

August 31, 2023

GLOBAL MARKETS PERFORMANCE REPORT

FT Wilshire 5000 - Sector, Style, Factors

FT Wilshire Global Equity Markets and Sectors

Fixed Income and FX

Alternatives



IN THIS REPORT

FT Wilshire Indexes Insights

- The FT Wilshire 5000 declined 1.9% in August but is up 17.3% from the post-SVB March low (13 March) and has returned 18.1% YTD
- Growth style (-1.1%) marginally outperformed value (-2.3%) in August. Large cap (-1.7%) outperformed small cap (-3.6%)
- Technology and financials were the largest drag on returns in August

-1.9%

FT Wilshire 5000
return in August
(TR)

+18.1%

FT Wilshire 5000
YTD return (TR)

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Global Equities

- Chinese equities gave back gains made in July, declining sharply in August despite regulator's efforts to support the market
- Japan and the US staged a month-end rally and outperformed in August
- A smaller negative contribution from industrials and financials help drive US outperformance vs Global ex US in August. US continues to outperform YTD.

-9.2%

August return of
Chinese equities
(USD,TR)

+14.5%

Return of the Global
Equity Index YTD
(USD, TR)

See [PAGE 16](#)

Fixed Income, Foreign Exchange

- The US 10-year bond yield briefly hit its highest level since 2007 in August (4.35%) before easing back late in the month
- The US 10-year yield has risen by 48bps in the last three months, driven by a 40bps rise in the real yields
- JPY declines -3.5% vs USD in August

+48bps

3 month rise in US
10-year bond yield

+1.7%

Rise in DXY dollar
index in August

See [PAGE 28](#)

Alternatives

- Gold lost some shine, declining -1.3% in August on the back of rising real yields and USD but has still delivered solid returns YTD
- US manufactured homes REITS decline -3.9% in August
- FT Wilshire Digital Assets Index declined -11.8% in August but has still risen 47.0% YTD

+7.0%

Rise in gold price
YTD

+47.0%

FT Wilshire Digital
Assets Index return
YTD

See [PAGE 33](#)

Multi-Asset Class returns: August sees heightened volatility on rising bond yields and Chinese growth concerns but YTD equity returns remain strong

Chart 1: Despite a month-end rally, equity markets saw declines in August, most notably in China which underperformed despite regulator's efforts to inject support. Bond markets posted negative returns as yields rose. The dollar continued its rebound from the recent 13th July low, posting a small gain.

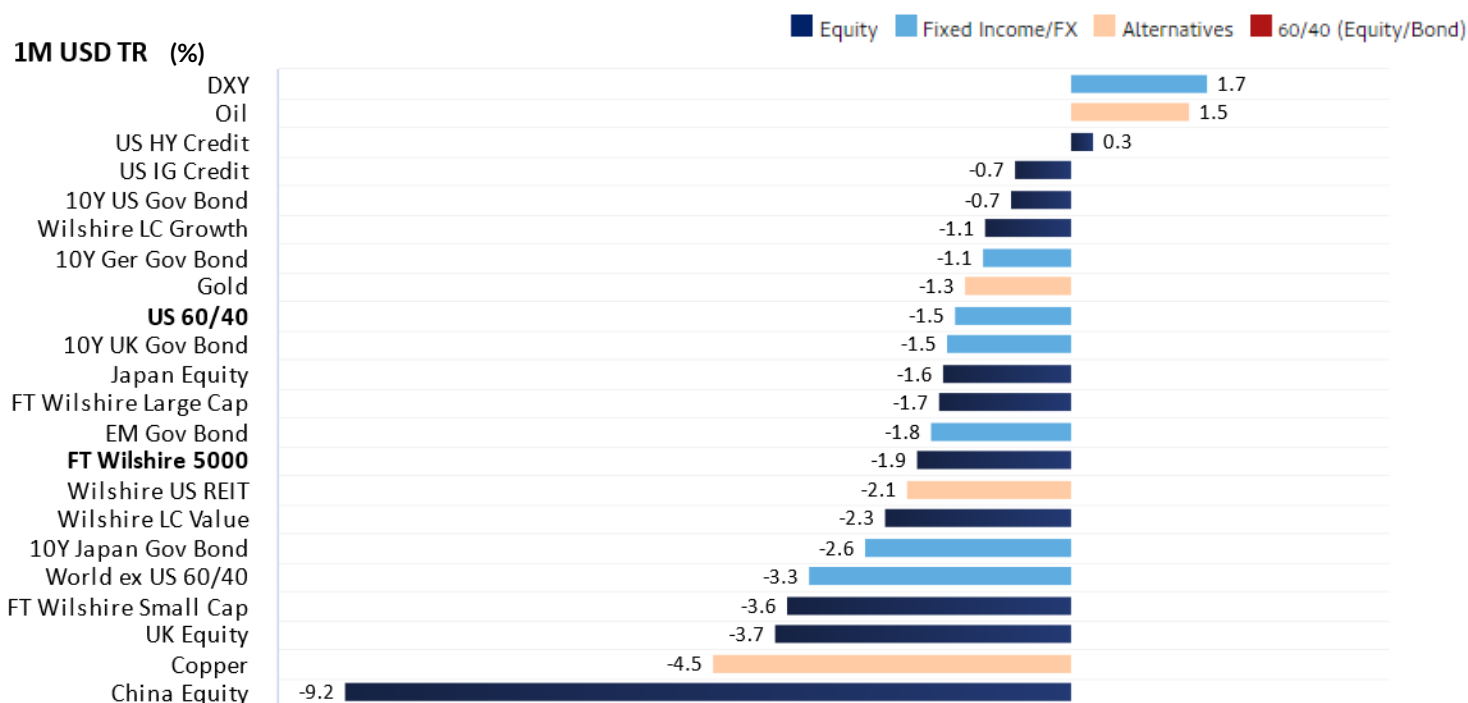
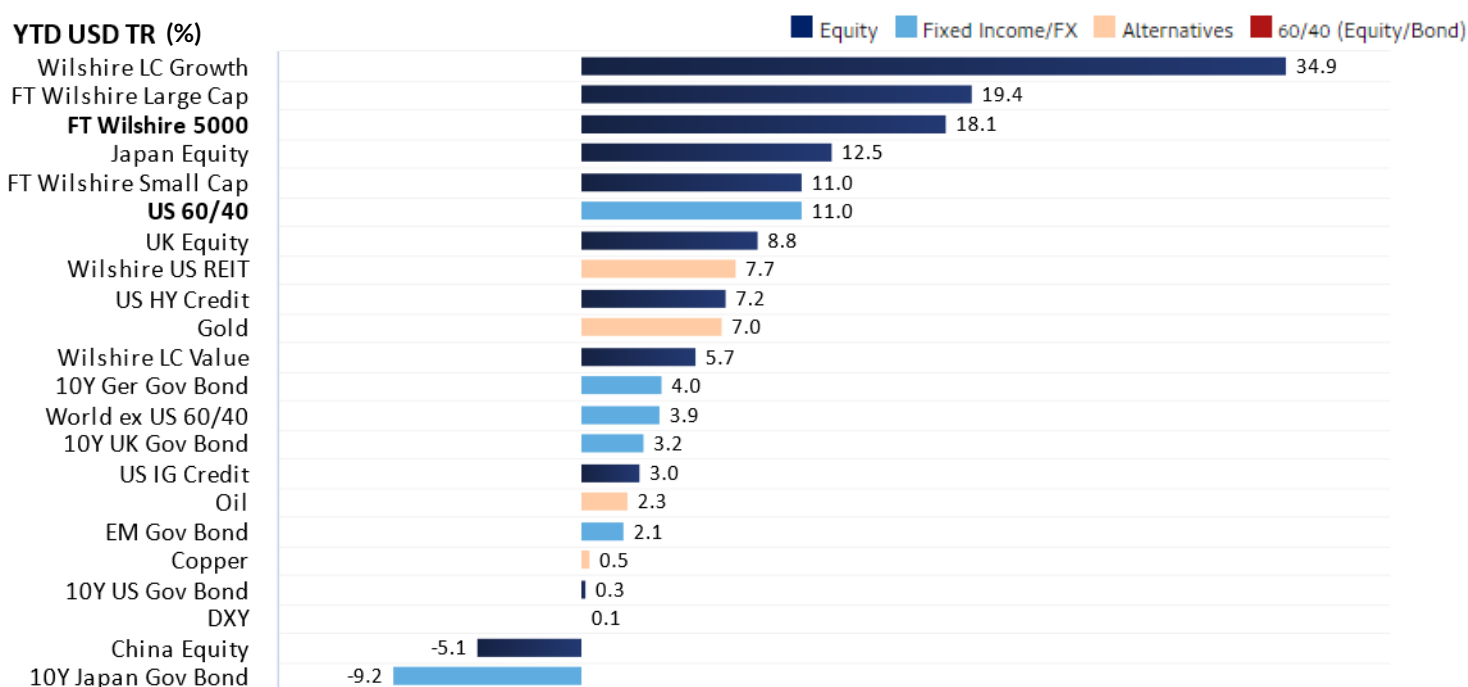


Chart 2: Year to date US large cap growth has significantly outperformed. US equities continue to lead the way at a regional level, with China the notable underperformer. Despite the recent pullback gold has outperformed within commodities. Japanese bonds (in USD terms) have significantly underperformed.



FT Wilshire 5000 Index Insights

1

-1.9%

The return of the FT Wilshire 5000 in August

2

+18.1%

Appreciation of the FT Wilshire 5000 YTD

3

+29.2%

Outperformance of Growth style versus Value YTD

4

+53.3%

Performance of the Technology sector YTD

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06 Sector performance

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10 Style indexes relative returns

11 Pure Factor Indexes

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14 Dispersion

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16 Risk/return analysis

A volatile month for the FT Wilshire 5000 index, which staged a rally in the final week of August after anxiety over rising bond yields had left the market down -5.1% midway through the month. Despite losing some momentum in August the index is just 5.0% below the all-time high reached on 3rd January 2022.



Source: Wilshire, FactSet. Data as of August 31, 2023

FT Wilshire 5000 Key Observations: Strong returns from the post SVB low but volatility ramps up in August as markets respond to hot and cool US economic

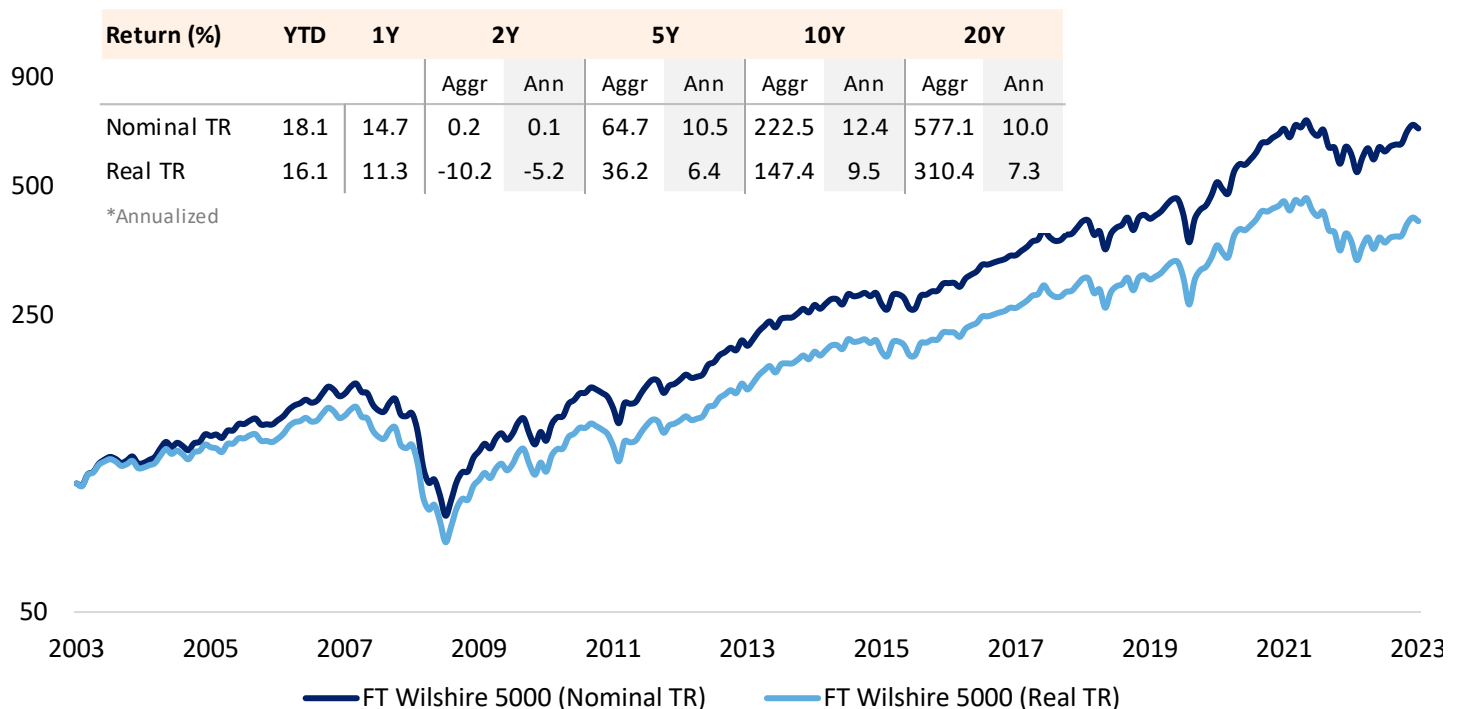
Market snapshot

- ◆ The FT Wilshire 5000 fell 1.9% in August but has delivered a return of 18.1% year to date in 2023. Index is just 5.0% below its peak on 3 Jan 2022 ([page 4](#))
- ◆ The contribution to returns from the 'Magnificent 7' stocks has fallen significantly in the last 3 months ([page 6](#))
- ◆ FT Wilshire large cap growth staged a month end rally to outperform value in August. Small cap underperformed over the month ([page 9](#))
- ◆ Digital info and technology lost some momentum in August but are still the dominant drivers of returns YTD ([page 8](#))
- ◆ Within the Pure factor space Quality continues to lead the way. Pure Value has significantly outperformed Value style YTD ([page 12](#))

Chronology of Key Market Events in 2023

- ◆ January: Risk appetite buoyed by hopes of soft landing and the visibility of peak rates
- ◆ February: Fed caution against excessive interest rate optimism - markets retreat
- ◆ March: Silicon Valley Bank (SVB) collapses, markets slash US rate expectations
- ◆ March/April: AI theme turbo charges US technology sector and bank contagion fear ease
- ◆ May: Debt ceiling brinkmanship
- ◆ June: Market rallies on Debt ceiling resolution. Strong economic data fuels 'Goldilocks' outlook narrative
- ◆ July: Weaker than expected US inflation helps boost risk appetite. US inflation falls to lowest in over 2 years
- ◆ August: Fed chair Powell strikes hawkish tone at Jackson Hole

Chart 1: FT Wilshire 5000 Real vs nominal total return - despite the sizeable 2022 drawdown, US equities have delivered an 9.5% real annualized return over the last 10 years and 6.4% in the last 5 years

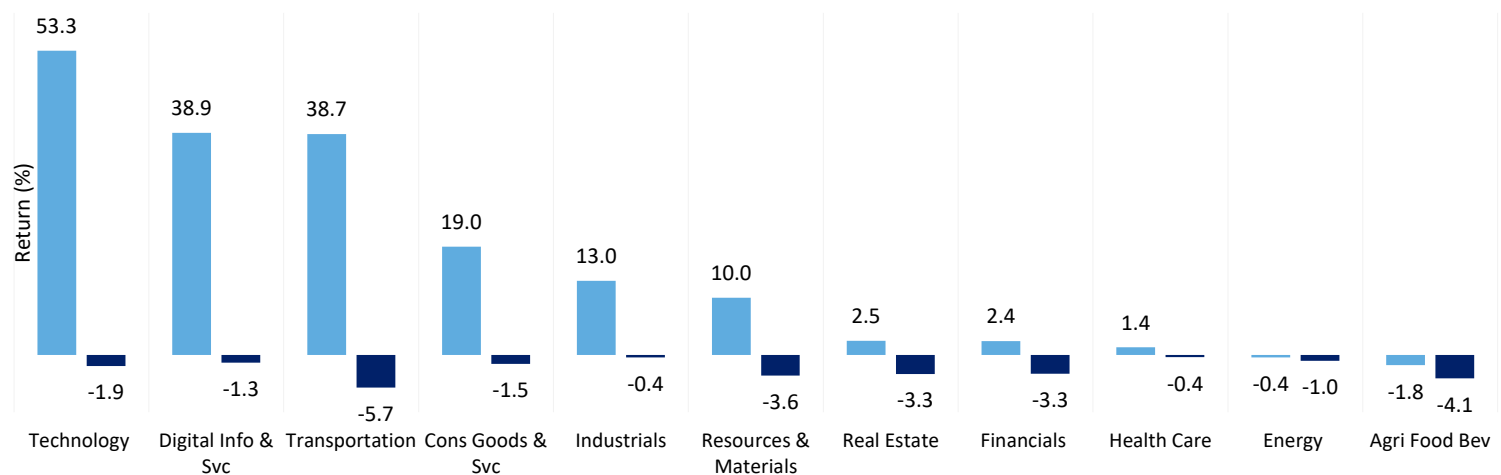


Sector performance and contributions: Technology and digital information lose some momentum on the back of rising bond yields but remain stellar performers

Sector returns Health care and industrials marginally outperformed in August (dark blue) with transport, and food and beverages underperforming. Despite losing some momentum in August technology and digital information remain the strongest performers year to date (light blue).

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

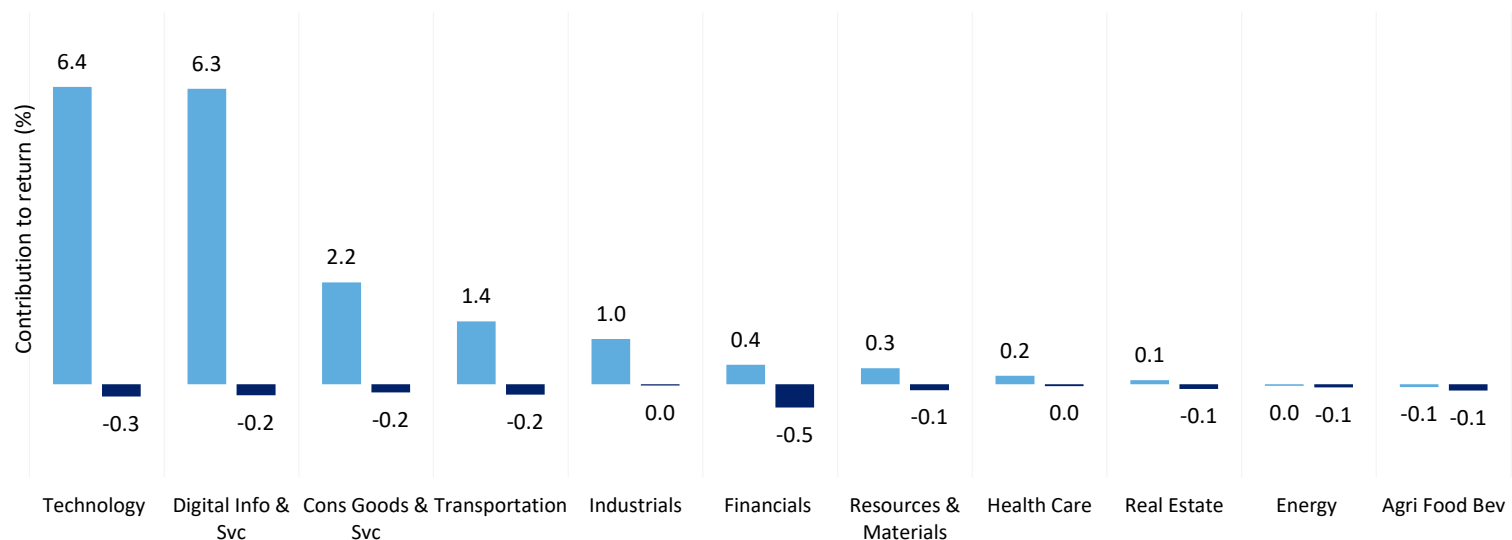
■ YTD: 18.1% ■ MTD: -1.9%



Sector weighted contributions blend sector performance with sector weighting to establish aggregate return drivers. Technology and financials were the main drag on returns in August (dark blue). However technology and digital info remain by far the largest positive contributors to returns YTD (light Blue).

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

■ YTD: 18.1% ■ 1M: -1.9%



Sector returns and weights across the FT Wilshire indexes: Technology sees modest declines in August but still delivers strong returns 2023 YTD

August 2023 sector returns and average weights across the FT Wilshire indexes: Comparing sector weights, large cap are heavily exposed to the technology and digital info sectors while small cap are more exposed to the cyclical industrials, resources and real estate sectors. Value is skewed to energy and financials while growth is more exposed to technology and consumer goods.

1M	FTW 5000		Large Cap		Small Cap		Micro Cap		Growth		Value	
	Return	Wghts	Return	Wghts	Return	Wghts	Return	Wghts	Return	Wghts	Return	Wghts
Health Care	-0.4	12.1	0.6	12.1	-6.0	10.7	-8.5	24.2	1.5	12.2	-0.3	11.7
Industrials	-0.4	7.4	-0.2	6.7	-1.3	12.4	-0.9	10.8	-0.7	4.1	0.1	8.7
Energy	-1.0	7.4	-1.1	7.2	0.0	8.8	-3.0	6.3	-1.3	1.5	-1.1	13.1
Digital Info & Svc	-1.4	17.9	-1.1	19.1	-4.1	10.5	-7.4	7.0	-1.5	30.4	0.6	8.0
Cons Goods & Svc	-1.5	11.7	-1.1	11.5	-4.4	13.0	-5.0	9.9	0.1	12.6	-2.6	10.8
Technology	-1.9	14.0	-1.8	15.2	-2.8	6.2	-7.0	5.1	-1.6	20.8	-2.5	9.5
Financials	-3.3	15.5	-3.1	15.4	-4.1	15.1	-7.1	20.7	-0.8	9.3	-4.1	21.6
Real Estate	-3.3	3.1	-3.0	2.5	-4.0	7.6	-3.6	4.8	-2.9	2.9	-3.2	2.1
Resources & Materials	-3.6	3.6	-3.8	2.9	-2.9	8.9	-4.3	6.3	-3.1	1.7	-4.1	4.2
Agri Food Bev	-4.1	3.4	-4.4	3.6	-1.2	2.3	-1.3	1.3	-3.1	0.8	-4.5	6.4
Transportation	-5.7	3.9	-5.4	3.8	-8.1	4.5	-6.7	3.6	-3.8	3.7	-7.2	4.0
Market	-1.9		-1.7		-3.6		-5.8		-1.1		-2.3	

YTD 2023 Sector returns and average weights across the FT Wilshire indexes: Despite the August declines digital information, technology and transportation sectors remain the standout performers YTD

YTD	FTW 5000		Large Cap		Small Cap		Micro Cap		Growth		Value	
	Return	Wghts	Return	Wghts	Return	Wghts	Return	Wghts	Return	Wghts	Return	Wghts
Technology	53.3	12.0	55.3	13.0	23.9	5.8	10.6	4.8	67.6	17.6	31.9	8.9
Digital Info & Svc	38.9	16.3	41.0	17.4	7.5	9.8	1.4	6.4	45.1	29.2	24.5	8.0
Transportation	38.8	3.5	42.7	3.4	18.7	4.0	7.9	3.6	97.8	2.8	8.2	3.8
Cons Goods & Svc	19.0	11.5	19.9	11.4	9.7	12.5	14.9	9.1	31.4	13.5	5.4	10.5
Industrials	13.0	7.5	11.7	6.8	15.2	12.0	18.7	9.7	20.6	3.8	8.5	8.1
Resources & Materials	10.1	3.4	7.2	2.6	16.1	8.6	5.7	6.4	4.8	1.7	8.5	4.0
Real Estate	2.5	3.3	1.2	2.7	2.7	7.9	0.8	4.8	-0.4	3.4	3.2	2.0
Financials	2.4	17.0	2.7	16.9	0.8	16.8	-7.9	22.8	7.1	10.4	0.6	22.6
Health Care	1.4	13.1	1.3	13.3	1.3	10.1	-3.5	24.4	7.8	14.3	-4.5	11.7
Energy	-0.4	8.7	-1.3	8.5	1.6	10.3	2.4	7.0	-0.2	2.1	-1.4	14.2
Agri Food Bev	-1.8	3.7	-2.9	4.0	11.2	2.3	5.2	1.1	8.9	1.4	-4.1	6.3
Market	18.1		19.4		11.0		2.0		34.9		5.7	

Sector-weighted contributions across the FT Wilshire indexes: Despite August declines, tech and digital info have still contributed two-thirds of FT Wilshire 5000

August 2023 sector-weighted performance contributions across the FT Wilshire indexes: Technology and financials were the largest drag on August returns across most FT Wilshire indexes. Small cap also saw relatively large negative contributions from health care and consumer goods.

1M	FTW 5000	Large Cap	Small Cap	Micro Cap	Growth	Value
	Contr	Contr	Contr	Contr	Contr	Contr
Industrials	0.0	0.0	-0.2	-0.1	0.0	0.0
Health Care	0.0	0.1	-0.6	-2.1	0.2	0.0
Energy	-0.1	-0.1	0.0	-0.2	0.0	-0.1
Real Estate	-0.1	-0.1	-0.3	-0.2	-0.1	-0.1
Resources & Materials	-0.1	-0.1	-0.3	-0.3	-0.1	-0.2
Agri Food Bev	-0.1	-0.2	0.0	0.0	0.0	-0.3
Cons Goods & Svc	-0.2	-0.1	-0.6	-0.5	0.0	-0.3
Transportation	-0.2	-0.2	-0.4	-0.2	-0.1	-0.3
Digital Info & Svc	-0.2	-0.2	-0.4	-0.5	-0.5	0.1
Technology	-0.3	-0.3	-0.2	-0.4	-0.3	-0.2
Financials	-0.5	-0.5	-0.6	-1.5	-0.1	-0.9
Market	-1.9	-1.7	-3.6	-5.8	-1.1	-2.3

YTD sector-weighted performance contributions across the FT Wilshire indexes: The superior positive contributions from technology and digital information remain the key drivers behind large cap outperformance relative to small cap in 2023, and the outperformance of growth relative to value.

YTD	FTW 5000	Large Cap	Small Cap	Micro Cap	Growth	Value
	Contr	Contr	Contr	Contr	Contr	Contr
Technology	6.4	7.2	1.4	0.5	11.9	2.8
Digital Info & Svc	6.3	7.1	0.7	0.1	13.1	2.0
Cons Goods & Svc	2.2	2.3	1.2	1.4	4.2	0.6
Transportation	1.4	1.5	0.8	0.3	2.7	0.3
Industrials	1.0	0.8	1.8	1.8	0.8	0.7
Financials	0.4	0.5	0.1	-1.8	0.7	0.1
Resources & Materials	0.3	0.2	1.4	0.4	0.1	0.3
Health Care	0.2	0.2	0.1	-0.9	1.1	-0.5
Real Estate	0.1	0.0	0.2	0.0	0.0	0.1
Energy	0.0	-0.1	0.2	0.2	0.0	-0.2
Agri Food Bev	-0.1	-0.1	0.3	0.1	0.1	-0.3
Market Return	18.1	19.4	11.0	2.0	34.9	5.7

Source: Wilshire. Data as of August 31, 2023

FT Wilshire Size and Style Indexes: Small Cap and Value underperform in August and YTD

Table 1: The main FT Wilshire style indexes posted negative returns in August. The key observation is that YTD small cap has continued to underperform large cap and value has significantly lagged growth style.

USD, TR %	Size			Style	
	Large Cap	Small Cap	Micro Cap	LC Growth	LC Value
MTD	-1.7	-3.6	-5.8	-1.1	-2.3
3M	7.3	9.0	5.5	7.9	6.6
YTD	19.4	11.0	2.0	34.9	5.7
2022	-19.2	-17.5	-21.4	-31.1	-6.0
2021	27.8	19.1	21.7	27.7	27.4

Table 2: Growth has delivered a 5yr annualized return of 13.8% vs a value return of 8.3%

USD, TR %	Large Cap		Small Cap		Micro Cap		LC Growth		LC Value	
	Aggr	Ann	Aggr	Ann	Aggr	Ann	Aggr	Ann	Aggr	Ann
2Y	1.7	0.9	-7.6	-3.9	-22.6	-12.0	-2.8	-1.4	5.5	2.7
3Y	33.5	10.1	34.6	10.4	25.7	7.9	26.4	8.1	40.1	11.9
5Y	70.4	11.3	32.1	5.7	10.7	2.0	90.9	13.8	49.0	8.3
10Y	237.1	12.9	143.8	9.3	106.9	7.5				
20Y	576.7	10.0	560.8	9.9	349.1	7.8				

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



Style and Size Indexes: August saw the continuation of the upward trend in large cap and growth relative performance

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

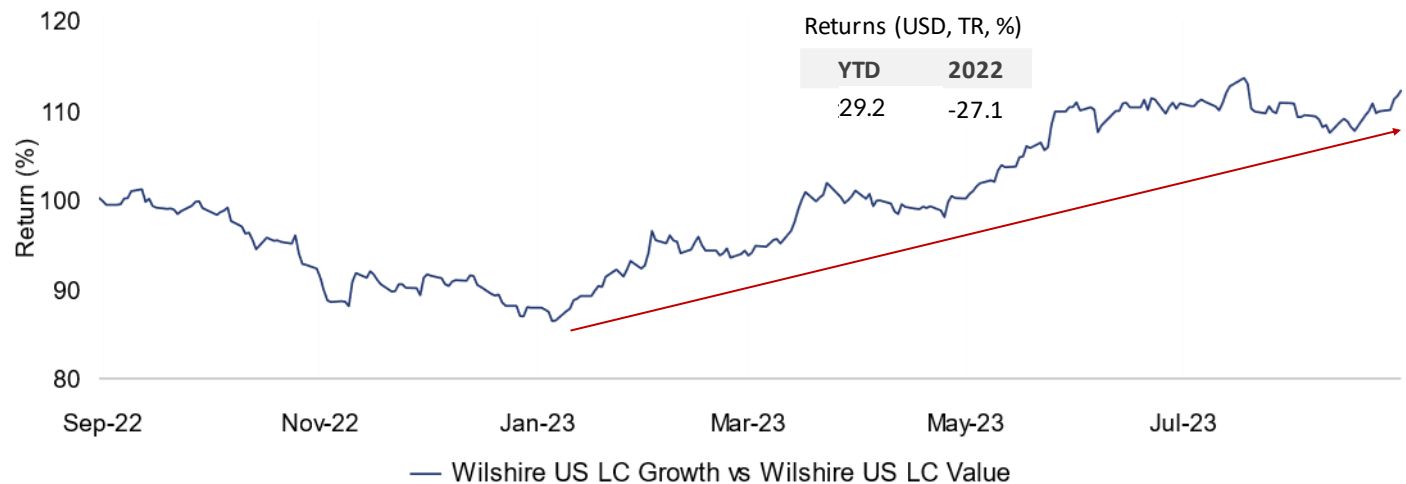


Chart 2: Large vs Small Cap (USD, TR, %).

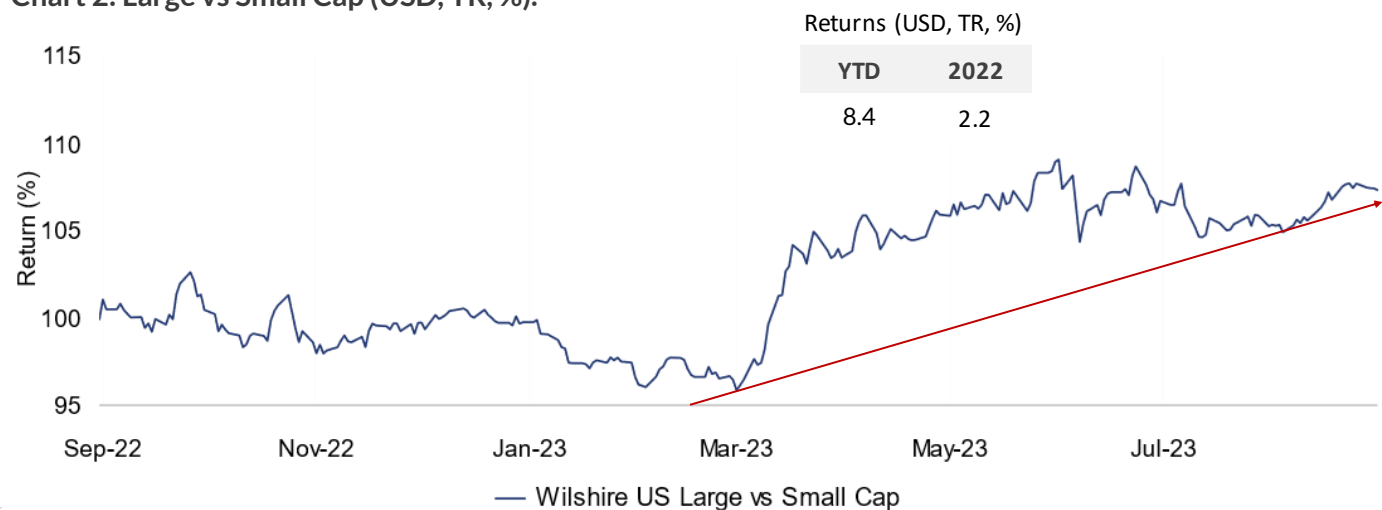
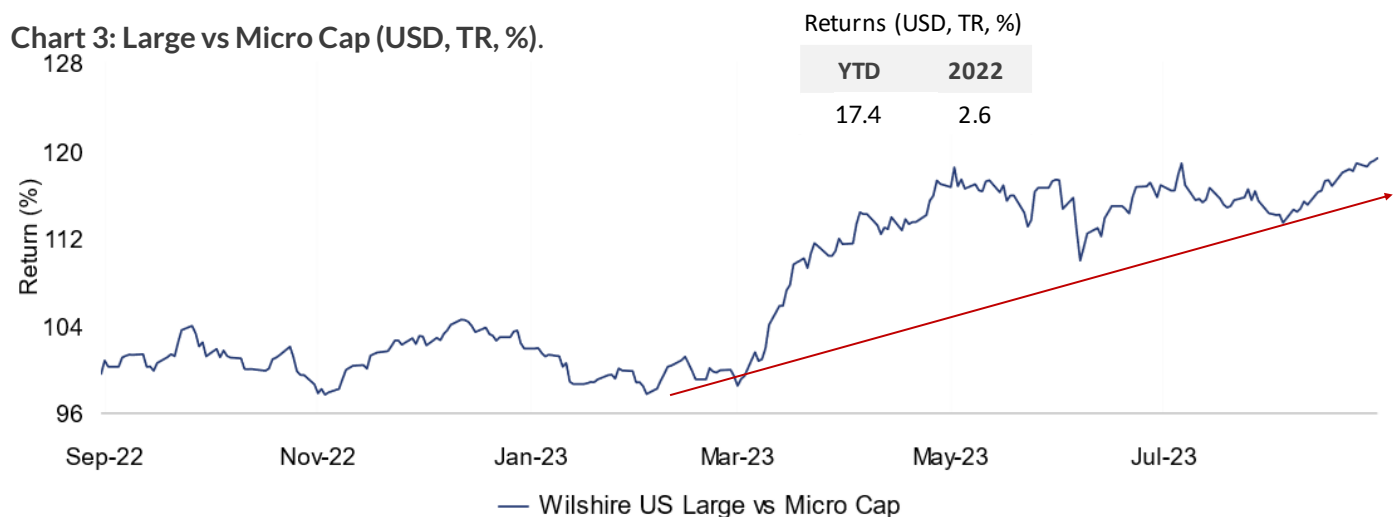


Chart 3: Large vs Micro Cap (USD, TR, %).



Pure Factor Indexes: Quality and momentum continue to outperform YTD. The value factor has matched market returns YTD unlike its style counterpart

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.

Chart 1: 1M - Pure Quality and Momentum outperformed in August with Size the notable laggard

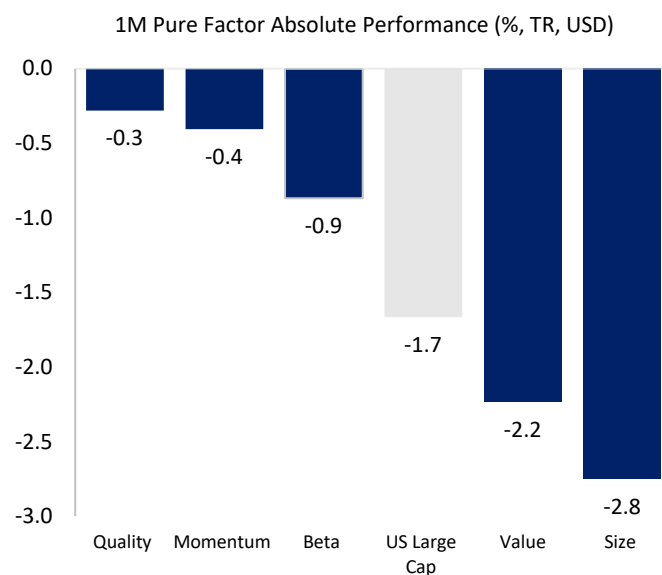


Chart 2: YTD - Quality and Momentum have outperformed. Value has kept pace while Beta lagged.

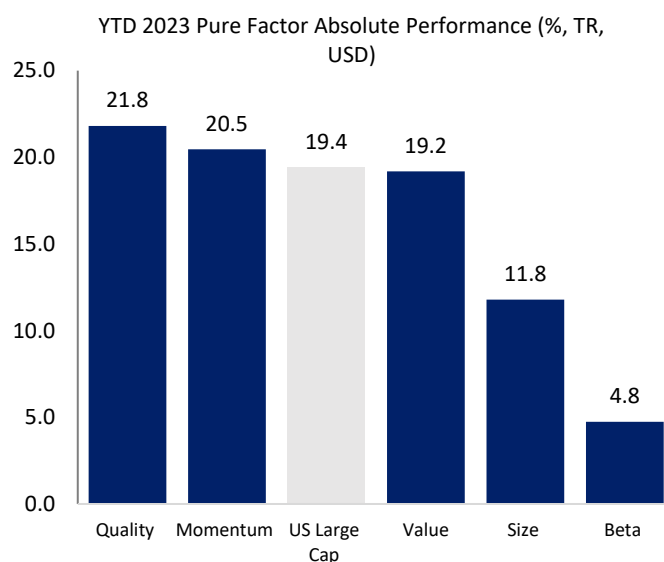


Chart 3: Pure Quality remains the strongest performer over the past 12 months

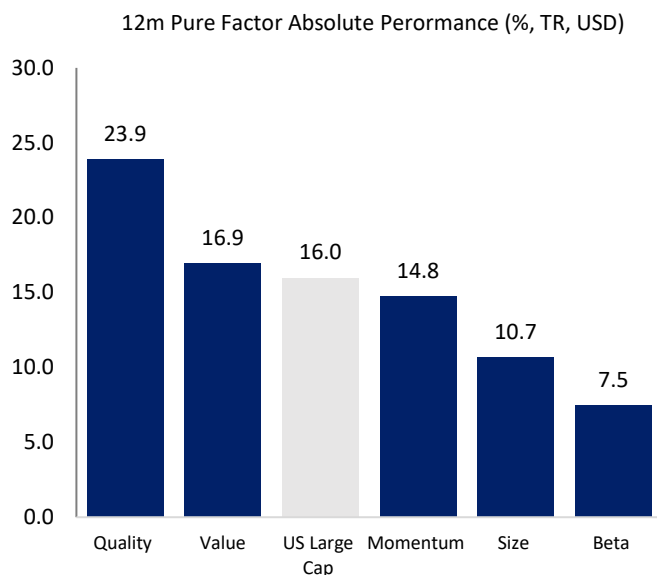
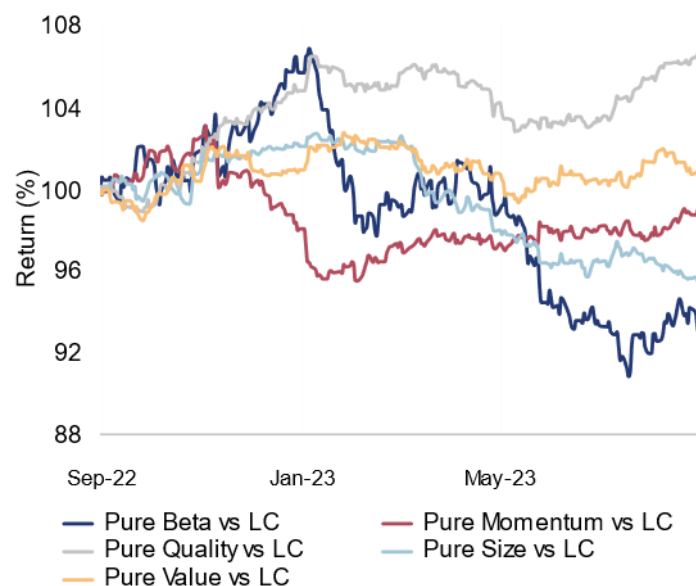


Chart 4: Pure Factor Indexes Relative to FT Wilshire US Large Cap Index over 12 months (Rebased, TR, USD)



Comparing Factor vs Style returns: Significantly different return profiles delivered by Pure Factors compared to their respective Style indexes

Chart 1: Pure Factor and Style Absolute Performance - 1M YTD, 2022 and 3YR

Returns (USD, TR %)	1M	YTD	2022	3Y
Pure Factor Quality	-0.3	21.8	-13.7	46.3
Style Growth	-1.1	34.9	-31.1	26.4
Pure Factor Value	-2.2	19.2	-16.2	42.8
Style Value	-2.3	5.7	-6.0	40.1
Pure Factor Size	-2.8	11.8	-17.5	29.6
Style Small Cap	-3.6	11.0	-17.5	34.6

Chart 2: Pure Factor Quality vs Growth style (blue) and Pure Value vs Value style (red)

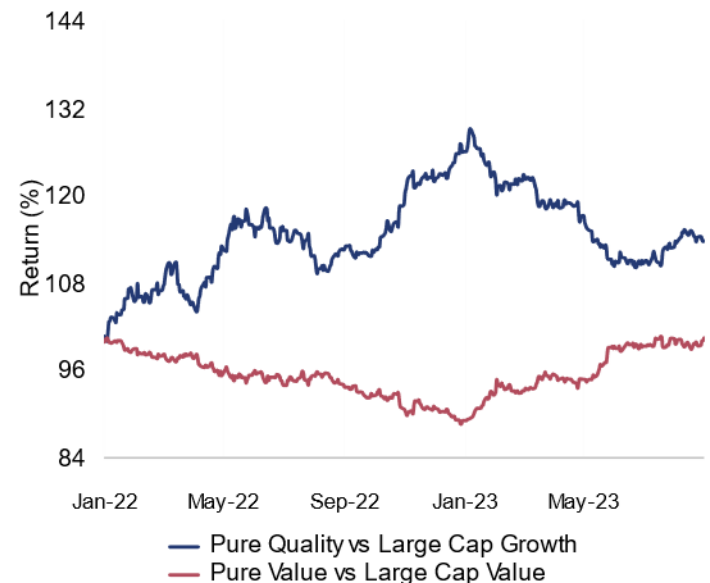


Chart 3: Pure Quality vs Pure Value (blue) and Growth style vs Value style (red)

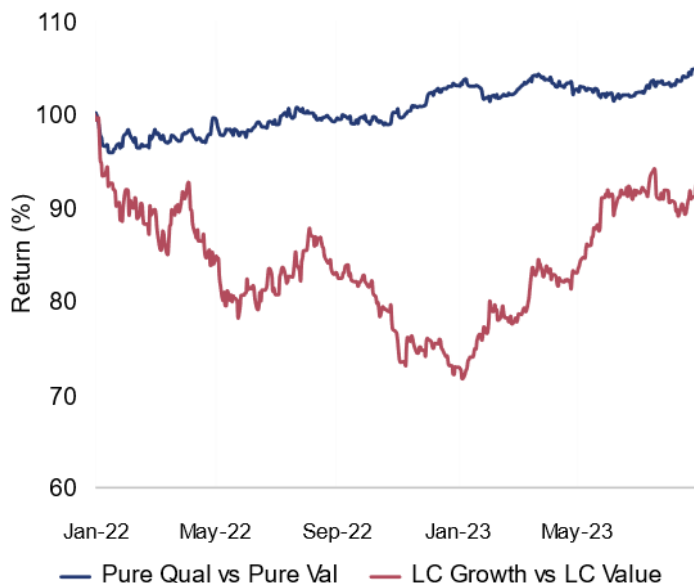
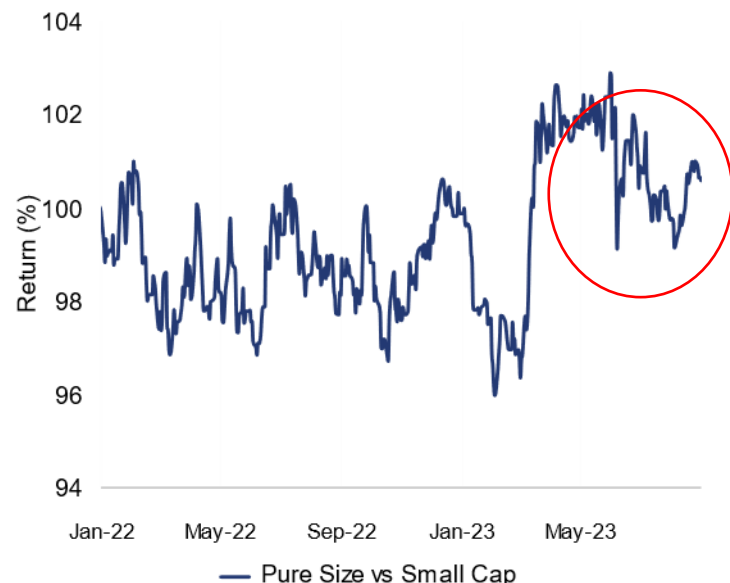


Chart 4: Pure Factor Size vs US Small Cap style



Sentiment and Technical Analysis: US technical and survey-based sentiment measures decline from high (exuberant) levels as volatility picks up in August

Chart 1: Our US Equity Composite Sentiment Indicator of technical measures saw notable decline from exuberant levels over the month. Survey-based measures of US equity exposure (NAAIM) fell from the highest to lowest level so far in 2023

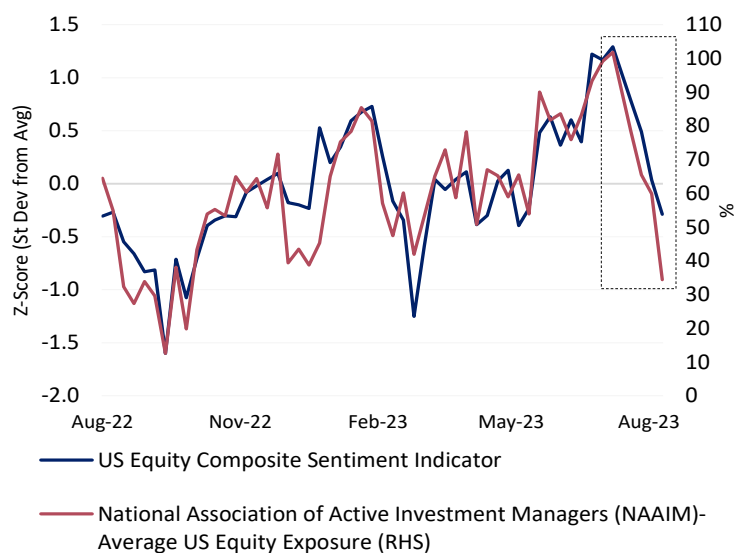


Chart 2: The FT Wilshire 5000 index has largely traded within a channel since the post SVB-lows on 13th March. It tested the upper resistance level on 31st July and rebounded from the lower support levels on the 24th August

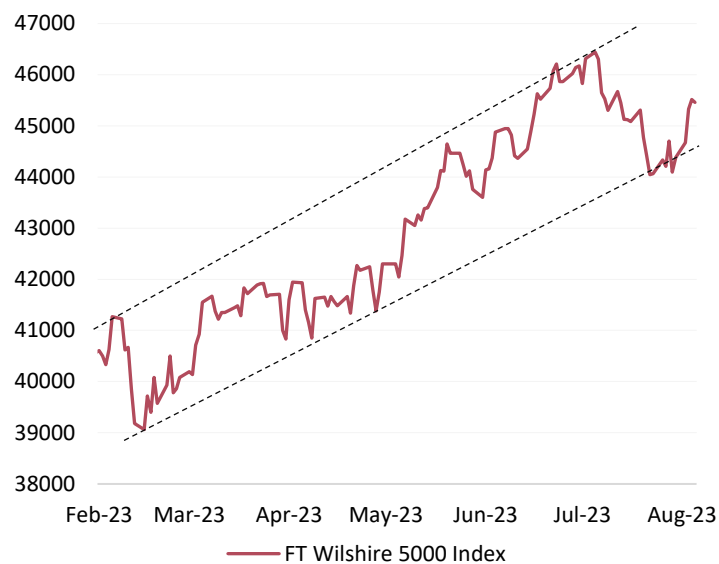


Chart 3: FT Wilshire index Relative Strength Indexes (RSI) vs July -FT Wilshire 5000, Large Cap and Growth have decline from overbought levels in July

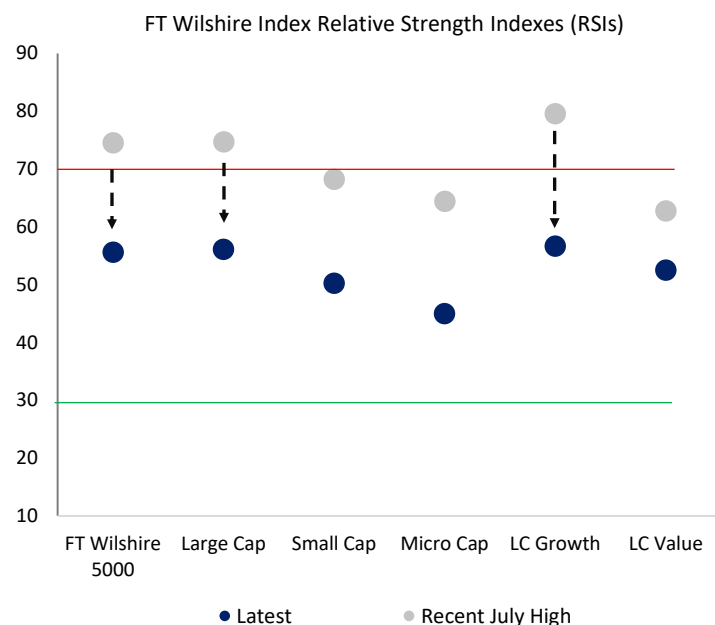
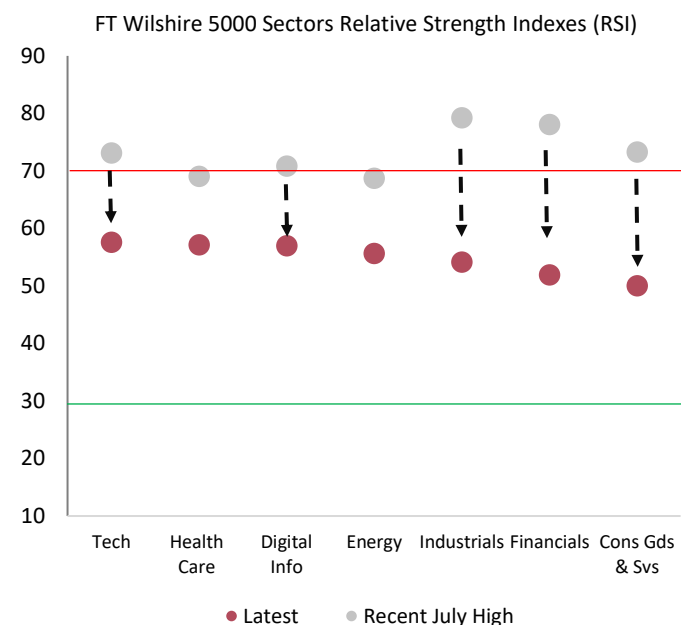


Chart 4: FT Wilshire 5000 sector Relative Strength Indexes (RSI) vs July-RSIs have fallen from overbought levels in July



Performance Dispersion Analysis: Smaller contribution from top 10 largest stocks in recent months but they still account for two-thirds of YTD returns

Chart 1: The contribution to market returns from the top 10 largest stocks has fallen in recent months (%)

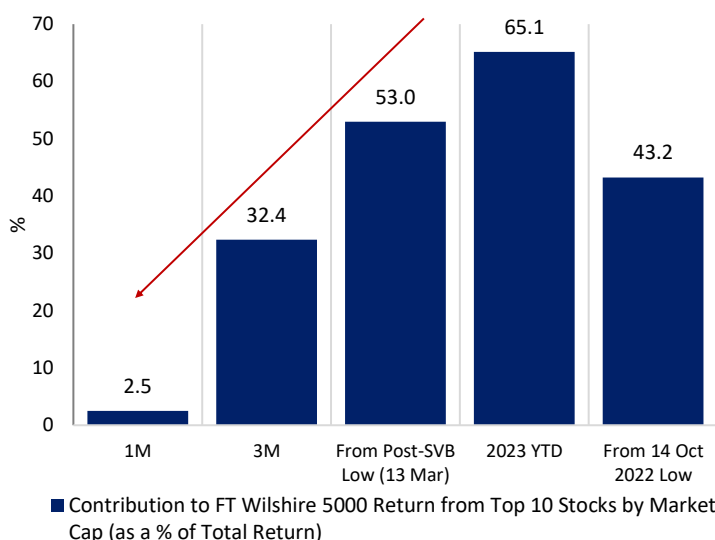
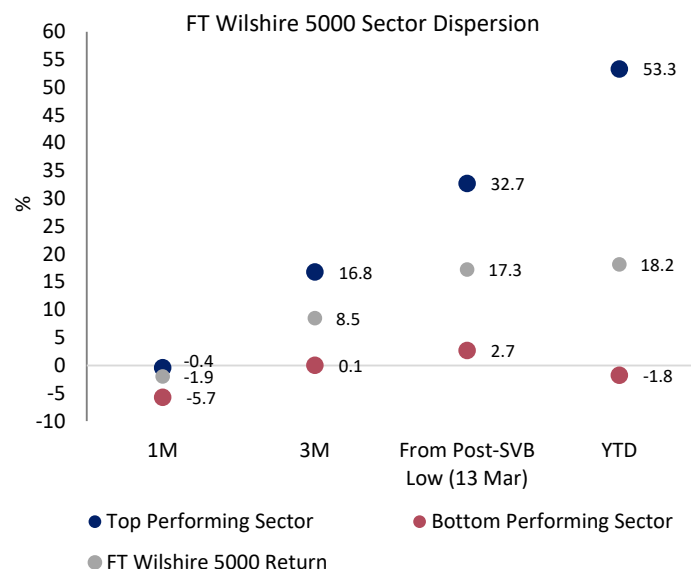


Chart 2: FT Wilshire 5000 top vs bottom performing sector returns across various time periods



1M Returns (USD, TR, %)

FT Wilshire 5000: -1.9%	Wght	Return (%)	Contrib (%)
Eli Lilly & Co	1.1	22.2	0.19
Nvidia Corp	2.6	5.6	0.14
Amazon Com Inc	2.8	3.2	0.09
Meta Platforms Inc	1.5	-7.1	-0.11
Microsoft Corp	5.4	-2.2	-0.12
Apple Inc	6.7	-4.2	-0.29

Wilshire Large Cap: -1.7%	Wght	Return (%)	Contrib (%)
Eli Lilly & Co	1.2	22.2	0.22
Nvidia Corp	3.0	5.6	0.16
Amazon Com Inc	3.2	3.2	0.10
Meta Platforms Inc	1.7	-7.1	-0.13
Microsoft Corp	6.2	-2.2	-0.14
Apple Inc	7.7	-4.2	-0.34

Wilshire Small Cap: -3.6%	Wght	Return (%)	Contrib (%)
Vertiv Holdings Co	0.2	51.4	0.08
Texas Pacific Land Corp	0.3	25.3	0.06
Celsius Holdings Inc	0.2	35.5	0.04
Super Micro Computer In	0.3	-16.7	-0.05
Hawaiian Elec Indust	0.0	-62.4	-0.05
Coinbase Global Inc	0.3	-19.3	-0.06

Wilshire Micro Cap: -5.8%	Wght	Return (%)	Contrib (%)
Abercrombie & Fitch	0.4	35.7	0.11
Sterling Infrastructure	0.4	38.0	0.10
Modine Mfg Co	0.4	26.7	0.08
Napco Sec Sys Inc	0.1	-33.7	-0.07
Harmonic Lightwaves	0.2	-28.4	-0.07
Immunogen Inc	0.7	-11.1	-0.08

Wilshire Growth: -1.1%	Wght	Return (%)	Contrib (%)
Nvidia Corp	5.1	5.6	0.27
Amazon Com Inc	5.4	3.2	0.17
Alphabet Inc Cl-C	3.1	3.2	0.10
Meta Platforms Inc	2.9	-7.1	-0.22
Microsoft Corp	10.4	-2.2	-0.24
Apple Inc	13.0	-4.2	-0.57

Wilshire Value: -2.3%	Wght	Return (%)	Contrib (%)
Eli Lilly & Co	2.6	22.2	0.46
Cisco Sys Inc	1.3	10.2	0.12
Exxon Mobil Corp	2.6	4.6	0.11
Qualcomm Inc	0.7	-12.7	-0.10
Bank America Corp	1.3	-9.7	-0.14
J P Morgan Chase & C	2.4	-7.4	-0.19

Perspectives: The waning contribution from the 'Magnificent 7' in the last three months. FT Wilshire US Large Cap Value index just 2.3% below its all-time high.

Chart 1: The contribution from the 'Magnificent 7' stocks to the return of the FT Wilshire 5000 has fallen substantially over the last three months compared to preceding three month period to the end of May

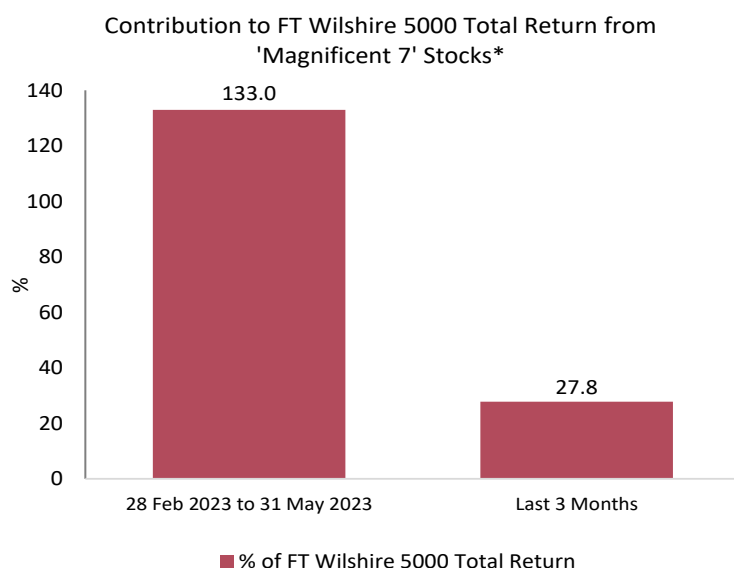


Chart 2: The FT Wilshire US Value index is just 2.3% below its all-time high, FT Wilshire 5000 5.0% below however the FT Wilshire 5000 Equal-Weight is still 26.4% below its all-time high on 8th November 2021

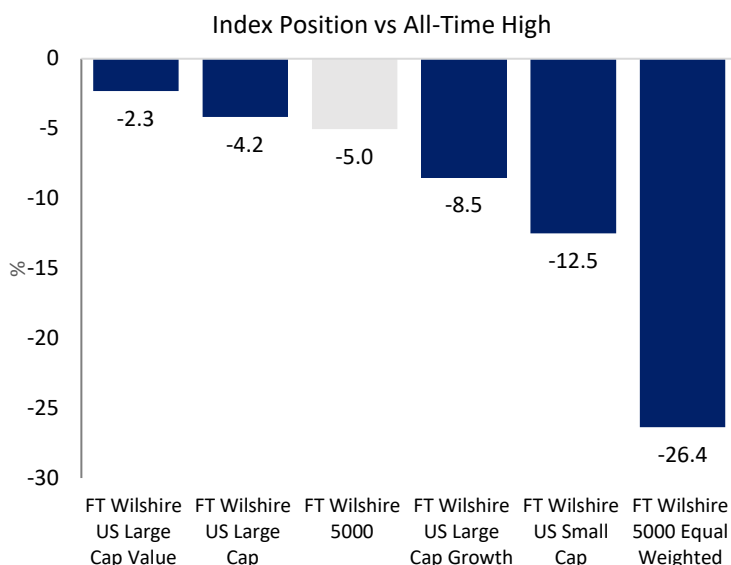


Chart 3: Technology and digital information relative performance has lost momentum on the back of the renewed rise in bond yields in recent months

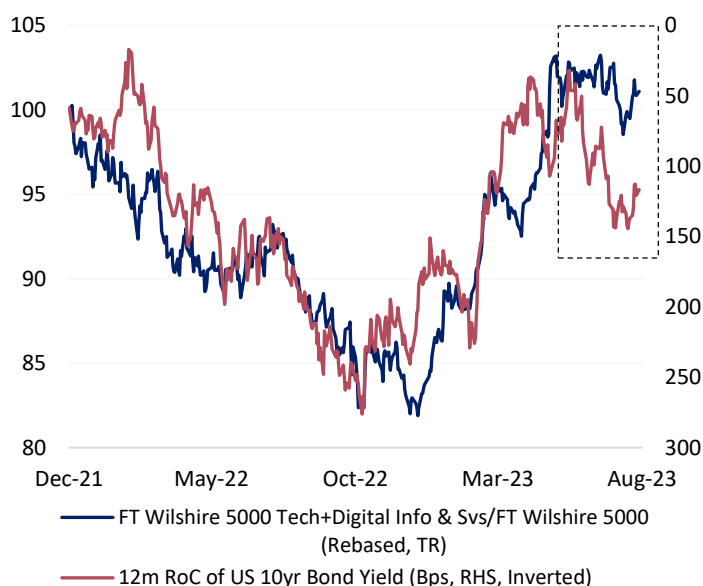
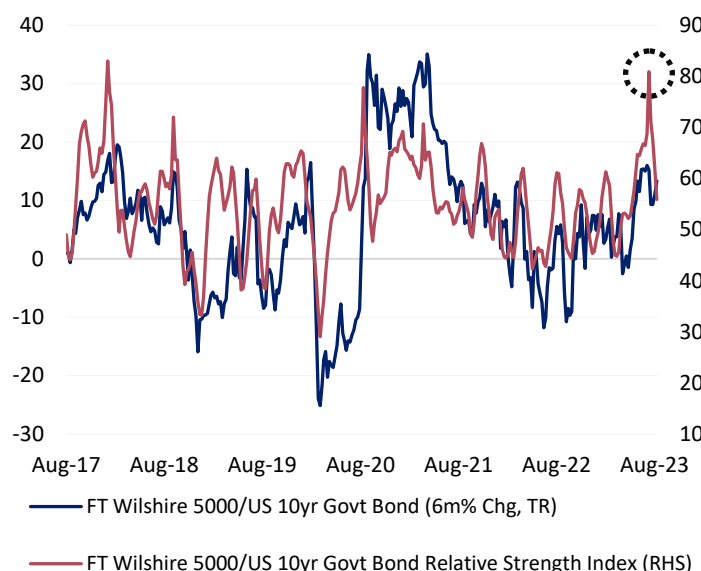


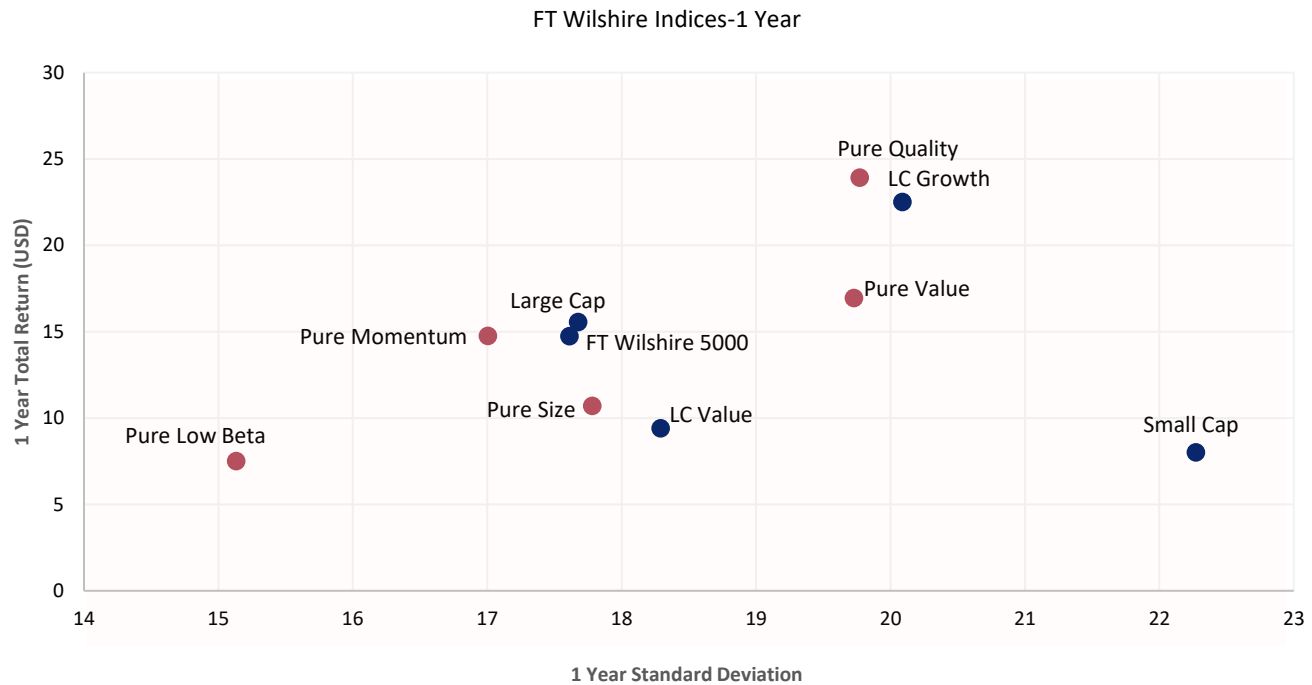
Chart 4: The US equity/bond relative strength index (RSI) hit the highest (most overbought) level in over 5 and a half years at the beginning of August



*Apple, Amazon, Microsoft, Alphabet, Nvidia, Meta and Tesla

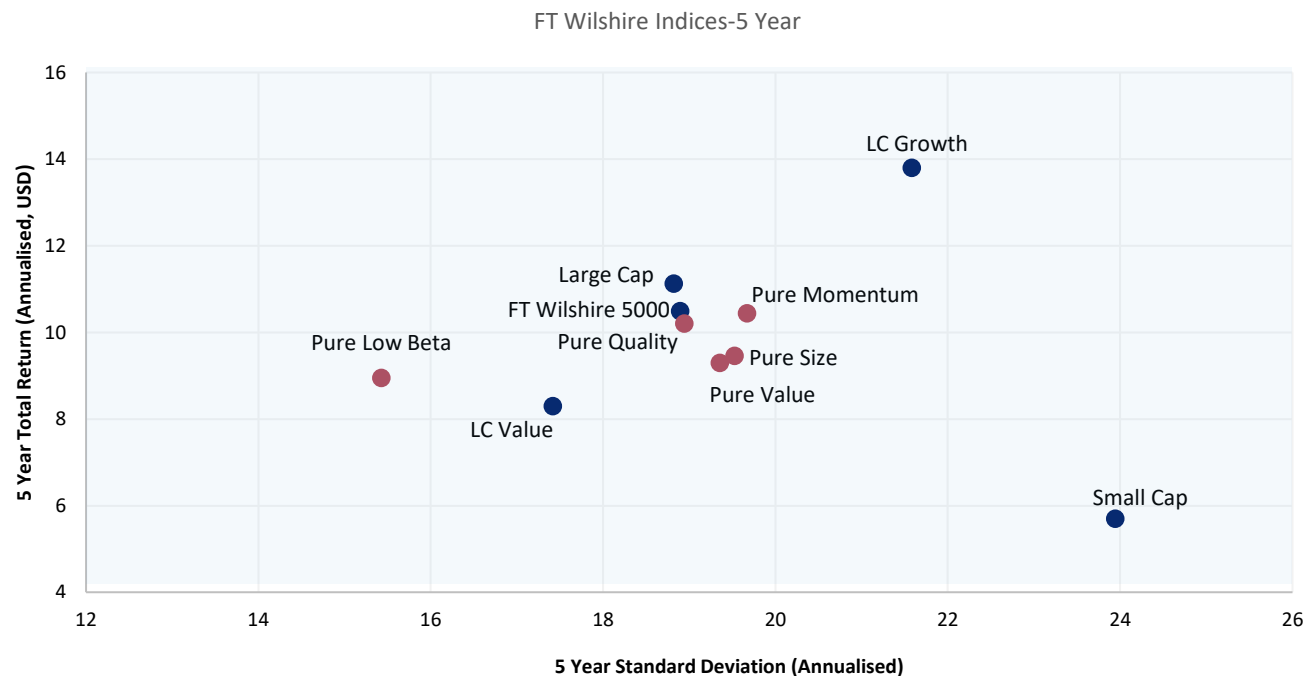
FT Wilshire Index Risk vs Return: 1 year and 5 year perspectives

FT Wilshire Indexes: Risk vs Return Over 1 Year



FT Wilshire Indexes: Risk vs Return Over 5 Years

Pure Factor ■ Style ■



FT Wilshire Global Equity Market Series (GEMS)

1

-9.2%

Decline in Chinese equities in August (USD, TR)

2

+14.5%

Rise in global Equity Index YTD (USD, TR)

3

+8.6%

3 month return of US equities (TR)

4

+9.0%

10-year annualized return for the global Equity Index (USD, TR)

CONTENTS

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| 17 Synopsis | 23 Regional sector comparison |
| 18 Major market returns | 24 Sector-weighted contribution analysis |
| 19 Multi-currency regional returns | 25 Dispersion |
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| 21 Country level performance | 27 Risk/return analysis |
| 22 Technical analysis | |

US equities performance vs global non US equities. US equities have significantly outperformed the Global ex US so far in 2023 after underperforming last year



Global Equity Market Synopsis: Chinese growth concerns heightens volatility in August but markets still deliver solid three month returns

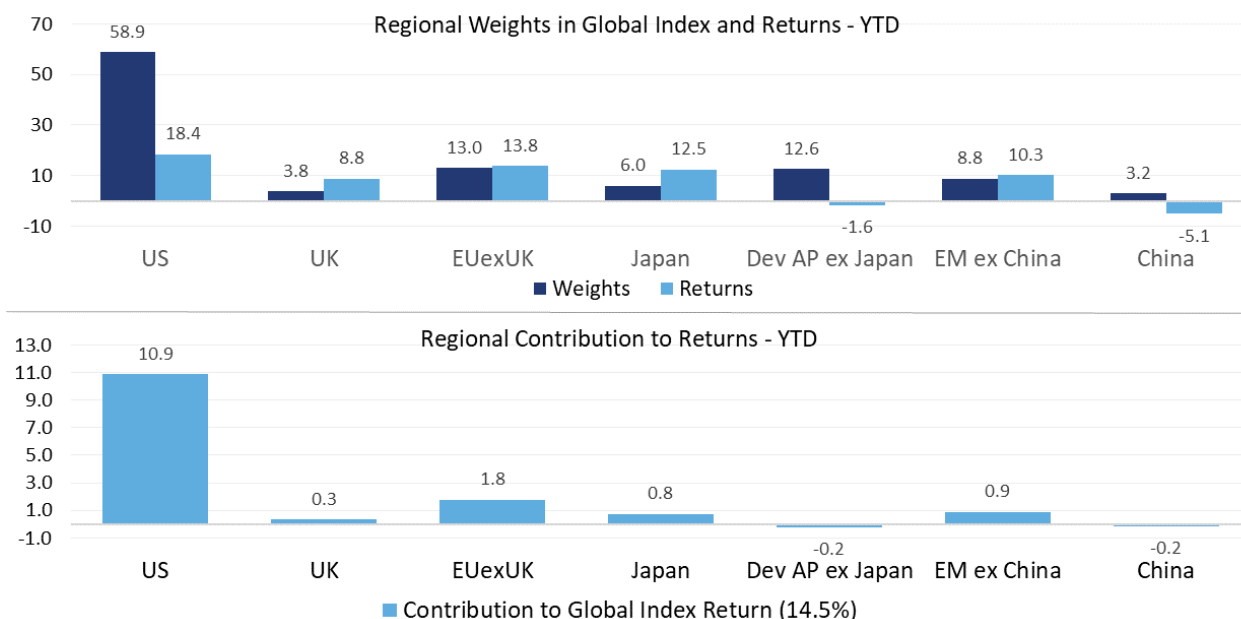
Global Markets Snapshot

- ◆ Markets recover some poise late in August but all major regions see declines over the month. Three month returns remain positive ([page 19](#))
- ◆ Chinese equities were a notable underperformer in August as growth concerns hits sentiment ([page 19](#))
- ◆ Yen weakness creates large differences between YTD global equity returns when measured in JPY vs USD ([page 20](#))
- ◆ Smaller drag from industrials and financials sectors help drive US outperformance vs global ex US in August ([page 23](#))
- ◆ US sees smaller contribution from top 10 largest stocks over the last months but they still account for over two-thirds of YTD returns ([page 24](#))
- ◆ FT Wilshire Europe ex UK relative performance sees 'Death Cross' technical pattern ([page 28](#))

Key Market Events

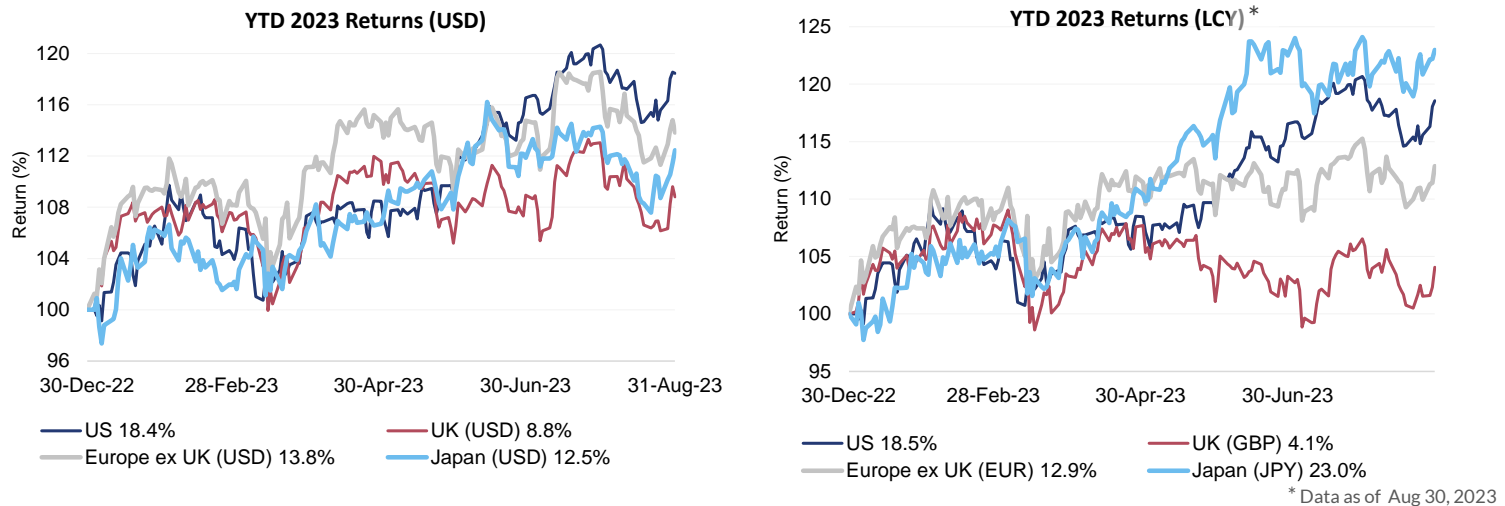
- ◆ February: Reassessment of US interest rate expectations see global bond yields rise, spooking markets
- ◆ March: Silicon Valley Bank (SVB) collapses with contagion fears rippling through to global markets.
- ◆ March: Markets rebound as bank contagion fears ease. UBS agrees takeover of Credit Swiss
- ◆ April: Chinese equities pullback sharply on renewed US-China geopolitical tensions
- ◆ April: JPY weakens sharply on dovish BoJ
- ◆ June: Chinese central bank cuts rates on growth concerns.
- ◆ July: Japanese bond yields spike to the highest level in 9 years on change to BoJ yield control policy
- ◆ August: Chinese equities plunge authorities disappoint in efforts to support economy

Chart 1: Selected regional-weighted contribution to global index return YTD- US by far the biggest driver of global index returns in 2023, contributing 10.9% of the 14.5% YTD total return.



Region and major market performance: US stages late August recovery. China gives back July gains as authorities disappoint on stimulus measures.

Regional YTD returns-LCY vs USD—Large moves in FX (particularly Yen weakness) has meant sizeable differentials in YTD returns when measuring the performance in LCY vs USD. The charts below shows that in USD terms (left hand chart) the US has outperformed. However when showing returns in local currencies terms (right hand chart) we can see that Japan has outperformed year to date.



Regional Returns - Short Term (USD, TR, %)	1M	3M	YTD	12M	2022
Japan	-1.6	4.3	12.5	14.9	-15.4
USA	-1.8	8.6	18.4	15.1	-19.4
Global	-2.8	6.7	14.5	13.8	-17.9
United Kingdom	-3.7	3.4	8.8	14.8	-10.8
Europe ex UK	-4.0	4.2	13.8	25.0	-19.0
Emerging ex China	-4.0	4.1	10.3	7.2	-15.4
Global ex US	-4.1	4.1	8.9	11.8	-15.8
Emerging	-5.2	4.3	6.0	3.1	-17.2
Asia Pacific ex Japan	-5.5	3.1	3.6	1.5	-17.3
China	-9.2	4.8	-5.1	-7.8	-21.8

Regional Returns - Long Term (3Y		5Y		10Y		20Y	
	Aggr	Ann	Aggr	Ann	Aggr	Ann	Aggr	Ann
USA	32.8	9.9	64.5	10.5	218.7	12.3	592.4	10.2
United Kingdom	27.8	8.5	14.5	2.8	35.8	3.1	212.8	5.9
Japan	12.3	3.9	16.5	3.1	80.1	6.1	193.0	5.5
Asia Pacific ex Japan	-0.7	-0.2	11.9	2.3	67.5	5.3	429.5	8.7
Europe ex UK	22.0	6.9	32.6	5.8	87.5	6.5	358.9	7.9
Emerging	2.7	0.9	13.0	2.5	58.8	4.7	460.0	9.0
Emerging ex China	30.9	9.4	30.4	5.5	73.1	5.6	484.9	9.2
China	-38.5	-15.0	-18.5	-4.0	37.7	3.2	494.8	9.3
Global ex US	14.7	4.7	21.6	4.0	68.2	5.3	313.6	7.4
Global	25.0	7.7	44.4	7.6	137.5	9.0	445.8	8.9

The FX adjusted market returns - YTD Global equity return for an unhedged Japanese investor 11.9% larger than return in USD terms

FX swings can have a large impact on unhedged regional equity returns depending on the location of investors. The most substantial FX impact YTD has been JPY returns for an unhedged Japanese based investor (due to weakness of the yen). YTD global equities have returned 26.6% (in JPY terms), versus a 14.7% return for a USD or 8.9% for a GBP based investor.

Table 1: Regional returns in various FX - 1M

1M Return (TR, %)	USD	GBP	EUR	JPY
USA	-1.8	-1.1	-0.6	-0.2
Developed	-2.3	-1.6	-1.2	-0.7
Japan	-2.5	-1.8	-1.4	-0.9
Global	-2.6	-1.9	-1.5	-1.0
United Kingdom	-3.0	-2.3	-1.9	-1.5
Europe ex UK	-3.2	-2.5	-2.1	-1.6
Emerging	-4.6	-3.9	-3.5	-3.1
Asia Pacific ex Japan	-5.2	-4.5	-4.1	-3.7
China	-8.7	-8.1	-7.6	-7.2

Table 2: Regional returns in various FX - YTD

YTD Return (TR, %)	USD	GBP	EUR	JPY
USA	18.5	12.5	16.6	30.8
Developed	15.8	10.0	13.9	27.8
Europe ex UK	14.8	9.0	12.9	26.7
Global	14.7	8.9	12.8	26.6
Japan	11.5	5.8	9.6	23.0
United Kingdom	9.6	4.1	7.8	20.9
Emerging	6.7	1.3	4.9	17.7
Asia Pacific ex Japan	3.9	-1.4	2.2	14.6
China	-4.6	-9.5	-6.2	5.2

Global Equity Relative Returns: US relative performance regains some momentum. China resumes downtrend. EM have underperformed YTD.

Chart 1 : US vs Global ex US (USD, TR, %)



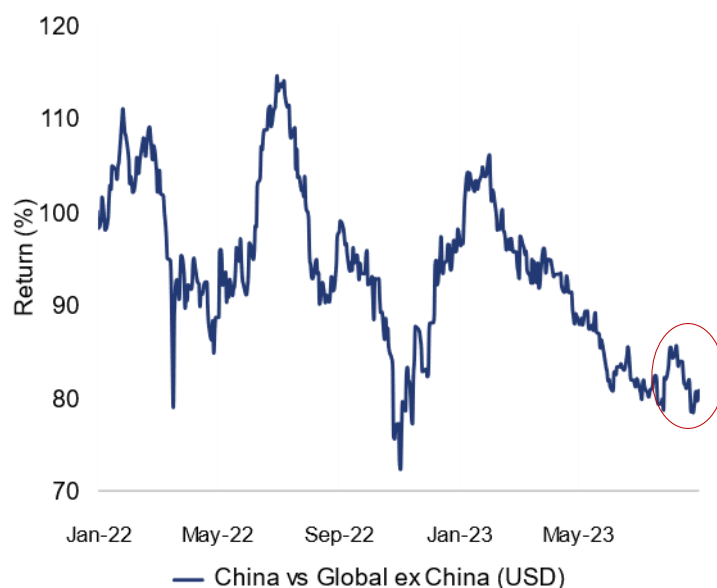
Chart 2: Emerging Markets vs Developed (USD, TR, %)



Chart 3: Europe ex UK vs Global ex Dev Europe (USD, TR, %)



Chart 4: China vs Global ex China (USD, TR, %)



Developed and Emerging market country level performance: Emerging markets resume underperformance as China gives back recent gains in August.

Chart 1: August 2023 - The global equity market rally lost momentum in August. Declines in China drove the underperformance of Emerging market relative to Developed. Denmark was the standout performer with the US and Japan also recovering late in August to finish the month with a small decline.

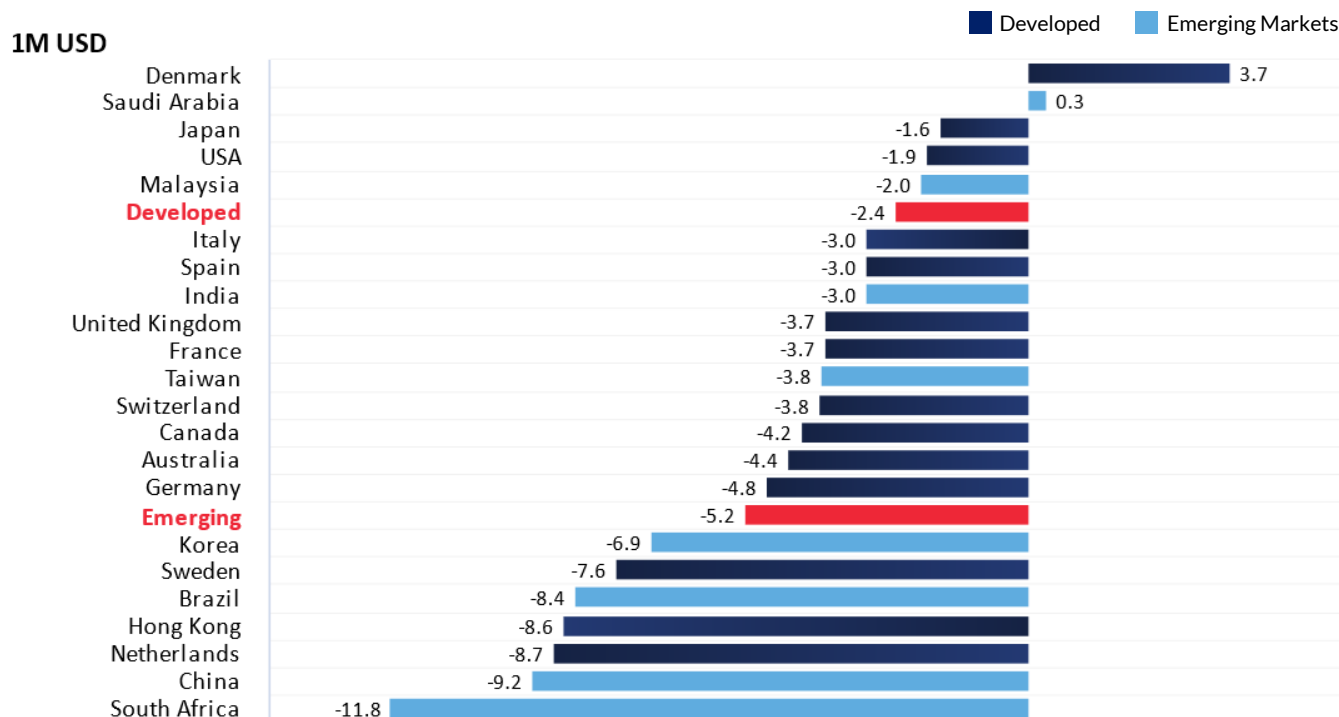
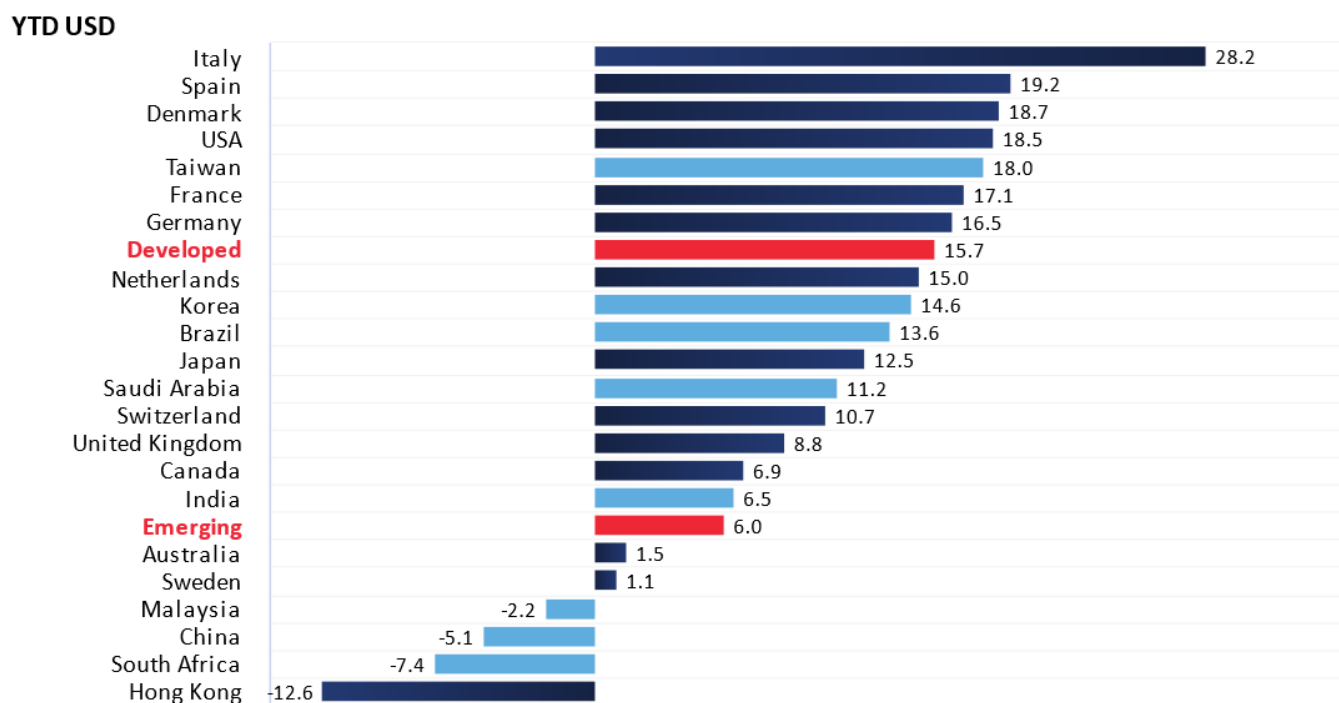


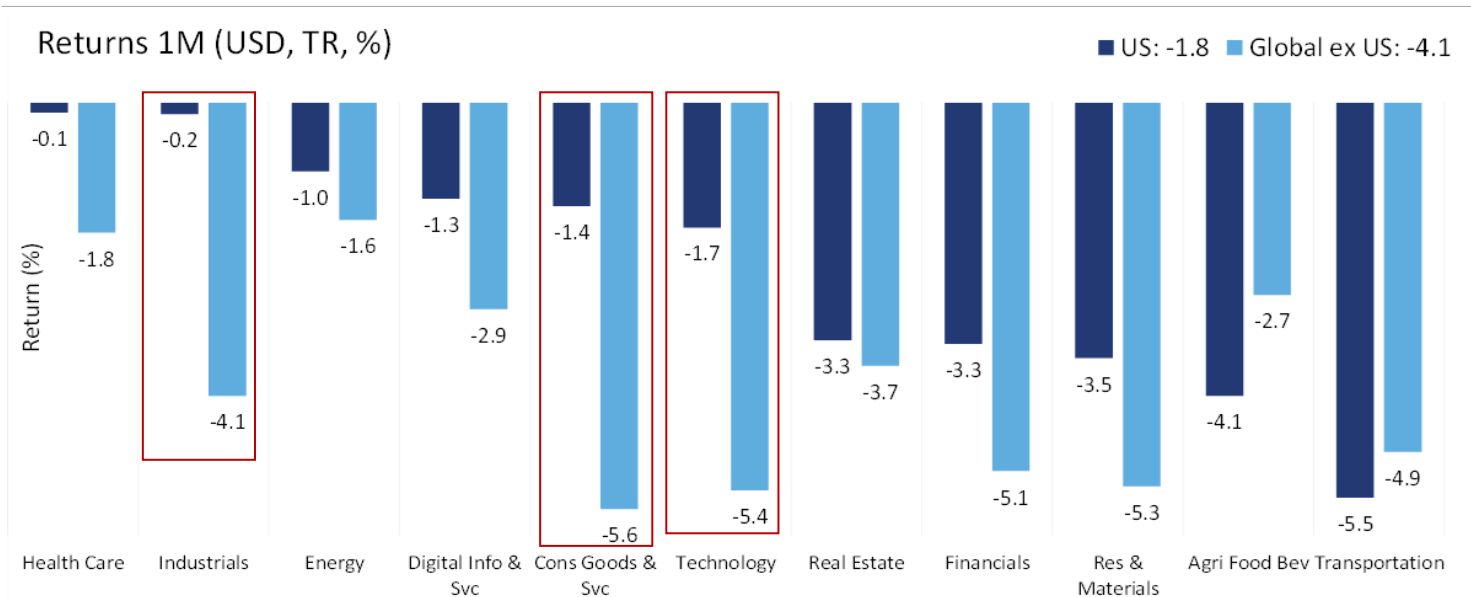
Chart 2: YTD 2023 - European equities remain amongst the top performers YTD. Strong positive US returns and negative Chinese equity returns have helped developed markets significantly outperform emerging so far in 2023. Within emerging markets Taiwan is the strong outperformer.



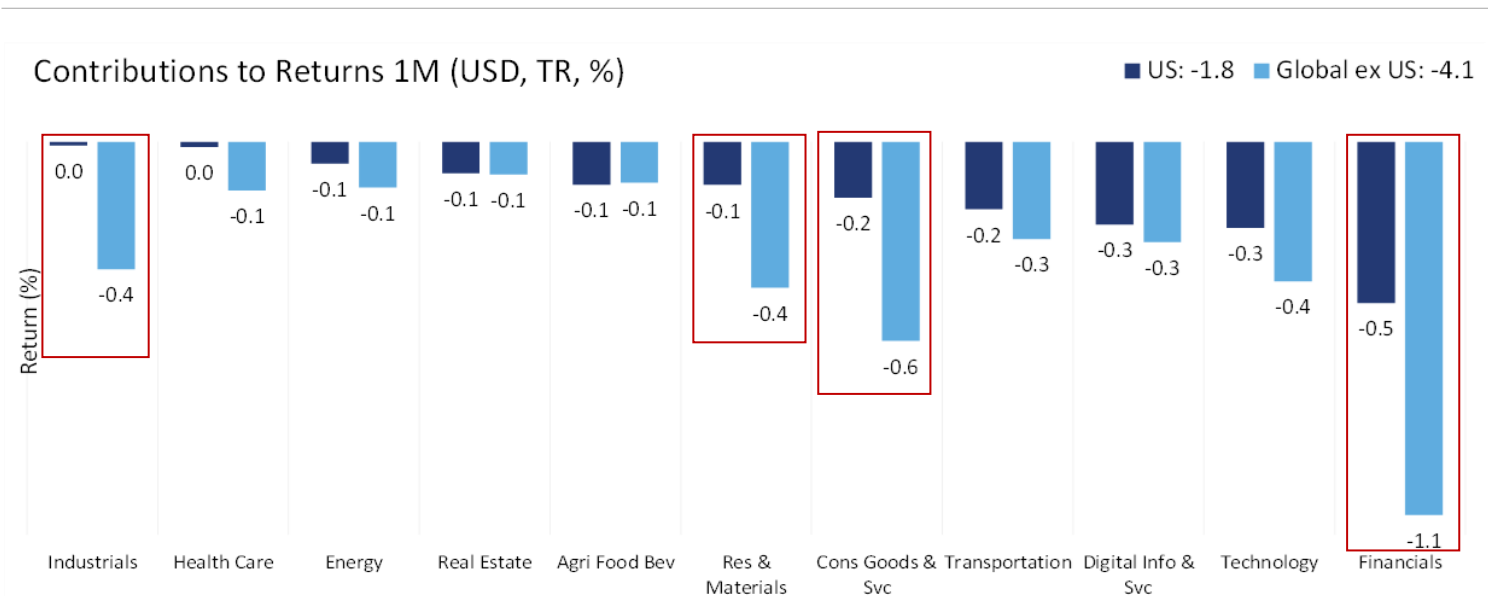
Source: Wilshire. Data as of August 31, 2023

August 2023-US vs Global ex US sector returns and sector-weighted contribution analysis: Large drag from financials drives Global ex US underperformance

August 2023 US vs Global ex US Sector Returns. The US outperformed the Global ex US amongst 9 of the 11 sectors in August, most notably in industrials and consumer goods and technology. Within the US, health care outperformance and transportation was the notable laggard.

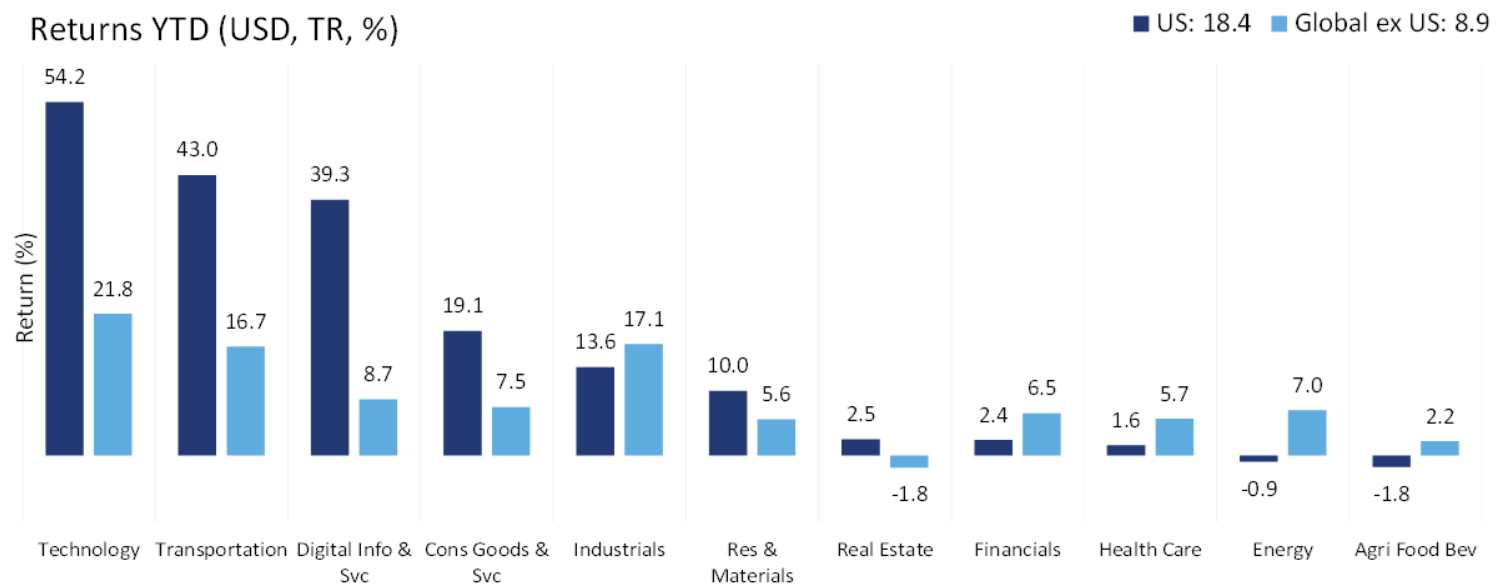


August 2023 US vs Global ex US Sector weighted regional contribution analysis. Smaller negative contributions from financials, industrials, resources and consumer goods drove the outperformance of the US in August.

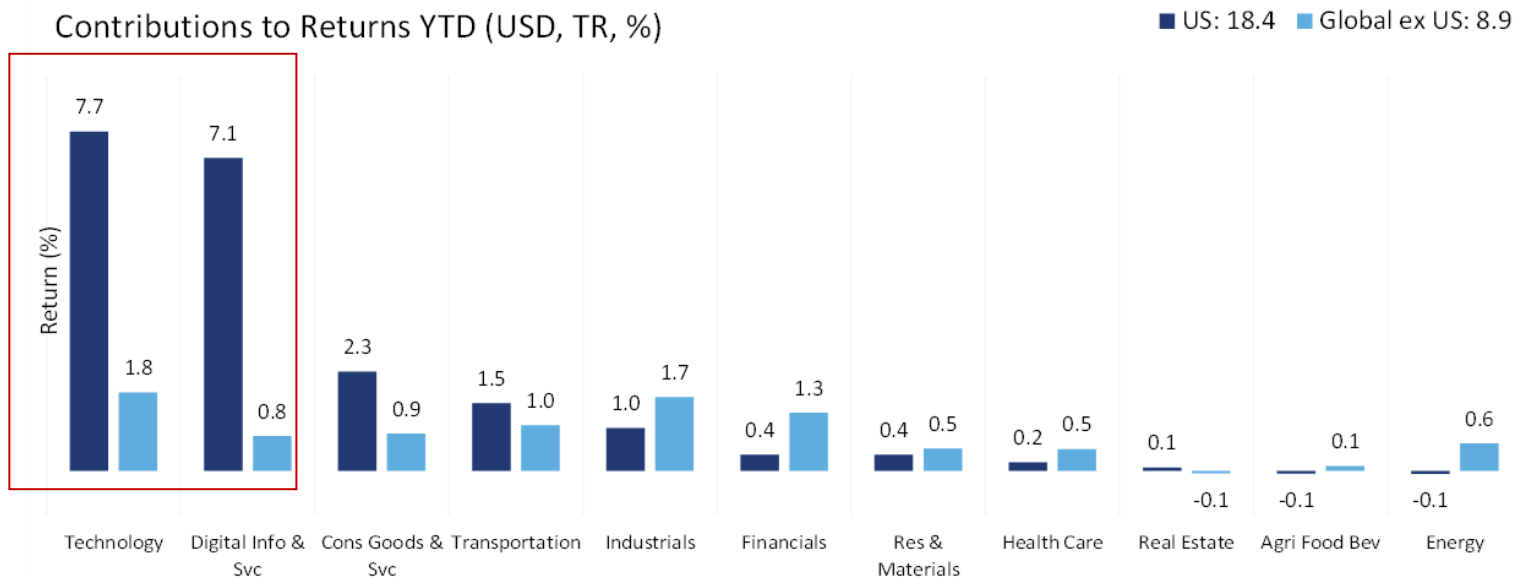


YTD-US vs Global ex US sector returns and sector-weighted contributions: US technology and digital info sectors drive outperformance vs global peers

US vs Global ex US YTD Sector Returns: US (dark blue) technology, transportation and digital information sectors are the standout performers and have comfortably outperformed Global ex US (light blue) YTD. Global ex US energy, industrials, health care and financials have outperformed the US.



YTD US vs Global ex US Sector Weighted regional contribution analysis: The superior positive contribution from technology and digital information remain the key drivers of US outperformance vs Global ex US so far in 2023, more than offsetting the smaller contributions from financials, industrials and energy.



Regional level sector weights and returns: 1M and YTD 2023

August 2023 regional sector average weights and returns– Comparing sector weights of the US vs the Global ex US, the US is overweight digital information, technology and health care. The Global ex US is overweight financials, resources and materials and energy.

1 Month	US		Global ex US		UK		EU ex UK		Japan		AP ex Japan		China	
	Return	Wght	Return	Wght	Return	Wght	Return	Wght	Return	Wght	Return	Wght	Return	Wght
Health Care	-0.1	11.6	-1.8	8.3	-4.6	12.8	0.1	15.0	-2.0	5.9	-4.3	4.7	-8.0	5.9
Industrials	-0.2	7.0	-4.1	9.6	-1.0	12.1	-5.3	13.3	-3.0	15.8	-5.5	4.3	-9.7	2.7
Energy	-1.0	7.0	-1.6	8.6	0.0	16.1	-2.1	8.0	4.0	1.8	-5.0	6.2	-7.1	5.5
Digital Info & Svc	-1.3	19.0	-2.9	10.7	-3.9	4.5	-1.4	5.9	-1.3	27.8	-5.3	9.6	-8.7	21.5
Cons Goods & Svc	-1.4	11.9	-5.6	10.8	-3.7	16.4	-6.9	12.4	-1.8	7.9	-6.5	9.9	-8.7	24.6
Technology	-1.7	15.2	-5.4	7.9	-6.8	0.6	-8.2	5.9	-4.1	9.7	-4.7	14.1	-6.1	3.3
Real Estate	-3.3	2.9	-3.7	2.7	-4.3	2.4	-1.6	1.1	0.6	3.5	-6.2	3.8	-9.2	3.5
Financials	-3.3	14.7	-5.1	22.3	-7.0	18.9	-3.7	17.6	-2.1	9.1	-5.4	31.0	-11.0	16.2
Res & Materials	-3.5	3.7	-5.3	8.4	-6.6	6.7	-4.2	8.3	-2.2	5.3	-6.0	8.4	-10.1	3.7
Agri Food Bev	-4.1	3.2	-2.7	4.7	-2.9	8.2	-2.9	6.7	2.0	2.8	-4.8	2.6	-7.1	4.6
Transportation	-5.5	3.8	-4.9	6.1	-5.7	1.2	-7.5	5.9	0.6	10.3	-7.1	5.5	-11.9	8.4
Market Return	-1.8		-4.1		-3.7		-4.0		-1.6		-5.7		-9.2	

YTD 2023 regional sector average weights and returns: Comparing YTD sector returns, the US has seen significant outperformance in technology, transportation and digital info. US industrials, health care, financials and energy have all underperformed Global ex US.

YTD	US		Global ex US		UK		EU ex UK		Japan		AP ex Japan		China	
	Return	Wght	Return	Wght	Return	Wght	Return	Wght	Return	Wght	Return	Wght	Return	Wght
Technology	54.2	14.2	21.8	8.2	7.0	0.6	19.0	6.0	23.4	11.1	22.7	15.0	-3.0	3.4
Transportation	43.0	3.6	16.7	6.2	22.5	1.0	22.4	5.7	21.8	11.3	11.0	5.8	12.0	7.4
Digital Info & Svc	39.3	18.2	8.7	9.1	7.5	4.8	18.9	5.9	7.2	17.6	5.3	10.5	3.3	20.8
Cons Goods & Svc	19.1	11.8	7.5	11.4	12.3	16.1	17.6	12.4	5.8	9.3	-5.9	11.2	-11.0	24.3
Industrials	13.6	7.2	17.1	9.8	24.8	11.5	14.6	13.3	20.4	17.7	12.6	4.6	-4.0	2.7
Res & Materials	10.0	3.7	5.6	9.1	-8.7	7.4	12.4	8.4	16.6	6.1	4.0	9.3	-10.9	3.9
Real Estate	2.5	3.1	-1.8	3.0	1.4	2.5	0.5	1.2	0.9	4.2	-7.0	4.5	-14.1	3.7
Financials	2.4	15.2	6.5	20.4	12.4	18.8	14.5	17.4	10.6	10.3	-0.4	24.0	-2.5	16.7
Health Care	1.6	12.2	5.7	8.7	2.7	12.8	13.4	14.6	-2.9	7.3	-6.4	5.4	-21.1	6.5
Energy	-0.9	7.4	7.0	8.9	12.7	16.0	5.9	8.2	19.7	1.9	0.6	6.8	0.9	5.7
Agri Food Bev	-1.8	3.4	2.2	5.1	-3.9	8.5	6.7	7.0	11.0	3.2	-5.8	3.0	-13.4	4.9
Market Returns	18.4		8.9		8.8		13.8		12.5		-1.6		-5.1	

Source: Wilshire. Data as of August 31, 2023

Wilshire Advisors LLC - Performance Report (August 2023)

Regional sector sector-weighted performance contribution comparisons: 1M and YTD 2023

Regional sector-weighted contributions to August returns: Smaller negative contributions from industrials, resources and materials, consumer goods and financials help drive US outperformance vs Global ex US in August.

1M	US	Global ex US	UK	EU ex UK	Japan	AP ex Japan	China
	Contr	Contr	Contr	Contr	Contr	Contr	Contr
Industrials	0.0	-0.4	-0.1	-0.7	-0.5	-0.2	-0.3
Health Care	0.0	-0.1	-0.6	0.0	-0.1	-0.2	-0.5
Energy	-0.1	-0.1	0.0	-0.2	0.1	-0.3	-0.4
Real Estate	-0.1	-0.1	-0.1	0.0	0.0	-0.2	-0.3
Agri Food Bev	-0.1	-0.1	-0.2	-0.2	0.1	-0.1	-0.3
Res & Materials	-0.1	-0.4	-0.4	-0.3	-0.1	-0.5	-0.4
Cons Goods & Svc	-0.2	-0.6	-0.6	-0.9	-0.1	-0.6	-2.1
Transportation	-0.2	-0.3	-0.1	-0.4	0.1	-0.4	-1.0
Digital Info & Svc	-0.3	-0.3	-0.2	-0.1	-0.4	-0.5	-1.9
Technology	-0.3	-0.4	0.0	-0.5	-0.4	-0.7	-0.2
Financials	-0.5	-1.1	-1.3	-0.7	-0.2	-1.7	-1.8
Market Return	-1.8	-4.1	-3.7	-4.0	-1.6	-5.7	-9.2

Regional sector-weighted contributions to YTD returns: The superior positive contributions from US technology and digital info have been the biggest drivers of US outperformance vs Global ex US in 2023.

YTD	US	Global ex US	UK	EU ex UK	Japan	AP ex Japan	China
	Contr	Contr	Contr	Contr	Contr	Contr	Contr
Technology	7.7	1.8	0.0	1.1	2.6	3.4	-0.1
Digital Info & Svc	7.1	0.8	0.4	1.1	1.3	0.6	0.7
Cons Goods & Svc	2.3	0.9	2.0	2.2	0.5	-0.7	-2.7
Transportation	1.5	1.0	0.2	1.3	2.5	0.6	0.9
Industrials	1.0	1.7	2.8	2.0	3.6	0.6	-0.1
Financials	0.4	1.3	2.3	2.5	1.1	-0.1	-0.4
Res & Materials	0.4	0.5	-0.6	1.0	1.0	0.4	-0.4
Health Care	0.2	0.5	0.3	1.9	-0.2	-0.3	-1.4
Real Estate	0.1	-0.1	0.0	0.0	0.0	-0.3	-0.5
Agri Food Bev	-0.1	0.1	-0.3	0.5	0.4	-0.2	-0.6
Energy	-0.1	0.6	2.0	0.5	0.4	0.0	0.1
Market Returns	18.4	8.9	8.8	13.8	12.5	-1.6	-5.1

Regional Equities : Contribution to returns from top 10 largest stocks by market cap and sector performance dispersion

Chart 1: Largest contribution to 3m returns from top 10 largest stocks largest in UK and Japan

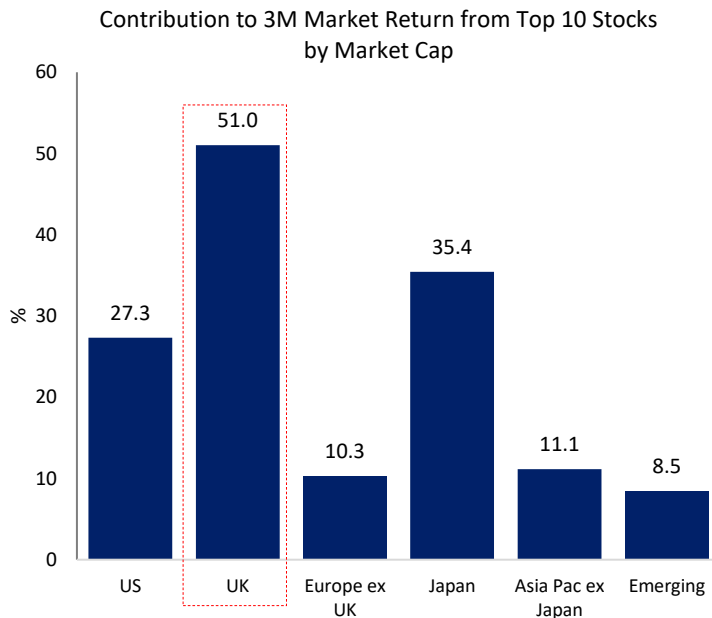


Chart 2: Year to date the top 10 stocks have contributed 69.4% of the FT Wilshire US return

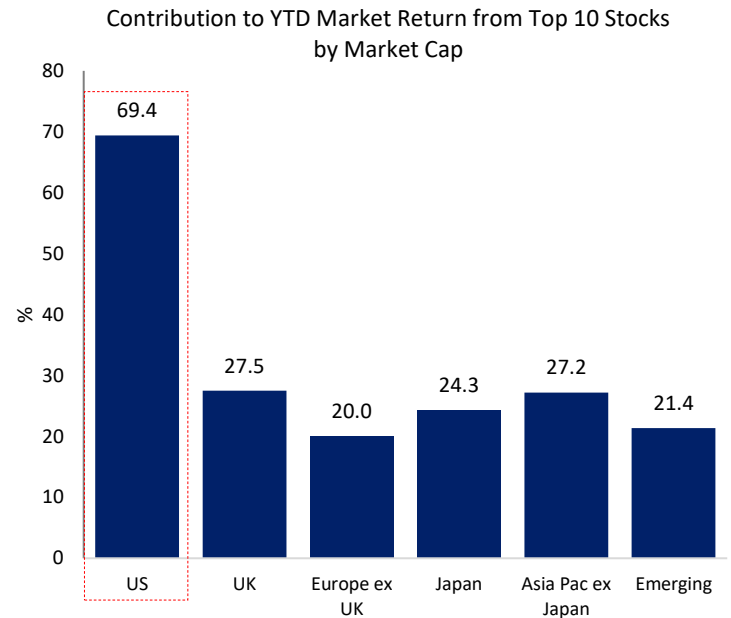


Chart 3: 3m vs YTD FT Wilshire regional index sector dispersion-US, UK, Europe ex UK and Japan

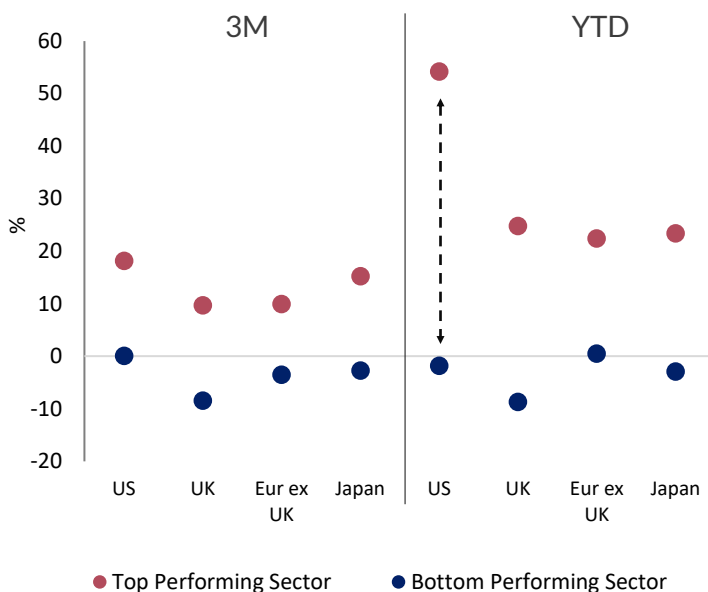
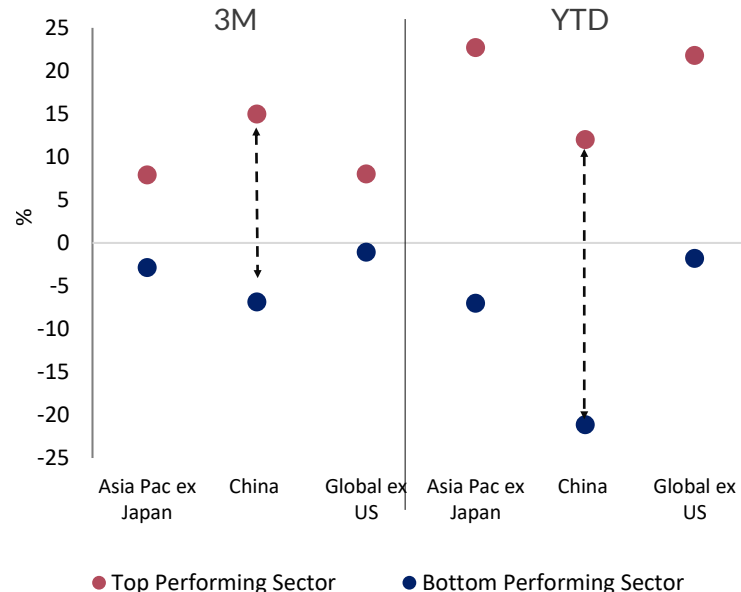


Chart 4: 3m vs YTD FT Wilshire regional index sector dispersion-Asia Pacific ex Japan, China and Global ex US



Technical analysis: FT Wilshire Europe ex UK relative performance sees 'Death Cross' negative moving average intersect pattern

Chart 1: FT Wilshire Europe ex UK relative performance witnessed a 'Death Cross' moving average intersect pattern on 31st July

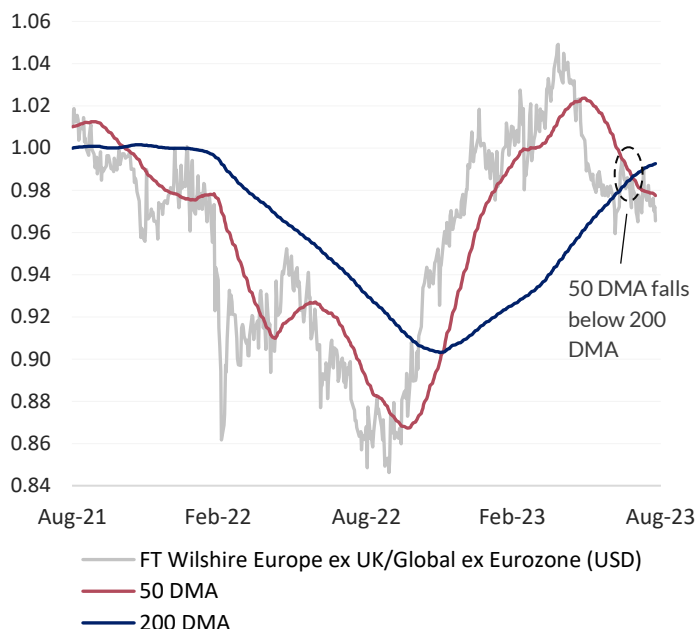


Chart 2: FT Wilshire regional index 50DMA vs 200DMA positioning-US only market to display widening (positive) moving average spread vs three months ago

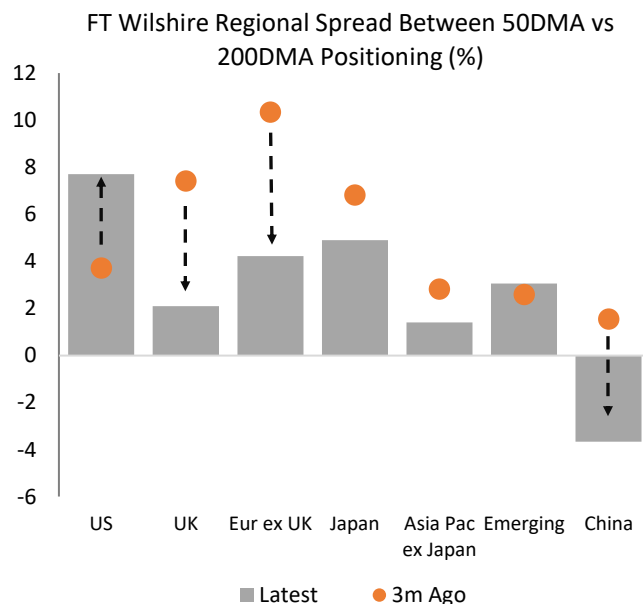


Chart 3: FT Wilshire regional index Relative Strength Indexes (RSI) vs 1m ago-US eases back from an overbought RSI signal in July

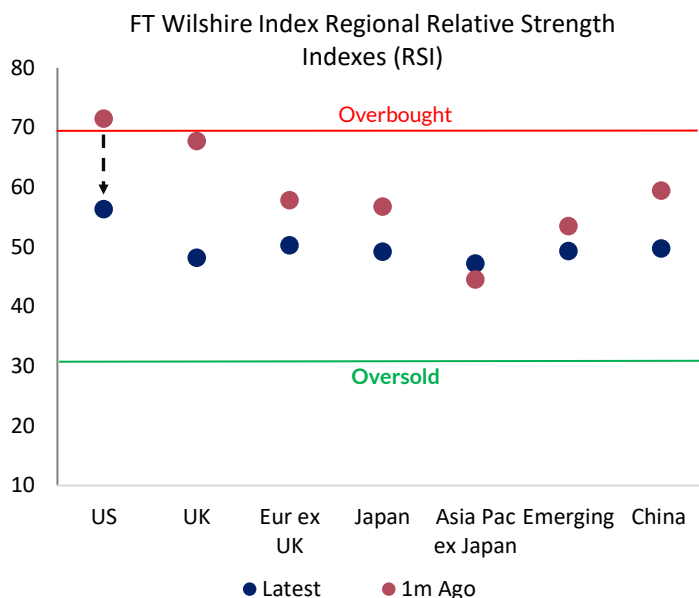
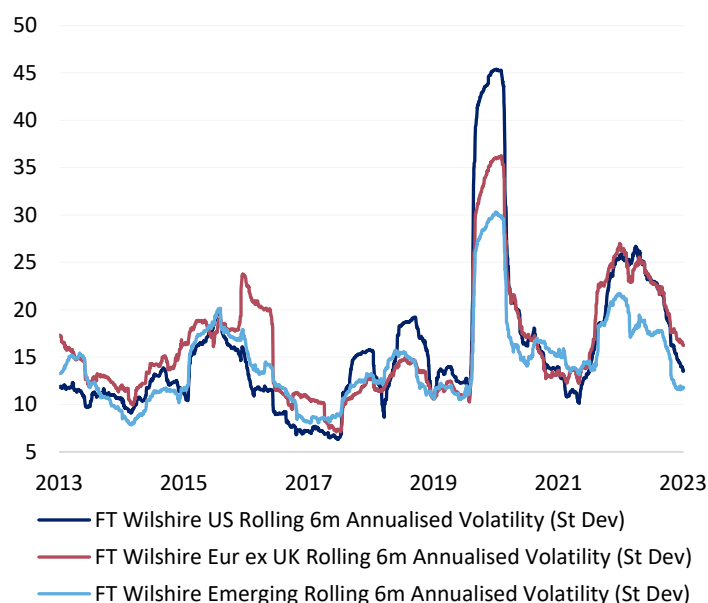
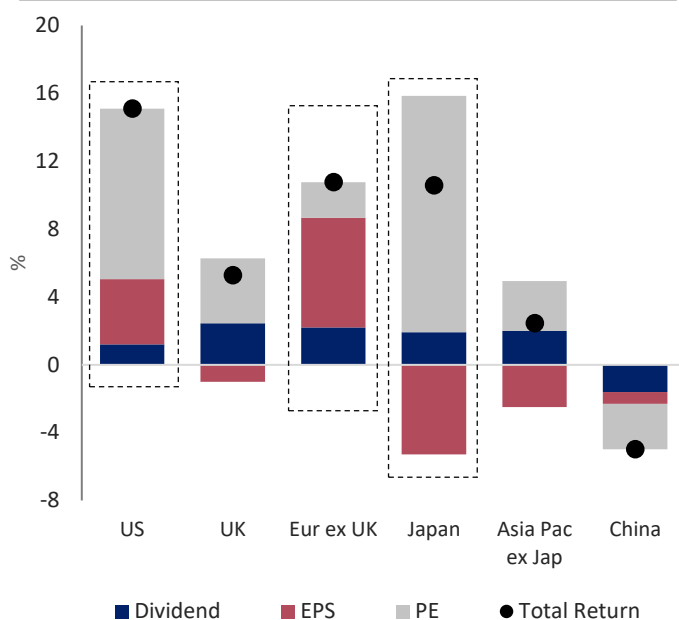


Chart 4: Regional volatility (rolling 6m annualised) has declined but remains above pre-Covid levels



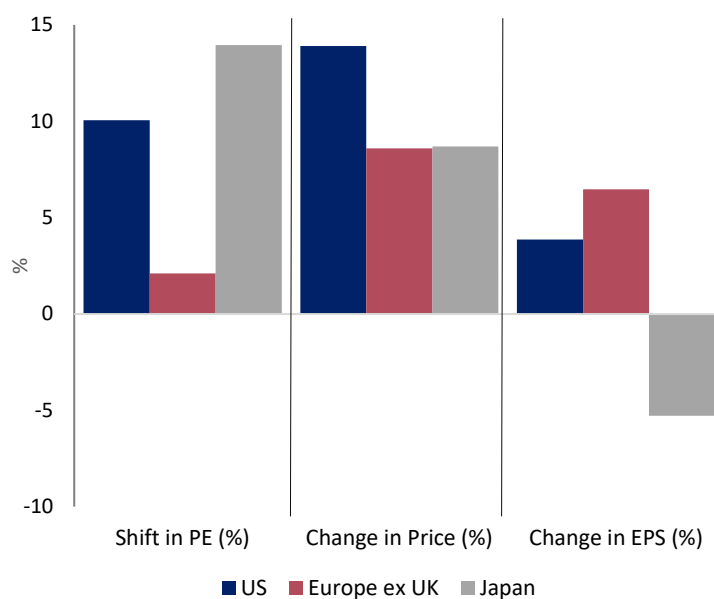
Perspectives: Breaking down regional YTD total returns and 12m forward PE, regional largest sector price vs EPS profiles and developed/emerging returns

Chart 1-Regional YTD total return decomp-PE
expansion drives returns in US and Japan. Europe ex UK sees large rise in EPS so far in 2023.



*Based on Factset data

Chart 2-US, Europe ex UK and Japan 12m Forward PE decomp-Japan sees 'low quality' re-rating compared to Europe ex UK where EPS has kept pace with price



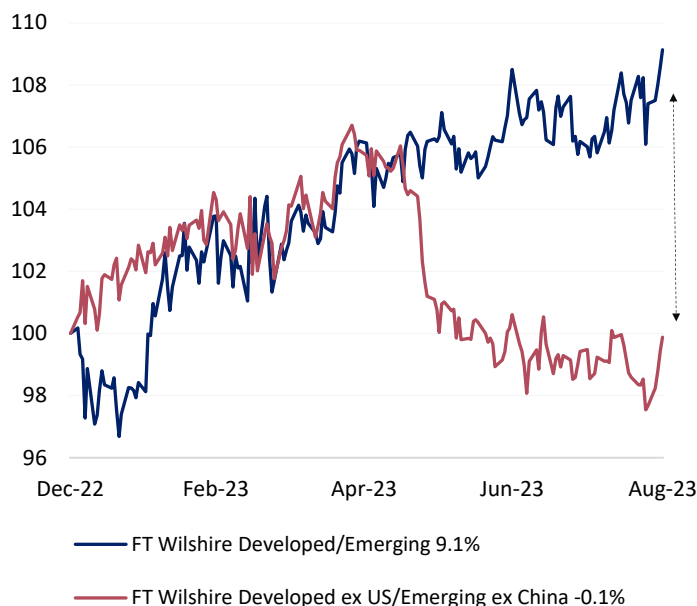
*Based on Factset data

Chart 3-Comparing regional largest sector three month change in price vs three month EPS revisions (12m forward)-US tech and Europe financials display the best profiles

Regional Largest Sector 3m Chg in Price vs 3m Chg in 12m Forward EPS Estimates*		
	3m % Chg in Price	3m % Chg in EPS
US Technology Services	4.3	6.9
UK Financials	-3.8	-0.8
Europe ex UK Financials	3.7	10.9
Japan Industrials	-1.3	0.2
Asia Pac ex Japan Financials	-4.0	-2.7
Emerging Financials	4.2	3.4
China Cons Goods	-3.4	-2.4
Global ex US Financials	-0.1	1.2

*Based on FactSet data

Chart 4-FT Wilshire Developed/Emerging YTD performance-Large difference in Developed/Emerging performance when excluding the US and China



Source: Wilshire and FactSet. Data as of August 31, 2023

Market Capitalization of major markets and Regional sector weighting comparisons

Chart 1: Markets size (USD, Bn) and weights - Top 12 countries

	Latest	% Global Index	10Y Ago	% Global Index
USA	42,885	59.3	17,771	48.7
Japan	4,898	6.8	2,695	7.4
UK	2,529	3.5	2,790	7.6
India	2,461	3.4	346	0.9
Canada	2,135	3.0	1,453	4.0
China	1,997	2.8	824	2.3
Switzerland	1,867	2.6	1,222	3.3
France	1,820	2.5	1,182	3.2
Australia	1,332	1.8	1,093	3.0
Germany	1,320	1.8	1,104	3.0
Taiwan	1,256	1.7	487	1.3
Korea	952	1.3	618	1.7
Global	72,302		36,499	

Chart 2: Markets size (USD, Bn) and weights - Regions as % of Global Index

	Latest	% Global Index	10Y Ago	% Global Index
Developed	63,308	87.6	32,404	88.8
USA	42,885	59.3	17,771	48.7
Asia Pacific ex Japan	9,218	12.7	4,533	12.4
Emerging	8,994	12.4	4,095	11.2
Europe ex UK	8,824	12.2	6,192	17.0
Japan	4,898	6.8	2,695	7.4
UK	2,529	3.5	2,790	7.6
China	1,997	2.8	824	2.3
Global	72,302		36,499	

Chart 3: Markets size (USD, Bn) and weights - Developed and Emerging markets

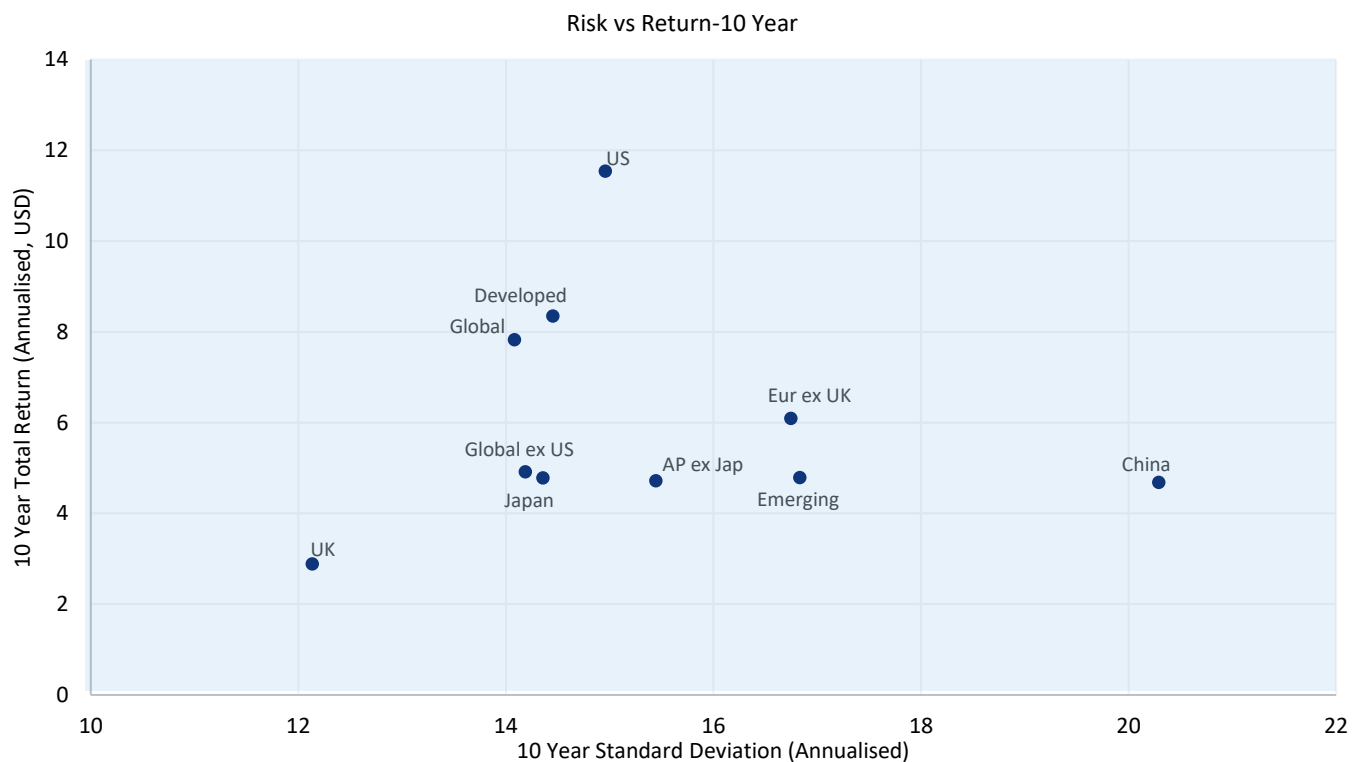
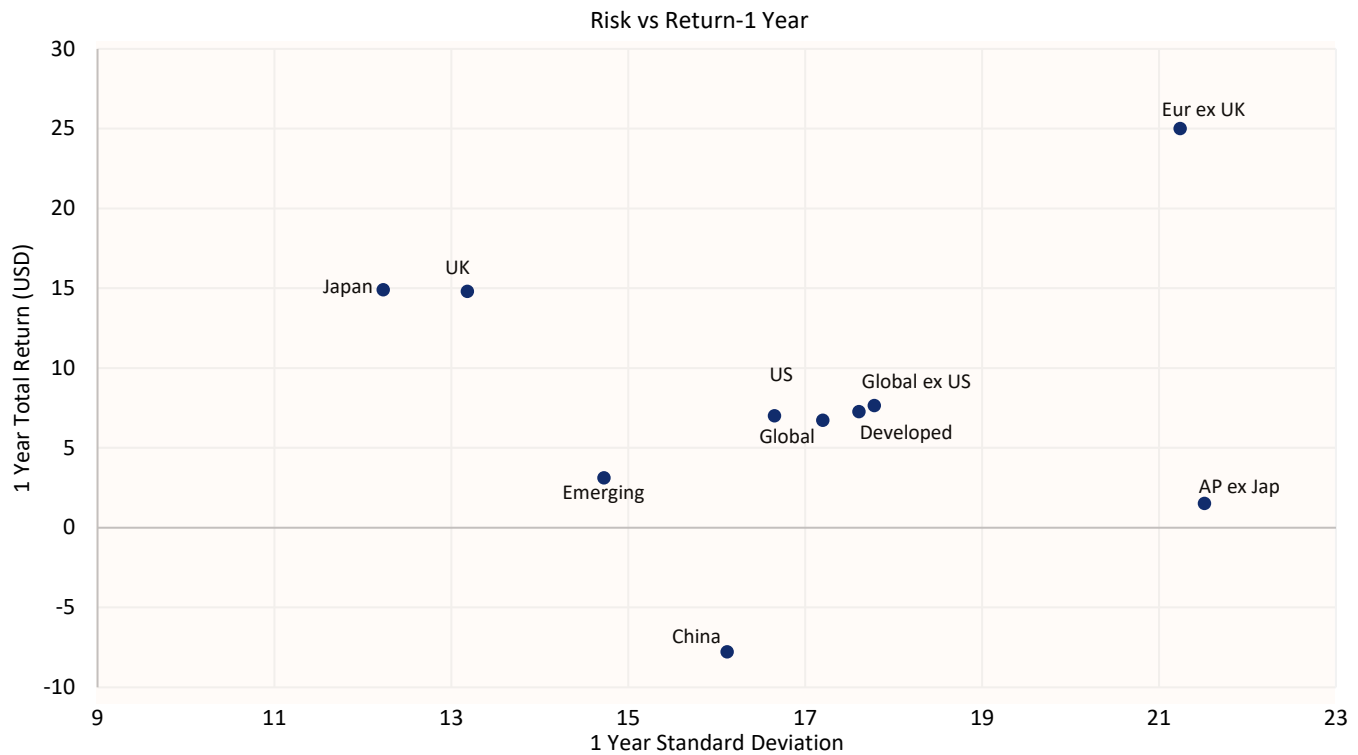
Developed	Latest	% Developed	10Y Ago	% Developed
USA	42,885	67.5	17,771	54.6
Japan	4,898	7.7	2,695	8.3
UK	2,529	4.0	2,790	8.6
Canada	2,135	3.4	1,453	4.5
Switzerland	1,867	2.9	1,222	3.8
Developed	63,517		32,524	

Emerging	Latest	% Emerging	10Y Ago	% Emerging
India	2,471	27.3	346	8.9
China	2,008	22.2	824	21.1
Taiwan	1,262	13.9	487	12.5
Korea	952	10.5	618	15.9
Saudi Arabia	423	4.7	#N/A	#N/A
Emerging	9,052		3,897	

Chart 4: Markets size (USD, Bn) - US vs Global ex US sectors

	US		Global ex US	
	Latest	%	Latest	%
Sector				
Digital Info	8,279	19.3	3,100	10.8
Technology	6,720	15.7	2,279	7.9
Financials	6,166	14.4	6,385	22.2
Consumer Good	5,064	11.8	3,076	10.7
Healthcare	4,907	11.4	2,407	8.4
Industrials	3,007	7.0	2,729	9.5
Energy	2,981	7.0	2,514	8.7
Transportation	1,620	3.8	1,745	6.1
Res & Materials	1,572	3.7	2,392	8.3
Agriculture	1,338	3.1	1,365	4.7
Real Estate	1,232	2.9	788	2.7
	42,885		27,992	

Risk vs Return: Regional equities 1 year and 10 years



Source: Wilshire and Refinitiv. Data as of August 31, 2023

Fixed Income and FX

1

48bps

3 month rise in US 10-year yield

2

-89bps

Decline in US high yield corporate spread over the last 3 month

3

+1.7%

Rise in DXY dollar index in August

4

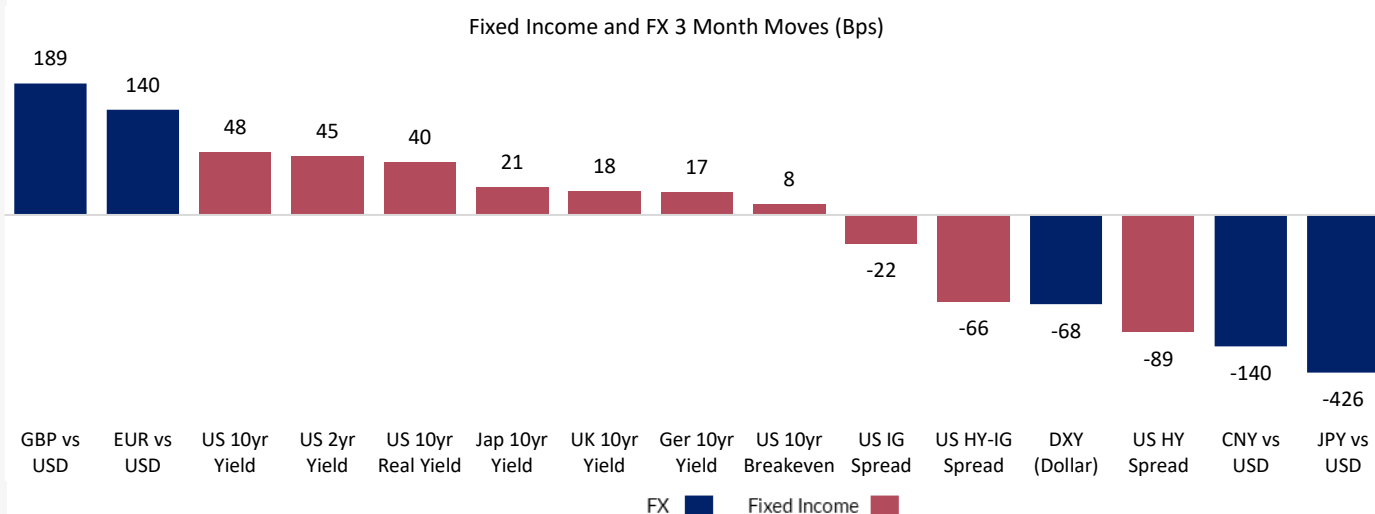
-9.3%

Decline in JPY vs USD YTD

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- 32 Regional spot rate returns

Moves in key FX and fixed income markets over the last 3 months



Source: Refinitiv and Factset. Data as of August 31, 2023

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	1M	31-Dec-22	YTD	1M
UK (1-3yr)	5.0	5.1	3.6	5.6	-1.0
Italy (1-3yr)	3.7	3.7	3.2	3.6	-1.2
EURO* (1-3yr)	3.1	3.2	2.4	2.6	-1.2
US (1-3yr)	5.1	5.0	4.4	1.7	0.4
Can (1-3yr)	4.8	4.7	3.9	1.3	-2.3
China (1-3yr)	2.1	2.0	2.3	-2.6	-1.8
Aus (1-3yr)	3.9	4.0	3.3	-3.3	-3.3
Japan (1-3yr)	0.0	-0.1	0.0	-9.3	-2.5

Chart 2: 7-10 year government bond returns

USD (TR, %)	Yields			Returns	
	Latest	1M	31-Dec-22	YTD	1M
Italy (7-10yr)	4.0	3.9	4.3	8.5	-1.3
EURO* (7-10yr)	2.5	2.4	2.4	4.0	-1.1
UK (7-10yr)	4.4	4.2	3.6	3.2	-1.5
US (7-10yr)	4.2	3.9	3.7	0.3	-0.7
Can (7-10yr)	3.8	3.5	3.2	-0.3	-2.9
China (3-5yr)	2.3	2.3	2.6	-1.8	-1.8
Aus (7-10yr)	4.1	4.0	3.8	-1.9	-3.3
Japan (7-10yr)	0.5	0.3	0.4	-9.2	-2.6

Chart 3: Inflation Linked bond returns

USD (TR, %)	Yields			Returns	
	Latest	1M	31-Dec-22	YTD	1M
Italy IL (All)	1.8	1.7	1.9	8.5	-2.0
UK IL (5-10yr)	0.9	0.7	0.2	6.7	-1.8
EURO* IL (5-10yr)	1.0	1.0	0.8	5.4	-1.8
US IL (5-10yr)	2.0	1.7	1.6	0.9	-1.2
Aus IL (All)	1.3	1.4	0.6	0.9	-3.3
Can IL (All)	2.0	1.7	1.3	-5.1	-4.2
Japan* IL (5-10yr)	-0.7	-0.9	-0.6	-6.6	-2.6

Chart 4: Investment grade & high yield returns

USD (TR, %)	Yields			Returns	
	Latest	1M	31-Dec-22	YTD	1M
UK HY (All)	10.5	10.3	10.3	12.9	-1.2
EURO HY (All)	7.5	7.4	7.6	7.6	-1.3
US HY (All)	8.7	8.4	8.7	7.2	0.3
UK IG (All)	6.4	6.3	5.7	6.6	-1.7
EURO IG (All)	4.4	4.3	4.1	5.0	-1.4
US IG (All)	5.8	5.5	5.4	3.0	-0.7
Japan BBB (All)	1.4	1.3	1.6	-7.6	-2.5
Japan IG (All)	0.8	0.7	0.9	-8.4	-2.6

Fixed Income key observations: August 2020 to date is the second largest increase in the US 10-year yield in over 40 years and longest in duration

Chart 1: Regional 10-year bond yields from the post-Covid low in August 2020. US briefly hits the highest level since November 2007

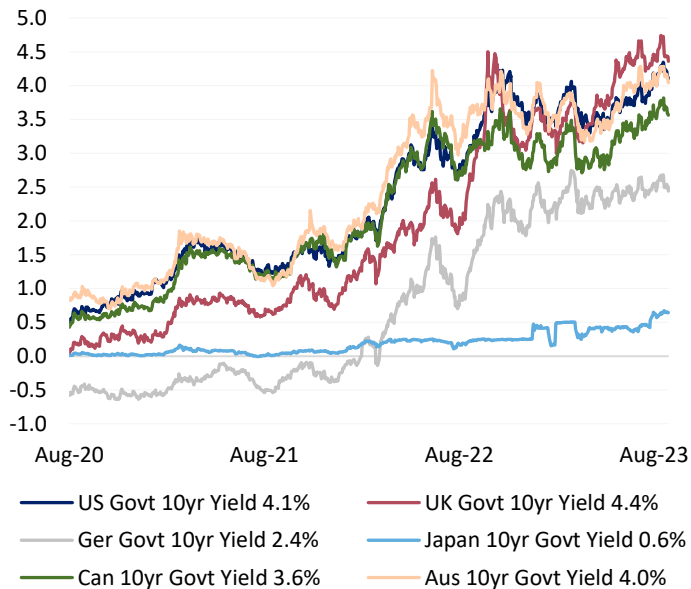


Chart 2: At 36 months the rise in the US 10 year yield from the August 2020 low is the longest consecutive rise in over 40 years

Periods of Rising US 10-Year Bond Yields (>150 Bps)

	Trough to Peak Increase (Bps)	Duration (Months)
Jun 1980-Sept 1981	639	15
Aug 2020-Date	369	36
Apr 1983-May 1984	363	13
Aug 1986-Sept 1987	267	13
Oct 1993-Nov 1994	253	13
Sept 1998-Jan 2000	225	16
Jul 2016-Oct 2018	170	27
Dec 2008-Mar 2010	158	15
Jul 2012-Dec 2013	152	17

Chart 3: Rise in US, UK and German 10 year yields from the recent April low have almost entirely been driven by a rise in real yields

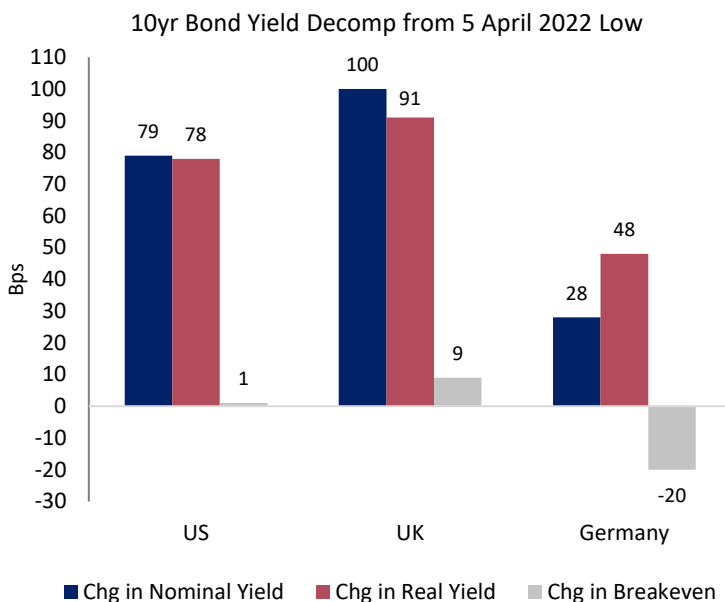
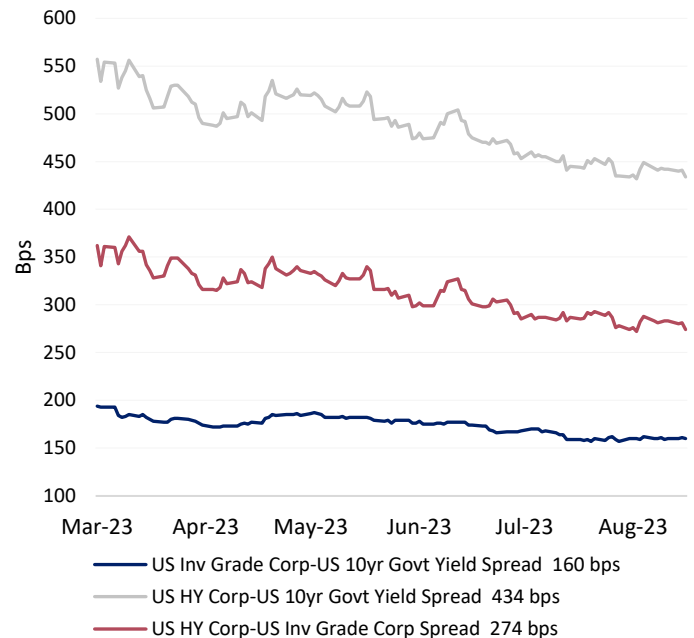


Chart 4: US corporate spreads have continued to narrow from the March peak, most notably in high yield which have declined by 123 bps



FX return perspectives: DXY dollar index makes further gains in August aided by continued Japanese Yen weakness

Chart 1: The DXY dollar rose further in August and is now up 3.9% from the recent 13 July low

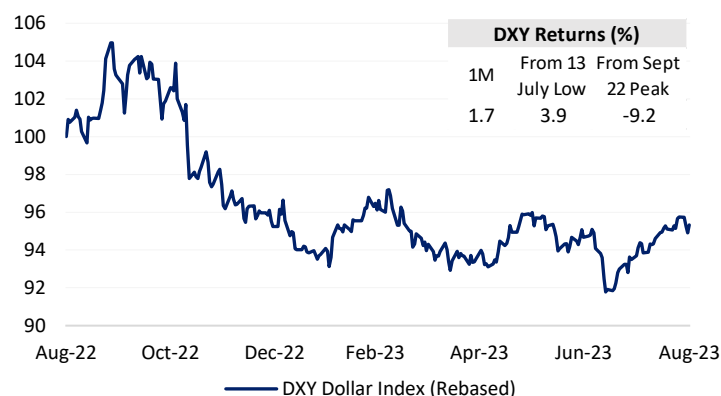


Chart 2: Long term view of the DXY Dollar Index

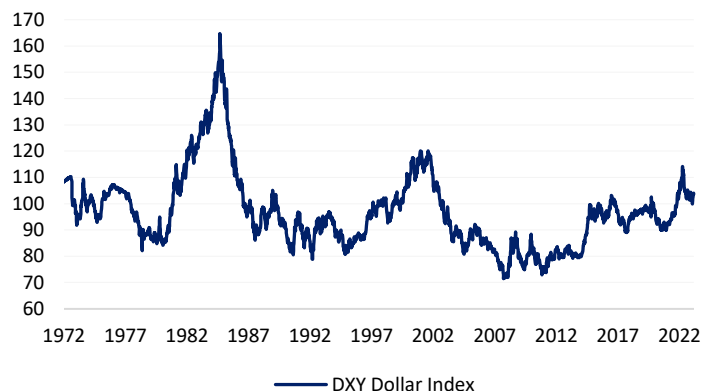


Chart 3: Regional Real Effective Exchange Rate returns-12 months (rebased)

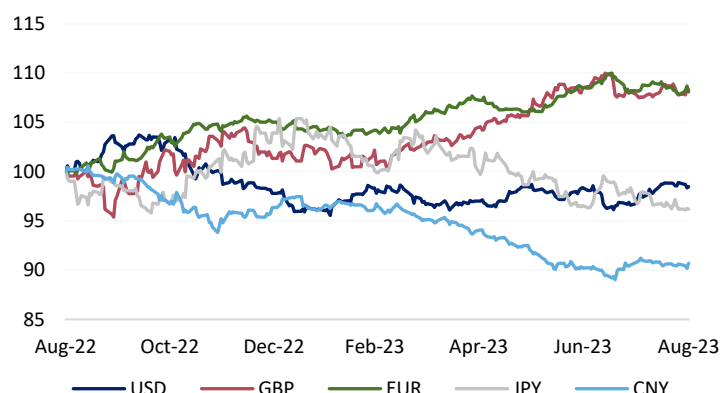


Chart 4: Regional Real Effective Exchange Rate returns over 10 years (rebased)

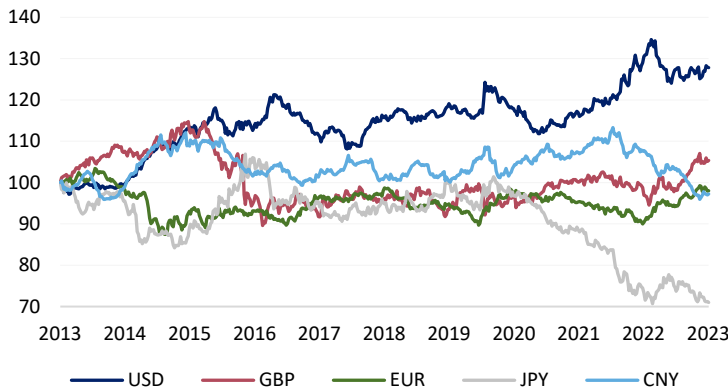


Chart 5: USD returns vs JPY, Euro, GBP and Renminbi spot rate-12 months (rebased)

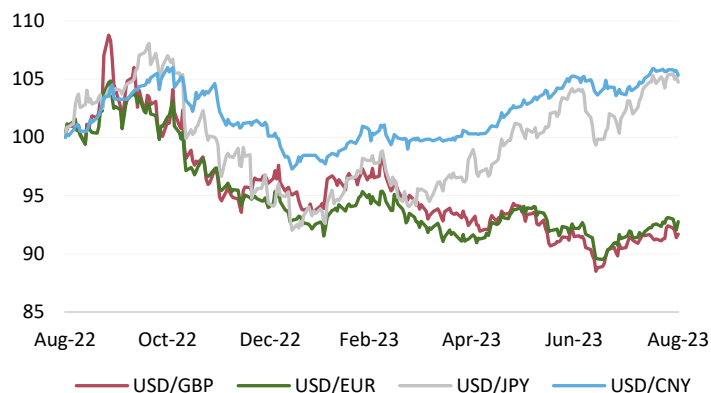
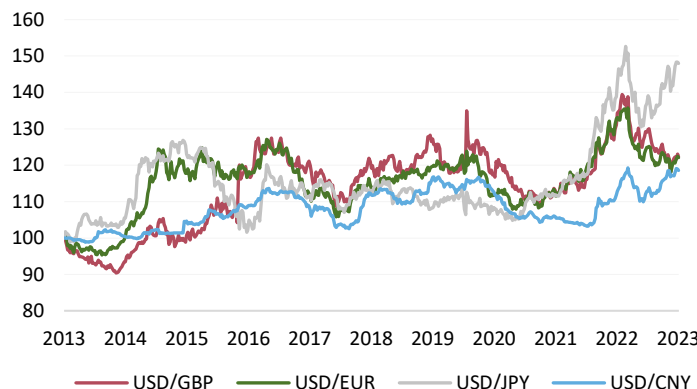


Chart 6: USD returns vs JPY, Euro, GBP and Renminbi spot rate returns over 10 years (rebased)



FX spot rate returns from a regional perspective

The dollar made ground against most major currencies in August, most notably the Japanese Yen. The Yen has fallen to its lowest level against the dollar since November 2022, largely driven by the Bank of Japanese still extremely dovish stance relative to other major central banks.

Moves vs USD (TR, %)	1M	3M	YTD	12M
CNY	-0.7	-1.4	-3.0	-4.1
GBP	-1.3	1.9	4.8	9.1
CHF	-1.3	3.1	4.7	10.7
EUR	-1.4	1.4	1.3	7.8
CAD	-2.4	0.5	0.3	-2.8
JPY	-3.5	-4.3	-9.3	-5.1
AUD	-3.5	-0.3	-4.8	-5.2

Moves vs EUR (TR, %)	1M	3M	YTD	12M
USD	1.4	-1.4	-1.3	-7.8
GBP	0.1	0.4	3.6	0.9
CNY	0.0	-3.7	-6.4	-11.9
CHF	-0.3	1.7	3.0	2.4
CAD	-1.0	-0.9	-1.0	-9.8
JPY	-1.6	-6.0	-11.3	-12.5
AUD	-2.4	-1.7	-6.1	-12.5

Moves vs CNY (TR, %)	1M	3M	YTD	12M
CAD	0.8	-2.5	-5.2	-2.4
USD	0.7	1.4	3.0	4.1
GBP	0.3	5.0	9.9	14.5
EUR	0.0	3.8	6.8	13.5
CHF	-0.1	5.5	10.1	16.1
JPY	-0.7	-2.3	-5.5	0.6
AUD	-2.4	1.9	0.4	-0.8

Moves vs AUD (TR, %)	1M	3M	YTD	12M
USD	3.5	0.3	4.8	5.2
GBP	2.4	2.1	9.3	13.3
CNY	2.4	-1.9	-0.4	0.8
EUR	2.4	1.7	6.1	12.5
CAD	1.1	0.8	5.4	2.5
JPY	-0.9	-4.1	-5.8	0.4

Moves vs GBP (TR, %)	1M	3M	YTD	12M
USD	1.3	-1.9	-4.8	-9.1
EUR	0.0	-0.4	-3.5	-0.9
CNY	-0.3	-4.8	-9.0	-12.7
CHF	-0.4	1.2	-0.6	1.5
CAD	-1.1	-1.4	-4.3	-10.9
AUD	-2.4	-2.1	-9.3	-13.3
JPY	-2.5	-6.6	-13.9	-12.9

Moves vs JPY (TR, %)	1M	3M	YTD	12M
USD	3.5	4.3	9.3	5.1
CHF	2.8	7.9	15.8	16.9
GBP	2.5	6.6	13.9	12.9
EUR	1.6	6.0	11.3	12.5
AUD	0.9	4.1	5.8	-0.4
CNY	0.7	2.3	5.5	-0.6
CAD	-0.1	5.0	11.4	1.8

Moves vs CHF (TR, %)	1M	3M	YTD	12M
USD	1.3	-3.1	-4.7	-10.7
GBP	0.4	-1.2	0.6	-1.5
EUR	0.3	-1.7	-3.0	-2.4
CNY	0.1	-5.5	-10.1	-16.1
CAD	-1.1	-2.5	-4.2	-12.2
JPY	-2.8	-7.9	-15.8	-16.9

Trade Weighted (TR, %)	1M	3M	YTD	12M
DXY	1.7	-0.7	0.1	-4.7
CNY	0.1	-1.6	-3.2	-5.6
GBP	-0.2	2.3	6.1	6.0
EUR	-0.3	1.1	1.4	4.8
JPY	-1.5	-4.1	-8.2	-4.7
AUD	-2.3	0.3	-2.8	-5.8

Source: Refinitiv. Data as of August 31, 2023

Alternatives: Commodity, digital asset, REITS and absolute return asset categories

1

-6.3%

Decline in Agricultural commodities in August

2

+7.0%

YTD rise in gold price

3

+12.9%

Return of the Wilshire US Industrial REITS YTD

4

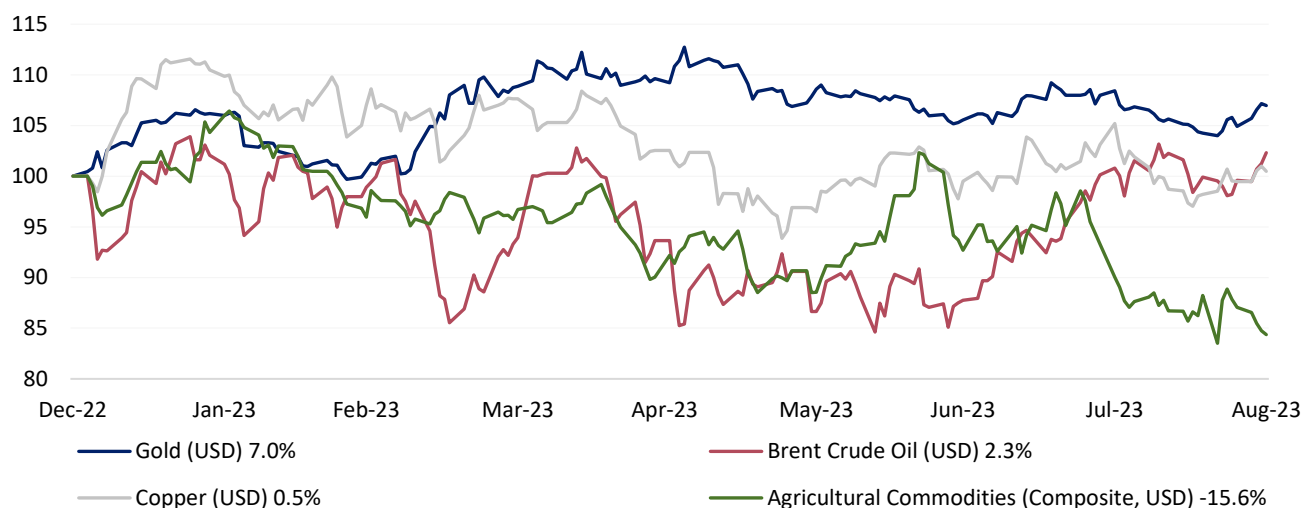
+47.0%

Rise in the FT Wilshire Digital assets index in YTD

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- 34 Commodities
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- 37 Digital Assets
- 38 Risk/return analysis

Commodity prices (rebased): Year to date movements in gold, copper, oil and agricultural commodities



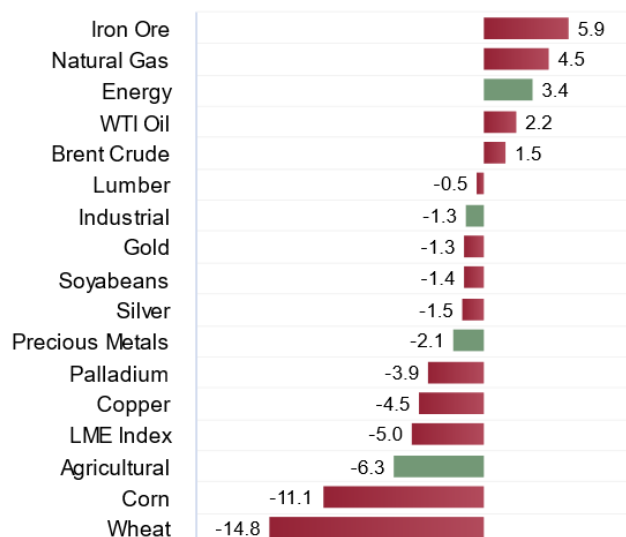
Source: Wilshire and Refinitiv. Data as of August 31, 2023

Wilshire Advisors LLC - Performance Report (August 2023)

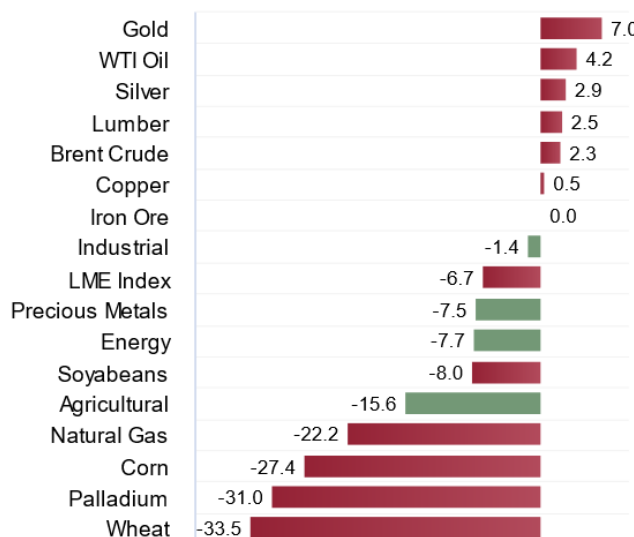
Commodities: Rising USD and bond yields take some of the shine off gold

Gold declined in August as the dollar and bond yields rose but has still delivered positive returns YTD. The rally in the oil continued in August as supply cuts and the expectation of Chinese economic stimulus helped to support prices. Iron Ore also spiked higher on the prospect of stimulus measures to support the large Chinese real estate sector.

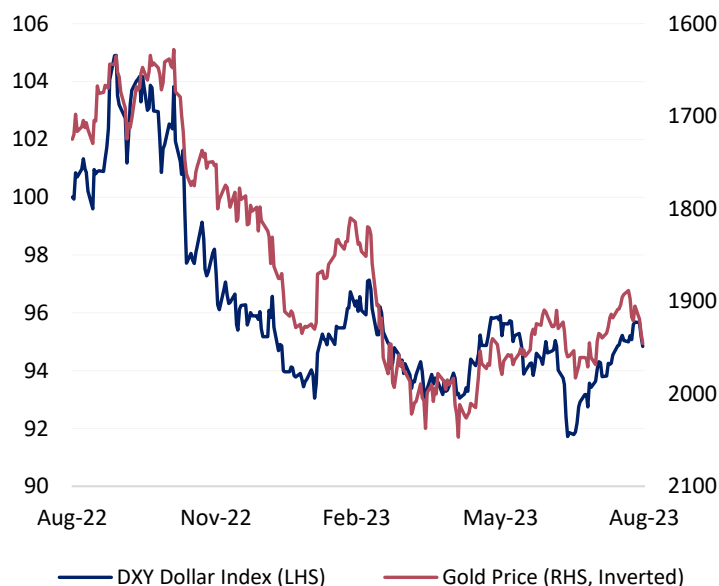
1M USD (TR, %)



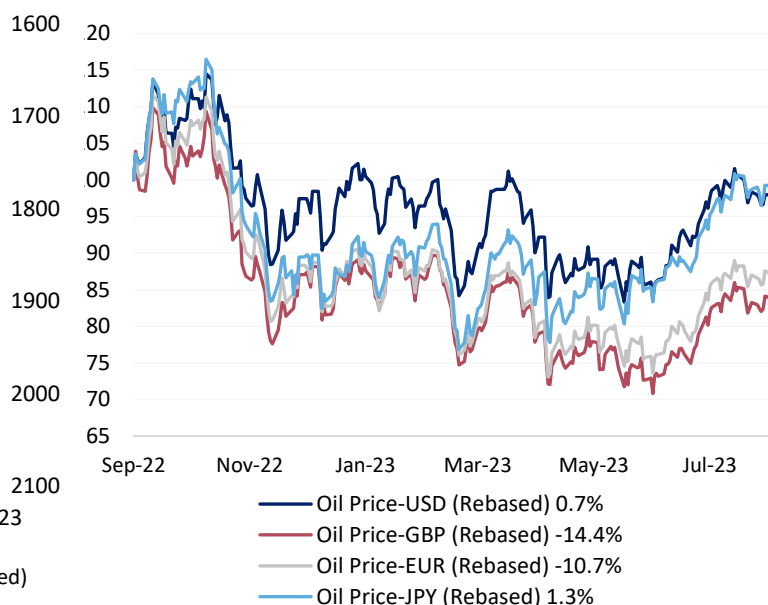
YTD USD (TR, %)



The gold price has seen a negative correlation with the DXY dollar index over the past 12 months



Oil price move adjusted for different FX impact since the peak in the dollar on 27 September 2022



Property (Wilshire REIT indexes): Declines in US REITs in August led by manufactured homes. US REITs significantly outperforming Non-US REITs YTD.

Despite a month-end rally US REITs declined in August but continue to outperform Non-US REITs YTD. Within US sectors, self-storage and manufactured homes underperformed. Industrials outperformed and remains the strongest performer YTD. Office REITs have significantly underperformed.

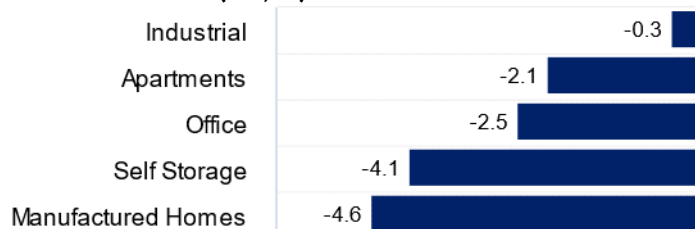
1M USD (TR, %)



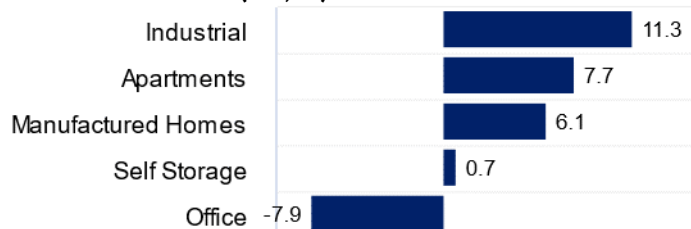
YTD USD (TR, %)



1M USD (TR, %)



YTD USD (TR, %)



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



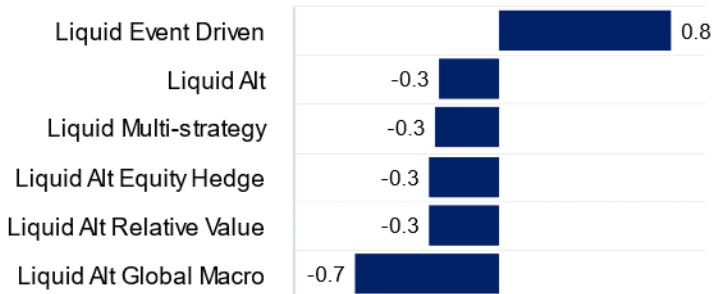
Wilshire US REIT sector performance - 12M (Rebased, TR)



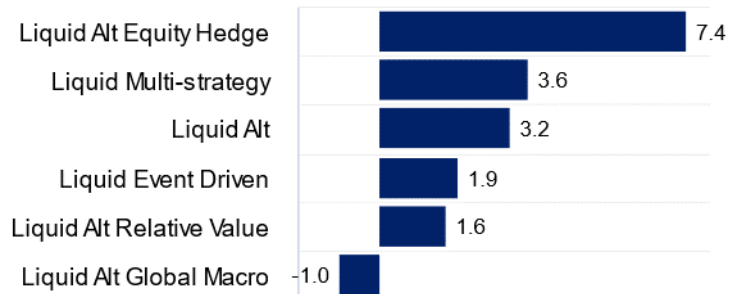
Wilshire Liquid Alternative Indexes (Absolute Return): Equity Hedge remains the standout performer YTD despite a decline in August

Equity Hedge continues to be the strongest performer amongst the Wilshire Liquid Alternative series so far in 2023. Event driven outperformed in August but has still only made modest gains YTD. Global macro has underperformed in 2023, delivering a small negative return.

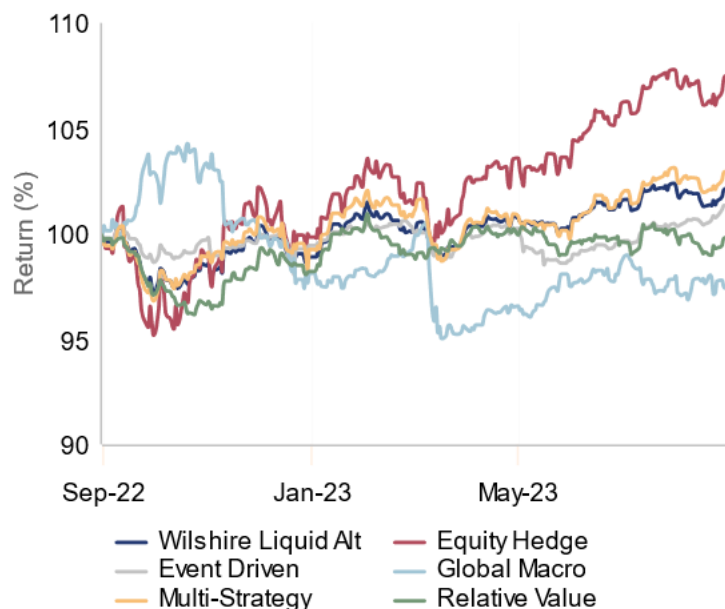
1M USD (TR, %)



YTD USD (TR, %)



Wilshire Liquid Alternative Index performance - total returns (rebased)

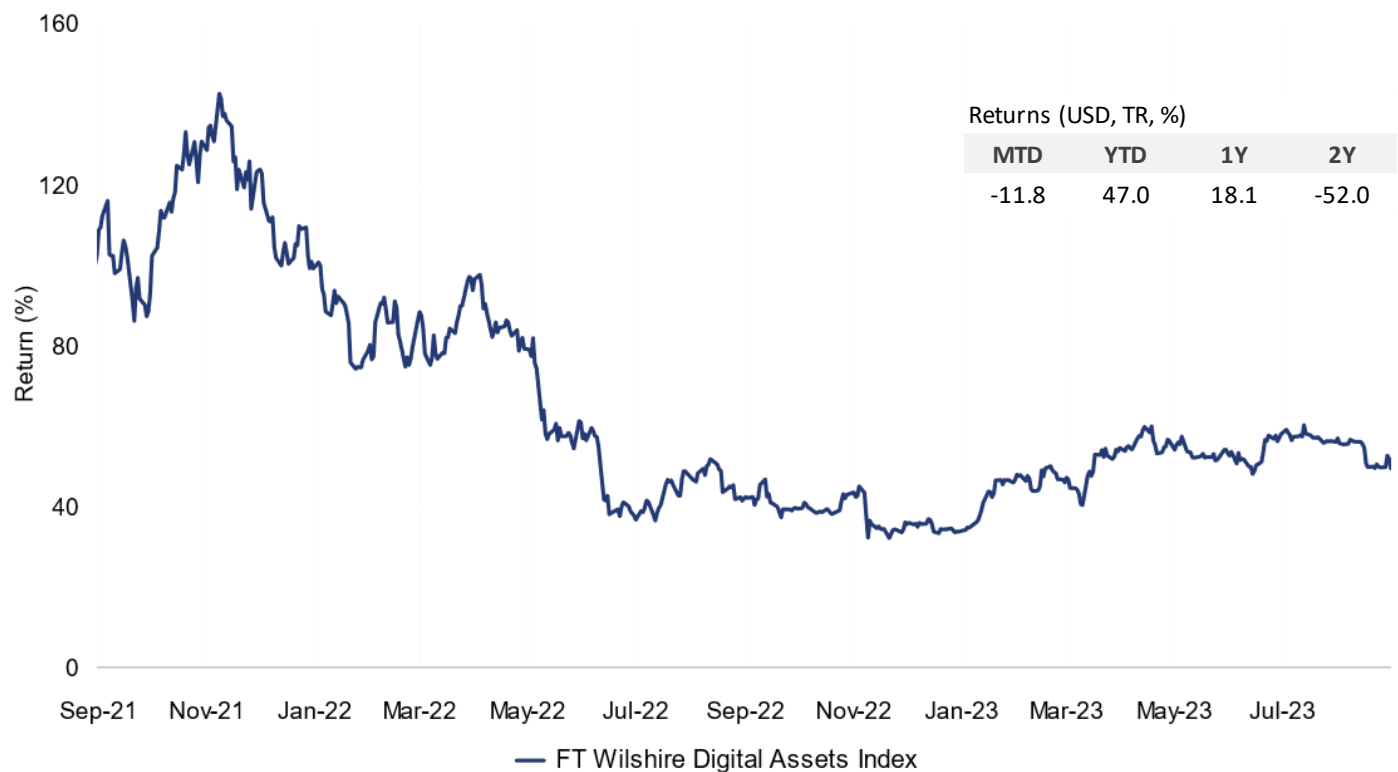


Wilshire Liquid Alternative Index relative performance vs FT Wilshire 5000 Index - total returns (rebased)

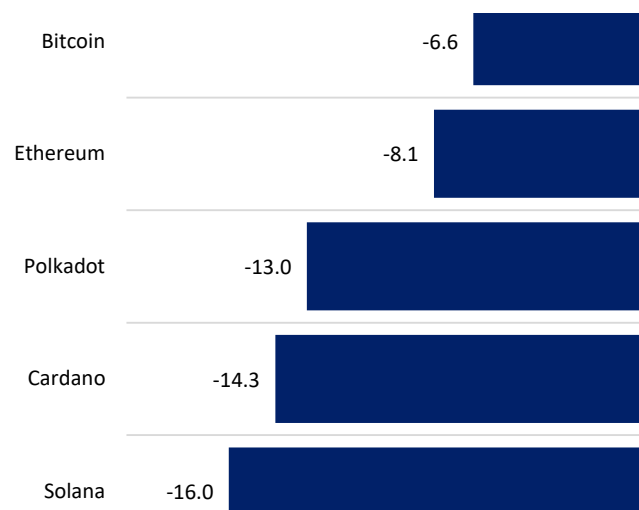


Digital Assets Index: Loss of momentum in August but the index still sees sizeable gains YTD

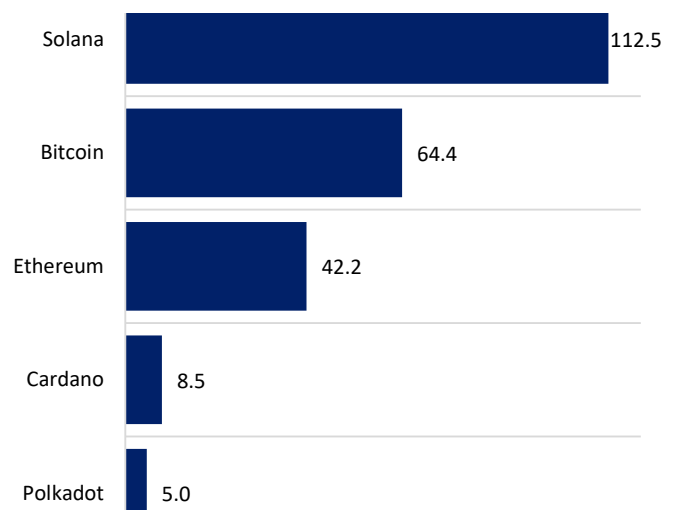
The FT Wilshire Digital Assets Index declined –11.8% in August but has still made significant gains YTD, up 47.0% in 2023 so far and 18.1% over the past 12 months.



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

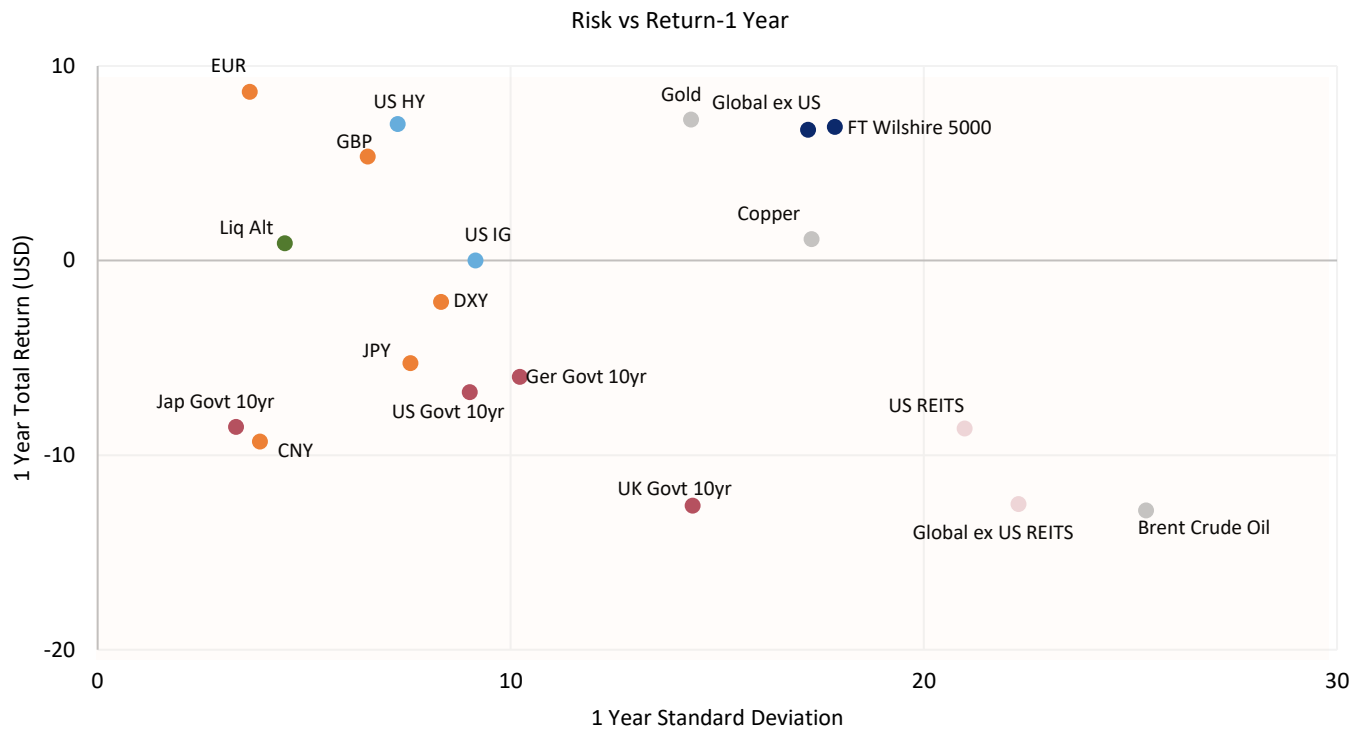


FT Wilshire Digital Assets Index selected constituent performance - YTD 2023 (% ,USD)

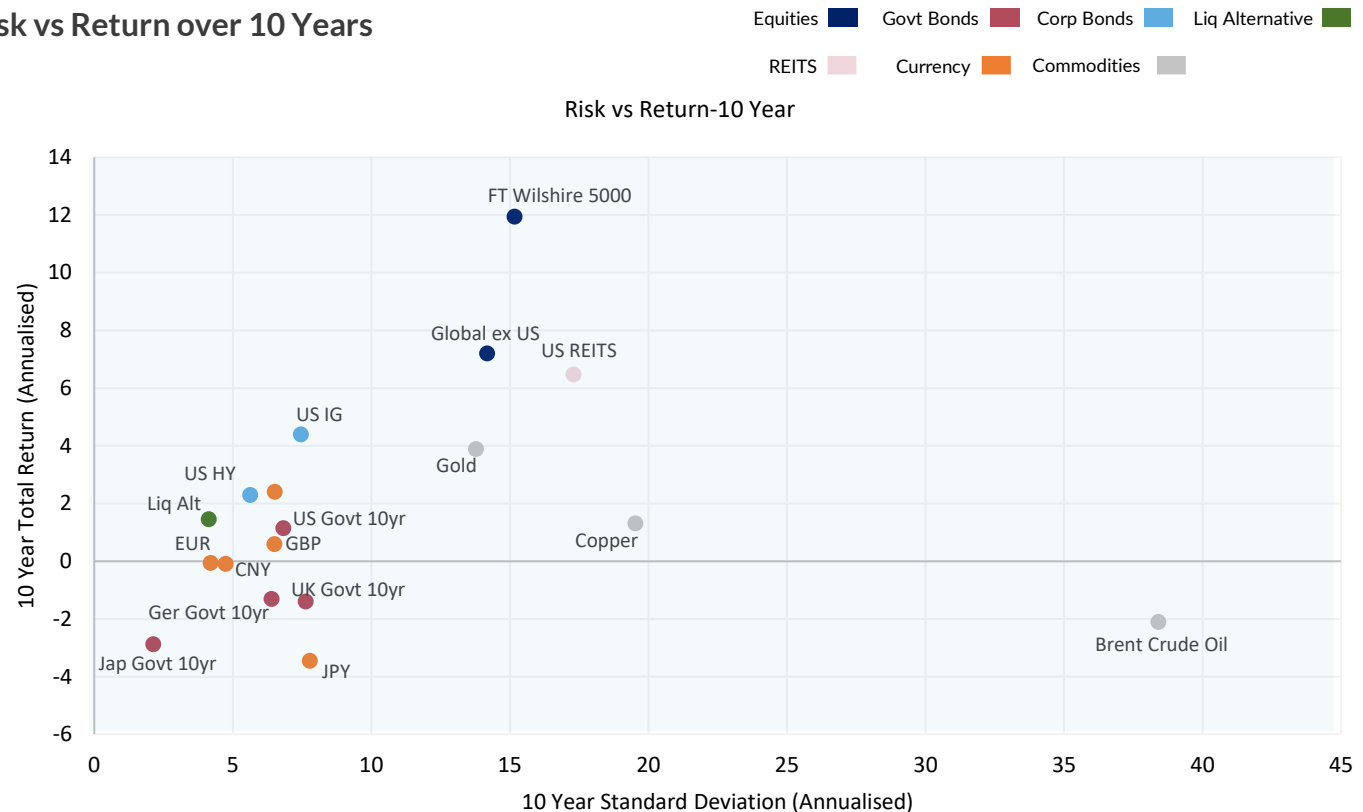


Multi Asset Class: Risk vs Return

Risk vs Return over 1 Year



Risk vs Return over 10 Years



Source: Wilshire, Refinitiv and FactSet. Data as of August 31, 2023

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Ref: MM 421964 E1123