

Strategic Sector Selector

Is the juggernaut getting tired?

It may seem that global equities are poised to continue marching higher after a strong first half in 2023. However, we think that the road ahead could prove bumpier and that returns will moderate coupled with higher volatility. We expect the main focus for markets to shift from inflation to economic growth, which we think will increasingly feel the impact of high interest rates. In our view, this implies that the early-cycle phase may start drawing to a close in the second half of 2023, which tends to be followed by a meaningful pullback. We think the time has come to reduce our allocations to sectors that led the market higher year-to-date, including downgrading technology and consumer products & services to Neutral and automobiles & parts and media to Underweight. We balance this by increasing our allocations to both defensive sectors through upgrading telecommunication to Overweight, and the value factor by upgrading basic resources and banks to Neutral and real estate to Overweight.

Changes in allocations:

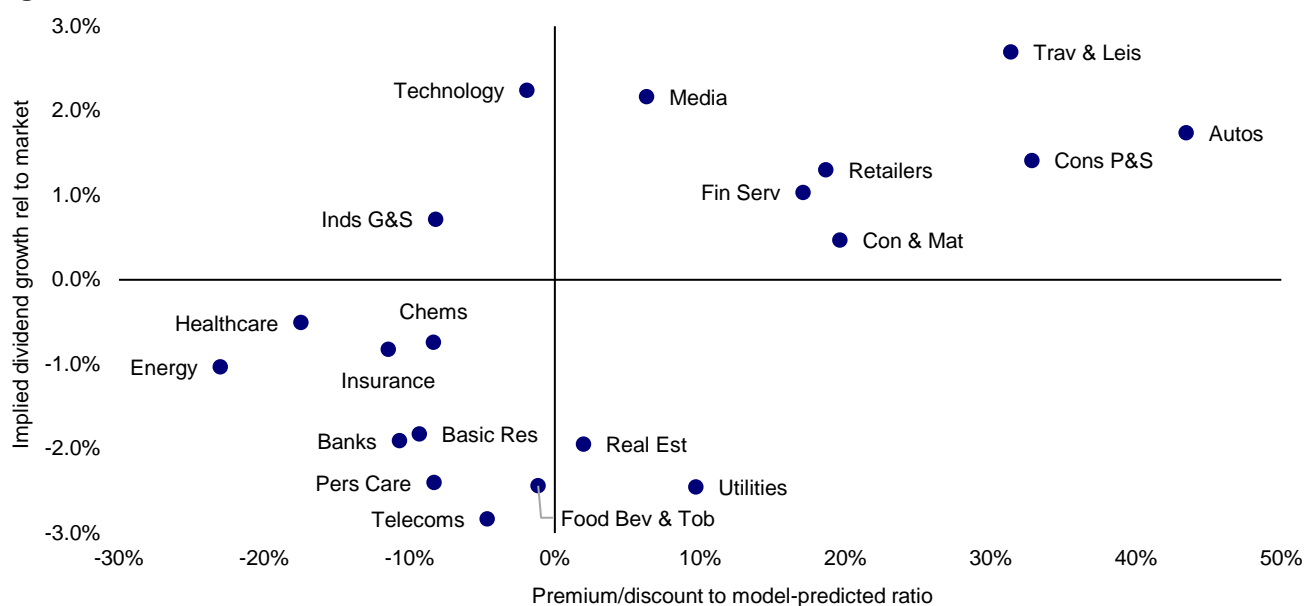
- Upgrades: basic resources, banks (UW to N), real estate, telecommunications (N to OW)
- Downgrades: automobiles & parts, media (N to UW), consumer products & services, technology (OW to N)

	Most favoured	Least favoured
Sector	US healthcare US real estate	US automobiles & parts European travel & leisure

Sectors where we expect the best returns:

- Healthcare: exposure to moderating rate expectations, defensive sector, strong pricing power
- Retailers: resilient in economic downturns, may outperform in cyclical upswing, exposure to growth factor
- Real estate: attractive valuations, high dividend yield, exposure to eventual recovery in housing markets

Figure 1 – Global sectors valuation matrix



Notes: On the horizontal axis, we show how far a sector's valuation is above/below that implied by our multiple regression model (dividend yield relative to market). The vertical axis shows the perpetual real growth in dividends required to justify current prices relative to that implied for the market. We consider the sectors in the top right quadrant expensive on both measures, and those in the bottom left are considered cheap. See appendices for methodology and disclaimers. Source: Refinitiv Datastream and Invesco

Table of contents

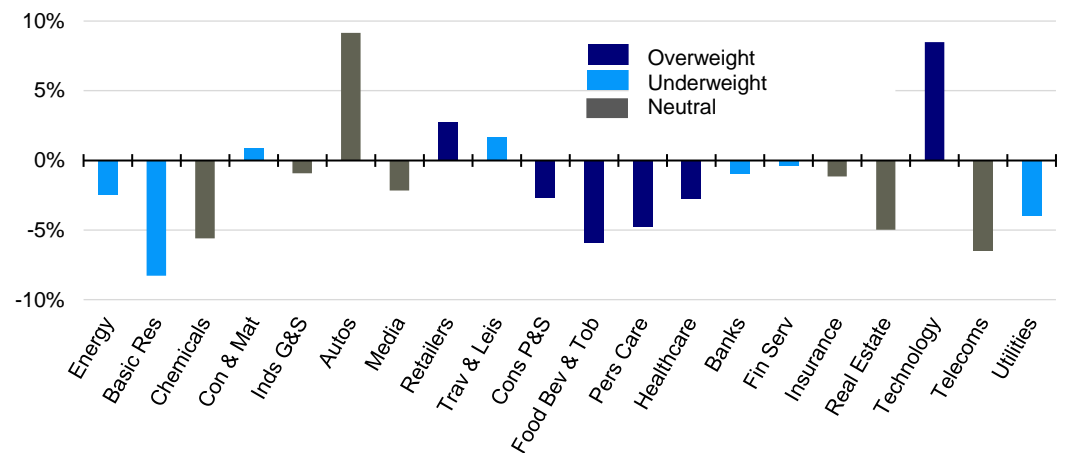
Summary and conclusions	3
Since the last time.....	3
Asset allocation backdrop.....	3
Changes to model sector allocations.....	5
The best and worst of the rest.....	6
Systematic strategy – Global	11
Valuations – Global	12
Decomposed returns – Global	13
Appendices	14
Appendix 1: Coefficients for variables used in multiple regression model.....	14
Appendix 2: Sector returns by region.....	16
Appendix 3: Valuations tables.....	18
Appendix 4: Sector valuations by region.....	20
Appendix 4: Performance tables.....	22
Appendix 5: Methodology.....	23
Appendix 6: Abbreviations.....	25
Appendix 7: Definitions of data and benchmarks.....	26
Important information	27

Summary and conclusions

Since the last time

Global equities did not spend much time worrying about the impacts of the “mini-banking crisis” in the US and followed the pattern set in Q1 2023 with the MSCI All Country World index ending Q2 up 6.7% on a total return basis (in local currency terms). However, the list of outperforming sectors narrowed as economic data remained mixed, although inflation continued to moderate in most economies even if perhaps at a slower pace than hoped. Central banks remained hawkish, especially in the US, UK and the Eurozone. The main outliers among major economies were Japan and China where monetary policy seems more focused on supporting the economic recovery, especially if inflation remains subdued.

Figure 2 – 3m Global sector returns relative to market in USD



Notes: See appendices for methodology and disclaimers. Returns shown between 31 March 2023 and 30 June 2023. Colours indicate allocations in period considered. **Past performance is not a guarantee of future results.** Source: Refinitiv Datastream and Invesco

Figure 2 shows just how narrow sector leadership was in the second quarter of 2023 with technology and automobiles & parts far ahead of the rest of the market. No wonder so few of our Overweights outperformed (especially defensive sectors), although most of our Underweights underperformed, especially resource-related sectors and financials. However, we were too early to increase our exposure to defensives through our upgrade of telecommunications, which was the second-worst performer in a rising market. The strength of travel & leisure and construction & materials continued to surprise us. We expected consumers to tighten travel budgets and housing markets to soften as higher interest rates bite (perhaps that was reflected more in the underperformance of real estate), but we may have underestimated people’s desire for post-pandemic travel and their resilience in the face of rising mortgage rates.

Asset allocation backdrop

We believe the global economy continues to decelerate. This leads to a defensive bias within our Model Asset Allocation. However, we have a 12-month horizon and within that timeframe we expect some major central banks to pivot from tightening to easing and we foresee an economic rebound, which is likely to be anticipated by financial markets. This argues for more risk within our allocations. Inevitably, we choose a middle path: adding risk to what remains an overall defensive stance.

Perhaps the most important feature of our forecasts is that we expect Fed rates to be lower in 12 months (even if they rise in the meantime). We suspect that ECB policy rates will be little changed in 12 months (after rising in the interim) and that major Asian policy rates could be marginally higher. The BOE seems likely to tighten the most aggressively among Western central banks. We expect further inversion of yield curves in the short term but believe yield curves will be slightly steeper in 12 months. After some downward

pressure in the near term, we suspect that 10-year yields will be higher in 12 months in some markets (see [The Big Picture](#) for the full details and **Figure 3** for our market forecasts).

Despite our concerns about the short-term economic outlook, the anticipated rebound later in the second part of our forecast horizon led us to expect that any asset price weakness would be relatively short-lived. However, the overall stance remained relatively defensive, with Cash remaining at a 10% allocation. Cash rates are the highest since before the Global Financial Crisis (GFC) with little volatility in returns or correlation to other assets. Gold is another diversifying asset, but we think it has performed so well that sustained upside from here is unlikely (we remained zero allocated).

Government bond yields are much higher than 18 months ago, but they have fallen of late, which we think reduces the return potential, especially as we expect most long yields to be slightly higher in 12 months. We reduced the allocation from Neutral (25%) to Underweight (20%). The reduction in government bonds allowed an increase in IG (to a further Overweight 18%, from 15%). Though still a relatively defensive asset, it brings more risk than government bonds and a better risk-reward trade-off, in our opinion.

If IG is not particularly adventurous, the increase in our allocation to real estate brings more risk. In fact, the risks are so obvious that REIT yields are now quite generous, which is the attraction. We made no change to HY and remained Overweight. This is despite believing that HY spreads will widen in the US (though not Europe) and that default rates will rise (as economies slow). Equities will be handicapped by weakening profits in the short term (we think) and it looks as though falling bond yields will be no help (the correlation is changing again). We maintained an Underweight 34% allocation.

Figure 3 – Market forecasts

	Current (30/06/23)	Forecast 12-month
Central Bank Rates		
US	5.25	4.25
Eurozone	3.50	3.25
China	3.55	4.00
Japan	-0.10	0.00
UK	5.00	5.00
10y Bond Yields		
US	3.81	3.65
Eurozone	2.39	3.00
China	2.68	3.00
Japan	0.40	0.70
UK	4.39	4.30
Exchange Rates/US\$		
EUR/USD	1.09	1.15
USD/CNY	7.25	6.70
USD/JPY	144.34	120.00
GBP/USD	1.27	1.30
USD/CHF	0.90	0.86
Equity Indices		
S&P 500	4450	4250
Euro Stoxx 50	4399	4575
FTSE A50	12489	14750
Nikkei 225	33189	34500
FTSE 100	7532	7650
Commodities (US\$)		
Brent/barrel	75	70
Gold/ounce	1916	1900
Copper/tonne	8322	8050

Notes: There is no guarantee that these views will come to pass. See Appendices for definitions, methodology and disclaimers. See [The Big Picture](#) for a full explanation.
Source: Refinitiv Datastream and Invesco Global Market Strategy Office

Changes to model sector allocations

Where we are in the global equity market cycle is not clear, in our view. First, we may still be in the bear market that started on 8 November 2021 (based on the Datastream World Total Market index) and we cannot completely rule out that equities will reach a new cyclical low. However, we view this as a tail risk, because it would necessitate a reacceleration of inflation or a deep economic downturn (or both), which we think has a low probability. The path from current levels of inflation to 2% may be more difficult and incremental than the road from peak rates to those major economies have reached by June 2023, in our view. Also, inflation expectations seem well-anchored, commodity prices are lower than in 2022, wage growth seems to be peaking and house prices are moderating in most economies. Thus, in the absence of another commodity supply shock, we think inflation will continue to approach central bank target rates, implying that “terminal rates” are near. Economic growth may continue to slow, but lower inflation means that central banks could respond to a recession.

This leaves us with the choice of whether we are in the late-cycle or early-cycle phase. There, the signals are decidedly mixed, considering that in large part valuations drive equities higher in both. Peaking inflation and slowing growth point to the economy being in the late-cycle phase, therefore it would not be surprising if the mid-October 2022 trough marked the start of the final phase of a market cycle (however strange that might appear). Certainly, the outperformance of the growth and quality factors and the leadership of large caps could indicate that we are in the late-cycle phase (see [here](#) for more details on the US market). On the other hand, the underperformance of price momentum could signal a turning point in the cycle.

Regardless of where we are, we think that global equities will enter a period of lower returns and perhaps higher volatility and even a meaningful pull-back (or a new bear market if we are in the late-cycle phase). As earnings growth moderates, or turns negative, it will increasingly offset multiple expansion until economic growth reaccelerates and earnings growth follows about 6 months later (if past relationships hold). Thus, we reshuffle our allocation to cyclical sectors and reduce our exposure to the growth factor, while slightly raising our defensive allocation to prepare for a period of lower equity market returns and higher volatility.

In our view, **basic resources** looks closer to “fair value” after an 8% underperformance in Q2 2023 mainly driven by a 9% decline in the S&P GSCI Industrial Metals. We tactically downgraded the sector in April on the back of deteriorating macroeconomic expectations in China and the threat of a deeper economic slowdown in developed markets (see [here](#)). While its valuations look more attractive now on both of our models, we think that a potentially more volatile period for equity markets warrants caution and therefore we only upgrade to **Neutral** from Underweight.

After an amazing period of outperformance, we downgrade **automobiles & parts** to **Underweight** from Neutral. Although we consider the sector an early-cyclical, valuations are now so rich that we are struggling to foresee any significant upside potential. In our view, the main driving forces behind its surge – namely the fall in inflation rates and a rebound after the drawdown in 2022 – will provide less support in the next 12 months.

Media has also outperformed the market year-to-date, which for a sector that had to weather a writer’s strike in Hollywood looks slightly surprising to us. However, we think that it may be stuck between a rock and a hard place in the next 12 months if its exposure to the growth factor becomes less of a tailwind, while economic uncertainty may weigh on growth in its subscriber base and ancillary businesses. Its valuations also look too rich for us to ignore. We downgrade to **Underweight** from Neutral.

We complete our downgrades in the consumer discretionary space by reducing our allocation to **consumer products & services** to **Neutral** from Overweight. The sector has outperformed year-to-date despite last quarter’s underperformance mainly driven by the more subdued returns of luxury groups as clouds increasingly appeared on the horizon for consumer spending. It has the second highest premium compared to the

relative dividend yield implied by our multiple regression model, some of which may be justified by its relative resilience and diversification benefits (which we value).

We remain concerned about the profitability of **banks** as margins compress driven by rising deposit rates and loan growth will probably remain sluggish until economic growth picks up after a “bumpy” period as the impact of higher interest rates becomes increasingly visible. Bank failures also remain a tail risk, although the “mini-banking crisis” of H1 2023 has not spread beyond a handful of mid-sized banks in the United States and Europe. However, valuations are becoming more difficult to ignore and the sector may be able to keep up with the market if the outperformance of the technology sector moderates. We raise our allocation to **Neutral** from Underweight.

Valuations for **real estate** continue to hover around “fair value” on our multiple regression model, though they look undemanding on implied perpetual dividend growth at 0.9%. We think that a significant enough amount of bad news has been priced in after an 18% underperformance in the last 12 months and it is one of the four sectors with dividend yields above 10-year Treasury yields (4% vs 3.8% as of end of June 2023). We upgrade to **Overweight**.

The biggest decision we face at the moment concerns the largest sector (based on market cap): **technology**. Its outperformance this year has been almost completely driven by sentiment (multiple expansion – see **Figure 12**), which we find increasingly difficult to justify. We remain positive about the sector’s long-term growth potential, which we think will continue to benefit from the structural trends accelerated and amplified by the COVID-19 crisis boosted by the focus on generative artificial intelligence. We also value its high margins and solid cash generation in a time of increasing cost pressures, and it has been one of the first sectors to trim expenses. However, valuations have reached a level which warrants more caution, in our view. We reduce our allocation to **Neutral** from Overweight for now.

In a nod to an increasingly uncertain economic and market environment, we upgrade **telecommunications** to **Overweight** from Neutral. We are still concerned about its growth prospects, but it is a defensive sector that looks undervalued on our multiple regression model and its relatively high dividend yield could provide some risk mitigation. Therefore, we think it can add to the resilience of our model sector allocation in the short term, while we wait for more clarity on the outlook for GDP growth and inflation.

The best and worst of the rest

We think that the economic slowdown driven by high inflation and interest rates will continue to drive oil prices lower, in our view (see **Figure 3**). This implies rocky times ahead for **energy**, despite underperformance year-to-date. Although its valuation seems to be at a discount on our multiple regression model, we think that may not fully reflect the potentially lower demand if global economic growth slows significantly. We think energy security concerns will also accelerate plans to phase out hydrocarbons and we therefore stay **Underweight**.

Chemicals should be boosted by higher prices for its products, but we think it may struggle to outperform in the current economic environment, because its input costs have remained high with oil trading above \$80 per barrel. Lower industrial production will also be a headwind, in our view, although some of that may explain why it is trading at a discount versus the relative dividend yield implied by our multiple regression model. It may be too late to downgrade the sector after its underperformance in 2023 so far, though it may also be too early upgrade. We maintain our **Neutral** allocation.

Falling house prices, the squeeze on real incomes and higher mortgage rates seem to us like the ingredients of a perfect storm for the **construction & materials** sector. We are also concerned that higher costs of labour and materials will put pressure on their profit margins. The sector looks overvalued on our multiple regression model and its implied dividend growth rate is above that of the market. We believe those valuations are far from reflecting the risk of a potential recession and therefore stay **Underweight**.

We keep **industrial goods & services** at **Neutral**, a sector we feel can provide a diversified exposure including aerospace & defence, payment systems, vehicle manufacturers and logistics providers. However, we are concerned that margins will remain under pressure, which could dent profitability despite mooted increases in defence spending, for example. Although the sector will provide the tools for infrastructure and green projects, in our view, we think that economic concerns may delay those projects. We also expect softer demand and falling transportation rates for logistics providers in the near term as industrial production slows. Our preferred valuation measures also give us mixed messages: the sector seems undervalued on our multiple regression model but overvalued on implied perpetual dividend growth.

We maintain our **Overweight** allocation to **retailers**, which we consider one of the least sensitive to the economic cycle within consumer discretionary (it includes food retail and discount stores), though it is cyclical enough to potentially outperform in a recovery. The balance in consumer spending between goods and services may have started stabilising, which would remove a significant headwind. Despite rich valuations, we value the countercyclical exposure the sector provides, while easing inflation rates may boost margins.

The “great reopening” following COVID-19 restrictions may have finally enabled **travel & leisure** to outperform in the last 12 months, but we think it is appropriate to keep our **Underweight** allocation. We continue to be surprised by how long the boost from pent-up demand has lasted, but we believe eventually the many headwinds the sector faces may prove too much: labour costs have risen, fuel costs could remain high, and demand may soften as economies slow and higher costs eat into disposable income. Nevertheless, there may be regional differences in returns if Asian tourists start travelling in greater numbers, offset by weakness in the US and Europe.

At this stage of the cycle, assuming our interest rate expectations are proven correct, we believe that defensive growth offers an attractive way to hedge against further equity market volatility and an inflation undershoot. Therefore, we stay **Overweight** both **food, beverage & tobacco** and **personal care, drug & grocery stores**. Following their underperformance in 2023, their valuations look attractive. While food, beverage & tobacco trades close to the relative dividend yield implied by our multiple regression model, personal care, drug & grocery stores is at a discount and both sectors have an implied perpetual dividend growth rate close to 0%, which we think is appealing.

We find **healthcare** attractive for similar reasons and believe it makes sense to keep our **Overweight** allocation. As a defensive sector, it suffered in the first half of 2023 as markets favoured consumer discretionary and technology. Although the sector's valuations look close to that of the market on implied dividend growth, it has a discount to the relative dividend yield implied by our multiple regression model. We are also positive on its relative outlook if expectations of monetary policy move closer to our forecasts as the year progresses.

A slowing economy transitioning from late-cycle to end-of-cycle, with inflation eating into disposable incomes signals more difficult times ahead for the **financial services** sector, in our view. It is the only financial sector trading at a premium compared to the dividend yield implied by our multiple regression model. Assuming financial market volatility increases and that there will be less demand for their products, we would prefer to wait for those valuations to come down. We stay **Underweight**.

We retain our **Neutral** allocation to **insurance**. We think that the sector's profitability has improved with higher bond yields and we view it as a hedge in case inflation proves stickier than we expect. The sector's valuations are lower than what our multiple regression model would suggest, and its implied dividend growth rate is lower than that of market. The sector tended to outperform in the early stages of a recovery in the past, but we think its returns could be closer to the benchmark in the next 12 months despite underperforming year-to-date.

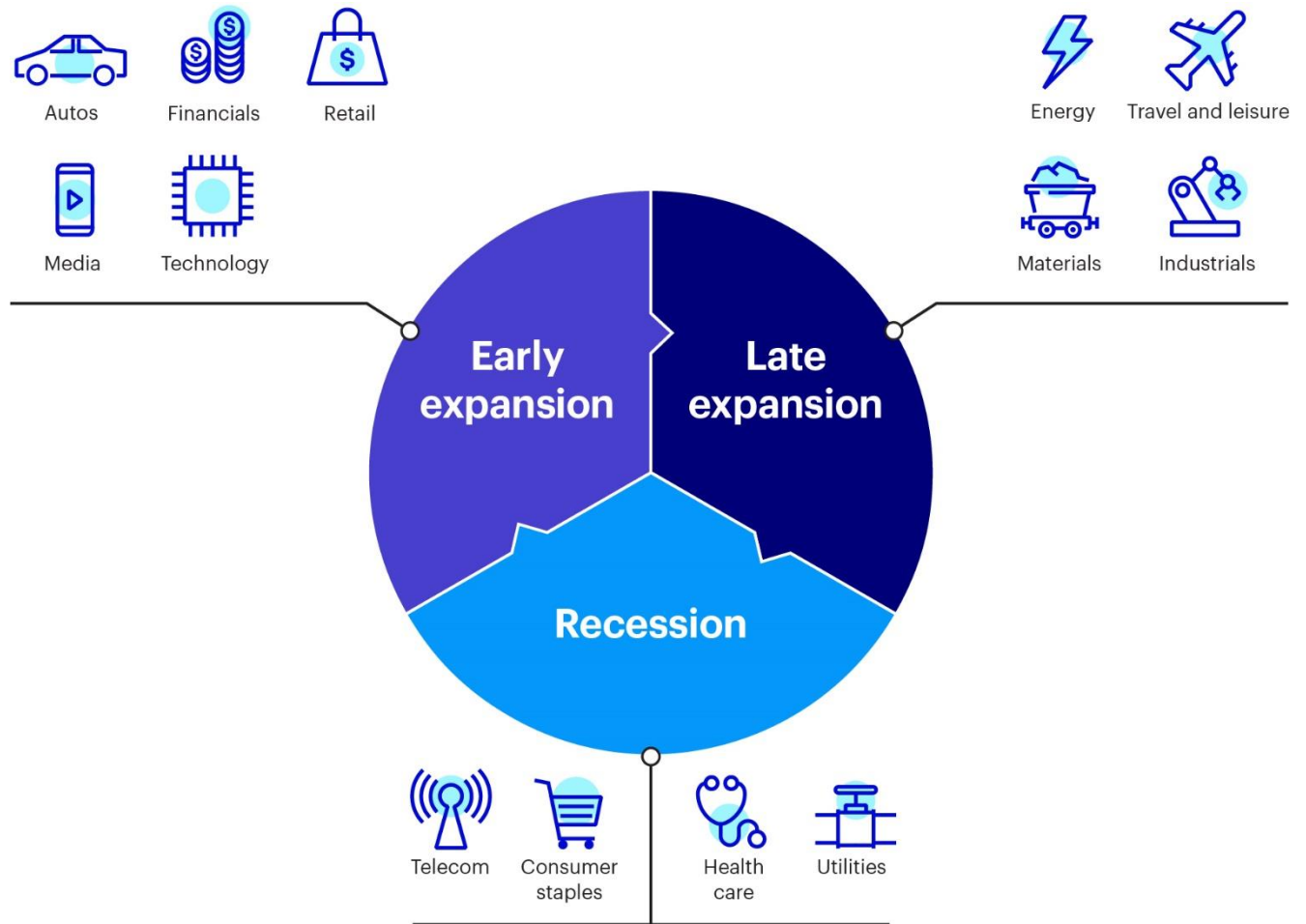
We keep **utilities Underweight**, because we think the sector will struggle to outperform even if equity market volatility increases. We are especially worried about utilities if margins are squeezed further by falling energy prices, while political pressures increases to lower prices charged to consumers.

Figure 4 – Model allocations for Global sectors

	Neutral	Invesco	Preferred Region
Energy	7.3%	Underweight	EM
Basic Materials	4.1%	Neutral ↑	Europe
Basic Resources	2.3%	Neutral ↑	Europe
Chemicals	1.8%	Neutral	US
Industrials	13.0%	Neutral	Europe
Construction & Materials	1.6%	Underweight	US
Industrial Goods & Services	11.4%	Neutral	Europe
Consumer Discretionary	14.9%	Neutral ↓	Europe
Automobiles & Parts	2.9%	Underweight ↓	Japan
Media	1.0%	Underweight ↓	Japan
Retailers	4.8%	Overweight	Europe
Travel & Leisure	2.2%	Underweight	EM
Consumer Products & Services	4.0%	Neutral ↓	Europe
Consumer Staples	6.1%	Overweight	Europe
Food, Beverage & Tobacco	4.0%	Overweight	Europe
Personal Care, Drug & Grocery Stores	2.1%	Overweight	US
Healthcare	9.7%	Overweight	US
Financials	14.7%	Neutral ↑	Europe
Banks	7.1%	Neutral ↑	Europe
Financial Services	4.7%	Underweight	US
Insurance	2.9%	Neutral	Europe
Real Estate	2.9%	Overweight ↑	US
Technology	20.5%	Neutral ↓	US
Telecommunications	3.3%	Overweight ↑	Europe
Utilities	3.4%	Underweight	Europe

Notes: Arrows indicate latest changes in allocations versus the previous edition. See appendices for methodology and disclaimers.
Source: Refinitiv Datastream and Invesco

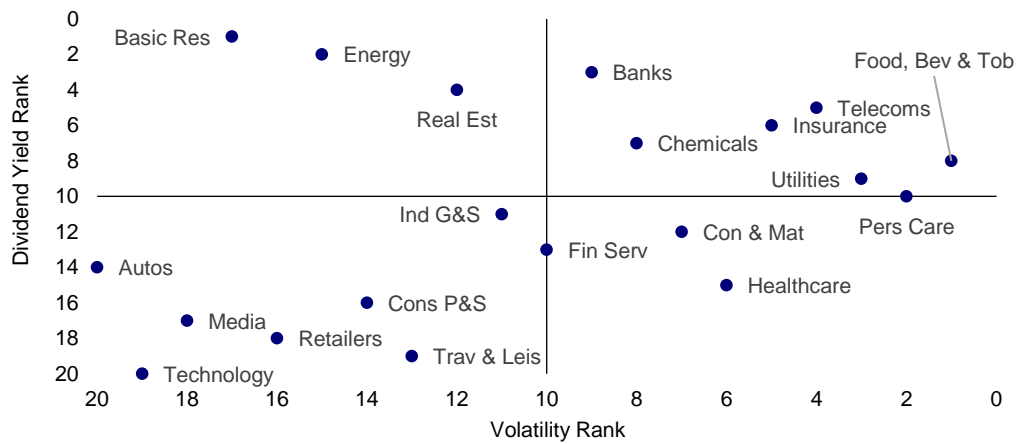
Figure 5 – Economic cycle and main sector allocation decisions



Note: The chart shows our opinion about which sectors tend to perform best at which stage of the economic cycle, based on our analysis of previous cycles.
Source: Invesco

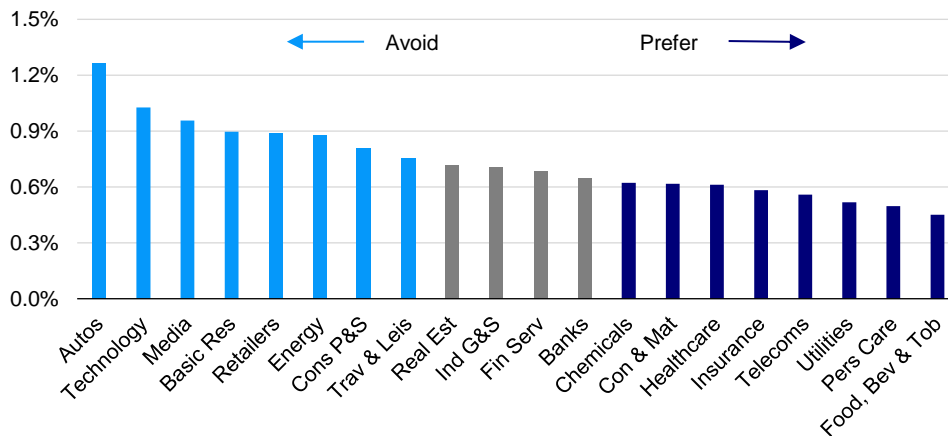
Systematic strategy – Global

Figure 6 – Global sectors ranked by volatility and dividend yield



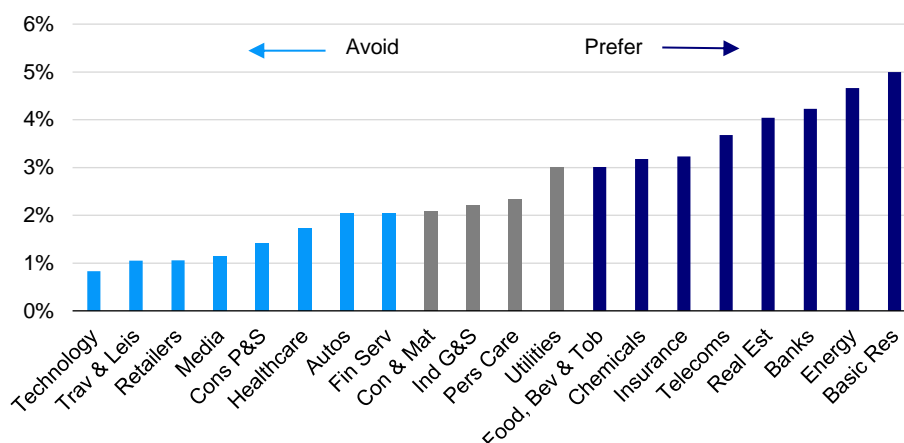
- A purely systematic approach would favour sectors in the top right corner: telecoms, food, beverage & tobacco and insurance.
- The approach would avoid sectors in the bottom left, such as technology, media or autos.

Figure 7 – Global sector volatility of daily returns (using standard deviation in the past 3 months)



- The daily returns of autos, technology and media were the most volatile in the past 3 months.
- Food, beverage & tobacco, personal care, drug & grocery stores and utilities were the least volatile.

Figure 8 – Global sector dividend yield (12-month trailing)

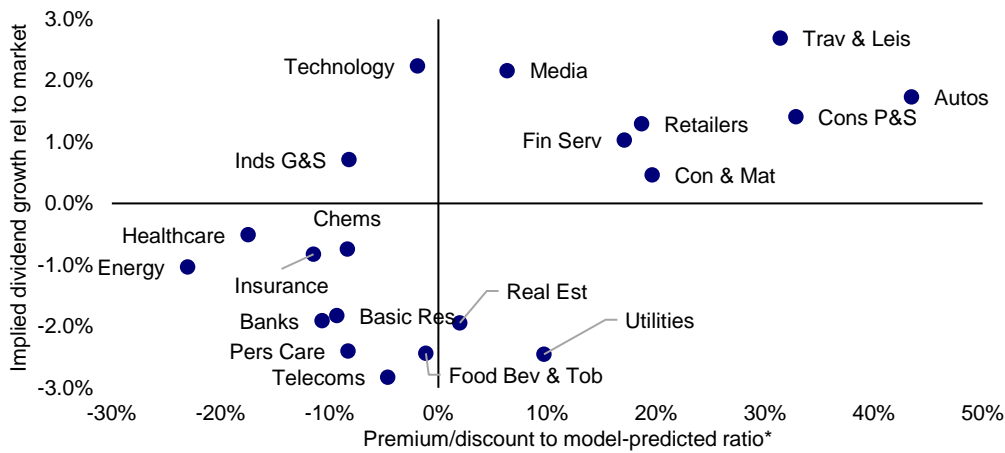


- Basic resources, energy and banks look the cheapest based on their dividend yield.
- The lowest yielding sectors include technology, travel & leisure and retailers.

Notes: In Figure 6, we rank sectors on the vertical axis by their current 12-month trailing dividend yields. On the horizontal axis, the sectors are ranked by the 3-month standard deviation of their daily returns. See appendices for methodology and disclaimers. Any reference to a ranking, a rating or an award provides no guarantee for future performance results and is not constant over time.
Source: Refinitiv Datastream and Invesco

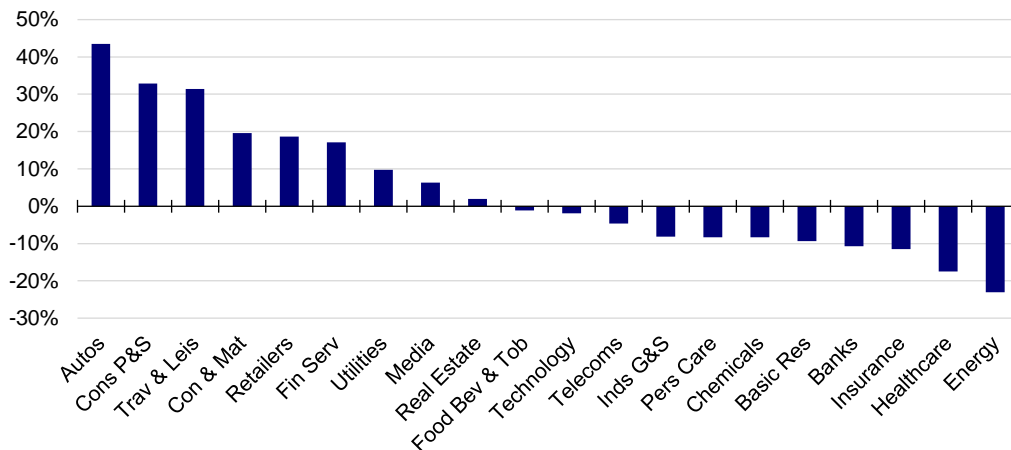
Valuations – Global

Figure 9 – Global sectors valuation matrix



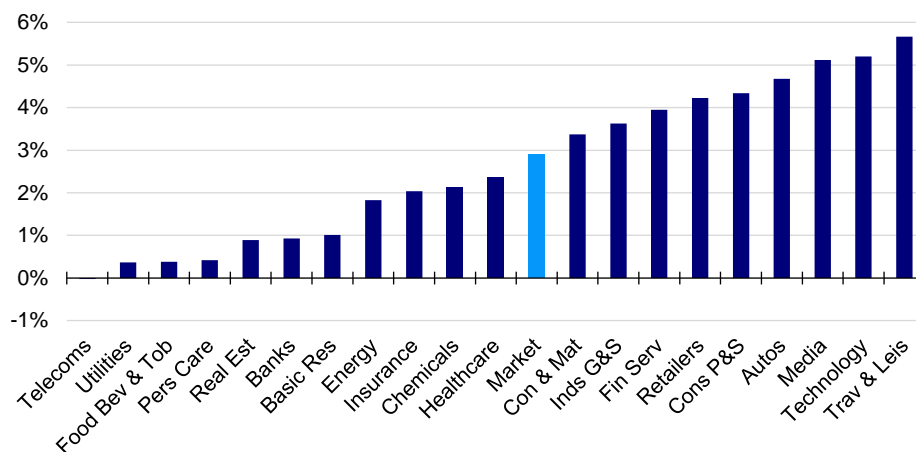
- Sectors in the top right corner look overvalued on both measures, while those in the bottom left appear undervalued
- This approach would avoid, for example, travel & leisure, autos and consumer products
- Banks, personal care and energy look better value

Figure 10 – Premium/discount to model-predicted ratio*



- Autos, consumer products & services and travel & leisure look the most overvalued versus our model
- Energy, healthcare and insurance seem the most undervalued versus our model-predicted ratios

Figure 11 – Global implied perpetual real dividend growth

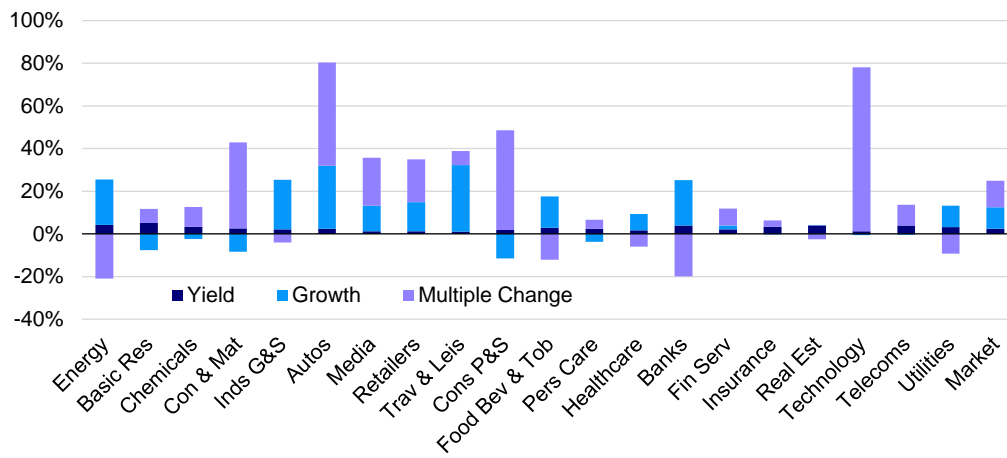


- Shows the future real growth required to justify current prices
- Travel & leisure, technology and media appear priced for over 5% real growth in dividends (expensive)
- Only telecoms appears priced for negative growth (cheap)

Notes: *% above/below using dividend yield. See appendices for methodology and disclaimers. Source: Refinitiv Datastream and Invesco

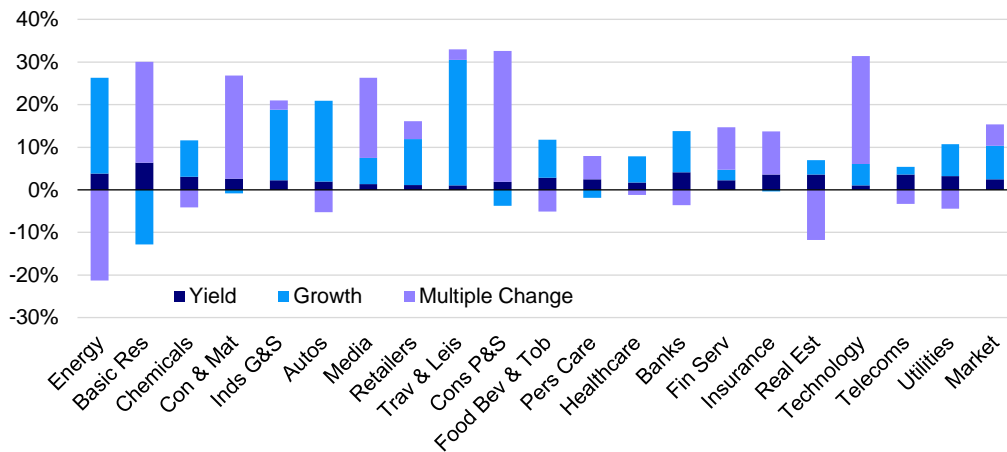
Decomposed returns – Global

Figure 12 – Global year-to-date total returns decomposed (annualised)



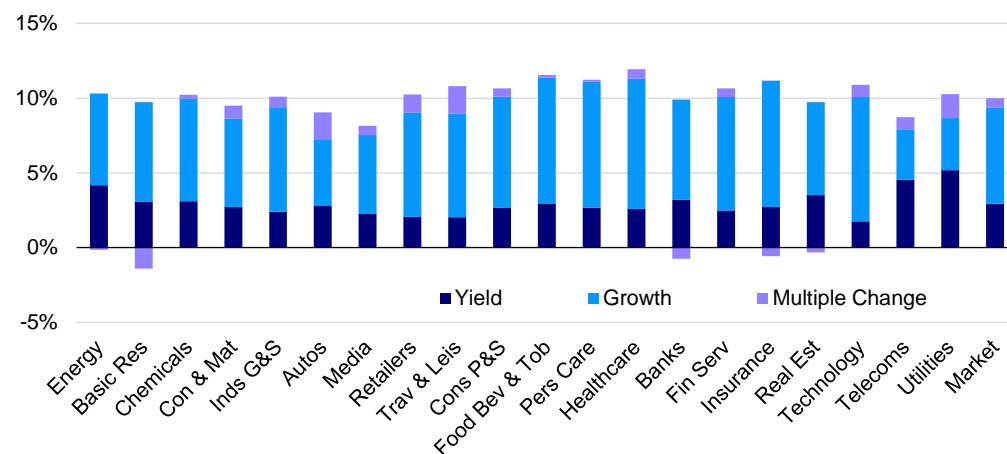
- Only four sectors had both positive growth and rise in sentiment (multiple expansion): autos, media, retailers and travel & leisure
- Five sectors had double-digit dividend growth: travel & leisure, autos, industrial goods & services, banks and energy.

Figure 13 – Global rolling 12-month total returns decomposed



- Only real estate had negative total returns.
- Eight sectors had a yield above 3%: energy, basic resources, chemicals, banks, insurance, real estate, telecoms and utilities

Figure 14 – Global overall total returns decomposed (annualised, since 1973)



- Growth and yield drive long-term returns
- Growth is the most important, except for telecoms and utilities
- Five sectors suffered from a multiple-related performance drag: energy, basic resources, banks, insurance and real estate

Notes: See appendices for methodology and disclaimers. Past performance is not a guarantee of future results. Source: Refinitiv Datastream and Invesco

Appendices

Appendix 1: Coefficients for variables used in multiple regression model

Figure 15 – Regression coefficients of Global defensive sectors

	Food, Bev & Tobacco	Personal Care	Health Care	Telecoms	Utilities	Market
Real Oil		-0.19			0.40	
Real Copper		0.00	0.00	0.02	-0.01	
Consumer Confidence	0.00		0.00	0.00	0.00	-0.01
Manufacturing Confidence		0.01	0.01	0.01		0.01
IP		0.52	0.94		2.59	-5.04
10y Yield	-2.31	-2.23		-5.99	10.47	-11.72
CPI	4.31	1.71	-2.52		-7.65	3.55
Net Debt/EBITDA			-0.07	0.07		
ROE	-1.57	-0.89	1.15	0.70	-4.81	

Notes: IP = industrial production. CPI = consumer price index. EBITDA = earnings before interest, taxes, depreciation and amortization. ROE = return on equity. Bev = beverage. Only showing coefficients that have a statistically significant relationship with valuations at the 0.05 level. We use the dividend yield relative to market as our dependent variable. See the Methodology in Appendix 6 for more details. Source: Refinitiv Datastream and Invesco

Figure 16 – Regression coefficients of Global resource-related and industrial sectors

	Energy	Basic Resources	Chemicals	Construction & Materials	Industrial G&S	Market
Real Oil	-1.82	-1.03				
Real Copper	0.01			-0.01	0.00	
Consumer Confidence	0.01	0.01	0.01	0.00		-0.01
Manufacturing Confidence		-0.02	-0.01	-0.01	-0.01	0.01
IP	-1.63		-0.85	0.97	0.25	-5.04
10y Yield	-1.98	-7.07	0.96		0.39	-11.72
CPI	12.06	30.67	7.91	5.87	0.86	3.55
Net Debt/EBITDA	-0.12	-0.16		0.20		
ROE	-2.87	-3.09	-1.78		0.33	

Notes: IP = industrial production. CPI = consumer price index. EBITDA = earnings before interest, taxes, depreciation and amortization. ROE = return on equity. G&S = goods & services. Only showing coefficients that have a statistically significant relationship with valuations at the 0.05 level. We use the dividend yield relative to market as our dependent variable. See the Methodology in Appendix 6 for more details. Source: Refinitiv Datastream and Invesco

Figure 17 – Regression coefficients of Global consumer discretionary and technology sectors

	Autos & Parts	Media	Retail	Travel & Leisure	Cons P&S	Tech	Market
Real Oil	1.07		0.21	0.49	1.05	0.37	
Real Copper	-0.01	0.00	0.00	0.00	-0.01		
Consumer Confidence	0.01	0.00	0.00	0.00	0.00	0.00	-0.01
Manufacturing Confidence			0.00	0.00	0.00	0.02	0.01
IP	-3.32	-0.51	0.80	-0.55	0.83	-1.95	-5.04
10y Yield	3.78	7.15	3.32	-0.90	5.28	-1.65	-11.72
CPI		-5.66	-4.86	-3.17	-4.39	-2.75	3.55
Net Debt/EBITDA	-0.07	0.03	0.22		-0.18	0.09	
ROE		1.17		0.63	-1.89	0.62	

Notes: IP = industrial production. CPI = consumer price index. EBITDA = earnings before interest, taxes, depreciation and amortization. ROE = return on equity. Cons = consumer. P&S = products & services. Only showing coefficients that have a statistically significant relationship with valuations at the 0.05 level. We use the dividend yield relative to market as our dependent variable. See the Methodology in Appendix 6 for more details. Source: Refinitiv Datastream and Invesco

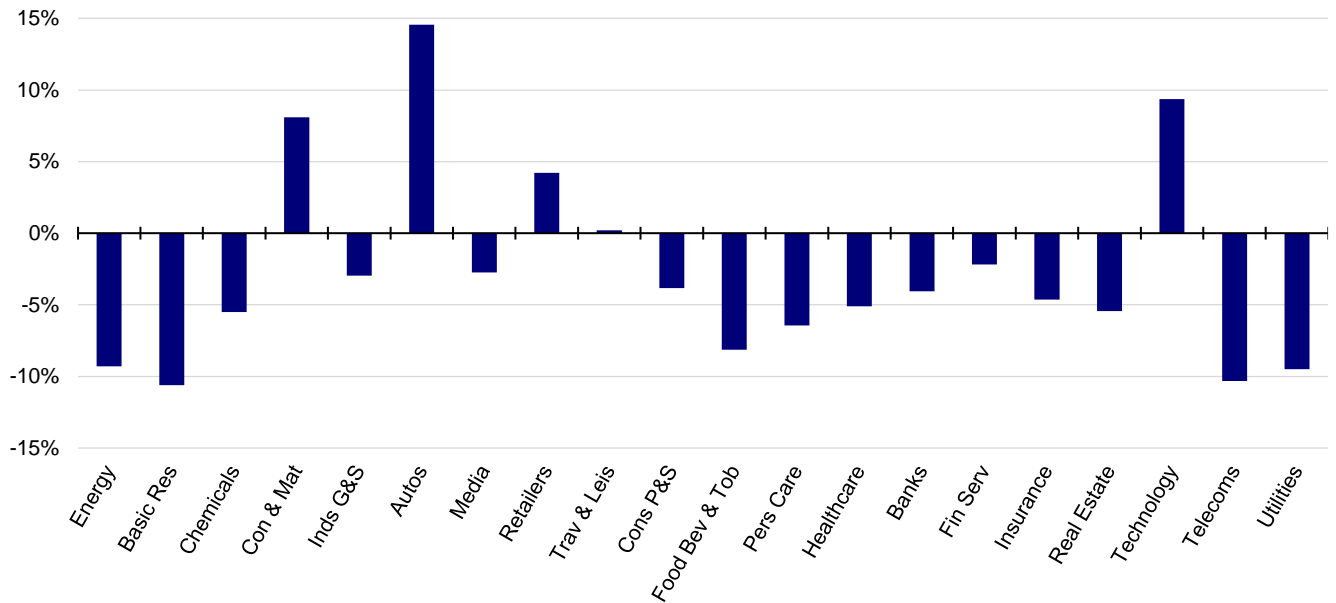
Figure 18 – Regression coefficients of Global financial sectors

	Banks	Financial Services	Insurance	Real Estate	Market
Real Oil	0.36	-0.24	-0.45	0.55	
Real Copper	-0.01	0.00	0.01	-0.02	
Consumer Confidence	0.01	0.00	0.00	0.01	-0.01
Manufacturing Confidence	-0.01	-0.02		-0.03	0.01
IP	-2.28	1.56		3.52	-5.04
10y Yield	-10.25	1.24	-6.74	3.31	-11.72
CPI	6.20		9.77		3.55
ROE	4.42	0.77	-1.10	-3.84	

Notes: IP = industrial production. CPI = consumer price index. EBITDA = earnings before interest, taxes, depreciation and amortization. ROE = return on equity. Only showing coefficients that have a statistically significant relationship with valuations at the 0.05 level. We use the dividend yield relative to market as our dependent variable. See the Methodology in Appendix 6 for more details. Source: Refinitiv Datastream and Invesco

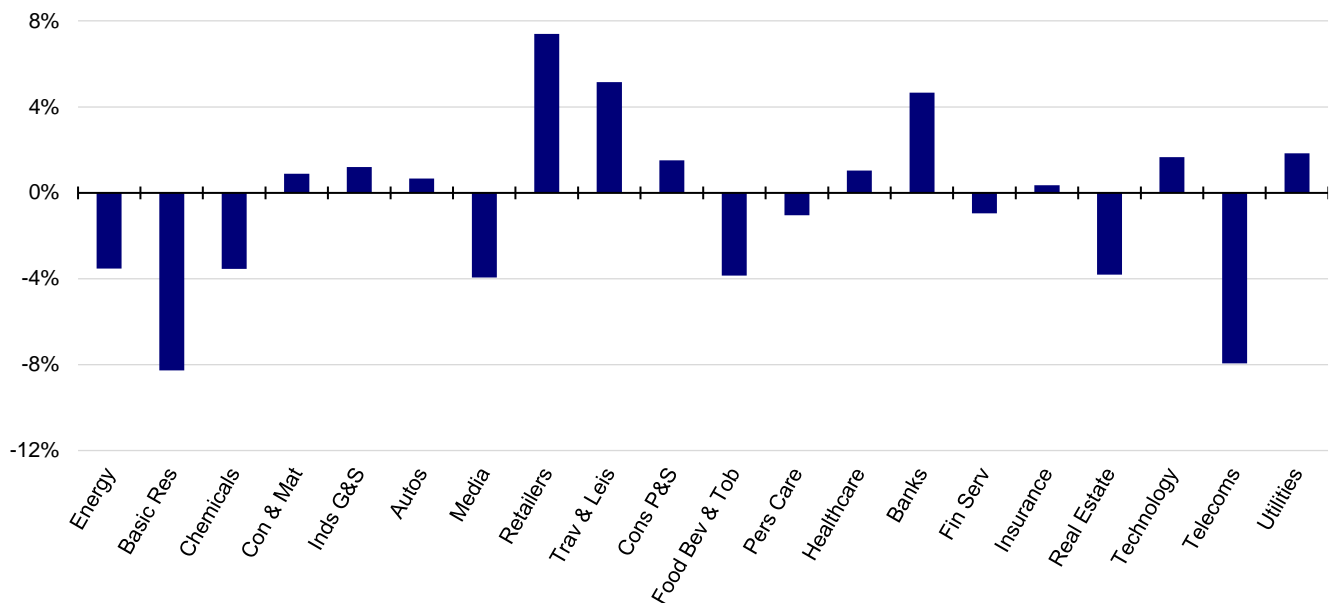
Appendix 2: Sector returns by region

Figure 19 – 3m US sector returns relative to market



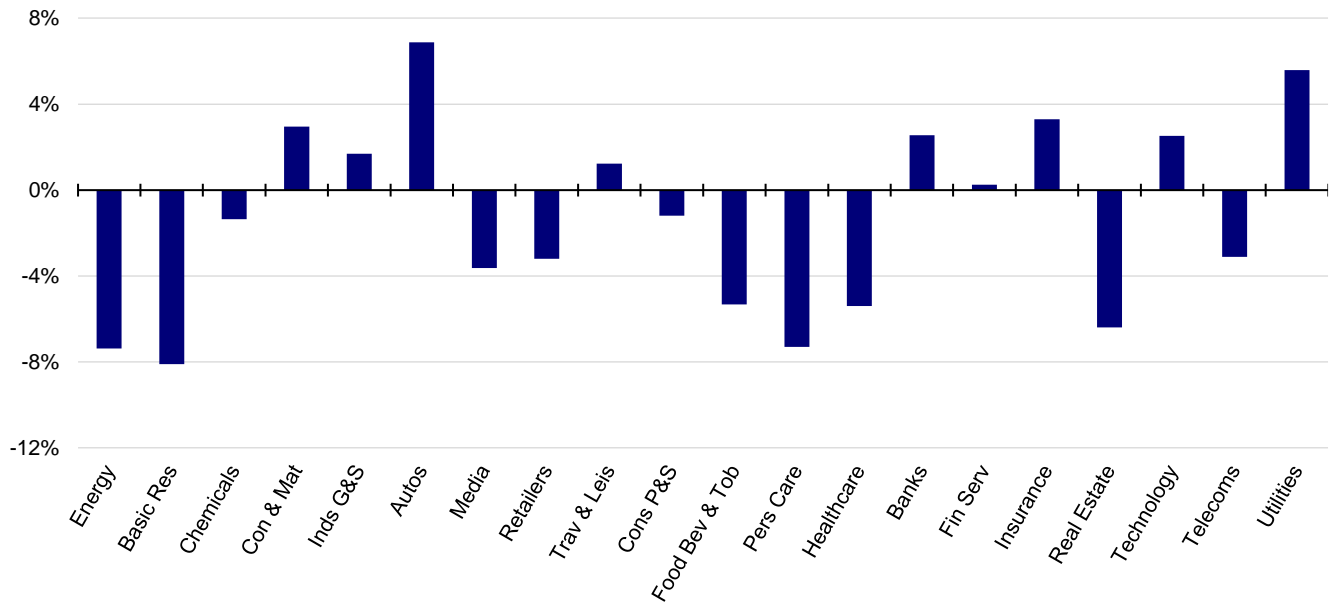
Notes: See appendices for methodology and disclaimers. Returns shown between 31 March 2023 and 30 June 2023. **Past performance is not a guarantee of future results.** Source: Refinitiv Datastream and Invesco

Figure 20 – 3m European sector returns relative to market



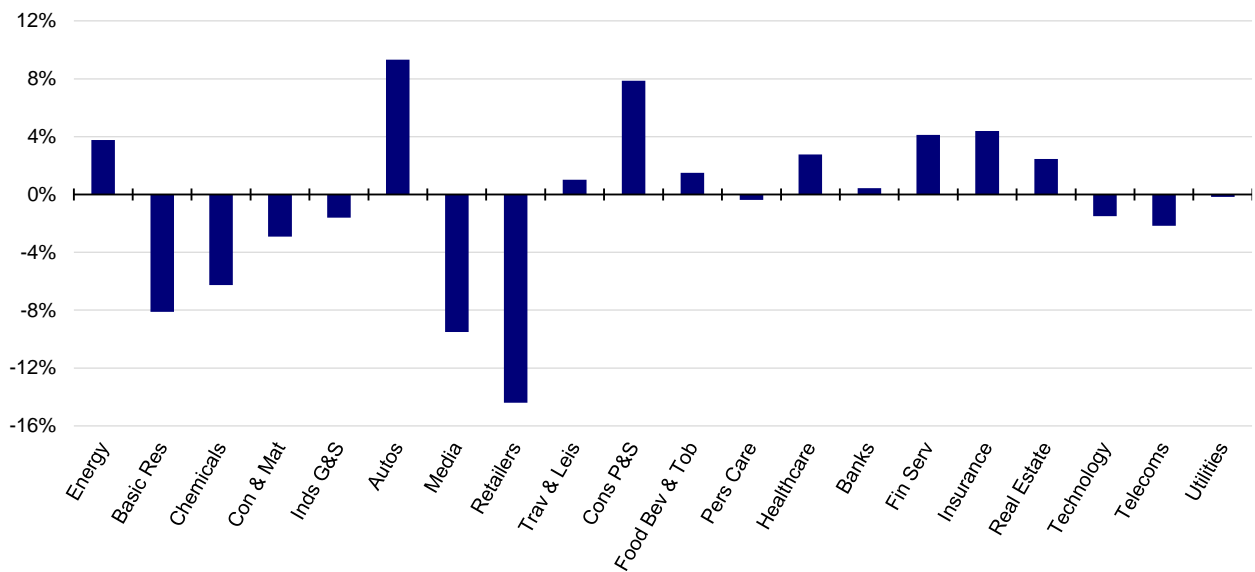
Notes: See appendices for methodology and disclaimers. Returns shown between 31 March 2023 and 30 June 2023. **Past performance is not a guarantee of future results.** Source: Refinitiv Datastream and Invesco

Figure 21 – 3m Japanese sector returns relative to market



Notes: See appendices for methodology and disclaimers. Returns shown between 31 March 2023 and 30 June 2023. **Past performance is not a guarantee of future results.** Source: Refinitiv Datastream and Invesco

Figure 22 – 3m Emerging Market sector returns relative to market



Notes: See appendices for methodology and disclaimers. Returns shown between 31 March 2023 and 30 June 2023. **Past performance is not a guarantee of future results.** Source: Refinitiv Datastream and Invesco

Appendix 3: Valuations tables

Figure 23 – Global absolute valuations

	Price/Earnings			Dividend Yield			Price/Book Value			Price/Cash Flow		
	Now	Avg	Now vs Avg*	Now	Avg	Now vs Avg*	Now	Avg	Now vs Avg*	Now	Avg	Now vs Avg*
Energy	8.7	14.5	-0.9	4.7	3.9	0.7	1.5	1.8	-0.5	5.0	6.3	-0.7
Basic Materials	11.8	16.6	-1.0	4.2	2.8	1.8	1.7	1.8	-0.2	6.3	7.1	-0.5
Basic Resources	10.1	16.8	-1.1	5.0	2.9	2.2	1.5	1.7	-0.3	5.4	7.0	-0.7
Chemicals	15.3	17.0	-0.3	3.2	2.9	0.4	2.0	1.9	0.1	7.9	7.6	0.2
Industrials	17.1	18.1	-0.2	2.2	2.3	-0.1	2.8	2.2	1.4	10.5	9.2	0.7
Construction & Mat.	17.7	16.7	0.3	2.1	2.5	-0.7	2.0	1.8	0.6	10.1	9.1	0.4
Industrial G&S	17.0	18.7	-0.3	2.2	2.2	0.0	2.9	2.2	1.5	10.6	9.3	0.7
Consumer Disc.	23.2	18.8	0.8	1.4	2.2	-1.1	3.3	2.1	2.4	11.6	8.6	1.7
Automobiles & Parts	14.7	15.1	0.0	2.0	2.6	-0.5	1.6	1.5	0.4	7.2	5.4	1.6
Media	30.1	21.6	1.1	1.1	2.1	-1.2	2.4	2.4	0.0	9.8	9.6	0.0
Retailers	32.2	21.4	1.7	1.1	1.9	-1.0	5.5	3.3	2.4	14.2	13.2	0.4
Travel & Leisure	20.9	23.4	-0.2	1.1	1.8	-1.0	6.2	2.6	3.8	13.7	9.3	1.4
Consumer Prod & Serv	25.2	19.3	1.2	1.4	2.4	-1.5	3.9	2.3	2.5	14.1	10.7	1.4
Consumer Staples	21.4	16.8	0.9	2.8	2.5	0.3	3.2	2.8	0.5	12.4	10.9	0.6
Food, Bev & Tobacco	20.5	18.4	0.4	3.0	2.7	0.4	2.9	2.7	0.4	12.8	11.0	0.6
Personal Care	23.5	20.4	0.5	2.3	2.4	-0.1	3.7	3.2	0.6	11.7	10.5	0.4
Healthcare	26.9	20.2	1.2	1.7	2.3	-0.8	4.0	3.3	0.6	15.3	12.7	0.7
Financials	12.1	15.6	-0.8	3.3	2.7	0.8	1.1	1.5	-0.7	5.0	5.8	-0.6
Banks	8.8	14.3	-1.1	4.2	3.0	1.4	1.0	1.4	-0.9	5.1	6.2	-0.6
Financial Services	21.4	18.3	0.6	2.1	2.3	-0.3	1.3	1.5	-0.5	11.5	9.1	1.1
Insurance	15.6	15.9	-0.1	3.2	2.5	1.0	1.6	1.7	-0.3	2.5	3.8	-1.3
Real Estate	18.6	19.1	-0.1	4.0	3.2	1.0	1.2	1.4	-0.8	13.9	13.6	0.1
Technology	31.0	24.2	0.6	0.8	1.6	-0.8	6.2	3.1	2.6	18.7	11.4	1.7
Telecommunications	15.8	17.4	-0.2	3.7	4.3	-0.3	1.9	2.7	-0.7	5.1	6.1	-0.4
Utilities	18.5	14.6	1.0	3.4	4.8	-0.8	1.8	1.6	0.6	8.2	5.7	1.7
Market	17.6	17.1	0.1	2.4	2.7	-0.4	2.3	2.0	0.6	9.0	7.8	0.7

Notes: *in standard deviations from historical average. Mat. = materials. G&S = goods & services. Disc. = discretionary. Prod & Serv = products & services. Bev = beverage. Data starts on 1st January 1973 for price/earnings and dividend yield and 1st January 1980 for price/book and price/cash flow. See appendices for methodology and disclaimers. Source: Refinitiv Datastream and Invesco

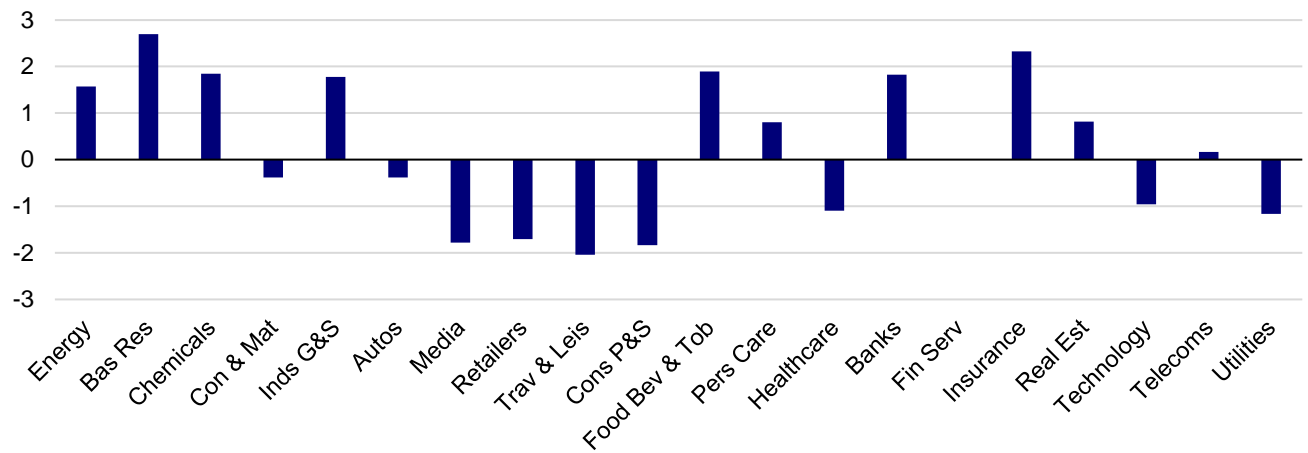
Figure 24 – Global cyclically-adjusted valuations

	Price/Earnings			Dividend Yield			Price/Book Value			Price/Cash Flow		
	Now	Avg	Now vs Avg*	Now	Avg	Now vs Avg*	Now	Avg	Now vs Avg*	Now	Avg	Now vs Avg*
Energy	15.3	18.7	-0.5	3.9	2.9	1.0	1.5	2.6	-0.9	6.7	8.7	-0.7
Basic Materials	18.4	23.1	-0.7	2.5	1.9	1.2	1.8	2.4	-0.8	6.4	9.5	-1.2
Basic Resources	17.3	21.4	-0.5	2.8	2.2	0.8	1.6	2.2	-0.6	5.0	8.9	-1.1
Chemicals	19.7	24.4	-0.9	2.3	1.9	1.0	2.2	2.7	-1.0	9.8	10.7	-0.5
Industrials	25.4	26.6	-0.2	1.5	1.5	0.1	3.1	3.0	0.3	13.9	12.9	0.4
Construction & Mat.	22.4	23.9	-0.1	1.8	1.9	-0.1	2.2	2.3	-0.1	11.8	11.6	0.0
Industrial G&S	25.9	27.3	-0.2	1.5	1.4	0.1	3.4	3.1	0.6	14.2	12.8	0.7
Consumer Disc.	26.7	27.0	-0.1	1.3	1.4	-0.4	3.3	3.0	0.8	13.3	11.8	0.8
Automobiles & Parts	17.1	18.9	-0.4	1.6	1.7	-0.2	1.7	2.0	-0.9	7.8	6.7	0.7
Media	22.6	30.0	-0.9	1.4	1.4	0.0	2.8	3.3	-0.4	12.1	13.1	-0.3
Retailers	34.9	32.2	0.4	1.0	1.1	-0.4	5.6	4.8	0.9	18.8	19.5	-0.2
Travel & Leisure	26.7	34.0	-0.7	1.3	1.1	0.4	4.1	3.5	0.7	13.3	13.0	0.1
Consumer Prod & Serv	29.8	28.6	0.3	1.4	1.6	-0.7	4.3	3.1	2.1	17.4	15.2	1.0
Consumer Staples	21.4	22.6	-0.3	2.2	1.6	1.4	3.5	3.8	-0.5	14.6	14.7	0.0
Food, Bev & Tobacco	25.1	28.2	-0.7	2.2	1.6	1.6	3.4	4.0	-1.4	15.3	16.3	-0.6
Personal Care	25.8	31.5	-0.8	2.0	1.4	1.4	4.0	4.9	-1.0	13.5	16.3	-1.2
Healthcare	33.7	31.6	0.3	1.3	1.4	-0.2	4.9	5.1	-0.2	19.5	19.6	0.0
Financials	14.7	23.3	-0.8	2.7	2.0	0.8	1.3	1.9	-1.1	6.8	7.3	-0.3
Banks	11.5	20.7	-1.0	3.5	2.3	1.0	1.0	1.7	-1.2	5.9	7.9	-0.9
Financial Services	20.9	29.3	-0.5	1.6	1.5	0.1	1.5	2.0	-0.9	13.4	11.2	0.9
Insurance	17.1	23.8	-0.7	2.3	1.6	1.0	1.7	2.5	-0.9	4.3	5.0	-0.7
Real Estate	13.3	26.3	-1.0	3.8	2.5	1.5	1.2	1.7	-1.2	13.4	16.9	-0.9
Technology	45.8	39.0	0.3	0.6	0.9	-0.6	8.0	4.8	1.4	26.6	18.5	0.9
Telecommunications	15.1	22.8	-0.8	4.1	3.0	0.8	2.0	3.4	-1.1	5.0	7.6	-0.9
Utilities	19.9	18.6	0.3	3.2	3.5	-0.4	1.8	2.0	-0.4	7.6	6.9	0.5
Market	22.8	24.7	-0.3	1.9	1.8	0.2	2.5	2.8	-0.5	11.2	10.7	0.3

Notes: *in standard deviations from historical average. Mat. = materials. G&S = goods & services. Disc. = discretionary. Prod & Serv = products & services. Bev = beverage. Data starts on 1st January 1983 for price/earnings and dividend yield and 1st January 1990 for price/book and price/cash flow. See appendices for methodology and disclaimers. Source: Refinitiv Datastream and Invesco

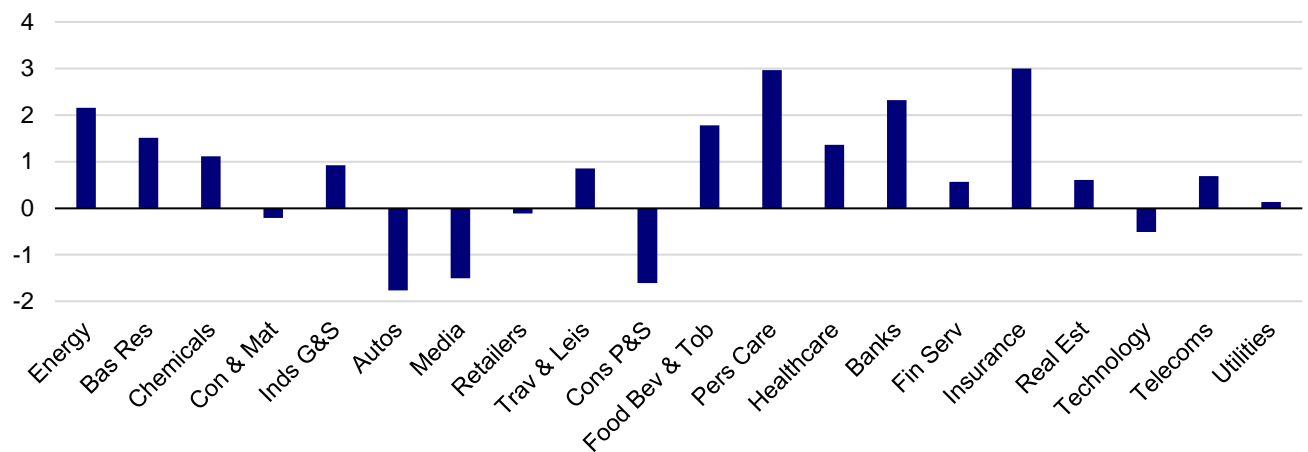
Appendix 4: Sector valuations by region

Figure 25 – Global dividend yields relative to market (z-score)



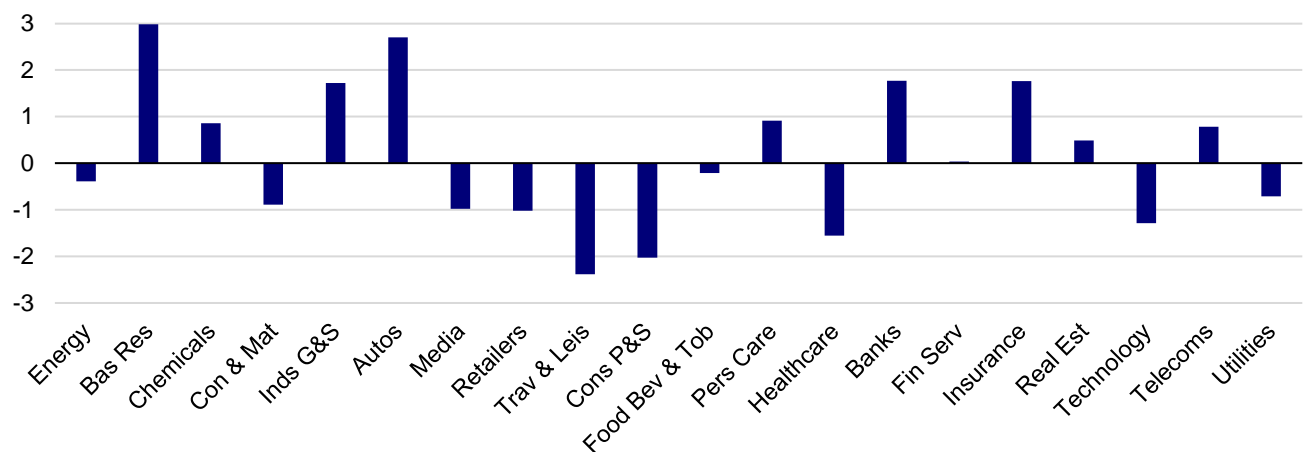
Notes: See appendices for methodology and disclaimers. Source: Refinitiv Datastream and Invesco

Figure 26 – US dividend yields relative to local benchmark (z-score)



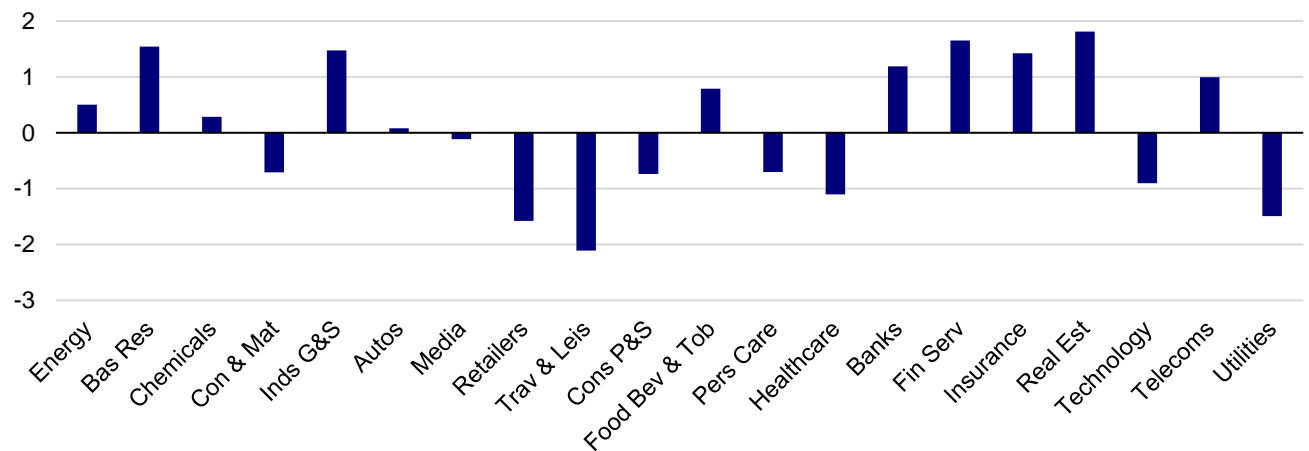
Notes: See appendices for methodology and disclaimers. The local benchmark is the Datastream US Total Market Index. Source: Refinitiv Datastream and Invesco

Figure 27 – Europe dividend yields relative to local benchmark (z-score)



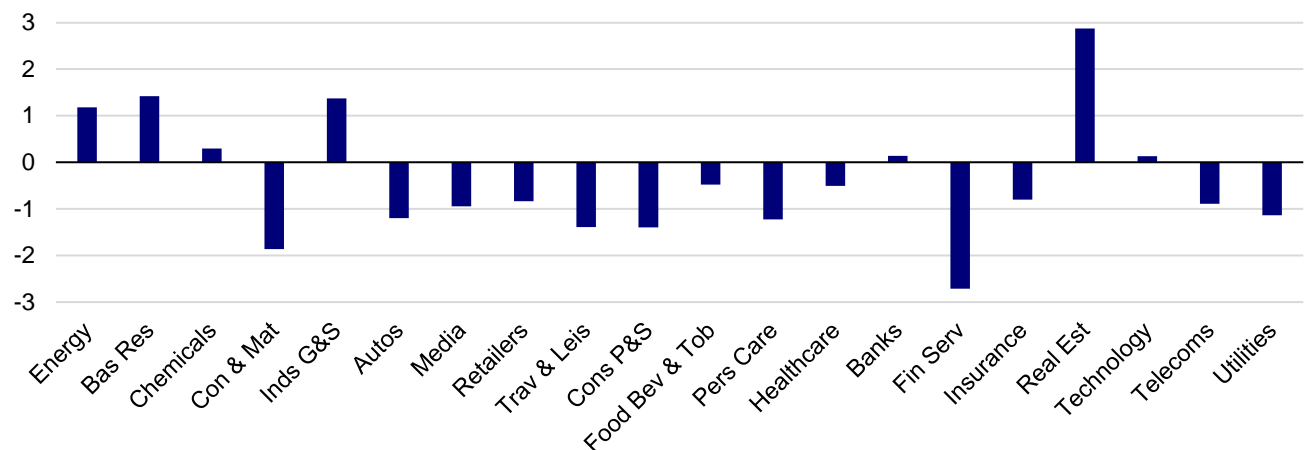
Notes: See appendices for methodology and disclaimers. The local benchmark is the Datastream Europe Ex-Emerging Total Market Index. Source: Refinitiv Datastream and Invesco

Figure 28 – Japan dividend yields relative to local benchmark (z-score)



Notes: See appendices for methodology and disclaimers. The local benchmark is the Datastream Japan Total Market Index. Source: Refinitiv Datastream and Invesco

Figure 29 – Emerging markets dividend yields relative to local benchmark (z-score)



Notes: See appendices for methodology and disclaimers. The local benchmark is the Datastream Emerging Markets Total Market Index. Source: Refinitiv Datastream and Invesco

Appendix 4: Performance tables

Figure 30 – Global equity sector total returns relative to market

Data as at 30/06/2023	Global				
	3m	YTD	12m	5y*	10y*
Energy	-2.4	-9.0	-8.7	-4.8	-5.6
Basic Materials	-7.1	-8.3	-2.4	-0.5	-0.7
Basic Resources	-8.3	-9.6	1.0	1.3	-0.4
Chemicals	-5.6	-6.6	-6.8	-3.0	-1.7
Industrials	-0.7	-0.9	5.4	-0.3	0.5
Construction & Materials	0.9	4.2	9.2	-0.6	-1.2
Industrial Goods & Services	-0.9	-1.6	4.9	-0.2	0.8
Consumer Discretionary	1.9	8.4	5.7	-1.5	-0.4
Automobiles & Parts	9.2	24.8	0.4	2.0	-0.5
Media	-2.2	4.8	9.3	-4.4	-2.4
Retailers	2.7	4.4	0.5	-2.1	0.1
Travel & Leisure	1.7	6.2	15.2	-4.6	-1.8
Consumer Products & Services	-2.7	5.3	11.6	0.4	0.7
Consumer Staples	-5.6	-9.1	-7.9	-3.3	-2.3
Food, Beverage & Tobacco	-6.0	-8.7	-7.6	-2.2	-2.6
Personal Care, Drug & Grocery Stores	-4.8	-9.9	-8.3	-2.7	-2.2
Healthcare	-2.8	-9.7	-7.7	1.0	1.7
Financials	-0.8	-7.8	-2.8	-1.9	-1.5
Banks	-1.0	-8.7	-4.6	-4.4	-3.4
Financial Services	-0.4	-5.9	-0.7	0.7	1.4
Insurance	-1.2	-8.4	-1.9	0.0	0.1
Real Estate	-5.0	-10.5	-17.7	-6.7	-4.3
Technology	8.5	23.4	13.8	8.8	9.1
Telecommunications	-6.5	-5.3	-11.6	-3.1	-4.2
Utilities	-4.0	-9.4	-8.0	0.1	-1.2

Notes: *showing annualised returns. Returns shown are for Datastream sector indices versus the total market index. **Past performance is no guarantee of future results.** Source: Refinitiv Datastream and Invesco

Appendix 5: Methodology

Multiple regression analysis

We have run a multiple regression analysis to examine how macroeconomic factors influence sector valuations. We have used the dividend yield relative to market as the dependent variable and have run the regressions with the following independent variables:

Monthly series since 31/01/1991:

- **1-year change in:** industrial production, consumer price index
- **The level of:** real oil price (US CPI adjusted), real copper price (US CPI adjusted), consumer confidence index, manufacturing confidence index, 10-year benchmark government bond yield, net debt/EBITDA (only for non-financial sectors), return on equity

We calculate a global measure of industrial production growth, consumer price index growth, consumer confidence, manufacturing confidence and government bond yields using data from four regions or countries representing 65% of global Gross Domestic Product: United States, Europe, Japan and China. The global measures are weighted averages using Datastream global index market capitalisations as weights.

This analysis shows us which independent variables have a statistically significant relationship with sector valuation ratios. In addition, the regression coefficients tell us how much each independent variable influences those ratios. Finally, we use those coefficients to calculate what the valuation ratios should be, based on the model, and compare them to currently observed valuations. In theory, this allows us to determine whether a sector is undervalued or overvalued based on the macroeconomic factors we have used.

Sector classification

We use the Industry Classification Benchmark (ICB).

Leverage and profitability ratios

We calculate Net Debt/EBITDA from sector and market level aggregates supplied by Refinitiv Datastream. They define Net Debt as Total Debt minus Cash, where Cash represents Cash & Due from Banks for Banks, Cash for Insurance companies and Cash & Short Term Investments for all other industries. We tend to exclude Financials from Net Debt/EBITDA comparisons for it is difficult to distinguish debt they sell as a product and debt they incur during the operation of the business. In addition, Refinitiv Datastream define EBITDA – Earnings before Interest, Taxes and Depreciation – as the earnings of a company before interest expense, income taxes and depreciation. It is calculated by taking the pre-tax income and adding back interest expense on debt and depreciation, depletion and amortisation and subtracting interest capitalised.

Decomposed returns

We break down total returns into 3 components to examine what has driven sector performance year-to-date, in the last 12 months and for the whole history of the index. “Yield” shows the income investors received from dividends paid during the period concerned. “Growth” shows the rate of dividend growth, calculated using the percentage change in dividend per share (DPS) values for the sector indices. DPS is calculated as dividend yield times the price index. “Multiple Change” refers to the change in dividend yield between the two periods indicated, plus the change in dividend yield times dividend growth. We use it to measure investor expectations and sentiment regarding the sectors.

Implied perpetual growth models

A valuation cross-check is sought by calculating the perpetual real growth in dividends required to justify current prices. This then allows an evaluation of whether those implied growth rates are realistic.

We use a simple perpetual growth model to calculate implied growth. If $\text{Price} = \text{Dividend}/(\text{Discount Factor} - \text{Growth})$, then $\text{Growth} = \text{Discount Factor} - \text{Dividend Yield}$. The Discount Factor is equal to $\text{Risk Free Rate} + (\text{Beta} \times \text{Market Risk Premium})$. Everything is expressed in real terms to eliminate the distorting influence of inflation, the output being growth in real terms. The important ingredients are derived as follows:

- The risk-free rate is an equity market capitalisation weighted average of US, UK, Eurozone, Japanese and Chinese 10-year real yields.
- Sector betas are calculated using five years of weekly price movements relative to the global market index.
- The risk premium is derived from US equity and treasury market returns since 1871.
- The dividend yield for each sector is the 12-month trailing yield calculated by Datastream.

Sector allocations

We start by considering where the equity markets are in their respective economic cycles, which determines whether cyclical or defensive sectors are more likely to outperform. Our preferred measure of cyclical sensitivity is beta. Sector betas are calculated using five years of weekly price movements relative to the local market index.

Next, we refine our decisions by looking at how sector yields relative to the market relate to the ratio calculated by our multiple regression model and how much dividend growth is implied in current trailing 12-month dividend yields relative to market.

Finally, we rank sectors by their recent volatility, using the standard deviation of daily returns for the three months before our cut-off date. After that we rank sectors by their 12-month trailing dividend yield. Based on our thematic report about sector strategies, Sector strategies: Control your volatility, combining these approaches provided the best cost-adjusted and risk-adjusted returns in the US, and was among the best in cost-adjusted returns in Europe.

An investment decision is the result of balancing a range of factors and the weightings applied to those factors can vary across time and sectors. "Overweight" suggests that we prefer to hold more of the given sector than suggested by the market capitalisation-weighted "neutral" position. "Underweight" suggests we prefer to hold less of the given sector than suggested by the market capitalisation-weighted "neutral" position. "Neutral" suggests a holding in line with the market capitalisation-weighted benchmark.

Preferred regions

We measure sector valuations relative to their respective local benchmarks in the United States, Europe, Japan and Emerging Markets. We calculate a z-score comparing the latest relative dividend yield to its historical average, which gives us a standardised way to measure how far valuations are from those averages in each region. Our normal preference would be for the cheapest region based on this measure, but we also take into account thematic and other fundamental considerations.

Appendix 6: Abbreviations

Changes in allocations on the front page: OW = Overweight, N = Neutral, UW = Underweight

Sector name abbreviations:

Autos = Automobiles & parts
Basic Res = Basic Resources
Chem = Chemicals
Con & Mat = Construction & Materials
Cons P&S = Consumer Products & Services
Fin Serv = Financial Services
Food, Bev & Tob = Food, Beverage & Tobacco
Ind G&S = Industrial Goods & Services
Pers Care = Personal Care, Drug & Grocery Stores
Pers & Hh Gds = Personal & Household Goods
Real Est = Real Estate
Tech = Technology
Telecoms = Telecommunications
Trav & Leis = Travel & Leisure

Appendix 7: Definitions of data and benchmarks

Sources: we source data from Refinitiv Datastream unless otherwise indicated.

Government bonds (figure 3): Current values use Refinitiv Datastream benchmark 10-year yields for the US, Eurozone, Japan and the UK and the Thomson Reuters China benchmark 10-year yield for China.

Value sectors: stocks or sectors that have low price/book value or price/earnings multiples or high dividend yields. Some of these stocks or sectors may generally trade at a discount compared to the market if investors expect their earnings or dividends to grow at a slower pace than the market. Examples of such sectors are utilities, telecommunications, banks and oil & gas.

Growth sectors: stocks or sectors that have high price/book or price/earnings multiples or low dividend yields, because investors expect them to have high earnings or dividend growth. Examples of these sectors are technology, healthcare and food & beverage.

Defensive sectors: stocks or sectors that have business models that investors consider to be relatively stable throughout the business cycle. We refer to the following sectors as defensive: food & beverage, personal & household goods, healthcare, telecommunications and utilities.

Cyclical sectors: stocks or sectors that have business models that investors consider to be sensitive to the economic cycle. We refer to the following sectors as cyclical: oil & gas, basic resources, chemicals, construction & materials, industrial goods & services, automobiles & parts, media, retail, travel & leisure, banks, financial services, insurance, real estate and technology.

Growth factor: a subset of the S&P 500 in the US and the Stoxx 600 index in Europe and includes stocks in the top third based on both their 5-year sales per share trend and their internal growth rate (the product of the 5-year average return on equity and the retention ratio).

Low volatility factor: a subset of the S&P 500 in the US and the Stoxx 600 index in Europe and includes stocks in the bottom quintile based on the standard deviation of their daily returns in the previous three months.

Price momentum factor: a subset of the S&P 500 in the US and the Stoxx 600 index in Europe and includes stocks in the top quintile based on their performance in the previous 12 months.

Quality factor: a subset of the S&P 500 in the US and the Stoxx 600 index in Europe and includes stocks in the top third based on both their return on invested capital and their EBIT to EV ratio (earnings before interest and taxes to enterprise value).

Size factor: a subset of the S&P 500 in the US and the Stoxx 600 index in Europe and includes stocks in the bottom quintile based on their market value in US dollars for the US and euros for Europe.

Value factor: a subset of the S&P 500 in the US and the Stoxx 600 index in Europe and includes stocks in the bottom quintile based on their price to book value ratios.

Data as of 30 June 2023 unless stated otherwise. This publication is updated quarterly.

Important information

Your capital is at risk. You may not get back the amount you invested.

By accepting this document, you consent to communicating with us in English, unless you inform us otherwise.

This document is intended only for Professional Investors in Hong Kong, for Institutional Investors and/or Accredited Investors in Singapore, for certain specific sovereign wealth funds and/or Qualified Domestic Institutional Investors approved by local regulators only in the People's Republic of China, for certain specific Qualified Institutions and/or Sophisticated Investors only in Taiwan, for Qualified Professional Investors in Korea, for certain specific institutional investors in Brunei, for Qualified Institutional Investors and/or certain specific institutional investors in Thailand, for certain specific institutional investors in Malaysia upon request, for certain specific institutional investors in Indonesia and for qualified buyers in Philippines for informational purposes only. This document is not an offering of a financial product and should not be distributed to retail clients who are resident in jurisdiction where its distribution is not authorized or is unlawful. Circulation, disclosure, or dissemination of all or any part of this document to any unauthorized person is prohibited.

This document may contain statements that are not purely historical in nature but are "forward-looking statements," which are based on certain assumptions of future events. Forward-looking statements are based on information available on the date hereof, and Invesco does not assume any duty to update any forward-looking statement. Actual events may differ from those assumed. There can be no assurance that forward-looking statements, including any projected returns, will materialize or that actual market conditions and/or performance results will not be materially different or worse than those presented.

All material presented is compiled from sources believed to be reliable and current, but accuracy cannot be guaranteed. Investment involves risk. Please review all financial material carefully before investing. The opinions expressed are based on current market conditions and are subject to change without notice. These opinions may differ from those of other Invesco investment professionals.

The distribution and offering of this document in certain jurisdictions may be restricted by law. Persons into whose possession this marketing material may come are required to inform themselves about and to comply with any relevant restrictions. This does not constitute an offer or solicitation by anyone in any jurisdiction in which such an offer is not authorised or to any person to whom it is unlawful to make such an offer or solicitation.

This document is issued in the following countries:

- in Hong Kong by Invesco Hong Kong Limited 景順投資管理有限公司, 45/F, Jardine House, 1 Connaught Place, Central, Hong Kong and has not been reviewed by the Securities and Future Commission.
- in Singapore by Invesco Asset Management Singapore Ltd, 9 Raffles Place, #18-01 Republic Plaza, Singapore 048619.
- in Taiwan by Invesco Taiwan Limited, 22F, No.1, Songzhi Road, Taipei 11047, Taiwan (0800-045-066). **Invesco Taiwan Limited is operated and managed independently.**

Authors

Paul Jackson
Global Head of Asset Allocation Research
Telephone +44(0)20 3370 1172
paul.jackson@invesco.com
London, EMEA

András Vig
Multi-Asset Strategist
Telephone +44(0)20 3370 1152
andras.vig@invesco.com
London, EMEA

Global Market Strategy Office

Kristina Hooper
Chief Global Market Strategist
kristina.hooper@invesco.com
New York, Americas

Tomo Kinoshita
Global Market Strategist, Japan
tomo.kinoshita@invesco.com
Tokyo, Asia Pacific

Brian Levitt
Global Market Strategist, Americas
brian.levitt@invesco.com
New York, Americas

Talley Léger
Investment Strategist, Equities
talley.leger@invesco.com
New York, Americas

Arnab Das
Global Market Strategist
arnab.das@invesco.com
London, EMEA

Adam Burton
Senior Economist
adam.burton@invesco.com
London, EMEA

Paul Jackson
Global Head of Asset Allocation Research
paul.jackson@invesco.com
London, EMEA

András Vig
Multi-Asset Strategist
andras.vig@invesco.com
London, EMEA

David Chao
Global Market Strategist, Asia Pacific
david.chao@invesco.com
Hong Kong, Asia Pacific

Thomas Wu
Market Strategies Analyst, Asia Pacific
thomas.wu@invesco.com
Hong Kong, Asia Pacific

Ashley Oerth
Investment Strategy Analyst
ashley.oerth@invesco.com
London, EMEA

Cyril Birks
Global Thought Leadership Intern
cyril.birks@invesco.com
London, EMEA

Telephone calls may be recorded.