White Paper
Sectors

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Harness the Power of Sector Investing with ETFs

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Introduction to Sector Investing

In a dynamic stock market, investors can benefit from taking a selective approach. Investing by sector can both enhance returns by targeting a desired exposure and complement a range of portfolio strategies. ETFs have become an increasingly popular tool for investors seeking to make active sector selections through index exposures.

Key Points

- **Sectors provide a standardised system that allows investors to target groups of companies based on their business activities.**
- **Over the past couple of decades, sector choice has been more important to equity performance than country or factor/style selection.**
- **Sector ETFs can provide the tools to help enhance returns by selecting the best sector to implement the desired exposure.**

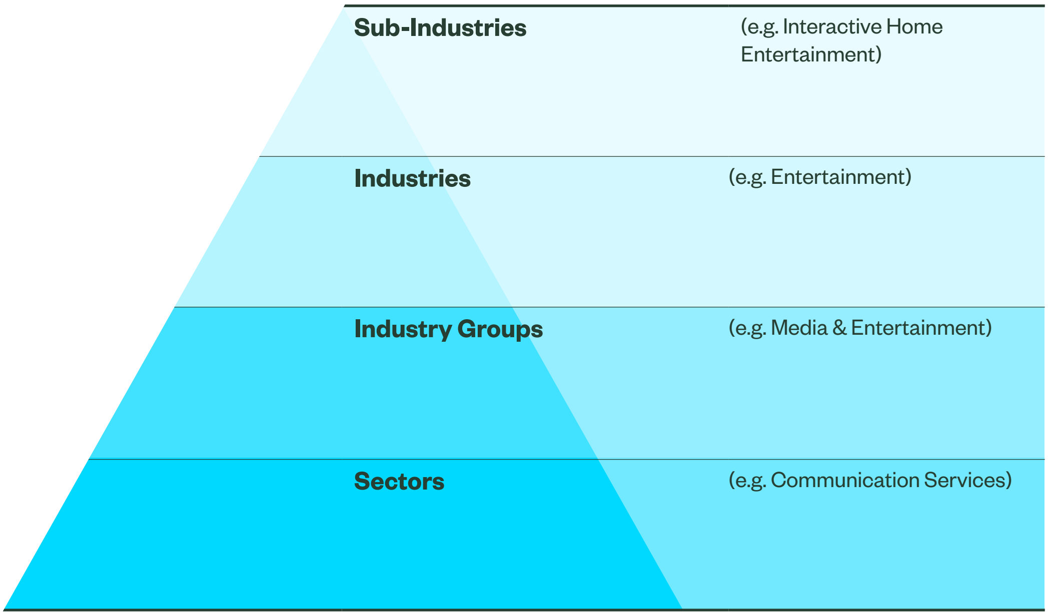
Classifying Sectors

Sectors offer a clear categorisation of the investable universe. Index providers (including MSCI, S&P Dow Jones and FTSE Russell) use sector classification as a means of focusing an index into groups. Such a classified system provides a consistent definition that allows for comparative analysis, reporting of exposures and capturing of trends. Most commonly, sectors are classified on an economic or production basis as opposed to geographic location or other metrics. The intention is to group stocks with similar economic sensitivities so that they respond in a similar manner to factors.

Having such a standardised system allows targeted investment and has facilitated the popularity of sector investing. A variety of investors have come to embrace sectors, including asset managers, brokers, custodians, consultants, research teams and stock exchanges.

The largest and best known classification of equity sectors is the Global Industry Classification Standard (GICS). Developed in 1999 by S&P Dow Jones Indices and MSCI Indices, the GICS structure consists of 11 Sectors, 24 Industry Groups, 67 Industries and 151 Sub-Industries (see Figure 1). The classification system comprises more than 50,000 traded securities across 125 countries.

Figure 1
Global Industry Classification Standard (GICS)



The above diagram is provided for illustrative purposes only.

Each company is assigned a single GICS classification at the sub-industry level according to its principal business activity, which filters through to the corresponding industry, industry group and sector. Revenue sources are a key factor in determining a firm's principal business activity. MSCI and S&P Dow Jones conduct annual reviews to ensure that the structure remains fully representative of the equity market.

There was a significant reclassification of the GICS structure on 21 September 2018, which led to S&P Dow Jones rebalancing their indices to include the changes on 28 September, while MSCI followed on 30 November.

The reclassification affected the composition of three sectors: Telecommunication Services (which was expanded and became Communication Services), Information Technology and Consumer Discretionary. The aim was to make the sectors more representative of how consumers behave and businesses generate revenues, thus increasing the sectors' relevance to investors.

Consider the example of Nintendo*, Japanese developer of video games, which was re-classified and today is in the Interactive Home Entertainment sub-industry, within the Entertainment industry, which is part of Media & Entertainment, and ultimately the Communication Services sector.

We refer to sectors as defined by the GICS classification throughout this paper.

Competing Classification Systems

There are two other broadly used sector classification systems, also using a production-oriented approach: Thompson Reuters Business Classification (TRBC) and Industry Classification Benchmark (ICB). The latter is employed by STOXX and FTSE Russell indices, among others.

All three classification systems are applied to a broad stock universe, are rules-based and start with the same metric: revenue. To be classified in a certain sector, a minimum 50% of a company's revenue needs to be earned in that sector, with GICS demanding the highest compliance.

* This information should not be considered a recommendation to invest in a particular sector or to buy or sell any security shown.

The process becomes complicated if there is more than one clear business line. Where there is not a dominant business segment, GICS employs earnings and market perception to determine the dominant sector, which involves a level of judgement. ICB utilises accounting information and directors' reports, whereas Thompson Reuters considers the proportion of assets and then earnings.

The ICB system had a major reclassification in March 2021 to include a stand-alone, top-level Real Estate Industry, expansion of the Telecommunications Industry, a new Consumer Discretionary and Consumer Staples framework, and renaming of the Oil and Gas Industry to Energy. These changes added granularity and brought the classification system much closer to GICS. The table shows the number of groupings at each level of classification.

Level/System	GICS	ICB	TRBC
1st	11 Sectors	11 Industries	13 Economic Sectors
2nd	24 Industry Groups	20 Supersectors	33 Business Sectors
3rd	67 Industries	45 Sectors	62 Industry Groups
4th	151 Sub-Industries	173 Subsectors	154 Industries

Source: S&P Dow Jones Indices, FTSE Russell, Refinitv, as of March 2021.

Investing by Sector Rather Than Stock

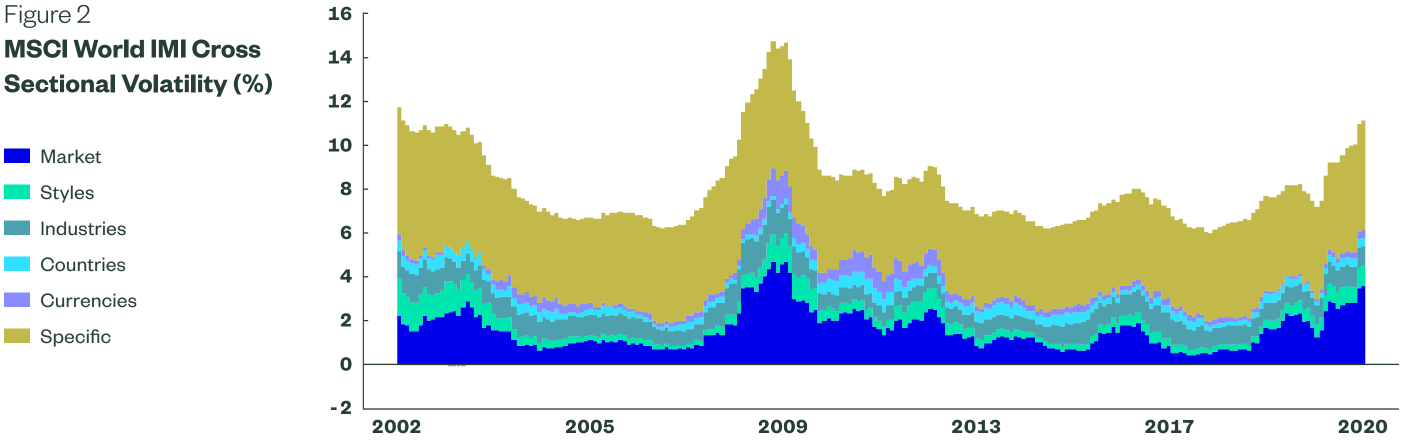
Every stock conflates idiosyncratic exposure to the specific prospects of that company with market and sector risk. Actively selecting a sector as opposed to a stock gives benefits of diversification and less idiosyncratic risk. It is a much simpler investment choice. Nevertheless, it is still possible to make a targeted investment.

Many studies show sector effects to be material, implying that a stock's performance will be strongly correlated to that of its sector. This is derived from having similar economic drivers and risks. Broadly speaking, the companies in a given sector will perform in a similar way during each period of the economic cycle. This is a key factor in driving relative sector performance.

Sectors are a key driver of equity risk, which is apparent when looking at the contribution to performance from sector or industry allocation versus styles, countries or stock selection.

The targeting of returns alongside the benefit of diversification across stocks, as offered by a sector, are among the themes explored in Chapter 1.

Figure 2
MSCI World IMI Cross Sectional Volatility (%)



Source: MSCI Indices, as of 31 December 2020.

Attractions of Sectors

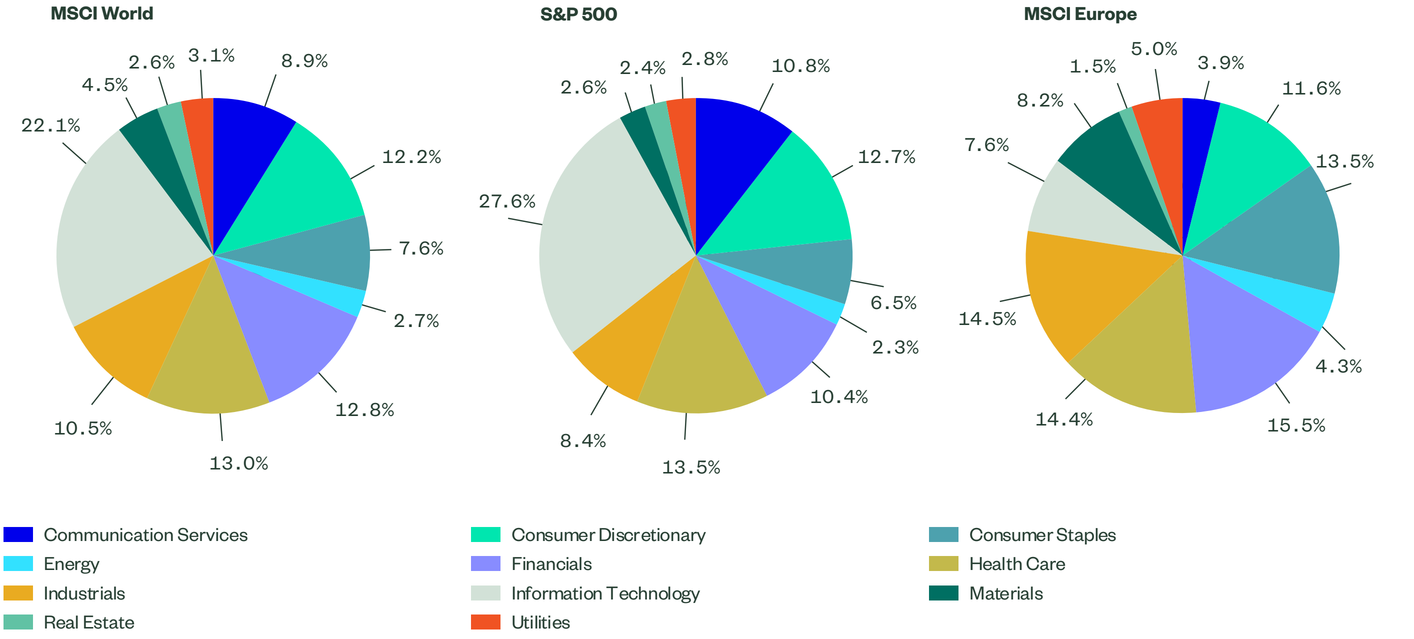
Return dispersion is one of the key attractions of sector investing. As a simple illustration of the opportunity, consider that the difference in annual returns between the best and worst performing sectors in the S&P 500 index has exceeded 30% in most years.[1] When considering the difference in sector performance, the obvious question that arises is how to select a sector to capture returns. Sectors demonstrate business cycle dependency and thus an investor's outlook can steer sector selection. Sectors can also be employed to gain specific economic factor exposure, for example sensitivity to inflation. This is illustrated in Chapter 2.

Economic sensitivity is just one tool for selecting sectors. For readers interested in learning more about our thoughts behind picking sector investments, we suggest looking at the quarterly **SPDR Sector Compass** for themes and sector opportunities in the current market.

In Chapters 3 and 4 we look at some of the portfolio strategies that investors use to employ sectors and why, given their cost-efficiency* and flexibility, sector ETFs represent an effective means of gaining sector exposure. Perhaps not surprisingly, assets in sector ETFs have grown dramatically in the last two decades, illustrating the advantages of the product set to investors seeking a selective approach to equity markets.

Figure 3 shows the relative size of each sector in the MSCI World, MSCI Europe and S&P 500 indices.

Figure 3
Index Breakdown by Sector



Source: Bloomberg Finance L.P., as of 31 December 2020. Breakdowns are as of the date indicated and are subject to change. This information should not be considered a recommendation to invest in a particular sector or to buy or sell any security shown.

* Frequent trading of ETFs could significantly increase commissions and other costs such that they may offset any savings from low fees or costs.

Impact of ESG

In recent years, investors have increasingly focused on Environmental, Social and Governance (ESG) trends and their implications for investments. There is a growing body of research containing multi-annual regression tests linking ESG characteristics to outperformance versus the broad market. Greener technologies, sustainable growth, diverse leadership, good working conditions, shifting consumer preference to less harmful products, and global policy changes are among the themes generating interest.

We also see these shifts within sector investing. For example, the Energy sector, which contains large fossil fuel companies, has shrunk to around 3% in the MSCI World index. There is an increasing demand for "cleaner" sectors and, as an example, companies within the Utilities sector are transforming their technologies towards more sustainable practices, replacing fossil fuels with renewables.

These changes across industries are expected to continue to affect companies in an uneven manner and could contribute to larger performance differences (dispersion) across the sectors.

Importance of Region

Sector investing can be enhanced by considering the region, enabling investors to better target their investment views and take advantage of nuanced exposures. The location of supply, production and consumption involved in each sector's activities is important from an economic standpoint, but there is also the potential impact from different regulations, trade agreements and other factors, such as the competitive landscape.

Health Care has one of the most international business models. The European sector is an interesting example, as approximately 75% of revenue is earned outside of Europe, including North America (40%) and emerging markets (25%), with the proportion of the latter having increased rapidly in the last decade (source: MSCI Indices, as of 31 December 2020).

The dependence on overseas markets is reflected in the betas of the sector to the corresponding equity markets, which become more pronounced during periods of market stress. On a practical level, while the international exposure gives access to growth prospects, it can also bring complications, such as political change.

The relative importance of different industries within a sector can change exposure with consequent impact on performance and risk. For example, consider the Communication Services sector, which in the US is dominated by FAANGs,* i.e. interactive entertainment and media players, with Facebook* and Alphabet* accounting for >50% by market capitalisation. However, in Europe, telecommunication service providers make up the largest part of the sector. These companies' revenue streams and business models are very different from the internet businesses and, as a result, show value rather than growth characteristics.

Consider that for both current and historical reasons, the relative size of each sector varies quite widely between regions. Figure 3 shows the stark difference in importance of the Technology sector to the S&P 500 versus MSCI Europe. Technology has grown dramatically in market weight in recent years, which has widened the relative scale in both regions; it can also help explain the divergence in performance and higher growth forecasts of US versus European equities overall. By contrast, the Financials sector has shrunk in size, but remains a much larger part of the European versus US index and makes the former a more obvious value story.

Information on the SPDR sector range in three regions can be seen on our **webpage**. Our Sector Picks for each quarter often feature different sectors for the different regions; please see the **SPDR Sector Compass** for our latest views.

* This information should not be considered a recommendation to invest in a particular sector or to buy or sell any security shown. FAANG companies include Facebook, Amazon, Apple, Netflix and Google (Alphabet).

Chapter 1 The Power of Sectors to Target Return and Risk

Sector investing can be beneficial to returns, by actively selecting those sectors thought most likely to perform, and to risk, by capitalising on varied opportunities for diversification.

Key Points

- **Sectors are classified economic groupings that offer targeted investing within a larger index.**
- **Investors can take advantage of wide dispersion of returns among sectors through active selection.**
- **Seek targeted exposure to a theme or trend while reducing risks associated with owning individual stocks.**

Intra-Sector Correlation

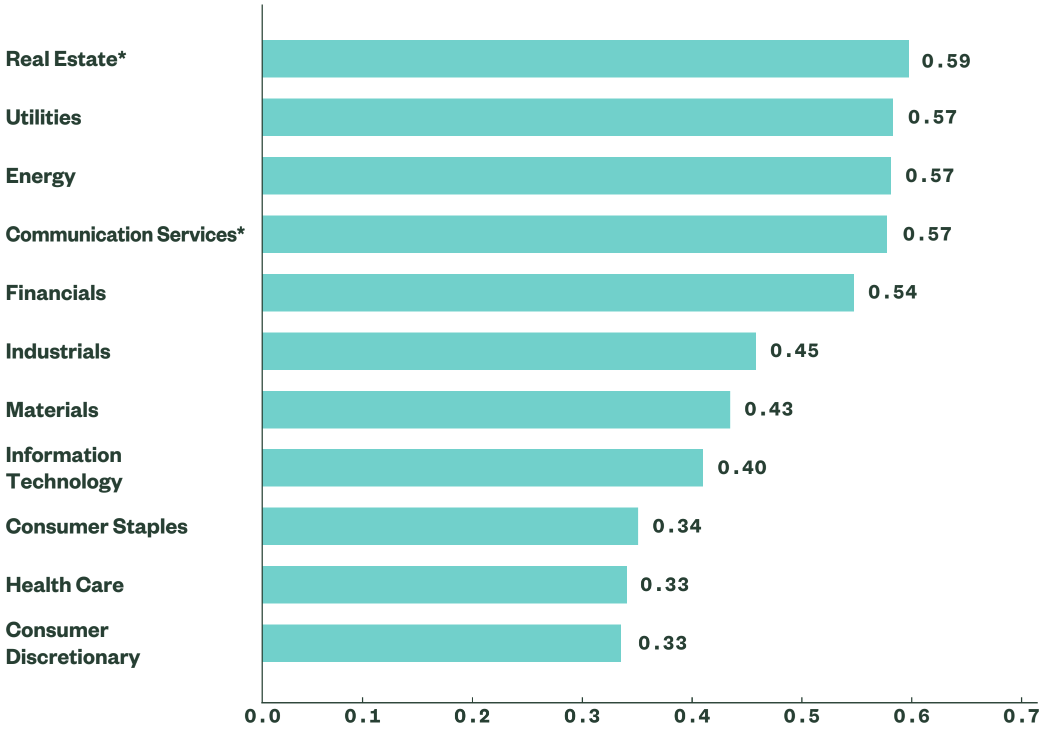
The construction of clearly defined sectors provides groupings of stocks that respond in similar and possibly predictable ways to the economic drivers of risk and return. This makes sectors a popular way to capture additional beta alongside other choices, such as regional/country or factor allocation.

In an analysis by S&P Dow Jones Indices, shown in Figure 4, over the 15-year period ending January 2021 the average correlation-squared of daily price movements between each stock in the S&P 500 and its respective sector index was close to 50%. In practical terms, sectoral effects could explain roughly half of the variance in daily returns of the average constituent over the year, while the market's movements explained only about one-third (source: S&P Dow Jones Indices "Sector Effects in the S&P 500").

The strength of correlation and the influence of a sector on individual stock performance varies by sector. The weakest relationship is in Consumer Discretionary, where despite consumer spending being the key economic driver, many different factors influence, say, Amazon* versus automobile manufacturers or cruise liners. By contrast, the stocks in Real Estate, predominantly REITS, are highly correlated. In this case, macro drivers such as interest rates can be more important to a stock's performance than any individual company's behaviour. High correlation between stock performance tends to make stock-picking more difficult and buying a sector ETF or other fund type more popular.

* This information should not be considered a recommendation to invest in a particular sector or to buy or sell any security shown.

Figure 4
Correlation of Stocks Within Each Sector
Sectors could explain up to half of stock price variance



Source: S&P Dow Jones Indices, data from 31 January 2006 to 31 January 2021. This is taken from the average of the monthly returns from the trailing 12 months. *Launch date of S&P Communication Services Index was 18 September 2018 and S&P Real Estate was 19 September 2016.

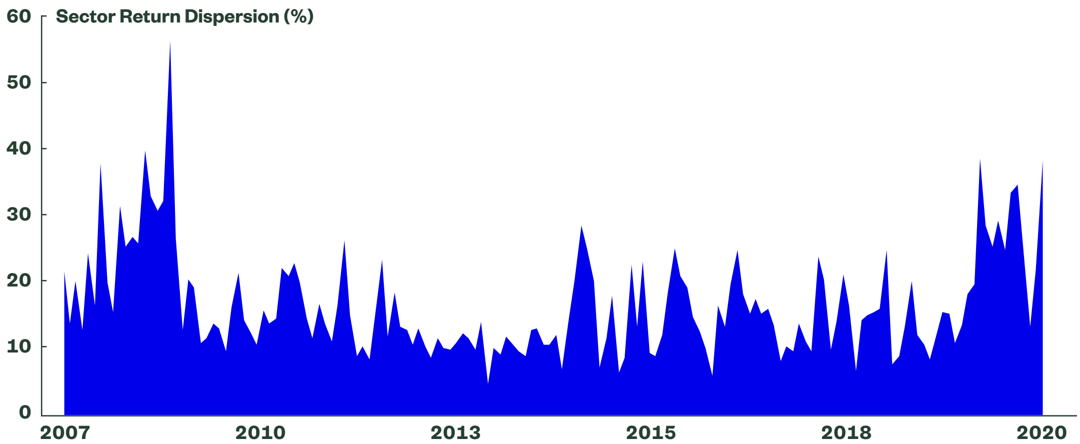
Dispersion of Returns

Return dispersion, or the difference in performance returns inter-sector, is a defining characteristic of sector investing. Varied exposure to different economic drivers can help ensure that returns will diverge over a given period, particularly when there is a change through the economic cycle.

Such dispersion is calculated as a weighted, cross-sectional standard deviation among returns in each period. The value of an active manager's ability to generate outperformance depends largely on the level of dispersion among constituent returns, thus sector investing can become more popular when dispersion of sector returns is higher. Figure 5 shows recent sector dispersion.

Sectors have, on average, displayed around half of the level of return dispersion of that between stocks, so theoretically do not offer as much opportunity for value added but do compensate for this with the greater capacity and liquidity of means of investment.

Figure 5
Sector Return Dispersion
Higher Dispersion Creates Greater Opportunity for Selection



Source: Bloomberg Finance L.P., as at 31 December 2020. Shows total returns of S&P Select sectors.

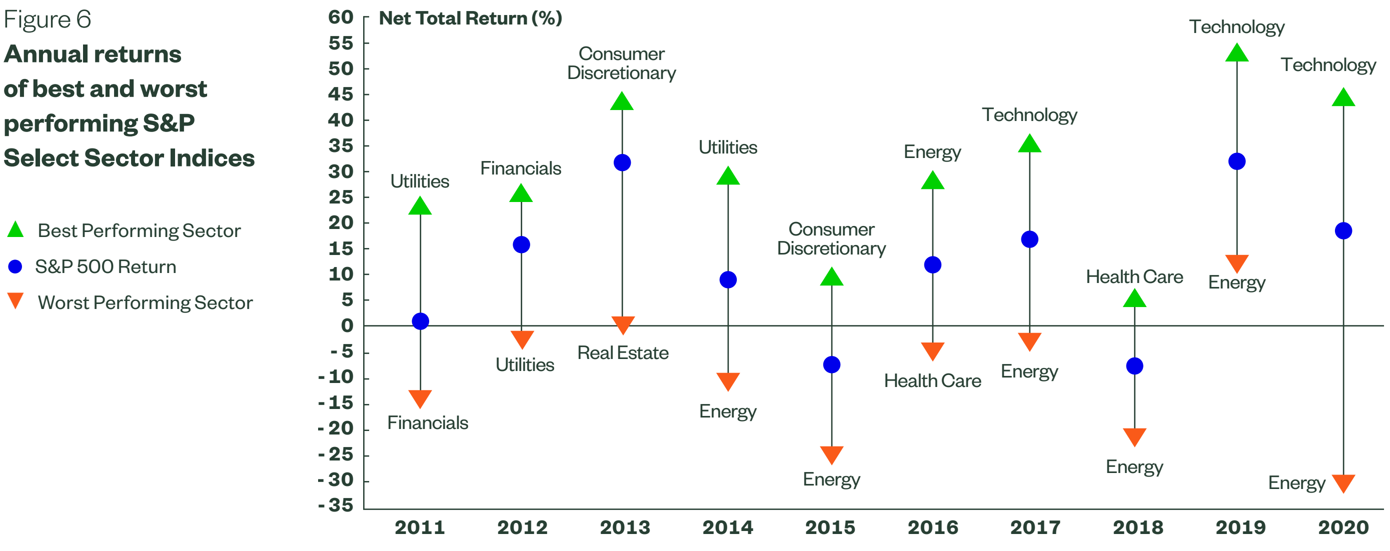
Rewards of Sector Selection

The difference in returns between the top and bottom performing sector each year can be striking. Figure 6 shows the significant divergence between the US sectors for each of the past 10 years and provides an illustration of the potential benefits of picking higher performing sectors. Similar dynamics could be observed when we look at sector returns in the MSCI World universe. However, in Europe, based on MSCI Europe sector returns, historical dispersion tends to be smaller, which could be explained by different structural characteristics.

The pair of top and bottom performing sectors is different most years, reflecting the many factors that can drive performance. Compare and contrast two years: 2018, when equity market returns suffered in the fourth quarter on concerns of international trade, with the bull market of 2019. In 2018, when average returns were down (the S&P 500 dropped 4%), the best and worst performing S&P Select Sectors diverged by nearly 25%, with Health Care taking the lead over more cyclical sectors amid demand for defensive earnings growth. The following year, Technology returned 49.6%, as the market appreciated the long-term growth themes, rising more than 38% ahead of the worst-performing US sector, Energy, after falls in the crude oil price.

2020 presented various hard-to-predict, unprecedented global events. National lockdowns restricted the movement of large parts of the population, and with many employees working from home, technology became even more essential, explaining the sector's 43.4% return. Meanwhile, mobility restrictions had a huge impact on the worst performing sector — Energy, which ended the year down 33.9%.

Figure 6
Annual returns of best and worst performing S&P Select Sector Indices



Source: Bloomberg Finance, L.P., as of 31 December 2020. Past performance is not a guarantee of future results. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Returns shown are from Energy Select Sector Index NTR, Materials Select Sector Index NTR, Technology Select Sector Index NTR, Financial Select Sector Index NTR, Consumer Staples Select Sector Index NTR, Consumer Discretionary Select Sector Index NTR, Utilities Select Sector Index NTR, Health Care Select Sector Index NTR, Communication Services Select Sector Index NTR, Industrials Select Sector Index NTR, Real Estate Select Sector NTR. This information should not be considered a recommendation to invest in a particular sector or to buy or sell any security shown. It is not known whether the sectors shown will be profitable in the future.

Harness Diversification Benefits

Beyond access to additional sources of potential return, investing by sector can assist in portfolio risk management. We have already considered the lower concentration risk of sector investments compared with individual stocks, which can help to avoid the idiosyncratic risk associated with single-stock investing. A second diversification benefit can be achieved by sectors having only moderate correlations with each other, as shown in Figure 7.

Contrast the high inter-sector correlation of returns from Technology and Consumer Discretionary with the more cyclical sectors, against the relationship with Utilities and Real Estate, often called bond proxies. Notably, the Utilities sector often moves in a separate direction and at a different speed compared with the broader market. This lower correlation could be used to provide an alternative, more diversified exposure in investor portfolios. It may be particularly appealing during times of high volatility or correction in equity markets.

Figure 7
Correlation Between US Sectors
Low Correlations Between Some Sectors Can Enhance Diversification

SECTOR	Consumer Discretionary	Consumer Staples	Energy	Financials	Health Care	Industrials	Information Technology	Materials	Real Estate*	Comm. Services*	Utilities
Consumer Discretionary	1.00	0.58	0.51	0.78	0.56	0.84	0.72	0.75	0.68	0.56	0.28
Consumer Staples	–	1.00	0.39	0.60	0.69	0.61	0.34	0.51	0.56	0.46	0.46
Energy	–	–	1.00	0.54	0.41	0.62	0.39	0.65	0.41	0.40	0.40
Financials	–	–	–	1.00	0.60	0.82	0.54	0.71	0.70	0.48	0.36
Health Care	–	–	–	–	1.00	0.59	0.42	0.49	0.51	0.44	0.38
Industrials	–	–	–	–	–	1.00	0.67	0.84	0.67	0.54	0.38
Information Technology	–	–	–	–	–	–	1.00	0.57	0.52	0.51	0.18
Materials	–	–	–	–	–	–	–	1.00	0.62	0.44	0.31
Real Estate*	–	–	–	–	–	–	–	–	1.00	0.32	0.37
Comm. Services*	–	–	–	–	–	–	–	–	–	1.00	0.37
Utilities	–	–	–	–	–	–	–	–	–	–	1.00

Source: S&P Dow Jones Indices. Data based on monthly total returns from January 1990 to December 2020. Past performance is no guarantee of future results. Table is provided for illustrative purposes. *Sectoral Changes: In September 2016, a new GICS (Global Industry Classification Standard) Real Estate sector was created by classifying real estate companies (with the exception of mortgage REITs) into the newly created sector. In September 2018, the Telecommunication Services sector expanded to include several industries previously considered part of either Information Technology or Consumer Discretionary. The sector also was renamed Communication Services as part of the change.

Chapter 2 Using Sectors to Express Macroeconomic Views

Since sectors are groupings of similar companies, they tend to respond in a consistent manner to economic conditions and risks. Therefore, sectors can be an effective tool to capture shifts in macro environment factors, which can be important drivers of stock markets.

Key Points

- **Studying past trends can help investors to identify which sectors are best placed at each stage of the economic cycle.**
- **Key macro views can be expressed by considering sectors' different sensitivities to economic indicators.**

Sectors and the Economic Cycle

Many studies have analysed the performance of each sector over the traditional economic cycle. Certain sectors, given their cyclical or defensive nature, tend to exhibit a predictable pattern of behaviour known as "business cycle dependency". Investors can exploit these patterns by selecting specific sectors based on where an economy is in the business cycle, particularly at the point of change. Figure 8 provides an illustration of the concept.

Traditional theory suggests there are four stages of the business cycle: recovery, expansion, slowdown and contraction. Undeniably, each business cycle has its own particularities and no two business cycles are identical, even though they may bear striking resemblance to one another as the rhythm of cyclical fluctuations in the economy has tended to follow similar patterns.

The early recovery stage of an economic cycle is usually marked by increasing employment, earnings and credit growth. Equity investors tend to be bullish during such an upturn and there can be strong relative performance from economically sensitive sectors (referred to as “cyclical”). One such cyclical sector is Materials, which mostly consists of chemical manufacturers and miners, both of which experience more demand as economic activity picks up.

The mid-cycle expansion stage is characterised by improved economic and corporate earnings growth, as the economy shifts from its initial revival to more sustainable growth. Also known as an "economic boom," this can be a lengthier cycle than the rest with cyclical sectors benefiting from a stabilising period in recovery. Business expansion during this time creates high demand for heavy machinery, such as that supplied by Industrials.

Technology, which has demonstrated a high market beta, features as a beneficiary here as well as earlier in the cycle. Among Technology products, semiconductors are particularly sensitive to levels of economic activity.

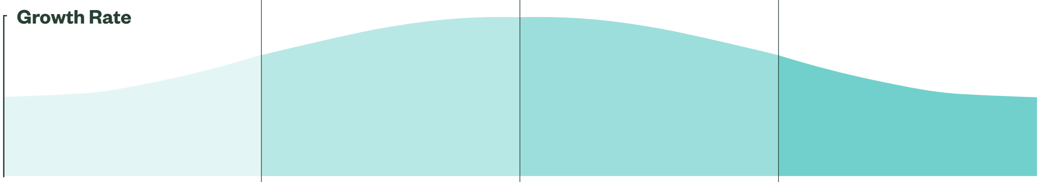
Later in the economic cycle, when growth is slowing, there is often inflationary pressure, which can support sectors tied to natural resources. This can benefit Energy through crude oil prices, but other geopolitical factors can sometimes dominate. Based on our analysis, the sectors that perform best during a slowdown include Real Estate, which is supported by its attractive income characteristics, and Utilities, given its defensive qualities.

During an economic contraction or recession, equities can lose favour across the board. In these times, better relative returns have been observed from the countercyclical sectors. Utilities, Health Care and Consumer Staples act in a more defensive manner as demand tends to stay constant for the essential goods and services they provide.

Such business cycle analysis can be employed alongside other variables, such as valuation or momentum, by investors using a sector rotation model.

Figure 8
Sectors Across the Cycle
Certain Sectors Have Historically Performed Well in Different Phases of the Business Cycle

Recovery	Expansion	Slowdown	Recession
Materials Real Estate Technology	Consumer Discretionary Industrials Technology	Real Estate Utilities	Consumer Staples Health Care Utilities



Source: State Street Global Advisors, as of 31 December 2020. The information contained above is for illustrative purposes only. It should not be construed as investment advice.

Implementing Economic Views

Over the last decade, macro factors have become more important to the performance of the stock market. Determining where we are in the economic cycle can prove very difficult as there are often contradictory signals. A simpler alternative can be to target specific factor exposures instead. For example, many investors will have a view on the outlook for interest rates or inflation. They can implement these views by investing in a sector that shows high sensitivity to macroeconomic indicators.

Figure 9 shows the sectors with the highest positive or negative sensitivity to certain economic factors. We measure "sensitivity" as the returns of a sector against the returns of the factor; this analysis captures the last three years and updated figures are available in the quarterly **SPDR Sector Compass**.

This sensitivity analysis focuses on three sets of commonly used economic data but could be expanded to include other popular measures, such as Purchasing Managers' Index (PMI) or Institute for Supply Management (ISM) reports.

Figure 9
Macroeconomic Sensitivity
Examples of Macro Factors and Related Sectors

Least Sensitive / Negative ← → Most Sensitive / Positive

Sector	Indicator	Sector
Utilities	Inflation	Energy / Financials
Consumer Staples / Utilities	Interest Rates	Financials / Energy
Health Care / Utilities	Crude Oil Prices	Energy

Source: State Street Global Advisors, 31 December 2020. Using S&P Select sectors over last three years. Results taken from SPDR Sector Compass. This information should not be considered a recommendation to invest in a particular sector or to buy or sell any security shown. It is not known whether the sectors or securities shown will be profitable in the future. The information contained above is for illustrative purpose only.

Example: Expressing a View on Inflation

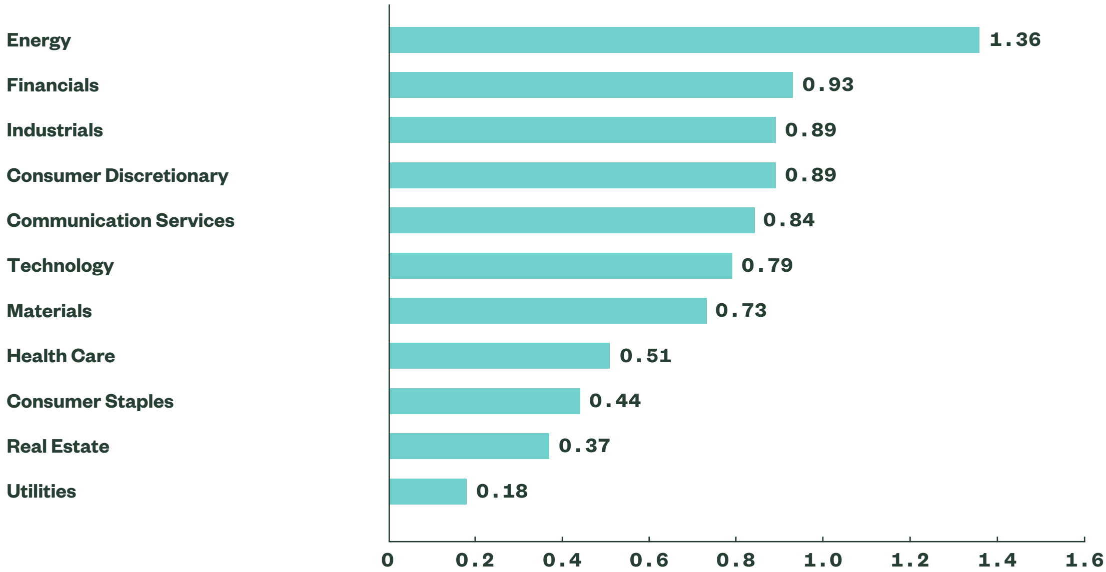
One of the most popular macroeconomic indicators is inflation. For our analysis, we used US 5-year, 5-year forward breakeven rates as our inflation measure and studied the performance of S&P Select Sectors against it to test for sensitivities. Looking at Figures 9 and 10, the Financials and Energy sectors are ranked highest in terms of sensitivity to rising prices. If we break Financials down by industry, we see the strong positive sensitivity is mostly explained by the close relationship between inflation and interest rates, which drive bank margins.

The Energy sector's close relationship with inflation results from the importance of crude oil prices to general price inflation, with sensitivity of oil and gas companies' fortunes dependent on their pricing power.

At the other end of the spectrum, the Utilities sector suffers during periods of rising price inflation because of the impact on profitability of pricing constraints and fixed contracts. They are often considered bond proxies given this relationship.

Investors may find it useful to consider the sectors mentioned above if they believe inflation will pick up as the economy recovers.

Figure 10
US Select Sectors: Inflation Sensitivity
Sectors Can be Used to Express Views on Inflation



Source: State Street Global Advisors, as of 31 December 2020. The figures cover three years from 29 December 2017–31 December 2020. Past performance is not a guarantee of future results. This information should not be considered a recommendation to invest in a particular sector or to buy or sell any security shown. It is not known whether the sectors or securities shown will be profitable in the future.

Chapter 3 Strategies for Sector Investing

A fast-paced equity market demands flexibility in an investor's strategy and vehicle. Sector-based approaches can help investors target their exposure and position portfolios to take advantage of market events, macro trends and shifts in fundamentals.

Key Points

- **In addition to implementing macroeconomic views, sectors can be used for exposure to equity styles.**
- **Sector applications range from tactical to strategic, liquidity management, sector rotation and expression of macroeconomic views.**

Using Sectors to Implement Style Exposures

Sectors carry varied exposure to style factors and these are often referenced by investors to help understand risk and return dynamics. As with sector (or industry) risk, its relative importance varies depending on market drivers, becoming more significant when macro conditions become dominant or during big market moves, for example during the Global Financial Crisis or the reversals seen during the COVID-19 crisis. As with sectors, style factors have been better at explaining risk than countries.

To look at this further, we refer to the following MSCI factors:

Factor	Measures Include
Value	Price-to-book, earnings yield, long-term reversal
Size	Market cap
Momentum	Relative strength, historic alpha
Volatility	High beta, residual volatility/standard deviation
Quality	Leverage, profitability, earnings variability, earnings quality, investment quality
Yield	Reported and forecast dividend yield
Growth	Sales and earnings growth, long-term growth forecast
Liquidity	1m, 3m, 12m turnover

Source: MSCI, taken from BARRA Global Equity Total Market Model.

Equity styles can be broken down in different ways — there are no universal factor definitions. The simplest split is between growth (exposure to long-term earnings growth) and value (low valuations based on a range of price measures); Technology and Financials are well-known examples of the respective styles. Understanding whether the stock market is led by growth or value drivers can help investors decide where to position their portfolios.

Example: Style Breakdown for Health Care, Materials

Health Care has grown by weight to the overall market and number of companies over time. While the largest part of the sector still consists of large pharmaceutical suppliers, there is a growing proportion of smaller biotechnology companies and health care equipment suppliers. Figure 11 breaks down exposure of the MSCI Europe sector by style factors, of which three are prominent:

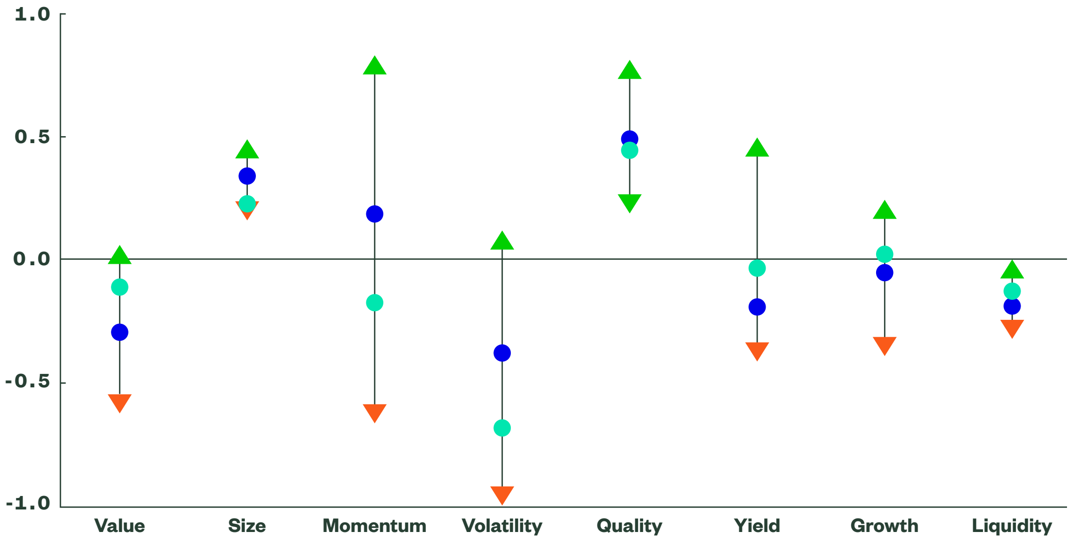
Quality The sector has shown consistent exposure to high quality companies, benefiting from strong returns, margins and sustainability of earnings growth. The net style contribution has remained relatively small, but where it is noticeable, quality exposure has contributed positively to returns (source: MSCI Indices, as of 31 December 2020).

Volatility This has historically been a low risk/low beta sector, as befits the nature of its operations. Currently, Health Care has strong low volatility exposure, especially in Europe.

Value There has been a change over time. Health Care has been expensive (representing negative value) but is not currently.

Figure 11
MSCI Europe Health Care Factor Exposures

Max
Current
Median
Min



Source: MSCI Indices, 10 years to 31 December 2020.

Health Care contrasts with Materials, another sector with high international revenues, but which is relatively small and with pro-cyclical tendencies. Most Materials sector companies are either chemical manufacturers or miners. The exposures that stand out from Figure 12 are:

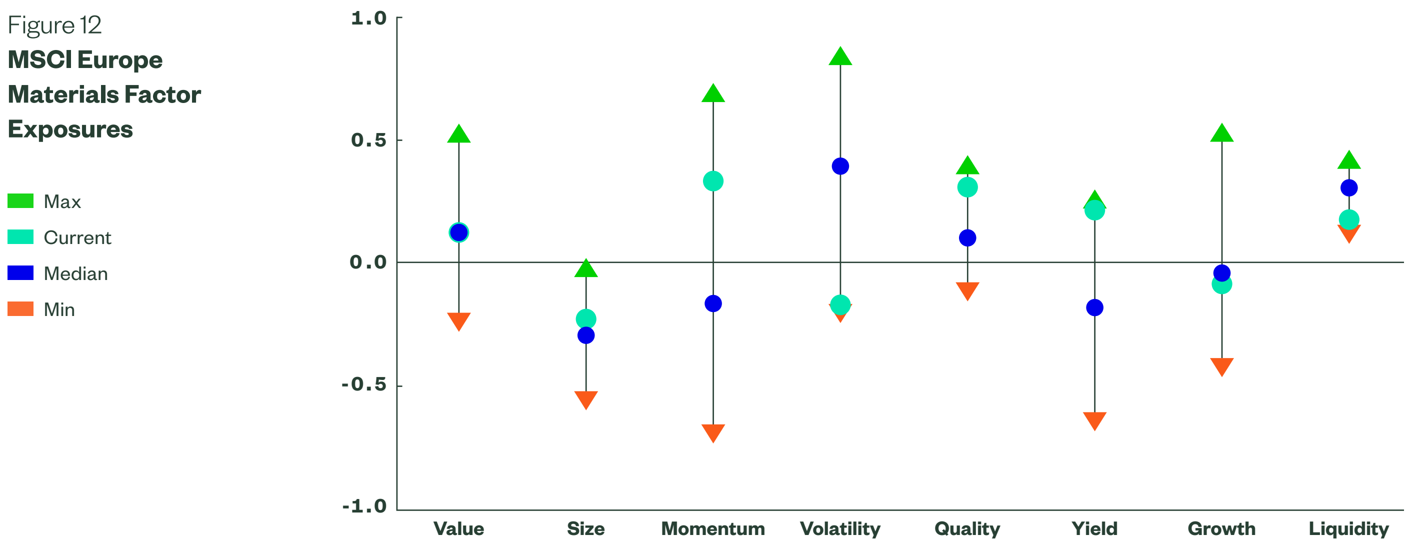
Volatility Materials has historically shown a volatility tilt and high beta, although this volatility exposure is currently low. The tendency to higher volatility is driven by the cyclical nature of demand and supply.

Value Over most periods, Materials has demonstrated value exposure, including on price-to-book calculations.

Size The sector exhibits exposure to smaller companies, which can be more volatile.

Momentum Materials sector exposure to momentum has varied over the last decade and has been important to relative performance.

Figure 12
MSCI Europe Materials Factor Exposures



Source: MSCI Indices, 10 years to 31 December 2020.

Portfolio Strategies for Sector Investment

Investors use sectors to implement a range of strategies. Here we highlight the main strategies we have observed that our clients use and the solutions they provide for investor portfolios.

Figure 13

Strategies for Using Sector ETFs as Alternatives to Other Investment Types

Strategy	Reason	Alternative To
Tactical Focus Employing House Views	Take advantage of market opportunities or sentiment, as seen from a top-down basis Exploit sector sensitivities to macro factors, such as inflation, or implement views in relation to the economic outlook	Broad-based equity index Derivatives
Strategic or Thematic Asset Allocation	Access specific secular or long-term trends (e.g. growth of disruptive technology or the Chinese industry)	Country selection Broad-based equity index
Diversification	Risk management: reducing idiosyncratic risk by holding a range of stocks. One of the fastest ways to diversify a certain portfolio is to invest in a different sector Take advantage of relatively low correlations between certain sectors	Single stocks
Liquidity Management	Sector ETFs may offer better liquidity and the capability to take larger positions than small or illiquid stocks	Single stocks
Portfolio Completion	Compensate for underweights (e.g. an active portfolio manager with a heavy underweight to Financials could introduce a sector ETF to address risk budget. A UK or European investor with a strong domestic bias and consequent underweight to Information Technology could add a Technology sector ETF)	Active equity funds Broad-based equity index
Style Factor Exposure	Access style factor (e.g. value) or themes (e.g. ESG)	Smart beta funds ESG exclusion funds
Sector Rotation — Economic	Capture shifts in business cycle, quant models, etc. Invest based on sensitivity to macro factors	Buy and hold strategy Broad-based equity index
Sector Rotation — Bottom-Up Selection	Identify sectors with relatively attractive fundamentals, such as cheaper valuations or stronger earnings sentiment	Single stocks Broad-based equity index
Sector Rotation — Technical Selection	Evaluate recent performance and overweight or underweight sectors with strong price momentum	Broad-based equity index Buy and hold strategy

The information contained above is for illustrative purposes only. Diversification does not ensure a profit or guarantee against loss.

Chapter 4 Implementing Sector Investing with ETFs

Investing in sectors can align portfolios with broader market trends, giving exposure to specific factors and themes. Given their versatility, the popularity of sector ETFs is no surprise, as they allow investors to implement macroeconomic views simply and cost-effectively.*

Key Points

- **Sector ETFs can offer a flexible and liquid means of expressing an investment idea.**
- **The popularity of sector ETF investing has broadened, as illustrated by growth in assets during the past 20 years.**

Powerful Portfolio Construction Tools

Sectors facilitate targeting of different factors (e.g. style, theme or macroeconomic).

To implement a sector investing strategy, some investors gain their exposure by buying a small number of sector-specific stocks, believing the companies they choose can outperform the sector's average. However, this leaves portfolios heavily exposed to the idiosyncratic nature of stock risk. Many active managers struggle to even match their benchmark, reflecting the difficulty of stock-picking; this is regularly reported in the S&P Dow Jones SPIVA Report. Given the smaller number of choices, it may prove easier to make the correct call on a sector and, as we have established, sectors can be more effective than an individual equity as a means of capturing business cycles and harnessing thematic trends.

* Frequent trading of ETFs could significantly increase commissions and other costs such that they may offset any savings from low fees or costs.

Popularity of Sector ETFs

Figure 14 shows that investing via sector and industry has grown rapidly over the past two decades. The uptake has been faster in the US versus other regions, which is partly explained by the availability of ETFs. SPDR, for example, launched a range of US-listed sector ETFs in 1998 but only consolidated the range under European domicile in 2015. US investors also tend to be more active users of sector ETFs, employing more of the strategies that we showcased in Chapter 3.

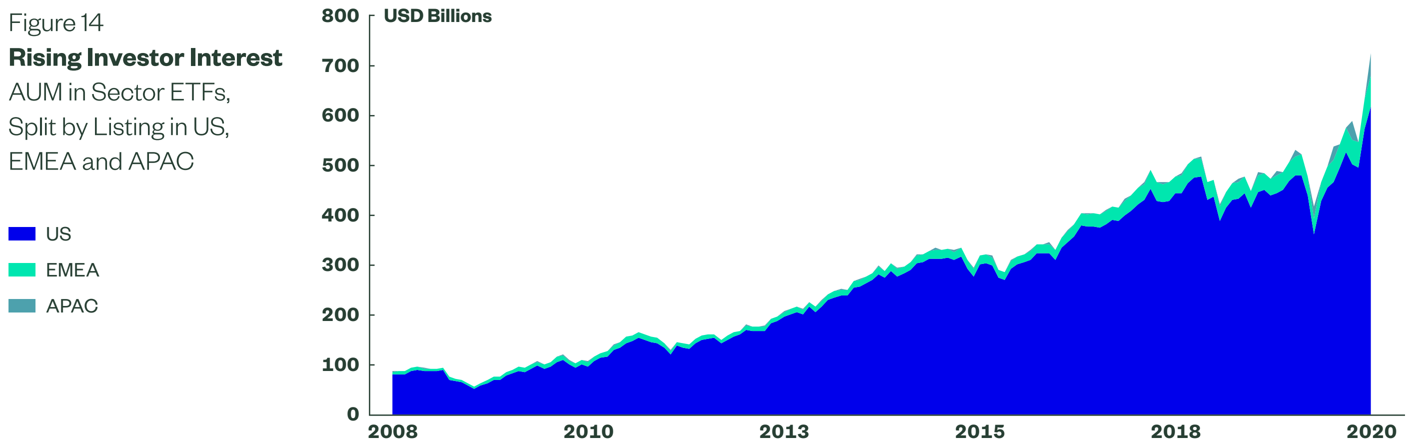
We believe a large portion of the inflows into sector ETFs can be explained by the index investment revolution. Additionally, there is a growing appreciation for the potential benefits of sector investing, such as the ability to target exposures and link to macroeconomic trends. More specifically, we have seen investors embrace sector ETFs as a way to express investment views around key events and trends.

For example, heavy net inflows leading up to the US presidential election in 2016 illustrate that investors weighed the potential impact that a Trump or Clinton victory could have on sectors such as Energy, Financials and Health Care, and positioned themselves accordingly. Fairly steady sector flows, with Technology as a favourite, continued through 2019 buoyed by economic growth prospects.

More recently, AUM in sector funds suffered from both price decreases and large outflows during the COVID-19 crisis, as investors fled to safe havens such as cash, gold and certain fixed income instruments. Encouraged by unprecedented monetary and fiscal stimulus efforts, flows recovered sharply coming out of Q1 2020 and reached new highs within months.

In the second half of 2020, uncertainty around the US presidential election caused investors to be more cautious, moving money out of cyclical exposures and taking profits on recent gains. The mood turned again when positive news of COVID-19 vaccine approvals arrived. Hope for swift reopening of economies and recovery of beaten-down market segments, along with continuing economic stimulus, resulted in record-breaking inflows into sector ETFs.

Figure 14
Rising Investor Interest
AUM in Sector ETFs, Split by Listing in US, EMEA and APAC



Source: Morningstar, as of 31 December 2020. The above AUM shown is as of the date indicated and is subject to change.

Chapter 5 SPDR — Sector Powerhouse

Sector ETFs are a key focus for SPDR globally, with US, Europe and broad developed market exposures to S&P and MSCI sector indices. Whether looking for strategic sector allocations or tactical opportunities, our sector ETFs are designed to be efficient building blocks for expressing views.

Experience in Sectors

Offered by State Street Global Advisors, SPDR ETFs provide investors with the flexibility to select investments that are closely aligned to their investment strategies.

Since launching the world's first suite of sector ETFs in 1998, we have been committed to using our expertise in indexing, portfolio construction and liquidity management to provide efficient tools for executing sector investing strategies. SPDR now has over $190 billion in AUM in sector ETFs (as of 31 December 2020). Our US sector range tracks the S&P Select Sector Daily Capped 25/20 indices, which are composed of the same stocks as the S&P 500 sectors but have a size cap on the largest constituents. This cap helps to limit the risks of high stock concentration. For the same reason, and to ensure best compliance with UCITS rules, our MSCI Europe and World sector ranges moved to 35/20 Capped benchmarks at the end of 2020.

Attributes of SPDR Sector ETFs

Thoughtfully constructed Using the widely recognised Global Industry Classification Standard (GICS) and well-known indices.

Expertly managed Portfolio management teams work diligently to physically replicate the index and minimise tracking error.

Continuously evolved We adapt our suite of strategies to reflect changes to GICS, for example the launch of SPDR S&P Communication Services sector UCITS ETF ahead of the index change in September 2018.

Focused on liquidity We draw on our global trading capabilities and capital markets expertise to trade as efficiently as possible and work with market makers to pursue best execution for our clients. The liquidity profile of our sector ETFs can help to reduce trading costs, which lowers the total cost of ownership — a key consideration in sector rotation strategies.

Thought Leadership

As a leader in the sector ETF space, SPDR provides a significant amount of data and analysis for our investors. Among our thought leadership work is the **SPDR Sector Compass**, a quarterly focus on several sectors in different regions that we believe are best placed to outperform. These SPDR Sector Picks are decided through a combination of top-down and bottom-up analysis. Our goal is to identify the factors that are likely to drive equities in the coming few months and pinpoint the related sectors.

To see our themes and Sector Picks for the current quarter, please read our latest **SPDR Sector Compass**.

SPDR Sector ETF Range

To learn more about the complete SPDR sector ETF range, please visit the **Fund Finder page**.

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Endnote

1 Source: State Street Global Advisors, as at 31 December 2020.

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