

ESTIMATES TOO HIGH, LOW? CHECK THE CALENDAR

FUNDAMENTAL RESEARCH

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AN ANALYSIS OF THE LIFECYCLE OF QUARTERLY EARNINGS ESTIMATES

HIGHLIGHTS

- ▶ The magnitude of error of analyst estimates fluctuates throughout the lifecycle of an estimate for a particular quarter.
- ▶ Analysts tend to overestimate earnings initially, but subsequent downward revisions bring estimates closer to actual earnings.
- ▶ During the calendar quarter, estimates typically continue to decline, driven in part by company issued guidance that is typically more negative than positive.
- ▶ Positive surprises during earnings season tend to bring the blended earnings growth estimate back up to its actual value.
- ▶ The optimism bias found in quarterly estimates is a similar to that documented for annual estimates in the research associated with the StarMine Intrinsic Valuation Model (IV).

BACKGROUND

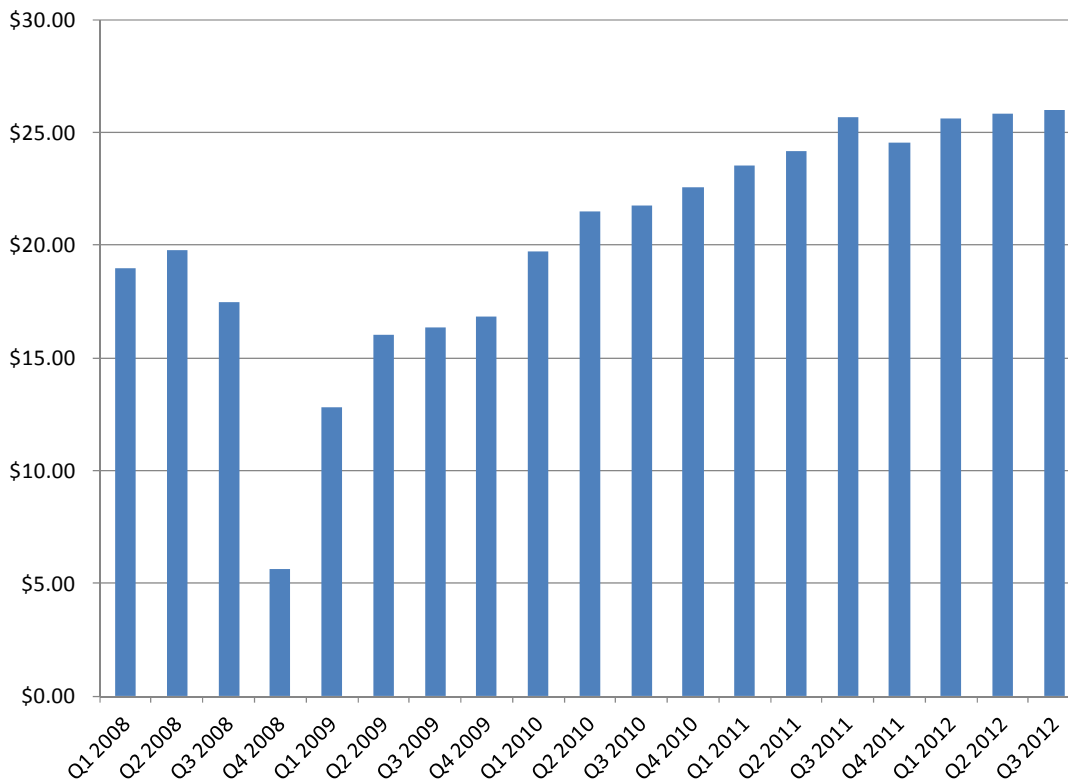
Investors often assume that sell-side equity analysts provide excessively low or conservative earnings estimates of the companies they cover. Whether done subconsciously or as a favor to management, the assumption is that analysts help companies beat estimates, benefitting the stock price. This analysis examines whether analysts do in fact underestimate earnings of companies under coverage and quantifies the aggregate accuracy of quarterly bottom-up S&P 500 earnings estimates throughout the lifecycle of the estimates.

METHODOLOGY

To analyze the accuracy of earnings estimates, we compiled the bottom-up quarterly earnings growth estimates for the S&P 500 going back to the first quarter of 2008. The data is presented on a weekly basis beginning nine months prior to the start of each quarter and continuing through to the final result after all the companies in the index reported earnings results.

During the financial crisis, S&P 500 companies reported unusually low earnings in the fourth quarter of 2008, as shown below in Exhibit 1. This created a very easy comparison for fourth quarter of 2009 earnings, leading to very high and volatile growth estimates. Because the estimates from this quarter are high enough to dwarf the estimates from the other quarters, the results from the fourth quarter of 2009 will be presented separately or excluded from some calculations as specified in the text.

EXHIBIT 1. S&P 500 EARNINGS PER SHARE



Source: Thomson Reuters I/B/E/S

ESTIMATE ADJUSTMENTS

Although analysts are likely to overestimate corporate earnings initially and then underestimate them prior to earnings season, the magnitudes of the errors at these two points are not the same. The optimism shown in the initial earnings estimates far outweighs the pessimism prior to earnings season. Throughout the quarters in our study, initial earnings growth estimates for the S&P 500 were on average more than 20 percentage points too high (this excludes Q4 2009). At the end of the quarter (beginning of earnings season), growth estimates were most accurate.

If we only consider the quarters after the financial crisis, estimates are more accurate initially due to the exclusion of the quarters that saw severe earnings declines. Initial estimates were on average 12.3 percentage points higher than actual earnings growth. Estimates typically dropped steadily and crossed the average true value eight weeks prior to the beginning of the calendar quarter before hitting their low point during the first week after the end of the quarter that was 7.0 percentage points below actual earnings growth.

EXHIBIT 2. S&P 500: MEAN BIAS IN QUARTERLY EPS GROWTH ESTIMATES



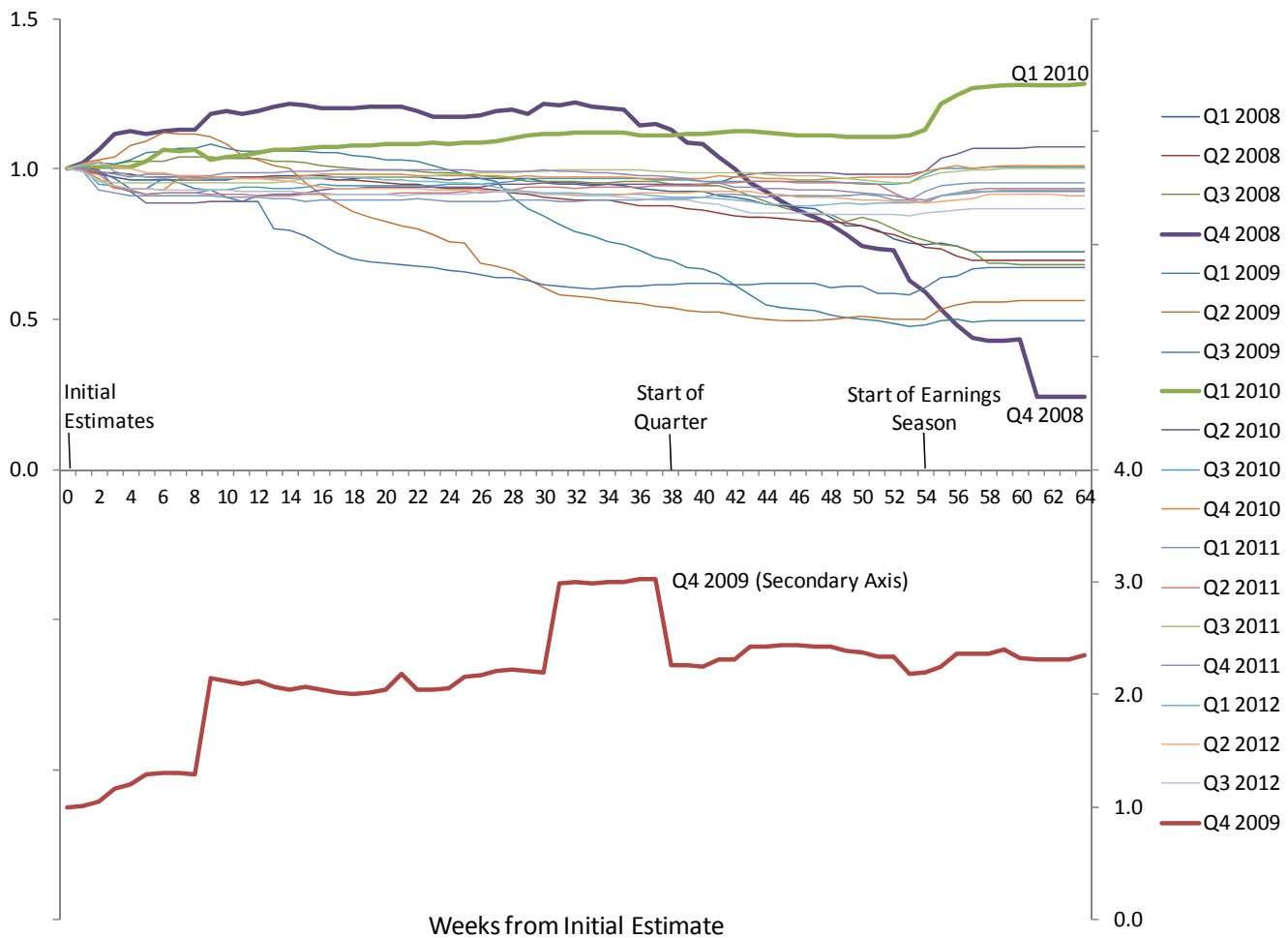
Source: Thomson Reuters I/B/E/S

OVERALL DIFFERENCE BETWEEN INITIAL ESTIMATES AND FINAL GROWTH RATE

Contrary to conventional wisdom, analysts tend to significantly overestimate their initial earnings forecasts. Of the 19 quarters examined, actual earnings fell below initial estimates 13 times, or 68% of the time. This data suggests that analysts tend to overestimate earnings when projecting further into the future. If there is any widespread attempt being made to issue conservative, easily beatable estimates, it is being dwarfed by optimism bias at the time estimates begin, nine months prior to the beginning of the quarter.

Exhibit 3, below, shows the earnings growth estimate trends for the quarters examined in relation to points throughout the quarter in question. Data for Q4 2009 is shown separately to increase readability of the charts. Exhibits 4 and 5, following, depict the same trend, but starting from different points in time: the beginning of the quarter, and the beginning of earnings season, respectively.

EXHIBIT 3. S&P 500 QUARTERLY EARNINGS ESTIMATES, INDEXED TO 1

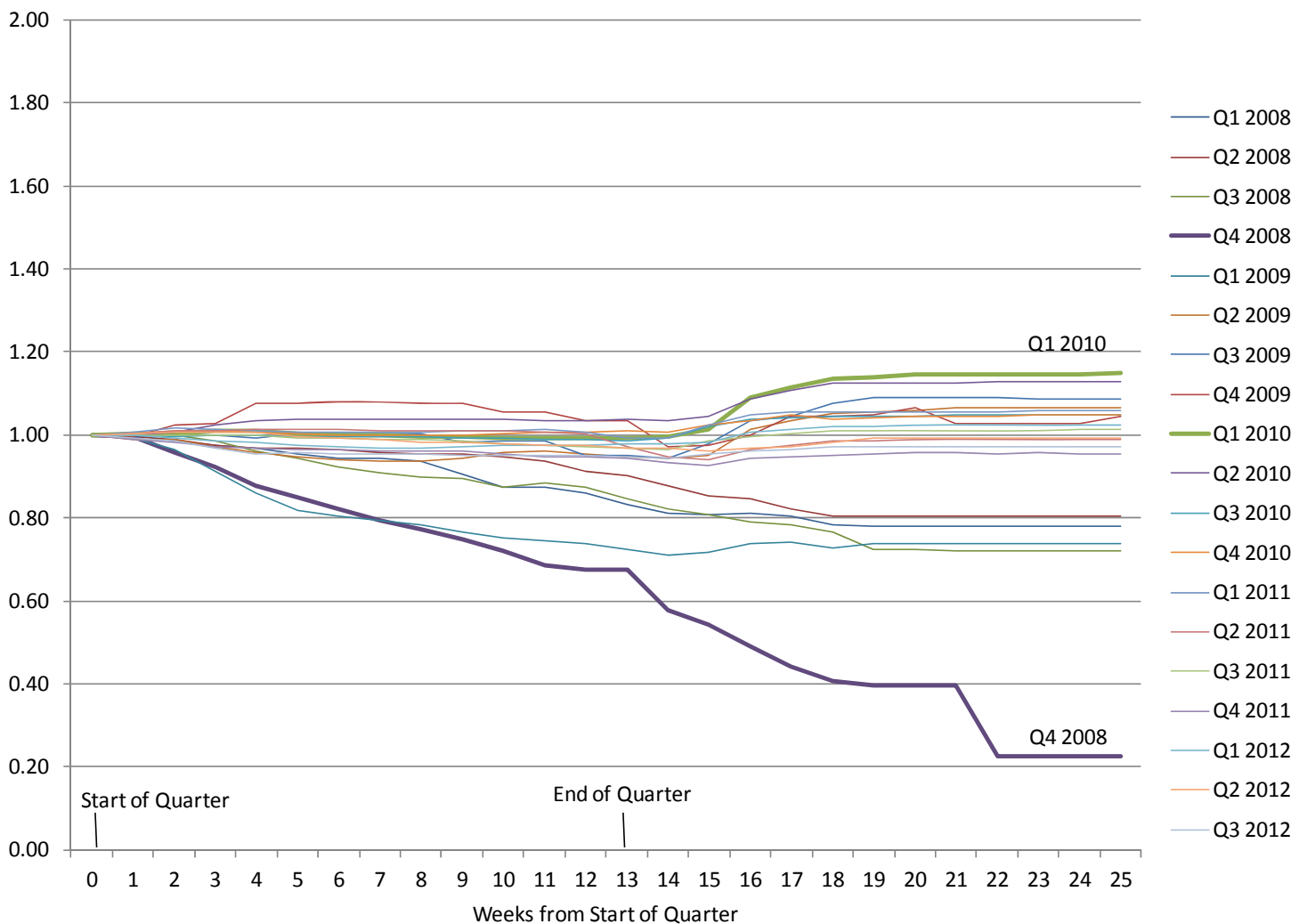


Source: Thomson Reuters I/B/E/S

While analysts are often sanguine in their initial estimates nine months before the start of a quarter, they tend to revise their estimates downward as the quarter approaches. These downward revisions bring estimates closer to their eventual final values. By the time that the calendar quarter begins, earnings estimates are more accurate, and of the quarters examined in this study, results were split. There are nine instances of overestimates against ten underestimates.

Throughout the calendar quarter, companies report their earnings results from the previous quarter. During this time, many companies issue guidance for the current quarter. This guidance is typically negative more often than it is positive. Historically, there have been 2.4 negative preannouncements for each positive one. These cautious outlooks by company management teams tend to influence analysts, as they continue to cut estimates which were fairly accurate at the beginning of the quarter.

EXHIBIT 4. S&P 500 QUARTERLY EARNINGS ESTIMATES, INDEXED TO 1 – START OF QUARTER TO FINAL

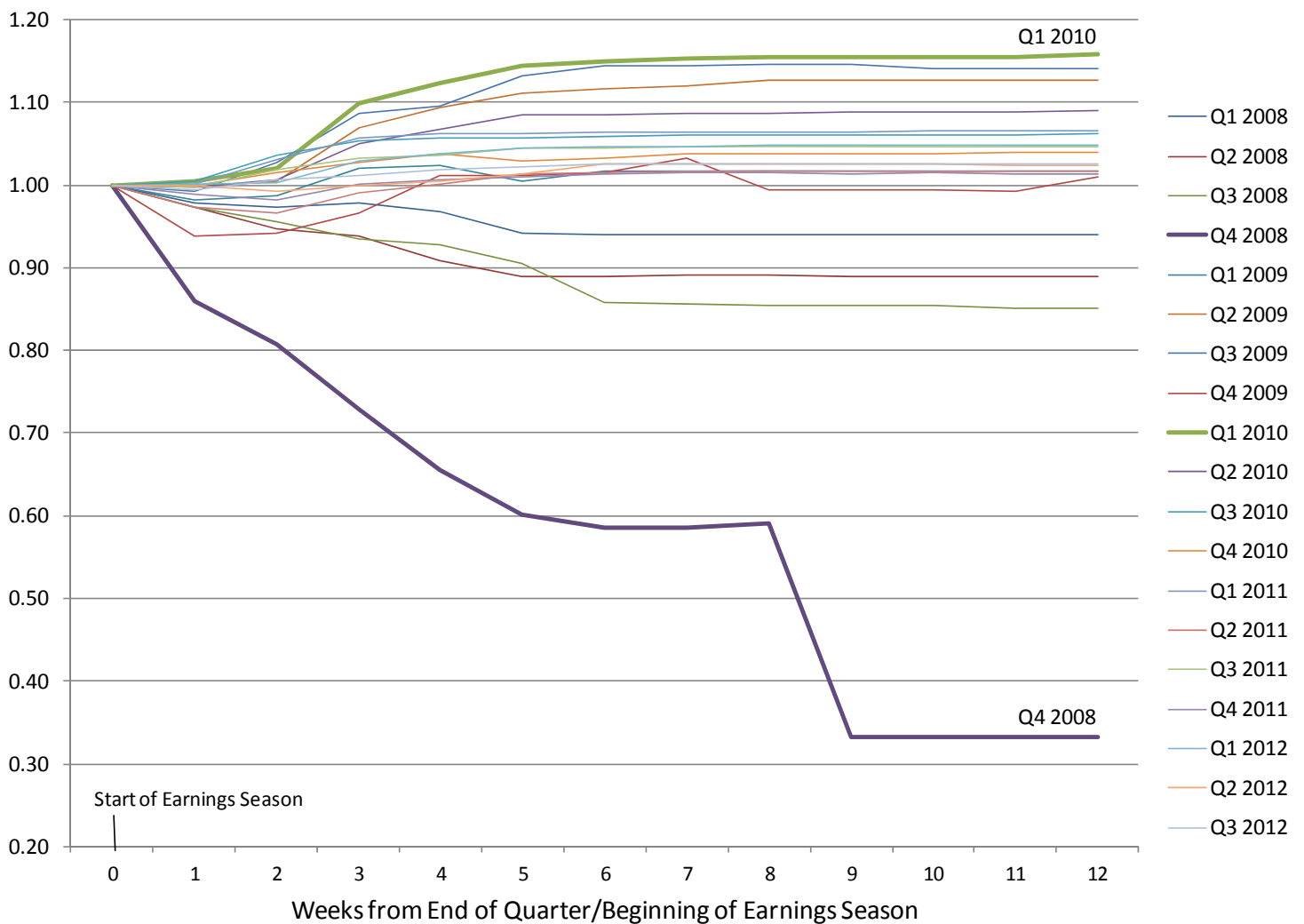


Source: Thomson Reuters I/B/E/S

Throughout a calendar quarter, analysts tend to cut estimates for that quarter further to the point where they typically go below the actual earnings values. Exhibit 5, below, shows the earnings estimate trends beginning at the end of the calendar quarter (approximately the beginning of earnings season). The estimates at this point typically underestimate actual earnings, and this has held true in every quarter since the first quarter of 2009, as the economy has recovered from the financial crisis.

During earnings season, the blended earnings estimate typically goes up as companies beat their estimates. Since 1994, 62% of S&P 500 companies have beaten their earnings estimates. This high rate of companies beating estimates indicates that more analysts publish overly conservative final estimates prior to the companies reporting. The movements in the aggregate growth rate for the index bear this out as well, as the estimated earnings growth rate typically hits its low point at the end of the quarter, immediately prior to the bulk of companies reporting.

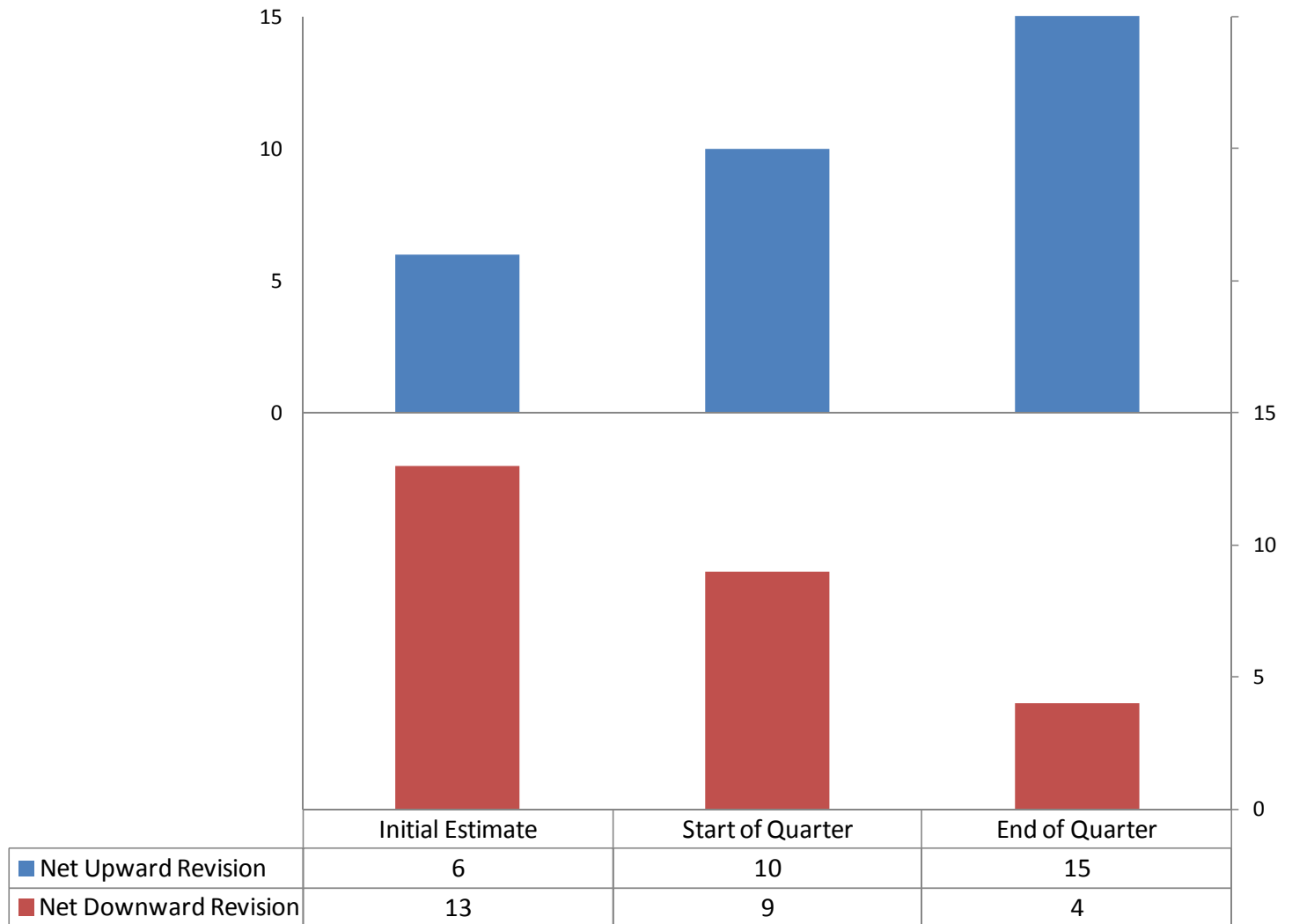
EXHIBIT 5. S&P 500 QUARTERLY EARNINGS ESTIMATES, INDEXED TO 1 – END OF QUARTER TO FINAL



Source: Thomson Reuters I/B/E/S

The direction of analyst error tends to change throughout the period leading up to and throughout the quarter. As shown below in Exhibit 6, it has been more likely for analysts to overestimate earnings growth initially followed by downward revisions than for the opposite to happen. By the time the calendar quarter begins, there is roughly an even chance that estimates will be revised upward or downward in aggregate. When the quarter ends and earnings season begins, it is more likely that upward revisions and positive earnings surprises will outweigh downward revisions and earnings misses.

EXHIBIT 6. AVERAGE ESTIMATE ERROR

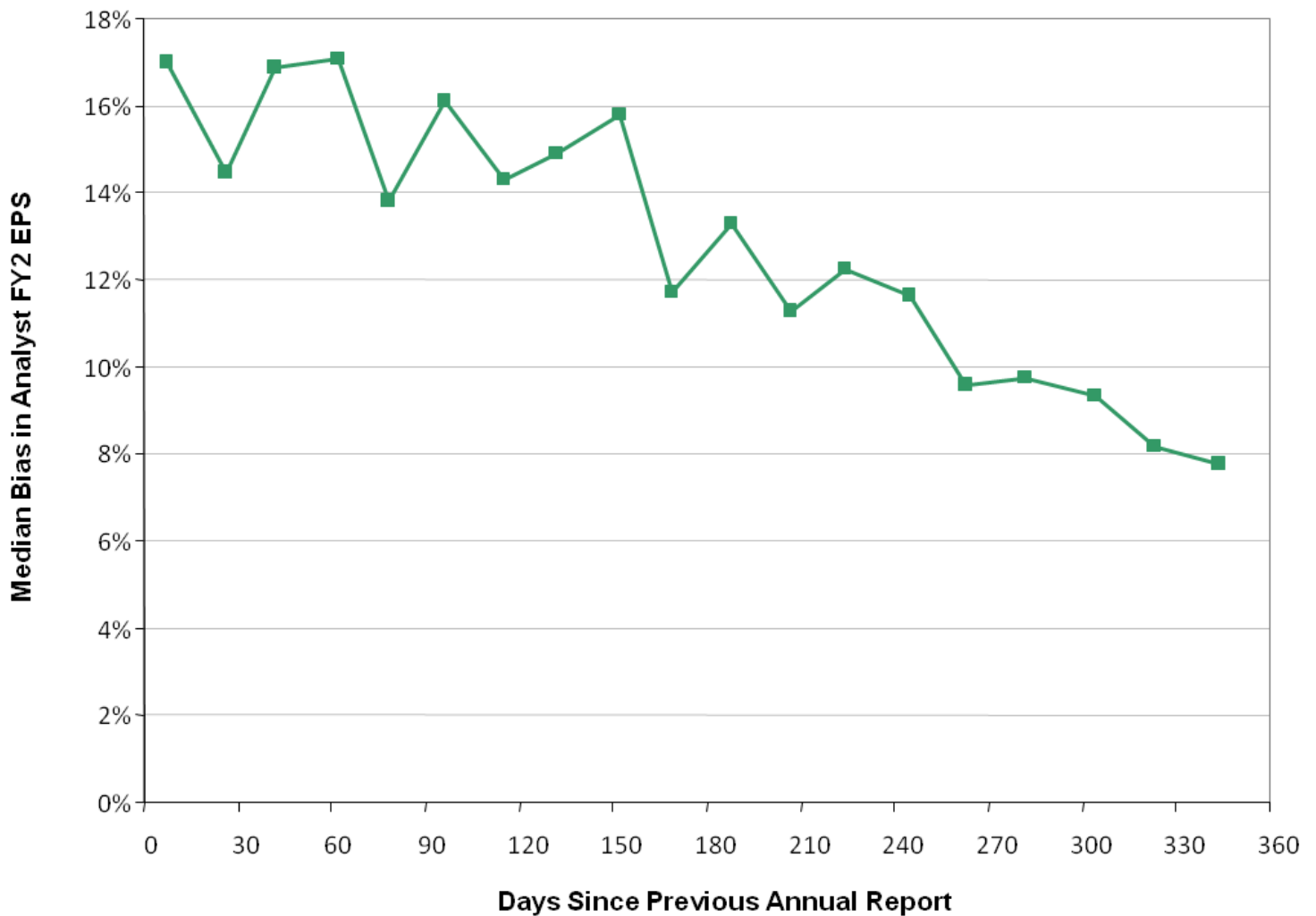


Source: Thomson Reuters I/B/E/S

CONFIRMATION OF STARMINE RESEARCH

The findings of this analysis support the conclusions of previous research done in the development of the StarMine Intrinsic Valuation Model (IV). A similar bias was found globally in annual earnings estimates where earnings estimates increase in proportion to the time until companies report. As seen below in Exhibit 7, analysts tend to overestimate their annual earnings forecasts by about 17% when looking two years ahead. A year later, this bias falls below 8%. The estimation bias in earnings estimates is a persistent phenomenon that appears to be mostly related to the general human trait to be overoptimistic about the future. For more details about how the StarMine Intrinsic Valuation Model (IV) adjusts for this factor when estimating the intrinsic value of equity, please refer to the StarMine Intrinsic Valuation Model (IV) white paper.

EXHIBIT 7. MEDIAN BIAS IN ANALYST FY2 ESTIMATES – GLOBAL, 1998-2008



Source: StarMine Intrinsic Valuation Model (IV) White Paper

CONCLUSION

A persistent bias in earnings estimates exists, and it varies based on the time remaining until companies report earnings results. Initially, analysts tend to overestimate earnings when initially submitting forecasts nine months prior to the quarter in questions. The estimates are steadily cut throughout the run-up to earnings season as overconfidence wanes and negative company issued guidance informs market participants that the companies themselves believe analyst estimates are generally too high. Eventually, estimates fall below the true value of earnings and set the stage for companies to post positive surprises.

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