

Better Value with Risk Control

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- The Russell 1000 Value Index lagged the Russell 1000 Index by more than 100 percentage points over the 10-year period ended June 30, 2020.
- Underweights in the five FAAMGs—Facebook, Amazon, Apple, Microsoft, and Google—explained more than 3/5 of the lag.
- Optimized Value delivered Value¹ exposure over the same period while controlling forecast tracking error to the Russell 1000 Index.
- Risk control led to strong FAAMG representation in Optimized Value and better performance.

“We saw that the expected returns or anticipated returns rule is inadequate. Let us now consider the expected returns-variance of returns (E-V) rule.”

—Harry Markowitz
“Portfolio Selection” (1952)

The Russell 1000 Value Index lagged the Russell 1000 Index by more than 100 percentage points over the 10-year period ending in June 2020.

Despite this dismal performance, some asset managers contend that “rumors of Value’s death may be premature,” emphasizing their belief that fundamentals play an important role in future stock returns and pointing to a distinguished library of research dating back to Benjamin Graham and David Dodd’s 1934 treatise, *Security Analysis*. Still, 10 years can feel like a long time when you’re behind, and beleaguered investors ask, “When will Value be back?” While it is not possible to answer that question, a return attribution provides insight into recent underperformance.

¹ Value” is a term of art that refers to a broad collection of investment strategies that typically depend on financial ratios such as book-to-price and earnings yield.

Rank-and-chop portfolio construction explains the lag.

A simple way to create a Value portfolio is to underweight or chop out securities that rank low on book-to-price, earnings yield, and other indicators. A version of this rank-and-chop² methodology, popularized by Eugene Fama and Kenneth French in the 1990s and used by many asset managers today, is the basis of the Russell 1000 Value Index. Between July 2010 and June 2020, fast-growing Facebook, Amazon, Apple, Microsoft, and Google (FAAMG) were ranked and mostly chopped out of the Russell 1000 Value Index, accounting for more than 3/5 of the 100-percentage point-plus lag.

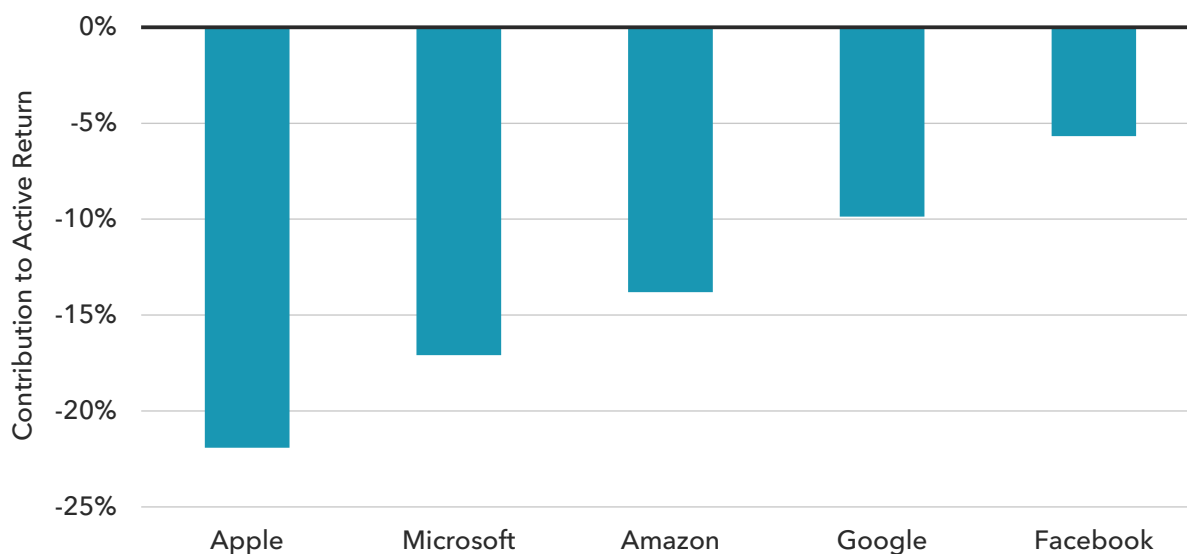


Figure 1: Contributions to active return of the Russell 1000 Value Index versus the Russell 1000 Index by FAAMG stocks over the period July 2010–June 2020.

Optimization achieves a targeted Value exposure while controlling risk.

Rank-and-chop portfolio construction neglects the “V” in Markowitz’s E-V rule by failing to control risk. We investigated the impact of risk control on Value in 2016,³ when the Russell 1000 Value Index was down by 20 percentage points over the preceding decade and some Value investors were already questioning their conviction. We found that Optimized Value,⁴ which tilted toward book-to-price and earnings yield while minimizing forecast tracking error to the benchmark, achieved the same Value exposure as rank-and-chop Value with less than half the tracking error between 1991 and 2014.

² “Rank and chop” is a neologism for a commonly used portfolio construction methodology that ranks securities by an indicator and chops out securities whose ranks fall below a prescribed threshold.

³ Ran Leshem, Lisa R. Goldberg, and Alan Cummings, “Optimizing Value,” *Journal of Portfolio Management* 42, no. 2 (Winter 2016): 77–89, DOI: doi.org/10.3905/jpm.2016.42.2.077.

⁴ Optimized Value is a hypothetical, long-only, monthly rebalanced strategy that minimizes tracking error to the Russell 1000 Index subject to these constraints: earnings yield = $b + 0.40$, book-to-price = $b + 0.40$. Portfolio construction used the Barra US Total Market Equity Model for Long-Term Investors and the Barra optimizer.

We update our 2016 study with a comparison between the Russell 1000 Value Index and Optimized Value over the 10-year period ended in June 2020. Average book-to-price exposures of the Russell 1000 Value Index and Optimized Value were similar over this period, as shown in Table 1, while Optimized Value had a substantially larger earnings yield exposure.⁵ At the same time, tracking error for Optimized Value was less than half the tracking error of the Russell 1000 Value Index.⁶

	Book-to-Price	Earnings Yield	Tracking Error
Russell 1000 Value Index	0.46	0.17	3.25%
Optimized Value	0.40	0.38	1.52%

Table 1: Average active exposure (z-score) and realized tracking error of two Value indicators in the Russell 1000 Value Index and a hypothetical strategy, Optimized Value, relative to the Russell 1000 Index over the period July 2010–June 2020.

Figure 2 shows cumulative active return of the Russell 1000 Value Index and Optimized Value, relative to the Russell 1000 Index. While substantial, the underperformance of Optimized Value was relatively recent, and it was dwarfed by the underperformance of the Russell 1000 Value Index.

⁵ An explanation for the relatively low active earnings yield exposure of the Russell 1000 Value Index may be that the index construction methodology does not rely on earnings yield.

⁶ We calibrated the hypothetical Optimized Value strategy featured in this article to be consistent with Aperio’s current investment process so that both book-to-price and earnings yield exposures were set to $b + 0.40$ in our optimizations. This led to realized average exposures of $b + 0.40$ and $b + 0.38$, respectively, between July 2010 and June 2020 (as shown in Table 1) that closely matched the targets. Differences between these exposures and the average Russell 1000 Value exposures of $b + 0.46$ and $b + 0.17$ imply that our comparison between the Russell 1000 Value Index and Optimized Value was not as evenhanded as possible. A hypothetical Optimized Value strategy calibrated to match average Russell 1000 Value Index average active exposures of book-to-price and earnings yield over the period July 2010–June 2020 generated an active return of -0.90% against the Russell 1000 Index, with a realized tracking error of 1.08%.

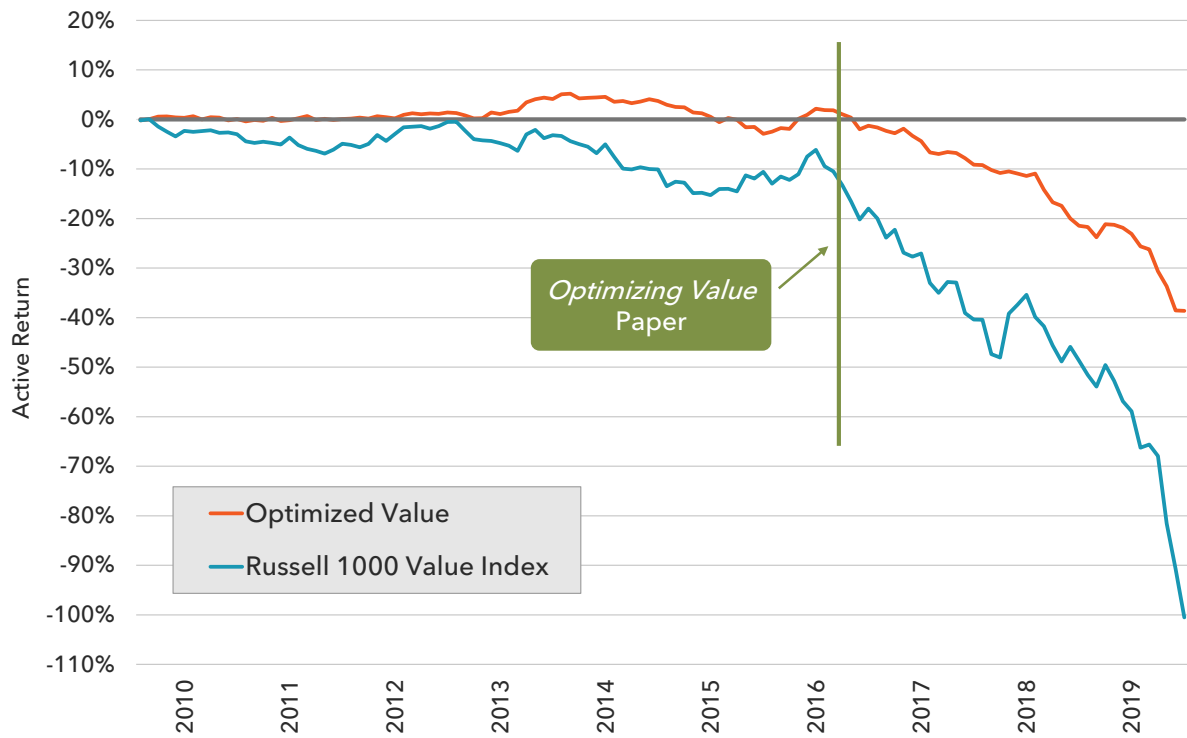


Figure 2: Cumulative active return to the Russell 1000 Value Index and a hypothetical strategy, Optimized Value, relative to the Russell 1000 Index, July 2010–June 2020.

To a great extent, the performance difference between Optimized Value and the Russell 1000 Value Index was explained by FAAMG weights. As shown in Figure 3, average FAAMG weights were relatively close in Optimized Value and the Russell 1000 Index, while FAAMGS were nearly absent from the Russell 1000 Value Index. Risk control allowed Optimized Value to hold on to FAAMGs while meeting Value targets.

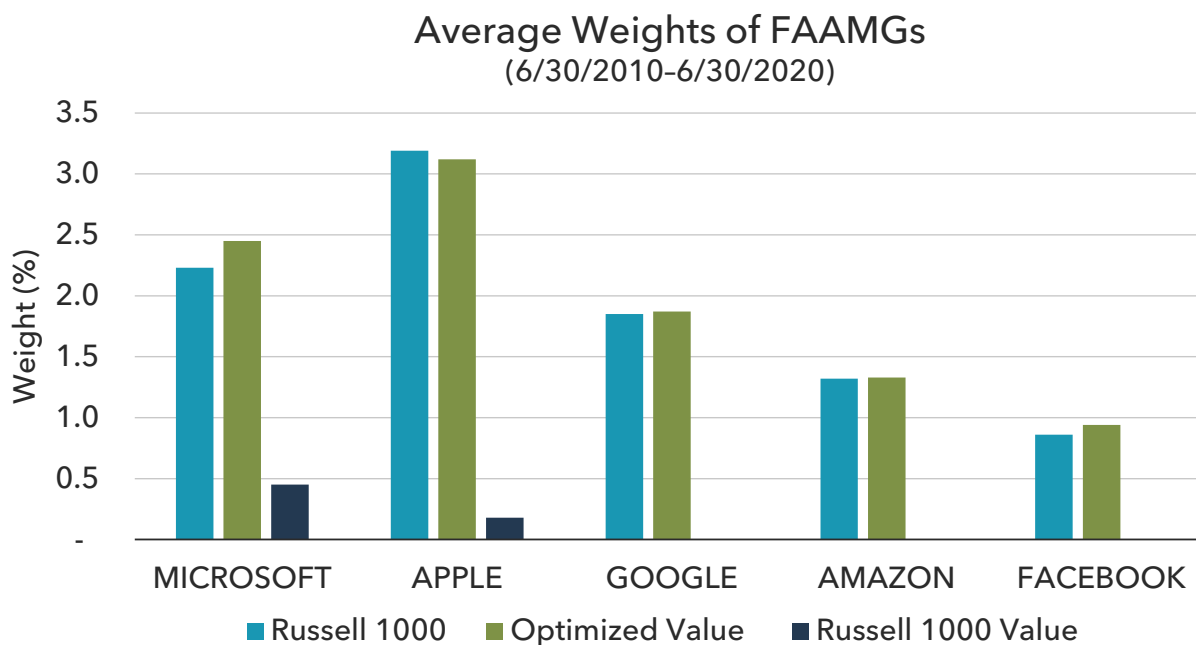


Figure 3: Average weights of FAAMG stocks in the Russell 1000 Index, a hypothetical Optimized Value strategy, and the Russell 1000 Value Index, over the period July 2010–June 2020.

Risk control is an essential element of all Aperio strategies.

When will Value be back? The distinguished library of research on Value investing and its support from practitioners may inspire confidence, but it does not answer this question. What we can say is that Optimized Value, a strategy that is distinguished by the incorporation of the “V” in Harry Markowitz’s E-V rule, effectively tracked a diversified benchmark in the past. Risk control is old but timeless, and it will remain an essential element of all Aperio strategies as we move forward into an unknowable future.

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