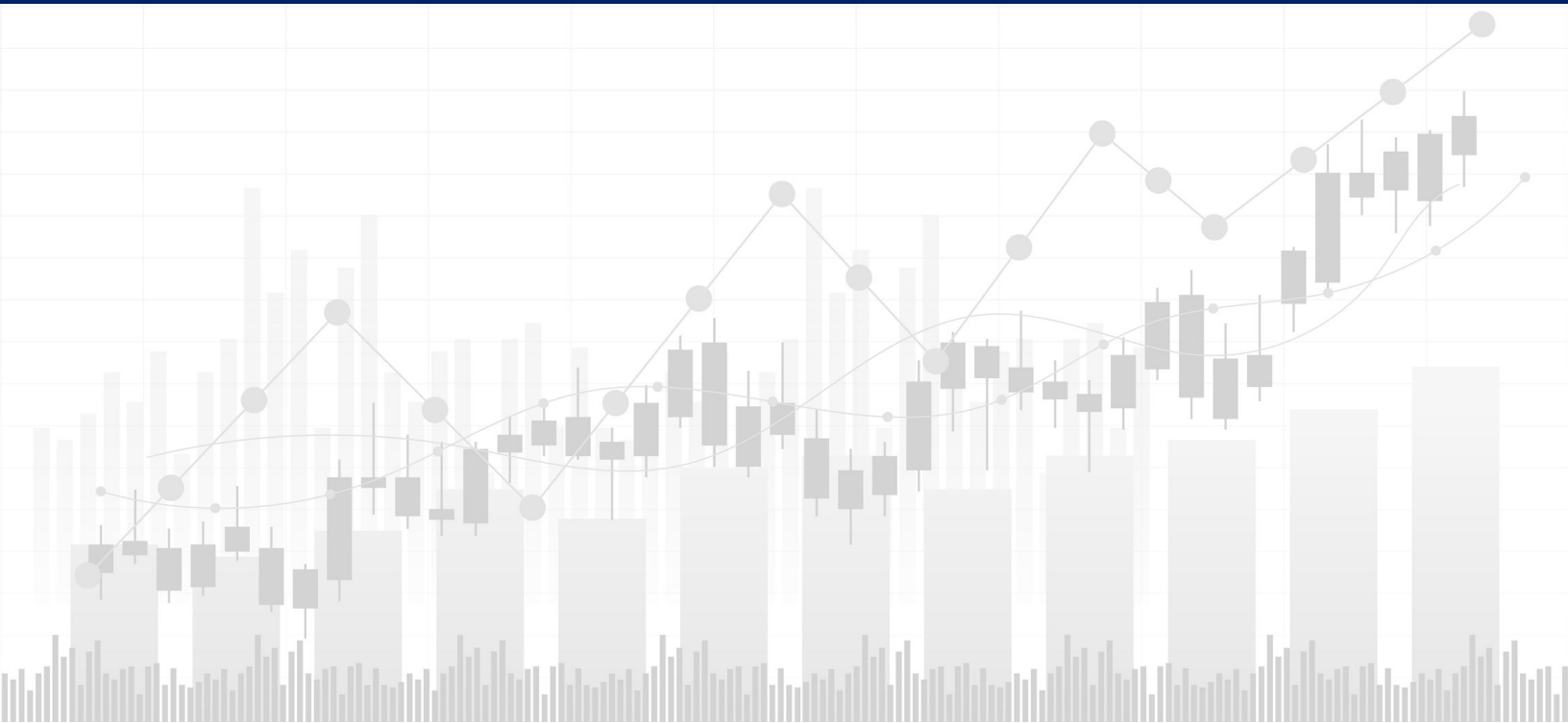


GLOBAL MARKETS PERFORMANCE REPORT

April 30, 2024

Reappraisal of US rate outlook injects volatility into markets.
China closes in on a technical bull market.



Contents

FT Wilshire US Indexes Insights - Sector, Style, Factors 04

FT Wilshire Global Equity Markets and Sectors..... 16

Fixed Income and Foreign Exchange..... 31

Alternative Investments including FT Wilshire GLIO Indexes..... 36

April Performance Report Synopsis

Sections

Key Market Events

FT Wilshire Indexes (pages 4-15)

-4.4%

April return of FT
Wilshire 5000 index
(TR)

+5.2%

YTD return of FT
Wilshire 5000
index (TR)

Global Equities (pages 16-30)

+6.7%

April return of
Chinese equity
Index (USD, TR)

-4.2%

April return of
Japanese equity
Index (USD, TR)

Fixed Income, FX (pages 31-35)

+49bps

Rise in US 10-year
yield in April

+4.8%

YTD rise in the DXY
dollar index

Alternatives (pages 36-41)

+3.7%

Rise in the gold
price in April

-1.8%

YTD return of FT
Wilshire GLIO
Developed Listed
Infrastructure Index

Reversal in US 2024 interest rate outlook and rising bond yields generates volatility with the FT Wilshire 5000 retreating from all-time highs in April ([page 5](#))

Shift in US sector leadership with energy outperforming as technology and digital information lose momentum ([page 6](#))

FT Wilshire China significantly outperforms in April and closes in on technical bull market after rallying 19% from the mid-January lows ([page 16](#))

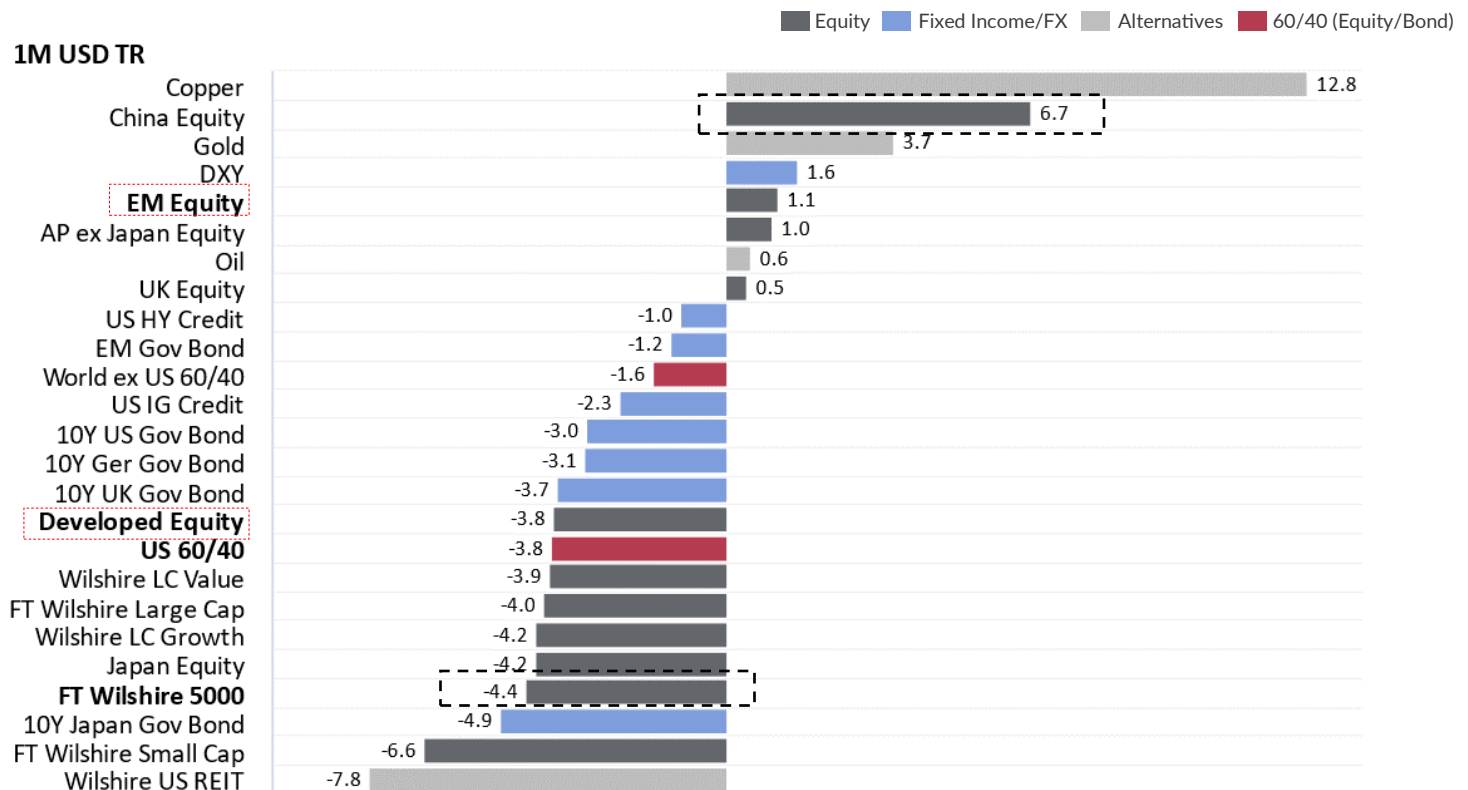
US 10-year yield sees rises 49 bps in April as markets pare back expectations over the extent of US rate cuts in 2024 ([page 33](#))

JPY vs USD briefly hits a 34-year low prompting Japanese authorities to intervene to support the currency ([page 34](#))

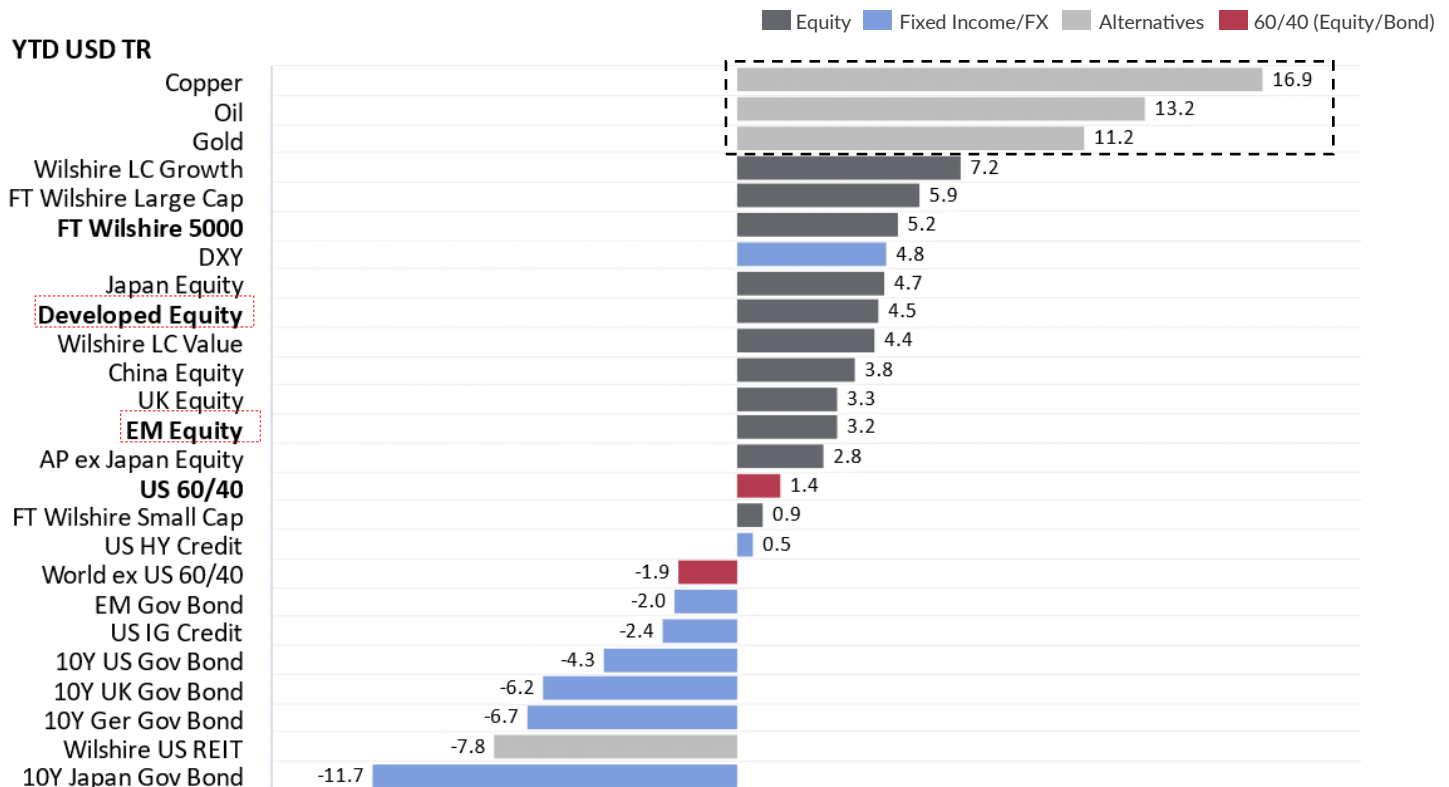
Gold price rises further on central bank purchases and strong demand from China ([page 37](#))

Multi-Asset Class returns: Reversal in US 2024 rate outlook and rising bond yields generates market volatility. Chinese equities spike higher in April.

1M USD TR



YTD USD TR



FT Wilshire US Indexes Insights

1

-4.4%

April Return of the FT Wilshire 5000

2

+5.2%

YTD return of the FT Wilshire 5000

3

+5.0%

YTD Outperformance of US Large Cap versus US Small Cap

4

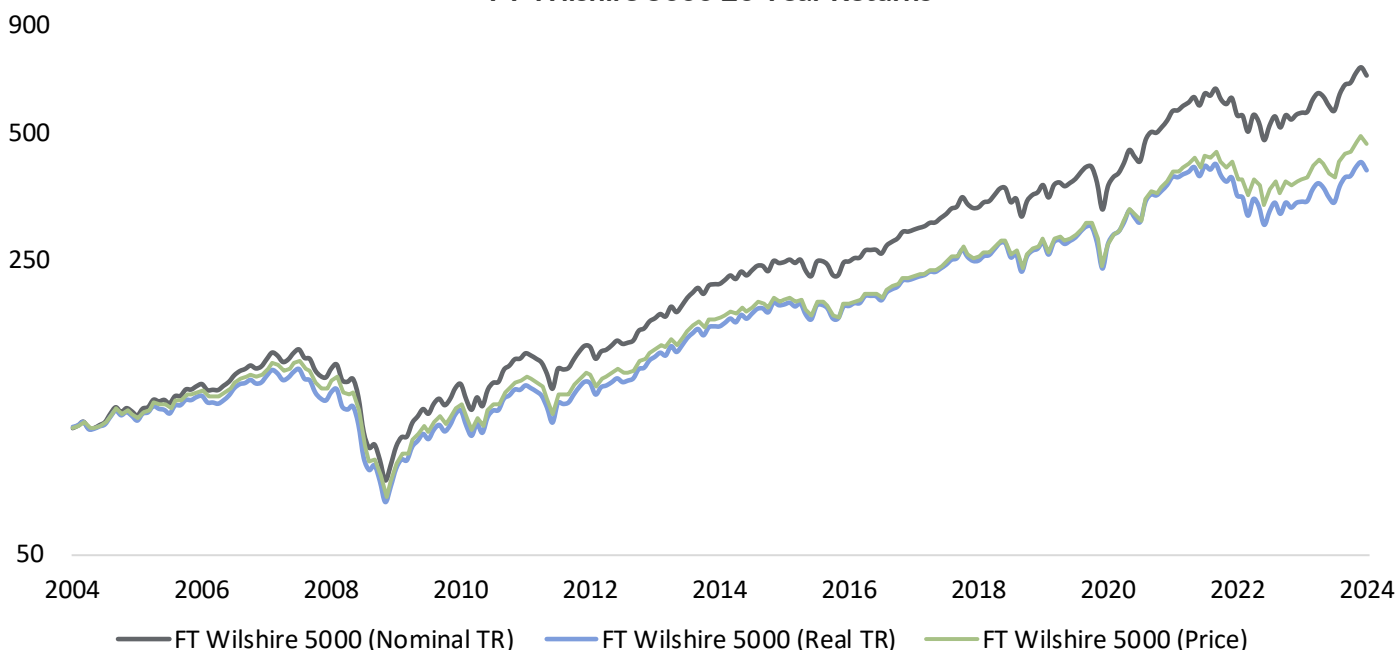
+10.1%

Performance of the Energy sector so far in 2024

The **FT Wilshire 5000** lost momentum declining -4.4% in April, reducing YTD gains to 5.2%. The index has seen annualized returns of 12.7% and 12.0% over 5 and 10 years, respectively. 2 year annualized real returns are relatively modest at 7.2% despite the strong return in 2023.

Return (%)	YTD	2023	2Y		5Y		10Y		20Y	
			Aggr	Ann	Aggr	Ann	Aggr	Ann	Aggr	Ann
Nominal TR	5.2	26.1	24.2	11.4	81.5	12.7	210.7	12.0	580.7	10.1
Real TR	4.0	22.1	14.9	7.2	48.3	8.2	135.3	8.9	308.5	7.3
Price	4.7	24.1	20.3	9.7	67.1	10.8	158.4	10.0	368.5	8.0

FT Wilshire 5000 20 Year Returns



*Ann = Annualized

Source: Wilshire Indexes, FactSet. Data as of April 30, 2024.

Wilshire Indexes - Performance Report (April 2024)

FT Wilshire 5000: Key Inflection Points since the start of 2023

1 'Goldilocks'

Risk appetite buoyed by hopes of soft US economic landing and expectations of peak US interest rates

2 Silicon Valley Bank Collapse

Collapse of SVB in March leads to bank contagion fears, markets slash US interest rate expectations

3 AI Theme Turbo Charges US Market

'Magnificent 7' technology-focused stocks drive recovery in US market

4 Higher for longer woes

Risk appetite wains as Fed dampens market's peak rate optimism. Rising USD and bond yields drive financial conditions back to restrictive

5 Fed sound alarm over tight financial conditions

Fed acknowledges financial conditions may have become overly tight. US market stages strong rebound in late October on optimism over US interest rate cuts 2024

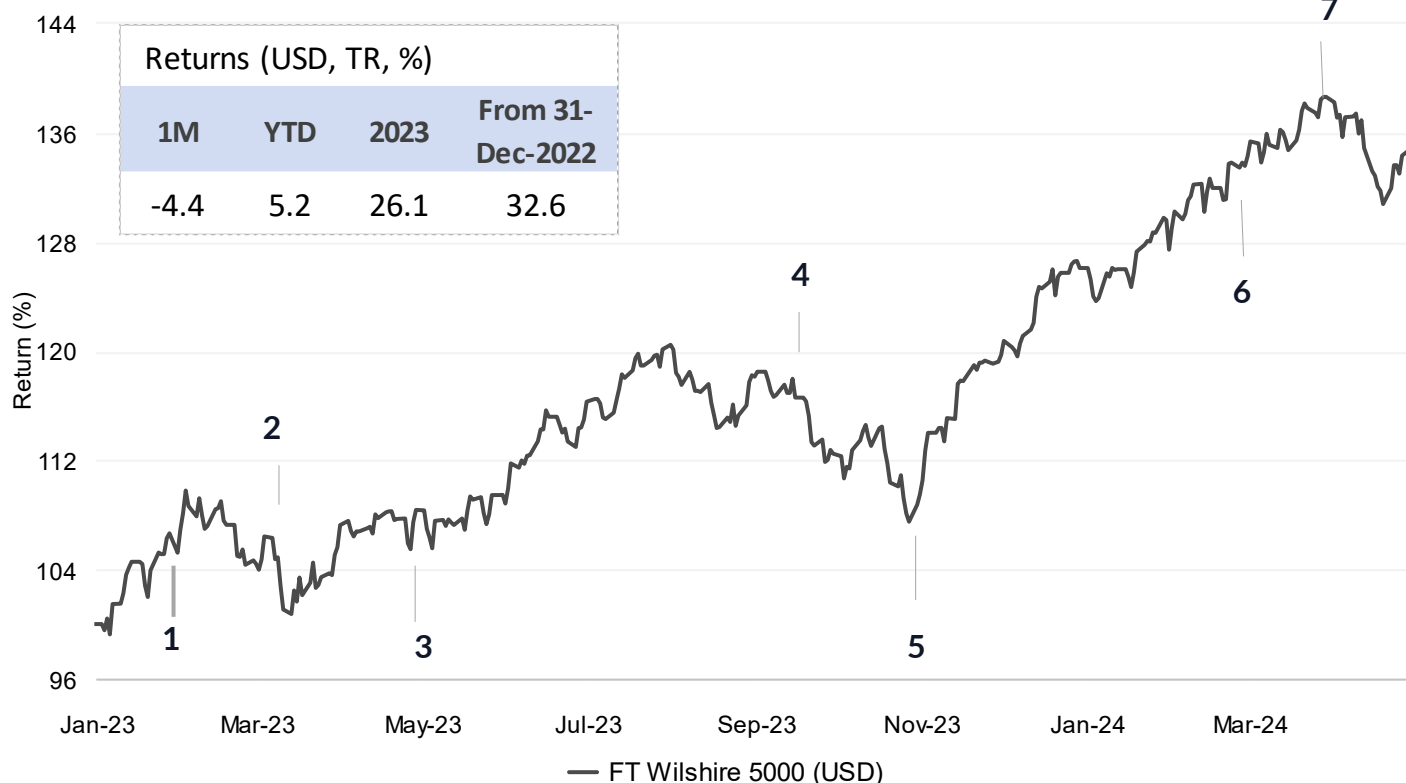
6 AI-focus powers market to new highs

Optimism over AI-focused stocks with Nvidia alone contributing almost a quarter of the Q1 return.

7 Reversal in US Interest Rate Outlook

Rising inflation and strong economic data sees markets slash US 2024 rate cut expectations, injecting volatility into US markets.

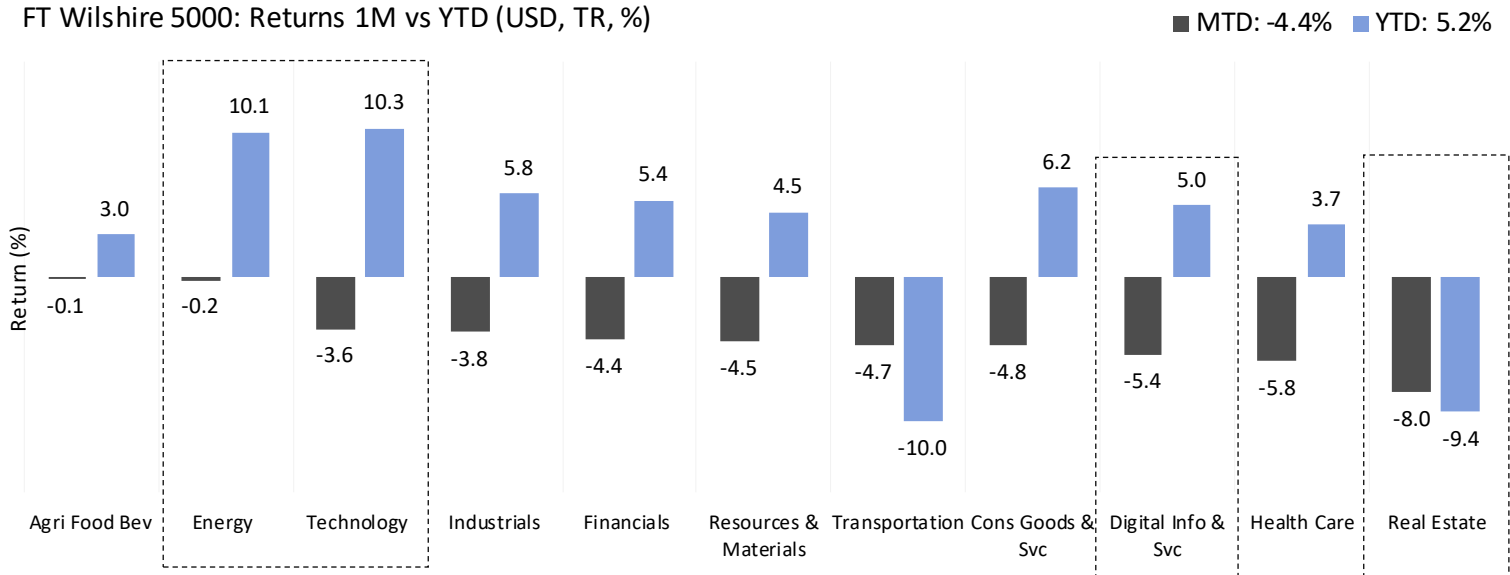
Chart 1: FT Wilshire 5000 (Total Return) and key inflection points



Sector returns and contributions: Shift in sector leadership with energy outperforming as technology and digital information lose momentum

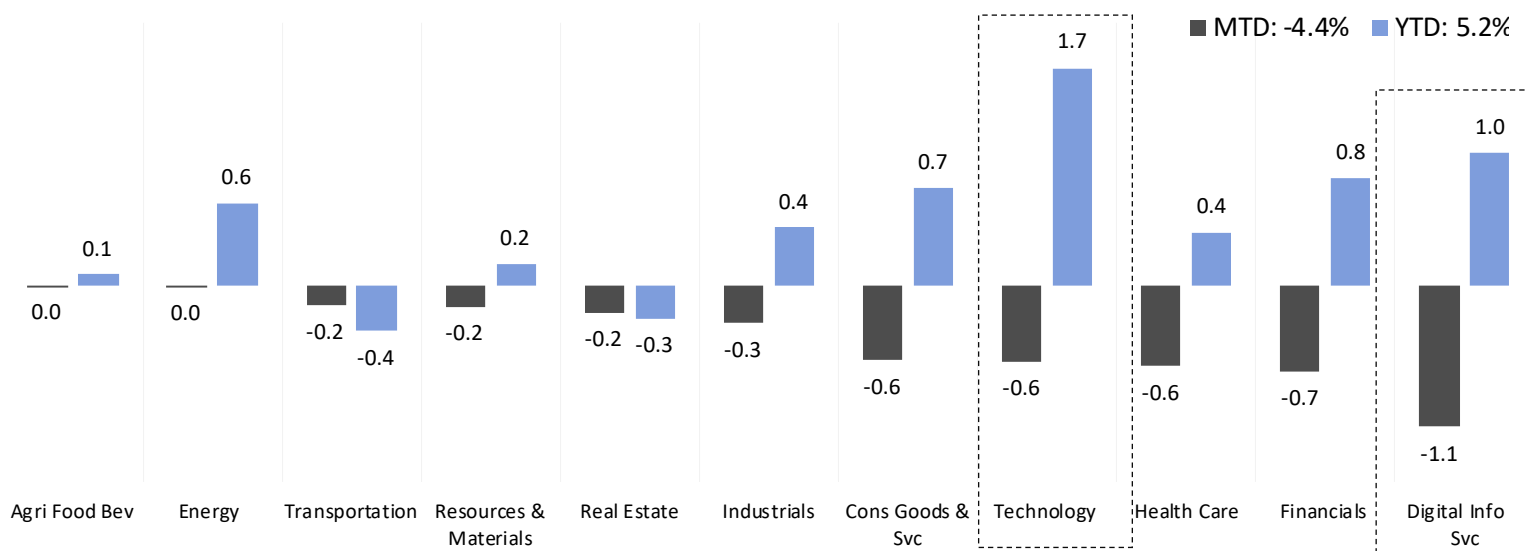
1M and YTD sector returns: Energy was an outperformer in April and now amongst the top performers YTD. Real estate saw sizeable declines. Technology and digital information lost momentum in April.

FT Wilshire 5000: Returns 1M vs YTD (USD, TR, %)



Sector weighted contributions-blending performance with sector weighting: Despite recent declines tech and digital info have still contributed 2.7% of the FT Wilshire 5000's 5.2% YTD return.

Wilshire 5000: Contribution to returns 1M vs YTD (USD, TR, %)



Sector returns and weights across the FT Wilshire indexes: Energy outperforms in April with real estate seeing further significant declines

Sector weights across the FT Wilshire indexes: We highlight the differences between the two largest sector exposures in the large, small cap, growth and value indexes.

Weights	FTW 5000	Large Cap	Small Cap	Micro Cap	Growth	Value
Digital Info & Svc	20.1	21.4	11.8	7.8	35.4	7.5
Technology	16.1	17.6	5.6	5.2	25.9	9.3
Financials	15.0	15.0	14.4	20.1	7.3	22.6
Cons Goods & Svc	12.0	11.7	14.0	8.8	10.6	12.9
Health Care	10.6	10.5	10.4	24.1	10.3	10.7
Industrials	7.6	6.9	12.7	10.7	3.6	10.2
Energy	6.4	6.1	8.9	5.6	0.4	11.8
Resources & Materials	3.7	3.0	9.4	6.8	1.5	4.4
Transportation	3.3	3.2	4.5	4.2	3.1	3.3
Agri Food Bev	2.6	2.7	2.0	1.9	0.2	5.2
Real Estate	2.6	2.0	6.4	5.0	2.0	2.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

1M and YTD Sector returns across the FT Wilshire indexes: Here we contrast the top performing sectors within large cap vs small cap, and growth style vs value style

Returns	FTW 5000		Large Cap		Small Cap		Micro Cap		Growth		Value	
	1M	YTD	1M	YTD	1M	YTD	1M	YTD	1M	YTD	1M	YTD
Agri Food Bev	-0.2	3.0	0.6	10.3	-8.0	12.9	-0.3	-9.7	-9.8	15.5	1.0	-2.8
Energy	-0.2	10.1	0.1	10.2	-1.2	10.4	-6.4	0.5	1.6	23.9	0.0	9.6
Technology	-3.6	10.4	-3.5	7.1	-5.6	1.9	-8.8	-10.3	-3.2	11.6	-4.4	2.9
Industrials	-3.8	5.8	-3.4	6.1	-5.6	5.2	-5.8	1.1	-5.9	2.2	-2.5	7.5
Financials	-4.4	5.4	-4.0	6.7	-7.0	-1.1	-6.3	-10.3	-5.5	4.0	-3.5	7.5
Resources & Materials	-4.5	4.5	-3.8	5.8	-6.1	-5.0	-4.8	-5.4	-6.4	5.8	-3.0	5.6
Transportation	-4.8	-10.0	-3.4	5.2	-11.8	2.9	-11.5	3.3	-0.7	2.6	-5.9	6.0
Cons Goods & Svc	-4.8	6.2	-4.2	4.5	-8.3	-3.5	-9.9	4.7	-2.4	8.6	-5.5	0.4
Digital Info & Svc	-5.4	5.0	-5.2	3.5	-7.4	-2.1	-6.9	-0.3	-4.8	-9.1	-7.2	3.7
Health Care	-5.8	3.7	-5.5	-10.4	-7.4	-6.7	-11.0	-11.9	-4.4	-13.8	-6.4	-7.1
Real Estate	-8.0	-9.4	-9.0	-10.6	-6.0	-6.3	-4.9	-1.9	-11.3	-20.3	-6.7	1.5
Index Return (TR)	-4.4	5.2	-4.0	5.9	-6.6	0.9	-7.9	-3.2	-4.2	7.2	-3.9	4.4

Source: Wilshire Indexes. Data as of April 30, 2024.

Wilshire Indexes - Performance Report (April 2024)

Sector-weighted contributions across the FT Wilshire indexes: Technology and Digital information still account for over 80% of Growth's YTD return

1M sector-weighted performance contributions-blend performance with sector weighting: larger negative contribution from cons goods and financials drove Small Cap underperformance in April

	FTW 5000	Large Cap	Small Cap	Micro Cap	Growth	Value
1M	Contr	Contr	Contr	Contr	Contr	Contr
Agri Food Bev	0.0	0.0	-0.2	0.0	0.0	0.1
Energy	0.0	0.0	-0.1	-0.4	0.0	0.0
Transportation	-0.2	-0.1	-0.5	-0.5	0.0	-0.2
Resources & Materials	-0.2	-0.1	-0.6	-0.3	-0.1	-0.1
Real Estate	-0.2	-0.2	-0.4	-0.2	-0.2	-0.1
Industrials	-0.3	-0.2	-0.7	-0.6	-0.2	-0.3
Cons Goods & Svc	-0.6	-0.5	-1.2	-0.9	-0.3	-0.7
Technology	-0.6	-0.6	-0.3	-0.5	-0.8	-0.4
Health Care	-0.6	-0.6	-0.8	-2.7	-0.5	-0.7
Financials	-0.7	-0.6	-1.0	-1.3	-0.4	-0.8
Digital Info & Svc	-1.1	-1.1	-0.9	-0.5	-1.7	-0.5
Index Return (TR)	-4.4	-4.0	-6.6	-7.9	-4.2	-3.9

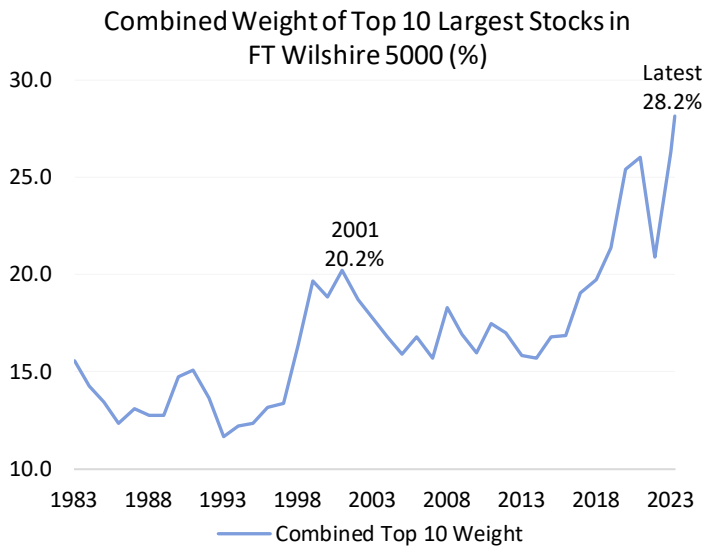
YTD sector-weighted performance contributions: Contrasting the largest contributions for large cap vs small cap, and growth vs value. Technology and digital info have contributed 5.9% of Growth's 7.2% year to date return.

	FTW 5000	Large Cap	Small Cap	Micro Cap	Growth	Value
YTD	Contr	Contr	Contr	Contr	Contr	Contr
Technology	1.7	1.8	0.8	-0.5	3.9	-0.3
Digital Info & Svc	1.0	1.2	-0.6	-0.4	2.0	0.4
Financials	0.8	1.0	-0.2	-2.1	0.3	1.7
Cons Goods & Svc	0.7	0.8	0.3	-0.9	1.3	0.3
Energy	0.6	0.6	0.9	0.0	0.1	1.1
Industrials	0.4	0.4	0.7	0.1	0.1	0.8
Health Care	0.4	0.5	-0.4	1.2	0.9	0.0
Resources & Materials	0.2	0.2	0.3	0.2	0.0	0.3
Agri Food Bev	0.1	0.1	0.0	0.0	0.0	0.2
Real Estate	-0.3	-0.2	-0.4	-0.5	-0.3	-0.2
Transportation	-0.4	-0.4	-0.3	-0.1	-0.7	0.1
Index Return (TR)	5.2	5.9	0.9	-3.2	7.2	4.4

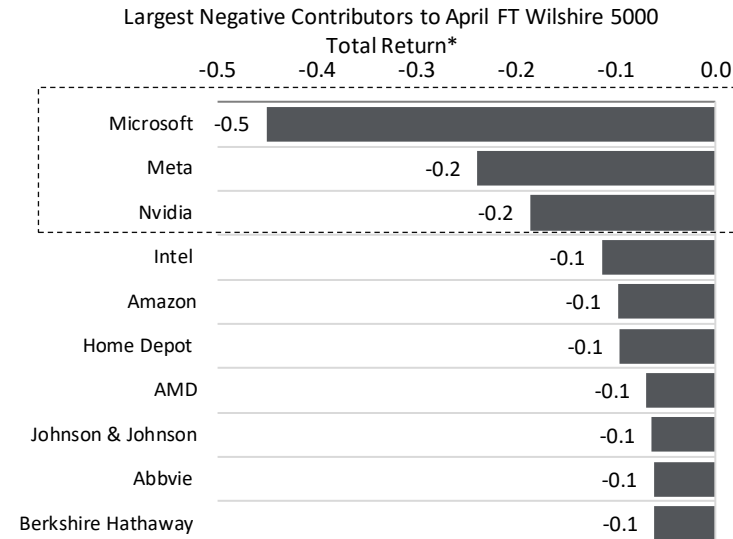
Source: Wilshire Indexes. Data as of April 30, 2024 - sector contributions based on average weights over the time period.

FT Wilshire 5000 Stock Level Analysis: Nvidia, Microsoft and Meta reverse course to become largest drag of return in April

The combined weighting of the top 10 largest stocks has risen to 28.2%, the highest concentration in over 40 years



Microsoft, Meta and Nvidia were the largest negative contributors (-0.9% of -4.4%) to April's FT Wilshire 5000 return



*Based on avg weights

FT Wilshire 5000 - Top/Bottom 10 contributors to return

1M USD: -4.4% (TR)

Name	Wght	Return (%)	Contrib (%)
Alphabet Inc A	2.0	7.9	0.14
Alphabet Inc C	1.8	8.1	0.13
Ge Aerospace	0.4	16.0	0.05
Tesla Mtrs Inc	1.0	4.3	0.04
Exxon Mobil Corp	1.0	1.7	0.02
Chipotle Mexican Gri	0.2	8.7	0.01
Chevron Corp New	0.6	2.2	0.01
Nextera Energy Inc	0.3	4.8	0.01
Newmont Goldcorp Corpor	0.1	13.4	0.01
Coupang Inc	0.1	26.5	0.01
Berkshire Hathaway Inc	0.1	26.5	0.01
Abbvie Inc	0.0	0.0	0.00
Johnson & Johnson	1.1	-5.7	-0.06
Advanced Micro Devic	0.6	-9.8	-0.06
Home Depot Inc	0.7	-8.6	-0.06
Amazon Com Inc	0.5	-12.3	-0.07
Intel Corp	0.7	-12.9	-0.10
Nvidia Corp	3.3	-3.0	-0.10
Meta Platforms Inc	0.3	-31.0	-0.11
Microsoft Corp	4.3	-4.4	-0.19

YTD USD: 5.2% (TR)

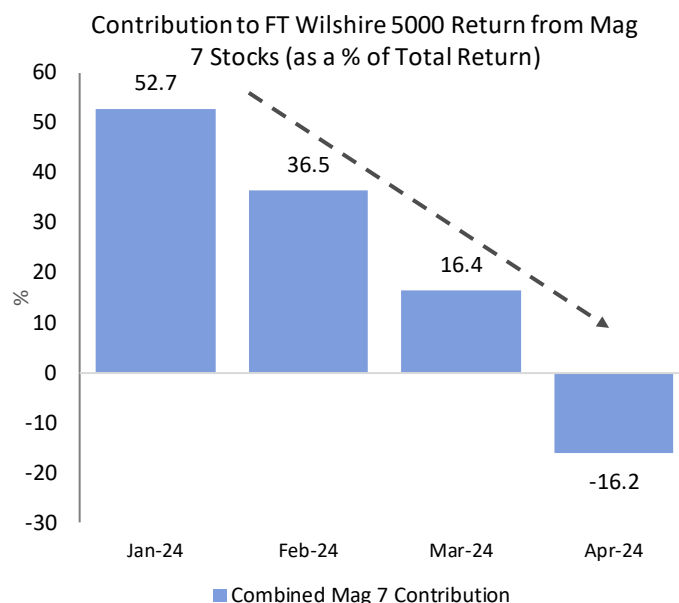
Name	Wght	Return (%)	Contrib (%)
Nvidia Corp	4.3	74.5	1.88
Amazon Com Inc	3.3	15.2	0.45
Meta Platforms Inc	1.9	21.7	0.37
Eli Lilly & Co	1.4	34.2	0.36
Alphabet Inc	2.0	16.5	0.29
Alphabet Inc	1.8	16.8	0.27
Microsoft Corp	5.8	3.7	0.22
Broadcom Inc	1.2	17.0	0.18
Exxon Mobil Corp	1.0	19.4	0.17
Ge Aerospace	0.4	59.6	0.16
Comcast Corp New	0.3	-11.9	-0.04
Johnson & Johnson	0.7	-7.1	-0.06
Prologis Inc	0.2	-22.9	-0.06
Accenture Plc Ireland	0.4	-13.6	-0.06
Unitedhealth Group I	0.9	-7.8	-0.08
Boeing Co	0.2	-35.6	-0.12
Adobe Inc	0.4	-22.4	-0.13
Intel Corp	0.3	-39.2	-0.18
Tesla Mtrs Inc	1.0	-26.2	-0.39
Apple Inc	5.4	-11.4	-0.74

Market Perspectives: Wavering market leadership of the Mag 7 stocks. Growth/Value performance coming under pressure from rising bond yields.

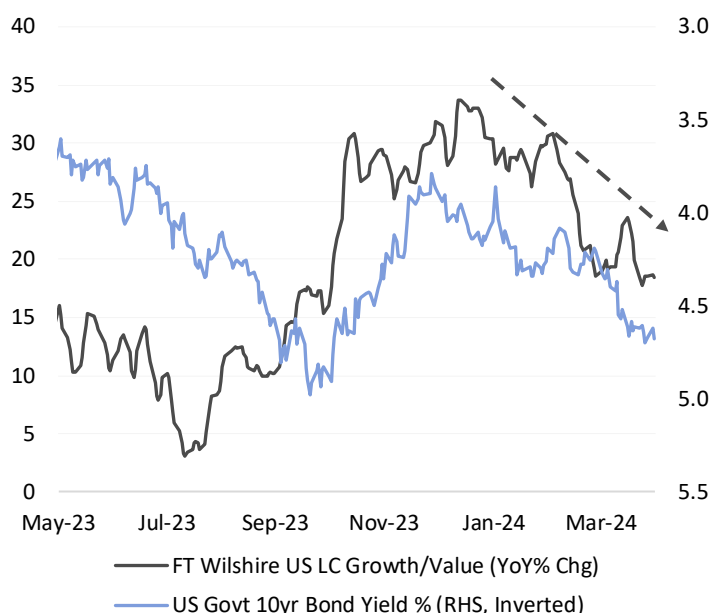
The outperformance of the Mag 7 stocks has lost momentum with the group collectively underperforming the market by 5% since the end of March



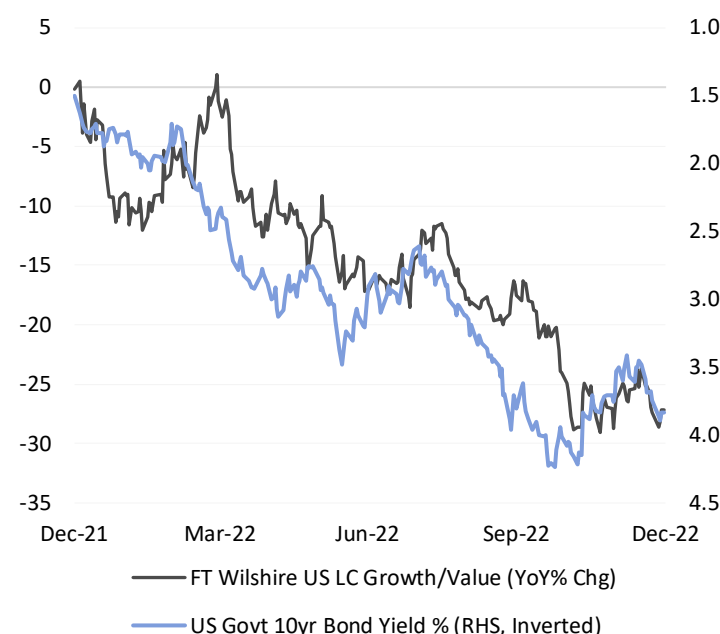
The positive contribution from the Mag 7 stocks has waned since the start of the year, with the group acting as net drag (negative) on returns in April



The long-duration growth stock trade has recently come under pressure from rising bond yields. Could we be seeing the early stages of a 2022 replay?



As a reminder rising bond yields had a significant negative impact on long-duration Growth stocks in 2022, driving the significant underperformance relative to Value and the underperformance of the US



FT Wilshire Size and Style Indexes: Small cap underperforms further in April. Modest rotation from Growth into Value continues.

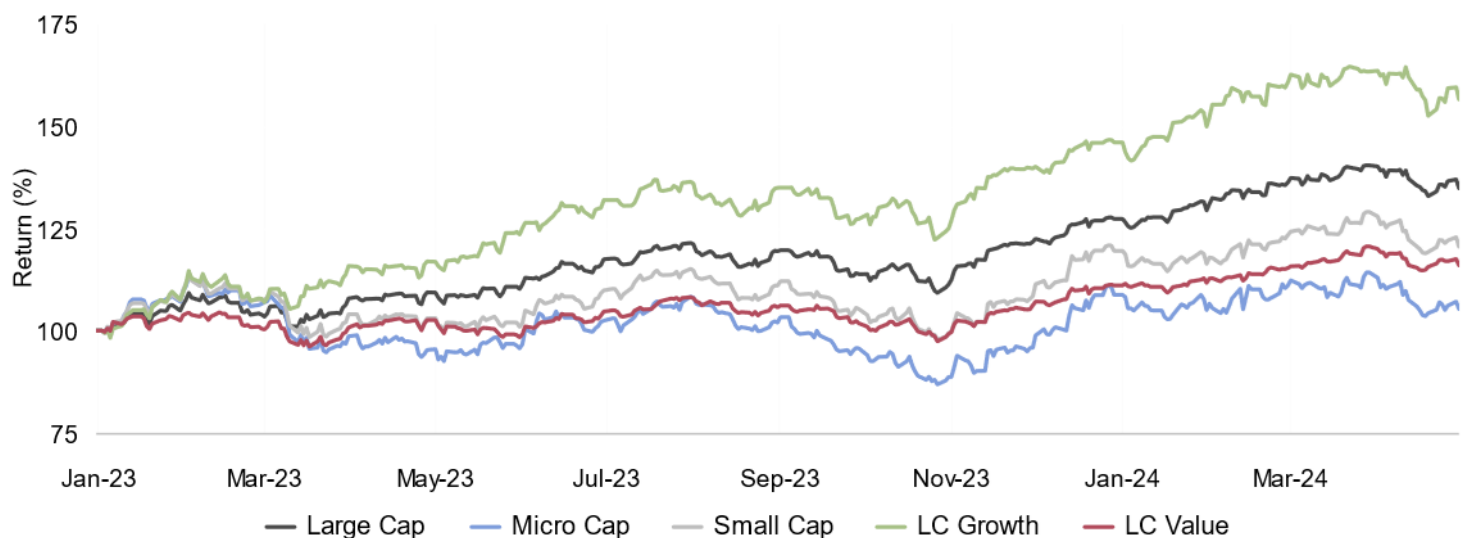
Short-term size and style returns: Small Cap lost further ground relative to Large Cap in April. The recent Value outperformance relative to Growth has continued but Growth has still seen the strongest year to date gains.

USD, TR %	Size			Style	
	Large Cap	Small Cap	Micro Cap	LC Growth	LC Value
1M	-4.0	-6.6	-7.9	-4.2	-3.9
YTD	5.9	0.9	-3.2	7.2	4.4
12M	23.3	17.0	10.5	33.9	13.0
2023	27.3	19.5	8.8	46.1	11.1
2022	-19.2	-17.5	-21.4	-31.1	-6.0

Long-term size and style returns: Growth sees a 5yr annualized return of 16.4% vs 9.9% for value

USD, TR %	Large Cap		Small Cap		Micro Cap		LC Growth		LC Value	
	Aggr	Ann	Aggr	Ann	Aggr	Ann	Aggr	Ann	Aggr	Ann
2Y	26.1	12.3	13.9	6.7	-2.3	-1.2	36.2	16.7	16.2	7.8
3Y	25.0	7.7	2.4	0.8	-18.8	-6.7	26.2	8.1	22.4	7.0
5Y	87.1	13.4	47.8	8.1	29.6	5.3	113.6	16.4	60.2	9.9
10Y	226.0	12.5	129.2	8.6	83.1	6.2				
20Y	-1.6	-0.1	-1.9	-0.1	-1.7	-0.1				

Chart 1: Size and style index returns - since 2023 (USD, TR %)



Style and Size Indexes: Growth/Value outperformance losing momentum. Large Cap/Small Cap testing previous resistance levels.

Chart 1: Growth vs Value relative performance (USD, TR, %).



Chart 2: Large vs Small Cap relative performance (USD, TR, %).



Chart 3: Large vs Micro Cap relative performance (USD, TR, %).

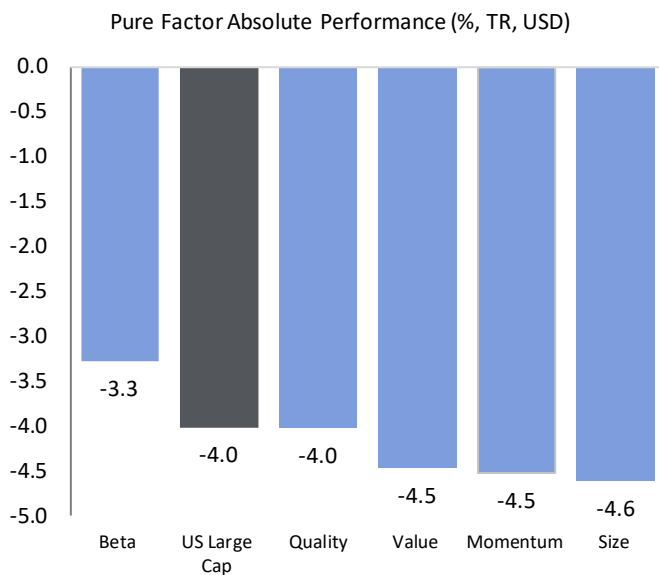


Source: Wilshire Indexes. Data as of April 30, 2024.

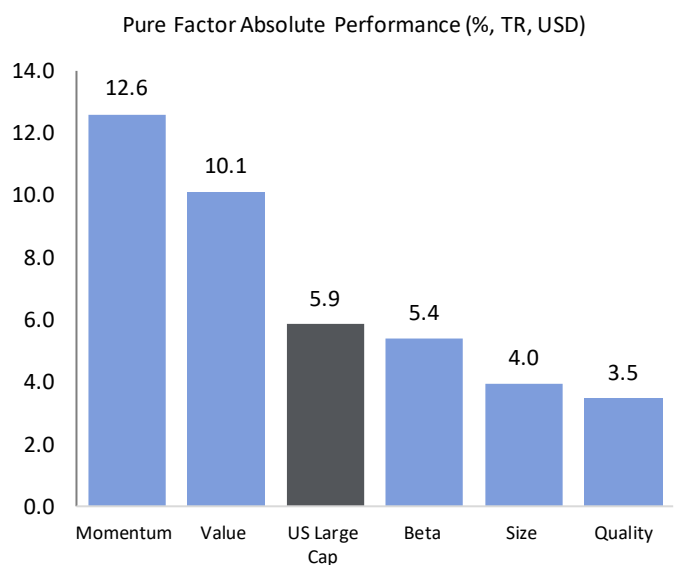
Pure Factor Indexes: Heightened market volatility sees (low) Beta outperform in April. Momentum remains the standout performer year to date.

Our “Pure Factors” are designed to eliminate the unintended sector and factor exposures incorporated into most conventional factor methodologies. In this regard they are designed to deliver “pure” factor premia.

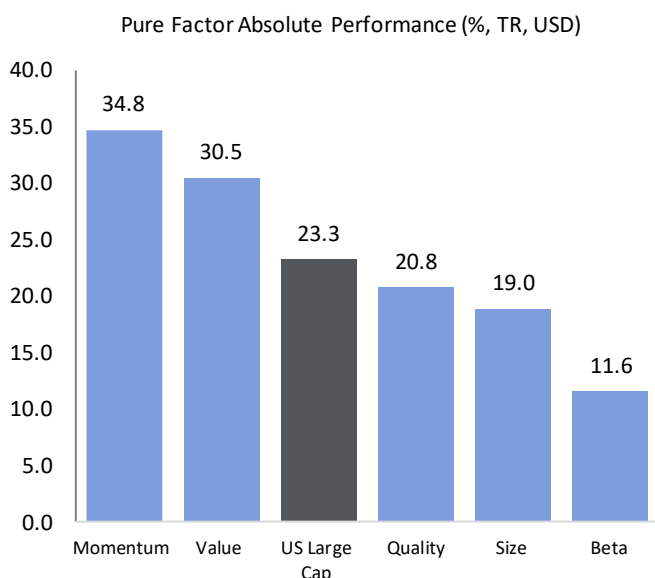
1M - Pure Beta outperformed with Momentum and Size the laggards



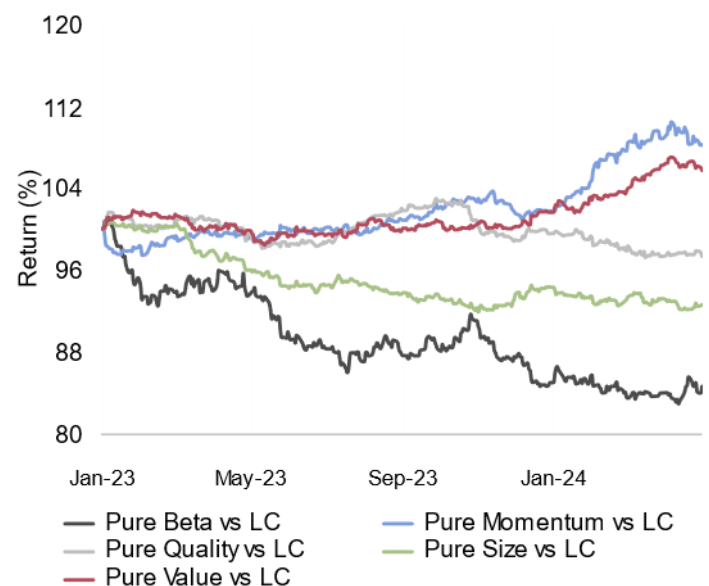
YTD – Pure Momentum and Value have significantly outperformed in 2024 so far



12M - Pure Value has comfortably outperformed Quality over the past 12 months



Pure Factor Indexes Relative to FT Wilshire US Large Cap Index since 31-Dec-2022 (Rebased, TR, USD)

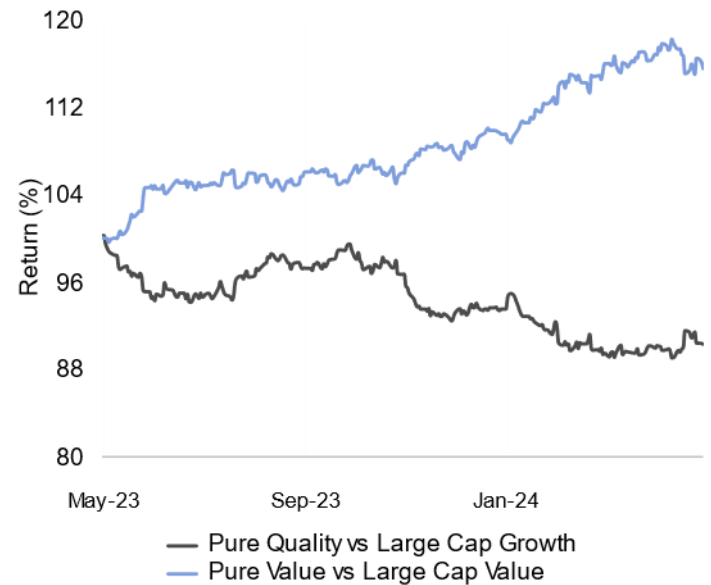


Comparing Factor vs Style returns: Pure Value delivers over twice the YTD re- turn of Value Style. Pure Quality continues to lag Growth Style .

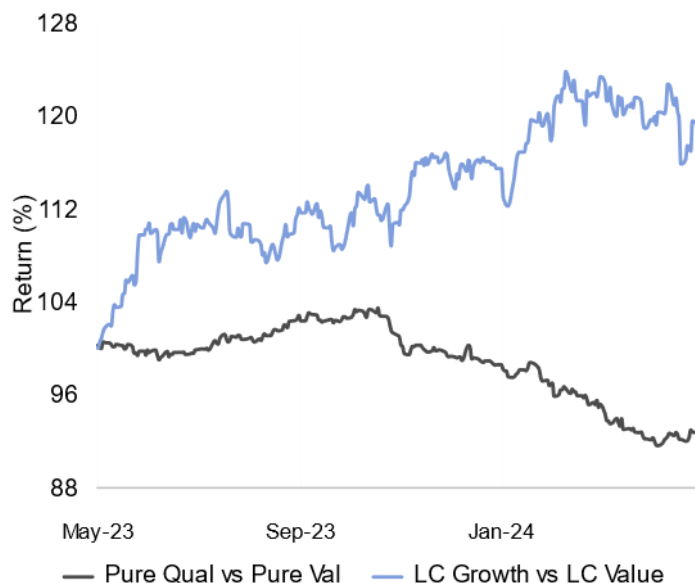
Pure Factor and Style Absolute Performance - 1M, YTD, 12M and 3YR

Returns (USD, TR %)	1M	YTD	12M	3Y
Pure Factor Quality	-4.0	3.5	20.8	10.3
Style Growth	-4.2	7.2	33.9	8.1
Pure Factor Value	-4.5	10.1	30.5	10.4
Style Value	-3.9	4.4	13.0	7.0
Pure Factor Size	-4.6	4.0	19.0	5.0
Style Small Cap	-6.6	0.9	17.0	0.8

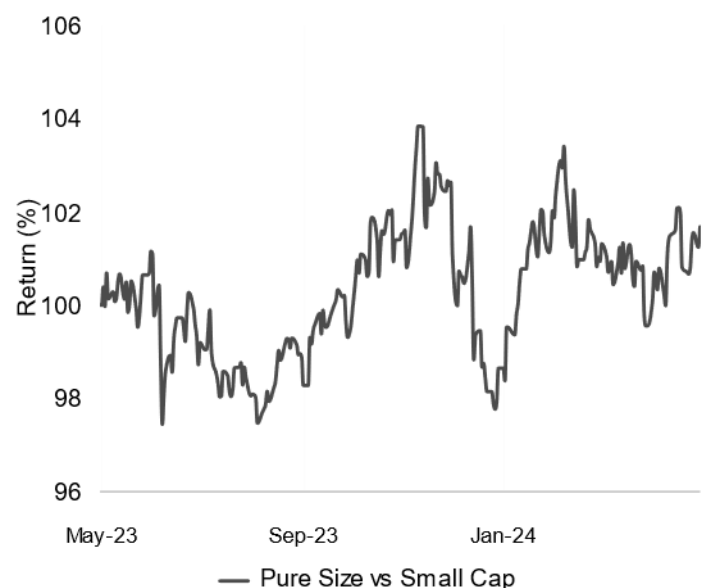
Pure Value has significantly outperformed Value Style, while Pure Quality continues to lag Growth Style



Pure Quality has underperformed Pure Value since October with Growth Style now beginning to lose momentum relative to Value Style



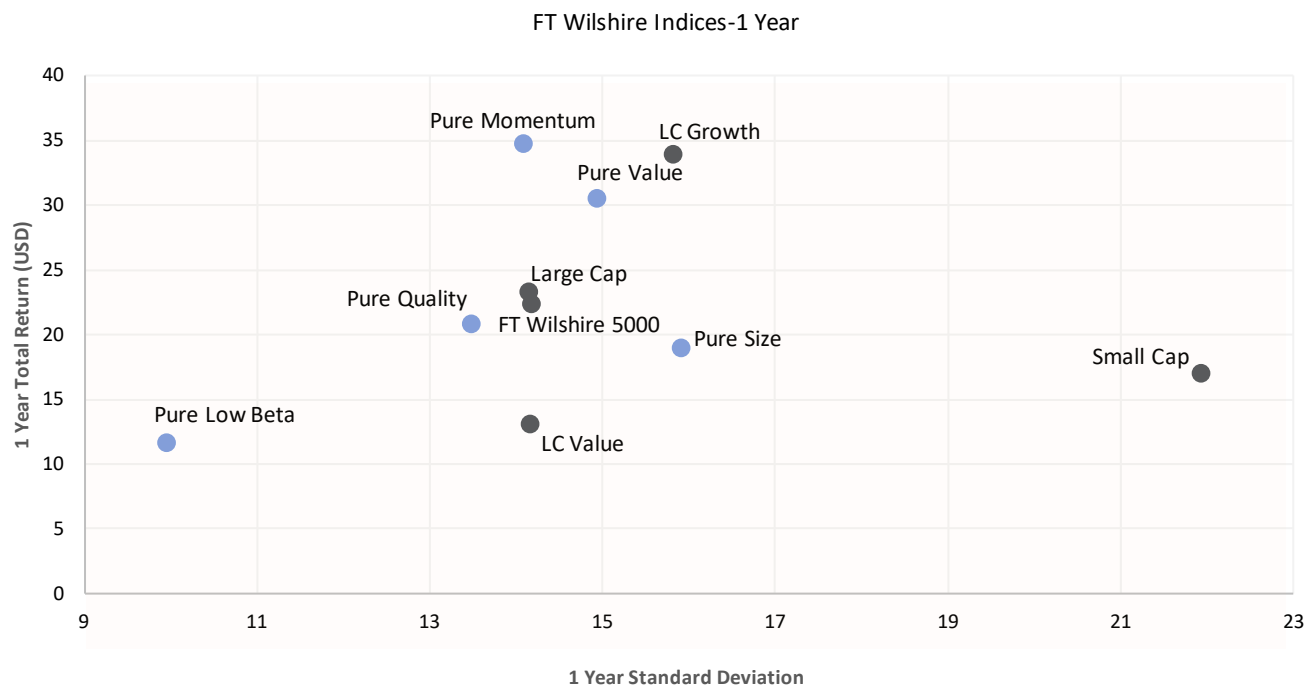
Pure Factor Size has modestly outperformed US Small Cap Style over the past 12 months



FT Wilshire Index Risk vs Return: 1 year and 5 year perspectives

FT Wilshire Indexes: Risk vs Return Over 1 Year

Style Pure Factor



FT Wilshire Indexes: Risk vs Return Over 5 Years

Style Pure Factor



FT Wilshire Global Equity Market Series (GEMS)

1

+6.7%

April Return of Chinese equities (USD, TR)

2

-4.2%

April return of Japanese equities (USD, TR)

3

-4.3%

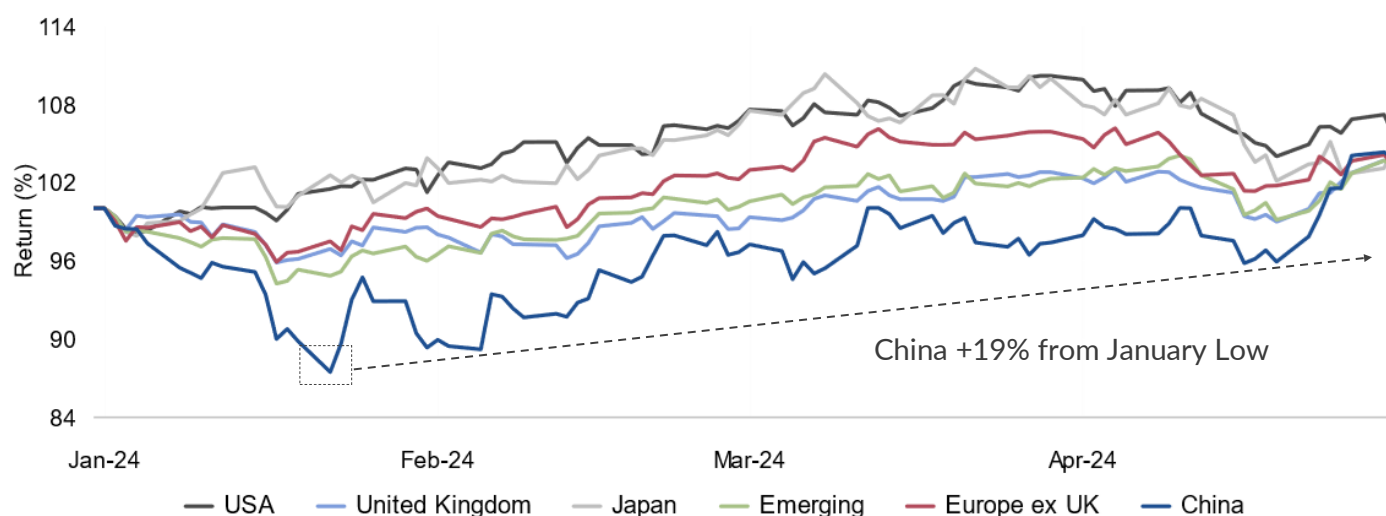
April return of US equities (TR)

4

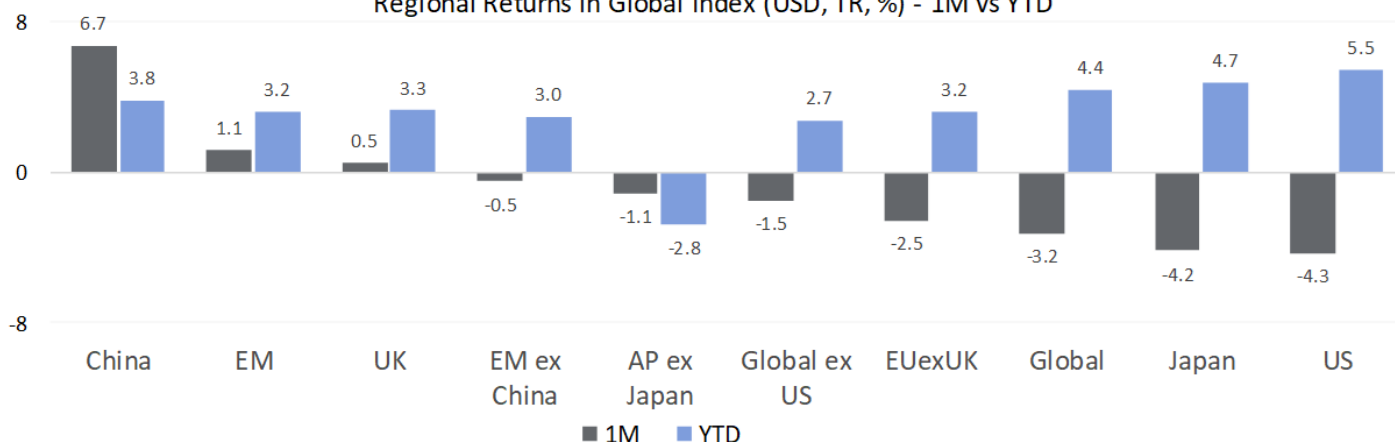
+4.4%

Year to Date return of Global equities (USD, TR)

Heightened volatility with previous leaders Japan and the US underperforming. China spikes higher, shifting from one of the worst to amongst the best performers YTD.



Regional Returns in Global Index (USD, TR, %) - 1M vs YTD



Chronology of Key Global news flow since the start of 2023

1 China Optimism

China sees strong economic rebound following relaxation of Covid restrictions. Chinese equities continue to surge

2 US Rate Expectations Spike

Reassessment of US interest rate expectations see global bond yields rise

3 AI trade

AI trade drives US outperformance, 'Mag 7' stocks dominate US returns

4 Higher for Longer

Markets reassess trajectory of US 2024 rates as financial conditions turn restrictive

5 Optimism Over 2024 Rate Cuts

Strong rebound in global markets on optimism over 2024 rate cuts

6 AI-stock exuberance

Optimism over AI-focus stocks drives US market to new all-time highs

7 Bank of Japan Raises Rates

BoJ raises rates into positive territory for the first time since 2016.

8 Markets Reassess US Rate Outlook

Markets price in shallower US rate cutting cycle and bond yields rise, injecting volatility into markets

FT Wilshire US vs Global ex US Index



Source: Wilshire Indexes. Data as of April 30, 2024

Wilshire Indexes - Performance Report (April 2024)

Regional Market Observations

April

- 01** Global equity market rally (ex China) loses momentum in April as reversal in US 2024 interest rate outlook and rising bond yields inject volatility into markets (see below)
- 02** Chinese equities play catch up, significantly outperforming in April with consumer goods and digital information sectors contributing two-thirds of the return ([page 26](#))
- 03** US underperforms vs Global ex US driven by larger negative relative contribution from financials and digital information sectors ([page 24](#))
- 04** Global equity index returns over twice as large for a JPY vs USD-based investor over the last 12 months due to sizeable swings in FX ([page 20](#))
- 05** Japanese equities underperform despite Yen briefly hitting lowest level versus the dollar in 34 years ([page 28](#))

Regional Returns (USD, TR, %)

	1M	YTD	12M	2023	2022
China	6.7	3.8	-5.4	-6.5	-21.8
Emerging	1.1	3.2	13.2	16.4	-18.5
Asia Pacific ex Japan	1.0	2.8	10.5	13.2	-17.3
United Kingdom	0.5	3.3	5.8	18.1	-10.8
Emerging ex China	-0.5	3.0	20.3	25.6	-17.1
Global ex US	-1.5	2.7	10.3	19.4	-16.1
Europe ex UK	-2.5	3.2	9.4	26.0	-20.1
Global	-3.2	4.4	17.7	27.6	-18.0
Japan	-4.2	4.7	17.5	25.2	-15.4
USA	-4.3	5.5	22.9	33.4	-19.3

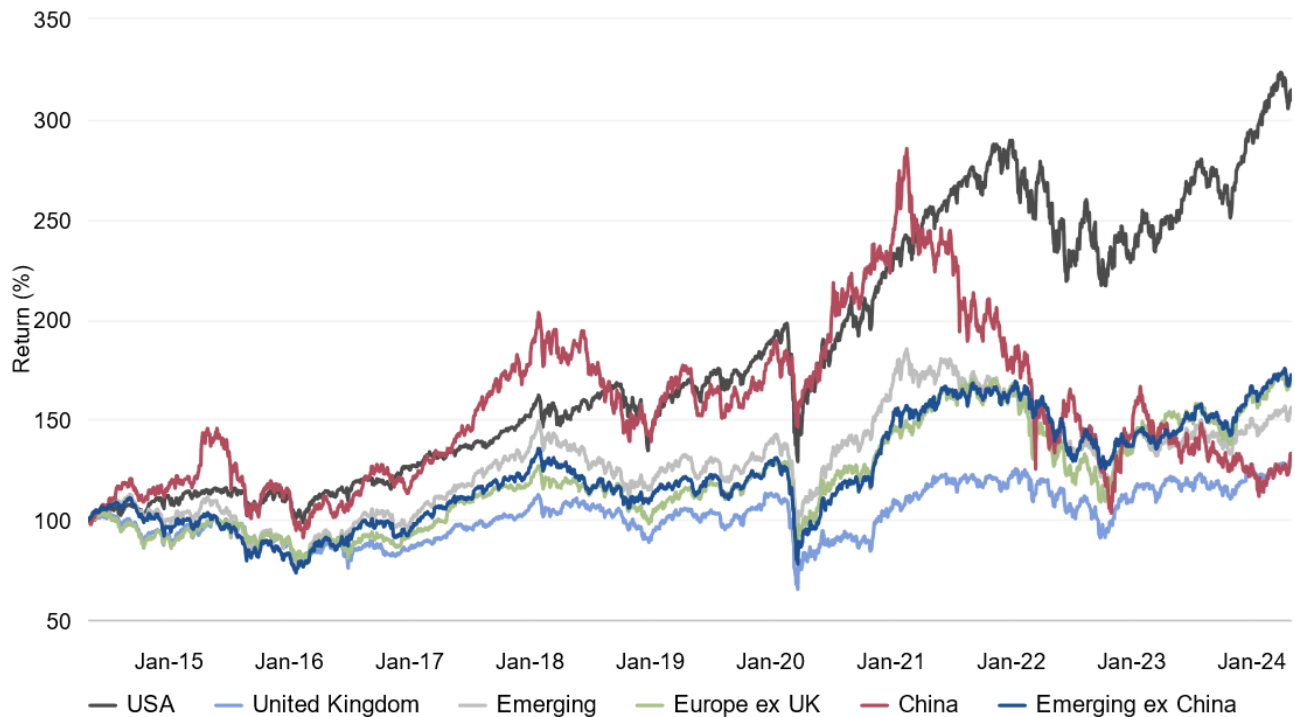
Source: Wilshire Indexes. Data as of April 30, 2024

Wilshire Indexes - Performance Report (April 2024)

Comparing Regional Long-Term Return Profiles

In USD terms the US has delivered the significantly higher returns vs other major regions. Europe ex UK has outperformed the UK. China has delivered around half the returns of Emerging ex China over the past decade.

Chart: 10yr return (USD, TR, %)

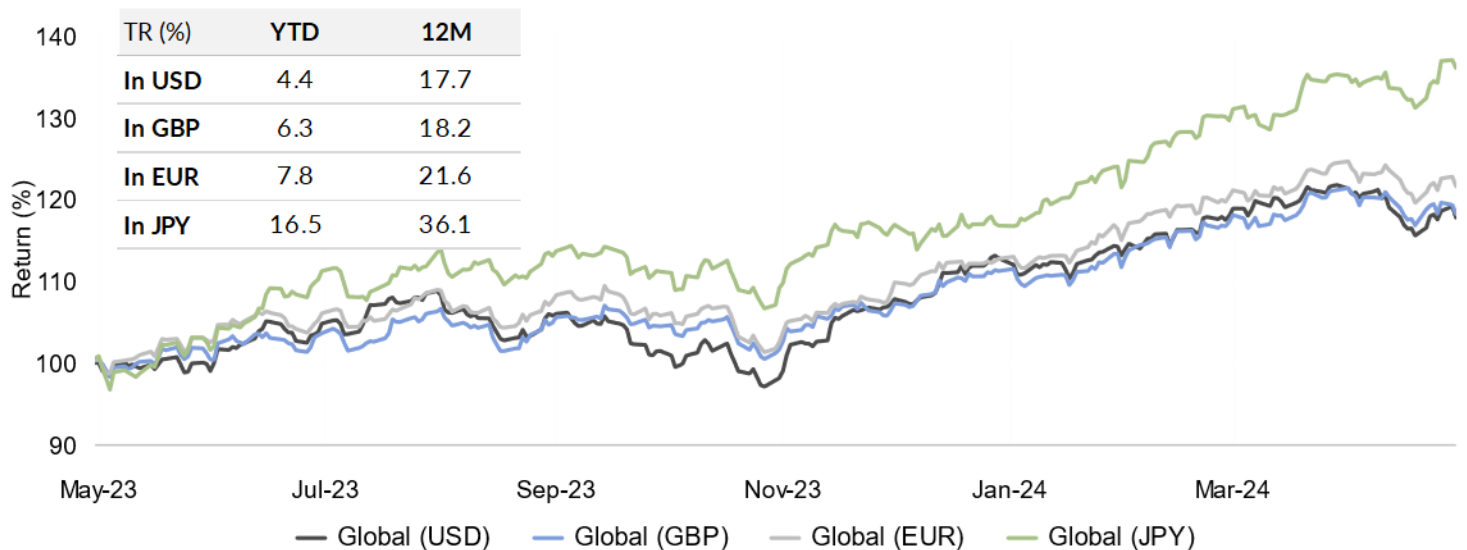


Long Term Returns (USD, TR, %)	3Y		5Y		10Y		20Y	
	Aggr	Ann	Aggr	Ann	Aggr	Ann	Aggr	Ann
USA	21.7	6.8	81.9	12.7	208.6	11.9	599.3	10.2
United Kingdom	10.0	3.2	22.3	4.1	28.1	2.5	174.8	5.2
Japan	7.1	2.3	35.8	6.3	94.2	6.9	154.0	4.8
Asia Pacific ex Japan	-12.7	-4.4	20.7	3.8	64.3	5.1	380.9	8.2
Europe ex UK	7.8	2.5	44.8	7.7	67.0	5.3	300.1	7.2
Emerging	-10.8	-3.7	19.0	3.5	56.1	4.6	378.8	8.1
Emerging ex China	8.5	2.8	43.2	7.4	72.3	5.6	412.8	8.5
China	-44.7	-17.9	-23.7	-5.3	33.9	3.0	414.6	8.5
Global ex US	1.5	0.5	32.2	5.7	59.9	4.8	263.7	6.7
Global	13.1	4.2	58.9	9.7	128.8	8.6	416.7	8.6

FX adjusted market returns: Global equity index returns over twice as large for a JPY vs USD-based investor over the last 12 months

Swings in FX result in a sizeable impact on unhedged regional equity returns depending on the location of investors. This has been most pronounced for JPY returns for a Japanese based investor (due to continued Yen weakness). Over the past 12 months global equities have returned 36.1% in JPY versus just 17.7% for an investor based in USD.

Contrasting the returns of Global equities in USD, GBP, EUR and JPY



12M Regional returns in various FX (TR, %)

12M Return (TR, %)	USD	GBP	EUR	JPY
USA	22.9	23.4	26.9	42.0
Developed	18.3	18.8	22.2	36.7
Global	17.7	18.2	21.6	36.1
Japan	17.5	17.9	21.3	35.8
Emerging	13.2	13.7	16.9	30.9
Asia Pacific ex Japan	10.5	10.9	14.0	27.7
Europe ex UK	9.4	9.8	13.0	26.4
United Kingdom	5.8	6.2	9.2	22.2
China	-5.4	-5.0	-2.3	9.4

Global Equity Relative Returns: US leadership loses momentum. China rebound helps Emerging markets reverse downward trend relative to Developed

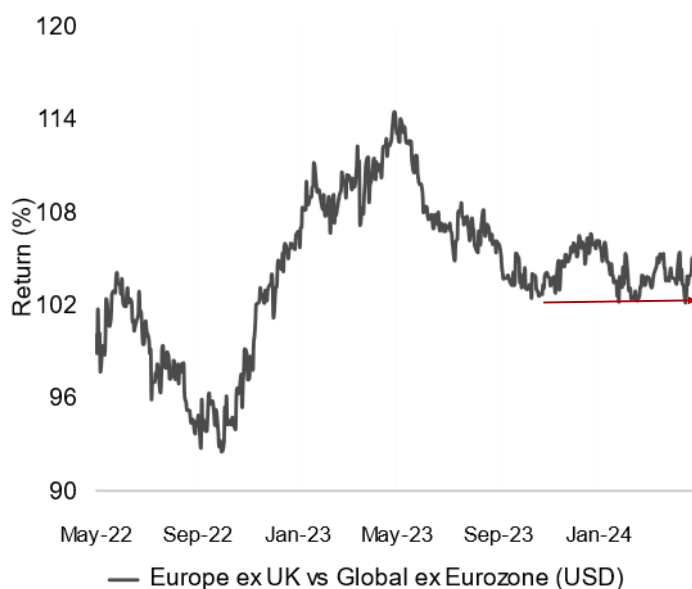
US vs Global ex US (USD, TR, %)



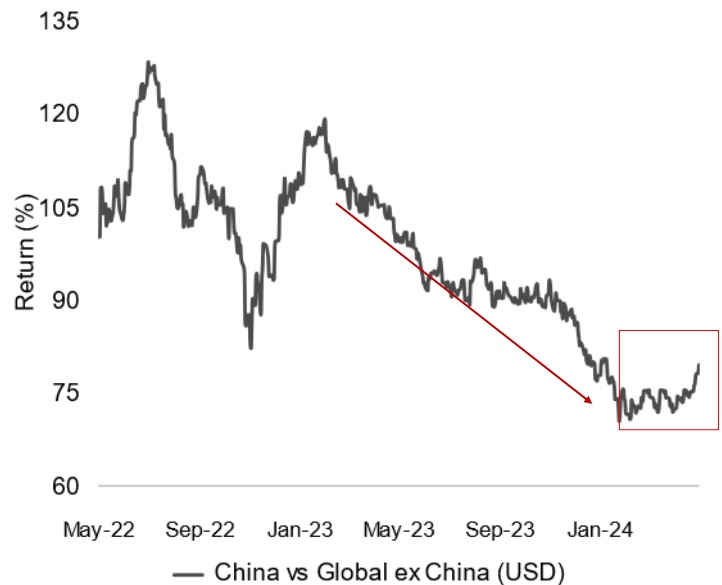
Emerging Markets vs Developed (USD, TR, %)



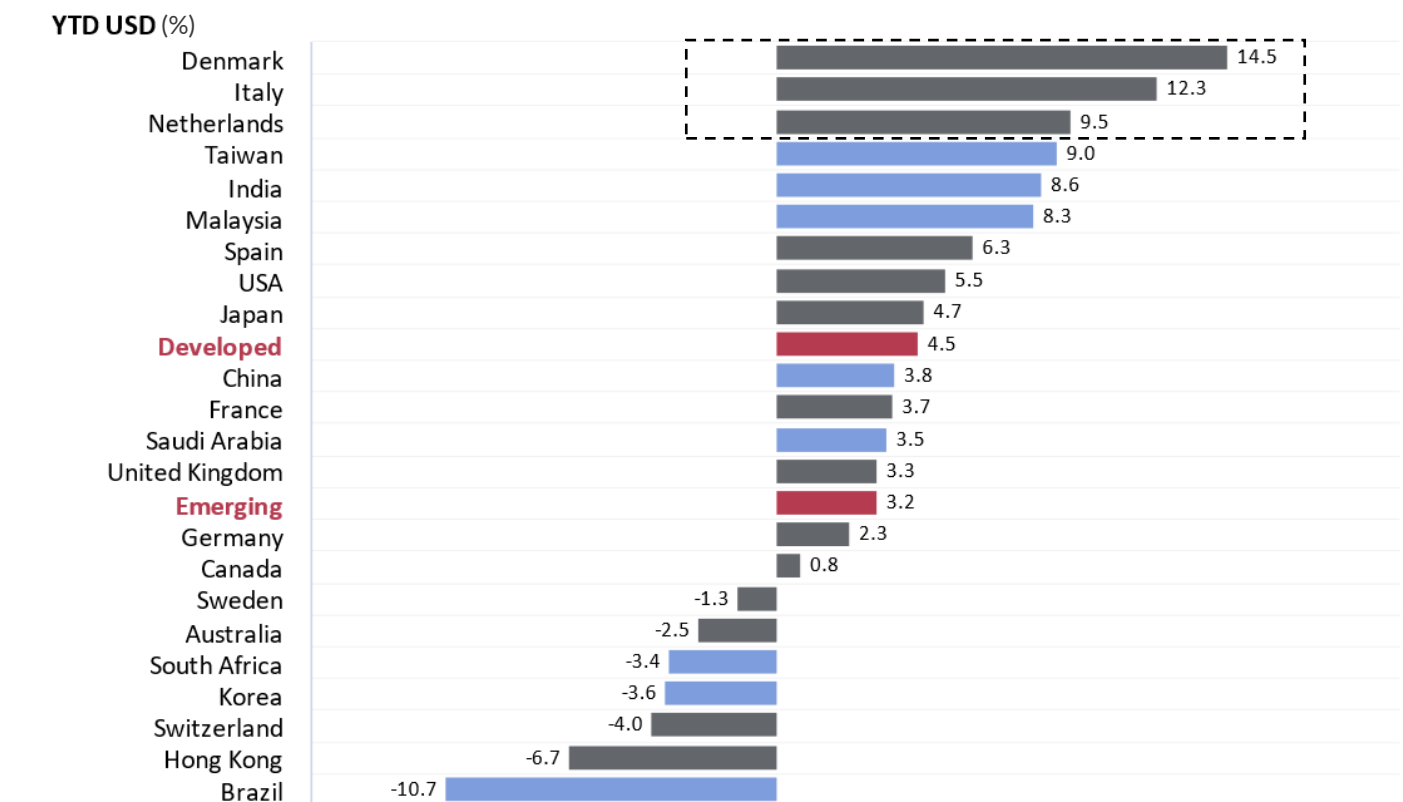
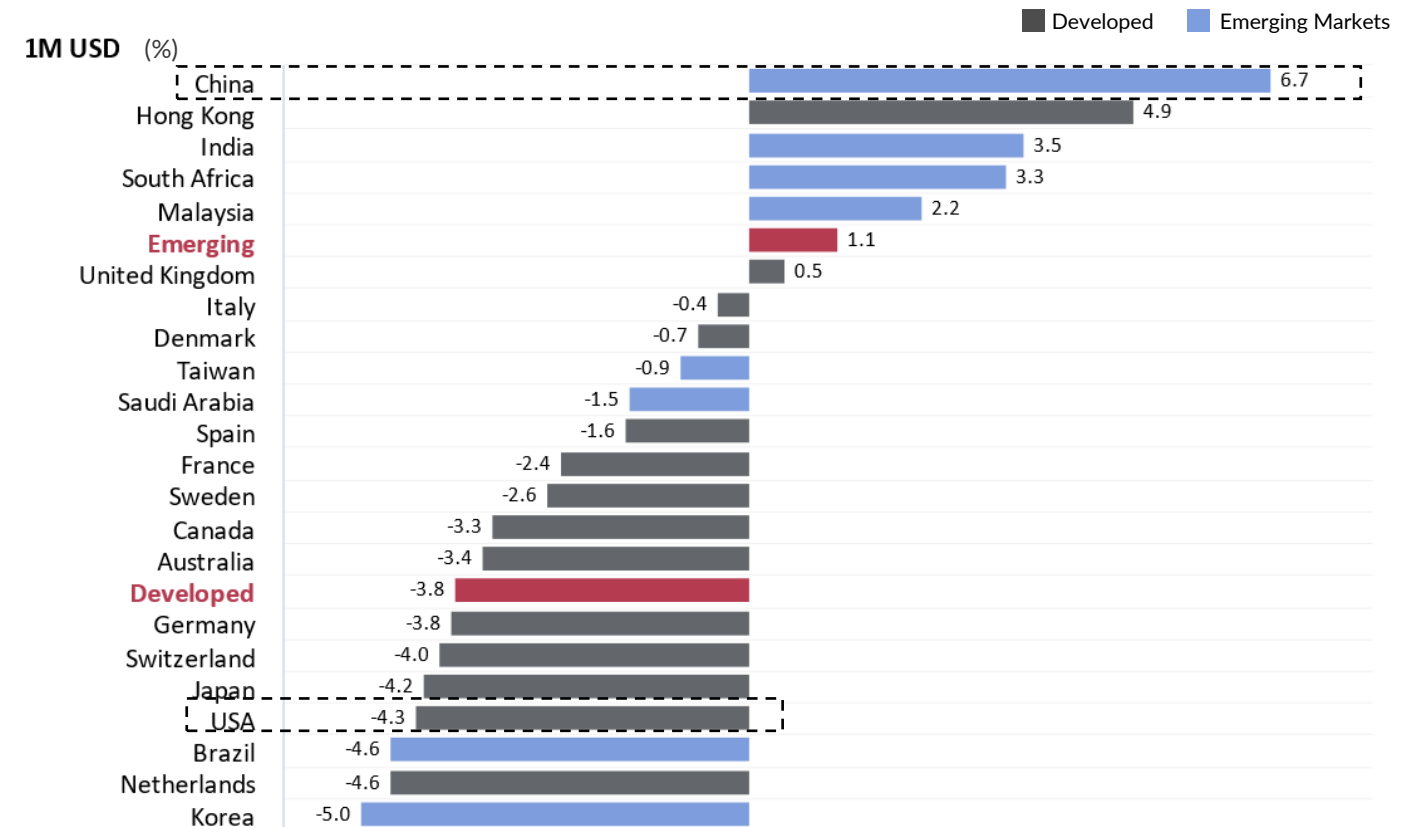
Europe ex UK vs Global ex Dev Europe (USD, TR, %)



China vs Global ex China (USD, TR, %)

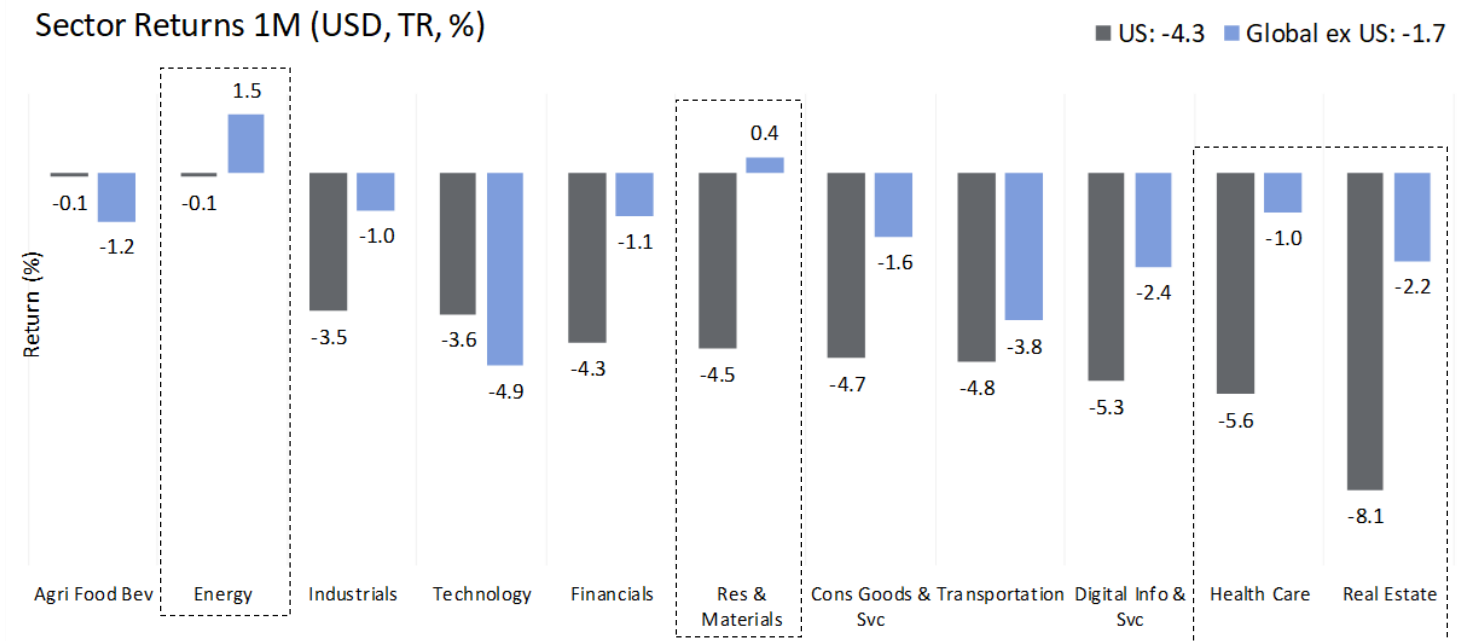


Developed & Emerging market country level performance: 11% return differential between China and US in April. Strong year to date returns in Europe.

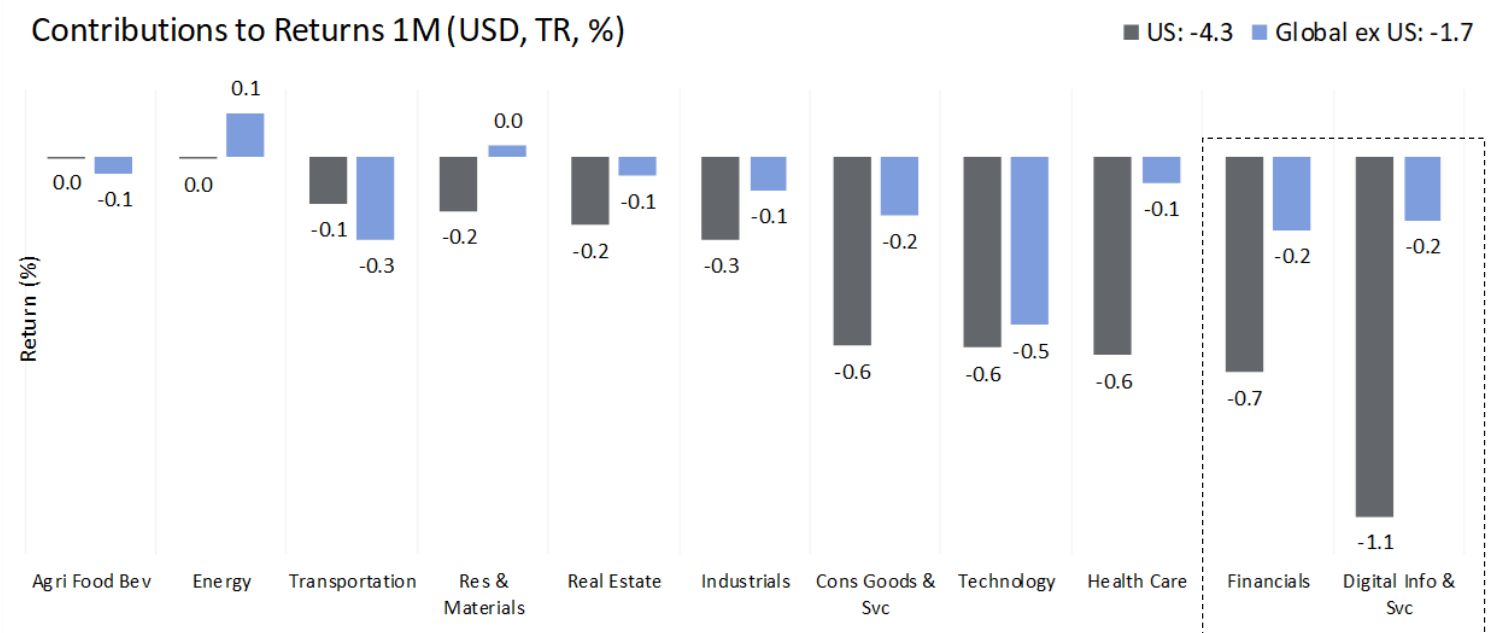


1M-US vs Global ex US sector returns & sector-weighted contribution analysis: Larger drag from financials and digital information drives US underperformance

1M US vs Global ex US Sector Returns. US (grey bars) saw significant underperformance in resources, health care and real estate. Only Global ex US energy and resources sector delivered positive returns.

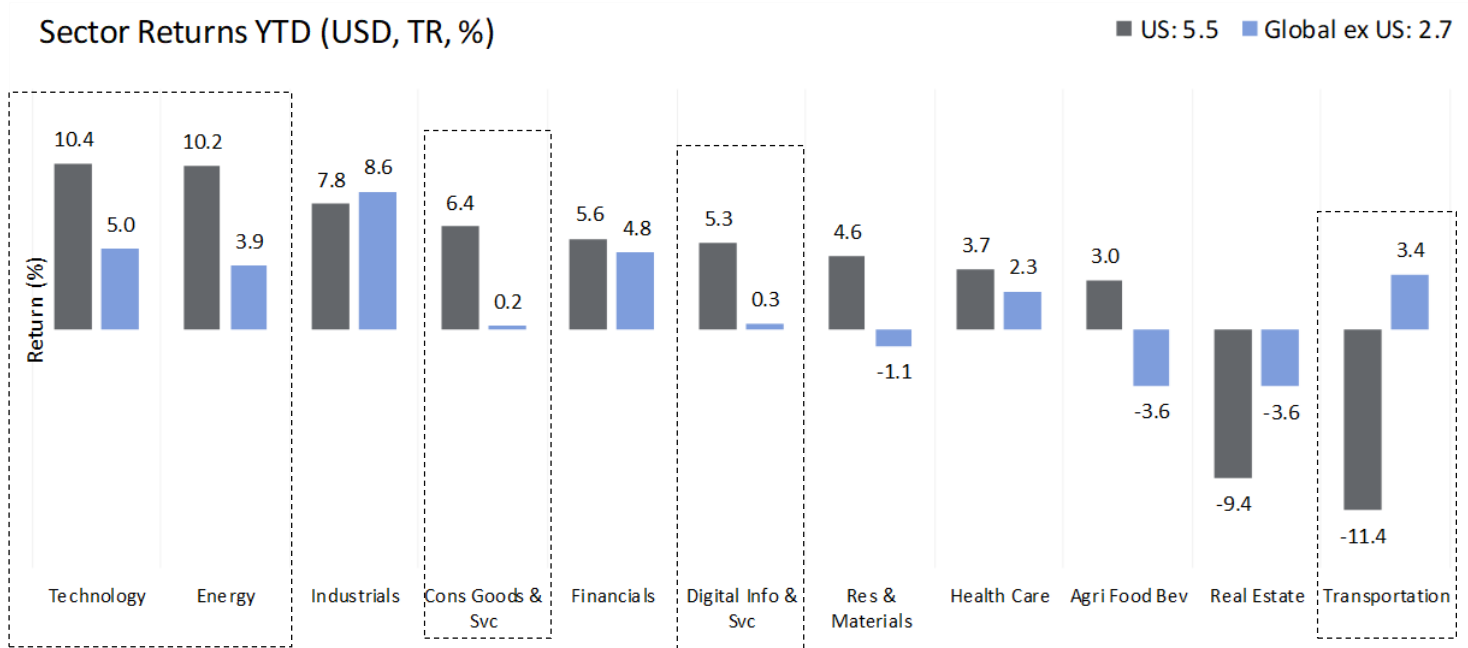


1M US vs Global ex US Sector weighted regional contribution analysis. Larger negative contributions from financials and digital information drove US underperformance vs Global ex US in April.

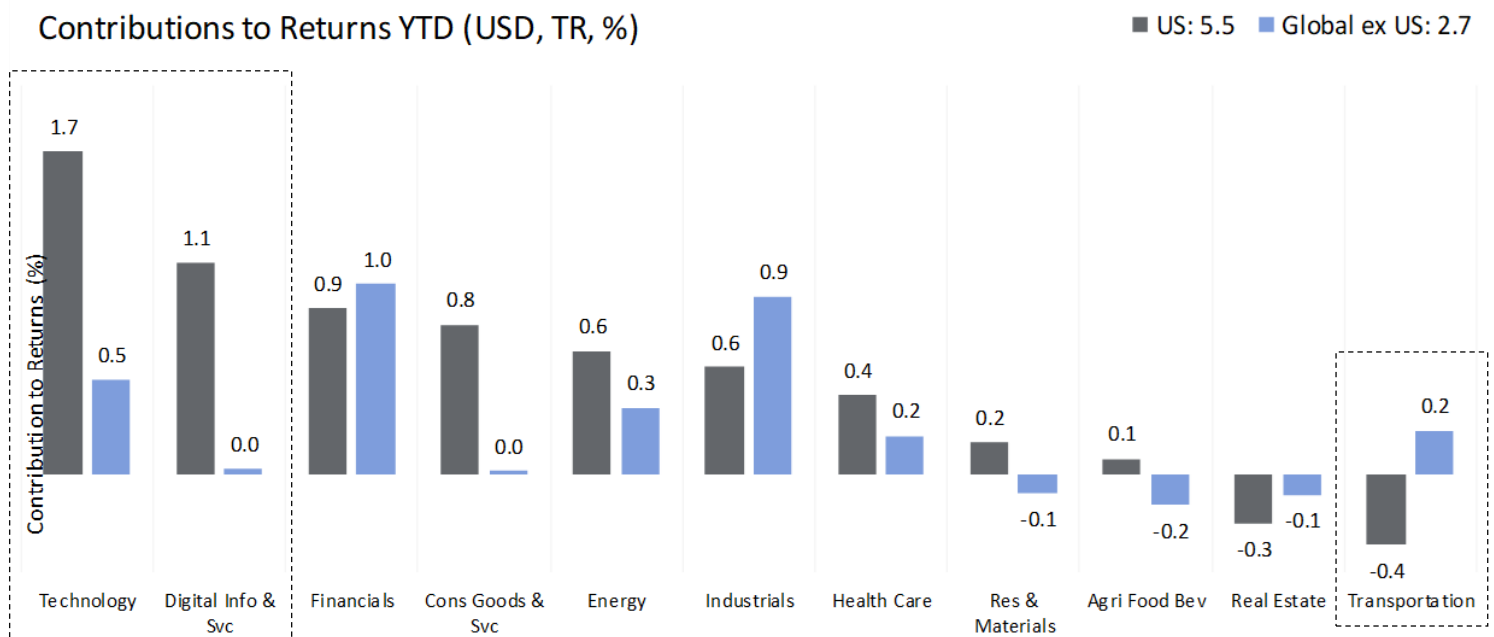


YTD-US vs Global ex US sector returns & sector-weighted contributions: US technology and digital info still the largest positive contributors in 2024

US vs Global ex US YTD Sector Returns: Outperformance in US (grey) energy, tech, digital info and consumer goods. Global ex US (blue) transportation has significantly outperformed the US.



YTD US vs Global ex US Sector Weighted regional contribution analysis: US digital info and technology contribute 2.3% of the 2.8% US outperformance vs global peers. Transportation the main relative drag on performance.



Source: Wilshire Indexes and Refinitiv. Data as of April 30, 2024

Wilshire Indexes - Performance Report (April 2024)

Regional level sector weights and 1M returns: China digital information and real estate post double-digit returns in April. Energy a positive across most regions.

Regional sector weights and regional weight in global index – The US is significantly overweight in technology and digital info vs Global ex US but underweight financials and resources and materials.

Weights	US	Global ex US	UK	EU ex UK	Japan	EM	China
Agri Food Bev	2.6	4.3	6.5	5.6	3.2	4.1	4.2
Energy	6.4	8.8	15.8	7.2	2.4	8.9	6.4
Industrials	7.2	10.8	12.0	14.2	19.2	5.4	2.8
Technology	16.1	10.4	5.0	7.2	12.8	19.0	3.8
Financials	15.1	20.4	20.2	18.7	12.5	21.0	16.3
Res & Materials	3.7	8.6	7.1	7.6	6.4	8.4	4.0
Cons Goods & Svc	12.1	11.1	14.3	11.8	8.3	11.2	28.5
Transportation	3.0	6.7	1.0	6.0	13.2	6.1	7.1
Digital Info & Svc	20.5	8.1	4.0	6.3	11.9	10.0	19.5
Health Care	10.7	8.3	11.6	14.1	6.0	3.9	4.5
Real Estate	2.6	2.7	2.4	1.2	4.1	2.1	2.7
Weight in Global Index							
% Global	61.6	38.4	3.6	12.4	5.6	11.3	2.7

1M regional sector returns: China digital information and real estate significant outperformers in April. US real estate and health care underperform relative to Global ex US.

1M Returns	US	Global ex US	UK	EU ex UK	Japan	EM	China
Agri Food Bev	-0.1	-1.2	-2.5	-1.5	-1.6	0.0	2.6
Energy	-0.1	1.5	4.8	1.2	0.4	2.7	5.7
Industrials	-3.5	-1.0	-2.9	-2.0	0.8	1.7	4.1
Technology	-3.6	-4.9	-17.5	-4.6	-9.2	-2.5	5.8
Financials	-4.3	-1.1	2.0	-2.5	-2.6	0.9	7.2
Res & Materials	-4.5	0.4	7.9	-2.5	-4.9	2.7	8.1
Cons Goods & Svc	-4.7	-1.6	-1.5	-3.6	-7.2	3.8	6.8
Transportation	-4.8	-3.8	-0.3	-5.6	-5.5	2.0	1.9
Digital Info & Svc	-5.3	-2.4	-3.2	-3.8	-6.5	2.9	10.1
Health Care	-5.6	-1.0	5.7	-1.7	-3.6	-1.1	1.2
Real Estate	-8.1	-2.2	-3.8	-1.9	-3.2	3.4	11.6
Index Return (TR)	-4.3	-1.5	0.5	-2.5	-4.2	1.1	6.7

1M & YTD Regional sector sector-weighted performance contribution comparisons: Cons goods and digital info drive strong China returns in April

Regional sector-weighted contributions to 1M returns: Here we highlight the two largest contributors to returns for the US and Global ex US. Cons goods and digital info drive China outperformance in April.

1M	US	Global ex US	UK	EU ex UK	Japan	EM	China
	Contr	Contr	Contr	Contr	Contr	Contr	Contr
Agri Food Bev	0.0	-0.1	-0.2	-0.1	-0.1	0.0	0.1
Energy	0.0	0.1	0.8	0.1	0.0	0.2	0.4
Transportation	-0.1	-0.3	0.0	-0.3	-0.7	0.1	0.1
Res & Materials	-0.2	0.0	0.6	-0.2	-0.3	0.2	0.3
Real Estate	-0.2	-0.1	-0.1	0.0	-0.1	0.1	0.3
Industrials	-0.3	-0.1	-0.3	-0.3	0.2	0.1	0.1
Cons Goods & Svc	-0.6	-0.2	-0.2	-0.4	-0.6	0.4	1.9
Technology	-0.6	-0.5	-0.9	-0.3	-1.2	-0.5	0.2
Health Care	-0.6	-0.1	0.7	-0.2	-0.2	0.0	0.1
Financials	-0.7	-0.2	0.4	-0.5	-0.3	0.2	1.2
Digital Info & Svc	-1.1	-0.2	-0.1	-0.2	-0.8	0.3	2.0
Index Return (TR)	-4.3	-1.5	0.5	-2.5	-4.2	1.1	6.7

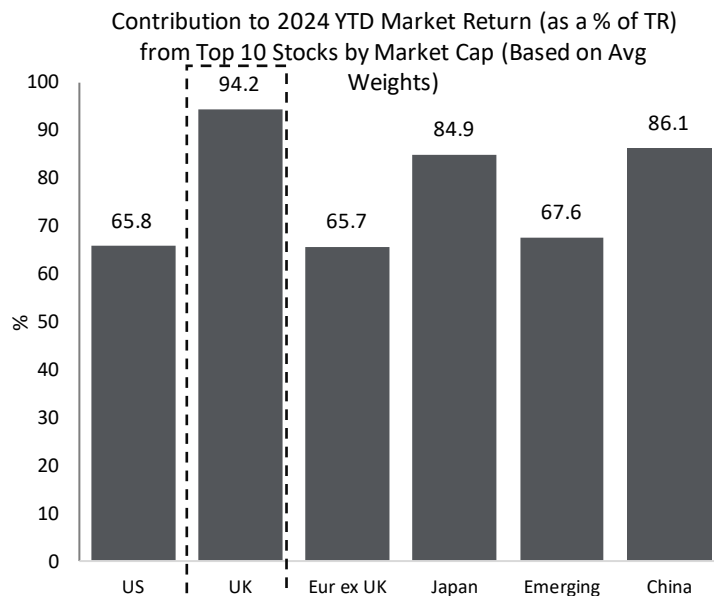
Regional sector-weighted contributions to YTD returns: US tech and digital information dominate

YTD	US	Global ex US	UK	EU ex UK	Japan	EM	China
	Contr	Contr	Contr	Contr	Contr	Contr	Contr
Technology	1.7	0.5	-0.4	0.4	0.3	1.3	-0.1
Digital Info & Svc	1.1	0.0	-0.2	0.4	-0.7	0.3	2.3
Financials	0.9	1.0	1.3	1.5	2.0	0.6	1.6
Cons Goods & Svc	0.8	0.0	-0.4	0.3	-0.5	0.1	0.6
Energy	0.6	0.3	1.1	-0.2	0.3	0.7	1.0
Industrials	0.6	0.9	1.0	0.9	2.5	0.5	0.2
Health Care	0.4	0.2	1.3	0.5	-0.2	-0.2	-1.0
Res & Materials	0.2	-0.1	0.3	0.0	-0.1	-0.2	0.6
Agri Food Bev	0.1	-0.2	0.1	-0.4	-0.1	-0.1	0.0
Real Estate	-0.3	-0.1	-0.2	-0.1	0.1	0.0	-0.2
Transportation	-0.4	0.2	0.0	0.0	1.4	0.3	-0.6
Index Return (TR)	5.5	2.7	3.3	3.2	4.7	3.2	3.8

Source: Wilshire Indexes. Data as of April 30, 2024 - sector contributions based on average weights over the time period.

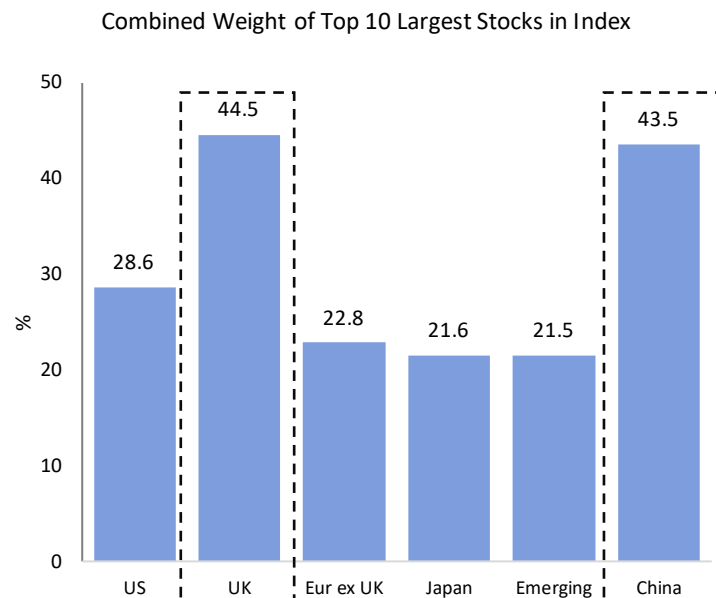
Dispersion analysis: The contribution to returns from top the 10 largest stocks and the dispersion sector returns across the main regions

Biggest contribution to YTD returns (based on average weights) from 10 largest stocks in the UK

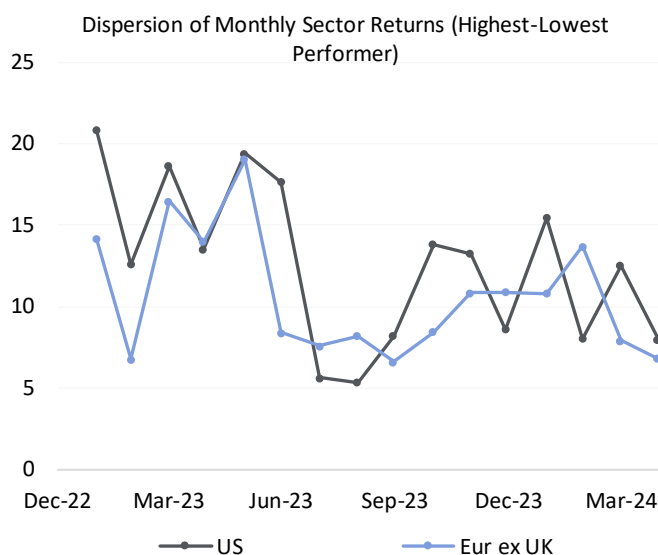


*Contribution to negative returns in UK and China

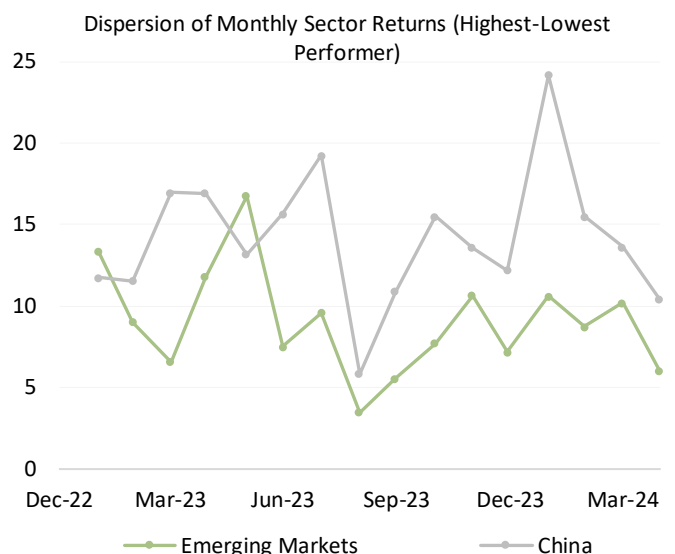
The weighting of top 10 stocks higher in the UK and China than the in US



US and Europe ex UK dispersion of monthly sector returns-Dispersion of sector returns has narrowed since the highs (widest) in Q2 of last year.

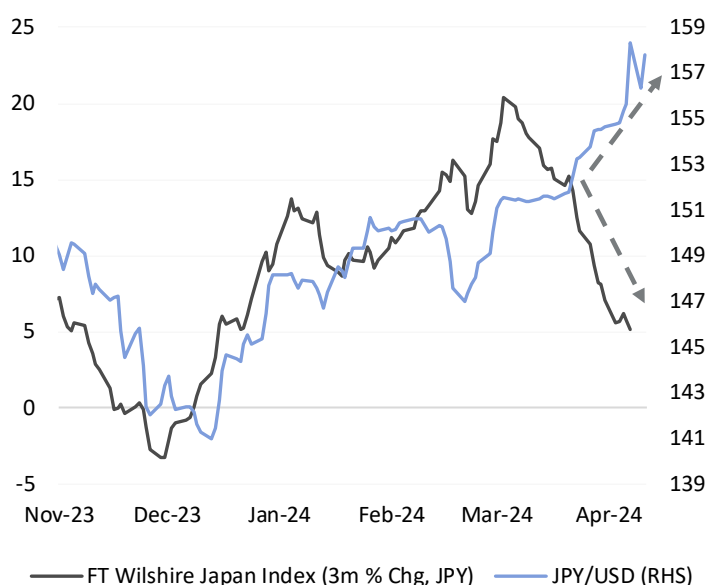


China and Emerging markets dispersion of monthly sector returns-Dispersion in China spiked significantly higher at the start of 2024.

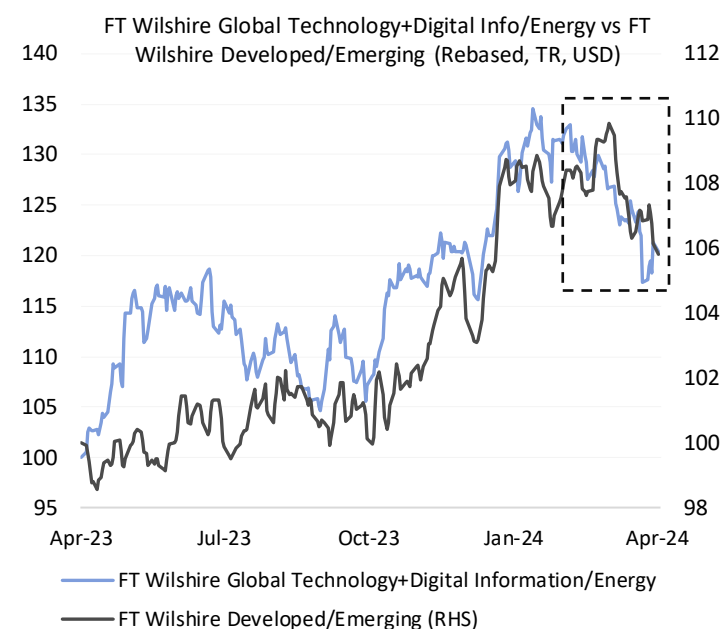


Perspectives: Japanese equities break from the Yen, technology/energy vs DM/EM rotation, China vs US correlation and sector contribution analysis

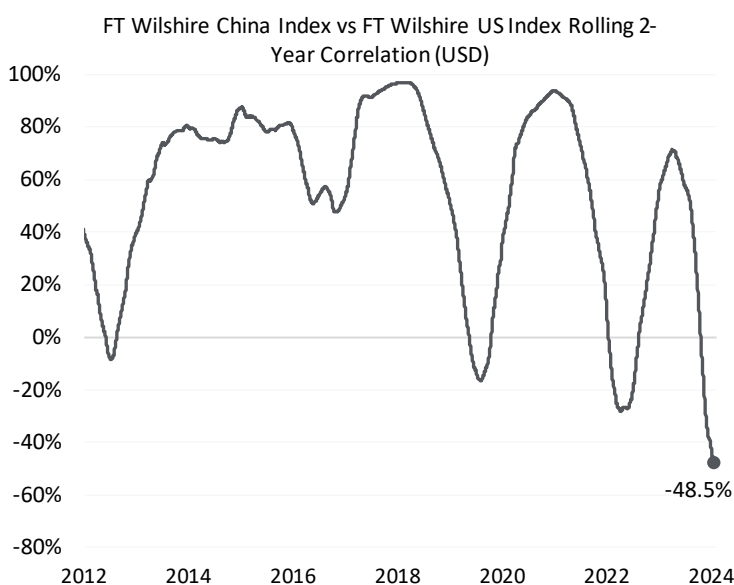
The relationship between the JPY and Japanese equities has recently broken down, with the FT Wilshire Japan index declining in April despite the JPY hitting a 34-year low vs the USD



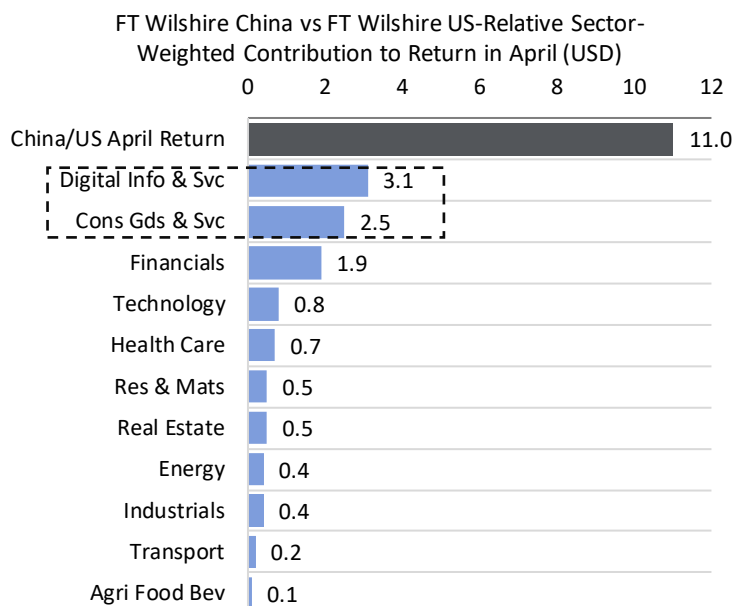
The recent rotation out of tech and digital info (overweight in DM) into energy has coincided with the underperformance of developed markets relative to emerging



The rolling 2-year correlation between the FT Wilshire China and FT Wilshire US index has hit the lowest (most negative) in over 10 years



China outperformed the US by 11% in April with Cons Goods and Service and Digital Info contributing 5.6% of the relative outperformance over the month



Market Capitalization of major markets and Regional sector weighting comparisons

Country (top 12) Market Cap (USD) and Weight in FT Wilshire Global Index

	Latest	% Global Index	10Y Ago	% Global Index
USA	48,263	61.8	20,164	48.2
Japan	4,311	5.5	2,769	6.6
UK	2,787	3.6	3,188	7.6
Canada	2,256	2.9	1,639	3.9
Switzerland	2,116	2.7	870	2.1
France	1,951	2.5	1,463	3.5
China	1,856	2.4	1,436	3.4
India	1,791	2.3	478	1.1
Taiwan	1,578	2.0	567	1.4
Australia	1,416	1.8	1,361	3.3
Germany	1,380	1.8	1,225	2.9
Netherlands	995	1.3	695	1.7
Global	78,128		41,827	

Regional Market Cap (USD) and Weight in FT Wilshire Global index

	Latest	% Global Index	10Y Ago	% Global Index
Developed	69,331	88.7	37,073	88.6
USA	48,263	61.8	20,164	48.2
Europe ex UK	9,669	12.4	7,606	18.2
Asia Pacific ex Japan	9,034	11.6	5,118	12.2
Emerging	8,797	11.3	4,754	11.4
Japan	4,311	5.5	2,769	6.6
UK	2,787	3.6	3,188	7.6
China	2,116	2.7	870	2.1
Global	78,128		41,827	

Country weights within FT Wilshire Developed and Emerging indexes

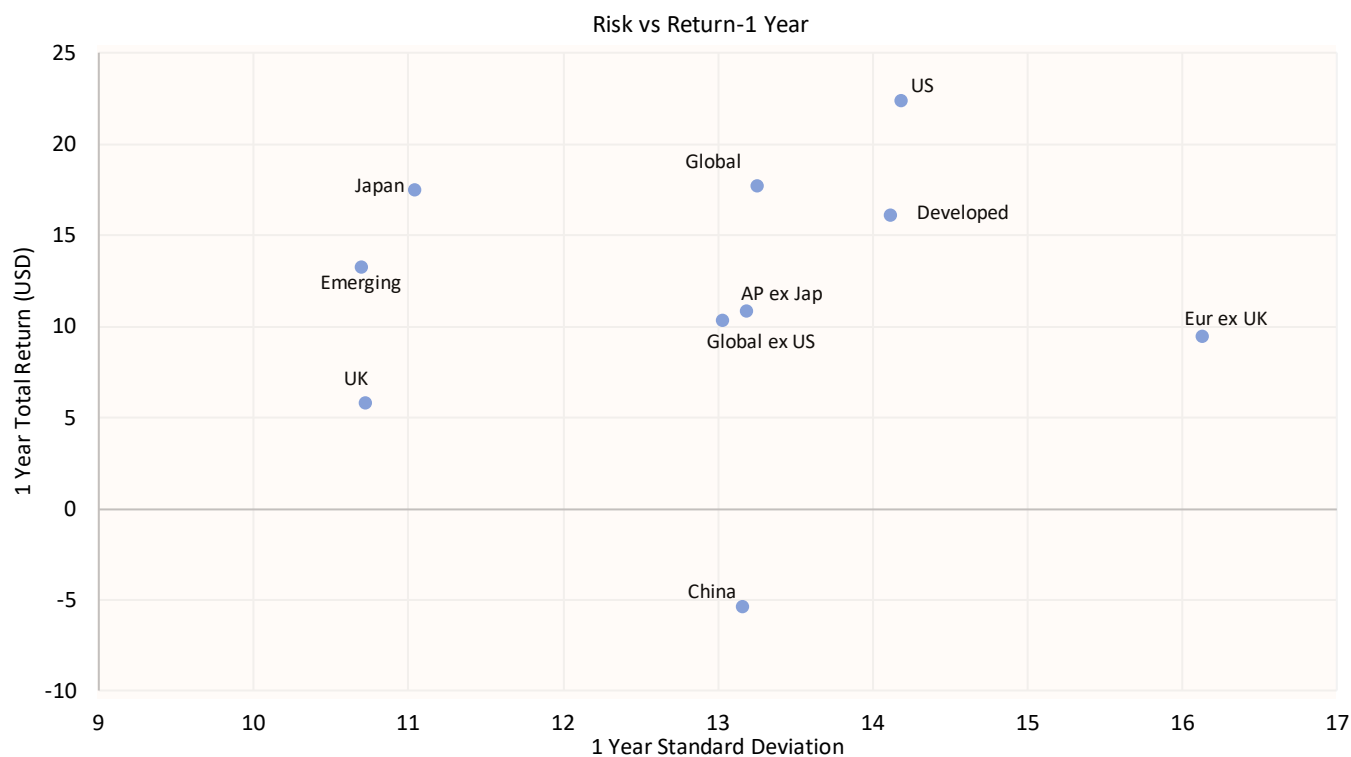
Developed	Latest	% Developed	10Y Ago	% Developed
USA	48,263	69.4	20,164	54.2
Japan	4,311	6.2	2,769	7.4
UK	2,787	4.0	3,188	8.6
Canada	2,256	3.2	1,639	4.4
Switzerland	1,856	2.7	1,436	3.9
Developed	69,529		37,202	

Emerging	Latest	% Emerging	10Y Ago	% Emerging
China	2,116	24.1	870	9.9
Korea	995	11.3	695	7.9
India	1,791	20.4	478	5.4
Taiwan	1,578	17.9	567	6.4
Brazil	448	5.1	525	6.0
Emerging	8,797		4,562	

Sector Weights: US vs Global ex US

	US		Global ex US	
	Latest	%	Latest	%
Sector				
Digital Info	9,816	20.3	2,420	8.1
Technology	7,831	16.2	2,992	10.0
Financials	7,338	15.2	6,091	20.4
Consumer Good	5,854	12.1	3,361	11.3
Healthcare	5,060	10.5	2,499	8.4
Industrials	3,474	7.2	3,218	10.8
Energy	3,154	6.5	2,649	8.9
Res & Materials	1,786	3.7	2,569	8.6
Transportation	1,427	3.0	1,957	6.6
Agriculture	1,311	2.7	1,296	4.3
Real Estate	1,212	2.5	813	2.7
	48,263		29,051	

Risk vs Return: Regional equities 1 year and 10 years



Source: Wilshire Indexes. Data as of April 30, 2024

Fixed Income and FX

1

+49bps

Rise in US 10-year yield
in April

2

-3.0%

1M return of US 7-10-
year government bonds
(TR)

3

+4.8%

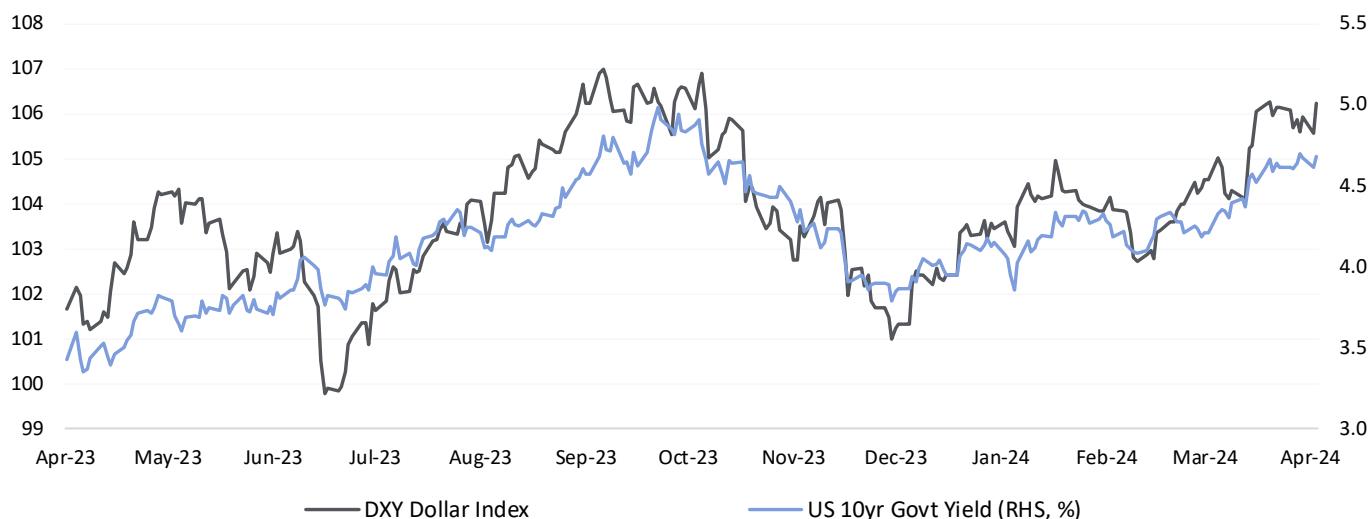
Rise in DXY dollar index
so far in 2024

4

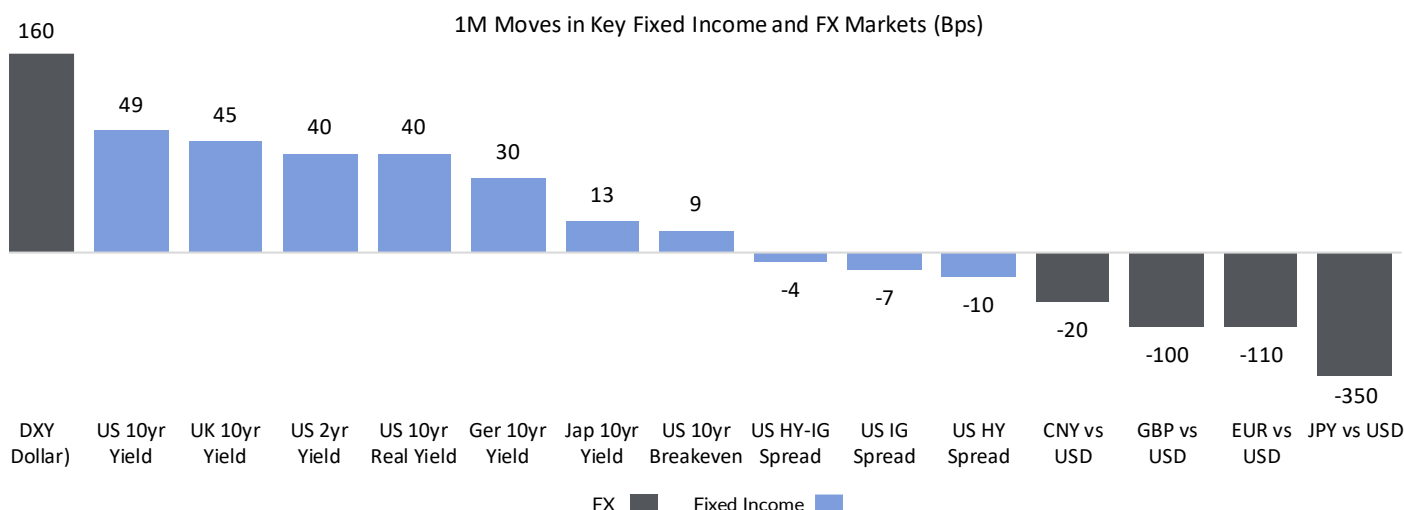
-9.7%

Decline in JPY vs USD
YTD

The DXY dollar and US 10-year yield have largely moved in-sync over the past 12 months



April witnessed a continued rise in bond yields and further appreciation of the dollar



Regional fixed income performance and yield summary: Government bonds, Inflation linked and Corporates

Chart 1: 1-3 year government bond returns

USD (TR, %)	Yields			Returns	
	Latest	29-Dec-23	31-Dec-22	1M	YTD
China (1-3yr)	1.9	2.2	2.3	0.1	-0.8
US (1-3yr)	5.1	4.4	4.5	-0.3	0.0
Aus (1-3yr)	4.1	3.7	3.4	-0.8	-4.4
Italy (1-3yr)	3.5	3.0	3.3	-1.1	-3.2
EURO* (1-3yr)	3.1	2.5	2.5	-1.2	-3.6
UK (1-3yr)	4.6	3.9	3.6	-1.2	-2.0
Can (1-3yr)	4.4	3.9	4.1	-1.6	-3.7
Japan (1-3yr)	0.2	0.0	0.0	-4.0	-10.7

Chart 2: 7-10 year government bond returns

USD (TR, %)	Yields			Returns	
	Latest	29-Dec-23	31-Dec-22	1M	YTD
China (7-10yr)	2.3	2.6	2.9	0.3	0.3
Italy (7-10yr)	3.7	3.5	4.4	-2.3	-3.6
US (7-10yr)	4.7	3.9	3.8	-3.0	-4.3
EURO* (7-10yr)	2.5	2.0	2.5	-3.1	-6.7
Aus (7-10yr)	4.4	3.9	4.0	-3.4	-6.7
Can (7-10yr)	3.8	3.1	3.3	-3.6	-7.6
UK (7-10yr)	4.3	3.5	3.6	-3.7	-6.2
Japan (7-10yr)	0.7	0.5	0.5	-4.9	-11.7

Chart 3: Inflation Linked bond returns

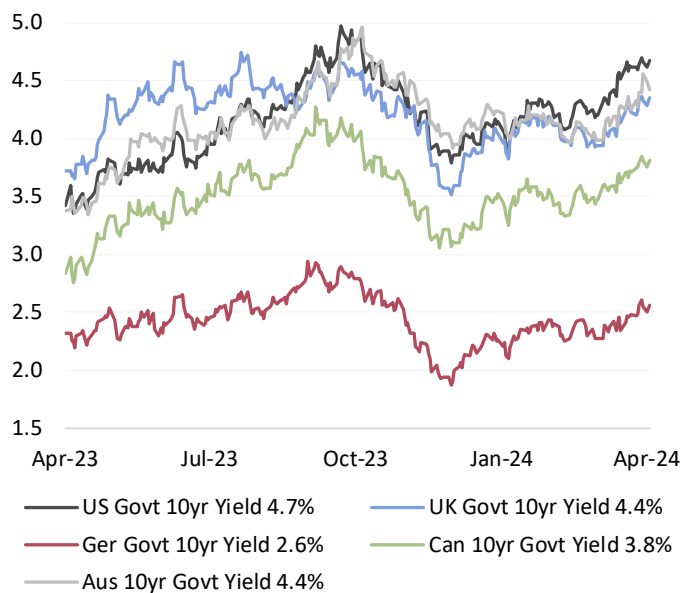
USD (TR, %)	Yields			Returns	
	Latest	29-Dec-23	31-Dec-22	1M	YTD
Italy IL (All)	1.6	1.6	1.9	-1.5	-2.5
EURO* IL (5-10yr)	1.0	0.8	0.8	-1.7	-4.4
US IL (5-10yr)	2.2	1.7	1.7	-1.8	-2.0
Aus IL (All)	1.7	0.9	0.8	-2.3	-6.5
UK IL (5-10yr)	0.7	0.2	0.2	-3.1	-4.8
Japan* IL (5-10yr)	-0.8	-0.9	-0.6	-3.9	-10.5
Can IL (All)	2.0	1.5	1.3	-4.6	-8.0

Chart 4: Investment grade & high yield returns

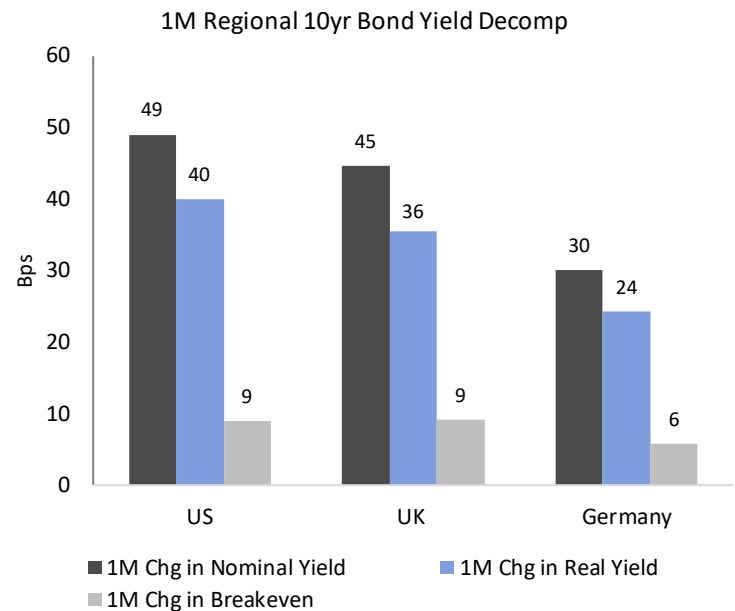
USD (TR, %)	Yields			Returns	
	Latest	29-Dec-23	31-Dec-22	1M	YTD
UK HY (All)	9.0	9.0	10.3	-0.9	0.9
US HY (All)	8.3	7.8	9.0	-1.0	0.5
EURO HY (All)	6.8	6.5	7.7	-1.0	-1.6
EURO IG (All)	4.0	3.6	4.2	-1.8	-3.6
US IG (All)	5.8	5.2	5.5	-2.3	-2.4
UK IG (All)	5.8	5.2	5.7	-2.9	-3.6
Japan BBB (All)	1.5	1.4	1.6	-3.9	-10.2
Japan IG (All)	1.0	0.9	0.9	-4.2	-10.7

Fixed Income key observations: Reversal in US 2024 interest rate outlook drives further rise in US nominal and real yields in April

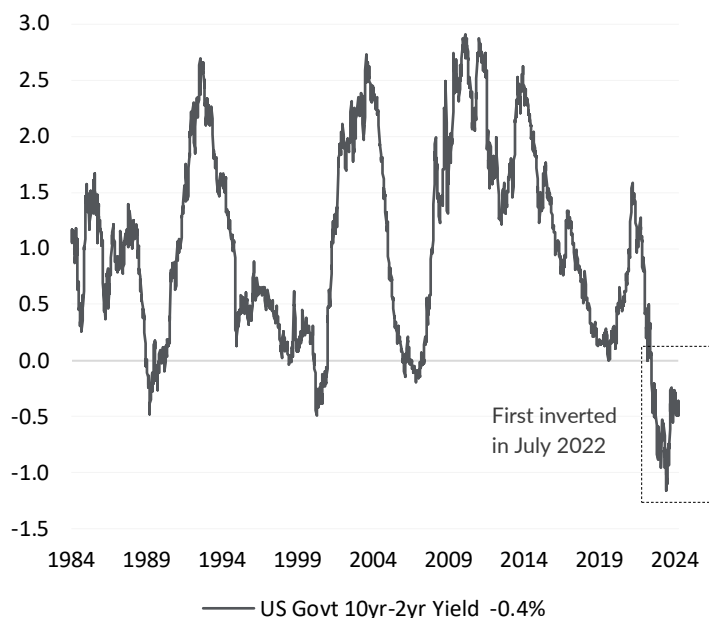
A further reassessment in US 2024 interest rate expectations saw US 10-year yields spike higher in April with other regional yields following suit



The further back up in 10-year yields in April was primarily driven by the rise in real yields, most notably in the US and UK



Despite the steepening witnessed last year the US (10-2yr) yield curve has remained inverted (negative) for 21 months-the longest consecutive period in over 40 years



US high yield corporate and Japanese government bond spreads have narrowed (declined) the most so far YTD against the US 10 year yield.

2024 YTD Shift in Spreads Over US 10-Year Bond (Bps)

	Latest (Bps)	31 Dec 23 (Bps)	YTD Chg (Bps)
Japan 10-Year - US 10-Year	-383.3	-324.5	-58.8
US High Yield Corp - US 10-Year	354.0	391.0	-37.0
German 10-Year - US 10-Year	-211.8	-186.7	-25.1
US Investment Grade Corp - US 10-Year	110.0	130.0	-20.0
UK 10-Year - US 10-Year	-32.9	-26.6	-6.3

FX return perspectives: Reassessment of US 2024 interest rate outlook leads to further gains for the dollar in April. JPY briefly hits 34-year low vs USD.

Chart 1: The DXY dollar has risen 4.8% so far this year and sits just -0.7% below the October 2023 high

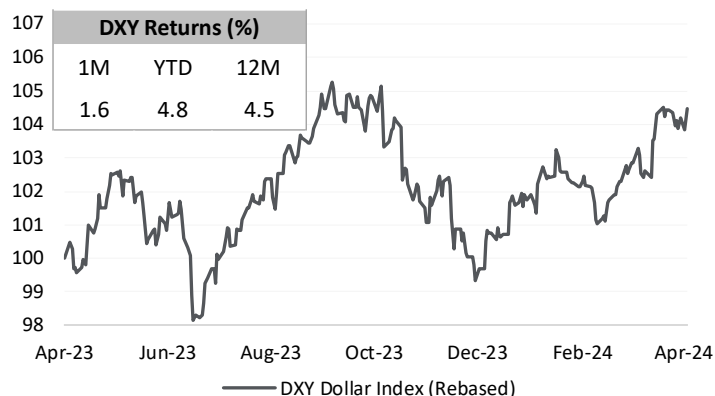


Chart 2: Although below its peak, the DXY dollar has still seen a 48.2% rise from the March 2008 lows

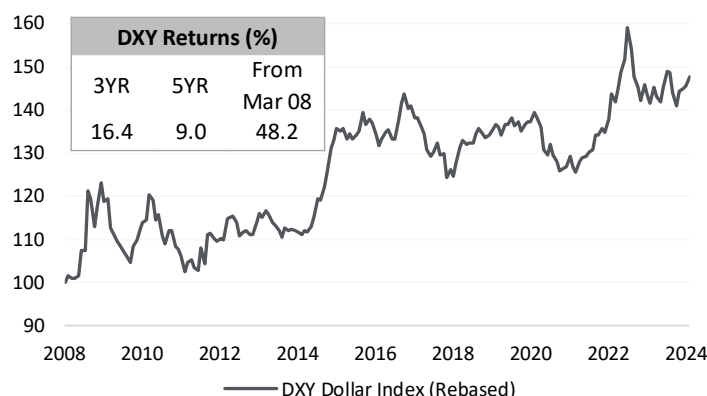


Chart 3: Regional trade-weighted FX returns-12M (rebased)

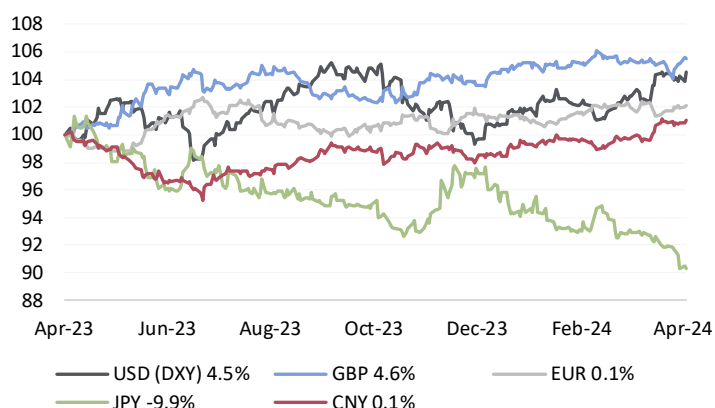


Chart 4: Regional trade-weighted FX returns over 5 years (rebased)

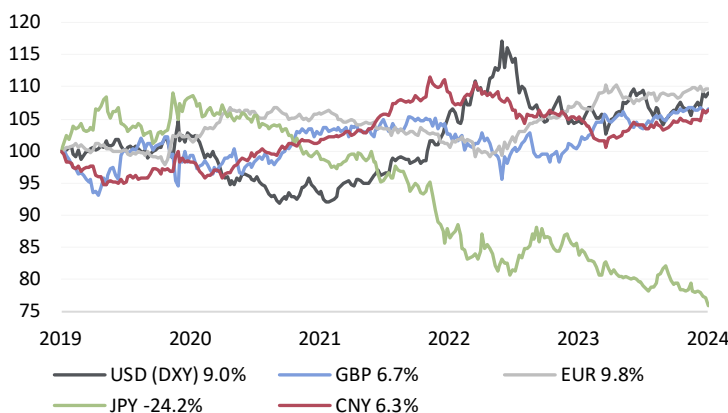


Chart 5: USD returns vs JPY, Euro, GBP and Renminbi spot rate-12M (rebased)

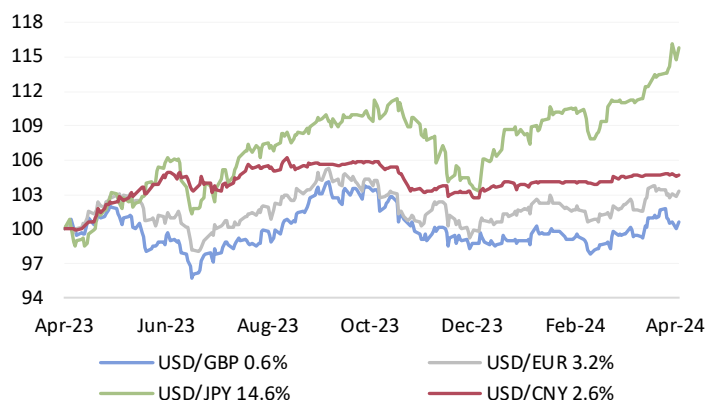
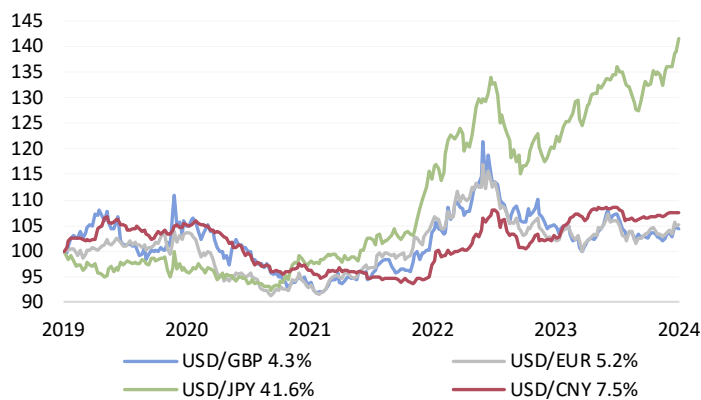


Chart 6: USD returns vs JPY, Euro, GBP and Renminbi spot rate returns over 5 years (rebased)



FX spot rate returns from a regional perspective

The Yen saw further declines in April, prompting Japanese authorities to intervene after the JPY briefly hit a 34-year low against the dollar and a record low against the Euro. This is on the back of continued interest rate differentials between Japan and other major economies, mostly notably the US.

Moves vs USD (TR, %)	1M	YTD	12M
CNY	-0.2	-0.3	-2.6
AUD	-0.7	-5.0	-2.0
GBP	-1.0	-1.9	-0.6
EUR	-1.1	-3.4	-3.2
CAD	-1.7	-3.9	-1.6
CHF	-1.9	-8.5	-2.7
JPY	-3.5	-9.7	-14.6

Moves vs GBP (TR, %)	1M	YTD	12M
USD	1.0	1.9	0.6
AUD	0.4	-3.1	-1.4
CNY	0.4	0.9	-3.5
EUR	-0.1	-1.5	-2.8
CAD	-0.7	-2.0	-1.1
CHF	-0.9	-6.6	-2.6
JPY	-2.9	-8.1	-14.8

Moves vs EUR (TR, %)	1M	YTD	12M
USD	1.1	3.4	3.2
CNY	0.8	1.5	-1.4
AUD	0.5	-1.7	1.5
GBP	0.1	1.5	2.9
CAD	-0.6	-0.5	1.6
CHF	-0.8	-5.2	0.2
JPY	-3.3	-7.8	-13.2

Moves vs JPY (TR, %)	1M	YTD	12M
AUD	4.2	6.2	15.7
CNY	4.0	9.7	10.5
USD	3.5	9.7	14.6
EUR	3.3	7.8	13.2
CHF	3.0	2.3	14.7
GBP	2.9	8.1	14.8
CAD	2.4	7.6	13.9

Moves vs CNY (TR, %)	1M	YTD	12M
CAD	1.6	2.0	-3.0
USD	0.2	0.3	2.6
AUD	-0.2	-2.9	2.8
GBP	-0.4	-0.9	3.6
EUR	-0.7	-1.4	1.4
CHF	-1.4	-6.7	1.7
JPY	-4.0	-9.7	-10.5

Moves vs CHF (TR, %)	1M	YTD	12M
USD	1.9	8.5	2.7
CNY	1.4	6.7	-1.7
GBP	0.9	6.6	2.6
EUR	0.8	5.2	-0.2
CAD	0.2	5.0	1.1
JPY	-3.0	-2.3	-14.7

Moves vs AUD (TR, %)	1M	YTD	12M
USD	0.7	5.0	2.0
CNY	0.2	2.9	-2.8
GBP	-0.4	3.1	1.4
EUR	-0.5	1.7	-1.5
CAD	-1.1	1.2	0.5
JPY	-4.2	-6.2	-15.7

Trade Weighted (TR, %)	1M	YTD	12M
AUD	1.7	0.0	4.0
DXY	1.6	4.8	4.5
CNY	0.9	2.0	-0.1
GBP	-0.1	1.8	4.6
EUR	-0.1	-0.5	0.1
JPY	-2.6	-7.0	-9.9

Source: Refinitiv. Data as of April 30, 2024

Alternatives: Commodities, Listed Infrastructure (GLIO), Digital Asset, REITS and absolute return asset categories

1

+3.7%

Rise in the gold price in April

2

+13.2%

Rise in the oil price (Brent Crude) YTD

3

-1.8%

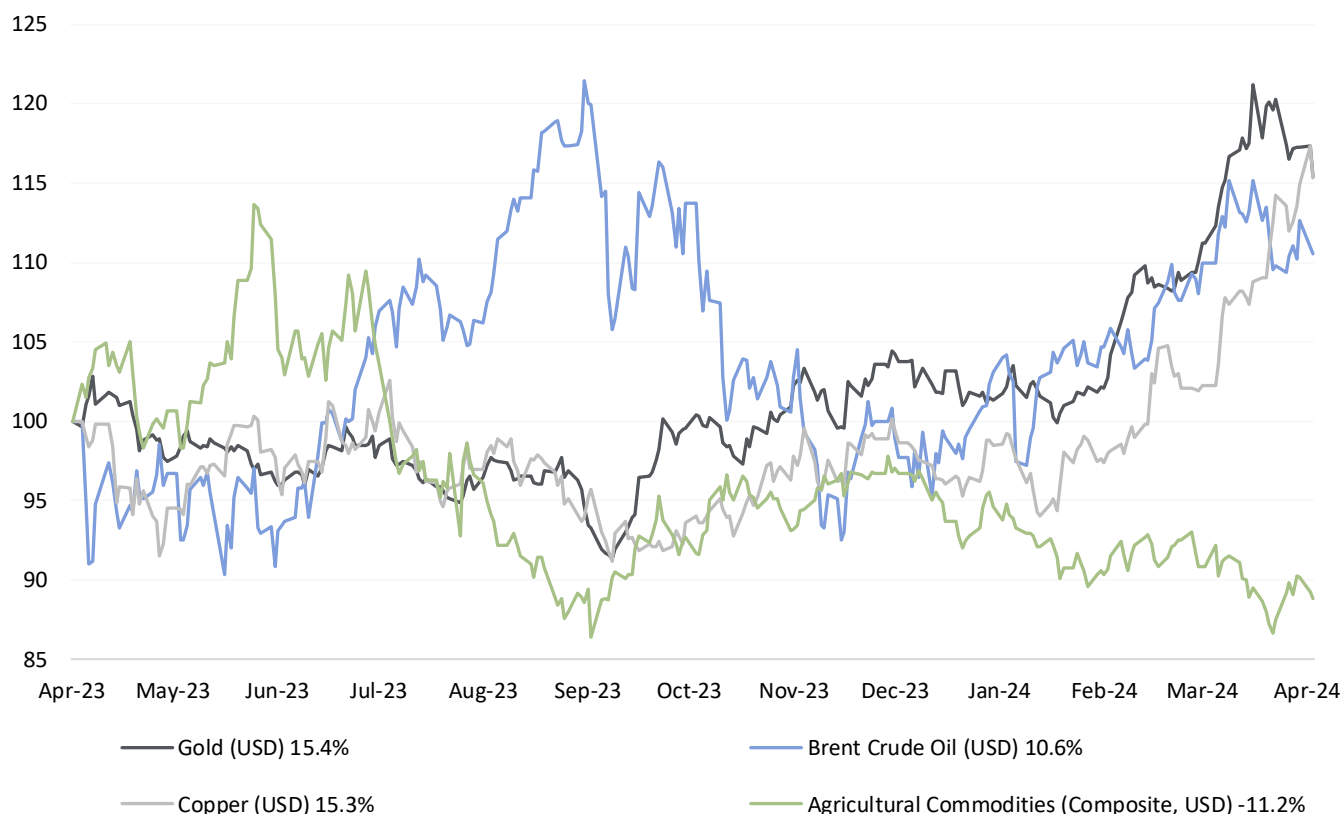
YTD return of FT Wilshire GLIO Developed Listed Infrastructure Index

4

+39.4%

YTD return of FT Wilshire Digital assets index

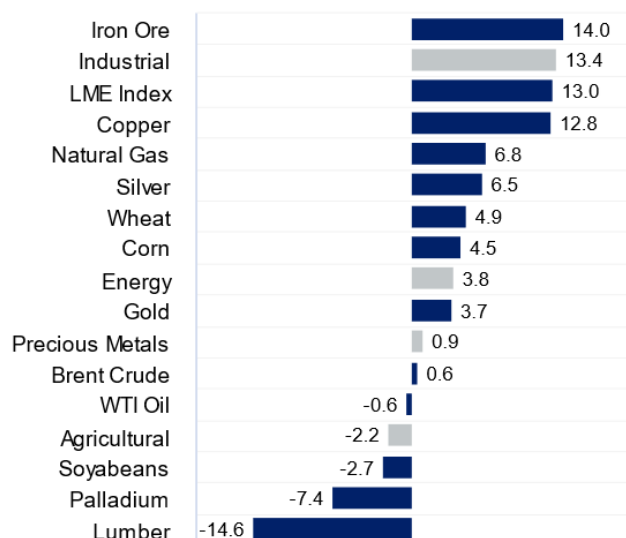
Commodity prices over 12 months (rebased): Gold hit a record high of \$2413 on the 12th April. Rising oil, copper and gold prices have diverged from declining agricultural prices in 2024.



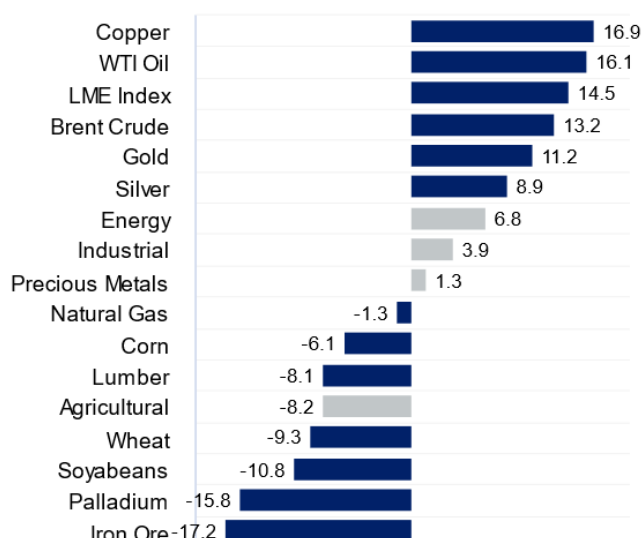
Commodities: Gold makes further gains despite rise in real yields. Copper spikes to a two-year high on improving global demand and tight supply.

Heightened geopolitical tensions, central bank purchases and demand from China have been tailwinds behind the rise in gold, despite a further rise in US real yields (see chart below). A further escalation in tensions in the middle-east have also kept oil prices elevated. Copper rose to a two-year high largely driven by improving global manufacturing activity alongside tightening supply.

1M USD (%)

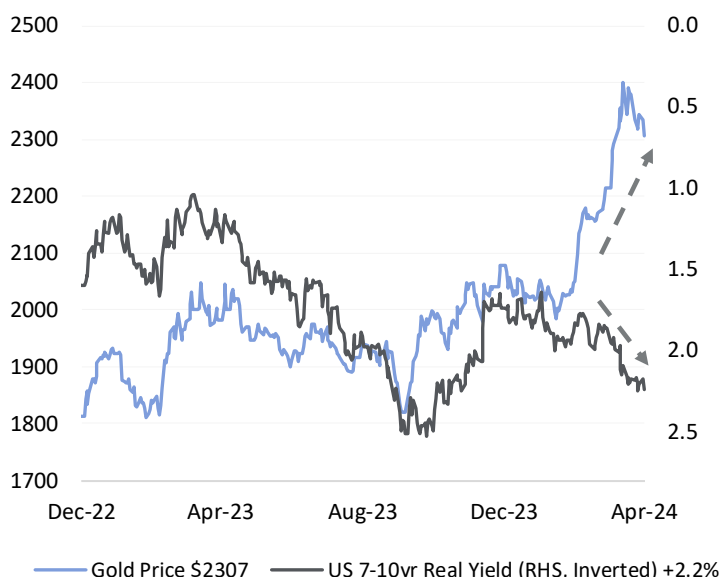


YTD USD (%)

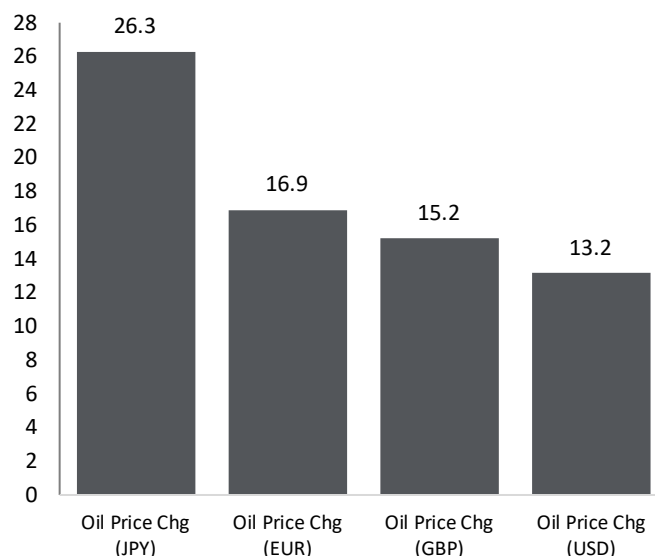


The gold price has broken out to new highs despite the rise in US real yields since the start of the year

The oil price has risen by almost twice as much so far in 2024 when measured in JPY (26.3%) vs USD (13.2%)



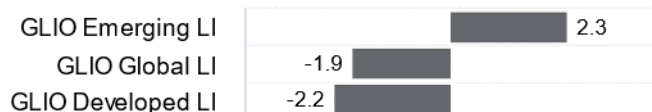
2024 YTD Move in Oil Price in Different FX (%)



Listed Infrastructure (FT Wilshire GLIO indexes): Emerging markets deliver strong year to date outperformance relative to Developed

The FT Wilshire GLIO Listed Infrastructure Indexes provide exposure to globally listed companies which own and/or are operators of infrastructure assets. The indexes use a systematic approach to identify eligible infrastructure companies through the use of EBITDA and mapping Global Asset Taxonomy System (GATS) to common Infrastructure Sectors.

1M USD (%)

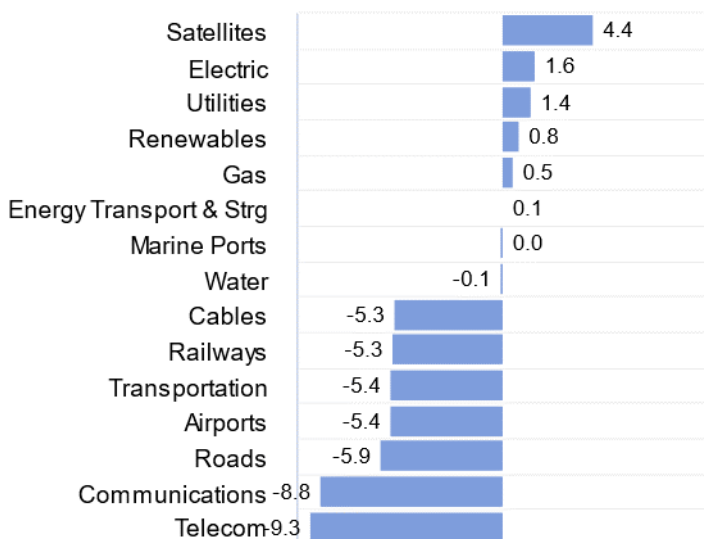


YTD USD (%)

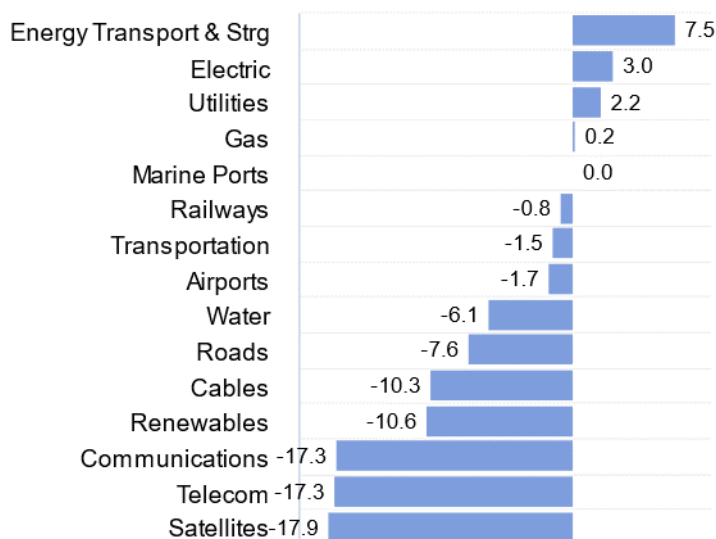


GLIO Developed Sector Returns

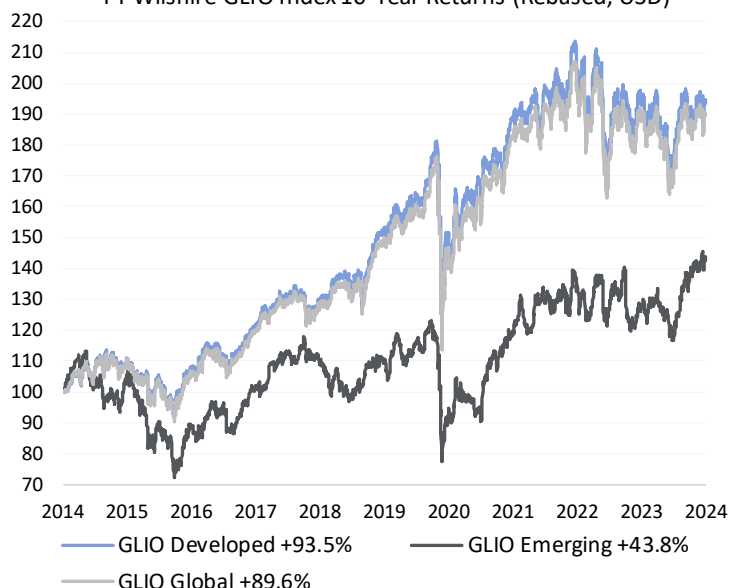
1M USD (%)



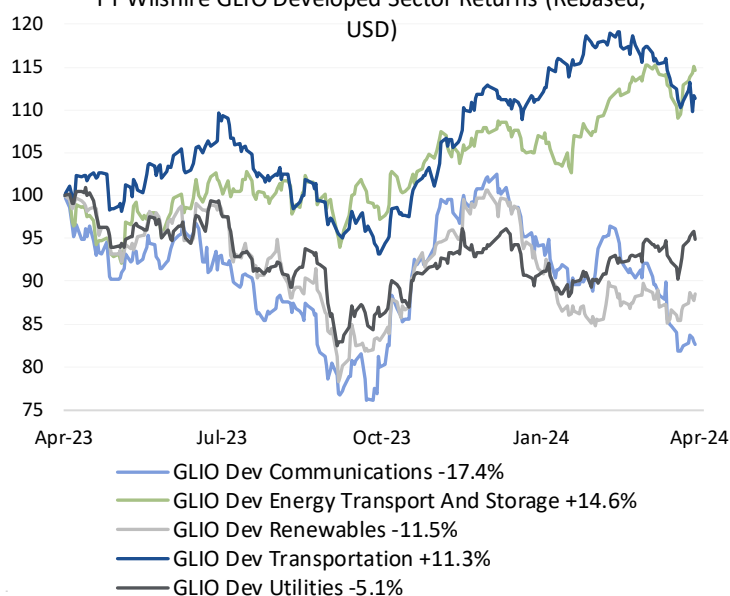
YTD USD (%)



FT Wilshire GLIO Index 10-Year Returns (Rebased, USD)



FT Wilshire GLIO Developed Sector Returns (Rebased, USD)

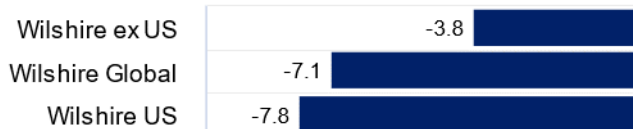


Source: Wilshire Indexes. Data as of April 30, 2024.

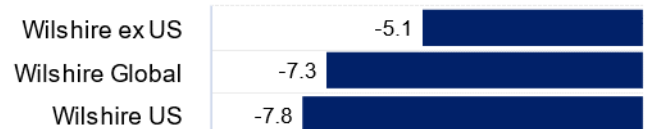
Property (Wilshire REIT indexes): US REITs see further declines on the back of rising bond yields

US REITs lost further ground on an absolute basis and relative to Global ex US, hit by a further rise in bond yields in April. At a sector level US Industrial REITs continued to underperform and have now seen double-digit declines YTD. US apartment REITs remain the standout performer, posting positive returns.

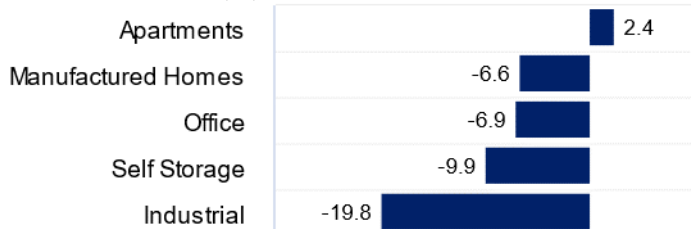
1M USD (%)



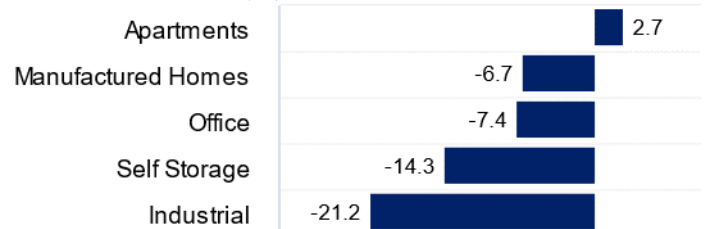
YTD USD (%)



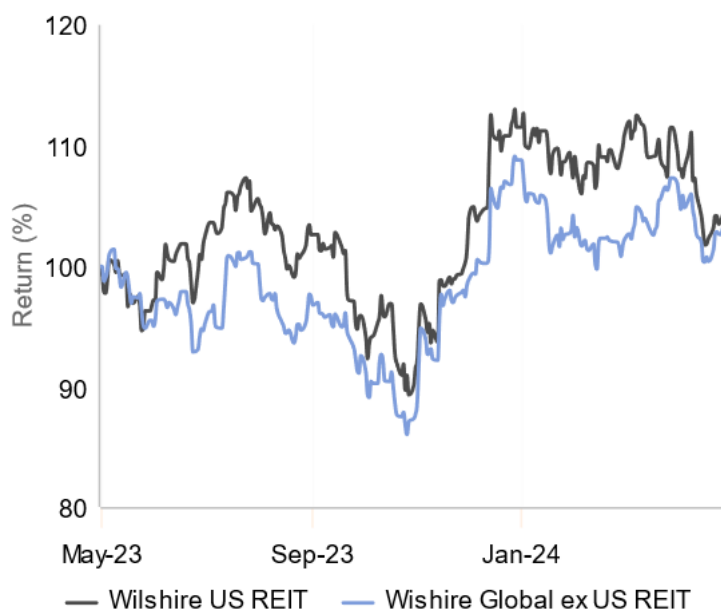
1M USD (%)



YTD USD (%)



Wilshire US REIT vs Global ex US REIT - 12M
(Rebased, TR)



Wilshire US REIT sector performance - 12M
(Rebased, TR)



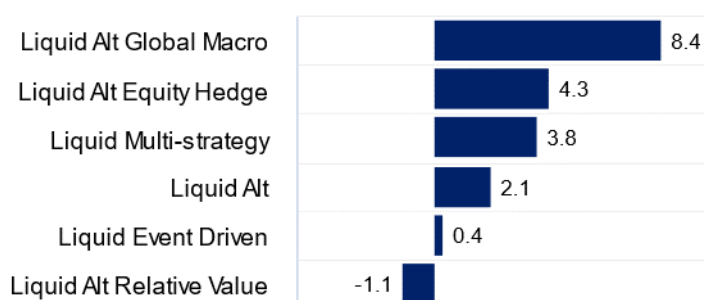
Wilshire Liquid Alternative Indexes (Absolute Return): Global Macro outperforms against a backdrop of heightened equity market volatility

Global Macro continued to outperform in April posting a small gain relative to modest declines amongst other Wilshire Liquid Alternative Indexes. Equity Hedge lost some momentum in April but has still seen positive YTD returns. Relative Value has been the laggard so far in 2024.

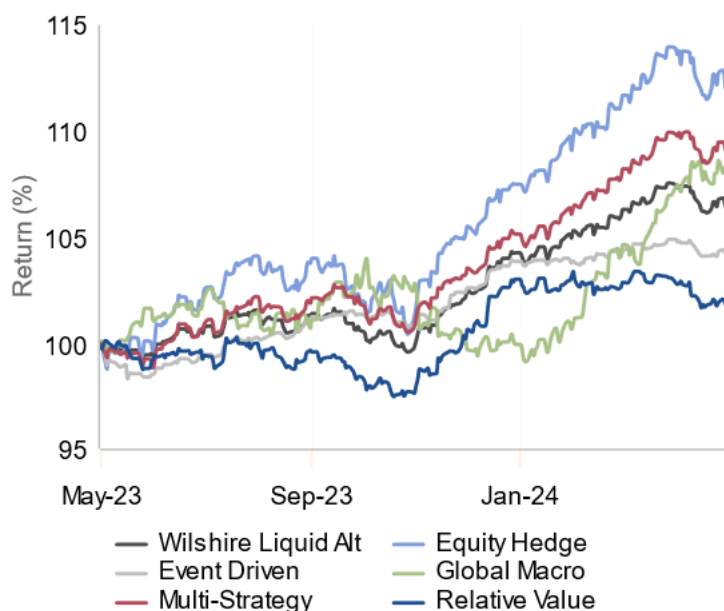
1M USD (%)



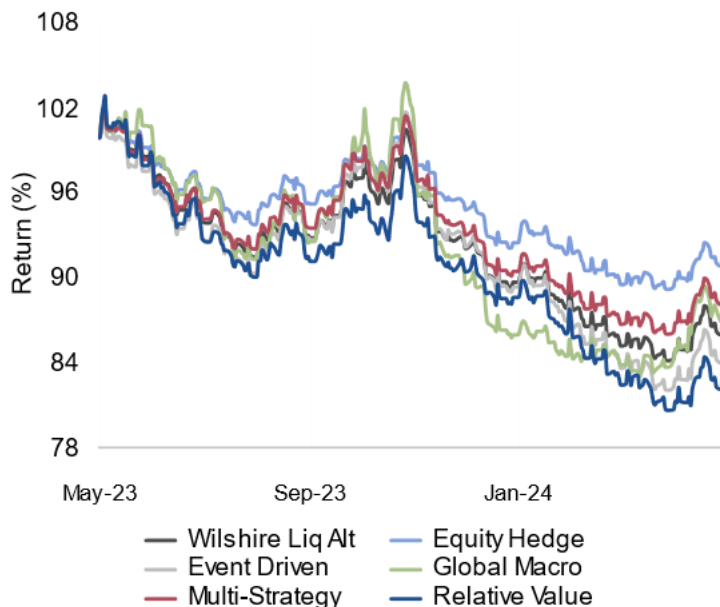
YTD USD (%)



Wilshire Liquid Alternative Index performance - total returns (rebased)



Wilshire Liquid Alternative Index relative performance vs FT Wilshire 5000 Index - total returns (rebased)

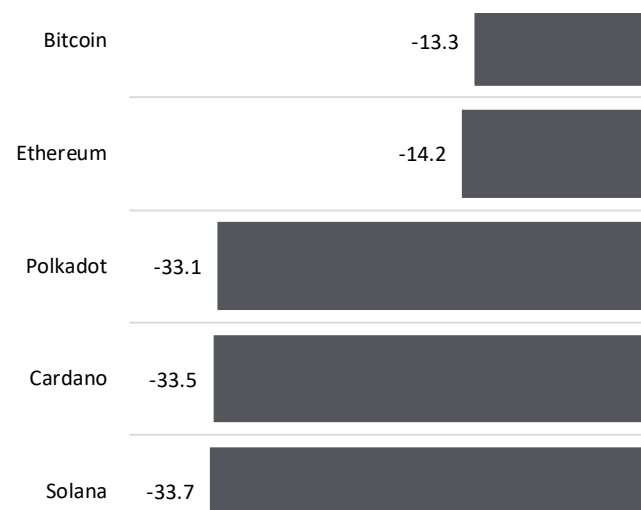


Digital Assets Index: Sharp decline in April but YTD gains remain strong

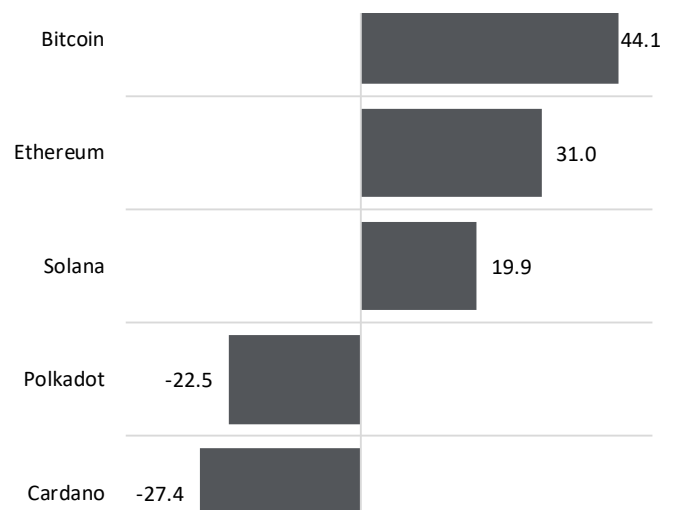
After a strong run The FT Wilshire Digital Assets Index lost momentum, declining -15.0% in April. The index has still seen strong double-digit returns of 39.4% YTD.



FT Wilshire Digital Assets Index selected constituent performance - 1M (% , USD)

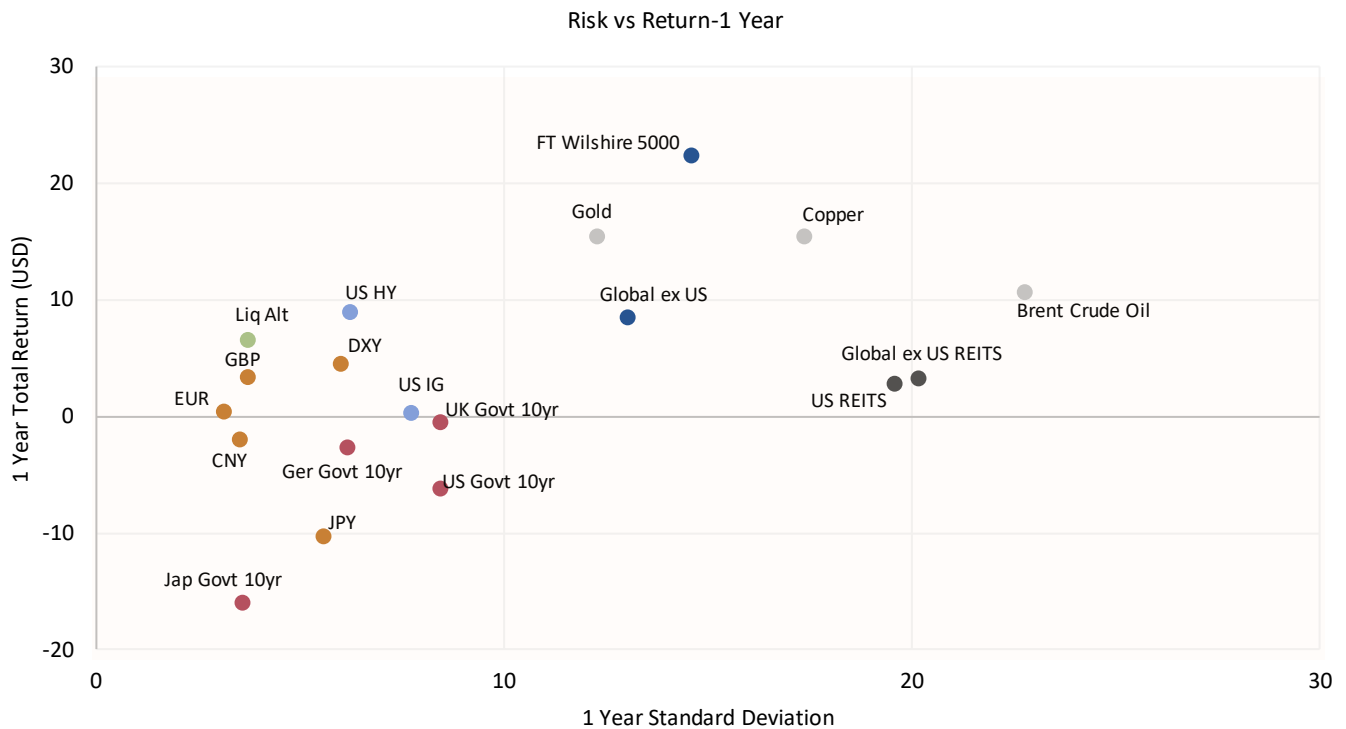


FT Wilshire Digital Assets Index selected constituent performance - YTD (% , USD)

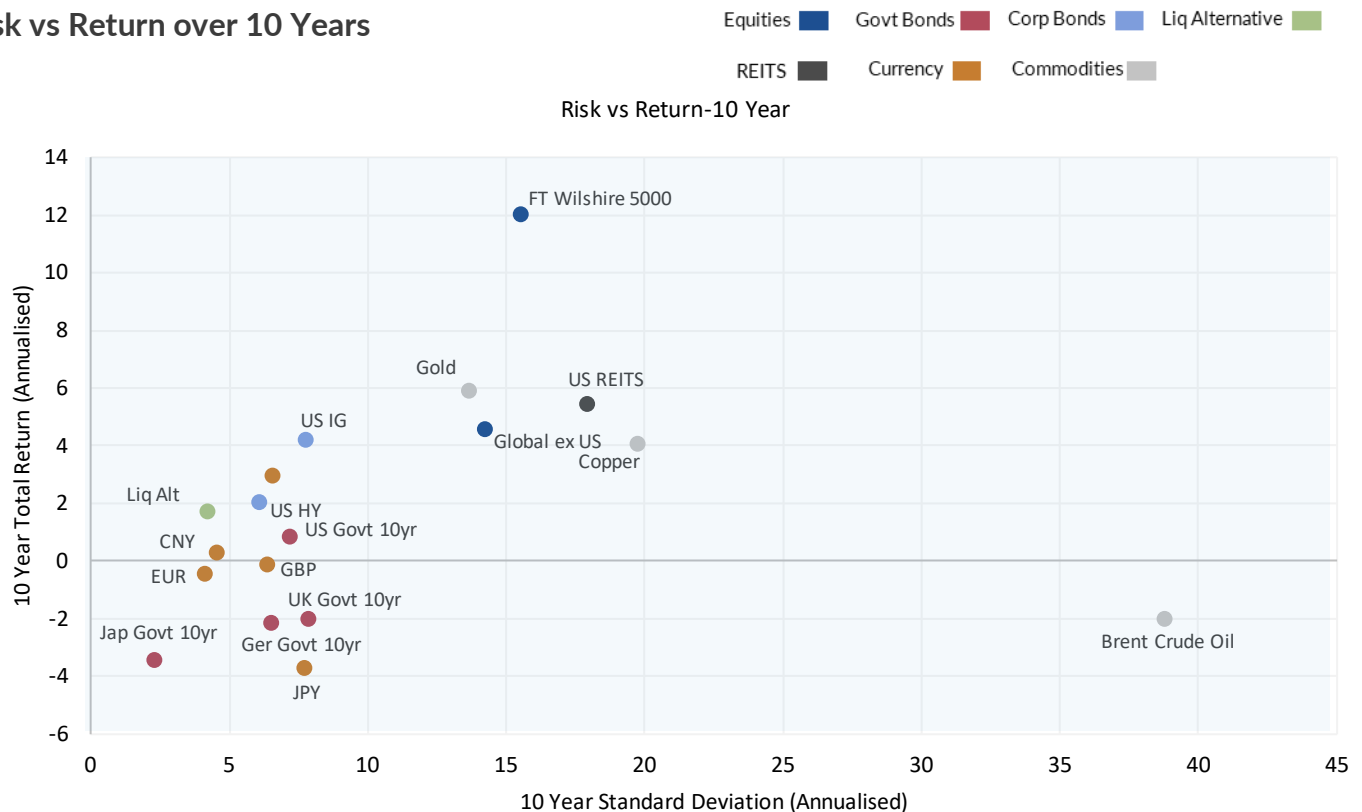


Multi Asset Class: Risk vs Return

Risk vs Return over 1 Year



Risk vs Return over 10 Years



Source: Wilshire Indexes, Refinitiv and FactSet. Data as of April 30, 2024

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