

Executive Summary:
Generating Abnormal Returns Using Crowdsourced Earnings Forecasts From Estimize

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In our paper, “Generating Abnormal Returns Using Crowdsourced Earnings Forecasts From Estimize” we examine consensus EPS and Revenue forecasts derived from the crowdsourced community Estimize, and find that they are more accurate than traditional Wall Street equity analysts’ consensus forecasts. We then design a profitable strategy which trades on earnings surprises as benchmarked against Estimize. Finally, we demonstrate that a strategy which exploits the differences between the Wall Street and Estimize expectations prior to earnings dates earns excess returns, particularly among large cap stocks.

Summary Findings:

- The Estimize Consensus is more accurate than the comparable Wall Street Consensus 65% of the time when there are 20 or more contributors.
- The Estimize consensus is a better measure of expectations than the Wall Street consensus.
- We discover a post earnings drift strategy which produces 50 basis points of cumulative returns and a pre earnings drift strategy producing 25 basis points of residual returns.
- The Estimize Consensus is an orthogonal data set and produces a potentially profitable investment signal that is uncorrelated with existing sources of alpha or risk.

An Introduction to Estimize

Estimize is an online community, established in 2011, in which contributors can supply structured financial forecasts. Contributors can be buy side investment professionals, independent researchers, individual traders, or students; the community is split broadly among these groups, with no one group dominating the sample. Because of the diversity of the backgrounds and methodologies underpinning the contributed forecasts, the estimates in the Estimize system represent a distinct alternative to estimates from traditional sources such as Wall Street equity research desks.

Previous academic research has highlighted several behavioral biases present in Wall Street earnings estimates. This research dates back over a decade and it’s certainly no secret that Wall Street analyst estimates suffer conflicts of interest arising from corporate access and investment banking pressures.

The Estimize system provides alternative forecasts which may be less affected by such biases. Forecasters on Estimize have the flexibility to provide honest and timely estimates, and are not

compensated by the platform for being optimistic or accurate or providing any particular quantity of data. However there do exist incentives to be accurate, including self-promotion, which could be particularly important for independent researchers or students who would like to have a published track record of accurate estimates to point to. In order to attract estimates from their peers, professional Buy Side analysts are incented to contribute their own estimates, often using a pseudonym as opposed to revealing their full identity and professional affiliation.

Estimize was founded in 2011; we begin our analysis in November 2011 and end it in July 2013.

Superior Accuracy

We first want to know whether the Estimize community is more accurate than Wall Street. The results demonstrate that the Estimize EPS consensus is consistently more accurate than the comparable Wall Street number, between 58% and 65% of the time as the number of contributors to the consensus increases. We also see that the average error of the Estimize consensus is lower than the Wall Street error.

Post Earnings Drift Strategies

Next, we want to understand whether or not the Estimize consensus estimate is a better representation of market expectations. There is a long history of research detailing the post earnings announcement drift. Companies which beat expectations, as measured by Wall Street forecasts, have historically outperformed.

Using Wall Street Consensus as the benchmark, the post-EPS announcement effect lasts only for one day and is fairly small at 15 basis points. With Estimize as the benchmark, the returns persist for several days without reverting, and are of a significantly greater magnitude at 30 basis points. We also see larger drifts for larger surprise magnitudes when benchmarking against Estimize; the first day return is 25 basis points for 1% surprises but 41 basis points for 10% surprises.

Our second strategy tests cumulative returns when there is a discrepancy between the Estimize-based and Wall Street-based surprises. In other words, we go long if actual earnings or revenues exceeds the Estimize consensus but falls short of the Wall Street consensus, and we got short if the opposite is true. This strategy produced 50 basis points of cumulative returns over the three day period following earnings announcements when using EPS surprises, and 20 basis points when using revenues. This study confirms our hypothesis that, considered together, the Estimize consensus is a more accurate measure of market expectations than is the Wall Street consensus.

Pre Earnings Drift Strategies

Our hypothesis is that analysts who contribute to Estimize are able to incorporate information

into their estimates in a more timely and unbiased fashion than traditional Wall Street analysts, specifically towards the end of the quarter. Because of this, the Estimate consensus should lead Wall Street consensus revisions, and the Delta between the two numbers should be a strong signal regarding future Wall Street revisions and equity direction.

To measure this effect, we track the cumulative daily residual return as a function of number of trading days after a 10% or larger Delta signal is generated and close out signals the day before the company reports.

Our research shows a drift between 5 and 10 basis points over the week following such a signal. The cumulative residual returns are even stronger and long lasting amongst large cap stocks. Returns for large cap stocks last up to a month and have magnitudes exceeding 25 basis points. The stronger returns among large caps is good news in that transaction costs and market impact should be much less severe for an investor who trades on the Estimate Delta among more liquid names. The returns in our studies are residualized to common risk factors, so we know that the returns are not explained by those factors.

It appears that the Estimate Delta is an orthogonal and potentially profitable investment signal that is uncorrelated with existing sources of alpha or risk.

Conclusion

The above results indicate that the Estimate consensus is an accurate and leading measure of market expectations. As a result we can generate trading strategies both before and after earnings reports to capture abnormal returns using Estimate data.

- The Estimate Consensus is more accurate than the comparable Wall Street Consensus 65% of the time when there are 20 or more contributors to the Estimate Consensus.
- The average absolute error of the Estimate Consensus is smaller than the comparable Wall Street Consensus by 12 basis points when there are 20 or more contributors to the Estimate Consensus.
- The post earnings drift associated with Wall Street Consensus is 15 basis points over one day while the drift associated with the Estimate consensus is 30 basis points.
- There are larger drifts for larger surprise magnitudes when benchmarking against Estimate; the first day return is 25 basis points for 1% surprises but 41 basis points for 10% surprises.
- Our strategy designed to take advantage of situations where there is a discrepancy between Wall Street and Estimate regarding whether or not the company exceeded expectations for EPS earns 50 basis points of cumulative returns over the three day period following earnings announcements.
- The pre earnings drift associated with the delta between the Wall Street and Estimate consensus numbers produces 25 basis points of residual returns over a three week period for large cap stocks.