

# Avoiding Unintended Bets in Value Portfolios

Lisa Goldberg, PhD  
Director of Research

Aperio Group  
Three Harbor Drive, Suite 315  
Sausalito, CA 94965  
415.339.4300  
[www.aperiogroup.com](http://www.aperiogroup.com)

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# Tilting on Value

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- Value investing is the orderly pursuit of underpriced securities
- The value premium is the return difference between a value investment and its benchmark
  - It can be positive or negative
  - It varies across implementations
- We compare two value investments over the decade-long study period, March 31, 2006–March 31, 2016: one underperformed the benchmark and the other outperformed

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# Case Study: Russell 1000 Value, a Specialized Index

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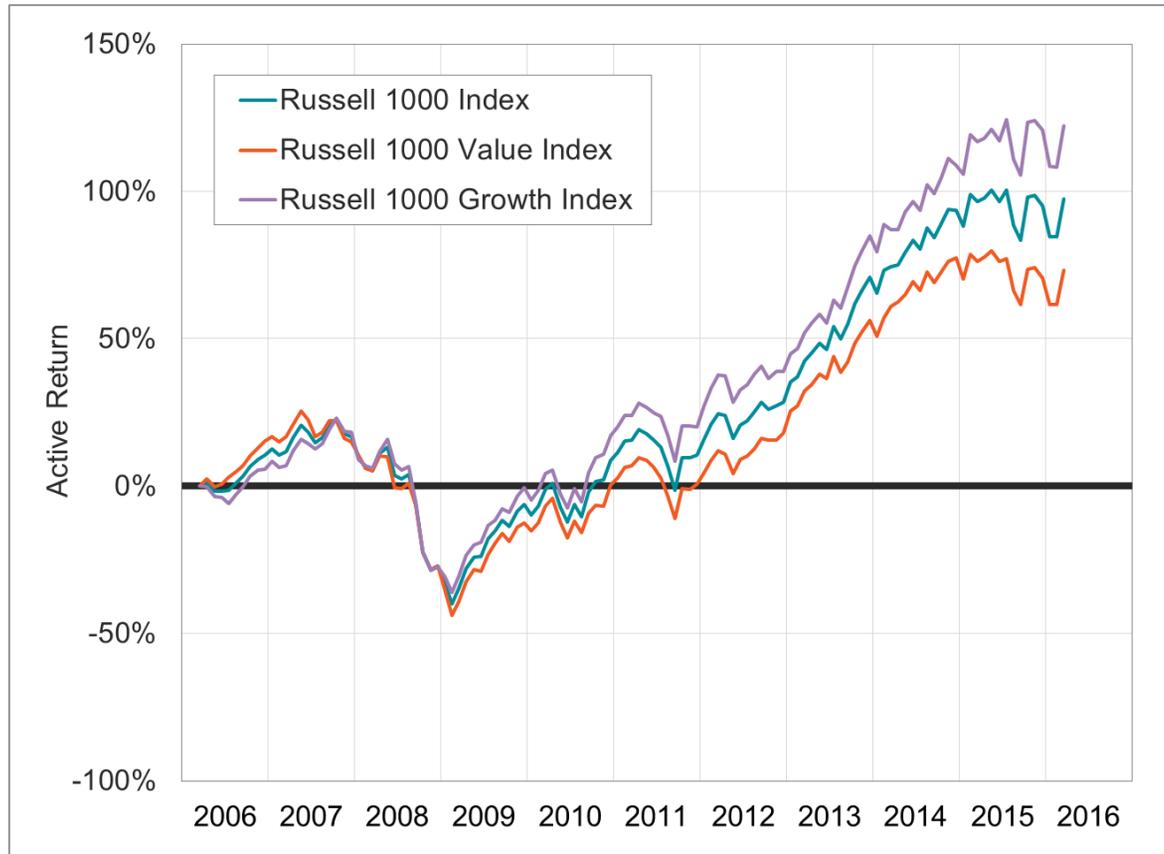
# The Russell 1000 Value Premium

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- The Russell 1000 Value Index overweights stocks that are attractively priced
- Between March 31, 2006 and March 31, 2016, the Russell 1000 Value Index had a negative premium
- It underperformed its benchmark by 24%
- To understand the source of the underperformance, we attribute the active return to:
  - Barra US Equity Model factors
  - Asset-specific effects

# Cumulative Return to Russell Indexes

March 31, 2006 – March 31, 2016

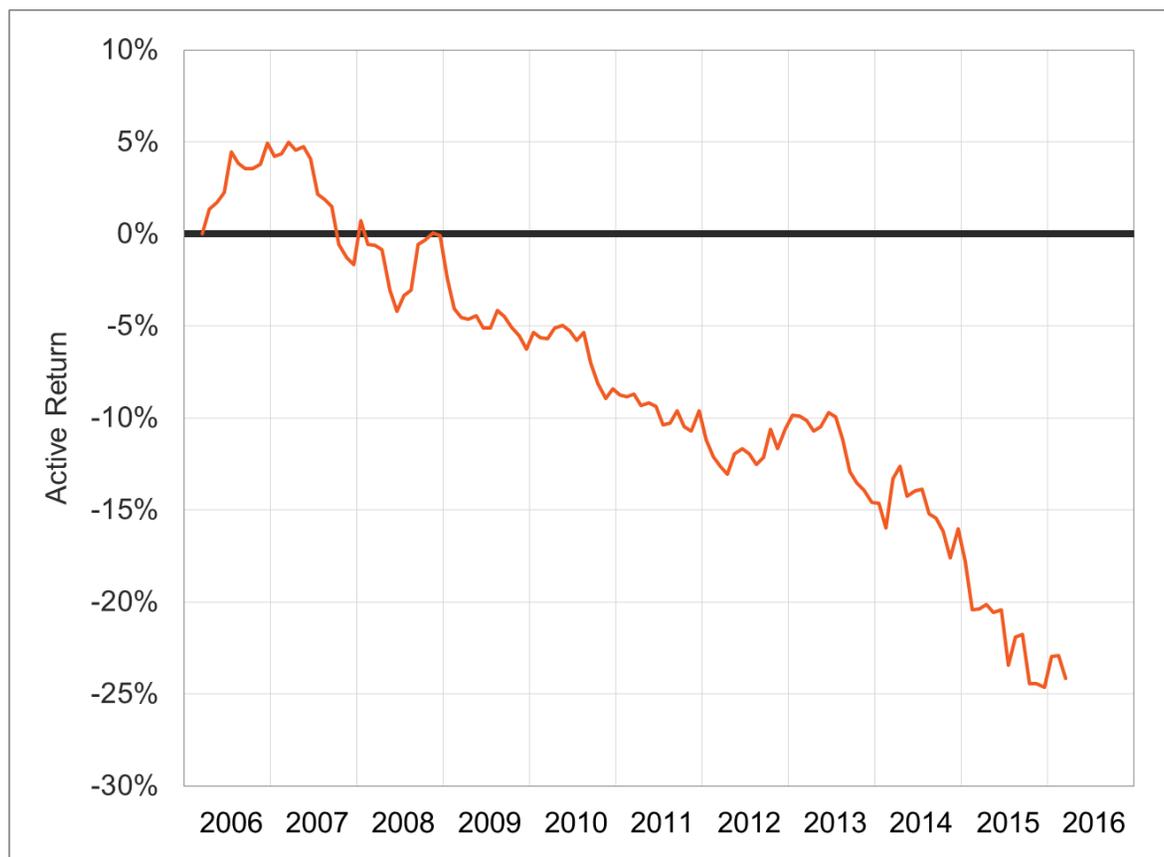


Source: Barra's USE3 equity risk model

Russell 1000 Growth Index outperformed the Russell 1000 Index, which outperformed the Russell 1000 Value Index

# Active Return to Russell 1000 Value Index

March 31, 2006 – March 31, 2016

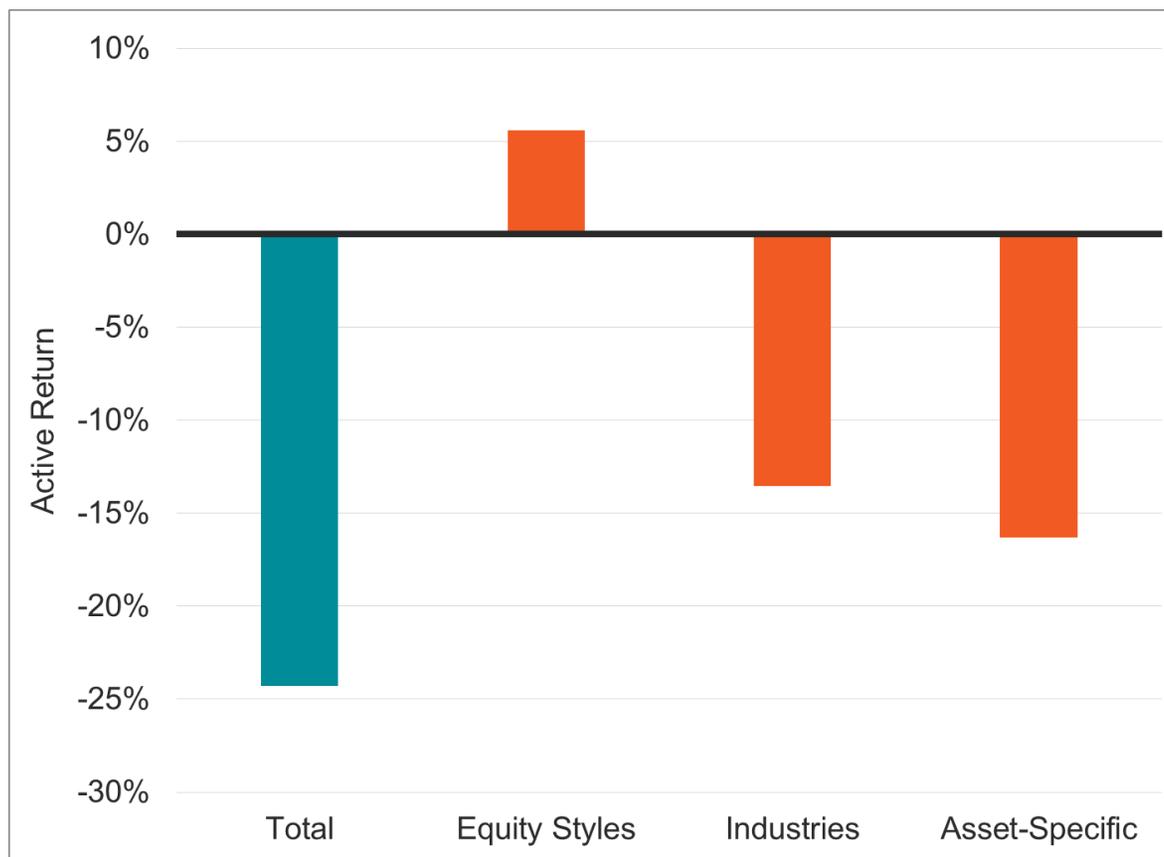


Source: Barra's USE3 equity risk model

An active perspective on the Russell 1000 Value Index underperformance

# Russell 1000 Value Index Active Return Attribution

March 31, 2006 – March 31, 2016



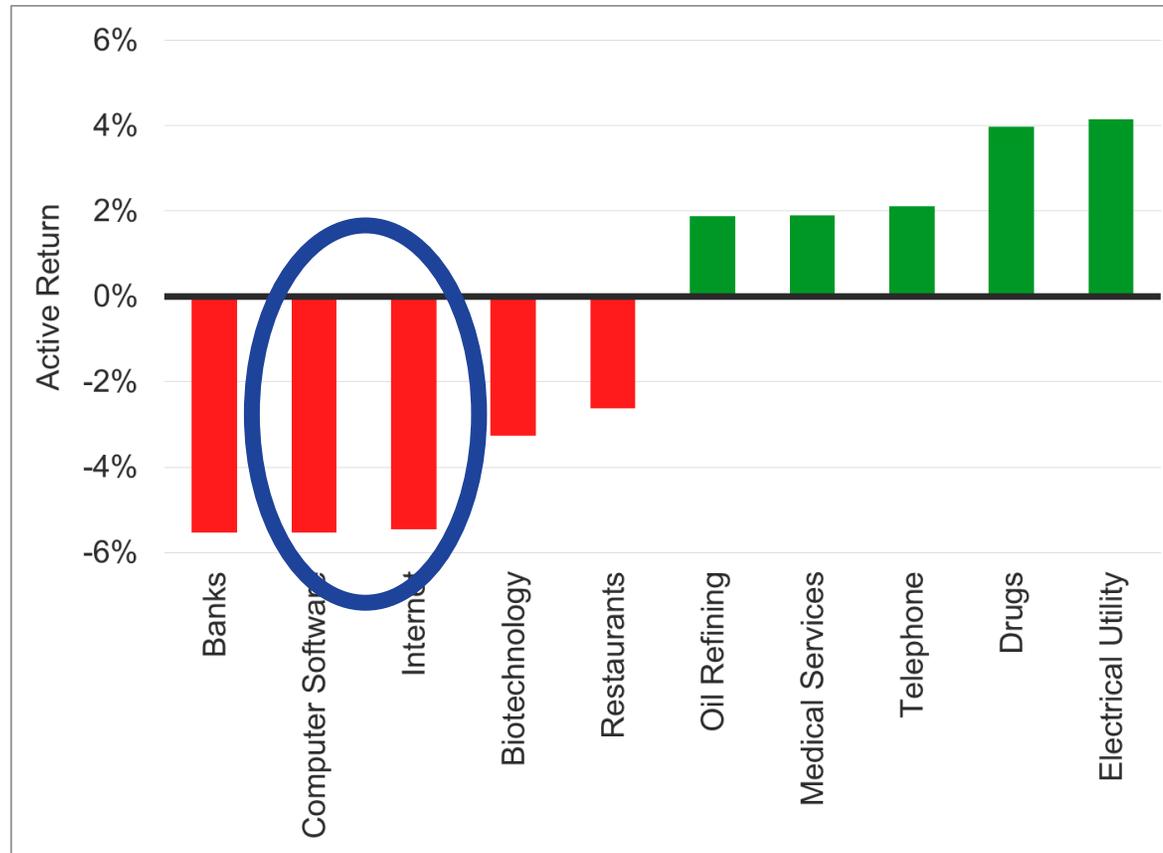
Source: Barra's USE3 equity risk model

Most of Russell 1000 Value Index underperformance was driven by unintended industry bets and asset-specific return

# Active Industry Contributions to the Russell Value 1000 Index

March 31, 2006 – March 31, 2016

Best 5 and Worst 5 Industries by Contribution to Return Difference

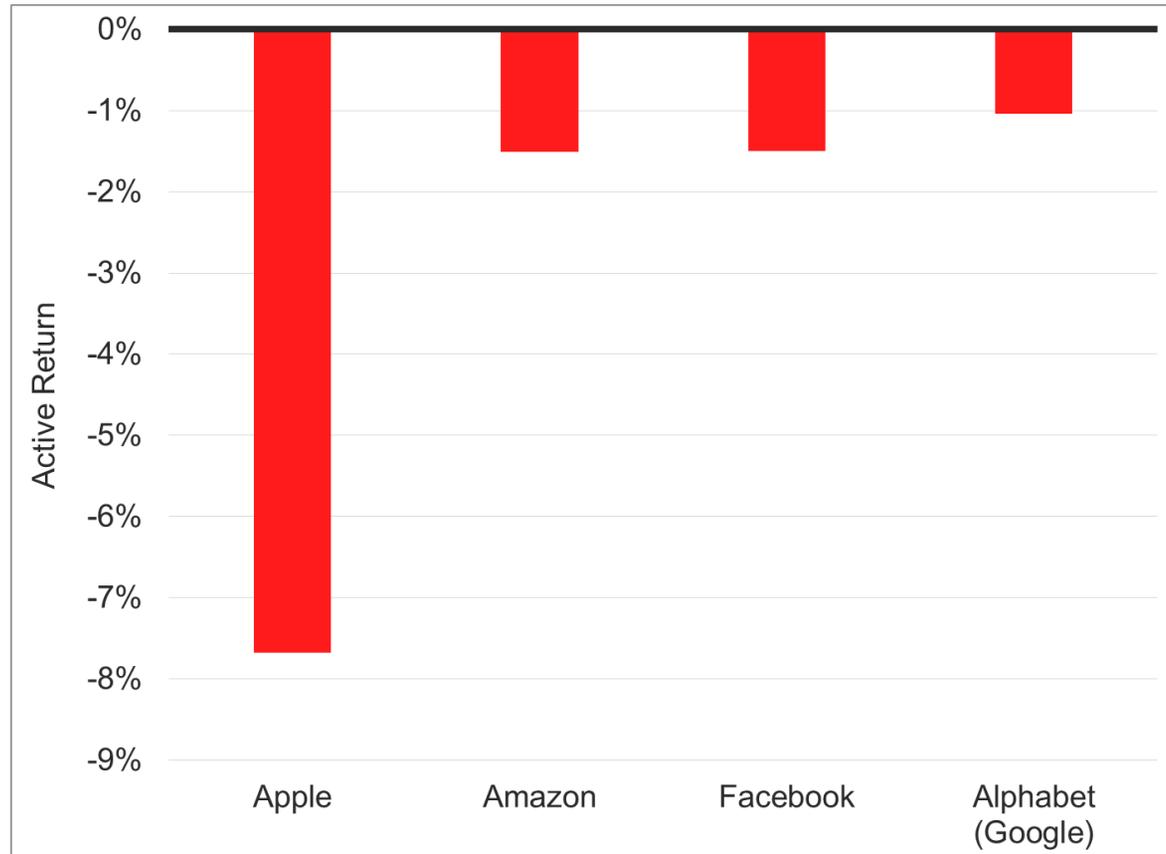


Source: Barra's USE3 equity risk model

Computer software and Internet stocks were a drag on performance

# Active Technology Stocks Contributions to the Russell 1000 Value Index

March 31, 2006 – March 31, 2016

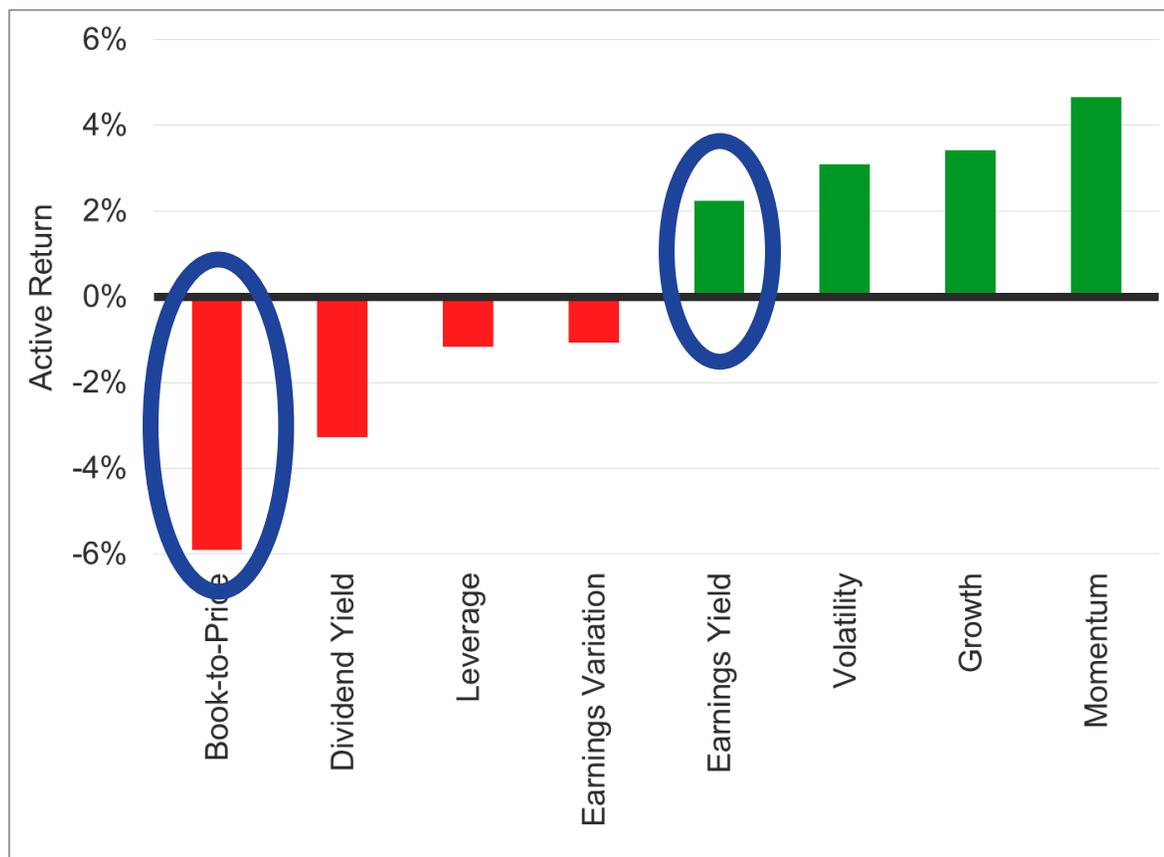


Source: Barra's USE3 equity risk model

Almost half the underperformance of the Russell 1000 Value Index was due to the exclusion of four technology stocks

# Active Style Contributions to the Russell 1000 Value Index

March 31, 2006 – March 31, 2016



Source: Barra's USE3 equity risk model

Two value indicators, book-to-price and earnings yield, performed differently

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# Case Study: Optimized Value Tilt vs. the Russell 1000 Index

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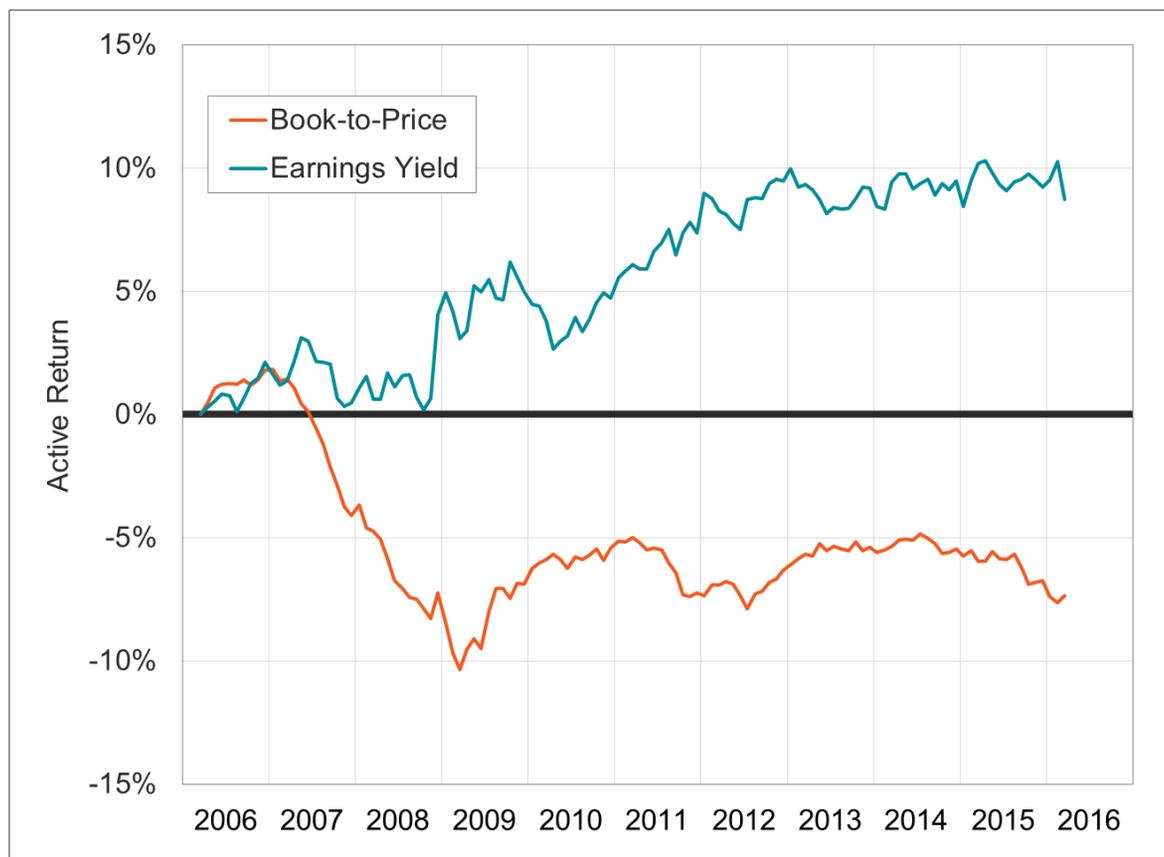
# Optimized Value Tilt on the Russell 1000 Index

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- We constructed an optimized tilt toward two value factors, book-to-price and earnings yield, on the Russell 1000 Index
- Our implementation controlled active sector exposures and minimized unintended bets

# Performance of Barra's Value Factors

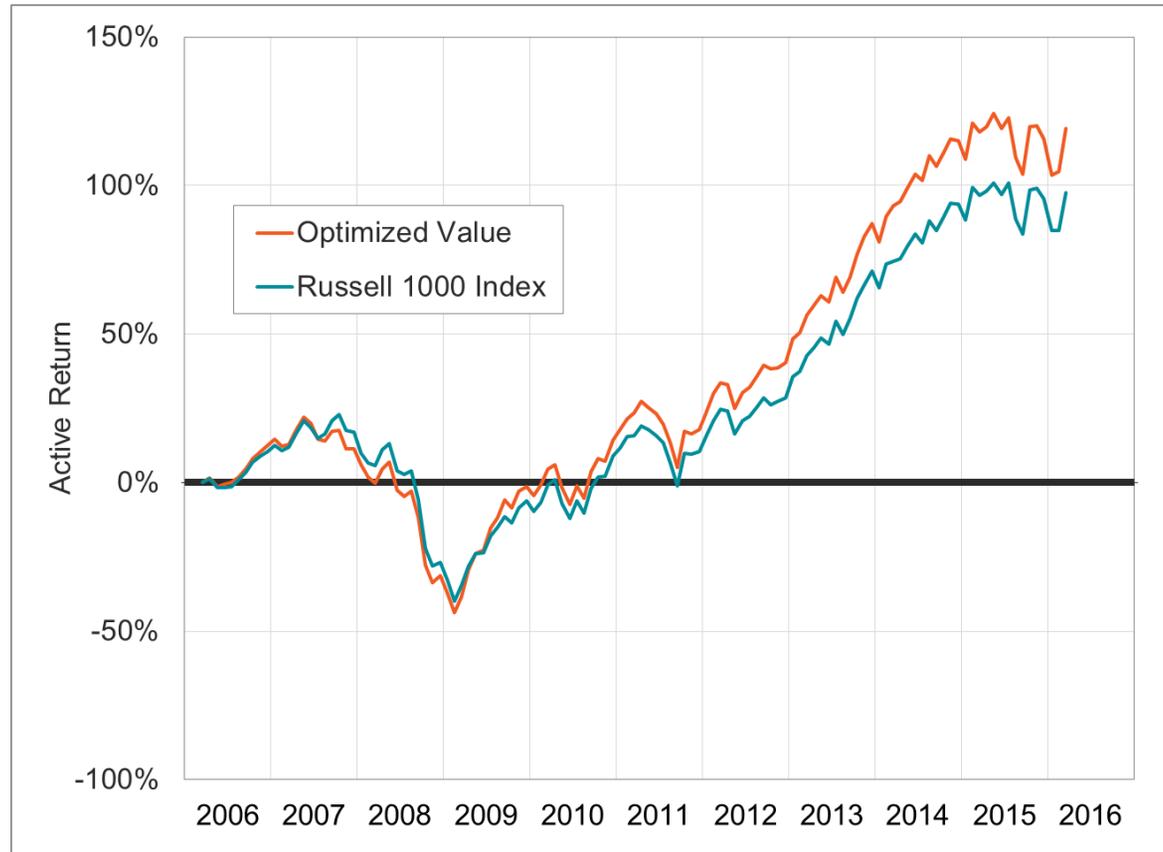
March 31, 2006 – March 31, 2016



Source: Barra's USE3 equity risk model

# Performance of an Optimized Value Tilt on the Russell 1000 Index

March 31, 2006 – March 31, 2016

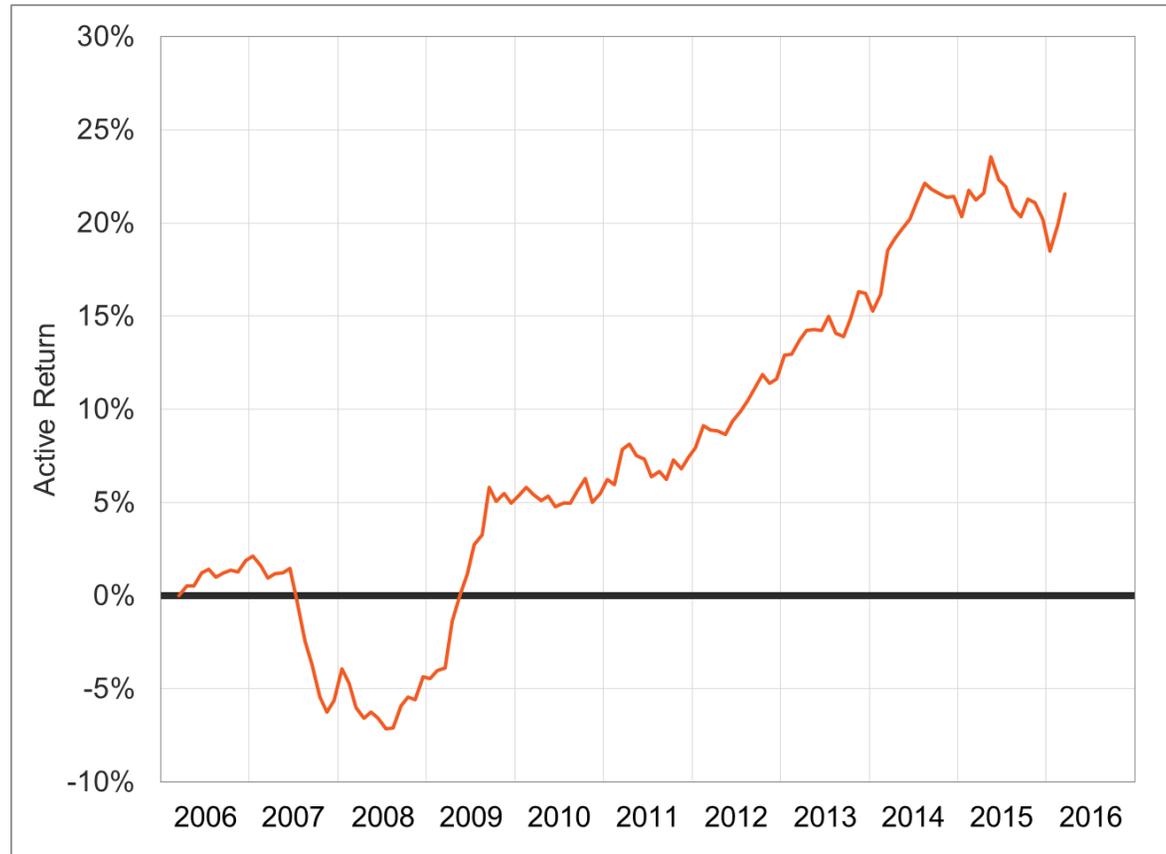


Source: Barra's USE3 equity risk model

The optimized Value tilt outperformed its benchmark over the same period that the Russell 1000 Value Index underperformed

# Active Return to the Optimized Value Tilt on the Russell 1000 Index

March 31, 2006 – March 31, 2016

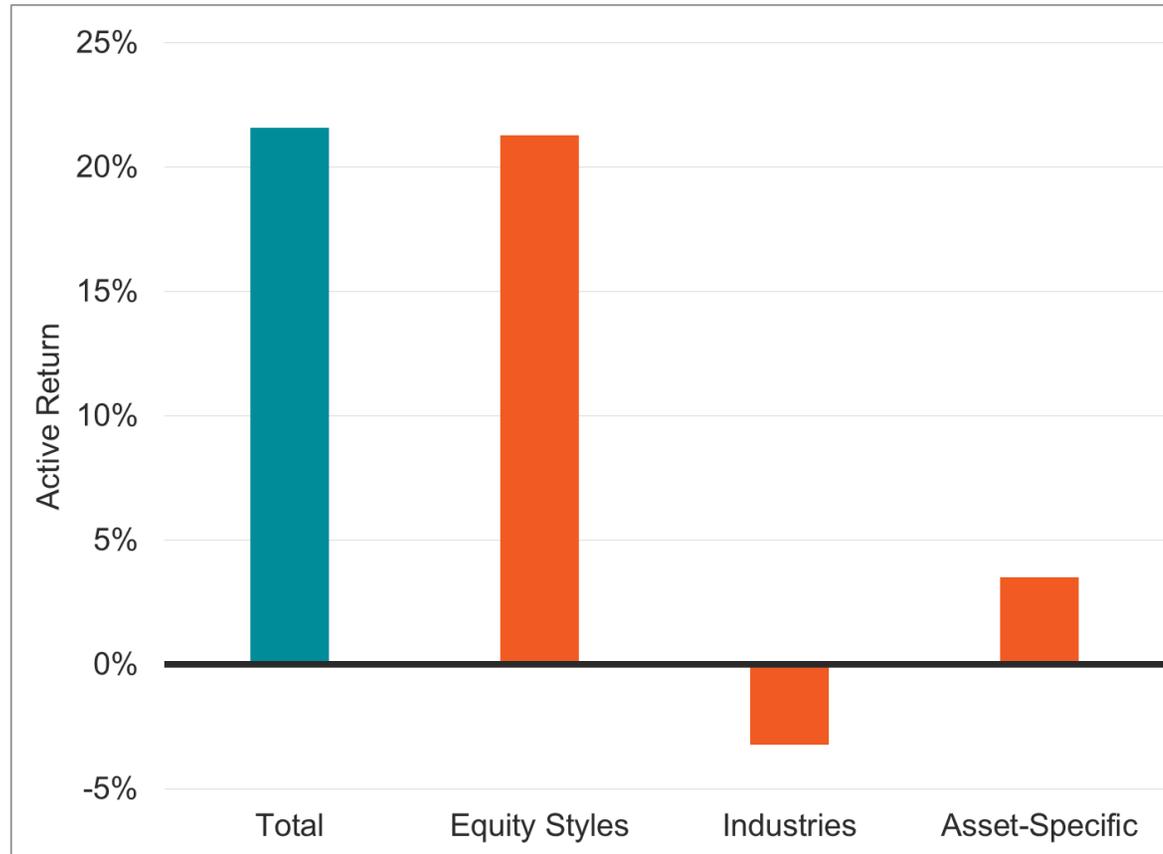


Source: Barra's USE3 equity risk model

An active perspective on the optimized Value tilt outperformance

# Attribution of Active Return to the Optimized Value Tilt

March 31, 2006 – March 31, 2016

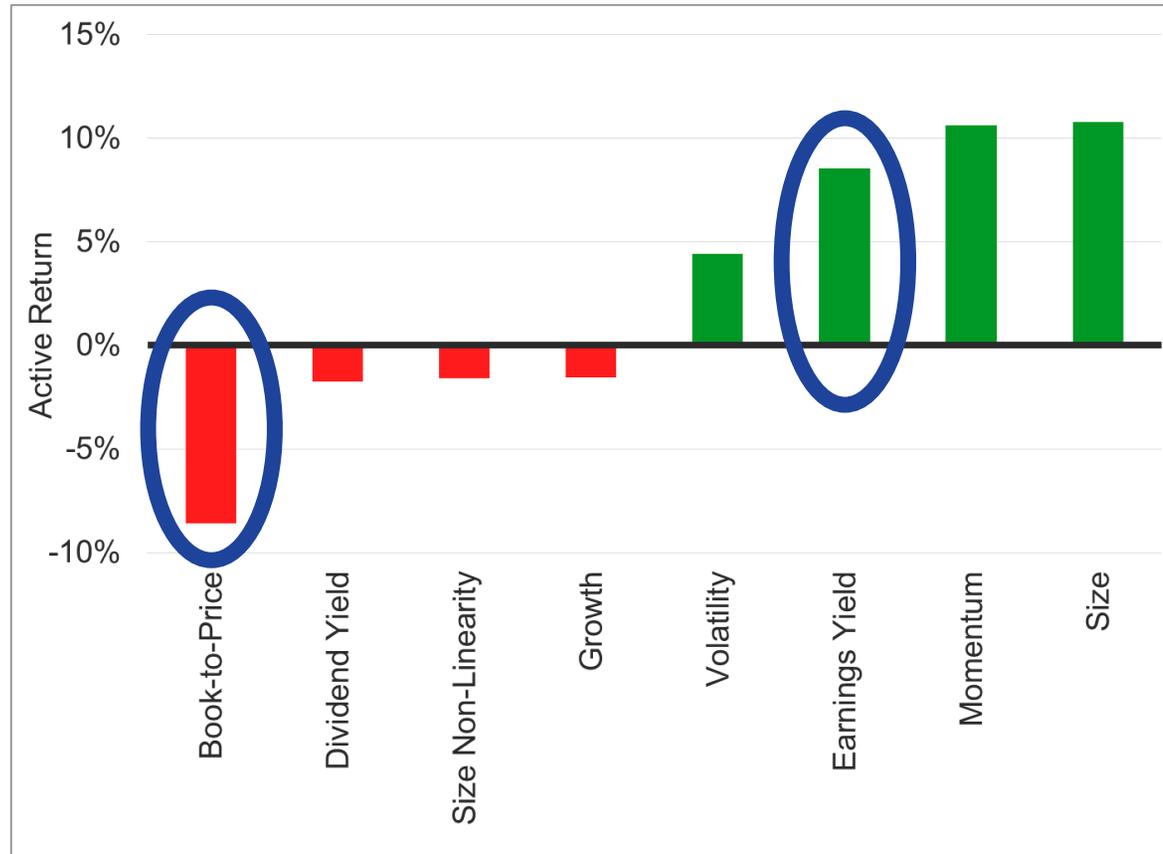


Source: Barra's USE3 equity risk model

Most of the active return came from equity styles, as intended

# Style Contributions to Active Return of the Optimized Value Tilt

March 31, 2006 – March 31, 2016



Source: Barra's USE3 equity risk model

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# Summary

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- The Russell 1000 Value Index lagged its benchmark, the Russell 1000 Index, by almost 25% over the decade ending March 31, 2016
- Based on our study, that lag can be explained by unintended bets
- Almost half the lag was due to the exclusion of four technology stocks: Apple, Amazon, Facebook, and Alphabet (Google)
- An optimized Value tilt toward earnings yield and book-to-price minimized unintended bets, and it surpassed the Russell 1000 Index over the same period
- An investor who wants to align implementation of a factor tilt with intent may prefer an optimized portfolio to a specialized index

# Thank You

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Lisa Goldberg, PhD  
Director of Research

For more information, refer to the research paper, *Value: Aligning Implementation with Intent*, on Aperio's website:  
[bit.ly/2fVReRE](http://bit.ly/2fVReRE)

# Disclosure

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The Russell 1000 Index measures the performance of 1,000 of the largest US companies, representing more than 90% of the total market capitalization of the investable US equity market. The Russell 1000 Index serves as a bellwether index for large-cap investing. It is completely reconstituted annually to ensure that new and growing equities are reflected.

The Russell 1000 Value Index ranks Russell 1000 Index companies by book-to-price ratios, two-year growth prospects, and five-year sale-of-shares historical growth to determine “composite value scores” (CVS). Per Russell, “Stocks are then ranked by their CVS, and a probability algorithm is applied to the CVS distribution to assign growth and value weights to each stock” (50% to the two growth factors and 50% to the value factor). Stocks with high-value scores are weighted more heavily in the Russell 1000 Value Index.

The Russell 1000 Growth Index measures the performance of those Russell 1000 companies with higher price/book ratios and higher forecasted growth values.

The performance reflected in the tables and charts in this report are hypothetical, shown for illustrative purposes only, and not based on actual investments. Furthermore, they do not reflect the deduction of any management fees, which would lower performance returns. The performance does include 0.05% one-way transaction costs (3.5bps one-way spread + 1.5bps in trading costs). The use of hypothetical performance has significant limitations, some of which are described below.

Backtesting involves simulation of a quantitative investment model by applying all rules, thresholds, and strategies to a hypothetical portfolio during a specific market period and measuring the changes in value of the hypothetical portfolio based on the actual market prices of portfolio securities. Investors should be aware of the following: 1) Backtested performance does not represent actual trading in an account and should not be interpreted as such, 2) backtested performance does not reflect the impact that material economic and market factors might have had on the manager’s decision-making process if the manager were actually managing clients’ assets, and 3) there is no indication that the backtested performance would have been achieved by a manager had the program been activated during the periods presented above. For backtested performance comparisons, the benchmark returns are simulated using historical constituents’ weights and total returns.

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