

## THE IMPORTANCE OF SECTOR ALLOCATIONS

*Investors typically focus on the direction of the broad market, and ignore the stock market's component parts and how these parts of the market perform. The diversity that exists across the market's ten Sectors produces significant variability in Sector investment returns, which in turn makes Sector allocations the most important driver of returns for fully-invested portfolios.*

There are many strategies available to equity investors to try to outperform the broad stock market. Some investors closely follow the direction of the broad market and attempt to capitalize on market swings. For these investors, the level of cash held in their portfolios is the largest determinant of portfolio returns over time. This strategic use of cash is a powerful tool in active portfolio management, but it comes with serious potential risks and costs. It is very difficult to anticipate when to jump in and out of the market. If traders, for example, missed just the ten best days of performance from 1996 through 2010 they would have generated a 0.1% annual return compared to a 4.9% annual return for the S&P 500 Index (S&P 500) over the same period.<sup>1</sup> While some traders may believe that they will not miss all the big up days, the best days of performance are surprises that cannot be easily anticipated, and missing just a few days will have a serious negative impact on performance.

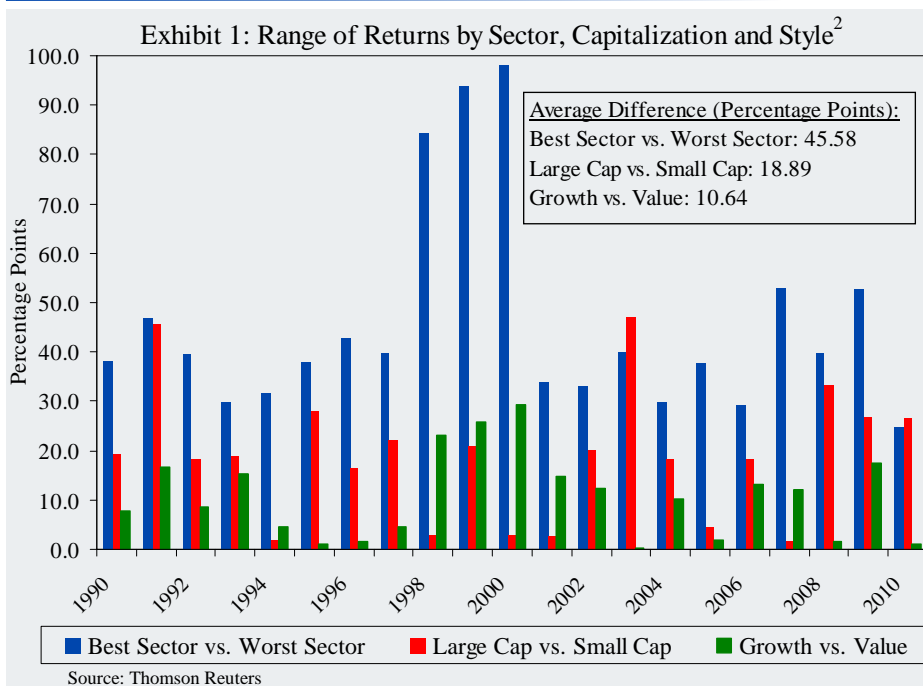
Many investors who do stay fully invested are still obsessed with the stock market's direction and ignore a key fact – there is significant diversity within the broad market. The S&P 500 consists of ten economic Sectors, and 70 industries within those Sectors. There are important fundamental differences in these groups of companies, particularly across Sectors. Thus economic sensitivity varies substantially by Sector, and shifts in key macroeconomic factors impact Sectors differently.

It is these fundamental differences across Sectors that are a key driver of the variability in Sector performance. And it is this variability in returns between parts of the market that creates the opportunity for investors to capture enhanced returns and outperform the broad stock market. An investment strategy that emphasizes Sector allocations can best capitalize on this opportunity.

### Significant Return Variability Across Sectors

Historical equity returns reveal valuable patterns among Sector performance and other segments of the market. Exhibit 1 illustrates that between 1990 and 2010 the best performing S&P 500 Sector outperformed the worst performing Sector by an average of 45.58 percentage points. Exhibit 1 also highlights that the return differences by company size (large cap vs. small cap) and investment style (growth vs. value) were significantly less than the return difference between the best and worst performing Sectors.

Sector returns not only vary significantly from the best to the worst performer, but there is substantial dispersion within the range of returns. In addition, the rank order of Sector performance also fluctuates significantly from one period to the next. Appendix 1 on page 4 demonstrates these points, and highlights



that over the last two decades the Sectors that outperformed and underperformed the S&P 500 have changed regularly.

### **Sector Allocations Drive Returns**

This variability in Sector performance was one catalyst behind a number of research papers that have examined the impact of Sector returns on portfolio performance. The most prominent of these articles is a 2007 study by Raman Vardharaj and Frank J. Fabozzi, CFA that explores the impact of Sector allocations on the returns of U.S. large-cap portfolios.

Vardharaj and Fabozzi compared the actual returns of hundreds of mutual fund portfolios to the returns of corresponding engineered test portfolios. Each test portfolio's return was calculated by multiplying each mutual fund's actual Sector weights by the returns for the ten S&P 500 Sectors. *The study found that the mutual funds' Sector allocations accounted for 90% of the mutual funds' actual returns.* In addition, the Vardharaj Fabozzi study indicated that Sector allocations also have a significant impact on *comparative* returns among portfolio managers.

This study emphasizes an important point. Investors cannot ignore Sector allocations, which are a critical determinant of portfolio returns in a fully-invested portfolio. Sector allocations' impact on portfolio returns, together with the wide range in Sector performance, creates an opportunity for investors to outperform the market. They can take advantage of this opportunity by overweighting Sectors that they believe will outperform the overall market and underweighting/avoiding Sectors that they expect will underperform the market.

### **Stock Selection and Correlations Within Sectors**

Investors that try to take advantage of the variability in Sector returns can choose from a variety of approaches to construct portfolios. Investors under one widely used approach can purchase individual stocks from favored Sectors. This strategy uses stock selection in the effort to outperform the market, but as Vardharaj and Fabozzi remind us, stock selection should not be relied on alone. "Some active managers [that] focus exclusively on bottom-up stock picking...would be surprised by our finding that in recent years, nearly three quarters of the cross-sectional variation of 5-year returns of U.S. funds can be explained by sector or style allocation policy. Thus, a factor that they probably ignored played a large role in their performance relative to peers."

Another popular portfolio construction approach is to purchase Sector-based exchange-traded funds (ETFs), but this approach sacrifices entirely any potential benefit from stock selection, and forces an investor to own all the stocks in a Sector, even those that they believe are the least attractive. Stock selection is a useful tool for portfolio managers that should not be ignored, but its importance still ranks below that of Sector allocation.

Investors who see value in holding individual stocks should be encouraged by the high correlations among a Sector's compo-

**Exhibit 2: S&P 500 Sector and Industry Correlations**

S&P 500 Sector	Average Correlation of Industry Groups' Returns with Sector Returns (2000-2010)	Sector Correlation with the S&P 500 (1995-2010)
Consumer Discretionary	0.89	0.91
Consumer Staples	0.84	0.62
Energy*	0.93	0.65
Financials	0.92	0.84
Health Care	0.68	0.67
Industrials	0.92	0.93
Information Technology	0.94	0.86
Materials*	0.73	0.72
Telecom Services*	0.79	0.65
Utilities*	0.85	0.53

\*Sector has only one Industry Group. Correlations based on Industries rather than Industry Groups.  
Source: Thomson Reuters

nents outlined in Exhibit 2. The table illustrates that if managers overweight a Sector that outperforms the benchmark, the investor can be relatively confident that stocks from that Sector should also outperform the benchmark. Industries in the Consumer Staples, Energy and Utilities Sectors, for example, are highly correlated *within* their respective Sector despite each Sectors' low correlation with the overall market.

### **How to Benefit from Sector-Based Investing**

One common approach used by investors to capitalize on the power of Sector allocation is to divide the ten Sectors into economically sensitive Sectors and non-economically sensitive Sectors. Users of this approach expect that non-economically sensitive Sectors will outperform the market during periods of economic weakness. Exhibit 3 highlights that non-economically sensitive Sectors did in fact outperform the S&P 500 in the two most recent economic downturns.

**Exhibit 3: S&P 500 Sector Returns**

S&P 500 Sector	2008	2000
Consumer Staples	-15.43%	16.78%
Health Care	-22.81%	37.05%
Utilities	-28.98%	57.19%
Telecom Services	-30.49%	-38.81%
Consumer Discretionary	-33.49%	-20.00%
Energy	-34.87%	5.88%
S&P 500 Index	-37.00%	-9.10%
Industrials	-39.92%	-39.92%
Information Technology	-43.14%	-40.90%
Materials	-45.66%	-15.72%
Financials	-55.32%	25.70%

Green = Economically Sensitive Sectors  
Blue = Non-Economically Sensitive Sectors

Source: Thomson Reuters

This economically sensitive vs. non-economically sensitive approach can be effective at times, but it requires further refinement. Lumping all the economically sensitive Sectors together neglects the fundamental differences across these Sectors. This issue is exacerbated further by the long-term evolution towards extended economic expansions and more abbreviated recessions. Exhibit 4 illustrates this trend, and shows that the last three recessions have lasted one year on average, while the expansions that preceded those recessions lasted over seven and a half years. To take full advantage of the variability in Sector returns investors need a comprehensive investment approach that guides

them on which Sectors to overweight and underweight through the *entire* economic cycle.

**Conclusion**

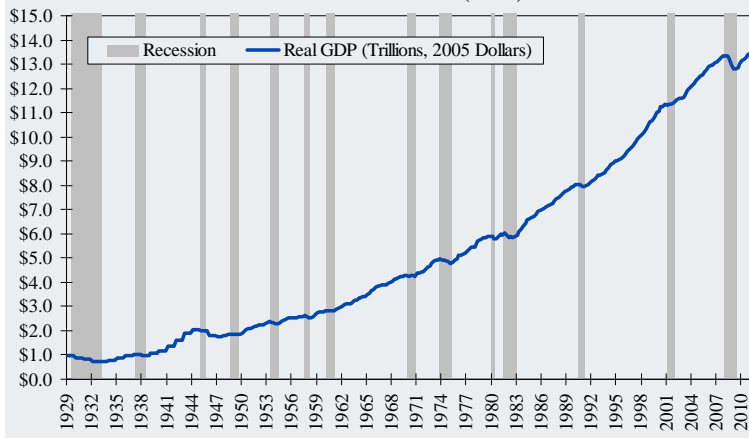
Investors can choose from many strategies to try to outperform the stock market. Some of these approaches advocate moving in and out of the market. This type of investment strategy has the potential to outperform the benchmark, but it also comes with significant risks and potential costs.

Portfolio managers who stay fully invested in stocks still have many investment alternatives. But these investors too often focus exclusively on the outlook for the broad market and neglect the stock market’s diversity. The fundamental differences in companies across Sectors produce significant variability in Sector returns, which makes Sector allocation the most important performance driver of fully-invested portfolios.

Sector-based investing is by no means easy, but it is an investment approach that is designed to capitalize on a real opportunity to outperform the broad market. In the next installment of this Sector-based investing series, we will take a closer look at the drivers of Sector performance throughout a full economic cycle to find a more comprehensive Sector investing framework.

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Exhibit 4: U.S. Gross Domestic Product (GDP) and Recessions



Period	Avg. Duration of Recession	Avg. Duration of Expansion
1854 to 1919	1.8 Years	2.3 Years
1919 to 1945	1.5 Years	2.9 Years
1945 to 2009	0.9 Years	4.9 Years

Source: Bureau of Economic Analysis and National Bureau of Economic Research

References

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Sassetti, Paolo and Massimiliano Tani, 2006 “Dynamic Asset Allocation Using Systematic Sector Rotation” *The Journal of Wealth Management*, Vol. 8. No. 4.

Vardharaj, Raman and Frank J. Fabozzi, CFA. 2007 “Sector, Style, Region: Explaining Stock Allocation Performance” *Financial Analysts Journal*, Vol. 53, No. 3. pp. 59-70.

Endnotes

- 1 Estimated portfolio returns exclude the ten highest daily percentage gains between January 1, 1996 and December 31, 2010. The portfolio’s performance and the S&P 500 Index’s performance were based on price-only returns.
- 2 “Large Cap” is represented by the S&P 500 Index. “Small Cap” is represented by the Russell 2000 Index. “Growth” is represented by the Russell 1000 Growth Index. “Value” is represented by the Russell 1000 Value Index.

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### Appendix 1

Annual Sector Returns (1990-2010)  
Ranked in Order of Performance (Best to Worst)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Health-care Staples	17.29%	53.71%	23.26%	21.70%	19.92%	57.98%	43.87%	48.15%	78.14%	78.74%	57.19%	3.48%	-4.26%	47.23%	31.54%	31.37%	36.80%	34.40%	-15.43%	61.72%	27.66%
Consumer Staples	15.32%	49.09%	19.73%	18.57%	13.64%	54.06%	35.21%	43.73%	52.37%	25.26%	37.05%	2.79%	-5.46%	38.19%	24.28%	16.84%	24.21%	22.53%	Health-care	48.59%	26.73%
Tech-nology	3.03%	41.64%	16.23%	15.88%	9.80%	42.32%	25.91%	41.24%	43.88%	25.18%	25.70%	-5.74%	-11.13%	37.41%	19.85%	6.47%	19.99%	19.38%	Utilities	22.81%	Materials
Energy	2.93%	41.54%	10.26%	15.05%	5.78%	39.63%	25.88%	34.35%	41.14%	21.50%	16.78%	-6.40%	-14.64%	32.20%	18.03%	6.46%	19.19%	16.31%	Health-care	28.98%	Consumer Discr.
Utilities	-0.63%	30.47%	9.55%	14.66%	3.73%	39.45%	25.09%	33.36%	28.58%	21.04%	15.68%	-8.95%	-18.82%	31.03%	13.24%	4.91%	18.64%	14.18%	Telecom	41.30%	Energy
S&P 500	-3.10%	29.53%	7.62%	13.69%	1.32%	39.13%	22.96%	32.89%	15.76%	19.14%	5.88%	-10.40%	-22.10%	28.68%	13.19%	4.42%	18.63%	12.03%	Consumer Discr.	26.46%	20.46%
Industrials	-7.61%	25.50%	6.64%	13.45%	-2.38%	37.58%	21.04%	28.53%	14.84%	18.73%	-9.10%	-11.89%	-23.82%	26.26%	10.88%	3.58%	15.80%	11.94%	Consumer Discr.	20.93%	18.97%
Materials	-10.68%	23.87%	5.28%	10.61%	-3.53%	32.75%	15.84%	27.04%	11.42%	4.12%	-15.73%	-11.95%	-26.34%	25.63%	10.89%	2.32%	14.36%	7.15%	Health-care	19.70%	15.06%
Consumer Discr.	-12.23%	13.21%	2.86%	5.00%	10.08%	30.98%	12.40%	25.28%	10.87%	-9.18%	-20.00%	-12.25%	-29.99%	15.06%	8.16%	0.99%	13.29%	5.49%	Telecom	39.92%	12.13%
Telecom	-13.91%	9.04%	2.30%	-3.87%	-8.32%	20.33%	5.68%	24.65%	0.63%	-10.66%	-38.81%	-25.87%	-34.11%	11.57%	2.56%	-5.63%	8.42%	-13.21%	Health-care	14.89%	10.19%
Financials	-20.76%	6.88%	-16.15%	-8.20%	-11.78%	20.02%	1.08%	8.41%	-6.18%	-15.09%	-40.90%	-30.44%	-37.41%	7.08%	1.68%	-6.36%	7.53%	-18.63%	Materials	17.22%	Utilities
Health-care	2.90%	5.46%	8.93%	2.90%	5.46%	8.93%	2.90%	5.46%	8.93%	2.90%	5.46%	8.93%	2.90%	5.46%	8.93%	2.90%	5.46%	8.93%	Health-care	11.91%	Health-care
Consumer Discr.	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	27.66%	Consumer Discr.	15.06%	2.90%

Source: Thomson Reuters, Standard & Poor's