Insights
Sector

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Barbell Sector Strategies for a Stagflationary Environment

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The twin evils of inflation and economic slowdown demand a smarter strategy than just holding the sector with the highest positive sensitivity to inflation (i.e. energy). In this paper, we consider how sectors react in difficult economic and inflationary periods. Given the risk aversion in equity markets, we also consider the volatility of each sector.

Energy and health care still look relatively attractive given the key macroeconomic drivers, shifting investor sentiment, and divergent earnings sentiment. How do they look in a barbell strategy?

Sectors Provide an Answer to These Uncertain Markets

High dispersion of returns between sectors continues to offer an opportunity to investors, especially those investors seeking to play the economic outlook.

The simple strategy of holding just one sector has been remarkably profitable, particularly in the case of our key SPDR Sector Pick for the past 12 months, energy. Not only has world energy generated an absolute return of 60%, but this is 80% ahead of the worst performing sector, communication services. Health care, our favoured defensive sector, has also outperformed, and a combination of health care and energy would have offered a rewarding, relatively low-risk alternative.[1]

A barbell strategy can provide diversification of risk, helping investors to take advantage of differences in sector characteristics. Do these sectors still work in an environment of high inflation combined with a contracting economy (stagflation)? What about alternative combinations?

This paper looks at the performance of the 11 GICS sectors relative to the S&P 500 and MSCI Europe indices during regimes of high and low inflation and positive and negative economic growth. We conclude with three barbell combinations to see which has best weathered past stagflation regimes, while also ensuring that the performance and risk is acceptable across other regimes.

Sector Performance During Inflationary Times

We consider the total returns of all sectors in the S&P 500 and MSCI Europe indices in two different inflation regimes.

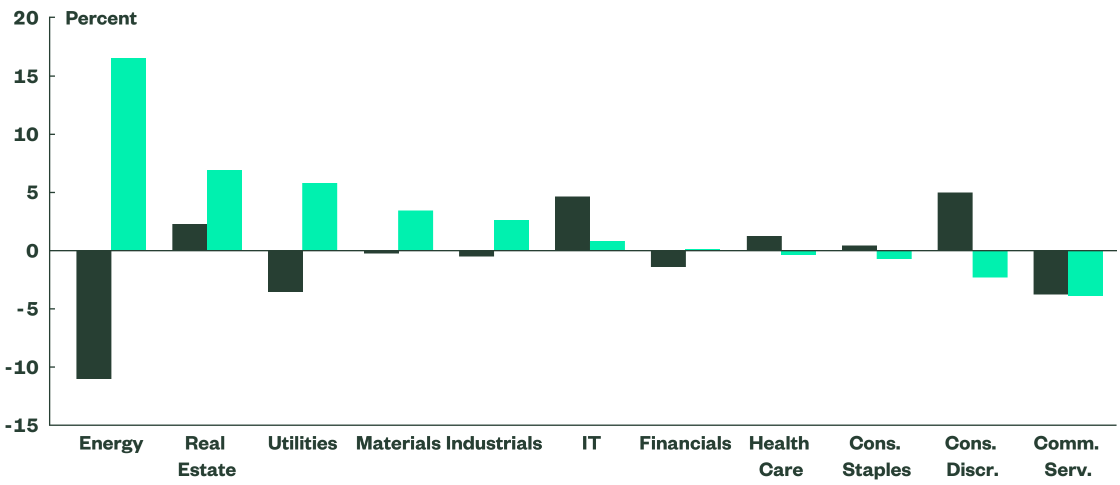
The inflation measures we use are US CPI and eurozone CPI on a year-on-year basis. We identify "high inflation" regimes when CPI is above its long-term average and "low inflation" regimes when below. Notably, the eurozone's long-term average CPI, i.e. the cut-off between our regimes, is 2% lower than the 2.5% for the US, reflecting the experience over the last few decades.

Figure 1 shows the difference in the average one-year performance of each S&P 500 sector relative to the broader market, between low and high inflation regimes. As could be expected, given the integral nature of crude oil prices to CPI figures and the high correlation between crude oil prices and the performance of oil and gas companies, the energy sector shows the greatest sensitivity. The sector has produced both the highest excess returns (+17%) in periods of high inflation as well as the largest negative relative returns (-11%) in periods of low inflation since early 1999. This relative performance is significantly greater than any other sector and helps explain why energy sector ETFs are often used to position for the macroeconomic outlook and have experienced high net inflows during the past 18 months.

In Europe, energy is also the top performer during high inflation periods but is closely matched by materials, which includes mining companies with their sensitivity to metal prices (see Figure 2). Unlike energy, materials also outperformed during low inflation regimes.

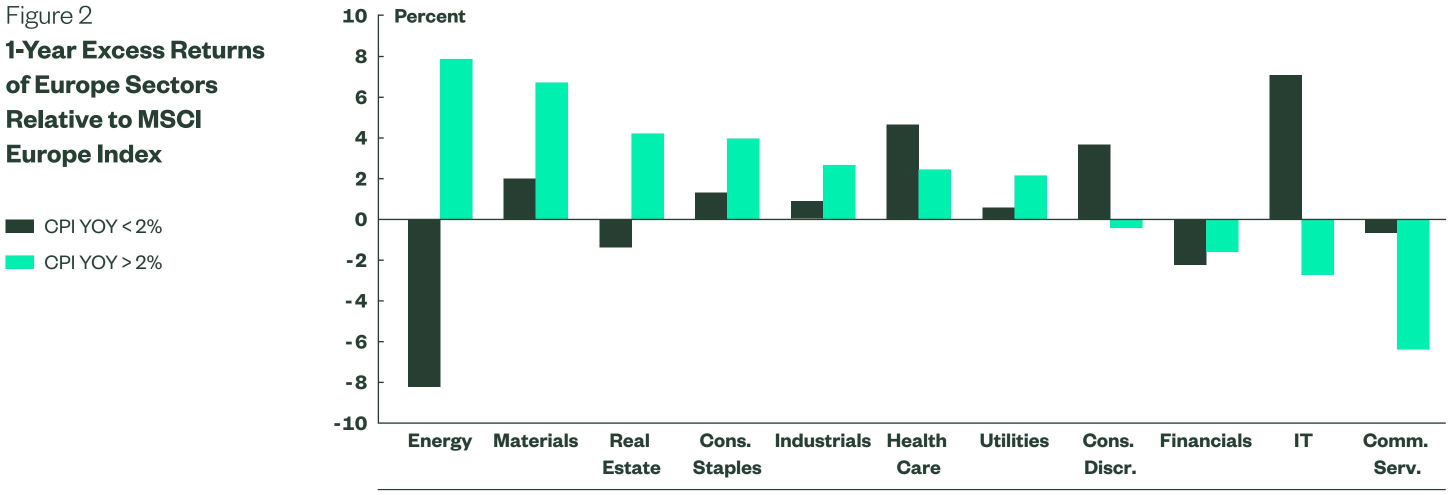
Figure 1
1-Year Excess Returns of US Sectors Relative to S&P 500 Index

CPI YOY < 2.5%
CPI YOY > 2.5%



Source: Bloomberg Finance L.P., Refinitv. Data between 31 January 1999 and 30 April 2022.

Figure 2
1-Year Excess Returns of Europe Sectors Relative to MSCI Europe Index



Source: Bloomberg Finance L.P., Refinitv. Data between 31 January 1999 and 30 April 2022.

The US financials, health care and consumer staples sectors experienced similar returns under both inflation regimes, not necessarily benefiting or suffering unduly from higher prices. The result for financials in both regions may surprise, as it is often considered a play for inflationary times but, in reality, interest rates have more of an impact than price rises on the sector.

Consumer discretionary, which comprises retailing (physical and digital) and leisure stocks in the US and a greater proportion of luxury goods supplies in Europe, has seen the opposite effect to energy, outperforming in low inflation environments while underperforming when inflation has been above average. This may reflect the impact of price rises on consumer budgets.

Also in Europe, the communication services sector stands out for underperformance; compared with the US sector it has a high proportion of regulated telecommunications operators, explaining the low returns under high inflation.

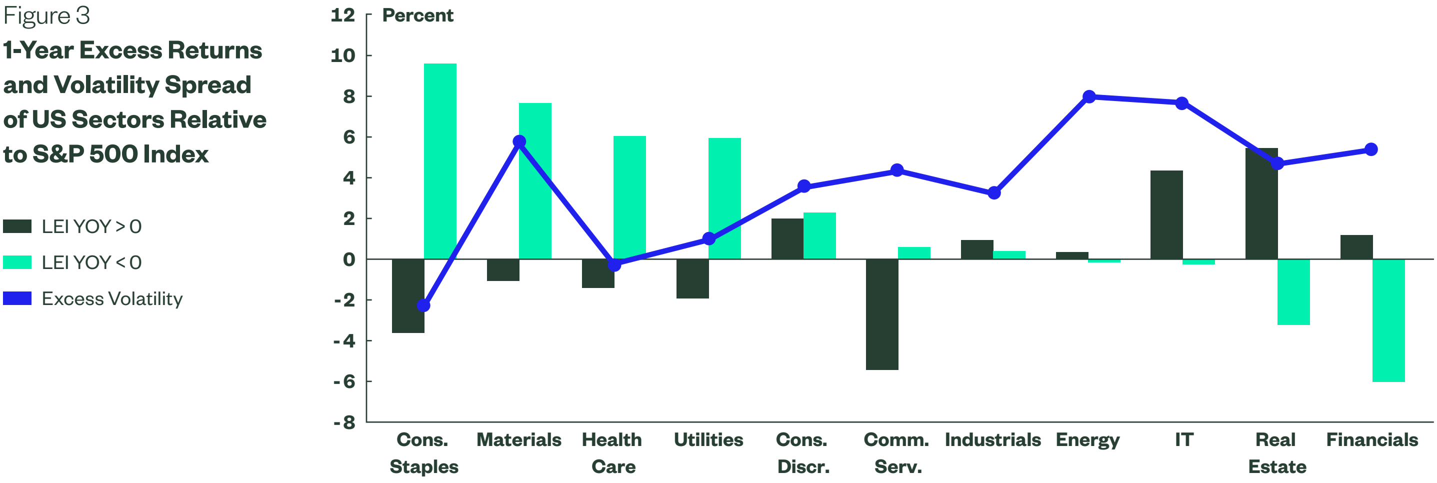
Sector Performance in Different Economic Regimes

To measure the dynamics of economic activity, we consider US and eurozone Leading Economic Indicators (LEI) from the US Conference Board. The LEI index is constructed from 10 economic indicators including average weekly hours for manufacturing, claims for unemployment insurance, manufacturers' new orders, and consumer expectations for business conditions.

We kept the analysis simple with just two economic regimes as opposed to the more usual four. (For more information on LEI and analysis of sector performances over business cycles, please refer to past State Street Global Advisors SPDR publications on the subject.[2]) Our "negative" regime encompasses periods of contraction or recession when the year-on-year change in LEI is negative, while "positive" refers to expansion or recovery in economic activity heralded by positive changes in LEI.

Figures 3 and 4 show the average one-year performance of each S&P 500 and MSCI Europe sector relative to their parent indices in both economic regimes, revealing very different results. They also show the volatility spread for each sector, i.e. the excess volatility above that of the broader market across the whole period.

Figure 3
1-Year Excess Returns and Volatility Spread of US Sectors Relative to S&P 500 Index



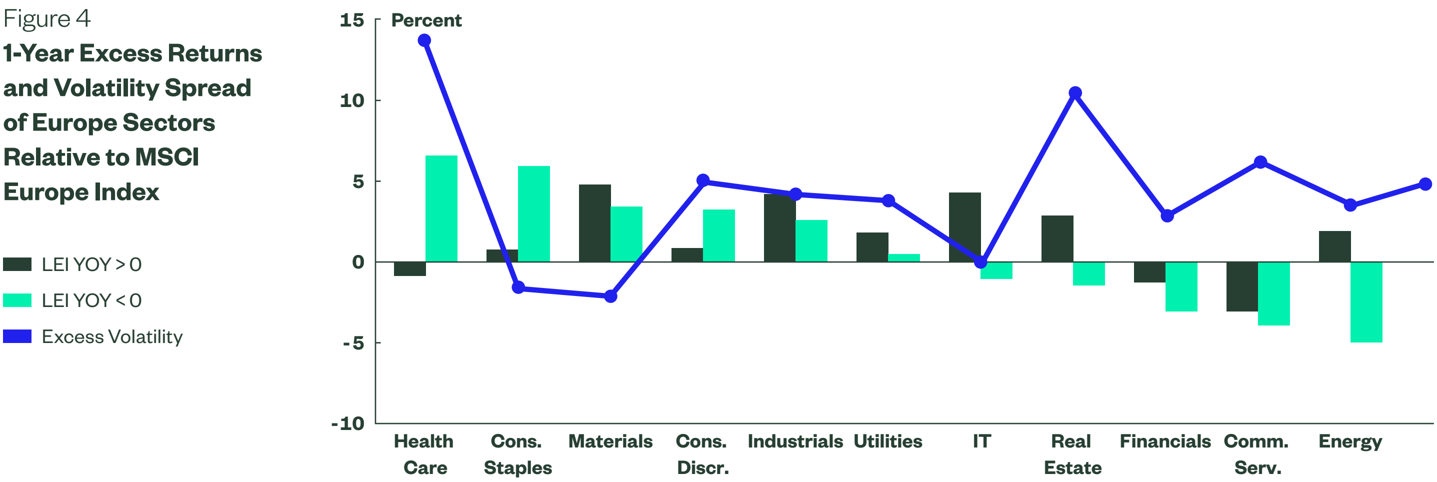
Source: Bloomberg L.P., & Refinitiv. Data between 31 January 1999 and 30 April 2022.

In both regions, the negative economic regime favoured the more defensive sectors of consumer staples, health care and, in the US, utilities. This is not a surprise as these sectors benefit from non-discretionary demand for their basic products and services and, in difficult economic times, their relative stability is appealing versus the cyclicality of other sectors. Conversely, these three sectors underperformed in healthier economic times.

The strength of US materials in periods of slowdown or recession in the US economy is striking and shows the supply chain necessity of some of its speciality chemical and industrial gas outputs.

Technology (IT) shows a large differential between strong excess returns in positive regimes, benefiting from more cap ex during corporate expansion plans. Energy appears to be much more sensitive to economic activity in Europe versus the US, but this is hard to interpret because while activity can influence the demand for oil and gas it has little impact on supply, which is key to prices of fossil fuels and companies' profits.

Figure 4
1-Year Excess Returns and Volatility Spread of Europe Sectors Relative to MSCI Europe Index



Source: Bloomberg L.P & Refinitiv. Data between 31 January 1999 and 30 April 2022.

Turning to excess volatility or the volatility spread, as expected the figures for most sectors exceed the parent index because of less diversification. However, in several cases, as shown in Figures 3 and 4, it has been lower. The traditionally defensive sectors of consumer staples, health care and utilities are well-regarded for their low volatility, one of their characteristics that gives them the moniker. In all cases this helps the risk-adjusted returns.

Tactical Positioning: Adding Sectors to Equity Portfolios

While investors can effectively target economic conditions using just one sector, such as energy in times of rapidly rising prices and consumer staples during economic slowdown, a more sophisticated strategy would consider a combination. This approach can be particularly rewarding in uncertain times, when a barbell could capture exposure to different factors and the different characteristics of two or more sectors could lend diversification and target lower risk.

We have looked at several hypothetical core-satellite equity portfolios, which we named barbell baskets 1, 2 and 3. Each one of these portfolios has a core equity weight of 50% invested in the broad S&P 500 or MSCI Europe indices plus 25% in each of two sectors. Our starting case was two of the SPDR Sector Picks: health care and energy. However, we know there are investors who cannot invest in energy given their mandates and we have included materials as an alternative. Meanwhile, we have taken consumer staples as an alternative for health care given recent interest in the sector.

Figure 5 shows the results of the analysis for US sectors. Of note, all three baskets outperformed S&P 500 and have superior risk-adjusted returns during the full period. Breaking this down into different regimes, all three baskets also produced positive excess returns in high inflation regimes, with baskets 1 and 3 (containing energy) being the best. Meanwhile, basket 2 with materials and health care had the best performance in the negative economic regime. **In stagflationary times, defined as CPI>2% and LEI <0%, all three barbell baskets outperformed the S&P 500 by 6% p.a. and higher.**

Barbell Basket 1 50% S&P 500 + 25% Energy + 25% Health Care
Barbell Basket 2 50% S&P 500 + 25% Materials + 25% Health Care
Barbell Basket 3 50% S&P 500 + 25% Energy + 25% Consumer Staples

Figure 5
Performance of US Sectors Under Different Regimes

	Months	S&P 500 TR (%)	Energy (%)	Materials (%)	Cons. Staples (%)	Health Care (%)	Basket 1 (%)	Basket 2 (%)	Basket 3 (%)
Annual volatility (%)	268	13.7	21.7	19.4	11.4	13.5	13.5	13.6	13.0
Risk-adj. return (%)	268	65.5	42.5	53.2	78.6	71.1	68.3	70.1	69.5
Regime		**Total Return (%)**	**Average 1-Year Excess Return (%)**						
All regimes	268	9.0	0.2	1.3	0.0	0.6	0.2	0.5	0.0
CPI < 2%	159	8.8	-11.1	-0.2	0.4	1.2	-2.5	0.3	-2.7
CPI > 2%	109	9.3	16.7	3.5	-0.6	-0.3	4.2	0.9	4.0
LEI < 0	73	-2.7	-0.2	7.6	9.5	6.0	1.4	3.4	2.2
LEI > 0	195	13.4	0.3	-1.1	-3.6	-1.4	-0.2	-0.6	-0.8
CPI < 2%, LEI < 0	42	-1.8	-14.4	3.2	4.6	3.4	-2.9	1.7	-2.6
CPI > 2%, LEI < 0	31	-4.0	19.2	13.5	16.3	9.6	**7.2**	**5.8**	**8.8**
CPI < 2%, LEI > 0	117	12.6	-9.9	-1.4	-1.1	0.4	-2.4	-0.2	-2.8
CPI > 2%, LEI > 0	78	14.5	15.6	-0.5	-7.3	-4.2	3.0	-1.1	2.1
Worst Excess Return of Any Scenario	—	N/A	-14.4	-1.4	-7.3	-4.2	-2.9	-1.1	-2.8

Source: Bloomberg L.P., & Refinitiv. Data between 31 January 1999 and 30 April 2022. Indices included S&P 500 Total Return, S&P 500 Energy Sector GICS Level 1 Index, S&P 500 Materials Sector GICS Level 1 Index, S&P 500 Consumer Staples Sector GICS Level 1 Index, S&P 500 Health Care Sector GICS Level 1.

Barbell Basket 1 50% MSCI Europe + 25% Energy + 25% Health Care
Barbell Basket 2 50% MSCI Europe + 25% Materials + 25% Health Care
Barbell Basket 3 50% MSCI Europe + 25% Energy + 25% Consumer Staples

Figure 6
Performance of Europe Sectors Under Different Regimes

	Months	MSCI Europe (%)	Energy (%)	Materials (%)	Cons. Staples (%)	Health Care (%)	Basket 1 (%)	Basket 2 (%)	Basket 3 (%)
Annual volatility (%)	268	13.8	18.8	18.9	11.8	12.3	12.5	13.0	12.6
Risk-adj. return (%)	268	47.5	32.2	57.5	77.5	67.7	55.2	62.0	56.0
Regime		**Total Return (%)**	**Average 1-Year Excess Return**						
All regimes	268	6.6	-0.5	4.3	2.5	1.7	0.3	1.5	0.5
CPI < 2%	140	9.0	-8.2	2.0	1.3	0.9	-1.9	0.6	-1.8
CPI > 2%	128	3.9	7.9	6.7	3.9	2.7	2.8	2.4	3.0
LEI < 0	94	-2.5	-5.0	3.4	5.9	6.5	0.3	2.4	0.2
LEI > 0	174	11.5	1.9	4.8	0.7	-0.9	0.3	0.9	0.7
CPI < 2%, LEI < 0	51	4.0	-13.5	2.0	2.3	6.6	-2.0	2.0	-2.9
CPI > 2%, LEI < 0	43	-10.2	5.0	5.0	10.2	6.5	**3.0**	**2.9**	**3.8**
CPI < 2%, LEI > 0	89	11.9	-5.2	2.1	0.7	-2.4	-1.9	-0.2	-1.2
CPI > 2%, LEI > 0	85	11.0	9.3	7.6	0.7	0.7	2.7	2.1	2.6
Worst Excess Return of Any Scenario	—	N/A	-13.5	2.0	0.7	-2.4	-2.0	-0.2	-2.9

Source: Bloomberg L.P., & Refinitiv Data between 31 January 1999 and 30 April 2022. Indices included in barbell baskets: MSCI Europe Total Return, MSCI Europe Energy Sector, MSCI Europe Materials Sector, MSCI Europe Health Care Sector, MSCI Europe Consumer Staples.

Figure 6 shows the results of the same analysis for Europe sectors. Again, all three baskets outperformed MSCI Europe and risk-adjusted returns were superior during the full period. All three baskets produced positive excess returns in high inflation regimes, with baskets 1 and 3 (containing energy) performing the best, while basket 2 with materials and health care led in the negative economic regime. **In stagflationary times, all three barbell baskets outperformed MSCI Europe by 3% p.a. and higher.**

Finally, the combinations of sectors look reassuringly robust with the highest negative excess returns against S&P 500 or MSCI Europe being less than -3% in any regime. In effect, this shows the downside if investors had positioned for a stagflationary environment but the regime changed.

Endnote

1 Source: Bloomberg Finance L.P., as of 8 June 2022.

2 For more information on business cycles and explanation of LEI please see SPDR publications on "Sector Business Cycle Analysis" by M. Bartolini & A. Dong and "Asset Class Performance and Business Cycle" by D. Ung.

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