NATIONAL BANK INVESTMENTS

Quarterly Flip Book

Summer 2023

Data as of June 30, 2023

CIO Office

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Myths & Reality

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Market timing in the long run

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Myth

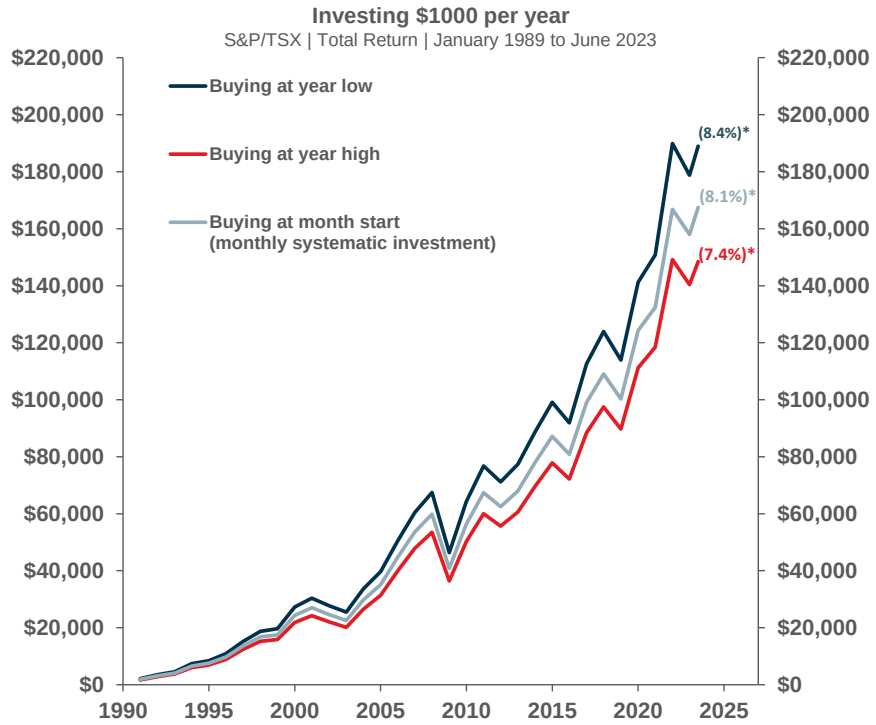
The timing of your annual savings investment is of utmost importance for the well-being of your portfolio in the long run.

Reality

The timing of your annual savings investment will make a difference in the long run, but it is far from being the critical factor many seem to believe.

Case in point: consider an investor blessed with the power of perfect market timing (blue line) compared to another investor cursed with systematically picking the worst possible day to invest each year, over 30 years (red line). In the end, the market timing champion would have outperformed the most unfortunate of all investors by a mild 1% / year. If we take the more realistic example of an investor saving systematically at the beginning of each month, this annual outperformance shrinks below 1%.

How is such a small gap possible? Simply because **in the long run, the first year's return is superfluous. What truly matters is the frequency of savings and passage of time, not market timing.**



Data via Refinitiv. *Annualized money-weighted rate of return

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Reasons to sell?

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Myth

Selling in times of heightened uncertainty can protect investments from heavy losses.

Reality

Selling in times of heightened uncertainty is generally the best way to ensure heavy losses, as it often rhymes with selling low and missing the rebound.

More importantly, one should keep in mind that **the only certainty is that there will always be uncertainty, as it is the price to pay for capital appreciation in the long run.**

And – need we add – it isn't in the media's best interest to report the latest news with nuance and historical perspective; better to let fear and pessimism easily set in. However, the chart on the right should act as a reminder that letting emotions take over is a good recipe for short-term gain, but long-term pain.

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Average return?

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Myth

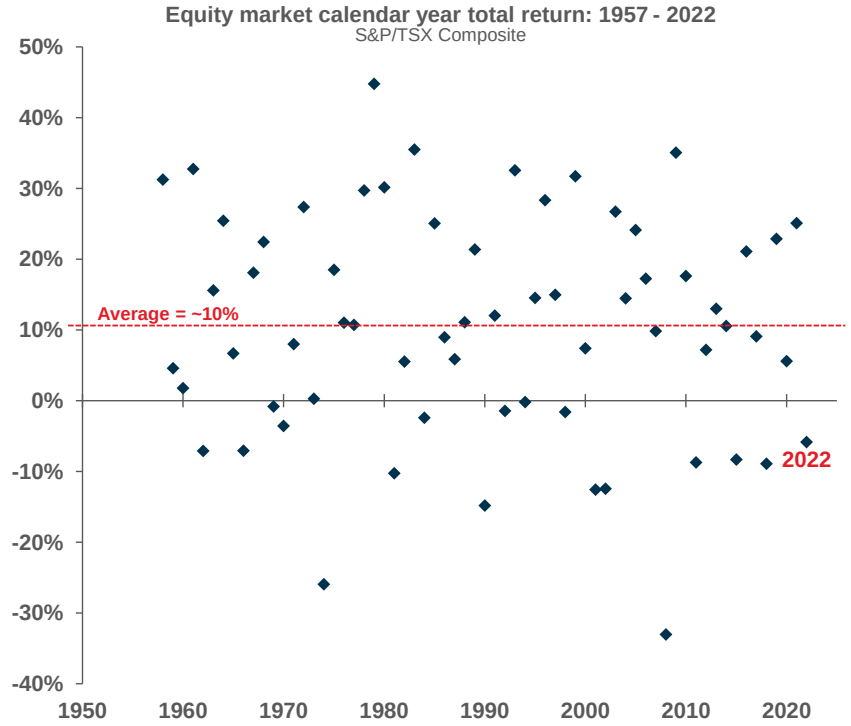
Since the long-term historical average annual return on the stock market is ~10%, investors should expect to see calendar-year returns near 10%.

Reality

Quite the contrary, it is likely that **investors will only rarely see a calendar year where equity returns are close to their long-term historical averages.** Case in point: since 1957, only 8 years out of 63 have seen the Canadian stock market generate performance near average (+/- 2%).

One likely reason for this myth is the common misconception that "average" is synonymous with "typical." However, there is no such thing as a "typical" year in the stock market.

As a result, investors should expect a wide range of possible outcomes in any given year, whereas only the passage of time can lead to an annualized return near the market's long-term average.



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Equity performance in the long run

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Myth

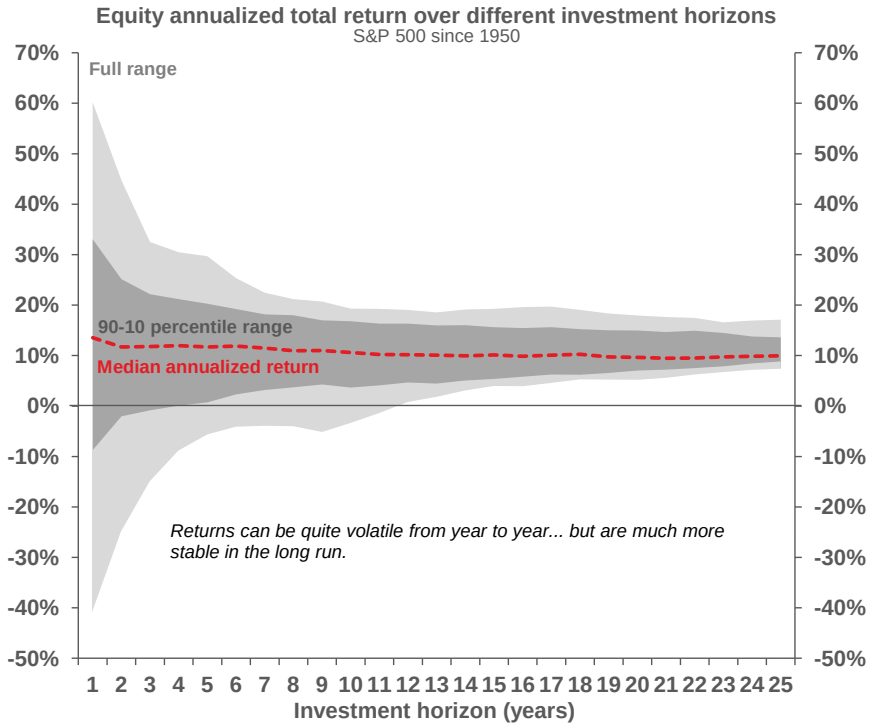
Investing in the stock market is akin to gambling at a casino.

Reality

It is true that daily market fluctuations resemble a coin toss (see page 36 for further details on this subject). Nevertheless, two fundamental reasons make investing completely different from gambling.

First, unlike the world of gambling, investing in the stock market is not a zero-sum game, as evidenced by the positive median annualized return (red dotted line). In the long run, equity returns come from companies' ability to grow their earnings, not from other investors' misfortune.

Second, while gambling remains just as uncertain no matter how long you "play", the opposite occurs within equity markets, as evidenced by the narrowing range of outcomes over time (grey area). The longer one "plays" (i.e. remains invested), the greater the chances are of converging towards the premium investors earn for bearing equity risk.



Data via Robert J. Shiller at http://www.econ.yale.edu/~shiller/data.htm

Dollar cost averaging or lump sum?

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Myth

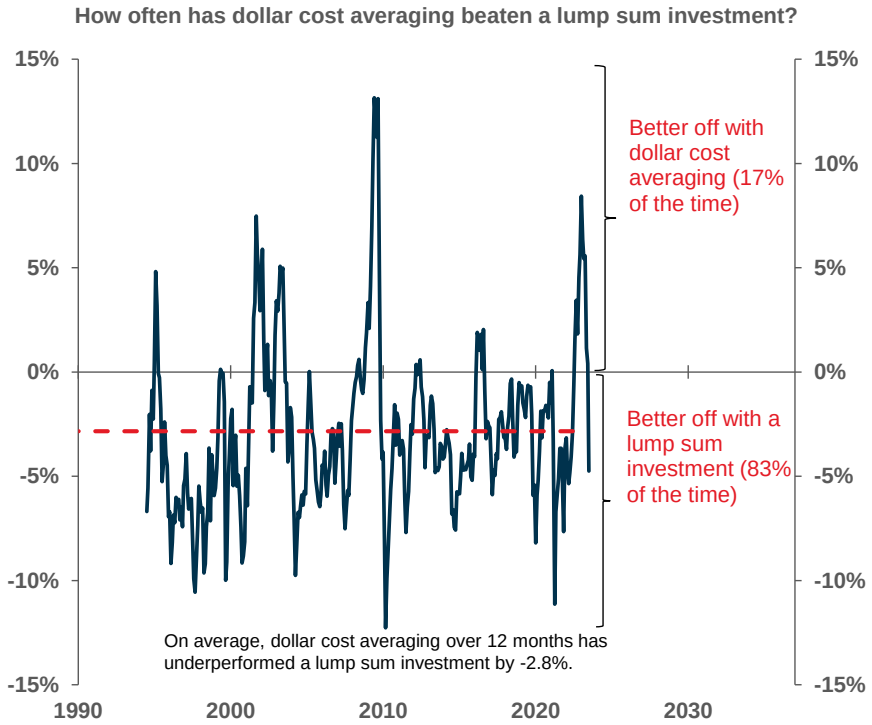
Investors contemplating investing a large amount (e.g. an inheritance) are better off spreading their entry over time (dollar cost averaging) rather than committing the full amount immediately (lump sum).

Reality

It depends. But since 1980, **you would have been better off investing the full amount right away 83% of the time**, while the decision to split the investment evenly over twelve months would have cost an average of 2.8% in lost returns. This simple study assumes a portfolio* evenly balanced between Canadian bonds and global equities.

Of course, no one wants to put money to work right before a market correction, this myth being a prime example of one of the most well documented behavioural biases in finance: loss aversion.

Yet, think of it this way. Would you invest in a strategy that loses 8 times out of 10 and by an average of 2.8%? After all, these are the historical properties of dollar cost averaging.



Data via Refinitiv. *50% ICE Bofa Canada Broad Universe, 25% S&P/TSX, 25% MSCI World

Home country bias

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Myth

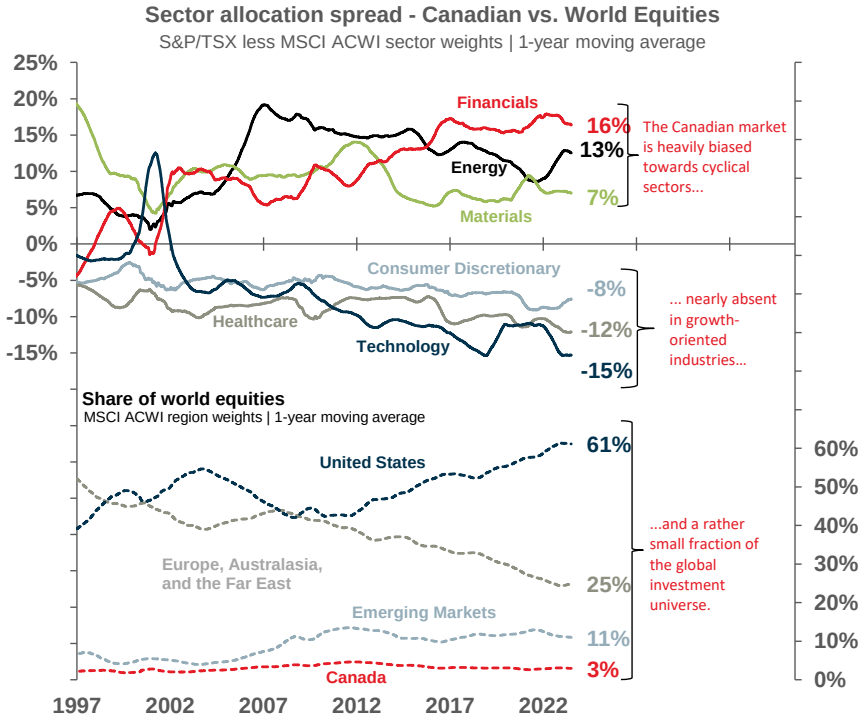
It is more prudent to invest most of your portfolio in companies domiciled at home and thus of greater familiarity than to “risk it” with foreign corporations.

Reality

While predominantly investing in domestic equities might seem sufficient and feel comforting, **such a portfolio could, in fact, be just the opposite. Do not confuse familiarity with safety.**

For instance, Canada’s stock market’s high concentration in some of the most cyclical sectors and its relative lack of growth-oriented companies poses a risk that can result in unpleasant surprises if left undiversified.

The good news is that there are plenty of opportunities abroad to complement for such risks. After all, **Canadian stocks only represent 3% of the global equity investment universe… a far cry from the ~45% they account for in Canadians’ portfolios*.** Home bias indeed!



Data via Refinitiv. *Estimate based on an average from FMI’s "Coordinated Portfolio Investment Survey" for 2014-2018.

Should investors fear recessions?

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Myth

Investors should be fearful of recessions as they entail heavy financial losses.

Reality

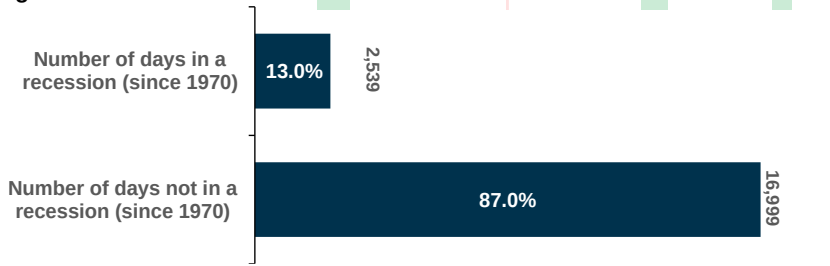
It is true that the most turbulent periods for markets are generally concomitant with recessions. As such, those with eyes riveted on daily stock exchange prices are very likely to experience fear in times of economic downturn.

However, if we step back from market fluctuations and look, rather, at the historical performance of a basic balanced portfolio* during the last six recessions, we see that **the average return was actually zero**. Not something to celebrate, but far from the financial catastrophe many seem to believe – especially when we consider returns in the previous and following years. What's more, let's not forget that recessions are relatively rare events, covering only 13% of the last 50 years.

Therefore, **it is not the recession that investors should fear, but fear itself…** or rather the risk of materializing heavy losses, when in the grip of emotion, at an untimely moment.

Balanced portfolio (60/40)* total return

Recessions (NBER)	12-months Before	During Recession	12-months After	Full period**
Nov 1973 - Feb 1975	7%	-7%	12%	11%
Jan 1980 - Jun 1980	11%	9%	7%	31%
Jul 1981 - Oct 1982	9%	15%	26%	57%
Jul 1990 - Feb 1991	4%	6%	9%	21%
Mar 2001 - Oct 2001	-1%	-5%	-8%	-14%
Dec 2007 - May 2009	1%	-16%	9%	-8%
Feb 2020 - March 2020	16%	-9%	22%	28%
Average	**7%**	**-1%**	**11%**	**18%**



Data via Refinitiv. *60% MSCI World (in CAD) 40% ICE Bofa Broad Canada Universe (FTSE 91-day index for the 1973-1975 recession).
**Total return from 12-months before a recession until 12-months after a recession. Recession dates are from the NBER.

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Are GICs a risk-free alternative?

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Myth

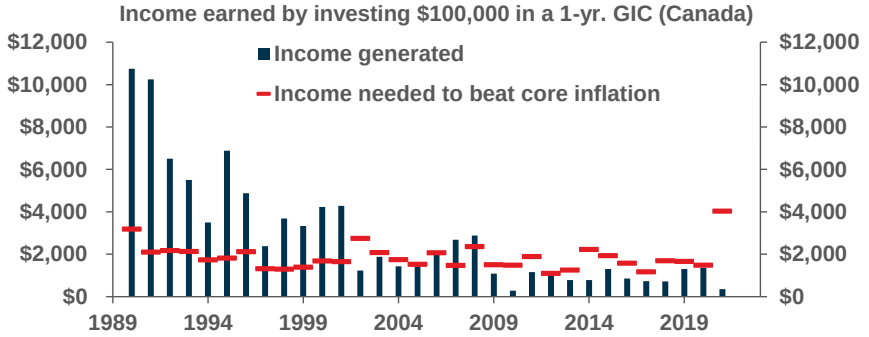
Guaranteed Investment Certificates (GICs) offer a risk-free alternative for investors seeking to at least preserve the purchasing power of their assets.

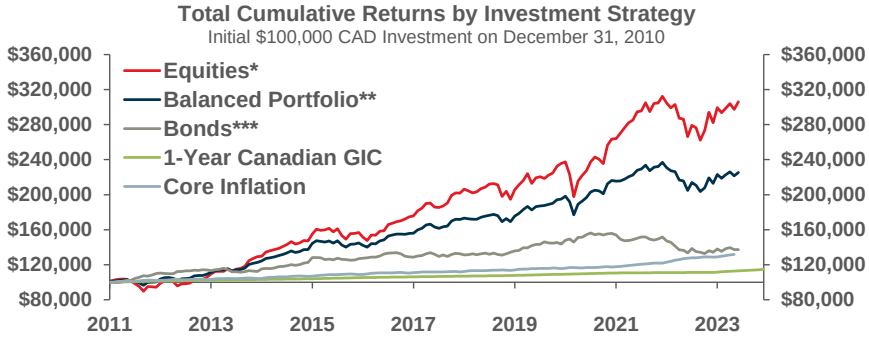
Reality

GICs are indeed among the safest investment vehicles available. However, their returns, while guaranteed, generally fail to cover inflation, leaving their holders at risk of seeing their purchasing power decline over time.

It should be specified that this observation is a reflection of the low interest rate environment prevailing over the past several years. For instance, although a 1-year GICs provided income above inflation in the 1990s, this has not been the case since 2009.

Ultimately, the selection of an investment vehicle depends on risk tolerance - GICs may therefore be the right choice for some. However, **a key risk for investors whose investment horizon is measured in years may not be the short-term volatility of other assets, but rather the potential erosion of their purchasing power over the long run.**





Data via Refinitiv. *35% S&P 500, 35% S&P/TSX, 20% MSCI EAFE, 10% MSCI EM; all in CAD. **60% Equities, 40% Fixed Income ***100% ICE Bofa Broad Canada Universe

How strong is the “January effect”?

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Myth

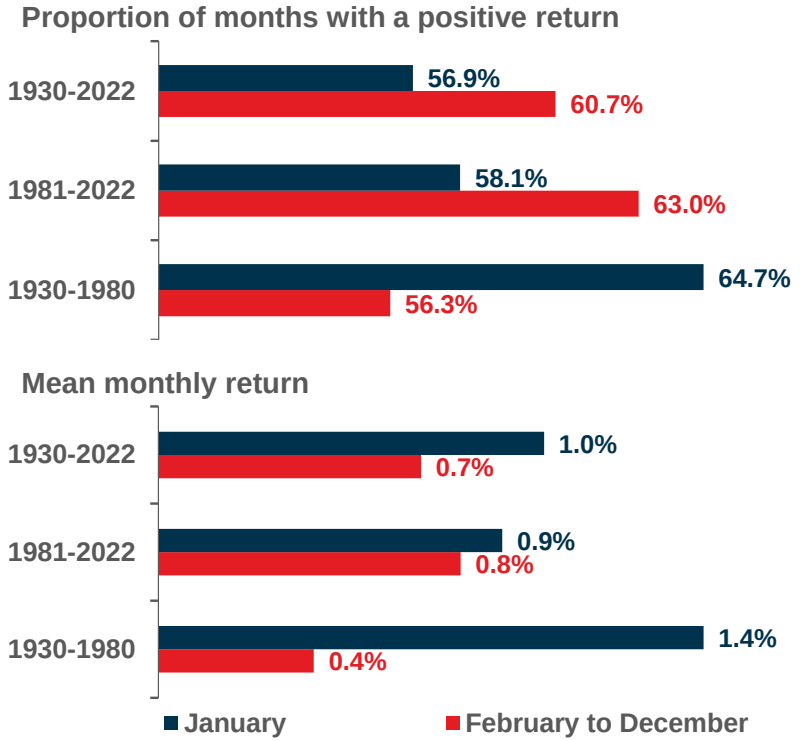
Stocks generally perform better in January than in other months.

Reality

It is true that January has more often resulted in positive and high returns than what has been observed on average in the other months. However, this trend has largely faded or even inverted in recent decades.

Seasonal trends in the stock market seem to be more a matter of chance. Thus, it is not surprising that a seasonal trend observed in one period is not repeated in another period. Moreover, the observed differences in performance are usually of marginal importance.

Since the past is no guarantee of the future and seasonal trends are not always persistent, **an investor is well advised to ignore these historical observations and maintain a systematic investment plan.** There is no need to wait until January to make this good resolution!



Data via Refinitiv, Bloomberg. S&P 500 monthly returns from January 1930 to June 2023.

Are rate hikes bad for stocks?

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Myth

Stocks generally perform poorly when central banks hike their policy rate.

Reality

Each rate hike cycle has its own set of circumstances that often bring additional volatility to markets. However, **what normally prompts central banks to raise their policy rate is usually an economy that is showing strength and is expected to continue to do so; a typically favorable environment for stocks.**

Case in point: since 1996, the yearly total return of the S&P/TSX averages 6.2% when the Bank of Canada hikes the overnight rate at least once, lower than the 9.3% average of all years over that same time period but still well into positive territory. Similar findings in the United States, where the average yearly total return of the S&P 500 is 8.1% when the Federal Reserve hikes its policy rate at least once.

To be clear, these historical trends are no guarantee for any specific year, as evidenced by the year 2022, whose unique circumstances led to substantial setbacks for stocks. Nevertheless, over the long run, odds remain in favor of patient investors, regardless of the ups and downs of policy rates.

Markets and rate hikes (data since 1996)

Canada

Year	# of rate hikes*	Total return (S&P/TSX)
1997	5	15.0%
1998	3	-1.6%
2000	4	7.4%
2002	2	-12.4%
2005	3	24.1%
2006	4	17.3%
2010	3	17.6%
2017	2	9.1%
2018	3	-8.9%
2022	16	-5.8%
Average (rate hikes)		**6.2%**
Average (all years)		**9.3%**

United States

Year	# of rate hikes*	Total return (S&P 500)
1997	1	33.4%
1999	3	21.0%
2000	4	-9.1%
2004	5	10.9%
2005	8	4.9%
2006	4	15.8%
2015	1	1.4%
2016	1	12.0%
2017	3	21.8%
2018	4	-4.4%
2022	17	-18.1%
Average (rate hikes)		**8.1%**
Average (all years)		**10.7%**

Data via Refinitiv. *1 hike = 25 bpsnet change in policy rate.

Stock performance and the political party in power

Q3-2023

Myth

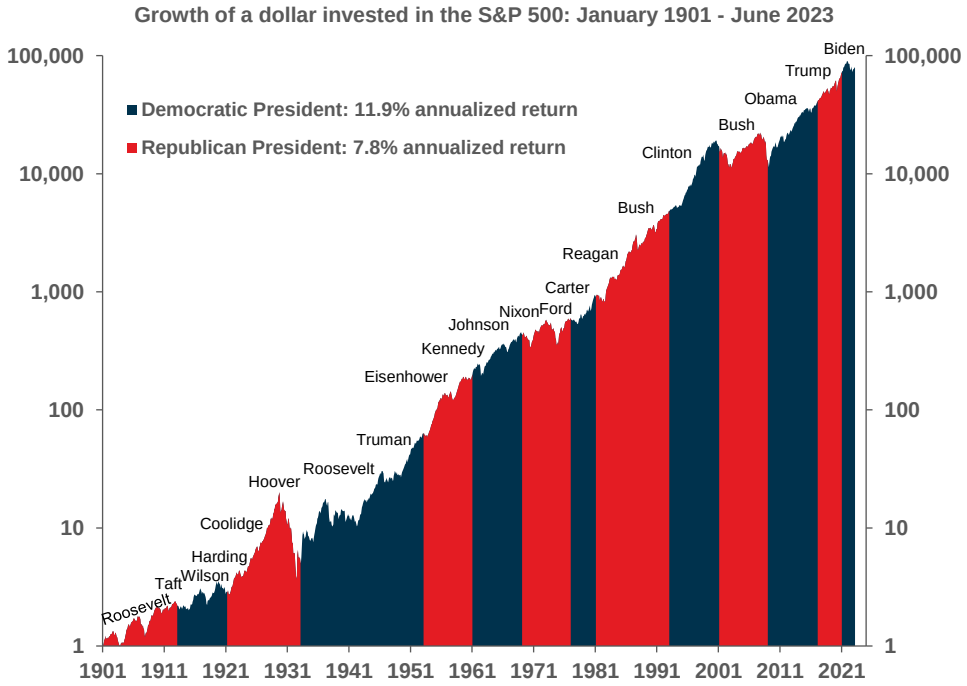
The political party of the government in power has a significant impact on equity market returns.

Reality

Over the very long term, history shows that stock markets have been successful in continuing their upward trend regardless of which political party is in power.

For example, since 1901, the annualized total return of the S&P 500 has been largely positive during both periods with a Democratic president in office (11.9%) and periods with a Republican president in office (7.8%). Moreover, the difference between these two returns seems to stem primarily from the economic environment over which politicians have limited control, with Democrats taking power at the bottom of the Great Depression in 1933 and at the bottom of the financial crisis in 2009.

In the end, **history shows that investors benefit from not letting politics and investments mix**, as difficult as that may be at times!



Data via Robert J. Shiller.

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Economy

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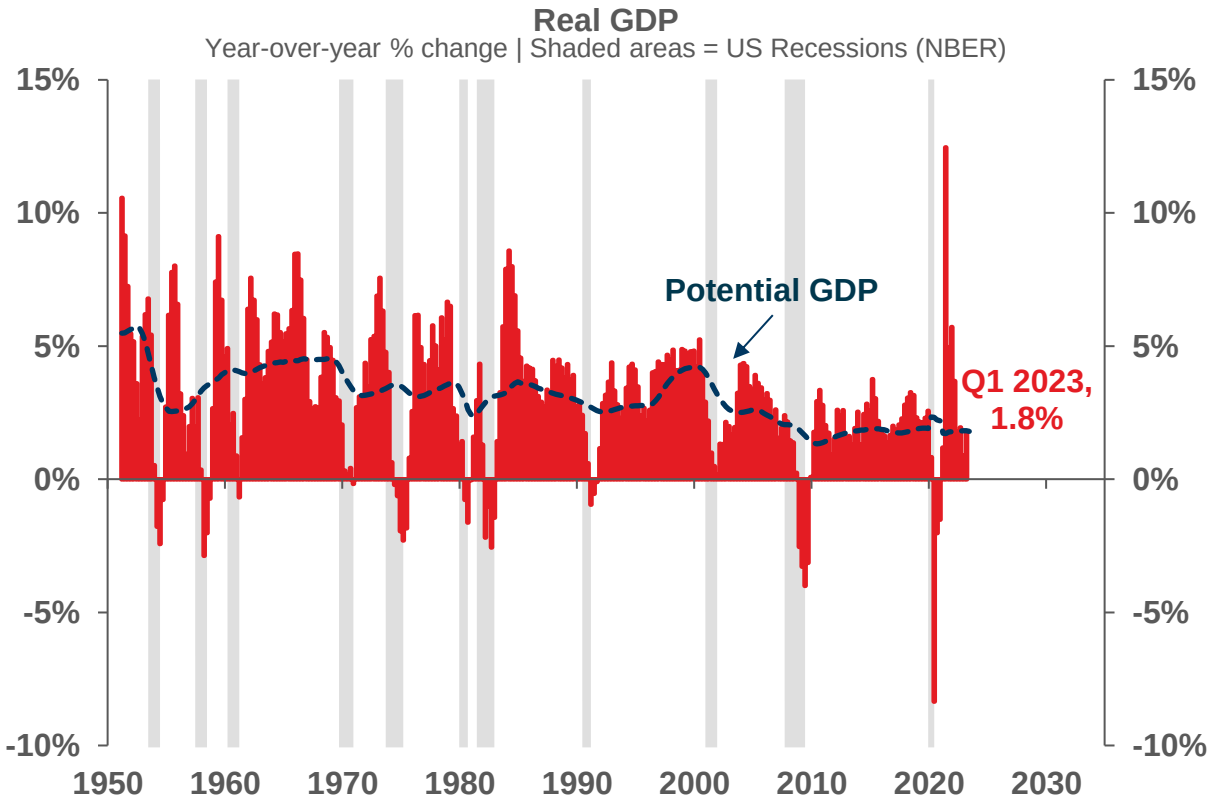
Historical U.S. economic growth



Data via Refinitiv, Congressional Budget Office

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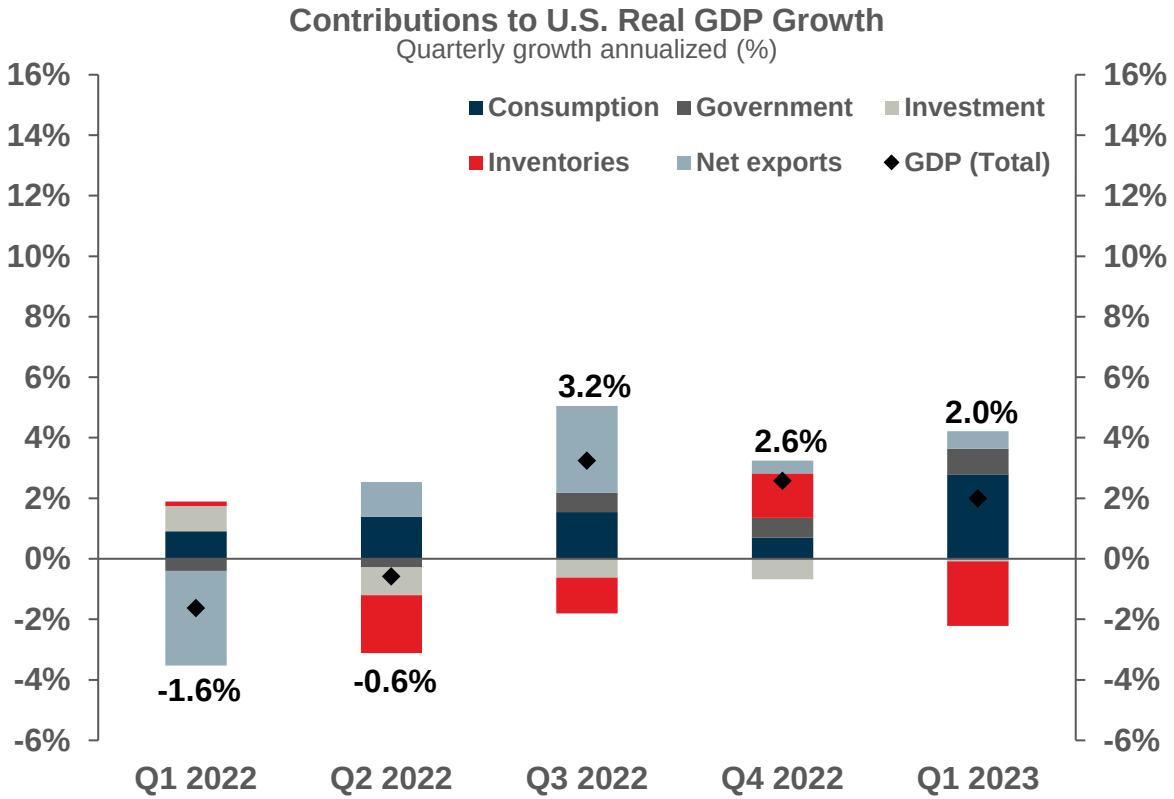
Recent U.S. economic growth



 Data via Refinitiv

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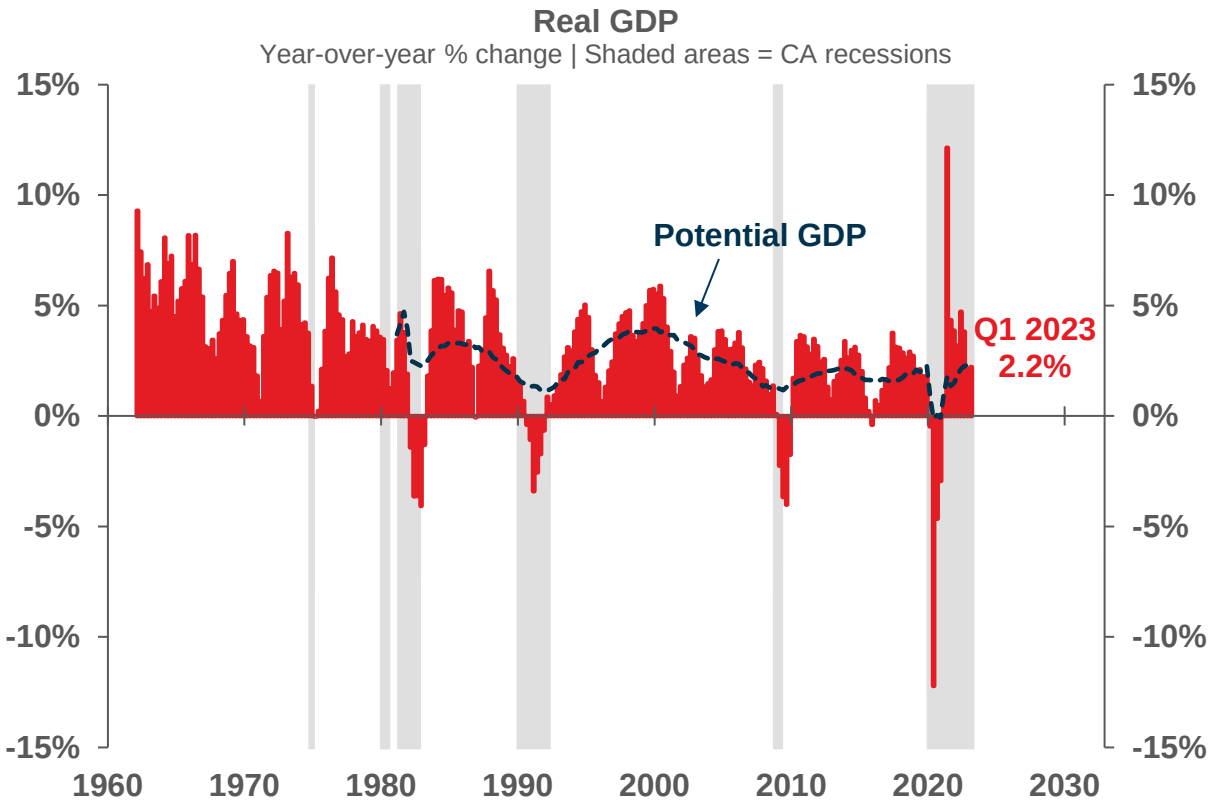
Historical Canadian economic growth



Data via Refinitiv, Oxford Economics

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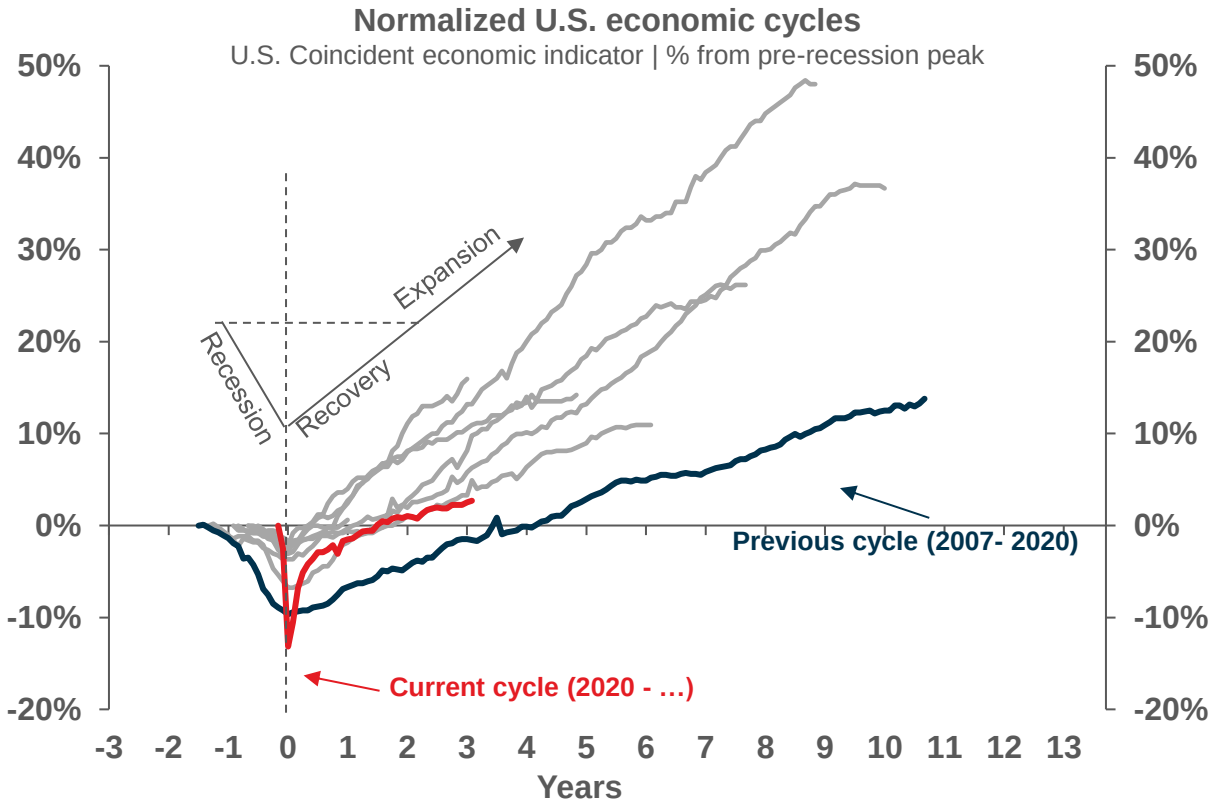
U.S. economic cycles



The current cycle began in February 2020, at the peak of the previous cycle. Following the March 2020 plunge at the onset of the COVID-19 pandemic, the economy rebounded rapidly and is now already above its previous peak, making it one of the fastest recovery in history.

Data via Refinitiv, The Conference Board

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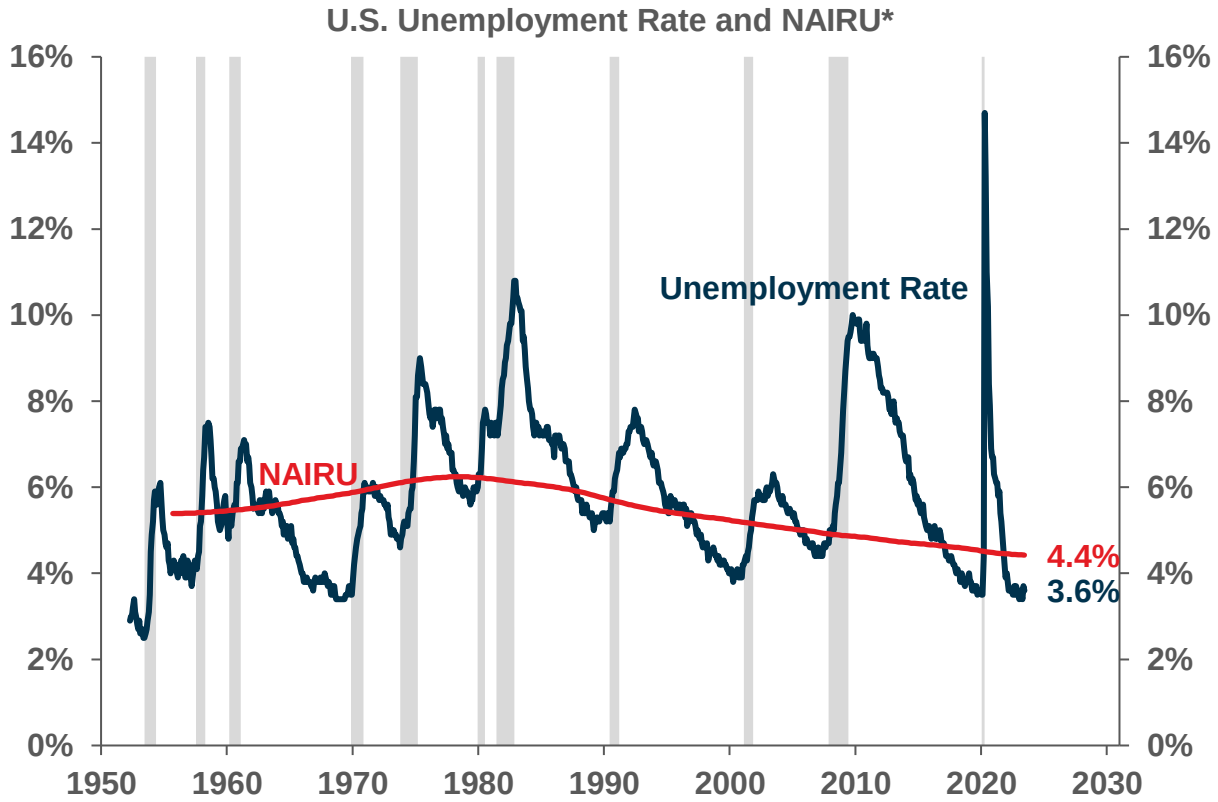
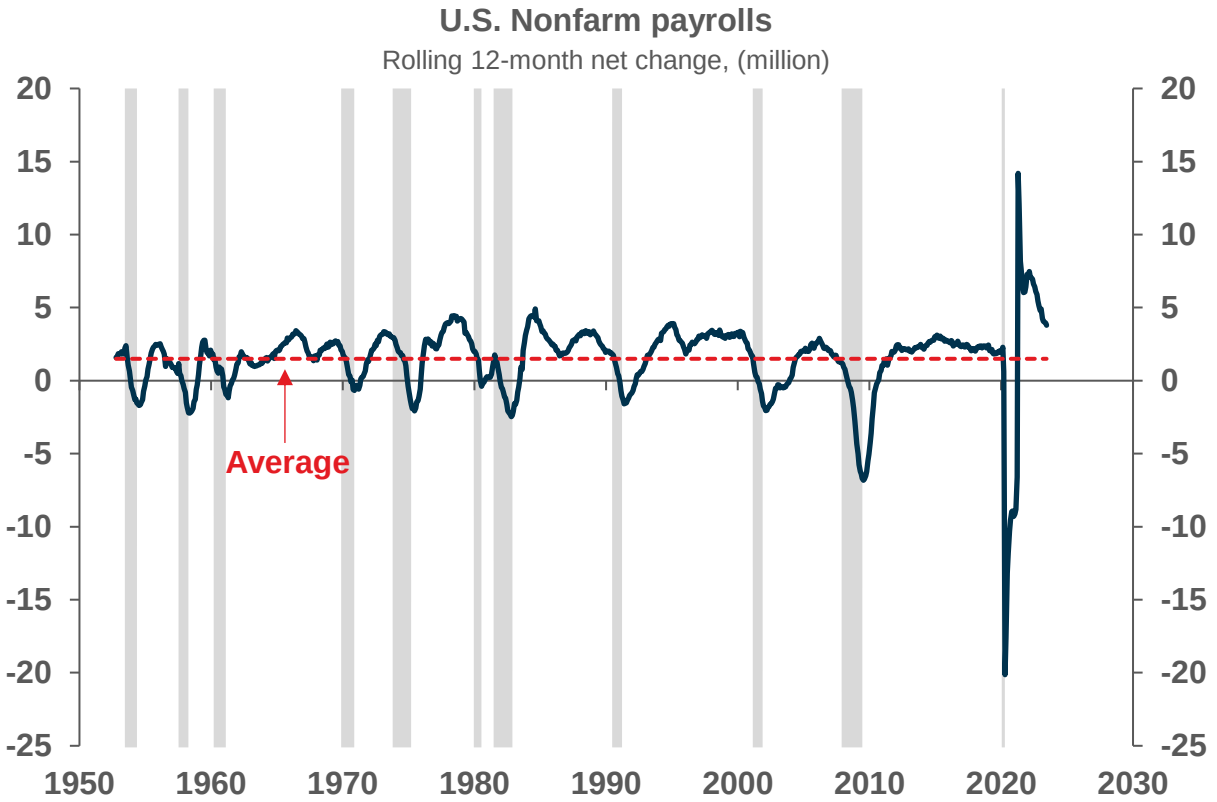
U.S. unemployment rate



Data via Refinitiv, Congressional Budget Office. *NAIRU refers to the Non-Accelerating Inflation Rate of Unemployment

U.S. labour market – Payrolls



 Data via Refinitiv

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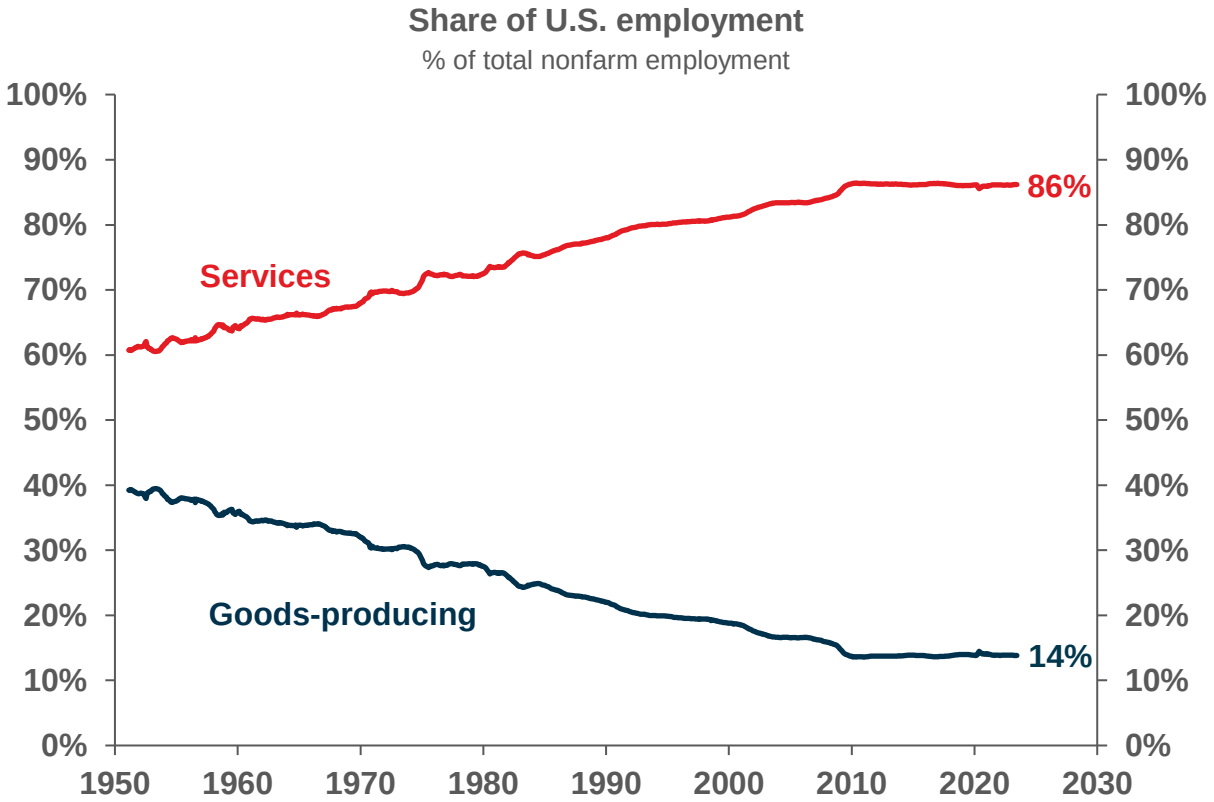
U.S. labour market – Employment sector



Data via Refinitiv

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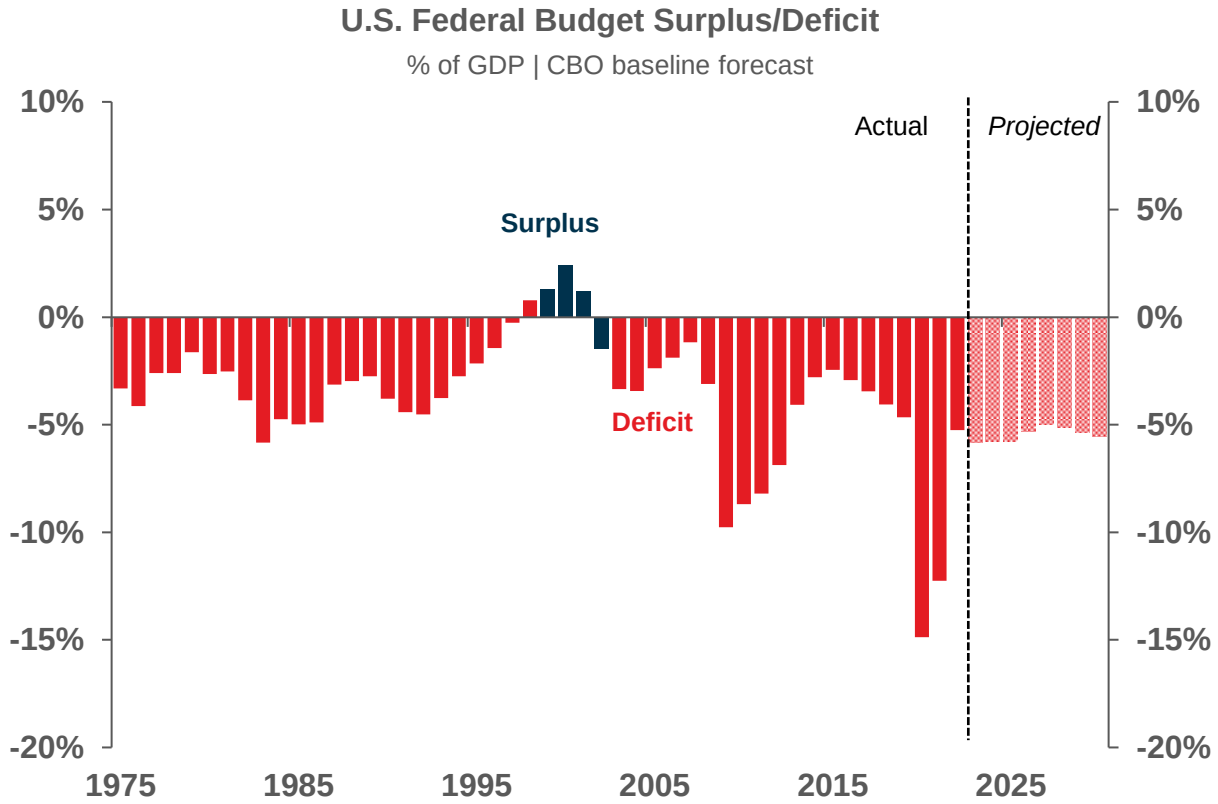
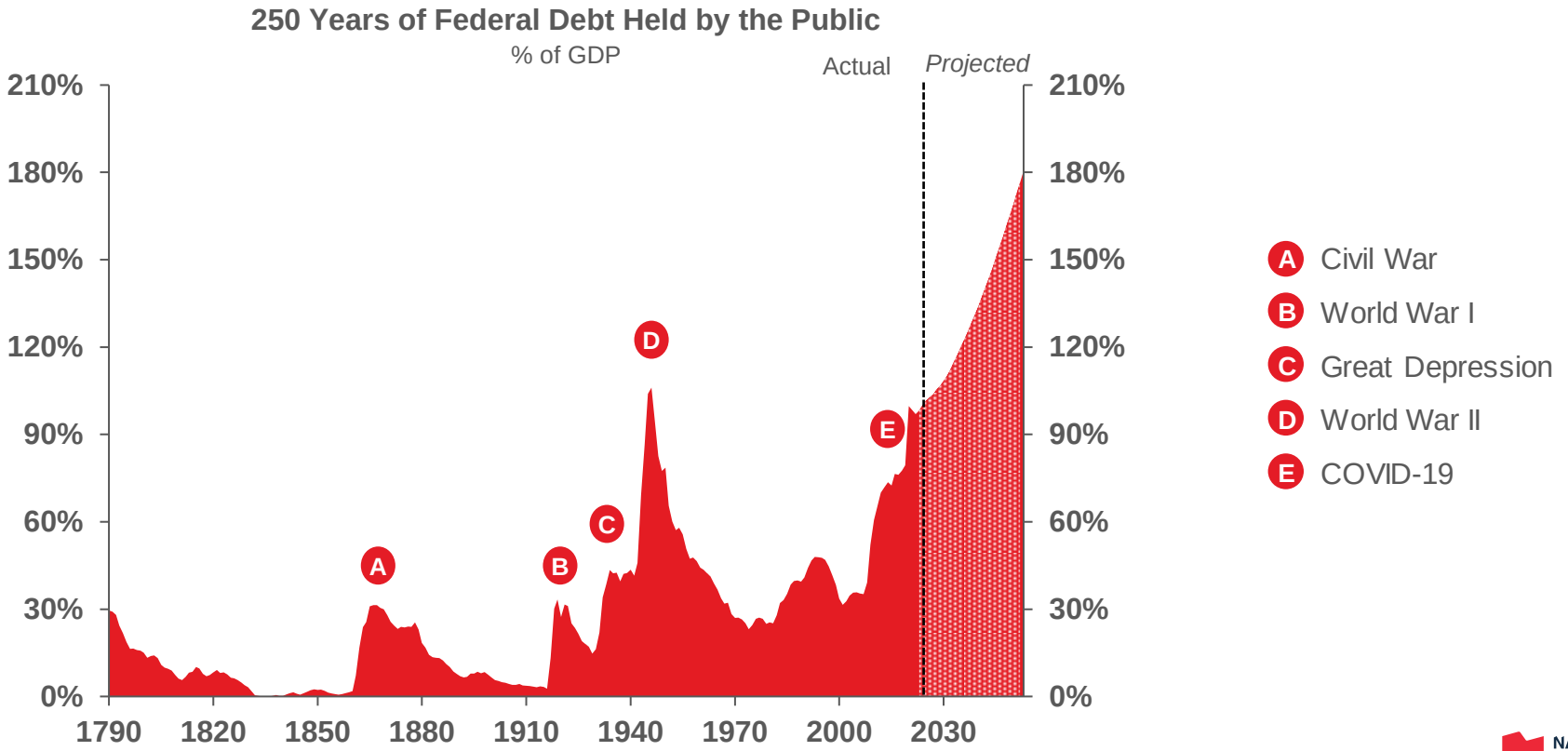
U.S. federal finances – Surplus & deficits



Data via Congressional Budget Office, Committee for a Responsible Federal Budget

U.S. federal finances – Debt held by the public



- A Civil War
- B World War I
- C Great Depression
- D World War II
- E COVID-19

Data via Congressional Budget Office, Committee for a Responsible Federal Budget

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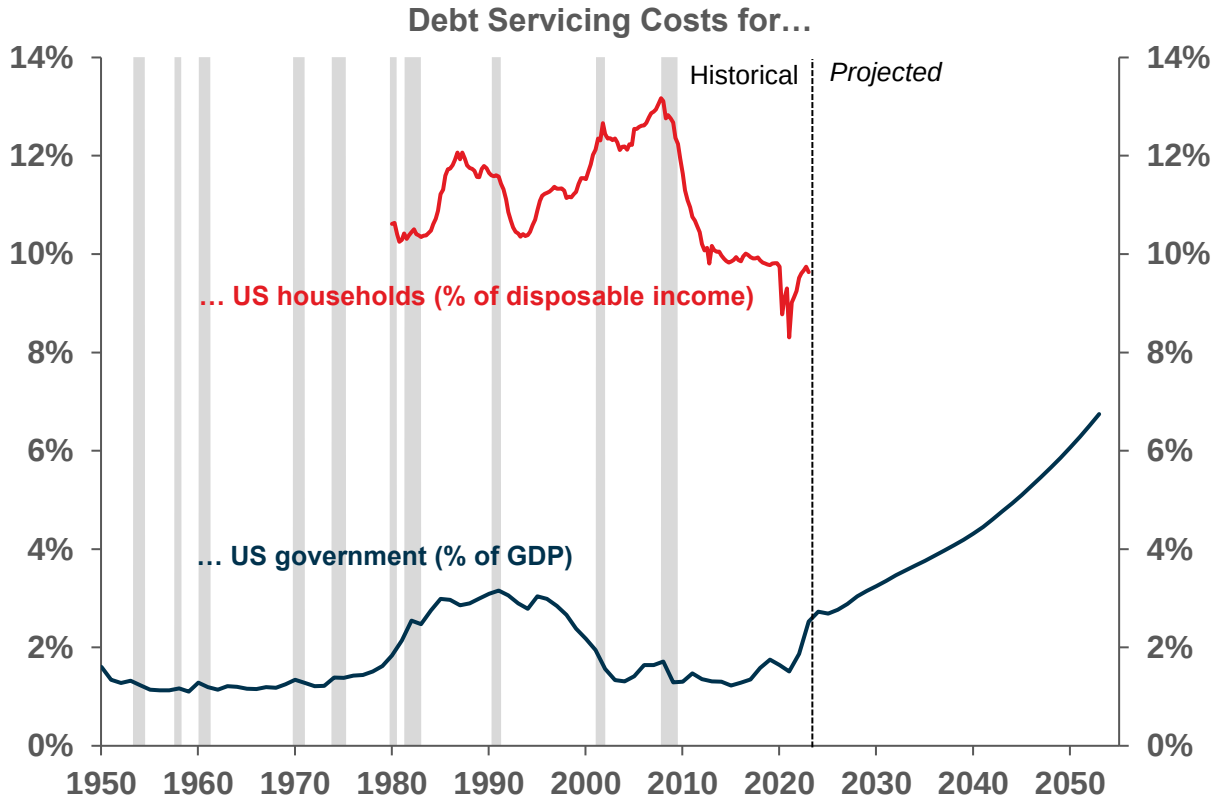
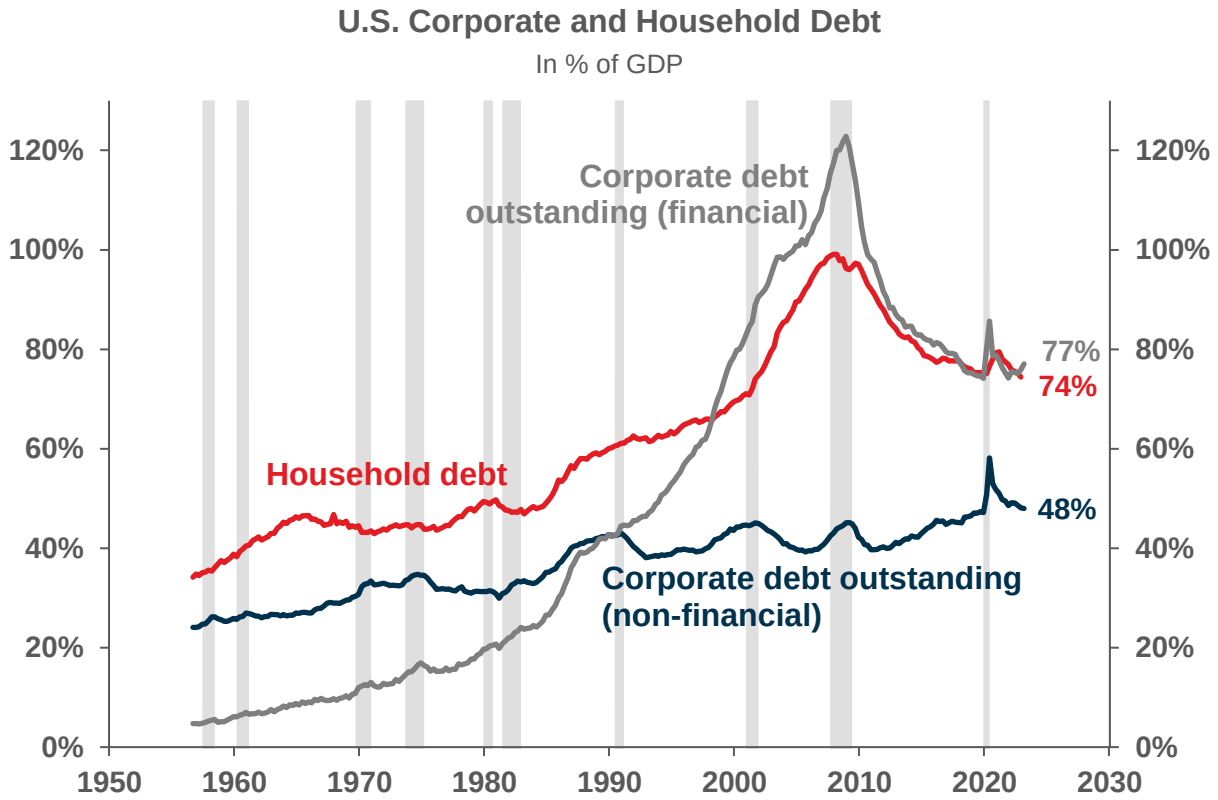
Cost of debt in the U.S.



Data via Congressional Budget Office, Federal Reserve Economic Data (FRED)

U.S. corporate and household debt



US households debt decreased significantly over the last decade…

… but the COVID-19 pandemic seems to have put an end to this trend.

Data via Refinitiv, Federal Reserve

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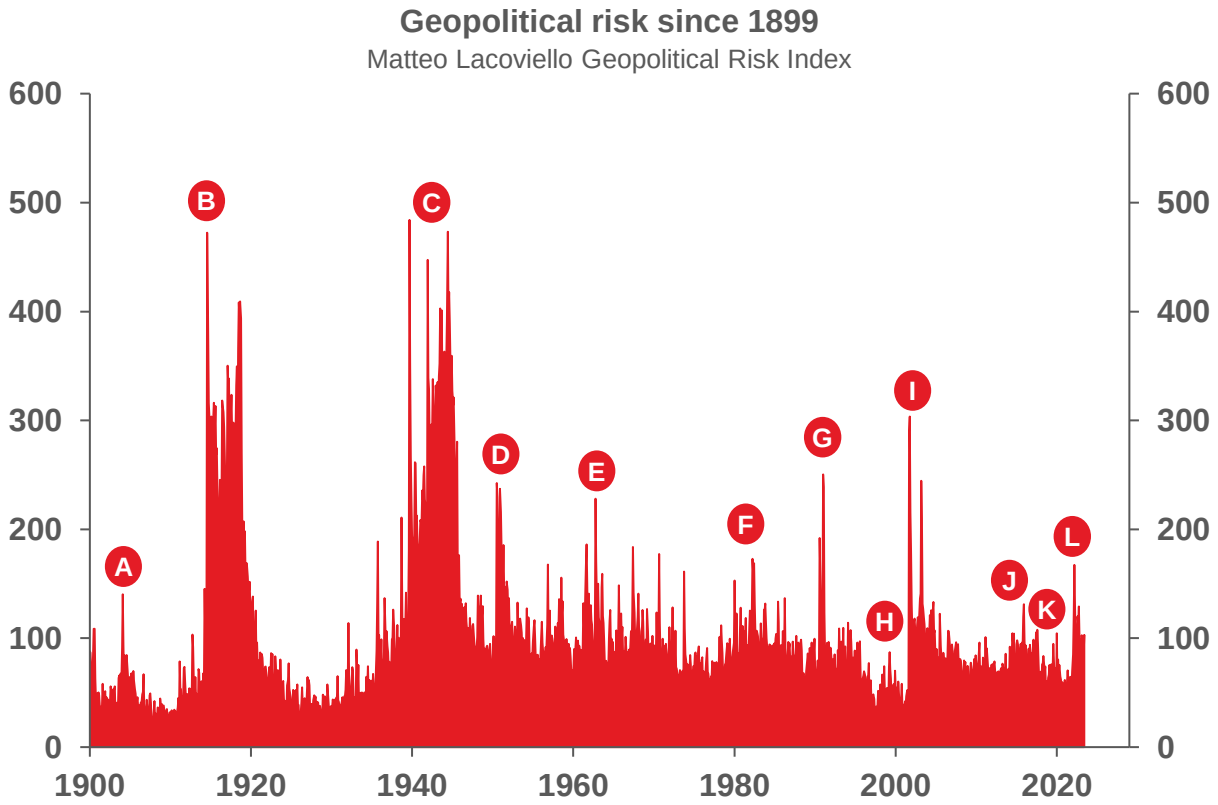
Risk and uncertainty – Geopolitical risk



- A Russian-Japanese War
- B WWI
- C WWII
- D Korean War
- E Vietnam War and Cold War
- F Lebanon and Falklands War
- G Gulf War
- H 9/11 attack
- I Iraq invasion
- J Isis escalation
- K COVID-19 pandemic
- L Russian invasion of Ukraine

Data via www.matteoiacoviello.com/gpr.htm

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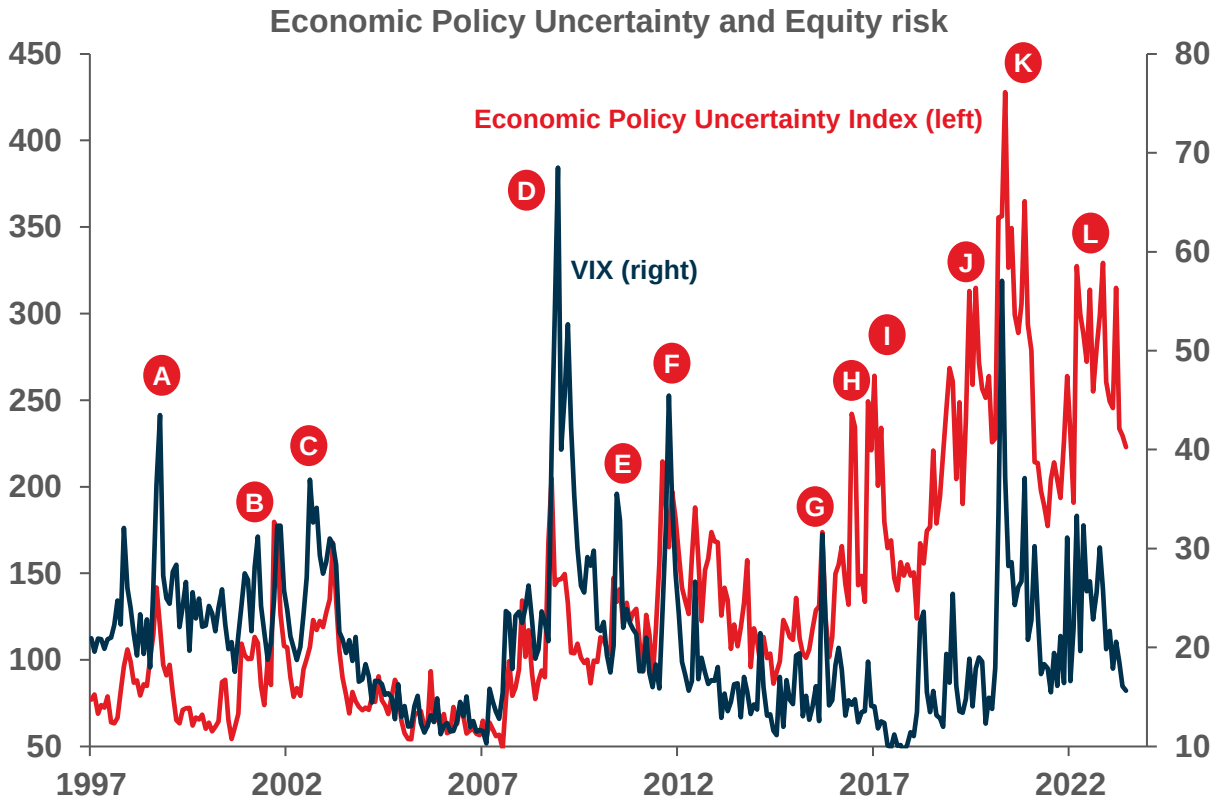
Risk and uncertainty – Economic policy uncertainty



- A Russian Crisis/LTCM
- B 9/11 attack
- C Iraq invasion
- D Great Financial Crisis
- E Euro crisis
- F Debt ceiling dispute
- G European refugee crisis
- H Brexit
- I U.S. elections
- J Trump's "trade war"
- K COVID-19 pandemic
- L Runaway inflation / Fed pivot

Data via Refinitiv, policyuncertainty.com/index.html

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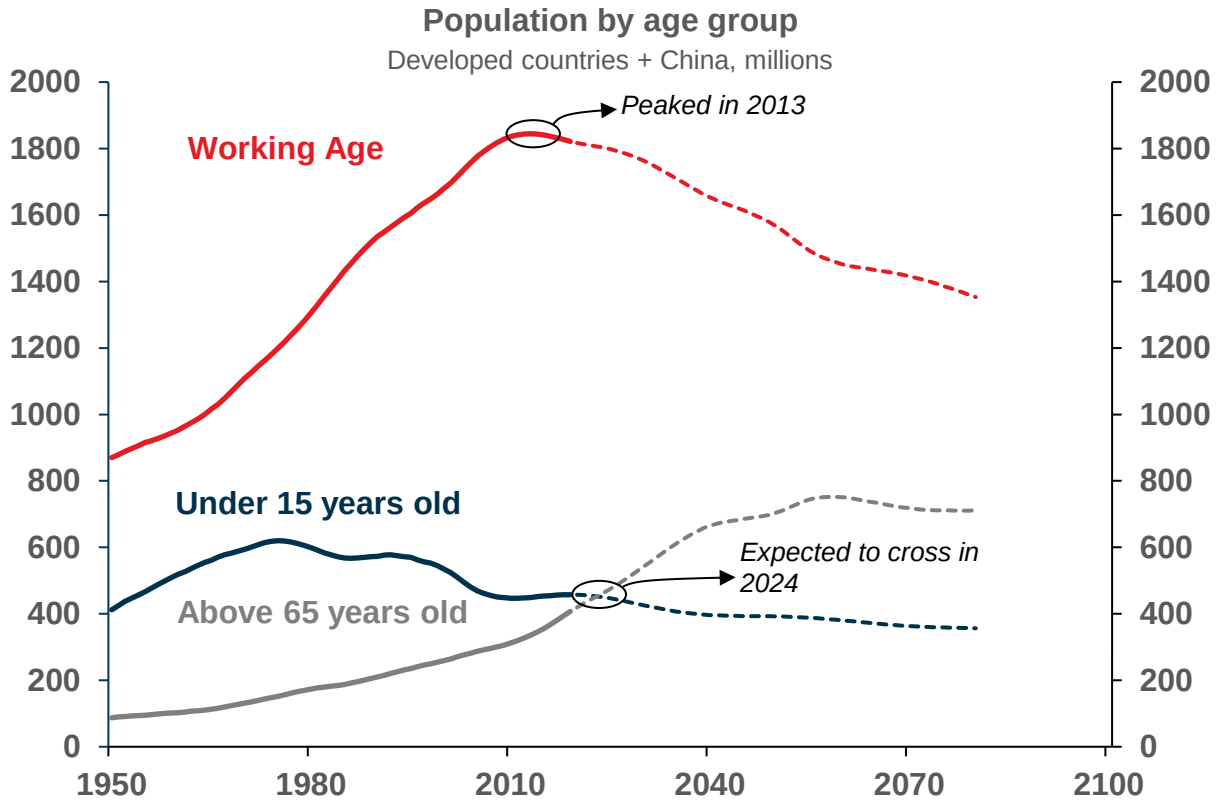
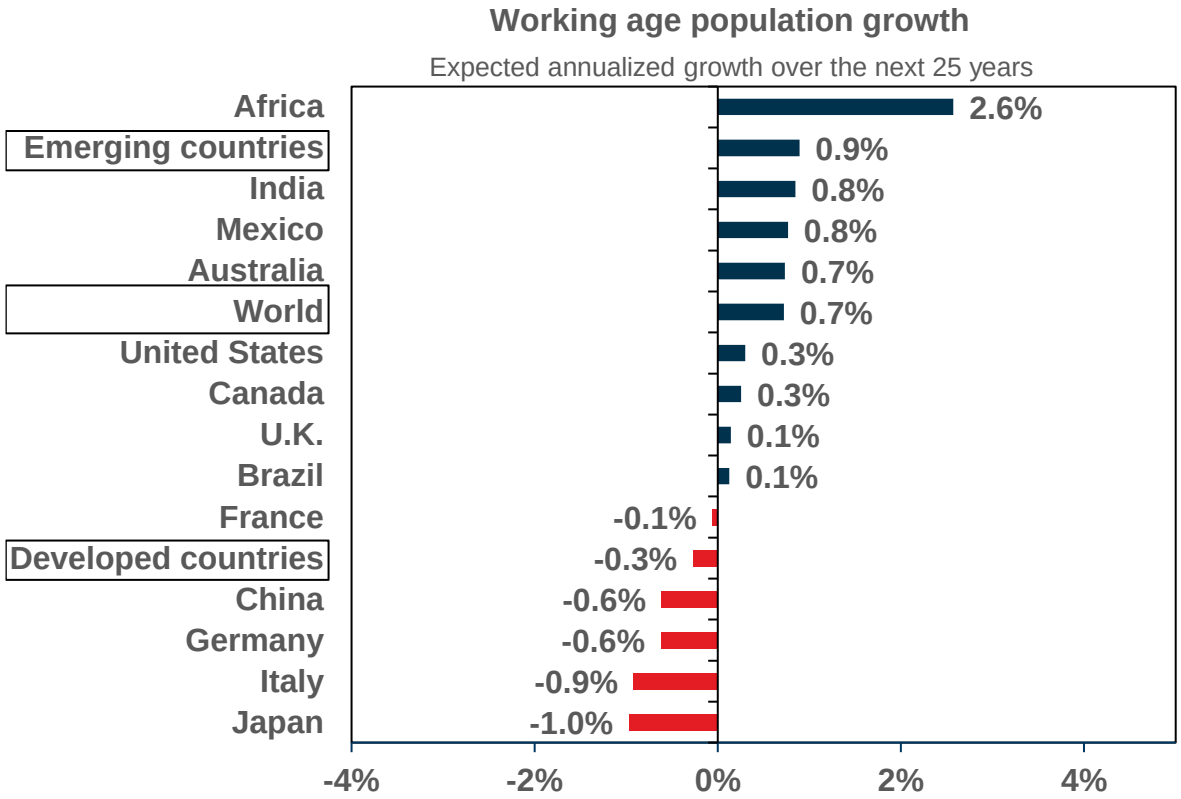
World demographics – Age group trends



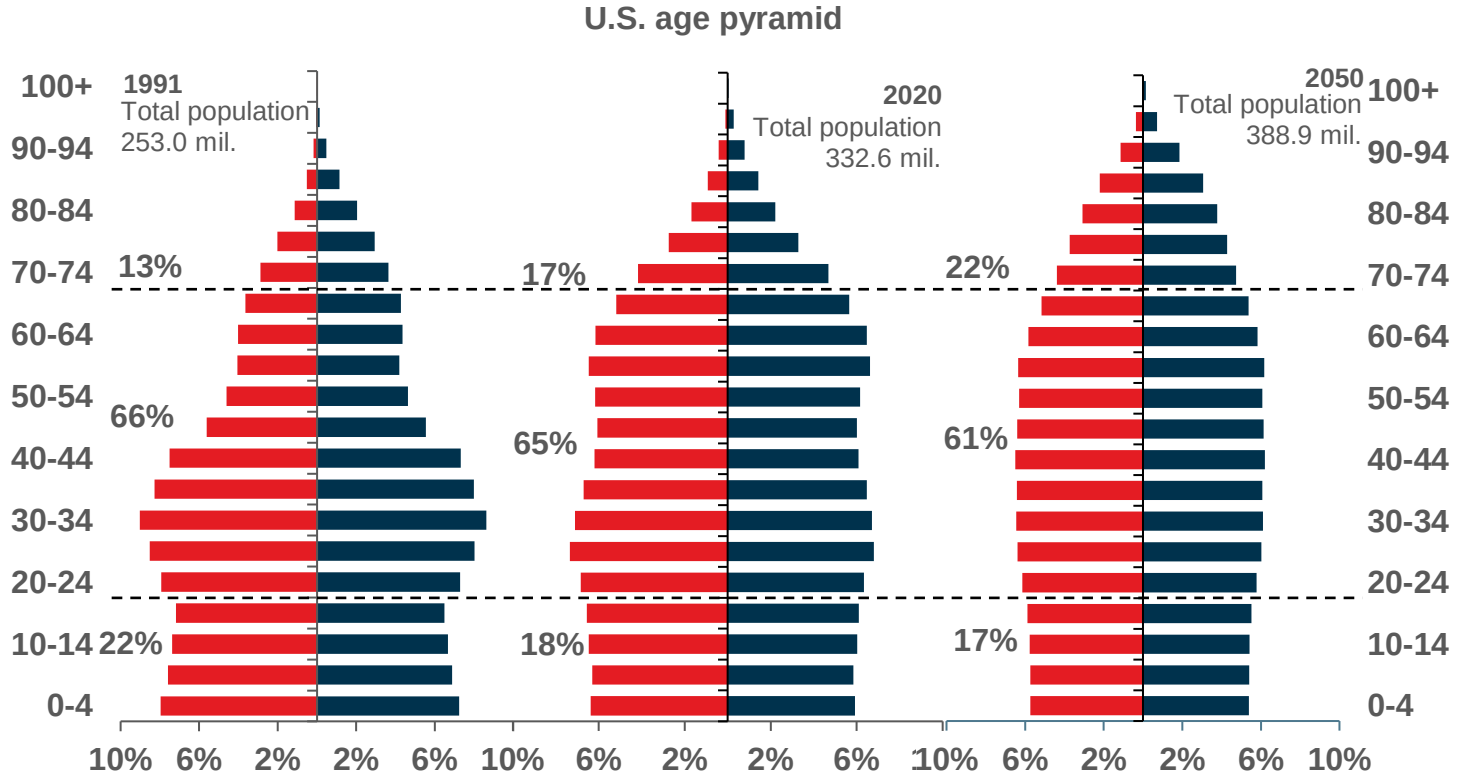
Data via United Nations, Department of Economic and Social Affairs, Population Division (2017)

World demographics – Geographical breakdown



Data via United Nations, Department of Economic and Social Affairs, Population Division (2017)

U.S. Demographics



Data via U.S. Census Bureau World Demographic Database

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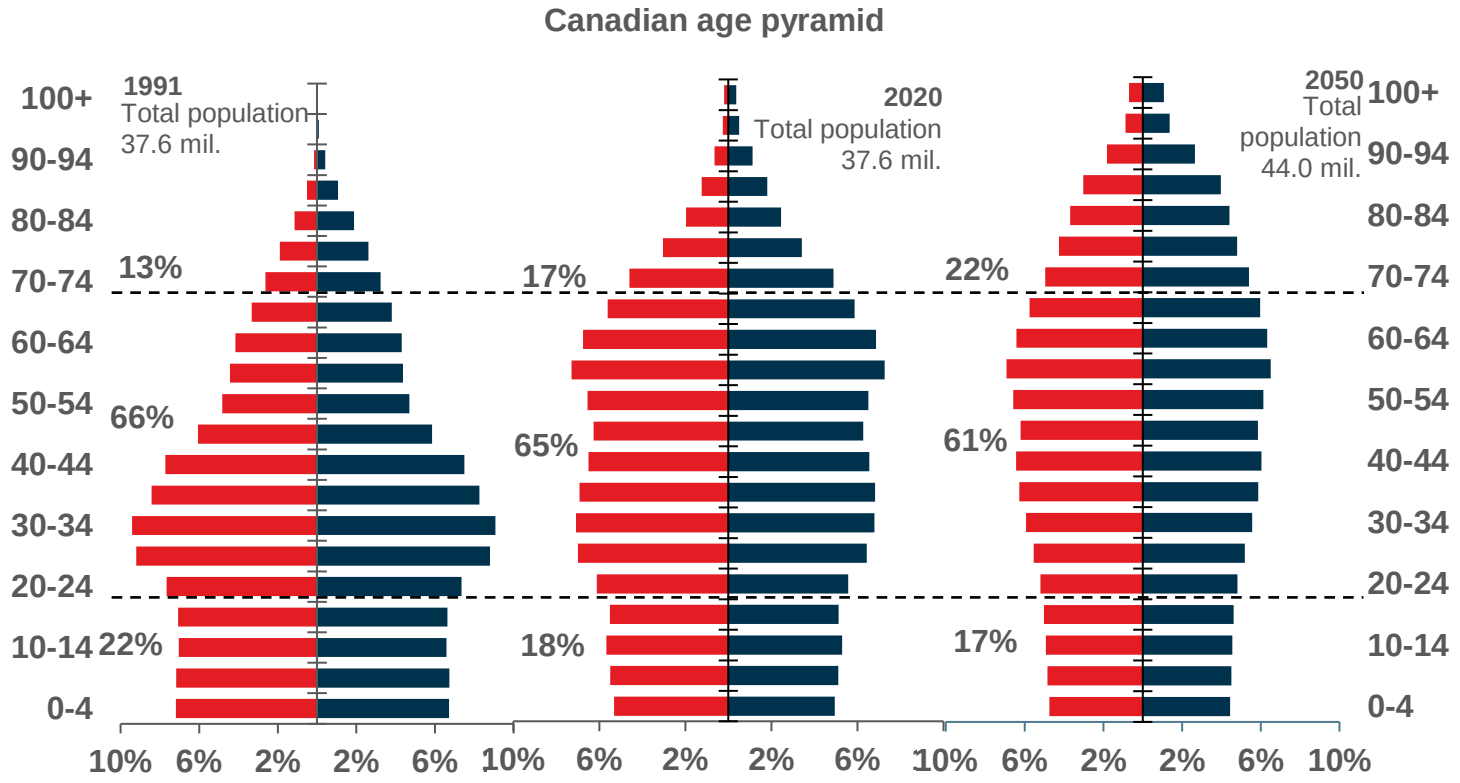
Canadian Demographics



Data via U.S. Census Bureau World Demographic Database

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Equities

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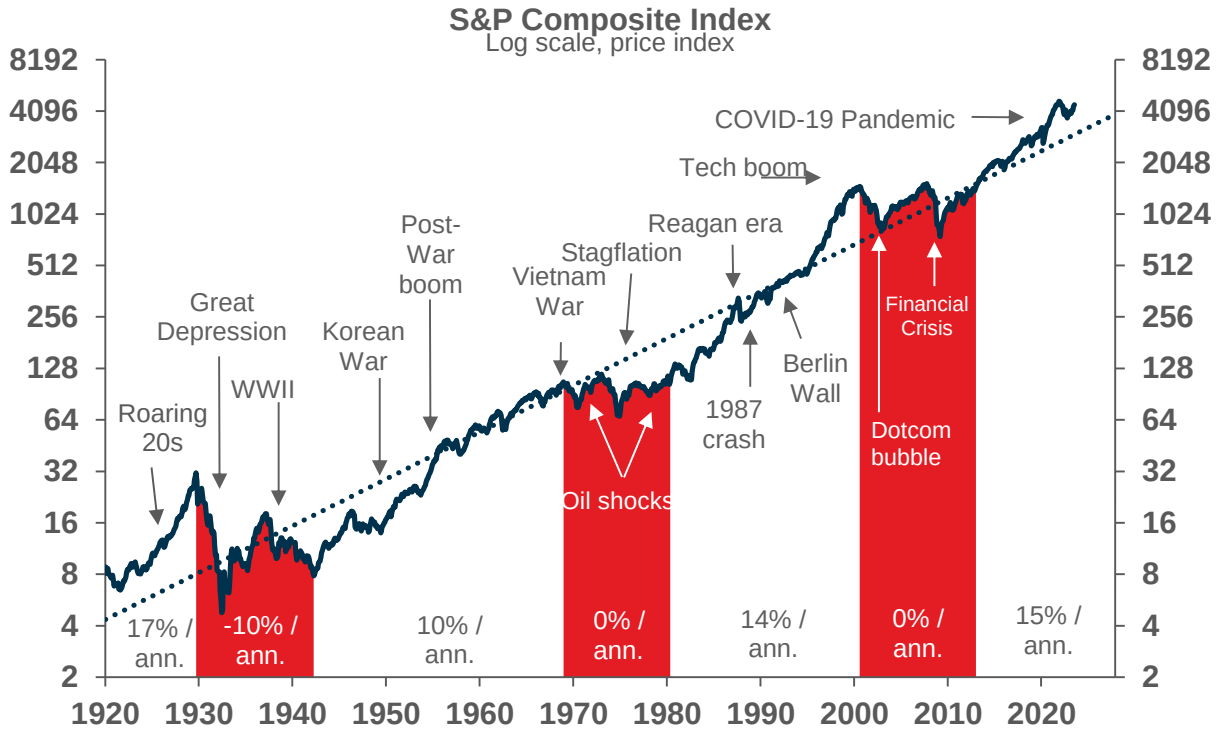
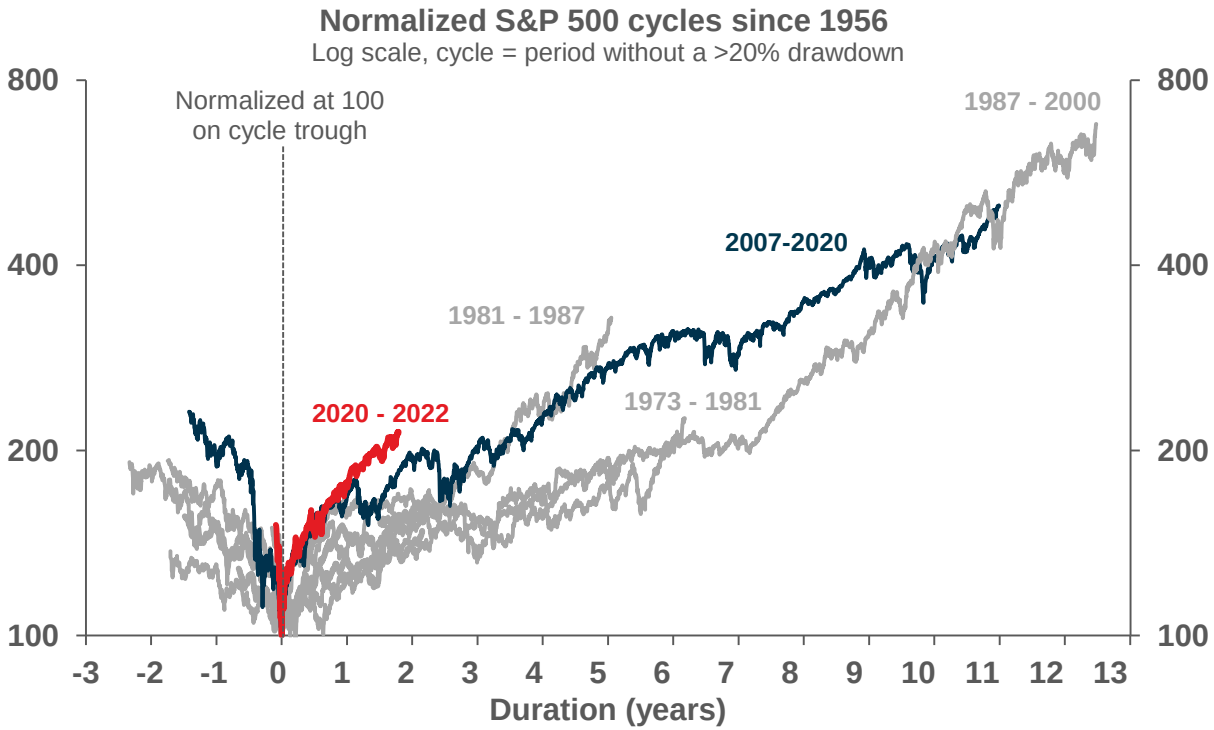
U.S. equity market since 1920



Data via Robert J. Shiller at http://www.econ.yale.edu/~shiller/data.htm

U.S. equity market cycles



 Data via Refinitiv, Bloomberg

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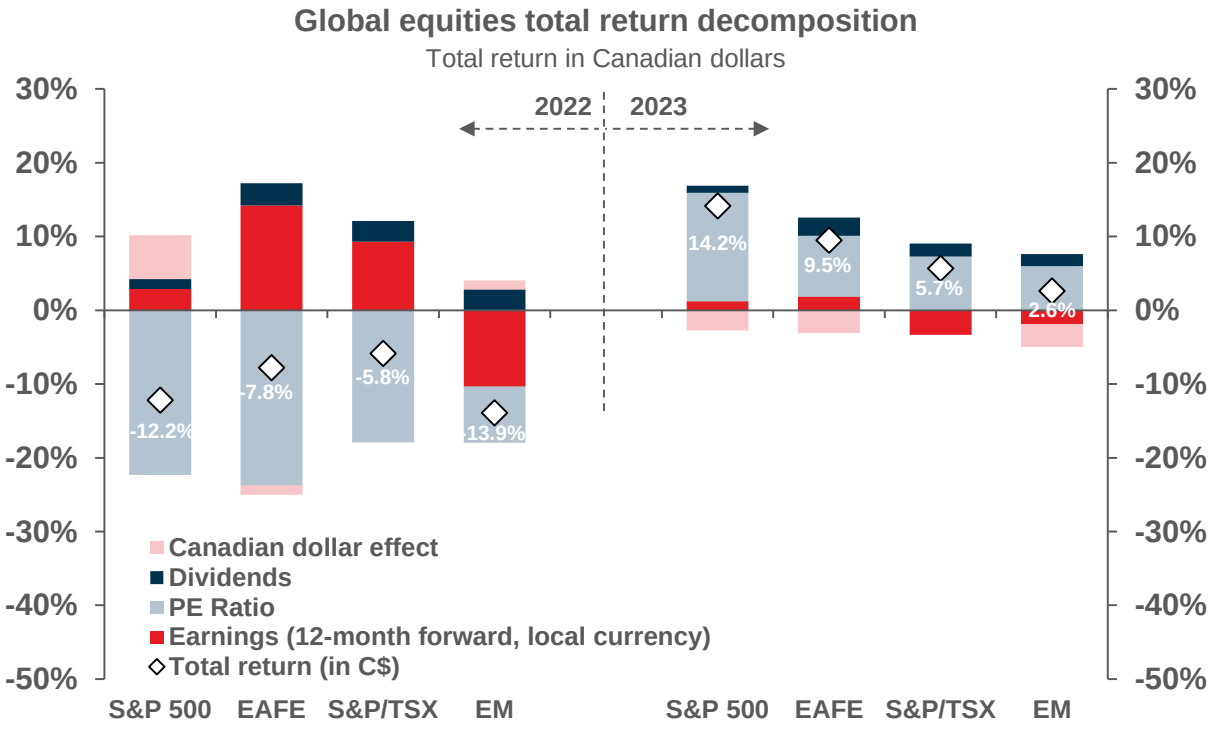
Decomposition of equity returns



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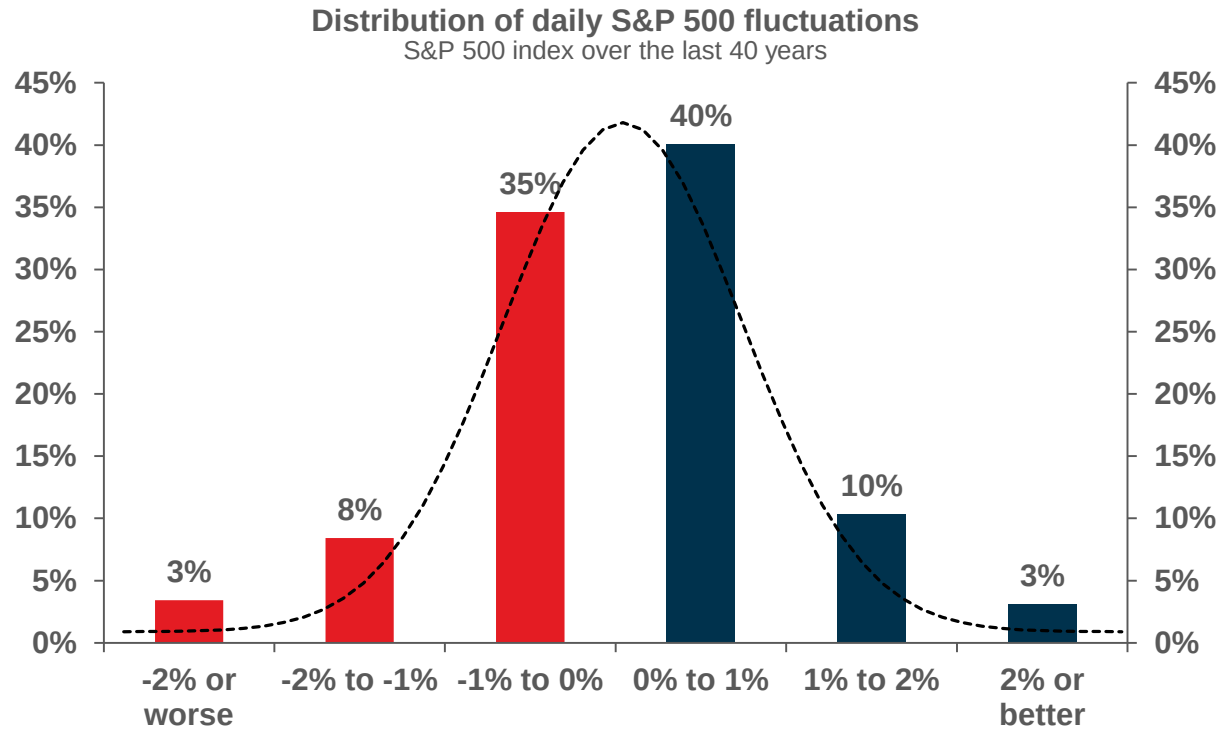
Daily Stock Market Fluctuations

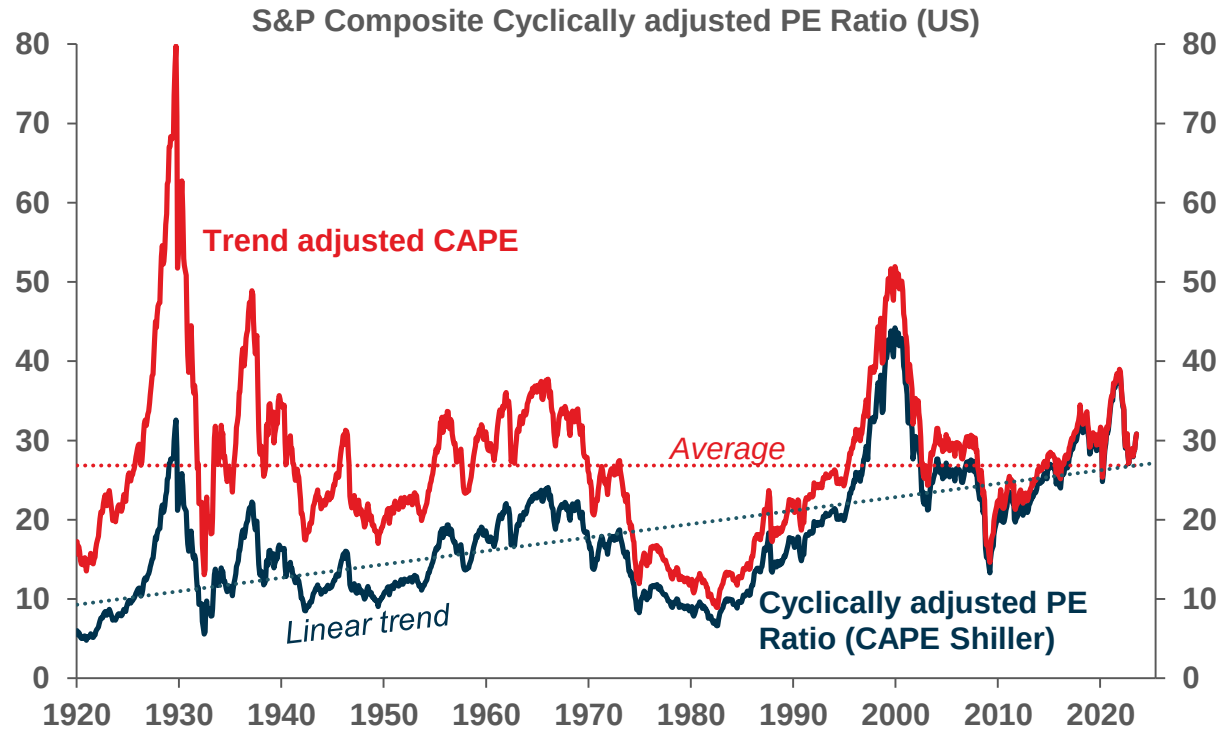


Market fluctuations are normal, both mathematically* and literally. While only the few "extremes" end up in the evening news and morning shows, the truth is they don't matter all that much.

What really matters is the accumulation of "0% to 1%" days that rarely make the headlines, but explain much of the 12.3% S&P 500 annualized total return over the last 40 years… despite the fact that the index closes in the red almost every other day.

Data via Refinitiv. *For the purists, daily fluctuations are rather leptokurtic and negatively skewed.

Equity valuations since 1920



Data via Robert J. Shiller at http://www.econ.yale.edu/~shiller/data.htm

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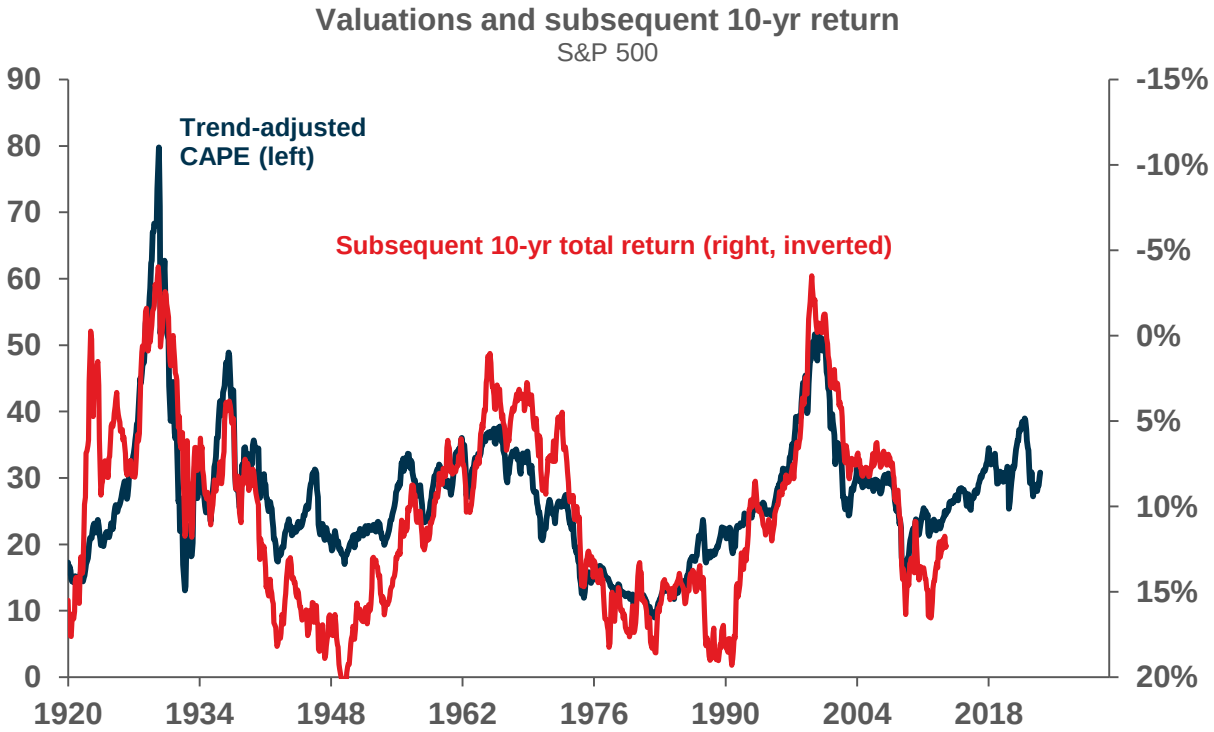
Valuations and equity returns since 1920 – Part I

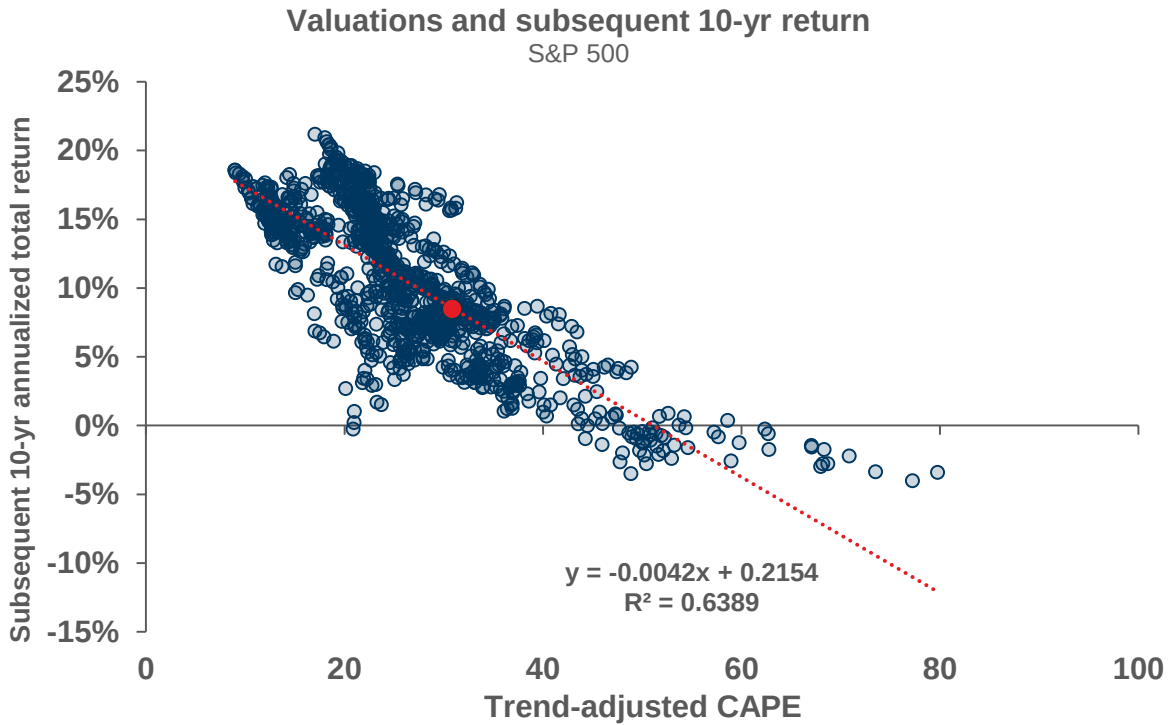


Robert J. Shiller's Cyclically-Adjusted Price-Earnings ratio, or CAPE, is often used to estimate long-term (10-15 years) equity returns.

The measure shows a strong inverse relationship between a current equity valuations and subsequent annualized returns, going back all the way to 1920.

Data via Robert J. Shiller at http://www.econ.yale.edu/~shiller/data.htm

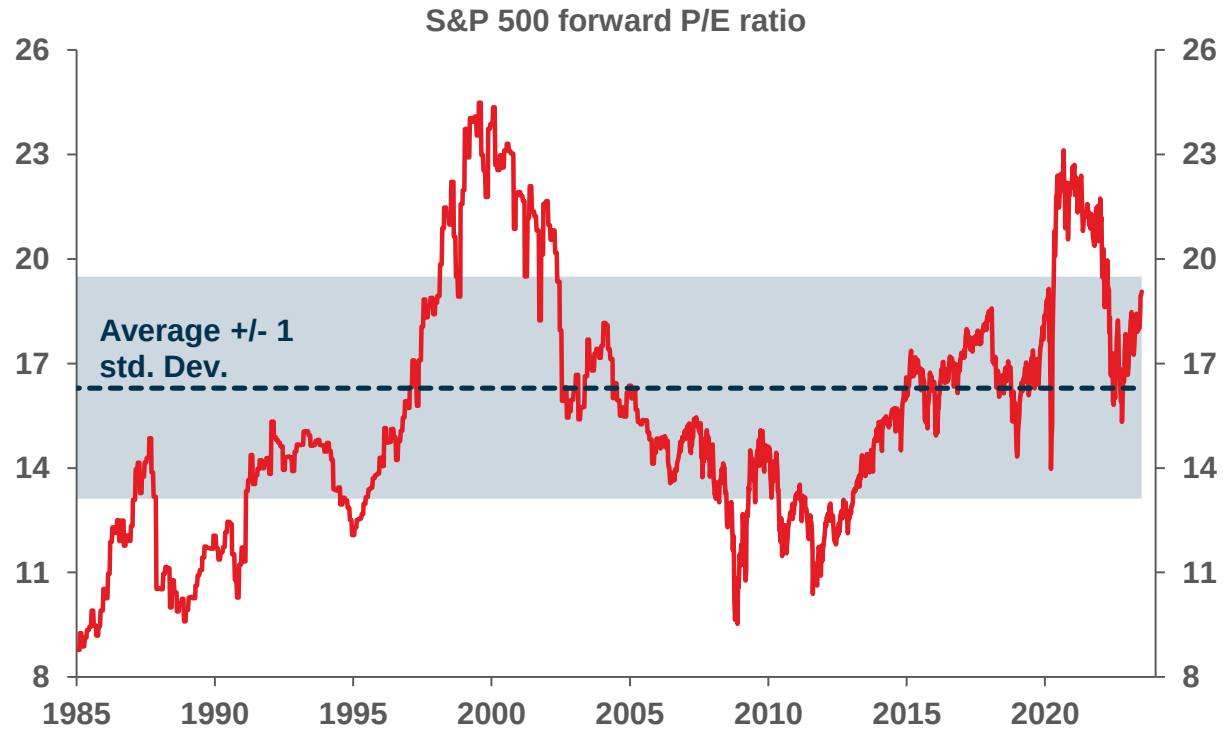
Valuations and equity returns since 1920 – Part II



Current valuations suggest a 8.5% annualized total return over the next 10 years.

Data via Robert J. Shiller at http://www.econ.yale.edu/~shiller/data.htm

U.S. Equity valuation metrics – P/E



Data via Refinitiv, IBES

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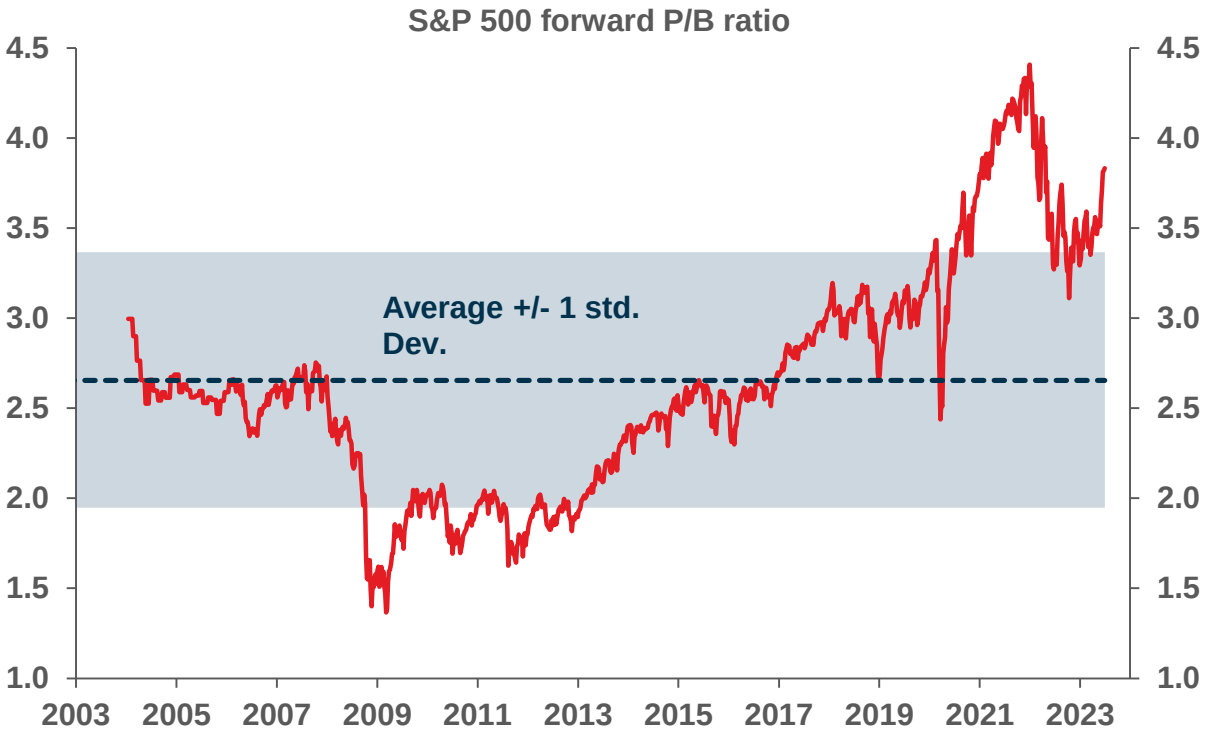
U.S. equity valuation metrics – P/B



Data via Refinitiv, IBES

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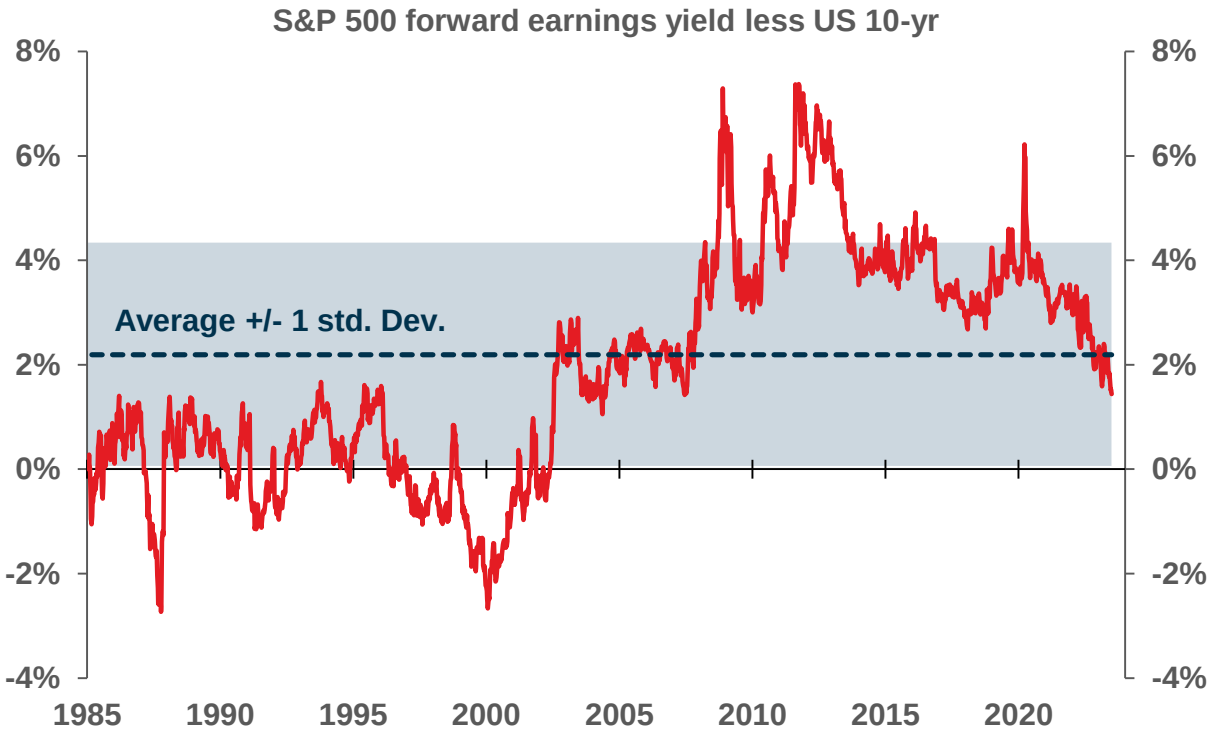
U.S. Equity valuation metrics – Earnings yield & rates



Data via Refinitiv, IBES

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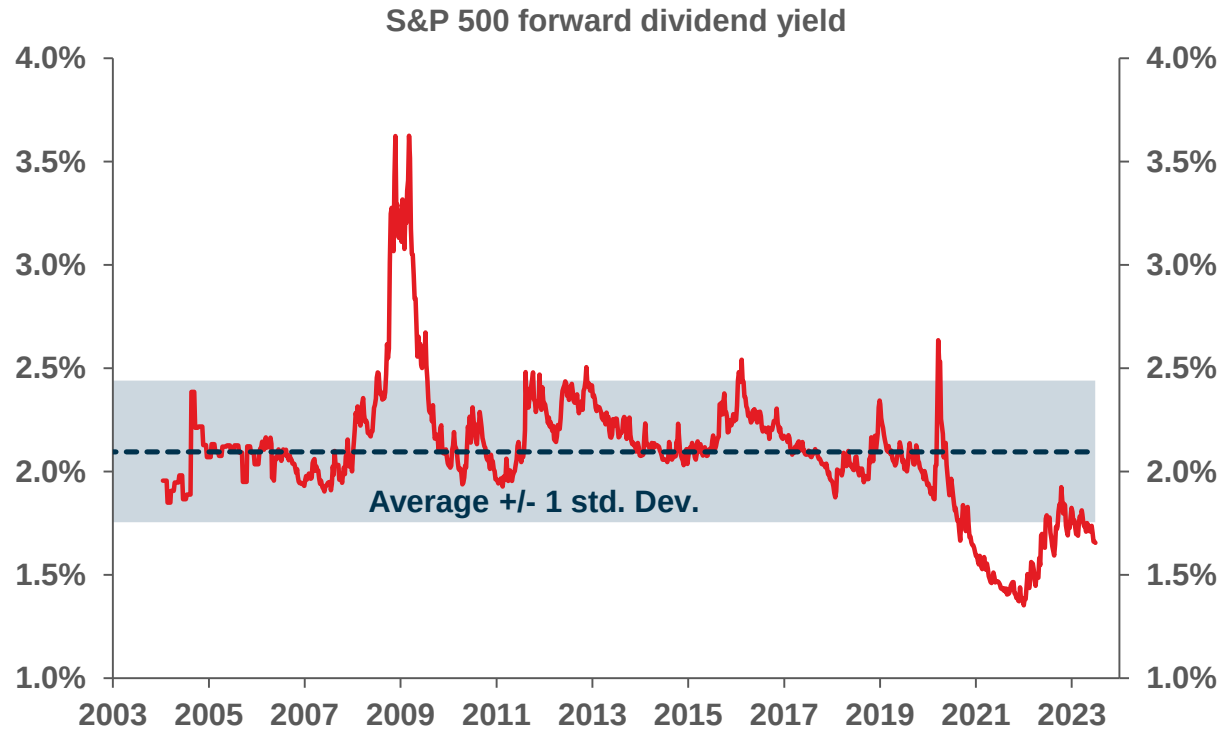
U.S. Equity valuation metrics – Dividend yield



 Data via Refinitiv, IBES

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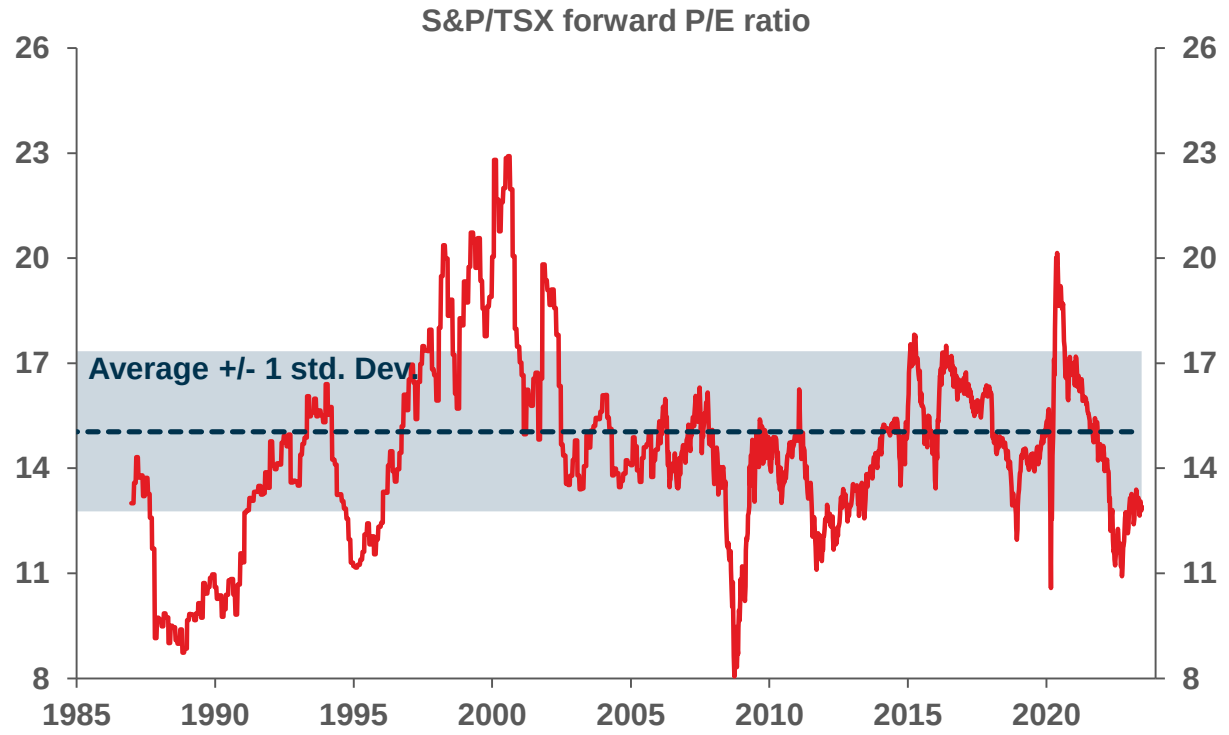
Canadian equity valuation metrics – P/E



 Data via Refinitiv, IBES

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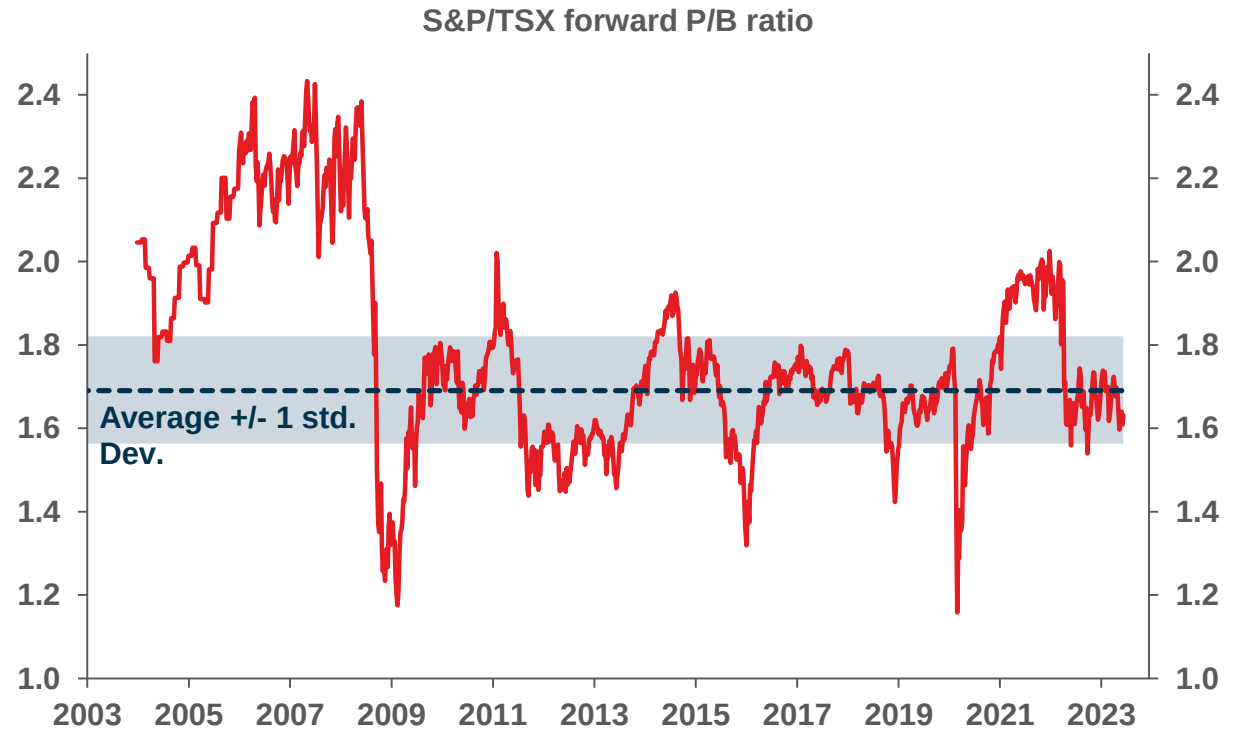
Canadian equity valuation metrics – P/B



 Data via Refinitiv, IBES

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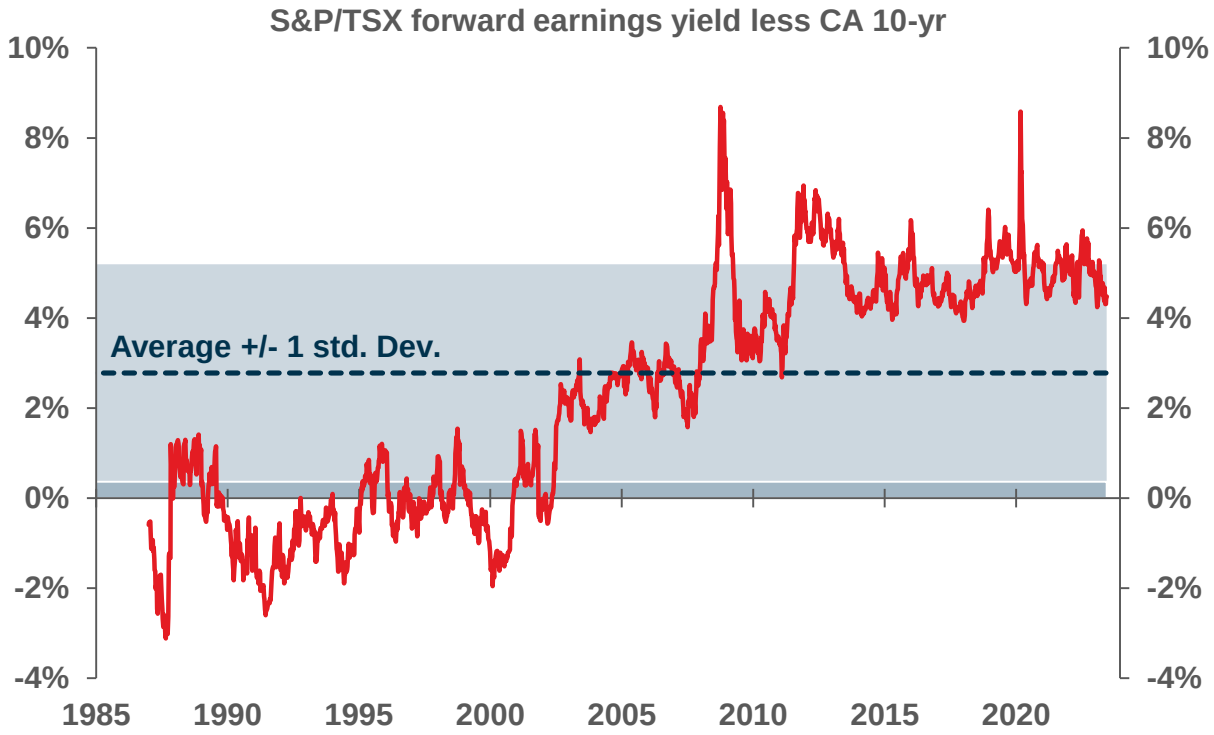
Canadian equity val. metrics – Earnings yield & rates



Data via Refinitiv, IBES

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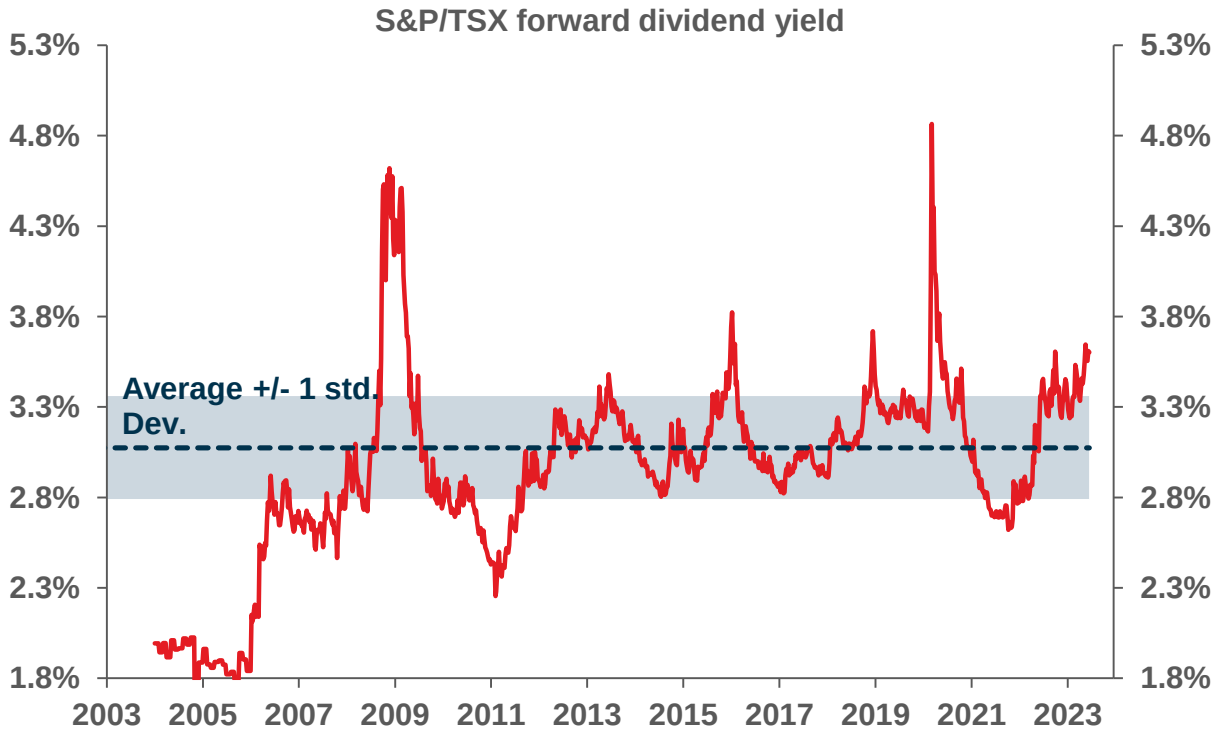
Canadian equity valuation metrics – Dividend yield



Data via Refinitiv, IBES

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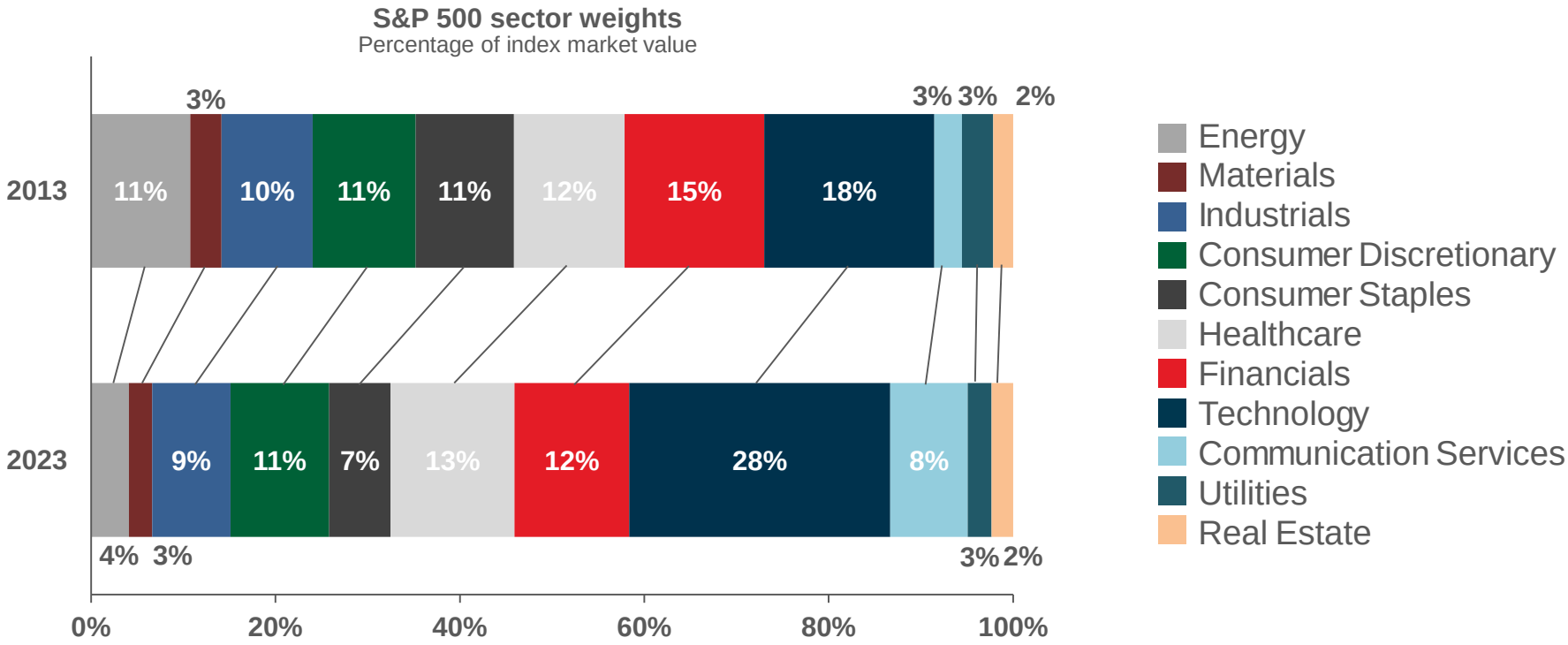
S&P 500 sector weights



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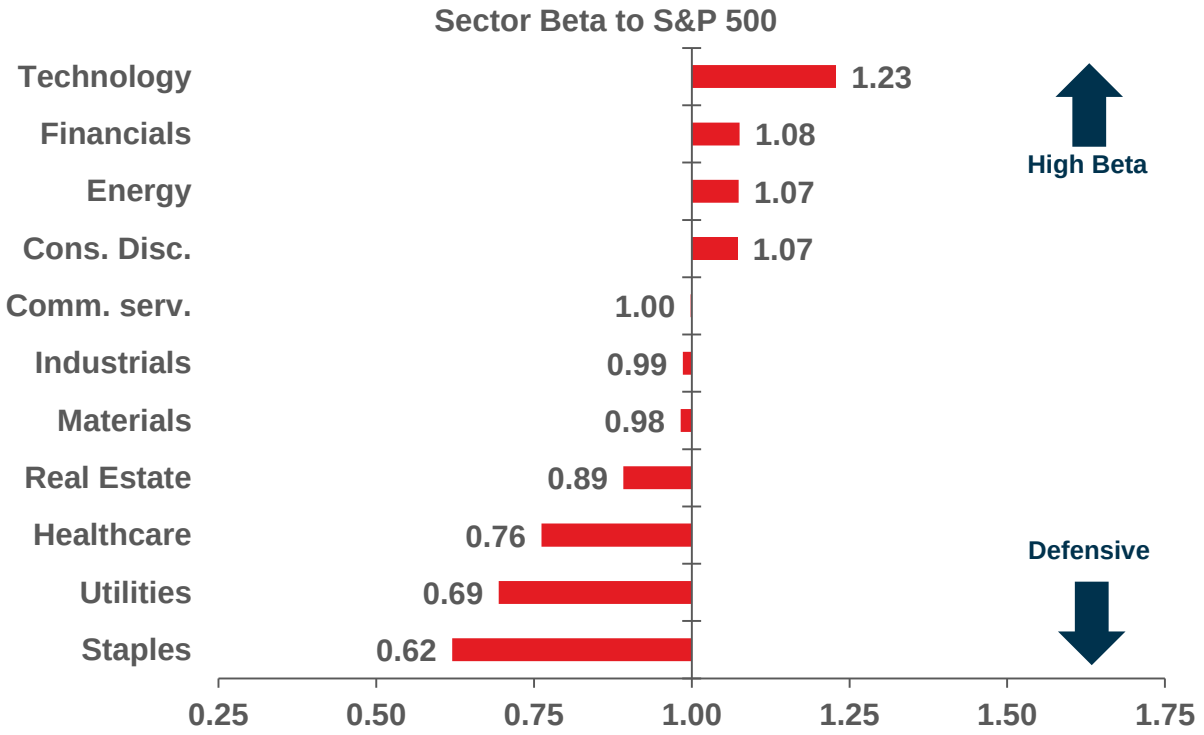
S&P 500 sector properties – Beta to index



 Data via Refinitiv

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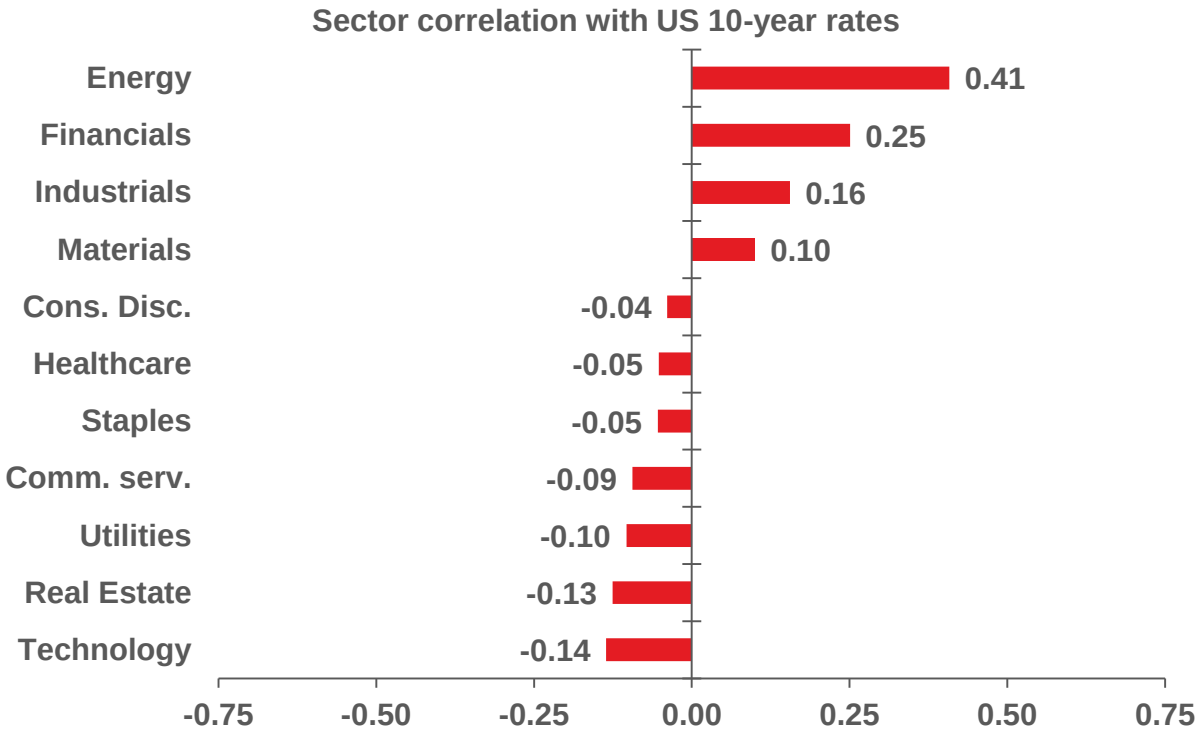
S&P 500 sector properties – Correlation to 10-year rates



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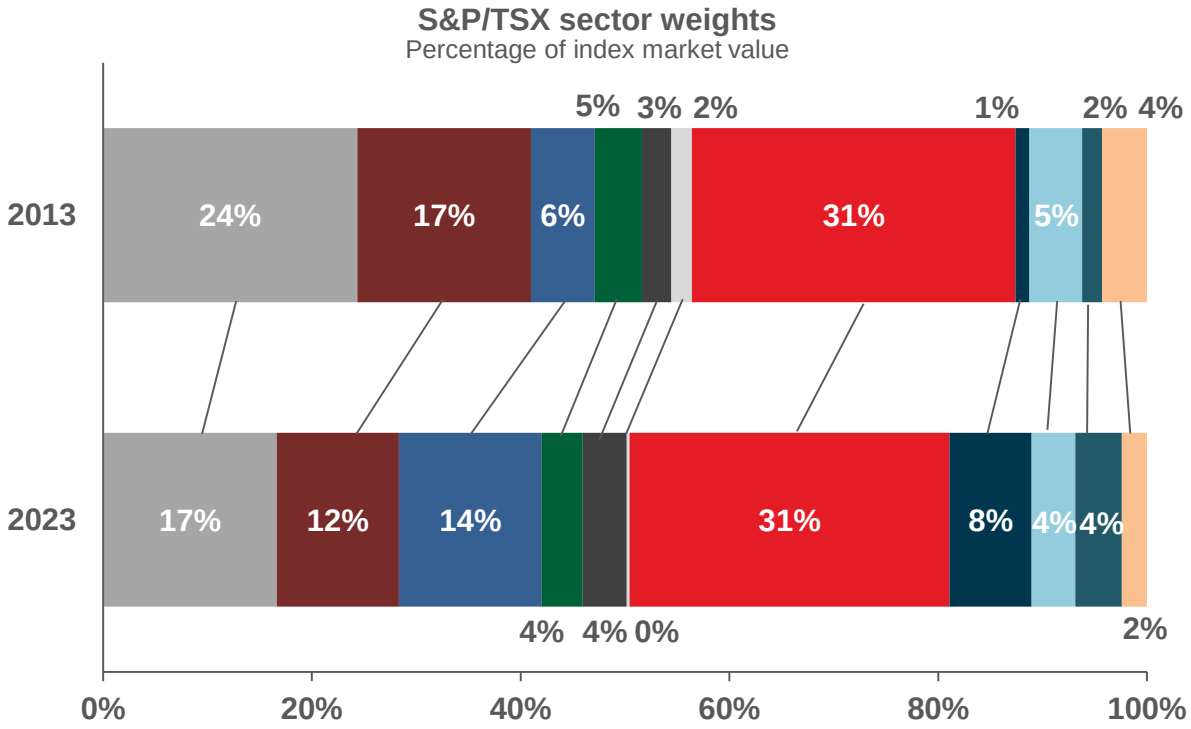
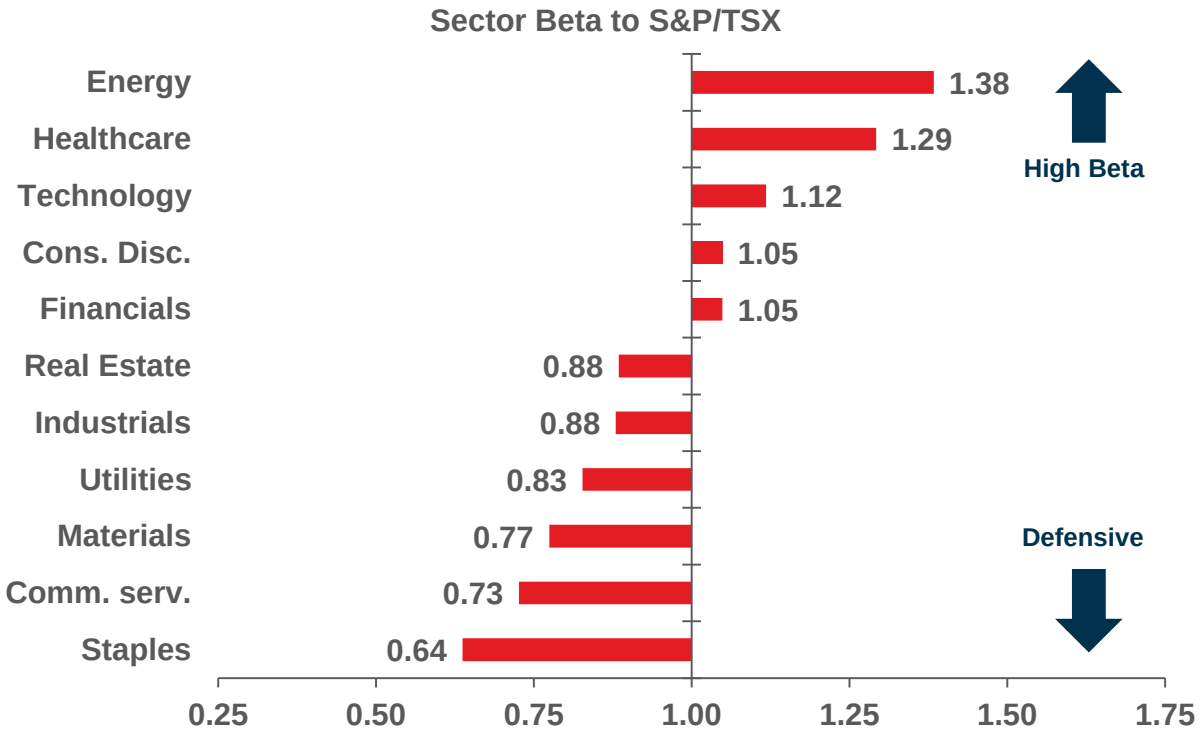
S&P/TSX sector weights



S&P/TSX sector properties – Beta to index



 Data via Refinitiv

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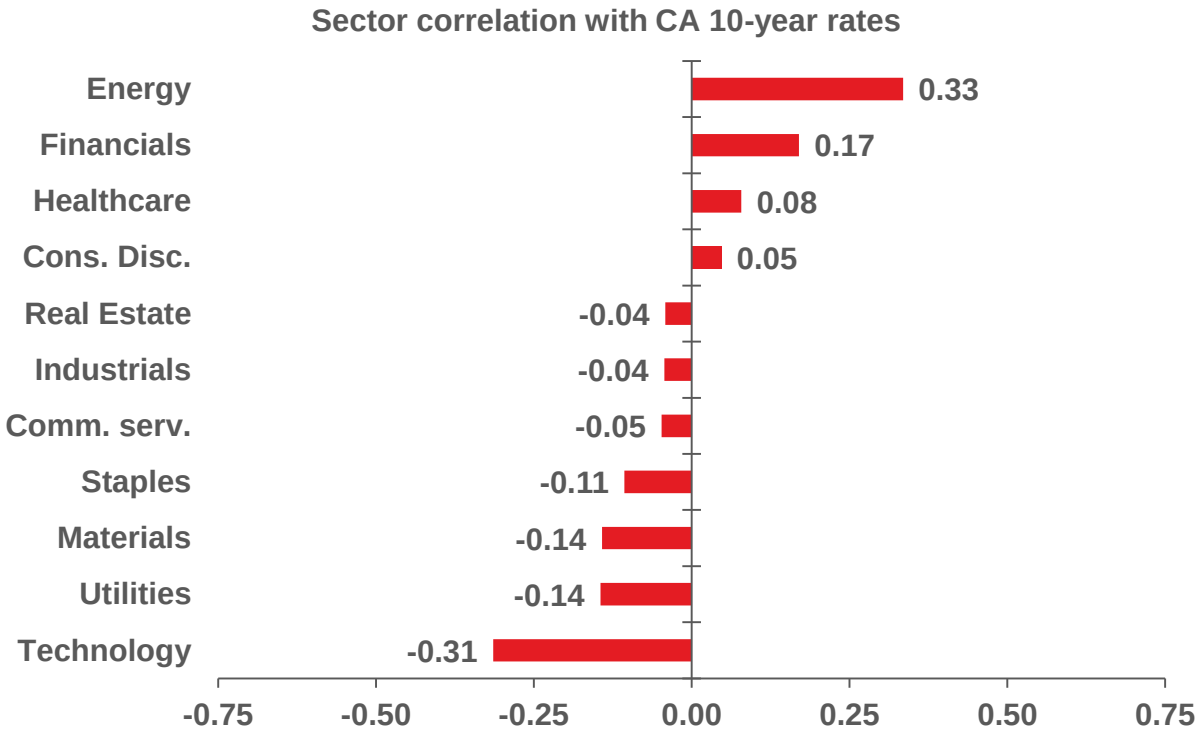
S&P/TSX sector properties – Correlation to 10-year rates



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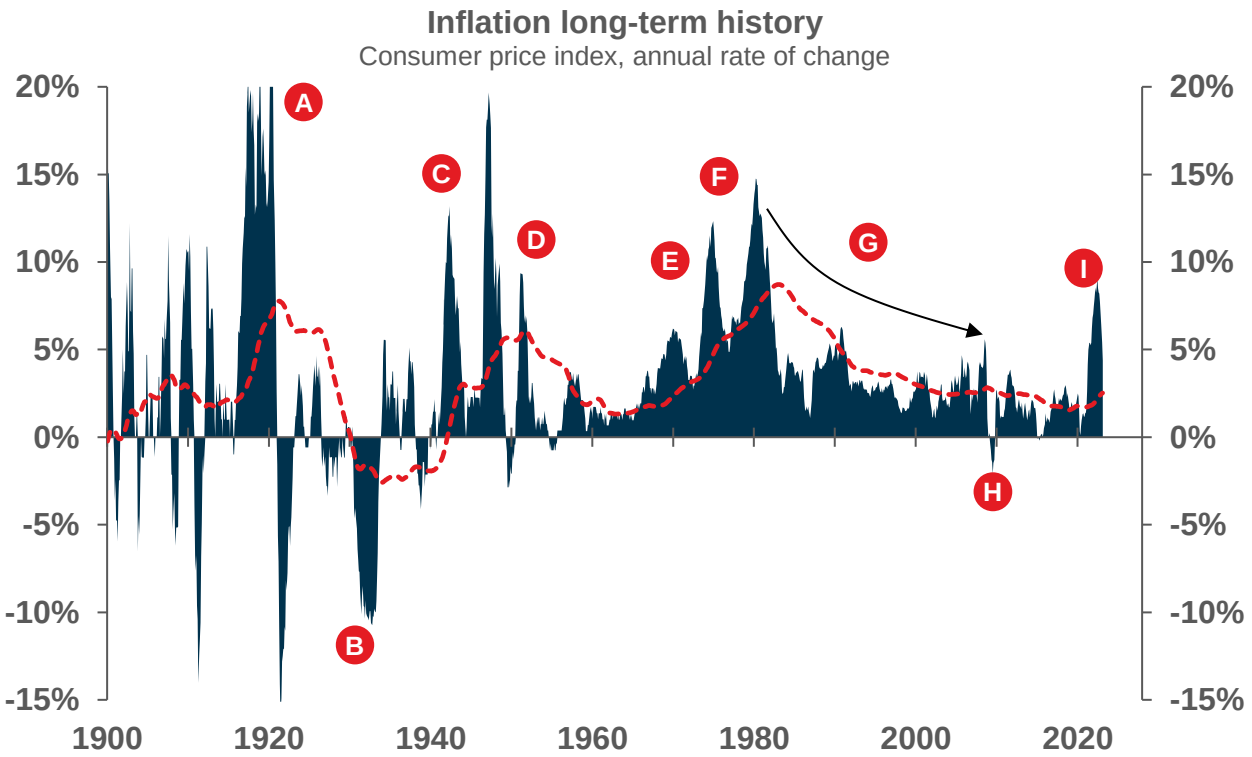
Rates

Q3-2023

CIO Office

Inflation long-term history



10-year average

A WWI (1914-1918)

B The Great Depression (1930s)

C WWII (1939-1945)

D Korean War (1950-1953)

E First oil price shock (1973-1974)

F Second oil price shock (1978-1979)

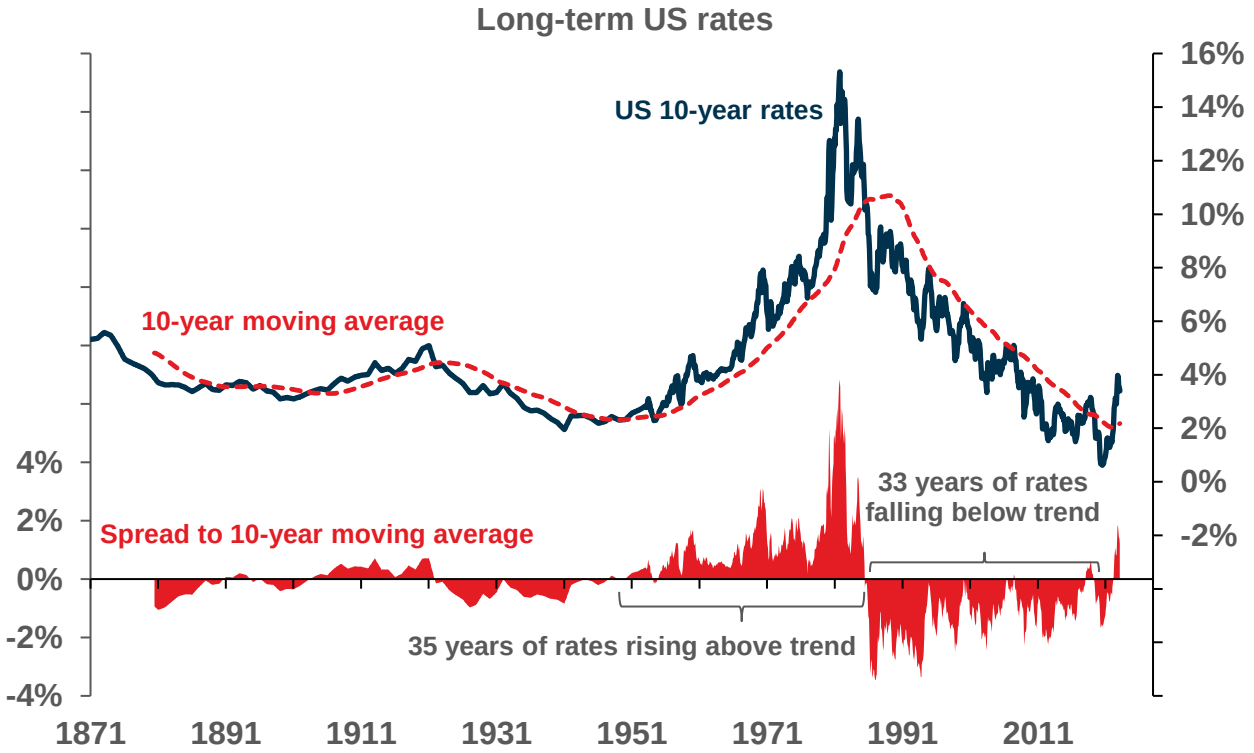
G The Great Moderation

H The Great Recession (2007-2009)

I Covid-19 Pandemic (2020-…)

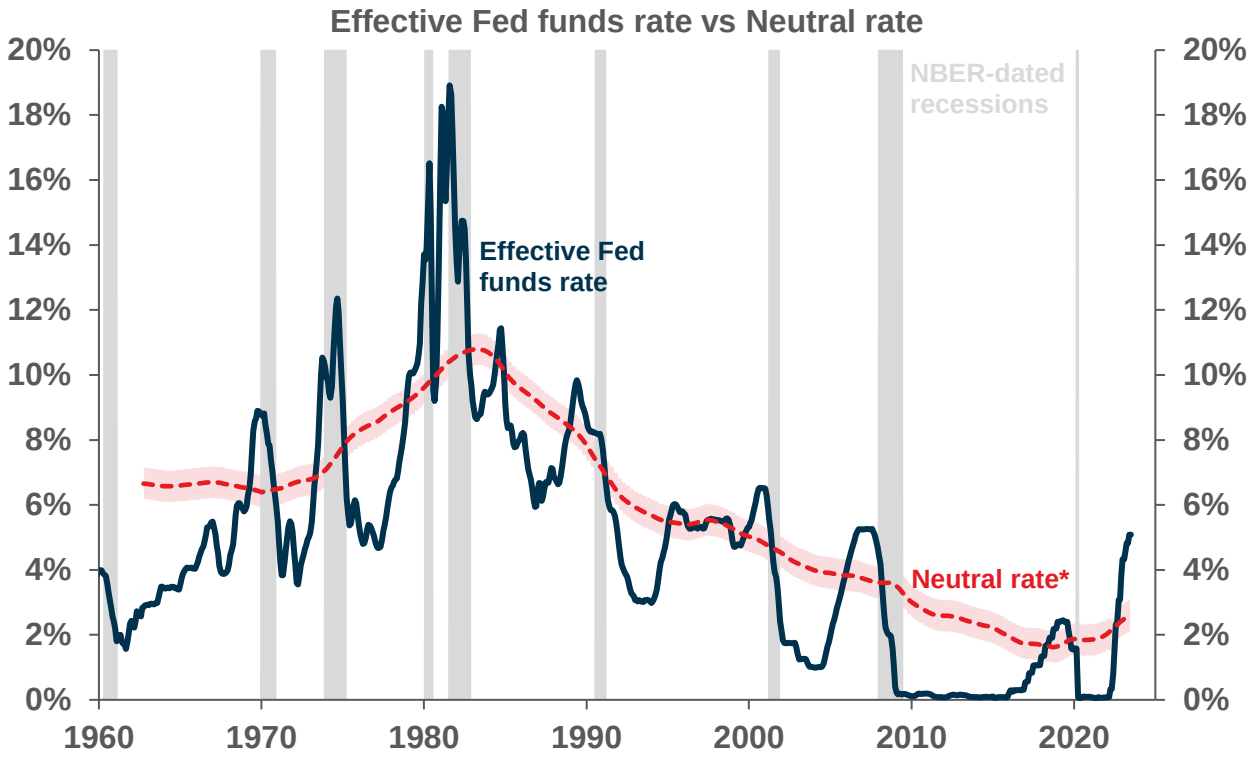
Data via Robert J. Shiller at http://www.econ.yale.edu/~shiller/data.htm

U.S. rates: Looking back 150 years



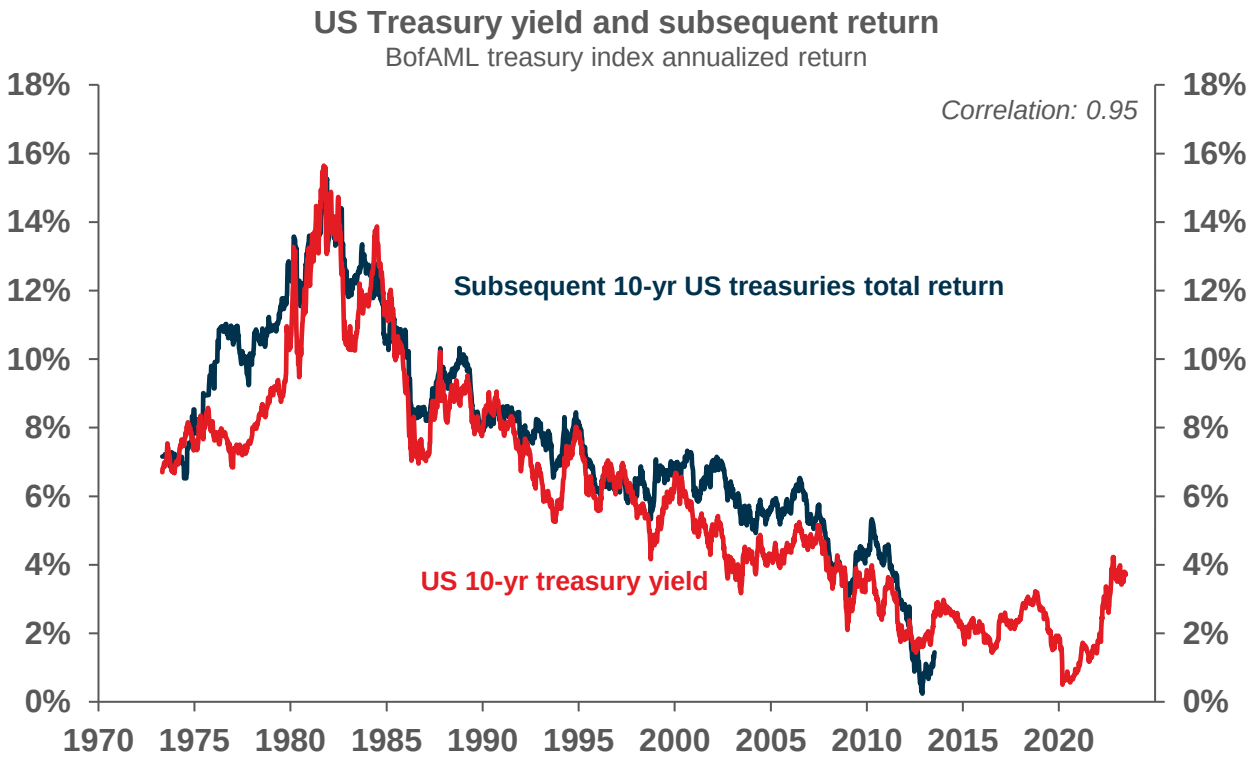
Data via Robert J. Shiller at http://www.econ.yale.edu/~shiller/data.htm

U.S. monetary policy



Data via Refinitiv, Federal Reserve. *Neutral Rate = Real Laubach-Williams (2003) neutral rate + U.S. PCE ten year moving average

Fixed income return expectations – Treasuries

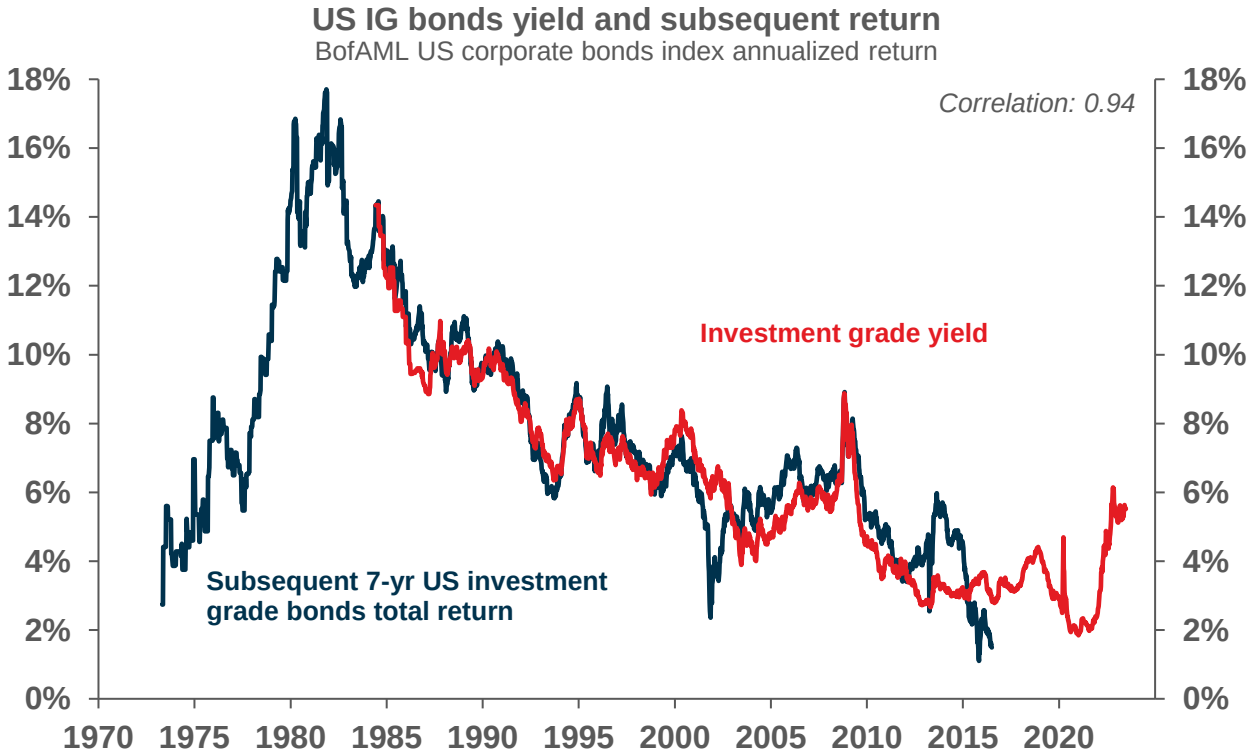


Over an investment period matching a bond's maturity, subsequent annualized returns will match closely the starting yield to maturity.

In the case of government bond indexes, differences between the two measures can occur due to reinvestment risk and the changes in index composition over time.

NATIONAL BANK INVESTMENTS

Fixed income return expectations – Investment grade



Over an investment period matching a bond's maturity, subsequent annualized returns will match closely the starting yield to maturity.

In the case of investment grade corporate credit indexes, differences between the two measures can occur due to reinvestment risk, changes in index composition over time, as well as downgrades and defaults.

NATIONAL BANK INVESTMENTS

Sovereign bond yield curves

	3 month	6 month	1 year	2 year	5 year	10 year	15 year	20 year	30 year
Japan	-0.13%	-0.14%	-0.12%	-0.08%	0.05%	0.40%	0.77%	1.00%	1.23%
Switzerland	1.65%	1.72%	1.92%	1.22%	1.00%	0.97%	0.99%	0.96%	0.91%
Portugal	2.84%	2.71%	2.69%	3.01%	2.94%	3.13%	3.51%	3.48%	3.50%
Netherlands	3.31%	3.42%		3.18%	2.78%	2.74%	2.77%	2.73%	2.64%
Belgium	3.43%	3.54%	3.67%	3.24%	2.89%	3.06%	3.25%	3.33%	3.41%
Ireland	0.69%	0.99%	3.46%	3.26%	2.86%	2.82%	3.13%	3.11%	3.16%
Germany	3.37%	3.52%	3.61%	3.27%	2.59%	2.39%	2.50%	2.49%	2.39%
France	3.39%	3.55%	3.68%	3.34%	2.90%	2.94%	3.15%	3.27%	3.28%
Austria			3.54%	3.42%	2.99%	3.05%	3.07%	3.06%	3.01%
Denmark	3.14%	3.33%		3.45%	2.90%	2.73%		2.75%	
Sweden	3.65%	3.63%		3.48%	2.78%	2.56%	2.63%	2.65%	
Spain	3.44%	3.59%	3.80%	3.50%	3.26%	3.39%	3.63%	3.76%	3.84%
Finland				3.54%	2.98%	2.96%	3.12%		2.84%
Italy	3.57%	3.72%	3.85%	3.92%	3.76%	4.07%	4.24%	4.38%	4.27%
Australia			4.36%	4.20%	3.94%	4.00%	4.14%	4.29%	4.33%
Canada	4.92%	5.06%	5.15%	4.59%	3.68%	3.27%		3.24%	3.09%
United States	5.31%	5.47%	5.42%	4.87%	4.12%	3.81%			3.84%
UK	5.18%	5.68%	5.35%	5.26%	4.66%	4.39%	4.53%	4.51%	4.42%
New Zealand	5.74%	5.82%	5.45%	5.29%	4.61%	4.64%	4.80%	4.86%	

NATIONAL BANK INVESTMENTS

Cross assets

Q3-2023

CIO Office

U.S. risk premiums – Summary

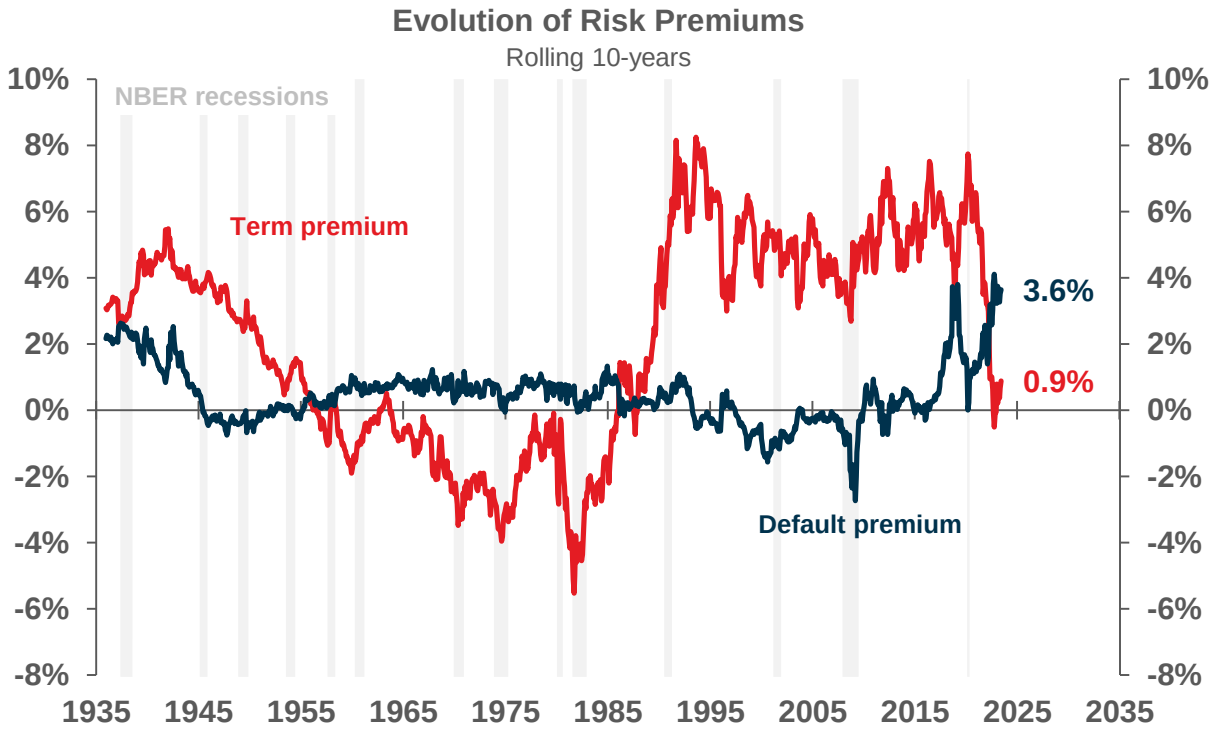
Historical returns, volatility, and risk premiums

Asset classes	Volatility	Real returns	Risk premiums	Full period*	Past ten years
Inflation	1.8%	2.9%			
3-month T-bills	1.8%	0.3%			
Long-term Treasuries	9.0%	2.1%	Term	1.9%	0.9%
Long-term corps	8.0%	2.9%	Default	0.7%	3.6%
Large cap equities	18.7%	7.1%	Equity	4.9%	10.8%
Small cap equities	28.0%	8.7%	Size	1.6%	-2.4%

Risk premiums within U.S. capital markets have been well documented and tend to be stable over long enough periods of time (15-20+ years). Important deviations can occur though over shorter timespans, as was evident these past ten years.

Data via Ibbotson. *Data from January 1926 to December 2022.

U.S. risk premiums – Fixed income



 Data via Ibbotson

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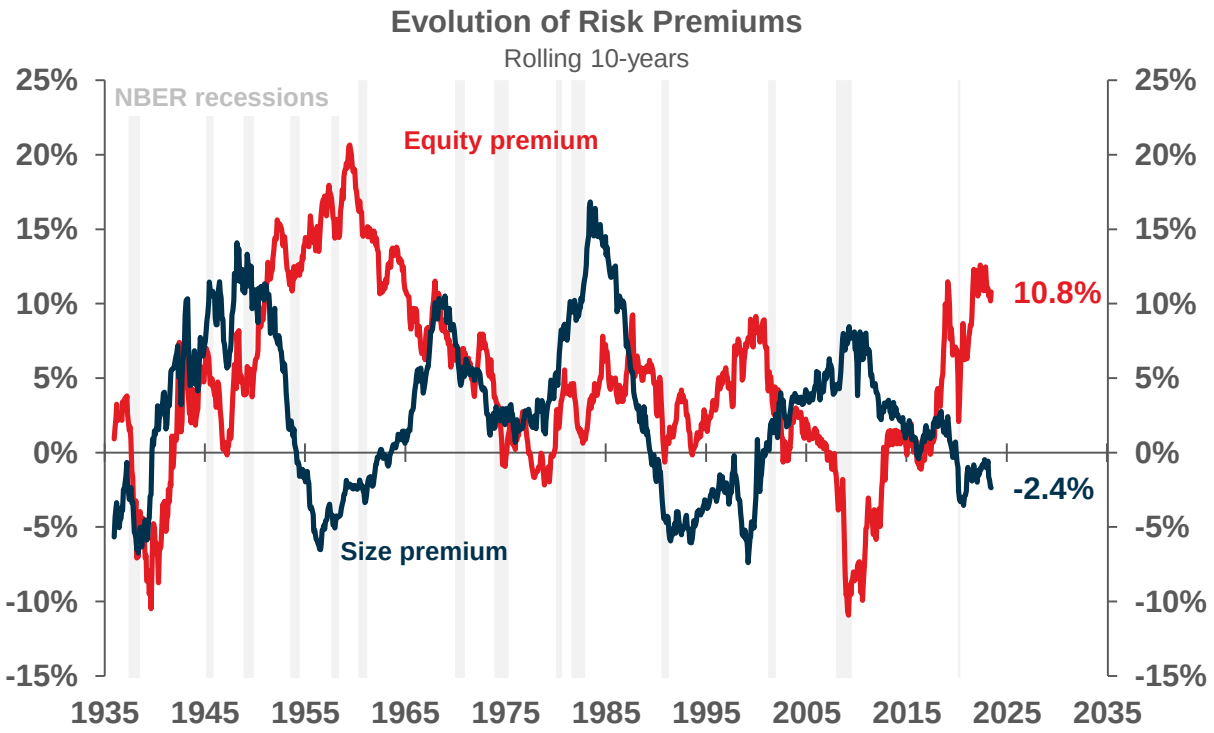
U.S. risk premiums – Equities



Data via Ibbotson

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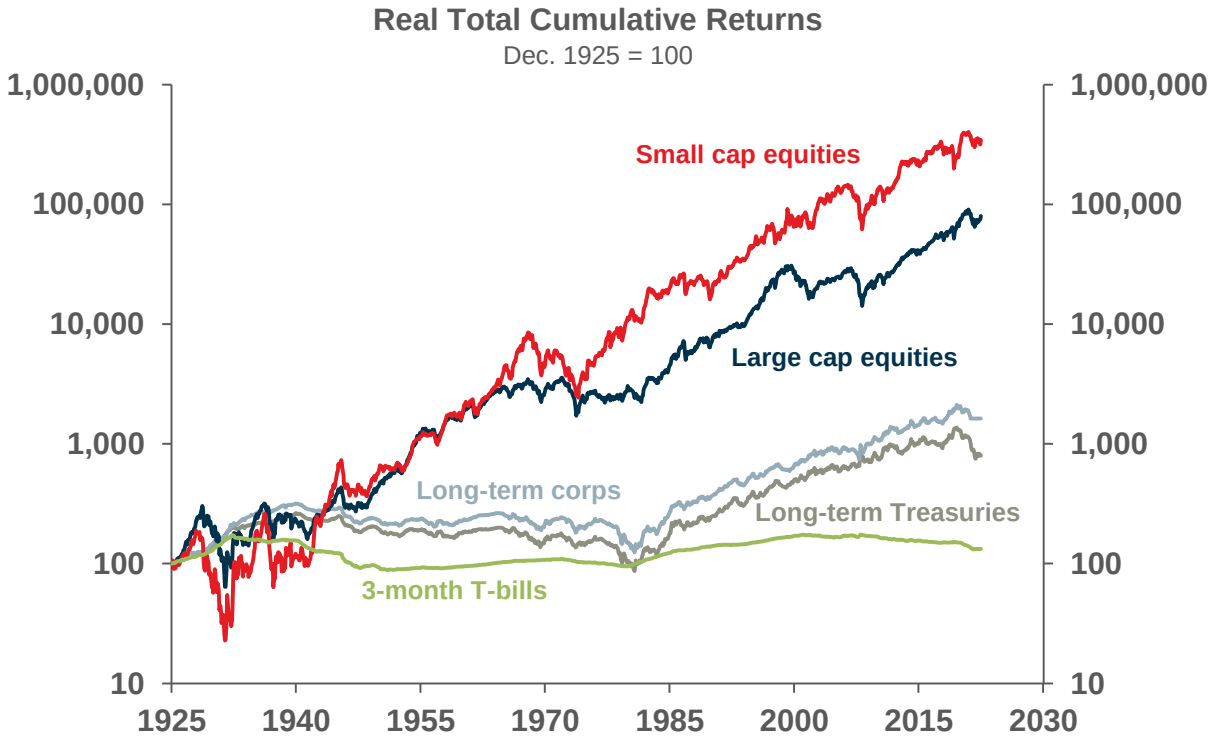
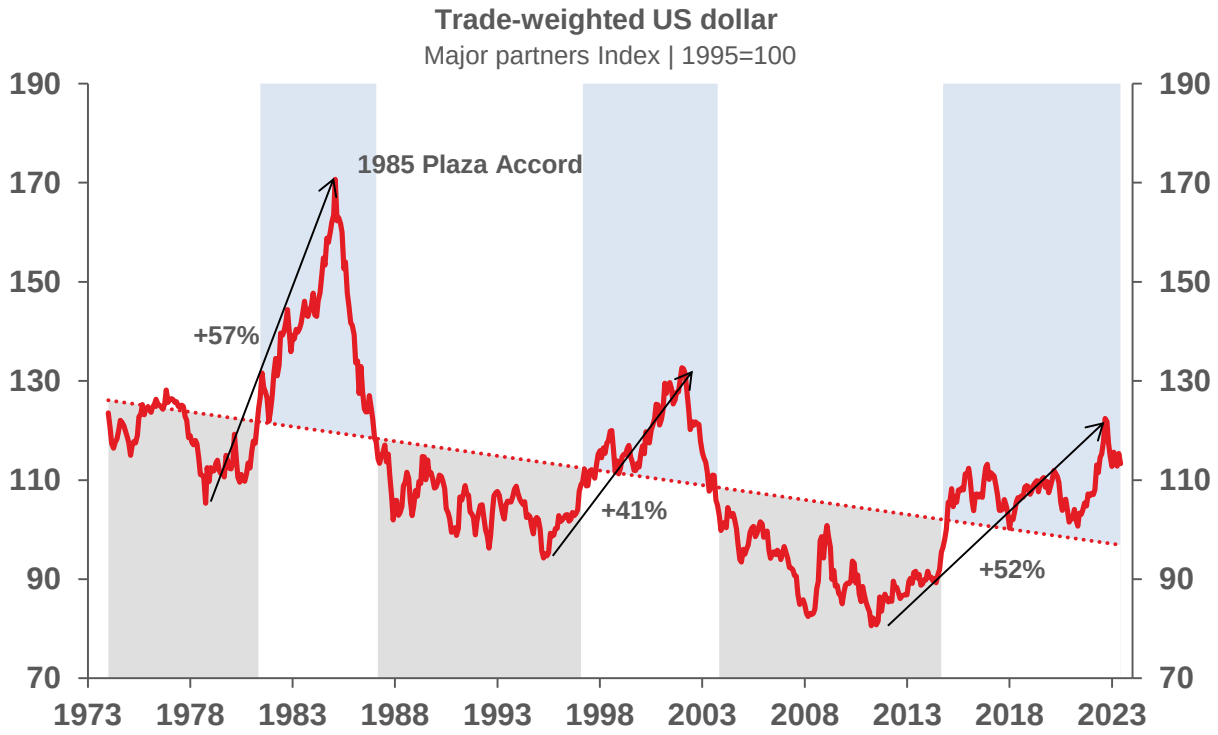
U.S. risk premiums – Cumulative returns



Over long enough investment horizons, the importance of volatility risk diminishes (see page 7 – Equity Performance in the Long Run), while the risk of underperforming through poor asset allocation decisions can increase significantly.

US dollar secular trend & components – Part I



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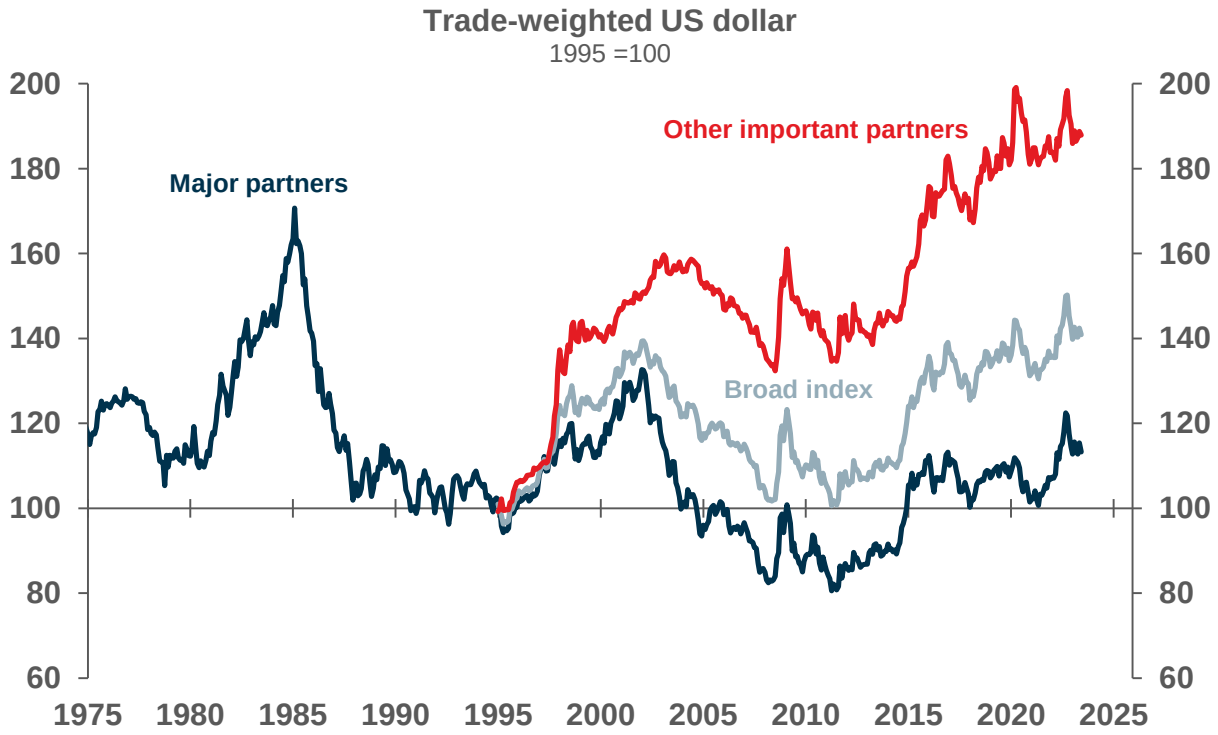
US dollar secular trend & components – Part II



 Data via Refinitiv

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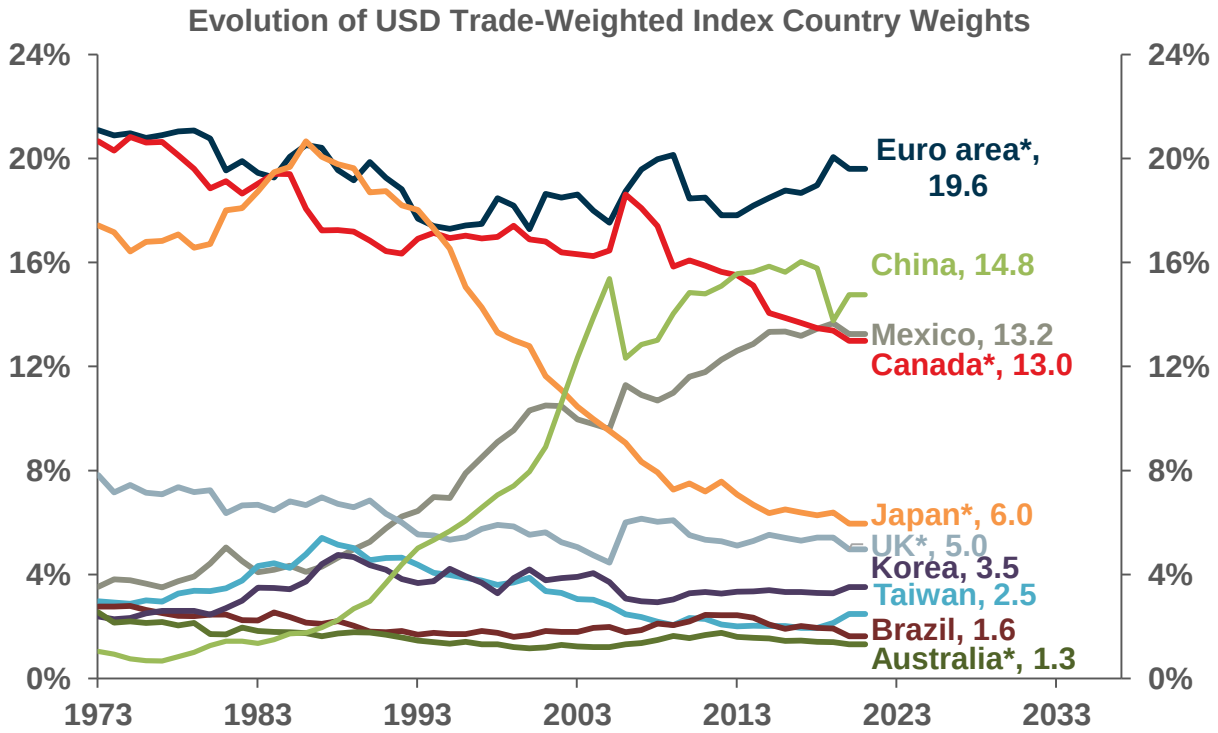
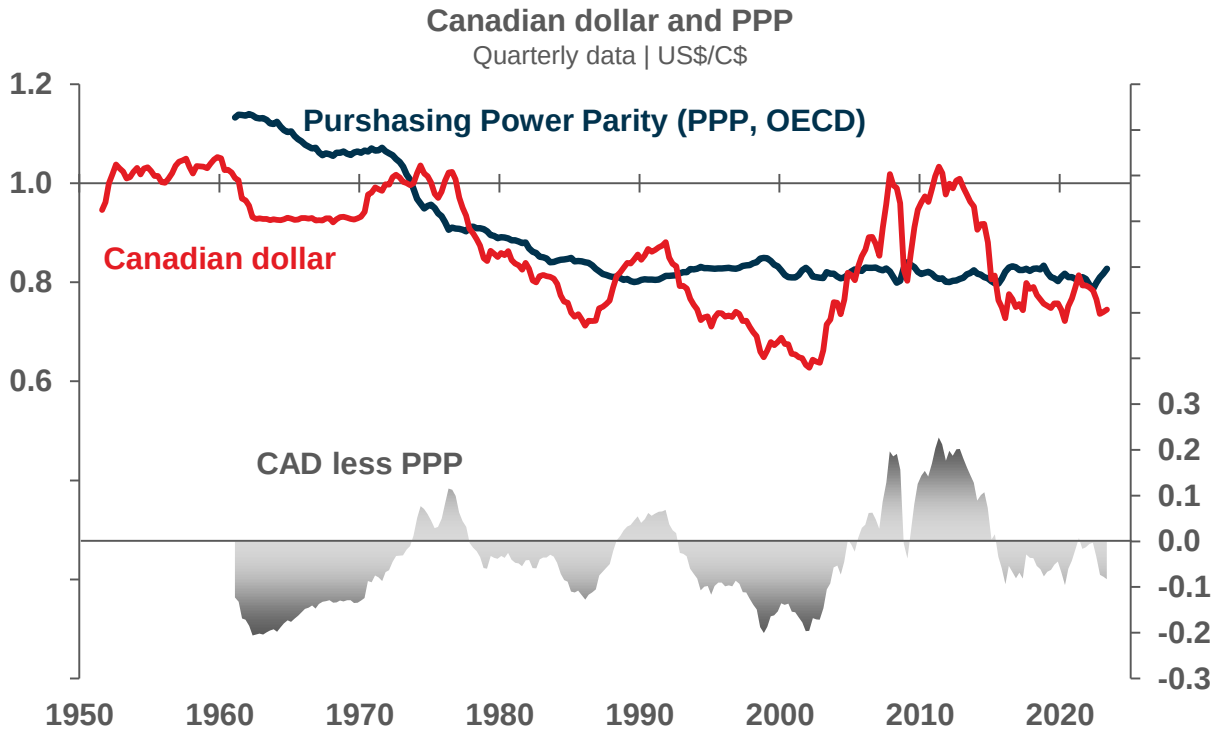
US dollar secular trend & components – Part III



A reduction of trade barriers between the US and China, as well as Mexico since the 90s has helped the latter two countries gain more prominence as trading partners.

Data via Refinitiv. *Indicates a country is part of the Major Partners index

Canadian dollar & purchasing power parity



 Data via Refinitiv, OECD

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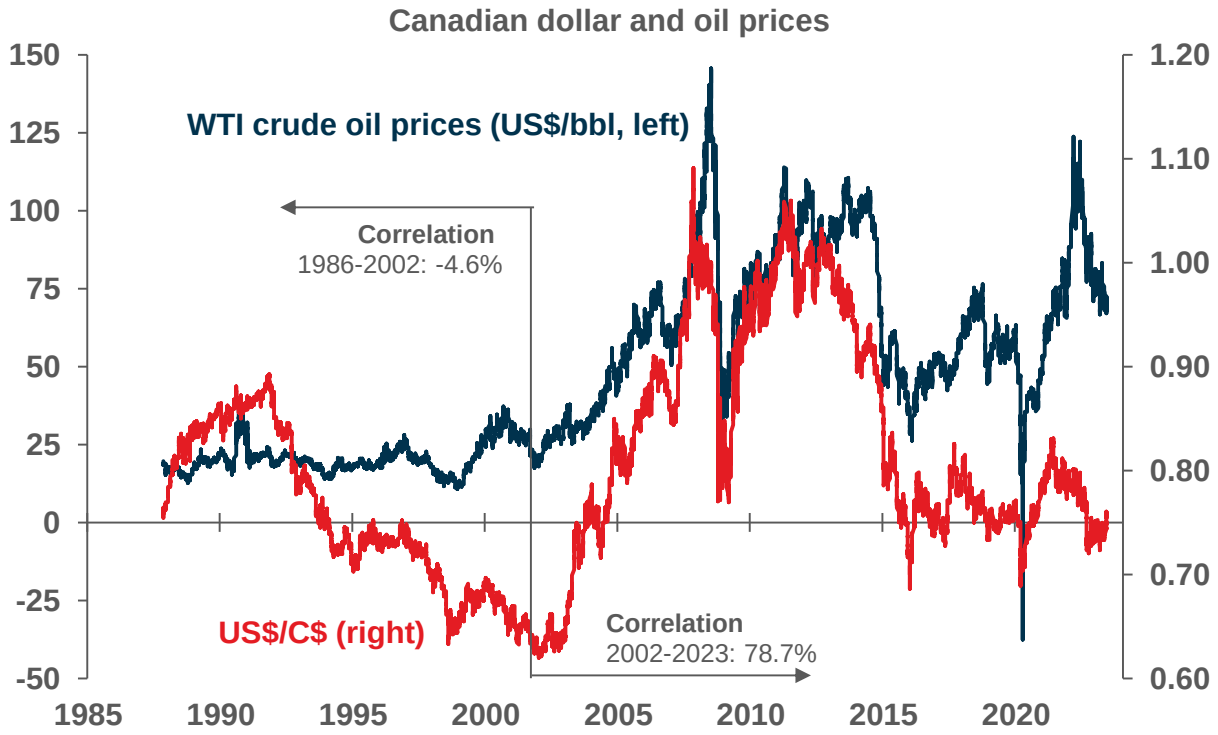
Canadian dollar & crude oil



As Canadian oil and crude bitumen exports grew rapidly starting in the mid-2000s, the country's currency became more closely entangled with those assets' price movements.

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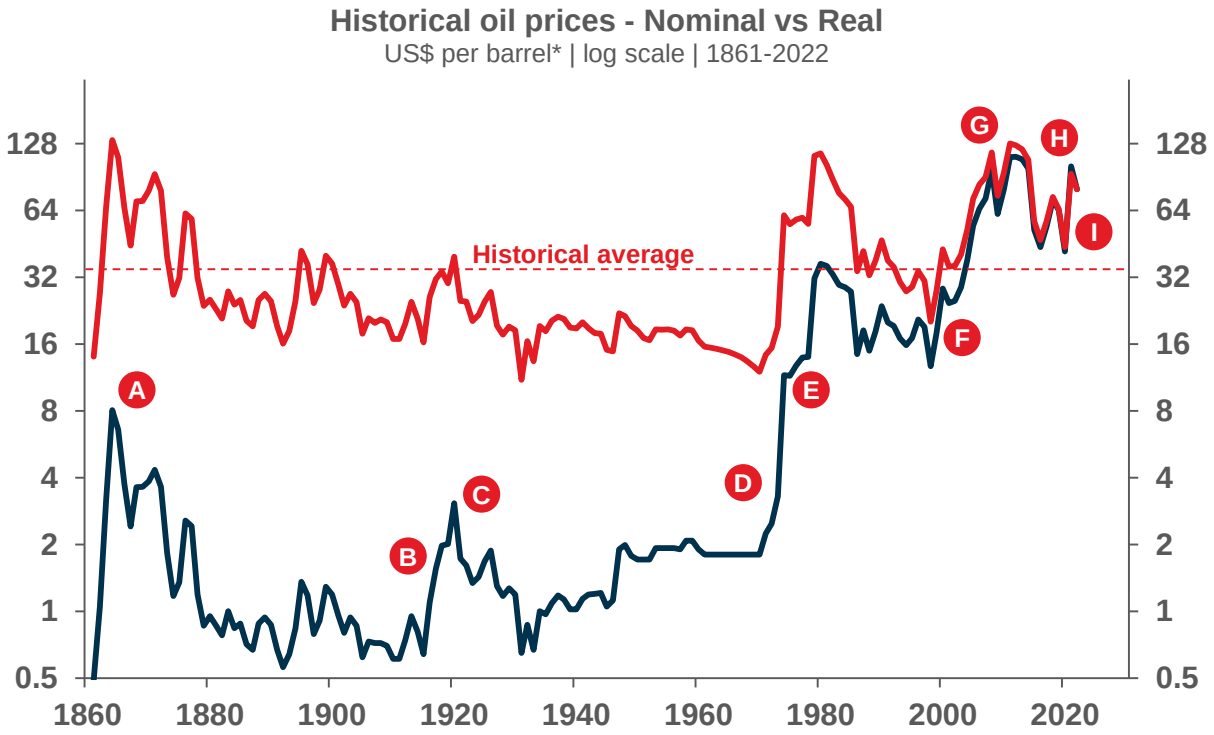
Oil prices – Nominal vs real prices



- Nominal prices
- Real prices (2018 dollars)
- A US Civil War (1862-1865)
- B West Coast gasoline famine (1920)
- C Great Depression (1930s)
- D Arab states embargos (1973-1974)
- E Iran revolution (1978-1979)
- F Rising Asian demand (2000s)
- G Arab Spring (2011)
- H Supply glut (2014-2015)
- I COVID-19 pandemic (2020-…)

Data via Refinitiv, BP. *Annual average

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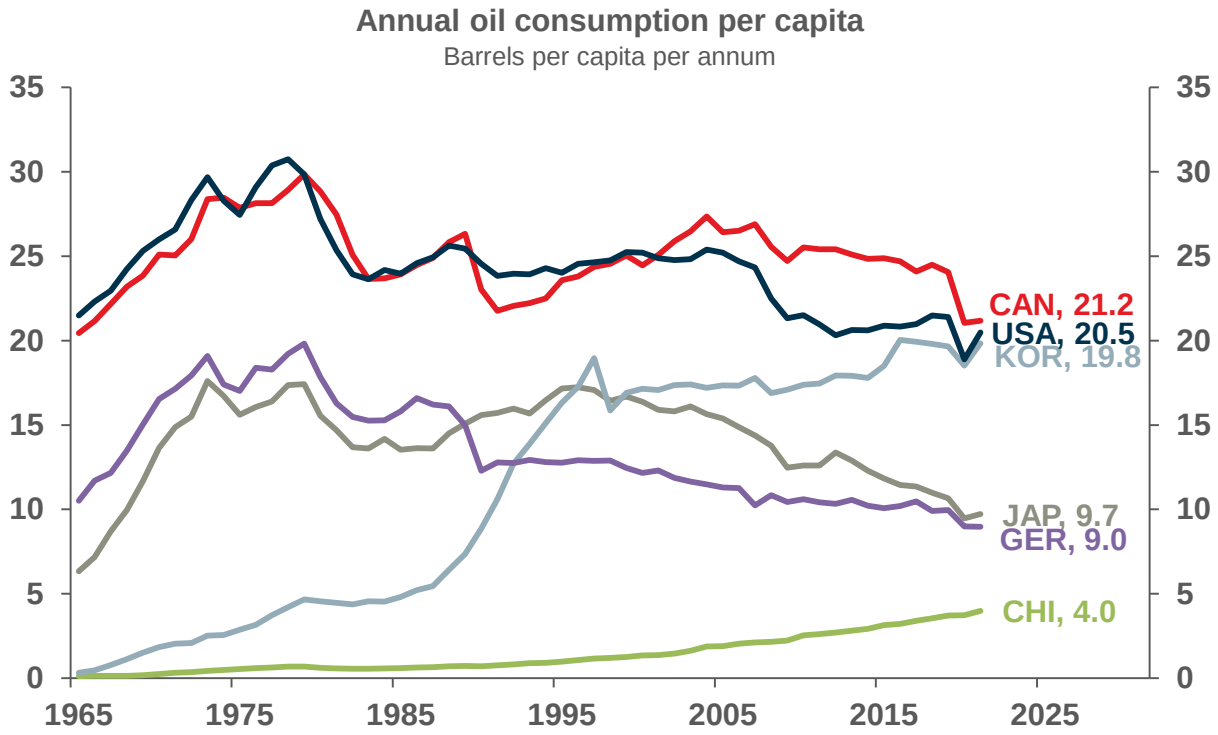
Oil prices – Consumption by country



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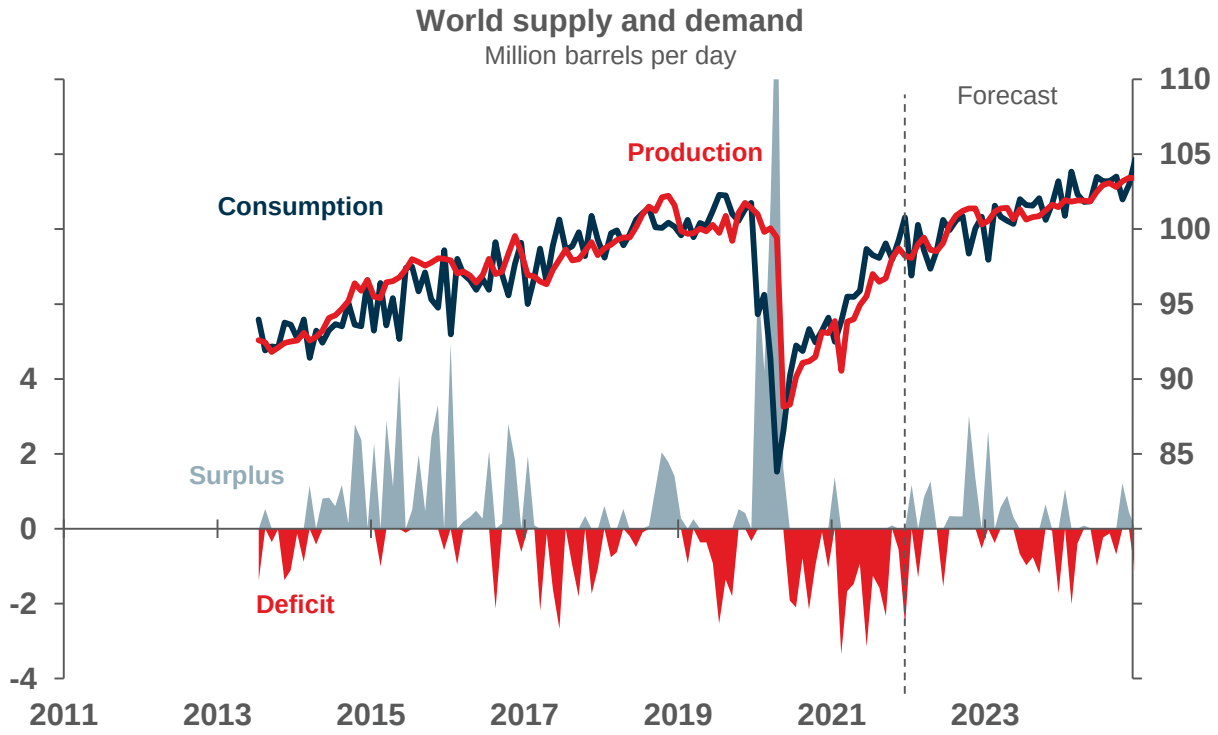
Oil prices – World supply and demand



 Data via EIA

NATIONAL BANK INVESTMENTS

Bear market performances – Price returns

S&P 500 Bear Markets (1950-2022)

Peak	Trough	# days	Period Drawdown	# days to recover	Cumulative price return over the following:			
					6 months	12 months	24 months	36 months
1956-08-02	1957-10-22	446	-22%	337	8%	31%	47%	42%
1961-12-12	1962-06-26	196	-28%	434	20%	34%	53%	71%
1966-02-09	1966-10-07	240	-22%	209	22%	32%	37%	30%
1968-11-29	1970-05-26	543	-36%	650	19%	48%	54%	61%
1973-01-11	1974-10-03	630	-48%	2,114	35%	37%	68%	54%
1980-11-28	1982-08-12	622	-27%	83	43%	58%	48%	88%
1987-08-25	1987-12-04	101	-34%	600	13%	19%	50%	35%
2000-03-24	2002-10-09	929	-49%	1,694	13%	28%	45%	57%
2007-10-09	2009-03-09	517	-57%	1,480	48%	63%	96%	94%
2020-02-19	2020-03-23	33	-34%	148	52%	74%	99%	--
2022-01-03	2022-10-12	282	-25%	--	--	--	--	--
	Average:	**413**	**-35%**	**775**	**27%**	**43%**	**55%**	**59%**

Data via Refinitiv, Ibbotson. S&P 500 bear markets are defined as periods when the index fell at least 20% from its all time high.

Bear market performances – Excess returns

Average Excess* Total Returns Following S&P 500 Bear Markets (since 1980)

Asset (USD)	Beta***	Avg. bear market excess returns	Cumulative excess return over the following:			
			6 months	12 months	24 months	36 months
MSCI World Index	1.01	2%	7%	8%	8%	13%
WTI	1.01	11%	4%	22%	-9%	51%
S&P/TSX (CAD)	0.83	-2%	6%	10%	10%	19%
Gold	0.00	34%	-12%	-31%	-41%	-35%
FTSE Canada Overall	-0.02	45%	-18%	-30%	-34%	-20%
DXY	-0.14	45%	-33%	-48%	-57%	-64%
U.S. 10-yr Gov't Bench	-0.16	53%	-23%	-39%	-42%	-29%

Data via Refinitiv, Ibbotson. S&P 500 bear markets are defined as periods when the index fell at least 20% from its all time high
*Excess total returns are measured against the S&P 500 index **WTI data as of 1983 only *** Beta measured against S&P 500 monthly returns over the last 15 years

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