NATIONAL BANK INVESTMENTS

Market review and outlook

CIO Office

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February 15, 2023

Agenda

- A quick look back at 2022
- Outlook: On a slippery road
  - Inflation…
  - …rate hikes…
  - …recession?
  - Market implications
- Key takeaways

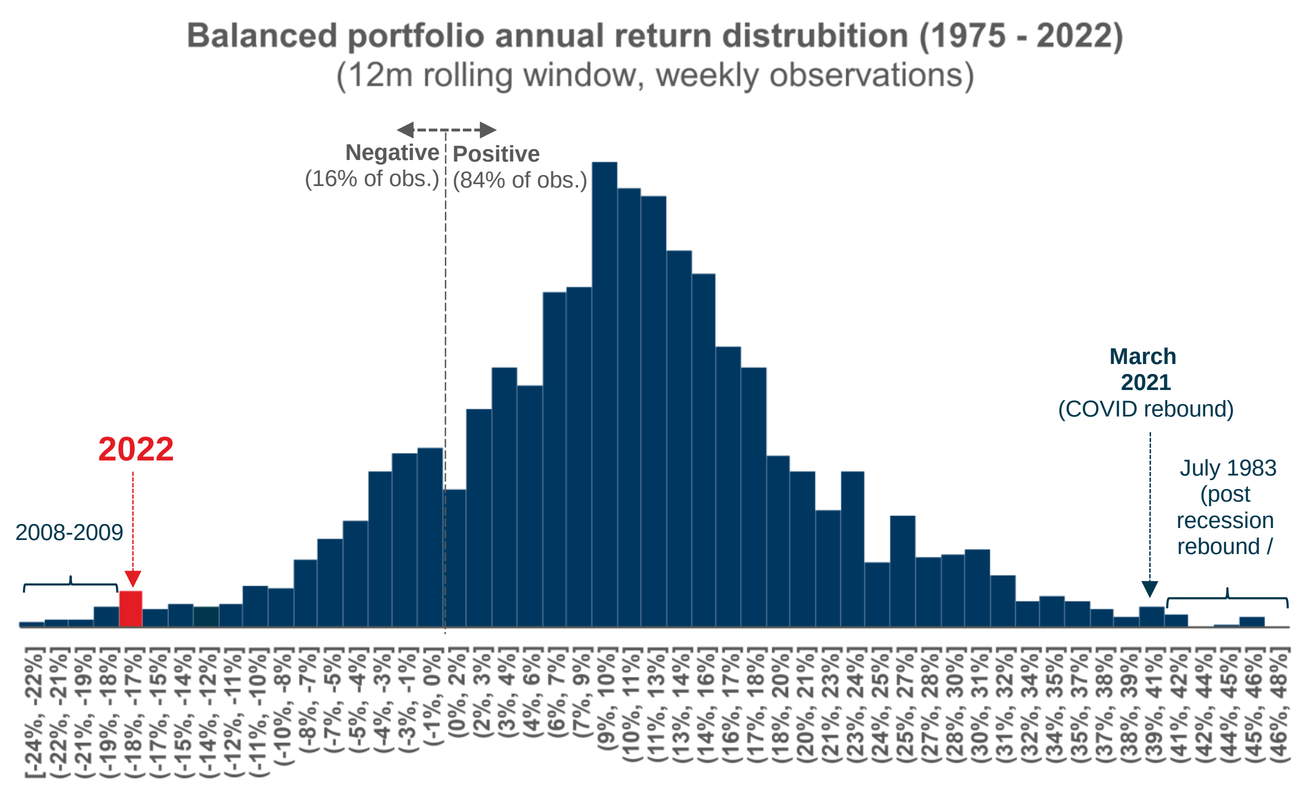
A challenging 2022 for most investors…

2022 Total Returns

Cross Asset	Fixed Income*	S&P/TSX Sectors	S&P 500 Sectors	Equity Regions (C$)	Canada Factors	US Factors
Commodities	Cash	Energy	Energy	Latin America	Momentum	High Dividend
26.0%	1.4%	30.3%	65.7%	17.5%	3.6%	-3.8%
Cash	Short Term	Consumer Staples	Utilities	Canada	High Dividend	Value
1.4%	-4.0%	10.1%	1.6%	-5.8%	0.6%	-6.2%
Gold	Federal Gov.	Materials	Consumer Staples	EAFE	Value	Low Vol.
-0.7%	-9.2%	1.7%	-0.6%	-7.8%	-0.3%	-14.2%
S&P/TSX	Mid Term	Industrials	Health Care	Europe	Low Vol.	Small Caps
-5.8%	-10.0%	1.4%	-2.0%	-8.3%	-1.1%	-17.2%
CADUSD	Corporate	Comm. Services	Industrials	Japan	Quality	Momentum
-6.8%	-10.1%	-2.6%	-5.5%	-8.7%	-4.8%	-17.4%
Balanced*	*High Yield (US)*	S&P/TSX	Financials	World	MSCI Canada	MSCI USA
-10.1%	-11.2%	-5.8%	-10.5%	-12.0%	-5.8%	-19.5%
US High Yield	Overall Universe	Consumer Disc.	Materials	United States	Large Caps	Large Caps
-11.2%	-11.5%	-6.0%	-12.3%	-12.2%	-6.2%	-19.7%
Canadian Bonds	*Treasuries (US)*	Financials	S&P 500	Emerging Markets	Small Caps	Quality
-11.5%	-12.9%	-9.4%	-18.1%	-13.9%	-9.3%	-22.7%
MSCI EAFE	Provi. & Muni.	Utilities	Real Estate	Asia (EM)	Growth	Growth
-14.0%	-13.3%	-10.6%	-26.1%	-15.0%	-14.0%	-32.0%
Can. Pref. Shares	*Corporate (US)*	Real Estate	Info. Tech.	EMEA (EM)		
-18.1%	-15.4%	-21.5%	-28.2%	-22.8%		
S&P 500	Preferred shares	Info. Tech.	Consumer Disc.			
-18.1%	-18.1%	-52.0%	-37.0%			
MSCI Emerging	Long Term	Health Care	Comm. Services			
-19.7%	-21.5%	-61.6%	-39.9%			

CIO Office (data via Refinitiv) * Canadian fixed income (unless otherwise specified)

… with one of the worst performance for balanced funds...



CIO Office (data via Refinitiv).

… followed by an optimistic start in 2023

Monthly Total Return (January 2023)

Cross Asset	Fixed Income*	S&P/TSX Sectors	S&P 500 Sectors	Equity Regions (C$)	Canada Factors	US Factors
MSCI EAFE	Preferred shares	Info. Tech.	Consumer Disc.	Latin America	Small Caps	Small Caps
8.1%	7.3%	19.5%	15.0%	8.2%	8.9%	10.4%
MSCI Emerging	Long Term	Health Care	Comm. Services	Canada	Value	Growth
7.9%	4.9%	14.6%	14.5%	7.4%	7.8%	10.3%
S&P/TSX	High Yield (US)	Real Estate	Real Estate	Europe	High Dividend	MSCI USA
7.4%	3.9%	10.7%	9.9%	7.0%	7.5%	6.6%
Can. Pref. Shares	Corporate (US)	Materials	Info. Tech.	Asia (EM)	MSCI Canada	Large Caps
7.3%	3.9%	10.7%	9.3%	7.0%	7.4%	6.3%
S&P 500	Provi. & Muni.	Financials	Materials	EAFE	Large Caps	Quality
6.3%	3.2%	8.6%	9.0%	6.5%	7.4%	5.7%
Gold	Mid Term	S&P/TSX	Financials	Emerging Markets	Growth	Low Vol.
6.0%	3.0%	7.4%	6.9%	6.3%	6.2%	4.8%
Balanced*	Overall Universe	Consumer Disc.	S&P 500	World	Low Vol.	Value
4.8%	2.8%	6.4%	6.3%	5.6%	5.2%	3.2%
US High Yield	Corporate	Comm. Services	Industrials	United States	Quality	High Dividend
3.9%	2.7%	5.5%	3.7%	4.7%	4.7%	1.7%
Canadian Bonds	Treasuries (US)	Energy	Energy	Japan	Momentum	Momentum
2.8%	2.6%	4.5%	2.8%	4.3%	3.5%	-0.6%
CADUSD	Federal Gov.	Industrials	Consumer Staples	EMEA (EM)		
1.8%	2.3%	3.6%	-0.9%	0.7%		
Cash	Short Term	Utilities	Health Care			
0.4%	1.2%	3.6%	-1.9%			
Commodities	Cash	Consumer Staples	Utilities			
-0.1%	0.4%	1.9%	-2.0%			

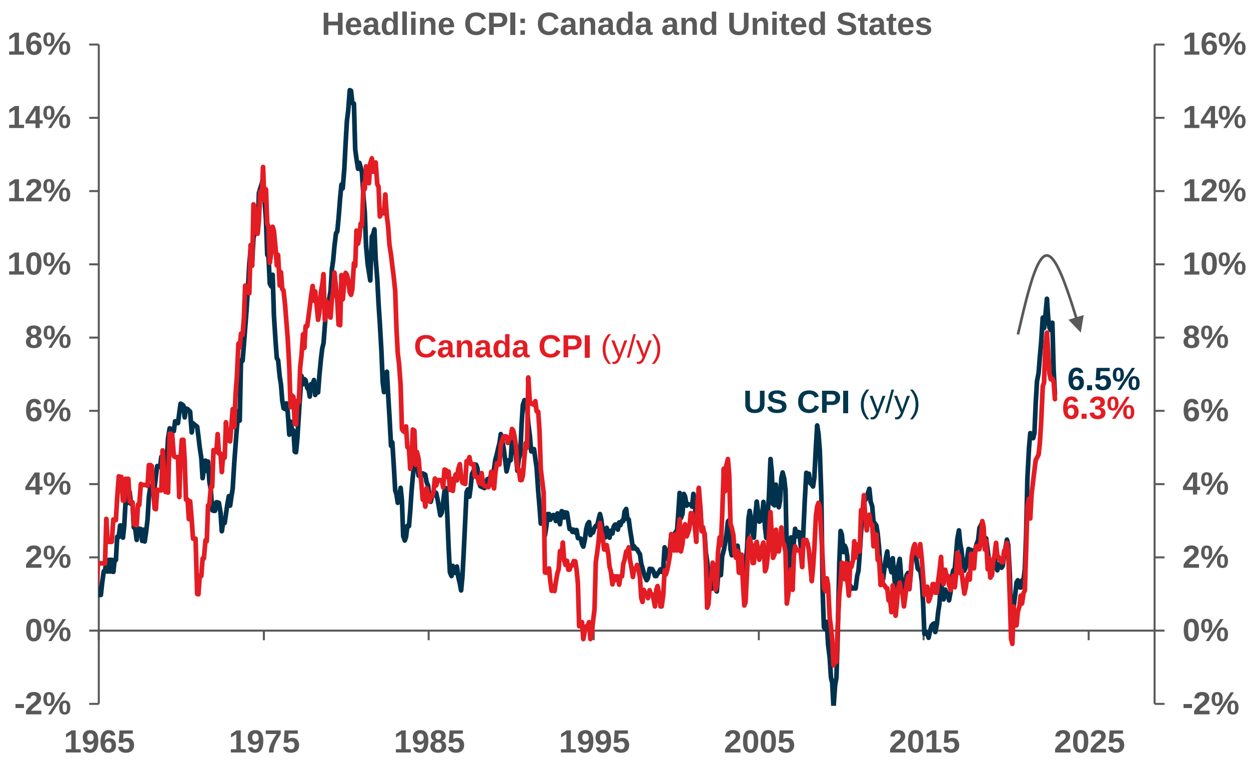
CIO Office (data via Refinitiv, as of 2023-01-31)

Outlook

On a slippery road

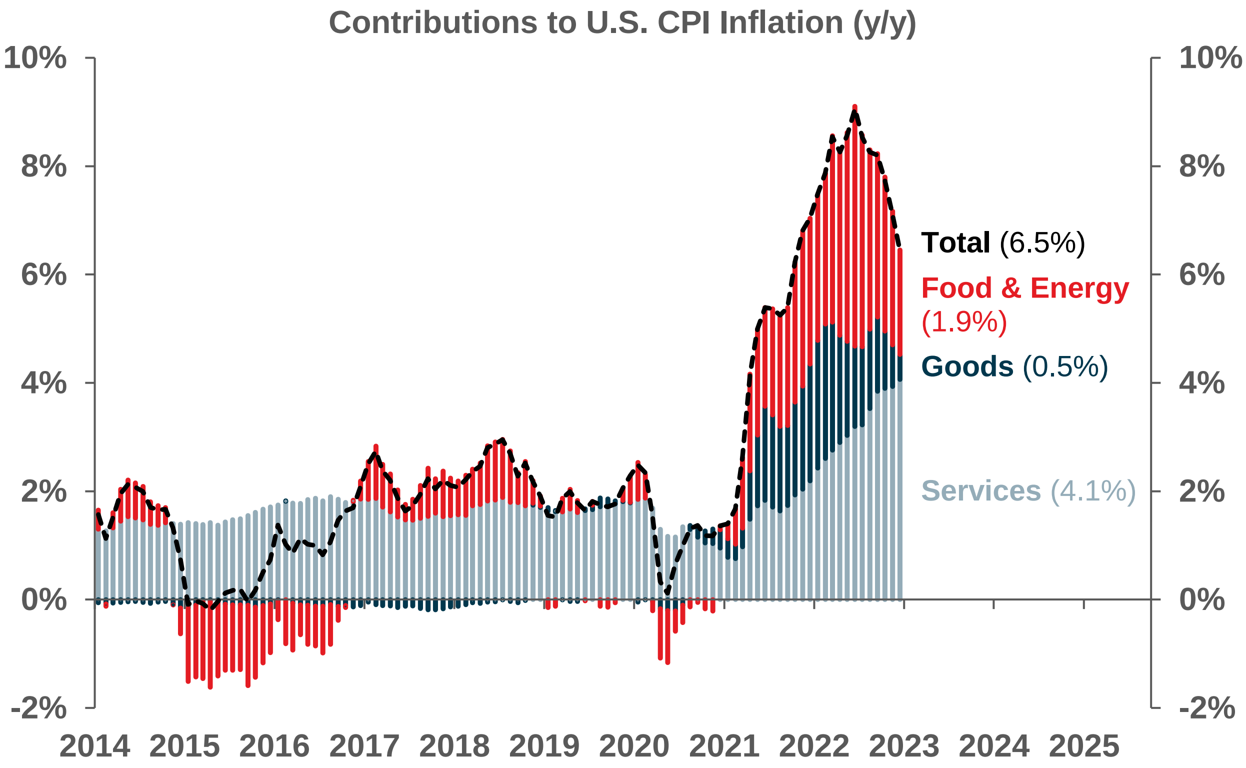
February 2023

Inflation is slowing down...



CIO Office (data via Refinitiv).

... as the perfect inflationary storm subsides



CIO Office (data via Refinitiv).

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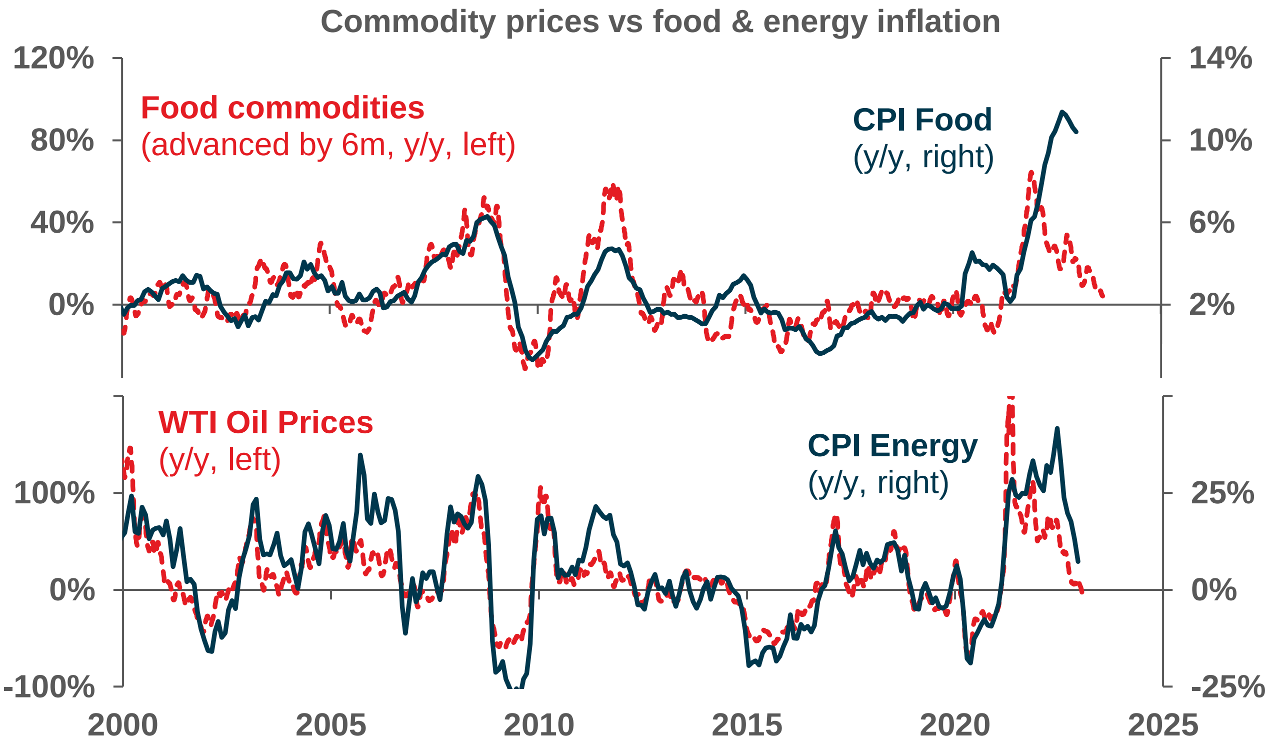
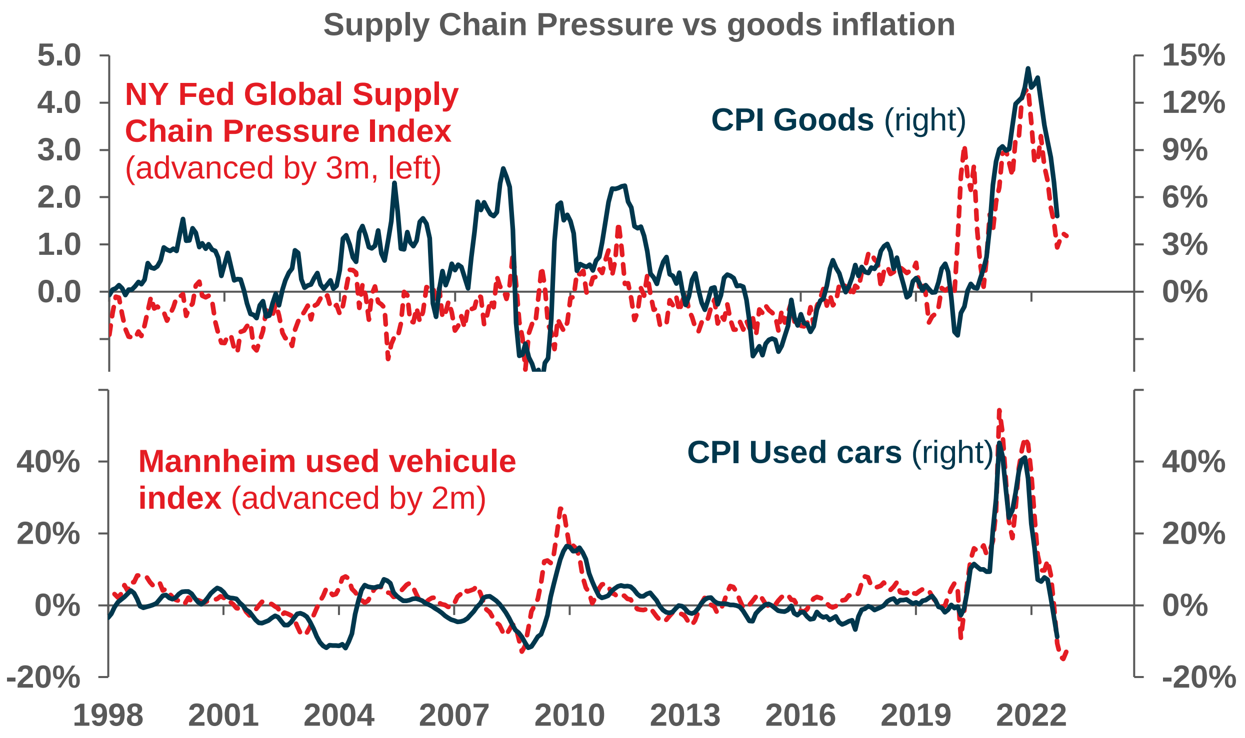
Food & energy: commodity prices on the mend



CIO Office (data via Refinitiv)

<u>Goods</u>: less pressure on supply chains



CIO Office (data via Refinitiv)

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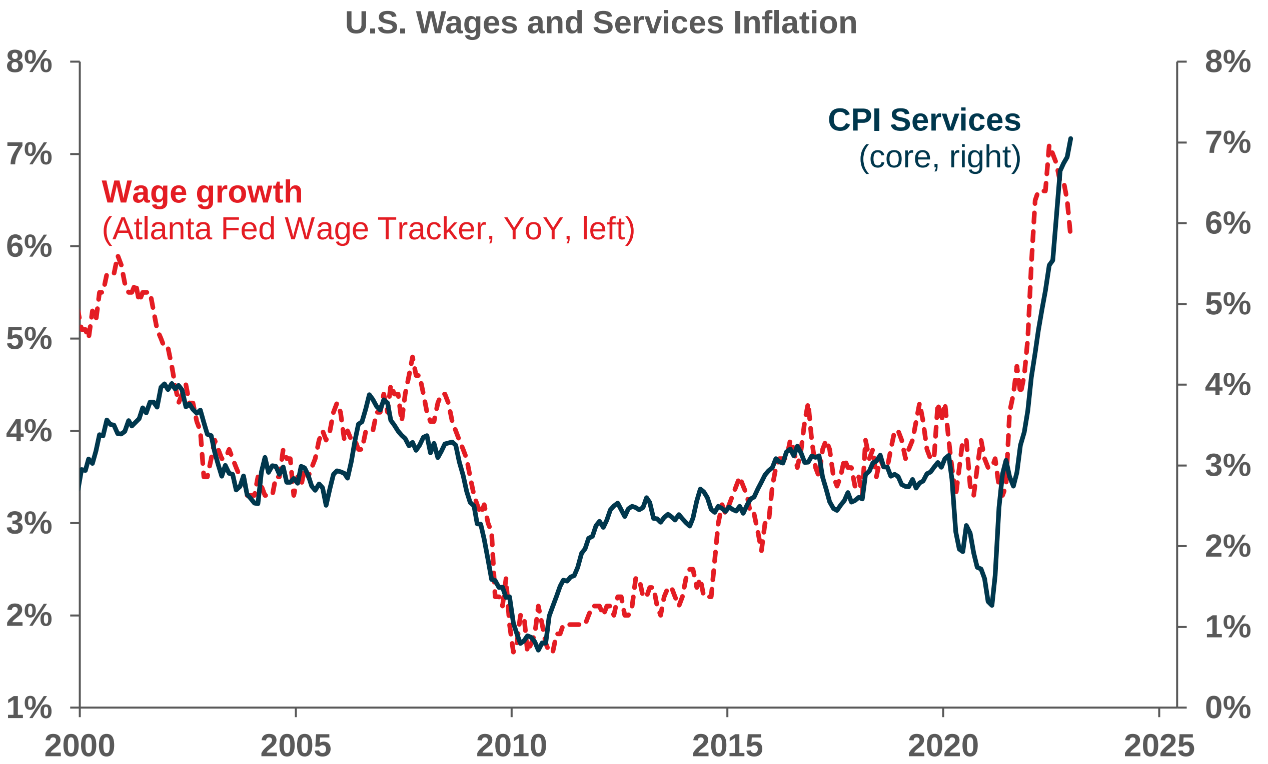
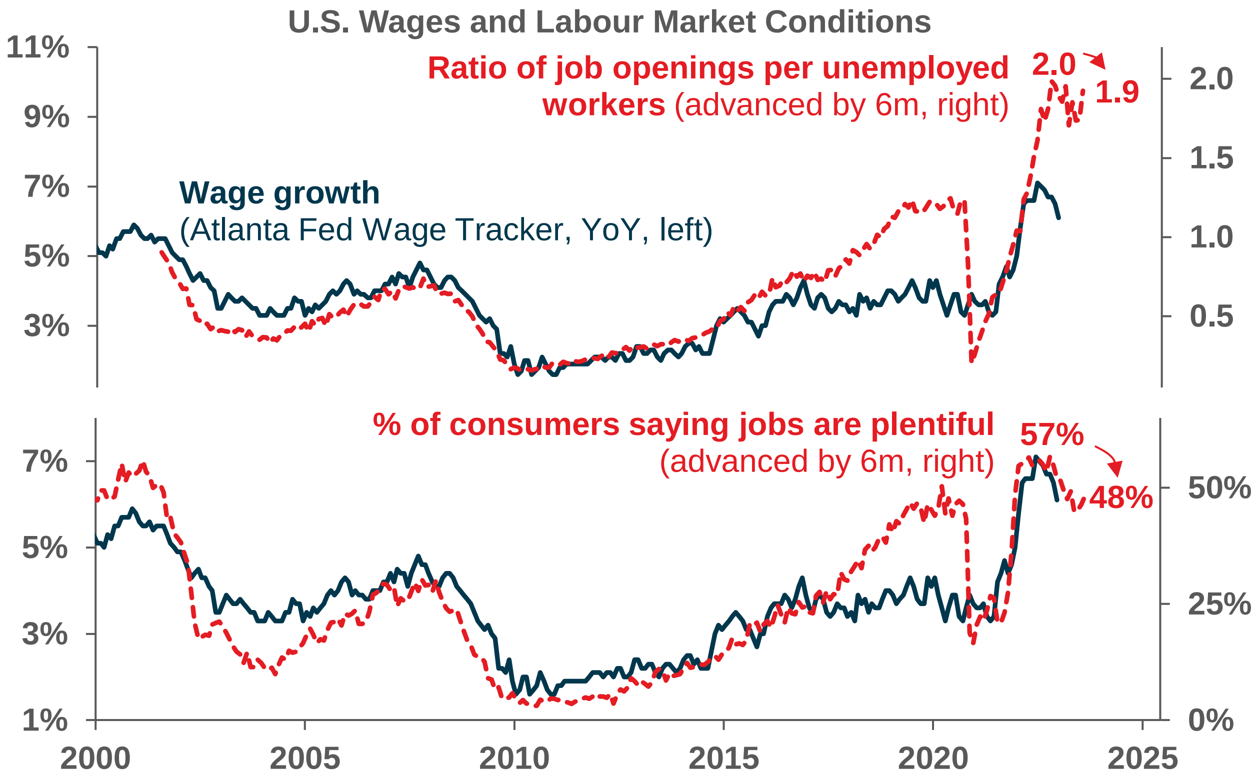
Services: wages are still causing pressure…



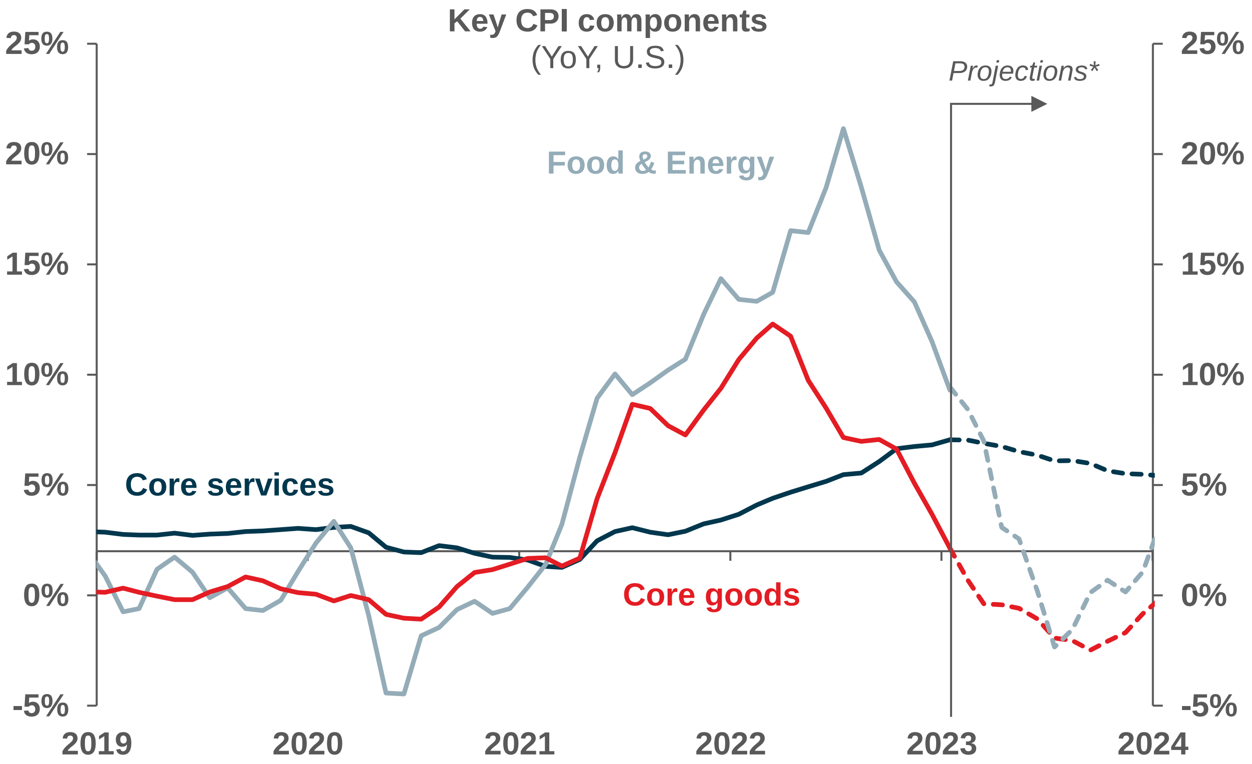
CIO Office (data via Refinitiv)

… but peak looming ahead of us



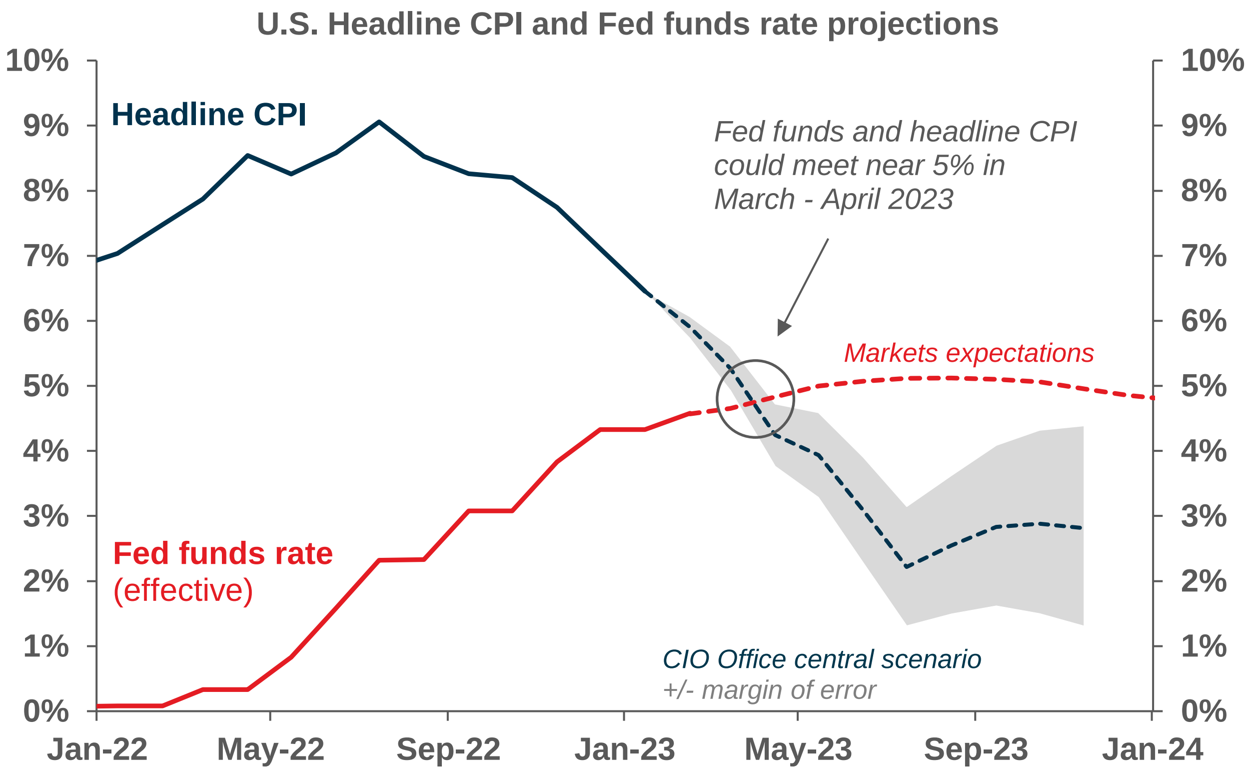
CIO Office (data via Refinitiv)

Inflation should continue to abate further in 2023…



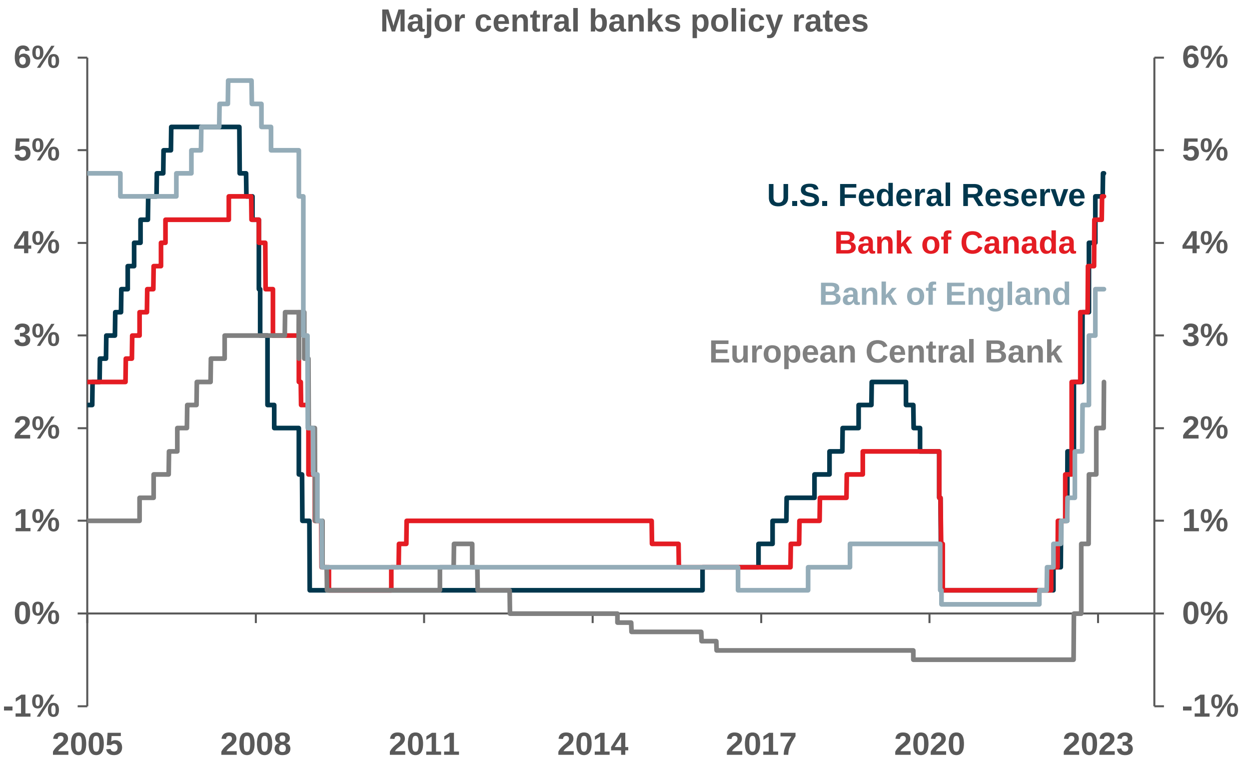
CIO Office (data via Refinitiv). *CIO Office central scenario

… enabling the Fed to lift its foot off the brake pedal…



CIO Office (data via Refinitiv)

... as elsewhere in the world



 CIO Office (data via Refinitiv)

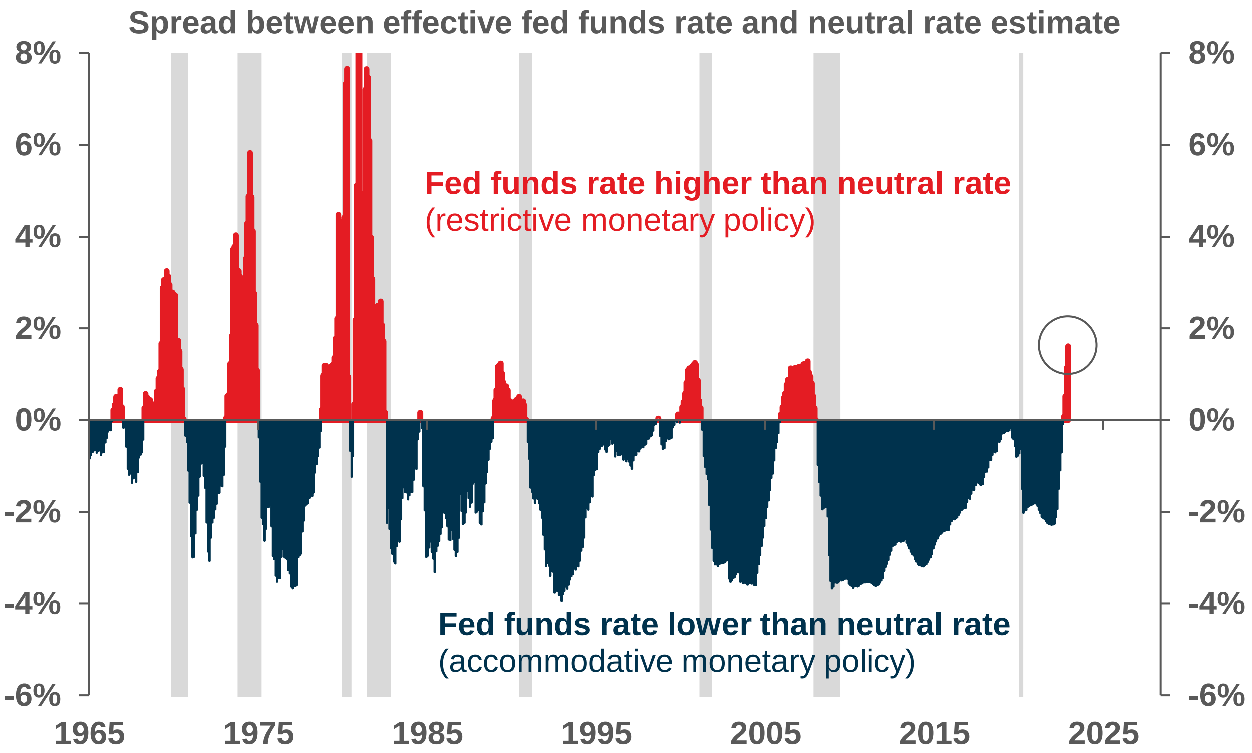
After a late start, a late u-turn?

Federal Reserve rate-hike cycles since 1972*

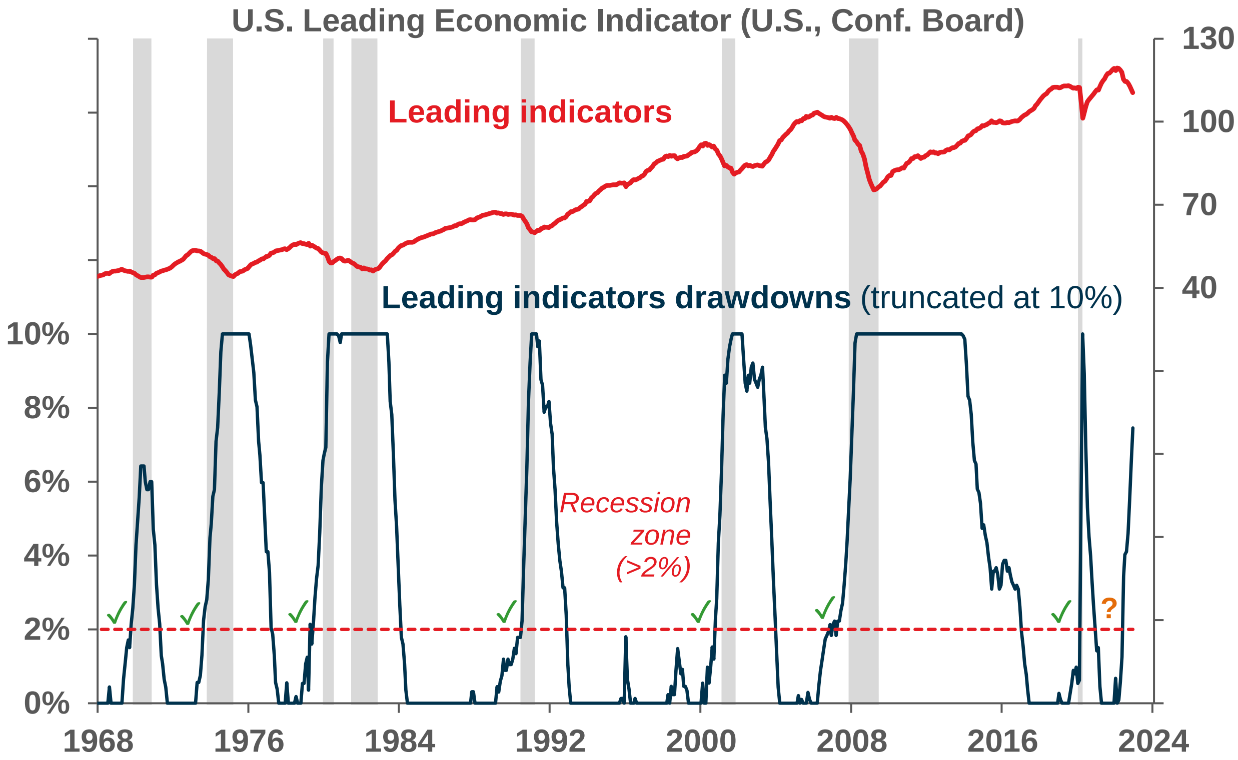
Fed Chair	First hike		Last hike		First cut	
	Date	Real rate	Date	Real rate	Date	Real rate
Burns	Mar-72	2.0%	Apr-74	0.9%	Jul-74	-2.3%
Miller - Volcker	Aug-77	-0.6%	Mar-80	1.7%	Apr-80	1.3%
Volcker	Aug-80	-1.9%	May-81	9.2%	Jun-81	9.4%
Volcker	Jun-83	6.4%	Aug-84	7.1%	Sep-84	6.7%
Volcker - Greenspan	Apr-87	2.7%	Sep-87	3.0%	Nov-87	2.3%
Greenspan	Mar-88	2.8%	Feb-89	4.9%	May-89	4.4%
Greenspan	Feb-94	0.7%	Feb-95	3.1%	Jul-95	3.0%
Greenspan	Jun-99	3.0%	May-00	3.3%	Jan-01	1.8%
Bernanke	Jun-04	-2.0%	Jun-06	0.9%	Sep-07	2.0%
Yellen - Powell	Dec-15	-0.2%	Dec-18	0.6%	Jul-19	0.7%
Powell	*Mar-22*	*-8.0%*	*Current -->*	*-1.7%*	*?*	*?*
Average		1.3%		3.5%		2.9%

CIO Office (data via Refinitiv). *Need at least two consecutive moves in two different months of at least 25 bps each to change cycle.
Real rate = target policy rate less headline CPI YoY.

Due to restrictive monetary policy…

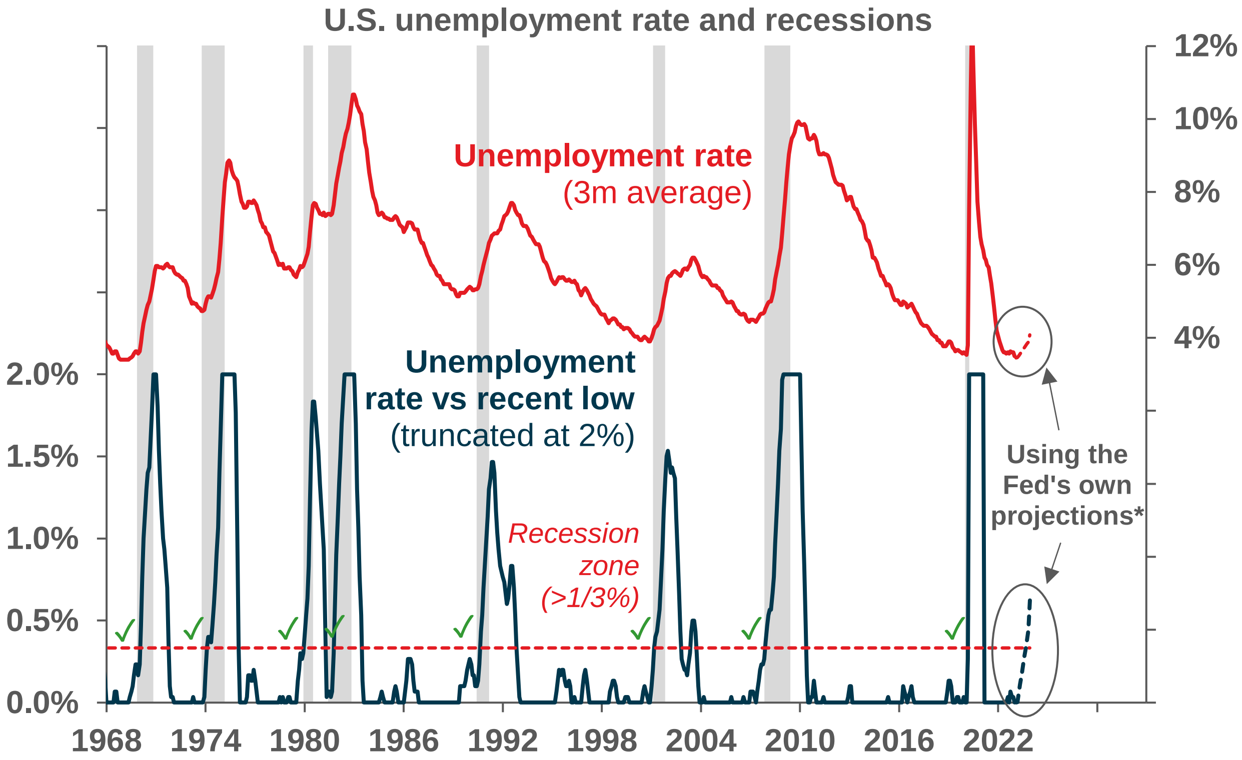


… many leading indicators flashing 'red'…



CIO Office (data via Refinitiv)

Eyes on the labor market !



CIO Office (data via Refinitiv). * December projections, assuming linear trajectory.

Economic scenario (probability)

	Previous		Current	Key elements and investment implications
Bull case	Sub-trend growth (10%)	→	**Sub-trend growth (10%)**	• Inflation decelerates much faster than anticipated; central banks set the stage for rate cuts in 2023. • Labour markets cool down, but without a sharp increase in layoffs: job openings drop, wage pressures ease. • Russia and Ukraine resume talks toward a potential conflict resolution. • Beijing's retreat from zero-COVID and additional stimulus measures support China's economic recovery. • Household consumption proves resilient, supported by solid balance sheets and improving purchasing power. **Economic implications:** Below-potential but positive real GDP growth. **Market implications:** ↑Equities ↓Bond yields ↓↓USD ; U.S. & EM > Canada & EAFE
Base case	Stagnation (50%)	→	**Stagnation (50%)**	• Inflation slows down thanks to lower goods prices and a gradual moderation in services inflation. • Labour markets start softening but remain tight on a historical basis. • The Bank of Canada and the Fed keep their monetary policy into restrictive territory. • Corporate earnings are under pressure from rising wages, higher borrowing costs and weakening consumer demand. • Strong household balance sheets limit the extent of the economic slowdown. **Economic implications:** Stagnation; zero GDP growth and moderate increase in unemployment. **Market implications:** ↓Equities ↕Bond yields ↕USD ; Canada & U.S. > EM & EAFE
Bear case	Recession (40%)	→	**Recession (40%)**	• Headline inflation decelerates, but core components and wage growth remain stubbornly high. • Major central banks keep their monetary policy deeper into restrictive territory. • Geopolitical tensions escalate, leading to renewed commodity disruptions. • Chinese growth falters as zero-COVID retreat leads to a major contagion wave. • Facing elevated inflation and still rising interest rates, consumers tighten their belt and cut discretionary spending. • Unknown financial markets fragilities are revealed, puting pressure on monetary and fiscal policy makers. **Economic implications:** Recession; GDP contraction, job losses, sharp increase in unemployment. **Market implications:** ↓↓Equities ↓Bond yields ↑USD ; Canada & U.S. > EM & EAFE

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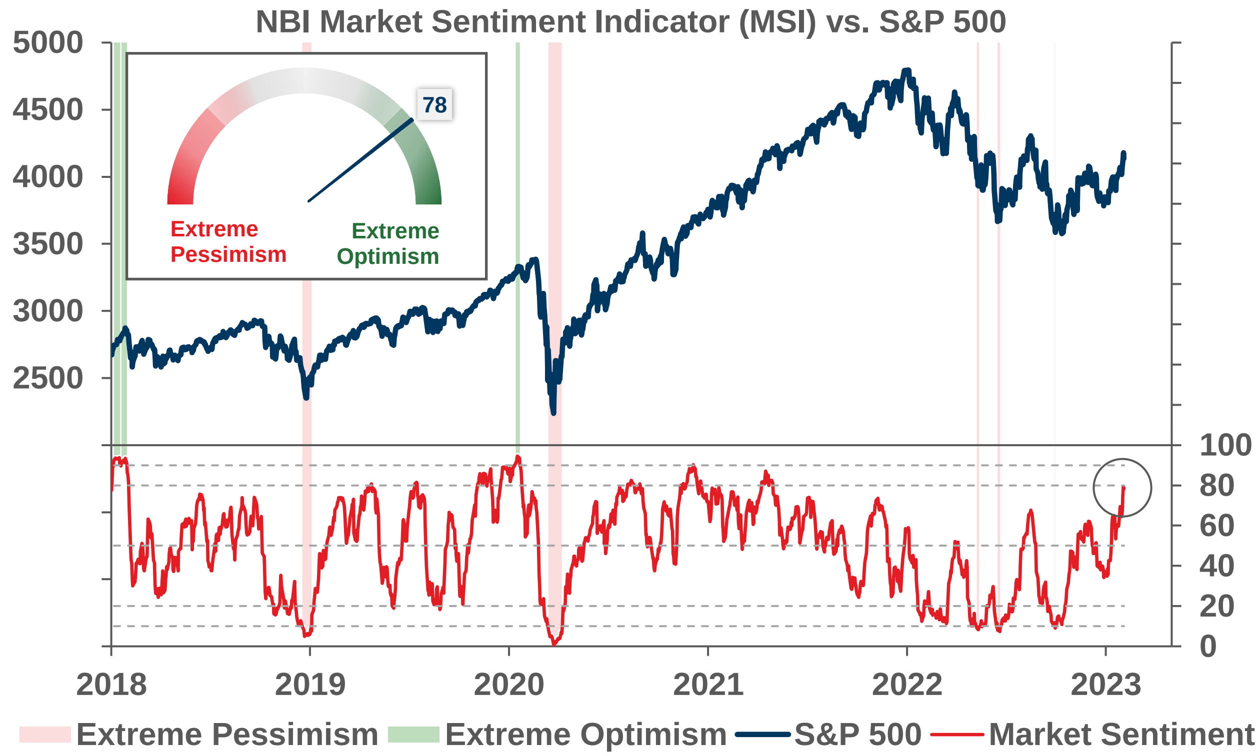
CIO Office. Last update: December 21, 2022 (updated quarterly). Probabilities are subjective and can change without notice.

Stocks seem to be pricing in the best-case scenario...



CIO Office (data via Refinitiv, Bloomberg)

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… but bear market typically need rate cuts to bottom

Economic and financial conditions during S&P 500 bear market bottoms

Bear market bottom (R = recession)	S&P 500 peak-trough (in %)	S&P 500 peak-trough (in months)	2-yr yields change (past 3m)[1]	Last Fed move	Months since first rate cut[2]	Real policy rate[3]
May-1970 (R)	-36%	17	-175 bps	**Cut**	0	1.8%
Oct-1974 (R)	-48%	20	-253 bps	**Cut**	2	-2.8%
Aug-1982 (R)	-27%	20	-87 bps	**Cut**	13	3.1%
Dec-1987	-34%	3	-54 bps	**Cut**	1	2.4%
Oct-2002 (R)	-49%	30	-103 bps	**Cut**	21	-0.3%
Mar-2009 (R)	-57%	17	+11 bps	**Cut**	16	0.6%
Mar-2020 (R)	-34%	1	-136 bps	**Cut**	0	-1.3%
Average	**-41%**	**15**	**-114 bps**	**-**	8	**0.5%**
*October 12, 2022**	*-25%*	*9*	*+124 bps*	***Hike***	-	*-4.5%*

CIO Office (data via Refinitiv)

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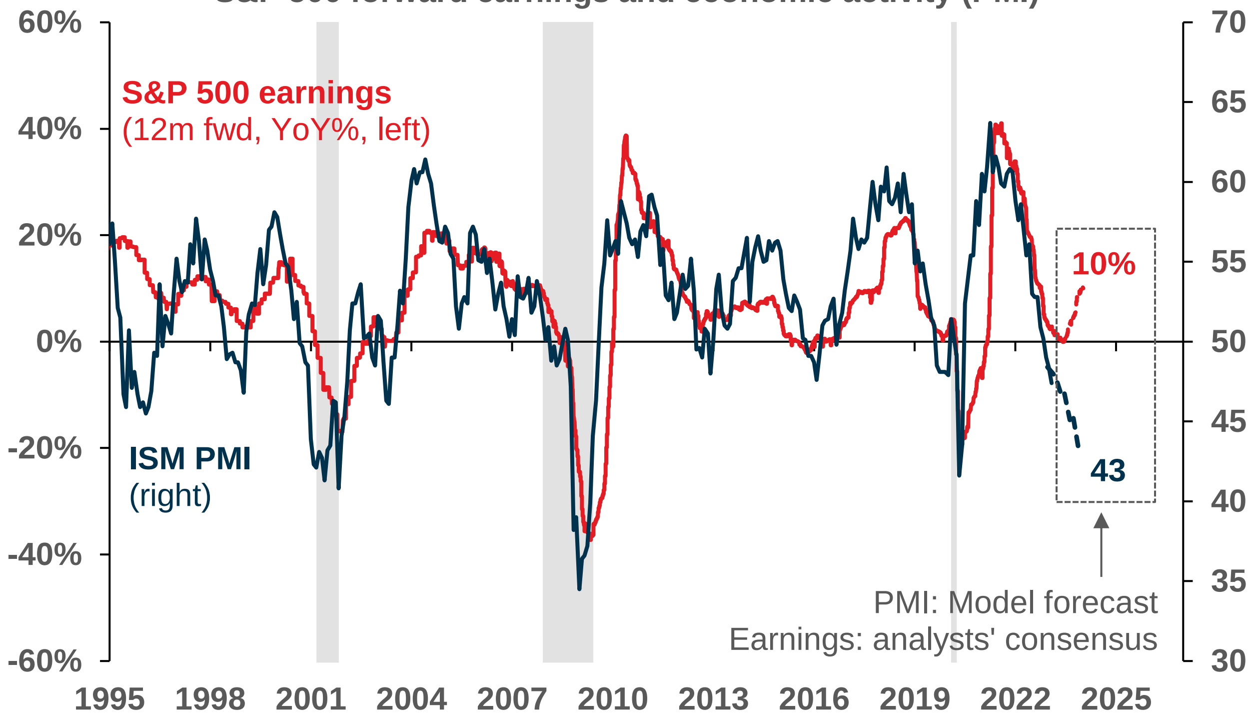
Earnings expectations appear overly optimistic

S&P 500 forward earnings and economic activity (PMI)



 CIO Office (data via Refinitiv)

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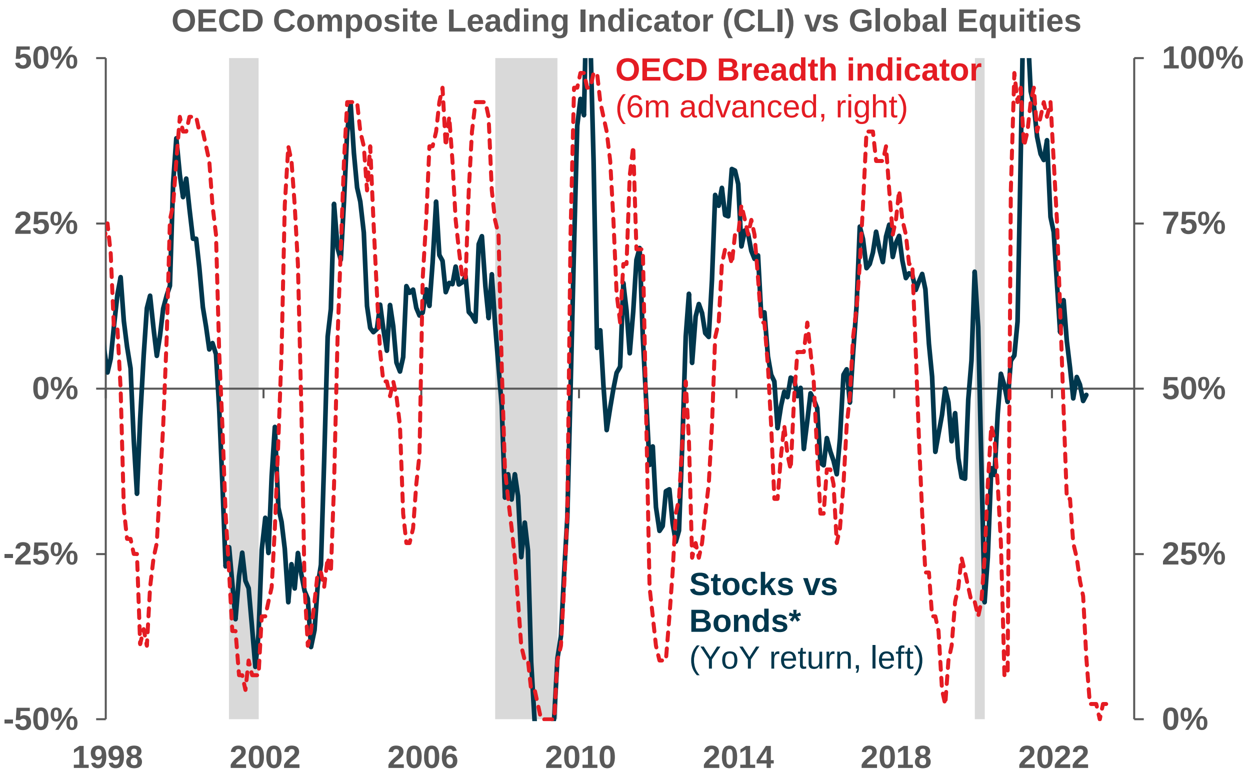
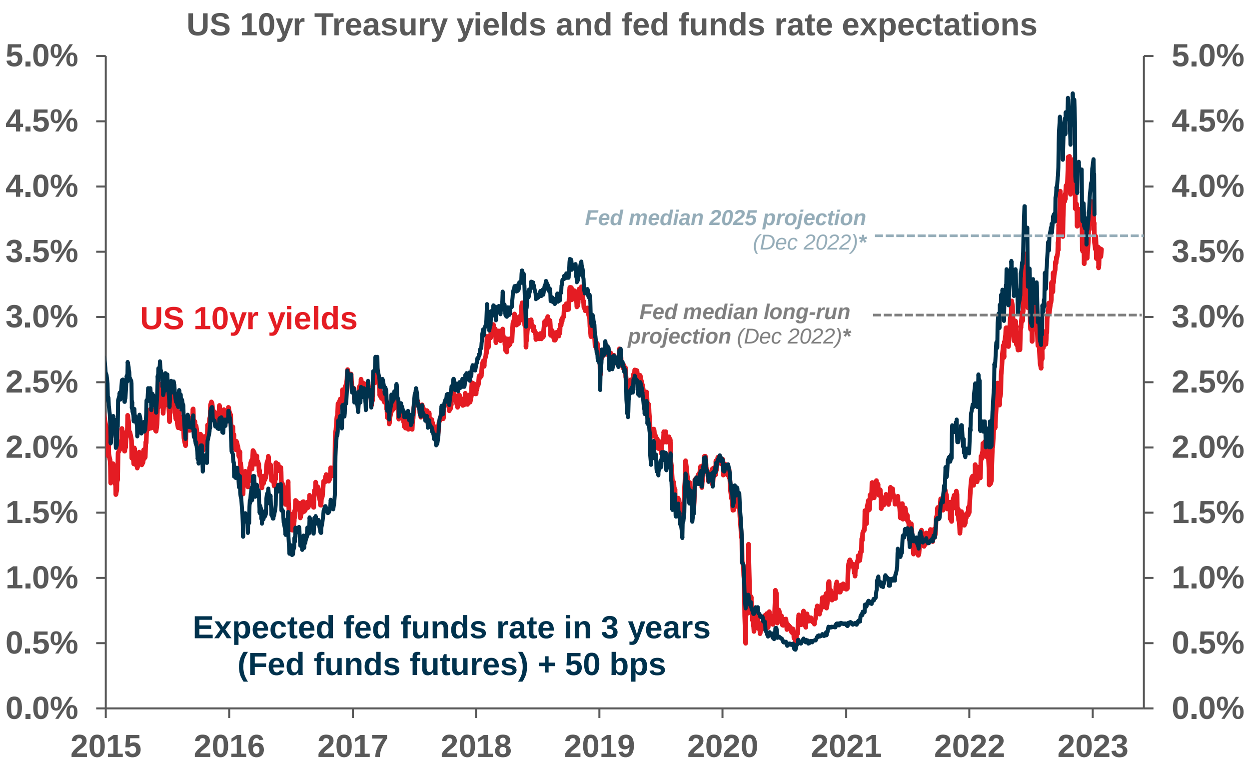
Environment favorable to bond outperformance…



CIO Office (data via Refinitiv). *MSCI World vs U.S. 10y Treasury bonds.

… with bond yields reasonably priced



 | CIO Office (data via Refinitiv)

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Three key takeaways

#1 What to monitor? Labor market conditions, Fed guidance

#2 Base-case scenario Lower inflation, central banks’ pause, growth stagnation

#3 Markets High volatility, caution, resilience

Questions?

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