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Equity Research

Default Risk Contagion: Modern Malady for Equities

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See Appendix A-1 for analyst certification, important disclosures, and the status of non-U.S. analysts.

Everything is increasingly connected

Overview – Performance of Oil, Long B/P, and Short Momentum

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Note: Shows the performance of Oil (CL1 COMB Comdty), Long B/P (NMAABPL Index), and Short Momentum Basket (NMAAPMS Index). Period of analysis is from Nov. 2, 2015 to May 9, 2016.

Source: Nomura research, Bloomberg

Overview – Performance of Oil, Long B/P, Short Momentum, and Long Default Risk

Note: Shows the performance of Oil (CL1 COMB Comdty), Long B/P (NMAABPL Index), Short Momentum Basket (NMAAPMS Index), and Long Default Risk (NMAARSKL Index). Period of analysis is from Nov. 2, 2015 to May 9, 2016.

Source: Nomura research, Bloomberg

Risk On & Off – Driving Factor Behavior

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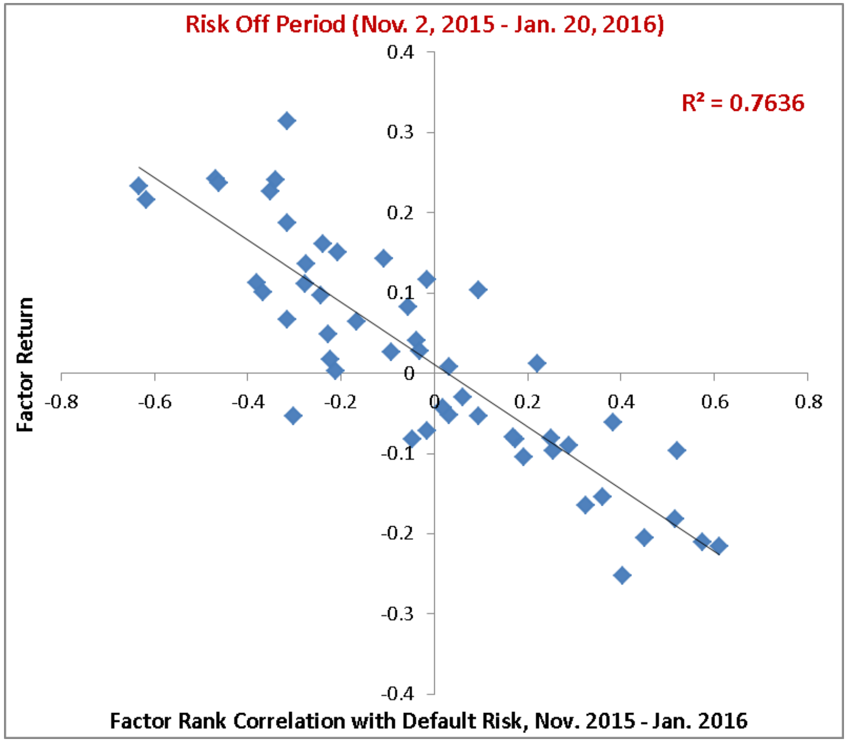
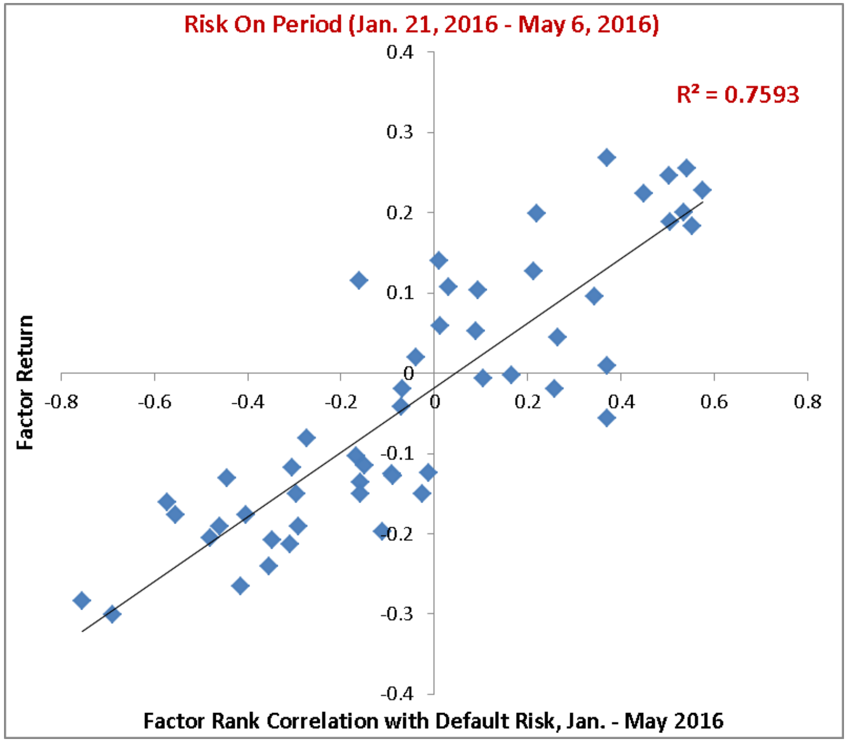




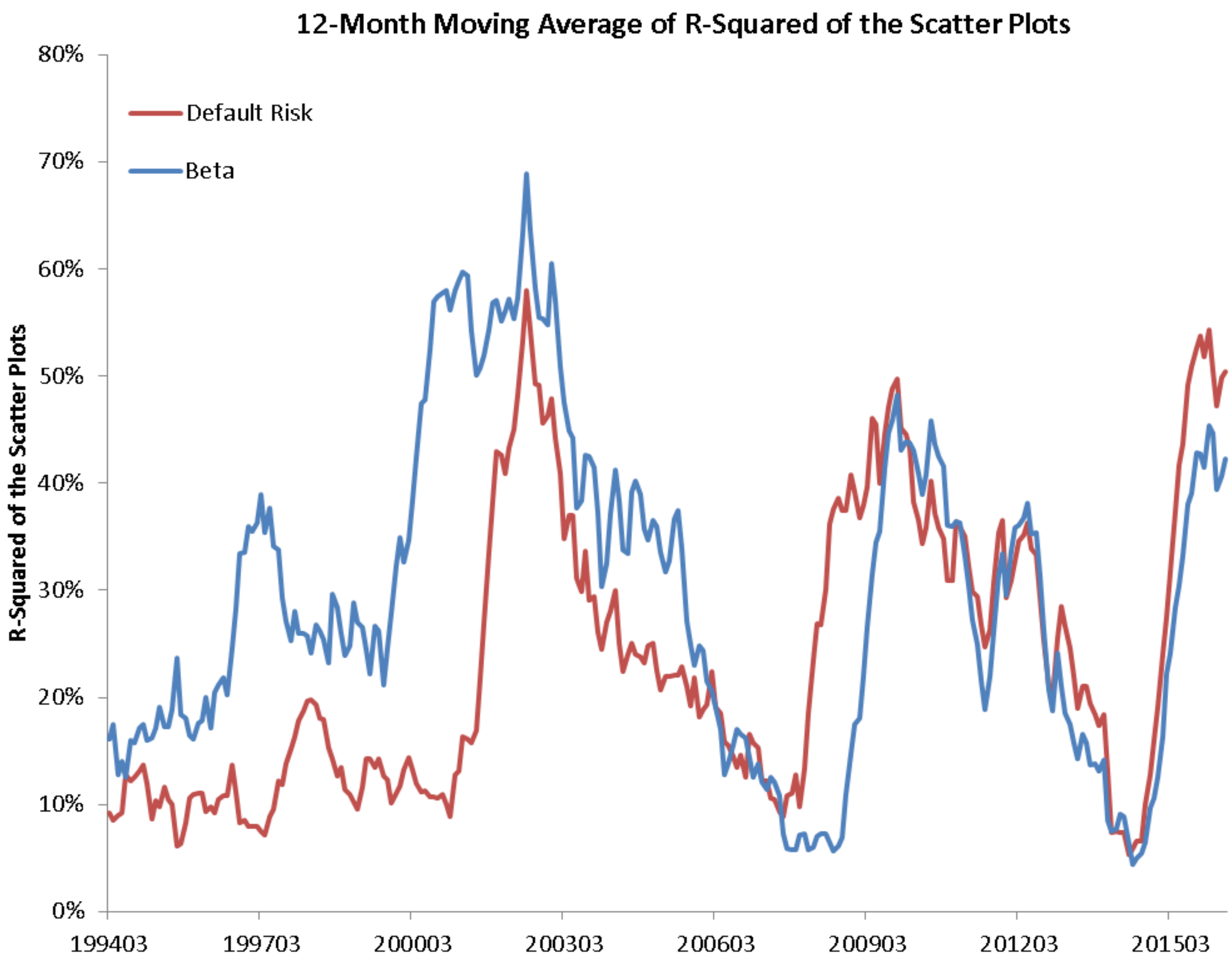
Note: Shows the rank correlation of each of 51 factors vs. default risk (horizontal axis) vs. the cumulative factor returns (vertical axis). Universe for factor construction is the Russell 1000. Factor baskets are rebalanced monthly. Period of analysis is from Nov. 2, 2015, through Jan. 20, 2016. Transaction costs are not considered.

Source: Nomura research, Russell, Compustat, I/B/E/S

Note: Shows the rank correlation of each of 51 factors vs. default risk (horizontal axis) vs. the cumulative factor returns (vertical axis). Universe for factor construction is the Russell 1000. Factor baskets are rebalanced monthly. Period of analysis is from Jan. 21, 2016 through May 6, 2016. Transaction costs are not considered.

Source: Nomura research, Russell, Compustat, I/B/E/S

Unintended Bets – Default (Credit) Risk Has Entered the Room



Note: Shows the 12-month moving average of R-squared of the regression of 51 factors' monthly return against their score rank correlation with the default risk (red line) and beta(blue line). Period of analysis is March 1994 through April 2016. Universe is Russell 1000.

Source: Nomura research, Compustat, I/B/E/S, Russell

Default Risk Infection – Not in Remission

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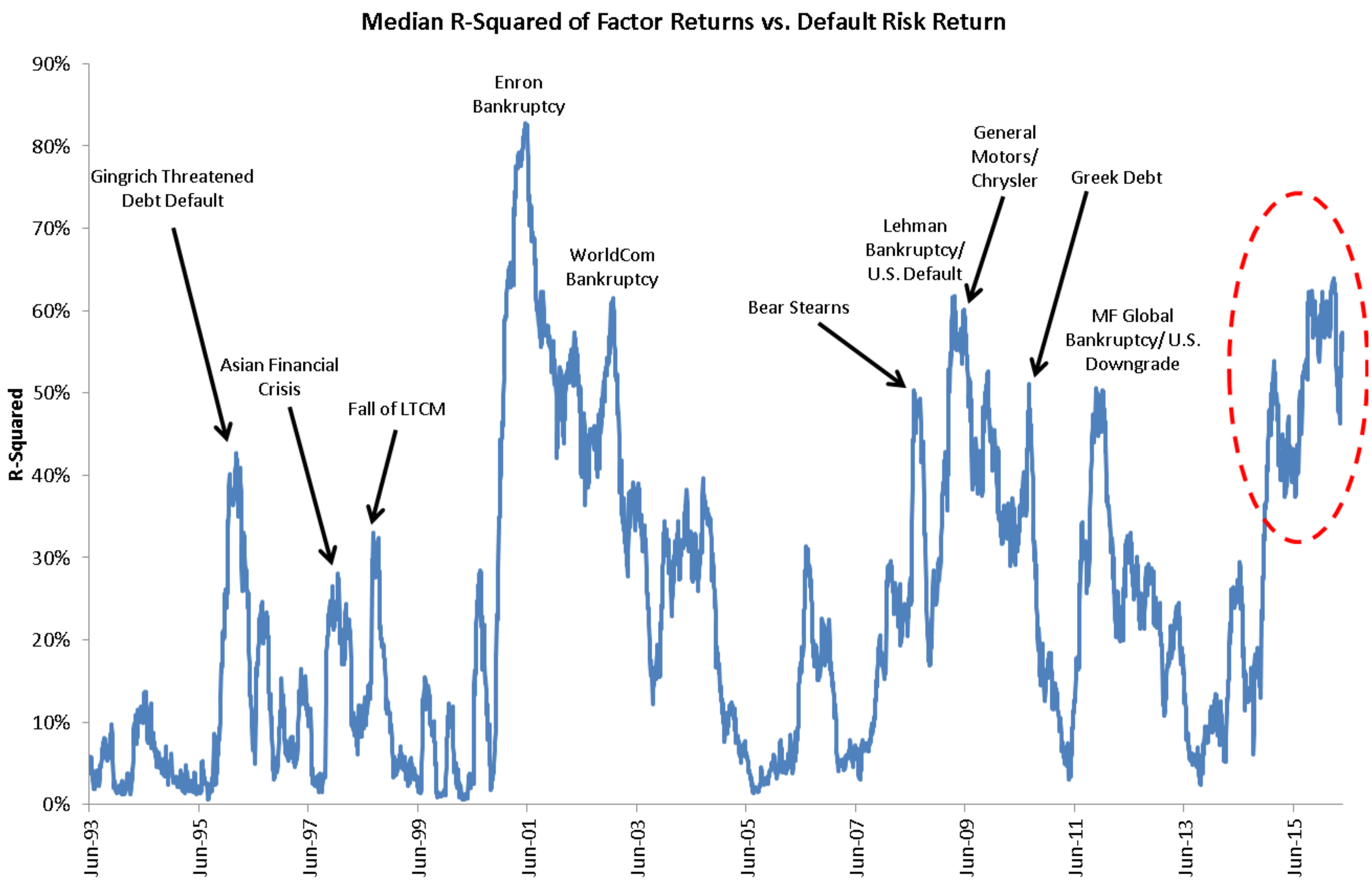

Note: Shows the median R-squared of regressions of factor returns against returns to default risk. Daily return for each factor is regressed against the daily return of the default risk factor, using a 63-day window. Long and short factor baskets are rebalanced monthly. Universe is the Russell 1000. Period of analysis is from June 30, 1993, through May 27, 2016. Transaction costs are not considered.

Source: Nomura Research, Russell, Compustat, I/B/E/S

Equity Implied Volatility and Corporate Spreads Have Moved in Tandem for Past 15 Years

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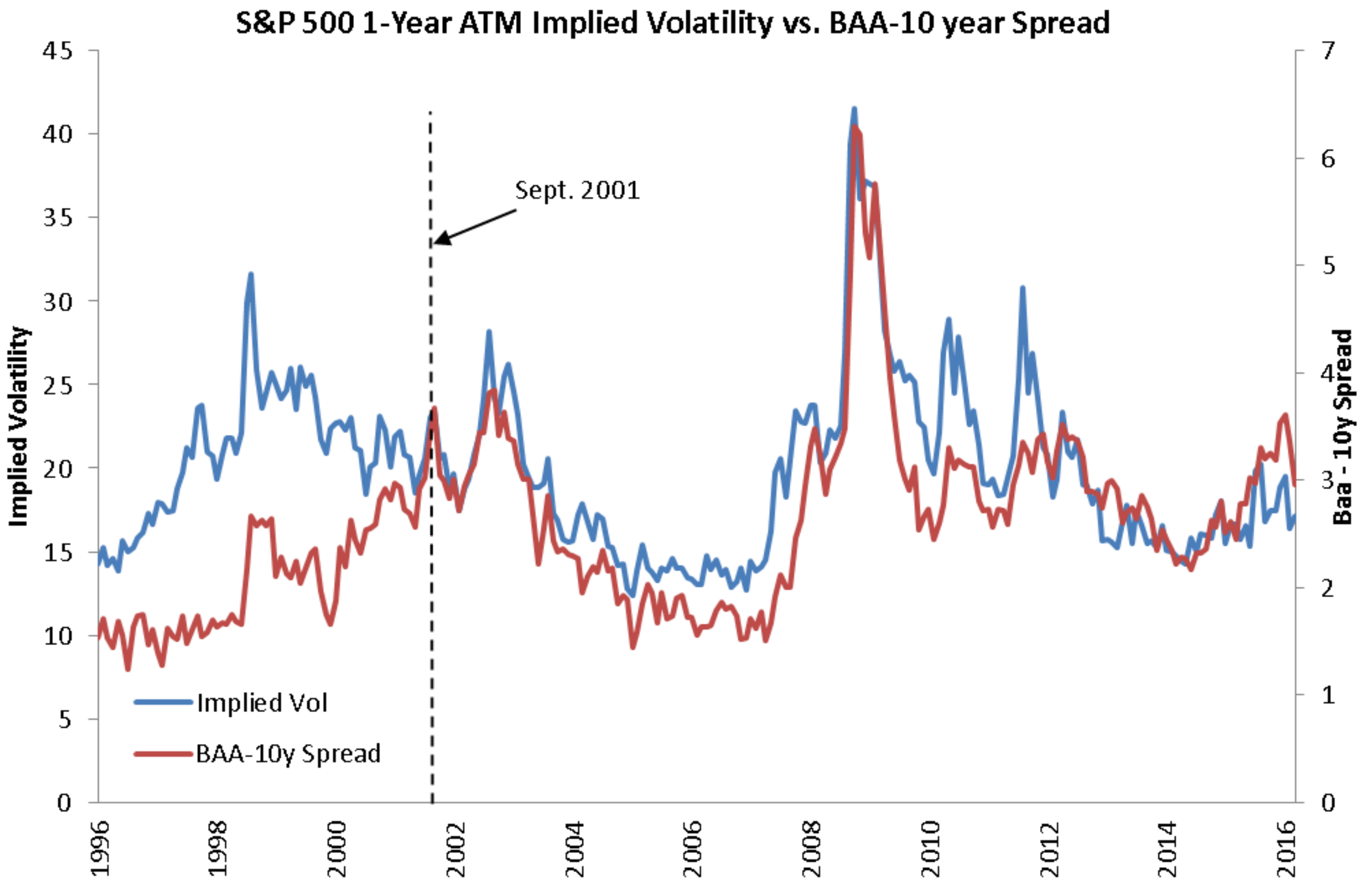
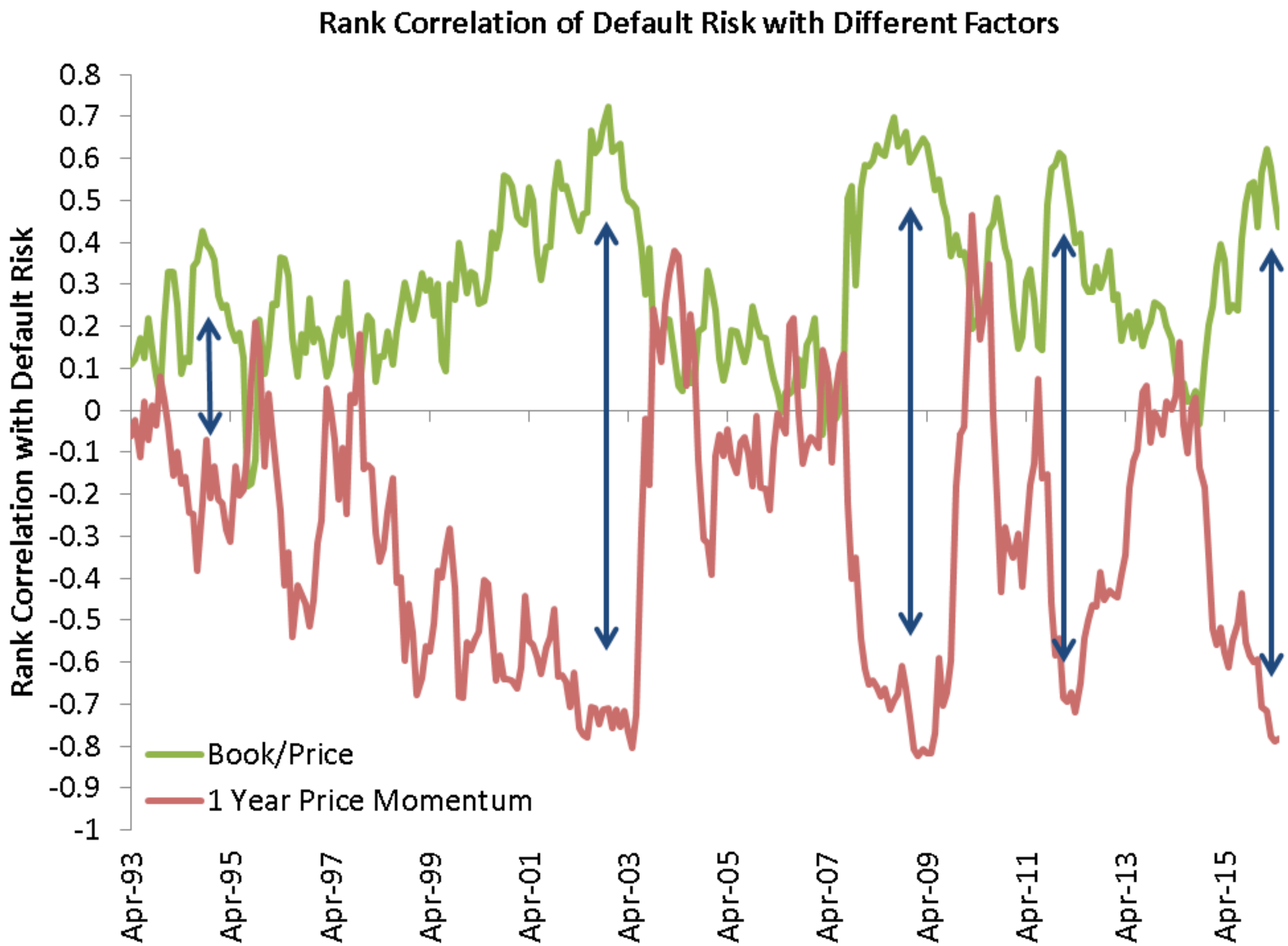


Note: Shows the implied volatility of at-the-money S&P index options with one year to expiration (blue line, left axis) and the spread between the Moody's Seasoned BAA corporate bond yield and the 10-yeaer U.S. Treasury bond yield (red line, right axis). Period of analysis is from January 1996 through April 2016.

Source: Nomura research, Russell, Compustat

Is This a Picture of Diversification?



Note: Shows cross-sectional rank correlation between B/P and default risk (green line) and cross-sectional rank correlation between 1-year price momentum and default risk (red line). Universe is Russell 1000. Period of analysis is from April 1993 through May 2016.

Source: Nomura Research, Russell, S&P, I/B/E/S, Compustat, IDC

Which Risk Measure Is More Relevant?

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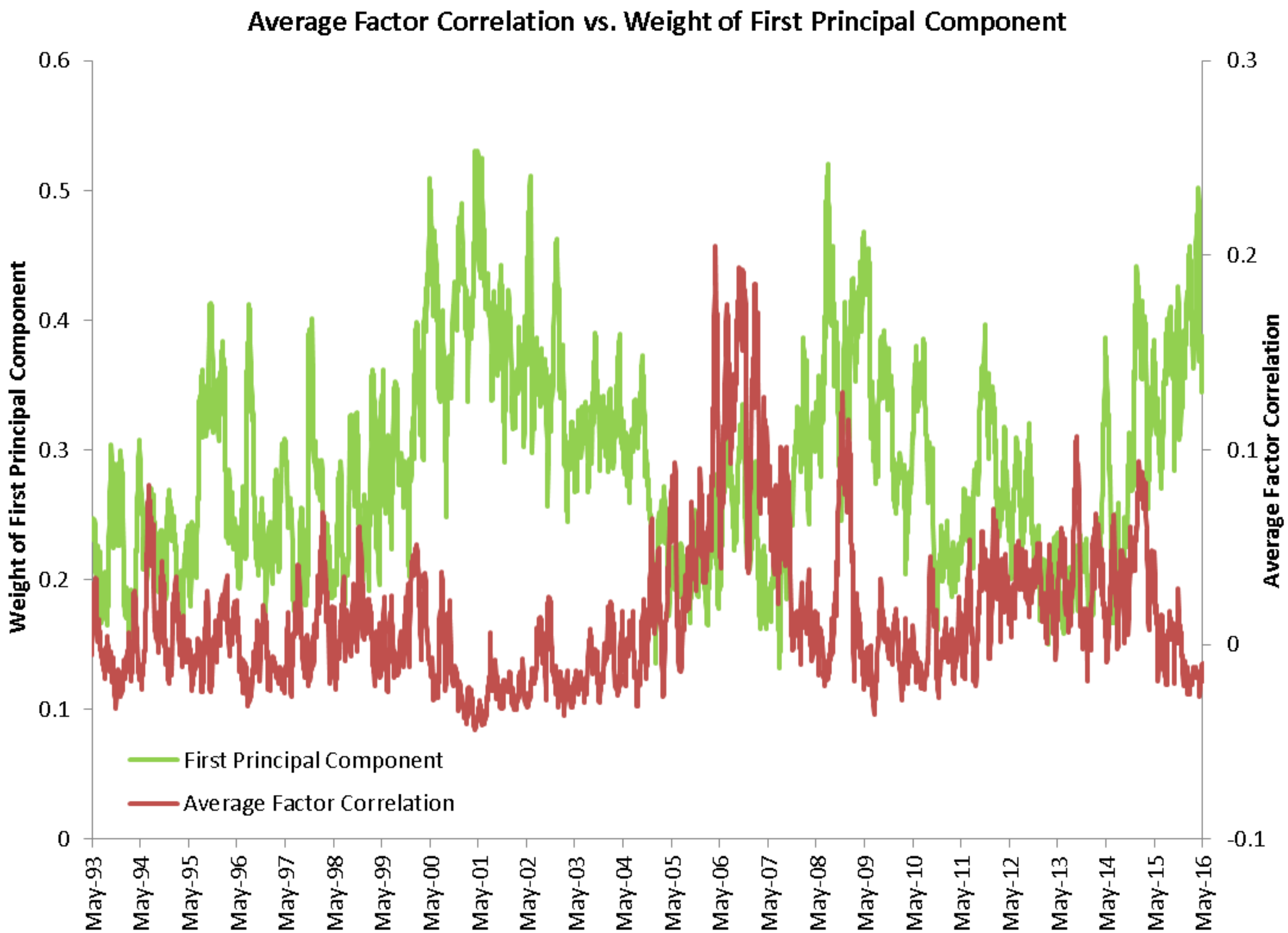

Note: Shows weight of first principal component based on 21-day PCA using 22 representative factor returns (green line) together with average 21-day pair-wise factor correlation based on 22 representative factor returns in Russell 1000 universe (red line). Period of analysis is from May 1993 through May 2016.

Source: Nomura Research, S&P, Russell, I/B/E/S, Compustat

Which Correlation Is More Relevant for Performance?

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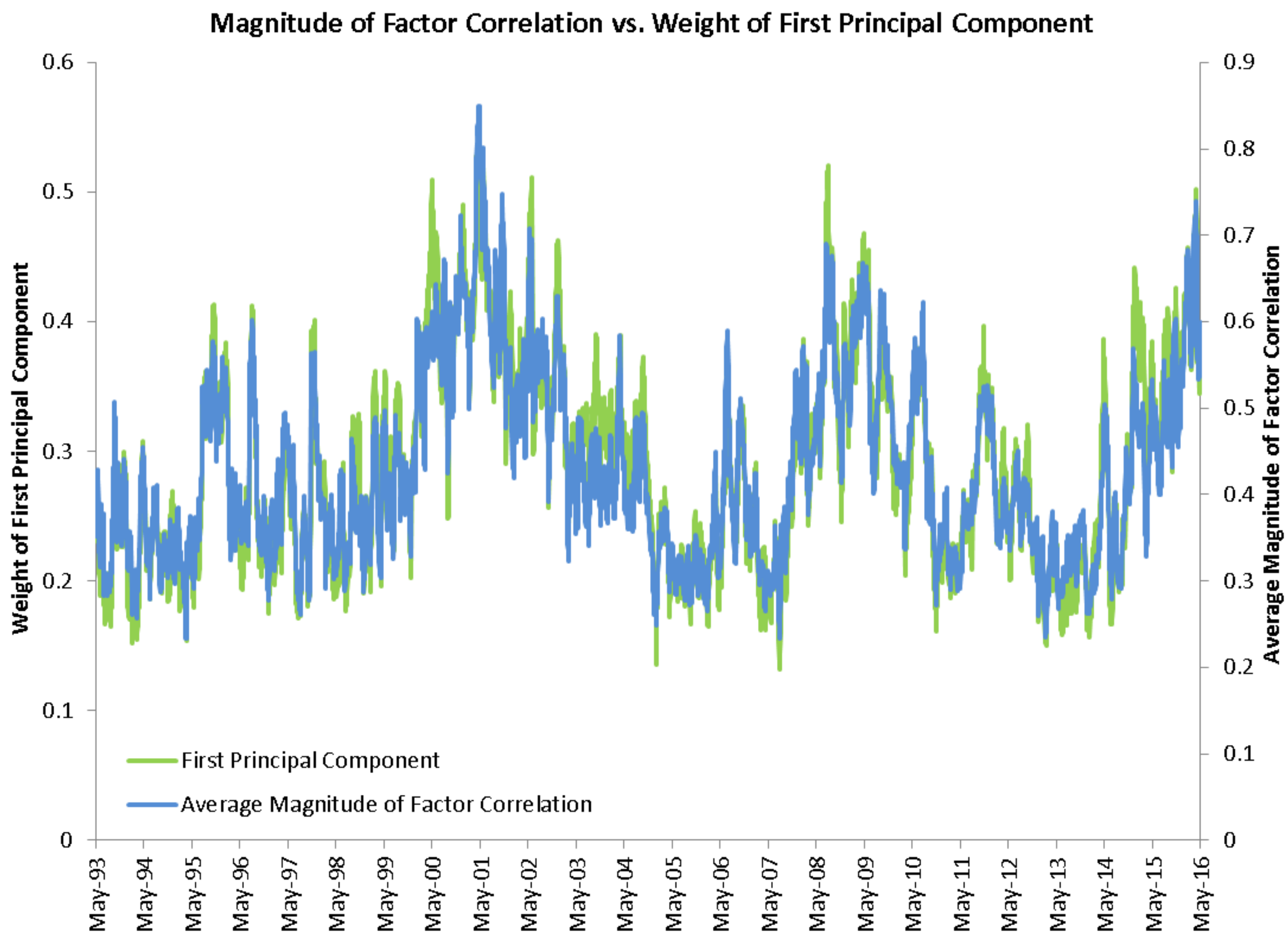

Note: Shows weight of first principal component based on 21-day PCA using 22 representative factor returns (green line) together with average magnitude of 21-day pair-wise factor correlation based on 22 representative factor returns in Russell 1000 universe (blue line). Period of analysis is from May 1993 through May 2016.

Source: Nomura Research, S&P, Russell, I/B/E/S, Compustat

Factor Rank Correlations with Default Risk

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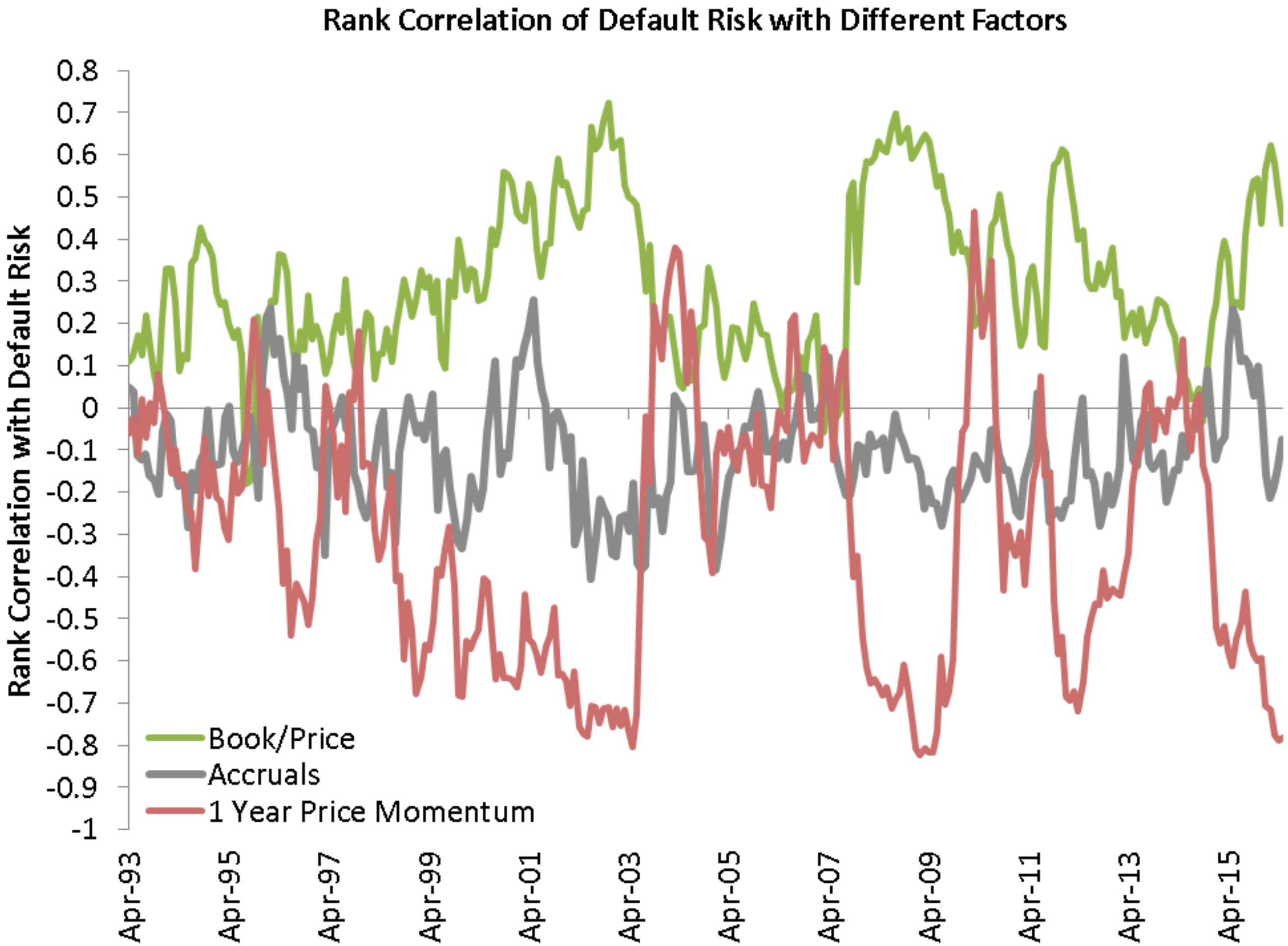

Note: Shows cross-sectional rank correlation between B/P and default risk (green line), accruals and default risk (grey line) and 1-year price momentum and default risk (red line). Universe is Russell 1000. Period of analysis is from April 1993 through May 2016.

Source: Nomura Research, Russell, S&P, Compustat

Transformation of the Value Premium

An example of default risk contagion

Value Premium in the US Since 1926

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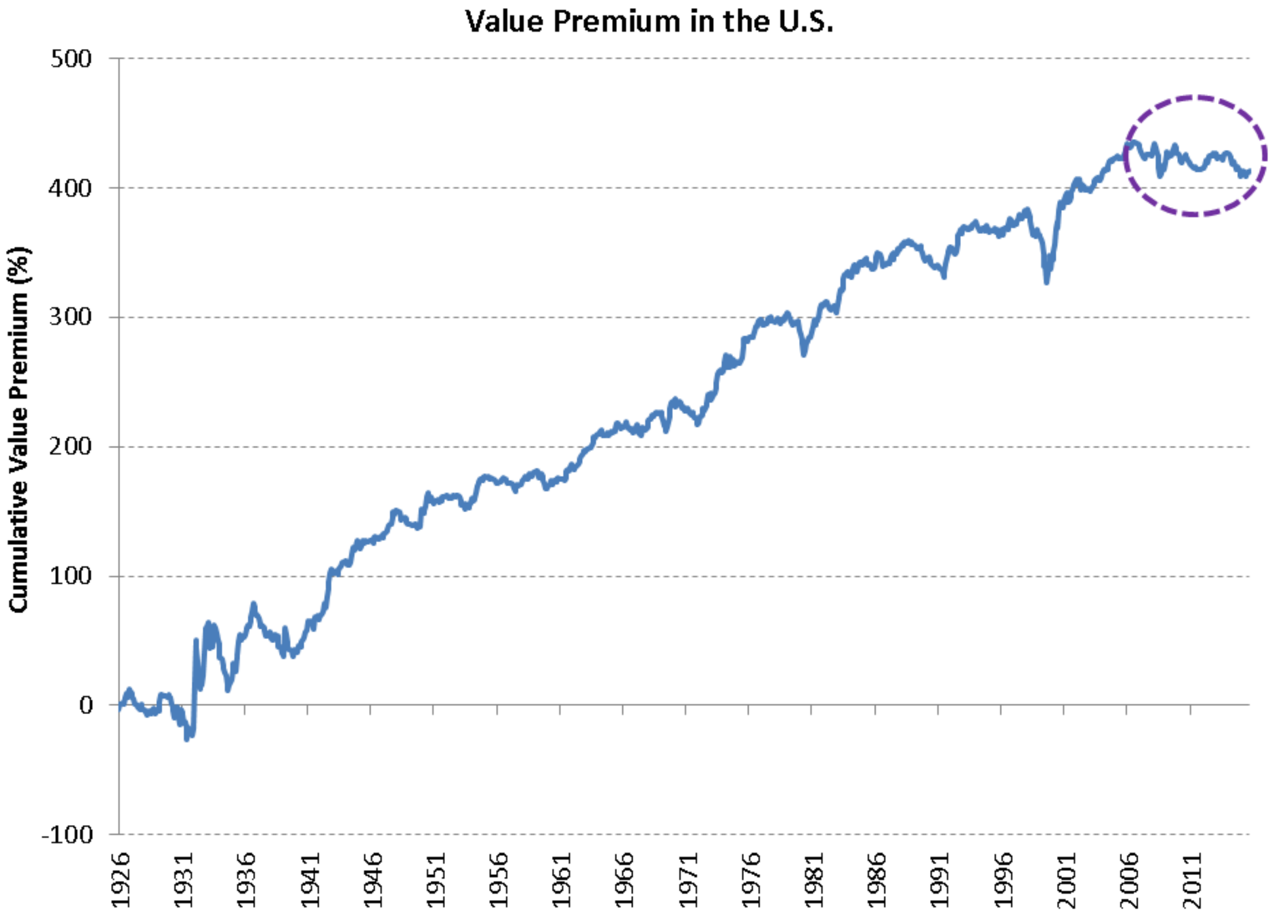

Note: Shows cumulative value premium (HML) in the U.S. from July 1926 through March 2016, based on Ken French's database. The portfolios for HML are constructed yearly using B/P (30th and 70th percentiles) and market cap (median). The value premium is defined as HML = 1/2 (Small Value + Big Value) – 1/2 (Small Growth + Big Growth). Universe is all NYSE, AMEX and NASDAQ stocks. Transaction costs are not considered.

Source: Ken French's database, Nomura research.

Spread in Value Factor Dispersion – out of Sync for Over a Decade

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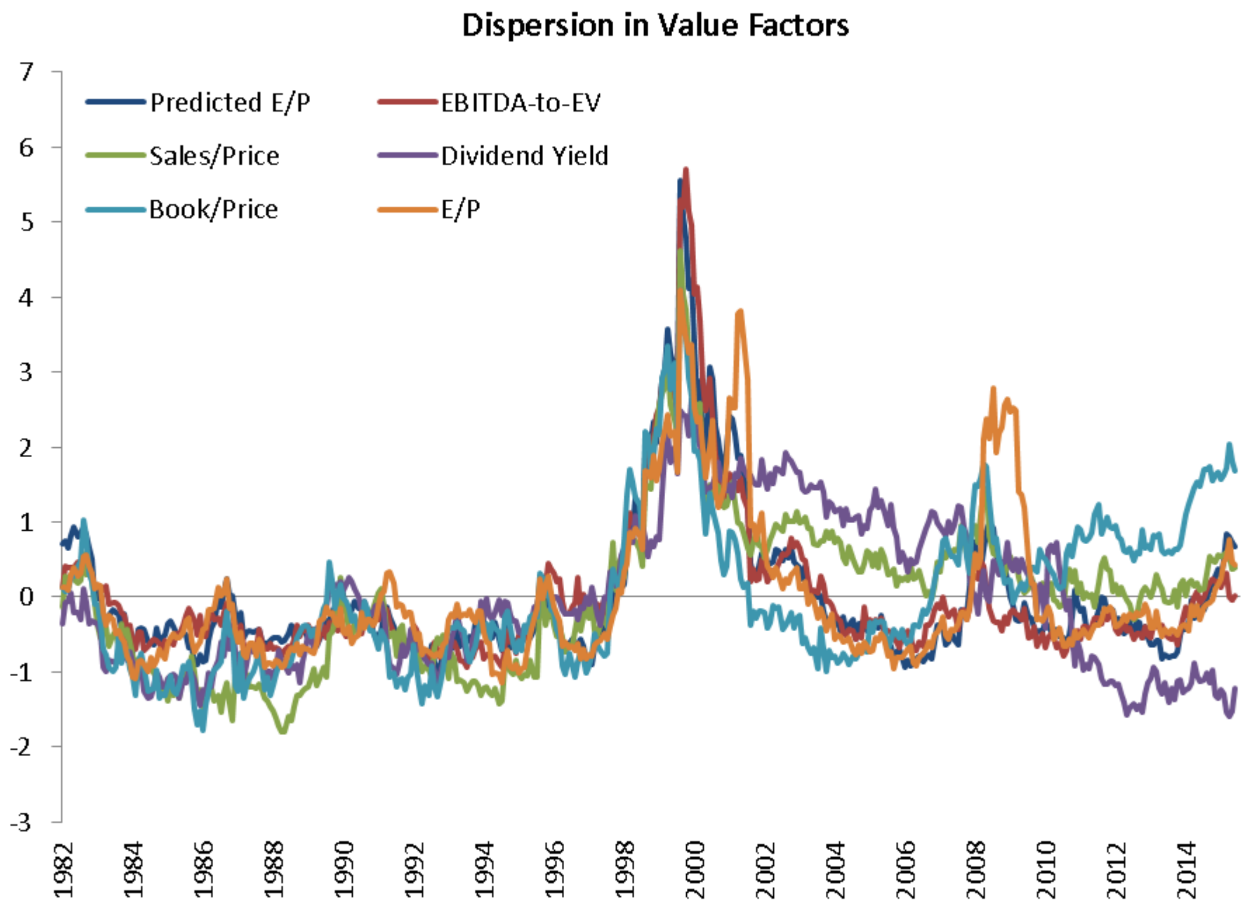

Note: Shows de-trended and normalized dispersion of value factors (predicted E/P, E/P, B/P, dividend yield, Sales/Price, and EBITDA/EV) across the Russell 1000 stocks. The dispersion of value factors is calculated by Median Absolute Deviation (MAD) / Median. Period of analysis is from January 1982 through April 2016.

Source: Nomura Research, Russell, Compustat, I/B/E/S

Book/Price and Trailing Earnings/Price Have Diverged . . .

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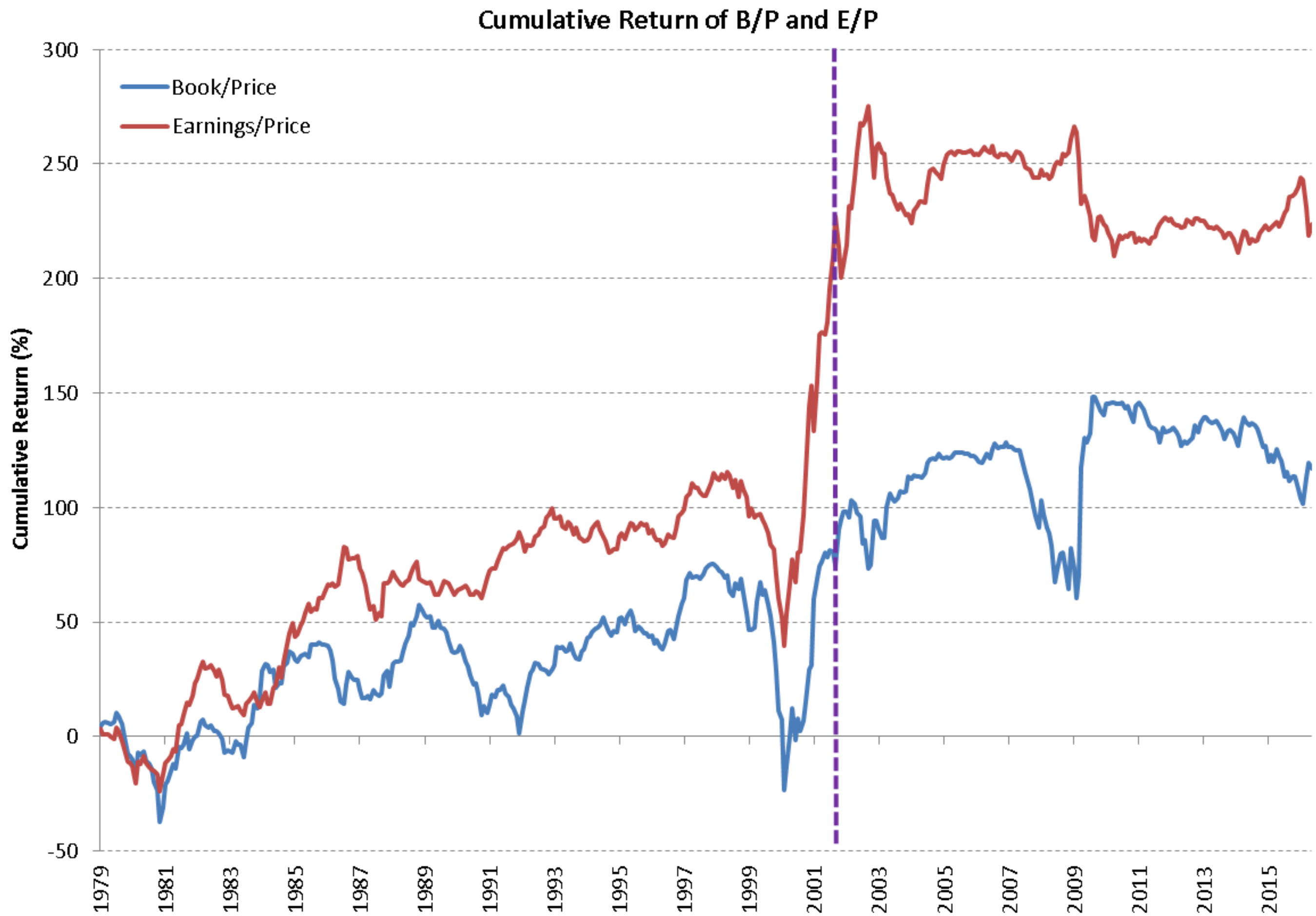

Note: Shows the cumulative long-short factor returns to book-to-price (blue line) and trailing earnings-to-price (red line). Long and short baskets are rebalanced monthly. Universe is the Russell 1000. Period of analysis is from January 1979 through May 11, 2016. Transaction costs are not considered.

Source: Russell, Compustat, Nomura research.

Default Risk Has Played a Significant Role

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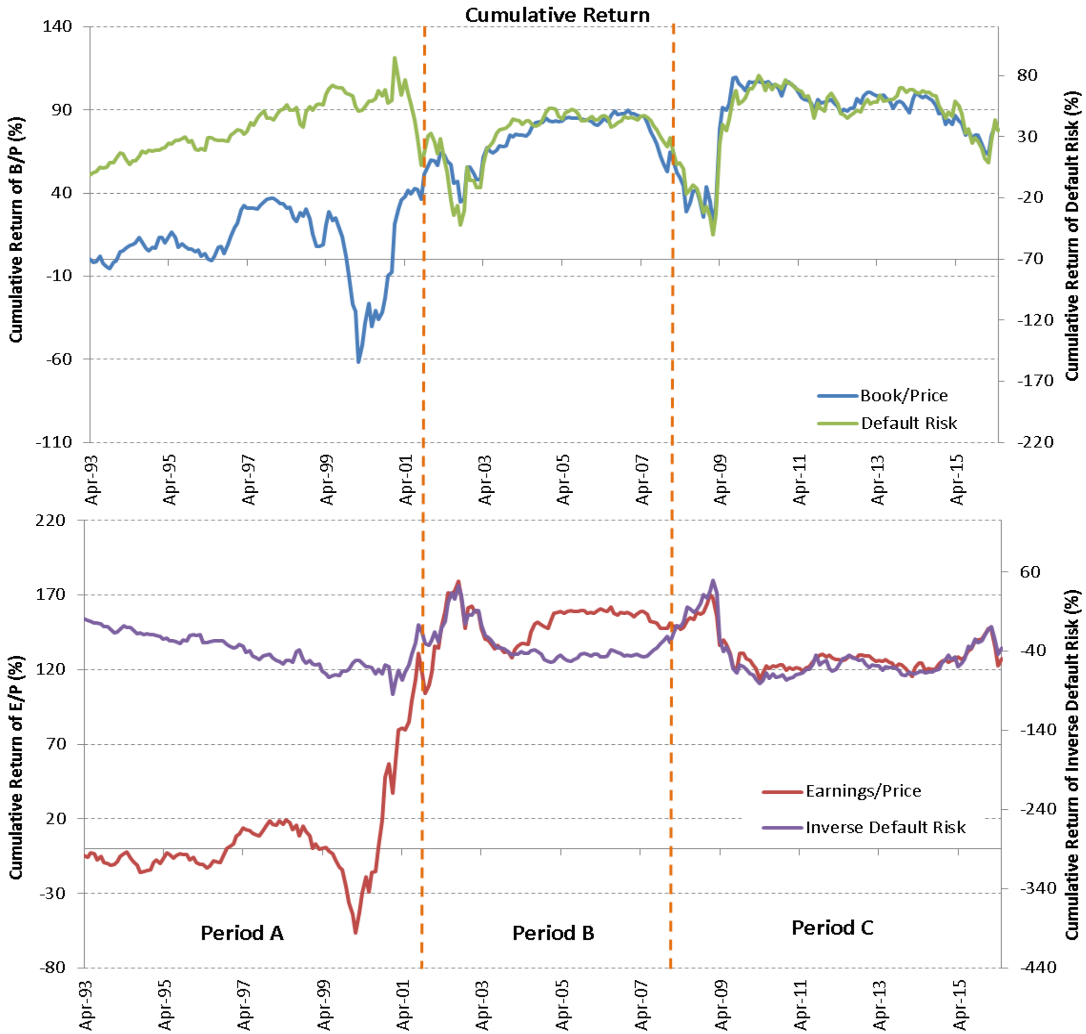

Note: Shows the cumulative long-short factor returns to book-to-price (blue line) and default risk (green line) in the top plot, and the cumulative long-short factor returns to trailing earnings-to-price (red line) and inverse default risk (purple line). Long and short baskets are rebalanced monthly. Universe is the Russell 1000. Period of analysis is from April 1993 through March 22, 2016, sub-divided into Period A (April 1993 through September 2001), Period B (October 2001 through November 2007) and Period C (December 2007 through May 11, 2016). Transaction costs are not considered.

Source: Russell, Compustat, Nomura research.

Stocks Expensive on Book Are More Profitable, but Stocks Cheap on Earnings Are More Profitable

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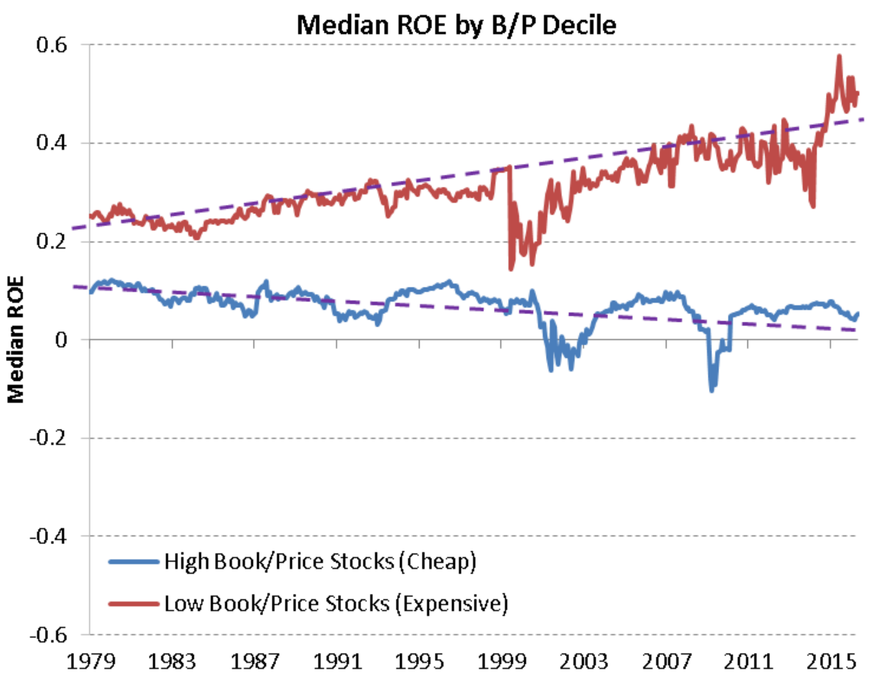
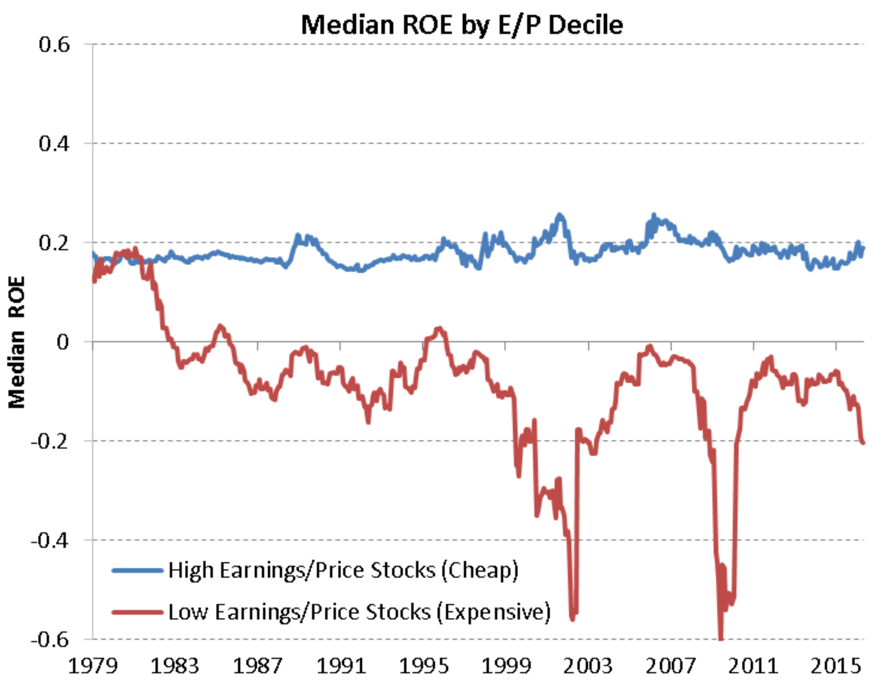


Note: Shows the median ROE for the cheapest (blue line) and most expensive (red line) deciles based on book-to-price. Long and short baskets are rebalanced monthly. Universe is the Russell 1000. Period of analysis is from January 1979 through May 2016.

Source: Russell, Compustat, Nomura research.



Note: Shows the median ROE for the cheapest (blue line) and most expensive (red line) deciles based on trailing earnings-to-price. Long and short baskets are rebalanced monthly. Universe is the Russell 1000. Period of analysis is from January 1979 through May 2016.

Source: Russell, Compustat, Nomura research.

Returns to Default Risk and ROE Have Moved in Opposite Directions for Past 15 Years

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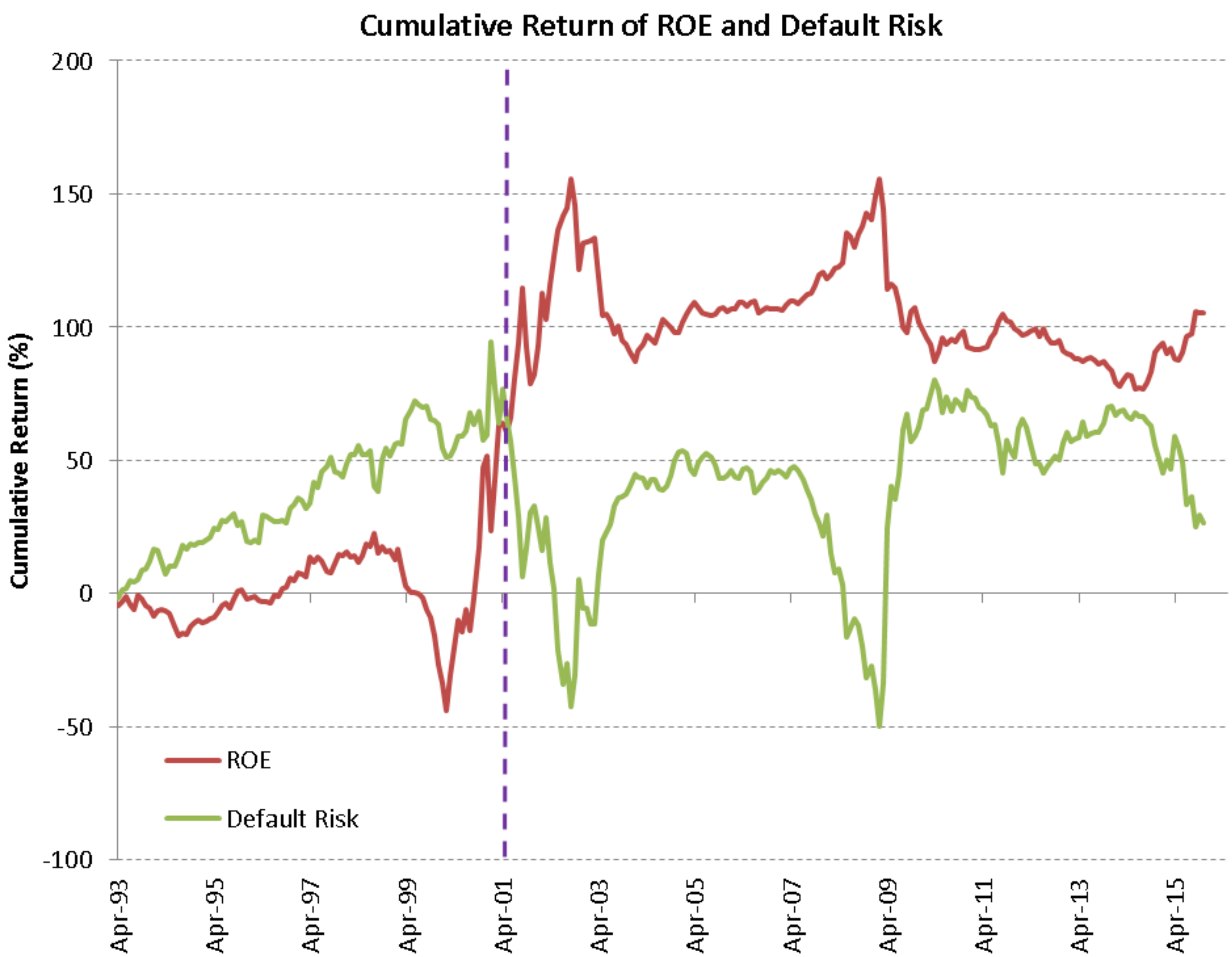

Note: Shows the cumulative long-short factor returns to default risk and ROE. Long and short baskets are rebalanced monthly. Universe is the Russell 1000. Period of analysis is from April 1993 through May 11, 2016. Transaction costs are not considered.

Source: Russell, Compustat, Nomura research.

Default Risk Has Disrupted Value Factors Producing Odd Behavior and Potential Opportunities

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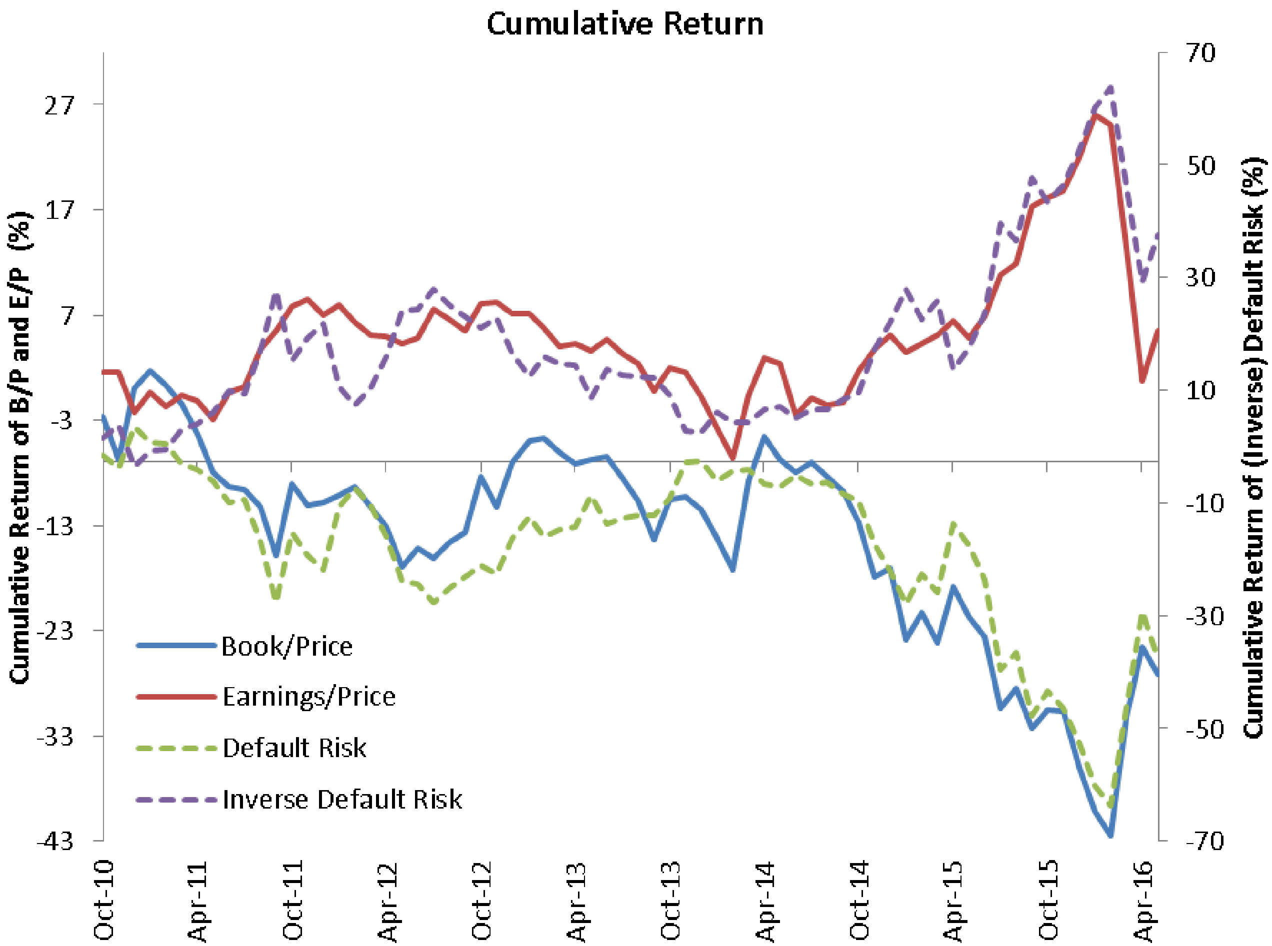

Note: Shows the cumulative long-short factor returns to book-to-price (solid blue line), trailing earnings-to-price (solid red line), default risk (dashed green line) and inverse of default risk (dashed purple line). Long and short baskets are rebalanced monthly. Universe is the Russell 1000. Period of analysis is from October 2010 through May 11, 2016. Transaction costs are not considered.

Source: Russell, Compustat, Nomura research.

Everything Is Increasingly Connected

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Company default risk emerged 15 years ago

like a latent chronic disease for equities that occasionally comes out of remission.

Everything Is Increasingly Connected

Company default risk emerged 15 years ago

like a latent chronic disease for equities that occasionally comes out of remission.

This alters factor behavior

and has transformed style investing.

Appendix A-1

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Appendix A-1 (cont'd)

STOCKS

A rating of **'Buy'**, indicates that the analyst expects the stock to outperform the Benchmark over the next 12 months. A rating of **'Neutral'**, indicates that the analyst expects the stock to perform in line with the Benchmark over the next 12 months. A rating of **'Reduce'**, indicates that the analyst expects the stock to underperform the Benchmark over the next 12 months. A rating of **'Suspended'**, indicates that the rating, target price and estimates have been suspended temporarily to comply with applicable regulations and/or firm policies. Securities and/or companies that are labelled as **'Not rated'** or shown as **'No rating'** are not in regular research coverage. Investors should not expect continuing or additional information from Nomura relating to such securities and/or companies. Benchmarks are as follows: **United States/Europe/Asia ex-Japan**: please see valuation methodologies for explanations of relevant benchmarks for stocks, which can be accessed at: http://go.nomuranow.com/research/globalresearchportal/pages/disclosures/disclosures.aspx; **Global Emerging Markets (ex-Asia)**: MSCI Emerging Markets ex-Asia, unless otherwise stated in the valuation methodology; **Japan:** Russell/Nomura Large Cap.

SECTORS

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Explanation of Nomura's equity research rating system in Japan and Asia ex-Japan prior to 21 October 2013

STOCKS

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