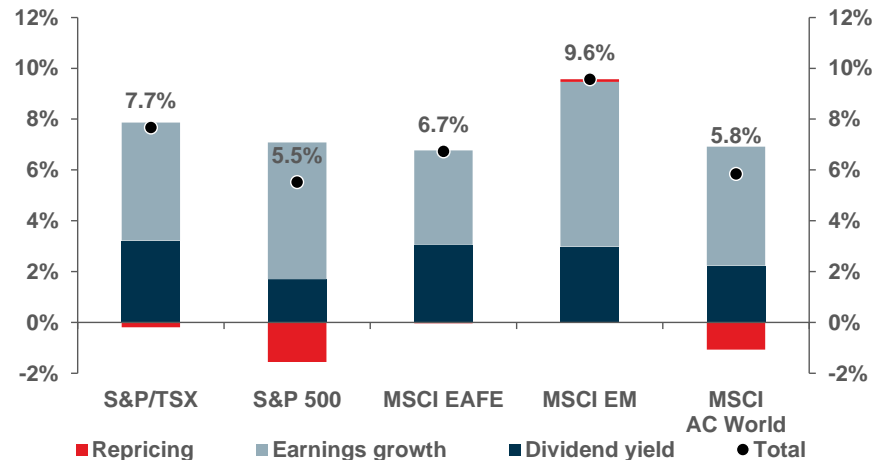
Building blocks methodology: Fixed income

Our 5-year return forecasts for fixed income assets have three components shown below:

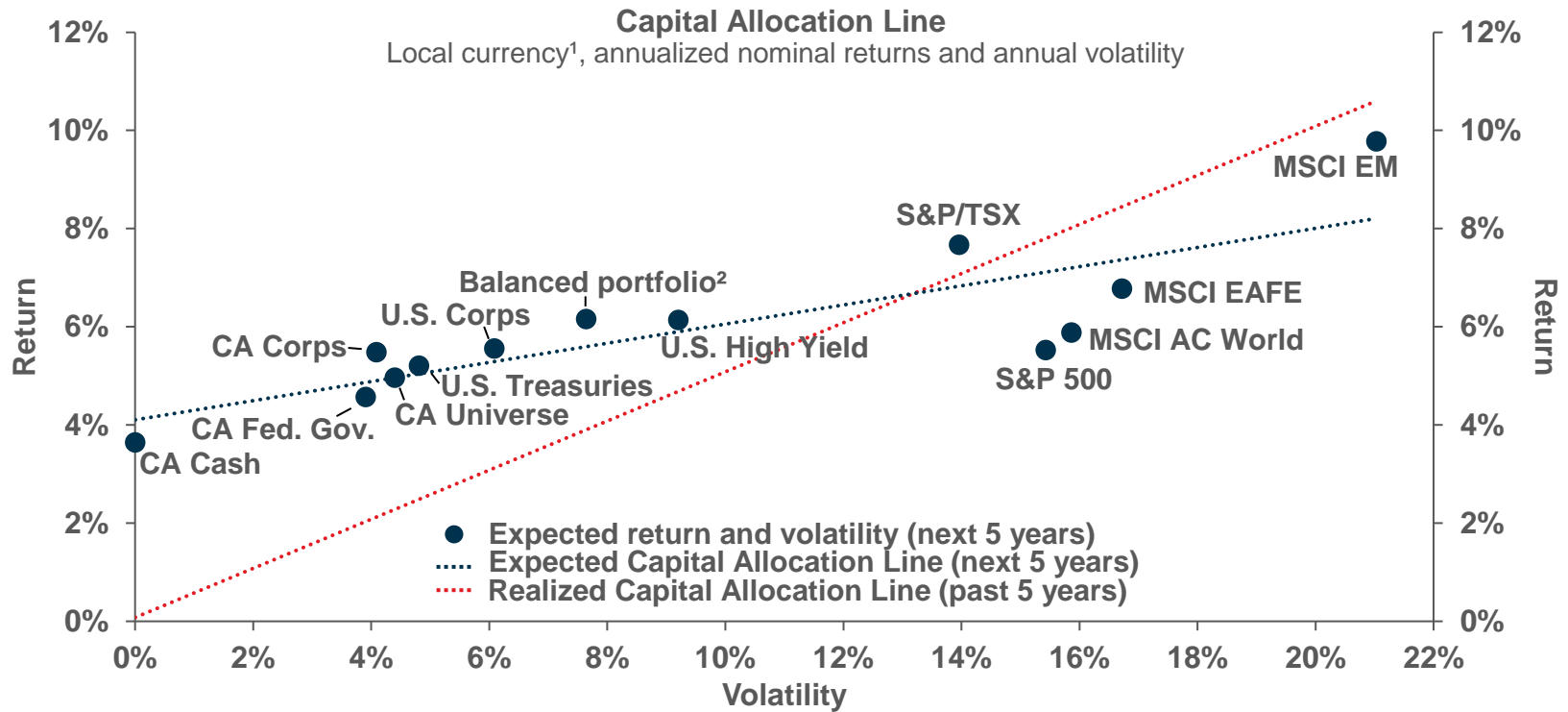


Building blocks methodology: Equities

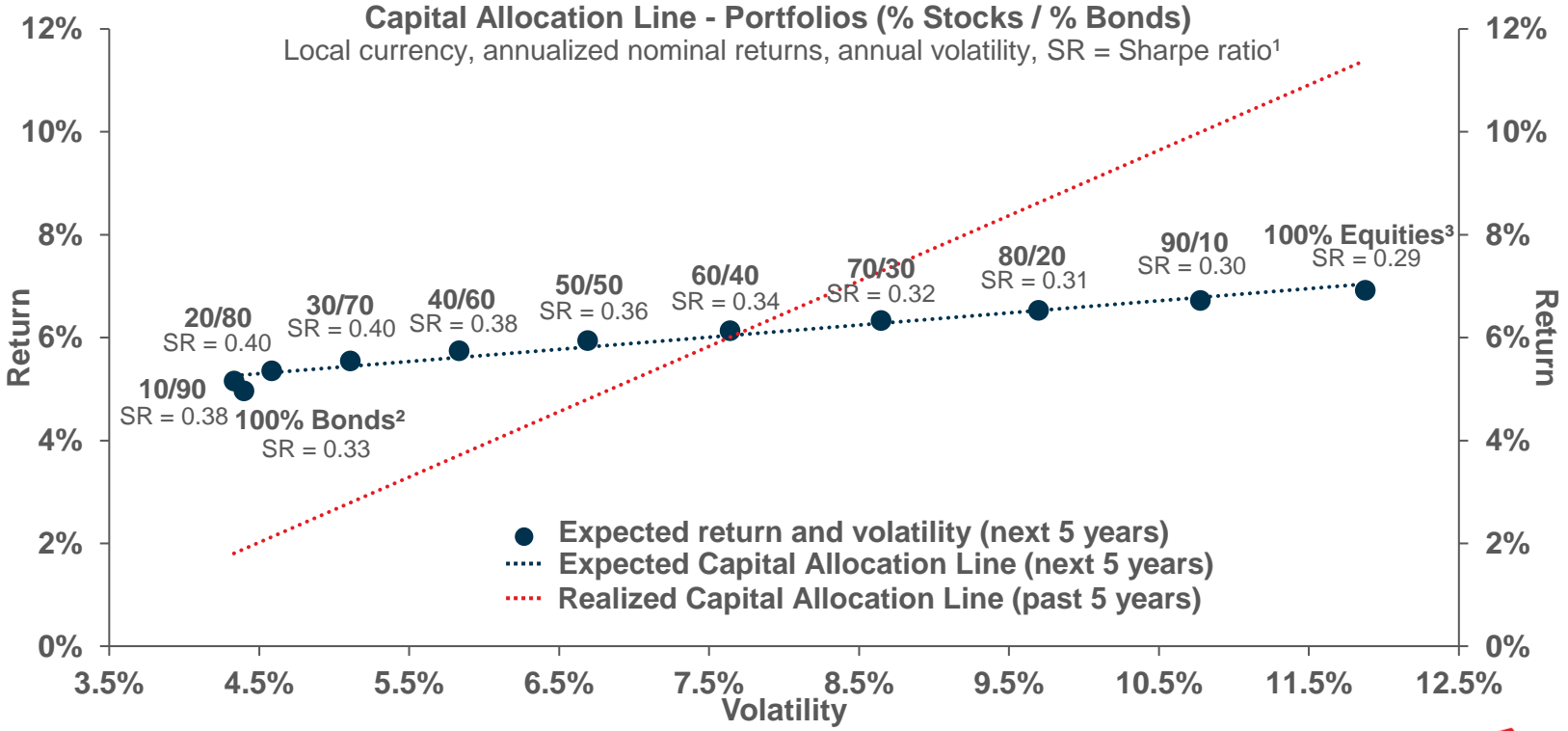
Our 5-year return forecasts for equities have three components shown below:



Five-year market expectations – Capital Allocation Line



Five-year market expectations – Capital Allocation Line



Historical correlation matrix

Historical correlation matrix (local currency¹)

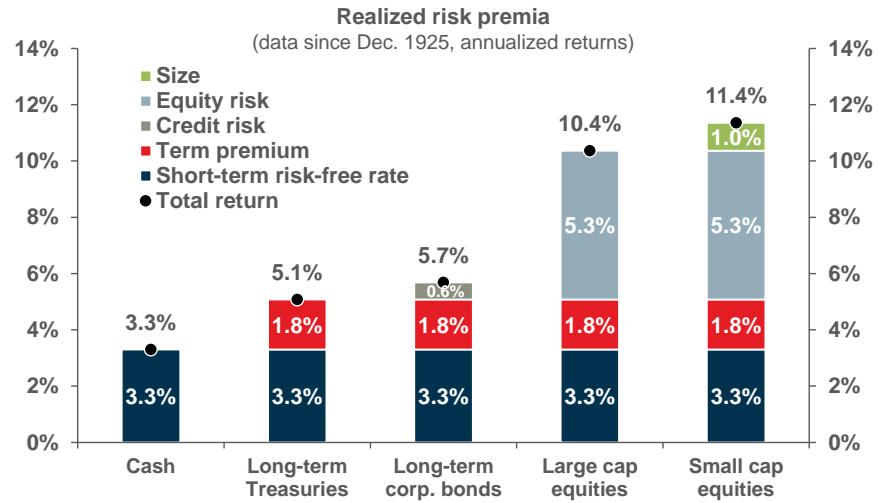
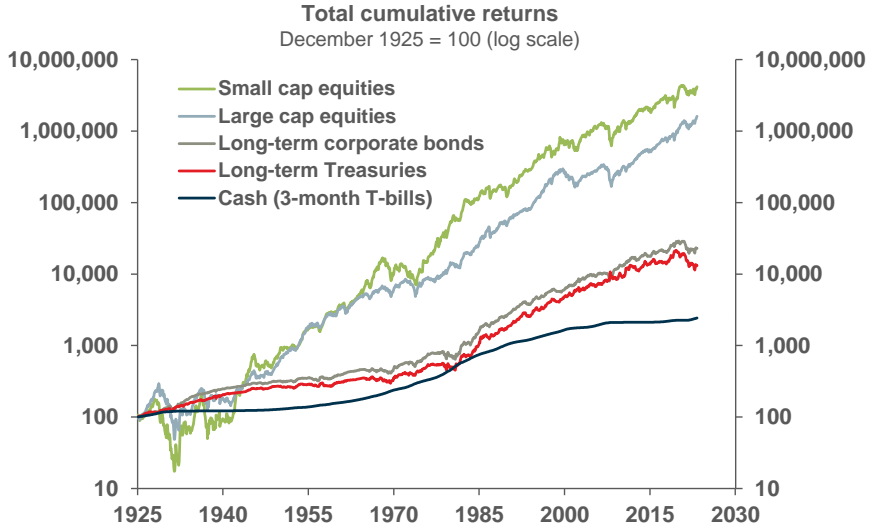
Asset	Volatility	USDCAD	CA Cash	U.S. Cash	CA Fed. Gov.	CA Corps	CA Universe	U.S. Treasuries	U.S. Corps	Balanced	U.S. High Yield	S&P/TSX	S&P 500	MSCI EAFE	Russell 2000	MSCI EM
USDCAD	8.7%		0.11	0.10	-0.10	-0.40	-0.28	-0.13	-0.57	-0.60	-0.71	-0.70	-0.73	-0.79	-0.75	-0.75
CA Cash	0.0%	0.10		0.96	0.20	0.14	0.16	0.18	0.12	0.08	0.04	-0.05	0.03	0.05	-0.04	0.02
U.S. Cash	0.0%	-0.01	0.87		0.22	0.10	0.15	0.24	0.10	0.01	0.00	-0.13	-0.04	0.02	-0.11	-0.01
CA Fed. Gov.	3.9%	0.23	0.18	0.13		0.74	0.93	0.88	0.69	0.52	0.38	0.26	0.31	0.30	0.19	0.21
CA Corps	4.1%	-0.06	0.05	-0.02	0.74		0.93	0.57	0.90	0.77	0.73	0.63	0.57	0.57	0.54	0.54
CA Universe	4.4%	0.09	0.11	0.05	0.94	0.91		0.77	0.85	0.70	0.60	0.49	0.49	0.47	0.40	0.40
U.S. Treasuries	4.8%	0.10	0.15	0.18	0.85	0.55	0.76		0.68	0.36	0.24	0.12	0.20	0.23	0.06	0.19
U.S. Corps	6.1%	-0.36	-0.01	-0.02	0.56	0.80	0.72	0.59		0.80	0.79	0.68	0.67	0.69	0.60	0.67
Balanced portfolio ²	7.6%	-0.30	-0.03	-0.06	0.31	0.59	0.49	0.13	0.62		0.87	0.93	0.93	0.89	0.83	0.75
U.S. High Yield	9.2%	-0.61	-0.13	-0.11	0.06	0.46	0.27	-0.04	0.67	0.71		0.85	0.83	0.83	0.84	0.72
S&P/TSX	14.0%	-0.59	-0.08	-0.07	-0.02	0.37	0.19	-0.09	0.50	0.84	0.73		0.89	0.88	0.86	0.72
S&P 500	15.4%	-0.61	-0.11	-0.07	-0.03	0.30	0.15	-0.09	0.46	0.85	0.74	0.81		0.90	0.88	0.74
MSCI EAFE	16.7%	-0.68	-0.06	-0.02	-0.02	0.31	0.15	-0.07	0.52	0.81	0.77	0.81	0.88		0.86	0.82
Russell 2000	20.5%	-0.59	-0.13	-0.10	-0.10	0.25	0.09	-0.17	0.37	0.75	0.72	0.78	0.89	0.79		0.76
MSCI EM	21.0%	-0.72	-0.05	0.00	-0.03	0.30	0.14	-0.04	0.51	0.70	0.73	0.76	0.73	0.86	0.69	

Correlation of monthly returns over the last 5 years

Correlation of monthly returns over the last 20 years

CIO Office (Data via Refinitiv). 1. With the exception of MSCI indices, which are in USD. 2. Balanced portfolio: 21% S&P/TSX, 21% S&P 500, 12% MSCI EAFE, 6% MSCI Emerging Markets and 40% Canada Bond Universe, all in CAD.

Historical risk premia



Detailed expectations

Long-Term Market Expectations - Detailed assumptions (local currency¹, annualized)

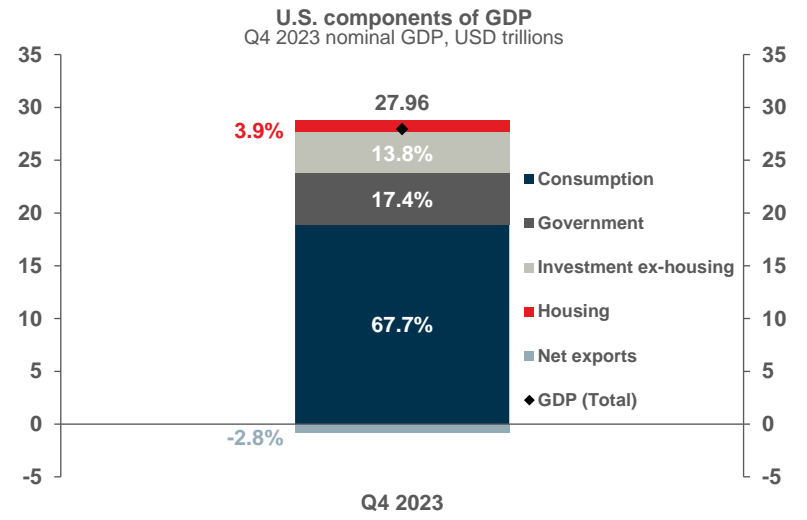
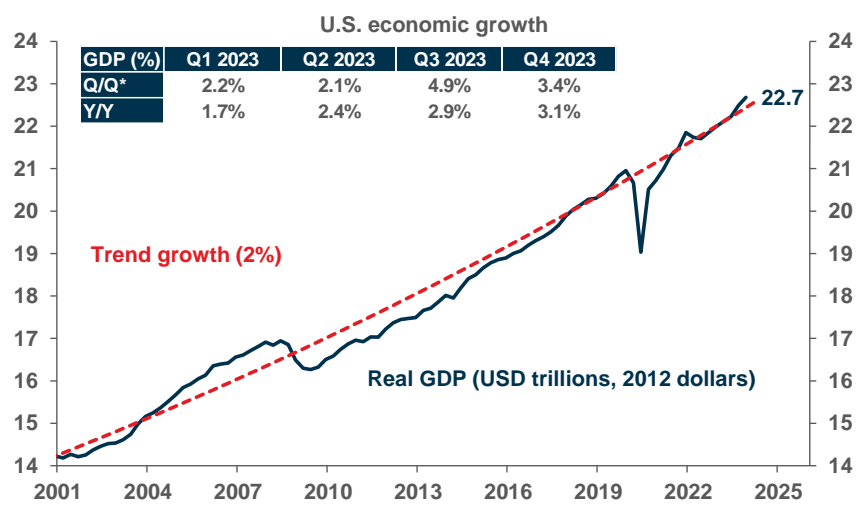
Asset	Expected nominal return			Expected volatility	Economic forecasts ⁴	
	5-year	10-year	30-year		Inflation	Nominal GDP
Balanced portfolio ²	6.1%	6.1%	7.1%	7.6%	-	-
Equity benchmark ³	6.9%	6.9%	8.7%	11.9%	-	-
Bond benchmark (Canada Universe)	5.0%	4.8%	4.6%	4.4%	1.9%	3.9%
Canada Cash	3.6%	3.3%	2.5%	-	1.9%	3.9%
U.S. Cash	4.1%	3.7%	2.6%	-	2.1%	4.0%
German Cash	2.5%	2.2%	1.6%	-	2.0%	3.4%
U.K. Cash	3.9%	3.6%	2.6%	-	2.0%	3.7%
Japan Cash	0.3%	0.6%	0.6%	-	2.0%	2.8%
Australia Cash	3.7%	3.7%	3.1%	-	2.6%	5.0%
Canada 10yr gov. bond	4.5%	4.2%	4.3%	6.1%	1.9%	3.9%
U.S. 10yr gov. bond	5.2%	4.9%	4.5%	7.6%	2.1%	4.0%
Germany 10yr gov. bond	3.3%	3.2%	3.3%	6.1%	2.0%	3.4%
U.K. 10yr gov. bond	5.3%	4.9%	4.6%	6.8%	2.0%	3.7%
Japan 10yr gov. bond	0.5%	0.8%	1.9%	3.0%	2.0%	2.8%
Australia 10yr gov. bond	5.3%	5.0%	4.9%	7.1%	2.6%	5.0%
Canada Universe	5.0%	4.8%	4.6%	4.4%	1.9%	3.9%
Canada Federal Government	4.6%	4.3%	4.3%	3.9%	1.9%	3.9%
Canada Corporate (IG)	5.5%	5.3%	5.0%	4.1%	1.9%	3.9%
U.S. Treasuries	5.2%	4.9%	4.5%	4.8%	2.1%	4.0%
U.S. Corporate (IG)	5.6%	5.5%	5.2%	6.1%	2.1%	4.0%
U.S. High Yield	6.1%	6.4%	6.4%	9.2%	2.1%	4.0%
S&P/TSX	7.7%	7.8%	8.9%	14.0%	1.9%	3.9%
S&P 500	5.5%	5.3%	8.3%	15.4%	2.1%	4.0%
Russell 2000	8.2%	8.5%	10.1%	20.5%	2.1%	4.0%
MSCI EAFE	6.7%	6.9%	8.4%	16.7%	2.0%	3.5%
MSCI Emerging Markets	9.6%	9.5%	9.5%	21.0%	2.4%	6.0%
MSCI Europe	7.2%	7.3%	9.0%	18.3%	1.9%	3.4%
DAX 30	8.8%	9.2%	8.8%	20.3%	2.0%	3.4%
FTSE 100	9.3%	9.1%	9.6%	13.5%	2.1%	3.7%
TOPIX	3.0%	5.3%	6.6%	16.8%	2.0%	2.8%
S&P/ASX 200	8.0%	7.5%	9.3%	13.3%	2.6%	5.0%
MSCI China	11.8%	12.5%	12.5%	26.2%	2.0%	5.6%
MSCI AC World	5.8%	5.9%	8.5%	15.9%	2.1%	4.1%

CIO Office (Data via Refinitiv). 1. With the exception of MSCI indices, which are in USD. 2. Balanced portfolio: 21% S&P/TSX, 21% S&P 500, 12% MSCI EAFE, 6% MSCI Emerging Markets and 40% Canada Bond Universe, all in CAD. 3. Equity benchmark: 35% S&P TSX, 35% S&P 500, 20% MSCI EAFE, 10% MSCI EM, all in CAD. 4. All economic forecasts are for the next 5 years and come from the IMF's World Economic Outlook. Forecasts for equity indices with multiple regions are constructed using each region's equity weight within the index.

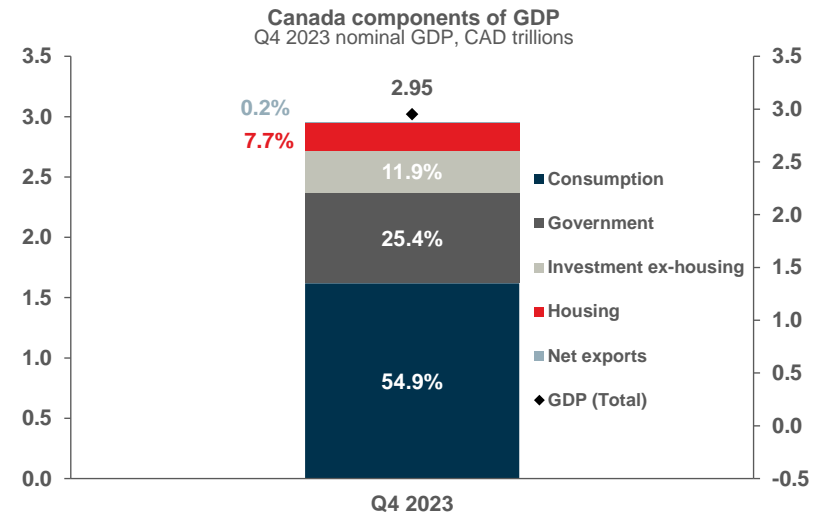
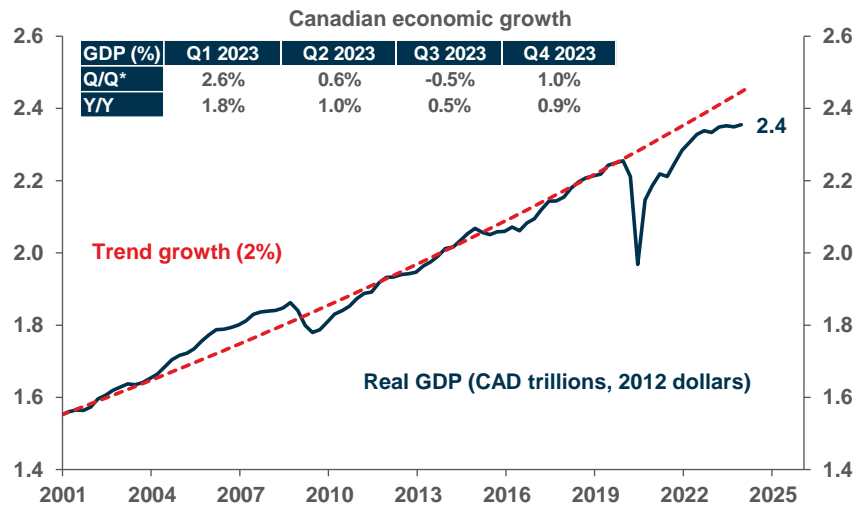
Featured

Charts & Tables

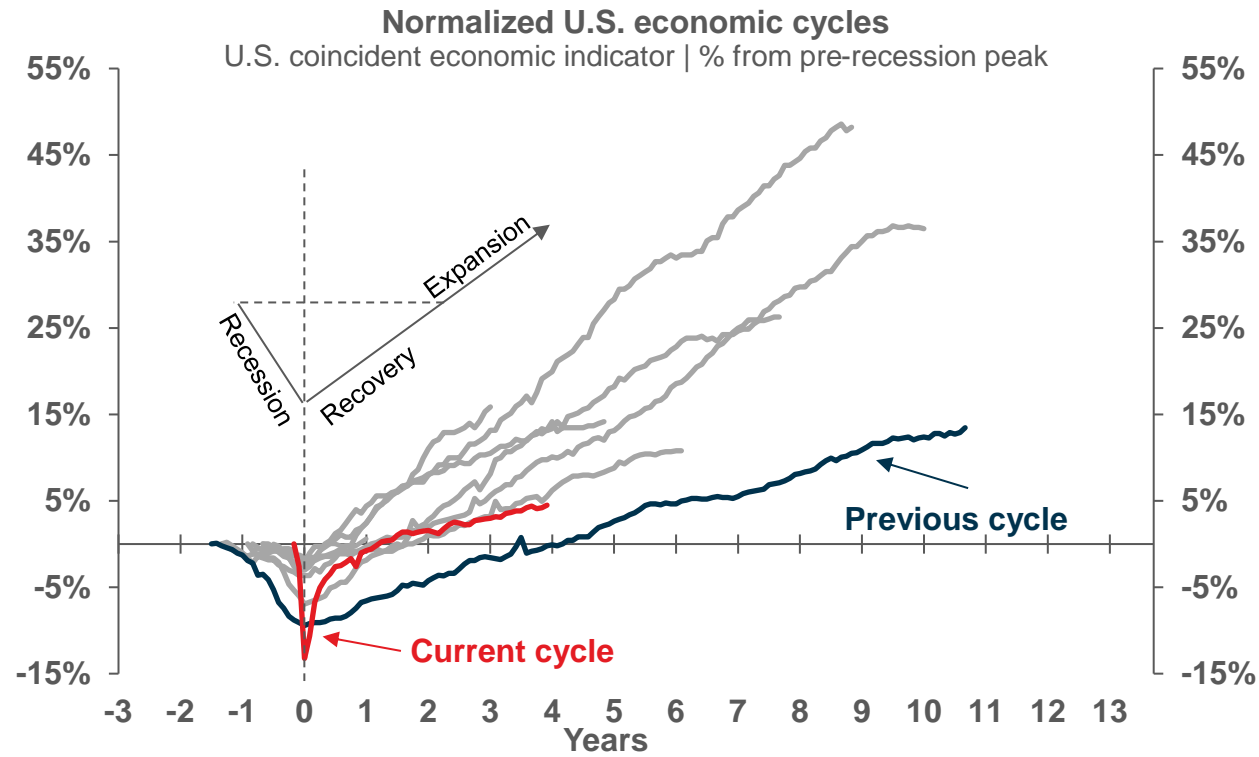
U.S. economic growth and composition of GDP



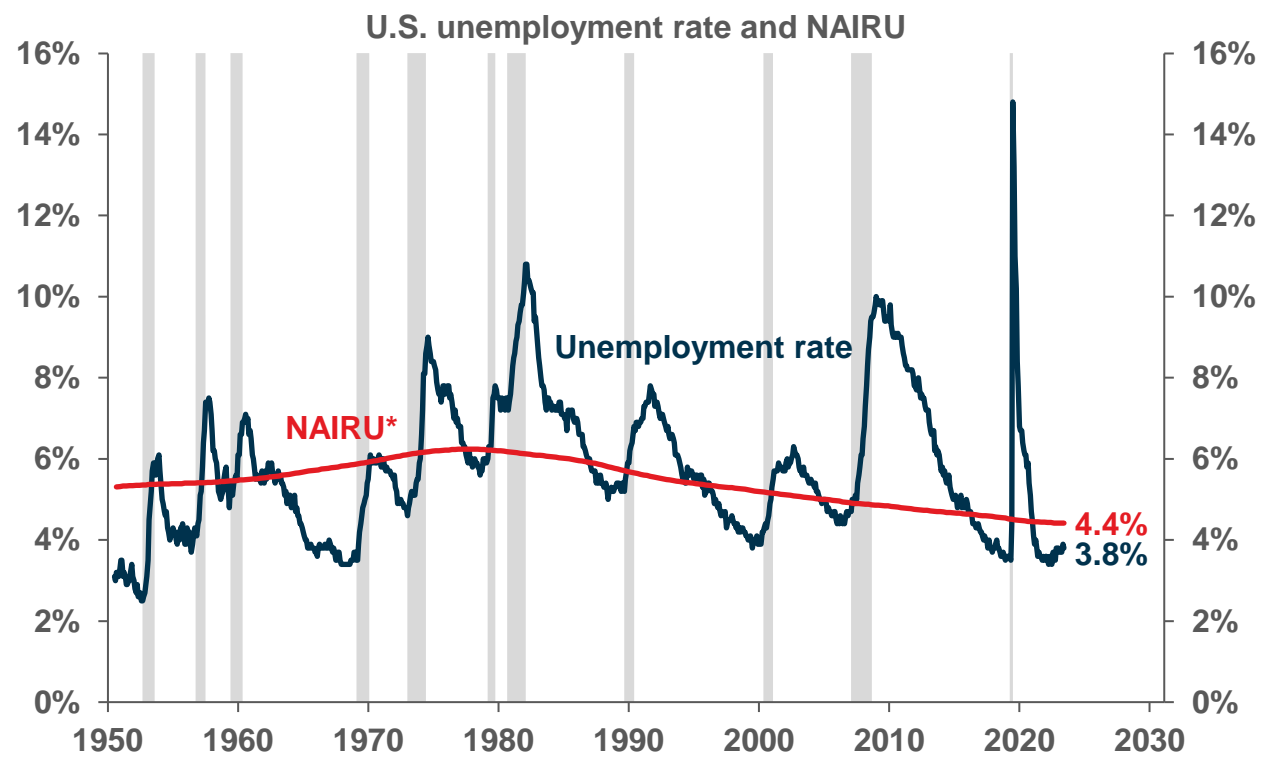
Canadian economic growth and composition of GDP



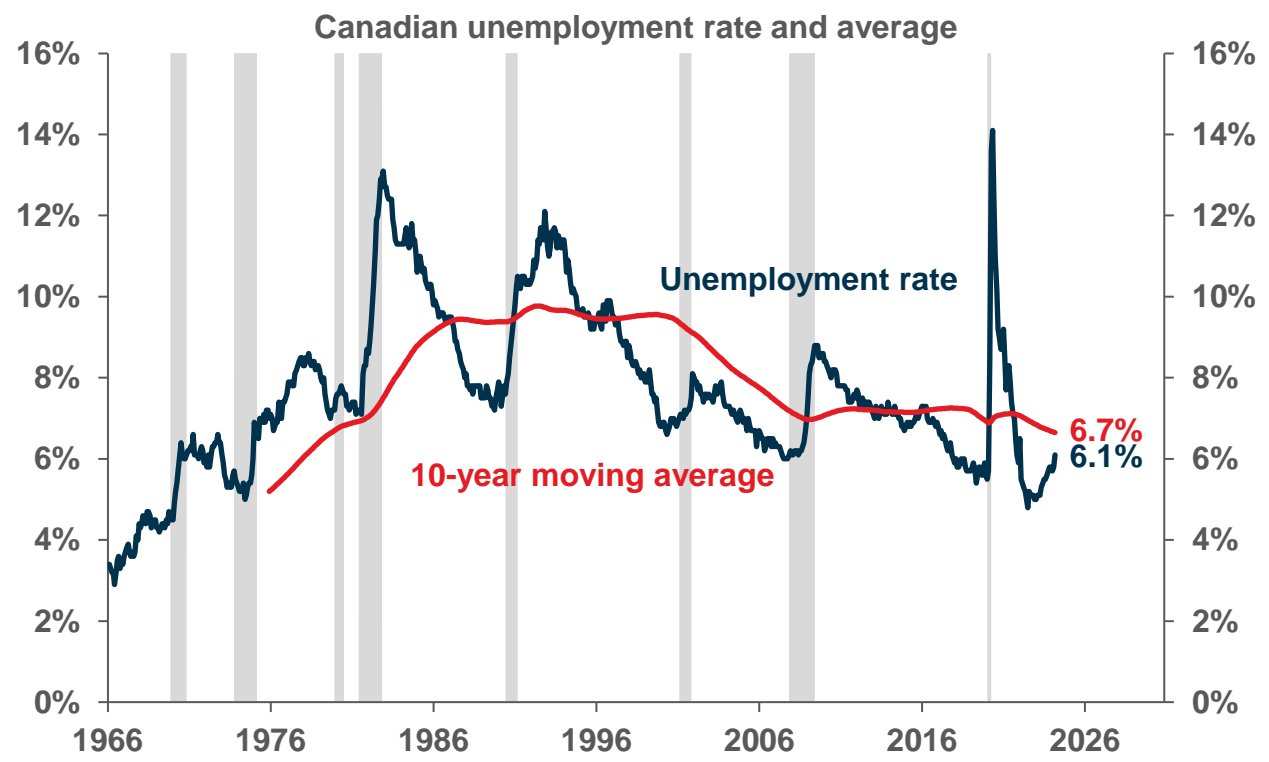
U.S. economic cycles



U.S. unemployment rate

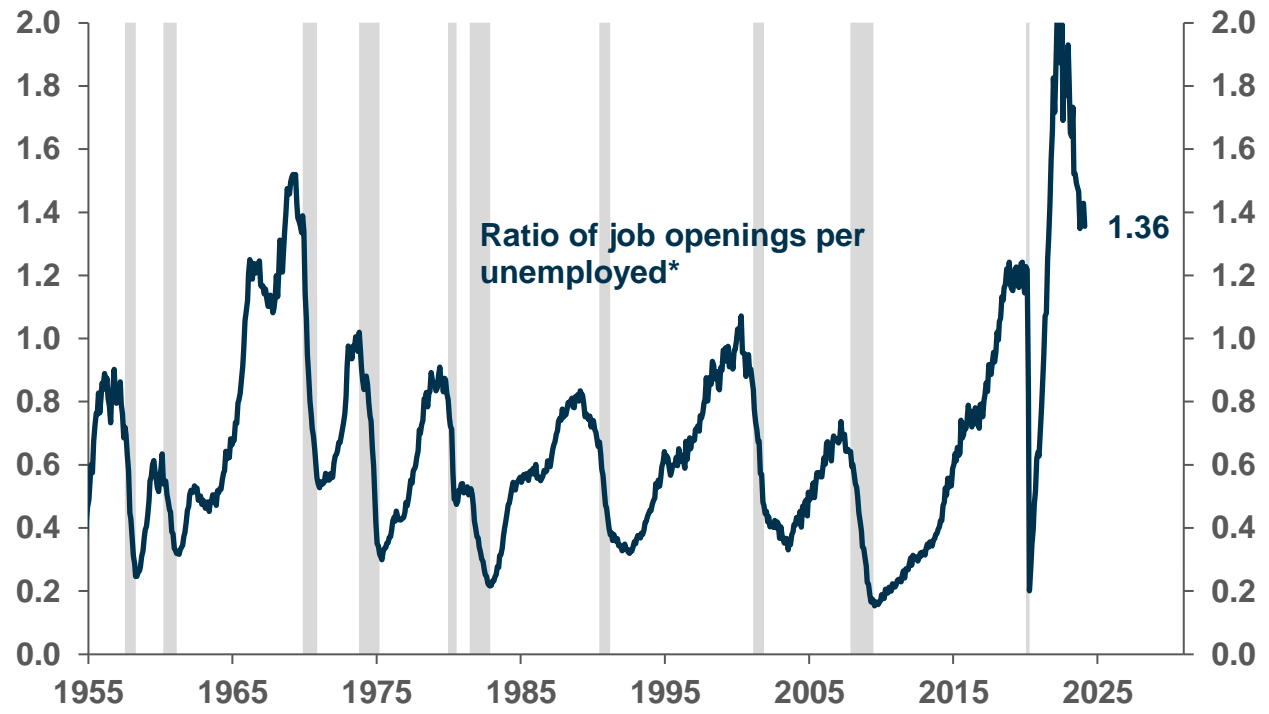


Canadian unemployment rate

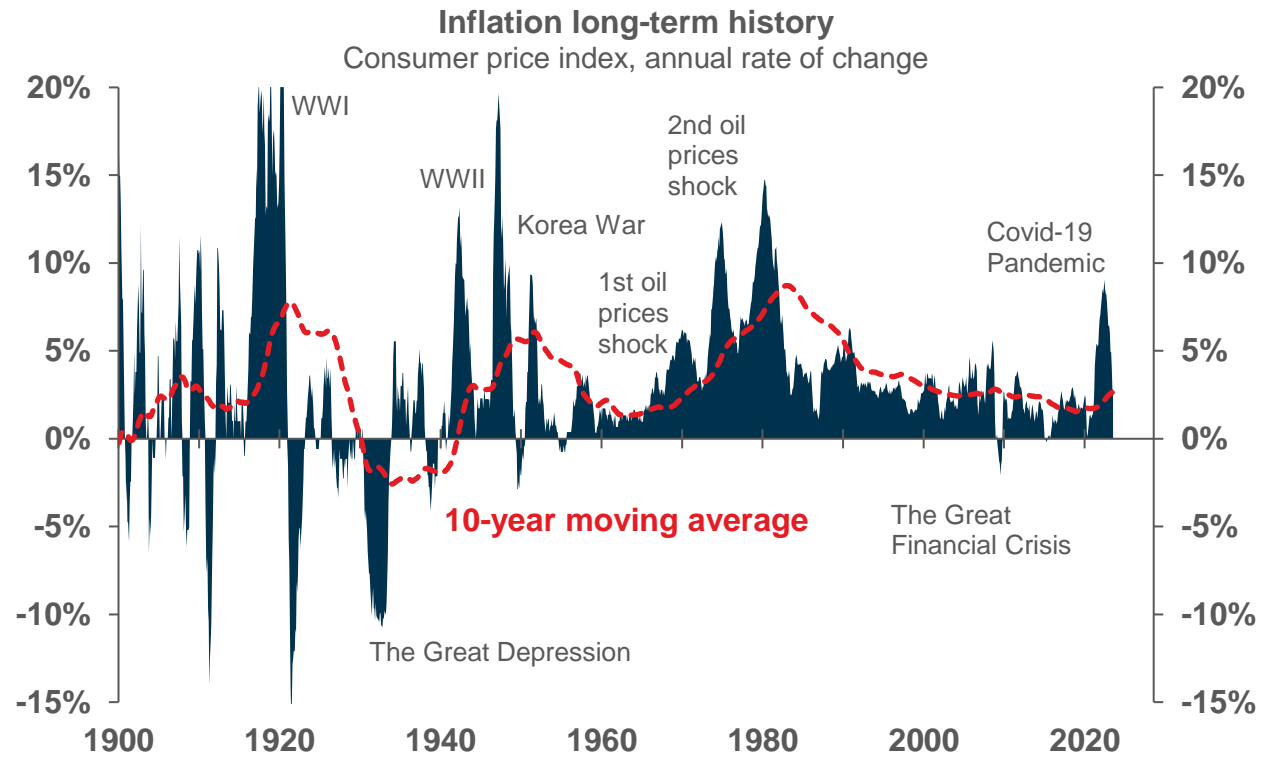


U.S. labour demand

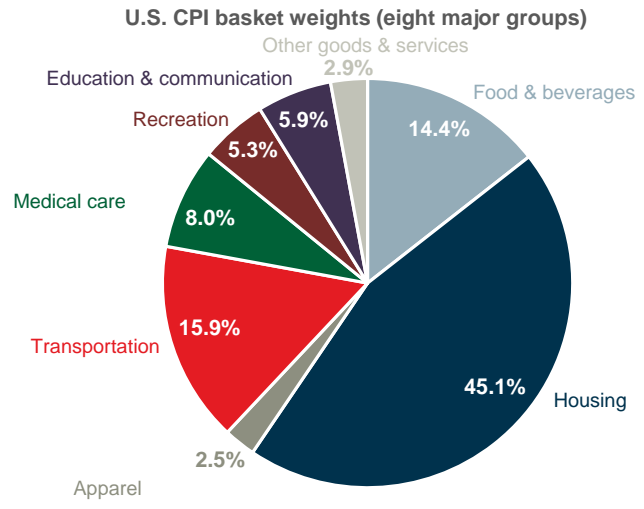
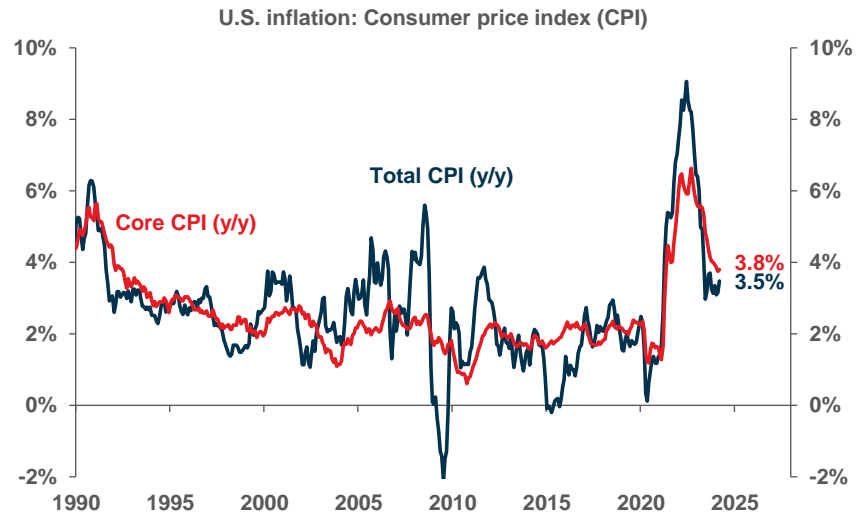
U.S. labour market: Job openings and unemployment



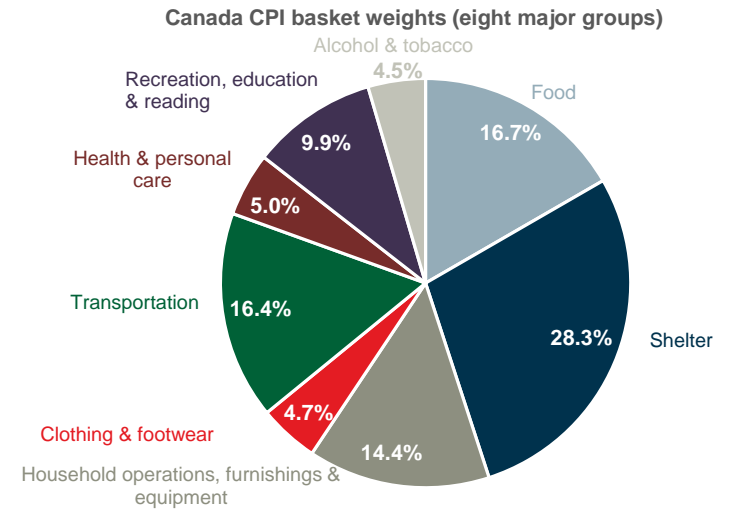
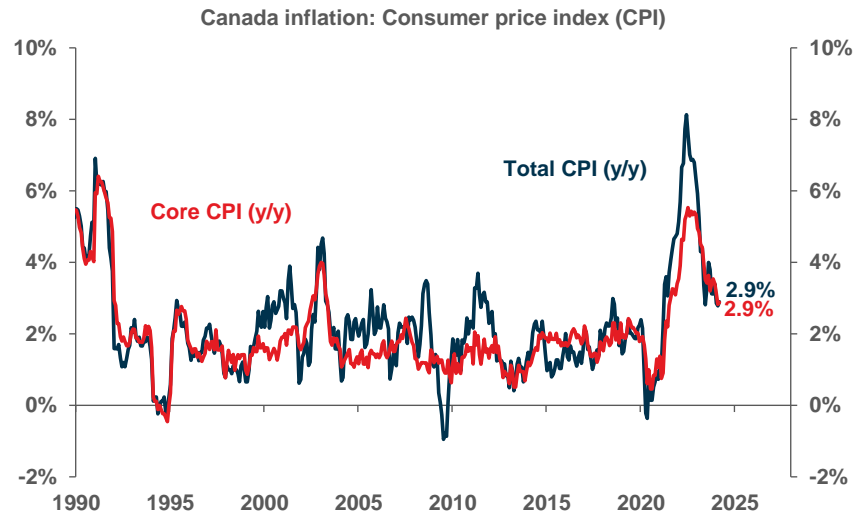
Inflation long-term history



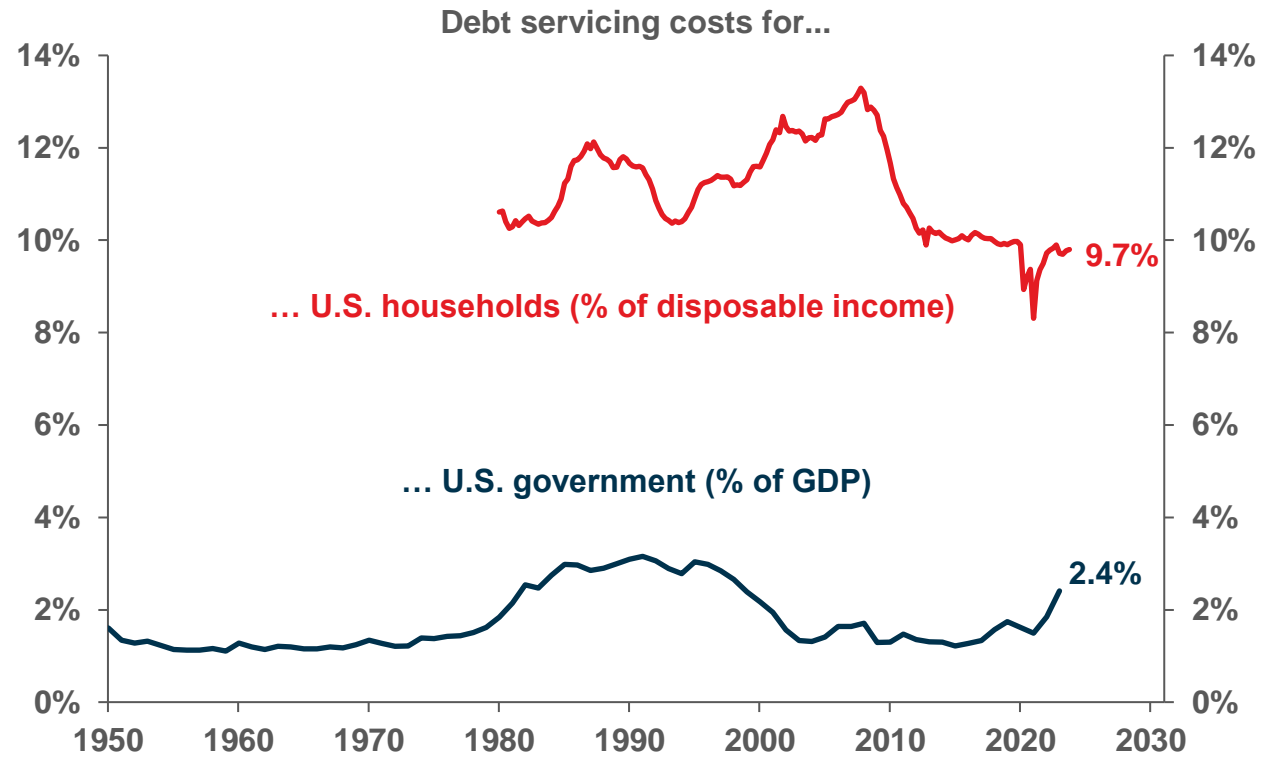
U.S. inflation and CPI composition



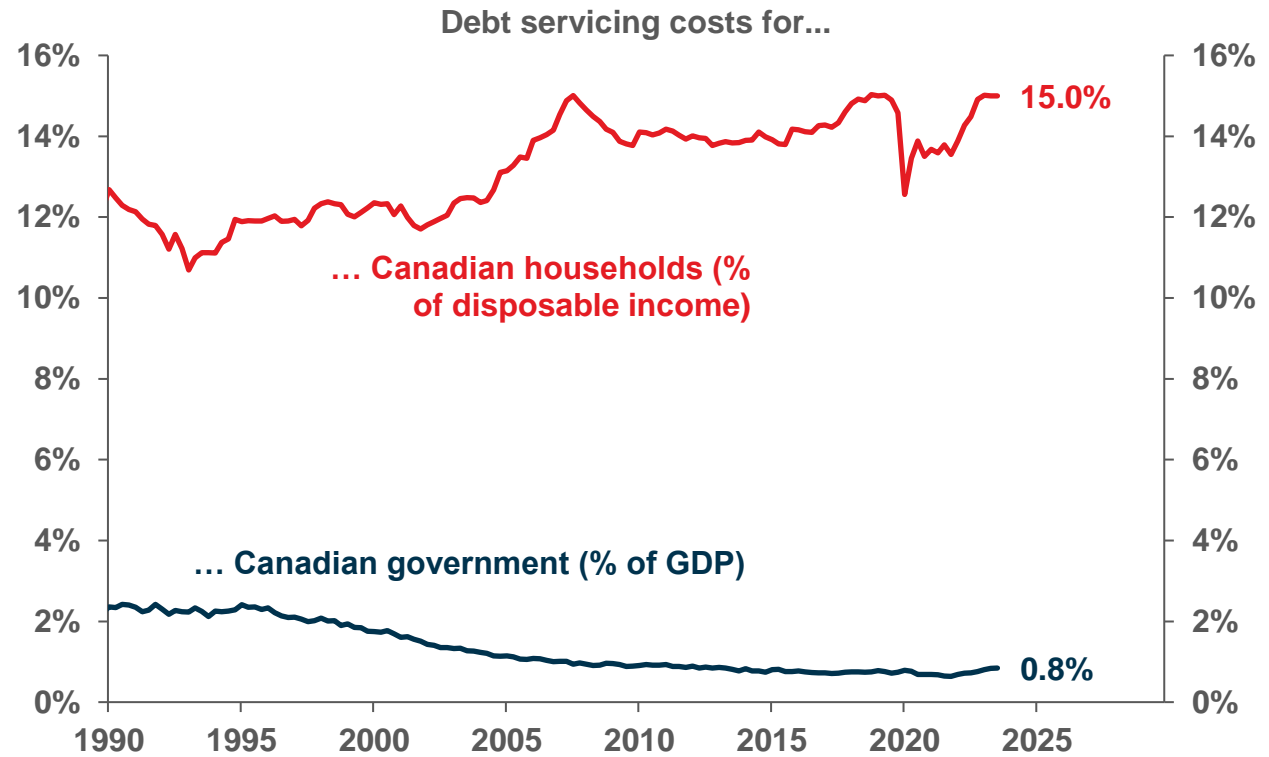
Canadian inflation and CPI composition



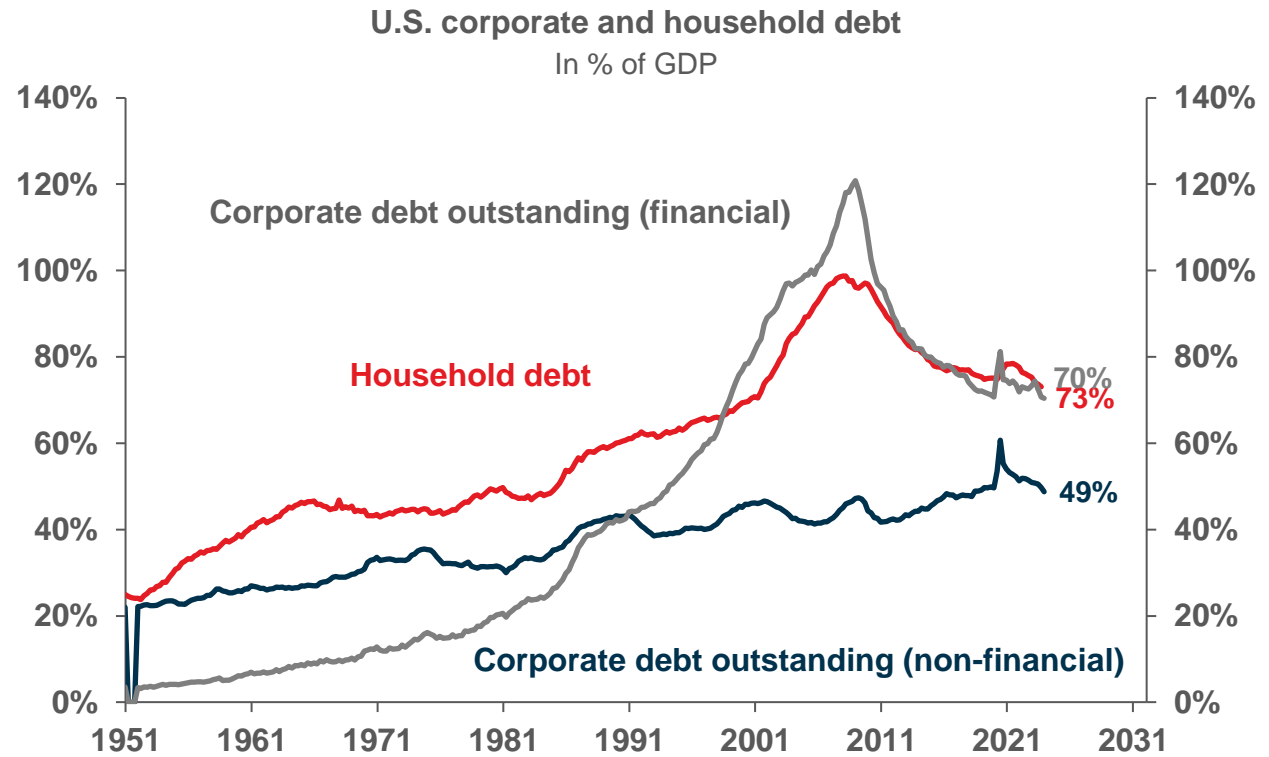
U.S. cost of debt



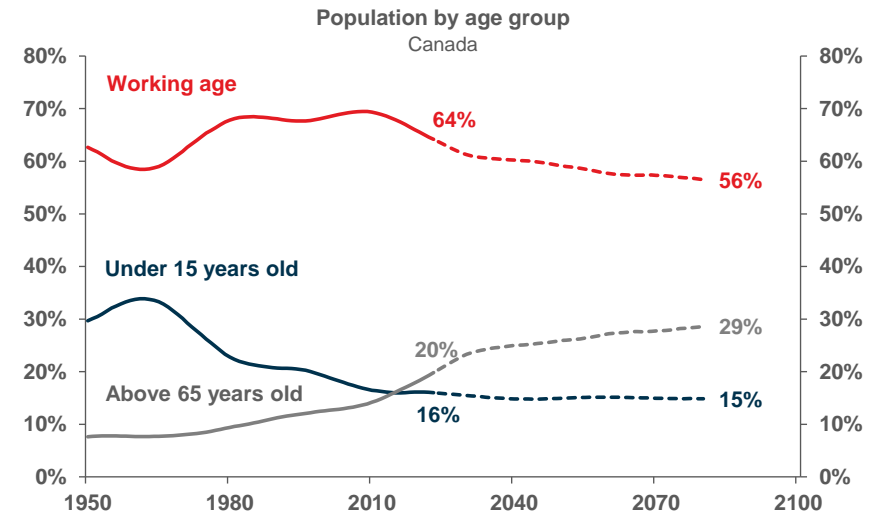
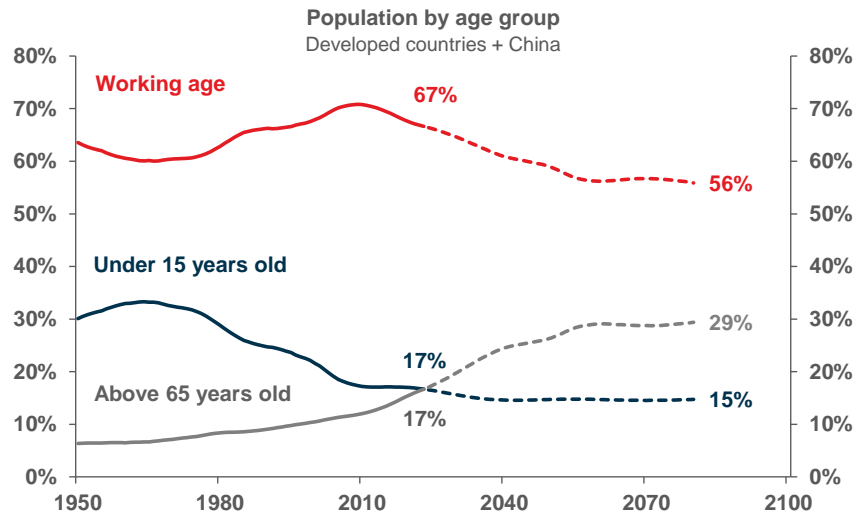
Canadian cost of debt



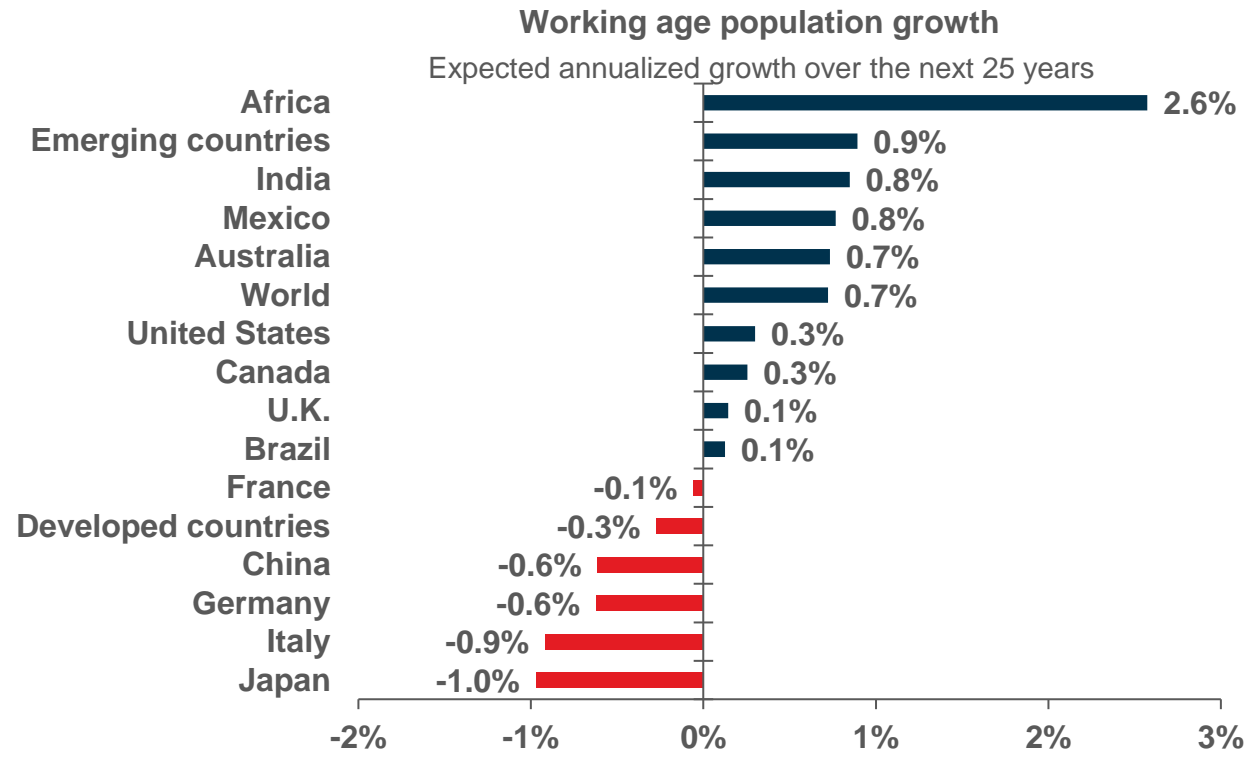
U.S. corporate and household debt



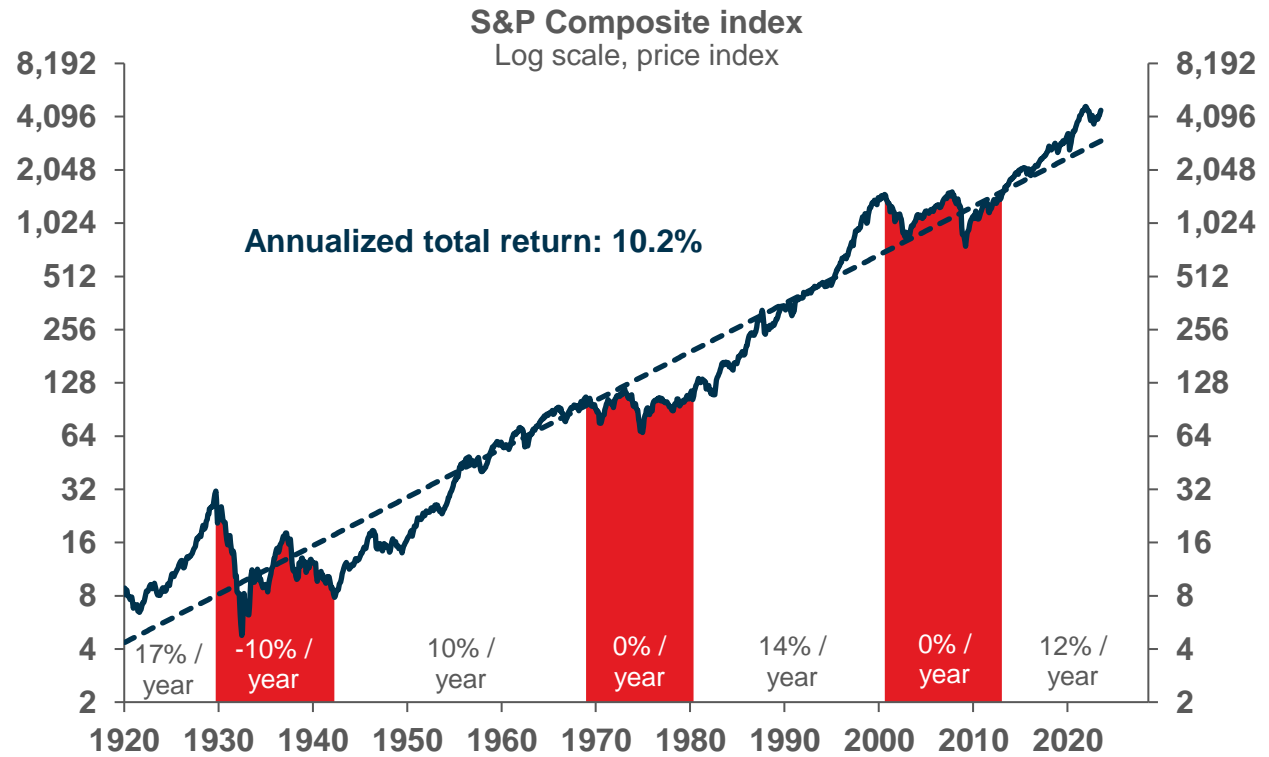
World demographics – Age group trends



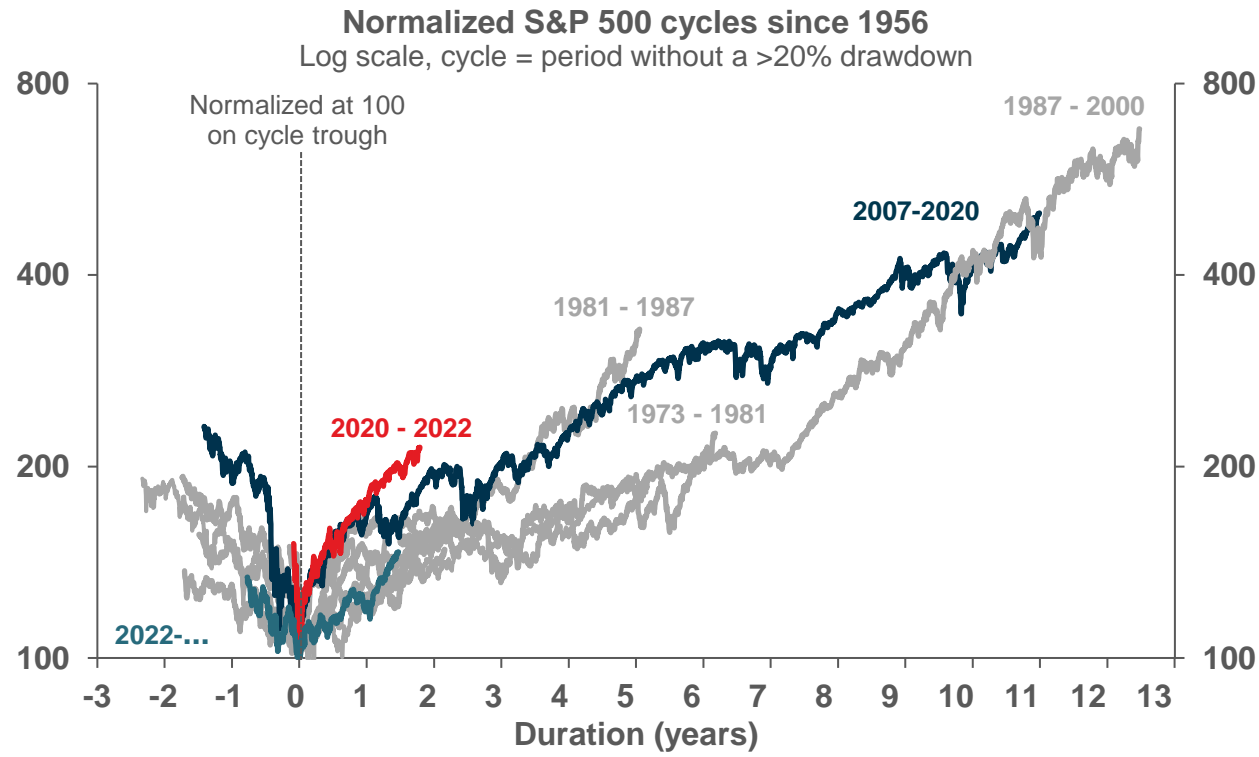
World demographics – Geographical breakdown



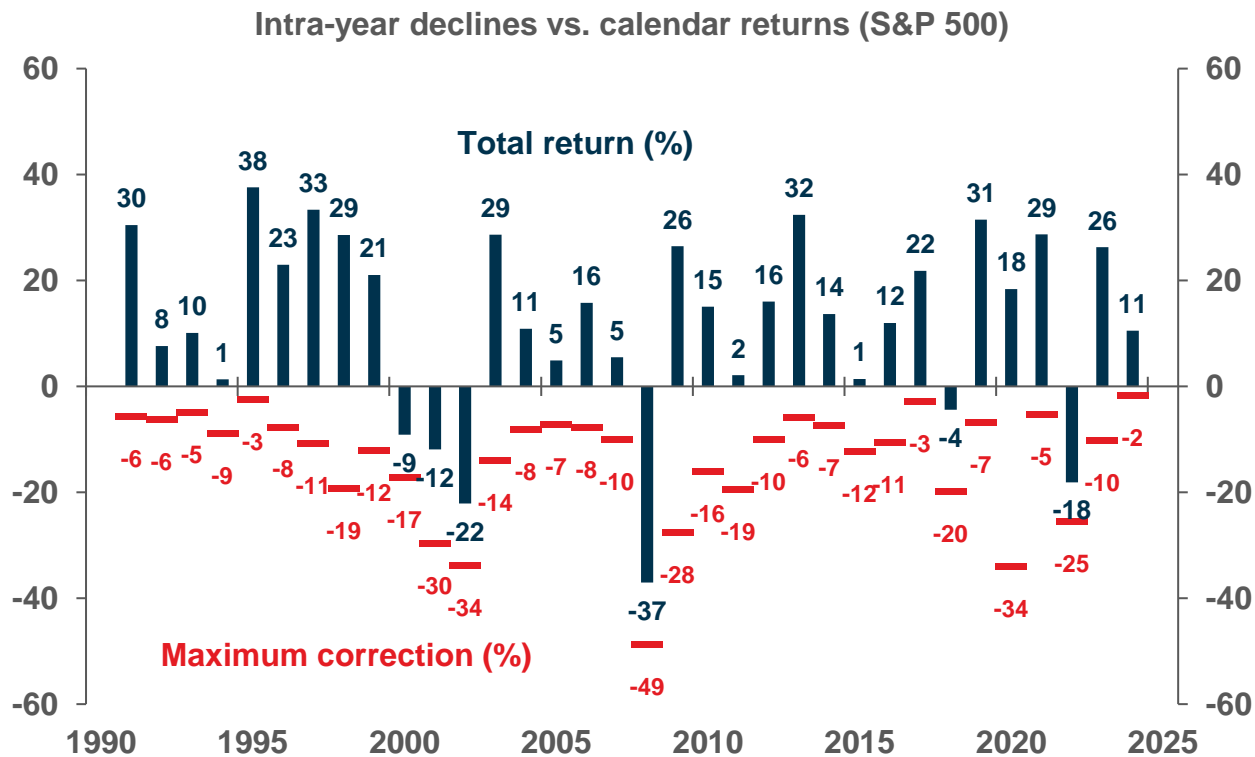
U.S. equity market since 1920



U.S. equity market cycles



Annual returns and market corrections



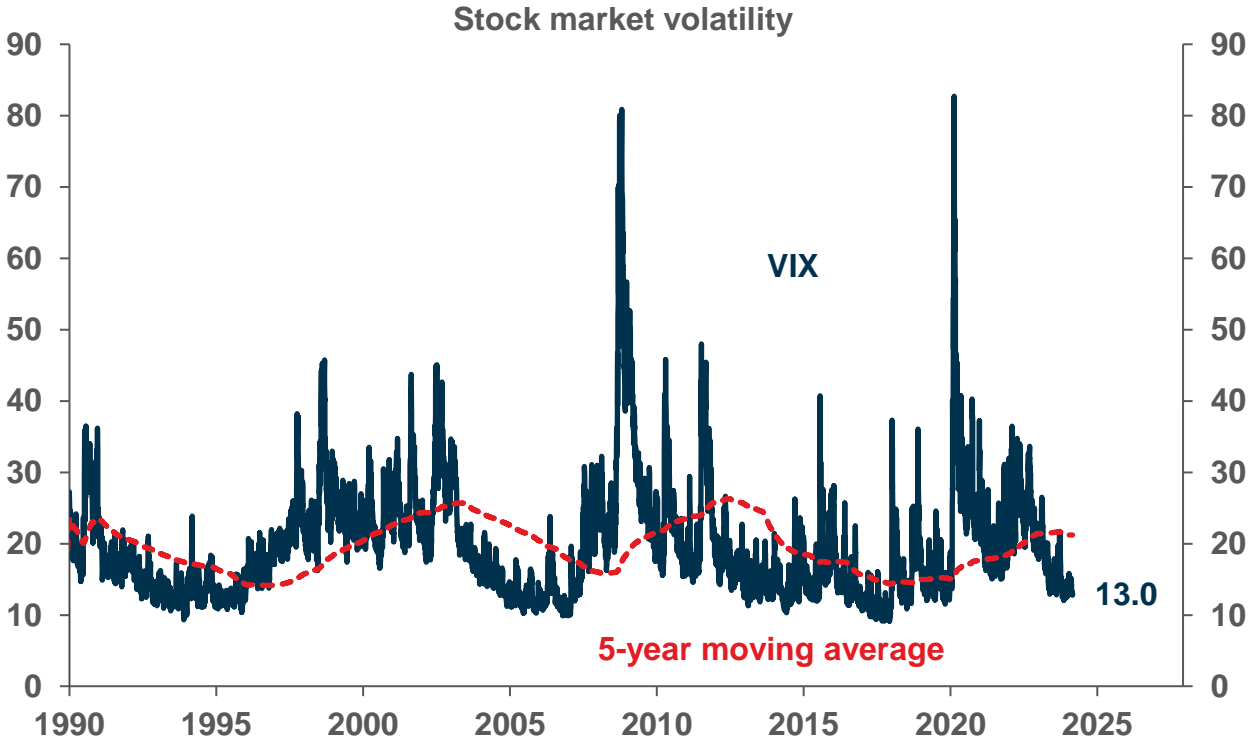
Equity return statistics per investment horizon

S&P 500 returns* - Detailed statistics

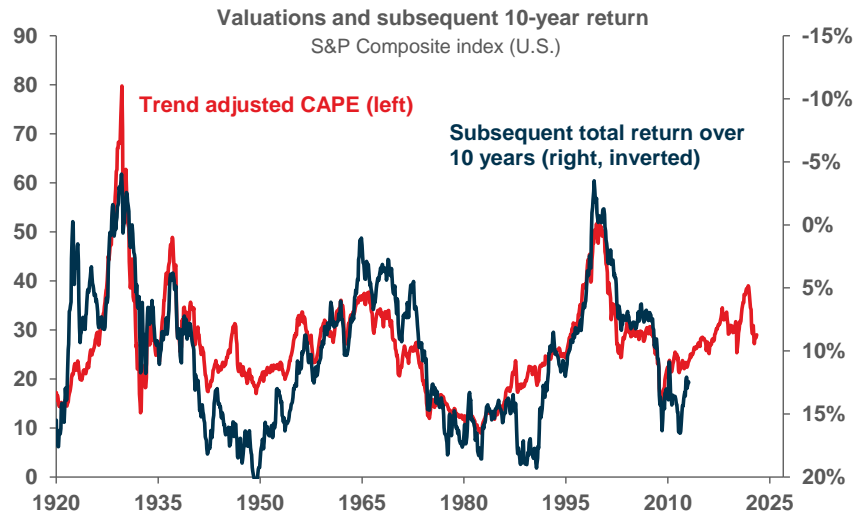
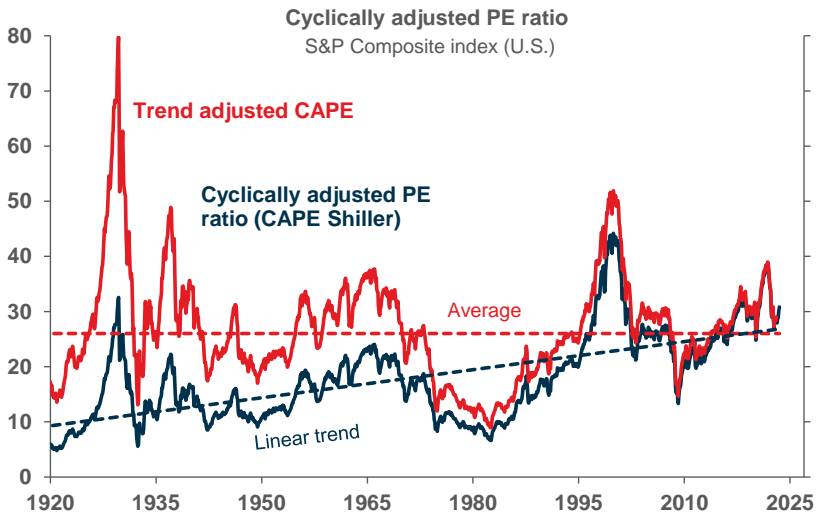
Period	Avg.	Std. dev.	Min.	Max.	Percentile				
					90th	70th	50th	30th	10th
Daily	0.0%	1.1%	-12.0%	11.6%	1.2%	0.5%	0.1%	-0.3%	-1.1%
Monthly	0.8%	4.4%	-30.8%	26.4%	5.5%	2.9%	1.1%	-0.9%	-4.4%
Quarterly	2.2%	7.4%	-41.8%	40.1%	10.4%	5.9%	2.7%	-0.6%	-6.9%
1 year	9.7%	16.1%	-49.0%	73.6%	28.7%	17.8%	11.4%	3.5%	-12.4%
3 years	8.3%	9.3%	-18.0%	32.6%	19.0%	13.0%	9.6%	3.9%	-5.1%
5 years	7.9%	7.6%	-7.4%	27.5%	17.4%	12.7%	8.4%	2.4%	-1.7%
10 years	7.3%	5.6%	-4.8%	20.1%	15.3%	10.6%	7.1%	3.2%	-0.1%
20 years	7.1%	2.1%	2.6%	11.9%	9.7%	8.4%	7.5%	5.9%	3.7%
30 years	9.7%	0.3%	8.3%	10.3%	10.1%	9.8%	9.7%	9.5%	9.3%

*Price index from 1966 to 1987. Total return from Jan. 1st, 1988. Annualized return for periods from 3 to 30 years.

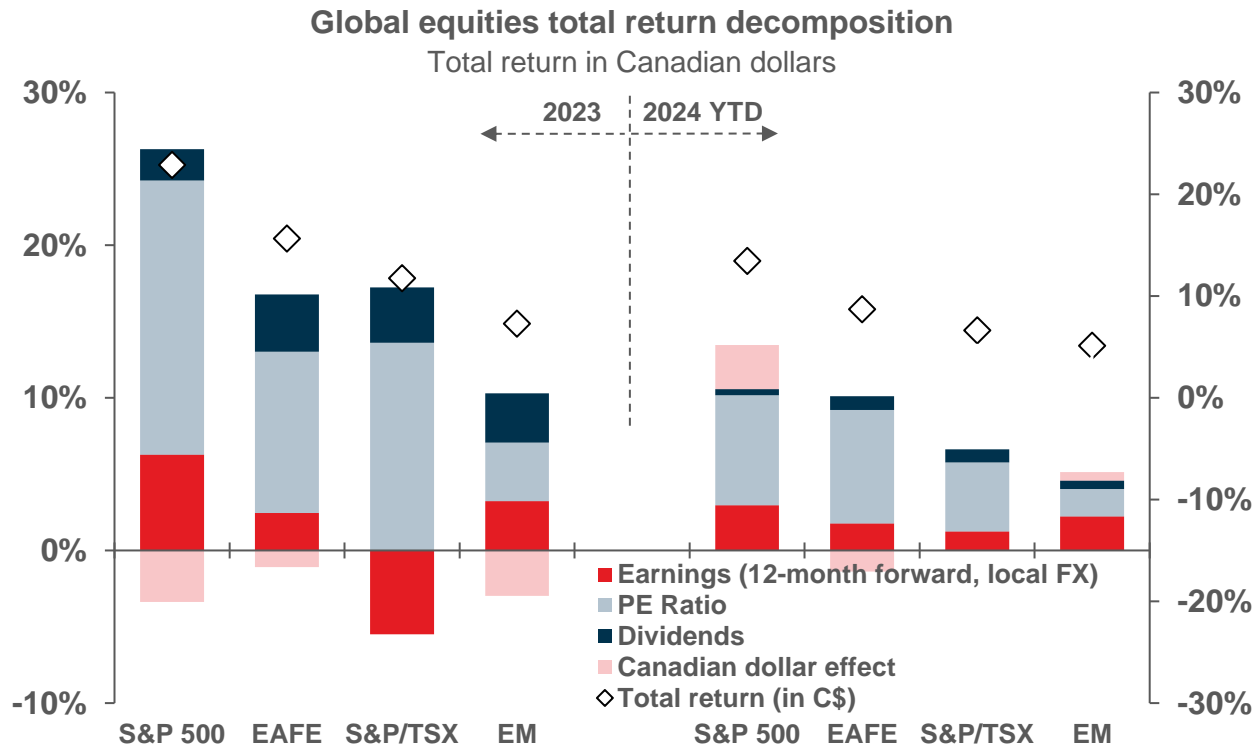
Stock market volatility



Equity valuations and returns since 1920



Decomposition of equity returns



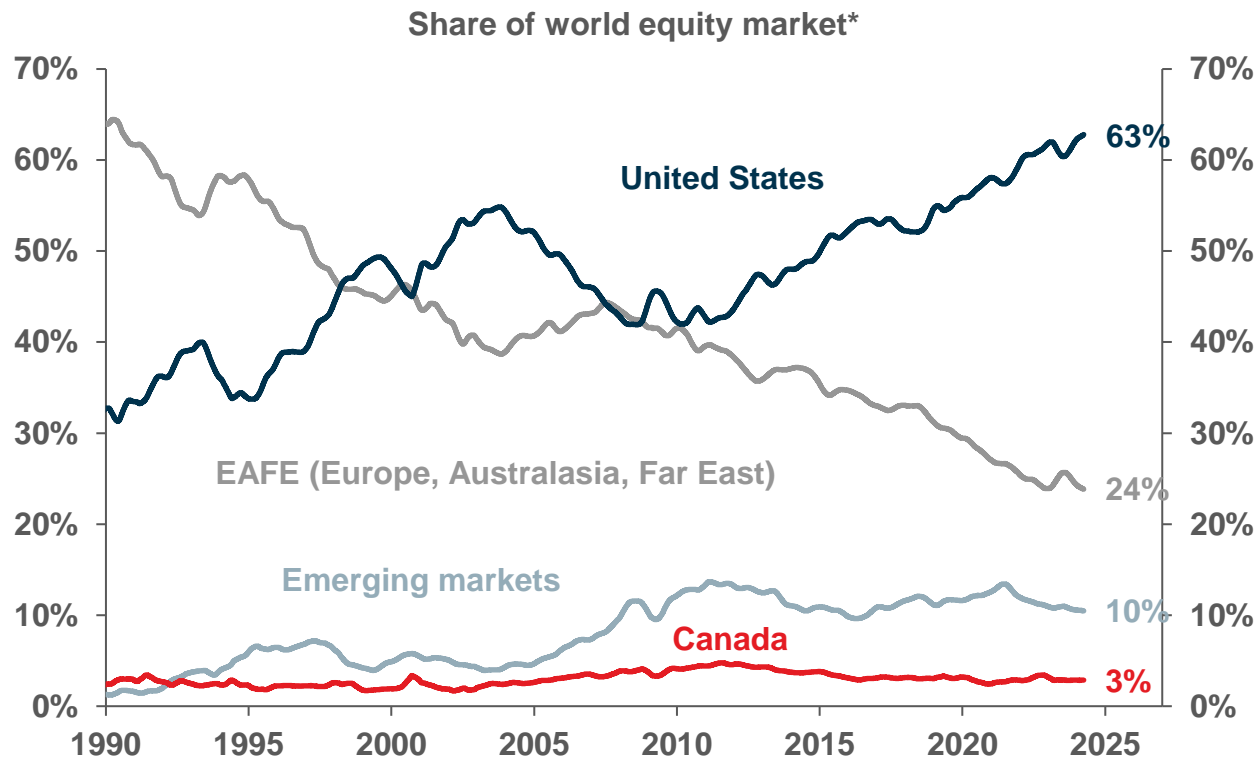
Global equity sector allocation

Global equity sector allocation

	S&P 500	S&P/TSX	Emerging markets	EAFE
Technology	29.6%	8.6%	22.5%	7.9%
Financials	13.2%	30.9%	22.9%	19.1%
Healthcare	12.4%	0.3%	3.8%	13.5%
Cons. disc.	10.3%	3.5%	12.5%	12.0%
Comm. serv.	9.0%	3.2%	8.6%	4.2%
Industrials	8.8%	14.4%	7.3%	15.9%
Staples	6.0%	4.1%	5.4%	9.7%
Energy	3.9%	18.0%	5.4%	4.8%
Materials	2.4%	11.0%	7.3%	7.4%
Real estate	2.3%	2.3%	1.6%	2.3%
Utilities	2.2%	3.7%	2.8%	3.3%
Cyclical/Value*	41%	80%	57%	61%
Defensive/Growth**	59%	20%	43%	39%

*Financials, Consumer discretionary, Materials, Energy, Industrials, Real estate. **Technology, Communication services, Staples, Healthcare, Utilities. Data via Refinitiv (S&P 500 and S&P/TSX), Regression based (EM), and API (iShares EAFE).

Share of world equity market

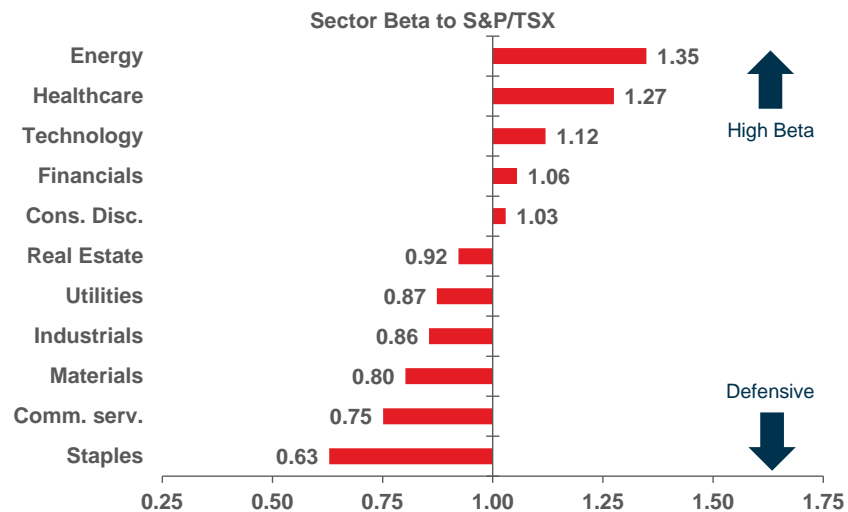
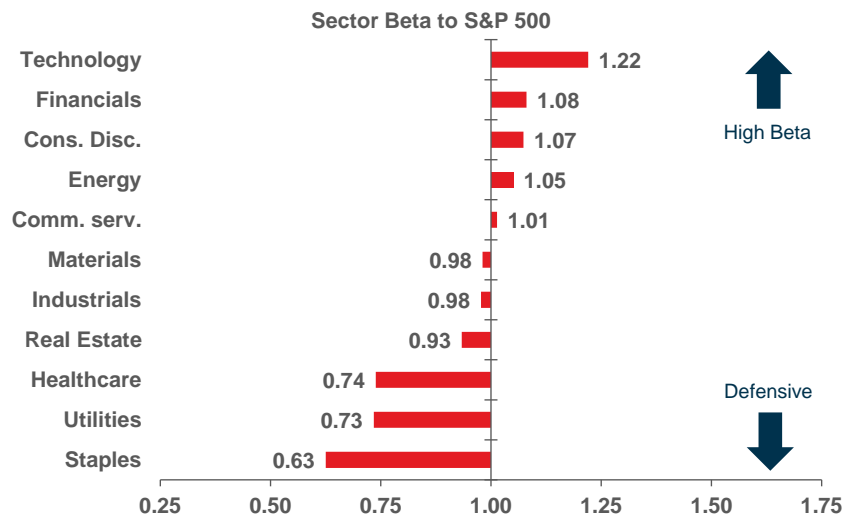


S&P 500 bear markets since 1950

S&P 500 bear markets since 1950

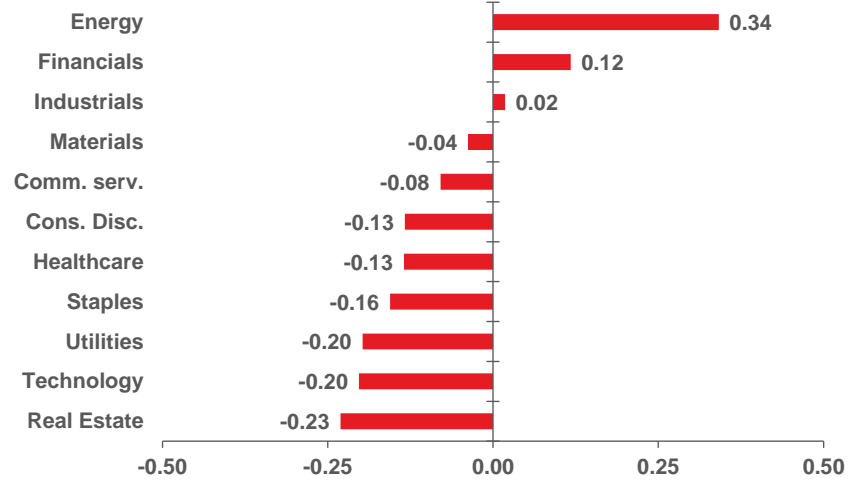
Peak	Bottom	Recovery	Event	Peak-bottom (months)	Bottom-recov. (months)	Total duration (months)	Max drawdown
Aug 1956	Oct 1957	Sep 1958	Recession of 1958	15	11	26	-21.6%
Dec 1961	Jun 1962	Sep 1963	Kennedy Slide of 1962	6	14	21	-28.0%
Feb 1966	Oct 1966	May 1967	Aggressive Fed tightening	8	7	15	-22.2%
Nov 1968	May 1970	Mar 1972	Recession of 1969-1970	18	21	39	-36.1%
Jan 1973	Oct 1974	Jul 1980	1970s energy crisis	21	70	90	-48.2%
Nov 1980	Aug 1982	Nov 1982	Early 1980s recession	20	3	23	-27.1%
Aug 1987	Dec 1987	Jul 1989	Black Monday	3	20	23	-33.5%
Mar 2000	Oct 2002	May 2007	Dot-com bubble	31	56	86	-49.1%
Oct 2007	Mar 2009	Mar 2013	Great Financial Crisis	17	49	66	-56.8%
Feb 2020	Mar 2020	Aug 2020	COVID-19 pandemic	1	5	6	-33.9%
Jan 2022	Oct 2022	Jan 2024	<i>Central banks catch-up</i>	9	15	24	-25.4%
Average				14	25	38	-35.7%

Sector properties – Beta to index

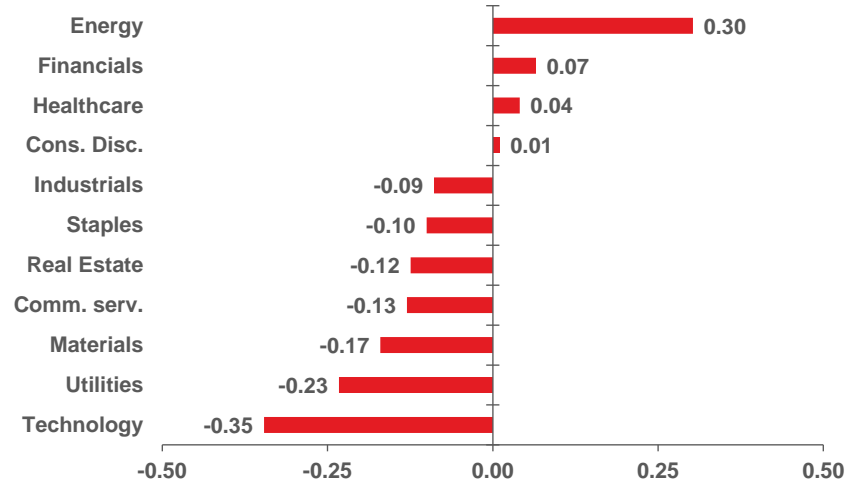


Sector properties – Correlation to 10-year rates

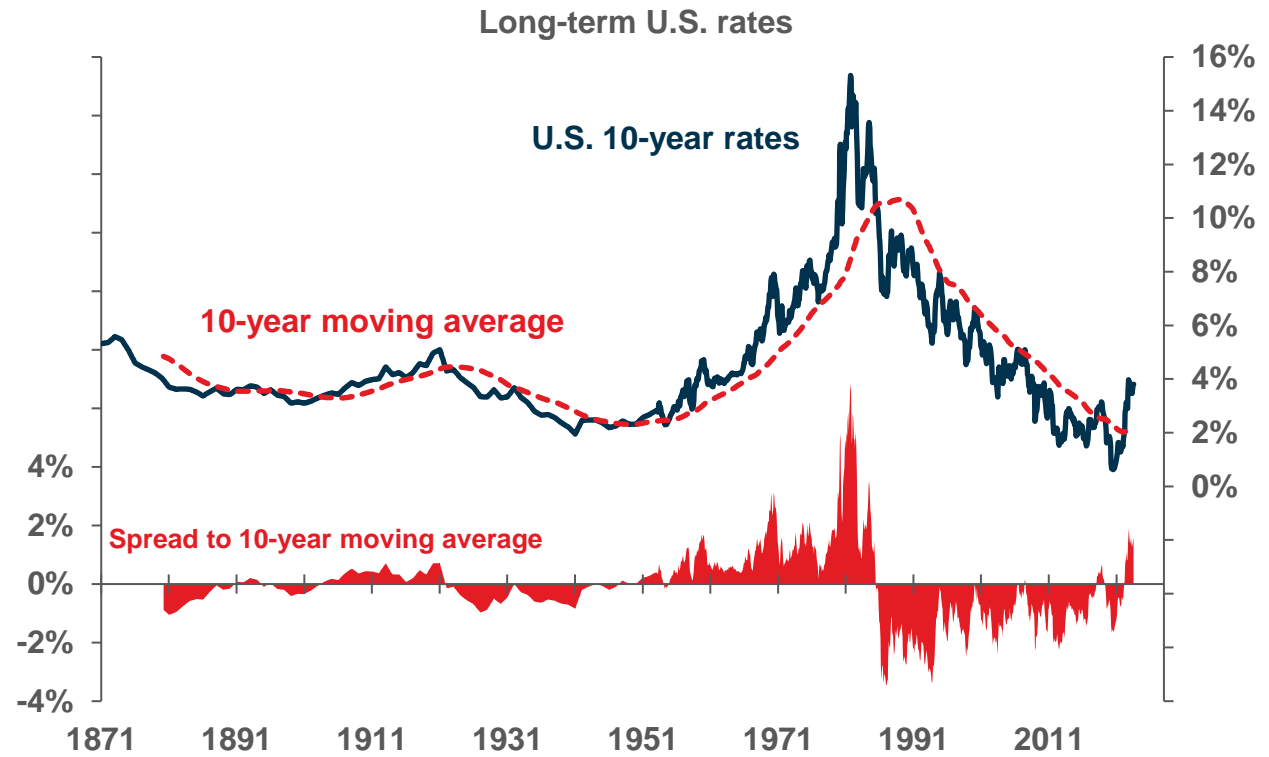
S&P 500 sector correlation with U.S. 10-year rates



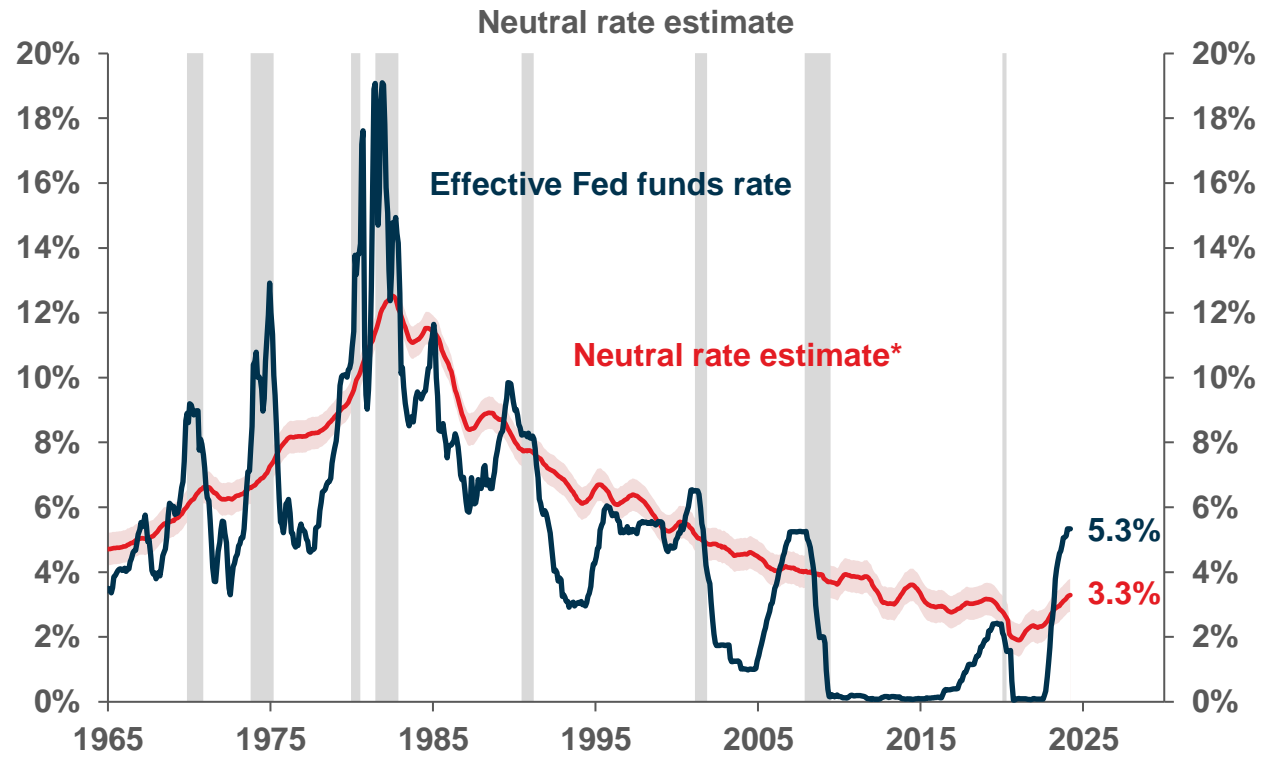
S&P/TSX sector correlation with canadian 10-year rates



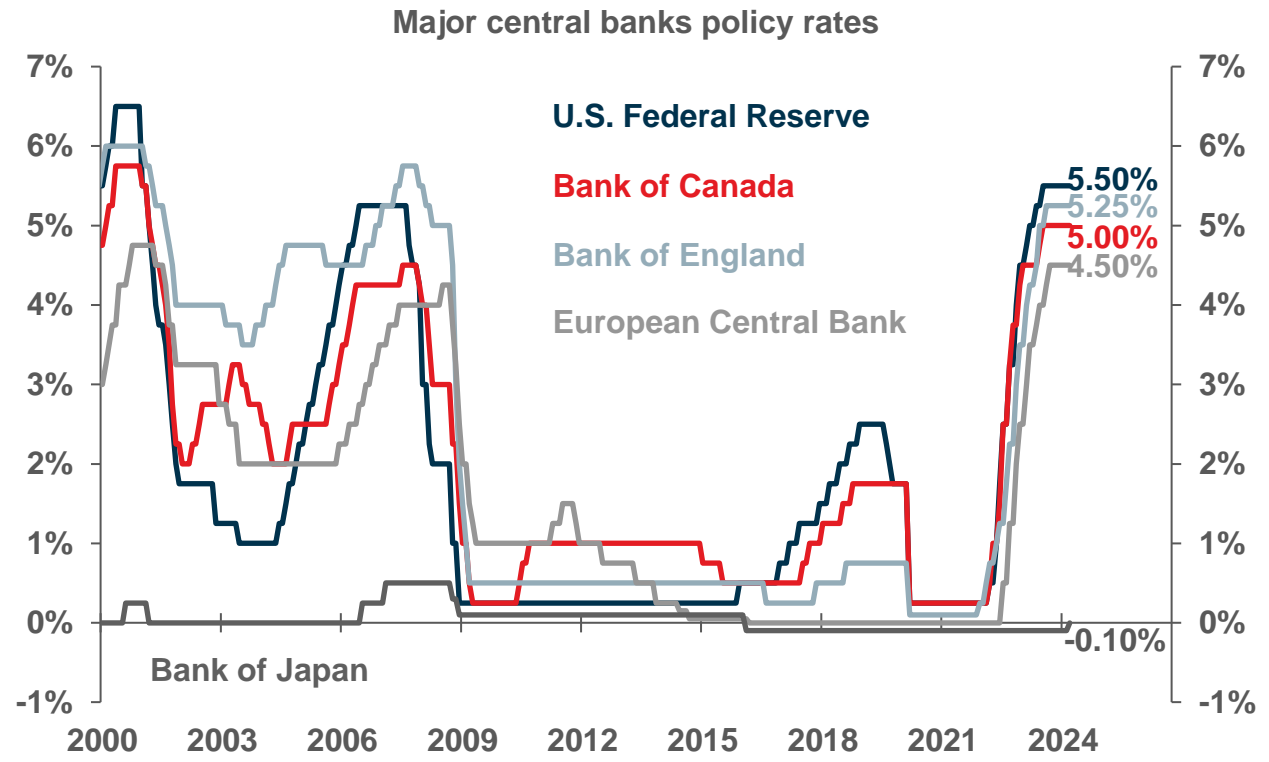
U.S. rates: Looking back 150 years



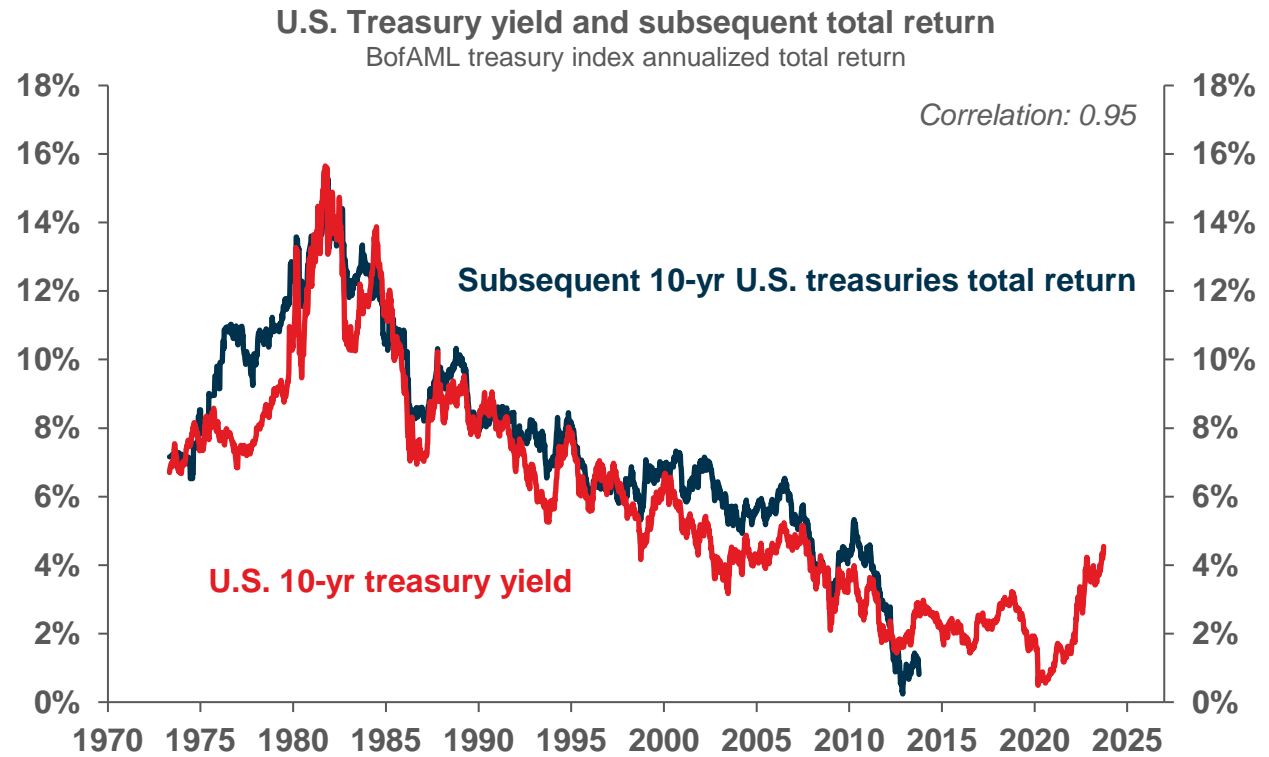
U.S. monetary policy



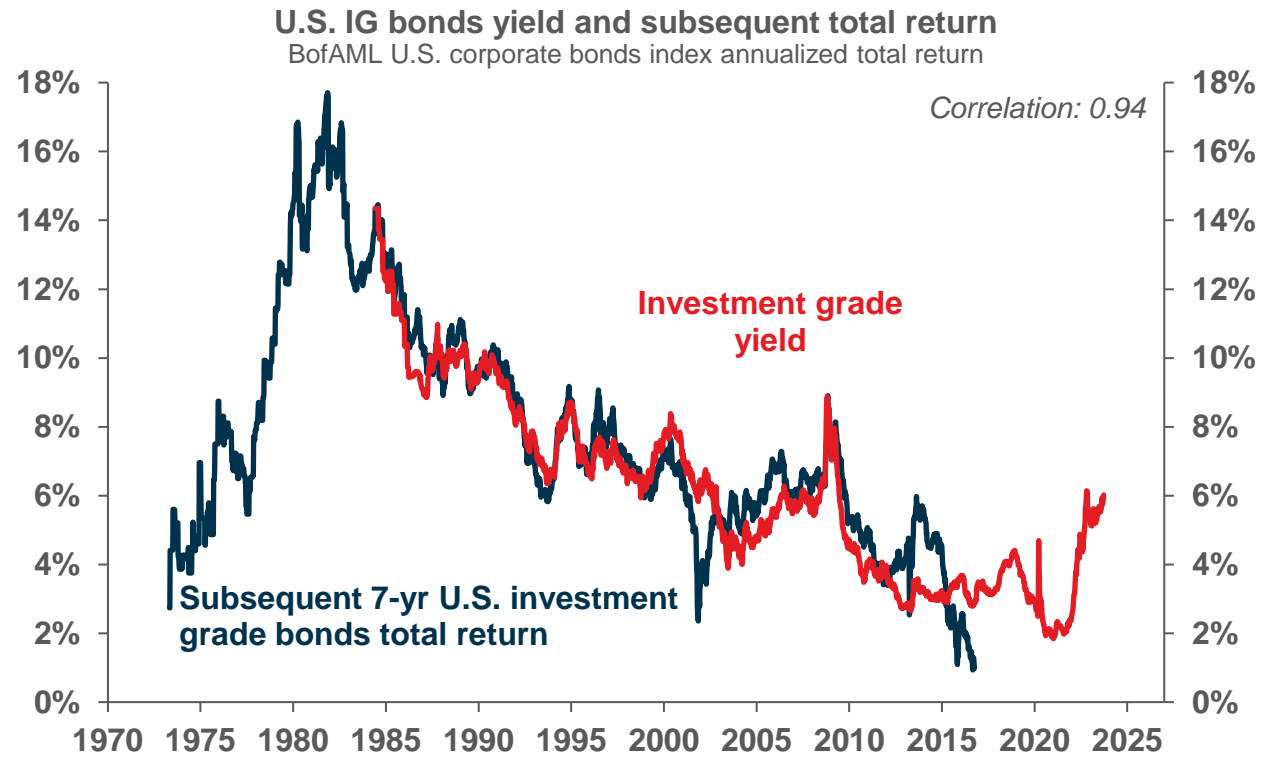
Global policy rates



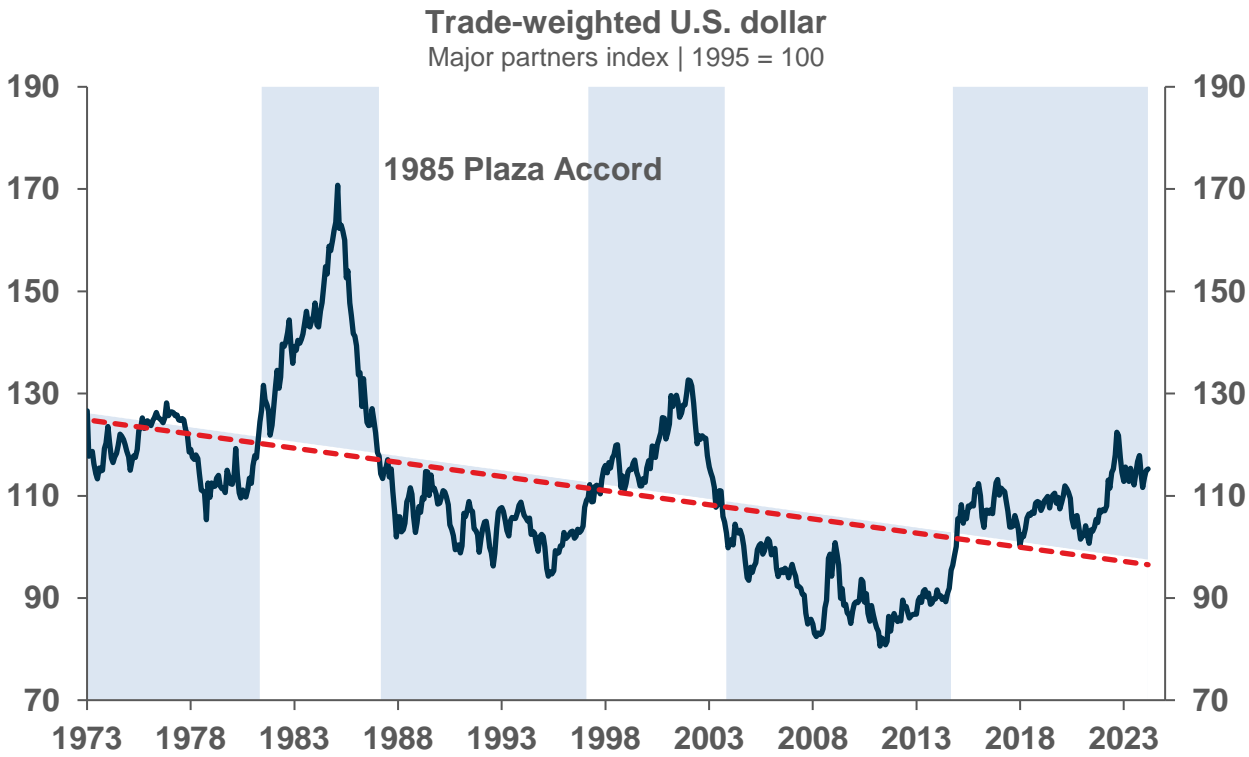
Fixed income yield and return – Treasuries



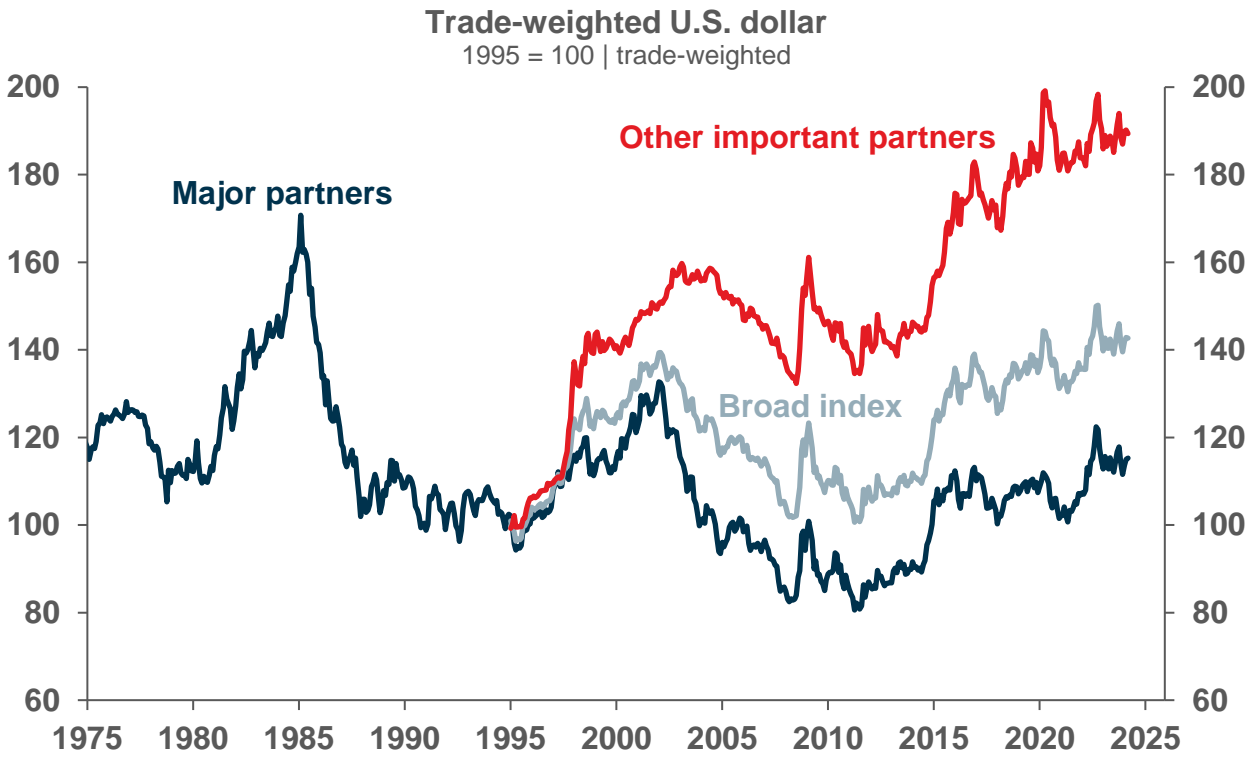
Fixed income yield and return – Investment grade



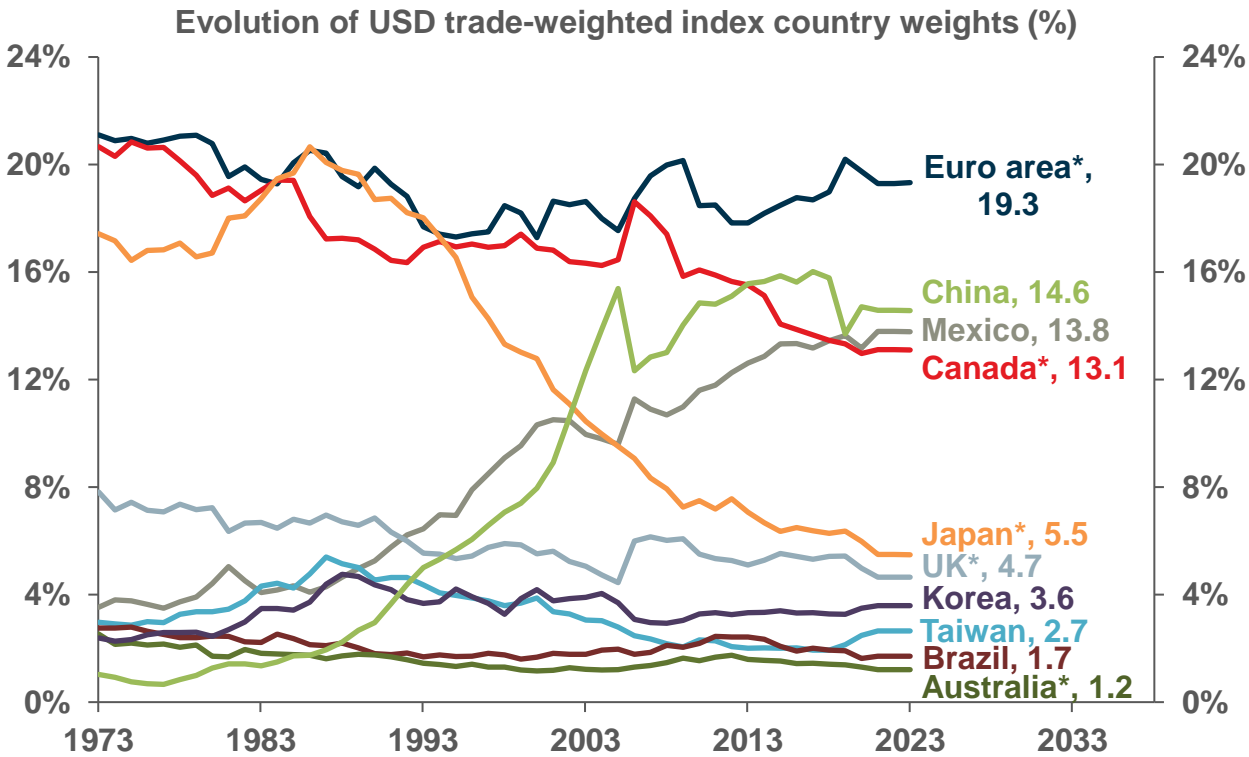
US dollar secular trend



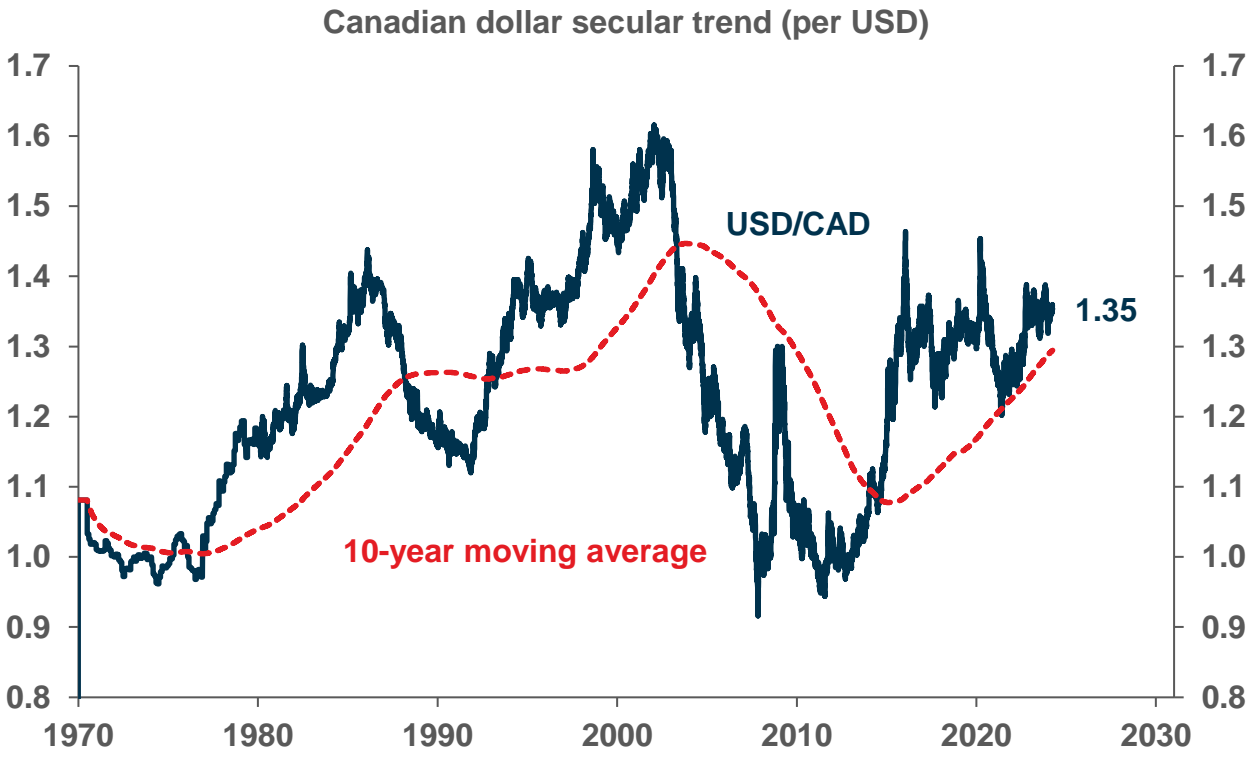
US dollar secular trend by country group



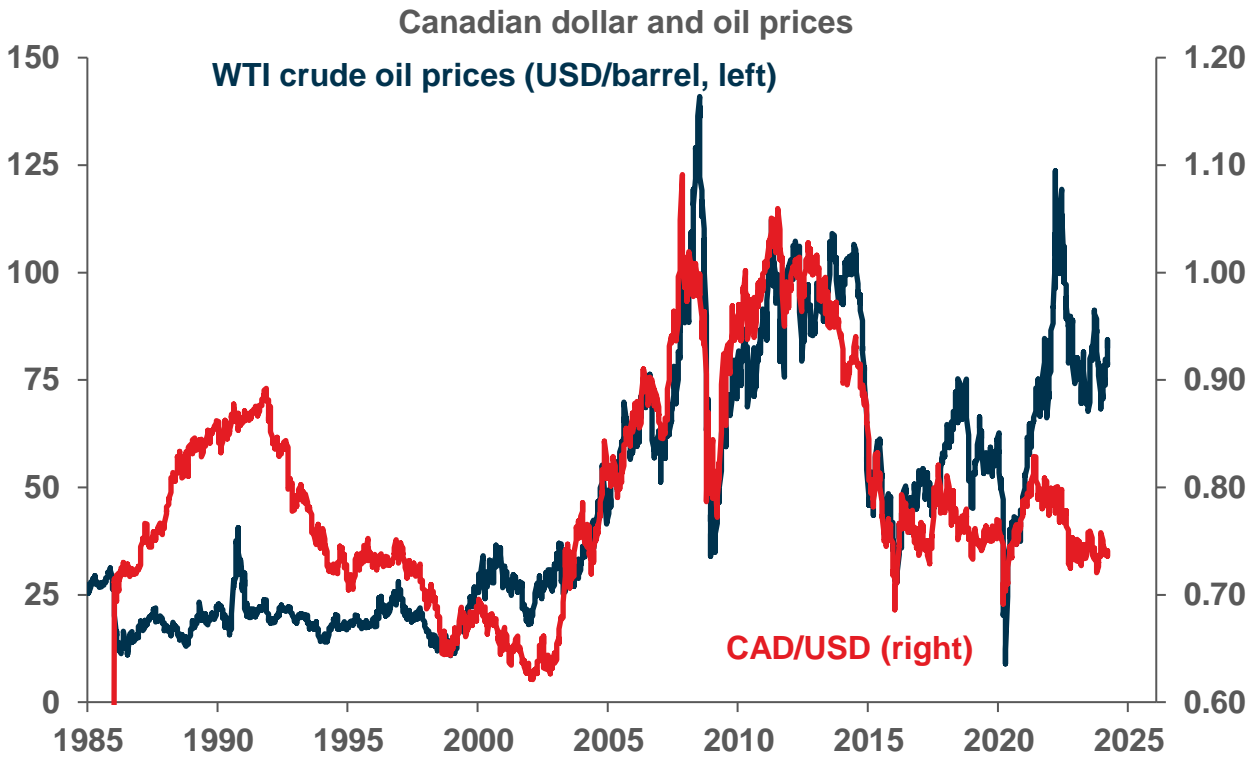
Share of trade-weighted US dollar index



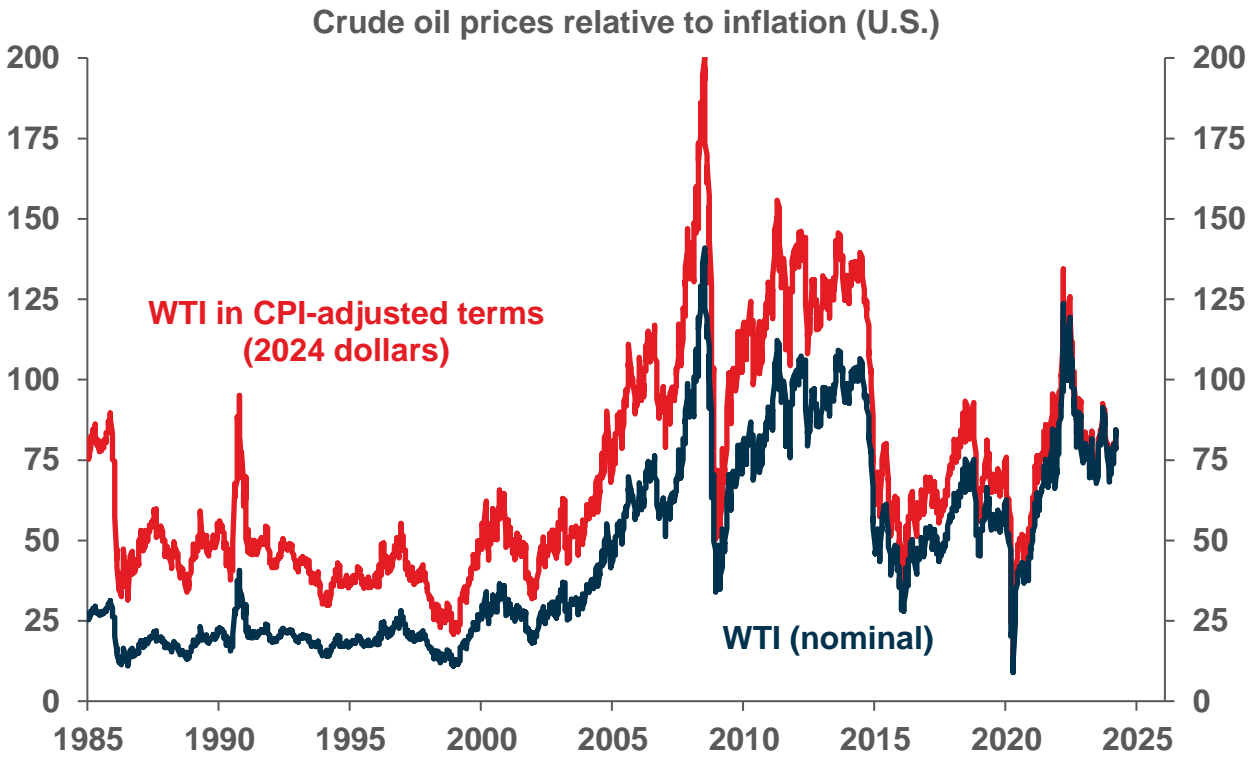
Canadian dollar secular trend



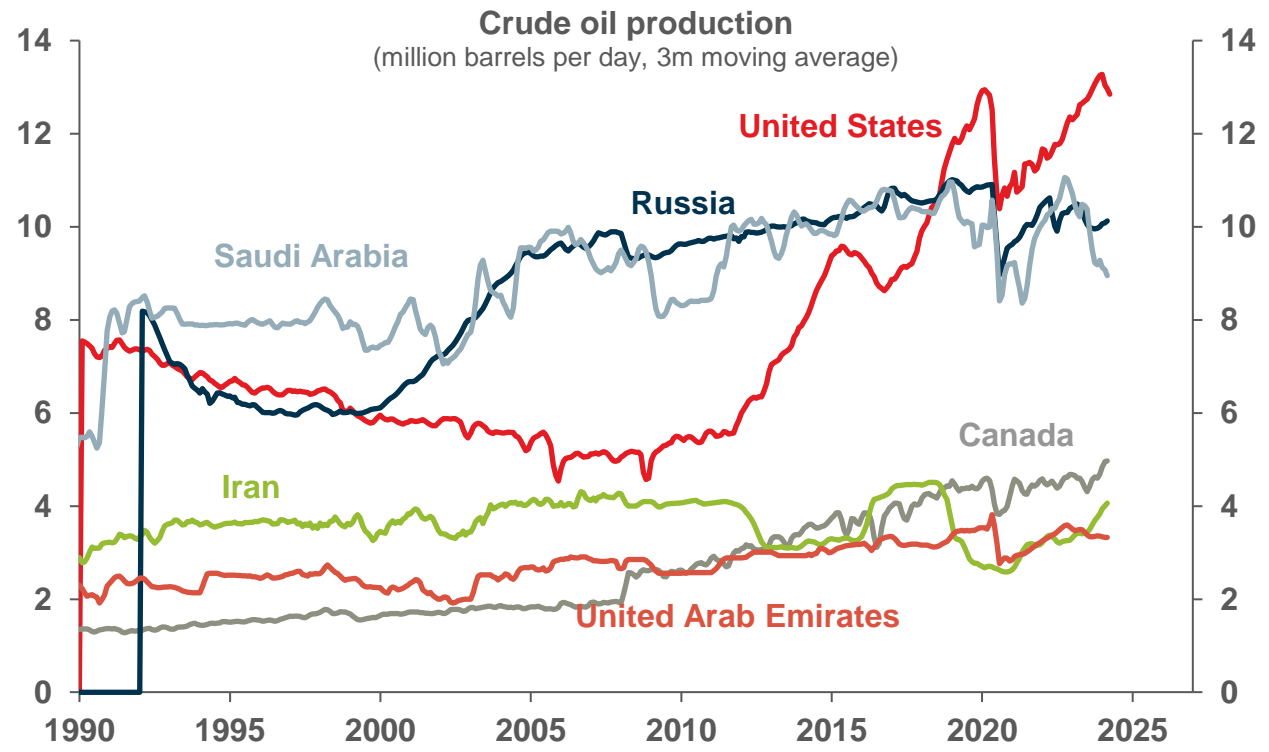
Canadian dollar & crude oil



Oil – Nominal vs real prices



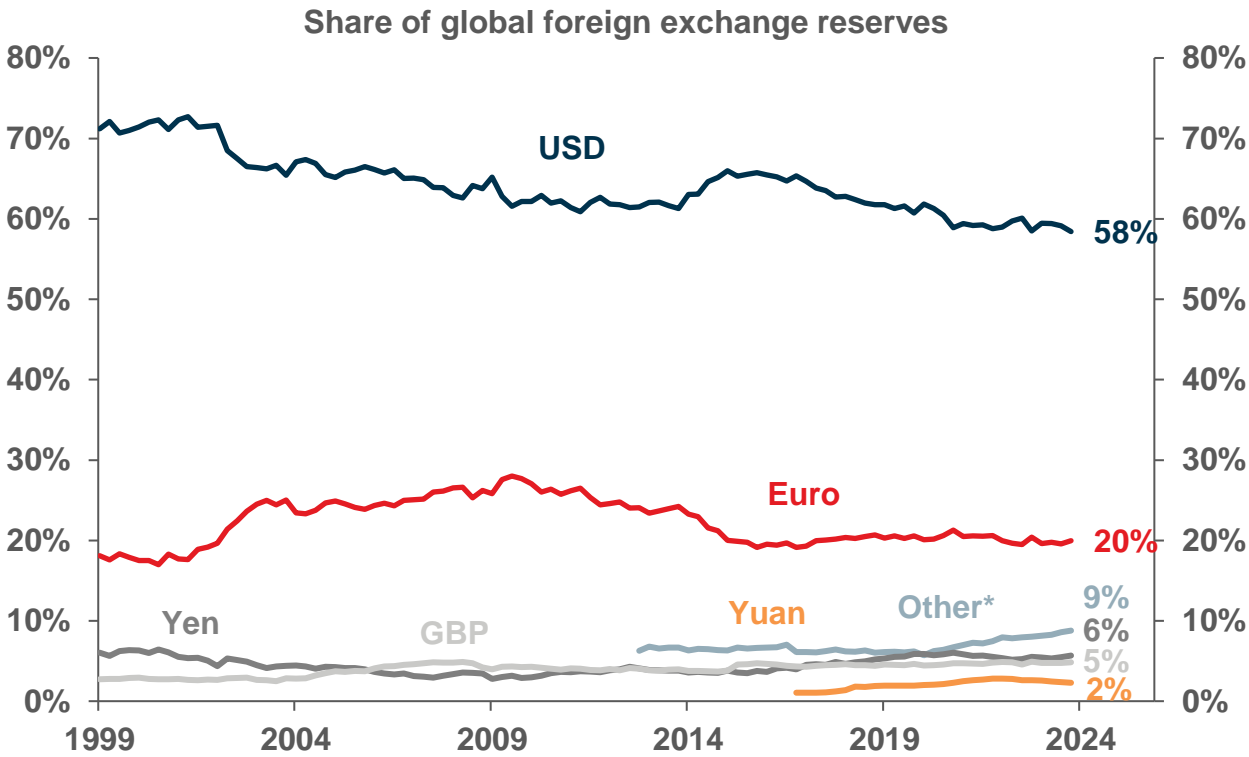
Oil supply by main producing countries



Gold – Nominal vs real prices



Share of global foreign exchange reserves



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The background of the right side of the page features a dark blue background with various financial data visualizations. At the top, there are several line graphs with white data points and connecting lines, overlaid on a grid of numerical values. Below these, there are bar charts and more line graphs, all in shades of blue and white. The overall aesthetic is that of a modern financial dashboard or data visualization tool.

CIO Office

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