

## INTRODUCTION

The Estimize Signal is a cross sectional score which captures several predictive factors based on Estimize's proprietary database of crowdsourced earnings estimates. These factors include pre-earnings measures such as the difference between Estimize and Wall Street earnings forecasts, as well as post-earnings factors such as recent earnings surprises as benchmarked against Estimize forecasts.

In constructing the Estimize Signal, we leveraged the research from our white paper, "Generating Abnormal Returns Using Crowdsourced Earnings Forecasts from Estimize," first written in 2014. The signal construction process included rigorous in- and out-of-sample testing, and represents a fairly parsimonious use of the Estimize data set.

---

## FACTORS

The Signal's inputs include the following factors:

### Pre-earnings

1. The difference between Wall Street expected earnings and the Estimize Weighted Consensus, which is a re-weighted composite forecast of Estimize EPS forecasts, with weights based on the contributor's track record and the timeliness of their forecasts. The idea is that the Estimize community provides forecasts which are leading indicators of future Wall Street revisions.
2. The difference between the average Estimize contributor's EPS estimate and the Estimize Select Consensus. The idea is that top Estimize contributors lead other Estimize contributors and provide an early indication of revisions generally.
3. The historical likelihood of a company, and others in its industry, to beat or miss EPS and Revenue targets. Wall Street estimates, unlike Estimize estimates, tend to exhibit predictable biases, possibly relating to companies' ability to manage Wall Street estimates more effectively than they can manage the Estimize community.

### Post-earnings

1. The degree to which earnings beat or missed the Estimize Weighted Consensus, which is a more accurate representation of the market's true expectations than is the Wall Street consensus – and therefore is a better benchmark for earnings surprises and the subsequent price drift.
2. The Signal also overweights cases in which the company beat (missed) relative to Estimize, but missed (beat) relative to Wall Street; these are even stronger signals.

The aforementioned factors exhibit most of their predictive power in the 10 days leading up to earnings announcements and in the 3 days following earnings announcements, and it is only during this window that they are included in the Signal calculation.

# DELIVERY

The Signal is delivered twice a day, at 7am and 3pm New York time. The twice-a-day cuts allow managers to position themselves accurately during the trading day, in particular in cases where a company is expected to report between the current session’s close and the subsequent open, or in which a company has just reported. The Signal is calculated in near real time and includes estimates which were made immediately before delivery.

Signal files are delivered via FTP or API as a comma-separated file, and includes CUSIPs, tickers, GMT timestamps, and the next expected report date and timestamp, also in GMT. The Signal itself is distributed uniformly between -100 and +100 across a broad U.S. universe.

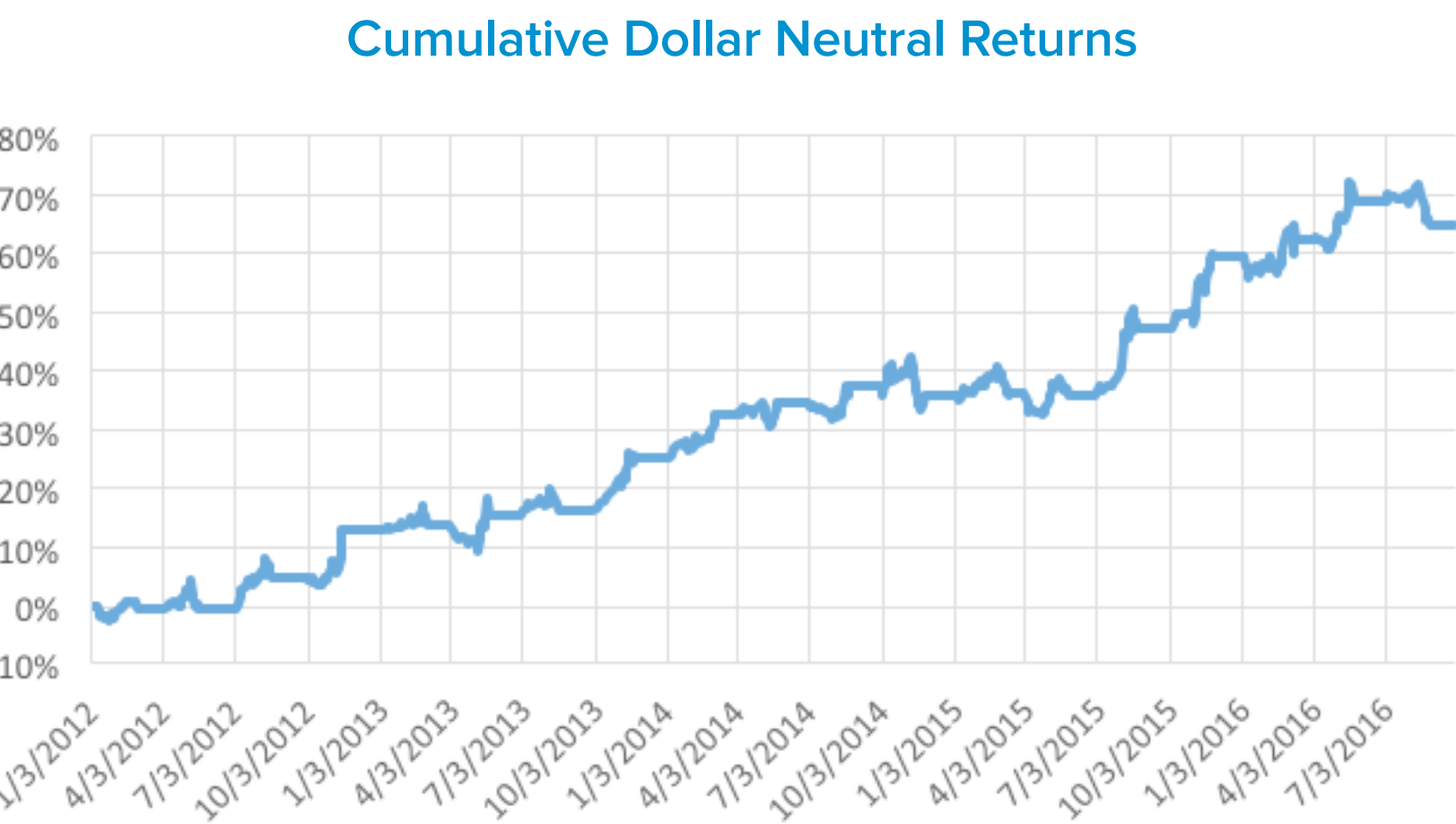
# BACKTEST RESULTS

Although each investor will analyze Signal data in their own way, and combine with other factors in their factor suite, we looked at the Signal as a stock selection signal in isolation as a quick demonstration of its predictive power.

We started with a universe consisting of U.S. equities with market caps  $\geq$  \$100mm, average daily trading volumes of  $>$  \$1mm, and prices (split unadjusted) of  $>$  \$4. On each trade we create a long portfolio which is equally weighted among all stocks in the top 10% of stocks in this universe according to the Signal. Similarly the short portfolio is equally weighted among the stocks in the bottom 10%. Our dollar neutral return is the difference between the long portfolio’s return and the short portfolio’s return.

We rebalance twice, once at the open using the morning data and once at the close using the afternoon’s data. Results are qualitatively similar using a single daily rebalance.

Because of the cyclical nature of the Estimize data, there could be days on which fewer than 10 stocks get into our top or bottom decile portfolios, particularly in the early years of our sample. On such days we reset to cash on both sides.



Time Period	Return	Sharpe Ratio
2012	26.0%	1.85
2013	20.5%	1.75
2014	17.7%	1.57
2015	37.7%	2.75
2016 (thru Sept)	10.9%	0.70
2012 - 3Q2016 (annualized)	23.1%	1.75