AlphaQuant
Engineered for Alpha

Value Strategy

Conceptual Framework

Executive Summary

- Value investing is a cornerstone of active security selection and traces its roots to Benjamin Graham who associated value with a margin of safety, which enables the investment to withstand adverse business developments.
- The overperformance of value stocks over the long term has been termed the "value premium."
- According to behavioral finance, value strategies might work because they are contrarian to naïve strategies followed by other investors. These naïve strategies might range from extrapolating past earnings growth too far into the future, to assuming a trend in stock prices, to overreacting to good or bad news, or to simply equating a good investment with a well-run company despite price. Investors' systematic errors in predicting future earnings growth of value stocks and excessive pessimism about these stocks cause the outperformance of value stocks relative to growth stocks.
- We believe a focus on free cash flow (FCF) can help reduce investment risk and avoiding value traps. FCF is a more comprehensive measure of profitability than earnings and is more difficult to manipulate.
- Companies with strong cash flow can capitalize on market opportunities and can also better ride out economic storms than a firm with weaker cash flow. Companies with large cash flow may also be able to better finance growth and reward shareholders through dividends and share repurchases.

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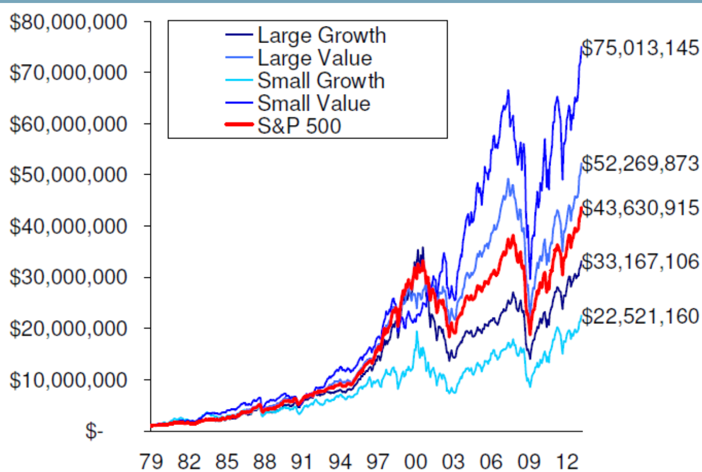
What is Value Investing?

Value investors seek to buy stocks of companies they believe the market has undervalued. Commonly, value investors select stocks with lower-than-average price-to-earnings or price-to-book ratios or higher-dividend yields. Despite the different approaches, value investors focus on "cheapness." Stocks are selected based on the ratio between market prices and some measure of fundamental value such as earnings or assets.

Value investing is a cornerstone of active security selection and traces its roots to Benjamin Graham who associated value with a margin of safety, which enables the investment to withstand adverse business developments. The performance of value stocks over the long term has been termed the "value premium."

Chart 1: Growth of $1 Million Invested (1/1979-3/2013)



Sources: Morningstar, Russell, Alpha Quant Advisors

Chart 1 illustrates the value premium using the Russell indexes. Over this period, the large-cap value stocks had an annualized return of 12.2%, outperforming the large-cap growth stocks by 150 basis points per annum and the S&P 500 Index by 60 basis points per annum. The small-cap value stocks generated a return of 13.4%, outperforming the small-cap growth stocks by 390 basis points per annum and the S&P 500 by 180 basis points. Over the same period, an investment of $1 million grew to $52 million in large-cap value stocks, to $33 million in large-cap growth stocks, to $75 million in small-cap value stocks and to $22 million in small-cap growth stocks.

Chart 2: Average Total Returns by Decade

Decade	Large Value Less S&P 500	Large Growth Less S&P 500	Small Value Less S&P 500	Small Growth Less S&P 500
1930s	-5.5%	1.6%	-0.2%	7.4%
1940s	8.0%	-1.8%	11.8%	2.5%
1950s	2.8%	-1.8%	0.6%	-1.7%
1960s	2.9%	0.1%	7.6%	2.9%
1970s	6.4%	-2.4%	9.1%	-0.1%
1980s	2.7%	-1.8%	3.6%	-6.7%
1990s	-4.3%	1.7%	-3.7%	-3.2%
2000s	1.3%	-0.9%	11.5%	-0.1%
Average	**1.8%**	**-0.7%**	**5.0%**	**0.1%**

Results reflect the reinvestment of dividends and other earnings. Index returns do not reflect the deduction of management fees, custodial fees, trading expenses and withholding taxes.

Source: Fama-French data through Morningstar, as of 2012

The table above indicates the value premium has averaged 1.8% per annum for large-cap value stocks and 5.0% for small-cap value stocks over the last eight decades. These significant and quite consistent excess returns earned by value stocks stand in contrast to the efficient market hypothesis, which states investors cannot consistently achieve returns in excess of average market returns on a risk-adjusted basis, given the information available at the time the investment is made.

Some academics and practitioners contend the value premium is a compensation for investors bearing distress risk. Some others – including us – embrace a behavioral explanation: value strategies might work because they are contrarian to naïve strategies followed by other investors. These naïve strategies might range from extrapolating past earnings growth too far into the future, to assuming a trend in stock prices, to overreacting to good or bad news, or to simply equating a good investment with a well-run company irrespective of price. Regardless of the reason, some investors tend naturally to feel more comfortable with and invest in growth companies with high growth rates, thus bidding up their prices and market multiples above their intrinsic value.[1] Conversely, they overreact to poorly performing stocks, pushing down their prices and compressing their multiples below their intrinsic value. Investors' systematic errors in predicting future earnings growth of value stocks and excessive pessimism about these stocks cause the superior performance of value stocks relative to growth stocks.

[1] J. Lakonishok, A. Shleifer, R. Vishny, "Contrarian Investment, Extrapolation, and Risk," NBER Working Paper Series, 1993

Designing a Value Strategy

Value investors earn excess returns by taking a contrarian view of stocks trading at low market valuations due to investors' unwarranted pessimism on their growth prospects. In practice though, value investing presents two major challenges: (1) avoiding value traps; and (2) the ability to withstand short-term volatility.

While the risk to investors in growth stocks is price risk (risk to overpay), the risk with value stocks is business risk. In fact, low market multiples are often a result of negative business trends reflected in low growth rates and deterioration of profitability. Thus, a value trap is a stock appears to be attractive on a valuation basis with a never-improving business performance.

Investors who employ traditional valuation metrics, such as price-to-earnings and price-to-book ratios, are more likely to fall in a value trap than investors who focus on cash flows. Specifically, we believe a focus on FCF can help reduce investment risk and avoid value traps. FCF, defined as operating cash flow minus capital expenditure, is a more comprehensive measure of profitability than earnings as it includes working capital necessary to run the business and capital expenditures needed to maintain and expand operations. FCF is also more difficult to manipulate as it removes the discretionary accounting component of accruals, which can distort earnings.

Companies with strong cash flow can capitalize on market opportunities and can also better ride out economic storms than a firm with weaker cash flow. Companies with large cash flow may also be able to better finance growth and reward shareholders through dividends and share repurchases.

Cash-flow-generating power needs to be assessed in conjunction with debt leverage to adjust the FCF-based valuation multiple to reflect the overall enterprise value. This methodology penalizes over-leveraged companies and rewards those with an attractive combination of large free cash flow, low debt and high cash balances.

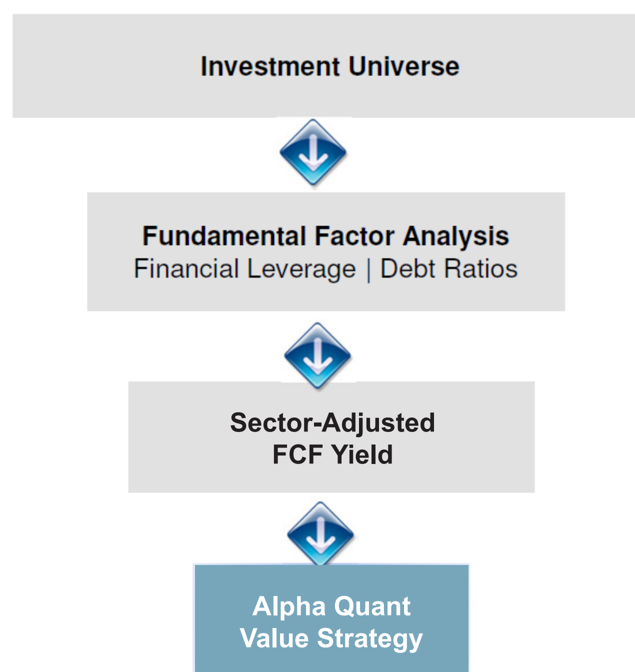
Due to their weak fundamentals and recent earnings disappointments, high uncertainty surrounds the prospects of value stocks. This business uncertainty results in high price volatility. Due to the emotional nature of investing and the potential to overreact to market fluctuations, we believe a structured, disciplined investment process is key to successful value investing.

Chart 3 illustrates the investment-process flow leading to the final portfolio selection. The sequence reflects our fundamental thinking:

1. Select companies with low financial leverage and high liquidity, and

2. Select stocks with attractive, leverage-adjusted FCF yield.

Chart 3: Investment Process Flow



Source: Alpha Quant Advisors

As a result of our process, which combines cash flow with debt-leverage analysis, the Alpha Quant Value Strategy is intended to display a significantly higher FCF yield and lower debt ratios than the market.

Our portfolio-construction methodology is designed to result in a well-diversified portfolio across sectors and industries to reduce portfolio volatility and provide enhanced diversification.

Massimo Santicchia is a co-founder and chief investment officer of Alpha Quant Advisors, LLC. Mr. Santicchia develops and manages equity strategies and funds and oversees all aspects of Alpha Quant's investment process. Previously, he also served as chief investment officer of Cypress Capital Group and Cypress Trust Co. He has more than 18 years of investment experience, including at S&P Investment Advisory Services LLC as developer and portfolio manager of the four JNL/S&P funds. He also co-managed the JNL/S&P Managed and Disciplined funds. Prior positions include: consultant with the investment banking divisions of Goldman Sachs and Credit Suisse First Boston and international equity analyst at Nicholas-Applegate Capital Management. Mr. Santicchia holds a B.A. in Economics and Political Science from the University of Perugia, Italy; an MBA from the U.S. International University, San Diego; and an M.S., Investment Management, from Pace University, New York.

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