



FOCUS: VALUE

Factor Investing

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VOLATILITY



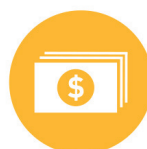
YIELD



QUALITY



MOMENTUM



VALUE



SIZE

FACTOR FOCUS: **VALUE**

IN THE REALM OF INVESTING, A FACTOR IS ANY CHARACTERISTIC THAT HELPS EXPLAIN THE LONG-TERM RISK AND RETURN PERFORMANCE OF AN ASSET. MSCI FACTOR INDEXES ARE DESIGNED TO CAPTURE THE RETURN OF FACTORS WHICH HAVE HISTORICALLY DEMONSTRATED EXCESS MARKET RETURNS OVER THE LONG RUN.

MSCI Factor Indexes are rules-based, transparent indexes targeting stocks with favorable factor characteristics – as backed by robust academic findings and empirical results – and are designed for simple implementation, replicability, and use for both traditional passive and active mandates.

DEFINING VALUE

The foundation of value investing is the notion that cheaply priced stocks outperform pricier stocks in the long term. Value is categorized as a “pro-cyclical” factor, meaning it has tended to benefit during periods of economic expansion (see “Performance and Implementation”).

Value has several dimensions: the stock price as a multiple of company earnings, price as a multiple of dividends paid, price as a multiple of book value, and other such “ratio descriptors.” Academics and investors differ on which best represents a value company, creating opportunity in the marketplace for a variety of investment products.

The MSCI Enhanced Value Index applies three valuation ratio descriptors on a sector relative basis:

- Forward price to earnings (Fwd P/E);
- Enterprise value/operating cash flows (EV/CF0); and
- Price to book value (P/B).¹

The index aims to address the pitfalls of value investing, among them “value traps” – stocks that appear cheap but which in fact do not appreciate. Our analysis shows that using forward earnings has helped provide protection against value traps, and that whole-firm valuation measures, such as enterprise value, have reduced concentration in highly leveraged companies, meaning those that have borrowed heavily.

AT THE CORE OF VALUE INVESTING IS THE BELIEF THAT “CHEAPLY” VALUED ASSETS TEND TO OUTPERFORM “RICHLY” VALUED ASSETS OVER A LONG HORIZON.

WHY INSTITUTIONAL INVESTORS HAVE USED VALUE STRATEGIES

Many investors use this approach in identifying assets that they expect the market to revalue.

The concept of value was first popularized in the 1930s by economists Benjamin Graham and David Dodd, who advocated owning companies that provide a “margin of safety” – meaning the current stock price is less than it is expected to be under conservative projections of the firm’s future earnings.²

In the chart below, the top panel shows the returns of deciled groupings that demonstrate increase in factor exposures of

the three ratio descriptors. On average, higher-value stocks outperformed lower-value stocks, as measured by any individual ratio descriptor, over the 17 years through 2014. The cumulative return of the top minus the bottom decile isolates the effect of each ratio descriptor and approximates a pure-factor return.

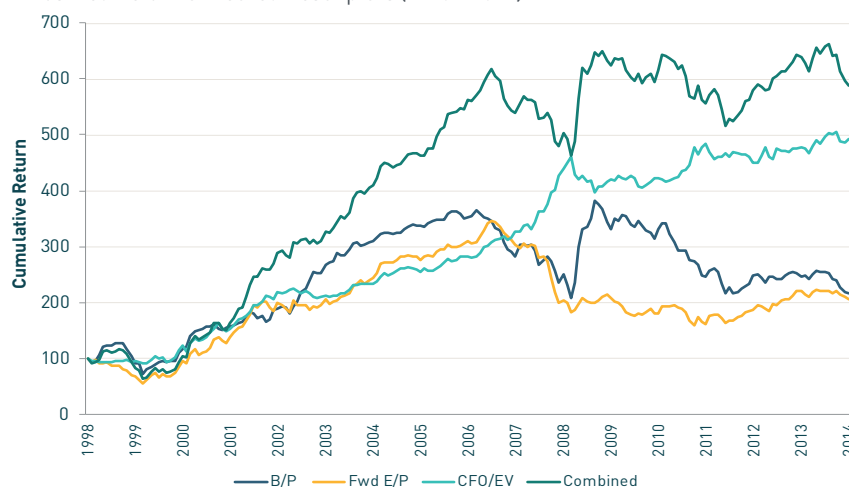
The bottom panel illustrates the value of combining the three ratio descriptors. Because they had low correlation – meaning they moved largely independent of each other over the business cycle – the performance of the combined ratio descriptors was superior to any standalone ratio descriptor.

THE IMPACT OF VALUE RATIO DESCRIPTORS, AND THE REASON FOR COMBINING THEM

Annualized Return of Deciled Descriptors (1998 - 2014)



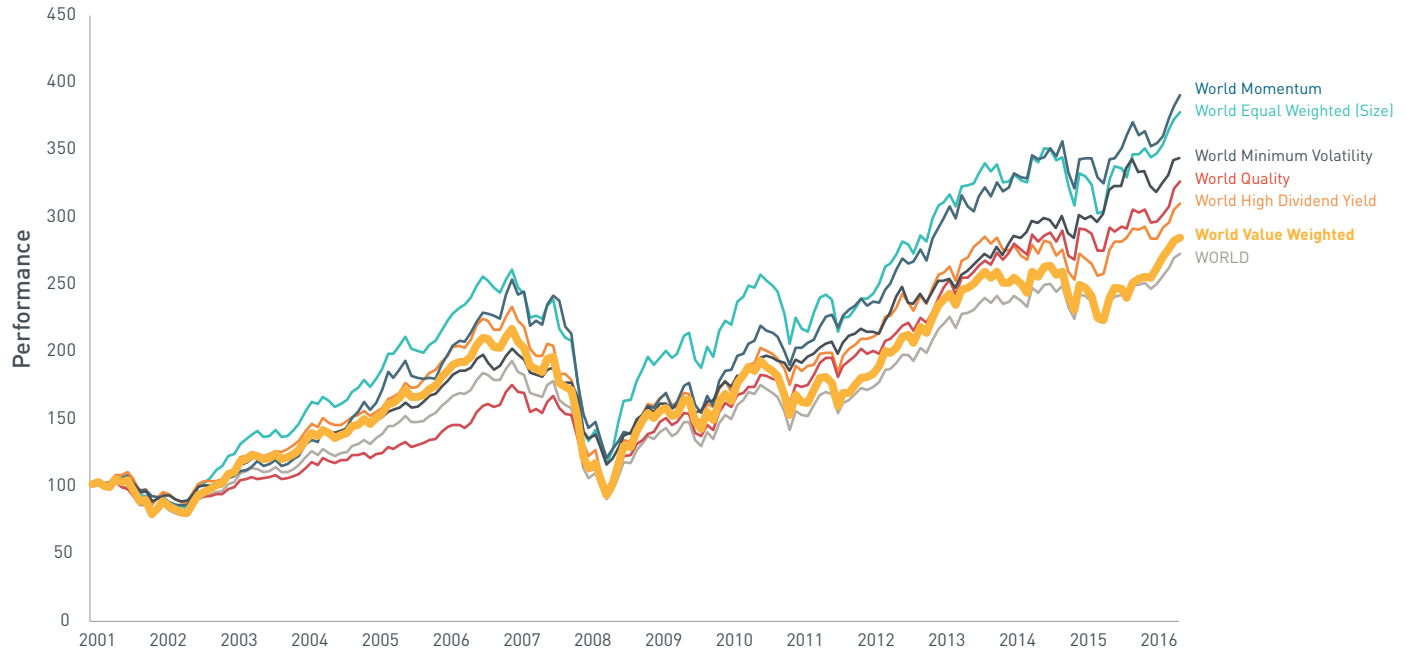
Annualized Return of Deciled Descriptors (1998 - 2014)



PERFORMANCE & IMPLEMENTATION

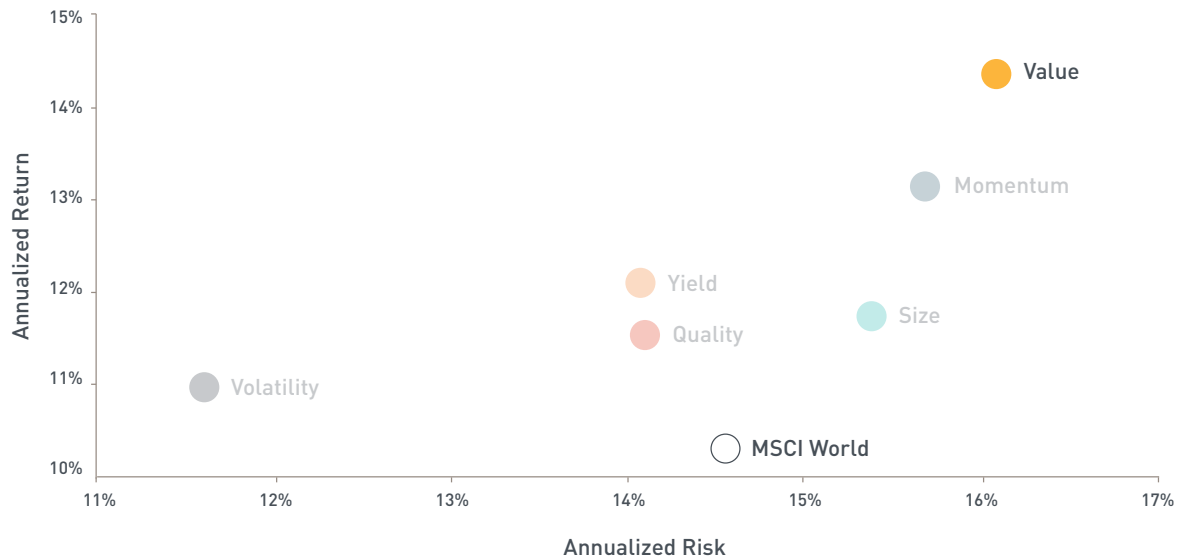
Over time, individual factors have delivered outperformance relative to the market.

MSCI WORLD FACTOR INDEXES

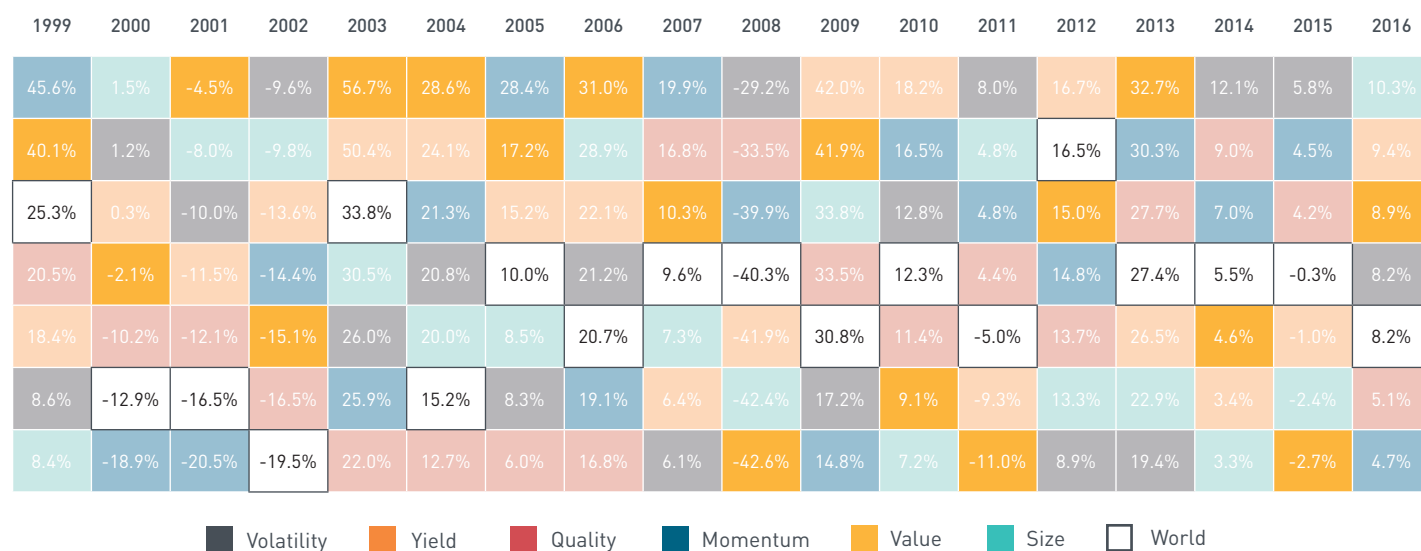


From a longer-term perspective, the MSCI World Value Weighted Index generated an annualized return of over 14% during the 40-year period represented in the chart below.

LONG-TERM PERFORMANCE: JANUARY 1976 TO DECEMBER 2016



Although factor strategies have exhibited long-term outperformance, in the short-term factor performance has been cyclical and has generated periods of underperformance.

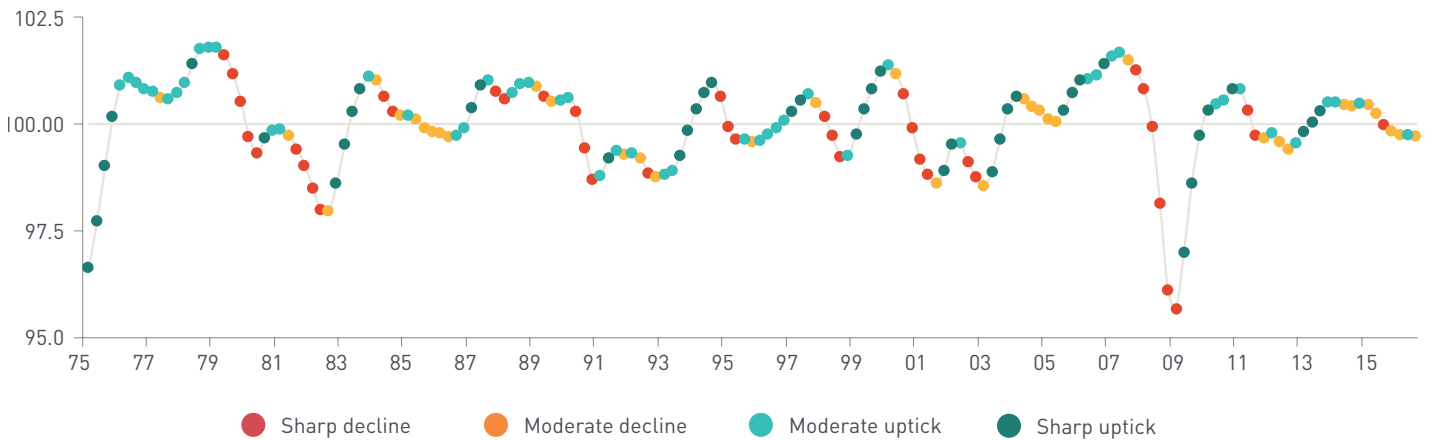
HOW THE SIX FACTORS HAVE PERFORMED RELATIVE TO EACH OTHER: **VALUE**

The analysis and observations in this report are limited solely to the period of the relevant historical data, backtest or simulation. Past performance — whether actual, back tested or simulated — is no indication or guarantee of future performance. None of the information or analysis herein is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision or asset allocation and should not be relied on as such.

The time periods covered in the charts in this paper were dictated by the data available when we conducted the simulations which produced them.

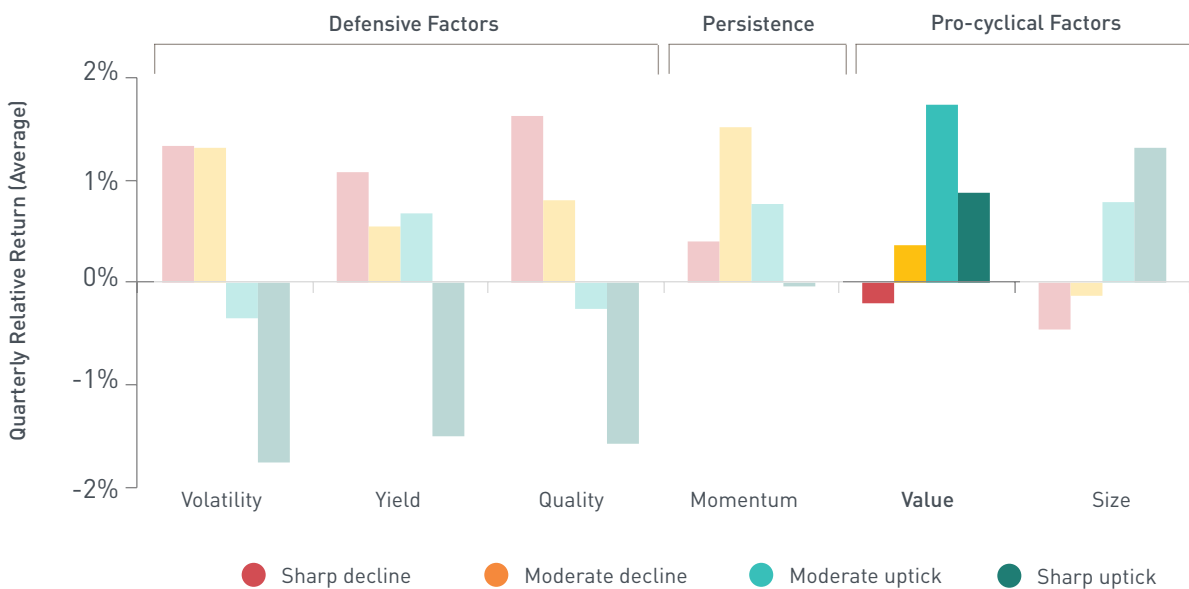
There are frequently material differences between backtested or simulated performance results and actual results subsequently achieved by any investment strategy

MACRO EFFECTS ON FACTOR PERFORMANCE



In general, factor performance has been cyclical in nature. Individual factors have been shown to outperform during different macroeconomic environments. As the charts on this page illustrate, the value factor falls into the “pro-cyclical” category, meaning that this type of strategy historically outperformed during rising market conditions over the study period.

The Composite Leading Indicator used here, designed to provide early-warning signals on business-cycle turning points, is an aggregate time series displaying a reasonably consistent leading relationship with the reference series for the macroeconomic cycle.



Data from November 28, 1975 to September 30, 2016.



VALUE

CONCLUSION

Value investing is premised on identifying stocks whose prices seem to understate their intrinsic value. While many institutional investors may agree with that premise, implementation of value-index strategies differs widely. MSCI Enhanced Value Indexes are based on research that has found that combining value ratio descriptors has captured the value factor better than using any individual ratio descriptor alone.

FOOTNOTES & REFERENCES

1. Exceptions are Financials: Forward P/E and P/B, Real Estate: EV/CFO

2. Graham, B., D. Dodd, S. Cottle, R. Murray and F. Block. (1989). *Graham and Dodd's Security Analysis*, McGraw-Hill.

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