Strategic Sector Selector

Cloudy with a chance of recession

The slump in global equities deepened in the second quarter of 2022 as concerns about a recession replaced fears of high inflation and an escalation of the war in Ukraine seemed less likely. The US Federal Reserve has maintained its hawkish stance despite the increasing threat of a significant slowdown in economic growth. We think the probability of our downside tail risk scenario has increased and therefore we shift into a more defensive allocation. We change our exposure to cyclicals to Neutral by downgrading both late-cyclicals, such as basic resources and industrial goods & services, and early-cyclicals including retailers, travel & leisure and financial services. In turn, we raise consumer staples to Overweight and telecommunications to Neutral. Finally, we upgrade real estate where high yields could provide some stability, in our view, and media, which we find more attractive after significant underperformance.

Changes in allocations:

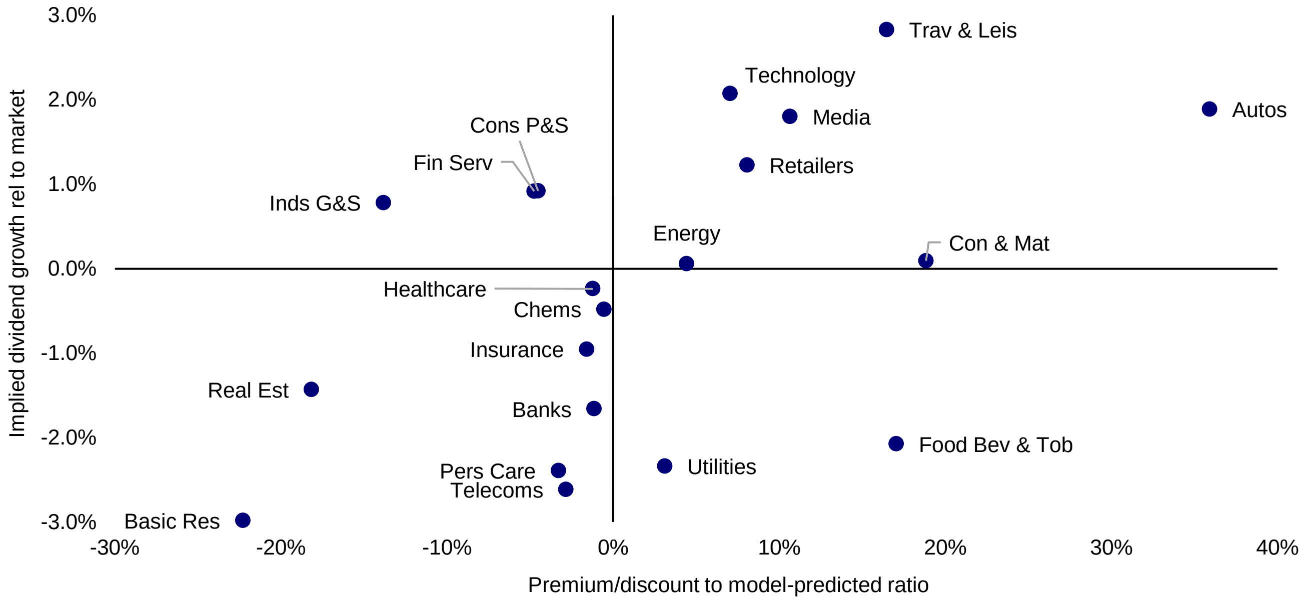
- Upgrades: media, food, beverage & tobacco, personal care, drug & grocery stores, real estate (N to OW), telecommunications (UW to N)
- Downgrades: basic resources, industrial goods & services, retailers (OW to N), travel & leisure, financial services (OW to UW)

	Most favoured	Least favoured
Sector	US healthcare	European travel & leisure
	EM technology	European energy

Sectors where we expect the best returns:

- Healthcare: exposure to moderating rate expectations, defensive sector, strong pricing power
- Real estate: high yield, attractive relative valuations, decent dividend growth prospects
- Technology: resilient demand for products and services, high margins, exposure to growth factor

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

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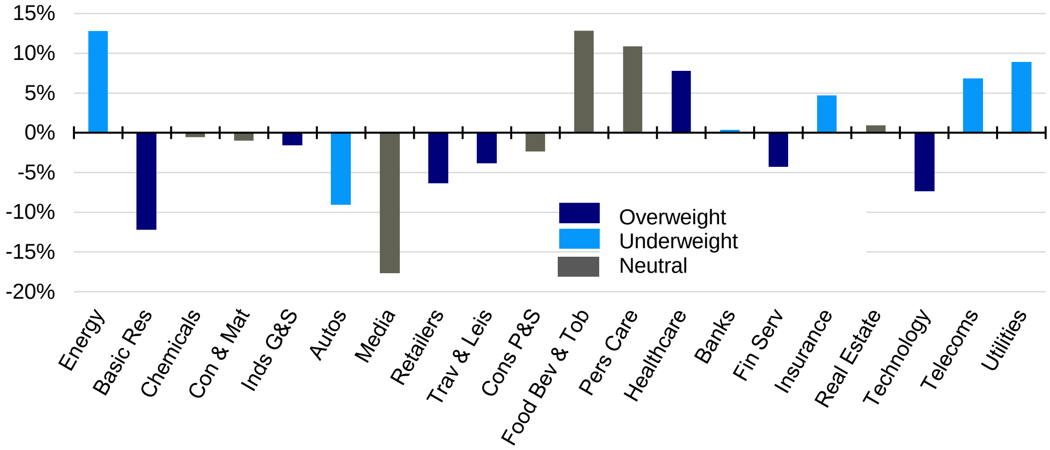
Summary and conclusions

Since the last time

The sell-off in global equities deepened in the second quarter of 2022: the MSCI All Country World index fell by 13.5% on a total return basis (in local currency terms). Commodity prices remained high as the war raged on in Ukraine fuelling concerns of inflation staying higher and for longer than previously expected. Central banks around the world raised interest rates and signalled their commitment to decreasing inflation rates even if it comes at the price of lower economic growth. We believe this contributed to the darkening mood in financial markets as concerns over future earnings added to the valuation compression driven by expectations of rising interest rates.

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



Notes: See appendices for methodology and disclaimers. Returns shown between 31st March 2022 and 30th June 2022. Colours indicate allocations in period considered. **Past performance is not a guarantee of future results.** Source: Refinitiv Datastream and Invesco

Figure 2 shows how these concerns manifested in sector returns with few sectors outperforming apart from those we consider defensives: food, beverage & tobacco; personal care, drug & grocery stores; healthcare; telecommunications and utilities. Energy was the best performer driven by high oil and natural gas prices on supply disruptions and Russian threats of a shutdown of deliveries to Western Europe. Our turn towards a more defensive stance with our Overweight in healthcare worked out well, although perhaps we could have taken an even more cautious stance (with the benefit of hindsight).

Asset allocation backdrop

Having been too expansive for too long (in our opinion), major central banks have started to tighten aggressively, with obvious exceptions in China and Japan. Sharp policy rate hikes and the switch from quantitative easing (QE) to quantitative tightening (QT) have driven bond yields much higher. Though recession is not our central scenario, we think this rapid change in financial conditions increases the likelihood, especially given the slowdown that was already in motion (see The Big Picture for the full details). Importantly, though we believe bond yields may need to go higher in the long-term, we suspect that long-yields will shortly peak for this cycle and expect flattening (and perhaps inversion) of yield curves (see **Figure 3** for our market targets for major benchmarks).

We think that equities will suffer a more dramatic slowdown in dividends than real estate, for example, and yields are lower. The rise in government bond yields has caused a widening of the yield gap versus equity dividend yields in many regions. That, and our concern about the risk of recession, pushes us to partly facilitate the rise in the government bond weighting by reducing the allocation to equities (from the previously Overweight 50% to a slightly Underweight 40%). This is a rapid turnaround after going Overweight in March, but circumstances have changed a lot since then.

On the other hand, real estate (REITs) offers reasonable yields and moderate growth in rentals and dividends. Our projected returns suggest it will be the most remunerative asset over the next 12 months and we boost the allocation to an Overweight 10% (from the Neutral 8%).

The biggest change in our Model Asset Allocation is that we are adopting an Overweight stance in government bonds for the first time since September 2016. The rising risk of recession increases the likelihood of falling yields, while we expect yields on both real estate and equities to be flat to slightly up. Cash maintains many of its diversifying qualities (low volatility and low correlation to other assets) and interest rates are rising. However, our projections suggest better returns on government bonds, which we think now offer compensation for the higher volatility. We have therefore reduced the cash allocation to 5%, which is still above Neutral (2.5%).

Our projections suggest returns on IG will be less than on government bonds but with more volatility. Hence, we have also reduced the IG allocation to permit the swing to government bonds. The IG allocation is reduced from the Maximum 20% to a still Overweight 15%. That dampening of riskiness in the Model Asset Allocation is deepened by the elimination of high-yield credit (HY), which was previously at an Underweight 2%. Though yields and spreads to government yields have risen, we fear a further rise in spreads and more defaults as economies slow.

We eliminated **commodities** too early and have missed this year’s rally. However, we feel that many have already peaked and stick to a zero allocation (including gold).

Figure 3 – Market forecasts

	Current (30/06/22)	Forecast 12-month
Central Bank Rates		
US	1.75	3.25
Eurozone	-0.50	1.00
China	4.35	4.00
Japan	-0.10	0.00
UK	1.25	2.00
10y Bond Yields		
US	2.97	3.25
Eurozone	1.37	1.00
China	2.82	3.00
Japan	0.23	0.10
UK	2.21	1.75
Exchange Rates/US$		
EUR/USD	1.05	1.10
USD/CNY	6.70	6.60
USD/JPY	135.75	120.00
GBP/USD	1.22	1.30
USD/CHF	0.96	0.90
Equity Indices		
S&P 500	3785	3700
Euro Stoxx 50	3455	3400
FTSE A50	14974	13500
Nikkei 225	26393	27250
FTSE 100	7169	7250
Commodities (US$)		
Brent/barrel	120	100
Gold/ounce	1807	1700
Copper/tonne	8254	8000

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

The sentiment equity markets reflected in the second quarter of 2022 darkened considerably compared to the first three months of this year. Concerns about stagflation seemed to morph into worries about a more garden-variety recession triggered by either the higher cost of living restricting discretionary purchases by consumers or "overtightening" by the US Federal Reserve. Although, we still think that the current global economic cycle will not end imminently, we believe that risks are more elevated than at the beginning of the year. When most major economies are in a late-cycle stage or in recession, we believe it makes sense to rotate into a more defensive stance.

Nevertheless, we believe that the underperformance of most cyclical sectors year-to-date argues for a balanced approach, as we outlined in the latest edition of The Big Picture. Thus, we downgrade **basic resources** (which has outperformed year-to-date) from Overweight to **Neutral**. The sector appears the cheapest on both our multiple regression model and using implied perpetual dividend growth, but we think that reflects the cyclical peak in dividends in the last 12 months. The next year looks more challenging after prices of industrial metals dropped mostly driven by recessionary concerns in the developed world and Chinese lockdowns, so pay-outs may be less generous, thereby restricting dividend growth. We believe the sector will play a major role in supplying materials for the "green transition" and infrastructure investment, but we would wait for a more appropriate entry point within the economic cycle.

We also downgrade **industrial goods & services** to **Neutral**, a sector we still feel can provide a diversified exposure including aerospace & defence, payment systems, vehicle manufacturers and logistics providers. However, as the cycle turns, we are concerned that margin pressures will dent profitability despite mooted increases in defence spending. 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 supply chain bottlenecks ease, while demand in aerospace manufacturing may be lower as long as airline traffic is constrained by labour shortages. 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 reshuffle our allocations within consumer discretionary after the "great reopening" following COVID-19 restrictions turned out to be less enthusiastic than we expected. We downgrade **travel & leisure** to **Underweight** from Overweight as any boost from pent-up demand seems to be restricted by labour shortages. Unfortunately, we believe the future also presents too many headwinds at the moment: labour shortages may persist for longer and labour costs could rise at the same time, high fuel costs will remain an issue, and demand may soften as consumers retreat if the economy slows further or higher costs start eating into their disposable income.

Retailers face many of the same issues with two crucial differences, in our view: a higher exposure to the growth factor, which may limit downside and a better mix between staples (in the form of food retail) and discretionary. We downgrade the sector to **Neutral** from Overweight. If we are correct in assuming that equity markets have started to look through peak interest rates and expectations for rate rises stabilise, exposure to the growth factor may be an advantage. This is one of the reasons why we upgrade **media** to **Overweight** from Neutral. It has also been the worst performing sector year-to-date and therefore could be worth considering as a contrarian idea despite challenging valuations. We also believe that the sector may provide a cheaper alternative to going out if consumer finances become more constrained.

As the risks to our economic outlook increase, we raise our allocation to defensive sectors. 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 (however unlikely it may look at the moment). Therefore, we upgrade both **food, beverage & tobacco** and **personal care, drug & grocery stores** to **Overweight** from Neutral. Despite their outperformance year-to-date, their valuations do not look stretched. While food, beverage & tobacco trades at a premium 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%.

A slowing economy transitioning from late-cycle to end-of-cycle and inflation eating into disposable incomes signals more difficult times ahead for the **financial services** sector, in our view. Although it trades at a slight discount compared to that implied by our multiple regression model, assuming financial market volatility remains high and there will be less demand for their products, we would prefer to wait for those valuations to come down further. We downgrade to **Underweight**.

Following our change of allocation in the latest The Big Picture, we upgrade **real estate** to **Overweight**. It is the second cheapest sector based on our multiple regression model and its implied perpetual dividend growth of 0.7% looks attractive compared to the market. It also gives us exposure to the value factor, while its reliable dividends could be a hedge against potential further downside (it outperformed in a turbulent Q2 this year).

Finally, we upgrade **telecommunications** to **Neutral** to raise our defensive exposure further. While its valuations look attractive on implied perpetual dividend growth, it looks close to fair value using our multiple regression model. On the other hand, we feel that it is less likely to underperform until the next economic cycle starts.

The best and worst of the rest

Based on our expectation of a "war of attrition", we believe oil prices will be lower in a year's time. That implies rockier times ahead for the **energy** sector, the best performing sector in the last 12 months, even if recent returns lagged commodity prices. We are concerned about its valuation being at a premium versus what our multiple regression model implies considering 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 was one of the sectors we deemed to have been well-positioned for resilience during the pandemic, but we think it may struggle to outperform in the current economic environment, thus we maintain our **Neutral** allocation. It looks close to fair value on our multiple regression model and its implied dividend growth is also in line with the market. One of its main input costs has risen with oil prices trading around $100 per barrel and we think environmental concerns are resuming as consumers emerge from "survival mode", thus reducing the demand for plastic products.

Although **automobiles & parts** underperformed year-to-date, we feel it is prudent to remain **Underweight**. It remains one of the most richly valued sectors on our models and concerns about economic growth and supply chain pressures do not look to be easing in the near future. We doubt the sector will achieve its currently implied 4.1% perpetual real dividend growth, especially if China struggles to tame its Omicron wave.

We maintain our **Neutral** allocation to **consumer products & services**, even though it has been among the worst performing sectors year-to-date. We think the sector would struggle to outperform in an environment of moderating economic growth, high inflation, a preference for experiences over goods, and going out over staying in. Its valuations may no longer appear rich, but we would prefer to wait for a more supportive macroeconomic environment to consider increasing our allocation.

We think recession is not around the corner, but the risk of a more pronounced slowdown is higher. Thus, we believe it makes sense to keep our **Overweight** allocation to **healthcare**. As a growth sector, it suffered in the early parts of 2022 as the Fed became increasingly hawkish. Although the sector's valuations look close to fair value on both of our models, we are positive on its relative outlook if expectations of monetary tightening move closer to our forecasts as the year progresses.

We remain concerned about the profitability of **banks** and therefore stick to our **Underweight** allocation. Loan growth has remained sluggish, especially in the US, which may be partly driven by consumers reducing savings rates to increase spending, rather than taking on more debt. Although we expect treasury yields to climb higher in the next 12 months, we believe that yield curves will flatten. Profits may suffer if loan loss reserves need to be increased, while the M&A and capital raising cycle seems to have turned. The sector is no longer cheap enough on our multiple regression model, in our view, although its implied perpetual dividend growth is still below that of the market.

We also keep our **Underweight** in **insurance**, which we expect to be exposed to risk from natural disasters and could struggle to generate adequate returns if our forecasts for financial markets play out in the next 12 months. Although its valuations seem close to fair value, we are concerned that it will underperform in a late-cycle environment.

We maintain our **Overweight** allocation to **technology**, which we think will continue to benefit from the structural trends accelerated and amplified by the COVID-19 crisis. Valuations look rich on implied perpetual dividend growth, but they are nowhere near the extremes of the tech bubble. We suspect the changing composition of the sector played a part in reducing its volatility and cyclicality, thus making it an unexpected defensive. Also, we value the high margins and solid cash generation in a time of increasing cost pressures. While rising interest rates present a threat of further multiple compression, the sector’s price/earnings ratio has decreased substantially since its peak in early 2021.

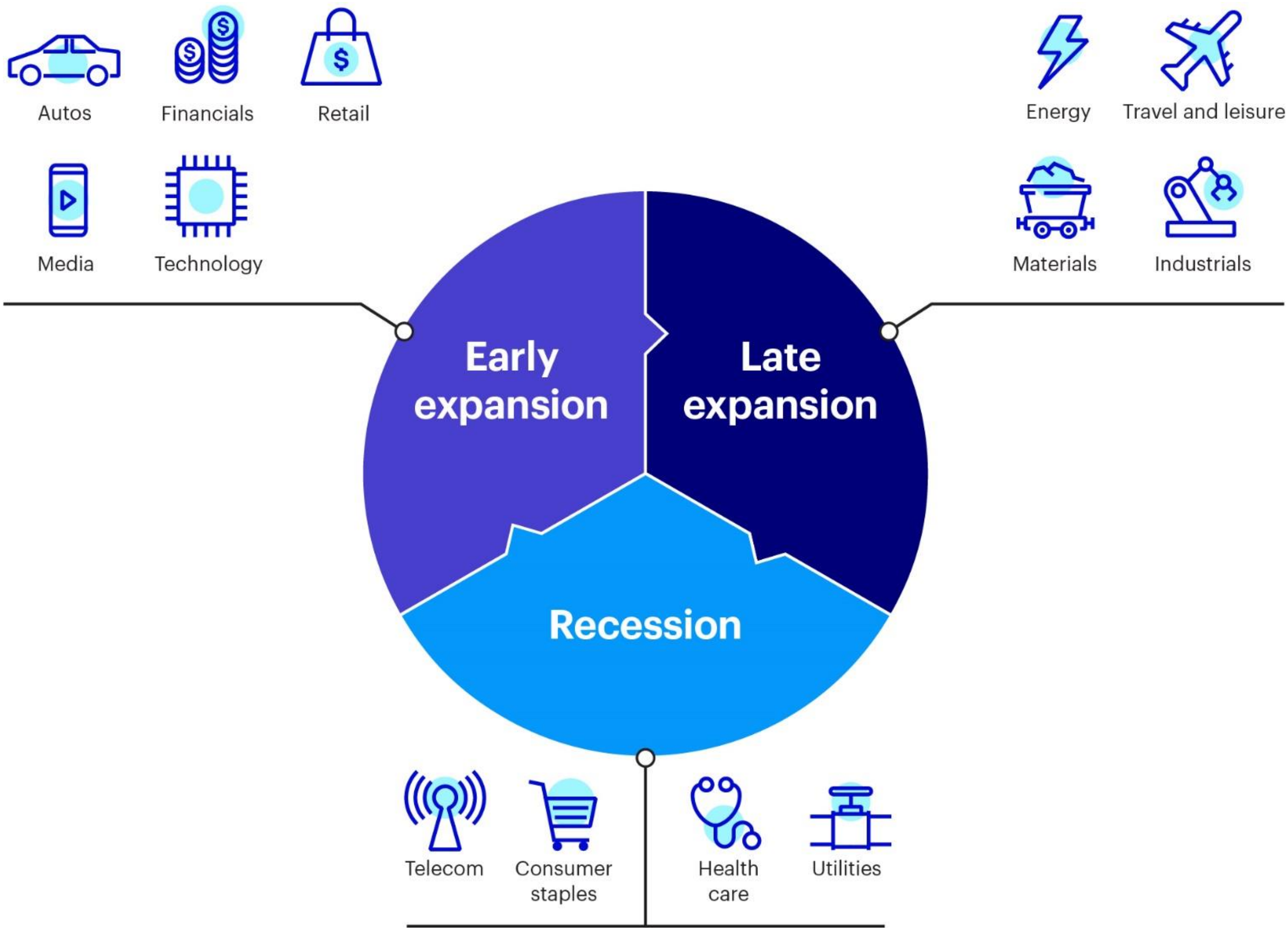
We also keep **utilities Underweight**, because we think they will struggle to outperform even if equity market volatility remains high. We are especially worried about utilities if margins are squeezed further by high input prices and investment costs, while regulators keep consumer charges under control.

Figure 4 – Model allocations for Global sectors

	Neutral	Invesco		Preferred Region
Energy	**8.2%**	**Underweight**		**US**
Basic Materials	**4.3%**	**Neutral**	↓	**Europe**
Basic Resources	2.4%	Neutral	↓	Europe
Chemicals	1.9%	Neutral		US
Industrials	**12.3%**	**Neutral**	↓	**US**
Construction & Materials	1.5%	Neutral		EM
Industrial Goods & Services	10.8%	Neutral	↓	US
Consumer Discretionary	**13.9%**	**Neutral**		**US**
Automobiles & Parts	2.8%	Underweight		Europe
Media	0.9%	Overweight	↑	US
Retailers	4.8%	Neutral	↓	US
Travel & Leisure	1.9%	Underweight	↓	US
Consumer Products & Services	3.5%	Neutral		Japan
Consumer Staples	**6.7%**	**Overweight**	↑	**US**
Food, Beverage & Tobacco	4.4%	Overweight	↑	US
Personal Care, Drug & Grocery Stores	2.3%	Overweight	↑	US
Healthcare	**10.5%**	**Overweight**		**US**
Financials	**15.2%**	**Underweight**		**Japan**
Banks	7.5%	Underweight		Japan
Financial Services	4.9%	Underweight	↓	Japan
Insurance	2.8%	Underweight		US
Real Estate	**3.5%**	**Overweight**	↑	**EM**
Technology	**18.0%**	**Overweight**		**EM**
Telecommunications	**3.8%**	**Neutral**	↑	**Japan**
Utilities	**3.7%**	**Underweight**		**Europe**

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

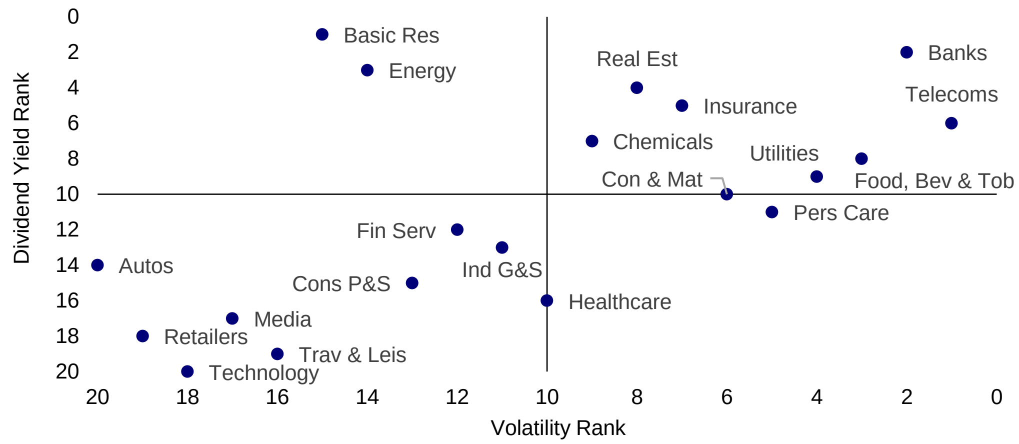
Figure 5 – Economic cycle and main sector allocation decisions



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

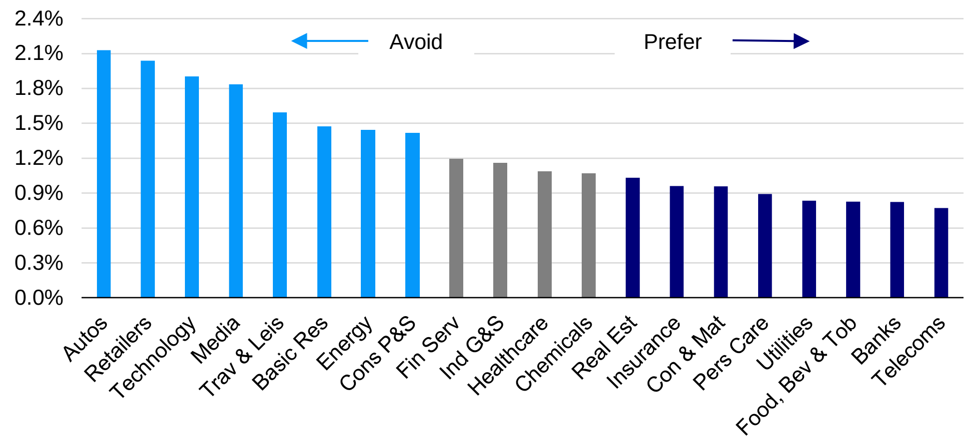
Systematic strategy – Global

Figure 6 – Global sectors ranked by volatility and dividend yield



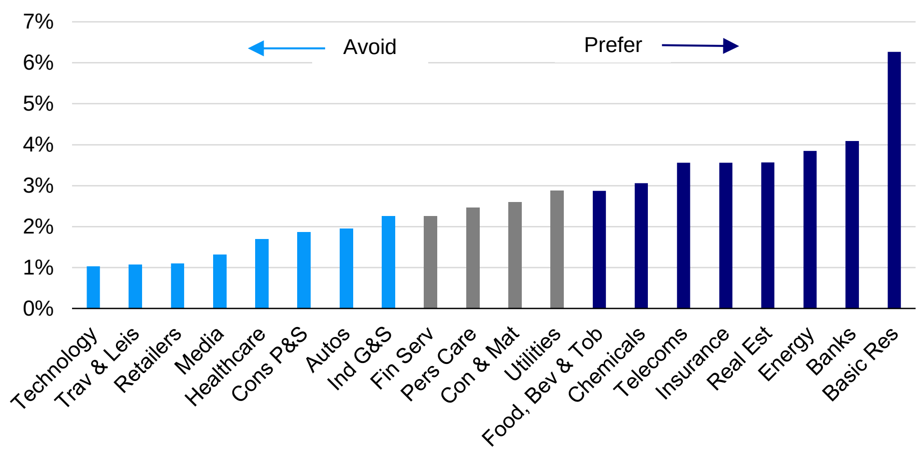
- A purely systematic approach would favour sectors in the top right corner: telecoms, food, beverage & tobacco and banks
- The approach would avoid sectors in the bottom left, such as autos, retailers, or technology

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



- The daily returns of autos, retailers and technology were the most volatile in the past 3 months
- Telecoms, banks, and food, beverage & tobacco were the least volatile

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

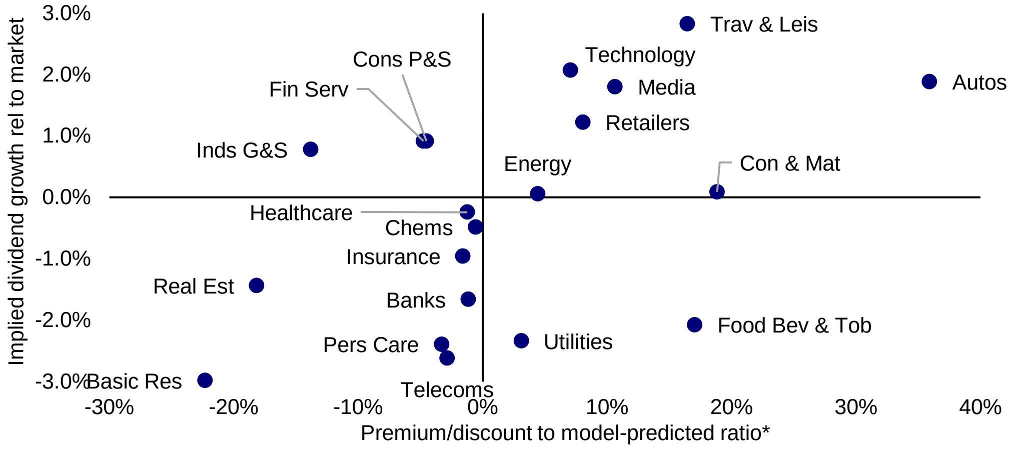


- Basic resources, banks and energy look the cheapest based on their dividend yield
- The lowest yielding sectors include technology, travel & leisure and retailers

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

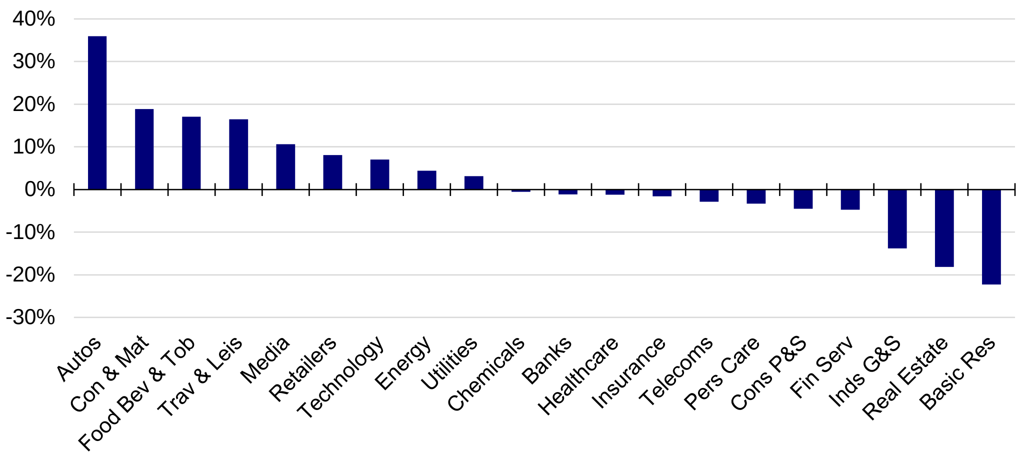
Valuations – Global

Figure 9 – Global sectors valuation matrix



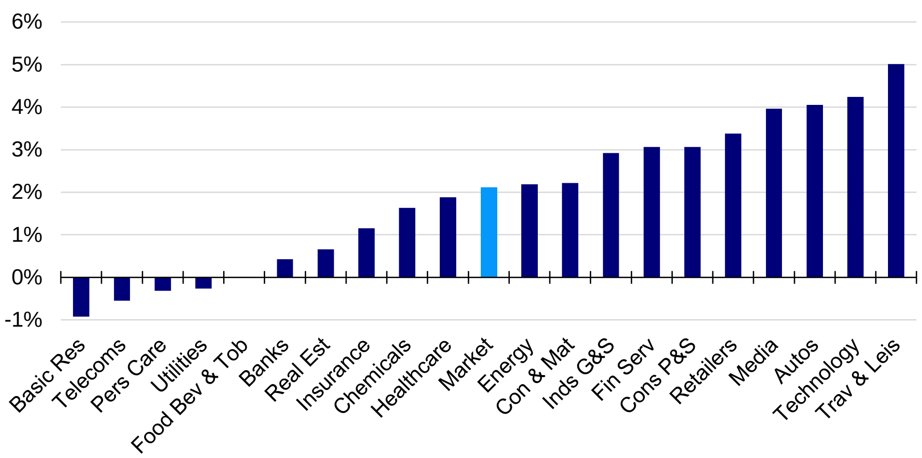
- Sectors in the top right corner look overvalued on both measures, while those in the bottom left appear undervalued
- This approach would avoid, for example, autos, travel & leisure and media
- Personal care, basic resources and real estate look better value

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



- Autos, construction & materials and food, beverage & tobacco look the most overvalued versus our model
- Basic resources, real estate and industrial goods & services seem the most undervalued versus our model-predicted ratios

Figure 11 – Global implied perpetual real dividend growth

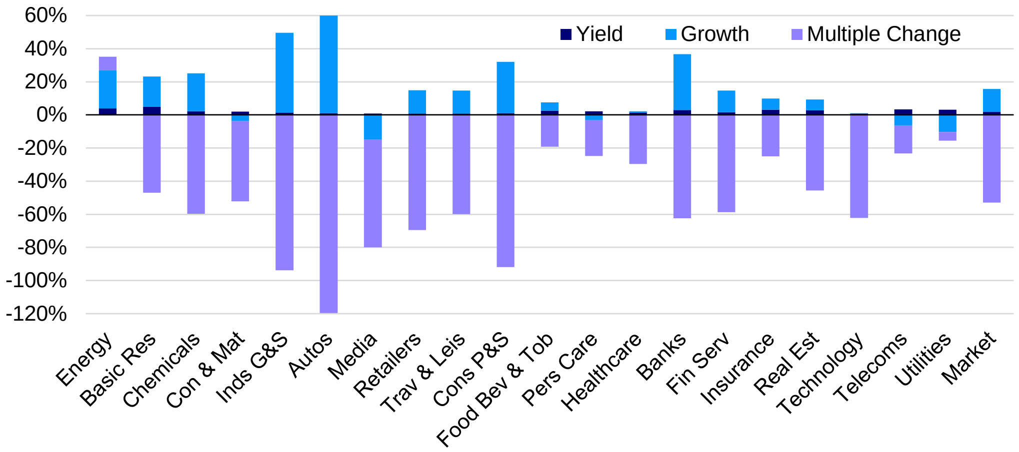


- Shows the future real growth required to justify current prices
- Travel & leisure appears priced for 5% real growth in dividends (expensive)
- Four sectors appear priced for negative growth (cheap)

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

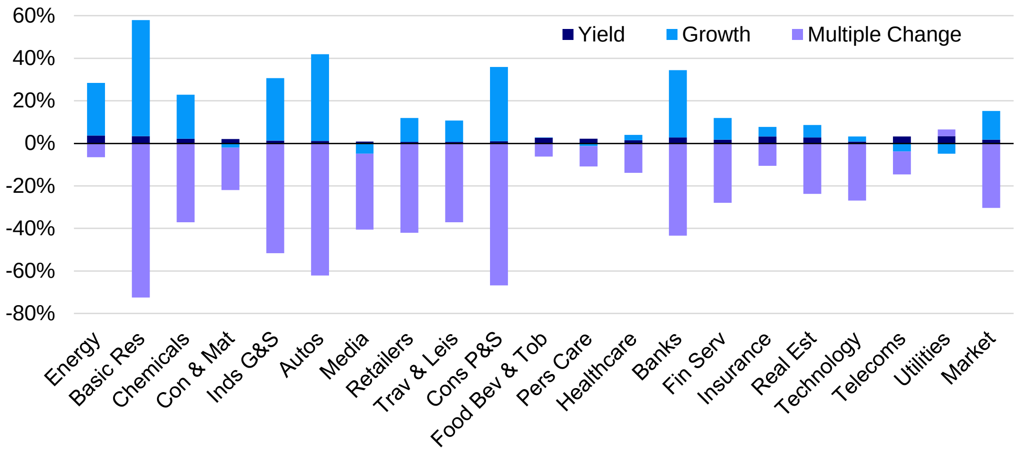
Decomposed returns – Global

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



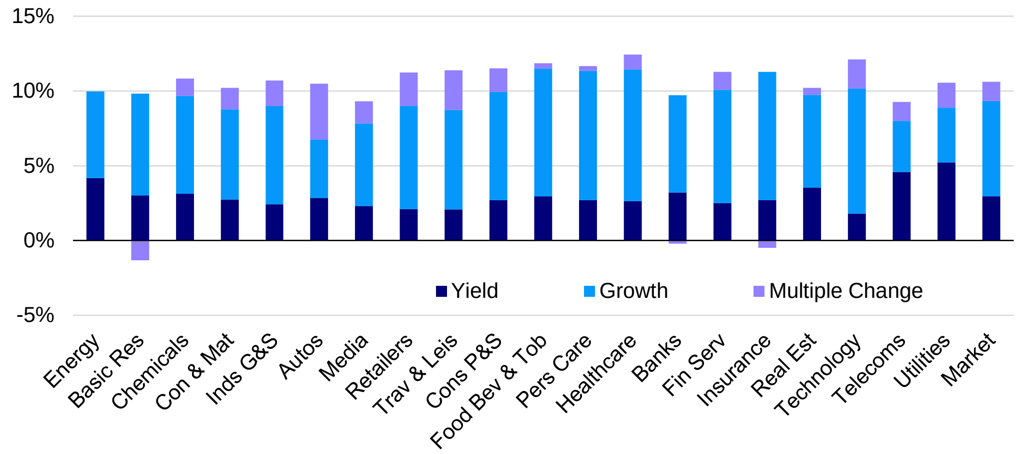
- Five sectors had declining dividends in 2022: construction, media, personal care, telecoms and utilities
- Only one sector had a rise in sentiment (multiple expansion): energy

Figure 13 – Global rolling 12-month total returns decomposed



- Only one sector re-rated (multiple expansion): utilities
- Five sectors had a yield above 3%: energy, basic resources, insurance, 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
- Four sectors suffered from a multiple-related performance drag: energy, basic resources, banks and insurance

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		-0.18				
Real Copper		0.00	0.00	0.02	-0.01	
Consumer Confidence	0.00	0.00	0.00	0.00	0.00	-0.01
Manufacturing Confidence		0.01	0.01	0.01	-0.01	0.01
IP		0.55	0.89		3.06	-5.13
10y Yield	-2.97	-2.12		-5.78	12.42	-11.13
CPI	5.24	1.28	-2.81	-2.70	-5.68	
Net Debt/EBITDA		0.04	-0.08		0.15	
ROE	-1.51	-0.78	1.26	0.63	-3.61	

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	-1.60	-1.17				
Real Copper	0.01			-0.01	0.00	
Consumer Confidence	0.01	0.01	0.01	0.00	0.00	-0.01
Manufacturing Confidence		-0.03	-0.01	-0.01	0.00	0.01
IP	-1.70		-0.84	0.85	0.25	-5.13
10y Yield	-2.45	-6.88	1.02		0.37	-11.13
CPI	12.24	32.30	7.49	9.91		
Net Debt/EBITDA	-0.12	-0.16	0.07	0.20	0.03	
ROE	-2.98	-3.26	-1.56		0.63	

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	1.03		0.20	0.36	1.00	0.41	
Real Copper	-0.01	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		-0.01	0.02	0.01
IP	-3.34	-0.51	0.91	-0.58	1.17	-1.97	-5.13
10y Yield	3.39	6.70	3.49	-1.34	6.42	-1.37	-11.13
CPI		-4.59	-4.87	-1.54	-4.65	-3.45	
Net Debt/EBITDA	-0.08	0.01	0.22		-0.12	0.09	
ROE		0.94		0.66	-1.55	0.70	

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

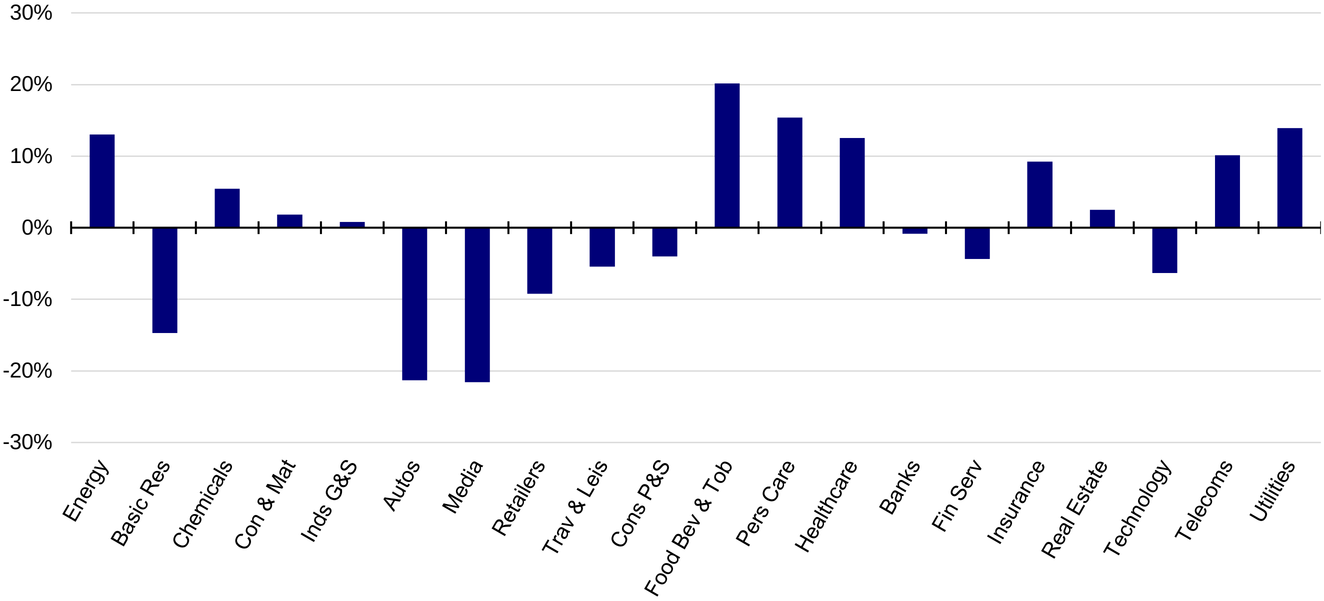
Figure 18 – Regression coefficients of Global financial sectors

	Banks	Financial Services	Insurance	Real Estate	Market
Real Oil	0.39	-0.33	-0.47		
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	-2.29	1.58		3.56	-5.13
10y Yield	-9.91		-7.08	2.78	-11.13
CPI	6.86		10.51		
ROE	4.10	0.55	-1.14	-3.93	

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

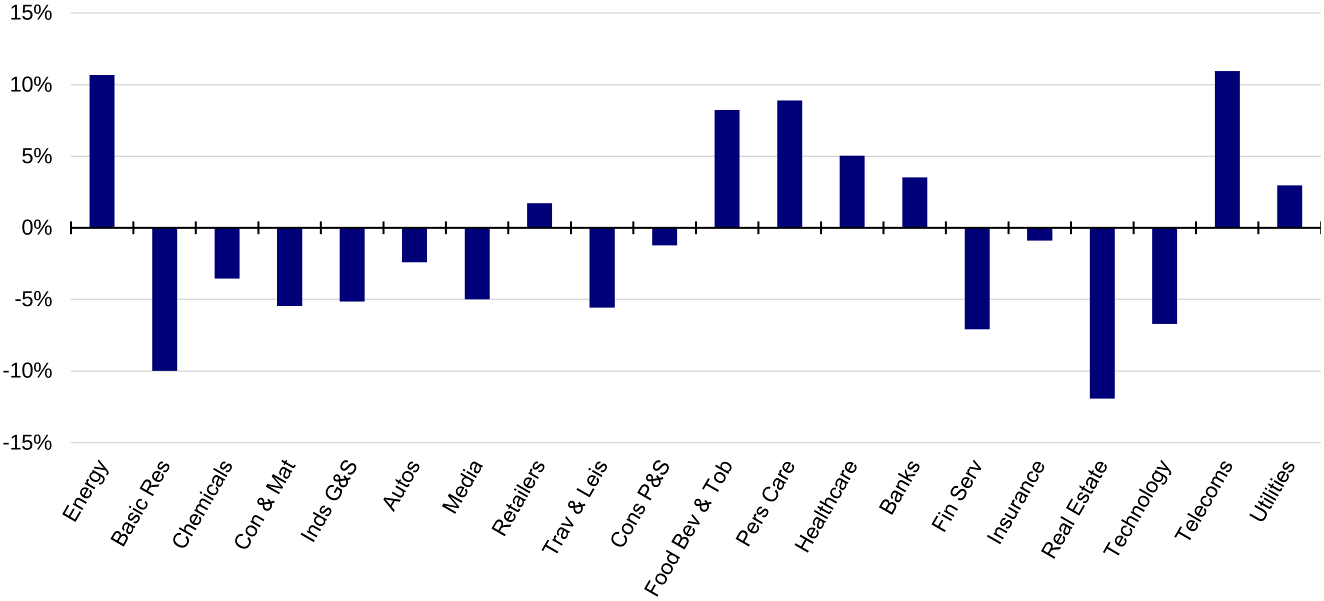
Appendix 2: Sector returns by region

Figure 19 – 3m US sector returns relative to market



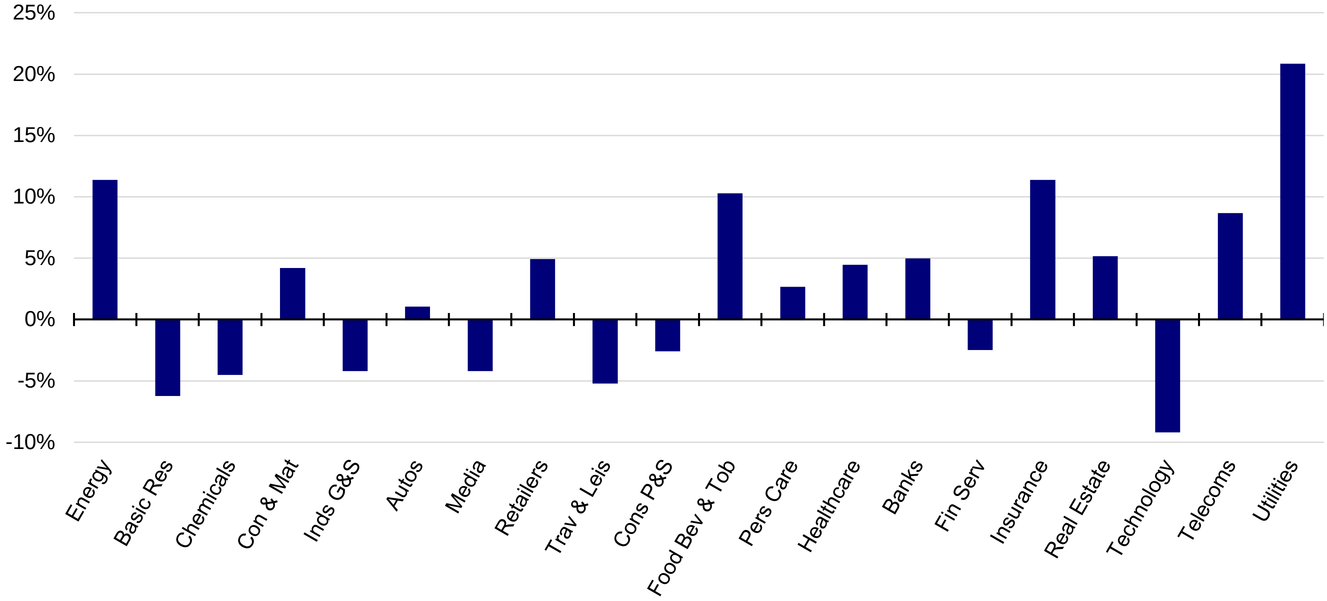
Notes: See appendices for methodology and disclaimers. Returns shown between 31st March 2022 and 30th June 2022. **Past performance is not a guarantee of future results.** Source: Refinitiv Datastream and Invesco

Figure 20 – 3m European sector returns relative to market



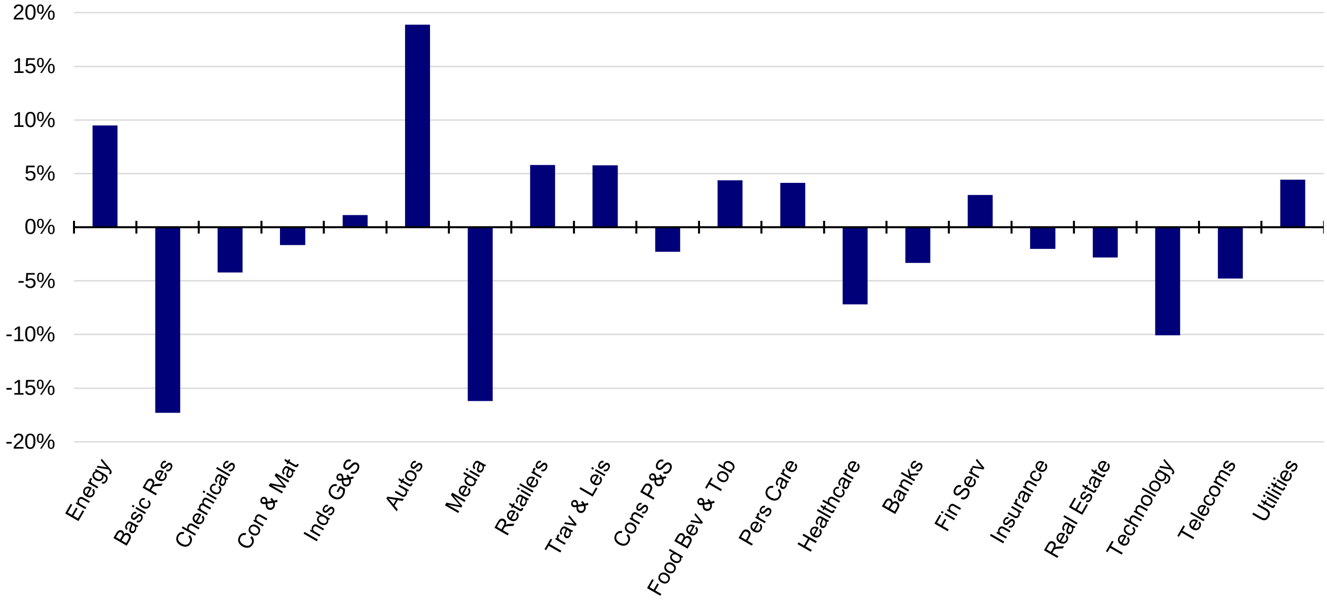
Notes: See appendices for methodology and disclaimers. Returns shown between 31st March 2022 and 30th June 2022. **Past performance is not a guarantee of future results.** Source: Refinitiv Datastream and Invesco

Figure 21 – 3m Japanese sector returns relative to market



Notes: See appendices for methodology and disclaimers. Returns shown between 31st March 2022 and 30th June 2022. **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 31st March 2022 and 30th June 2022. **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	**13.1**	**14.6**	**-0.2**	**3.9**	**3.8**	**0.0**	**2.3**	**1.8**	**0.9**	**7.7**	**6.3**	**0.7**
Basic Materials	**8.7**	**16.8**	**-1.7**	**4.9**	**2.7**	**2.7**	**1.7**	**1.8**	**-0.2**	**5.6**	**7.3**	**-1.0**
Basic Resources	7.2	17.0	-1.6	6.3	2.8	3.8	1.5	1.7	-0.4	4.6	7.3	-1.3
Chemicals	11.9	17.1	-1.0	3.1	2.9	0.2	2.0	2.0	0.1	8.0	7.5	0.3
Industrials	**15.1**	**18.2**	**-0.6**	**2.3**	**2.3**	**0.0**	**2.5**	**2.1**	**0.8**	**10.1**	**9.2**	**0.5**
Construction & Mat.	14.5	16.7	-0.5	2.6	2.5	0.1	1.7	1.8	-0.2	8.8	9.1	-0.1
Industrial G&S	15.2	18.7	-0.7	2.3	2.2	0.1	2.7	2.2	1.0	10.3	9.2	0.6
Consumer Disc.	**18.6**	**18.8**	**0.0**	**1.5**	**2.2**	**-0.9**	**3.0**	**2.1**	**1.7**	**11.1**	**8.5**	**1.4**
Automobiles & Parts	12.4	15.1	-0.3	2.0	2.6	-0.6	1.6	1.5	0.2	7.1	5.4	1.4
Media	11.0	21.7	-1.4	1.3	2.1	-1.0	2.3	2.4	-0.2	11.0	9.6	0.4
Retailers	24.7	21.3	0.5	1.1	1.9	-1.0	4.9	3.2	1.8	12.3	13.3	-0.3
Travel & Leisure	33.6	23.4	0.9	1.1	1.9	-1.0	5.2	2.5	3.0	17.2	9.3	2.5
Consumer Prod & Serv	18.8	19.3	-0.1	1.9	2.4	-0.8	3.4	2.2	1.6	12.5	10.7	0.7
Consumer Staples	**19.3**	**16.8**	**0.5**	**2.7**	**2.5**	**0.2**	**3.3**	**2.9**	**0.5**	**12.7**	**10.8**	**0.7**
Food, Bev & Tobacco	18.5	18.4	0.0	2.9	2.7	0.2	3.1	2.8	0.5	13.2	11.0	0.8
Personal Care	21.1	20.4	0.1	2.5	2.4	0.0	3.8	3.2	0.6	11.7	10.5	0.4
Healthcare	**23.2**	**20.1**	**0.5**	**1.7**	**2.3**	**-0.8**	**4.2**	**3.4**	**0.7**	**15.2**	**12.9**	**0.6**
Financials	**10.1**	**15.7**	**-1.2**	**3.4**	**2.7**	**0.9**	**1.0**	**1.5**	**-1.1**	**5.9**	**5.7**	**0.1**
Banks	9.0	14.4	-1.1	4.1	3.0	1.3	0.9	1.4	-1.1	5.4	6.3	-0.5
Financial Services	11.9	18.3	-1.2	2.3	2.3	0.0	1.0	1.5	-1.1	10.7	9.2	0.5
Insurance	10.6	16.0	-1.1	3.6	2.5	1.5	1.4	1.7	-0.6	3.9	3.8	0.1
Real Estate	13.9	19.2	-0.9	3.6	3.2	0.4	1.3	1.4	-0.3	15.4	13.6	0.7
Technology	**20.2**	**24.3**	**-0.4**	**1.0**	**1.6**	**-0.6**	**5.2**	**3.1**	**1.8**	**14.8**	**11.5**	**0.8**
Telecommunications	**13.3**	**17.4**	**-0.5**	**3.6**	**4.3**	**-0.3**	**1.9**	**2.7**	**-0.7**	**5.1**	**6.1**	**-0.4**
Utilities	**19.2**	**14.5**	**1.2**	**3.3**	**4.8**	**-0.8**	**1.8**	**1.6**	**0.6**	**7.4**	**5.6**	**1.3**
Market	**15.1**	**17.2**	**-0.4**	**2.5**	**2.7**	**-0.3**	**2.2**	**2.0**	**0.3**	**9.3**	**7.8**	**0.8**

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

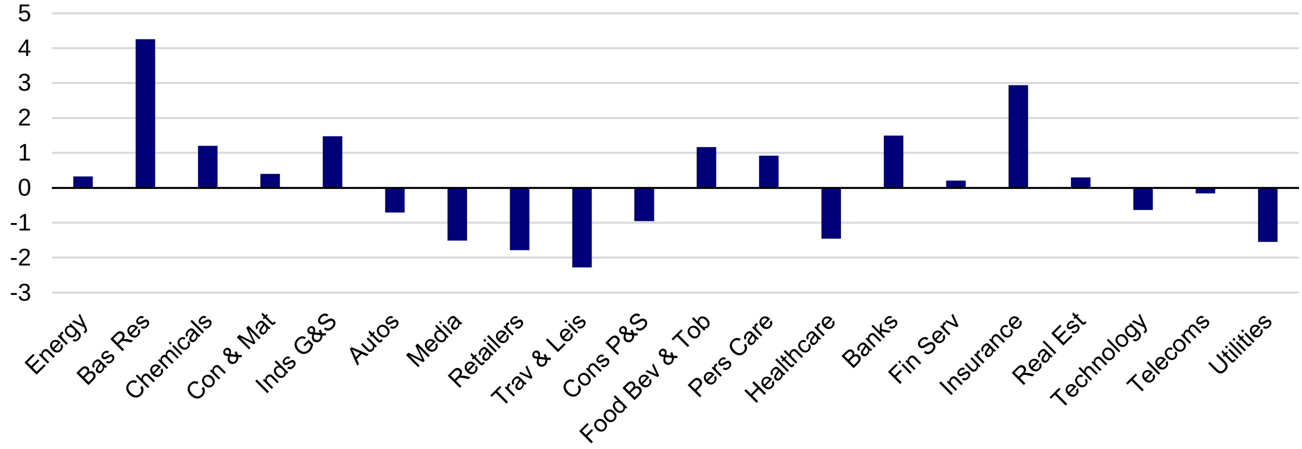
Figure 24 – Global cyclically-adjusted valuations

	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	**14.8**	**18.7**	**-0.5**	**3.9**	**2.8**	**1.1**	**1.5**	**2.7**	**-1.0**	**6.8**	**8.7**	**-0.6**
Basic Materials	**18.9**	**23.2**	**-0.6**	**2.5**	**1.9**	**1.2**	**1.8**	**2.4**	**-0.9**	**8.2**	**9.8**	**-0.7**
Basic Resources	17.4	21.5	-0.5	2.7	2.1	0.8	1.5	2.3	-0.8	7.2	9.4	-0.7
Chemicals	20.4	24.5	-0.8	2.3	1.9	0.9	2.2	2.8	-1.1	9.7	10.6	-0.5
Industrials	**22.8**	**26.6**	**-0.7**	**1.7**	**1.5**	**0.7**	**2.7**	**3.0**	**-0.5**	**12.3**	**12.9**	**-0.2**
Construction & Mat.	19.1	24.0	-0.5	2.1	1.9	0.5	1.8	2.4	-0.7	9.8	11.7	-0.5
Industrial G&S	23.5	27.4	-0.7	1.6	1.4	0.7	2.9	3.0	-0.3	12.7	12.7	0.0
Consumer Disc.	**22.8**	**27.1**	**-0.8**	**1.5**	**1.4**	**0.3**	**2.9**	**3.0**	**-0.3**	**11.5**	**11.8**	**-0.1**
Automobiles & Parts	15.3	19.0	-0.9	1.7	1.7	0.0	1.6	2.0	-1.2	7.1	6.7	0.3
Media	19.3	30.2	-1.3	1.8	1.4	1.1	2.4	3.3	-0.8	10.0	13.1	-0.8
Retailers	30.9	32.2	-0.2	1.2	1.1	0.1	4.9	4.7	0.2	17.1	19.7	-0.6
Travel & Leisure	20.4	34.3	-1.4	1.8	1.1	1.7	3.0	3.5	-0.5	10.2	13.0	-1.0
Consumer Prod & Serv	24.7	28.7	-0.8	1.7	1.6	0.4	3.5	3.1	0.8	14.6	15.3	-0.3
Consumer Staples	**20.9**	**22.6**	**-0.4**	**2.2**	**1.6**	**1.4**	**3.7**	**3.9**	**-0.5**	**14.6**	**14.6**	**0.0**
Food, Bev & Tobacco	25.0	28.3	-0.7	2.2	1.6	1.6	3.6	4.2	-1.4	15.2	16.3	-0.6
Personal Care	25.7	31.7	-0.9	2.0	1.4	1.5	3.9	4.9	-1.1	13.6	16.3	-1.2
Healthcare	**34.2**	**31.5**	**0.4**	**1.3**	**1.4**	**-0.2**	**5.0**	**5.2**	**-0.2**	**19.6**	**19.8**	**-0.1**
Financials	**14.1**	**23.5**	**-0.9**	**2.8**	**2.0**	**0.9**	**1.1**	**2.0**	**-1.3**	**6.4**	**7.4**	**-0.6**
Banks	11.2	21.0	-1.0	3.6	2.3	1.1	0.9	1.8	-1.4	5.8	8.0	-0.9
Financial Services	19.6	29.5	-0.6	1.7	1.5	0.3	1.3	2.0	-1.2	12.3	12.1	0.1
Insurance	16.3	24.0	-0.8	2.3	1.6	1.1	1.6	2.4	-1.0	4.5	4.9	-0.5
Real Estate	14.5	26.6	-0.9	3.4	2.5	1.1	1.3	1.7	-0.9	14.9	16.9	-0.5
Technology	**39.2**	**39.0**	**0.0**	**0.7**	**0.9**	**-0.3**	**6.7**	**4.7**	**0.8**	**22.5**	**18.6**	**0.4**
Telecommunications	**15.4**	**23.0**	**-0.8**	**4.1**	**3.0**	**0.9**	**2.0**	**3.4**	**-1.1**	**5.0**	**7.7**	**-0.9**
Utilities	**19.4**	**18.6**	**0.2**	**3.3**	**3.5**	**-0.3**	**1.7**	**2.0**	**-0.6**	**7.1**	**6.9**	**0.2**
Market	**21.2**	**24.8**	**-0.6**	**2.0**	**1.8**	**0.6**	**2.3**	**2.8**	**-0.9**	**10.6**	**10.7**	**-0.1**

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

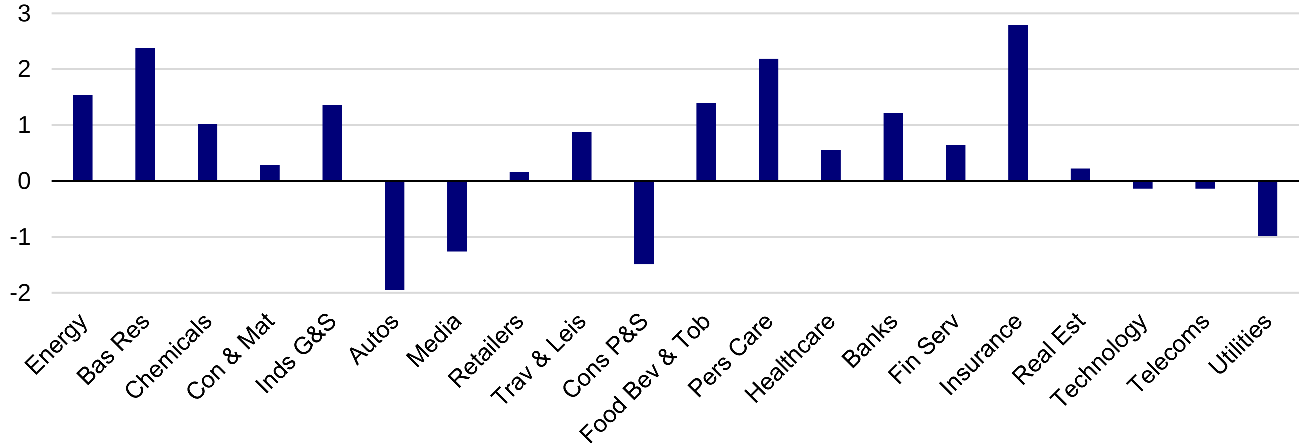
Appendix 4: Sector valuations by region

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



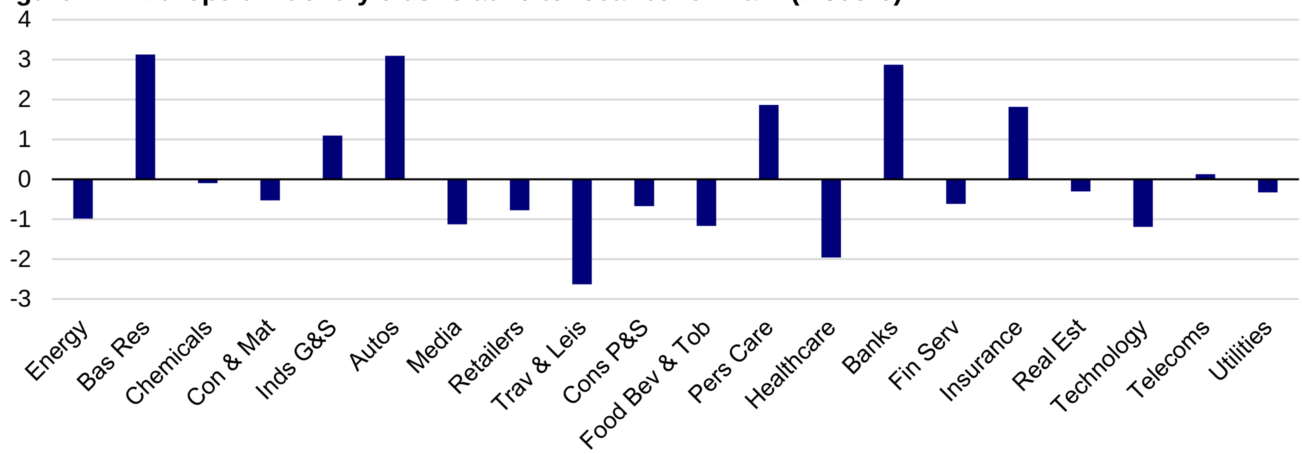
Notes: See appendices for methodology and disclaimers. Source: Refinitiv Datastream and Invesco

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



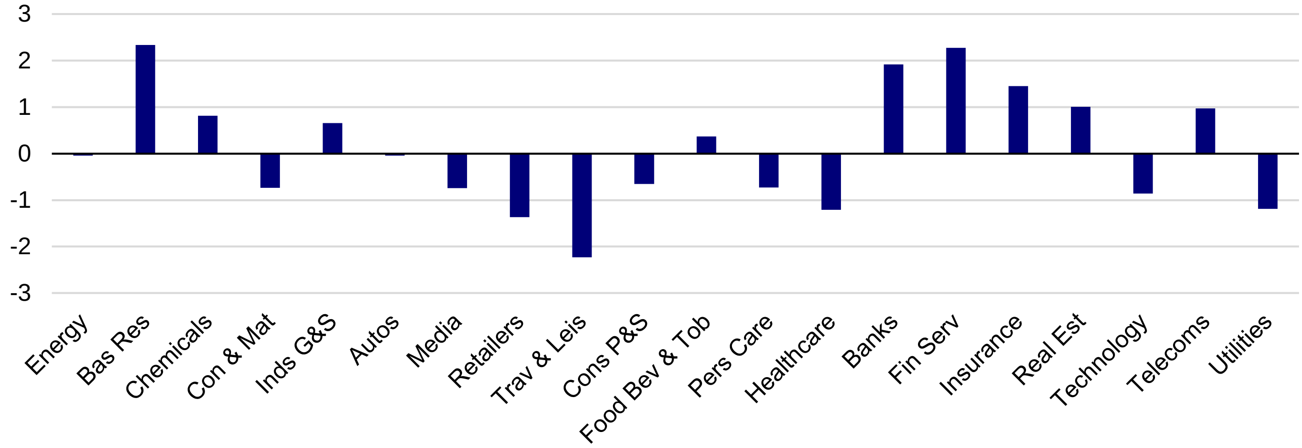
Notes: See appendices for methodology and disclaimers. The local benchmark is the Datastream US Total Market Index. Source: Refinitiv Datastream and Invesco

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



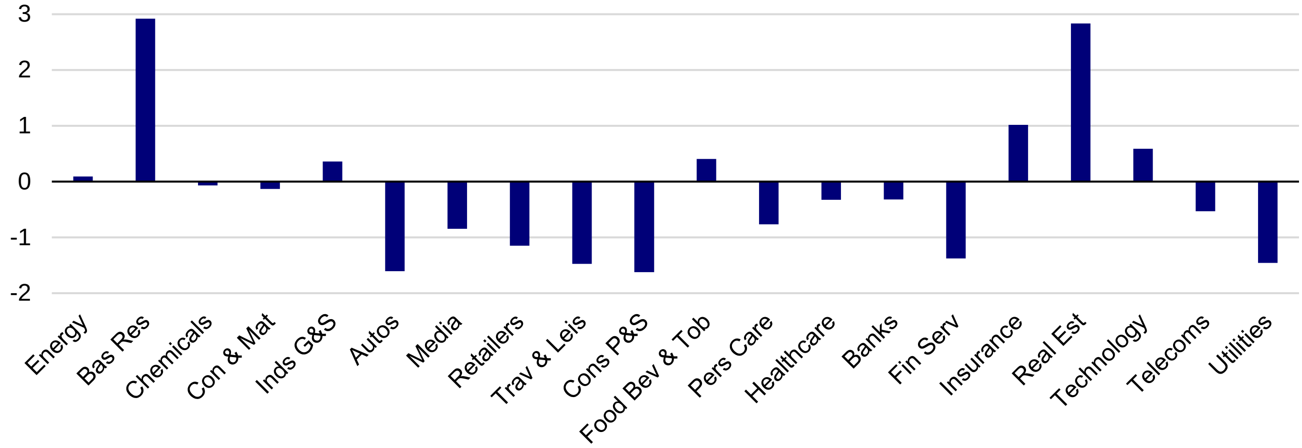
Notes: See appendices for methodology and disclaimers. The local benchmark is the Datastream Europe Ex-Emerging Total Market Index. Source: Refinitiv Datastream and Invesco

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 30/06/2022	Global				
	3m	**YTD**	**12m**	**5y***	**10y***
Energy	**12.8**	**44.8**	**45.2**	**-0.8**	**-5.6**
Basic Materials	**-7.4**	**5.2**	**1.5**	**0.4**	**-2.3**
Basic Resources	-12.2	8.1	2.0	2.3	-4.2
Chemicals	-0.6	1.7	1.2	-1.6	-1.2
Industrials	**-1.5**	**-4.6**	**-6.7**	**-1.7**	**0.1**
Construction & Materials	-1.0	-7.9	-5.8	-4.3	-2.1
Industrial Goods & Services	-1.5	-4.1	-6.9	-1.2	0.5
Consumer Discretionary	**-6.4**	**-12.5**	**-16.2**	**-2.5**	**-0.5**
Automobiles & Parts	-9.1	-13.5	-5.8	1.3	0.8
Media	-17.6	-26.0	-29.2	-7.4	-2.1
Retailers	-6.3	-10.5	-17.6	0.3	0.3
Travel & Leisure	-3.8	-4.9	-13.0	-7.9	-2.8
Consumer Products & Services	-2.4	-13.7	-18.3	-2.9	-0.3
Consumer Staples	**12.2**	**13.5**	**11.8**	**-2.9**	**-1.2**
Food, Beverage & Tobacco	12.8	15.9	14.0	-2.1	-1.9
Personal Care, Drug & Grocery Stores	10.9	9.0	7.7	-2.2	-0.8
Healthcare	**7.8**	**6.3**	**6.4**	**2.3**	**3.3**
Financials	**-0.4**	**4.6**	**5.9**	**-1.8**	**-0.7**
Banks	0.4	7.3	7.6	-4.2	-2.6
Financial Services	-4.3	-4.1	-1.0	1.8	2.6
Insurance	4.7	13.8	14.7	-0.7	1.5
Real Estate	**0.9**	**0.5**	**0.0**	**-3.4**	**-2.7**
Technology	**-7.4**	**-14.7**	**-9.9**	**8.9**	**7.0**
Telecommunications	**6.8**	**10.6**	**4.3**	**-3.6**	**-3.5**
Utilities	**8.9**	**15.4**	**20.0**	**0.6**	**-1.6**

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 Price = Dividend/(Discount Factor - Growth), then Growth = Discount Factor – Dividend Yield. The Discount Factor is equal to Risk Free Rate + (Beta x 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 30th June 2022 unless stated otherwise. This publication is updated quarterly.

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20220720-2297213-AP