Strategic Sector Selector

Schrodinger's allocation?

The market recovery continued in the first quarter of 2023 in the face of increasing pressure from an impending economic slowdown and troubles in the banks sector. Although the monetary tightening cycle nears its end, in our view, its impact will continue to be felt in the next 12 months. We still expect the global economy to avoid a deep recession, which implies that equity markets will not revisit 2022's market trough, in our view, although sentiment will remain fragile in the near term. Therefore, we make only two changes to increase the resilience of our model sector allocation in this period of uncertainty. We downgrade basic resources to Underweight from Overweight after the great reopening of China proved to be less supportive than we expected and in the belief that lower economic growth will not be enough to push commodity prices sustainably higher. In turn, we upgrade telecommunications to Neutral to slightly increase our exposure to defensive sectors alongside our Overweights in consumer staples and healthcare. Nevertheless, we keep faith with a selection of early-cyclicals, while maintaining our Underweights in financials (except insurance) and energy.

Changes in allocations:

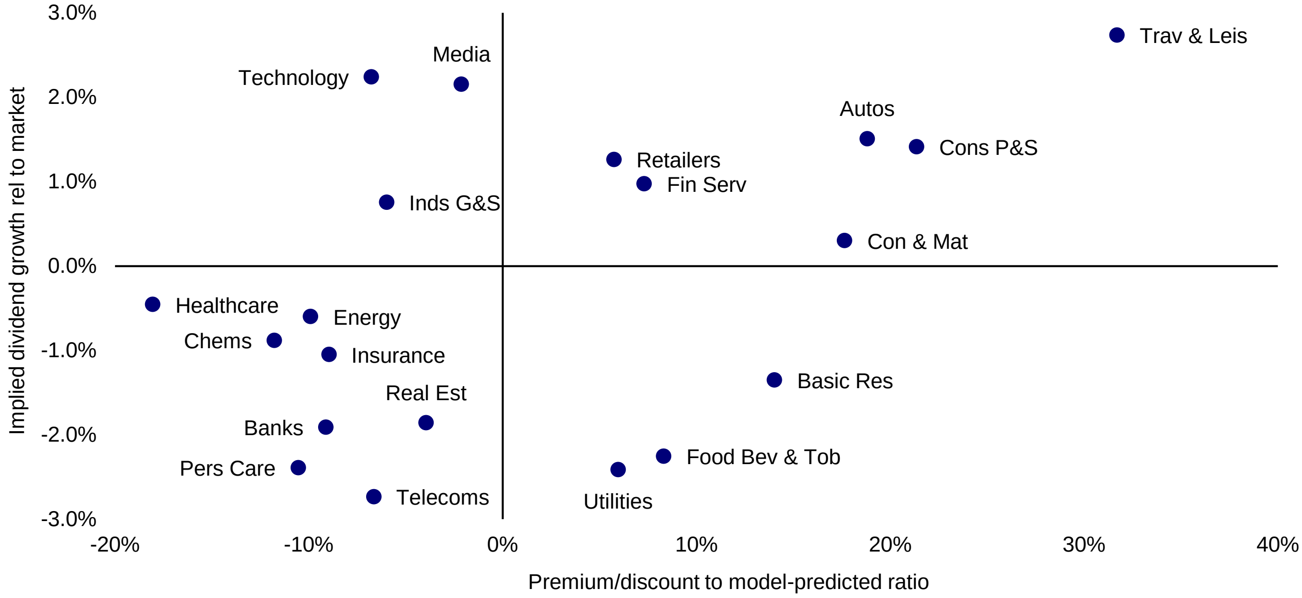
- Upgrades: telecommunications (UW to N)
- Downgrades: basic resources (OW to UW)

	Most favoured	Least favoured
Sector	US healthcare US technology	European banks European utilities

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
- 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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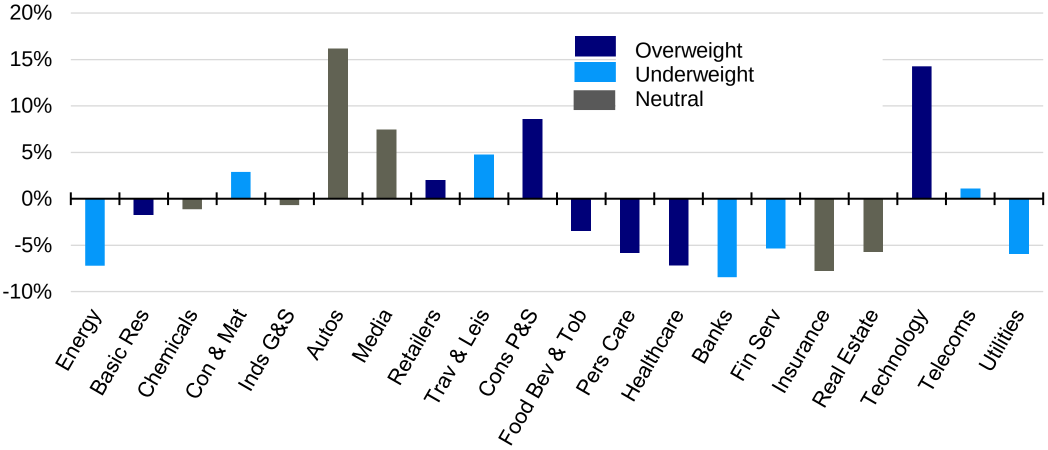
Summary and conclusions

Since the last time

The tentative recovery in global equities that started in the fourth quarter of 2022 continued despite several headwinds, with the MSCI All Country World index ending Q1 up 7.2% on a total return basis (in local currency terms). We think that markets started to feel increasingly confident that global central banks would pull-off a difficult balancing act of avoiding recession, while taming inflation. However, markets seemed more fragile towards the end of the quarter driven by worries about banks in the face of falling bond prices and exposure to commercial property. Swift action by central banks and regulators have eased those concerns for now. Nevertheless, we think this could lead to more conservative lending standards by banks, which increases the risk of recession.

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



Notes: See appendices for methodology and disclaimers. Returns shown between 31st December 2022 and 31st March 2023. Colours indicate allocations in period considered. **Past performance is not a guarantee of future results.** Source: Refinitiv Datastream and Invesco

Figure 2 suggests that the recovery continued to be led by early-cyclical sectors, especially consumer discretionary and technology. They are also among the sectors most sensitive to changes in interest rate expectations, which moderated as the quarter progressed. By contrast, most defensives underperformed despite higher volatility in March, while financials were dragged down by concerns about the impact of higher rates on their business models. Our model allocation was broadly well-positioned for this environment, especially our Overweights in retailers, consumer products & services and technology and our Underweights in energy, banks, financial services and utilities. However, we underestimated the resilience of media, travel & leisure and construction & materials, and we were perhaps too early to upgrade basic resources to Overweight in January.

Asset allocation backdrop

From an economic perspective, we would suggest that we are in the contraction phase, with global growth below trend and falling. However, recent asset market performance has not necessarily reflected the historical template, with most assets generating negative returns during 2022 but with strong positive returns since October 2022, more in line with what we would typically expect in the recovery phase. That performance since October may have suggested markets were transitioning to a recovery mentality as inflation declined and in anticipation of a central bank pivot in mid-2023. However, the setback to markets since early February 2023 could suggest a change of heart, with recent banking sector problems reinforcing that negative sentiment. The big question for the next 12 months is whether these setbacks are simply a period of necessary consolidation after the strong gains since October or whether they represent the start of a further (and deeper) leg of the downtrend that started in early 2022 (see The Big Picture for the full details and **Figure 3** for our market forecasts).

Perhaps the most important feature of our forecasts is that we expect Fed rates to be lower in 12 months. We suspect that European policy rates will be little changed in 12 months and that major Asian policy rates could be marginally higher. 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 little changed in 12 months (but with noticeable gains in the eurozone and Japan).

Equities have done well year-to-date. However, we suspect that profits will fall and are seeing signs of that in the US. Our projections suggest there are better alternatives among risky assets (such as HY and real estate). We slightly reduced the allocation to equities to 34% from the previous 37% (versus the Neutral 45%). Our return projections suggest real estate will be the most remunerative asset over the next 12 months but that comes with volatility. Fundamentals appear to be deteriorating again and the optimisation outcomes are mixed. We reduced to the Neutral 8%. After a further rise in policy rates and the recent surge in gold, we reverted to using cash as our diversifier of choice, rather than gold. Hence, we boosted the cash allocation to the maximum allowed 10% from the previous 0%, while we reduced gold to 0%.

Finally, we made no changes to our headline allocations to fixed income assets, keeping government bonds at Neutral and both investment grade and high yield corporate bonds at Overweight. We also maintained a zero allocation to commodities.

Figure 3 – Market forecasts

	Current (31/03/23)	Forecast 12-month
Central Bank Rates		
US	5.00	4.25
Eurozone	3.00	3.00
China	3.65	4.00
Japan	-0.10	0.00
UK	4.25	4.00
10y Bond Yields		
US	3.48	3.40
Eurozone	2.30	2.70
China	2.86	3.00
Japan	0.33	0.60
UK	3.38	3.20
Exchange Rates/US$		
EUR/USD	1.08	1.15
USD/CNY	6.87	6.70
USD/JPY	132.81	120.00
GBP/USD	1.23	1.25
USD/CHF	0.92	0.90
Equity Indices		
S&P 500	4109	4000
Euro Stoxx 50	4315	4200
FTSE A50	13237	15400
Nikkei 225	28041	30000
FTSE 100	7632	8000
Commodities (US$)		
Brent/barrel	79	75
Gold/ounce	1977	1900
Copper/tonne	9004	9000

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

We were impressed by the resilience of equity markets during the first quarter of 2023, despite setbacks and emerging future risks. Inflation continued to ease in most regions, largely driven by annual declines in commodity prices and a normalisation of supply chains. However, core inflation, which we think central banks view as a better guide to trends in underlying prices, stayed elevated. The mini banking crisis in March with several bank failures in the US and Europe muddied the picture somewhat, although we think that is just another symptom of the pressures building up in the economy after the sharpest monetary tightening cycle in decades. We think this increases the likelihood of a more pronounced economic slowdown than we expected three months ago.

Less growth and declining inflation imply that developed market central banks are close to their "terminal rates" for this cycle, in our view. Not only that, we also think they will start to ease policy gradually as the impact of previous rounds of tightening continues to be felt (see **Figure 3** for our forecasts). There are two caveats to this, in our opinion: 1) that inflation does not start rising again; 2) the global economy avoids a deep recession, which would necessitate sharper cuts. Nevertheless, we think setting the right path for monetary policy will be challenging in the next 6-12 months.

In our view, it will be just as tricky for strategists to position for what looks like a fork in the road for global equities after returning 17% between the cyclical trough on 12th October 2022 and 31st March 2023 (using the Datastream World Total Market index). If our macroeconomic assumptions are correct and rates fall as the year progresses, this would allow valuations to rise and partially or fully offset the earnings declines that will accompany lower GDP growth. This is how the early expansion phase of the market cycle tended to develop in the past (see Decomposing equity cycles for the full detail). However, if our assumptions turn out to be incorrect and earnings decline at the same time as valuations, then we would remain in the bear market that started in November 2021. These two paths would imply allocations that are direct opposites of each other. If the early cycle phase continued, we would favour consumer discretionary and technology and we would reduce our allocation to defensive sectors. However, in a bear market, we would favour defensives and we would downgrade cyclical sectors.

Of course, we cannot realistically set up a Schrodinger's cat of a model sector allocation that is cyclical and defensive at the same time. Although the horizon has darkened somewhat, our base case economic scenario implies enough support for valuations to allow the market recovery to continue in the medium term, despite our expectation of more volatility in the next 3-6 months. Therefore, we keep most of our allocations intact with a slight tilt towards early-cyclicals accompanied by Overweights in consumer staples and healthcare at the defensive end. Nevertheless, we make two minor adjustments to our model sector allocation.

We had high hopes for a China reopening-related boost to **basic resources**, but in the end the threat of a deeper economic slowdown in developed markets and lower-than-expected growth targets in China make us more cautious. Although we think there is a possible structural tailwind for the sector if investment in the "green transition" is realised, we are concerned that slower growth in China and the rest of the world, will depress base metals in the short term. That in turn will likely put pressure on the sector's generous dividend distribution policies. Its valuations also look somewhat rich on our multiple regression model and we therefore downgrade it to **Underweight**.

In a nod to an increasingly uncertain economic environment, we upgrade **telecommunications** to **Neutral** from Underweight. We are still concerned about its growth prospects, but it is a defensive sector that looks undervalued on our multiple regression model. 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 rising rates will drive oil prices lower despite the production cuts announced by OPEC+, the impact of which will fade as demand falls, in our view. This implies rockier times ahead for **energy**, the best performing sector in 2022, despite underperformance in Q4 last year. 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. We maintain our **Neutral** allocation, even though it looks undervalued on our multiple regression model. Its implied dividend growth also seems lower than that of the market, but that may not fully reflect concerns of an impending economic slowdown.

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 supply chain bottlenecks ease. Our preferred valuation measures also give us mixed messages: the sector seems close to "fair value" on our multiple regression model but overvalued on implied perpetual dividend growth.

The **automobiles & parts** sector is a key early-cyclical, in our opinion, hence we remain **Neutral**. After a bruising readjustment in Q4 mostly driven by its largest constituent, the sector rebounded in Q1 2023. Although its valuations remain elevated on our models, they look more attractive than a year ago, especially based on cyclically-adjusted measures (**Figure 24**). Supply chain disruptions have eased significantly allowing manufacturers to ship more vehicles, but as higher interest rates start to bite, a slowdown in demand in developed markets means there may be surplus inventory leading to discounting. However, some of the demand may shift from used to new vehicles, while developing economies could also provide some support.

We keep **media** at **Neutral** in our model sector allocation after a strong rebound driven by a repricing of interest rate expectations, in our opinion. Its valuations look rich on both of our models and we think the sector may struggle in the near term if a decelerating economy increases churn in subscribers, while high interest rates and lower profitability reduce production budgets. History also shows that the sector struggled to consistently outperform in any market environment (see Sector through market cycles).

While the point when the focus of the equity market shifts from slowdown to recovery may have been somewhat delayed, we maintain our **Overweight** allocation to **retailers**. We consider the sector 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 an eventual recovery. It was also one of the worst performers in 2022 as it de-rated driven by its exposure to the growth factor at the same time as earnings disappointed when consumers shifted from spending on goods to services. We think that some of those headwinds will continue to dissipate in the next 12 months, especially if inflation moderates leaving more disposable income in consumers' budgets.

The "great reopening" following COVID-19 restrictions may have finally enabled **travel & leisure** to outperform in 2022, but we think it is appropriate to keep our **Underweight** allocation. Any boost from pent-up demand may prove short-lived as we believe there are too many headwinds: 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 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.

We keep **consumer products & services Overweight** to maintain our exposure to cyclical sectors in case a market recovery starts in 2023 as interest rates peak. We may be too early in our tentative shift towards early cyclicals, but the sector is relatively well diversified, and it could receive a boost from a full reopening of Asian economies. The sector is also one of the most diversified within consumer discretionary and that may provide some risk-mitigation, in our view.

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**. Despite their outperformance in 2022, their valuations do not look too 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%, which we think is appealing.

We find **healthcare** attractive for similar reasons and believe it makes sense to keep our **Overweight** allocation. As a growth sector, it suffered in the early part of 2022 as the Fed became increasingly hawkish. 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.

We remain concerned about the profitability of **banks** and therefore stick to our **Underweight** allocation. Loan growth has remained sluggish, as consumers reduced savings rates to increase spending, rather than taking on more debt. We also believe that yield curves will remain flat or inverted for most of the next 12 months which will continue to depress margins. Profits may suffer if loan loss reserves need to be increased, while the M&A and capital raising cycle will stay depressed until "animal spirits" return to financial markets. Finally, as the impact of rising interest rates works its way through the economy, recent bank failures may only be the start (see Tighten until something breaks for more).

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 also trades at a premium compared to the dividend yield implied by our multiple regression model. Assuming financial market volatility remains high 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 i**nsurance**. We think that the sector's profitability has improved with higher bond yields and 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 short term after a strong run.

We keep **real estate Neutral** even though, based on historical patterns, it will struggle if the bear market continues, and it is not best placed to outperform in the early parts of the market cycle. However, it seems close to “fair value” on our multiple regression model, while its implied perpetual dividend growth of 0.6% looks attractive compared to the market. Nevertheless, we think that its exposure to the value factor will be a disadvantage in 2023, though its relatively high dividends may provide some stability.

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 it looks undervalued on our multiple regression model. We 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. Falling interest rates could support valuations (in stark contrast to 2022), and the sector’s price/earnings ratio has decreased substantially since its peak in early 2021.

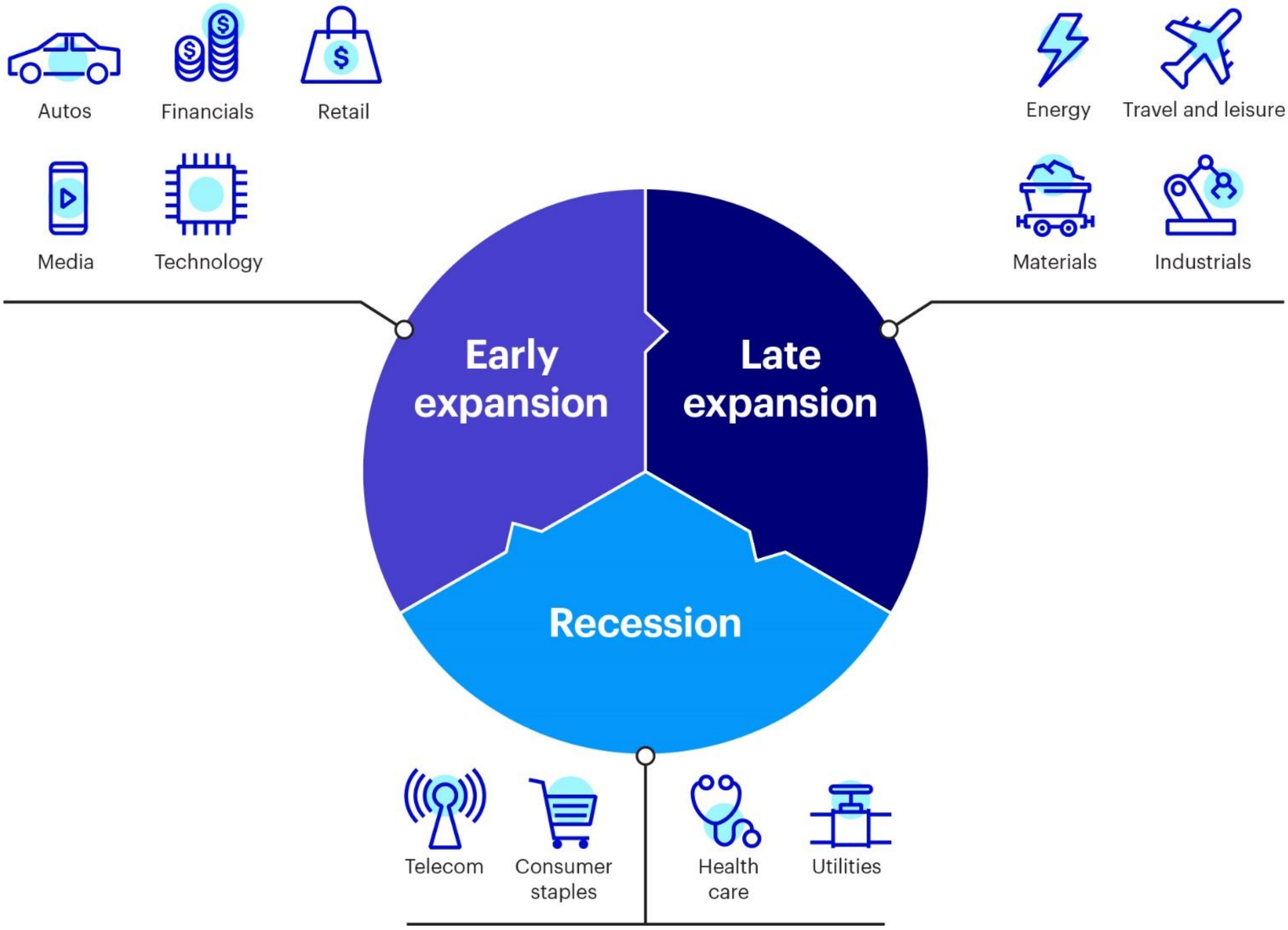
We keep **utilities Underweight**, because we think the sector will struggle to outperform even if equity market volatility remains high. We are especially worried about utilities if margins are squeezed further by high input prices and investment costs, while regulators keep consumer charges under control.

Figure 4 – Model allocations for Global sectors

	Neutral	Invesco	Preferred Region
Energy	**7.5%**	**Underweight**	**EM**
Basic Materials	**4.5%**	**Underweight ↓**	**Europe**
Basic Resources	2.6%	Underweight ↓	Europe
Chemicals	1.9%	Neutral	Europe
Industrials	**13.0%**	**Neutral**	**Japan**
Construction & Materials	1.6%	Underweight	US
Industrial Goods & Services	11.5%	Neutral	Europe
Consumer Discretionary	**14.7%**	**Overweight**	**Europe**
Automobiles & Parts	2.7%	Neutral	Europe
Media	1.1%	Neutral	Japan
Retailers	4.7%	Overweight	Europe
Travel & Leisure	2.2%	Underweight	EM
Consumer Products & Services	4.0%	Overweight	Europe
Consumer Staples	**6.5%**	**Overweight**	**US**
Food, Beverage & Tobacco	4.3%	Overweight	US
Personal Care, Drug & Grocery Stores	2.2%	Overweight	US
Healthcare	**10.0%**	**Overweight**	**US**
Financials	**15.0%**	**Underweight**	**Japan**
Banks	7.2%	Underweight	EM
Financial Services	4.9%	Underweight	EM
Insurance	2.9%	Neutral	Europe
Real Estate	**3.0%**	**Neutral**	**EM**
Technology	**18.8%**	**Overweight**	**US**
Telecommunications	**3.5%**	**Neutral ↑**	**Europe**
Utilities	**3.6%**	**Underweight**	**Europe**

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

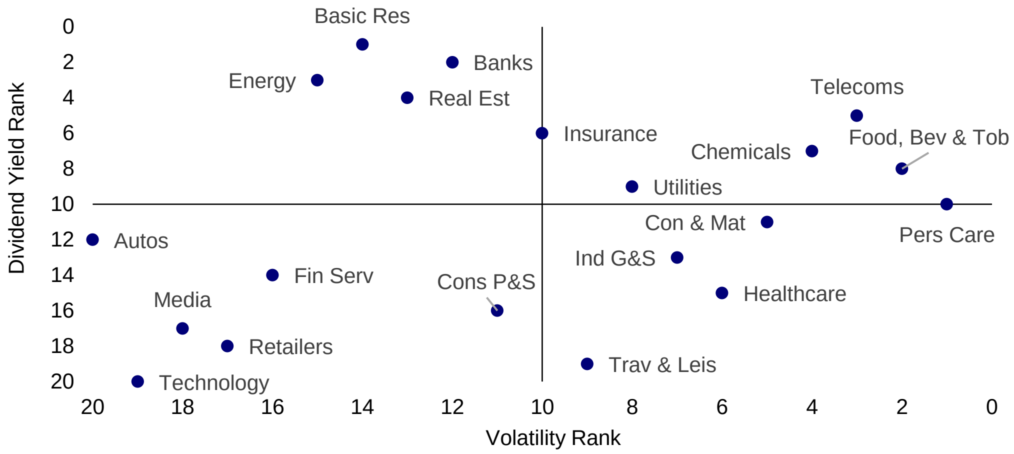
Figure 5 – Economic cycle and main sector allocation decisions



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

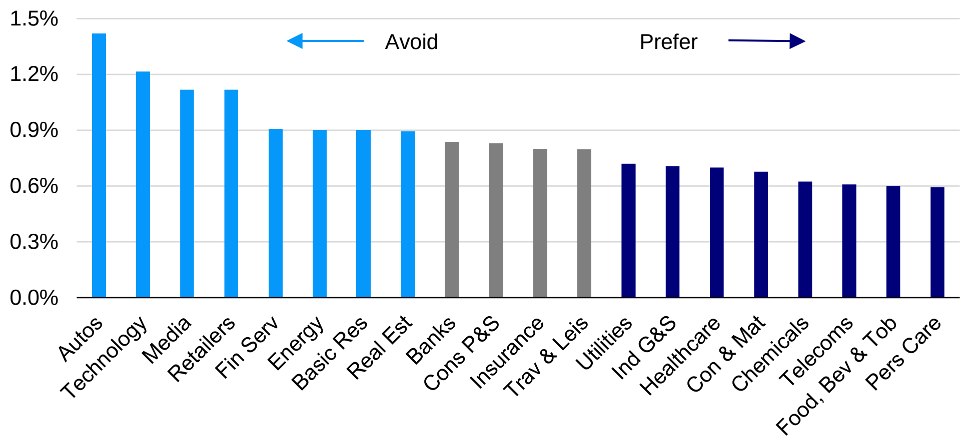
Systematic strategy – Global

Figure 6 – Global sectors ranked by volatility and dividend yield



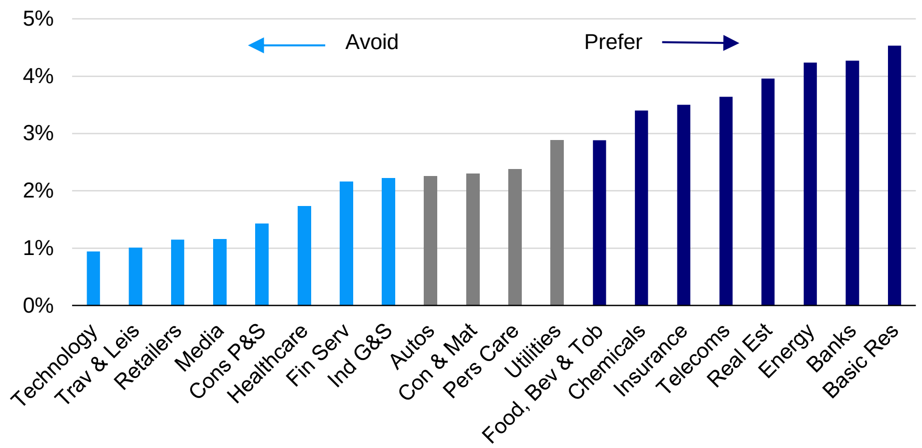
- A purely systematic approach would favour sectors in the top right corner: telecoms, food, beverage & tobacco and chemicals
- The approach would avoid sectors in the bottom left, such as technology, media or retailers

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
- Personal care, drug & grocery stores, food, beverage & tobacco, and telecoms were the least volatile

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

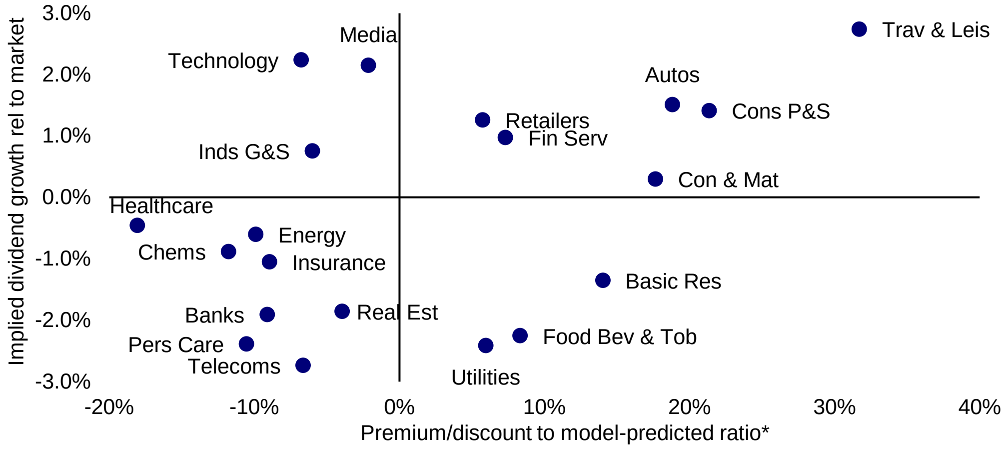


- Basic resources, banks and energy look the cheapest based on their dividend yield
- The lowest yielding sectors include technology, travel & leisure and retailers

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

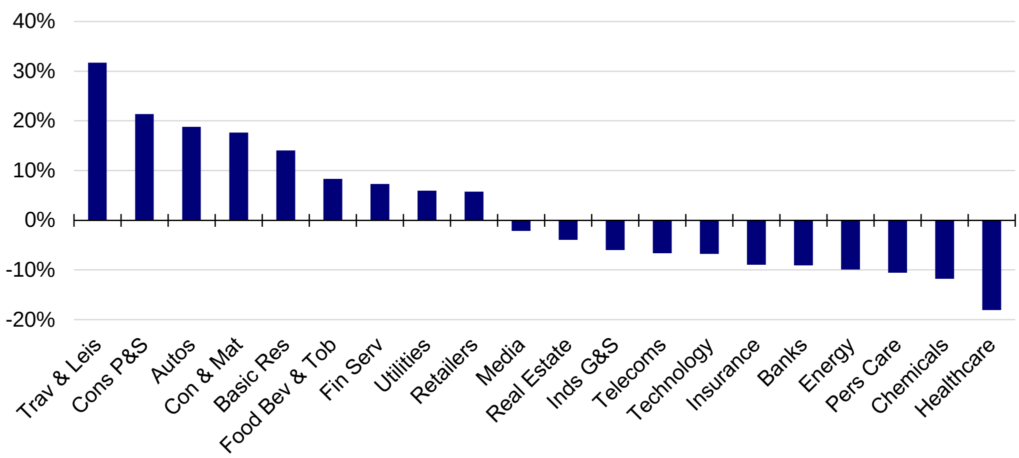
Valuations – Global

Figure 9 – Global sectors valuation matrix



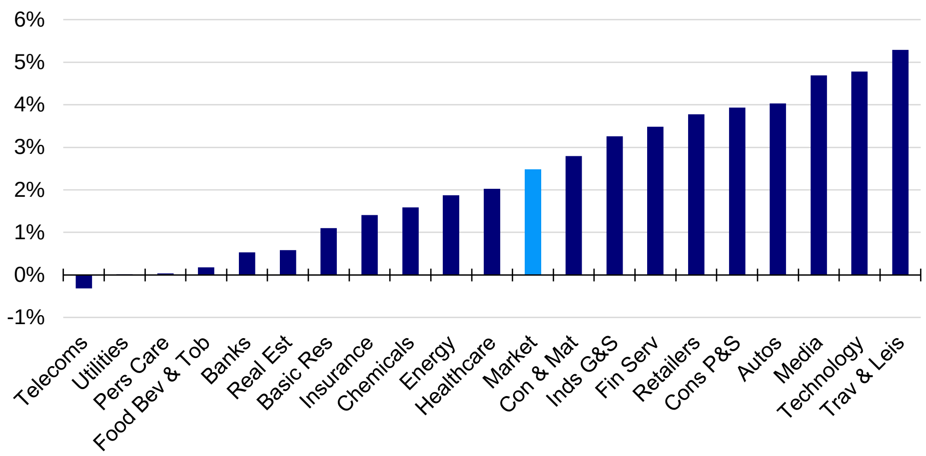
- Sectors in the top right corner look overvalued on both measures, while those in the bottom left appear undervalued
- This approach would avoid, for example, travel & leisure, autos and consumer products
- Telecoms, personal care and banks look better value

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



- Travel & leisure, consumer products & services and autos look the most overvalued versus our model
- Healthcare, chemicals and personal care seem the most undervalued versus our model-predicted ratios

Figure 11 – Global implied perpetual real dividend growth

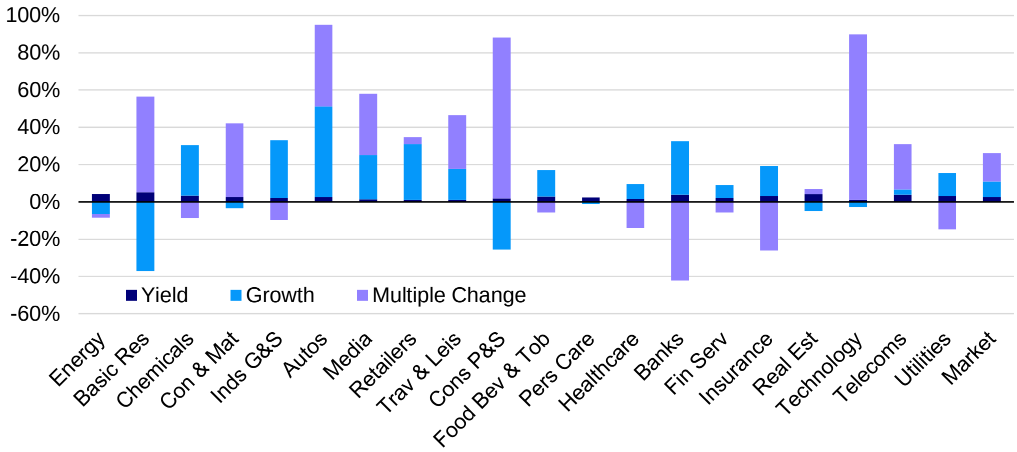


- Shows the future real growth required to justify current prices
- Travel & leisure appears priced for over 5% real growth in dividends (expensive)
- Only telecoms appears priced for negative growth (cheap)

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

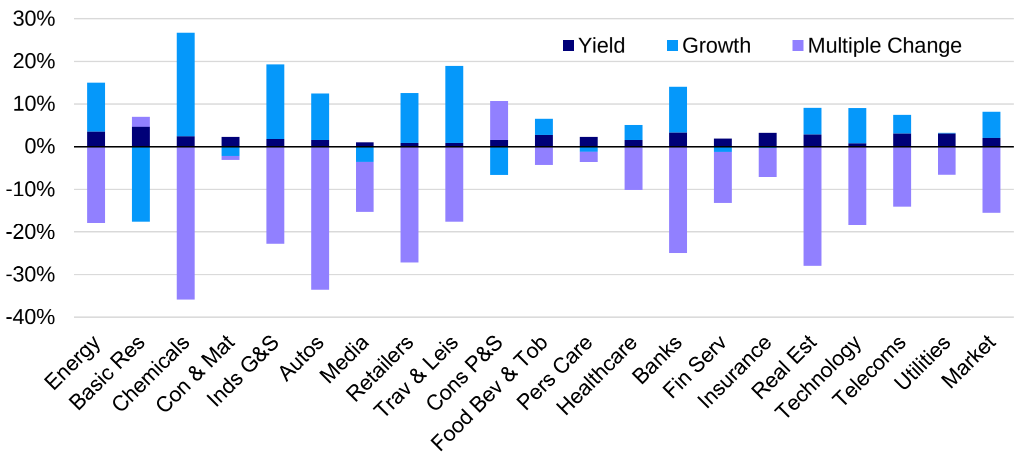
Decomposed returns – Global

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



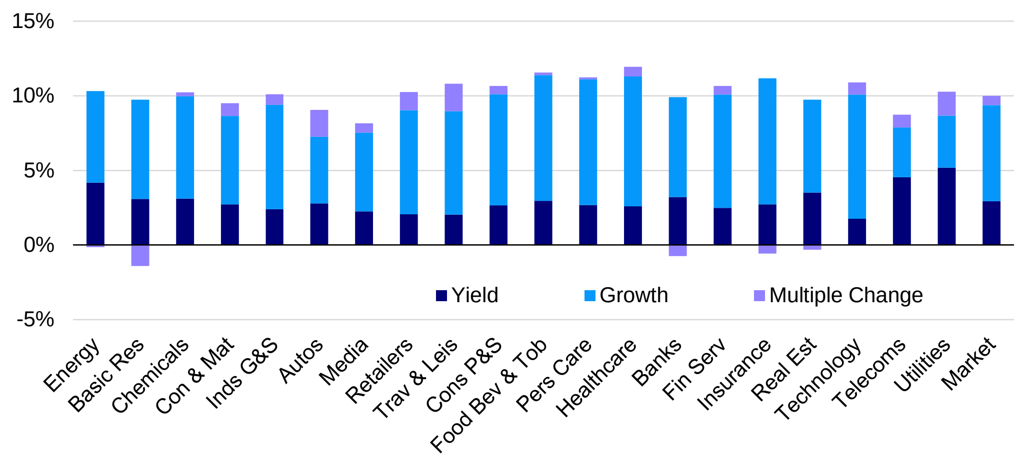
- Only five sectors had both positive growth and rise in sentiment (multiple expansion): autos, media, retailers, travel & leisure and telecoms
- Energy was the only sector with both a dividend cut and a fall in sentiment (multiple contraction)

Figure 13 – Global rolling 12-month total returns decomposed



- Only three sectors had positive total returns: travel & leisure, consumer products and food, beverage & tobacco
- Six sectors had a yield above 3%: energy, basic resources, banks, 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
- 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			0.44	
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
IP		0.53	0.88		2.73	-5.00
10y Yield	-2.41	-2.20		-6.08	11.33	-11.65
CPI	4.26	1.63	-2.54		-8.15	
Net Debt/EBITDA			-0.08			
ROE	-1.68	-0.83	1.24	0.64	-4.23	

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	-1.72	-1.05				
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	-1.54		-0.84	0.87	0.24	-5.00
10y Yield	-2.13	-6.96	1.02		0.35	-11.65
CPI	11.82	30.67	7.78	6.74	0.71	
Net Debt/EBITDA	-0.13	-0.15		0.19	0.02	
ROE	-3.04	-3.05	-1.75		0.44	

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	1.06		0.21	0.45	1.05	0.38	
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	-0.01	0.02	0.01
IP	-3.33	-0.49	0.83	-0.53	1.12	-1.94	-5.00
10y Yield	3.89	7.08	3.24	-0.87	6.41	-1.63	-11.65
CPI	-1.67	-5.73	-4.80	-2.93	-4.70	-2.85	
Net Debt/EBITDA	-0.07	0.04	0.23		-0.11	0.09	
ROE		1.29		0.63	-1.49	0.63	

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

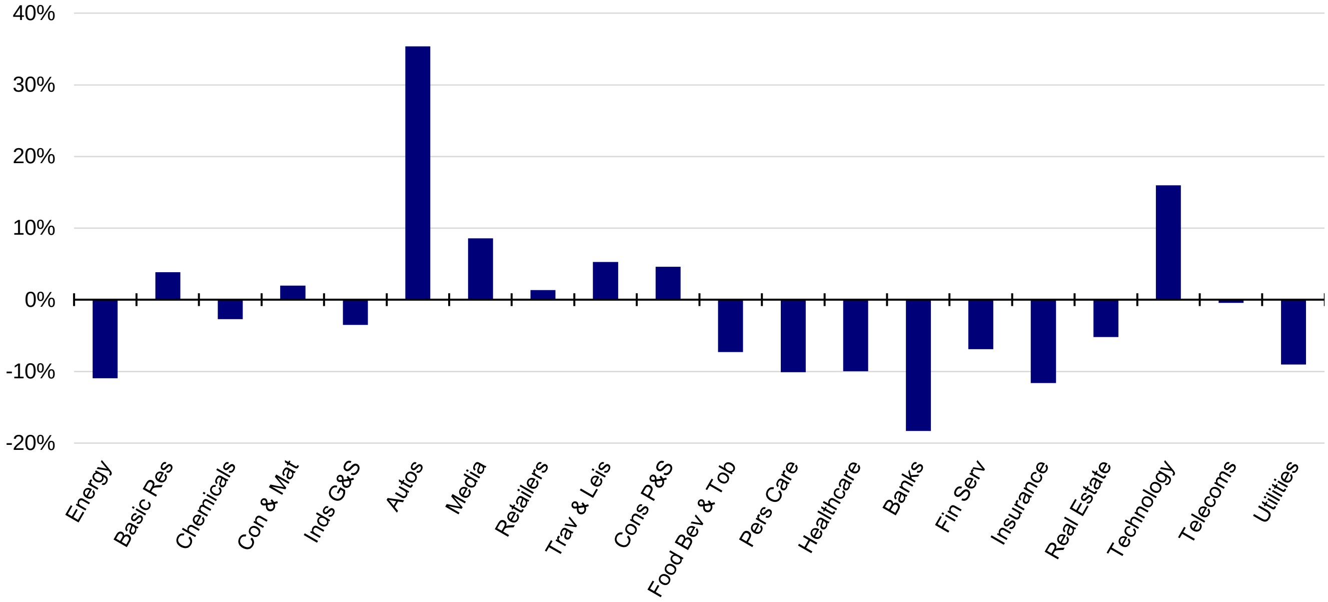
Figure 18 – Regression coefficients of Global financial sectors

	Banks	Financial Services	Insurance	Real Estate	Market
Real Oil	0.40	-0.28	-0.43	0.52	
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	-2.25	1.58		3.53	-5.00
10y Yield	-10.24	1.16	-6.81	3.35	-11.65
CPI	5.92		9.72		
ROE	4.41	0.69	-1.10	-3.86	

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

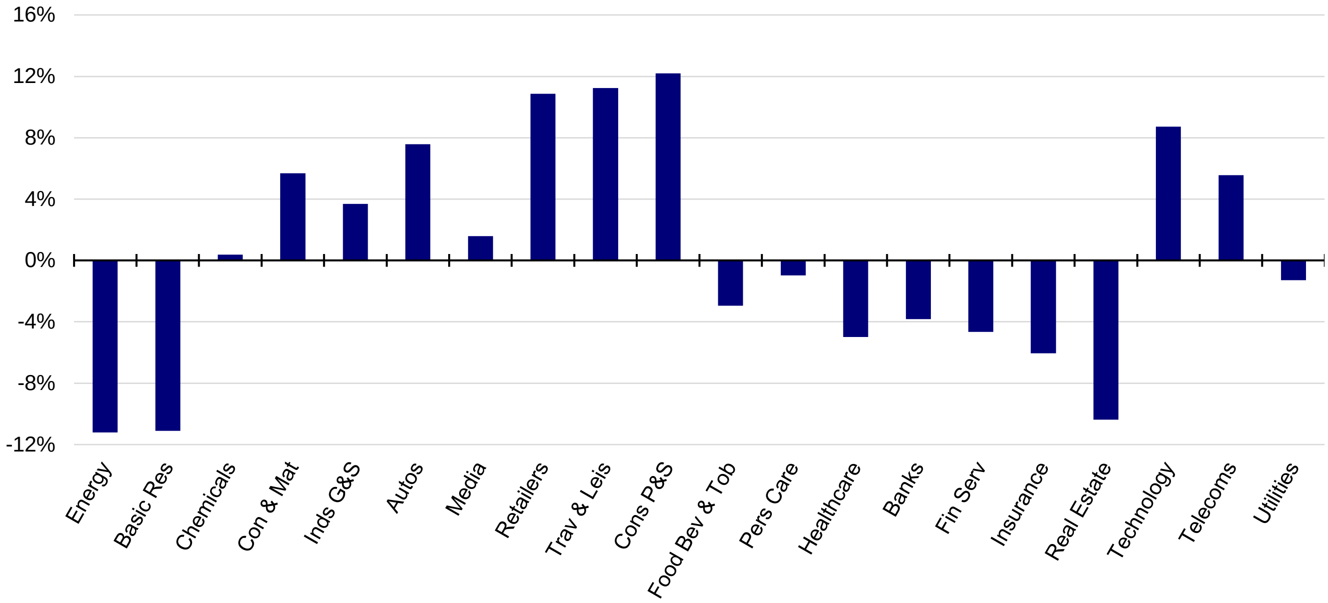
Appendix 2: Sector returns by region

Figure 19 – 3m US sector returns relative to market



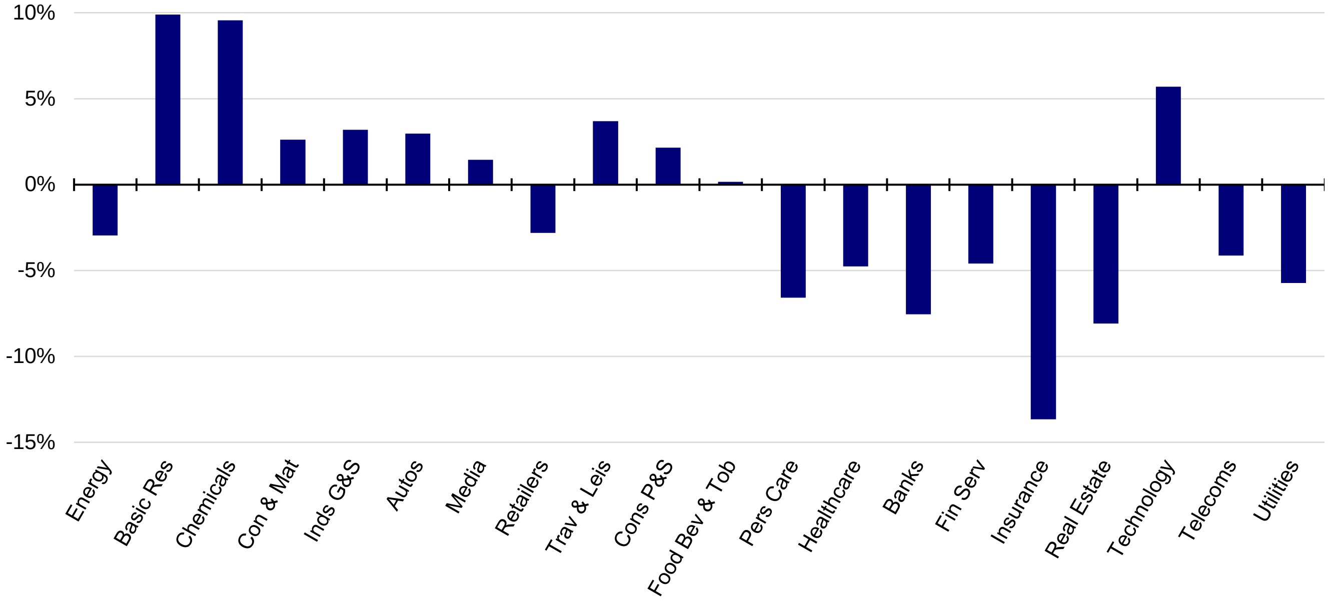
Notes: See appendices for methodology and disclaimers. Returns shown between 31st September 2022 and 31st March 2023. **Past performance is not a guarantee of future results.** Source: Refinitiv Datastream and Invesco

Figure 20 – 3m European sector returns relative to market



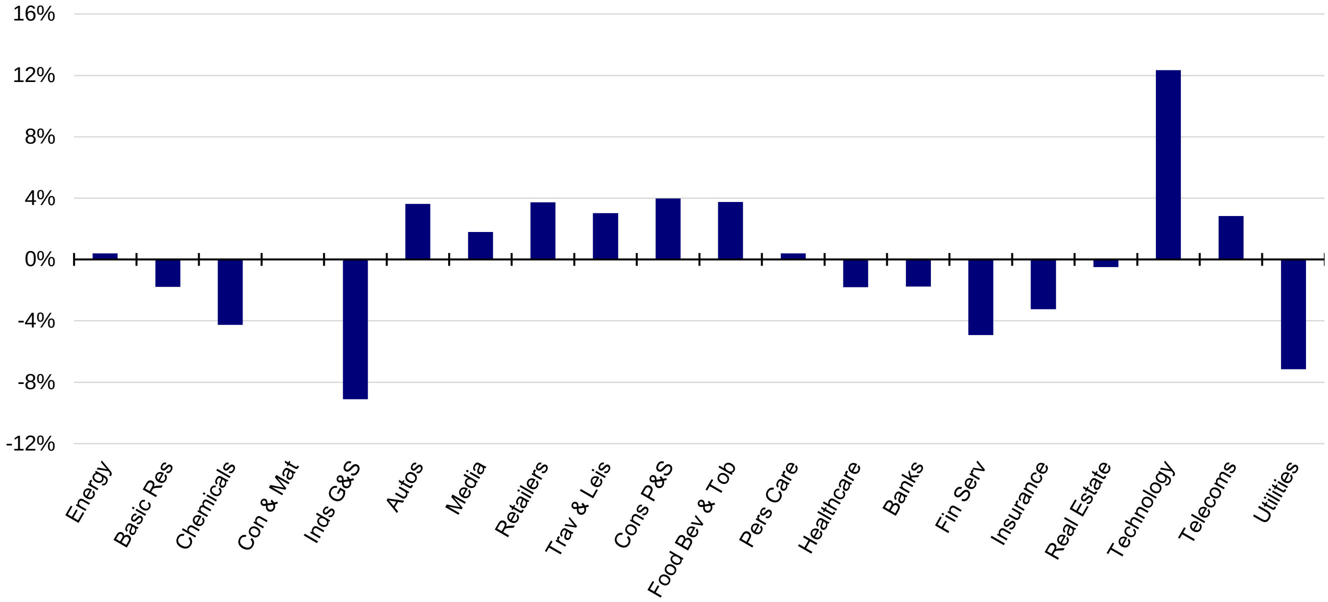
Notes: See appendices for methodology and disclaimers. Returns shown between 31st September 2022 and 31st March 2023. **Past performance is not a guarantee of future results.** Source: Refinitiv Datastream and Invesco

Figure 21 – 3m Japanese sector returns relative to market



Notes: See appendices for methodology and disclaimers. Returns shown between 31st September 2022 and 31st March 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 31st September 2022 and 31st March 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	**8.6**	**14.6**	**-0.9**	**4.2**	**3.9**	**0.3**	**2.0**	**1.8**	**0.3**	**5.1**	**6.3**	**-0.7**
Basic Materials	**11.1**	**16.7**	**-1.2**	**4.1**	**2.8**	**1.6**	**1.8**	**1.8**	**-0.1**	**6.3**	**7.2**	**-0.5**
Basic Resources	9.8	16.8	-1.1	4.5	2.9	1.7	1.6	1.7	-0.2	5.6	7.2	-0.8
Chemicals	13.4	17.1	-0.7	3.4	2.9	0.6	2.0	2.0	0.1	7.8	7.6	0.1
Industrials	**15.9**	**18.2**	**-0.5**	**2.2**	**2.3**	**-0.1**	**2.7**	**2.2**	**1.2**	**10.3**	**9.2**	**0.6**
Construction & Mat.	16.7	16.7	0.0	2.3	2.5	-0.3	1.9	1.8	0.2	9.4	9.1	0.1
Industrial G&S	15.8	18.7	-0.6	2.2	2.2	0.0	2.8	2.2	1.3	10.4	9.3	0.6
Consumer Disc.	**22.6**	**18.8**	**0.7**	**1.4**	**2.2**	**-1.0**	**3.1**	**2.1**	**2.0**	**11.0**	**8.6**	**1.4**
Automobiles & Parts	12.7	15.1	-0.3	2.3	2.6	-0.3	1.4	1.5	-0.2	6.3	5.4	0.8
Media	25.1	21.6	0.5	1.2	2.1	-1.1	2.3	2.4	-0.2	9.7	10.0	-0.1
Retailers	32.1	21.4	1.7	1.2	1.9	-0.9	5.1	3.3	2.0	13.5	13.3	0.1
Travel & Leisure	27.0	23.4	0.3	1.0	1.8	-1.1	6.2	2.6	3.8	13.7	9.3	1.5
Consumer Prod & Serv	24.3	19.3	1.0	1.4	2.4	-1.4	3.9	2.3	2.4	14.0	10.8	1.3
Consumer Staples	**21.3**	**16.8**	**0.9**	**2.7**	**2.5**	**0.2**	**3.1**	**2.8**	**0.3**	**12.5**	**10.8**	**0.6**
Food, Bev & Tobacco	20.3	18.4	0.4	2.9	2.7	0.2	2.8	2.7	0.2	12.9	11.0	0.7
Personal Care	23.6	20.4	0.6	2.4	2.4	0.0	3.7	3.2	0.5	11.9	10.5	0.5
Healthcare	**25.0**	**20.1**	**0.9**	**1.7**	**2.3**	**-0.8**	**3.9**	**3.3**	**0.5**	**14.8**	**12.7**	**0.6**
Financials	**11.9**	**15.6**	**-0.8**	**3.4**	**2.7**	**0.9**	**1.0**	**1.5**	**-1.0**	**5.8**	**5.7**	**0.1**
Banks	8.8	14.3	-1.1	4.3	3.0	1.5	0.9	1.4	-1.1	4.9	6.2	-0.7
Financial Services	20.5	18.3	0.4	2.2	2.3	-0.2	1.0	1.5	-1.0	11.0	8.3	1.1
Insurance	14.3	15.9	-0.3	3.5	2.5	1.4	1.5	1.7	-0.4	4.4	3.8	0.7
Real Estate	16.7	19.1	-0.4	4.0	3.2	0.9	1.2	1.4	-0.8	13.2	13.6	-0.1
Technology	**26.4**	**24.2**	**0.2**	**0.9**	**1.6**	**-0.7**	**5.5**	**3.1**	**2.0**	**16.3**	**11.5**	**1.2**
Telecommunications	**16.8**	**17.3**	**-0.1**	**3.6**	**4.3**	**-0.3**	**1.9**	**2.6**	**-0.6**	**5.2**	**6.1**	**-0.4**
Utilities	**19.4**	**14.6**	**1.2**	**3.4**	**4.8**	**-0.8**	**1.8**	**1.6**	**0.6**	**8.3**	**5.6**	**1.8**
Market	**16.7**	**17.1**	**-0.1**	**2.4**	**2.7**	**-0.3**	**2.2**	**2.0**	**0.5**	**9.1**	**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

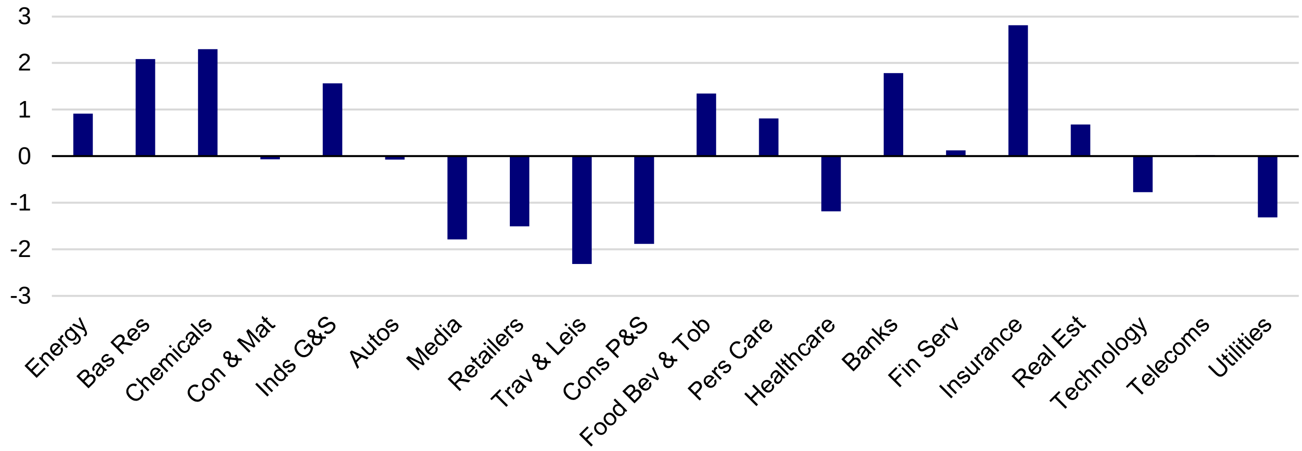
Figure 24 – Global cyclically-adjusted valuations

	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	**14.9**	**18.7**	**-0.5**	**4.0**	**2.9**	**1.1**	**1.6**	**2.6**	**-1.0**	**6.5**	**8.7**	**-0.7**
Basic Materials	**19.3**	**23.2**	**-0.5**	**2.4**	**1.9**	**1.0**	**2.0**	**2.4**	**-0.6**	**8.7**	**9.7**	**-0.4**
Basic Resources	18.5	21.4	-0.4	2.6	2.2	0.6	1.8	2.2	-0.5	7.9	9.2	-0.4
Chemicals	20.2	24.4	-0.8	2.3	1.9	0.8	2.2	2.7	-1.0	10.0	10.7	-0.4
Industrials	**24.7**	**26.6**	**-0.3**	**1.5**	**1.5**	**0.2**	**3.1**	**3.0**	**0.1**	**13.5**	**12.9**	**0.2**
Construction & Mat.	21.3	23.9	-0.3	1.9	1.9	0.0	2.1	2.3	-0.3	11.1	11.6	-0.1
Industrial G&S	25.4	27.3	-0.3	1.5	1.4	0.2	3.3	3.1	0.4	13.9	12.8	0.5
Consumer Disc.	**25.2**	**27.0**	**-0.4**	**1.4**	**1.4**	**-0.2**	**3.2**	**3.0**	**0.3**	**12.6**	**11.8**	**0.4**
Automobiles & Parts	15.2	19.0	-0.9	1.8	1.7	0.1	1.5	2.0	-1.4	7.0	6.7	0.2
Media	22.0	30.0	-0.9	1.4	1.4	0.1	2.7	3.3	-0.5	11.9	13.5	-0.5
Retailers	32.5	32.2	0.0	1.1	1.1	-0.1	5.2	4.8	0.5	17.7	19.7	-0.5
Travel & Leisure	25.3	34.0	-0.9	1.4	1.1	0.7	3.8	3.5	0.4	12.3	13.1	-0.3
Consumer Prod & Serv	29.5	28.6	0.2	1.4	1.6	-0.7	4.3	3.1	2.1	17.4	15.5	0.9
Consumer Staples	**21.6**	**22.6**	**-0.3**	**2.2**	**1.6**	**1.3**	**3.6**	**3.8**	**-0.5**	**14.8**	**14.6**	**0.1**
Food, Bev & Tobacco	25.5	28.2	-0.6	2.2	1.6	1.5	3.4	4.0	-1.4	15.5	16.3	-0.5
Personal Care	25.8	31.6	-0.8	2.0	1.4	1.4	3.9	4.9	-1.0	13.6	16.2	-1.1
Healthcare	**33.3**	**31.6**	**0.3**	**1.3**	**1.4**	**-0.2**	**4.9**	**5.1**	**-0.2**	**19.2**	**19.6**	**-0.1**
Financials	**14.2**	**23.4**	**-0.9**	**2.7**	**2.0**	**0.9**	**1.2**	**1.9**	**-1.2**	**6.8**	**7.2**	**-0.3**
Banks	11.1	20.8	-1.0	3.6	2.3	1.1	1.0	1.8	-1.3	5.8	7.9	-0.9
Financial Services	20.1	29.3	-0.6	1.7	1.5	0.2	1.4	2.0	-1.1	12.6	10.6	0.9
Insurance	16.6	23.8	-0.8	2.3	1.6	1.1	1.6	2.4	-0.9	4.6	4.9	-0.3
Real Estate	13.3	26.4	-1.0	3.8	2.5	1.4	1.2	1.7	-1.2	13.5	16.9	-0.9
Technology	**41.2**	**38.9**	**0.1**	**0.7**	**0.9**	**-0.4**	**7.3**	**4.8**	**1.1**	**23.9**	**18.7**	**0.6**
Telecommunications	**15.1**	**22.9**	**-0.8**	**4.0**	**3.0**	**0.8**	**2.0**	**3.3**	**-1.0**	**5.1**	**7.6**	**-0.9**
Utilities	**19.8**	**18.6**	**0.3**	**3.2**	**3.5**	**-0.3**	**1.8**	**2.0**	**-0.5**	**7.4**	**6.9**	**0.4**
Market	**22.0**	**24.7**	**-0.5**	**1.9**	**1.8**	**0.4**	**2.4**	**2.8**	**-0.6**	**11.0**	**10.7**	**0.2**

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

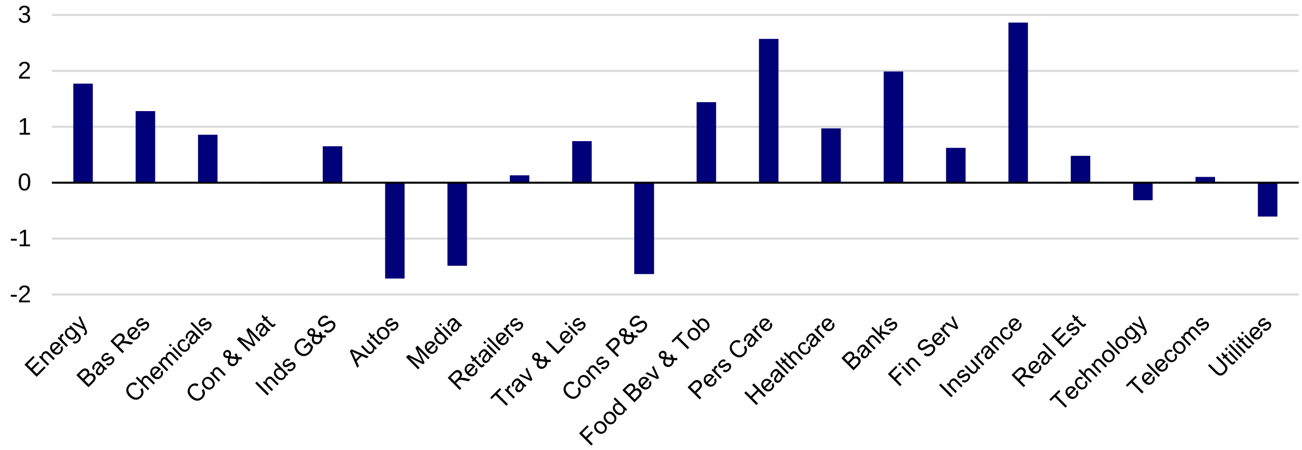
Appendix 4: Sector valuations by region

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



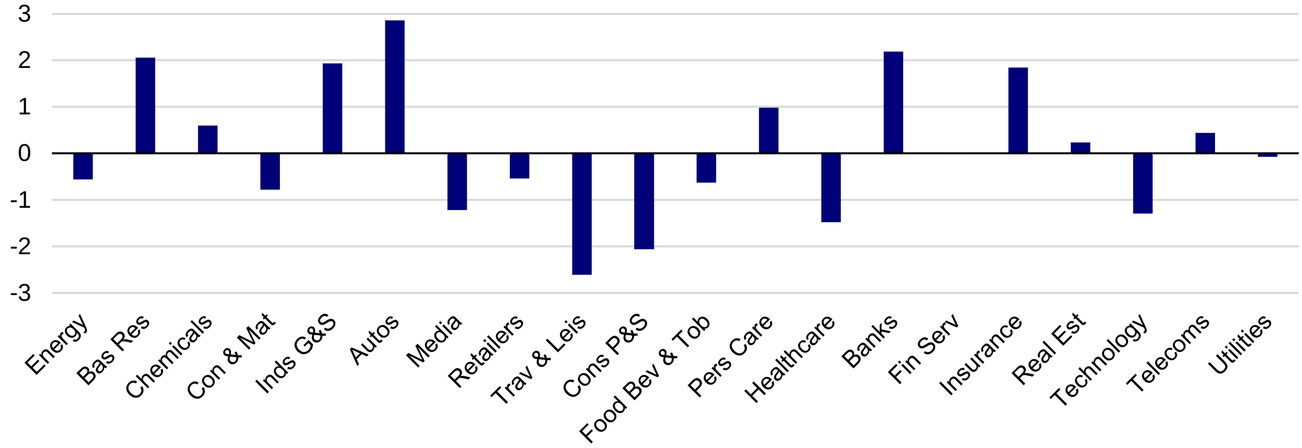
Notes: See appendices for methodology and disclaimers. Source: Refinitiv Datastream and Invesco

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



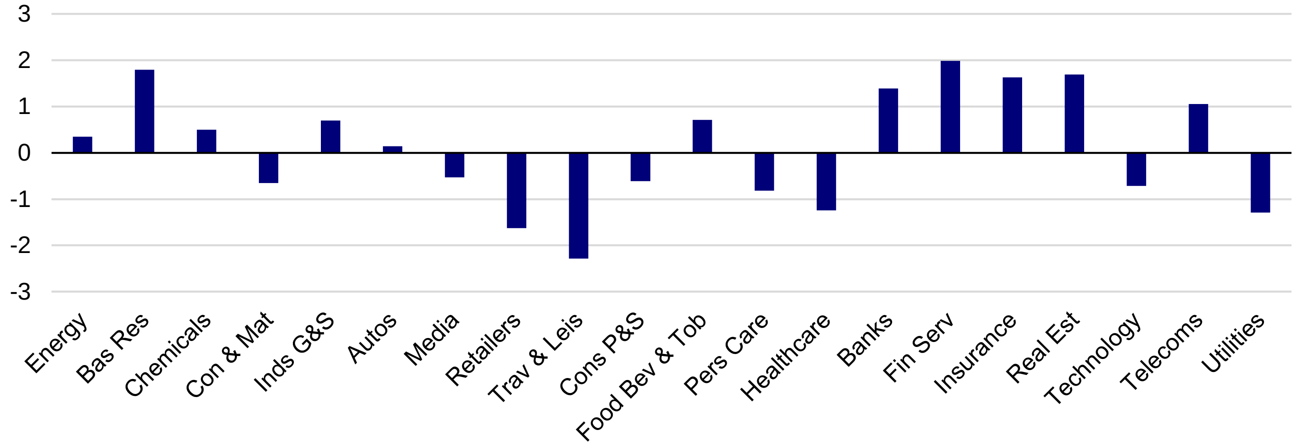
Notes: See appendices for methodology and disclaimers. The local benchmark is the Datastream US Total Market Index. Source: Refinitiv Datastream and Invesco

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



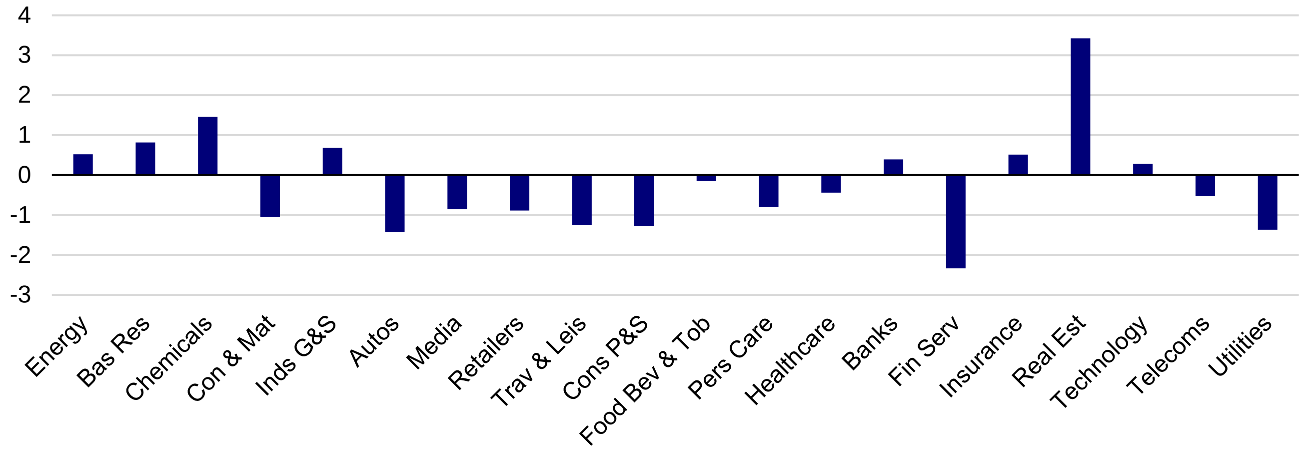
Notes: See appendices for methodology and disclaimers. The local benchmark is the Datastream Europe Ex-Emerging Total Market Index. Source: Refinitiv Datastream and Invesco

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 31/03/2023	Global				
	3m	**YTD**	**12m**	**5y***	**10y***
Energy	**-7.2**	**-7.2**	**4.8**	**-2.8**	**-5.7**
Basic Materials	**-1.5**	**-1.5**	**-2.9**	**0.7**	**-0.9**
Basic Resources	-1.7	-1.7	-3.6	2.5	-1.6
Chemicals	-1.1	-1.1	-1.8	-1.9	-1.1
Industrials	**-0.3**	**-0.3**	**4.5**	**-0.6**	**0.5**
Construction & Materials	2.9	2.9	6.9	-1.6	-1.6
Industrial Goods & Services	-0.7	-0.7	4.2	-0.4	0.9
Consumer Discretionary	**7.0**	**7.0**	**-2.3**	**-1.6**	**-0.2**
Automobiles & Parts	16.2	16.2	-15.0	-0.8	-0.3
Media	7.5	7.5	-7.6	-3.3	-1.6
Retailers	2.0	2.0	-8.0	-1.3	0.0
Travel & Leisure	4.8	4.8	9.3	-5.2	-1.8
Consumer Products & Services	8.5	8.5	12.3	0.8	1.1
Consumer Staples	**-4.3**	**-4.3**	**8.8**	**-2.8**	**-1.7**
Food, Beverage & Tobacco	-3.5	-3.5	10.2	-1.5	-2.4
Personal Care, Drug & Grocery Stores	-5.8	-5.8	6.2	-1.7	-1.7
Healthcare	**-7.2**	**-7.2**	**2.2**	**2.3**	**2.3**
Financials	**-7.3**	**-7.3**	**-2.8**	**-2.5**	**-1.5**
Banks	-8.5	-8.5	-4.0	-5.3	-3.6
Financial Services	-5.4	-5.4	-4.4	0.6	1.7
Insurance	-7.8	-7.8	3.4	-1.0	0.7
Real Estate	**-5.7**	**-5.7**	**-12.5**	**-5.6**	**-4.2**
Technology	**14.3**	**14.3**	**-2.3**	**8.0**	**8.5**
Telecommunications	**1.1**	**1.1**	**0.8**	**-2.6**	**-3.4**
Utilities	**-5.9**	**-5.9**	**4.1**	**0.7**	**-1.1**

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 31st March 2023 unless stated otherwise. This publication is updated quarterly.

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