Strategic Sector Selector
Trying to have it both ways

The swift bear market in the first quarter of 2020 gave way to a rapid rebound in equities in Q2. We now suspect that the recession triggered by worldwide lockdowns may have been the deepest since World War II, and it may have also been the quickest. How long it will be depends on how quickly people can get back to some sort of normality. We think there is a risk of another wave of infections but also accept that a vaccine could spur rapid economic recovery. The uncertainty is the main reason why we increase our exposure in our model allocation to defensive sectors by upgrading utilities to Neutral and keep our Overweight to consumer staples. We downgrade energy and automobiles & parts after their outperformance. We keep our Overweight allocation to technology and banks to maintain exposure to both growth and value sectors.

Changes in allocations:

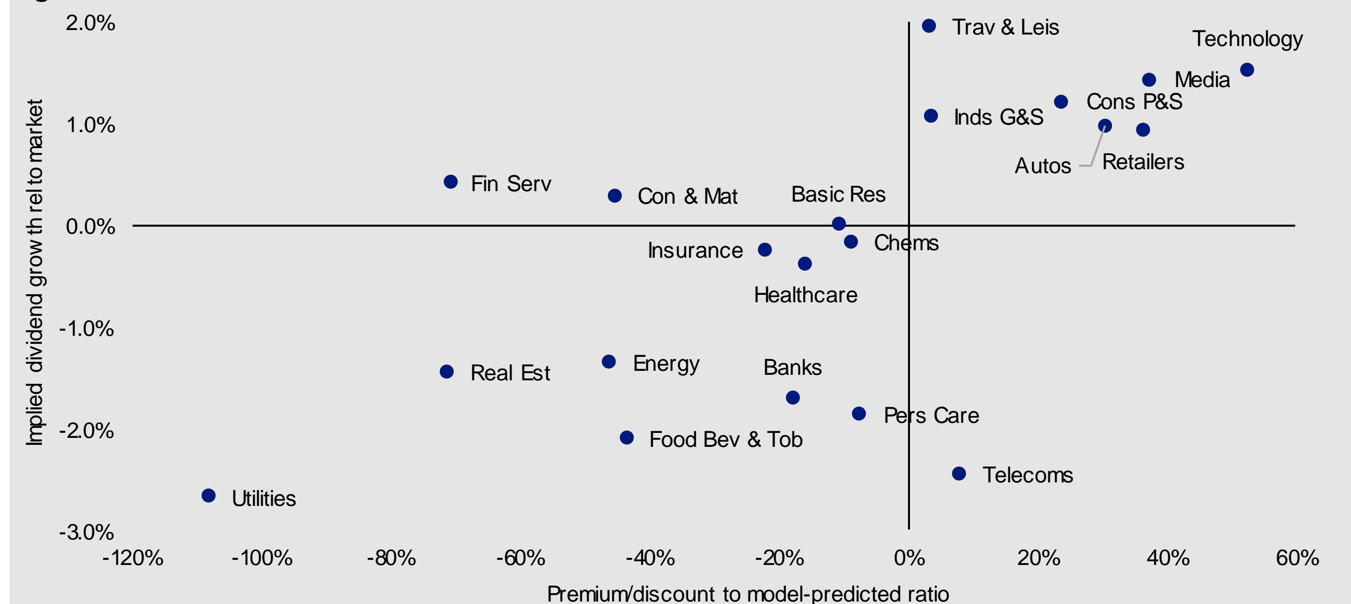
- Upgrades: consumer products & services, utilities (UW to N);
- Downgrades: energy (OW to N); automobiles & parts (N to UW)

	Most favoured	Least favoured
Sector	technology, banks	Automobiles & parts, travel & leisure

Sectors where we expect the best returns:

- Food, beverage & tobacco: decent yield, undervalued, play on interest rates staying lower for longer
- Technology: an opportunity to gain exposure to structural trends at decent valuations
- Banks: attractive valuations, relatively resilient balance sheets, play on strong economic rebound

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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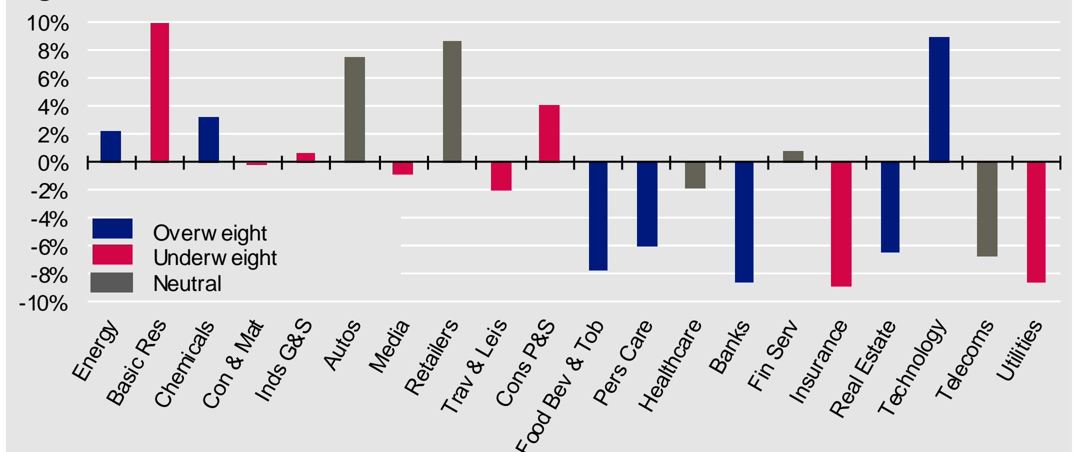
Summary and conclusions

Since the last time

The first wave of infections related to COVID-19 seems to have reaccelerated globally at the time of writing, but there appear to be important regional differences. While the number of new cases has remained at a low level in most of Asia-Pacific and Europe allowing for a tentative reopening of economies, it has stayed high in the Americas and India. When we wrote our previous edition, we were unsure of the strength of any recovery in equity markets. So far, global equities seem to have priced in something close to our best-case economic scenario. However, when we look more closely, it is evident to us that market leadership has remained narrow and sector returns have been somewhat lopsided.

Figure 2 – 3m Global sector returns relative to market



Notes: See appendices for methodology and disclaimers. Returns shown between 31st March 2020 and 30th June 2020. Colours indicate allocations in period considered. Past performance is not a guarantee of future results. Source: Refinitiv Datastream and Invesco

Figure 2 suggests this has been an unusual post-bear market rally. While defensive sectors underperformed, few of the early-cyclicals outperformed as we would have expected from previous experience. In fact, the outperformance of automobiles & parts and retailers can mostly be explained by just one dominant stock in each case that command technology-like perceptions and valuations. We also expected financials to do better, although we were right that insurance would struggle. We should also have been more positive on basic resources, their outperformance mostly fuelled by the stronger-than-expected recovery in China, although we got our allocation right in energy and chemicals. Finally, our upgrade of the technology sector worked out well so far given that underlying structural trends seem to have been amplified and accelerated by the shutdowns (we wrote about the sector recently).

Asset allocation backdrop

There are many uncertainties about the future path of the global economy, which will depend upon many factors including: the speed of lockdown release, the behavioural reaction of populations to that release, the extent of any collateral damage, the discovery (or not) of a vaccine, the probability of second round Covid-19 outbreaks (and the likely policy and behavioural reactions). Also, let's not forget the US presidential election on 3 November 2020. For these reasons, we drew up five scenarios in our latest The Big Picture ranging from a "W" shaped multiple outbreak scenario with 2020 global GDP growth of -8.5%, followed by -0.3% in 2021, to a "V" shaped rapid recovery scenario, where GDP growth of -4.8% in 2020 is followed by +11.0% in 2021 (see the implied market forecasts in **Figure 3**).

Measures of mobility suggest the low point in this recession occurred in early April, with gradual improvement since then. It could be the shortest recession on record. That is good news and could explain the improved financial market momentum. However, it

may also be the deepest recession for some time and the full extent of the damage may need time to be fully appreciated. Central banks may be able to boost market multiples and depress spreads but they cannot prevent the sharp drop in corporate earnings and dividends that we believe are inevitable, nor the jump in credit defaults. This makes it very hard to know what one should be willing to pay for an asset.

For each of our economic scenarios we have constructed a set of financial market assumptions to enable the generation of 12-month projected returns for each asset class, across all regions: first, as one might expect, defensive assets (gold and government bonds, for example) are expected to do better in weak economic scenarios, while the reverse is true for more cyclical assets such as HY, equities, real estate and commodities (note that IG is somewhere in the middle); second, the projected returns in the Intermediate ("Swoosh") scenario are limited and often negative; third, there is a negative skew to the projections (whether looking at defensive or cyclical assets, our projections suggest more downside than upside, except for cash).

Equity markets are running with their eyes wide shut into what feels like a trap: they are focusing on policy support and improved economic momentum, while ignoring the earnings chasm that is opening beneath them. If equities are obsessed with good news, gold seems to be focused on the negative, so that within our Model Asset Allocation we prefer cash, investment grade credit (IG), high yield credit (HY) and real estate. Regionally, we are focused on emerging market (EM), Japanese and UK assets. We do not believe currency hedging is needed in the next 12 months and think that the Japanese yen offers the cheapest exposure to a "safe haven" in periods of market stress, while GBP and EUR both offer value if risk appetite picks up.

Figure 3 – 12-month market forecasts by scenario

	Current (30/06/20)	Best	Good	Inter-mediate	Bad	Worst
Central Bank Rates						
US	0.25	0.50	0.25	0.15	0.05	0.00
Eurozone	-0.50	-0.40	-0.50	-0.60	-0.75	-0.80
China	4.35	4.50	4.35	4.00	3.50	3.00
Japan	-0.10	-0.10	-0.10	-0.20	-0.30	-0.40
UK	0.10	0.25	0.10	0.00	-0.10	-0.25
10y Bond Yields						
US	0.65	1.90	1.20	0.80	0.40	0.30
Eurozone	-0.50	0.50	0.10	-0.30	-0.80	-0.90
China	2.90	4.00	3.50	3.00	2.50	2.00
Japan	0.03	0.30	0.10	0.00	-0.35	-0.45
UK	0.12	1.00	0.40	0.20	-0.20	-0.35
Exchange Rates/US$						
EUR/USD	1.12	1.25	1.20	1.15	1.10	1.05
USD/CNY	7.07	7.00	7.10	7.20	7.30	7.40
USD/JPY	107.94	115.00	114.00	112.00	105.00	100.00
GBP/USD	1.24	1.35	1.33	1.30	1.23	1.20
USD/CHF	0.95	1.02	1.00	0.98	0.94	0.92
Equity Indices						
S&P 500	3100	3600	3100	2750	1925	1250
Euro Stoxx 50	3234	3500	2950	2750	1700	1100
FTSE A50	13962	17000	14600	13250	11500	6400
Nikkei 225	22288	29000	25000	21000	16250	11000
FTSE 100	6170	7000	6000	5500	4100	3000
Commodities (US$)						
Brent/barrel	42	50	40	30	25	20
Gold/ounce	1784	1500	1600	1630	1670	1800
Copper/tonne	6005	7000	6500	6000	4800	3500

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 of each scenario. Source: Refinitiv Datastream and Invesco Global Market Strategy Office

Changes to sector allocations

Equity markets have roared back since March led by sectors that we would have expected to do well when people are stuck at home working and entertaining themselves. Now we are at a stage where we face more difficult choices, because the sectors that have outperformed, such as technology and retailers, look expensive, while the underperformers, for example financials and real estate, still feel too risky when the prospect of a robust economic recovery appears distant. Do we stick with our current allocation and try to play it both ways? Is the trend still our friend?

To a certain extent we think we still need to somehow position for both significant downside risk and some upside risk or a potential rotation into cyclicals and value sectors. This would be consistent with our scenario-based economic and asset allocation outlook but makes our job more complicated. We do not necessarily expect a wholesale change in the macroeconomic environment in the next 12 months in terms of rates, long duration sovereign yields, exchange rates or commodity prices (except perhaps in our best-case scenario – see **Figure 3**). With all that in mind, we are making only a handful of changes in our model sector allocation.

The **energy** sector rebounded as oil prices recovered from their lows (they even went negative for a short period in March). However, we think further upside from current levels will be limited by a potentially fragile recovery, partial reversal of mobility trends and the possible reversal of production cuts by OPEC+. Although headline valuations look compelling – it is the cheapest sector based on dividend yield –, we think that risk and reward are currently balanced. We downgrade to **Neutral** from Overweight.

Higher energy prices would logically be bad news for the **automobiles & parts** sector, so it is not necessarily surprising that its best performer has been an electric vehicle manufacturer. However, without its top performer, the sector would have returned just about the same as the broader market. Its outperformance is now reflected in its valuations: the sector's dividend yield implies a growth rate that is about one percentage point higher than for the market as a whole. We think that this means that the sector has probably priced in our best-case scenario. Downgrade to **Underweight**.

We admit that we underestimated the resilience and diversification in the **consumer products & services** sector. Subsectors, such as computer games studios, food delivery companies and streaming services have acted as "safe havens" during this stay-at-home crisis. However, we still think that luxury goods manufacturers and retailers, which include the largest constituents of the sector, will continue to struggle until the economic recovery is well-established. Valuations also make us cautious, but we think the sector will stay relatively resilient. Upgrade to **Neutral**

In an era of low and falling interest rates, defensive value sectors, such as **utilities**, seem to have fallen out of favour. However, we think the bulk of rate cuts are now behind us and that perhaps will allow defensive value to stabilise. In our view, low rates help utilities service their relatively high debt burden, which should offset some of the lost revenue from their commercial clients. The sector has appeared cheap for at least the last 12 months but still underperformed. After a period of underperformance in the rebound since March, we think it may be a useful hedge against potential turbulence in the markets in the second half of 2020. Upgrade to **Neutral**

The best and worst of the rest

We think **industrial goods & services** will struggle with lower demand for transportation equipment that will cascade down the whole supply chain. We consider the sector a late-cyclical and its valuation based on implied perpetual dividend growth has remained high relative to the market and we think that is too optimistic, especially if dividends are cut further. Remain **Underweight**.

Despite the strong outperformance through the market turmoil, we keep our **Overweight** allocation to **consumer staples**. Their valuations do not look demanding, and if rates stay low for an extended period, that should boost those valuations. We prefer to

maintain exposure to defensives until we have more clarity on the economic outlook, and they remain our favoured way to gain that.

We keep our **Neutral** allocation to **healthcare** as we think higher demand for its products may be offset by lower profitability. Vaccines and antiviral medication have not been the highest margin products, so reallocating research and production resources will potentially reduce their capacity to sell and develop their more profitable treatment solutions. The traditional defensive nature of the sector and positive investor sentiment towards it may be offset by lower earnings and dividend growth.

Insurance is the only financial we keep **Underweight**, even though we consider the sector an early-cyclical. It seems to be stuck in a cycle of unending woes, from wildfires to storm and flood-related damages and now COVID-19-related claims. An economic downturn will hinder their business by depressing demand for insurance if people travel less and buy fewer big-ticket items, including cars and property. Low bond yields may also hurt their investment returns crucial for their life insurance and pension businesses.

Our **Overweight** stance in **banks** is more a function of wanting to be exposed to a potentially better-than-expected recovery than our positive view on the sector. We think valuations do not necessarily reflect the persistence of the negative impact of low rates on margins and perhaps the income from government-mandated loans have not been able to offset that. However, if for example a vaccine is developed earlier than we currently expect, or if one of our better economic scenarios materialises, the sector may provide good exposure to potential outperformance, especially if inflation and rate expectations pick up.

We retain our **Overweight** to **real estate**, a sector that has weathered this downturn relatively well so far. That would be a sign of complacency, but depressed valuations – dividend yields have priced in no growth – suggest good long-term potential for the sector. The main risk is that the economy will dip into recession if lockdowns have to be reintroduced and companies in the sector lose more tenants or are forced to offer further rent holidays.

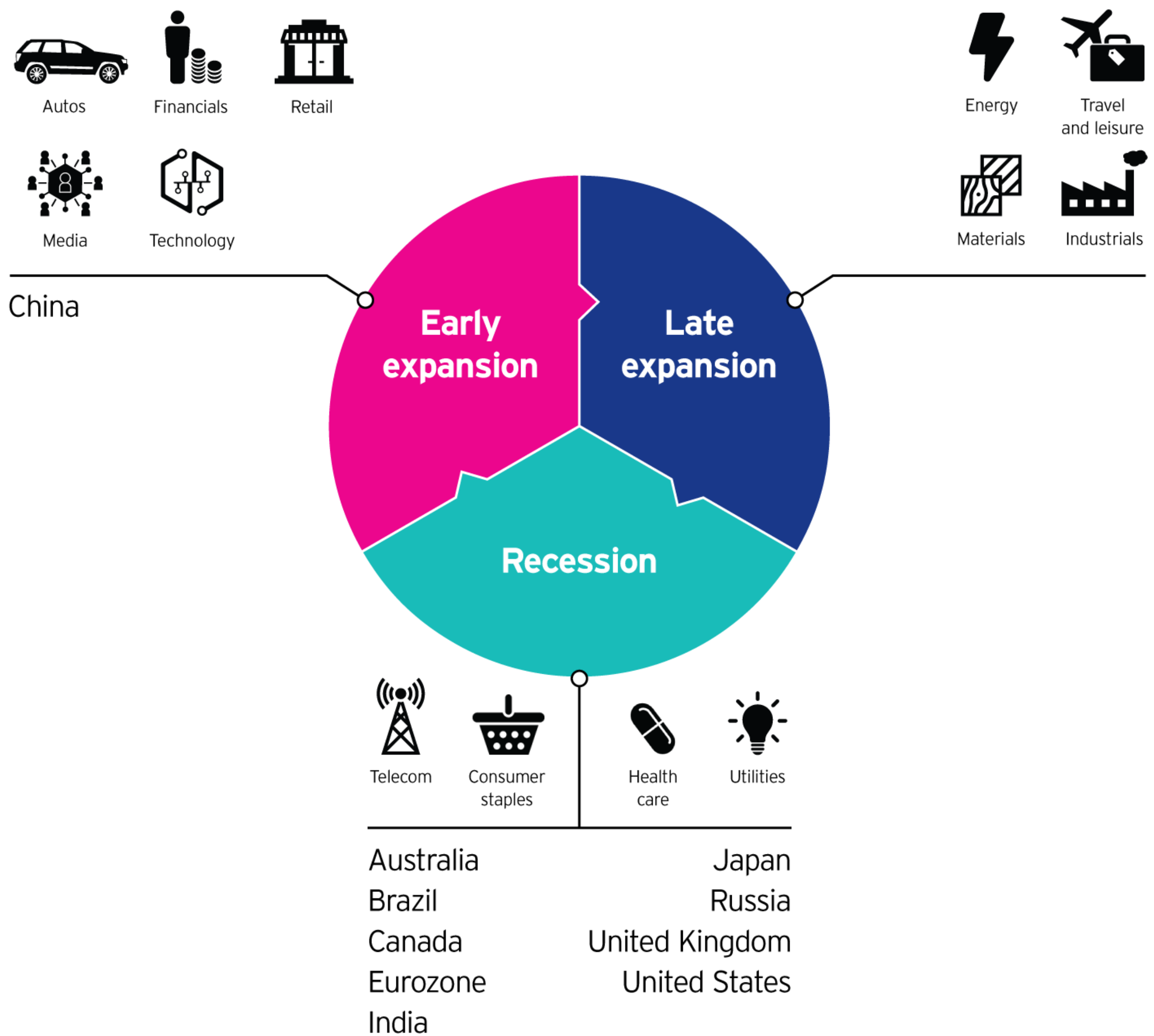
We keep our **Overweight** allocation to **technology**, which we think will continue to benefit from the structural trends accelerated and amplified by the COVID-19 crisis. Valuations look rich, but they are nowhere near the extremes of the tech bubble. We suspect the changing composition of the sector played a part in reducing its volatility and cyclicality, thus making it an unexpected defensive (see our recent report for more details).

Figure 4 – Model allocations for Global sectors

	Neutral	Invesco	
Energy	**4.2%**	**Neutral**	↓
Basic Materials	**4.2%**	**Neutral**	
Basic Resources	2.3%	Underweight	
Chemicals	2.0%	Overweight	
Industrials	**12.4%**	**Underweight**	
Construction & Materials	1.5%	Underweight	
Industrial Goods & Services	10.9%	Underweight	
Consumer Discretionary	**14.5%**	**Underweight**	
Automobiles & Parts	2.1%	Underweight	↓
Media	1.3%	Underweight	
Retailers	5.4%	Neutral	
Travel & Leisure	1.9%	Underweight	
Consumer Products & Services	3.9%	Neutral	↑
Consumer Staples	**7.4%**	**Overweight**	
Food, Beverage & Tobacco	4.7%	Overweight	
Personal Care, Drug & Grocery Stores	2.7%	Overweight	
Healthcare	**11.0%**	**Neutral**	
Financials	**14.7%**	**Neutral**	
Banks	6.7%	Overweight	
Financial Services	4.4%	Neutral	
Insurance	3.6%	Underweight	
Real Estate	**3.9%**	**Overweight**	
Technology	**19.2%**	**Overweight**	
Telecommunications	**4.9%**	**Neutral**	
Utilities	**3.6%**	**Neutral**	↑

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

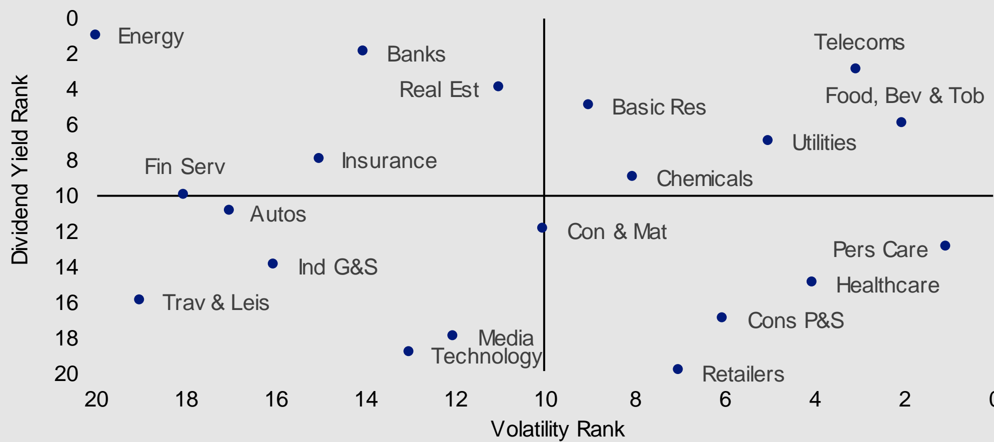
Figure 5 – Economic cycle and main sector allocation decisions



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. It also shows where we believe the 10 largest economies are within their economic cycles.
Source: Invesco

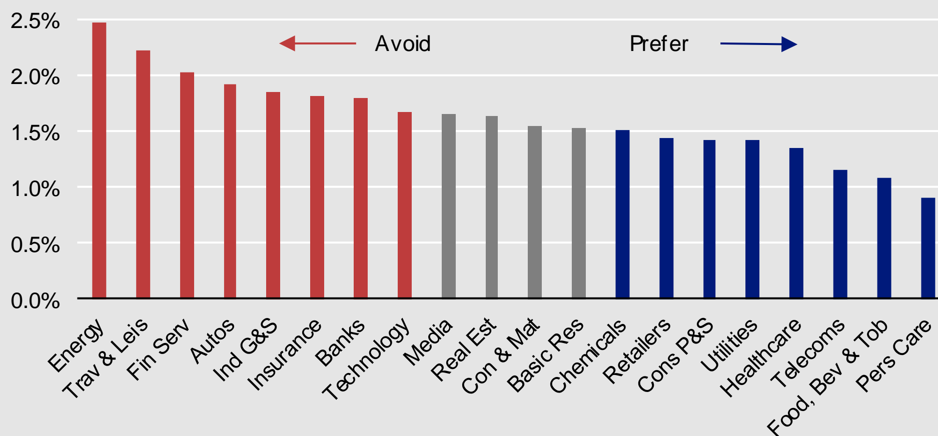
Systematic strategy – Global

Figure 6 – Global sectors ranked by volatility and dividend yield



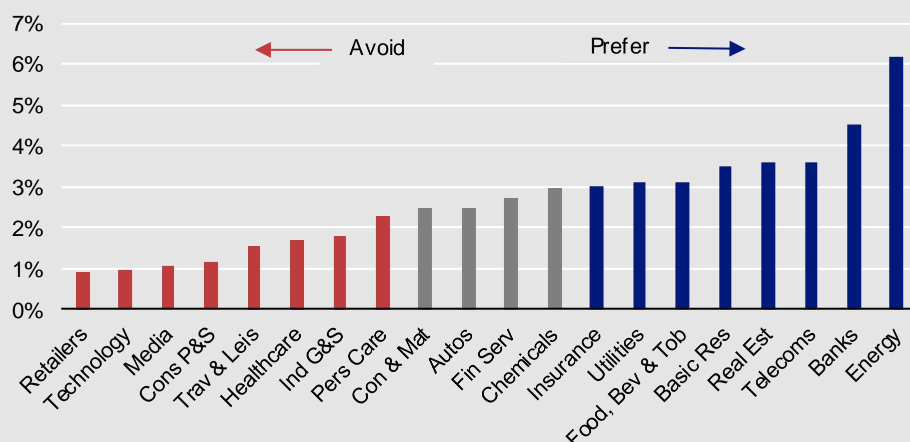
- A purely systematic approach would favour sectors in the top right corner: telecoms, food, beverage & tobacco and utilities
- The approach would avoid sectors in the bottom left, such as tech, media, or travel & leisure

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



- The daily returns of energy, travel & leisure and financial services were the most volatile in the past 3 months
- Personal care, food, beverage & tobacco and telecoms were the least volatile

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

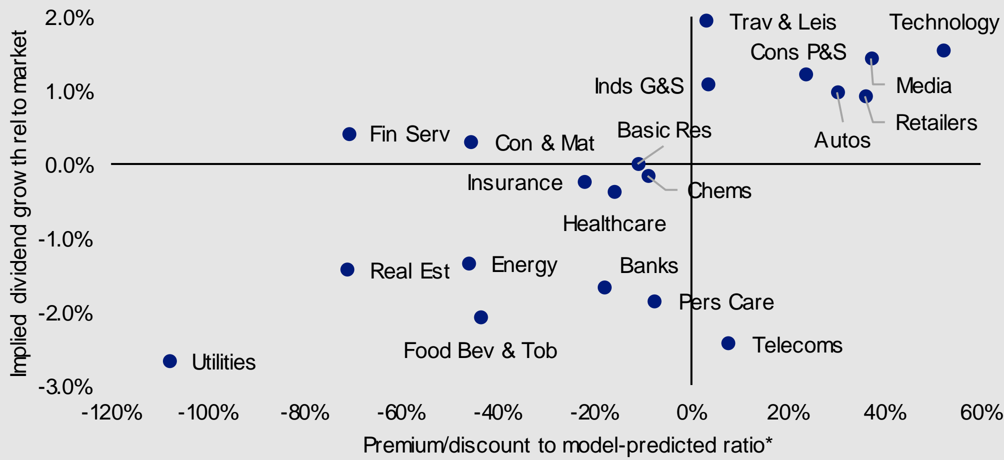


- Energy, banks and telecoms look the cheapest based on their dividend yield
- The lowest yielding sectors include retailers, technology and media

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

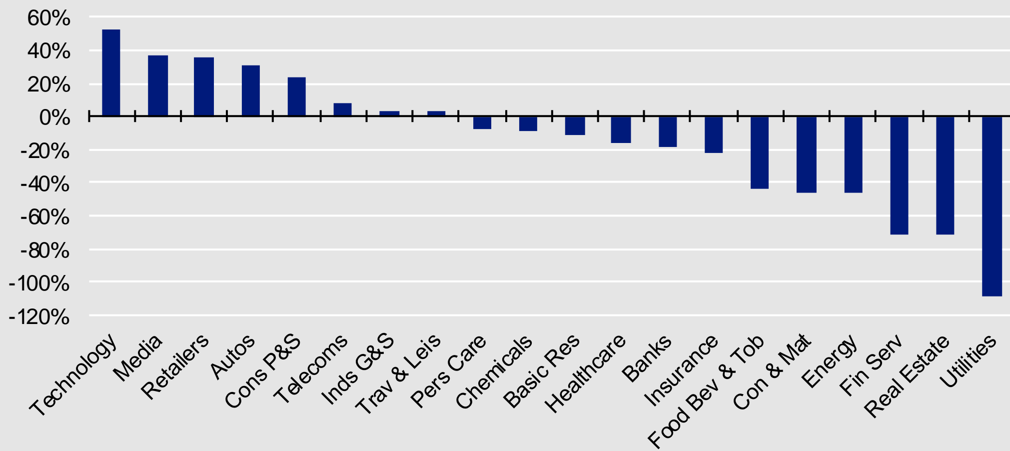
Valuations – Global

Figure 9 – Global sectors valuation matrix



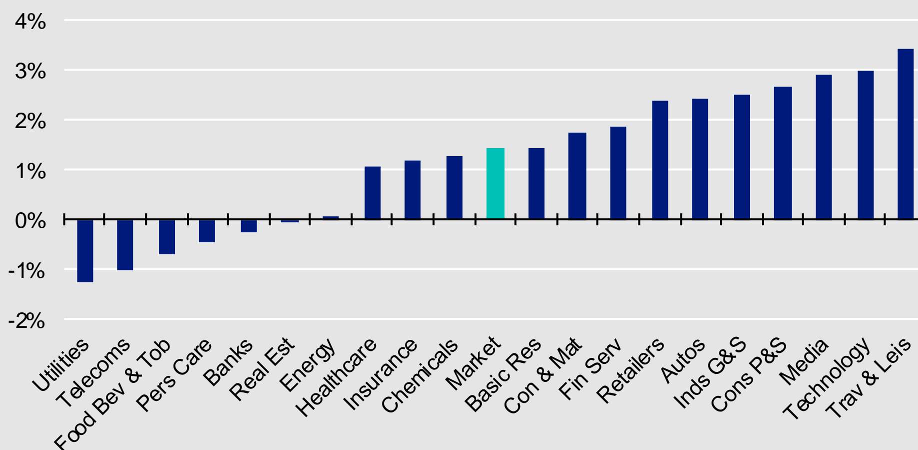
- Sectors in the top right corner look overvalued on both measures, while those in the bottom left appear undervalued
- This approach would avoid, for example, tech, media, and retailers
- Utilities, real estate and energy look better value

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



- Technology, media, and retailers look the most overvalued versus our model
- Utilities, real estate and financial services seem the most undervalued versus our model-predicted ratios

Figure 11 – Global implied perpetual real dividend growth

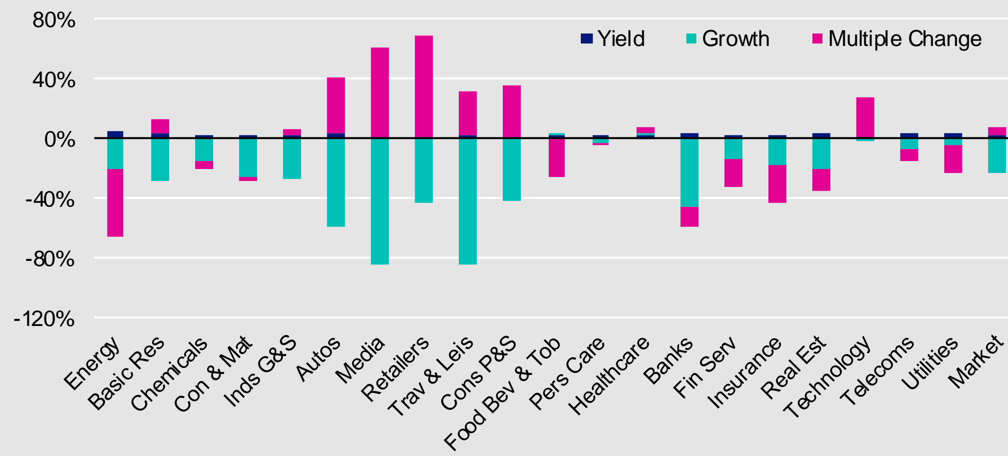


- Shows the future real growth required to justify current prices
- Technology appears priced for almost 3% real growth in dividends (expensive)
- Six sectors appear priced for negative growth (cheap)

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

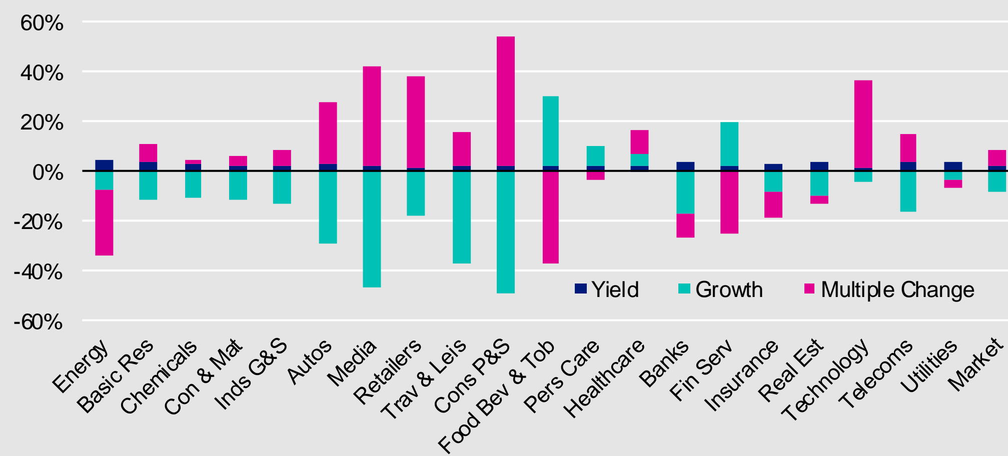
Decomposed returns – Global

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



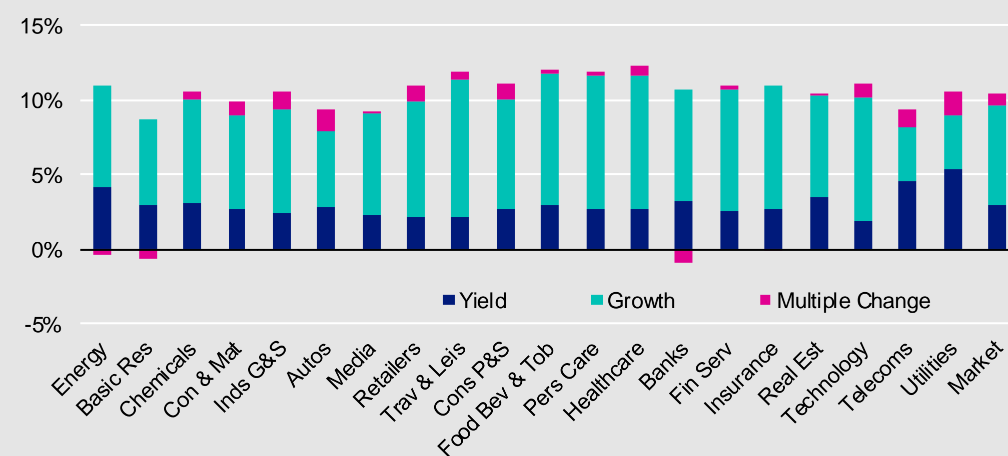
- Only two sectors raised dividends in 2020: food, beverage & tobacco and healthcare
- Most sectors had negative sentiment (multiple contraction)

Figure 13 – Global rolling 12-month total returns decomposed



- Only four sectors have raised dividends in the last 12 months: food, beverage & tobacco, personal care, healthcare and financial services
- Two sectors had yields above 4%: energy and telecoms

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
- Three sectors suffered from a multiple-related performance drag: energy, basic resources and banks

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	0.72	0.30	0.24		0.90	-1.17
Real Copper	-0.01		-0.01	0.02	-0.01	0.01
Consumer Confidence	0.00		0.00	0.00	0.00	-0.01
Manufacturing Confidence		0.01	0.01	0.01	-0.01	0.01
IP			0.79		2.69	-4.76
10y Yield				-6.68	15.51	-18.74
CPI		-3.07	-4.41		-13.40	16.45
Net Debt/EBITDA			-0.09	0.10		
ROE	1.14	-1.29	1.17	0.95	-3.81	-2.60

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	-1.09	0.50				-1.17
Real Copper		-0.01		-0.01	0.00	0.01
Consumer Confidence	0.01	0.01	0.01	0.00	0.00	-0.01
Manufacturing Confidence		-0.02	-0.01	-0.01	0.00	0.01
IP	-2.66	-0.99	-0.67	0.77	0.26	-4.76
10y Yield			1.48		1.02	-18.74
CPI	9.73	10.58	7.48	7.36	-1.37	16.45
Net Debt/EBITDA	-0.14	-0.06		0.19	0.03	
ROE	-3.23	-2.23	-1.72		0.70	

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	0.37	-0.32			0.57		-1.17
Real Copper	-0.01	0.01	0.01		-0.01	0.00	0.01
Consumer Confidence	0.01	0.00	0.00		0.00	0.00	-0.01
Manufacturing Confidence			0.00		0.00	0.02	0.01
IP	-2.81	-0.67	1.04		1.27	-2.17	-4.76
10y Yield	-3.13	4.93		-2.86	4.50	-4.68	-18.74
CPI	13.73			4.67	-2.56		16.45
Net Debt/EBITDA		-0.01		0.09	-0.14	0.08	
ROE	-0.61	0.49	-3.41	0.52	-2.44	0.71	-2.60

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

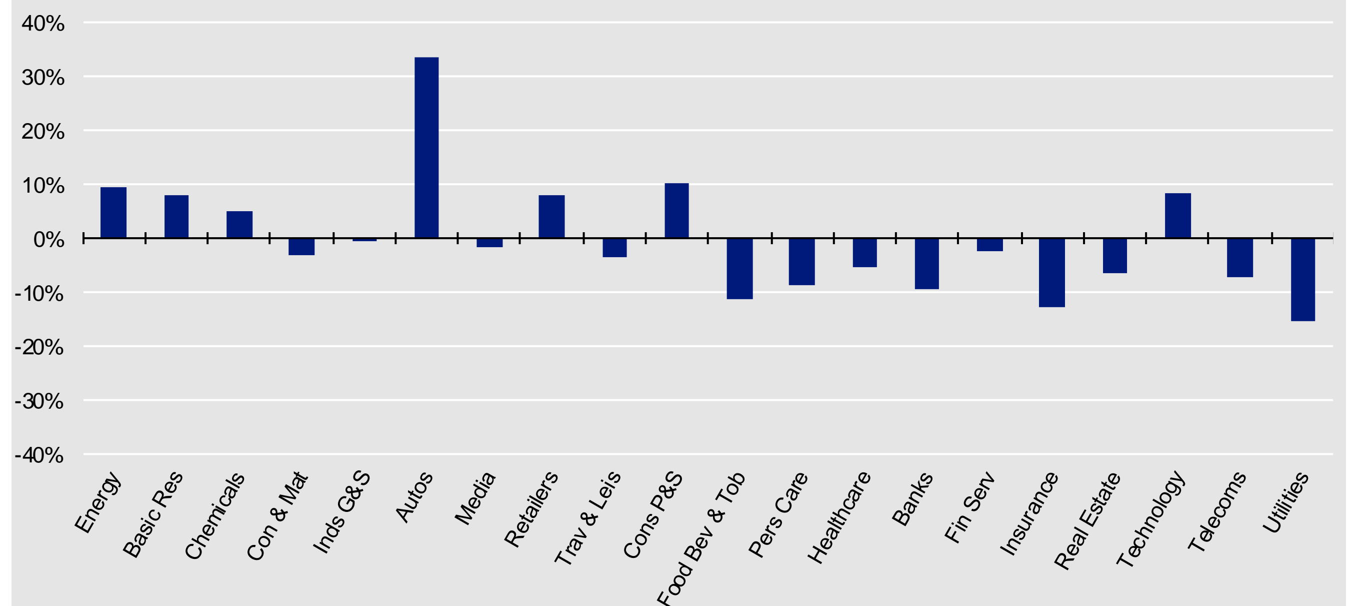
Figure 18 – Regression coefficients of Global financial sectors

	Banks	Financial Services	Insurance	Real Estate	Market
Real Oil	0.99		0.32	0.98	-1.17
Real Copper	-0.01	-0.01		-0.02	0.01
Consumer Confidence	0.01	0.00	0.00	0.01	-0.01
Manufacturing Confidence	-0.01	-0.02		-0.03	0.01
IP	-2.20	1.87	-0.53	3.73	-4.76
10y Yield	-6.63	3.03	-2.44	5.79	-18.74
CPI	3.76				16.45
ROE	4.23	0.63	-0.57	-3.05	-2.60

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

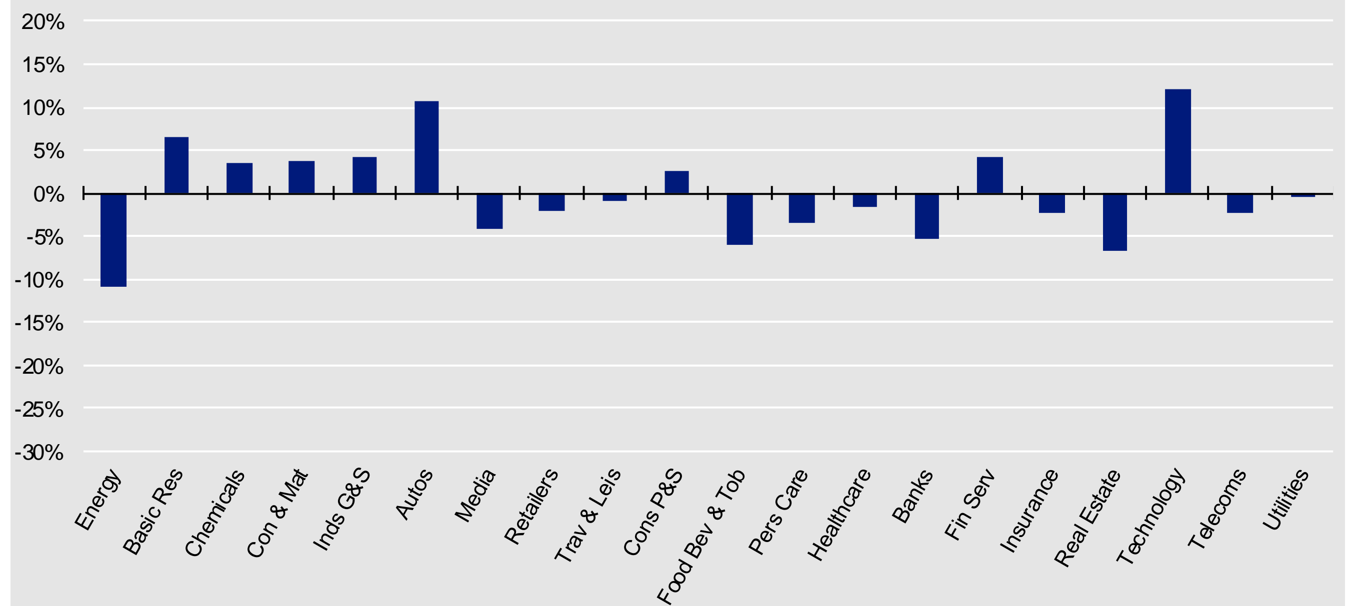
Appendix 2: Sector returns by region

Figure 19 – 3m US sector returns relative to market



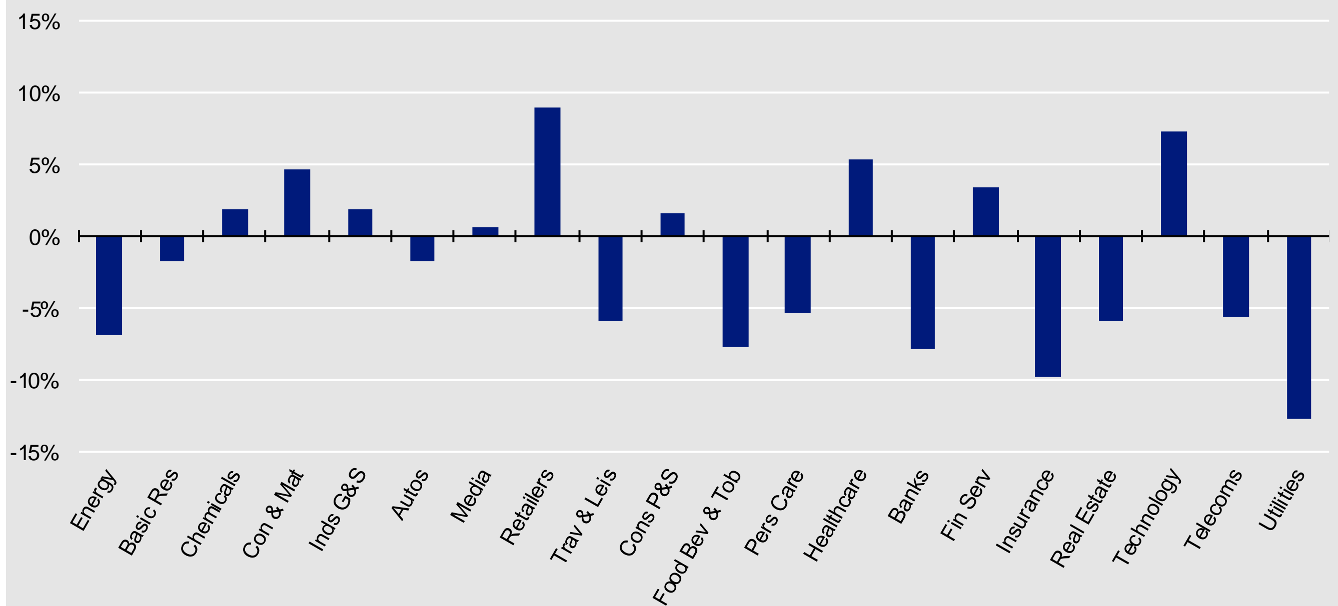
Notes: See appendices for methodology and disclaimers. Returns shown between 31st March 2020 and 30th June 2020. Past performance is not a guarantee of future results. Source: Refinitiv Datastream and Invesco

Figure 20 – 3m European sector returns relative to market



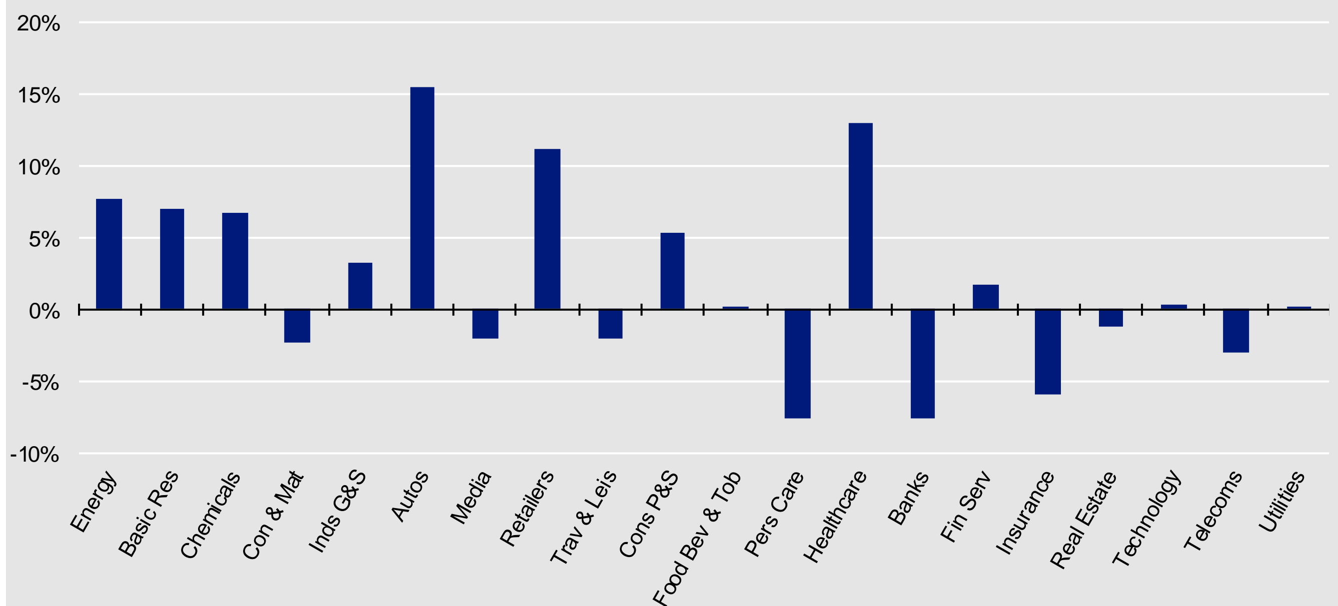
Notes: See appendices for methodology and disclaimers. Returns shown between 31st March 2020 and 30th June 2020. Past performance is not a guarantee of future results. Source: Refinitiv Datastream and Invesco

Figure 21 – 3m Japanese sector returns relative to market



Notes: See appendices for methodology and disclaimers. Returns shown between 31st March 2020 and 30th June 2020. 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 2020 and 30th June 2020. 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	**15.5**	**14.2**	**0.2**	**6.2**	**3.8**	**1.9**	**0.9**	**1.7**	**-1.6**	**4.1**	**6.0**	**-1.1**
Basic Materials	**17.4**	**16.7**	**0.1**	**3.3**	**2.7**	**0.7**	**1.6**	**1.8**	**-0.6**	**7.8**	**7.3**	**0.3**
Basic Resources	14.9	17.1	-0.4	3.5	2.8	0.8	1.4	1.7	-0.7	6.9	7.3	-0.2
Chemicals	21.5	16.8	1.0	3.0	2.9	0.1	1.7	2.0	-0.5	9.1	7.6	1.0
Industrials	**19.8**	**17.9**	**0.4**	**1.9**	**2.3**	**-0.6**	**2.4**	**2.1**	**0.7**	**10.0**	**9.1**	**0.5**
Construction & Mat.	15.3	16.6	-0.3	2.5	2.5	-0.1	1.6	1.8	-0.4	8.0	8.9	-0.3
Industrial G&S	20.7	18.4	0.5	1.8	2.2	-0.6	2.6	2.2	0.9	10.4	9.1	0.7
Consumer Disc.	**24.2**	**18.2**	**1.2**	**1.3**	**2.3**	**-1.2**	**2.8**	**2.1**	**1.6**	**9.7**	**8.1**	**1.2**
Automobiles & Parts	13.6	14.8	-0.2	2.5	2.7	-0.2	1.0	1.5	-1.4	4.7	5.2	-0.6
Media	24.9	21.2	0.5	1.1	2.1	-1.4	2.8	2.4	0.5	8.5	9.1	-0.2
Retailers	38.7	20.7	3.1	0.9	1.9	-1.3	6.4	3.1	3.5	16.6	12.2	1.5
Travel & Leisure	19.5	21.8	-0.3	1.6	1.9	-0.4	2.8	2.4	0.5	7.4	8.9	-0.8
Consumer Prod & Serv	24.6	18.8	1.4	1.2	2.5	-2.1	3.4	2.1	2.4	12.3	10.5	0.8
Consumer Staples	**22.0**	**16.5**	**1.1**	**2.8**	**2.5**	**0.3**	**3.2**	**2.9**	**0.4**	**12.3**	**10.7**	**0.6**
Food, Bev & Tobacco	20.6	18.2	0.5	3.1	2.7	0.5	2.8	2.8	0.1	12.4	10.9	0.5
Personal Care	24.9	20.3	0.8	2.3	2.4	-0.1	4.1	3.2	0.8	12.1	10.4	0.6
Healthcare	**28.1**	**19.7**	**1.5**	**1.7**	**2.4**	**-0.9**	**4.3**	**3.3**	**0.8**	**16.8**	**12.9**	**1.0**
Financials	**10.9**	**15.8**	**-1.0**	**3.6**	**2.7**	**1.1**	**0.9**	**1.5**	**-1.4**	**4.4**	**5.6**	**-0.9**
Banks	9.0	14.5	-1.1	4.5	2.9	1.7	0.7	1.4	-1.6	3.9	6.4	-1.3
Financial Services	14.1	18.4	-0.8	2.7	2.3	0.7	1.0	1.5	-1.1	6.7	7.7	-0.4
Insurance	12.6	16.1	-0.7	3.0	2.4	0.7	1.2	1.7	-1.0	3.7	3.9	-0.2
Real Estate	14.2	19.3	-0.8	3.6	3.2	0.4	1.2	1.4	-0.5	13.0	13.4	-0.2
Technology	**30.2**	**24.0**	**0.6**	**1.0**	**1.6**	**-0.7**	**5.5**	**2.9**	**2.6**	**18.8**	**11.1**	**2.0**
Telecommunications	**18.1**	**17.5**	**0.1**	**3.6**	**4.3**	**-0.3**	**1.9**	**2.6**	**-0.6**	**5.2**	**6.4**	**-0.5**
Utilities	**16.0**	**14.2**	**0.5**	**3.7**	**4.9**	**-0.6**	**1.5**	**1.6**	**-0.1**	**6.6**	**5.5**	**0.8**
Market	**19.2**	**17.0**	**0.5**	**2.4**	**2.7**	**-0.4**	**2.0**	**2.0**	**-0.1**	**8.5**	**7.6**	**0.5**

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	**8.4**	**19.1**	**-1.4**	**5.8**	**2.7**	**3.3**	**0.8**	**2.6**	**-1.7**	**3.7**	**8.7**	**-1.7**
Basic Materials	**16.3**	**23.3**	**-0.9**	**2.6**	**1.9**	**1.4**	**1.6**	**2.5**	**-1.1**	**7.5**	**9.8**	**-0.9**
Basic Resources	14.2	21.5	-0.9	3.0	2.1	1.1	1.3	2.3	-1.0	6.2	9.3	-0.9
Chemicals	17.8	24.5	-1.3	2.4	1.9	1.2	2.0	2.8	-1.5	9.0	10.6	-0.9
Industrials	**21.7**	**26.6**	**-0.8**	**1.7**	**1.5**	**0.8**	**2.7**	**3.0**	**-0.6**	**11.8**	**12.8**	**-0.4**
Construction & Mat.	17.8	24.0	-0.6	2.3	1.9	0.7	1.7	2.4	-0.8	9.2	11.4	-0.6
Industrial G&S	22.4	27.3	-0.8	1.7	1.4	0.8	2.9	3.0	-0.3	12.3	12.6	-0.1
Consumer Disc.	**24.0**	**26.9**	**-0.6**	**1.5**	**1.4**	**0.2**	**3.1**	**2.9**	**0.4**	**11.5**	**11.4**	**0.1**
Automobiles & Parts	10.6	19.1	-1.9	2.4	1.7	1.3	1.2	2.0	-2.1	5.0	6.4	-1.1
Media	24.6	30.2	-0.7	1.5	1.4	0.2	3.1	3.3	-0.2	12.1	12.7	-0.2
Retailers	38.7	31.6	1.2	1.0	1.1	-0.5	6.3	4.4	2.5	20.5	18.6	0.5
Travel & Leisure	18.8	34.8	-1.6	1.8	1.1	1.9	3.1	3.5	-0.4	8.9	13.6	-1.3
Consumer Prod & Serv	26.3	28.4	-0.4	1.7	1.6	0.4	3.5	2.9	1.3	15.4	15.2	0.1
Consumer Staples	**19.9**	**22.7**	**-0.7**	**2.1**	**1.6**	**1.2**	**3.6**	**4.0**	**-0.6**	**14.5**	**14.6**	**-0.1**
Food, Bev & Tobacco	23.1	28.4	-1.1	2.2	1.6	1.7	3.4	4.2	-1.9	14.2	16.5	-1.2
Personal Care	28.0	31.8	-0.6	1.8	1.4	0.9	4.3	5.1	-0.8	15.1	16.4	-0.5
Healthcare	**35.2**	**31.1**	**0.7**	**1.3**	**1.4**	**-0.4**	**5.2**	**5.2**	**0.0**	**21.3**	**19.9**	**0.4**
Financials	**12.3**	**23.9**	**-1.1**	**3.2**	**1.9**	**1.5**	**1.0**	**2.0**	**-1.6**	**4.9**	**7.3**	**-1.4**
Banks	9.2	21.4	-1.3	4.3	2.2	1.9	0.8	1.8	-1.8	4.0	8.3	-1.7
Financial Services	19.5	29.8	-0.6	1.8	1.5	0.4	1.3	2.0	-1.2	9.7	9.9	-0.1
Insurance	14.4	24.3	-1.1	2.5	1.6	1.5	1.4	2.5	-1.3	4.3	5.2	-0.8
Real Estate	14.4	27.1	-0.9	3.4	2.5	1.0	1.3	1.7	-0.8	14.5	17.0	-0.6
Technology	**43.4**	**38.2**	**0.2**	**0.7**	**0.9**	**-0.5**	**7.0**	**4.4**	**1.2**	**24.7**	**17.6**	**0.8**
Telecommunications	**14.5**	**23.4**	**-0.9**	**4.5**	**3.0**	**1.2**	**2.0**	**3.4**	**-1.1**	**5.2**	**8.2**	**-1.0**
Utilities	**16.2**	**18.5**	**-0.5**	**3.8**	**3.5**	**0.3**	**1.4**	**2.0**	**-1.1**	**6.0**	**6.9**	**-0.7**
Market	**19.7**	**24.8**	**-0.8**	**2.1**	**1.8**	**0.8**	**2.2**	**2.8**	**-1.1**	**9.4**	**10.5**	**-0.6**

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: Performance tables

Figure 25 – Global equity sector total returns relative to market

Data as at 30/06/2020	Global				
	3m	**YTD**	**12m**	**5y***	**10y***
Energy	**2.3**	**-25.4**	**-30.3**	**-9.7**	**-8.3**
Basic Materials	**6.7**	**-0.8**	**-3.4**	**-1.5**	**-4.7**
Basic Resources	9.9	-0.3	-1.1	-0.3	-8.7
Chemicals	3.2	-1.4	-6.4	-2.6	-0.7
Industrials	**0.6**	**-4.1**	**-5.2**	**0.1**	**0.3**
Construction & Materials	-0.2	-5.9	-5.9	-3.1	-3.2
Industrial Goods & Services	0.7	-3.8	-5.0	0.7	0.9
Consumer Discretionary	**4.9**	**3.9**	**2.9**	**0.5**	**1.9**
Automobiles & Parts	7.6	-1.7	-2.0	-6.4	-1.7
Media	-0.9	-4.7	-4.7	-2.5	2.2
Retailers	8.7	22.0	20.0	5.7	4.5
Travel & Leisure	-2.0	-20.8	-21.7	-4.4	-0.9
Consumer Products & Services	4.1	4.7	4.5	1.9	1.9
Consumer Staples	**-7.1**	**0.2**	**-2.5**	**-1.7**	**0.1**
Food, Beverage & Tobacco	-7.7	-3.2	-7.4	-2.6	-0.6
Personal Care, Drug & Grocery Stores	-6.1	6.7	5.9	-0.4	0.7
Healthcare	**-1.9**	**12.2**	**16.3**	**1.9**	**5.0**
Financials	**-6.1**	**-16.3**	**-17.2**	**-4.6**	**-3.1**
Banks	-8.6	-22.1	-23.6	-7.9	-5.9
Financial Services	0.8	-7.8	-5.8	0.0	1.5
Insurance	-9.0	-14.2	-16.7	-3.0	-1.0
Real Estate	**-6.4**	**-9.2**	**-10.1**	**-2.0**	**-1.3**
Technology	**9.0**	**22.6**	**32.5**	**13.0**	**8.0**
Telecommunications	**-6.8**	**2.0**	**-1.4**	**-4.5**	**-2.5**
Utilities	**-8.7**	**-2.4**	**-3.6**	**0.3**	**-3.4**

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.

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 2020 unless stated otherwise. This publication is updated quarterly.

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