



School and Institutional  
Trust Funds Office



## SITFO Summit Agenda | October 6, 2023

Anchor Location: Westgate Park City Resort & Spa, 3000 Canyons Resort Dr, Park City, UT 84098

Webinar Registration: [https://utah-gov.zoom.us/webinar/register/WN\\_qF3dScPaSB0kZ1as0k-8uw](https://utah-gov.zoom.us/webinar/register/WN_qF3dScPaSB0kZ1as0k-8uw)

### Day 2: Navigating Uncertainty & Planning the Future

Time	Event	Presenter(s)	Location
8:00 am	Breakfast	--	Bison 4
9:00 am	Macroeconomic & Geopolitical Panel	SITFO	Bison 3
10:30 am	Break	--	Bison 3
10:45 am	Manager Panel: Income	SITFO	Bison 3
12:00 pm	Lunch	--	Bison 4
1:15 pm	Peers Panel	Albourne	Bison 3
2:45 pm	Closing Remarks	--	Bison 3
3:00 pm	Departure		

*Meals included: B/L*

*Conference Dress Code: Business Casual*

| Global Asset  
Allocation

# The Vice Tightens Further

**Garry Evans**

Chief Global Asset Allocation Strategist

BCA Research

[garry@bcaresearch.com](mailto:garry@bcaresearch.com)



# Recession Postponed – But Not Avoided

- The effects of interest rates staying “high for longer” are starting to be felt. US firms and households are paying the highest rates in 15 years for borrowing.
- The global economy is showing signs of slowdown, with services in Europe following manufacturing into contractionary territory.
- The Fed has tightened policy at the fastest rate since 1980. Although the timing of recession is uncertain, such aggressive tightening has always led to recession.
- We recommend a risk-off portfolio: Underweight equities and credit, neutral cash, and overweight government bonds.
- We are maximum overweight on duration. We do not see 10-year US Treasury yields rising much further. Carry makes government bonds attractive, with big upside in the event of recession. We prefer euro area government bonds to US Treasurys.
- Within equities, we cut Tech to neutral since valuations are stretched and analysts’ forecasts too optimistic. We raise Utilities to overweight to make our portfolio more defensive. We continue to favor US equities over the euro area or EM.
- Within alternatives, we favor Private Credit since yields are in double-digits and lenders are in a strong negotiating position. We are neutral Hedge Funds, but like Directional strategies since the current environment is fertile for long and short stock pickers.
- **Bottom Line:** Stay defensively positioned. Timing recession is difficult, but tight monetary policy points to it beginning in the first half of 2024.

## Recommended Allocation

Global Asset Allocation		–	+
Equities		<input type="checkbox"/>	<input type="checkbox"/>
Fixed Income		<input type="checkbox"/>	<input type="checkbox"/>
Cash		<input type="checkbox"/>	<input type="checkbox"/>
Portfolio Volatility		–	+
GAA Relative To Benchmark		<input type="checkbox"/>	<input type="checkbox"/>
Global Equities*		–	+
US		<input type="checkbox"/>	<input type="checkbox"/>
Euro Area		<input type="checkbox"/>	<input type="checkbox"/>
Japan		<input type="checkbox"/>	<input type="checkbox"/>
Canada		<input type="checkbox"/>	<input type="checkbox"/>
Australia		<input type="checkbox"/>	<input type="checkbox"/>
UK		<input type="checkbox"/>	<input type="checkbox"/>
China		<input type="checkbox"/>	<input type="checkbox"/>
EM Ex China		<input type="checkbox"/>	<input type="checkbox"/>
Global Fixed Income**		–	+
Government		<input type="checkbox"/>	<input type="checkbox"/>
Investment Grade		<input type="checkbox"/>	<input type="checkbox"/>
High-Yield		<input type="checkbox"/>	<input type="checkbox"/>
EM Debt		<input type="checkbox"/>	<input type="checkbox"/>
Duration		<input type="checkbox"/>	<input type="checkbox"/>
Inflation-linked		<input type="checkbox"/>	<input type="checkbox"/>
Global Sectors		–	+
Financials		<input type="checkbox"/>	<input type="checkbox"/>
Info Tech		<input type="checkbox"/>	<input type="checkbox"/>
Healthcare		<input type="checkbox"/>	<input type="checkbox"/>
Communications Serv.		<input type="checkbox"/>	<input type="checkbox"/>
Industrials		<input type="checkbox"/>	<input type="checkbox"/>
Consumer Disc.		<input type="checkbox"/>	<input type="checkbox"/>
Consumer Staples		<input type="checkbox"/>	<input type="checkbox"/>
Energy		<input type="checkbox"/>	<input type="checkbox"/>
Materials		<input type="checkbox"/>	<input type="checkbox"/>
Real Estate		<input type="checkbox"/>	<input type="checkbox"/>
Utilities		<input type="checkbox"/>	<input type="checkbox"/>
Private Markets & Alternatives		–	+
Hedge Funds		<input type="checkbox"/>	<input type="checkbox"/>
Real Estate		<input type="checkbox"/>	<input type="checkbox"/>
Private Equity		<input type="checkbox"/>	<input type="checkbox"/>
Private Credit		<input type="checkbox"/>	<input type="checkbox"/>
Farmland/Timberland		<input type="checkbox"/>	<input type="checkbox"/>
Structured Products		<input type="checkbox"/>	<input type="checkbox"/>
Commodities		<input type="checkbox"/>	<input type="checkbox"/>
Gold		<input type="checkbox"/>	<input type="checkbox"/>
Currencies		–	+
USD		<input type="checkbox"/>	<input type="checkbox"/>
EUR		<input type="checkbox"/>	<input type="checkbox"/>
JPY		<input type="checkbox"/>	<input type="checkbox"/>
GBP		<input type="checkbox"/>	<input type="checkbox"/>
AUD		<input type="checkbox"/>	<input type="checkbox"/>
CAD		<input type="checkbox"/>	<input type="checkbox"/>
CHF		<input type="checkbox"/>	<input type="checkbox"/>
CNY		<input type="checkbox"/>	<input type="checkbox"/>
EM Currencies		<input type="checkbox"/>	<input type="checkbox"/>

\* RELATIVE TO MSCI ACWI (UNHEDGED).

\*\* RELATIVE TO BLOOMBERG BARCLAYS GLOBAL AGGREGATE.

TABLE OF CONTENTS		PAGE
1.	Recommended Allocation	3
2.	Global Overview	4
3.	US Economy	9
4.	Europe	14
5.	Japan	18
6.	Canada	20
7.	Australia	21
8.	Emerging Markets	22
9.	China	25
10.	Equities	26
11.	Fed Policy	30
12.	Fixed Income	31
13.	Currencies	37
14.	Commodities	38
15.	Private Markets & Alternatives	41
16.	MacroQuant Model	42
17.	Long-Term Themes	44
18.	Past 12-Months Performance	47

## Recommended Asset Allocation

### Model Portfolio (USD Terms)

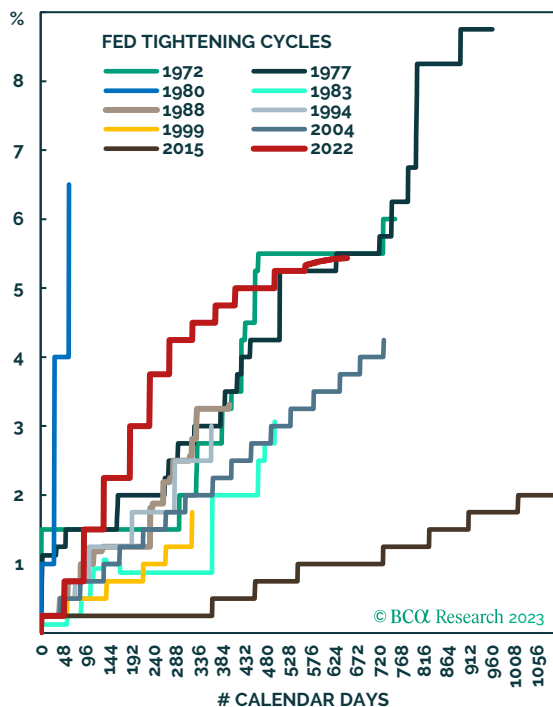
Asset Class Selection				
	Allocation	Benchmark Weighting	Active Weight	
Equities	46.0%	50.0%	Underweight	Continued risk of recession
Bonds*	51.5%	47.5%	Overweight	Yields are close to a peak and bonds are a recession hedge
Cash	2.5%	2.5%	Neutral	Bonds perform better than cash when growth and inflation are slowing
Portfolio Volatility				
	Allocation	Benchmark Weighting	Active Weight	
Volatility	9.42%	9.85%	Underweight	Risk of recession is high; too much uncertainty to be risk-on
Equity Allocation By Country/Region				
	Allocation	Benchmark Weighting	Active Weight	
US	68.8%	65.8%	Overweight	Fundamentals better than other DMs
Euro Area	4.3%	8.3%	Underweight	Economy likely to weaken further
Japan	5.9%	5.9%	Neutral	Cheap and unloved; bounce could continue
UK	4.9%	3.9%	Overweight	Defensive market, with particularly high weight in Cons Staples
Canada	3.0%	3.0%	Neutral	Close link to oil price
Australia	2.9%	2.9%	Neutral	Would benefit from a rise in metals prices on expectations of Chinese stimulus
China	2.3%	3.3%	Underweight	Decline in governance has increased the risk premium
Other EM	7.9%	7.9%	Neutral	Cheapest since 2012; fundamentals have improved
Global Bond Allocation*				
	Allocation	Benchmark Weighting	Active Weight	
Government	75.6%	68.8%	Overweight	Rates are close to a peak and fall in recession
Investment Grade	20.2%	24.2%	Underweight	Not attractively valued
High-Yield	2.3%	5.2%	Underweight	Valuations are not attractive given the deteriorating credit environment
EM Debt	1.9%	1.9%	Neutral	Some value in EM debt, in countries where tightening is advanced
Global Sector Allocation				
	Allocation	Benchmark Weighting	Active Weight	
Financials	13.8%	15.8%	Underweight	Non-performing loans likely to rise
Info Tech	21.4% <del>24.3%</del>	21.4%	Neutral	AI theme to continue for a while but sector now expensive
Health Care	12.9%	11.9%	Overweight	Demand benefits from an aging population in DM and growing middle class in EM but political risks rising
Consumer Discretionary	9.1%	11.1%	Underweight	Expensive and vulnerable to decline in consumer spending
Industrials	10.4%	10.4%	Neutral	Structural story strong, but capex may weaken now
Communication Services	7.6% <del>6.8%</del>	7.6%	Neutral	Valuations and earnings forecasts now reasonable
Consumer Staples	7.1%	7.1%	Neutral	Expensive after last year's run-up
Energy	6.3%	5.3%	Overweight	Oil price has upside
Materials	5.5%	4.5%	Overweight	Strong structural demand for metals would benefit if China moves towards stimulus
Utilities	4.0% <del>2.8%</del>	2.6%	Overweight	Typically does well when bonds outperform equities
Real Estate	1.9%	2.3%	Underweight	Inflation hedge, but CRE is structurally challenged

\* BASED ON BCA CALCULATIONS.

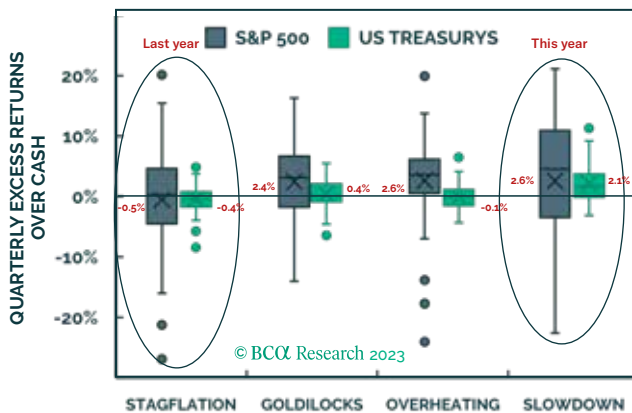
# Overview

## Recession Checklist

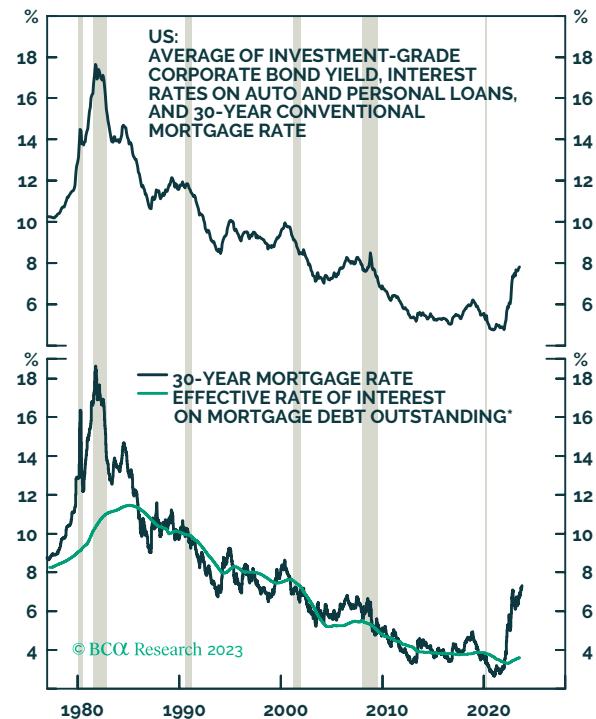
	Note
Inverted yield curve	✓ 10/2-year and 10-year/ 3-months yield curves inverted
Rise in credit spreads	? HY spreads widened by 116 BPs
Fed Funds Rate above neutral	✓ From November 2022
Significant decline in global PMIs	✓ Already below 50
Cyclical spending as % of GDP	✓ Seems to have peaked
Peak in profit margins	✓ Seem to have peaked



2022 CYCLE INCLUDES MARKET EXPECTATIONS OF FUTURE RATE HIKES.

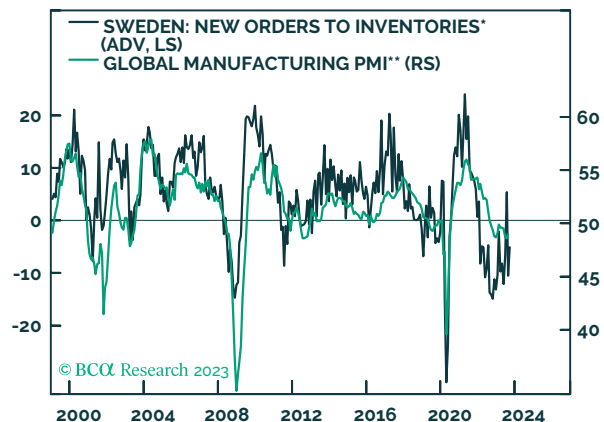


BASED ON DATA FROM BLOOMBERG/BARCLAYS AND S&P. DATA SINCE 1960. THE UPPER AND LOWER EDGES OF THE BOXES REPRESENT THE THIRD AND FIRST QUANTILES OF THE RETURN DISTRIBUTION RESPECTIVELY. THE LINE IN THE MIDDLE OF THE BOX REPRESENT THE MEDIAN, WHILE THE X REPRESENT THE DISTRIBUTION'S AVERAGE. AVERAGE NUMBER IS ALSO SHOWN IN RED. THE POINTS OUTSIDE OF THE BOX AND WHISKER PLOTS REPRESENT OUTLIERS (I.E. POINTS ABOVE/BELOW THE THIRD/QUARTILE BY 1.5 TIMES THE INTERQUARTILE RANGE).



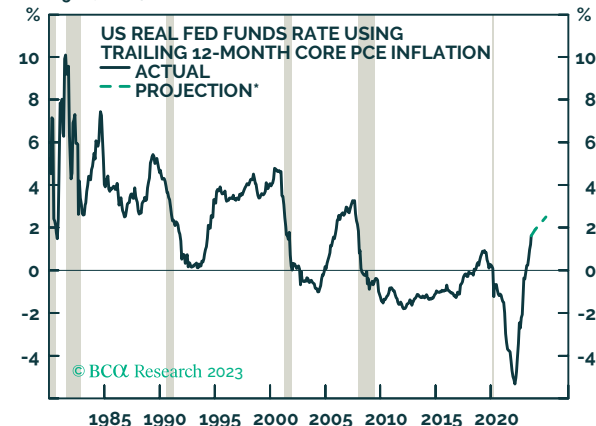
\* SOURCE: BUREAU OF ECONOMIC ANALYSIS (BEA).

NOTE: SHADED AREAS DENOTE NBER-DESIGNATED RECESSIONS



\* SOURCE: SWEDBANK AND SILF.

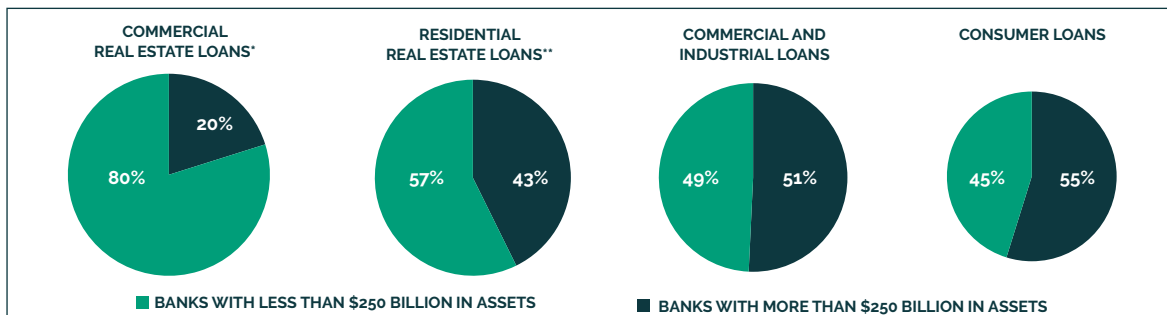
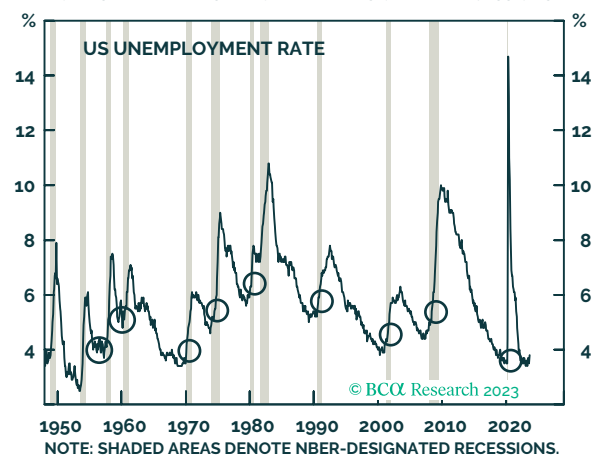
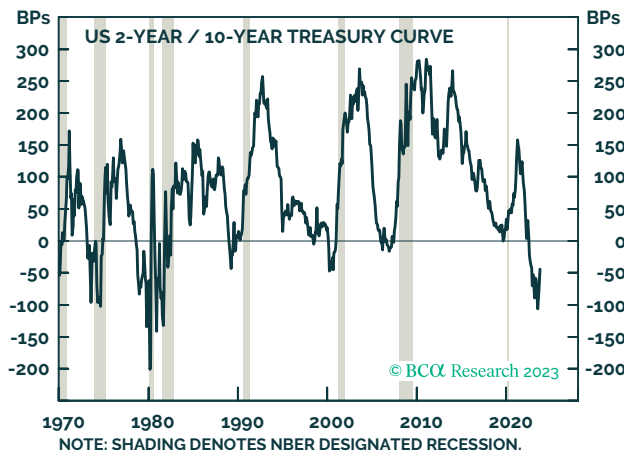
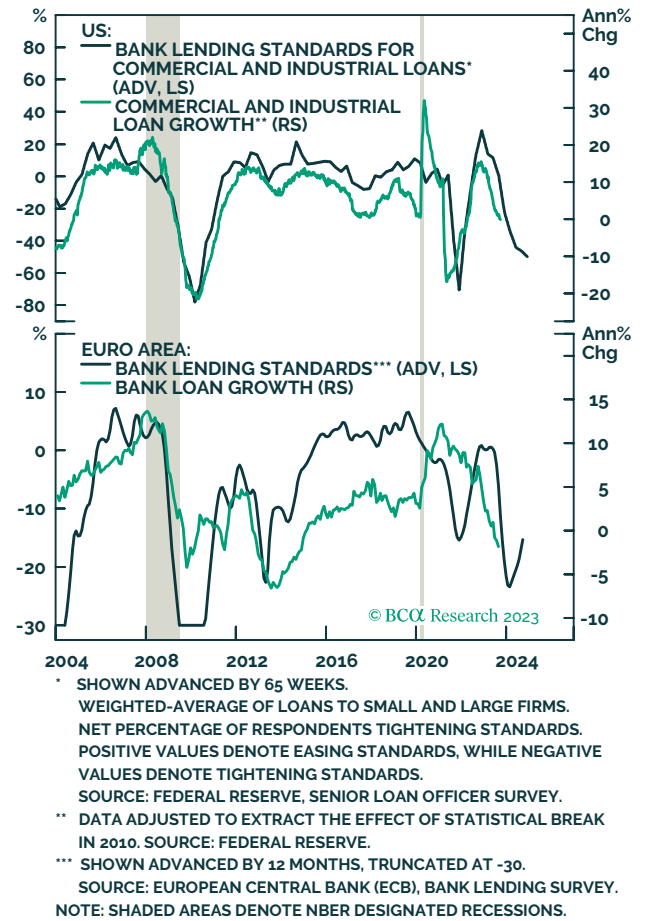
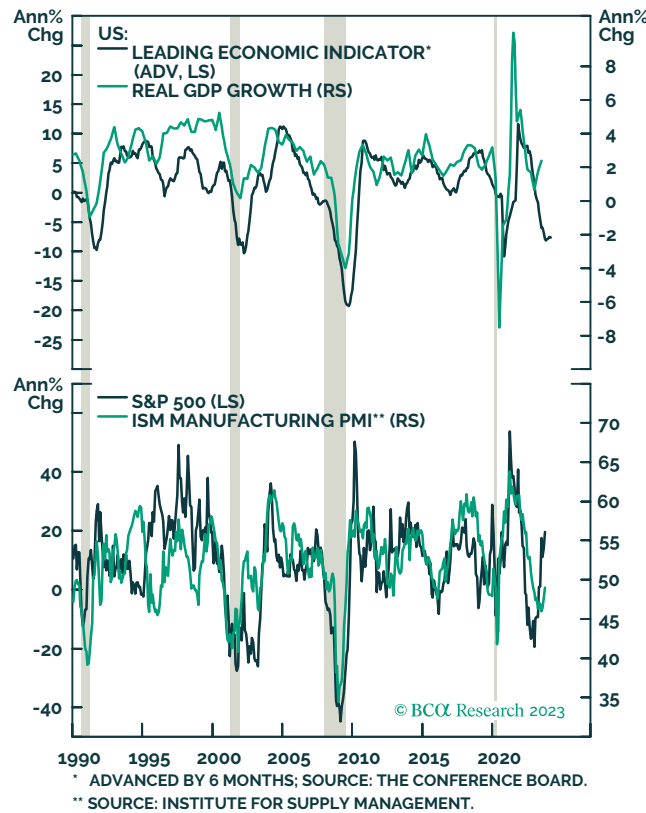
\*\* SOURCE: JPMORGAN, S&P GLOBAL MARKET INTELLIGENCE. SHOWN AS A 2-MONTH MOVING AVERAGE AND ADVANCED BY 5 MONTHS.



\* SOURCE: FOMC PROJECTION AND BCA CALCULATION.

NOTE: SHADED AREAS DENOTE NBER-DESIGNATED RECESSIONS.

## Current Situation



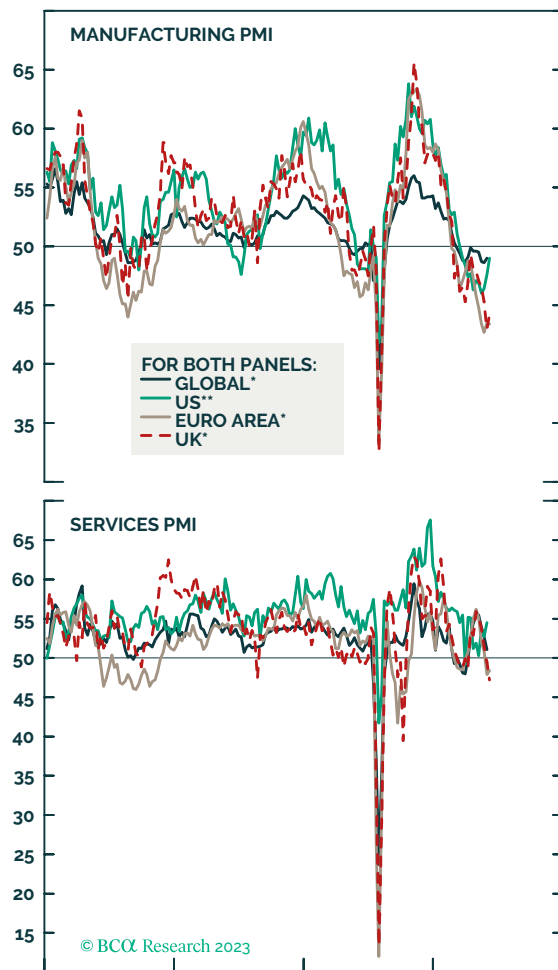
\* INCLUDES COMMERCIAL, MULTI-FAMILY RESIDENTIAL, CONSTRUCTION & LAND DEVELOPMENT, AND FARMLAND REAL ESTATE LOANS. © BCQ Research 2023

\*\* INCLUDES SINGLE-FAMILY REAL ESTATE LOANS.

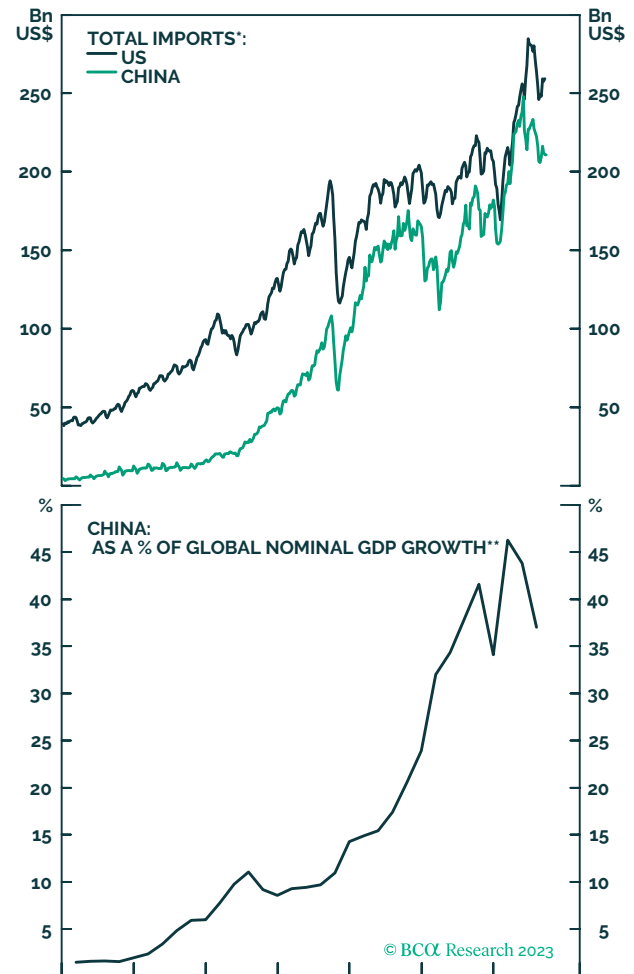
NOTE: DATA AS OF Q4 2022. INCLUDES ALL FDIC-INSURED INSTITUTIONS (COMMERCIAL BANKS AND SAVINGS INSTITUTIONS).

SOURCE: BCA CALCULATIONS BASED ON FEDERAL DEPOSIT INSURANCE CORPORATION (FDIC) DATA.

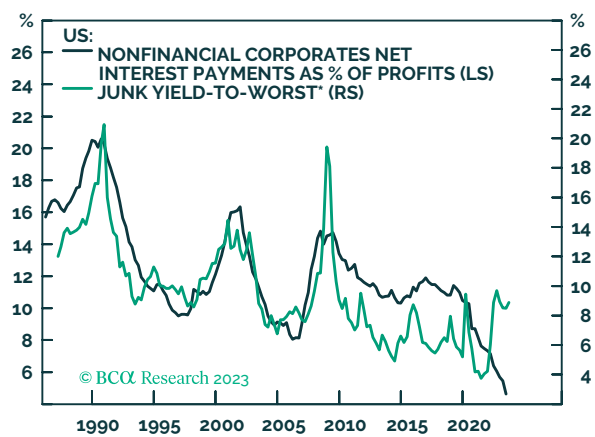
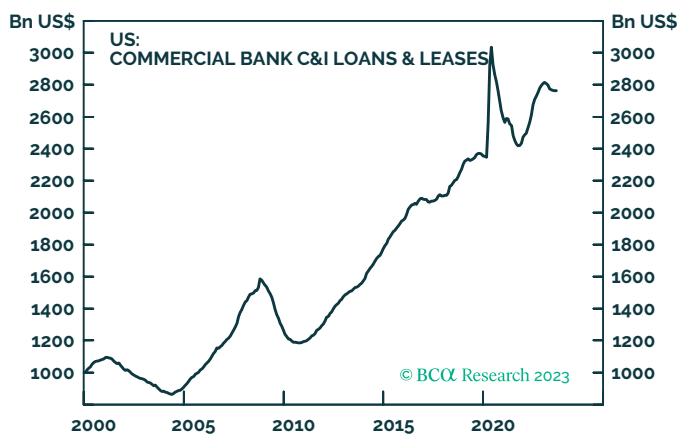
## Cyclical Indicators



\* SOURCE: S&P GLOBAL / MARKIT ECONOMICS LTD.  
 \*\* SOURCE: INSTITUTE FOR SUPPLY MANAGEMENT.



\* BOTH SERIES SHOWN AS A 3-MONTH MOVING AVERAGE.  
 \*\* IN USD TERMS. SHOWN AS A 10-YEAR AVERAGE.  
 SOURCE: WORLD BANK.

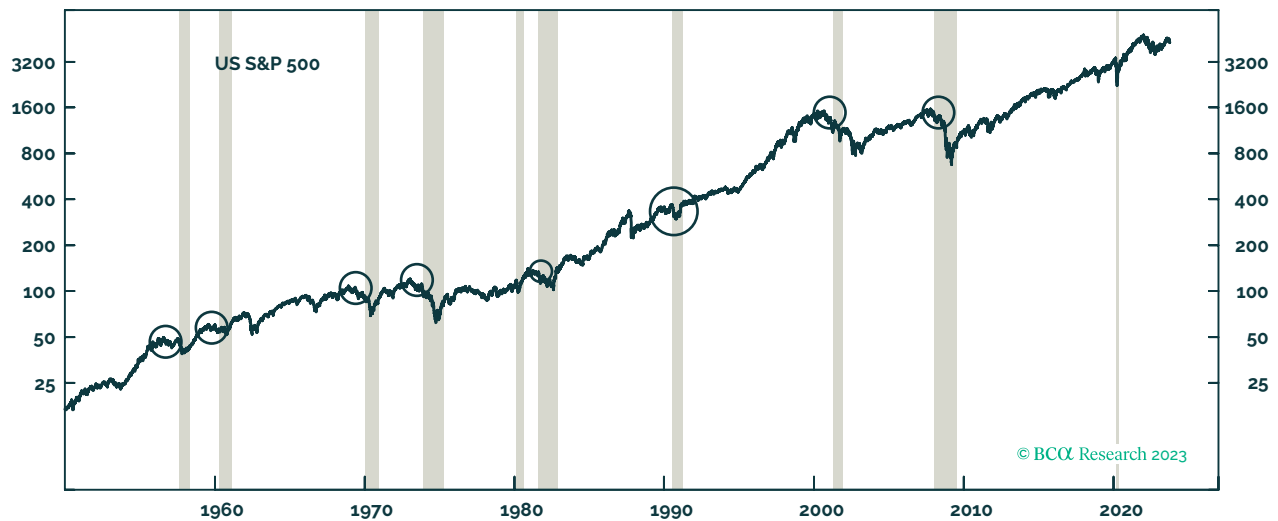


\* SOURCE: BLOOMBERG INDICES.



## Bear Markets & Recessions

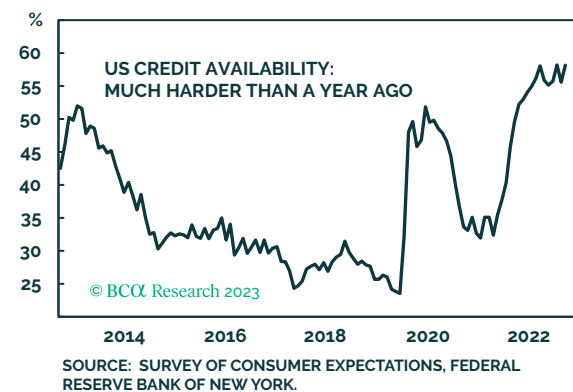
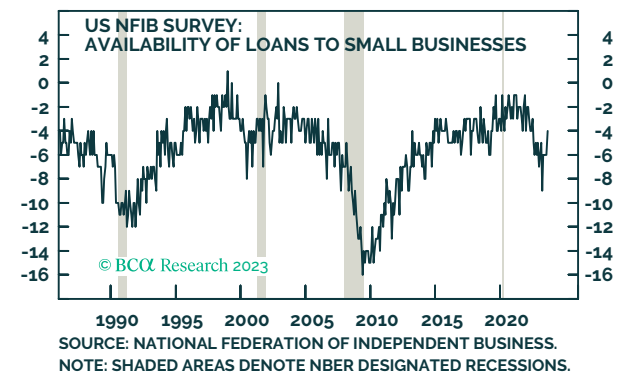
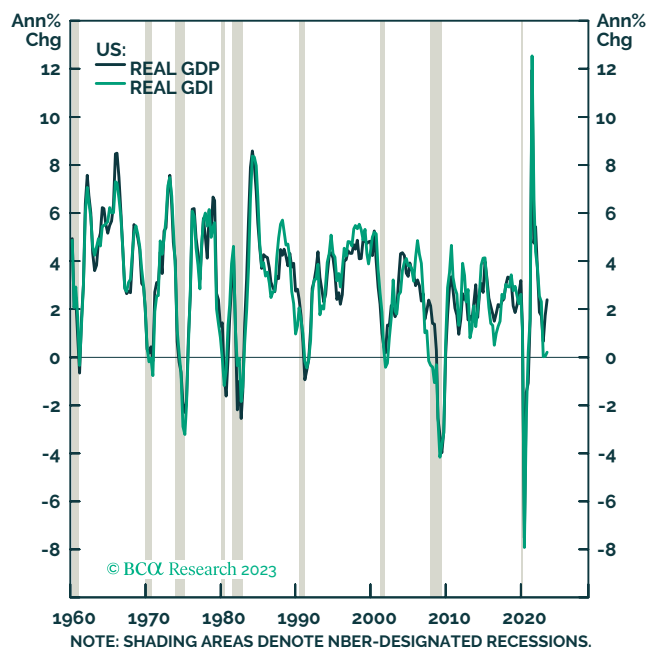
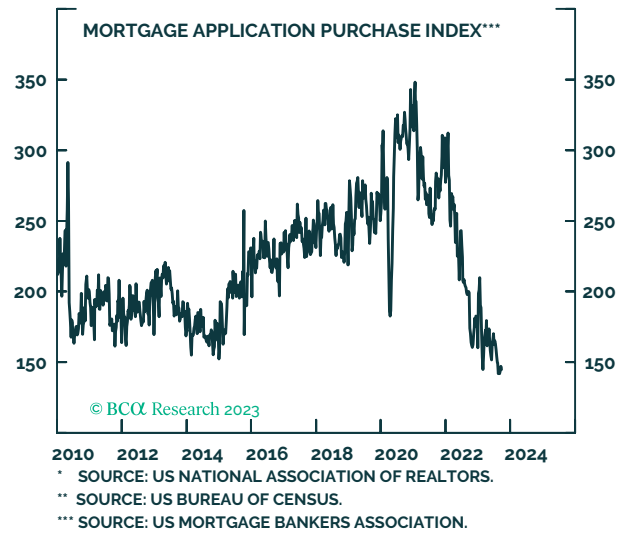
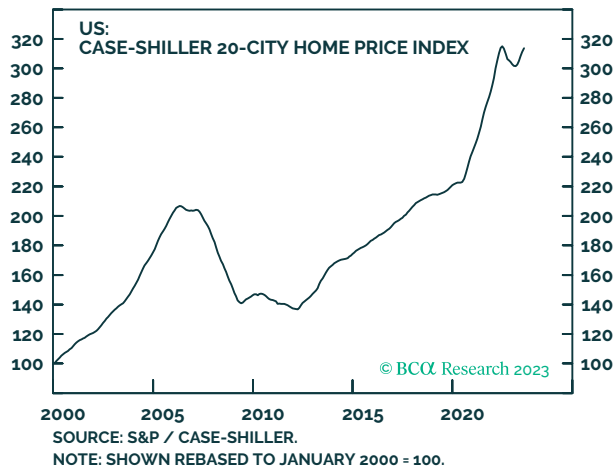
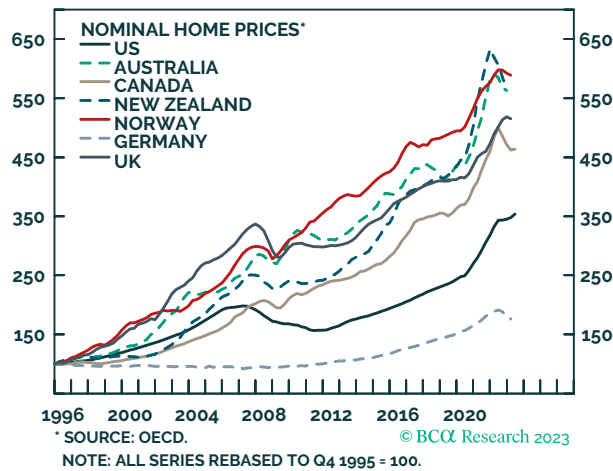
Recession Start	S&P500 Peak	Stock Peak Vs. Recession Start (Months)	Recession End	S&P500 Bottom	Stock Bottom Vs. Recession End (Months)
Jul/1953	Jan/1953	-6	May/1954	Sep/1953	-8
Aug/1957	Feb/1957	-6	Apr/1958	Dec/1957	-4
Apr/1960	Dec/1959	-4	Feb/1961	Oct/1960	-4
Dec/1969	Dec/1968	-12	Nov/1970	Jun/1970	-5
Nov/1973	Jan/1973	-10	Mar/1975	Sep/1974	-6
Jan/1980	Feb/1980	1	Jul/1980	Mar/1980	-4
Jul/1981	Nov/1980	-8	Nov/1982	Jul/1982	-4
Jul/1990	Jun/1990	-1	Mar/1991	Oct/1990	-5
Mar/2001	Aug/2000	-7	Nov/2001	Sep/2002	10
Dec/2007	Oct/2007	-2	Jun/2009	Feb/2009	-4
Feb/2020	Jan/2020	-1	Apr/2020	Mar/2020	-1
<b>Average</b>		-5			-3
<b>Median</b>		-6			-4
<b>Median past 40 years</b>		-2			-3



START OF THE RECESSION	END OF THE RECESSION	MONTHS	MONTHS SINCE PREVIOUS RECESSION	TROUGH TO PEAK RISE IN UNEMPLOYMENT (PPTS)	PEAK UNEMPLOYMENT RATE (%)	GDP DECLINE PEAK TO TROUGH (%)	SEVERITY	BOTTOM FOR S&P500	MONTHS VS. RECESSION END
FEB-45	OCT-45	8	80	N/A	5.2	-12.7	1.9		
NOV-48	OCT-49	11	37	4.5	7.9	-1.7	2	JUN-49	-4
JUL-53	MAY-54	10	45	3.6	6.1	-2.6	1.5	SEP-53	-8
AUG-57	APR-58	8	39	3.8	7.5	-3.7	1.4	DEC-57	-4
APR-60	FEB-61	10	24	2.3	7.1	-1.6	0.8	OCT-60	-4
DEC-69	NOV-70	11	107	2.7	6.1	-0.6	1	JUN-70	-5
NOV-73	MAR-75	16	36	4.2	9	-3.2	3.2	SEP-74	-6
JAN-80	JUL-80	6	58	2.2	7.8	-2.2	0	MAR-80	-4
JUL-81	NOV-82	16	12	3.6	10.8	-2.7	2.9	JUL-82	-4
JUL-90	MAR-91	8	93	2.8	7.8	-1.4	0.5	OCT-90	-5
MAR-01	NOV-01	8	121	2.5	6.3	-0.3	0.2	SEP-02	10
DEC-07	JUN-09	18	73	5.6	10	-5.1	4.6	FEB-09	-4
FEB-20	APR-20	2	129	11.2	14.7	-19.2	5.9	MAR-20	-1
<b>MEDIAN</b>		10	58	3.6	7.8	-2.6			-4
<b>MEAN</b>		10	66	4.1	8.2	-4.4			-3

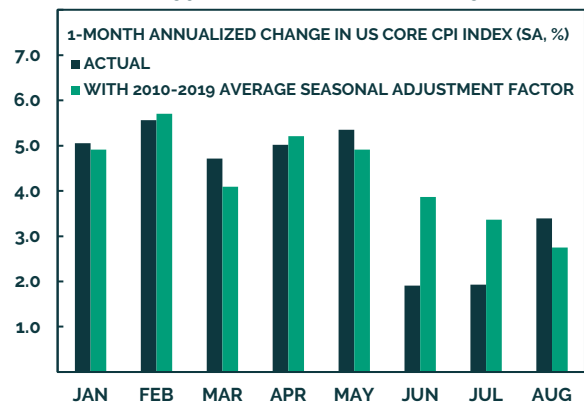
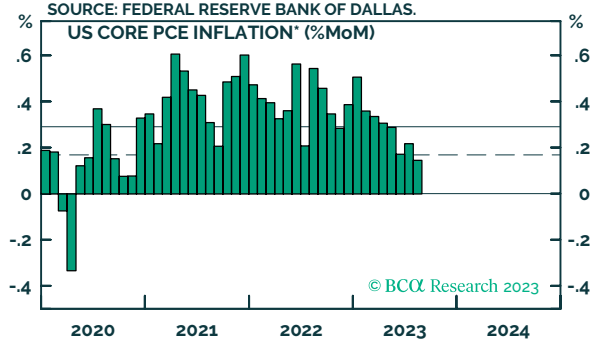
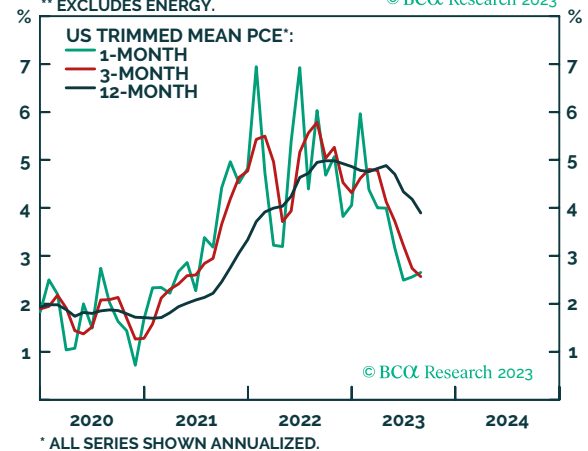
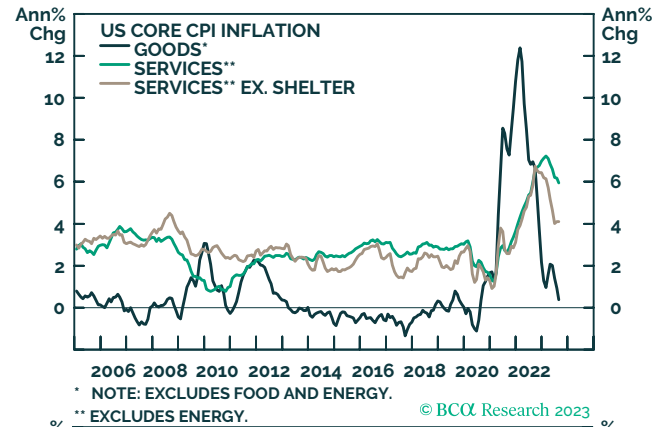
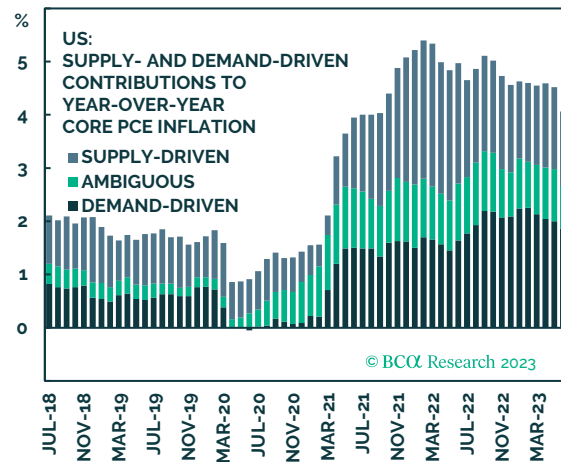
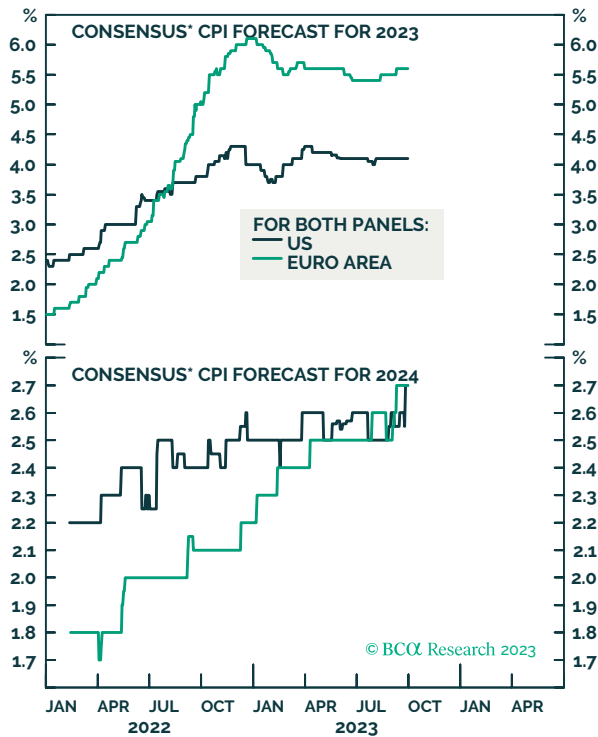
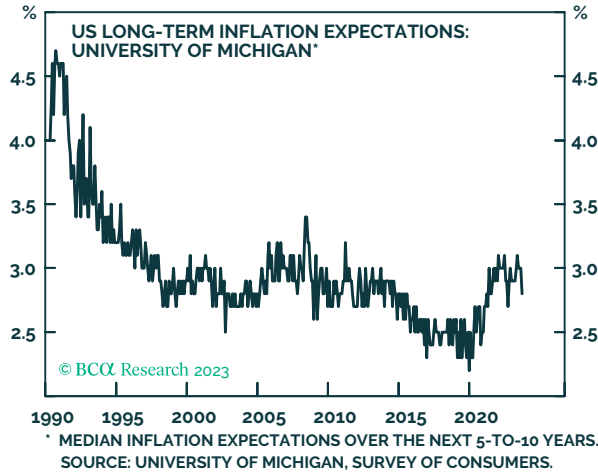
NOTE: SEVERITY IS CALCULATED AS THE STANDARDIZED LENGTH OF THE RECESSION, RISE IN UNEMPLOYMENT (PEAK UNEMPLOYMENT FOR 1945), AND GDP DECLINE COMPARED TO THE HISTORICAL AVERAGE. THE HIGHER THE SCORE, THE MORE SEVERE THE RECESSION. EXPRESSED RELATIVE TO THE MILDEST RECESSION (1980).

## Risks

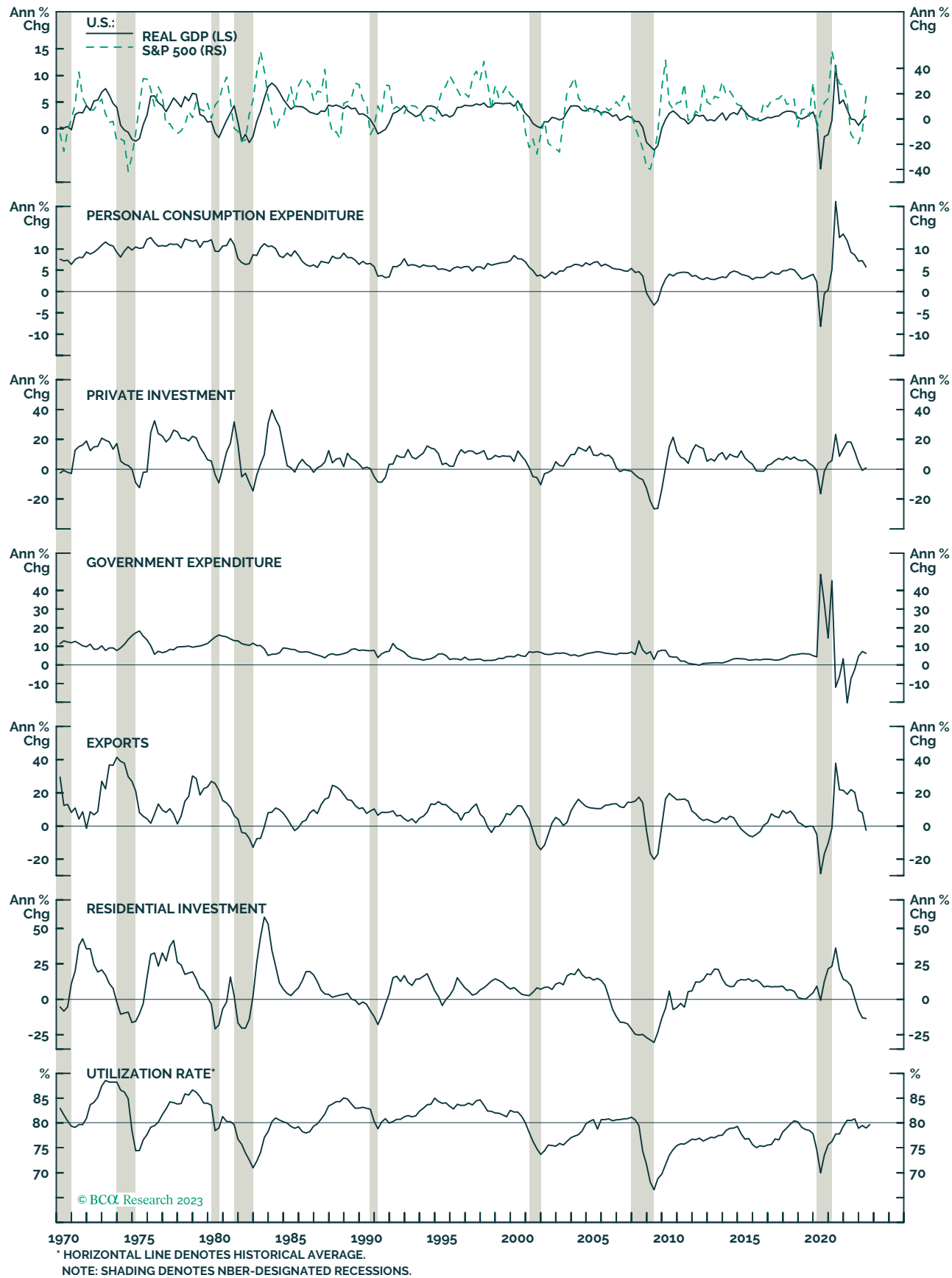


# US Economy

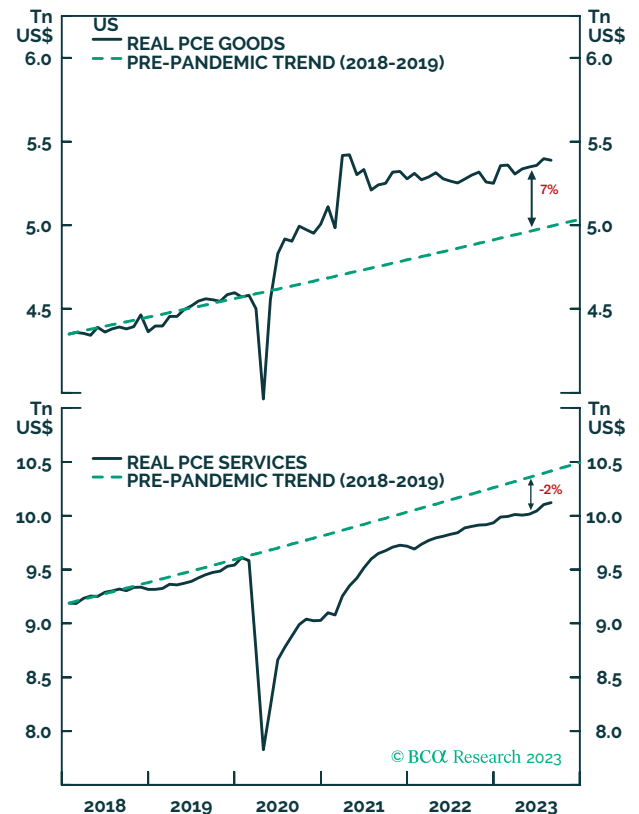
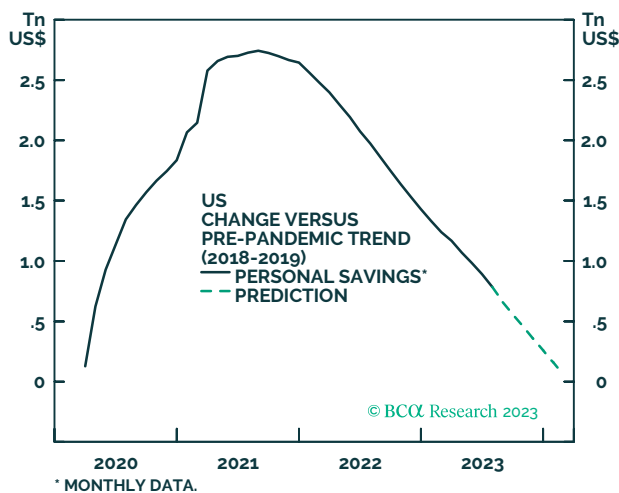
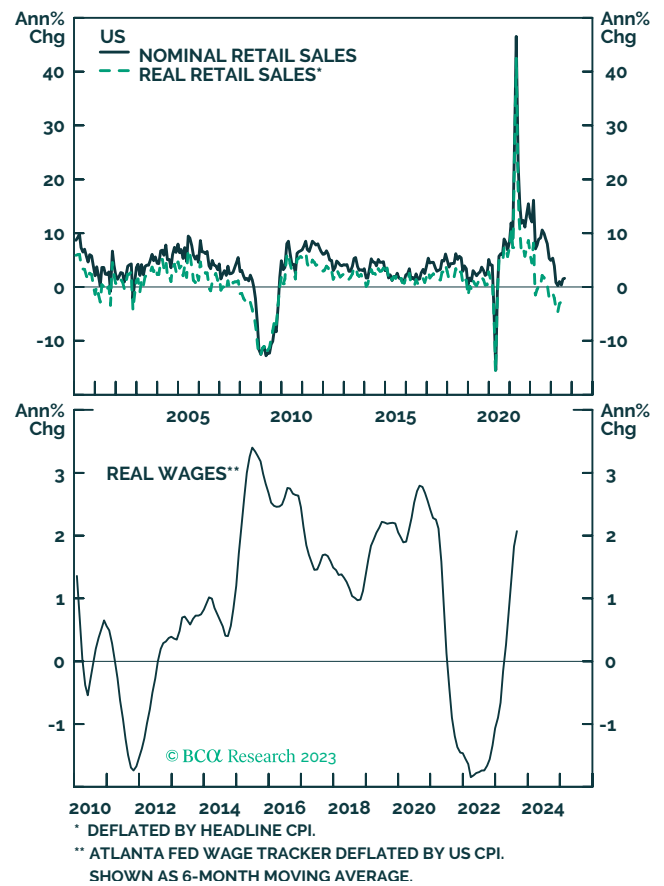
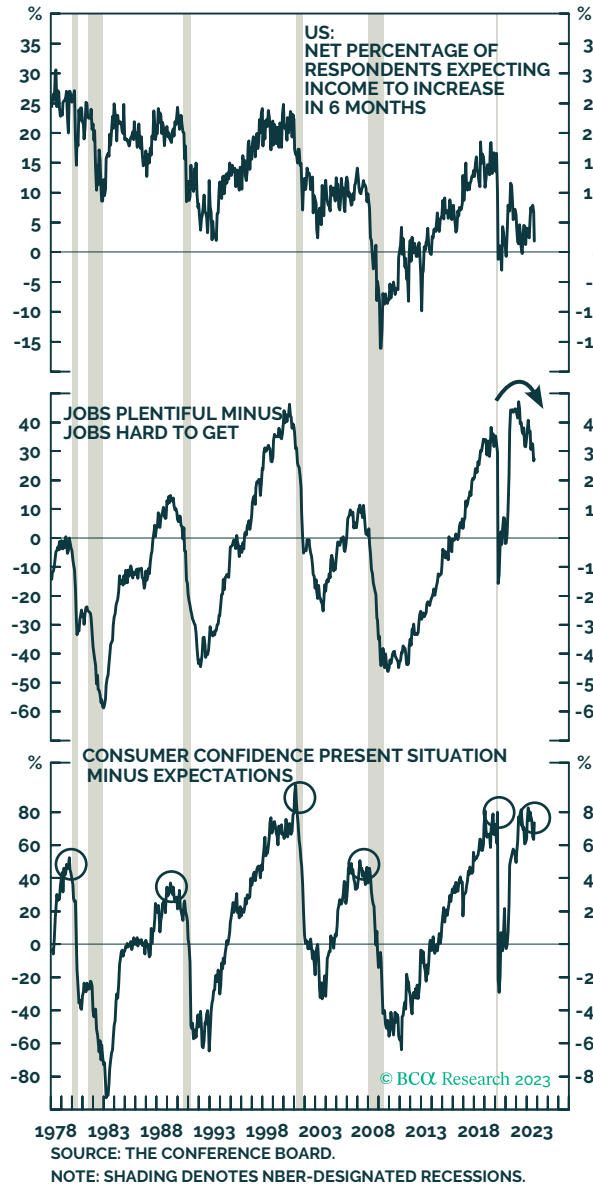
## Inflation Outlook



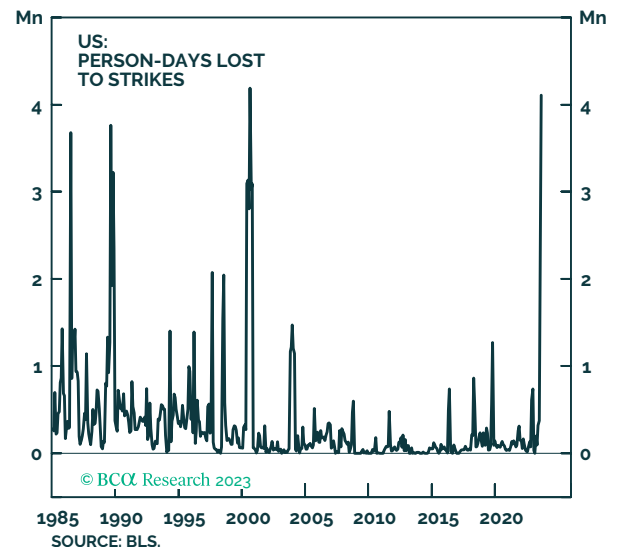
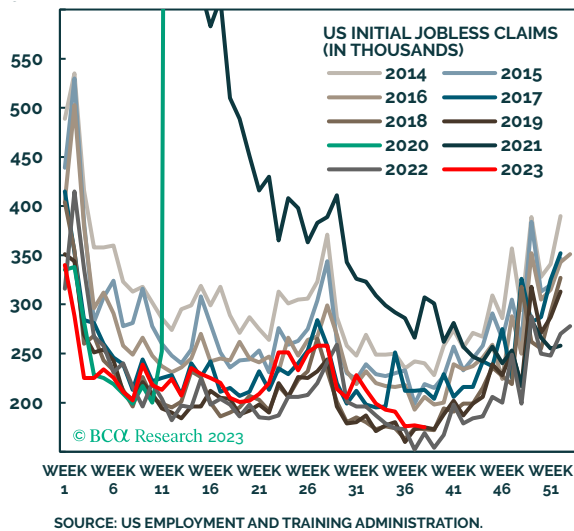
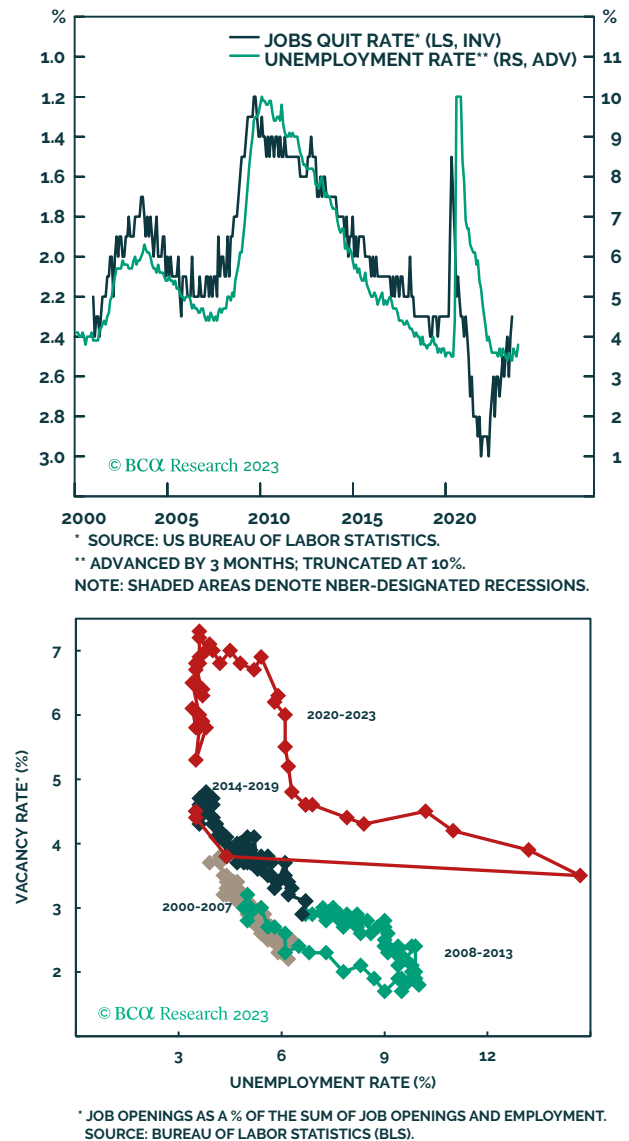
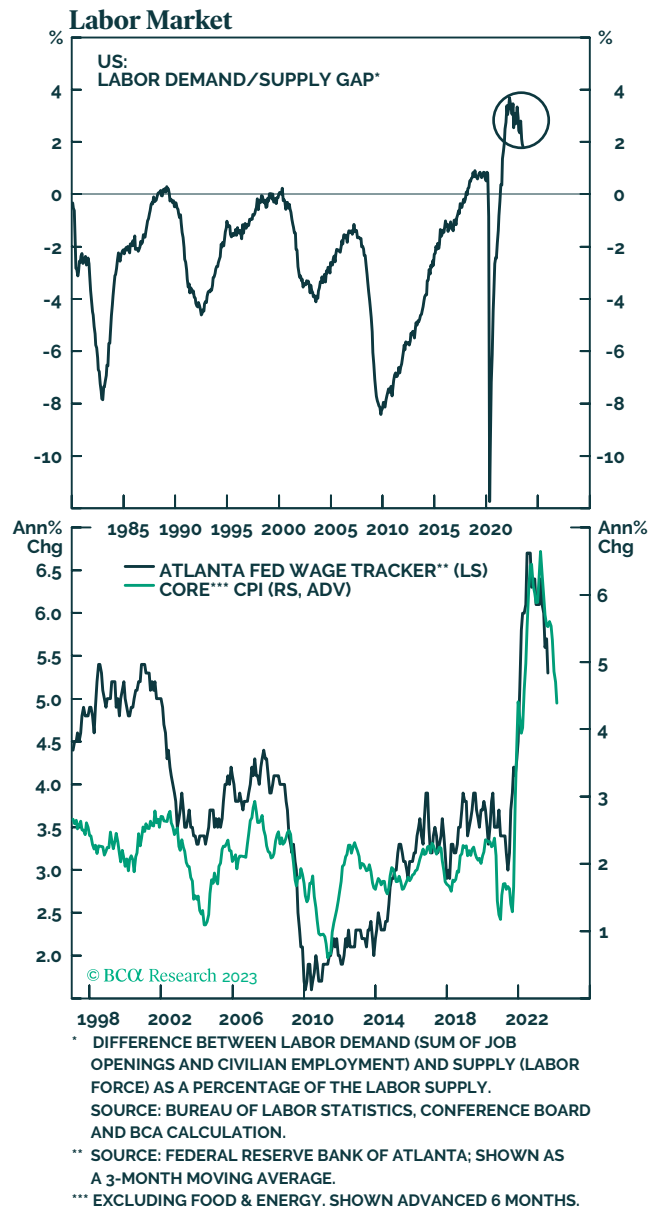
# US GDP



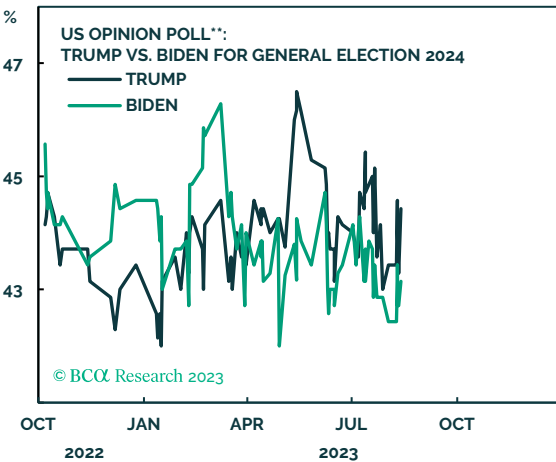
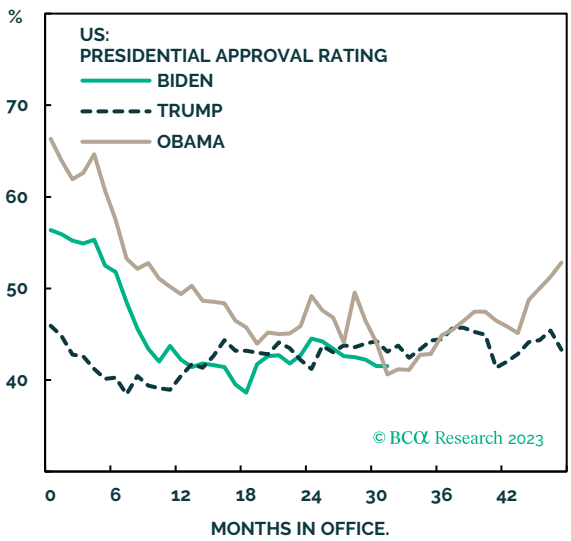
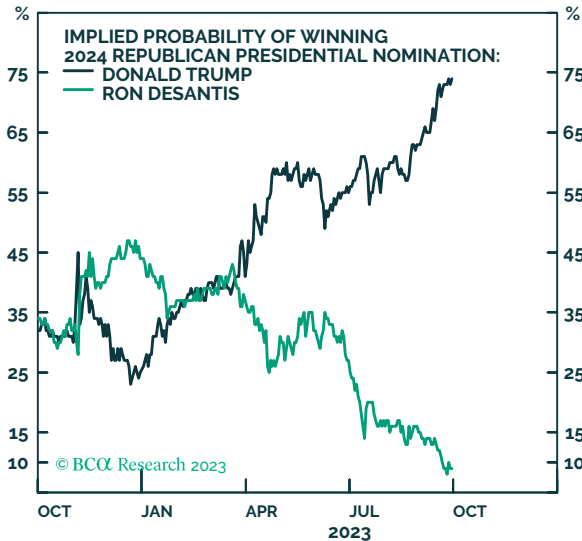
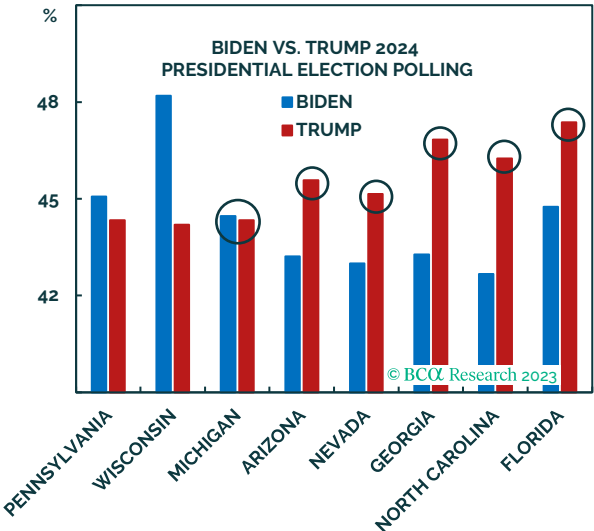
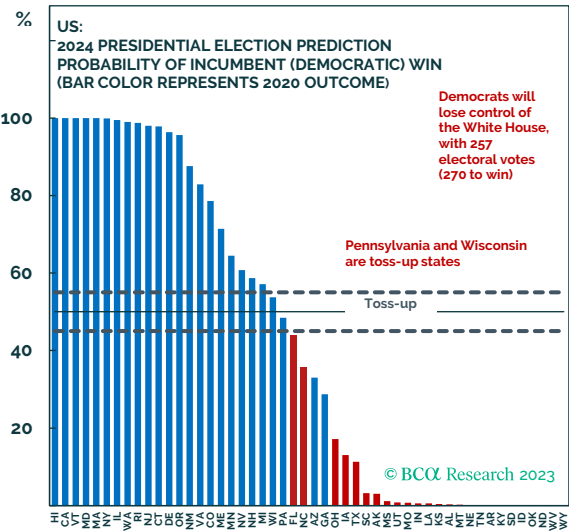
# US Consumption



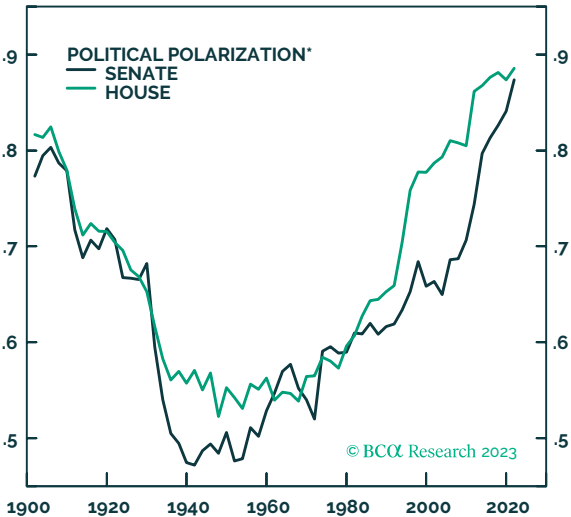
## US Employment



# US Politics

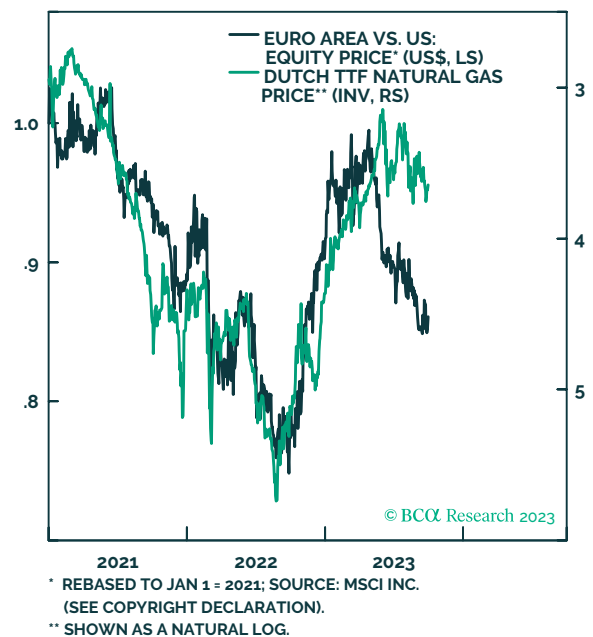
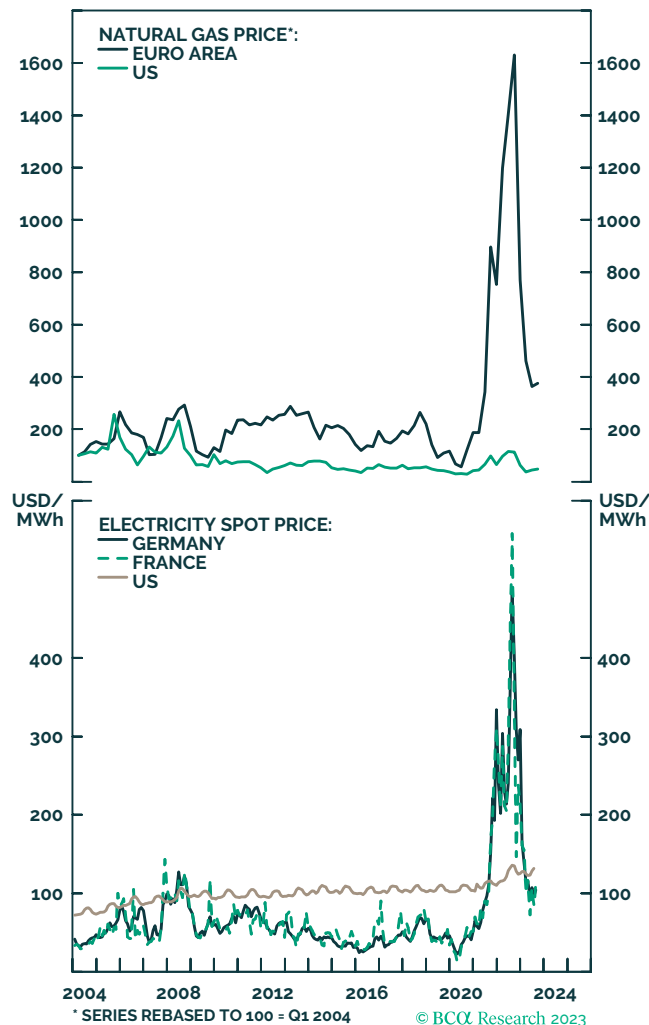
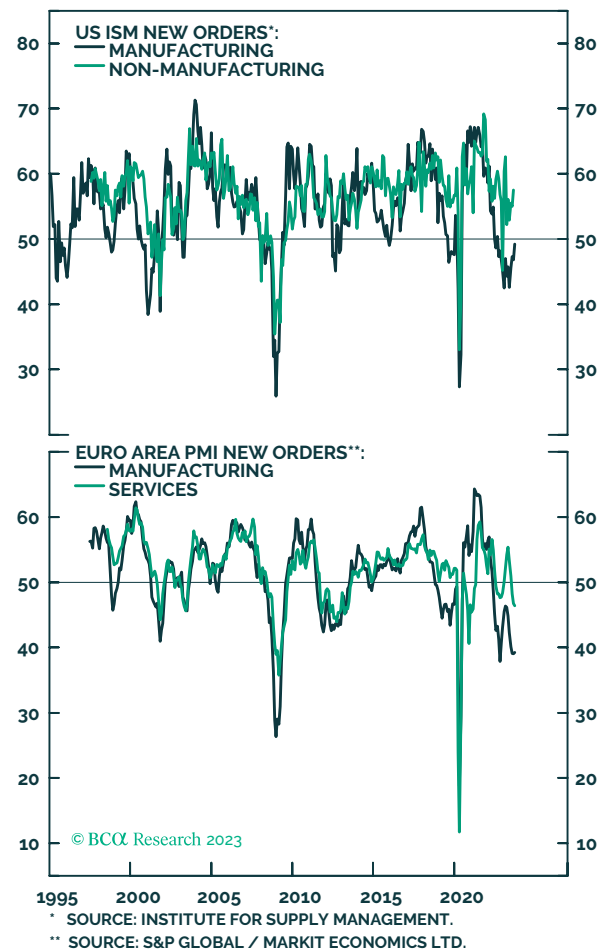
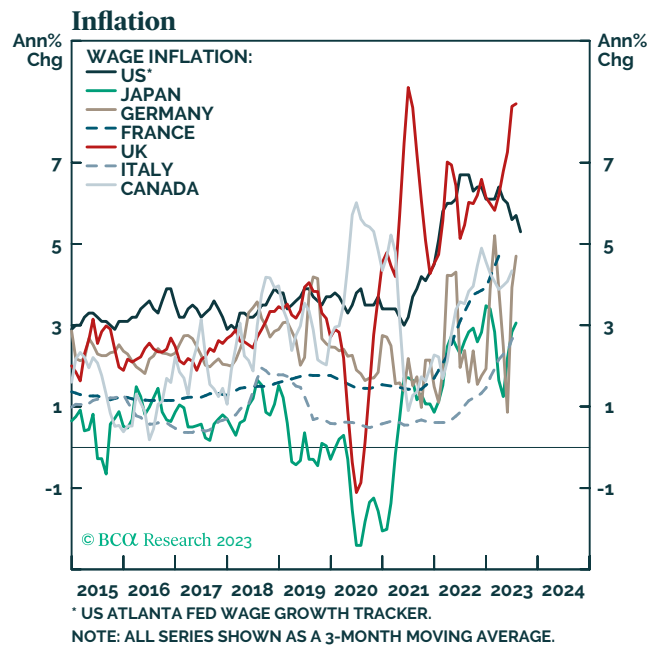


SOURCE: REALCLEARPOLITICS AND AMERICAN PRESIDENCY PROJECT.



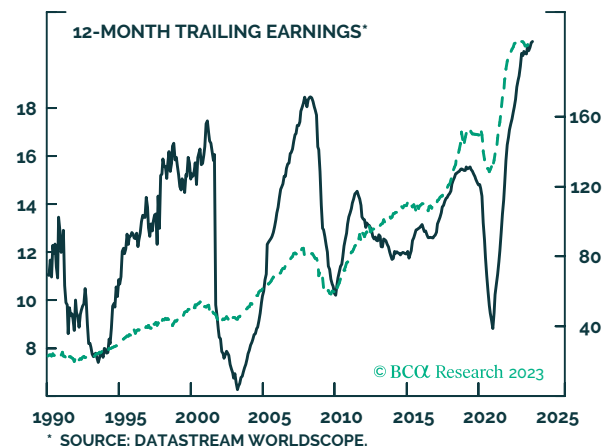
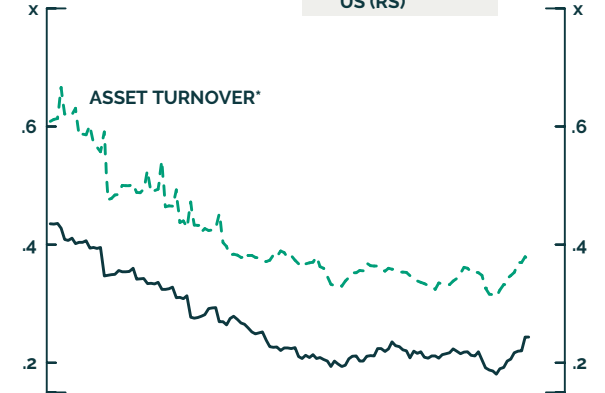
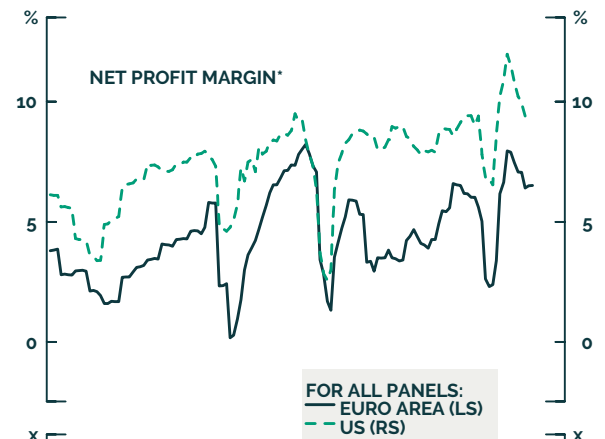
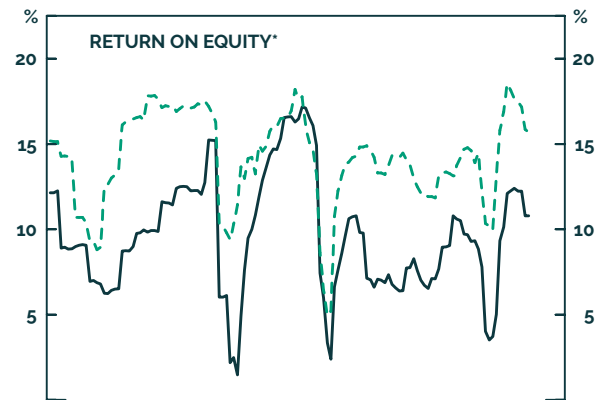
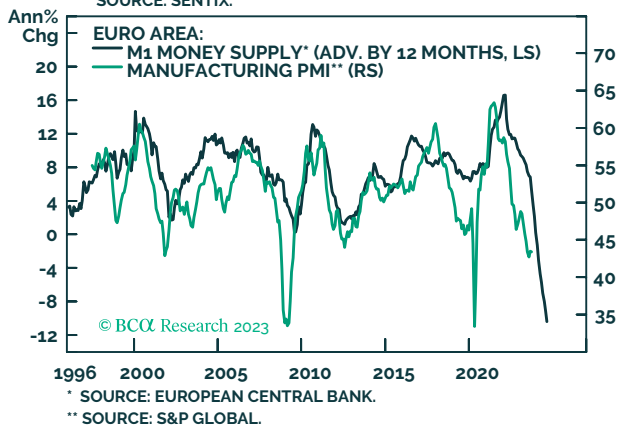
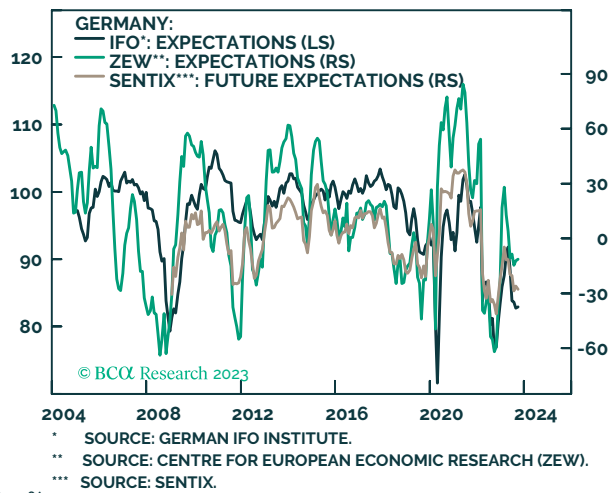
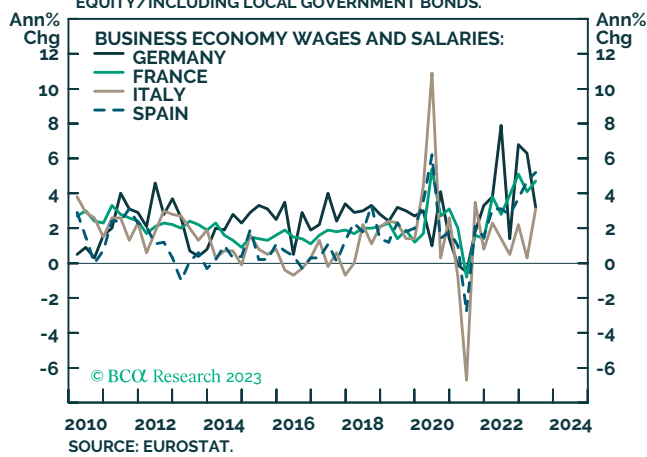
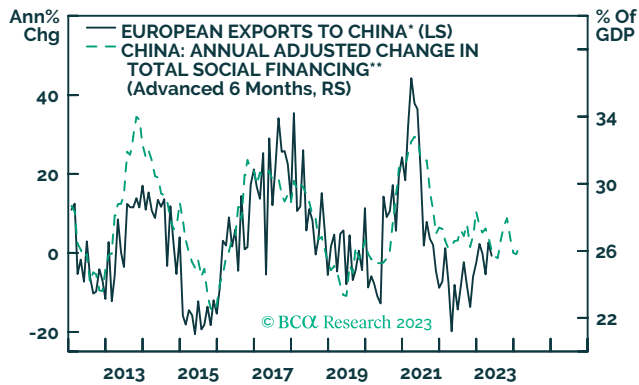
\* MEAN DIFFERENCE BETWEEN THE PARTIES ON THE LIBERAL-CONSERVATIVE DIMENSION IN THE SENATE AND THE HOUSE. SOURCE: LEWIS, JEFFREY B., KEITH POOLE, HOWARD ROSENTHAL, ADAM BOCHE, AARON RUDKIN, AND LUKE SONNET (2020). VOTEVIEW.ORG.

# Europe Economy



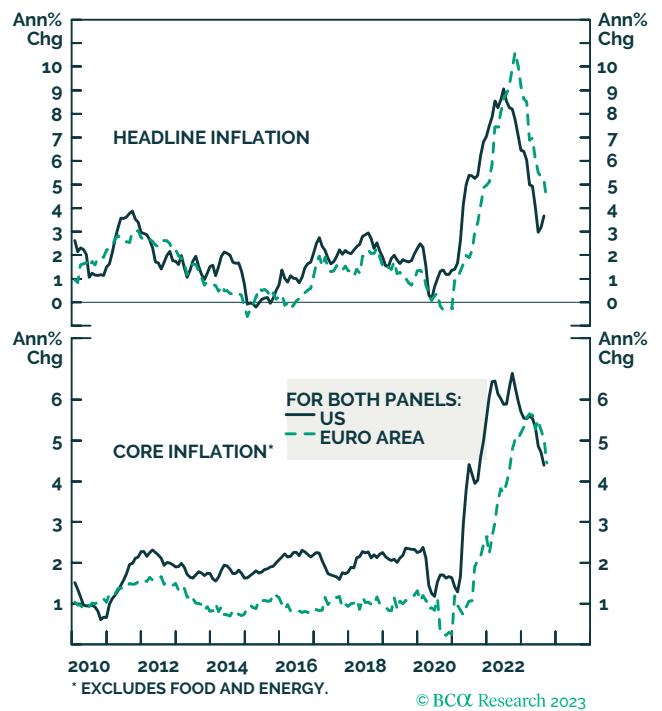
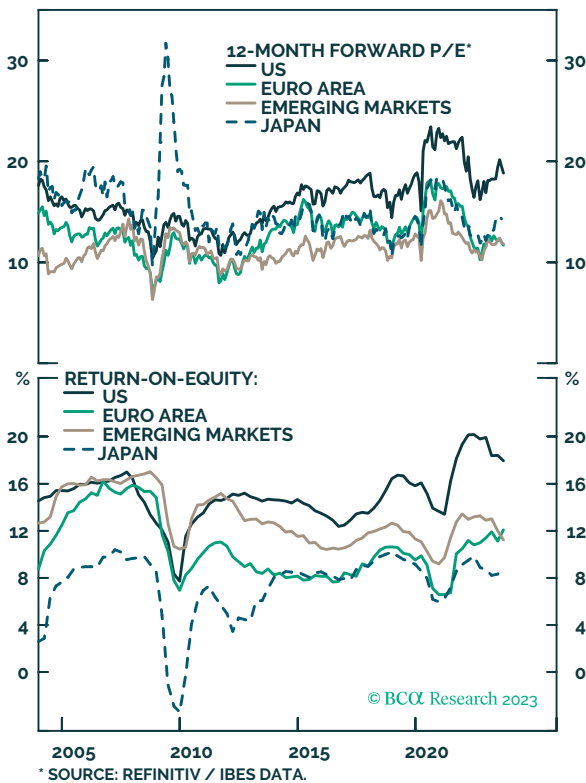
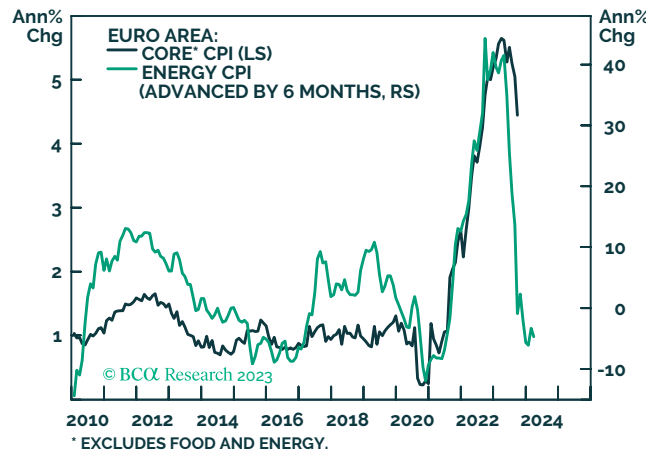
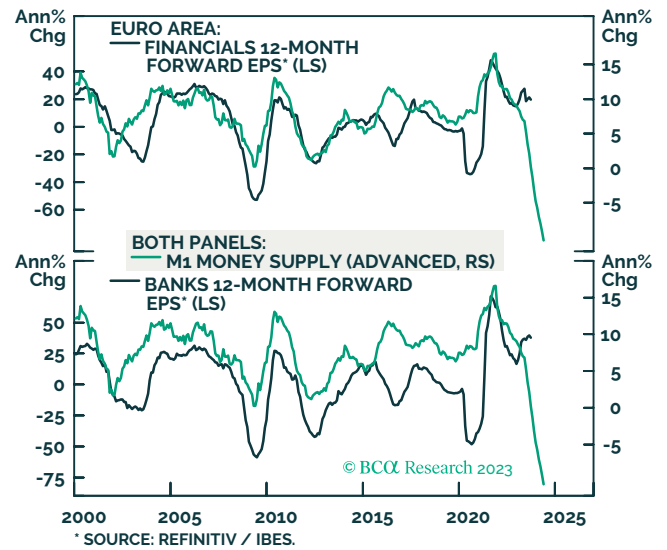
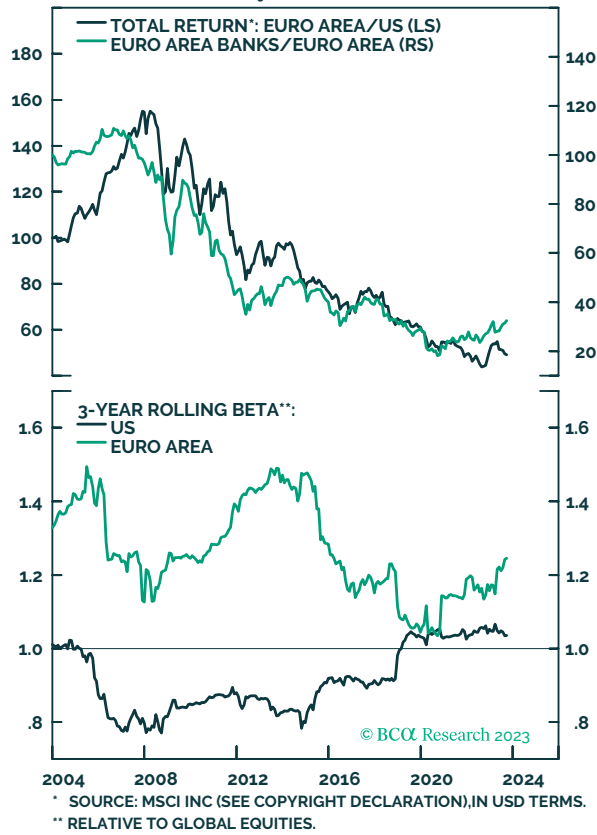


# Europe – Structural Issues

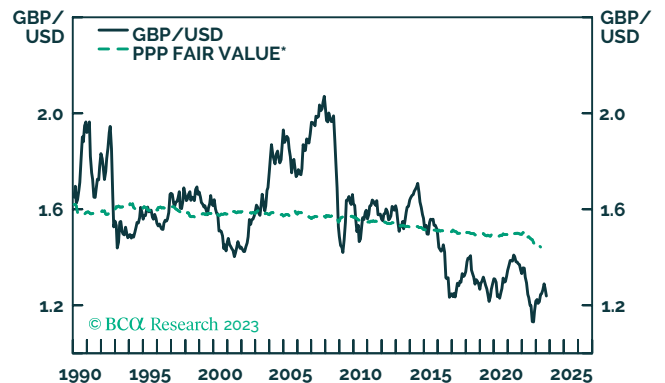
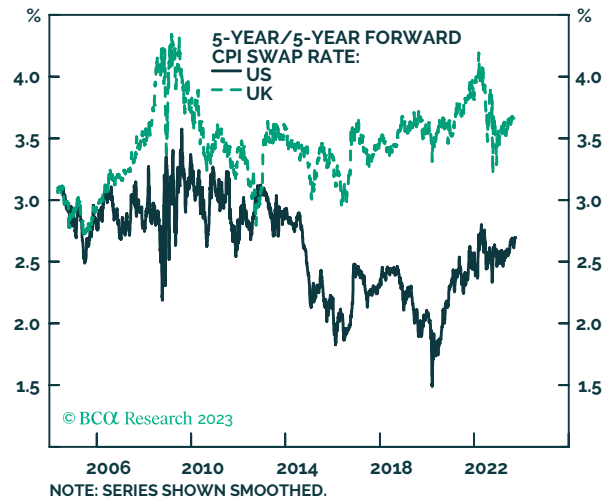
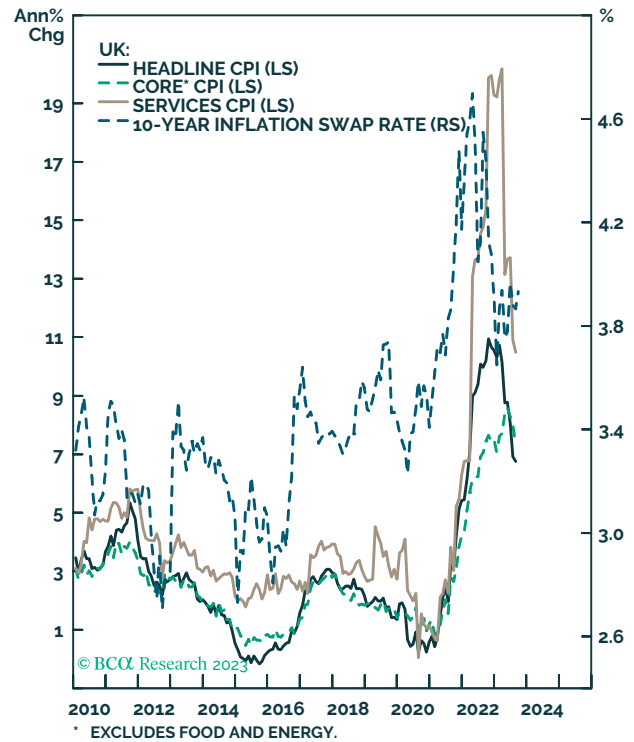
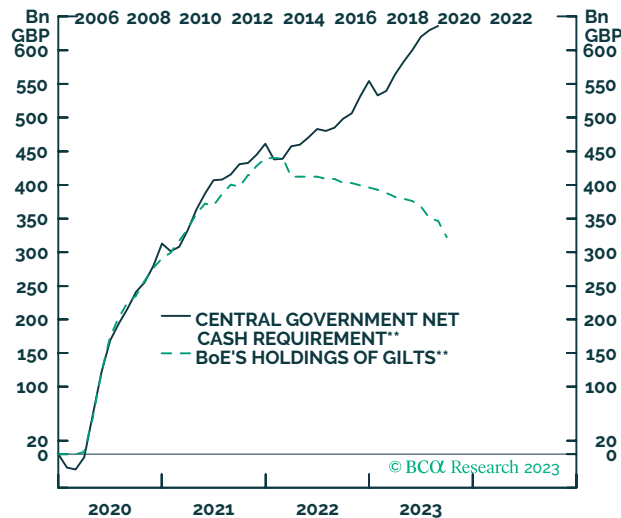
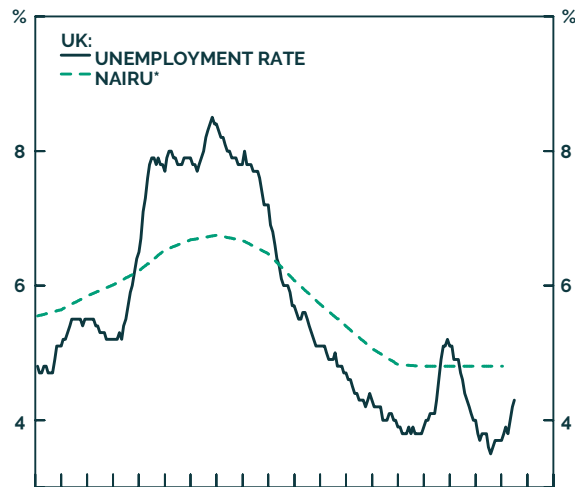
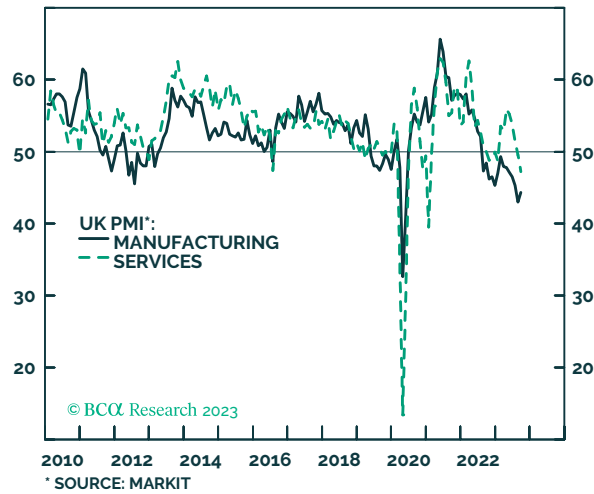


# European Equities

## Banks Are The Key

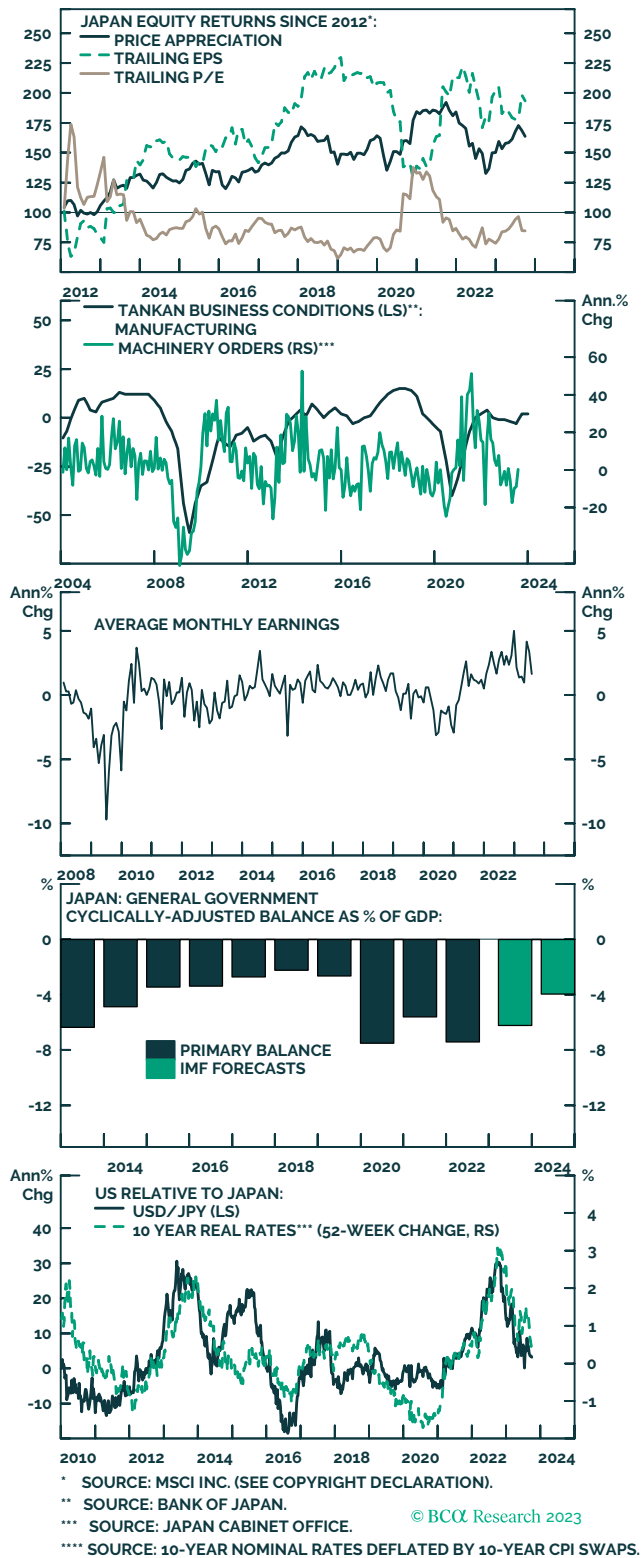


## UK

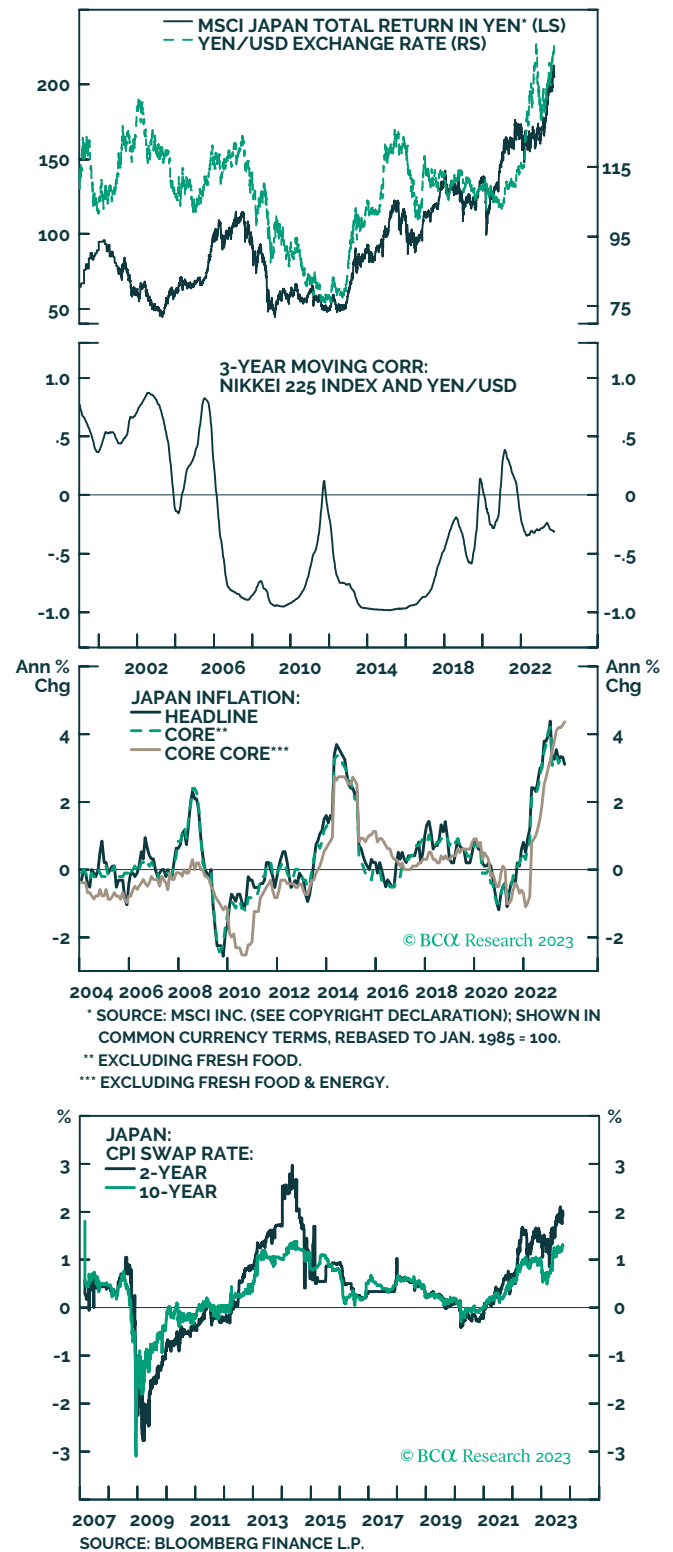


# Japan

## Economy

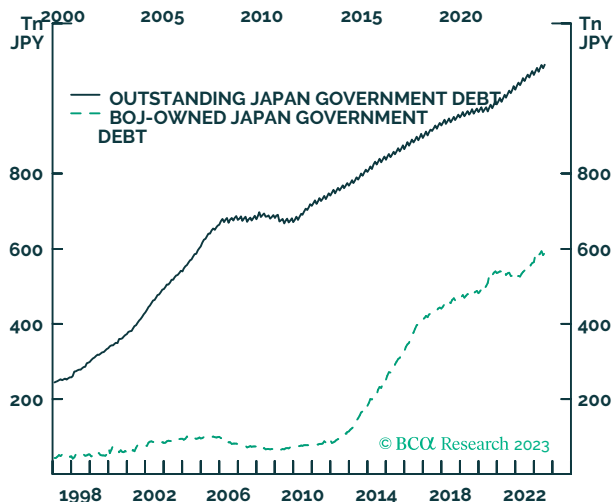
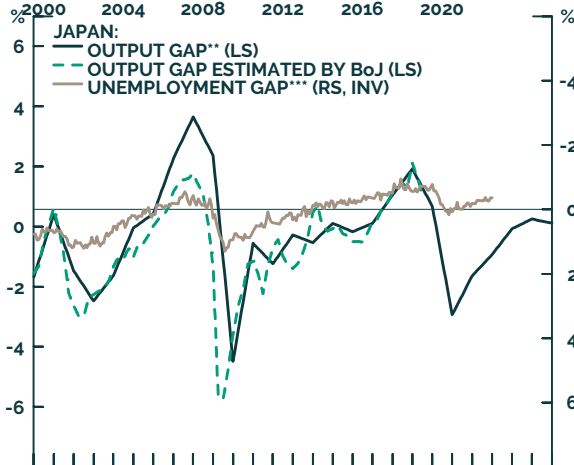
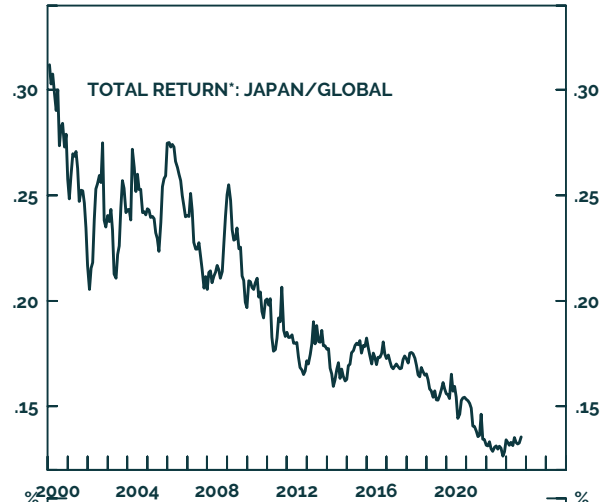


## Inflation



# Japan: Structural Issues

## Long-Term Underperformer



\* SOURCE: MSCI INC. (SEE COPYRIGHT DECLARATION).

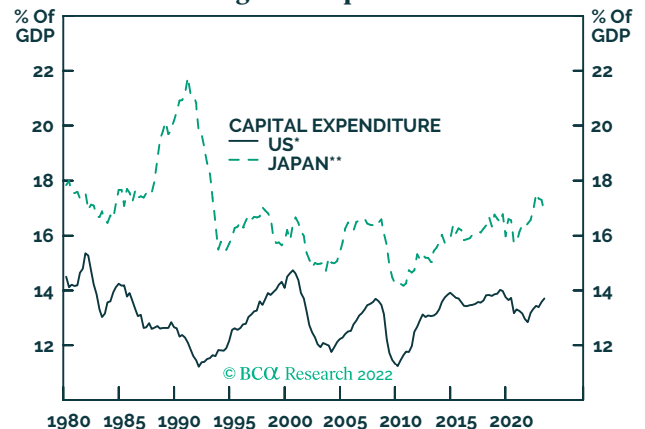
NOTE: SERIES REBASED TO DEC. 1989 = 100.

\*\* ADJUSTED AFTER 1998. EXCLUDES LOAN WRITE-OFFS AND OTHER SPECIAL FACTORS. SOURCE: BANK OF JAPAN.

\*\*\* SOURCE: IMF.

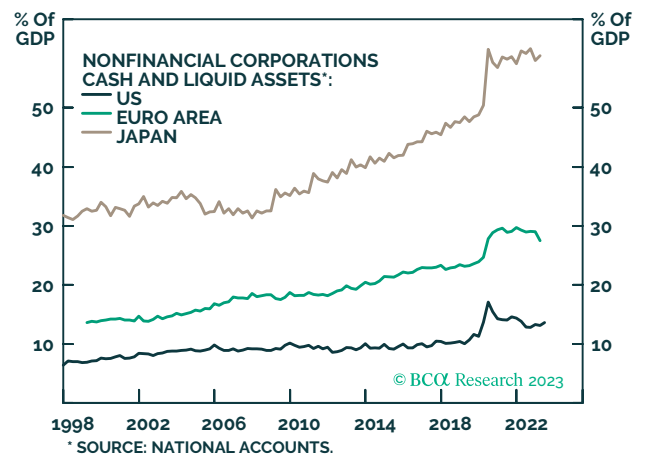
\*\*\*\* UNEMPLOYMENT RATE LESS NAIRU; SOURCE: OECD.

## Minimal Change In Corporate Behavior

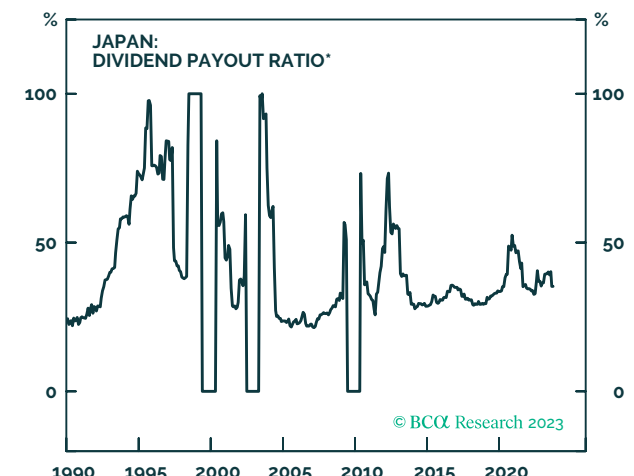


\* FIXED ASSET PRIVATE NONRESIDENTIAL INVESTMENT.

\*\* GROSS CAPITAL FORMATION FOR FIXED PRIVATE NONRESIDENTIAL INVESTMENT.



\* SOURCE: NATIONAL ACCOUNTS.

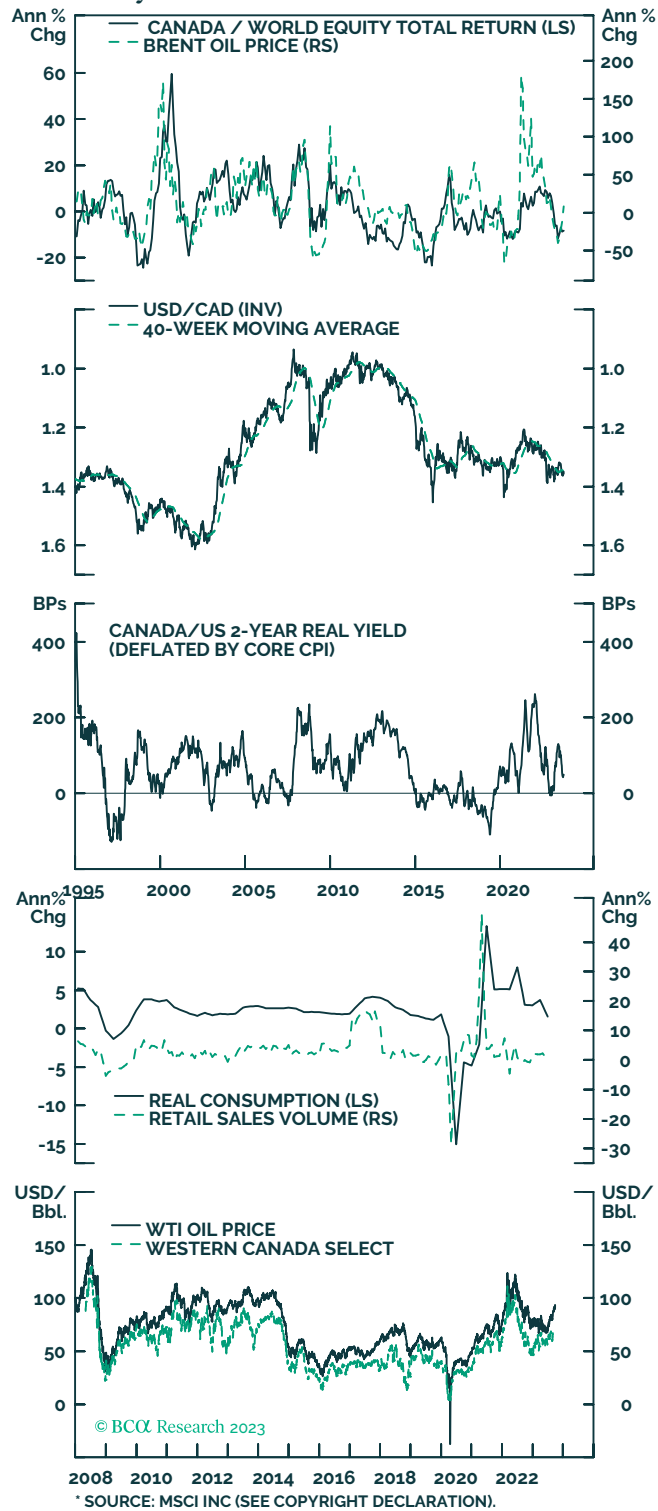


\* TRUNCATED AT 0% AND 100%.

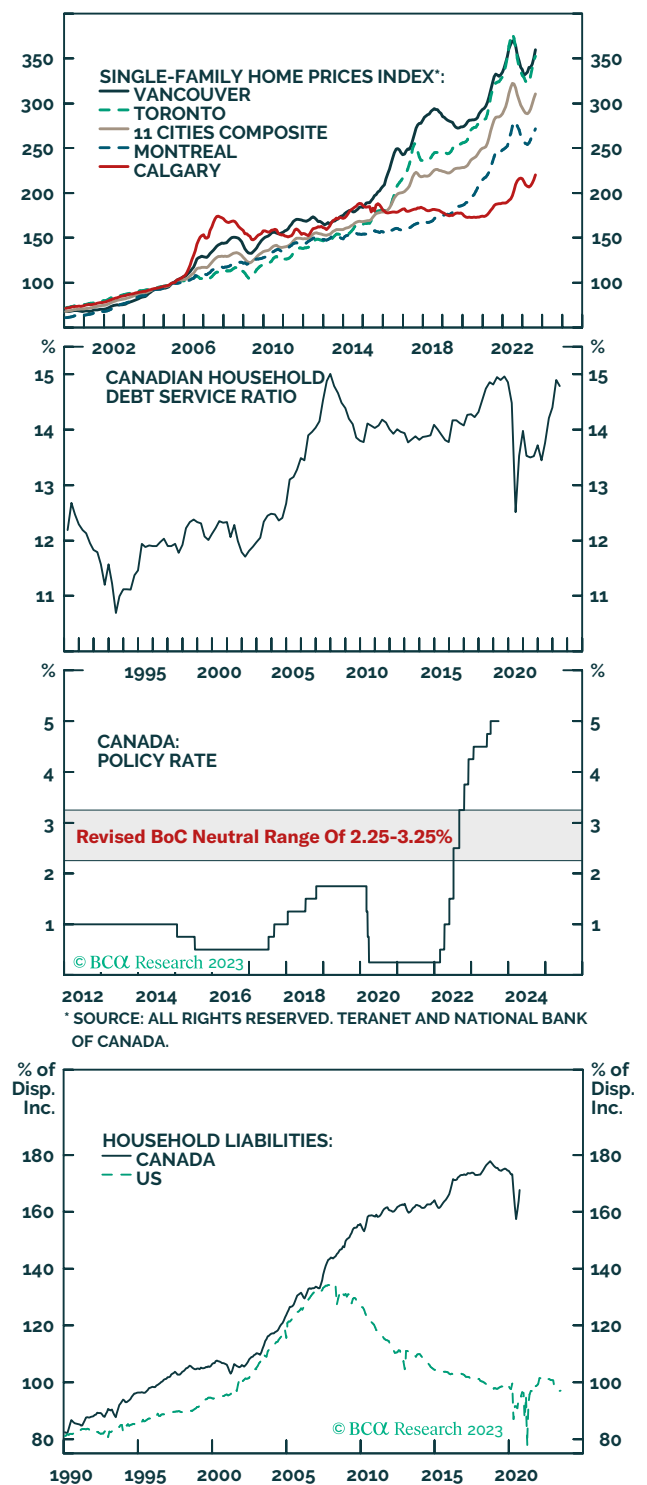
SOURCE: MSCI INC. (SEE COPYRIGHT DECLARATION).

# Canada

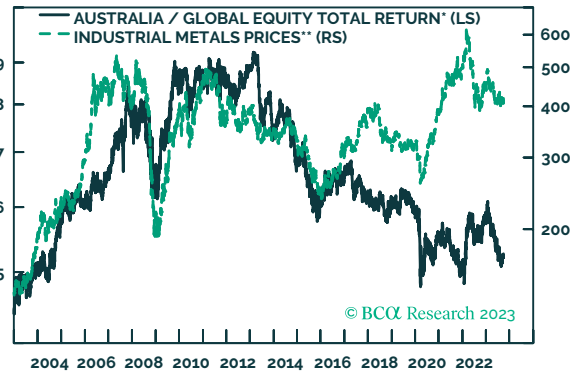
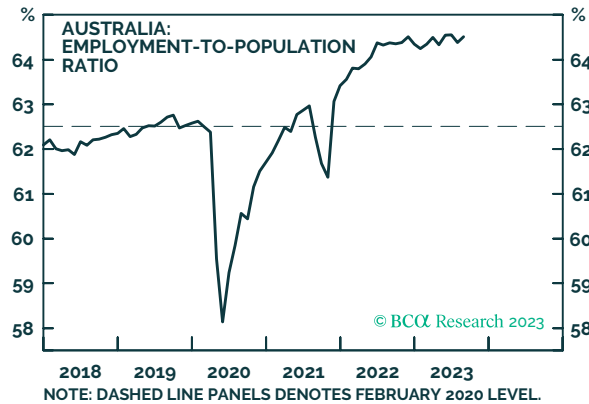
## A Play On The Oil Price



## Structural Worries Remain

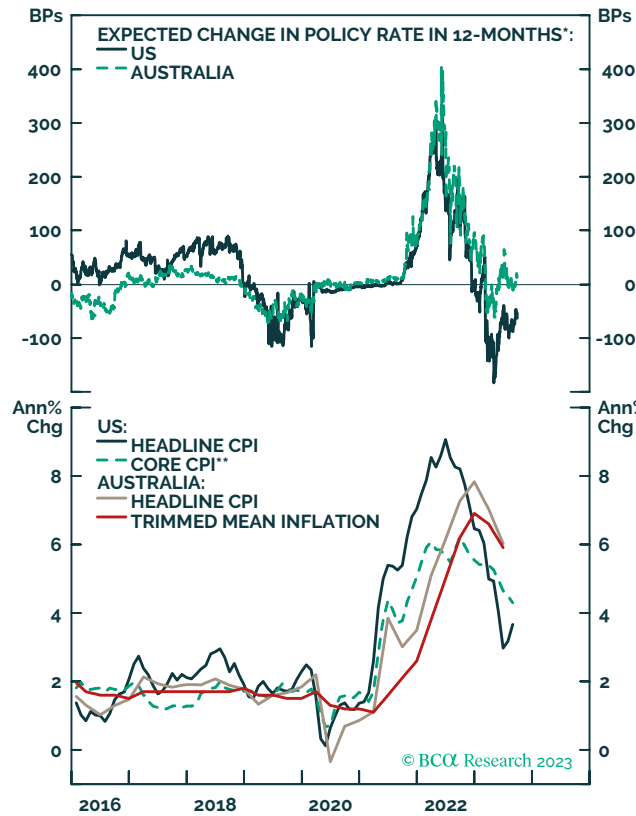


# Australia



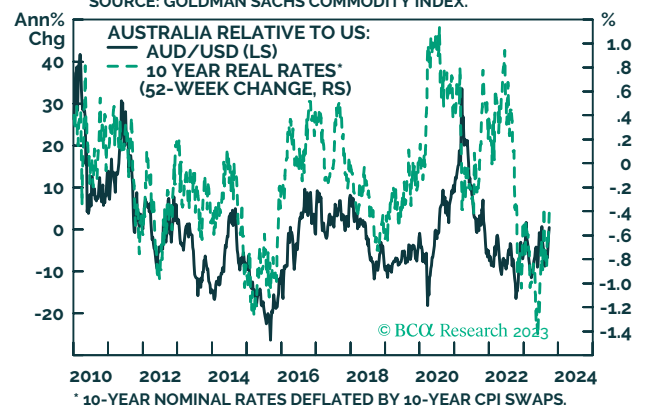
\* SOURCE: MSCI INC. (SEE COPYRIGHT DECLARATION).  
 SHOWN IN USD TERMS.

\*\* SOURCE: GOLDMAN SACHS COMMODITY INDEX.

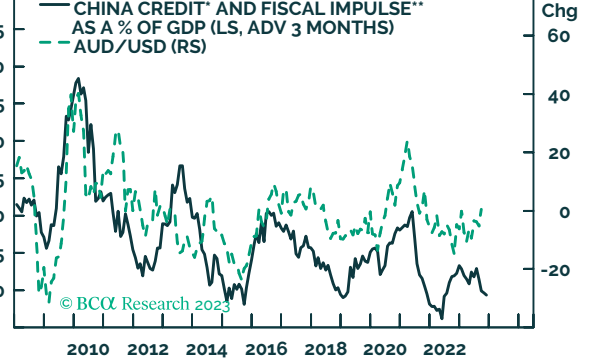


\* AS DISCOUNTED IN THE OVERNIGHT INDEX SWAP CURVE.

\*\* EXCLUDES FOOD AND ENERGY.

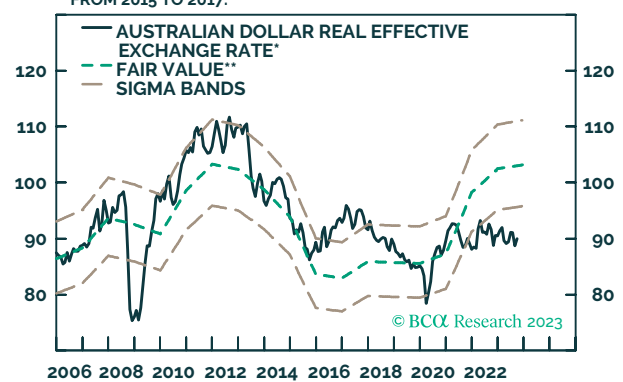
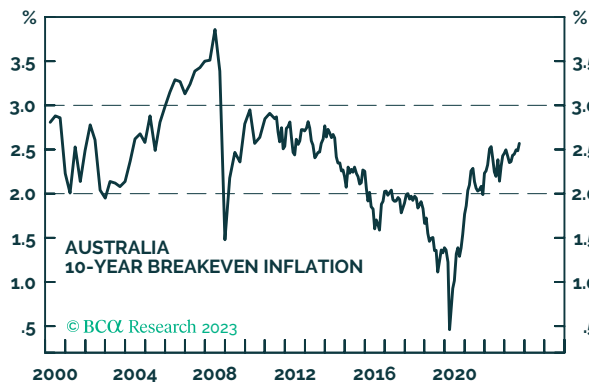


\* 10-YEAR NOMINAL RATES DEFLATED BY 10-YEAR CPI SWAPS.



\* CUMULATIVE AGGREGATE FINANCING EXCLUDING EQUITY FINANCING, LGFV SWAP FROM 2015 TO 2018 AND LOCAL GOVERNMENT SPECIAL BONDS ISSUANCE.

\*\* GENERAL (CENTRAL AND LOCAL) GOVERNMENT, GOVERNMENT MANAGED FUNDS SPENDING AND SPECIAL INFRASTRUCTURE FUND FROM 2015 TO 2017.



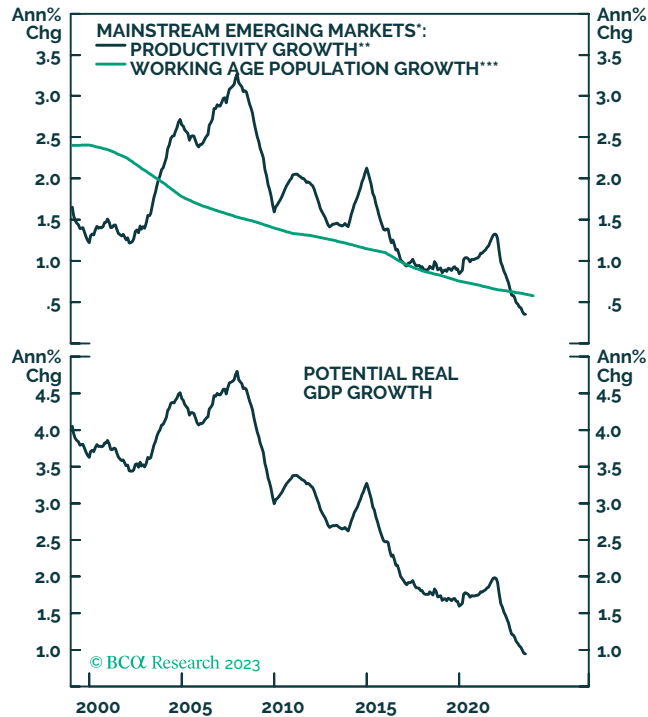
\* SOURCE: IMF, BASED ON CONSUMER PRICES.

\*\* BASED ON THE CUMULATIVE CURRENT ACCOUNT AND COMMODITY PRICES.



# Emerging Markets

## No Structural Reform

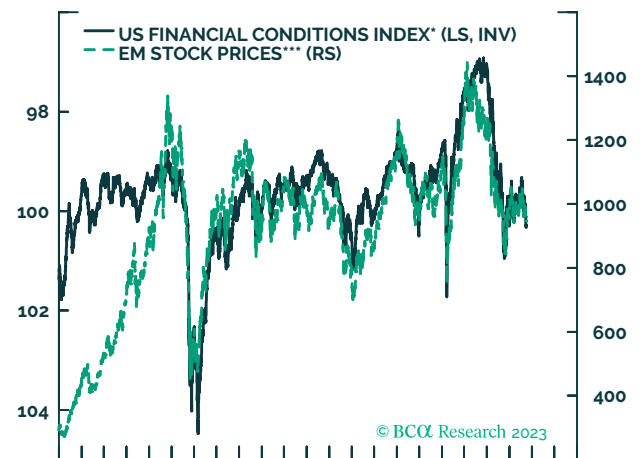
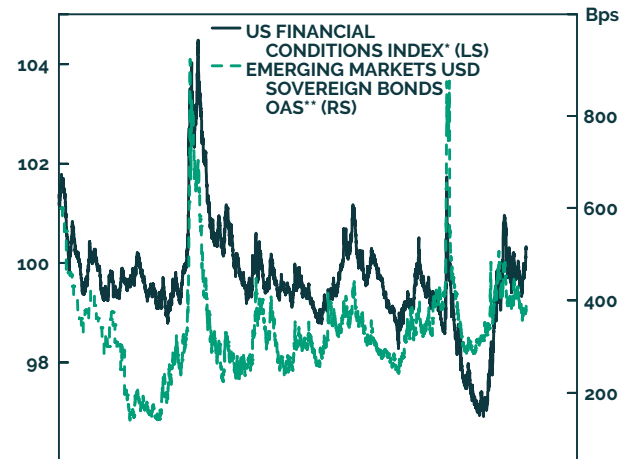
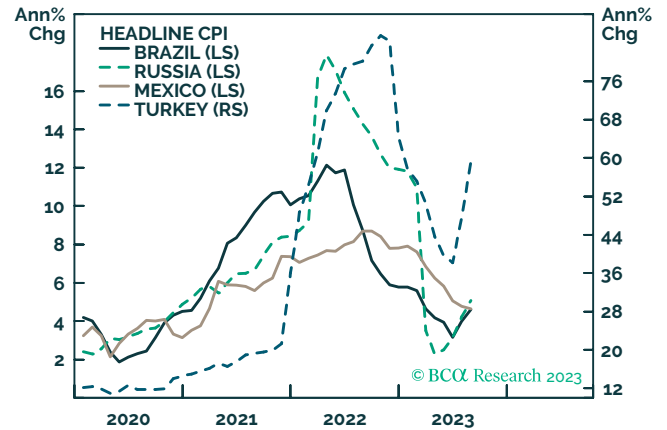


\* MARKET-CAP WEIGHTED AVERAGE OF 15 EM COUNTRIES; EXCLUDING CHINA, KOREA, TAIWAN, AND INDIA.

\*\* SOURCE: CONFERENCE BOARD.

\*\*\* SOURCE: UNITED NATION.

## Sensitive To Financial Conditions

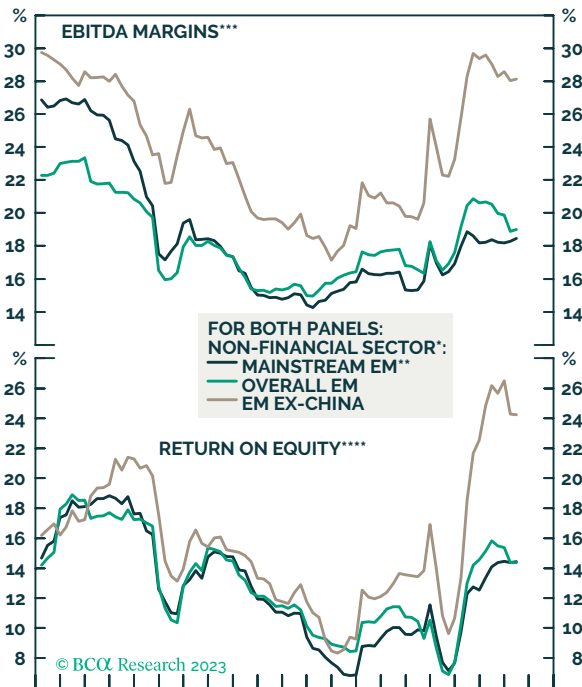


2004 2006 2008 2010 2012 2014 2016 2018 2020 2022

\* SOURCE: GOLDMAN SACHS (VIA BLOOMBERG L.P.)

\*\* SOURCE: BLOOMBERG BARCLAYS INDICES.

\*\*\* SOURCE: MSCI INC. (SEE COPYRIGHT DECLARATION); SHOWN IN USD TERMS.



2004 2006 2008 2010 2012 2014 2016 2018 2020 2022 2024

\* SOURCE: REFINITIV DATASTREAM WORLDSCOPE.

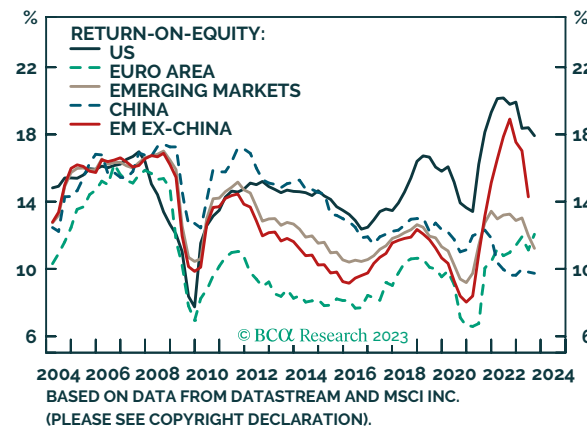
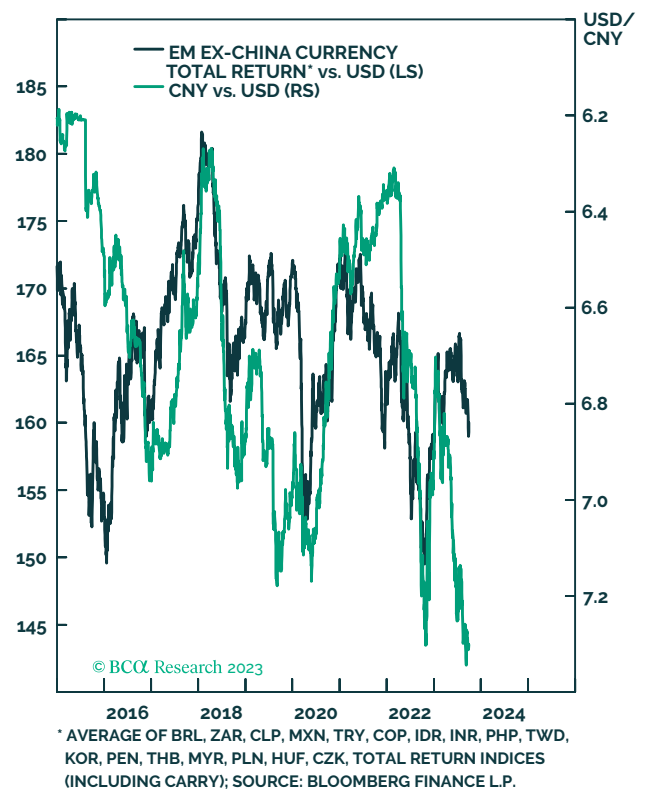
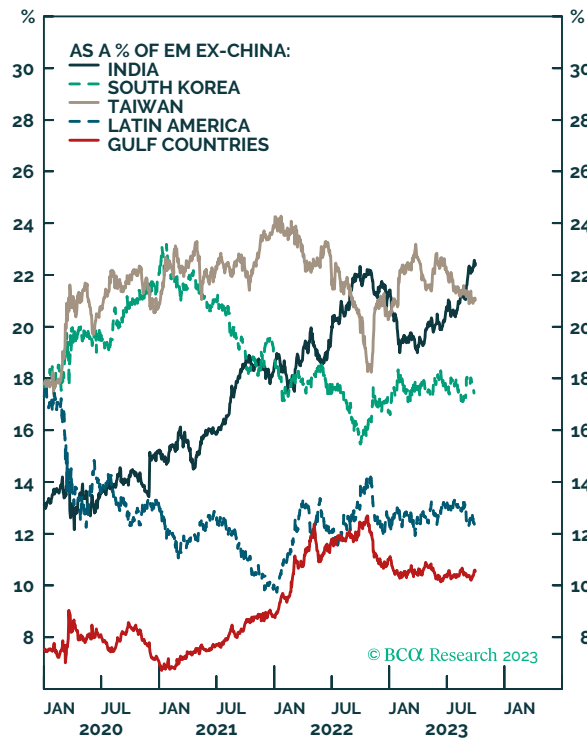
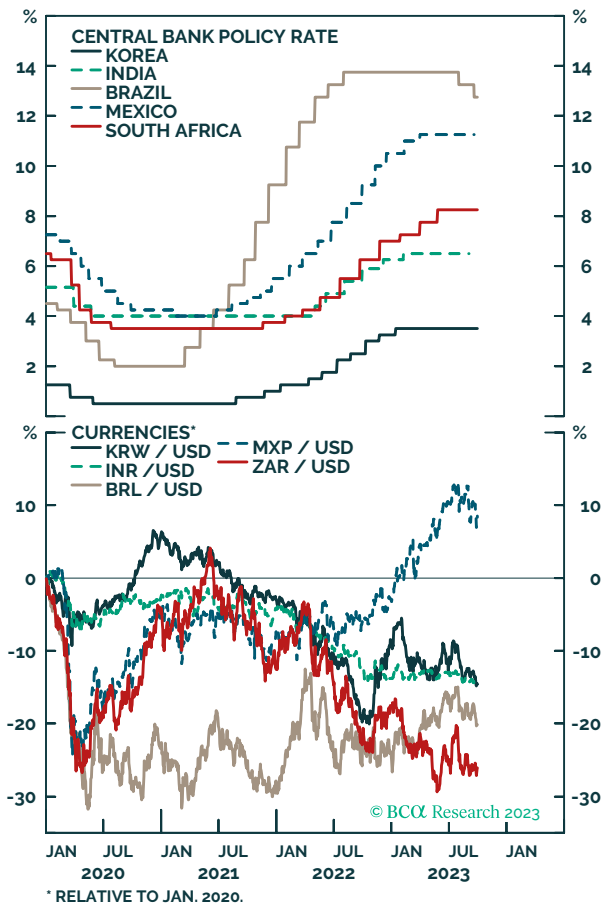
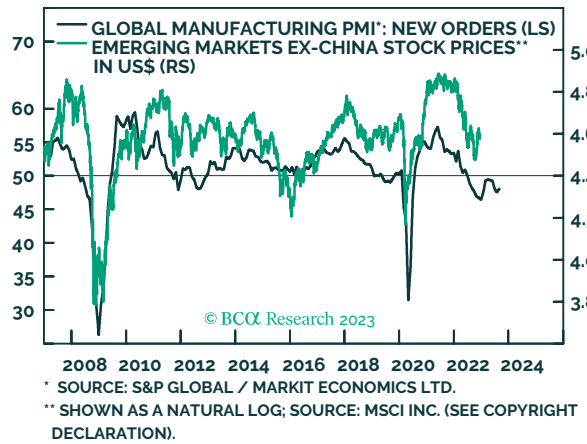
\*\* EX-CHINA, KOREA, TAIWAN, AND INDIA.

\*\*\* CALCULATED AS EBITDA DIVIDED BY SALES.

\*\*\*\* CALCULATED AS NET PROFITS DIVIDED BY EQUITY VALUE.

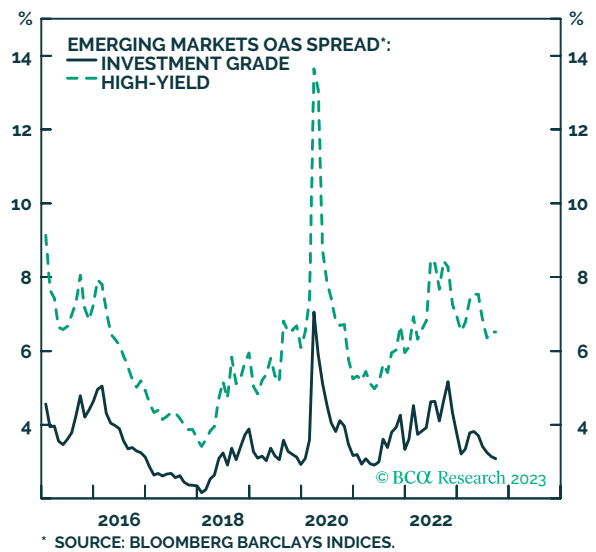
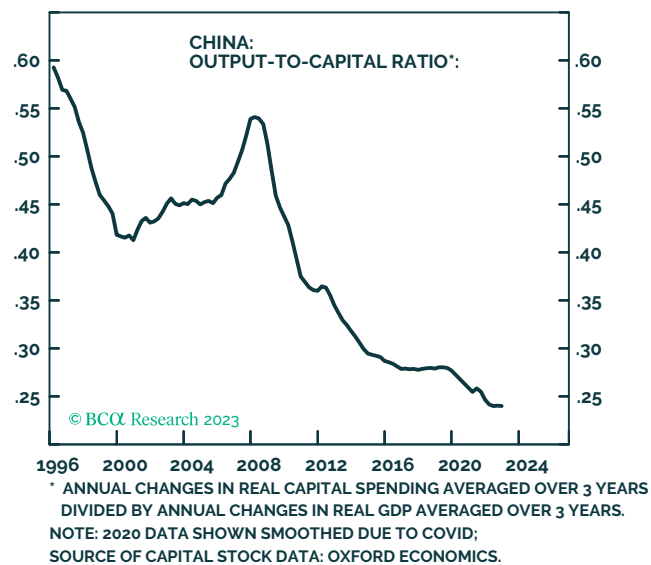
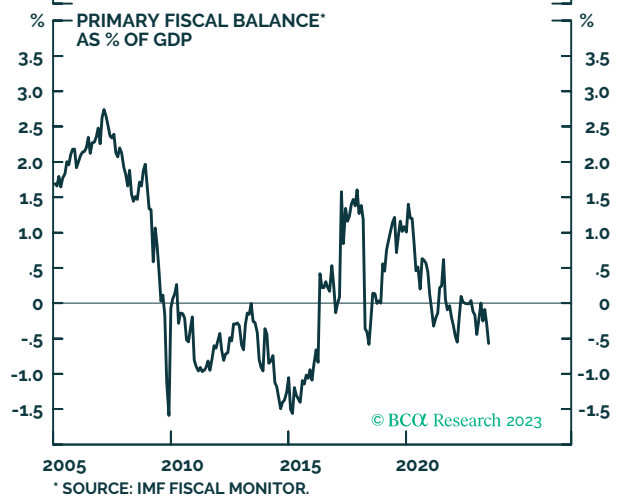
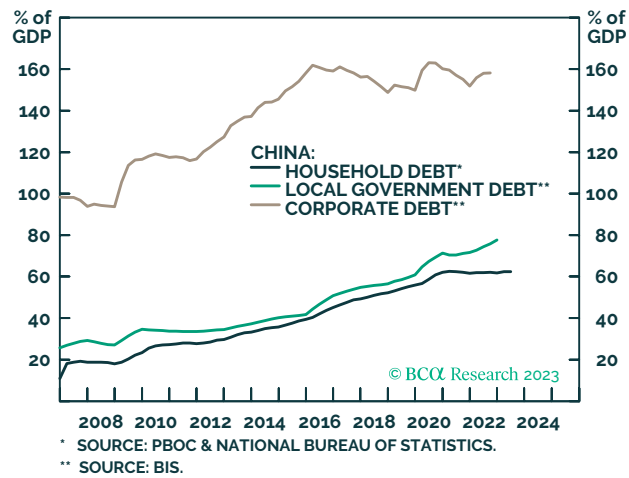
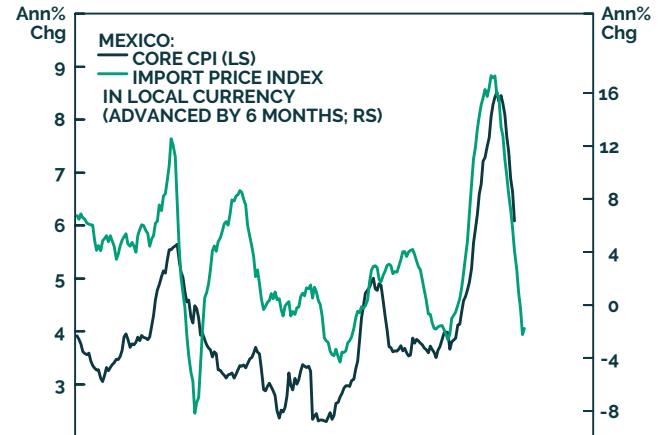
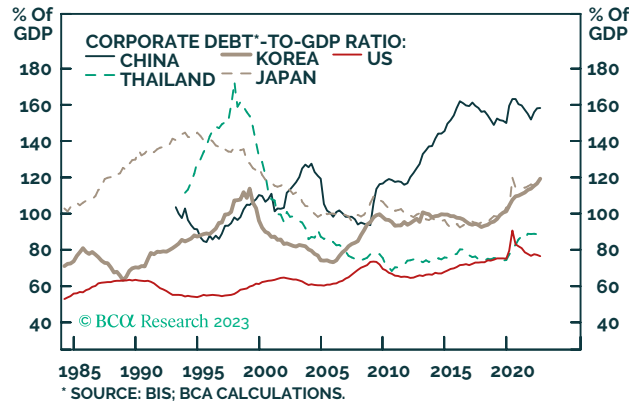


# Emerging Markets



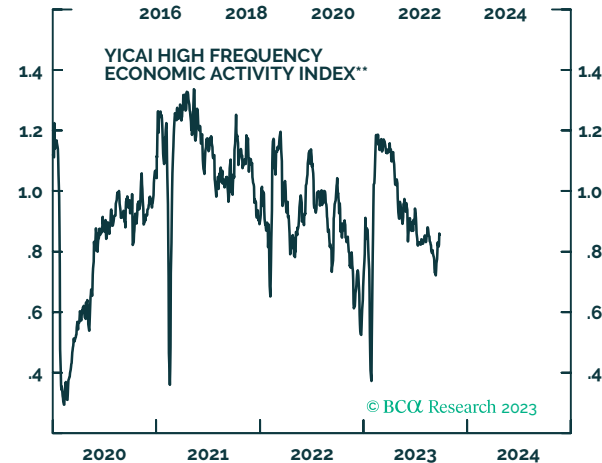
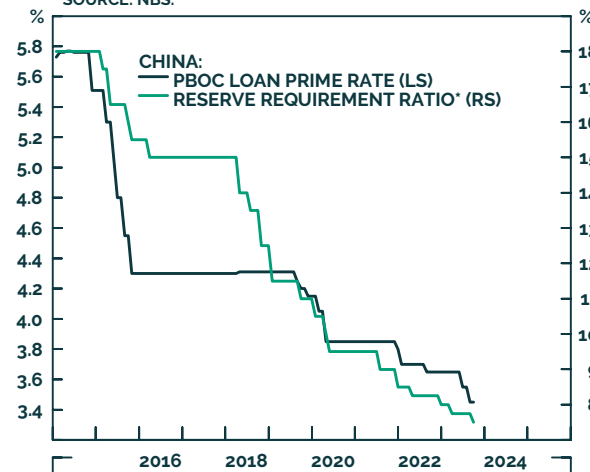
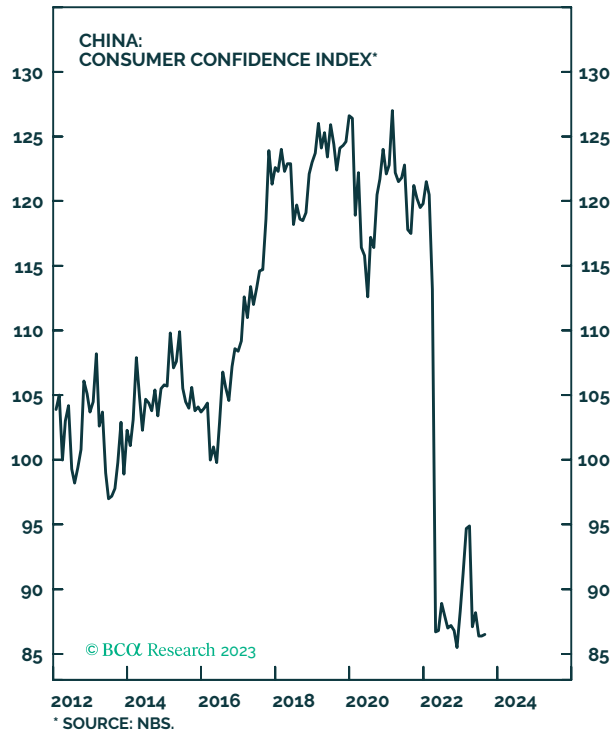
# Emerging Market Debt

## Debt Problem

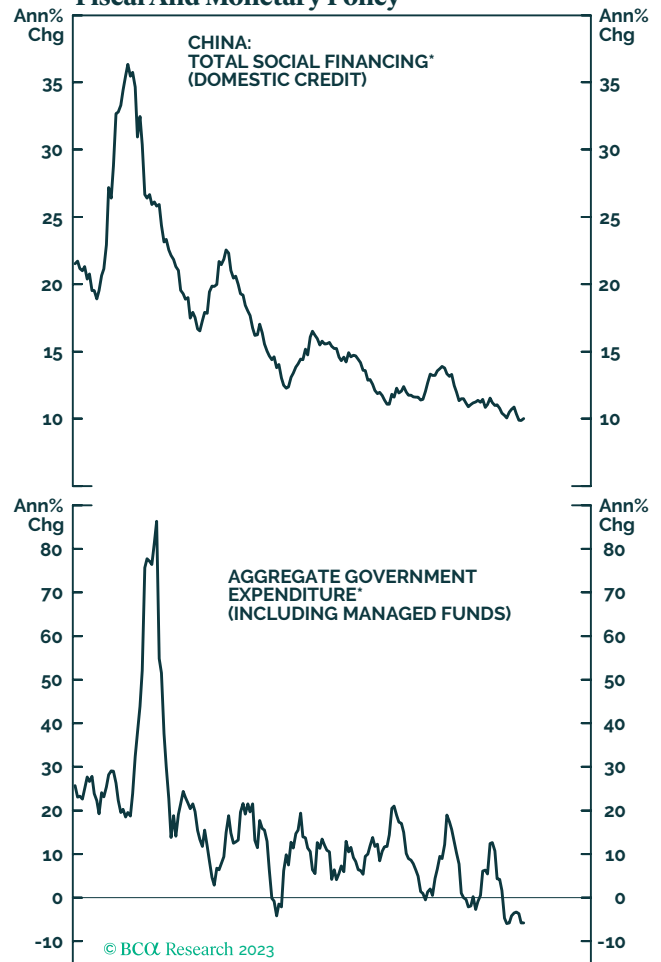


# China

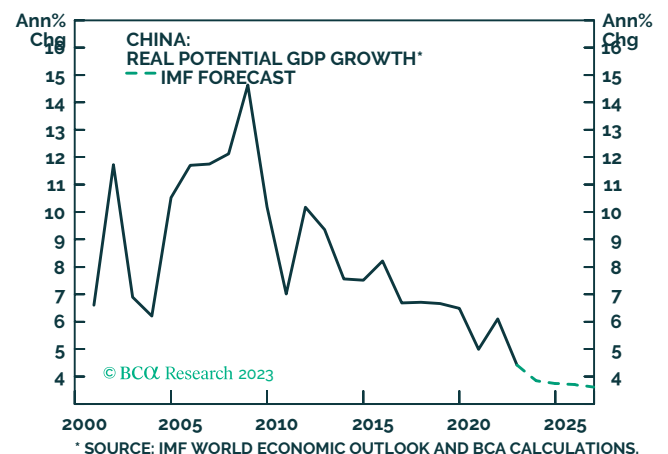
## Growth



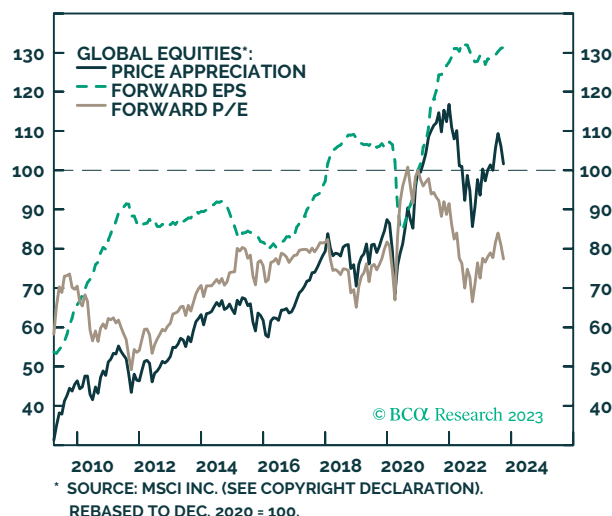
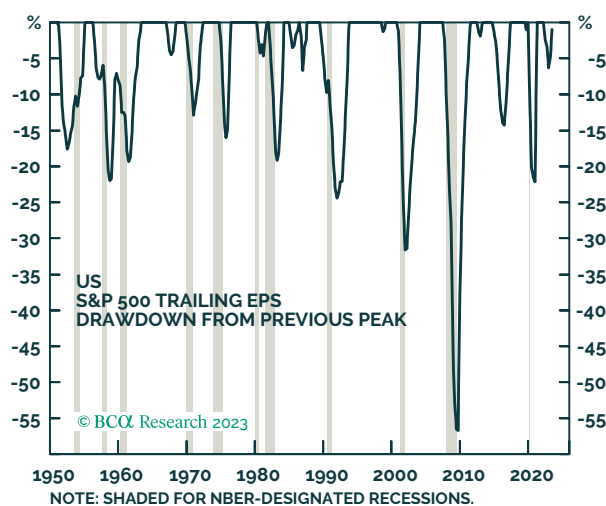
## Fiscal And Monetary Policy



\* EXCLUDING EQUITY FINANCING AND INCLUDING LOCAL GOVERNMENT BONDS.  
\*\* SHOWN AS A 6-MONTH MOVING AVERAGE



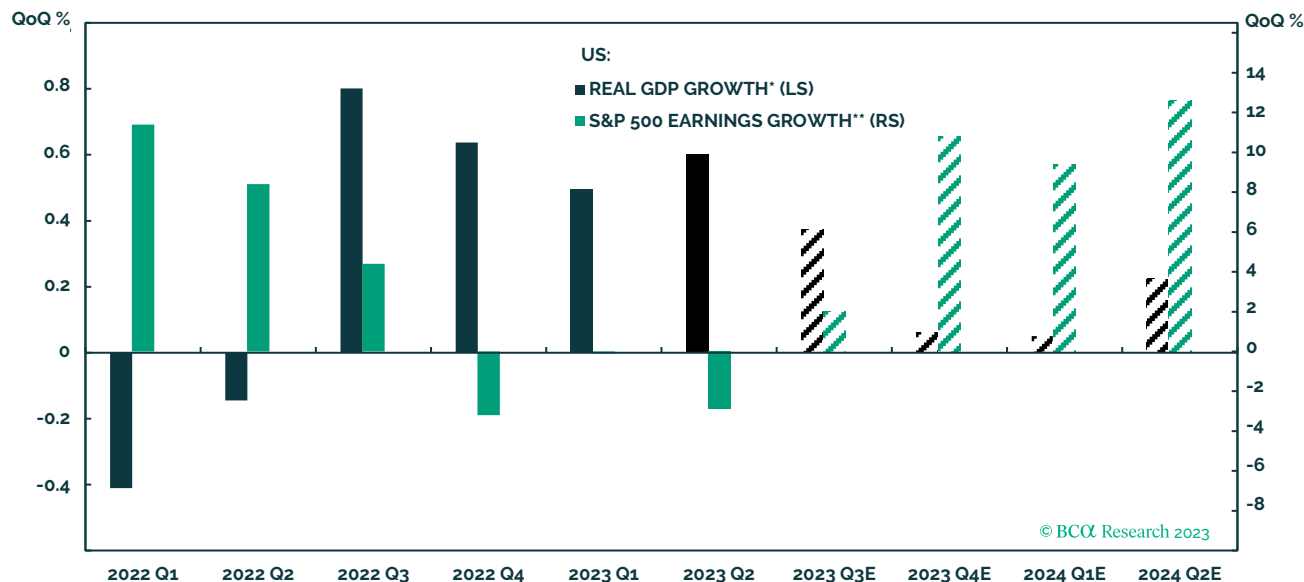
## Equities: Earnings



\* SOURCE: MSCI INC. (SEE COPYRIGHT DECLARATION).  
REBASED TO DEC. 2020 = 100.

	FORWARD P/E RATIO (x)	FORWARD 12-MONTH EPS GROWTH (%)
CONSUMER STAPLES	17.6	7.5
HEALTH CARE	17.3	-0.3
UTILITIES	13.1	15.4
REAL ESTATE	20.3	-9.8
FINANCIALS	10.2	2.2
MATERIALS	13.5	-20.9
ENERGY	10.0	-18.0
INDUSTRIALS	16.4	3.0
INFO TECH	23.1	2.1
COMMUNICATION SERV.	16.4	10.1
CONSUMER DISC.	17.6	14.5
MSCI ACWI	15.5	1.9

SOURCE: MSCI INC. (SEE COPYRIGHT DECLARATION).  
AS OF END OF SEPTEMBER 2023.



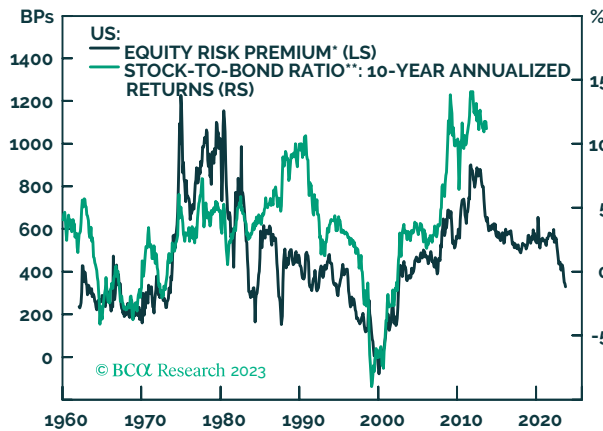
\* SOURCE: US BUREAU OF ECONOMIC ANALYSIS; FORECASTED DATA FROM BLOOMBERG FINANCE L.P.

\*\* SOURCE: REFINITIV IBES.

NOTE: BARS WITH DASHED FILLING DENOTE CONSENSUS FORECAST QUARTERLY GROWTH.

# Equities: Valuations And Sentiment

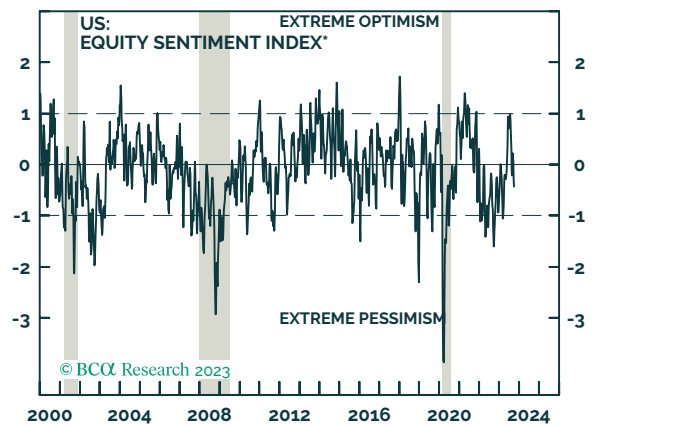
## How Expensive?



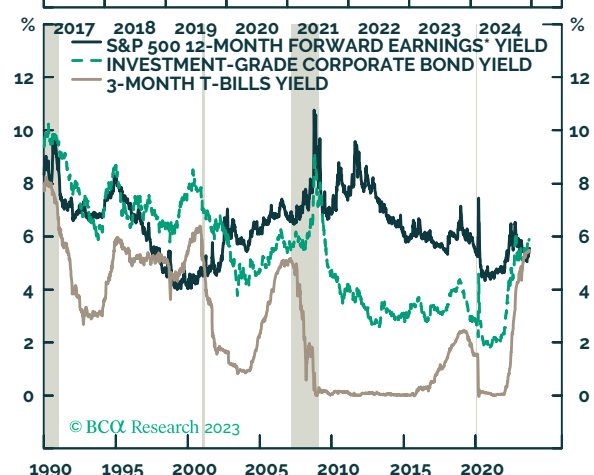
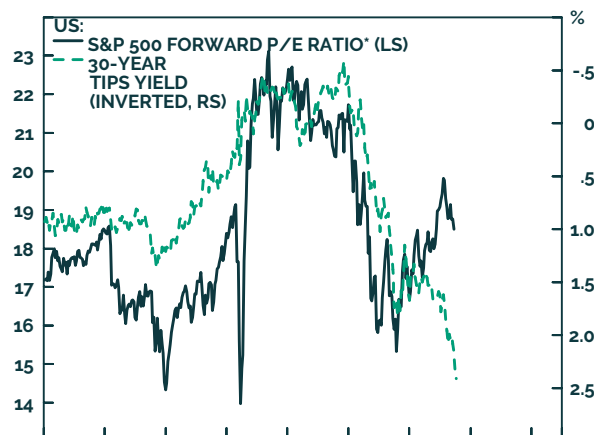
\* CALCULATED AS THE S&P 500 FORWARD EARNINGS YIELD MINUS US 10-YEAR TIPS YIELD. TRAILING EARNINGS YIELD USED BEFORE 1985, AND BCA ADAPTIVE INFLATION EXPECTATIONS MODEL USED TO CALCULATE REAL YIELD PRIOR TO 2003.

\*\* TOTAL RETURNS USING BLOOMBERG INDICES AND IBBOTSON ASSOCIATES.

## Sentiment

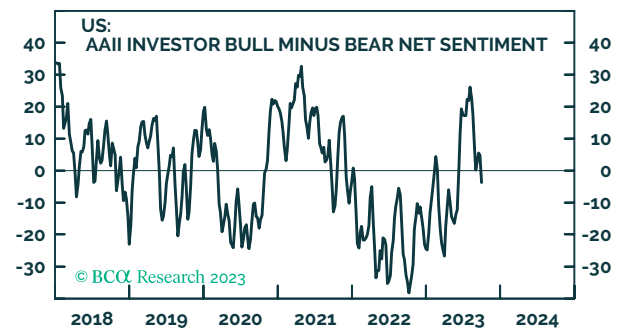


\* BCA CALCULATIONS; BASED ON BULL-BEAR RATIO, VIX, AND PUT-CALL RATIO SHOWN SMOOTHED EXCEPT LATEST DATA POINT.

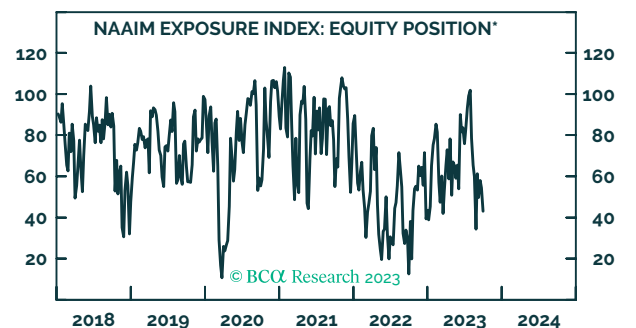


\* SOURCE: REFINITIV / IBES.

NOTE: SHADING DENOTES NBER-DESIGNATED RECESSIONS.

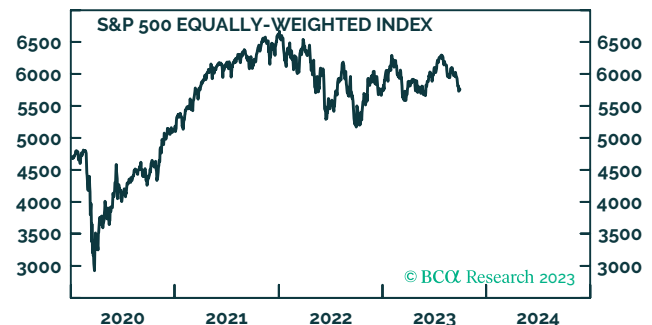


SOURCE: AMERICAN ASSOCIATION OF INDIVIDUAL INVESTORS.  
NOTE: SHOWN AS A 3-WEEK MOVING AVERAGE.



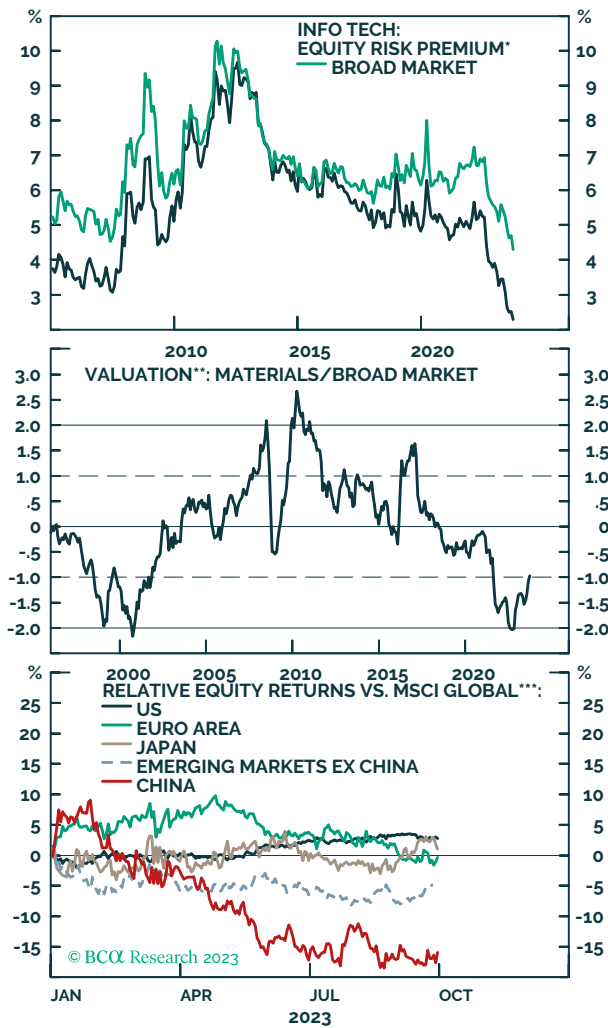
\* SHOWN AS A 2-WEEK MOVING AVERAGE.

SOURCE: NATIONAL ASSOCIATION OF ACTIVE INVESTMENT MANAGERS.



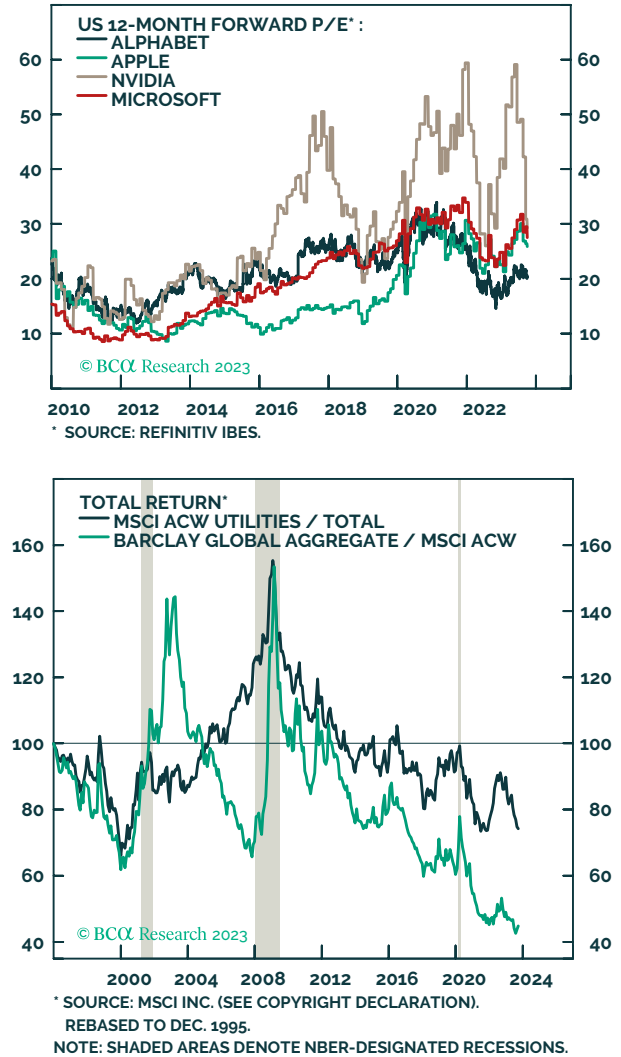
SOURCE: BLOOMBERG FINANCE L.P.

## Equities: Sectors And Styles



\* SOURCE: REFINITIV / IBES.  
 BASED ON 12-MONTH FORWARD EARNINGS YIELD  
 MINUS US 10-YEAR REAL RATES.

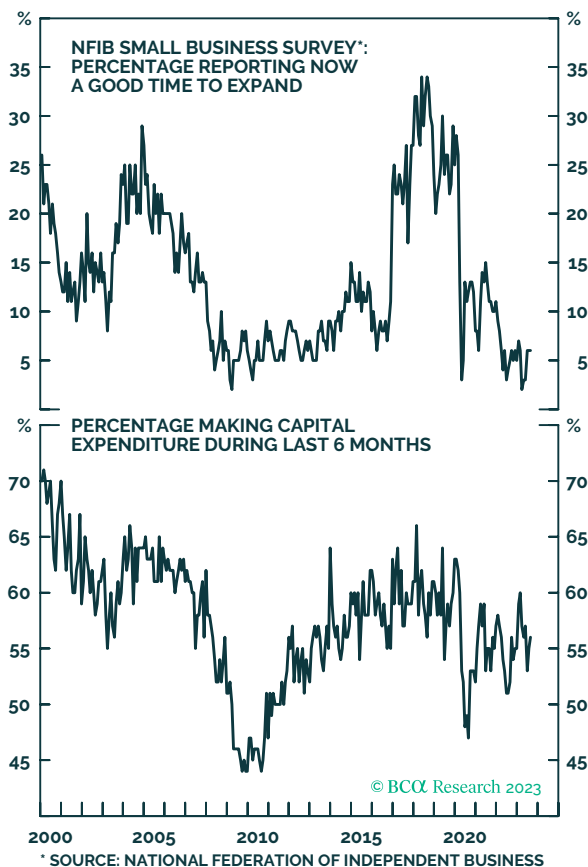
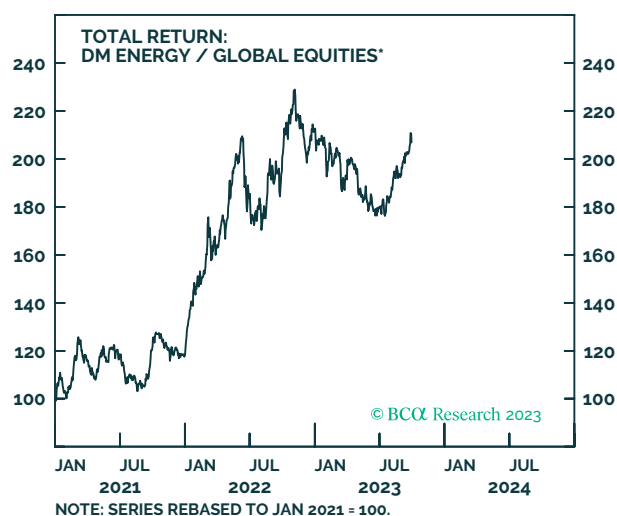
### Sectors



		Forward Earnings Growth (%)						
		-30	-20	-10	0	10	20	30
Forward PE	10	1667	1905	2143	2381	2619	2857	3095
	11	1833	2095	2357	2619	2881	3143	3404
	12	2000	2286	2571	2857	3143	3428	3714
	13	2166	2476	2785	3095	3404	3714	4023
	14	2333	2666	3000	3333	3666	4000	4333
	15	2500	2857	3214	3571	3928	4285	4642
	16	2666	3047	3428	3809	4190	4571	4952
	17	2833	3238	3643	4047	4452	4857	5261
	18	3000	3428	3857	4285	4714	5142	5571
	19	3166	3619	4071	4523	4976	5428	5880
	20	3333	3809	4285	4762	5238	5714	6190

AS OF SEPTEMBER 29, 2023.

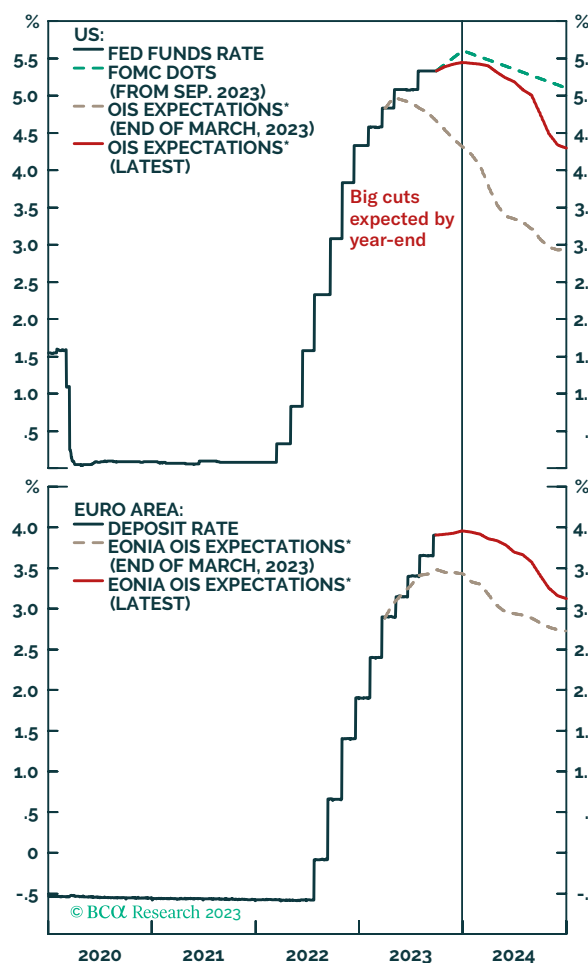
# Equity Market Dynamics



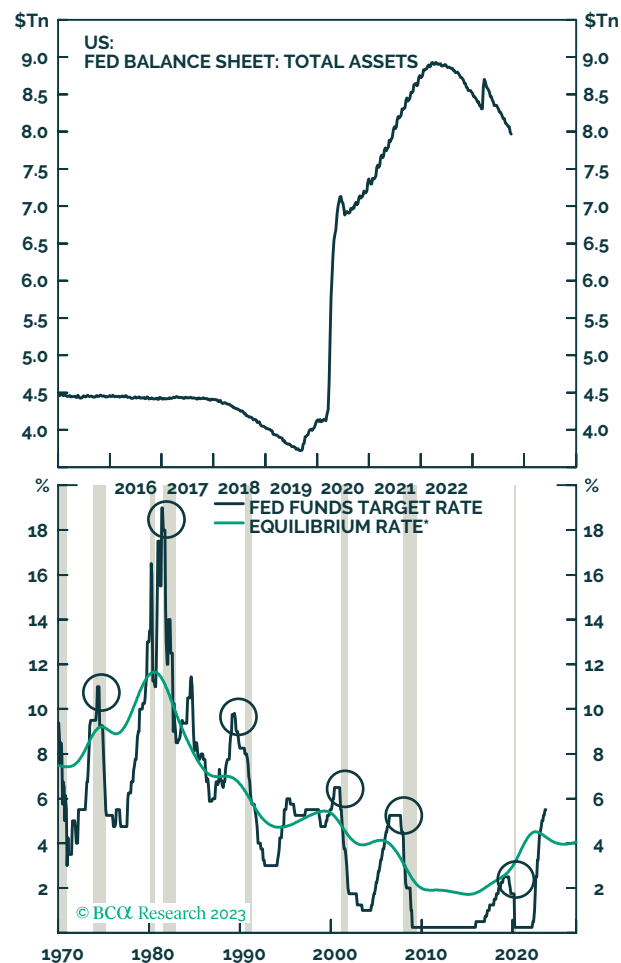
SECTOR WEIGHTS	GLOBAL	US	EURO AREA	UK	JAPAN	EMERGING MARKETS
FINANCIALS	15.8	12.4	17.9	18.7	12.8	22.2
INFORMATION TECHNOLOGY	21.6	27.8	11.5	0.9	13.6	20.2
HEALTHCARE	11.9	13.2	8.3	13.2	8.5	3.8
CONSUMER DISCRETIONARY	11.2	10.8	16.2	5.6	19.4	13.7
INDUSTRIALS	10.4	8.7	16.1	11.0	22.5	6.7
COMMUNICATION SERVICES	7.6	8.8	4.4	2.7	7.2	9.6
CONSUMER STAPLES	7.1	6.3	7.9	18.3	6.1	6.2
ENERGY	5.2	4.7	5.1	14.4	0.9	5.2
MATERIALS	4.5	2.5	5.6	10.5	4.6	8.0
UTILITIES	2.6	2.3	6.1	4.0	1.2	2.6
REAL ESTATE	2.1	2.5	0.9	0.7	3.2	1.8

AS OF SEPTEMBER 29, 2023.

# Monetary Policy



\* DERIVED FROM OVERNIGHT INDEX SWAPS CURVE.



\* BCA ESTIMATE BASED ON CYCLICAL-HORIZON AVERAGE OF THE RATE ITSELF AND POTENTIAL GDP GROWTH RATE.  
NOTE: SHADED AREAS DENOTE THE NBER DESIGNATED RECESSIONS.

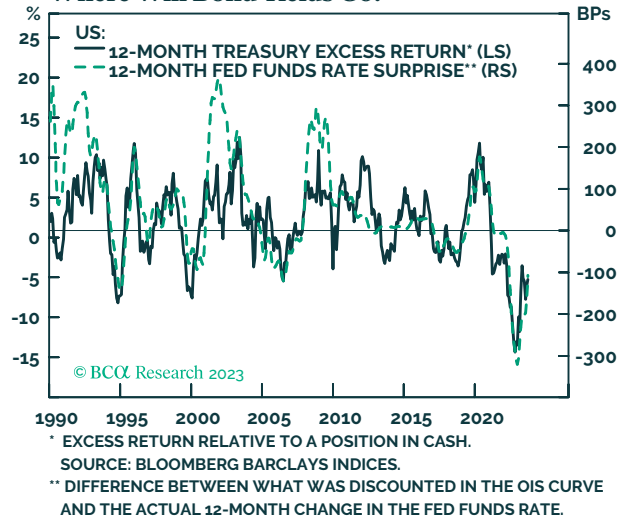
First Fed Rate Hike	Fed Funds Rate Above Equilibrium	Last Rate Hike	Recession	Rate Hike (BPs)	Months Of Hiking	First Hike → Recession (Months)	Above Equilibrium → Recession (Months)	Last Rate Hike → Recession (Months)
Mar/1972	Jun/1973	Apr/1974	Nov/1973	400	26	20	5	-6
Aug/1977	Sep/1979	Mar/1980	Jan/1980	1175	32	29	4	-3
Oct/1980	Oct/1980	Feb/1981	Jul/1981	650	5	9	9	4
Mar/1983	Jul/1983	Aug/1984		294	18			
Dec/1986	May/1988	May/1989	Jul/1990	394	30	44	26	14
Feb/1994	Nov/1994	Feb/1995		300	13			
Aug/1999	Nov/1999	May/2000	Mar/2001	150	10	19	16	9
Jun/2004	Dec/2005	Jun/2006	Dec/2007	425	25	43	24	18
Dec/2015	*	Dec/2018	Feb/2020	225	37	51		14
Mar/2022	Dec/2022	??	??	525				
<b>Mean (Months)</b>					22	31	14	7
<b>Median (Months)</b>					25	29	13	9

\*NOTE: FED FUNDS RATE ALMOST REACHED NEUTRAL IN DEC-2018.

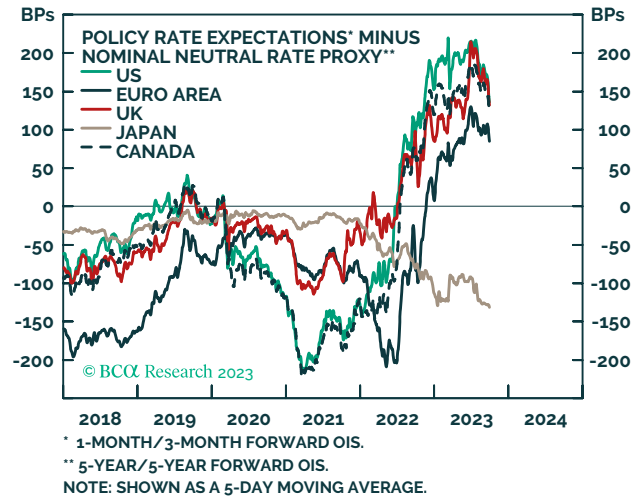
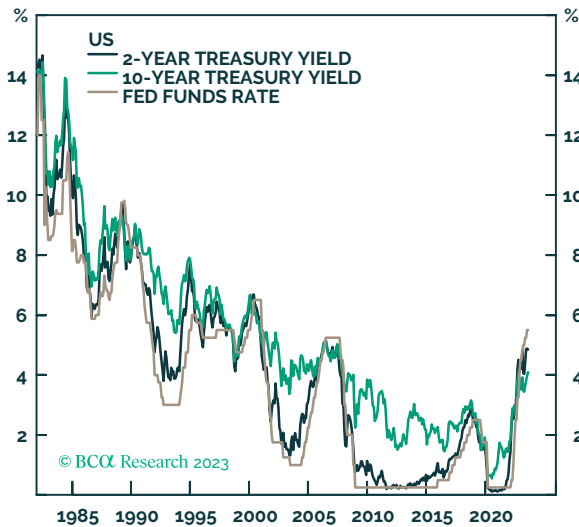


## Fixed Income

Where Will Bond Yields Go?



DATE OF LAST HIKE	MONTHS BETWEEN THE LAST HIKE AND THE PEAK IN THE 10-YEAR TREASURY YIELD
MAR 1980	-1
MAY 1981	4
MAY 1989	-3
FEB 1995	-3
MAY 2000	-4
JUN 2006	0
DEC 2018	-2
AVERAGE	-1.3

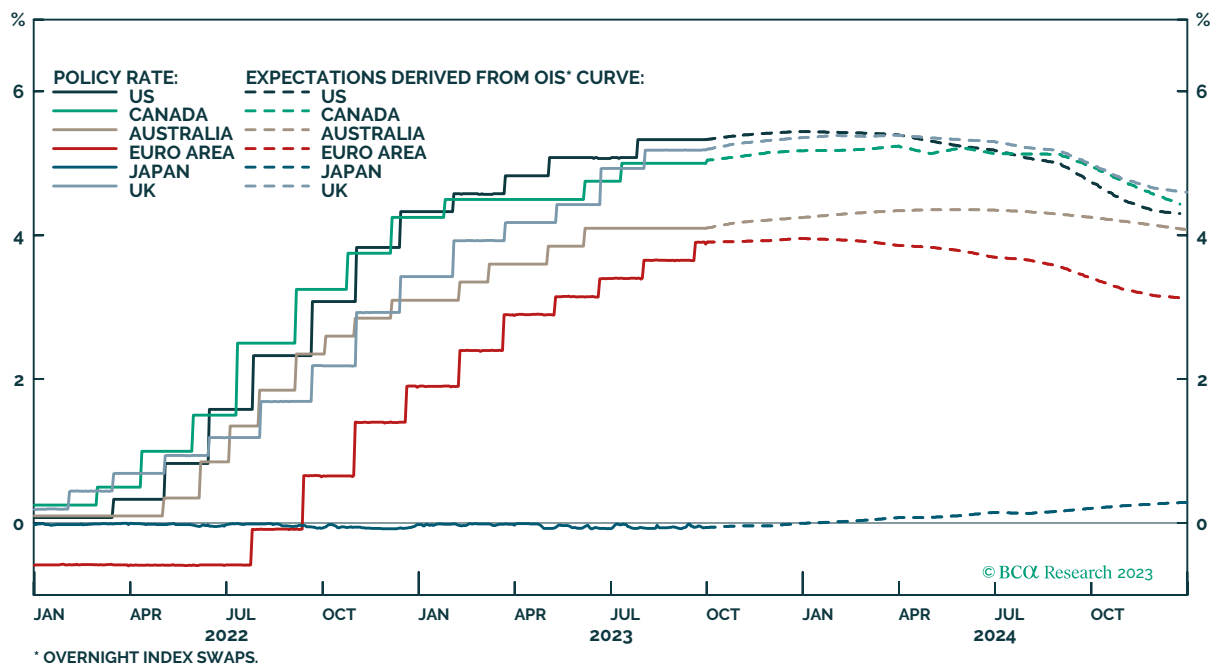
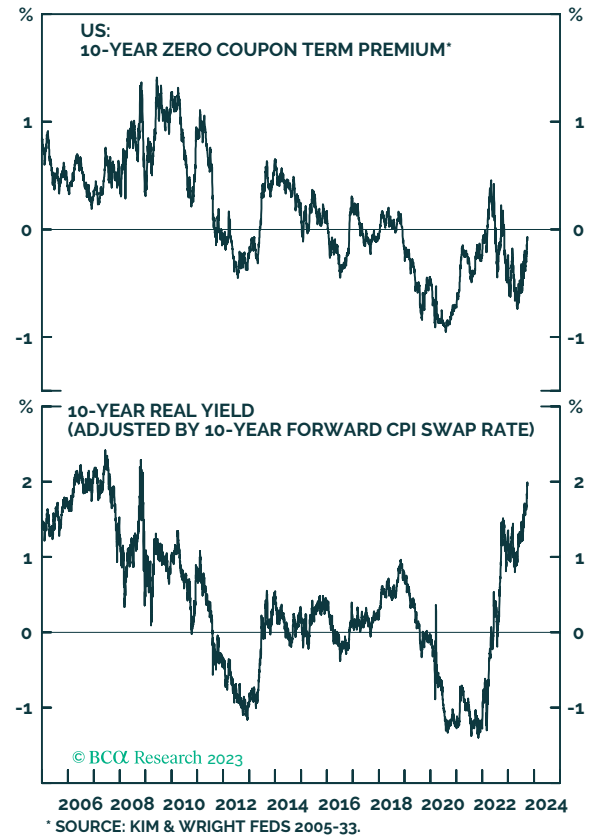
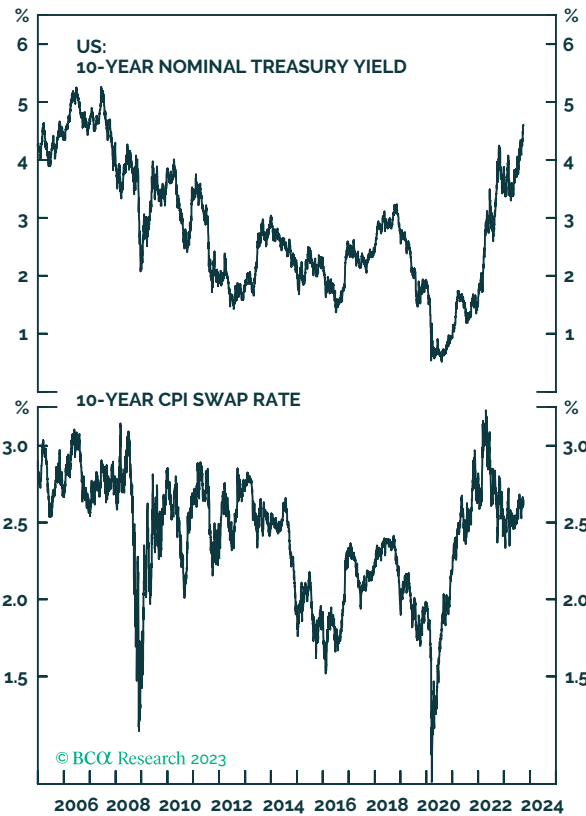


IMPLIED 1-YEAR RETURNS (%) OF A 10-YEAR GOVERNMENT BOND BASED ON DIFFERENT YIELD LEVELS							
Yield Level	US	GERMANY	FRANCE	SWITZERLAND	JAPAN	UK	AUSTRALIA
6.0%	-5.8	-22.1	-16.6	-40.6	-44.6	-7.0	-6.6
5.5%	-2.2	-18.1	-12.8	-36.4	-40.3	-3.3	-2.9
5.0%	1.5	-14.2	-8.9	-32.1	-36.0	0.3	0.7
4.5%	5.1	-10.3	-5.0	-27.9	-31.6	4.0	4.4
4.0%	8.8	-6.3	-1.2	-23.6	-27.3	7.7	8.1
3.5%	12.4	-2.3	2.7	-19.3	-23.0	11.4	11.7
3.0%	16.1	1.6	6.5	-15.1	-18.6	15.1	15.4
2.5%	19.7	5.6	10.4	-10.8	-14.3	18.8	19.1
2.0%	23.4	9.5	14.3	-6.5	-9.9	22.5	22.8
1.5%	27.1	13.5	18.1	-2.3	-5.6	26.2	26.5
1.0%	30.7	17.4	22.0	2.0	-1.2	29.9	30.1
0.5%	34.4	21.4	25.9	6.3	3.1	33.6	33.8
0.0%	38.0	25.4	29.8	10.6	7.5	37.3	37.5
-0.5%	41.7	29.3	33.6	14.9	11.9	41.1	41.2
-1.0%	45.4	33.3	37.5	19.1	16.2	44.8	44.9
-1.5%	49.1	37.3	41.4	23.4	20.6	48.5	48.6
-2.0%	52.7	41.3	45.3	27.7	24.9	52.2	52.3

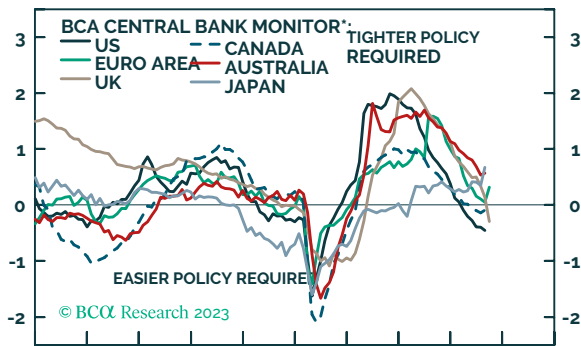
\* CALCULATION INCLUDES CURRENT YIELD, ROLLDOWN AND PRICE CHANGES.

# Fixed Income: US Treasurys

## What Is Driving Bond Yields?

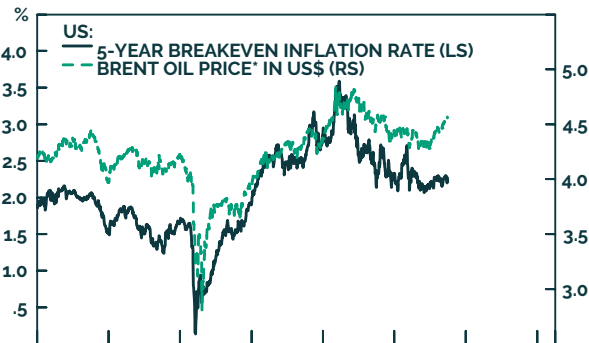


## Fixed Income: Global Government Bonds



2015 2016 2017 2018 2019 2020 2021 2022 2023 2024

<sup>\*</sup> BCA PROPRIETARY INDICATOR CONSISTING OF ECONOMIC AND FINANCIAL VARIABLES. READINGS BELOW ZERO INDICATE PRESSURE ON CENTRAL BANK TO EASE POLICY AND READINGS ABOVE ZERO INDICATE PRESSURE TO TIGHTEN.

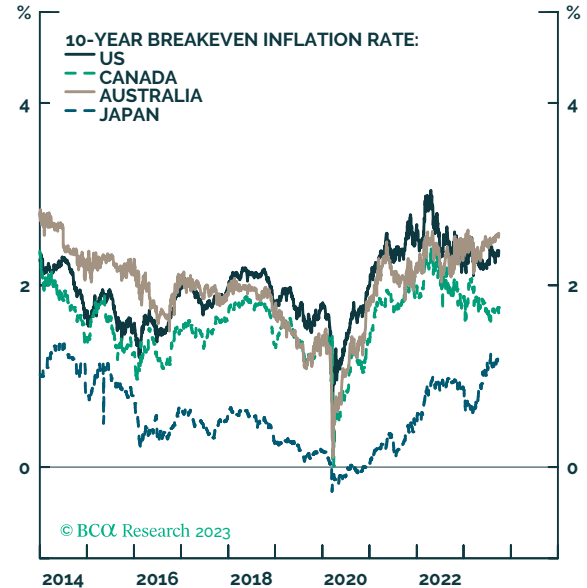
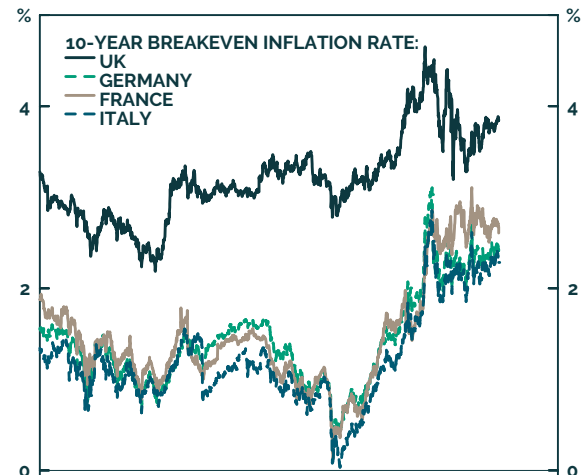


<sup>\*</sup> SHOWN AS A NATURAL LOGARITHM.

<sup>\*\*</sup> SOURCE: BLOOMBERG FINANCE L.P.

<sup>\*\*\*</sup> SOURCE: CONGRESSIONAL BUDGET OFFICE (CBO).

<sup>\*\*\*\*</sup> SPLICED WITH BCA ADAPTIVE EXPECTATIONS MODEL PRIOR TO 2003.

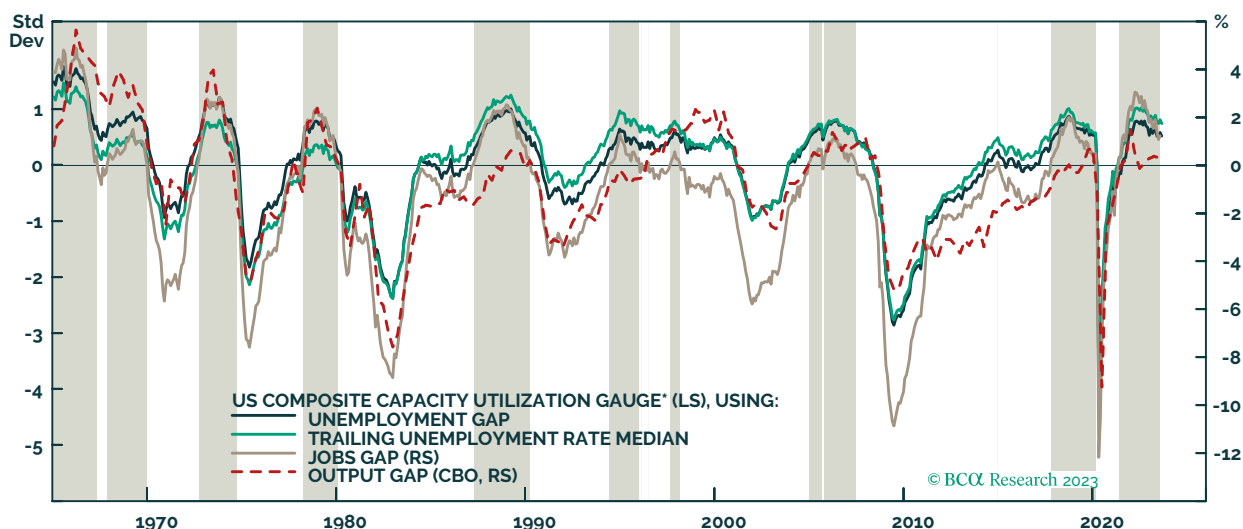


Recession Start	Recession End	Bond Yield Peak	Bond Yield Trough	Bond Yield Peak %	Bond Yield Trough %	Decline % Pts	Peak Months Rel To Start Of Recession	Trough Months Rel To End Of Recession
Apr-57	Apr-58	Oct-57	Jun-58	3.97	2.97	-1.00	6	2
Apr-60	Feb-61	Jan-60	May-61	4.72	3.71	-1.01	-3	3
Dec-69	Nov-70	Dec-69	Dec-71	7.88	5.89	-1.99	0	13
Nov-73	Mar-75	Sep-75	Jun-77	8.48	7.20	-1.28	22	27
Jan-80	Nov-82	Sep-81	Feb-83	15.84	10.27	-5.57	20	3
Jul-90	Mar-91	Apr-90	Sep-93	9.04	5.40	-3.64	-3	31
Mar-01	Nov-01	Jan-00	Sep-02	6.68	3.63	-3.05	-14	10
Dec-07	Jun-09	Jun-06	Dec-08	5.15	2.25	-2.90	-18	-6
Feb-20	Apr-20	Oct-18	Jul-20	3.15	0.55	-2.60	-16	3
<b>Median</b>						-2.60	-3	3
<b>Average</b>						-2.56	-1	10

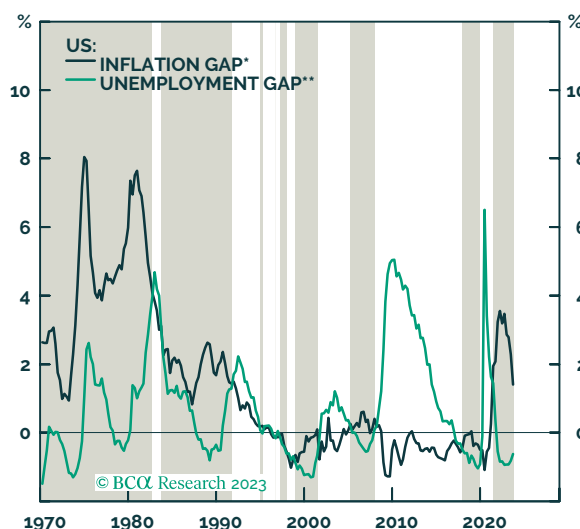
NOTE: COMBINED THE JAN 1980-JUL 1980 AND JUL 1981-NOV 1982 RECESSIONS.

## Fixed Income: Global Bond Comparisons

Region Country	Current Yield (%)	10-Year Government Bond Yield (%) Hedged Into					
		USD	GBP	EUR	JPY	CAD	AUD
US	4.57	4.57	4.30	2.73	-1.85	3.95	3.26
GERMANY	2.84	4.65	4.38	2.84	-1.66	4.03	3.36
FRANCE	3.40	5.21	4.94	3.40	-1.10	4.59	3.92
SPAIN	3.93	5.74	5.48	3.93	-0.56	5.13	4.46
ITALY	4.78	6.59	6.33	4.78	0.29	5.98	5.31
JAPAN	0.77	6.80	6.54	5.07	0.77	6.21	5.57
UK	4.44	4.71	4.44	2.87	-1.70	4.08	3.40
CANADA	4.03	4.65	4.38	2.82	-1.73	4.03	3.35
AUSTRALIA	4.49	5.78	5.51	3.96	-0.56	5.16	4.49
NEW ZEALAND	5.31	5.33	5.06	3.49	-1.09	4.71	4.02
SWEDEN	2.96	4.96	4.70	3.16	-1.33	4.35	3.68
SWITZERLAND	1.10	5.24	4.98	3.47	-0.91	4.64	3.99



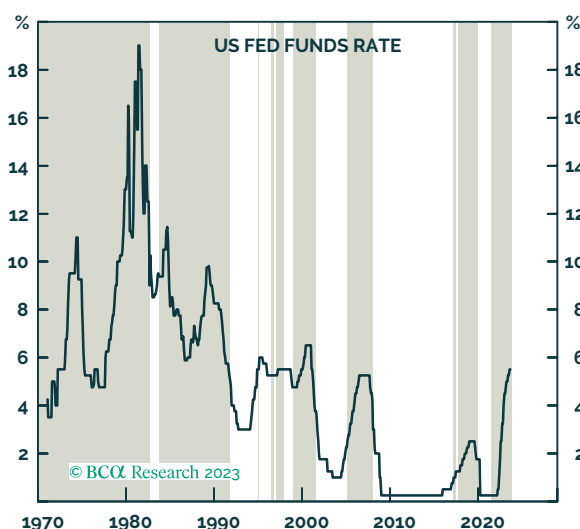
\* BASED ON THE GIVEN LABOR MARKET GAP AND INDUSTRIAL CAPACITY UTILIZATION RELATIVE TO ITS 5-YEAR MEDIAN. THE UNEMPLOYMENT GAP AND TRAILING UNEMPLOYMENT MEASURES ARE STANDARDIZED.  
 NOTE: SHADED AREA DENOTE PERIOD WHEN THE COMPOSITE CAPACITY UTILIZATION GAUGE IS ABOVE 0.



\* DIFFERENCE BETWEEN CORE PCE INFLATION AND INFLATION TARGET OF 2%.

\*\* DIFFERENCE BETWEEN UNEMPLOYMENT RATE AND LATEST NAIRU ESTIMATES; SOURCE: BLS, CBO.

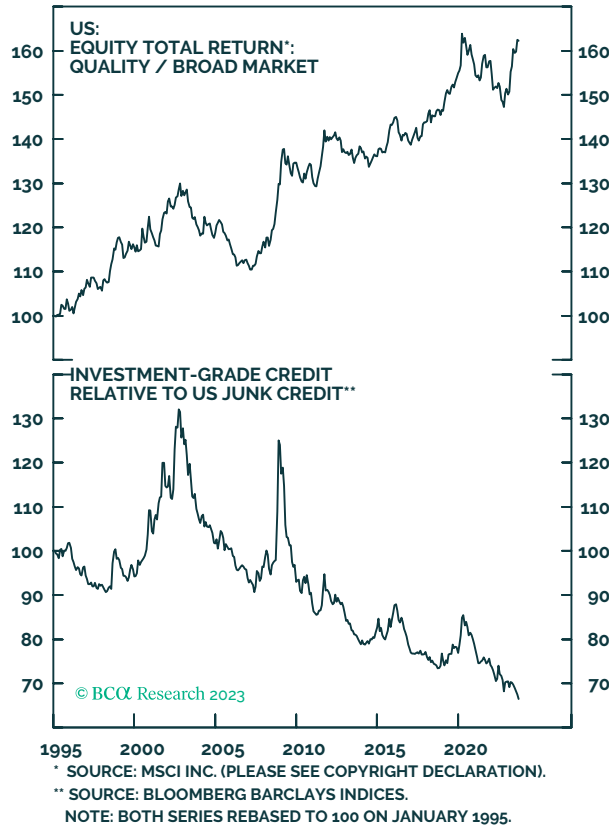
NOTE: SHADING AREAS DENOTE THE PERIODS WHEN THE FED MISSED ITS INFLATION TARGET BY MORE THAN ITS UNEMPLOYMENT TARGET.



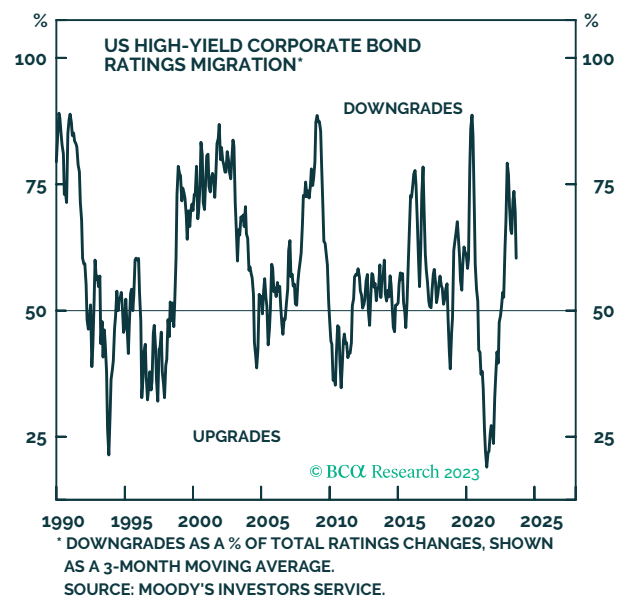
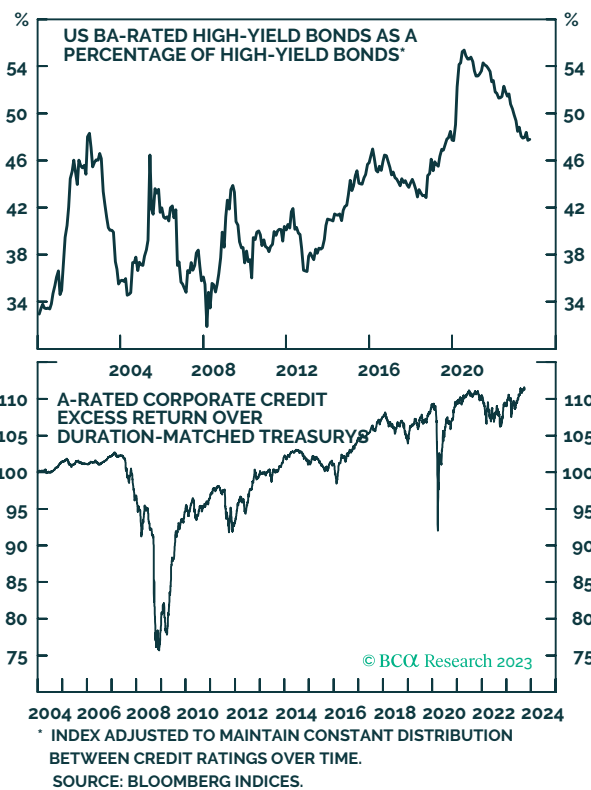
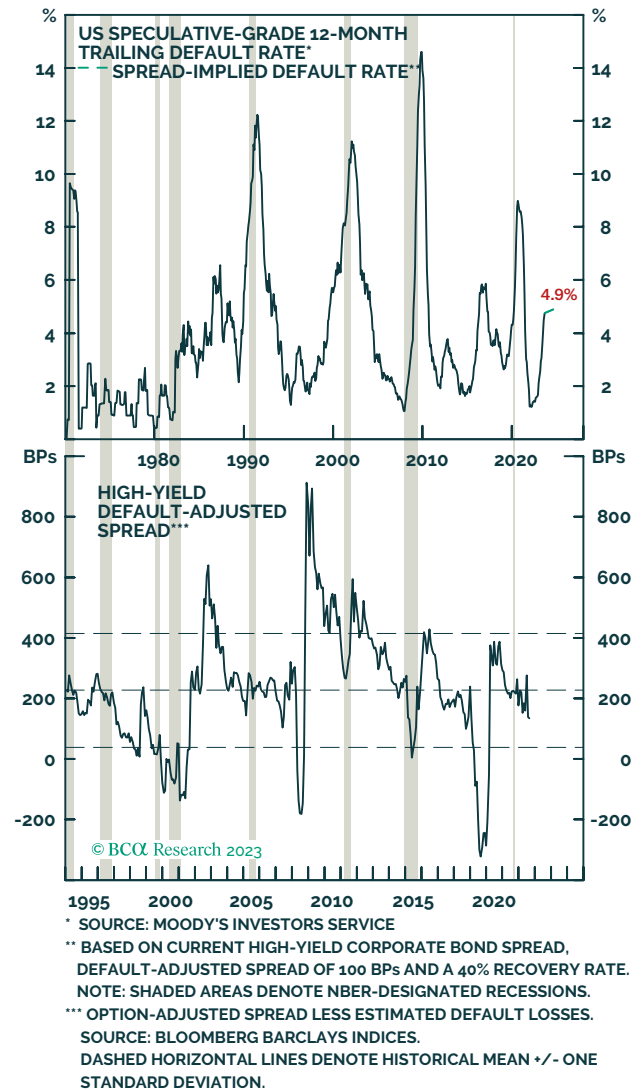
NOTE: SHADING AREAS DENOTE THE PERIODS WHEN THE FED MISSED ITS INFLATION TARGET BY MORE THAN ITS UNEMPLOYMENT TARGET.

# Fixed Income: Credit

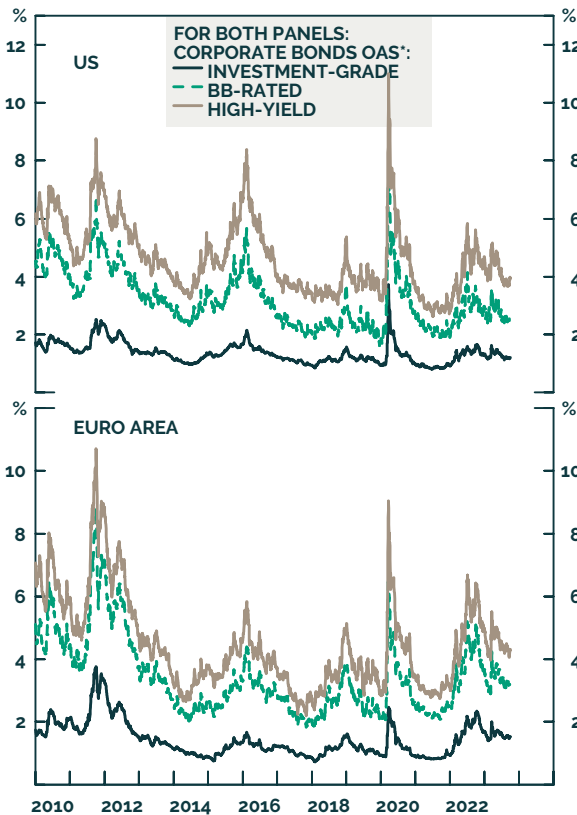
## Quality



## Valuations

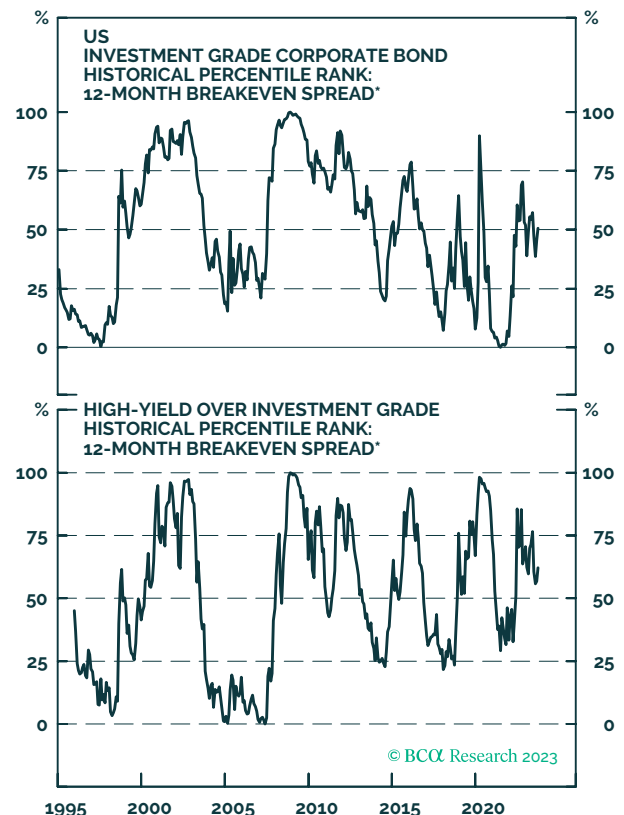


## Credit Markets



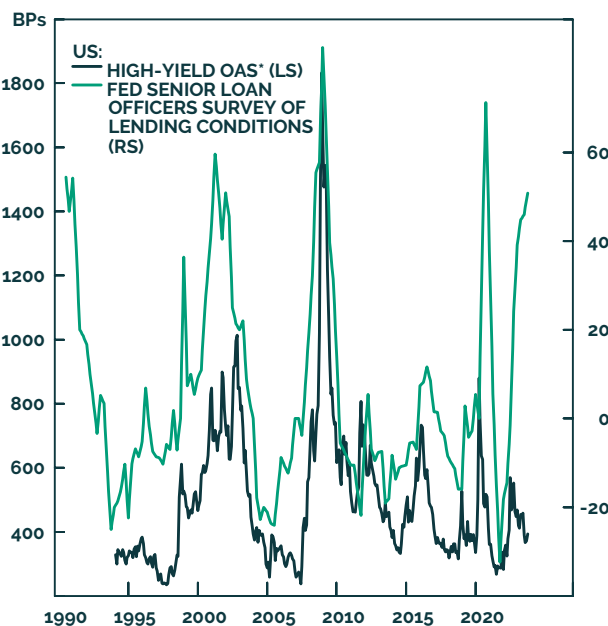
\* SOURCE: BLOOMBERG BARCLAYS INDICES.  
OAS IS OPTION-ADJUSTED SPREAD.

© BCQ Research 2023



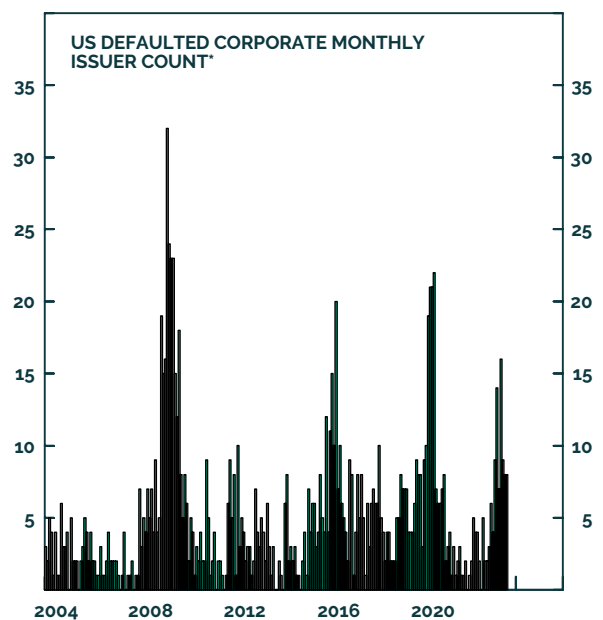
\* INDEX ADJUSTED TO MAINTAIN CONSTANT DISTRIBUTION  
BETWEEN CREDIT RATINGS OVER TIME.  
SOURCE: BLOOMBERG BARCLAYS INDICES.

© BCQ Research 2023



\* SOURCE: BLOOMBERG INDICES.

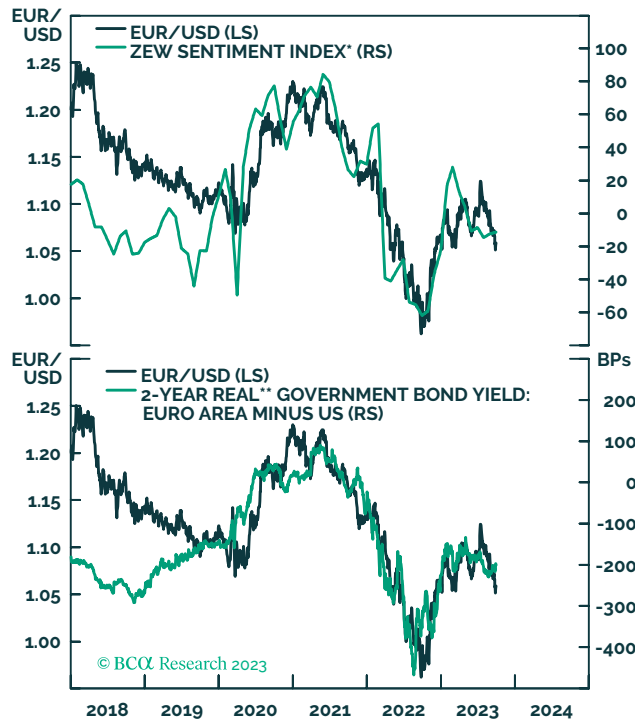
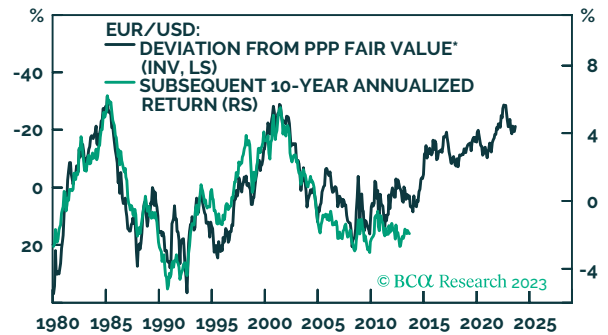
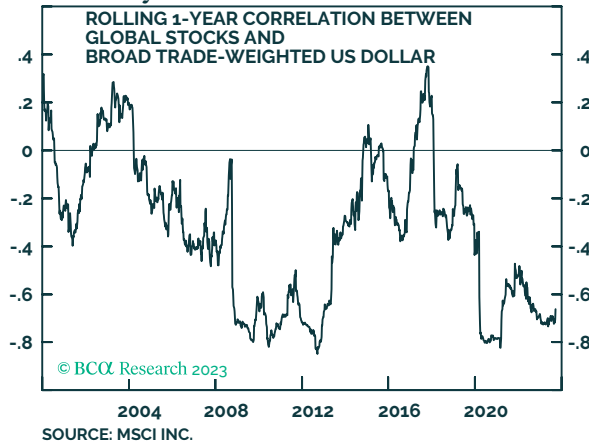
© BCQ Research 2023



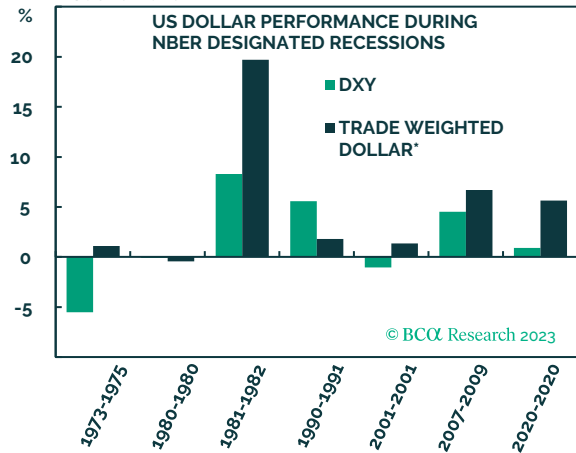
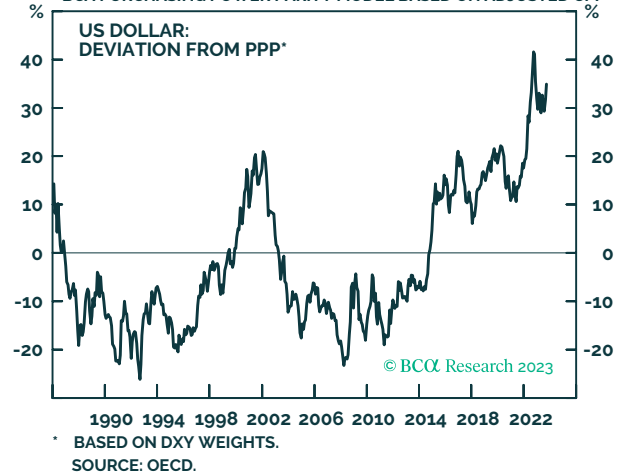
\* SOURCE: MOODY'S INVESTORS SERVICE. © BCQ Research 2023

# Currencies

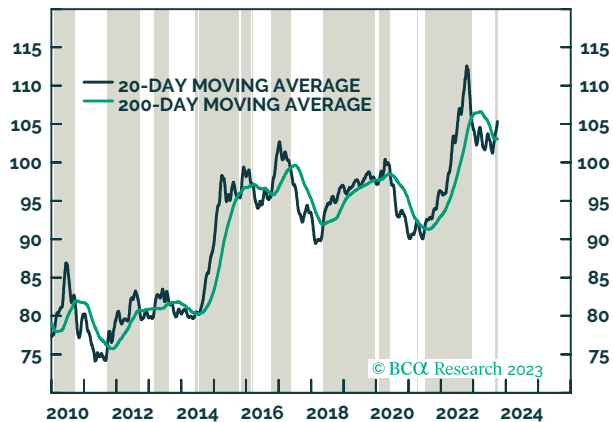
## Currency Fundamentals



\* SOURCE: CENTRE FOR EUROPEAN ECONOMIC RESEARCH (ZEW).  
\*\* DEFLECTED BY CPI SWAPS.

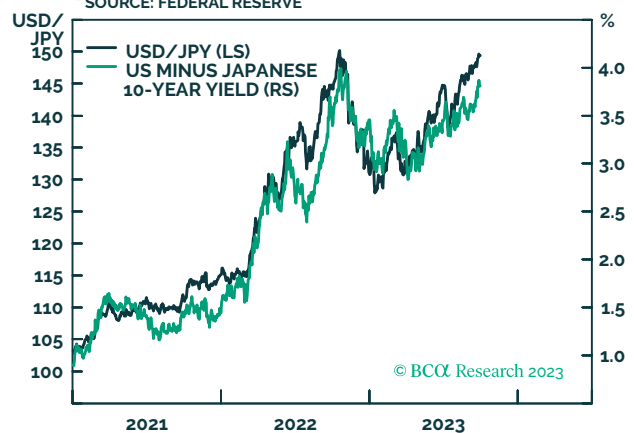


\* SOURCE: FEDERAL RESERVE



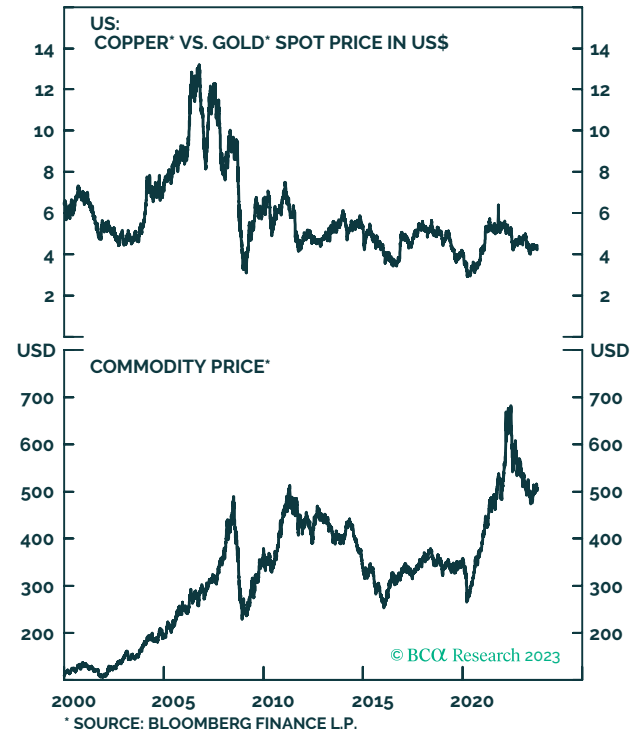
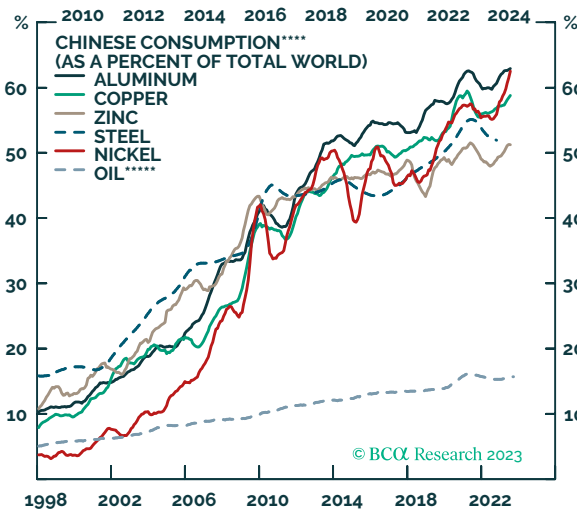
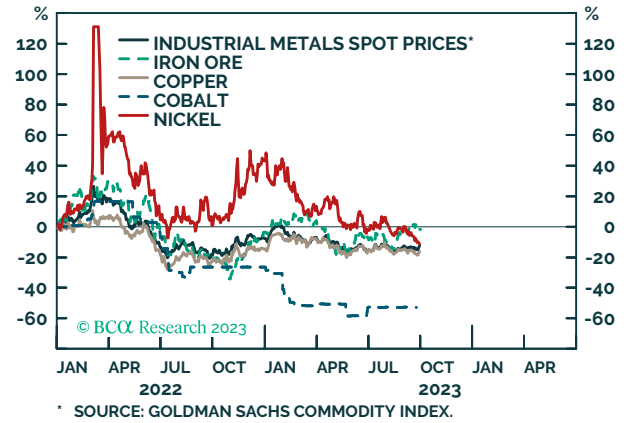
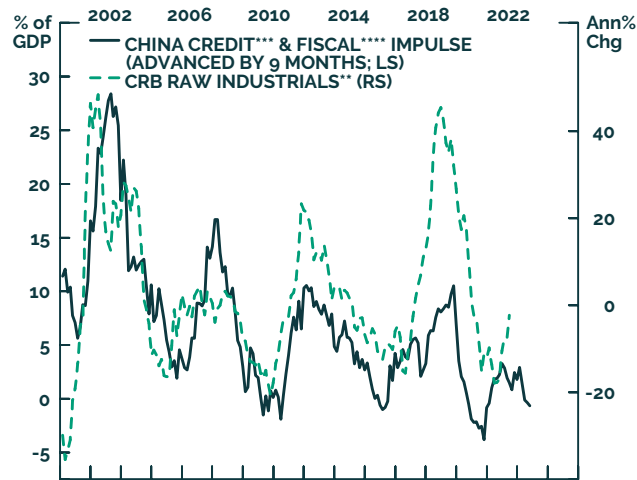
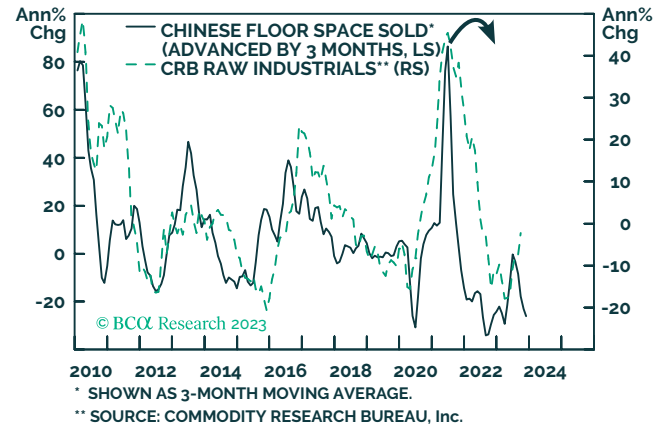
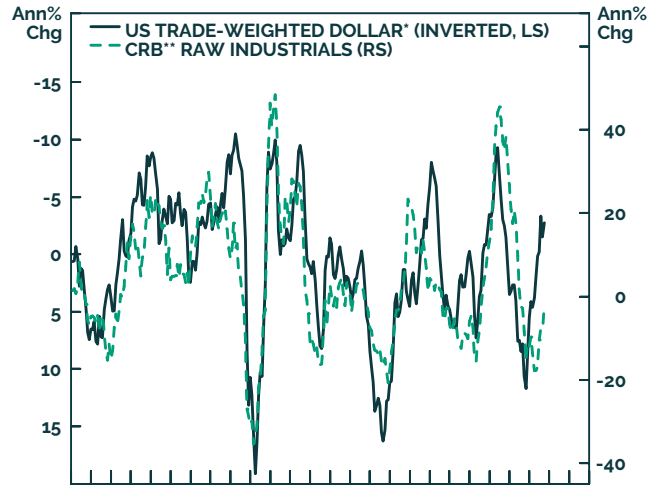
\* SOURCE: BLOOMBERG / NYMEX.

SHADED AREAS DENOTE LONG SIGNALS AND WHITE AREAS DENOTE SELL SIGNALS.



# Commodities

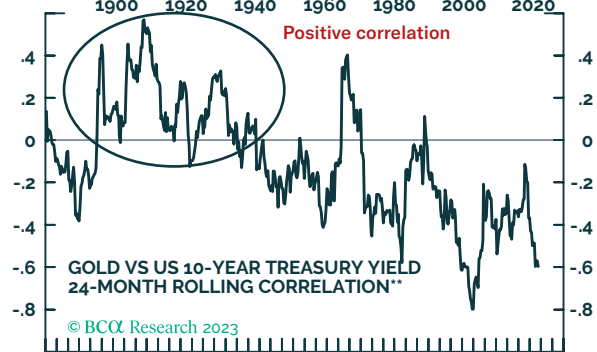
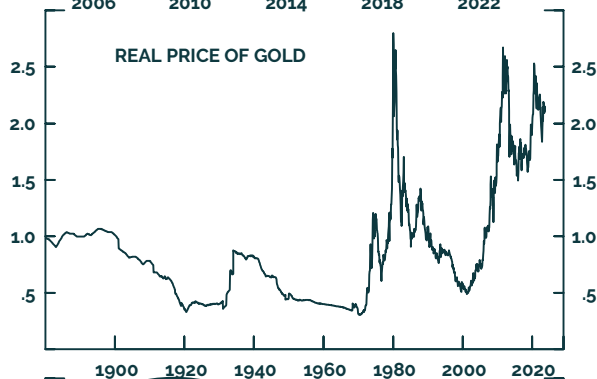
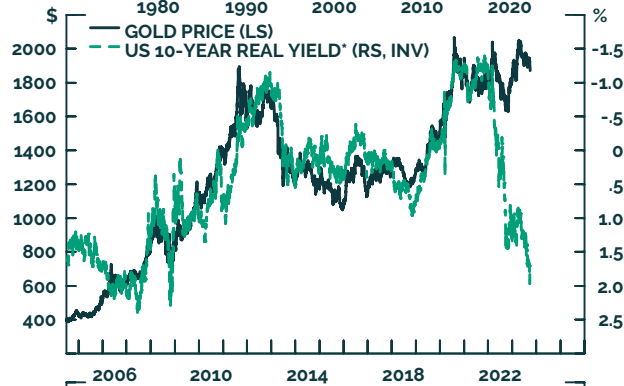
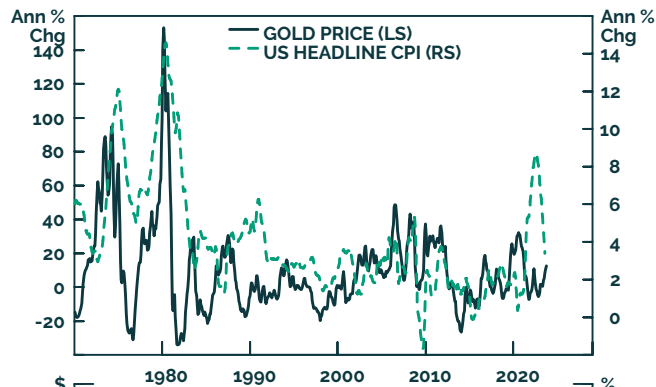
## The Dollar Effect



\* BROAD, NOMINAL. SOURCE: FEDERAL RESERVE.  
\*\* SOURCE: COMMODITY RESEARCH BUREAU, INC.  
\*\*\* CALCULATED AS CUMULATIVE AGGREGATE FINANCING EXCLUDING EQI FINANCING, LOCAL GOVERNMENT SPECIAL BONDS ISSUANCE, AND INCLUDING LGFV SWAP FROM 2015 TO 2017.  
\*\*\*\* SHOWN AS 12-MONTH MOVING AVERAGES. SOURCE: WBMS AND EIA.  
\*\*\*\*\* CRUDE OIL AND LIQUID FUEL.

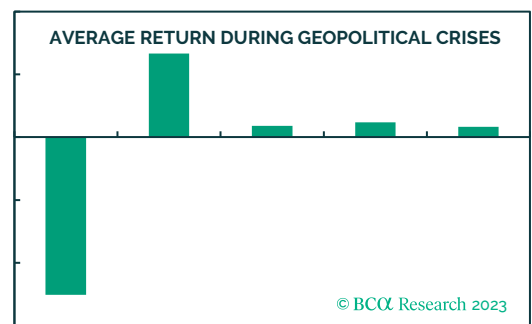
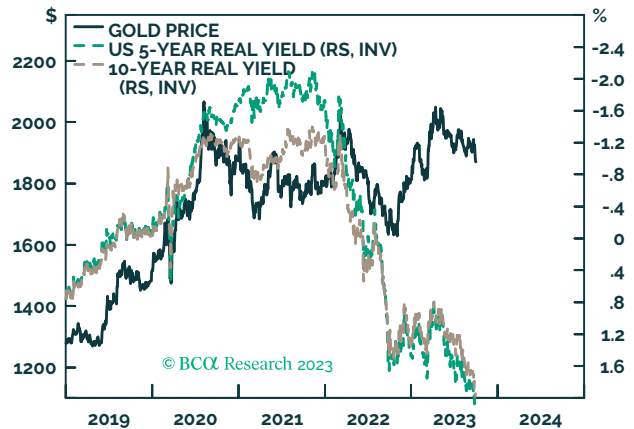


# Gold



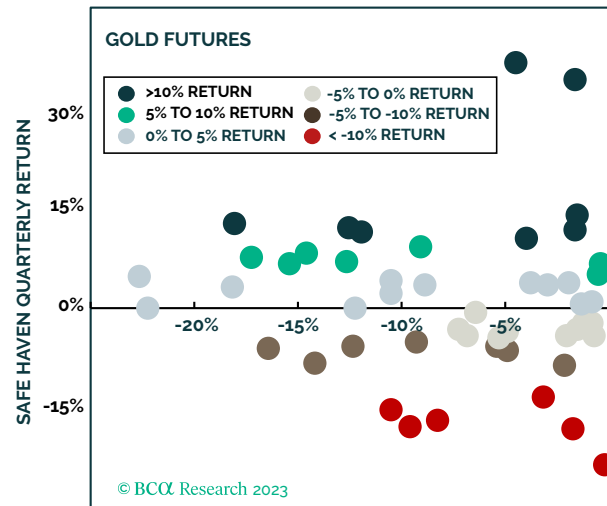
\* DEFLATED BY 10-YEAR CPI SWAP RATE.

\*\* SOURCE: BASED ON MONTHLY CHANGES IN YIELD VERSUS MONTHLY PERCENTAGE CHANGE IN GOLD PRICE.



NOTE: BASED ON PEAK-TO-TROUGH DECLINE IN S&P 500 IN THE ONE MONTH WINDOW BEFORE AND AFTER MAJOR GEOPOLITICAL SHOCKS SINCE 1955.

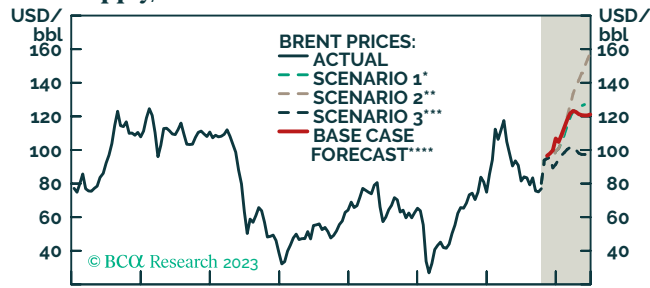
## QUARTERLY RETURNS OF GLOBAL EQUITIES (LOSSES)



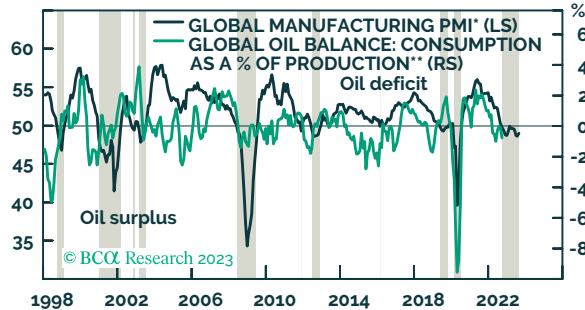
SOURCE: MSCI INC. (PLEASE SEE COPYRIGHT DECLARATION), BLOOMBERG/BARCLAYS INDECS, GOLDMAN SACHS VIA DATASTREAM, NATIONAL ASSOCIATION OF REAL ESTATE INVESTMENT TRUST, KOTHARI, S.P. AND SHANKEN, JAY A., "ASSET ALLOCATION WITH INFLATION-PROTECTED BONDS," FINANCIAL ANALYSTS JOURNAL, VOL. 60, NO. 1, PP. 54-70, JANUARY/FEBRUARY 2004. BCA CALCULATIONS.

# Oil

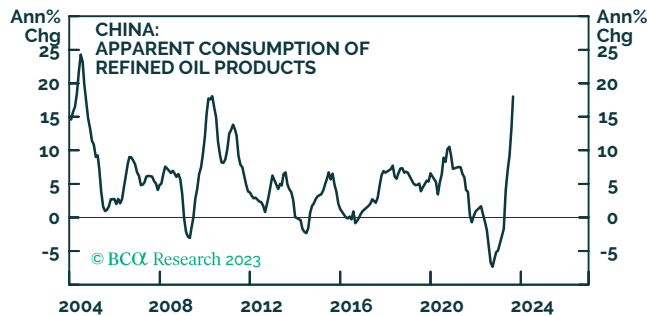
## Supply/Demand Balance



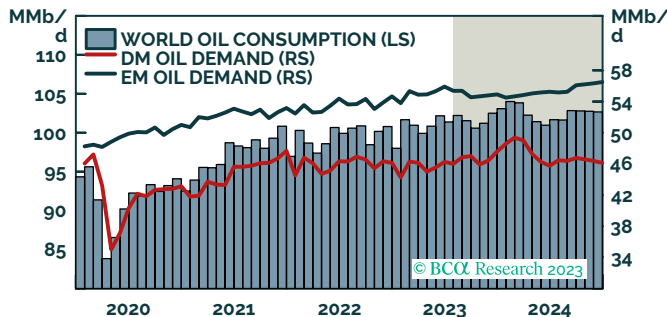
\* ASSUMES KSA CUTS CRUDE OUTPUT BY A TOTAL OF 1MM B/D IN JULY AND AUGUST 2023 ONLY AND CONTINUES WITH APRIL CUTS FOR REST OF 2023.  
 \*\* ASSUMES KSA CUTS CRUDE OUTPUT BY A TOTAL OF 1MM B/D FROM JULY 2023-DECEMBER 2023.  
 \*\*\* ASSUMES KSA CUTS CRUDE OUTPUT BY A TOTAL OF 1MM B/D FROM JULY 2023-DECEMBER 2024.  
 \*\*\*\* SCENARIO 1 GIVEN A 69% WEIGHT, SCENARIO 2 GIVEN A 10% WEIGHT, SCENARIO 3 GIVEN A 1% WEIGHT AND USD MODEL (NOT SHOWN) GIVEN A 20% WEIGHT.



\* SOURCE: S&P GLOBAL / MARKIT ECONOMICS LTD.  
 \*\* SHOWN AS A 3-MONTH MOVING AVERAGE; SOURCE: EIA.  
 NOTE: SHADED AREA REPRESENTS GLOBAL PMI BELOW 50.

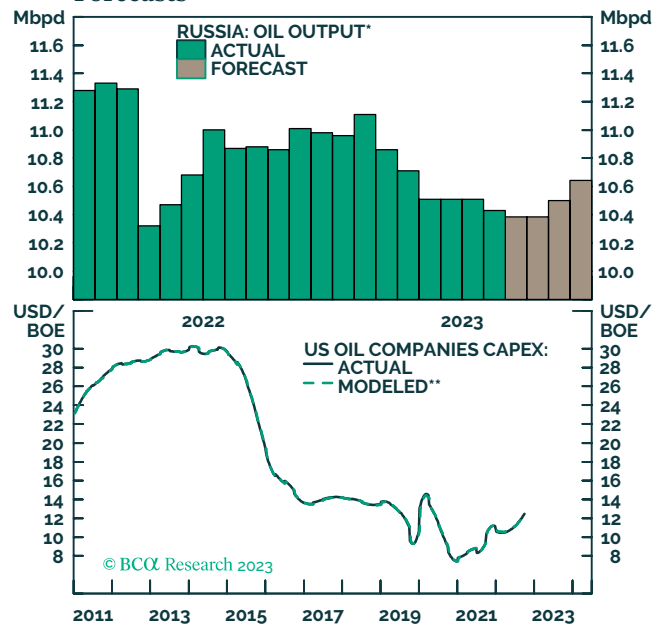


SOURCE: NATIONAL BUREAU OF STATISTICS AND CUSTOMS CHINA.  
 NOTE: ALL SERIES ARE SHOWN AS A 6-MONTH MOVING TOTAL.



SOURCE: WORLD BANK, US EIA, BCA RESEARCH.  
 NOTE: SHADED AREA DENOTES BCA RESEARCH FORECASTS

## Forecasts

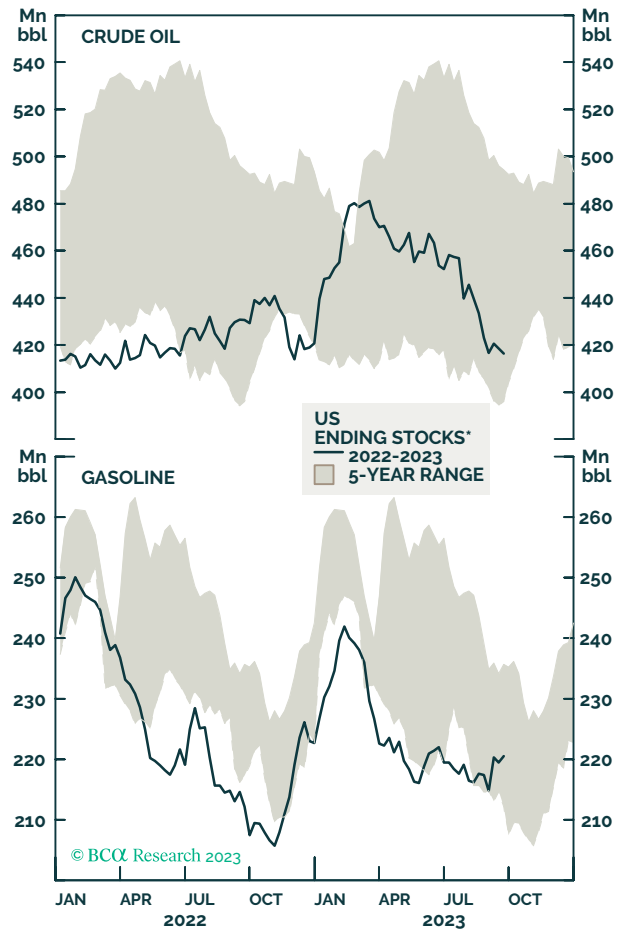


\* SOURCE: EIA.

\*\* AS A FUNCTION OF LAGGED CAPEX, OFR FSI AND CL36.

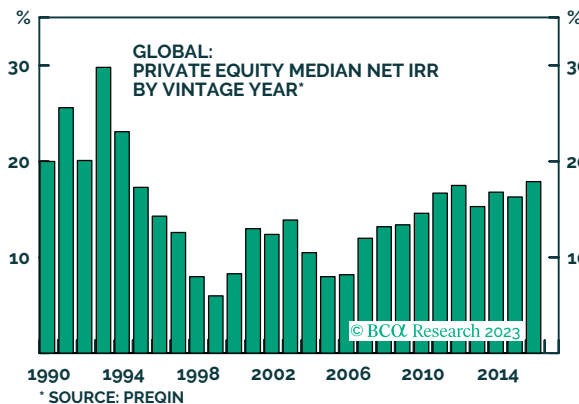
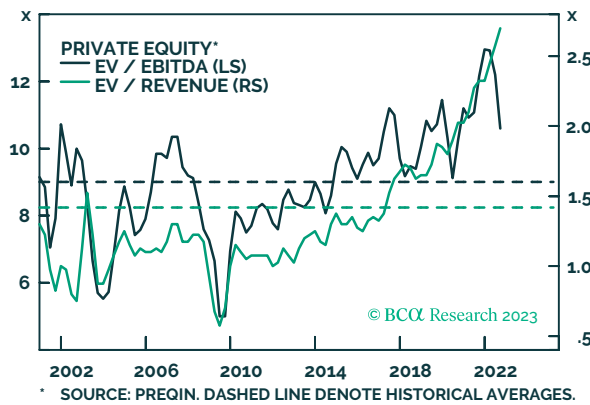
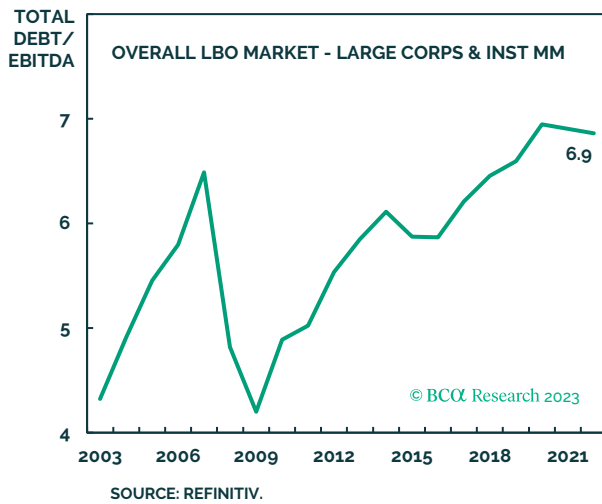
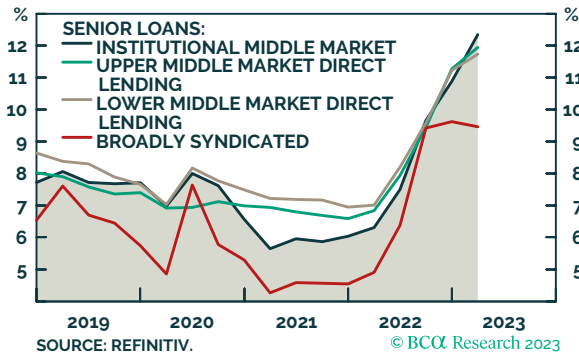
NOTE: CAPEX DATA CONVERTED FROM QUARTERLY TO WEEKLY FREQUENCY USING QUADRATIC FREQUENCY CONVERSION.

SOURCE: OFFICE OF FINANCIAL RESEARCH, EVALUATE ENERGY VIA US EIA AND BCA RESEARCH.

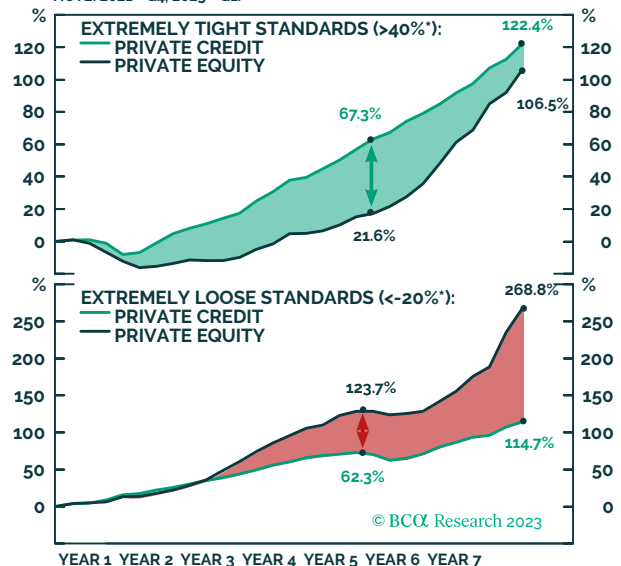
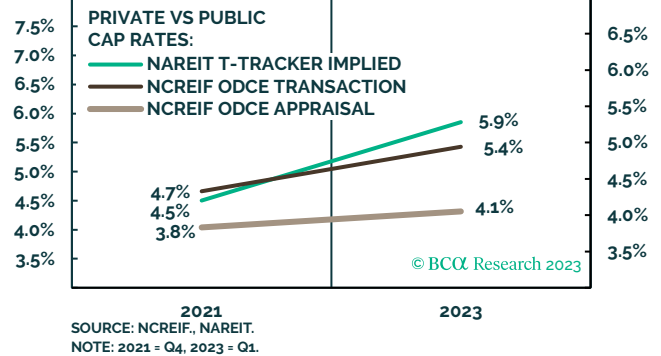
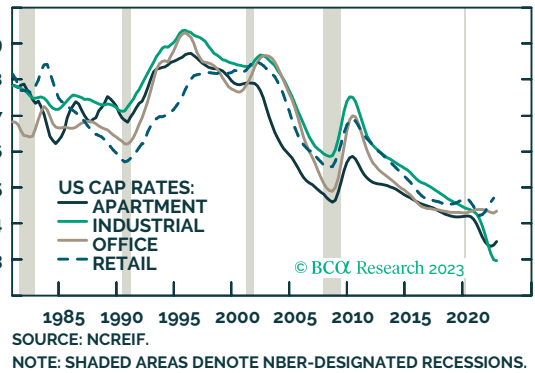
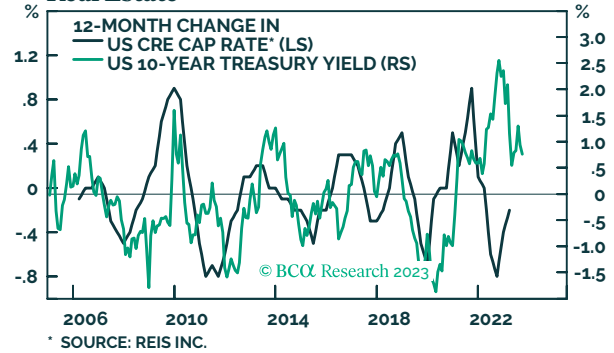


\* SOURCE: EIA.

# Private Markets & Alternatives



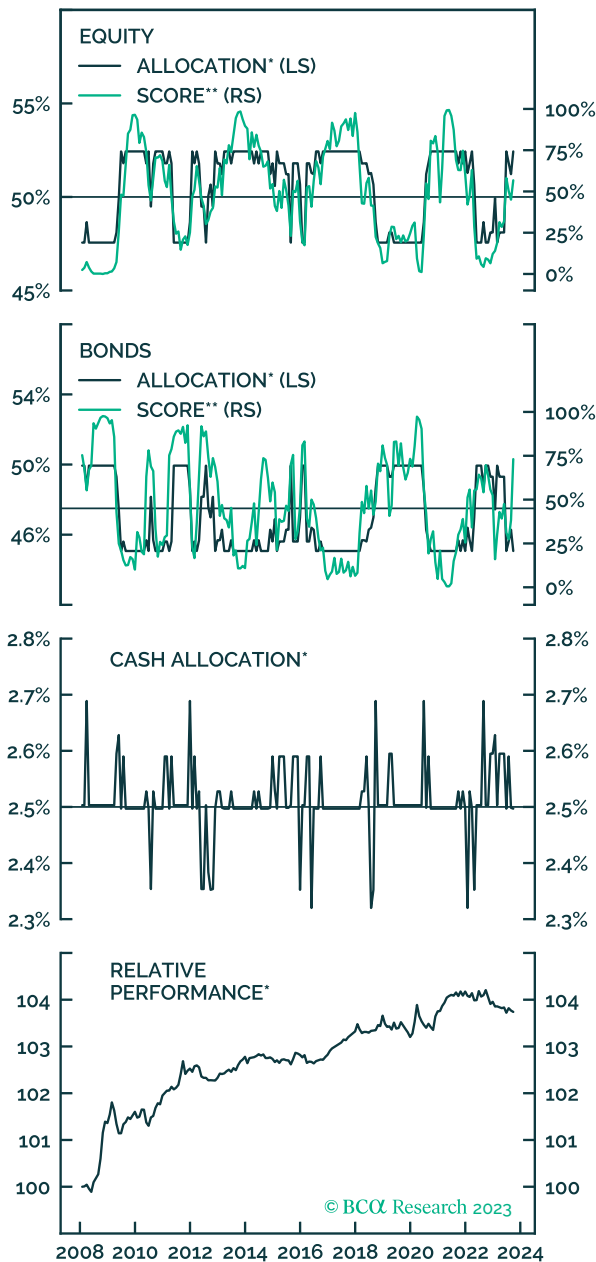
## Real Estate



# MacroQuant Model

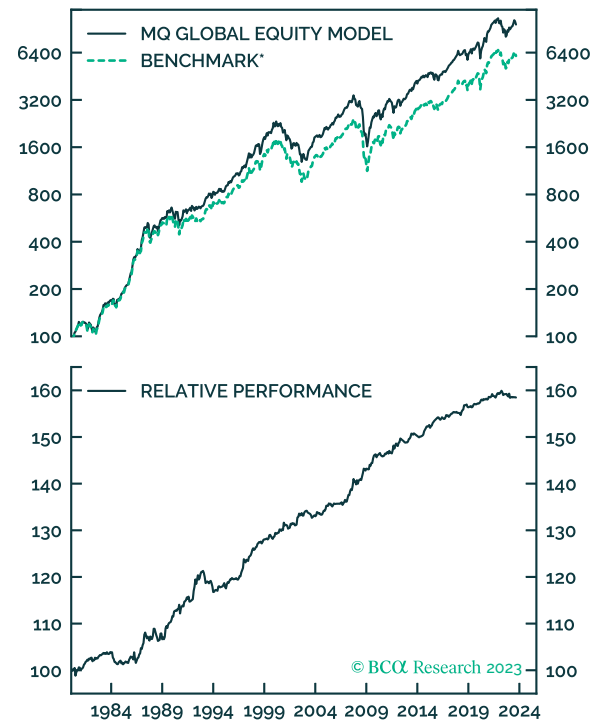
Asset Allocation	Bench	MQ	Dev.	Chg.
Equities	50.0%	52.4%	+2.4%	+1.2%
Bonds	47.5%	45.1%	-2.4%	-1.2%
Cash	2.5%	2.5%	-0.003%	-0.002%
Global Equities				
US	71.5%	79.3%	+7.7%	-1.1%
India	1.9%	2.0%	+0.1%	-0.01%
Brazil	0.7%	0.6%	-0.1%	-0.02%
Japan	6.4%	6.1%	-0.3%	+0.6%
Italy	0.7%	0.3%	-0.4%	-0.04%
Canada	3.3%	2.6%	-0.7%	+0.2%
Australia	2.0%	1.3%	-0.8%	+0.3%
China	3.6%	2.6%	-1.0%	+0.3%
Germany	2.3%	1.2%	-1.1%	-0.6%
UK	4.2%	2.8%	-1.4%	+1.0%
France	3.3%	1.3%	-2.0%	-0.6%
Global Sectors				
Technology	21.6%	29.1%	+7.5%	+2.5%
Energy	5.3%	7.6%	+2.3%	+0.6%
Consumer Discretionary	10.8%	11.6%	+0.8%	+0.4%
Communication Services	7.3%	7.8%	+0.5%	-0.1%
Health Care	12.9%	12.9%	+0.1%	-0.4%
Consumer Staples	7.2%	7.1%	-0.1%	-1.6%
Real Estate	2.3%	1.7%	-0.6%	+0.1%
Materials	4.1%	3.3%	-0.7%	-0.7%
Utilities	2.6%	1.8%	-0.9%	+0.1%
Industrials	10.8%	9.7%	-1.2%	-1.0%
Financials	15.0%	7.3%	-7.7%	+0.1%

# MacroQuant Model

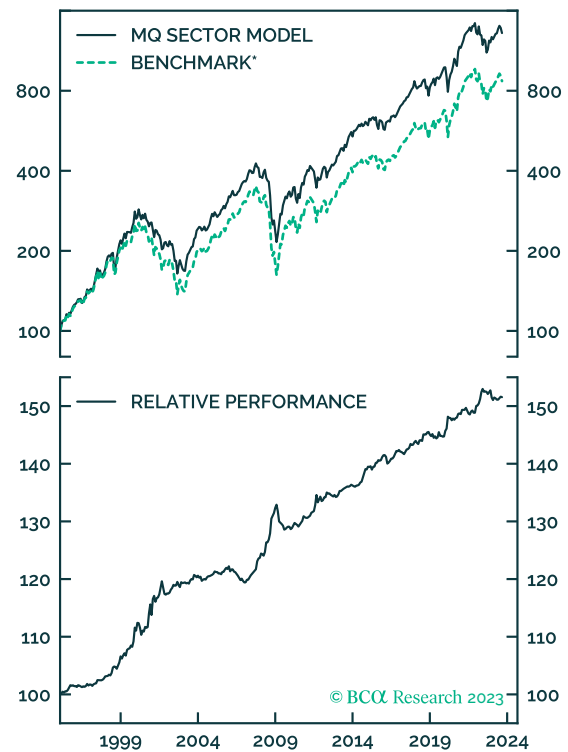


\* ALLOCATION TO THE UNDERLYING ASSET VERSUS A BENCHMARK PORTFOLIO OF 50% EQUITIES, 47.5% BONDS, AND 2.5% CASH. SEE WHITE PAPER FOR MORE INFORMATION ON HOW THE SCORES ARE TRANSLATED INTO ALLOCATIONS. HORIZONTAL LINES REPRESENT BENCHMARK WEIGHTS.

\*\* GLOBAL SCORES ARE MARKET-WEIGHTED SUMS OF THE INDIVIDUAL ASSET SCORES.

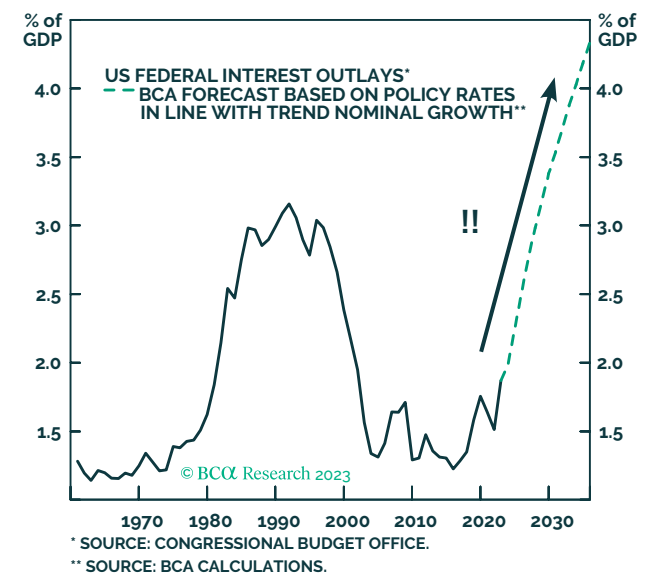
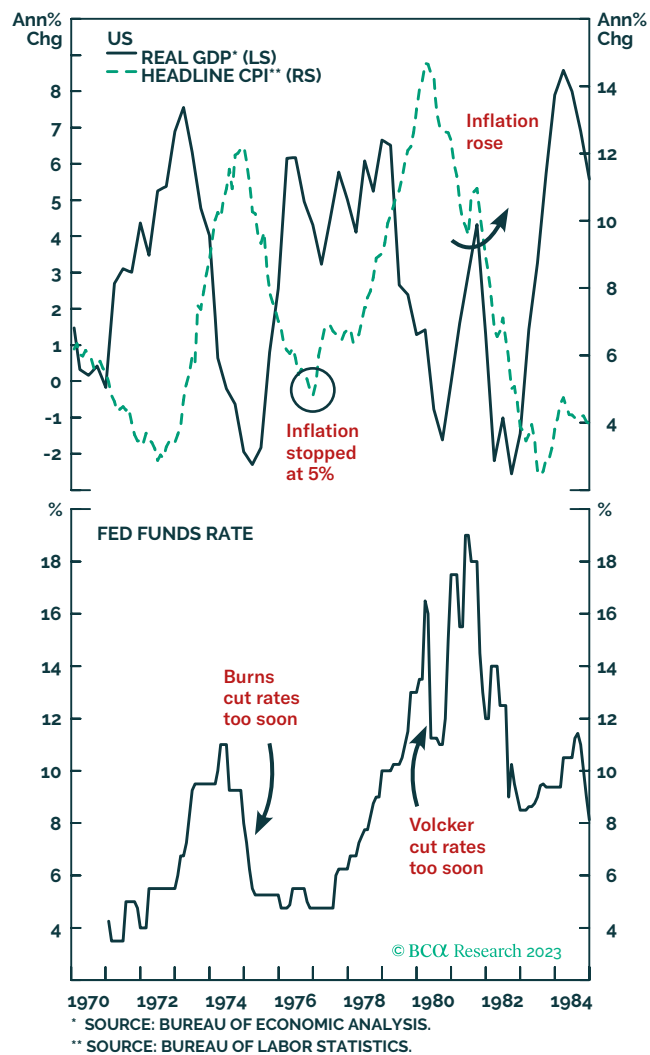
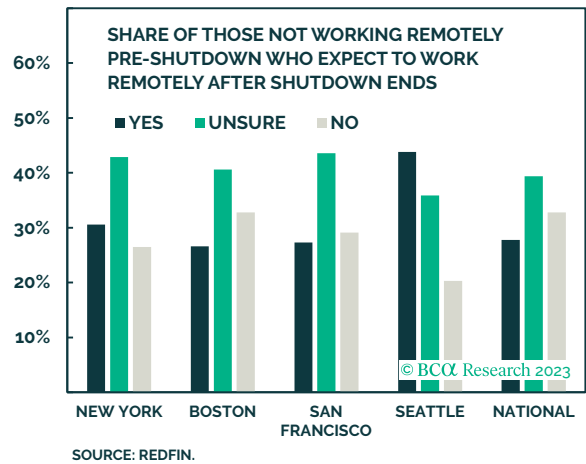
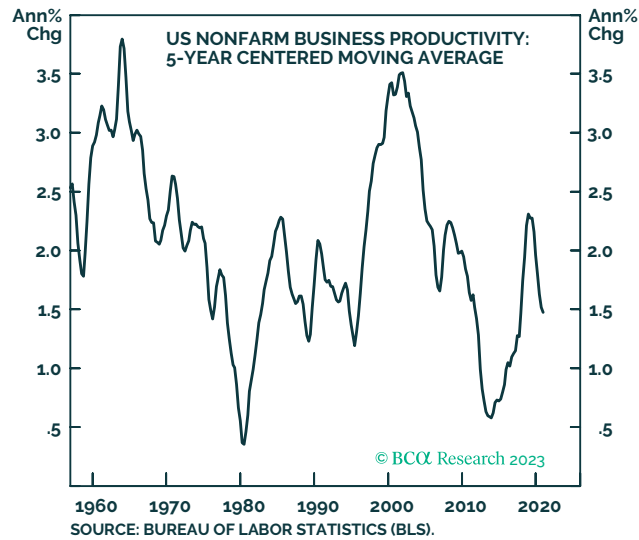


\* MARKET-CAP WEIGHTED MSCI TOTAL RETURN OF 11 COUNTRIES: US, UK, JAPAN, GERMANY, FRANCE, ITALY, CANADA, AUSTRALIA, CHINA, BRAZIL, AND INDIA.

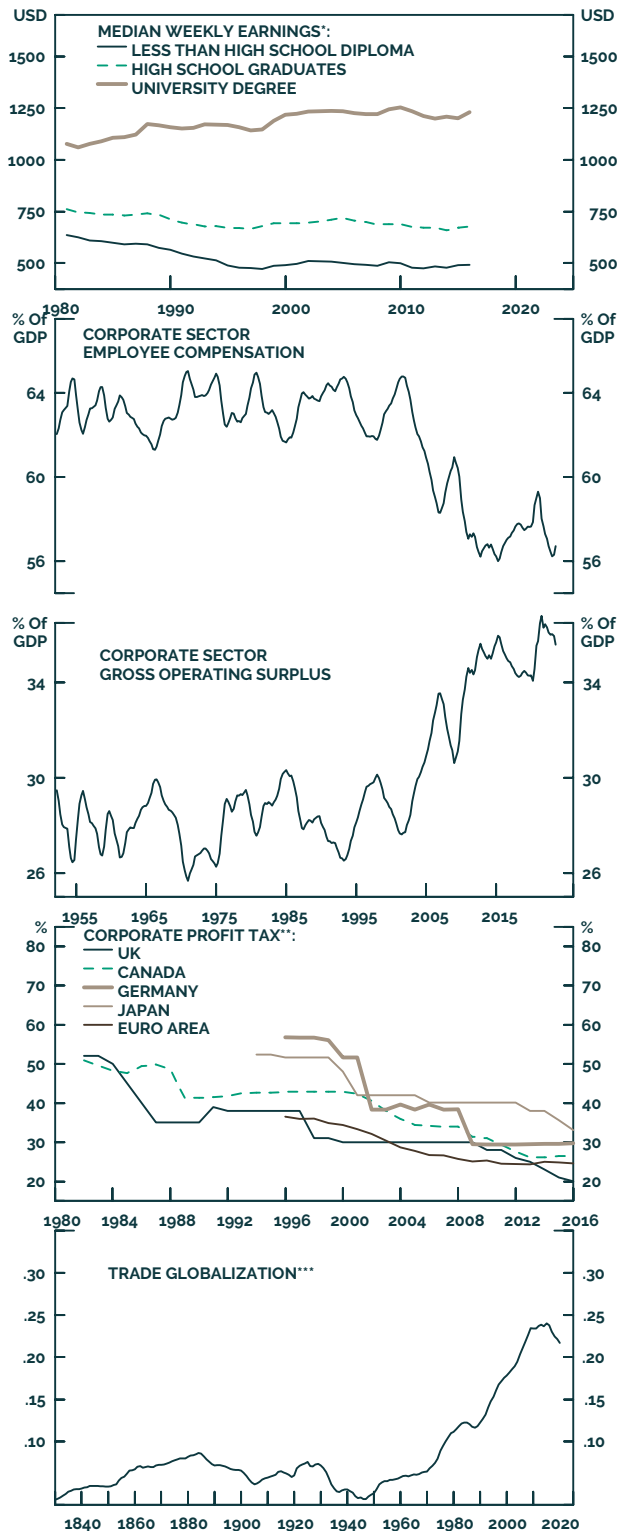


\* BASED ON MSCI WORLD RETURNS AND MARKET WEIGHTS IN US DOLLARS.

# Long-Term Structural Themes

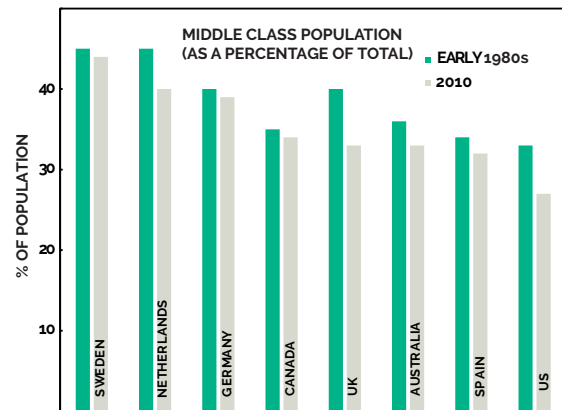


# Shift To Populism

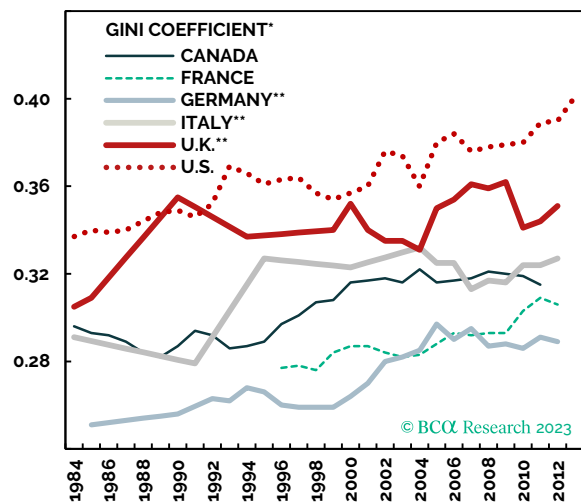


\* SOURCE: BUREAU OF LABOR STATISTICS. SHOWN IN 2015 DOLLARS.  
 \*\* SOURCE: NATIONAL TAX AGENCY JAPAN, HM REVENUE & CUSTOMS, FEDERAL CENTRAL TAX OFFICE & CANADA REVENUE AGENCY.  
 \*\*\* TRADE GLOBALIZATION IS MEASURED BY IMPORTS AS PERCENTAGE OF GDP FOR 148 COUNTRIES WEIGHTED BY POPULATION.  
 SOURCE: BCA CALCULATIONS AND CHASE-DUNN C., KAWANO Y., AND BREWER B., "TRADE GLOBALIZATION SINCE 1795: WAVES OF INTEGRATION IN THE WORLD SYSTEM," AMERICAN SOCIOLOGICAL REVIEW 65 1, 2000.

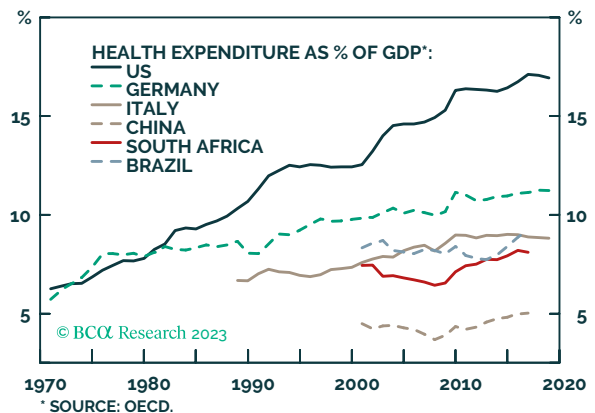
© BCQ Research 2023



SOURCE: MILANOVIC FROM THE LUXEMBOURG INCOME STUDY DATABASE  
 © BCQ Research 2023



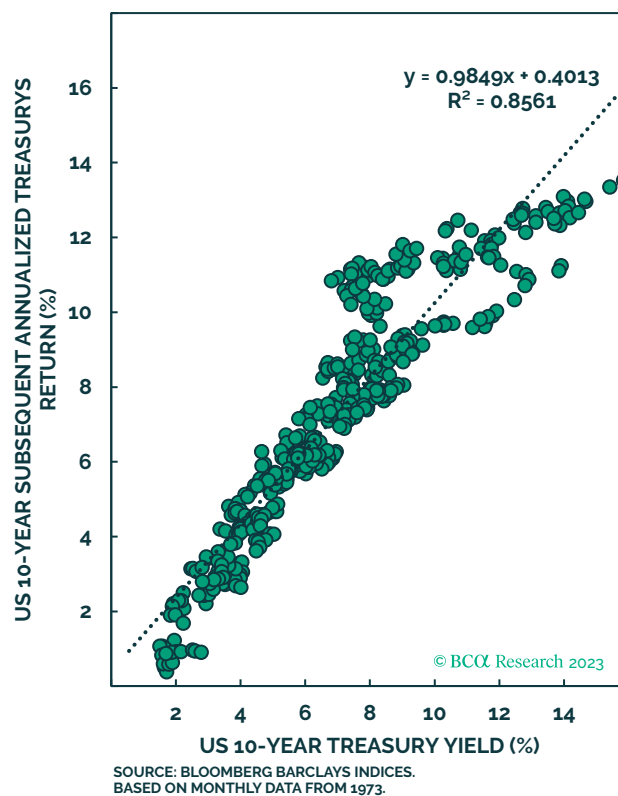
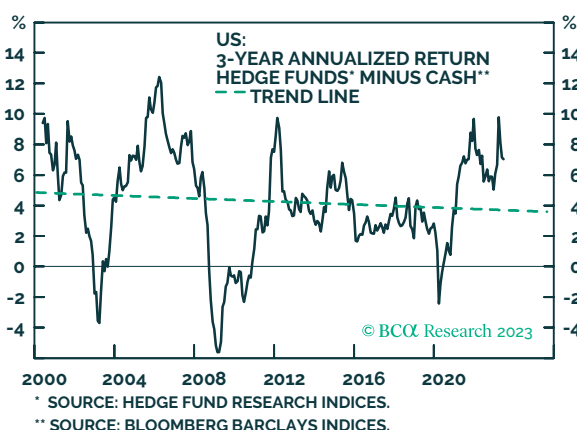
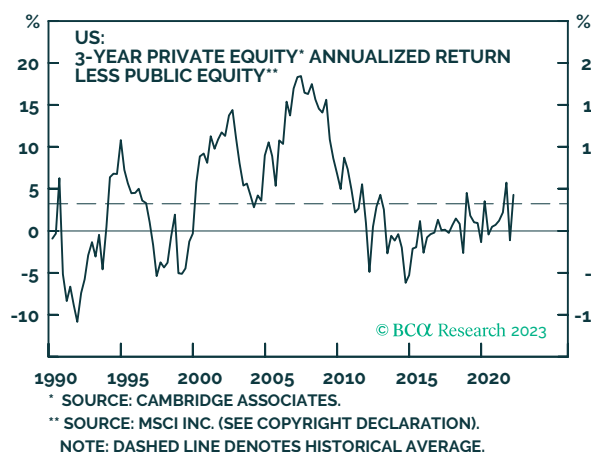
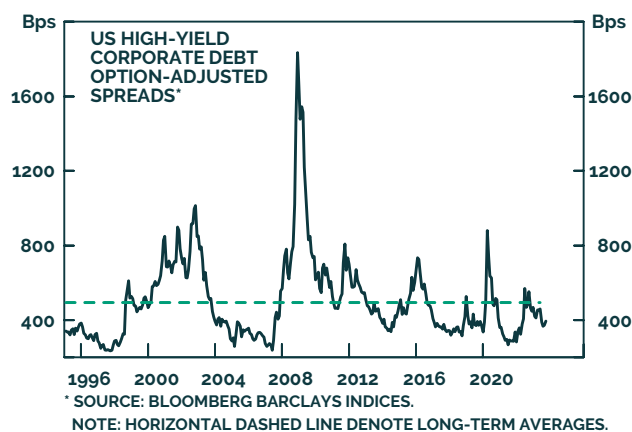
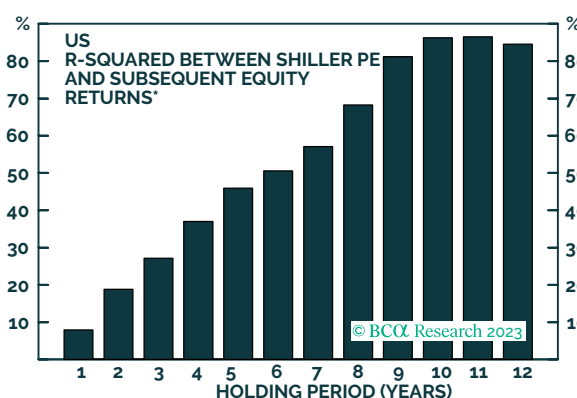
\* DATA BEFORE 2012 REFLECTS ORIGINAL OECD INCOME DEFINITION, WHILE POST-2012 DATA REFLECTS OECD 2012 INCOME DEFINITION.  
 \*\* DATA IS INTERPOLATED. SOURCE: OECD.



\* SOURCE: OECD.

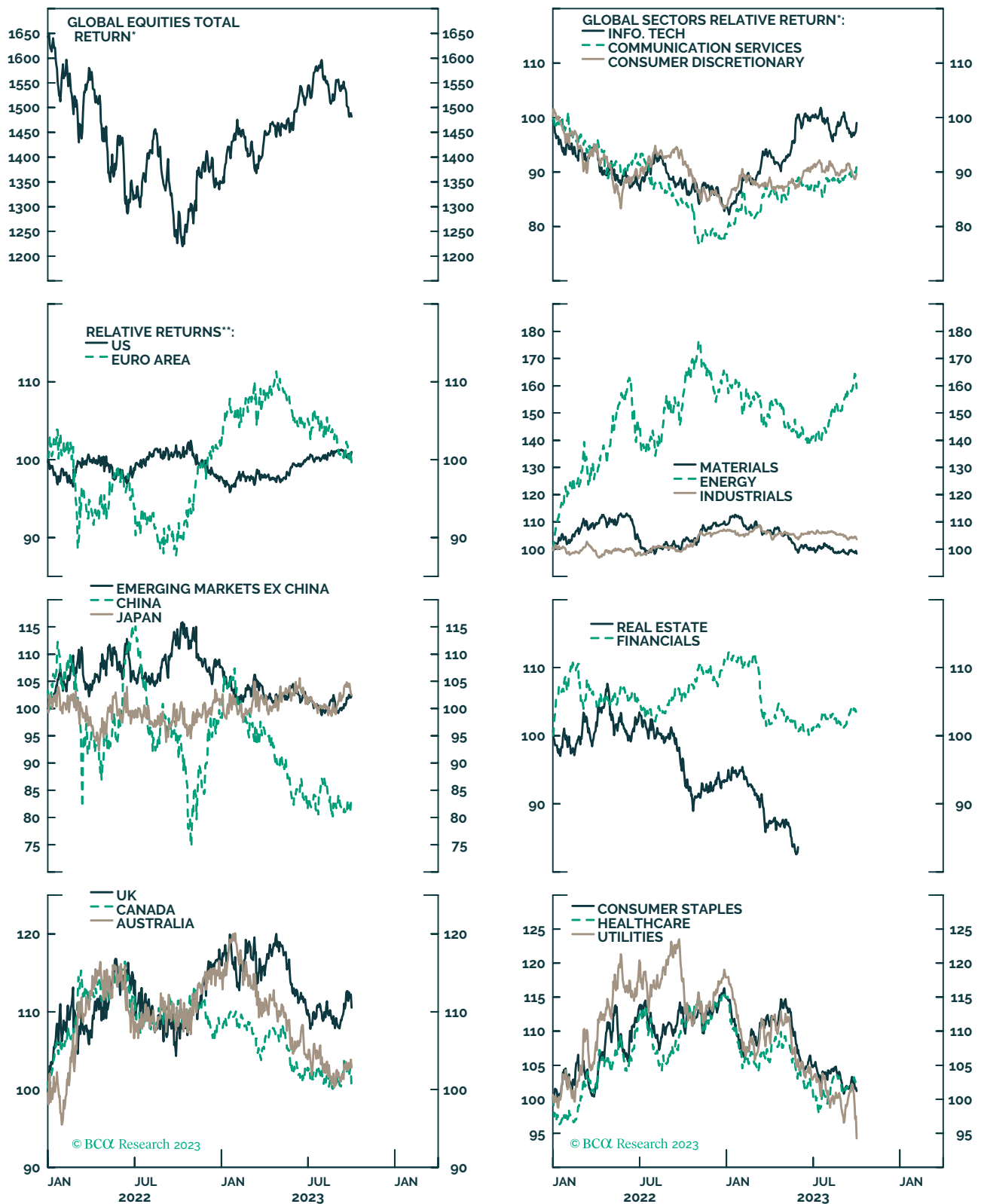
# What Returns Can You Expect?

BCA Research Global Asset Allocation (GAA) Assumed Returns			
	Published In August 2023 Report	Published In June 2022 Report	Historical (20-Year) Annualized Return
US Large Cap	5.0%	5.2%	9.9%
International Ex. US Equities	5.6%	4.8%	7.0%
EM Equities	6.4%	6.6%	9.0%
Global Fixed Income Aggregate	3.5%	2.6%	2.6%
US Fixed Income Aggregate	4.9%	4.0%	3.1%
Hedge Funds	8.0%	6.0%	5.4%
Private Equity	9.5%	9.3%	15.0%
US 50/30/20 Portfolio	5.5%	5.3%	7.4%

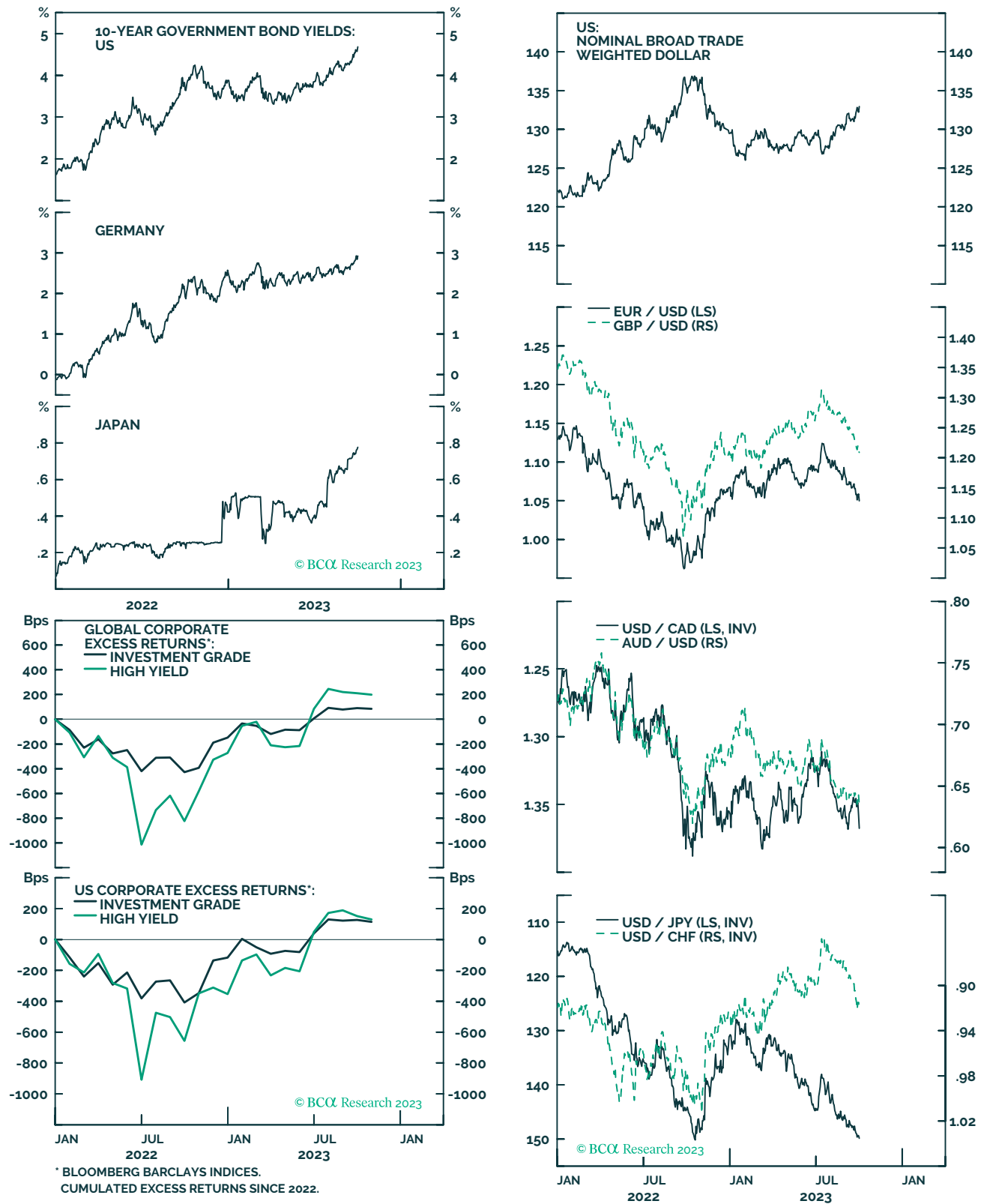




## Past 12 Months Performance: Equities



## Past 12 Months Performance: Fixed Income & FX



## Global Offices

### Main Office

#### Montreal, Canada

1001 de Maisonneuve West,  
Suite 1510  
Montreal, Quebec H3A 1X8  
**Phone** +1 888 840 4665  
+1 514 499 9550

#### London, United Kingdom

4 Bouverie Street  
London, EC4Y 8AX  
**Phone** +44 0 207 556 6008

#### New York, United States

1270 Ave of the Americas, 11<sup>th</sup> Floor  
Suite 1100, New York, NY 10020  
**Office** +1 212-224-3300

#### West Coast, United States

**Phone** +1 210 219 9924

#### Hong Kong

12/F, V-Point  
18 Tang Lung Street  
Causeway Bay, Hong Kong  
**Office** +852 2912 8055

#### Sydney, Australia

Suite 305  
3 Spring Street  
Sydney 2000  
Australia NSW

#### Singapore

Unit#07-66  
Level 7  
Capital Square  
23 Church Street  
Singapore 049481

## Copyright 2023, BCA Research Inc.

### All rights reserved.

The text, images and other materials contained or displayed on any BCA Research Inc. product, service, report, e-mail or web site are proprietary to BCA Research Inc. and constitute valuable intellectual property. No material from any part of any BCA Research Inc. web site may be downloaded, transmitted, broadcast, transferred, assigned, reproduced or in any other way used or otherwise disseminated in any form to any person or entity, without the explicit written consent of BCA Research Inc. All unauthorized reproduction or other use of material from BCA Research Inc. shall be deemed willful infringement(s) of BCA Research Inc. copyright and other proprietary and intellectual property rights, including but not limited to, rights of privacy. BCA Research Inc. expressly reserves all rights in connection with its intellectual property, including without limitation the right to block the transfer of its products and services and/or to track usage thereof, through electronic tracking technology, and all other lawful means, now known or hereafter devised. BCA Research Inc. reserves the right, without further notice, to pursue to the fullest extent allowed by the law any and all criminal and civil remedies for the violation of its rights.

Non-residents of Canada confirm that they do not, and have never had the right to use any of BCA Research Inc.'s materials in Canada, and agree that they have not and never will use any of the materials in Canada unless they acquire this right by paying the applicable Canadian and Quebec sales taxes. All unauthorized use of the materials in Canada shall be deemed willful infringement of BCA Research Inc. copyright and other proprietary and intellectual property rights.

While BCA will use its reasonable best efforts to provide accurate and informative Information Services to Subscriber, BCA cannot guarantee the accuracy, relevance and/or completeness of the Information Services, or other information used in connection therewith. BCA, its affiliates, shareholders, directors, officers, and employees shall have no liability, contingent or otherwise, for any claims or damages arising in connection with (i) the use by Subscriber of the Information Services and/or (ii) any errors, omissions or inaccuracies in the Information Services. The Information Services are provided for the benefit of the Subscriber. It is not to be used or otherwise relied on by any other person.

Some of the data contained in this publication may have been obtained from Bloomberg Barclays Indices; Bloomberg Finance L.P.; CBRE Inc.; CEIC data; First Bridge Data LLC; Copyright © 2023, S&P Global Limited. All rights reserved and all intellectual property rights retained by S&P Global Limited; MSCI Inc. Neither MSCI Inc. nor any other party involved in or related to compiling, computing or creating the MSCI Inc. data makes any express or implied warranties or representations with respect to such data (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of such data. Without limiting any of the foregoing, in no event shall MSCI Inc., any of its affiliates or any third party involved in or related to compiling, computing or creating the data have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages. No further distribution or dissemination of the MSCI Inc. data is permitted without MSCI Inc.'s express written consent. Real Capital Analytics Inc.; Reis Services LLC; Copyright © 2023, S&P Global Market Intelligence (and its affiliates as applicable). Reproduction of any information, opinions, views, data or material, including ratings ("Content") in any form is prohibited except with the prior written permission of the relevant party. Such party, its affiliates and suppliers ("Content Providers") do not guarantee the accuracy, adequacy, completeness, timeliness or availability of any Content and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such Content. In no event shall Content Providers be liable for any damages, costs, expenses, legal fees, or losses (including lost income or lost profit and opportunity costs) in connection with any use of the Content. A reference to a particular investment or security, a rating or any observation concerning an investment that is part of the Content is not a recommendation to buy, sell or hold such investment or security, does not address the suitability of an investment or security and should not be relied on as investment advice. Credit ratings are statements of opinions and are not statements of fact; Standard and Poor's ("S&P") Copyright © 2023 The McGraw-Hill Companies, Inc., S&P is a division of The McGraw-Hill Companies Inc. All rights reserved; or from Refinitiv, "The Refinitiv Kinesis Logo and Refinitiv are trademarks of Refinitiv and its affiliated companies in the United States and other countries and used herein under license." In addition to the foregoing, Client shall display or print the following notice in the Help About section or in a general attribution page. "Copyright ©Refinitiv, 2023. All Rights Reserved. Use, duplication, or sale of this service, or data contained herein, except as described in the BCA Research products subscription agreement, is strictly prohibited."

## Important Disclaimer

This communication reflects our analysts' current opinions and may not be updated as views or information change. Past results do not guarantee future performance. Business and market conditions, laws, regulations, and other factors affecting performance all change over time, which could change the status of the information in this publication. Using any graph, chart, formula, model, or other device to assist in making investment decisions presents many difficulties and their effectiveness has significant limitations, including that prior patterns may not repeat themselves and market participants using such devices can impact the market in a way that changes their effectiveness. BCA Research believes no individual graph, chart, formula, model, or other device should be used as the sole basis for any investment decision.

BCA or its affiliated companies or their respective shareholders, directors, officers and/or employees, may have long or short positions in the securities discussed herein and may purchase or sell such securities without notice.

Neither BCA Research nor the author is rendering investment, tax, or legal advice, nor offering individualized advice tailored to any specific portfolio or to any individual's particular suitability or needs. Investors should seek professional investment, tax, legal, and accounting advice prior to making investment decisions. BCA Research's publications do not constitute an offer to sell any security, nor a solicitation of an offer to buy any security. They are designed to provide information, data and analysis believed to be accurate, but they are not guaranteed and are provided "as is" without warranty of any kind, either express or implied. BCA RESEARCH DISCLAIMS ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY, SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE.

BCA Research, its affiliates, officers, or employees, and any third-party data provider shall not have any liability for any loss sustained by anyone who has relied on the information contained in any BCA Research publication, and they shall not be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the information or opinions contained BCA Research publications even if advised of the possibility of such damages.

Important copyright and other information are available here:

<https://www.bcaresearch.com/copyright>, [www.refinitiv.com/benchmarkdisclaimer](https://www.refinitiv.com/benchmarkdisclaimer).

# TOP DOWN CHARTS

Chart driven macro insights for investors

**Charts for panel discussion**

# 1. Introduction

Topdown Charts Limited is a New Zealand registered and headquartered company, founded on the 5<sup>th</sup> of September 2016. Topdown Charts is a 100% independent pure investment research firm.

The focus of the research is global economics and asset allocation. **The aim is to serve as a trusted and valued resource for portfolio managers and investment advisors.** This is achieved by delivering high quality insights, innovative and original research, and personalized service - with the perspective of a multi-asset portfolio manager front of mind.



Callum Thomas  
**Head of Research**

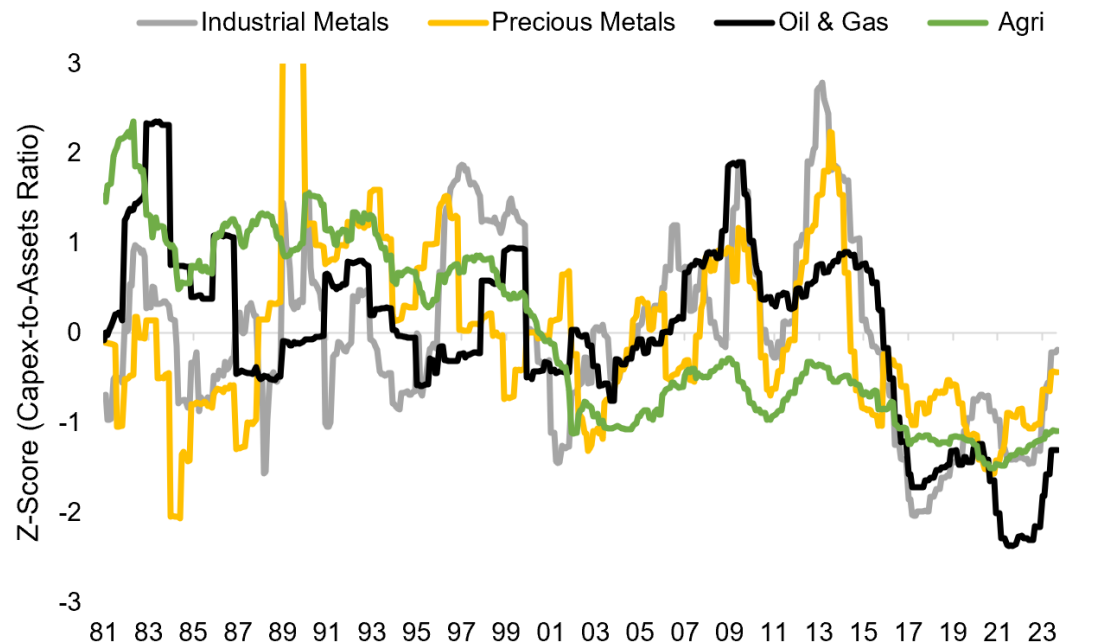
Callum is founder and head of research at Topdown Charts. Prior to starting the business he worked in investment strategy at AMP Capital, AXA Global Investors, and the New Zealand Stock Exchange. Having spent his career in Australia and New Zealand he has by necessity developed a strong global focus, and sound capability in chart-driven top-down analysis for asset allocation.

Callum holds a Masters in Banking, Masters in Finance, and Bachelor's degree in Finance all earned at Massey University.

# 1. Inflation Pressures – Commodities & Capacity

**Cyclical & Structural:** An 8-year commodity capex depression (spurred on by a number of factors) has written the future for commodity prices as supply growth has been constrained (and thematic drivers abound e.g. infrastructure investment, reshoring, energy transition, geopolitics, space). Meanwhile, capacity utilization remains tight despite the multiple shocks to economic confidence. Hence there are credible risks to higher-for-longer inflation...

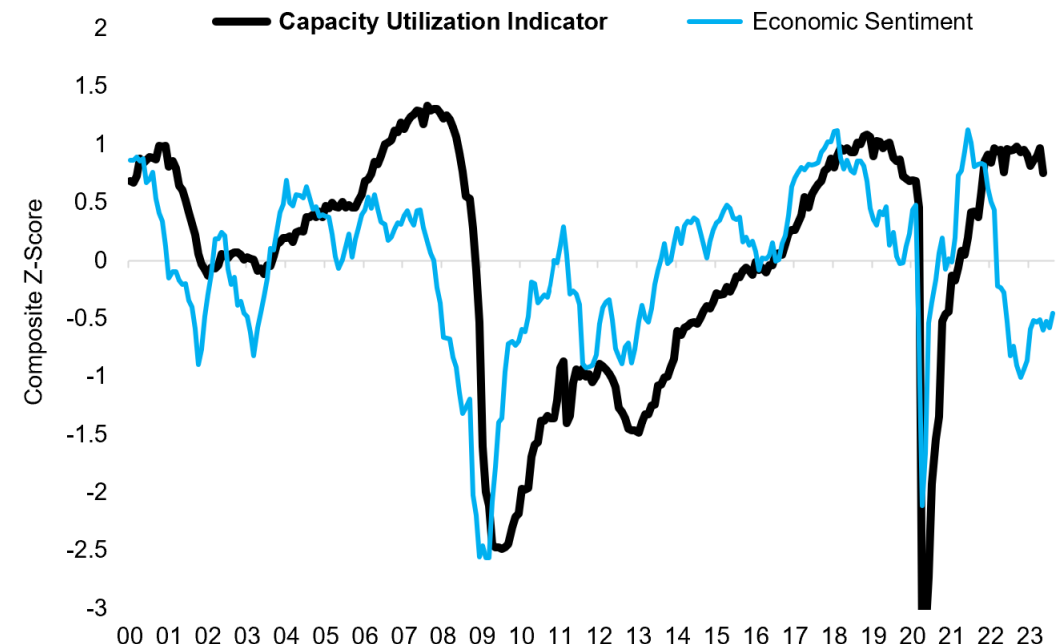
Commodity Capex: long period of underinvestment



Source: Topdown Charts, Refinitiv Datastream

topdowncharts.com

Developed Economies: Tight Capacity (for now)



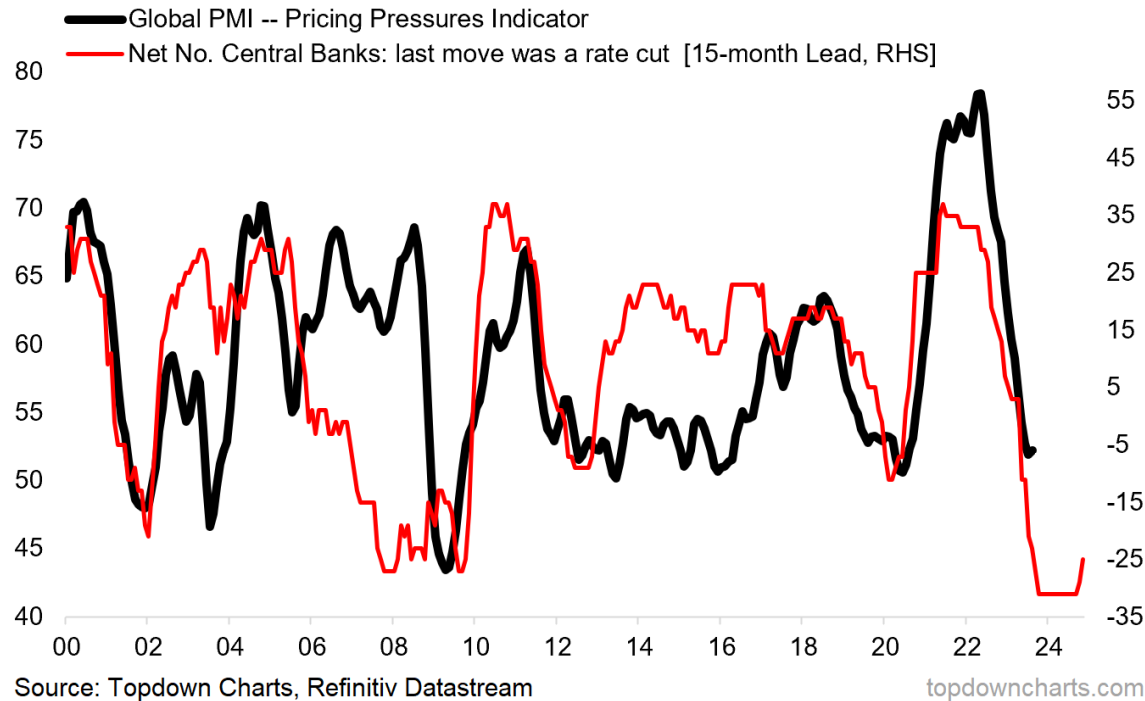
Source: Topdown Charts, Refinitiv Datastream

topdowncharts.com

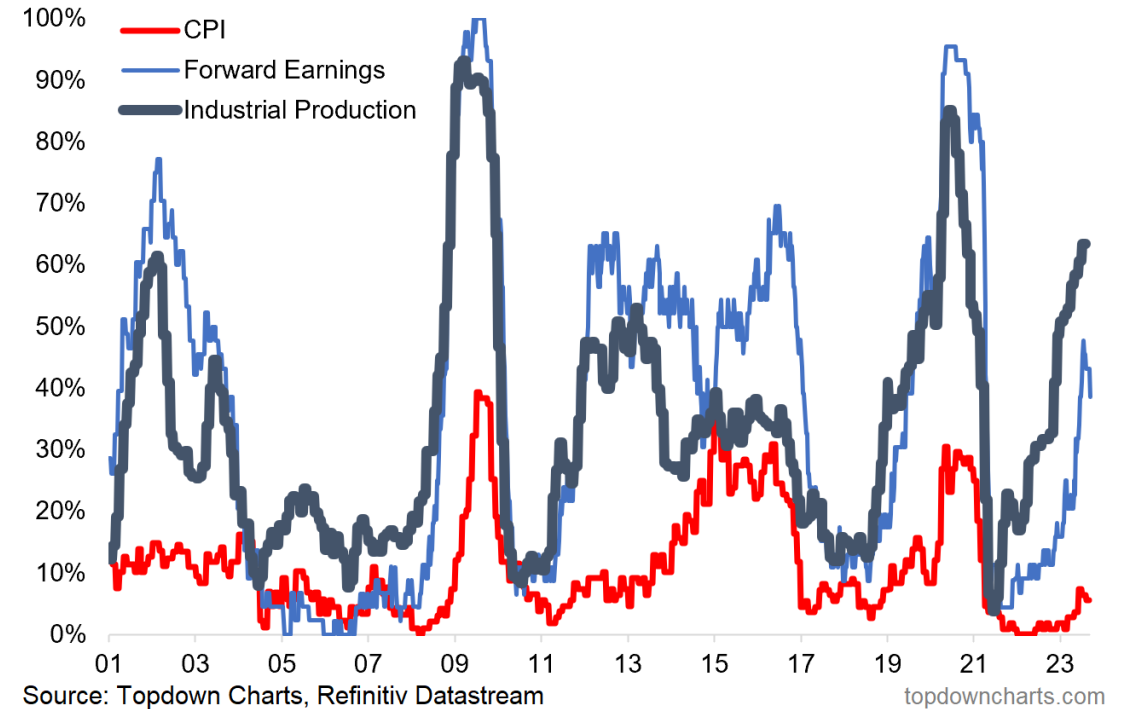
# 1. Inflation – Cyclical Aspect and *Deflation* Risk

**Can't Escape the Cycle around the Trend:** With a shocking pace, breadth, and magnitude of monetary tightening globally, the cure may be worse than the disease. Ultimately a central banker has only one real avenue to get inflation down on a cyclical basis: demand destruction.

**Global Monetary Policy vs Prices**



**Deflatometer: % of countries negative YoY**

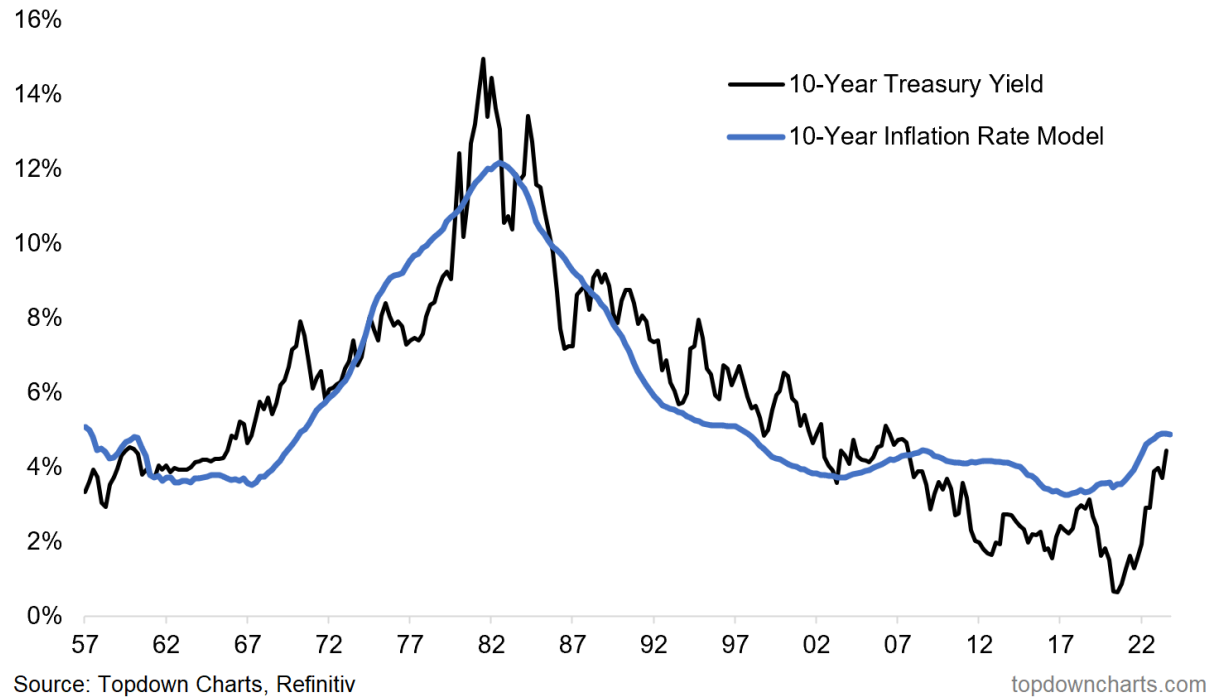




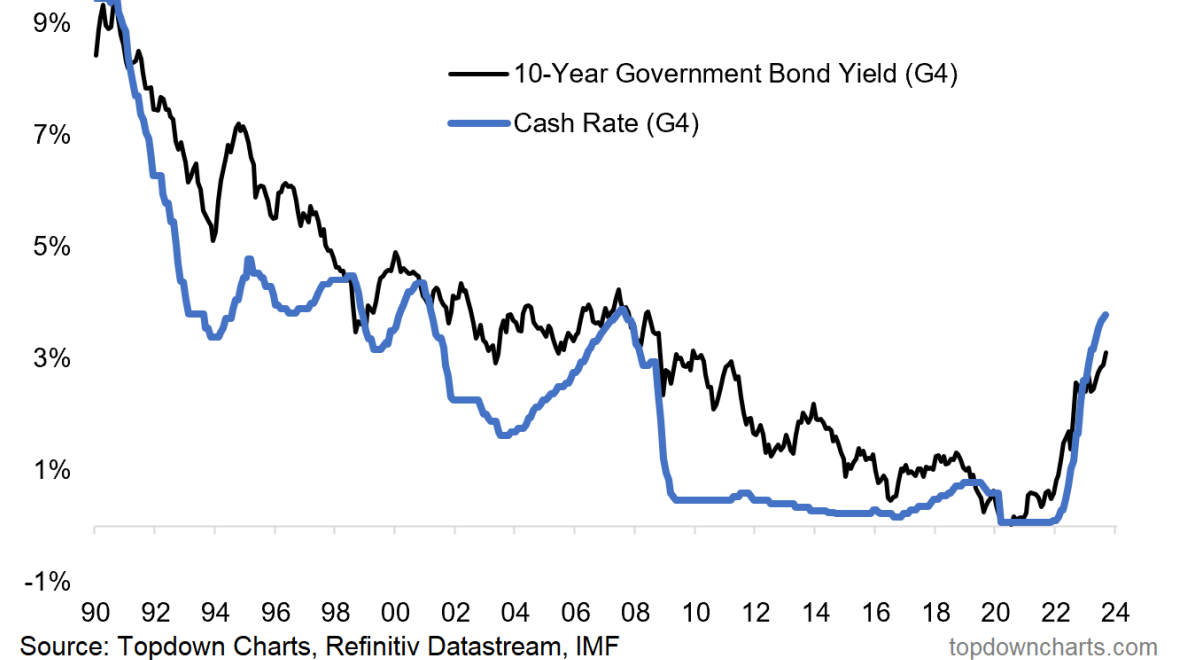
# 1. Higher for longer?

**Inflation, cash rates, and bond yields:** To the extent that inflation finds a new higher floor, and to the extent that resurgence risk presents, and to the extent that central bankers might end up avoiding recession, there is a real prospect that bond yields stay elevated. But again, we need to be careful getting too tangled up in the sentiment/projection biases and the cycle vs trend.

US Treasury Yields vs Long-Term Inflation Rate



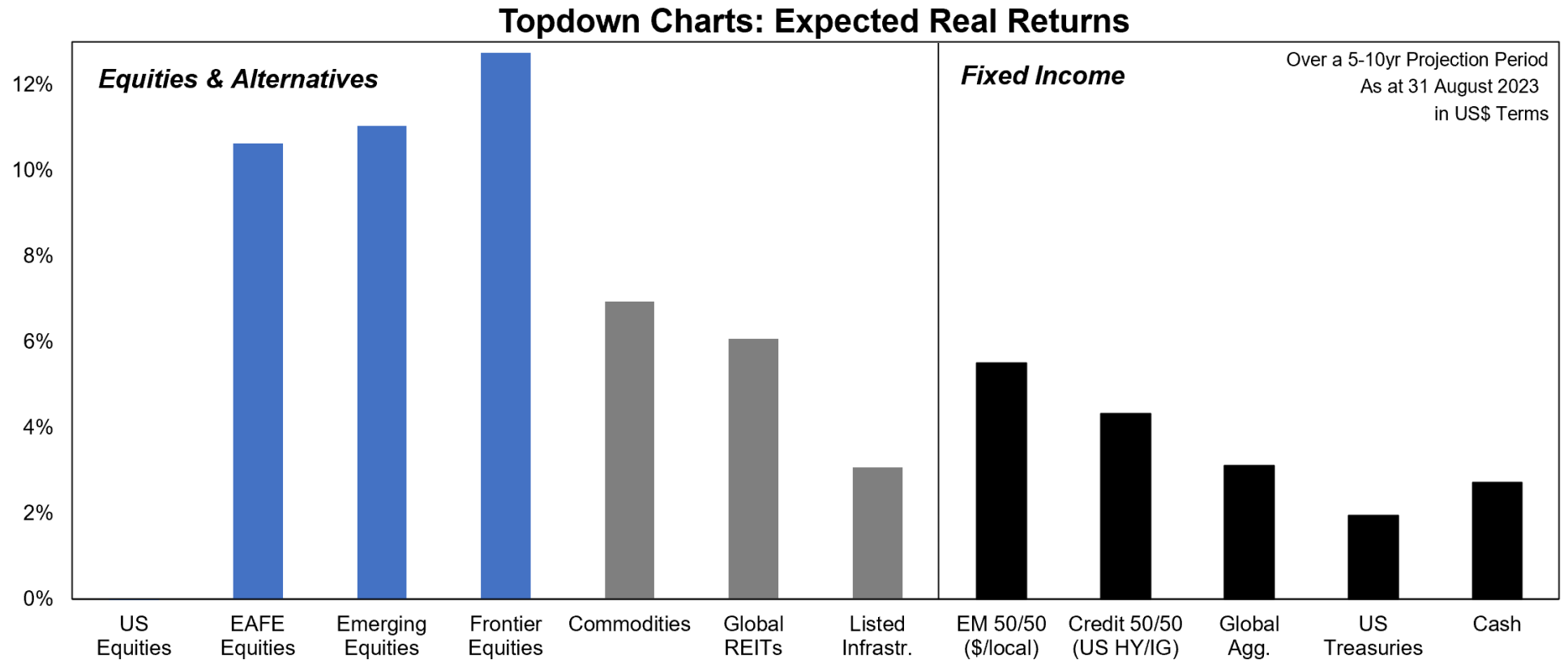
Developed Market Yields vs Cash Rates  
(Averages for Germany, Japan, UK, USA)





# 1. Future-Thinking – risk vs return...

**Unusual:** The forward-looking expected return backdrop is very different from the past decade, and maybe the projections end-up wrong (maybe it's "different this time"), but most investors are going to need to venture outside of the comfort zone of what worked in the past.



Source: Topdown Charts

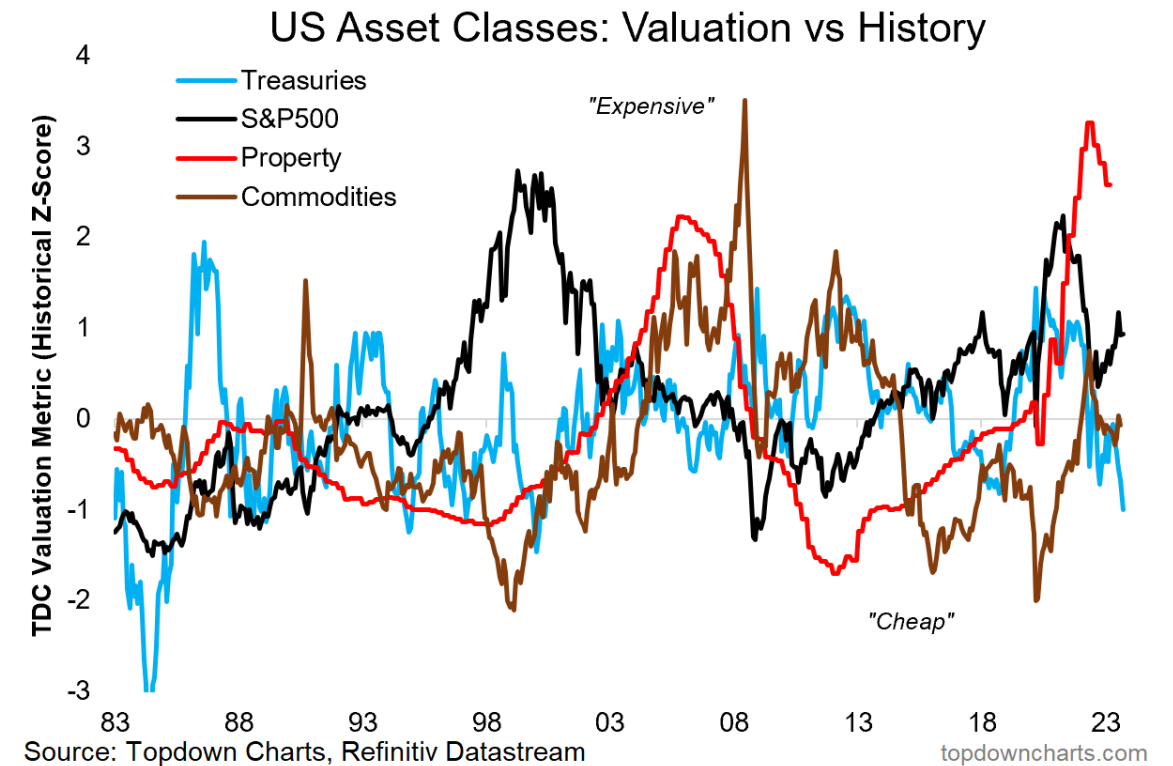
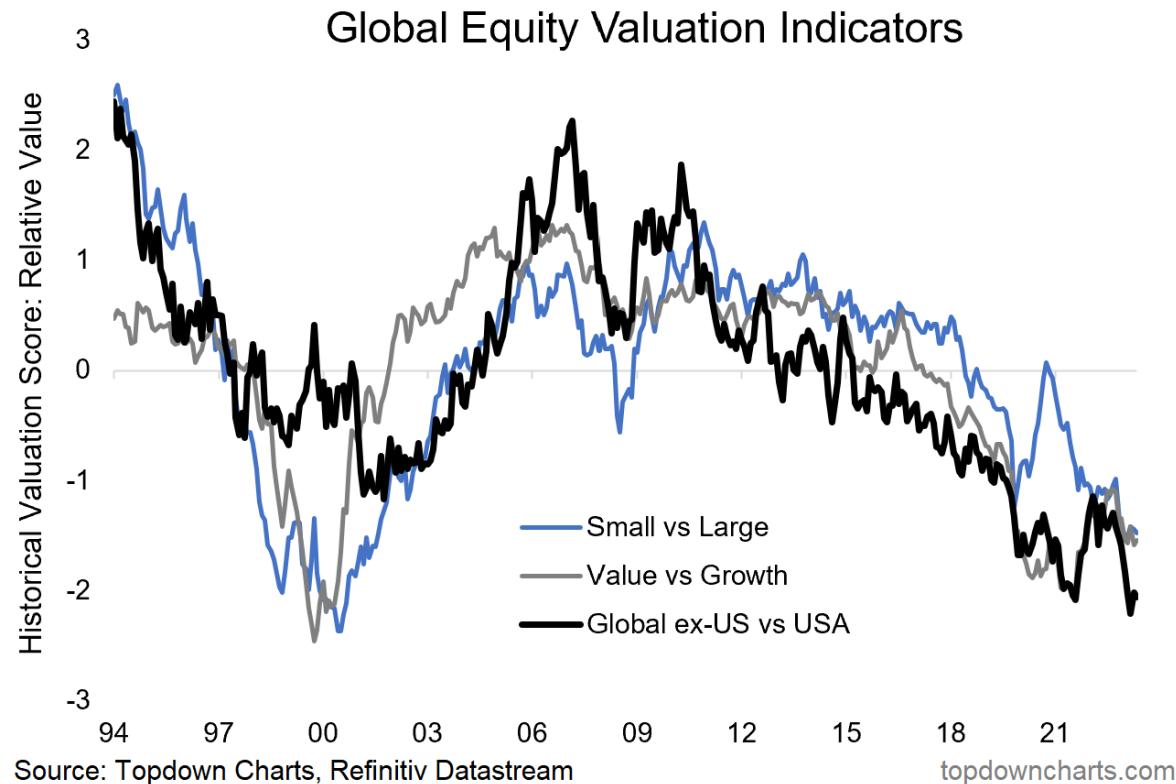
[topdowncharts.com](https://topdowncharts.com)

Projections as 31 August 2023, based on expected trend earnings growth, dividend yield, valuation mean-reversion adjustment, hedging and FX changes, yield to maturity, trend nominal GDP. Over a 5-10yr Projn. Period.

Figures are subject to change and are not a guarantee of performance or offer of securities. Full details on methodology available on request. Adjusted for long-term expected inflation. Not adjusted for fees/tax/alpha.

# 1. Where's the Value?

**Seeking Value:** Across asset classes, property market valuations remain problematic, US stocks (especially big tech) are expensive (but global is cheap vs US, small cheap vs large, and value cheap vs growth). Meanwhile commodities are about fair value, and bonds are cheap. For the value-driven asset allocators, this means due nuance at the asset class level, and within equities.



For more information about Topdown Charts, the service, or indeed any questions about this pack please get in contact.

Please do not distribute this pack without permission.

Best regards,

Callum Thomas  
Head of Research  
**Topdown Charts Limited**

[info@topdowncharts.com](mailto:info@topdowncharts.com)  
[www.topdowncharts.com](http://www.topdowncharts.com)

[+64 22 378 1552](tel:+64223781552)

### ***Disclaimer***

This report is intended for the specified recipient and may not be forwarded or duplicated without permission. This report is for informational and entertainment purposes only, and intended for an institutional audience. Topdown Charts Limited (trading as Topdown Charts) is not a registered financial adviser and none of the content here should be construed as financial advice or an offer or solicitation for securities.

The content of this report is provided for informational purposes. The content is not intended to provide a sufficient basis on which to make an investment decision. It is intended only to provide observations and views of individual analysts and personnel of Topdown Charts. Observations and views expressed herein may be changed by the analyst at any time without notice. Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, expressed or implied is made regarding future performance.

The content of this report has been obtained from or based upon sources believed by the analyst to be reliable, but each of the analysts and Topdown Charts does not represent or warrant its accuracy or completeness and is not responsible for losses or damages arising out of errors, omissions or changes in market factors. This material does not purport to contain all of the information that an interested party may desire and, in fact, provides only a limited view of a particular market.

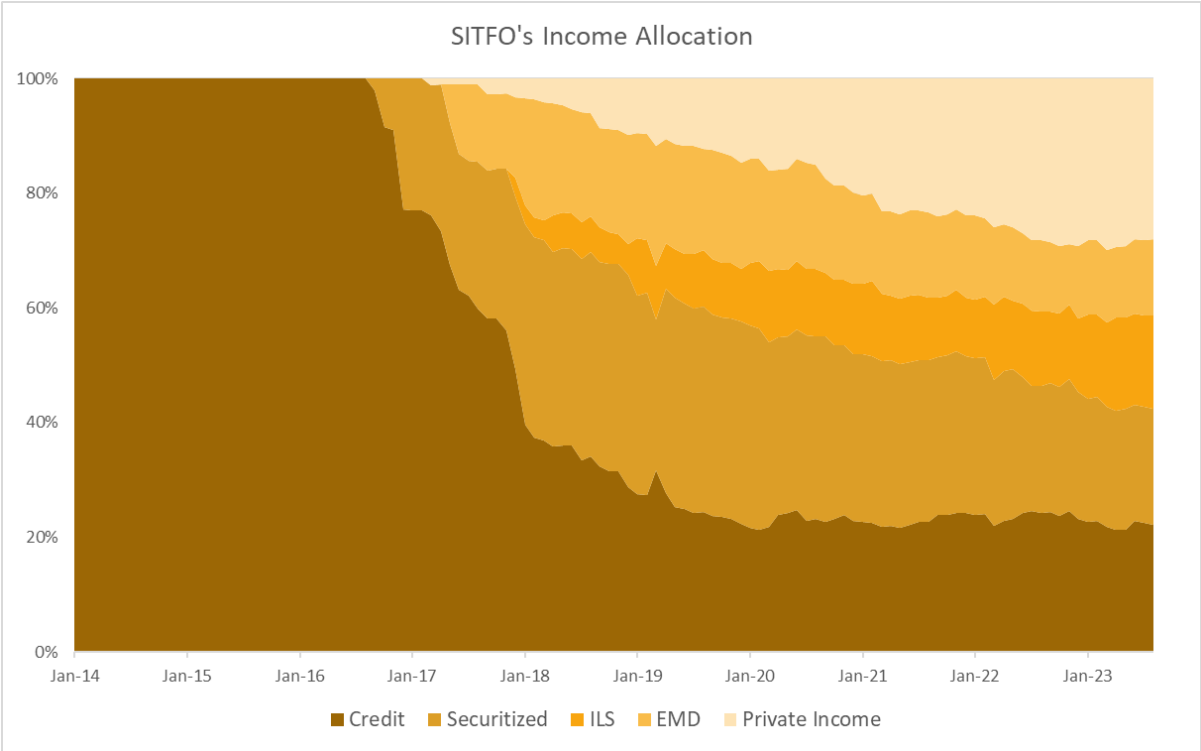
Break

October 2023

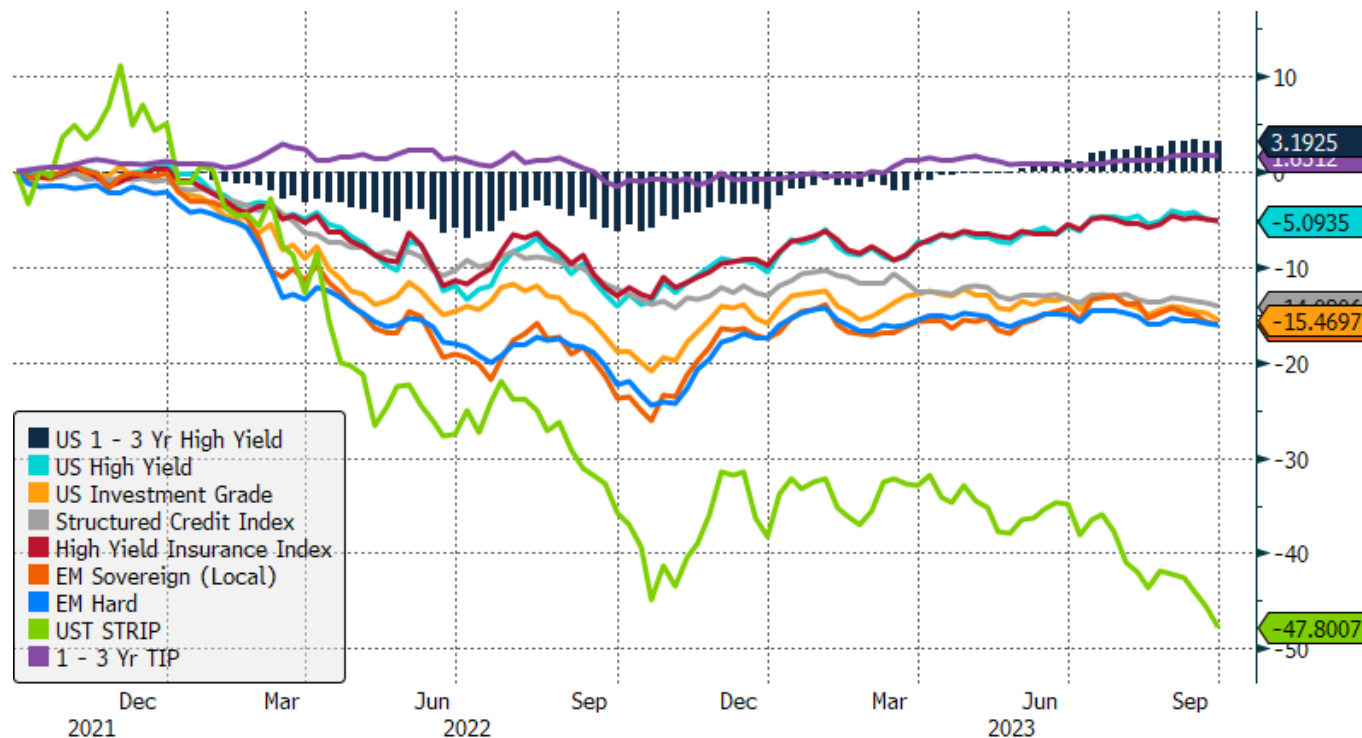
# Income Panel



# Evolution of SITFO's Income Portfolio



# Income Markets Overview



115588US Index (Bloomberg US High Yield 1-3 Year Total Return Index Value Unhedged USD) Weekly FI Summary Weekly 26SEP2021-26SEP2023

Copyright © 2023 Bloomberg Finance L.P.  
26-Sep-2023 12:34:49

# Panelists



**Keerthi Raghavan**

**Head of ABS at Waterfall**

- Barclays
- Indian Institute of Management



**Michael Haynes**

**PM of Private Debt and  
Special Sits at Beach Point**

- Post Advisory Group
- Babcock & Brown
- Sirius Satellite Radio
- Tufts University



**Stephen Nesbitt**

**Founder/CEO of Cliffwater**

- Wilshire Associates
- The Wharton School of the University of Pennsylvania



# Lunch

# Peers Panel

# Closing Remarks