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Hand, J, Laurion, H, [Lawrence, A](#) and Martin, N

(2021)

Explaining firms' earnings announcement stock returns using FactSet and I/B/E/S data feeds.

Review of Accounting Studies.

ISSN 1380-6653

(In Press)

DOI: <https://doi.org/10.1007/s11142-021-09597-6>

Springer Verlag (Germany)

<https://link.springer.com/article/10.1007/s11142-0...>

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Explaining Firms' Earnings Announcement Stock Returns Using FactSet and I/B/E/S Data Feeds

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We appreciate the comments of Mark Bradshaw, Ole-Kristian Hope, Morten Jensen (Discussant), Peter Joos, Bjorn Jorgensen, Jim Ryans, Richard Sloan, and workshop participants at the Aarhus University, London Business School, IESE, the Third Annual Scandinavian Accounting Research Conference, and UNC–Chapel Hill.

Explaining Firms' Earnings Announcement Stock Returns Using FactSet and I/B/E/S Data Feeds

ABSTRACT

Since 2001, the number of financial statement line items forecasted by analysts and managers that I/B/E/S and FactSet capture in their data feeds has soared. Using this new data, we find that 13 item surprises—11 income statement and 2 cash flow statement analyst and management guidance surprises—reliably explain firms' signed earnings announcement returns. No balance sheet or expense surprises are significant. The most important surprises are (i) one-quarter-ahead sales guidance surprise, (ii) analyst sales surprise, (iii) annual Street earnings guidance surprise, and (iv) analyst Street earnings surprise. We also find that the adjusted R^2 s of our multivariate regressions are three times higher than those of univariate Street earnings surprise regressions, and that the four most important surprises account for approximately half of this increase in explanatory power.

Keywords: Signed earnings announcement returns, analyst forecast surprises, management guidance surprises, FactSet, I/B/E/S

JEL Classifications: G12, G17, M41

Data Availability: Data are available from the sources cited in the text.

I. INTRODUCTION

Ever since the seminal papers of Ball and Brown (1968) and Beaver (1968), accounting researchers have been keenly interested in the information content of firms' earnings announcements. In this paper we contribute to the branch of this research that has focused on measuring information content through the relations between financial statement surprises and firms' signed stock returns. We document that the number of financial statement line items forecasted by analysts and managers that I/B/E/S and FactSet capture in their electronic data feeds has soared, and we show that investors respond to many more individual financial statement line item surprises at earnings announcements than had been previously assumed.

We combine I/B/E/S's Summary History and FactSet's Standard DataFeed Estimates data feeds over the years 1990–2016. As of Q4:2016, the union of these two data feeds contained 160 different quarterly items that were forecasted by analysts, along with one-quarter-ahead and one-fiscal-year-ahead guidance provided by management on 89 financial statement items. Onto this data we overlay Compustat Snapshot and 10-Q/10-K specifics as to which line item actuals were reported at

firms' earnings announcements to create a new, large, and detailed point-in-time-measured dataset of analyst forecast and management guidance surprises. We refer to this as the IUF dataset.

Since our focus is on financial statement line items, we limit our analyses to non-KPI surprises, of which there are 34, where each is defined as the dollar surprise scaled by the preannouncement market cap. We project the set of financial statement line item surprises onto firms' earnings announcement stock returns via a series of univariate and multivariate OLS panel regressions. Our regressions enable us to classify which of the highly granular set of analyst-forecast and management-guidance financial statement surprises reliably explain cross-sectional variation in firms' signed earnings announcement returns. A summary of our findings is as follows.

First, we document that in the 2008–2016 period, where the IUF dataset contains the richest set of forecast surprises, 11 income statement–based and 2 cash flow statement–based analyst and/or management-guidance forecast surprises reliably explain firms' signed earnings announcement returns. Alternatively categorized, 8 of the total of 13 significant surprises are analyst-based retrospective surprises (viz., actuals for the most recent quarter as compared to analyst forecasts just prior to the earnings announcement), while 5 are management guidance–based prospective surprises (viz., guidance provided in the earnings announcement window by management for the next quarter/fiscal year compared to analyst forecasts just prior to the earnings announcement for that same quarter/fiscal year). The four most important surprises across our analyses are (i) one-quarter-ahead sales guidance surprise, (ii) analyst sales surprise, (iii) annual Street earnings guidance surprise, and (iv) analyst Street earnings surprise.¹ However, no expense or balance sheet line items are significant. The fact that 13 analyst and management forecast surprises reliably explain earnings announcement returns indicates that investors reprice firms' equity at their earnings announcements based on a larger set of financial statement line items than just Street earnings surprise alone.

¹ The notion of Street earnings surprise was introduced into the academic literature by Bradshaw and Sloan (2002).

Second, we find that the adjusted R^2 s of multivariate regressions that include all available surprises are three times larger than those of univariate regressions in which the independent variable is Street earnings surprise alone. This finding complements prior work by Francis, Schipper and Vincent (2002), who find that the unsigned magnitude of investors' reaction to earnings announcements is positively associated with the number of financial statement line items disclosed concurrently with earnings. Our examination of signed returns and our novel dataset are important because they allow us to analyze specific financial statement surprises and rank the important components of financial results. To us, our evidence suggests that some of the disappointment expressed in prior studies about the usefulness of accounting data at earnings announcements, which was based on the low univariate explanatory power of GAAP or Street earnings surprise, is somewhat mitigated by the examination of a richer set of financial statement-based surprises (see, e.g., Lev 1989; Lev and Gu 2016).

Third, we show that the top four surprises account for a significant portion of the improved explanatory power of financial statement surprises for earnings announcement stock returns. Over the years 2008–2016, when all 34 item surprises were generally available through forecast data providers, the inclusion of the set of all surprises escalates the average adjusted R^2 of annual earnings announcement regressions from 2.8% (when the sole independent variable is actual quarterly Street Earnings surprise) to 7.7%. Including only the top four item surprises increases the adjusted R^2 from 2.8% to 5.3%. Thus, the top four surprises account for roughly half the improvement in the explanatory power of financial statement surprises for earnings announcement stock returns. The inclusion of only the top 13 item surprises increases the adjusted R^2 from 2.8% to 7.5%, representing 97% of the explanatory power of the full model of 34 surprises.

Fourth, we find that the amount of variation in signed earnings announcement returns that can be explained depends materially on how surprises are scaled within the linear OLS regression structure. Over the period 2008–2016, the average adjusted R^2 in panel regressions where the sole independent

variable is Street earnings surprise is 2.8% if Street dollar surprise is scaled by market cap, but 7.6% if this definition of Street surprise is then ranked annually into 100 quantiles. Similarly, the average adjusted R^2 in panel regressions that contain the full set of analyst forecast and management guidance surprises is 7.7% if each dollar surprise is scaled by market cap, but 13.4% when each surprise thus defined is then quantiled. These results suggest that there are material nonlinearities in the relations between surprises and earnings announcement returns that are not seen when the conventional linear OLS structure is employed. This said, we note that the correlation between the ranks of the t -statistics on the 13 significant surprises across the two scaling approaches described above is 0.85, so the effects of scaling are seen much more in the measured total explanatory power than in the relative magnitudes of the estimated surprise coefficients.

Overall, we believe our study contributes to the accounting literature in several ways. We introduce to the literature the union of the I/B/E/S and FactSet analyst and management-guidance data feeds. When combined with detailed actuals data from Compustat Snapshot and 10-Qs/10-Ks, the resulting rich and detailed point-in-time-measured set of forecast surprises is the most comprehensive proxy for the accounting-based new information that investors have access to at firms' earnings announcements. Not only do we add to the insights of prior work on the information content of earnings, but we also report the first results we are aware of concerning the relative importance to investors of (future-oriented) management guidance versus (backward-looking) analyst forecast errors and the importance of analyst and management-guidance sales surprises as compared to Street earnings surprise. Additionally, by studying the IUF dataset we add to the emerging literature on the transmission and dissemination of information in financial markets. In particular, to the best of our knowledge this is the first study not only to illustrate the importance of sales guidance in explaining stock returns but also to highlight that sales guidance measures are more important than earnings-based guidance measures in explaining variation in signed earnings announcement returns.

Our paper also draws attention to the increasingly detailed financial statement data that are available to stock market participants. In addition to I/B/E/S and FactSet, we note that as of 12/31/18, the worldwide Insights platform of Visible Alpha LLC, a fintech company formed by five of the world's largest investment banks to create a common language and platform for their and other brokers' analyst financial models, contains 150,000+ current and historical broker Excel models for 9,800+ companies from 100+ research providers. The typical firm in Visible Alpha's data feed has GAAP and non-GAAP income statement, balance sheet, and cash flow statement forecasts for 200+ line items quarterly for two years and annually for seven years, plus detailed forecast data on geographic breakdowns, expense models, segment information, and KPIs such as operational metrics, product-level sales, pricing, and margins. While such rich and detailed data might seem to imply that the explanatory power we document may be understated, a key result of our study is that two-thirds of all line item surprises, including all expense and all balance sheet items, are insignificant on average in explaining signed earnings announcement returns. It is thus an open empirical question as to whether, where, how, and why a larger number of more granular forecasts and forecast surprises than we employ in our IUF data set increase or leave unchanged the information content of firms' earnings announcements.

Our focus on explaining signed returns at firms' earnings announcements complements the work of Beaver et al. (2018, 2019), who document and analyze the marked increases in two alternative measures of the information content of earnings announcements—viz., return variability and trading volume—starting in the 21st century. Beaver et al. link these increases to a greater proclivity on the part of analysts and managers to issue forecasts at the same time as earnings are announced, and to the provision of more financial statement line item actuals in firms' earnings announcement press releases. Our study differs in that we focus on explaining earnings announcement returns based on all available determinants, rather than hypothesizing structural changes in earnings announcement returns. Accordingly, we focus on the years 2008–2016 because this is the period in our sample in which there

were relatively few structural changes in the number of surprise variables available through I/B/E/S and FactSet. Signed returns have historically been of primary importance in the accounting literature (e.g., Ball and Brown 1968). We also believe that investors that rely on data providers like I/B/E/S and FactSet are primarily concerned with signed returns.

The remainder of our paper proceeds as follows. In section II we describe the union of I/B/E/S's and FactSet's analyst-forecast and management-guidance data feeds, as well as the creation of our proxy for the detailed set of financial statement point-in-time-measured forecast surprises that are available to investors, which we call the IUF dataset. In section III we present descriptive statistics on the number and types of forecasts in the IUF dataset, highlighting the enormous changes that have occurred since 2001. In section IV we report the results of OLS panel regressions that project analyst-forecast and management-guidance surprises onto firms' signed earnings announcement stock returns. We discuss our findings in section V and conclude in section VI.

II. THE IUF DATASET

The starting point for our IUF dataset is the union of I/B/E/S's Summary History and FactSet's Standard DataFeed Estimates online data feeds. We use these data feeds as our proxy for the one-quarter-ahead analyst financial statement forecasts that are available to investors in real-time, machine-readable online form because I/B/E/S and FactSet are the two largest electronic financial data providers,² enabling us to reduce inferential risks due to problems of selection bias and incomplete data. While selection bias could occur if a small data provider chooses not to include certain analyst forecasts, we think this issue is addressed by using data feeds from large data providers, both because large data providers face strong incentives to satisfy their clients' demands for as much information as

² FactSet is a multinational financial data and software company that was founded in 1977 and went public in 1996. I/B/E/S (Institutional Brokers' Estimates System) was founded by Lynch, Jones & Ryan and Technimetrics and began collecting earnings estimates for US companies in 1976. Barra bought I/B/E/S in 1993, then sold it to Primark in 1995. Thomson Financial (now Thomson Reuters) bought Primark in 2000. We focus on FactSet and I/B/E/S because they are the largest providers of analyst-forecast and management-guidance online data feeds to US capital markets.

possible, and because large data providers are large by virtue of having bought smaller rivals and then likely having integrated those rivals' nonoverlapping data into their own data feeds.³ Problems from incomplete data could arise if the data-provider industry is highly fragmented and each provider has a distinct subset of data that it will not share or sell to other providers. We seek to address this by pooling the data feeds from the two largest data providers.⁴ We also use these data feeds to obtain management earnings announcement forecasts of the next quarter's or next fiscal year's financial statement items.

We purchased access to FactSet's Standard DataFeed Estimates and I/B/E/S's Summary History dataset. FactSet and I/B/E/S define their own taxonomies of unique financial statement and KPI *Measures* forecasted by analysts and reported by firms. FactSet's DataFeed consists of 194 different analyst forecast *Measures*, which we classify into 156 unique *Items* across 4 *Categories* (13 income statement; 6 cash flow statement; 10 balance sheet; and 127 KPIs), and data are available on 110 different management-guidance *Measures*, covering 87 unique *Items* across 4 *Categories* (13 income statement; 6 cash flow statement; 2 balance sheet; and 66 KPIs). The I/B/E/S dataset contains 29 analyst forecast *Measures*, which we classify into 16 unique *Items* in 4 *Categories* (7 income statement; 3 cash flow statement; 2 balance sheet; and 4 KPIs), and data are available on 14 different management-guidance *Measures*, covering 11 unique *Items* across 3 *Categories* (7 income statement; 2 cash flow statement; and 2 KPIs). When the I/B/E/S and FactSet data feeds are combined, we obtain a total of 223 *Measures* that we classify into 160 unique *Items* (13 income statement; 6 cash flow

³ A key part of FactSet's strategy has been to combine with its own databases the disparate databases of many smaller data vendors that it has acquired. See <https://en.wikipedia.org/wiki/FactSet>.

⁴ The FactSet and I/B/E/S analyst forecast data feeds differ in how the data are collected. I/B/E/S data are supplied to I/B/E/S by analysts, while FactSet's data are primarily gathered manually from analysts' PDF reports by FactSet employees. This means that the databases are subject to different sources of bias and/or error. I/B/E/S history data constitute at root a voluntary disclosure that for a variety of strategic or other reasons may not exactly reflect the contents of analysts' PDF reports or full Excel-based financial models. However, the strengths of the I/B/E/S approach are that there is less ambiguity about what analysts are forecasting (since they supply it directly to I/B/E/S in a standardized manner), and analysts can supply I/B/E/S with better information than they disclose in their PDF reports. In contrast, since FactSet estimates are manually extracted from analysts' reports, analysts are not able to choose to supply different information in their reports versus their database feeds. Potentially offsetting this advantage is the risk that FactSet employees may misinterpret analysts' PDFs and/or incorrectly enter the data they contain.

statement; 10 balance sheet; and 131 KPIs).⁵ We detail our classification of these *Measures* into *Items* and *Categories* in appendix A.

We limit our attention to the non-KPI items in the IUF dataset. We do so in order to most directly connect ourselves with the extant literature, as the non-KPI items are all financial statement line items or subtotals, and prior work has focused on financial statement line items. In this regard, for analyst forecasts we use the consensus one-quarter-ahead analyst forecasts in the IUF dataset that are closest to firms' quarterly earnings announcement dates. Additionally, many KPIs are unique to each firm or industry, and accordingly, almost all of the KPIs failed to meet our threshold that a surprise item must be available for at least 5% of our sample firms in a given year. It appears that firm-level time-series or industry-specific cross-sectional analyses may be the best ways to assess the importance of KPIs; this is beyond the scope of the current study.⁶

For each firm's earnings announcement in 1990–2016, we assemble a table of all *Measures* that have at least one analyst forecast prior to the announcement.⁷ When there are multiple consensus periods for the same *Measure*, we select the most recent consensus period prior to the earnings announcement. For each *Measure*, we have data from either FactSet or I/B/E/S on the number of analysts forecasting the *Measure*, the median forecast, and the actual. For each *Item*, we take the FactSet or I/B/E/S *Measure* with the largest number of analysts forecasting the *Measure*.⁸ For guidance we have the actual guidance reported by the company and the analyst consensus for that *Measure* and time period, based on the most recent consensus period prior to the earnings

⁵ We do not undertake separate analysis on FactSet and I/B/E/S data, because each dataset has been built up over time as FactSet and Thomson Reuters have acquired smaller data providers.

⁶ In an untabulated analysis, we include KPI surprises in our annual regressions of earnings announcement returns on analyst forecast and guidance surprises. We find no significant improvement in the overall explanatory power (i.e., adjusted R^2) of the model. There are no changes in our top four ranked surprises. The 13 non-KPI surprises with average t -statistics above 1.95 between 2008 and 2016 remain significant. We find 1 KPI, same-store sales for the retail industry, that has an average t -statistic above 1.95 during the 2008 to 2016 period. Same-store sales data are available for approximately 50–80 firms per quarter.

⁷ We require that the analyst consensus period begin no earlier than the first day of the quarter forecasted and no later than the earnings announcement date, and that the earnings announcement date be within 150 days of the quarter-end.

⁸ Of the non-KPI item observations that we use in our analysis, 60% are from FactSet and 40% are from I/B/E/S. All KPI items are from FactSet because we did not have access to I/B/E/S KPIs.

announcement. This yields a maximum of 75 *Measures* representing 29 unique *Items* that could possibly be forecasted for any given earnings announcement (see appendix A).⁹ We then define a number of variables based on this table of *Measures*, the details of which are shown in appendix B.

In table 1 we display the sequence in which items enter the IUF dataset over time. Panel A shows the first appearance of each of the non-KPI items forecasted by analysts and the percentage of analyst-covered firms for which the item is forecasted, subject to the percentage being sufficiently material, which we define to be at least 5%. Likewise, panels B and C show the first appearance of each of the three quarterly-horizon and five annual-horizon management guidance items and the percentage of analyst-covered firms for which the item is forecasted, subject to the percentage being at least 5%. Panel A shows that before 1998 the only one-quarter-ahead consensus analyst forecast item that was captured and disseminated by FactSet or I/B/E/S data feed was Street earnings. Starting in 2002, however, there begins a marked and steady increase in the number of forecasted financial statement items in the union of FactSet’s and I/B/E/S’s data feeds. Panels B and C reveal that quarterly and annual management guidance items have been almost exclusively income statement focused, and that in contrast to analyst forecasts, no major new guidance items have been added to the IUF dataset since 2007. For most items the predominant pattern is that the percentage of analyst-covered firms for which the forecasted item is present in the IUF dataset reaches a steady-state level in approximately three to four years.

In figure 1 we depict how we arrive at the main sample that we use to explain firms’ signed earnings announcement stock returns. We begin with all firm-quarters in the Compustat Fundamentals Quarterly database for the fiscal years 1990:Q1–2016:Q4. We then require that the three-day abnormal stock return *ABRET* centered on the firm-quarter’s earnings announcement be calculable. This yields sample [1], which consists of 603,735 earnings announcements. The hill-shaped pattern over time in

⁹ Three *Items* are omitted from appendix A because we require item surprises to be available for at least 5% of our sample firms in a given year. The *Items* that do not meet that threshold in any year are ITEM 5 – “Deferred Revenue – Short Term”, ITEM 7 – “Deferred Revenue – Long Term”, and ITEM14 – “Stock Option Expense.”

the number of observations in sample [1] matches the well-known increase and decrease in the number of publicly traded US firms before and after the Internet boom in 2000 and the subsequent introduction of Sarbanes-Oxley in 2002.

Our primary dataset is sample [2C], which is a subset of sample [1] comprising 379,437 firm earnings announcements that in addition have one-quarter-ahead consensus analyst forecasts of Street earnings in either the I/B/E/S Summary History data feed or the FactSet Standard DataFeed Estimates, and for which there is at least one *Measure* of consensus analyst forecast surprise that can be calculated. For all financial statement *Measures*, our baseline definition of the analyst forecast surprise for quarterly financial statement item X is the realized value of X_t disclosed in the three-day earnings announcement window for the prior fiscal quarter t less the most recent consensus analyst forecast for X_t before the earnings announcement, scaled by the preannouncement market value of equity (MVE). We define the quarterly (annual) management guidance surprise for X as the management forecast of X in the next fiscal quarter (year), X_{t+1} , that is disclosed in the earnings announcement window less the most recent consensus analyst forecast for X_{t+1} before the earnings announcement, scaled by MVE. Then, in order for the IUF dataset to be an unbiased proxy for the full set of analyst and management-guidance financial statement line item surprises that are available in real time to investors, we use Compustat Snapshot and firms' date-specified 10-Q/10-K filings to identify the line item actuals that were reported at firms' earnings announcements. We then calculate the surprises only for line items that were actually reported at firms' earnings announcement dates, winsorizing all surprises at +/- 10% of MVE. Overall, these steps yield us the detailed point-in-time-measured dataset of analyst forecast and management guidance surprises that we term the IUF dataset.

We refer to firms in sample [2C] as analyst-covered firms, noting that sample [2C] contains forecasts from only I/B/E/S prior to the start of FactSet coverage in 2002:Q3, at which point the union

of I/B/E/S and FactSet results in more observations than either data feed alone. Samples [2A] and [2B] comprise 193,456 FactSet and 374,905 I/B/E/S firm-quarter earnings announcements, respectively.¹⁰

III. DESCRIPTIVE STATISTICS

Forecasts and forecasted items

In figure 2, panel A, we display on a quarterly basis the total number of consensus analyst forecasts (left-hand axis) and management guidance forecasts (right-hand axis) across all forecasted financial statement items in the IUF dataset. The plot shows striking increases in each series starting in 2002 and 2000, respectively. The total number of quarterly consensus analyst forecasts increases from 7,116 in 1990:Q1 to 263,356 in 2016:Q4, while the number of quarterly plus annual management guidance forecasts increases from zero before 2000:Q1 to 5,618 in 2016:Q4.

Panel B presents the mean numbers of analyst-forecasted and management-guidance items per analyst-covered firm. While the former series shows the same sharp upward pattern as in panel A, by 2016:Q4 the mean number of analyst-forecasted items is 13.8, almost ten times the mean number of guidance items per analyst-covered firm (1.5). A similar upward pattern is seen for items across all three analyst-forecasted statements in panel C. However, panel C also reveals that income statement items dominate items from other statements, especially for analyst forecasts. As of 2016:Q4, the mean number of income statement category items (8.6) far exceeds the mean number of balance sheet (3.0) and cash flow statement (2.2) forecasts, and the mean number of income statement guidance items (1.2) is four times that of cash flow statement guidance items (0.3). This finding leads us to conjecture that if I/B/E/S and FactSet are providing the information that their clients find to be economically most valuable, then analysts and management forecasts of income-statement-related items are substantially more valuable than those of non-income-statement-related items.

¹⁰ We caution against reading figure 1 as suggesting that FactSet adds very little beyond I/B/E/S, or vice versa. This is because we use historical data feeds as of early 2017, and both FactSet and I/B/E/S regularly add to their data feeds forecasts that were available in real time from other vendors' data feeds but not from their own.

The sharp upward patterns observed in figure 2 may have two explanations: (a) over time analysts forecast more and more individual financial statement items, or (b) over time I/B/E/S and FactSet are capturing more and more different financial statement forecasts from analysts' reports. We examine this issue by hand-collecting item forecasts from analyst reports. Starting in 1998 and ending in 2007 (the period of the most pronounced increase in item forecasts available through I/B/E/S and FactSet) we randomly select 20 firms per year. For each observation, we search Investext for all broker reports filed within the six months leading up to the earnings announcement. We select up to three analyst reports filed closest to the earnings announcement date and search those reports for a quarterly or annual forecast for each of the 26 financial statement items covered by the IUF dataset. Figure 3 depicts the results of our hand collection compared to the item forecasts available in I/B/E/S and FactSet. The upward-trending black line shows that, within our random sample of 20 firms per year, I/B/E/S and FactSet item coverage increased from approximately 1.25 items per firm in 1998 to 7.8 items per firm in 2007. In comparison, the red dashed line indicates no corresponding trend within the analyst reports themselves. Further, within the random sample of 200 firm-quarters (20 per year for 10 years), the Pearson correlation between the number of items hand-collected in analyst reports and the fiscal year is 0.11 (not statistically significant), whereas the correlation between the number of item forecasts available through I/B/E/S or FactSet and the fiscal year is 0.80 (significant at the 0.01 level). Overall, we find that whereas the average number of items available through I/B/E/S and FactSet increased from 1998 through 2007, the number of item forecasts contained within analysts' reports has shown no discernable trend.¹¹

¹¹ Chuk, Matsumoto, and Miller (2013) hand-collect the actual provision of management forecasts. They find an increase in management forecasts between 1997 and 2001 (implementation of Regulation FD), but a relatively flat or declining trend between 2001 and 2007.

IV. EXPLAINING FIRMS' SIGNED EARNINGS ANNOUNCEMENT STOCK RETURNS

Having shown that the number of and richness in the analyst and management guidance forecasts and forecast surprises available through I/B/E/S and FactSet to (sophisticated) investors has dramatically increased since 2001, we turn to the use of the detailed new data to better understand a key aspect of the information content of earnings announcements—namely, firms' stock returns at these dates. We do so by estimating annual cross-sectional regressions of signed earnings announcement stock returns on the analyst and guidance forecast surprises in the IUF dataset over the period 1990–2016.

Descriptive statistics

In table 2 we report the distributional statistics for nonmissing analyst and guidance surprises. Each surprise is scaled to be a percentage of preannouncement market cap, and the data for each surprise is pooled over 1990:Q1–2016:Q4, then trimmed at $\pm 10\%$ of market cap. The “% Non-missing” column indicates the percentage of firm-quarters within our full sample that have a non-missing surprise available for each item. The “Mean Number of Forecasts” column indicates the mean number of unique analysts forecasting each item.

In table 3 we report the pair-wise correlations among the abnormal 3-day stock returns at firms' earnings announcements and the 34 point-in-time analyst forecast surprises and management guidance surprises. Pearson (Spearman) correlations are above (below) the diagonal, and cells are color-coded: white is a correlation of zero, and increasingly red (blue) cells represent increasingly positive (negative) correlations. The highest correlations are among different line items within the same financial statement, which is not surprising given that many line items overlap based on how they are defined. Correlations among different line items across different financial statements tend to be smaller.

Main regression results

In table 4 we present the results of annual cross-sectional OLS regressions of *ABRET*, the 3-day abnormal stock returns at firms' earnings announcements, on consensus analyst forecast surprises and management guidance surprises for up to 34 forecasted income statement, cash flow statement, and balance sheet items. Each regression contains up to four quarterly earnings announcements per firm with the associated *ABRET* and surprises. We address missing values using dummy variables: if a surprise for a given item is missing, we set the missing-value dummy for that item equal to 1, and zero otherwise. Slope coefficients on the missing-value dummies and regression intercepts are estimated but not reported, and *t*-statistics are in parentheses. On the far right-hand side of each panel, for each surprise we report the average coefficient and average *t*-statistic over the 2008–2016 period, and the average incremental R^2 . We focus on the years 2008–2016 because this period is the one for which the IUF dataset consistently contains the richest set of forecast surprises.

To set a baseline consistent with the prior literature, in panel A the sole independent variable in the annual panel regressions is Street earnings surprise, with significant univariate coefficients and *t*-statistics on analyst Street earnings surprise shown in gray. Then in panels B and C we include all 34 analyst and guidance surprises in each annual regression as they become available over calendar time based on FactSet's and I/B/E/S's inclusion of the underlying analyst and management forecasts in their data feeds, and firms' reporting of the corresponding actuals in the earnings announcement window. For ease of view, in panel B we report only the estimated coefficients and associated *t*-statistics for the subset of surprises where the mean absolute *t*-statistic over the 2008–2016 window (panel B, second column from the right) is greater than or equal to 1.95. For completeness, the results for surprises that had on average insignificant coefficient estimates are shown in panel C. In panels B and C we color-code significant multivariate coefficients on Street earnings surprise in green; those on non-Street earnings analyst surprises in blue; and those on guidance surprises in yellow.

We highlight several results in table 4. First, the regressions reported in panel A confirm the findings of earlier studies that Street earnings surprise is a highly significant univariate determinant of firms' signed earnings announcement stock returns (annual t -statistics range between 10.7 and 26.9). However, also consistent with earlier studies, and despite the high t -statistics, univariate Street earnings surprise only explains between 0.9% and 4.5% of the total cross-sectional variation in returns.

Second, and in sharp contrast to panel A, the multivariate results in panels B and C show that of the full set of 34 analyst and guidance surprises, just 11 different income statement-based plus 2 cash flow statement-based analyst and management guidance line item surprises explain firms' signed earnings announcement returns during 2008–2016. Based on both their t -statistics and incremental adjusted R^2 s, the four most important items are one-quarter-ahead sales guidance, analyst sales surprise, annual Street earnings guidance, and analyst Street earnings surprise.¹²

Alternatively categorized, 8 of the 13 significant surprises are analyst-based retrospective surprises (that is, actuals for the most recent quarter as compared to analyst forecasts just prior to the earnings announcement), while 5 are management guidance-based prospective surprises (i.e., guidance provided in the earnings announcement window by management for the next quarter or fiscal year compared to the median analysts' forecasts for that same quarter/fiscal year that was in place prior to the earnings announcement).

We further observe that, going down the income statement, three of the significant surprises are top-line sales revenue, four are intermediate income subtotals, and four are bottom-line Street or GAAP earnings. As evidenced in panel C, no expense or balance sheet line items have mean t -statistics with magnitudes greater than 1.95 over 2008–2016, nor indeed over the entire sample period. Mean coefficient estimates across all significant surprises are positive, as would be expected given the nature of the line items or subtotals that they represent. Lastly, none of the 13 surprises that have been added

¹² We base our assessment of significance on t -statistics because in panel B the correlation between t -statistics and incremental R^2 is 0.98.

to the IUF dataset since the Great Recession in 2008 displays any significant incremental explanatory power—including SG&A, depreciation, R&D, and income taxes.

The large number of mainly income statement line items that we find to be significant, and the fact that both analyst and management types of forecast surprises matter, indicate that investors reprice firms' equity at their earnings announcements based on a much larger set of financial statement line items than analyst Street earnings surprise alone. In particular, while Street earnings surprise remains a key multivariate determinant of signed earnings announcement returns (mean t -statistic = 5.8), when judged by t -statistics, analyst sales surprise (mean t -statistic = 7.6) and management sales guidance surprises (mean t -statistic on one-quarter-ahead sales guidance surprise = 8.2, mean t -statistic on annual sales guidance surprise = 5.0) are of similar importance to analyst Street earnings surprise and guidance Street earnings surprise (mean t -statistic on one-quarter-ahead guidance Street earnings surprise = 4.1, mean t -statistic on one-year ahead guidance Street earnings surprise = 5.9).

The third finding in panel B that we highlight is that multivariate adjusted R^2 s are up to four times larger than univariate adjusted R^2 s (2014: 7.6% vs. 1.9%), with the mean multivariate adjusted R^2 of 7.7% over 2008–2016 being nearly 3 times that of the mean univariate adjusted R^2 of 2.8% during that period. To us, this evidence suggests that some of the disappointment expressed in prior studies about the usefulness of accounting data at earnings announcements, which was based on the low univariate explanatory power of GAAP or Street earnings surprise, is somewhat mitigated by the examination of a richer set of financial-statement-based surprises (see, e.g., Lev 1989; Lev and Gu 2016).

In figure 4 we visualize the fifth key finding from our univariate versus multivariate panel regressions—namely, the sources of the large differences in the adjusted R^2 s between the two specifications. We plot the time series of the annual adjusted R^2 s with analyst Street earnings surprise only (blue dotted line) and all 34 surprises (solid black line). The solid black line indicates a significant increase over time in our ability to explain variation in short-window earnings announcement returns.

The improved explanatory power is due to the rich set of financial statement surprises that are now available through I/B/E/S and FactSet. The two intermediate lines depict the adjusted R^2 s obtained when including the top four surprises only (orange dashed line) and the top 13 surprises only (green dashed line) in annual multivariate regressions. Since 2008, the top four surprises (orange dashed line) account for slightly more than half of the total difference between the Street-earnings-only adjusted R^2 and that of the full set of 34 financial statement surprises. During the same period, the top 13 surprises (green dashed line) account for 97% of the total explanatory power of the full model comprising all 34 financial statement surprises.

Additional regression results

We estimate the same regressions as in table 4 for three economic cuts of the IUF data: guidance versus nonguidance firms, high-revenue-growth versus low-revenue-growth firms, and Street-profit versus Street-loss firms.¹³ From the results of these regressions (reported in table 5), the most material cut occurs for guidance firms versus nonguidance firms, and in four regards. First, while the mean univariate adjusted R^2 s for guidance and nonguidance firms are similar at 2.8% vs. 3.1%, respectively, the mean multivariate adjusted R^2 of 10.2% for guidance firms is more than 50% greater than the 6% for nonguidance firms. Second, in the univariate and multivariate regressions, the mean coefficient on Street earnings surprise is much larger for guidance firms than for nonguidance firms. Third, the multivariate mean coefficients on Street earnings are much smaller than are the univariate mean coefficients. Fourth, while the mean estimated coefficients on the five guidance surprises in table 5 are almost identical to those in table 4, panel B, for seven of the eight nonguidance surprises it is the case that the mean estimated coefficient for guidance firms is larger than (i.e., indicates a stronger per-unit reaction than) the mean estimated coefficient for nonguidance firms. Taken overall, we see

¹³ Guidance firms are those with at least one guidance surprise available at the earnings announcement. High-revenue-growth firms are those whose prior-quarter sales are $\geq 10\%$ higher than sales four quarters earlier. Data on sales growth are not available for all firms in our sample. Street-profit firms are those for which Street earnings announced at the earnings announcement > 0 .

the results for the guidance versus nonguidance cut of the IUF data as indicating that the provision of forward-looking forecast revisions by management improves the ability of investors to better price the implications of backward-looking analyst surprises. Additionally and lastly, with regard to table 5 we note that similar (although not as pronounced) results to those of the guidance versus nonguidance firm cut can be seen across the Street profit versus Street loss cut, while the cut that separates firms by revenue growth yields few systematic differences in mean adjusted R^2 s or mean coefficient estimates.

Robustness tests

The main robustness test that we undertake is to evaluate the assumption that line item surprises are linearly related to firms' earnings announcement stock returns. As far back as Beaver, Clarke, and Wright (1979), it was recognized that the true relation between unexpected earnings and earnings announcement stock returns is unlikely to be strictly linear. Given this, and given that the main analyses in our study expand the set of candidate explanatory variables from the single surprise focused on in the prior papers (namely, Street earnings surprise) to 34 income statement, balance sheet, and cash flow statement line item surprises (including Street earnings surprise), we re-estimate our annual regressions after annually ranking each nonmissing explanatory variable used in table 4 into 100 quantiles. We emphasize that our purpose in taking a more nonparametric approach is to assess whether the major inferences we arrived at based on our study of the results in table 4 still hold when the linearity assumption in that table is relaxed, not to suggest that taking a quantiled approach is more correct, since the economic absolute interpretation of and comparison of coefficients estimated from quantiled data is problematic.

In table 6 we report the results of taking this approach for the table 4 regressions, noting the following. First, every adjusted R^2 in panels A and B of table 4 is larger than its equivalent in table 6. On average over 2008–2016, the mean univariate adjusted R^2 in table 4 is 2.8% versus 7.6% in table 6, while the mean multivariate adjusted R^2 s is 7.7% versus 13.4%. This is consistent with material

nonlinearities in the relations between firms' signed earnings announcement stock returns and line item surprises when the latter are measured as dollar surprises scaled by preannouncement market cap.

Nevertheless, the main takeaways from table 6 are the same as those from table 4. Per the second-right columns in panels B and C of tables 4 and 6, the same 13 (21) line item surprises are (are not) on average significant over 2008–2016. Also, while analyst Street earnings surprise has the highest mean t -statistic in panel B of table 6 versus the fourth highest mean t -statistic in panel B of table 4, the correlation between all 13 of the ranks of the t -statistics across panel B of table 4 versus panel B of table 6 is 0.85. Based on both their t -statistics and incremental adjusted R^2 s, the four most important surprises in table 6, panel B, are analyst Street earnings surprise, one-quarter-ahead sales guidance, analyst sales surprise and one-quarter-ahead Street earnings guidance. Using quantiles (table 6) rather than scaling by market value (table 4) demotes annual Street earnings guidance from the third-most-important item surprise to the fifth.

In our second robustness test, we use backward stepwise regressions to select financial statement surprises that have significant conditional associations with earnings announcement returns. Beginning with the full model, in each iteration we drop the variable with the lowest average t -statistic between 2008 and 2016, and we stop dropping variables when all remaining t -statistics exceed 1.95. In untabulated results, we find that the same 13 surprises are identified as those that have significant explanatory power for earnings announcement returns.

Lastly, Rogers and Van Buskirk (2013) argue that guidance surprises may be measured with error when guidance is bundled with the announcement of historical financial results. Specifically, they argue that guidance surprises should be conditional on how analysts predictably revise their forecasts of future earnings when current earnings are reported. Following their methodology, each year we adjust forward-earnings and forward-sales expectations based on how analysts in the prior year revised their forward-earnings and forward-sales expectations using that prior year's current earnings and sales surprises. In untabulated results, we observe a relatively immaterial improvement in the full model's

explanatory power. In particular, the average adjusted R^2 we observe from 2008 to 2016 in table 4 of 7.7% improves to 7.8% with adjusted guidance surprises. The 13 significant financial statement surprises remain significant, and annual GAAP earnings guidance surprise becomes significant. The t -statistics for Street earnings and sales guidance surprises decrease slightly.

V. DISCUSSION

We have documented that there has been a huge upsurge in the quantity and richness of the financial forecasts made by analysts and managers that are captured and disseminated by I/B/E/S's Summary History and FactSet's Standard DataFeed Estimates data feeds. We have also shown that taking this richness into account makes a substantial difference in identifying the drivers of firms' signed earnings announcement stock returns. In this section we discuss some of the limitations of our analyses and share some thoughts on the larger context surrounding our study.

First, we cannot separate out the degree to which the increasing explanatory power of a greater number of more detailed financial statement line item surprises is due to an increase in the production and/or supply of forecasts by analysts and managers, versus a decrease in the marginal cost on the part of investors (and of us as researchers) in accessing their forecasts. Analysts, managers, and investors have always faced strong demand-side incentives to forecast more than bottom-line net income and EPS, and they have done so. For example, since the 1970s Value Line analysts have published their forecasts of 22–23 quarterly and annual financial items, spread across all three statements, every 13 weeks for approximately 1,700 stocks that Value Line deems to be of interest to institutions.¹⁴

¹⁴ The items that Value Line Investment Survey has created and maintained in its *Estimates and Projections File*, a commercially available database, are sales, earnings, dividends, CAPEX, operating margin, depreciation, income tax rate, working capital, long-term debt, return on equity, and return on total capital. We choose to use the IUF data feed in our analysis for three reasons. First, Value Line's forecasts are for annual periods, not quarterly periods (e.g., current-year EPS, or one-year-ahead sales revenue). There are therefore no quarterly line item surprises to calculate at a firm's first-, second-, or third-quarter earnings announcements. Second, each of Value Line's 1,700 stocks has its forecasts updated on a set schedule only every 13 weeks. Value Line's forecasts are therefore likely staler than are those of FactSet and I/B/E/S. Third, quantitative equity hedge funds trade far more on quarterly signals than they do on annual signals. This makes FactSet's and I/B/E/S's continuously updated, online one-quarter-ahead consensus analyst forecast data feeds much more appealing to them than Value Line's staler annual horizon forecasts.

However, we think it likely that the truth is somewhere in the middle, largely because new technologies have made it both cheaper for analysts and managers to create more numerous and more detailed forecasts, and—via profit-maximizing private sector data providers—cheaper for investors to access this information (Amiram, Bozanic, Bradshaw, and Rozenbaum, 2018).

Second, we see our study as highlighting that, in contrast to the data available to and used by capital market participants in the real world, academic researchers have rarely gone beyond including GAAP or Street earnings when explaining variation in earnings announcement returns. We find just 11 papers since 1968 that have examined analysts' revenue forecasts, and 9 that have studied analysts' cash flow forecasts.¹⁵ In light of this, we propose that the data limitations imposed on or voluntarily ascribed to by the prior literature have caused researchers to pessimistically understate the importance of accounting data at earnings announcements, because our results indicate that investors have (re)priced firms' equity at earnings announcements using a far richer and more detailed set of analyst and management guidance surprises than researchers have heretofore employed.

Third, we relatedly argue that the I/B/E/S and FactSet data we study are only the tip of a rapidly growing domain of big data-type analyst forecasts and associated forecast errors. In our study we focus on only the one-quarter-ahead forecasting horizon. However, there are many reasons for attention to be paid also to longer-horizon forecasts. Normative theory in financial statement analysis and valuation calls for the creation of detailed sets of forecasted income statements, balance sheets, and cash flow statements over multiyear horizons (Penman, 2012; Lundholm and Sloan, 2013; www.wallstreetprep.com; www.trainingthestreet.com). Our study could therefore be extended to

¹⁵ Revenue forecasts: Bradshaw et al. (2018), Clark and Elgers (1973), Ertimur et al. (2003), Ertimur et al. (2011), Jegadeesh and Livnat (2006), Jones (2007), Keung (2010), Rees and Sivaramakrishnan (2007), Schreuder and Klaassen (1984), Swanson et al. (1985), and Trueman et al. (2001). Cash flow forecasts: Brown and Christensen (2014), Call et al. (2009, 2013), DeFond and Hung (2003), DeFond et al. (2007), Givoly et al. (2009), McKinnis and Collins (2011), Mohanram (2014), and Radhakrishnan and Wu (2014). We identified four papers outside of the top five accounting journals: Brown et al. (2013), Lerman et al. (2007), Pae and Yoon (2011) and Yoon and Pae (2013). We also identified two recent working papers: Calegari et al. (2016) and Ohlson et al. (2016). Also, Givoly et al. (2019) explore the information content of I/B/E/S's KPI analyst forecasts (which we do not include in our study).

include the revisions in longer-term revenues, EPS, cash flows, and other detailed financial item forecasts that analysts and managers make at the earnings announcements.

Finally, it seems likely that continued innovations in fintech—information technology applied to finance—will lead to investors having data feeds that contain individual and consensus analyst forecasts of fully detailed GAAP and non-GAAP financial statements over horizons ranging from one quarter to ten years ahead. While richer and more detailed financial statement forecast and actuals data might seem to imply that the explanatory power we document may be understated, a key result of our study is that almost two-thirds of all line item surprises, including all expense and all balance sheet items, are insignificant in explaining signed earnings announcement returns across our entire sample. We therefore see it as a genuinely open empirical question as to whether, where, how, and why a larger number of more granular forecasts and forecast surprises than we employ in our IUF data set (such as those in Visible Alpha’s dataset) increase or leave unchanged the information content of firms’ earnings announcements.

VI. CONCLUSIONS

In this paper we document that the number of financial statement line items forecasted by analysts and managers that I/B/E/S and FactSet capture in their electronic data feeds has soared. I/B/E/S and FactSet define their own taxonomies of unique financial statement and KPI *Measures* forecasted by analysts and reported by firms. When we combine the I/B/E/S and FactSet data feeds, we obtain a total of 223 forecasted *Measures* that we classify into 160 unique *Items*: 13 income statement; 6 cash flow statement; 10 balance sheet; and 131 KPIs.

We use the non-KPI subset to study the role played by the 34 financial statement line item surprises in explaining firms’ signed earnings announcement stock returns. We find that 11 income statement and 2 cash flow statement analyst and management-guidance point-in-time surprises reliably explain variation in firms’ signed earnings announcement returns. The four most important overall are

one-quarter-ahead sales guidance, analyst sales surprise, one-year-ahead Street earnings guidance, and analyst Street earnings surprise. No balance sheet surprises and no expense surprises are significant. We also find that the adjusted R^2 s of our multivariate regressions are nearly three times larger than univariate Street earnings surprise regressions.

In addition, we draw attention to the increasingly detailed financial statement data that are available to stock market participants, and in doing so we add to the emerging literature on the transmission and dissemination of information in financial markets. Overall, by alerting accounting researchers to the remarkable upsurge in the quantity and granularity of the items that analysts and managers forecast and that are now supplied at low marginal cost to investors through online data feeds such as those of I/B/E/S and FactSet, we hope to encourage future studies that can investigate the increasing availability of analyst and management forecasts of detailed financial statements and financial items.

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APPENDIX A

Listing of the full set of non-KPI data items in the FactSet, I/B/E/S, and union of I/B/E/S and FactSet (IUF) data feeds. FactSet Measures are listed in the left-hand section, along with their FactSet codes and the number of firm-quarters for which there is a consensus surprise for each Measure ($n = 57$). The middle section presents I/B/E/S Measures along with their I/B/E/S codes and the number of firm-quarters for which there is a consensus surprise for each Measure ($n = 18$). In the right-hand section, the FactSet and I/B/E/S Measures are manually consolidated into 26 unique financial statement Items, and we report the number of firm-quarters for which there is a consensus surprise for each Item. We exclude Items that are not well populated, which we define as being present for less than 5% of analyst-covered firms in any given year.

Panel A: Financial statement items

| FACTSET MEASURE | FACTSET CODE | # firm-quarters in Sample | I/B/E/S MEASURE | I/B/E/S CODE | # firm-quarters in Sample | UNION OF FACTSET AND I/B/E/S | | | # firm-quarters in Sample |
|--|---------------------|---------------------------|------------------------------------|--------------|---------------------------|------------------------------|---------|-------------------------------|---------------------------|
| | | | | | | CATEGORY | ITEM # | ITEM NAME | |
| 1 Inventories | INVENTORIES | 11,451 | | | | BS | ITEM 1 | Inventories | 11,451 |
| 2 Current Assets | CURRENT_ASSETS | 18,953 | | | | BS | ITEM 2 | Current Assets | 18,953 |
| 3 Total Goodwill | GW_TOT | 25,834 | | | | BS | ITEM 3 | Total Goodwill | 25,834 |
| 4 Total Assets | ASSETS | 50,043 | | | | BS | ITEM 4 | Total Assets | 50,043 |
| 5 Current Liabilities | CURRENT_LIABILITIES | 19,046 | | | | BS | ITEM 6 | Current Liabilities | 19,046 |
| 6 Net Debt | NDT | 26,640 | 1 Net Debt | NDT | 47,921 | BS | ITEM 8 | Debt | 53,622 |
| 7 Total Debt | TOTAL_DEBT | 9,746 | | | | | | | |
| 8 Shareholder's Equity | SH_EQUITY | 55,490 | | | | BS | ITEM 9 | Shareholder's Equity | 55,490 |
| 9 Book Value Per Share | BPS | 44,187 | 2 Book Value Per Share | BPS | 83,149 | BS | ITEM 10 | Book Value Per Share | 88,072 |
| 10 Tangible Book Value Per Share | BPS_TANG | 16,871 | | | | | | | |
| 11 Sales | SALES | 161,459 | 3 Revenue (Non Per Share) | SAL | 223,003 | IS | ITEM 11 | Sales | 230,871 |
| 12 Revenue | REV_TOT | 1,848 | | | | | | | |
| 13 Net Sales | NET_SALES | 1,508 | | | | | | | |
| 14 Consolidated Sales | SALES_C | 19 | | | | | | | |
| 15 Cost of Goods Sold | COGSI | 65,109 | 4 Cost of Goods Sold | COGS2 | 86,862 | IS | ITEM 12 | Cost of Goods Sold | 96,013 |
| 16 Selling, General and Administrative | SGA | 46,095 | | | | IS | ITEM 13 | SG&A Expense | 65,779 |
| 17 General and Administrative | G_A_EXP | 32,413 | | | | | | | |
| 18 Sales and Marketing | S_M_EXP | 18,255 | | | | | | | |
| 19 Research and Development | RD_EXP | 27,799 | | | | IS | ITEM 15 | Research and Development | 27,799 |
| 20 EBITDA | EBITDA | 75,239 | 5 EBITDA (Non Per Share) | EBT | 99,986 | IS | ITEM 16 | EBITDA | 108,270 |
| | | | 6 EBITDA Per Share | EBS | 27,798 | | | | |
| 21 EBITDA Adjusted | EBITDA_ADJ | 22,386 | | | | | | | |
| 22 EBITDA Reported | EBITDA_REP | 13,282 | | | | | | | |
| 23 Funds From Operations | FFO | 5,017 | 7 Funds From Operations | FFO | 5,500 | | | | |
| 24 Adjusted Funds From Operations | AFFO | 4,227 | | | | | | | |
| 25 EBITA | EBITA | 1,142 | | | | | | | |
| 26 EBITDAR | EBITDAR | 965 | | | | | | | |
| 27 Depreciation and Amortization | DEPR_AMORT | 37,857 | | | | IS | ITEM 17 | Depreciation and Amortization | 37,857 |
| 28 EBIT | EBIT | 120,607 | 8 EBIT (Non Per Share) | EBI | 114,598 | IS | ITEM 18 | EBIT | 169,554 |
| | | | 9 Operating Profit (Non Per Share) | OPR | 95,768 | | | | |
| 29 EBIT Adjusted | EBIT_ADJ | 22,104 | | | | | | | |
| 30 EBIT Reported | EBITR | 17,019 | | | | | | | |
| 31 EBIT Consolidated | EBIT_C | 23 | | | | | | | |

APPENDIX A (continued)

| | | | | | | | | | |
|----|----------------------------|-------------|---------|----|------------------------------------|-----|---------|---------------------------|---------|
| 32 | Interest Expense | INT_EXP | 42,674 | | | IS | ITEM 19 | Interest Expense | 42,674 |
| 33 | Pre-Tax Income | PTI | 128,764 | 10 | Pre-tax Profit (Non Per Share PRE) | | | | 170,455 |
| 34 | Pre-Tax Profit Reported | PTIAG | 25,943 | | | IS | ITEM 20 | Pre-Tax Income | 182,838 |
| 35 | Pre-Tax Profit Adjusted | PTPA | 25,577 | | | | | | |
| 36 | Consolidated Pretax Income | PTI_C | 24 | | | | | | |
| 37 | Tax Expense | TAX_EXPENSE | 41,258 | | | IS | ITEM 21 | Tax Expense | 41,258 |
| 38 | Earnings Per Share | EPS | 184,956 | 11 | Earnings Per Share | EPS | | Street Earnings | 371,113 |
| 39 | Net Profit Adjusted | NETBG | 79,935 | | | IS | ITEM 22 | | 379,437 |
| | | | | 12 | EPS - Before Goodwill | EBG | | | 3,497 |
| | | | | 13 | Cash Earnings Per Share | CSH | | | 90 |
| 40 | EPS Non-GAAP | EPS_NONGAAP | 69,799 | | | | | | |
| 41 | EPS Excluding Exceptionals | EPS_EX_XORD | 16,466 | | | | | | |
| 42 | Reported EPS | EPS_GAAP | 91,581 | 14 | GAAP EPS | GPS | | GAAP Earnings | 155,726 |
| 43 | Net Profit | NET | 136,287 | 15 | Net Income (Non Per Share) | NET | | | 194,189 |
| 44 | Net Income Reported | BFNG | 45,661 | | | IS | ITEM 23 | | 204,090 |
| 45 | Consolidated Net Income | NET_C | 26 | | | | | | |
| 46 | Consolidated EPS | EPS_C | 25 | | | | | | |
| 47 | Diluted Reported EPS | EPSRD | 22 | | | | | | |
| 48 | [No Label] | EPSAD | 10 | | | | | | |
| 49 | Cash Flow Per Share | CFPS | 31,213 | 16 | Cash Flow Per Share | CPS | | Cash Flow From Operations | 42,663 |
| 50 | Cash Flow From Operations | CF_OP | 39,620 | | | CFS | ITEM 24 | | 59,927 |
| 51 | Capital Expenditure | CAPEX | 43,345 | 17 | Capital Expenditure (Non Per CPX) | | | Capital Expenditure | 52,081 |
| 52 | Maintenance CAPEX | MAINT_CAPEX | 2,854 | | | CFS | ITEM 25 | | 57,409 |
| 53 | Free Cash Flow | FCF | 32,541 | | | CFS | ITEM 26 | Free Cash Flow | 34,088 |
| 54 | Free Cash Flow Per Share | FCFPS | 20,063 | | | | | | |
| 55 | Cash Flow From Investing | CF_INV | 29,205 | | | CFS | ITEM 27 | Cash Flow From Investing | 29,205 |
| 56 | Cash Flow From Financing | CF_FIN | 27,630 | | | CFS | ITEM 28 | Cash Flow From Financing | 27,630 |
| 57 | Dividends Per Share | DPS | 55,031 | 18 | Dividends Per Share | DPS | | Dividends Per Share | 82,104 |
| | | | | | | CFS | ITEM 29 | | 88,054 |

APPENDIX B

Definitions of abnormal stock returns and non-KPI variables in the IUF dataset

Subscripts

- m* An element of the set of 223 database *Measures* (194 in FactSet, 29 in I/B/E/S). Excluding KPIs, the set contains 75 database *Measures* (57 in FactSet, 18 in I/B/E/S) listed in appendix A. Each *Measure* is an element of one and only one *Item*
- i* An element of the set of 26 researcher-defined financial statement *Items* listed in appendix A for the union of I/B/E/S and FactSet. Each *Item* is a set of one or more database *Measures*
- c* An element of the set of 3 researcher-defined *Categories* listed: Income Statement, Cash Flow Statement, and Balance Sheet
- t* Fiscal period end

Variable Definitions (listed alphabetically)

ABRET_t Abnormal stock return at earnings announcement for period *t*. Defined as:

$$Raw\ Return_{[-1,+1]} - \hat{\alpha}_{EP} - \hat{\beta}_{EP} * Market\ Return_{[-1,+1]}$$

where *Raw Return*_[-1,+1] and *Market Return*_[-1,+1] are the 3-day raw return and value-weighted market returns surrounding the earnings announcement for period *t*; $\hat{\alpha}_{EP}$, $\hat{\beta}_{EP}$, and $\hat{\mu}_{EP}$ are estimates from a regression model that uses 3-day cumulative, nonoverlapping returns observations during the trading-day period [-130,-10), (+10,+130] relative to the earnings announcement day:

$$Raw\ Return = \alpha_{EP} + \beta_{EP} * Market\ Return + \mu_{EP}$$

The variable is winsorized at the 2nd and 98th percentiles.

Analyst Forecast Surprise_{m,t} Median analyst consensus forecast error in dollars scaled by the *Market Value* of equity at the end of the day prior to the earnings announcement window. The forecasts are taken from the latest consensus period prior to the earnings announcement for period *t* and winsorized at +/- 10%. Defined as:

$$\frac{(Actual_{m,t} - Median\ Forecast_{m,t})}{Market\ Value}$$

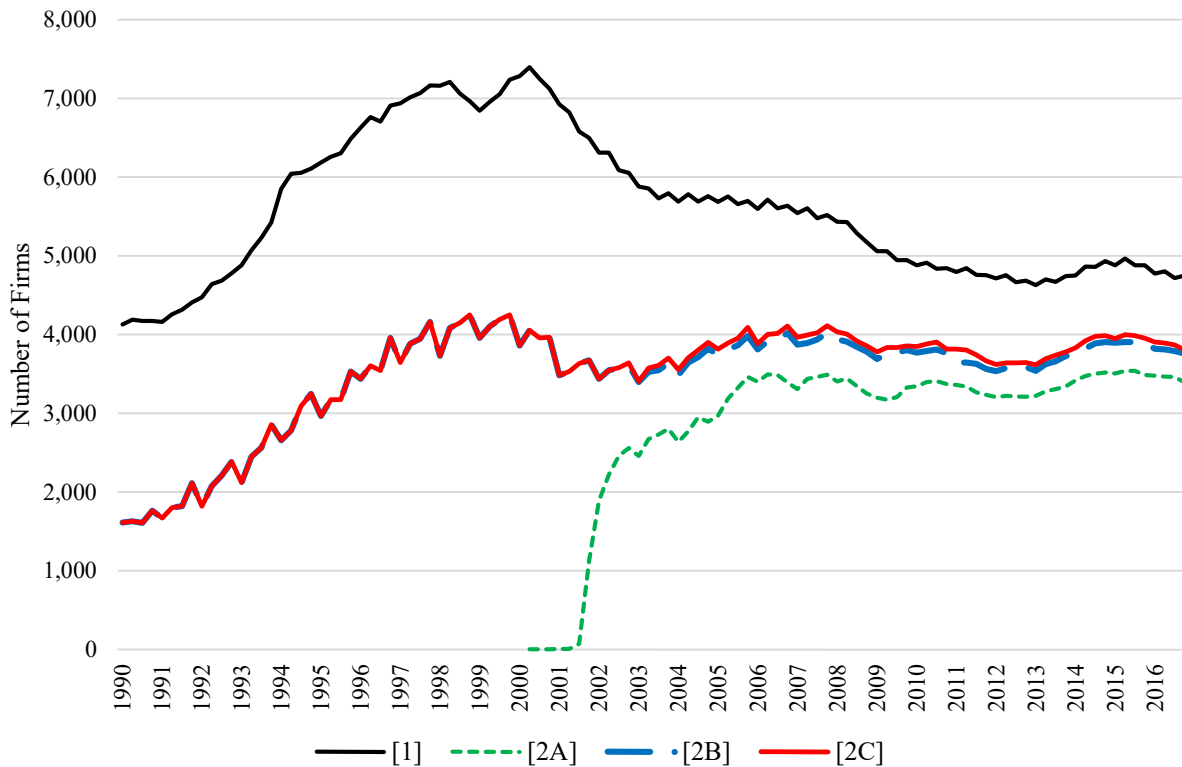
Earnings Announcement_t Defined as the 3-day window < -1, +1 >, where day < 0 > is the report date of quarterly earnings (Compustat: *rdq*) for period *t*.

Management Guidance Surprise_{m,t} New management guidance in US dollars for *Measure m* in period *t+1* reported at the earnings announcement minus the median analyst consensus forecast in dollars for *Measure m* in period *t+1* as of just prior to the earnings announcement, scaled by *Market Value*. Period *t+1* is either the next unreported quarter or next unreported fiscal year. The variable is winsorized at +/- 10%.

$$\frac{(New\ Guidance_{m,t+1} - Median\ Analyst\ Forecast_{m,t+1})}{Market\ Value}$$

FIGURE 1

Quarterly number of earnings announcements for which an abnormal stock return can be calculated, and analyst coverage in the Factset and/or I/B/E/S data feeds of the firms involved. Analyst coverage in a given quarter is defined as the firm's having at least one consensus forecast and its actual available for at least one item at the one-quarter-ahead forecasting horizon. Data are 1990:Q1–2016:Q4.



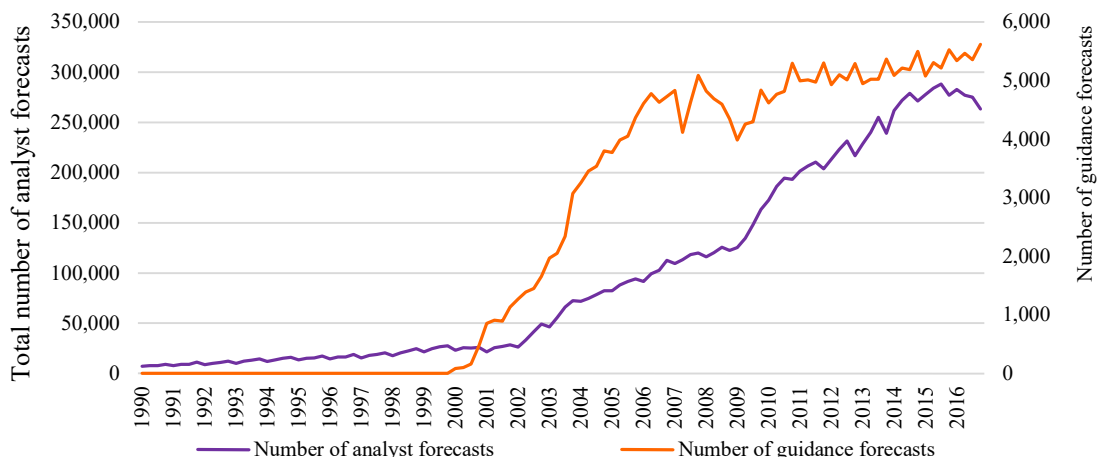
Legend:

- Sample [1] Firm-quarter earnings announcements at which an abnormal stock return (*ABRET*) and market value (MVE) can be computed [$N = 603,735$].
- Sample [2A] Subset of sample [1] with FactSet coverage [$N = 193,456$].
- Sample [2B] Subset of sample [1] with I/B/E/S coverage [$N = 374,905$].
- Sample [2C] Subset of sample [1] with either I/B/E/S or FactSet coverage [$N = 379,437$].

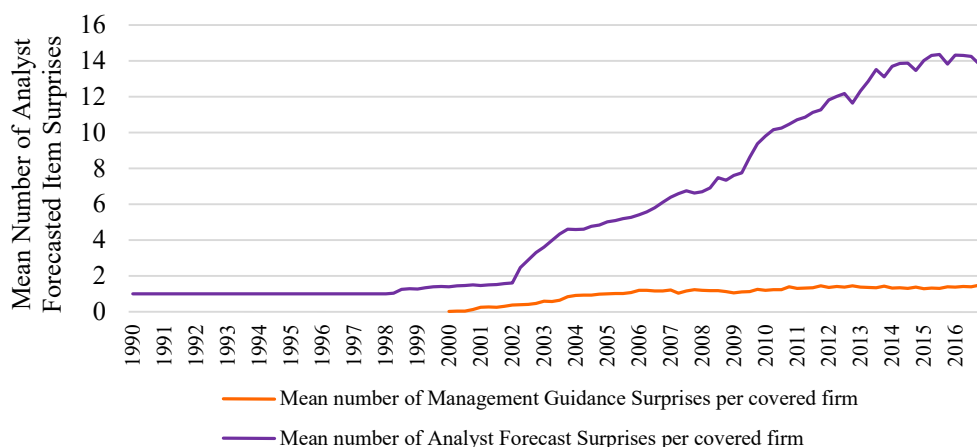
FIGURE 2

Total number of one-quarter-ahead consensus analyst forecasts and one-quarter-ahead and one-year-ahead guidance forecasts in the union of I/B/E/S and FactSet data feeds; and mean number of forecasted financial statement items per analyst-covered firm in total and by *Item*

Panel A: Number of analyst forecasts and management guidance forecasts, by quarter



Panel B: Mean number of forecasted financial statement items per analyst-covered firm



Panel C: Mean number of forecasted financial statement items per firm, by *Item* category

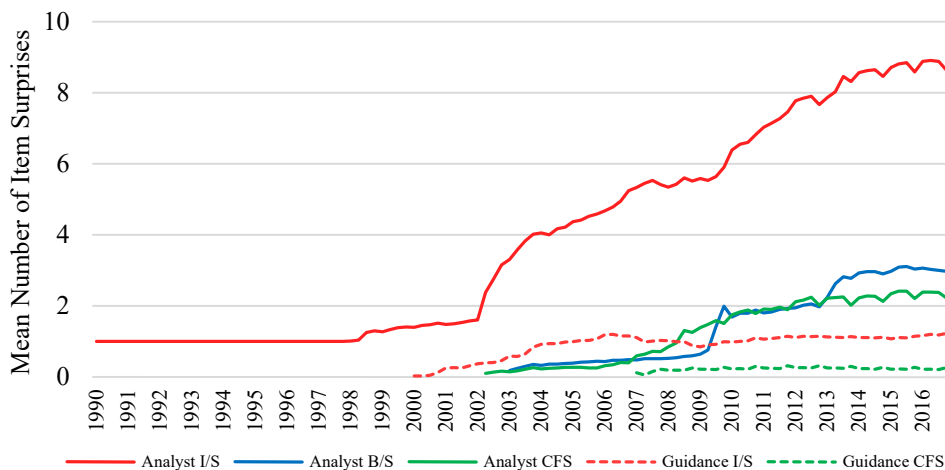


FIGURE 3

Average number of item forecasts available through I/B/E/S or FactSet versus those available in analyst reports

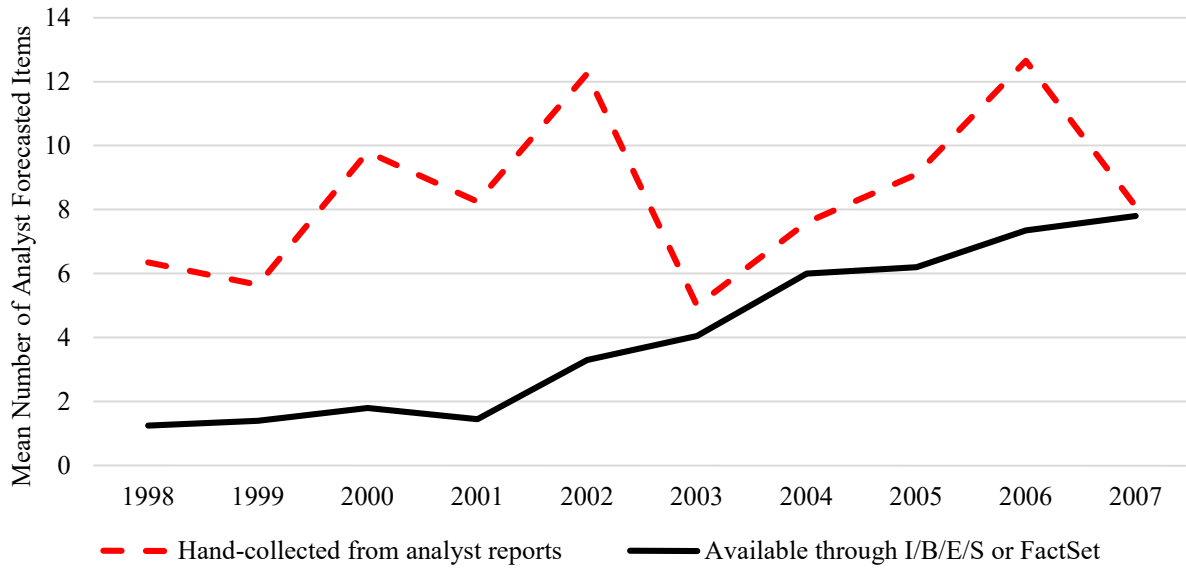
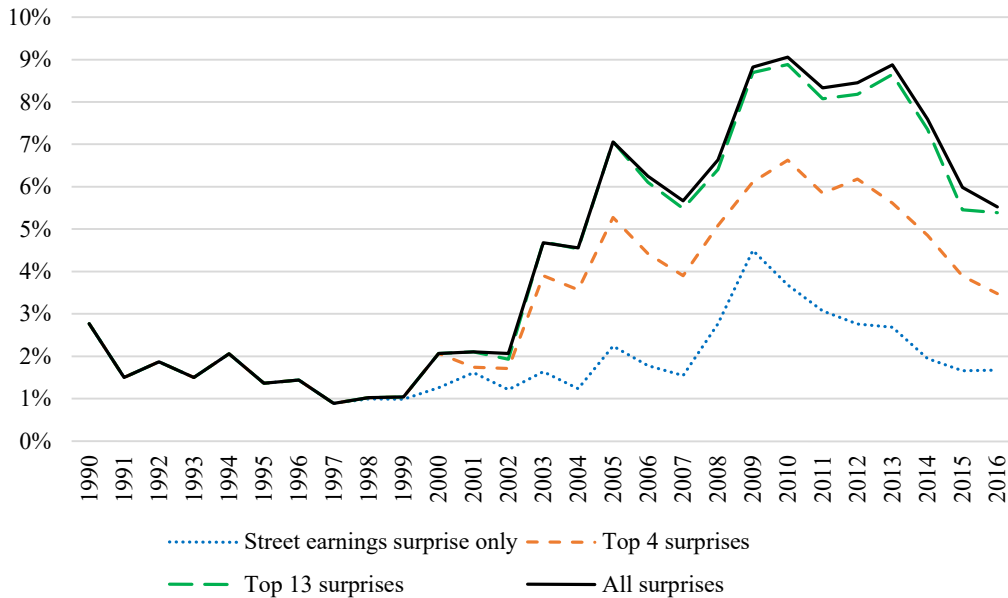


FIGURE 4

Adjusted R^2 's of quarterly regressions of earnings announcement returns (*ABRET*) on Street earnings surprise when estimated univariately versus multivariately by first including the top 4 surprises, then the top 13 surprises, then all 34 surprises.



Top 4 surprises: (i) one-quarter-ahead sales guidance surprise, (ii) analyst sales surprise, (iii) annual Street earnings guidance surprise, and (iv) analyst Street earnings surprise.

Top 13 surprises: (i) one-quarter-ahead sales guidance surprise, (ii) analyst sales surprise, (iii) annual Street earnings guidance surprise, (iv) analyst Street earnings surprise, (v) annual sales guidance surprise, (vi) analyst EBITDA surprise, (vii) analyst pre-tax income surprise, (viii) annual EBITDA guidance surprise, (ix) one-quarter-ahead Street earnings guidance surprise, (x) analyst operating cash flow surprise, (xi) analyst free cash flow surprise, (xii) analyst EBIT surprise, (xiii) analyst GAAP earnings surprise.

TABLE 1

Appearance of non-KPI point-in-time analyst forecast surprises and management guidance surprises in the union of I/B/E/S and FactSet databases, and the annual percentage of analyst-covered firms for which the surprise is present (subject to being $\geq 5\%$)

Panel A: One-quarter-ahead analyst-forecast surprises

| Item | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | | | |
|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|
| Tax Expense | | | | | | | | | | | | | | | | | | | | | | | | 39 | 74 | 75 | 76 | | | |
| Current Assets | | | | | | | | | | | | | | | | | | | | | | | | 25 | 32 | 33 | 32 | | | |
| Inventories | | | | | | | | | | | | | | | | | | | | | | | | 7 | 22 | 22 | 22 | | | |
| Current Liabilities | | | | | | | | | | | | | | | | | | | | | | | | 25 | 33 | 33 | 32 | | | |
| Depreciation and Amortization | | | | | | | | | | | | | | | | | | | | 8 | 46 | 48 | 48 | 49 | 50 | | | | | |
| Interest Expense | | | | | | | | | | | | | | | | | | | | 7 | 41 | 44 | 45 | 46 | 47 | 49 | | | | |
| Research and Development | | | | | | | | | | | | | | | | | | | | 22 | 24 | 26 | 25 | 27 | 28 | 29 | | | | |
| Shareholder's Equity | | | | | | | | | | | | | | | | | | | | | 22 | 43 | 44 | 48 | 50 | 50 | 53 | 53 | | |
| Total Assets | | | | | | | | | | | | | | | | | | | | | 20 | 39 | 40 | 43 | 45 | 46 | 47 | 47 | | |
| SG&A Expense | | | | | | | | | | | | | | | | | | | | | 10 | 54 | 57 | 60 | 60 | 61 | 64 | 66 | | |
| Goodwill | | | | | | | | | | | | | | | | | | | | | 9 | 19 | 20 | 23 | 24 | 25 | 26 | 23 | | |
| Cash Flow From Financing | | | | | | | | | | | | | | | | | | | | 8 | 15 | 18 | 19 | 22 | 23 | 24 | 26 | 26 | | |
| Cash Flow From Investing | | | | | | | | | | | | | | | | | | | | 9 | 16 | 19 | 20 | 23 | 24 | 25 | 27 | 27 | | |
| Free Cash Flow | | | | | | | | | | | | | | | | | | | | 11 | 19 | 23 | 24 | 27 | 28 | 29 | 30 | 31 | | |
| Capital Expenditure | | | | | | | | | | | | | | | | | | | | 21 | 26 | 30 | 36 | 39 | 43 | 43 | 44 | 46 | 46 | |
| Cost of Goods Sold | | | | | | | | | | | | | | | | | 13 | 51 | 51 | 57 | 60 | 65 | 68 | 65 | 64 | 65 | 64 | | | |
| Cash Flow From Operations | | | | | | | | | | | | | | | 6 | 8 | 13 | 23 | 31 | 38 | 39 | 43 | 44 | 46 | 49 | 49 | 41 | | | |
| Debt | | | | | | | | | | | | | 6 | 7 | 9 | 12 | 15 | 19 | 25 | 30 | 34 | 35 | 37 | 38 | 40 | 41 | | | | |
| Book Value Per Share | | | | | | | | | | | | | 21 | 28 | 31 | 33 | 35 | 37 | 44 | 46 | 48 | 50 | 49 | 49 | 50 | 51 | | | | |
| Pre-Tax Income | | | | | | | | | | | | | 29 | 56 | 67 | 76 | 80 | 83 | 83 | 84 | 87 | 89 | 91 | 90 | 90 | 92 | 92 | | | |
| EBIT | | | | | | | | | | | | | 11 | 47 | 58 | 68 | 75 | 78 | 76 | 77 | 81 | 85 | 88 | 88 | 89 | 91 | 91 | | | |
| GAAP Earnings | | | | | | | | | | | | | 40 | 71 | 80 | 87 | 91 | 93 | 94 | 93 | 93 | 96 | 98 | 97 | 98 | 98 | 99 | | | |
| EBITDA | | | | | | | | | | | | | 5 | 14 | 21 | 27 | 39 | 46 | 49 | 52 | 58 | 62 | 65 | 64 | 65 | 67 | 68 | | | |
| Dividends Per Share | | | | | | | | | | | | | 10 | 19 | 24 | 20 | 27 | 32 | 31 | 39 | 46 | 50 | 54 | 55 | 54 | 56 | 56 | | | |
| Sales | | | | | | | | | 15 | 35 | 45 | 51 | 62 | 78 | 84 | 88 | 91 | 93 | 93 | 94 | 96 | 96 | 97 | 95 | 96 | 97 | 98 | | | |
| Street Earnings | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Legend: Income statement Balance sheet Cash flow statement

Panel B: One-quarter-ahead management guidance surprises

| Item | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | | | |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|--|--|
| GAAP Earnings | | | | | | | | | | | | | | | 6 | 9 | 11 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | |
| Sales | | | | | | | | | | | | | 6 | 12 | 17 | 17 | 18 | 17 | 16 | 15 | 16 | 17 | 18 | 17 | 17 | 16 | 15 | | | |
| Street Earnings | | | | | | | | | | | | | 13 | 16 | 19 | 20 | 19 | 19 | 16 | 15 | 13 | 14 | 14 | 15 | 15 | 14 | 14 | 13 | | |

Panel C: One-year-ahead management guidance surprises

| Item | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | | | | | |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|----|--|--|
| Capital Expenditure | | | | | | | | | | | | | | | | | | | 13 | 20 | 23 | 24 | 26 | 27 | 25 | 23 | 22 | | | | | |
| EBITDA | | | | | | | | | | | | | | | | | | | 6 | 6 | 6 | 8 | 9 | 10 | 11 | 12 | 14 | 15 | | | | |
| GAAP Earnings | | | | | | | | | | | | | | | 8 | 13 | 15 | 10 | 9 | 11 | 12 | 14 | 13 | 13 | 12 | 12 | 15 | | | | | |
| Sales | | | | | | | | | | | | | | | 11 | 17 | 19 | 21 | 23 | 22 | 19 | 22 | 24 | 24 | 24 | 24 | 25 | 25 | | | | |
| Street Earnings | | | | | | | | | | | | | | | 5 | 13 | 19 | 23 | 25 | 26 | 27 | 25 | 23 | 21 | 23 | 24 | 25 | 24 | 23 | 24 | | |

TABLE 2

Descriptive statistics for analyst-forecast and management-guidance surprises at earnings announcements. Surprises are scaled by market cap just prior to the earnings announcement and are trimmed at +/-10% each year. Data are from sample [2C] in figure 1, 1990:Q1–2016:Q4, and pertain only to nonmissing surprises.

| Analyst forecast Item | N | Mean | | Mean | Median | Std.Dev. | Mean[abs] |
|-------------------------------------|---------|------------------------|------------------------|--------|--------|----------|-----------|
| | | % non-miss. (% n-m) | Number of Forecasts | | | | |
| <i>ABRET</i> _[-1,+1] (%) | | | | | | | |
| Street Earnings | 379,437 | 100% | 6.5 | -0.18% | 0.01% | 2.6% | 1.1% |
| Sales | 230,881 | 61% | 5.5 | 0.01% | 0.05% | 2.9% | 1.5% |
| GAAP Earnings | 204,125 | 54% | 5.6 | -0.19% | 0.03% | 2.3% | 1.0% |
| Pre-Tax Income | 182,861 | 48% | 5.1 | -0.15% | 0.03% | 2.2% | 1.0% |
| EBIT | 169,592 | 45% | 5.1 | -0.11% | 0.03% | 2.0% | 0.9% |
| EBITDA | 108,407 | 29% | 4.7 | -0.07% | 0.02% | 1.9% | 0.9% |
| Gross Income | 96,016 | 25% | 4.9 | 0.01% | 0.01% | 2.6% | 1.3% |
| Book Value Per Share | 88,489 | 23% | 2.3 | -0.32% | 0.00% | 4.4% | 2.8% |
| Dividends Per Share | 88,063 | 23% | 3.0 | -0.01% | 0.00% | 0.7% | 0.1% |
| SG&A Expense | 65,885 | 17% | 5.1 | 0.03% | 0.00% | 0.8% | 0.3% |
| Cash Flow From Operations | 61,270 | 16% | 3.1 | -0.04% | 0.02% | 3.3% | 1.8% |
| Capital Expenditure | 57,990 | 15% | 2.8 | -0.05% | -0.02% | 1.9% | 0.8% |
| Shareholder's Equity | 55,511 | 15% | 2.7 | -0.19% | 0.03% | 3.6% | 2.2% |
| Debt | 53,835 | 14% | 1.7 | 0.28% | 0.11% | 5.1% | 3.7% |
| Total Assets | 50,046 | 13% | 2.6 | 0.22% | 0.16% | 5.6% | 4.1% |
| Interest Expense | 42,676 | 11% | 3.4 | 0.02% | 0.00% | 0.4% | 0.1% |
| Tax Expense | 41,282 | 11% | 5.5 | -0.05% | 0.00% | 1.1% | 0.3% |
| Depreciation and Amortization | 37,863 | 10% | 4.4 | 0.00% | 0.00% | 0.7% | 0.2% |
| Free Cash Flow | 34,670 | 9% | 2.4 | -0.06% | 0.03% | 3.0% | 1.8% |
| Cash Flow From Investing | 29,288 | 8% | 2.1 | -0.18% | 0.00% | 2.9% | 1.6% |
| Research and Development | 28,393 | 7% | 5.9 | -0.03% | 0.00% | 0.7% | 0.3% |
| Cash Flow From Financing | 27,705 | 7% | 2.0 | 0.00% | 0.00% | 3.4% | 2.0% |
| Total Goodwill | 25,834 | 7% | 2.0 | 0.16% | 0.00% | 2.5% | 1.0% |
| Current Liabilities | 19,104 | 5% | 2.3 | 0.22% | 0.10% | 3.5% | 2.2% |
| Current Assets | 19,010 | 5% | 2.3 | -0.17% | -0.06% | 4.1% | 2.8% |
| Inventories | 11,451 | 3% | 2.2 | 0.19% | 0.01% | 2.5% | 1.3% |
| <hr/> | | | | | | | |
| Quarterly guidance (GQ) Item | N | % n-m | | Mean | Median | StdDev. | Mean[abs] |
| Street Earnings (GQ) | 38,968 | 10% | | -0.27% | -0.04% | 1.5% | 0.5% |
| Sales (GQ) | 36,004 | 9% | | -0.51% | -0.09% | 2.6% | 1.4% |
| GAAP Earnings (GQ) | 14,550 | 4% | | -0.33% | -0.08% | 1.5% | 0.6% |
| <hr/> | | | | | | | |
| Annual guidance (GA) Item | N | % n-m | | Mean | Median | StdDev. | Mean[abs] |
| Street Earnings (GA) | 58,319 | 15% | | -0.23% | -0.02% | 1.6% | 0.7% |
| Sales (GA) | 47,159 | 12% | | -0.93% | -0.15% | 4.1% | 2.7% |
| Capital Expenditure (GA) | 35,312 | 9% | | 0.17% | 0.00% | 2.8% | 1.4% |
| GAAP Earnings (GA) | 24,663 | 6% | | -0.50% | -0.17% | 2.2% | 1.2% |
| EBITDA (GA) | 16,789 | 4% | | -0.53% | 0.00% | 2.6% | 1.4% |

TABLE 3

Pair-wise correlations among the set of abnormal 3-day stock returns at firms' earnings announcements (*ABRET*) and the 34 point-in-time consensus analyst forecast surprises and management guidance surprises in the IUF dataset. Data are from sample [2C] in figure 1, 1990:Q1–2016:Q4. Pearson (Spearman) correlations are above (below) the diagonal. The ordering of line items vertically and horizontally is *ABRET*; then analyst forecast surprises for the balance sheet, income statement, and cash flow statements; and lastly management guidance surprises. One-quarter-ahead guidance surprises are denoted by (GQ), while one-year-ahead guidance surprises are denoted by (GA). Insignificant correlations are unhighlighted (cells is colored white), with increasingly red (blue) cells representing increasingly significant positive (negative) correlations.

| | ABRET | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------|----------------|----------------|--------------|---------------------|-------|----------------------|----------------------|-------|--------------------|--------------|--------------------------|--------|-------------------------------|-------|------------------|----------------|-------------|-----------------|---------------|-------|---------------------|-------|--------------------------|--------------------------|---------------------|------------|----------------------|--------------------|------------|-------------|----------------------|--------------------|--------------------------|-------|------|
| | Inventories | Current Assets | Total Goodwill | Total Assets | Current Liabilities | Debt | Shareholder's Equity | Book Value Per Share | Sales | Cost of Goods Sold | SG&A Expense | Research and Development | EBITDA | Depreciation and Amortization | EBIT | Interest Expense | Pre-Tax Income | Tax Expense | Street Earnings | GAAP Earnings | CFOPS | Capital Expenditure | FCF | Cash Flow From Investing | Cash Flow From Financing | Dividends Per Share | Sales (GQ) | Street Earnings (GQ) | GAAP Earnings (GQ) | Sales (GA) | EBITDA (GA) | Street Earnings (GA) | GAAP Earnings (GA) | Capital Expenditure (GA) | | |
| ABRET | -0.02 | 0.04 | 0.00 | 0.03 | 0.02 | -0.04 | 0.07 | 0.06 | 0.12 | 0.06 | -0.01 | -0.04 | 0.18 | -0.02 | 0.18 | -0.01 | 0.18 | 0.04 | 0.14 | 0.16 | 0.11 | -0.01 | 0.12 | -0.01 | -0.04 | 0.01 | 0.21 | 0.18 | 0.17 | 0.16 | 0.20 | 0.19 | 0.14 | 0.01 | | |
| Inventories | -0.03 | | 0.27 | 0.08 | 0.26 | 0.24 | 0.11 | 0.06 | 0.04 | 0.02 | 0.02 | 0.04 | 0.05 | 0.00 | 0.02 | -0.01 | 0.02 | -0.02 | 0.05 | -0.02 | 0.00 | -0.28 | -0.01 | -0.26 | -0.02 | 0.14 | -0.01 | 0.09 | 0.03 | -0.03 | -0.03 | -0.04 | -0.05 | -0.08 | 0.00 | |
| Current Assets | 0.05 | 0.22 | | 0.01 | 0.67 | 0.45 | -0.06 | 0.25 | 0.16 | 0.16 | 0.11 | 0.03 | -0.03 | 0.10 | 0.00 | 0.11 | 0.02 | 0.12 | 0.04 | 0.08 | 0.10 | 0.06 | -0.04 | 0.07 | 0.05 | 0.39 | 0.00 | 0.13 | 0.01 | 0.07 | 0.04 | -0.01 | -0.01 | -0.03 | 0.05 | |
| Total Goodwill | 0.00 | 0.09 | 0.02 | | 0.23 | 0.08 | 0.08 | 0.21 | 0.13 | 0.04 | 0.04 | 0.03 | 0.05 | 0.04 | 0.02 | 0.06 | 0.01 | 0.06 | 0.06 | 0.02 | 0.10 | 0.00 | 0.02 | -0.01 | -0.14 | 0.08 | 0.00 | 0.05 | 0.00 | -0.02 | 0.04 | -0.03 | -0.02 | 0.05 | 0.03 | |
| Total Assets | 0.04 | 0.23 | 0.67 | 0.21 | | 0.43 | 0.06 | 0.34 | 0.17 | 0.13 | 0.13 | 0.04 | 0.01 | 0.08 | 0.02 | 0.10 | 0.00 | 0.11 | 0.05 | 0.06 | 0.13 | 0.04 | 0.07 | 0.03 | -0.17 | 0.41 | 0.01 | 0.17 | 0.06 | 0.06 | 0.07 | 0.01 | 0.02 | 0.04 | 0.08 | |
| Current Liabilities | 0.03 | 0.18 | 0.41 | 0.08 | 0.43 | | -0.03 | 0.01 | 0.02 | 0.12 | 0.12 | 0.05 | 0.01 | 0.01 | 0.03 | 0.03 | 0.01 | 0.02 | 0.03 | -0.01 | 0.01 | 0.11 | -0.01 | 0.10 | -0.02 | 0.11 | 0.00 | 0.11 | 0.02 | 0.02 | 0.05 | -0.02 | 0.02 | -0.01 | 0.08 | |
| Debt | -0.05 | 0.13 | -0.08 | 0.07 | 0.03 | -0.03 | | -0.10 | -0.07 | 0.00 | 0.03 | 0.01 | 0.04 | -0.06 | 0.03 | -0.05 | 0.00 | -0.06 | -0.02 | -0.05 | -0.05 | -0.18 | 0.06 | -0.26 | -0.13 | 0.09 | 0.01 | -0.05 | -0.06 | -0.02 | -0.01 | -0.03 | 0.00 | -0.03 | 0.02 | |
| Shareholder's Equity | 0.09 | 0.05 | 0.26 | 0.17 | 0.33 | -0.02 | -0.13 | | 0.49 | 0.12 | 0.05 | -0.01 | 0.00 | 0.17 | 0.00 | 0.21 | -0.05 | 0.28 | 0.07 | 0.19 | 0.33 | 0.04 | 0.01 | 0.05 | -0.05 | 0.10 | 0.00 | 0.09 | 0.08 | 0.07 | 0.04 | 0.03 | 0.03 | 0.11 | 0.07 | |
| Book Value Per Share | 0.08 | 0.05 | 0.17 | 0.10 | 0.18 | -0.01 | -0.10 | 0.57 | | 0.10 | 0.03 | 0.00 | -0.01 | 0.14 | 0.01 | 0.17 | -0.04 | 0.23 | 0.06 | 0.19 | 0.26 | 0.04 | -0.01 | 0.06 | -0.02 | 0.02 | 0.01 | 0.09 | 0.06 | 0.04 | 0.05 | -0.03 | 0.04 | 0.01 | 0.05 | |
| Sales | 0.20 | 0.02 | 0.15 | 0.06 | 0.14 | 0.12 | -0.01 | 0.13 | 0.11 | 0.67 | 0.74 | 0.14 | 0.05 | 0.29 | 0.08 | 0.30 | -0.01 | 0.27 | 0.08 | 0.20 | 0.23 | 0.07 | 0.03 | 0.06 | -0.02 | 0.00 | 0.01 | 0.30 | 0.11 | 0.10 | 0.26 | 0.10 | 0.11 | 0.08 | 0.08 | |
| Cost of Goods Sold | 0.08 | 0.03 | 0.10 | 0.06 | 0.12 | 0.12 | 0.03 | 0.04 | 0.02 | 0.18 | 0.10 | | 0.08 | -0.14 | 0.00 | -0.16 | 0.02 | -0.14 | -0.03 | -0.12 | -0.12 | -0.01 | 0.02 | -0.04 | 0.01 | 0.00 | 0.01 | 0.07 | 0.02 | 0.00 | 0.07 | 0.04 | 0.06 | 0.00 | 0.02 | |
| SG&A Expense | 0.01 | 0.04 | 0.03 | 0.04 | 0.07 | 0.07 | 0.01 | 0.01 | 0.01 | 0.08 | 0.10 | 0.09 | | -0.14 | 0.00 | -0.16 | 0.02 | -0.14 | -0.03 | -0.12 | -0.12 | -0.04 | 0.03 | -0.07 | -0.05 | -0.05 | 0.01 | 0.10 | 0.13 | 0.06 | 0.03 | 0.04 | 0.02 | -0.03 | 0.02 | |
| Research and Development | -0.02 | -0.03 | -0.04 | 0.02 | 0.03 | 0.04 | 0.02 | -0.03 | -0.02 | 0.08 | 0.04 | 0.09 | -0.24 | -0.02 | -0.33 | 0.01 | -0.26 | -0.05 | -0.23 | -0.23 | -0.04 | 0.03 | -0.07 | -0.05 | -0.05 | -0.01 | 0.01 | 0.01 | 0.10 | 0.13 | 0.06 | 0.03 | 0.02 | 0.02 | -0.03 | 0.02 |
| EBITDA | 0.28 | 0.04 | 0.09 | 0.02 | 0.07 | 0.02 | -0.06 | 0.18 | 0.14 | 0.33 | 0.06 | -0.08 | -0.19 | | 0.05 | 0.70 | -0.03 | 0.60 | 0.13 | 0.46 | 0.47 | 0.16 | 0.02 | 0.14 | -0.01 | -0.03 | 0.02 | 0.09 | 0.08 | 0.14 | 0.09 | 0.22 | 0.17 | 0.16 | 0.04 | |
| Depreciation and Amortization | -0.01 | 0.03 | 0.04 | 0.07 | 0.07 | 0.03 | 0.02 | 0.03 | 0.02 | 0.08 | 0.07 | 0.04 | 0.04 | 0.07 | | -0.12 | -0.06 | -0.06 | -0.07 | -0.08 | -0.06 | 0.05 | 0.02 | 0.05 | 0.00 | 0.01 | 0.01 | 0.03 | 0.02 | -0.03 | -0.01 | 0.03 | -0.05 | 0.00 | 0.05 | |
| EBIT | 0.28 | -0.03 | 0.10 | 0.00 | 0.07 | 0.01 | -0.06 | 0.19 | 0.16 | 0.33 | 0.05 | -0.12 | -0.28 | 0.71 | -0.07 | | -0.03 | 0.75 | 0.21 | 0.52 | 0.60 | 0.12 | 0.00 | 0.12 | 0.01 | -0.03 | 0.04 | 0.11 | 0.12 | 0.18 | 0.10 | 0.15 | 0.19 | 0.18 | 0.05 | |
| Interest Expense | -0.02 | 0.04 | 0.04 | 0.02 | 0.07 | 0.01 | 0.04 | -0.04 | -0.01 | 0.02 | 0.01 | 0.02 | -0.01 | 0.01 | 0.03 | -0.01 | | -0.07 | 0.05 | -0.11 | -0.08 | -0.05 | 0.02 | -0.06 | -0.02 | 0.05 | -0.02 | -0.04 | -0.04 | -0.04 | -0.01 | -0.09 | -0.06 | -0.07 | | |
| Pre-Tax Income | 0.29 | -0.04 | 0.10 | 0.00 | 0.08 | 0.01 | -0.08 | 0.24 | 0.19 | 0.32 | 0.05 | -0.11 | -0.25 | 0.64 | -0.06 | 0.77 | -0.07 | | 0.25 | 0.60 | 0.72 | 0.11 | 0.00 | 0.12 | 0.00 | -0.03 | 0.04 | 0.10 | 0.11 | 0.18 | 0.10 | 0.13 | 0.22 | 0.19 | 0.06 | |
| Tax Expense | 0.16 | 0.00 | 0.04 | 0.00 | 0.03 | 0.01 | -0.04 | 0.10 | 0.08 | 0.19 | 0.05 | -0.06 | -0.06 | 0.35 | -0.05 | 0.39 | -0.04 | 0.46 | | -0.02 | 0.04 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.05 | 0.05 | 0.06 | 0.04 | 0.09 | 0.05 | 0.05 | 0.00 | |
| Street Earnings | 0.26 | -0.04 | 0.07 | -0.02 | 0.06 | 0.01 | -0.06 | 0.20 | 0.18 | 0.28 | 0.05 | -0.09 | -0.24 | 0.57 | -0.06 | 0.64 | -0.05 | 0.71 | 0.21 | | 0.65 | 0.15 | 0.02 | 0.11 | -0.02 | -0.03 | 0.03 | 0.06 | 0.18 | 0.12 | 0.07 | 0.10 | 0.29 | 0.18 | 0.03 | |
| GAAP Earnings | 0.28 | -0.03 | 0.09 | 0.00 | 0.09 | 0.00 | -0.07 | 0.27 | 0.22 | 0.29 | 0.05 | -0.09 | -0.23 | 0.54 | -0.05 | 0.64 | -0.06 | 0.75 | 0.24 | 0.78 | | 0.10 | 0.02 | 0.09 | -0.02 | 0.00 | 0.02 | 0.12 | 0.14 | 0.21 | 0.09 | 0.11 | 0.20 | 0.24 | 0.06 | |
| CFOPS | 0.13 | -0.25 | 0.07 | -0.01 | 0.05 | 0.12 | -0.20 | 0.05 | 0.04 | 0.09 | 0.00 | 0.00 | -0.04 | 0.19 | 0.03 | 0.17 | -0.03 | 0.17 | 0.05 | 0.19 | 0.16 | | 0.03 | 0.54 | -0.08 | -0.17 | 0.01 | 0.04 | 0.03 | -0.03 | 0.01 | 0.07 | 0.08 | 0.07 | 0.00 | |
| Capital Expenditure | -0.01 | 0.01 | -0.04 | 0.03 | 0.07 | 0.02 | 0.07 | 0.01 | -0.01 | 0.04 | 0.05 | 0.03 | 0.04 | -0.01 | 0.07 | -0.03 | 0.01 | -0.03 | -0.02 | -0.02 | -0.01 | 0.04 | | -0.19 | -0.30 | 0.12 | -0.01 | 0.02 | 0.04 | 0.01 | 0.04 | 0.00 | 0.03 | 0.03 | 0.10 | |
| FCF | 0.14 | -0.25 | 0.09 | -0.01 | 0.05 | 0.11 | -0.30 | 0.05 | 0.04 | 0.07 | -0.01 | -0.01 | -0.02 | 0.15 | 0.01 | 0.16 | -0.04 | 0.15 | 0.05 | 0.15 | 0.14 | 0.57 | -0.17 | | 0.08 | -0.21 | 0.02 | 0.03 | 0.11 | 0.04 | -0.01 | 0.03 | 0.03 | 0.06 | 0.00 | |
| Cash Flow From Investing | 0.01 | -0.02 | 0.07 | -0.15 | -0.15 | -0.04 | -0.14 | -0.04 | -0.03 | -0.04 | -0.04 | -0.02 | -0.04 | -0.02 | -0.07 | 0.00 | -0.03 | 0.01 | 0.02 | 0.00 | 0.00 | -0.07 | -0.36 | 0.08 | | -0.31 | 0.00 | -0.05 | -0.04 | 0.00 | -0.02 | -0.01 | -0.02 | -0.01 | -0.03 | |
| Cash Flow From Financing | -0.04 | 0.10 | 0.38 | 0.07 | 0.40 | 0.08 | 0.08 | 0.16 | 0.08 | 0.01 | 0.03 | 0.01 | 0.02 | -0.02 | 0.02 | -0.03 | 0.06 | -0.03 | 0.00 | -0.04 | -0.03 | -0.16 | 0.07 | -0.17 | -0.21 | | 0.00 | 0.04 | -0.01 | -0.01 | 0.02 | -0.03 | -0.01 | -0.01 | 0.00 | |
| Dividends Per Share | 0.01 | -0.02 | 0.00 | 0.01 | 0.02 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 | 0.00 | 0.01 | 0.02 | 0.00 | 0.02 | -0.01 | 0.03 | 0.01 | 0.03 | 0.03 | 0.01 | 0.01 | 0.02 | -0.01 | -0.01 | 0.00 | 0.00 | 0.01 | -0.03 | 0.00 | 0.02 | 0.03 | 0.04 | 0.02 | |
| Sales (GQ) | 0.30 | 0.06 | 0.14 | 0.04 | 0.18 | 0.10 | -0.05 | 0.13 | 0.09 | 0.33 | 0.21 | 0.12 | 0.10 | 0.13 | 0.05 | 0.14 | 0.01 | 0.13 | 0.07 | 0.12 | 0.13 | 0.06 | 0.04 | 0.07 | -0.07 | 0.08 | 0.00 | 0.09 | 0.00 | 0.11 | -0.04 | 0.02 | 0.02 | 0.51 | | 0.65 |
| Street Earnings (GQ) | 0.34 | 0.00 | 0.09 | 0.02 | 0.10 | 0.05 | -0.06 | 0.10 | 0.06 | 0.18 | 0.07 | 0.06 | 0.03 | 0.17 | 0.01 | 0.20 | -0.02 | 0.20 | 0.11 | 0.20 | 0.20 | 0.05 | 0.01 | 0.07 | 0.00 | 0.01 | 0.01 | 0.45 | 0.73 | | 0.11 | 0.12 | 0.27 | 0.47 | 0.05 | |
| GAAP Earnings (GQ) | 0.29 | -0.04 | 0.10 | 0.00 | 0.07 | 0.02 | -0.05 | 0.10 | 0.03 | 0.14 | 0.04 | 0.02 | 0.02 | 0.13 | 0.01 | 0.17 | 0.00 | 0.16 | 0.11 | 0.14 | 0.16 | 0.05 | 0.01 | 0.07 | 0.00 | 0.01 | 0.01 | 0.48 | 0.22 | 0.17 | | 0.39 | 0.26 | 0.24 | 0.08 | |
| Sales (GA) | 0.20 | 0.03 | 0.06 | 0.05 | 0.08 | 0.07 | -0.01 | 0.06 | 0.06 | 0.29 | 0.20 | 0.10 | 0.06 | 0.10 | 0.01 | 0.11 | 0.01 | 0.11 | 0.06 | 0.09 | 0.11 | 0.01 | 0.04 | 0.00 | -0.04 | 0.02 | 0.01 | 0.16 | 0.26 | 0.24 | 0.40 | | 0.33 | 0.35 | 0.09 | |
| EBITDA (GA) | 0.20 | -0.07 | 0.02 | -0.01 | 0.03 | -0.01 | -0.03 | 0.05 | -0.04 | 0.11 | 0.04 | 0.02 | 0.00 | 0.14 | 0.01 | 0.13 | -0.03 | 0.13 | 0.09 | 0.12 | 0.13 | 0.08 | 0.04 | 0.03 | 0.02 | -0.01 | 0.02 | 0.25 | 0.46 | 0.33 | 0.34 | 0.36 | | 0.52 | 0.06 | |
| Street Earnings (GA) | 0.28 | -0.03 | 0.02 | 0.00 | 0.02 | 0.02 | -0.03 | 0.05 | 0.04 | 0.16 | 0.05 | 0.04 | 0.01 | 0.20 | -0.01 | 0.23 | -0.02 | 0.26 | 0.13 | 0.28 | 0.27 | 0.07 | 0.00 | 0.06 | -0.02 | -0.01 | 0.01 | 0.20 | 0.37 | 0.48 | 0.26 | 0.33 | 0.47 | | 0.10 | |
| GAAP Earnings (GA) | 0.18 | -0.07 | -0.01 | 0.01 | 0.01 | -0.02 | -0.05 | 0.09 | 0.01 | 0.10 | 0.03 | 0.00 | -0.01 | 0.13 | 0.01 | 0.17 | -0.02 | 0.18 | 0.10 | 0.18 | 0.24 | 0.07 | 0.04 | 0.07 | -0.03 | 0.00 | 0.00 | 0.20 | 0.37 | 0.48 | 0.26 | 0.33 | 0.47 | | 0.10 | |
| Capital Expenditure (GA) | 0.02 | 0.02 | 0.04 | 0.03 | 0.08 | 0.07 | 0.01 | 0.04 | 0.03 | 0.08 | 0.06 | 0.05 | 0.01 | 0.02 | 0.05 | 0.03 | -0.03 | 0.03 | 0.00 | 0.02 | 0.04 | 0.01 | 0.17 | -0.02 | -0.09 | 0.01 | 0.00 | 0.10 | 0.07 | 0.03 | 0.11 | 0.08 | 0.05 | 0.09 | | |

TABLE 4

Annual OLS regressions of abnormal 3-day stock returns at firms' earnings announcements (*ABRET*) on point-in-time consensus analyst forecast surprises and management guidance surprises in the IUF dataset. One-quarter-ahead guidance surprises are denoted by GQ; one-year-ahead guidance surprises are denoted by GA. Surprises are included in the regressions only when the percentage of analyst-covered firms for which the surprise is present is $\geq 5\%$ in the earnings announcement year. Intercepts are estimated but not reported; dummies for data-absent forecast errors are included but not reported; *t*-statistics are in parentheses. Data are from sample [2C] in figure 1, 1990:Q1–2016:Q4.

Panel A: Univariate panel regression of *ABRET* on Street earnings surprise (gray)

| Surprise variable | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Avg. 2008-16 |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| Street Earnings (univariate) | 0.49 (13.8) | 0.42 (10.7) | 0.51 (12.8) | 0.43 (12.4) | 0.53 (15.8) | 0.43 (13.4) | 0.49 (14.6) | 0.36 (11.9) | 0.41 (12.8) | 0.44 (12.9) | 0.47 (14.2) | 0.44 (15.3) | 0.43 (13.3) | 0.46 (15.4) | 0.40 (13.7) | 0.49 (19.0) | 0.44 (17.1) | 0.41 (15.9) | 0.59 (21.3) | 0.67 (26.9) | 0.53 (24.3) | 0.53 (21.8) | 0.50 (20.3) | 0.55 (20.3) | 0.46 (17.7) | 0.50 (16.4) | 0.53 (16.3) | 0.54 (20.6) |
| # obs. | 6,609 | 7,401 | 8,483 | 9,987 | 11,775 | 12,845 | 14,539 | 15,630 | 16,207 | 16,500 | 15,837 | 14,318 | 14,199 | 14,290 | 14,961 | 15,746 | 16,005 | 16,088 | 15,812 | 15,305 | 15,445 | 15,020 | 14,540 | 14,825 | 15,718 | 15,884 | 15,468 | 15,335 |
| Adj. R2 | 2.8% | 1.5% | 1.9% | 1.5% | 2.1% | 1.4% | 1.4% | 0.9% | 1.0% | 1.0% | 1.3% | 1.6% | 1.2% | 1.6% | 1.2% | 2.2% | 1.8% | 1.5% | 2.8% | 4.5% | 3.7% | 3.1% | 2.8% | 2.7% | 1.9% | 1.7% | 1.7% | 2.8% |

Panel B: Multivariate panel regressions of *ABRET* on all 34 non-KPI consensus surprises with annual density $\geq 5\%$. Significant analyst Street earnings surprises are highlighted in green, forecast surprises other than Street earnings in blue, and management guidance surprises in yellow. This panel shows the 13 forecast surprises with a mean $\text{abs}\{t\text{-stat}\} \geq 1.95$ over 2008–2016. Individual coefficient estimates with $\text{abs}\{t\text{-stat}\} < 1.95$ are unhighlighted (white).

| Line Item Surprise | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Avg. 2008-16 | Avg. incr.R2 2008-16 |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|---------------|-----------------|---------------|---------------|---------------|---------------|-----------------|---------------|-----------------|---------------|---------------|-----------------|----------------------------|
| Street Earnings (multivariate) | 0.49 (13.8) | 0.42 (10.7) | 0.51 (12.8) | 0.43 (12.4) | 0.53 (15.8) | 0.43 (13.4) | 0.49 (14.6) | 0.36 (11.9) | 0.40 (12.6) | 0.43 (12.4) | 0.44 (13.1) | 0.41 (14.2) | 0.37 (10.9) | 0.31 (9.8) | 0.20 (6.1) | 0.24 (8.1) | 0.16 (5.3) | 0.16 (4.8) | 0.25 (6.7) | 0.26 (7.7) | 0.23 (8.1) | 0.19 (5.8) | 0.20 (6.0) | 0.18 (5.5) | 0.17 (5.1) | 0.14 (3.5) | 0.17 (3.6) | 0.20 (5.8) | 0.21% |
| Sales | | | | | | | | | 0.11 (2.4) | 0.13 (3.4) | 0.26 (7.6) | 0.06 (1.7) | 0.20 (5.6) | 0.22 (7.5) | 0.26 (8.8) | 0.30 (11.1) | 0.28 (9.4) | 0.30 (8.1) | 0.33 (9.4) | 0.18 (5.6) | 0.24 (8.2) | 0.25 (7.5) | 0.28 (8.4) | 0.33 (8.6) | 0.31 (7.9) | 0.34 (8.0) | 0.20 (4.7) | 0.27 (7.6) | 0.36% |
| Street Earnings (GA) | | | | | | | | | | | 1.33 (7.8) | 0.31 (2.7) | 0.51 (3.8) | 0.62 (6.3) | 0.34 (4.2) | 0.52 (6.4) | 0.47 (5.8) | 0.61 (7.3) | 0.76 (7.3) | 0.71 (6.2) | 0.48 (5.0) | 0.80 (8.6) | 0.81 (8.9) | 0.24 (2.3) | 0.22 (2.0) | 1.06 (7.7) | 0.60 (4.7) | 0.63 (5.9) | 0.24% |
| Street Earnings (GQ) | | | | | | | | | | | | 0.82 (7.2) | 0.53 (3.7) | 0.55 (4.9) | 0.69 (6.8) | 0.55 (5.0) | 0.48 (3.7) | 0.63 (4.7) | 0.48 (3.1) | 0.69 (4.0) | 0.60 (3.6) | 0.62 (4.3) | 0.50 (3.8) | 0.91 (5.5) | 0.87 (4.9) | 0.99 (4.0) | 0.88 (3.2) | 0.73 (4.1) | 0.10% |
| EBITDA | | | | | | | | | | | | | 0.16 (1.2) | -0.02 (-0.3) | -0.01 (-0.2) | 0.12 (3.2) | 0.16 (1.6) | 0.12 (4.1) | 0.23 (3.8) | 0.34 (5.3) | 0.20 (3.5) | 0.36 (6.4) | 0.15 (3.0) | 0.45 (7.1) | 0.35 (5.8) | 0.25 (4.3) | 0.29 (4.7) | 0.29 (4.9) | 0.15% |
| EBIT | | | | | | | | | | | | | 0.20 (2.3) | 0.30 (3.8) | 0.24 (3.3) | 0.38 (5.8) | 0.41 (6.1) | 0.28 (4.4) | 0.03 (0.6) | 0.23 (4.1) | 0.17 (3.2) | 0.01 (0.2) | 0.18 (3.4) | 0.36 (5.6) | 0.30 (4.8) | 0.05 (0.9) | 0.29 (5.1) | 0.18 (3.1) | 0.08% |
| Pre-Tax Income | | | | | | | | | | | | | 0.19 (2.6) | 0.15 (2.0) | 0.18 (2.4) | 0.32 (5.2) | 0.21 (3.3) | 0.30 (5.0) | 0.19 (3.5) | 0.31 (6.1) | 0.34 (7.1) | 0.37 (7.2) | 0.30 (6.3) | 0.15 (2.6) | 0.16 (3.1) | 0.17 (3.3) | 0.19 (3.4) | 0.24 (4.7) | 0.16% |
| GAAP Earnings | | | | | | | | | | | | | -0.07 (-1.2) | 0.18 (2.6) | 0.20 (3.0) | 0.04 (0.7) | 0.19 (3.2) | -0.09 (-1.6) | 0.20 (4.0) | 0.19 (4.3) | 0.11 (2.8) | 0.08 (1.9) | -0.03 (-0.7) | 0.09 (2.1) | -0.01 (-0.2) | 0.18 (4.0) | 0.01 (0.3) | 0.09 (2.1) | 0.04% |
| Sales (GQ) | | | | | | | | | | | | | 0.06 (0.5) | 0.86 (10.3) | 0.70 (9.8) | 0.73 (10.6) | 0.60 (8.5) | 0.45 (5.6) | 0.43 (5.6) | 0.51 (6.9) | 0.59 (9.6) | 0.45 (7.5) | 0.55 (10.1) | 0.62 (8.2) | 0.83 (11.7) | 0.61 (7.2) | 0.71 (7.2) | 0.59 (8.2) | 0.43% |
| Sales (GA) | | | | | | | | | | | | | | 0.21 (4.0) | 0.16 (3.8) | 0.26 (6.2) | 0.29 (7.2) | 0.28 (6.9) | 0.25 (5.4) | 0.19 (4.6) | 0.14 (4.6) | 0.11 (3.3) | 0.20 (6.3) | 0.28 (8.1) | 0.17 (4.9) | 0.13 (3.2) | 0.23 (4.9) | 0.19 (5.0) | 0.17% |
| CFOPS | | | | | | | | | | | | | | | | 0.10 (0.9) | 0.07 (0.7) | 0.24 (3.4) | 0.25 (4.4) | 0.10 (2.0) | 0.13 (3.9) | 0.05 (1.5) | 0.12 (3.9) | 0.09 (2.6) | 0.21 (6.6) | 0.18 (5.0) | 0.15 (3.7) | 0.14 (3.7) | 0.10% |
| EBITDA (GA) | | | | | | | | | | | | | | | | | 0.14 (1.2) | 0.42 (3.8) | 0.50 (3.9) | 0.74 (6.2) | 0.33 (4.0) | 0.39 (4.4) | 0.15 (1.9) | 0.45 (5.8) | 0.38 (4.8) | 0.46 (5.4) | 0.56 (6.2) | 0.44 (4.7) | 0.15% |
| FCF | | | | | | | | | | | | | | | | | | | 0.12 (1.5) | 0.16 (2.6) | 0.17 (3.7) | 0.25 (5.4) | 0.19 (4.4) | 0.18 (3.8) | 0.24 (5.1) | 0.21 (3.9) | 0.19 (3.1) | 0.19 (3.7) | 0.09% |
| # obs. | 6,609 | 7,401 | 8,483 | 9,987 | 11,775 | 12,845 | 14,539 | 15,630 | 16,207 | 16,500 | 15,837 | 14,318 | 14,199 | 14,290 | 14,961 | 15,746 | 16,005 | 16,088 | 15,812 | 15,305 | 15,445 | 15,020 | 14,540 | 14,825 | 15,718 | 15,884 | 15,468 | 15,335 | |
| Adj. R2 | 2.8% | 1.5% | 1.9% | 1.5% | 2.1% | 1.4% | 1.4% | 0.9% | 1.0% | 1.0% | 2.1% | 2.1% | 2.1% | 4.7% | 4.6% | 7.1% | 6.2% | 5.7% | 6.6% | 8.8% | 9.1% | 8.3% | 8.5% | 8.9% | 7.6% | 6.0% | 5.5% | 7.7% | |

TABLE 4 (continued)

Panel C: This panel shows the 21 forecast surprises with coefficients that have a mean $abs\{t\text{-stat}\} > 1.95$ during 2008–2016 (per table 3, panel B; unhighlighted). Individual coefficient estimates with $abs\{t\text{-stat}\} > 1.95$ are highlighted in blue for analyst forecast surprises other than Street earnings and in yellow for management guidance surprises.

| Surprise variable | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Avg. 2008-16 | Avg. incr.R2 2008-16 | | | | | | | |
|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------------|-----------------|-----------------|-------|------|------|-------|-------|
| Dividends Per Share | | | | | | | | | | | | | 1.30 (4.2) | -0.11 (-0.6) | -0.06 (-0.3) | 0.04 (0.2) | 0.25 (1.7) | 0.46 (3.3) | -0.69 (-4.3) | 0.32 (1.8) | 0.06 (0.4) | -0.25 (-1.4) | 0.20 (1.6) | 0.20 (1.3) | 0.17 (1.1) | -0.03 (-0.1) | -0.46 (-2.1) | -0.05 (-0.2) | 0.02% | | | | | | | |
| Book Value Per Share | | | | | | | | | | | | | | 0.00 (-0.0) | 0.01 (0.5) | -0.01 (-0.3) | 0.03 (1.2) | -0.02 (-0.8) | 0.12 (3.8) | 0.01 (0.4) | -0.03 (-1.4) | 0.02 (0.9) | 0.04 (1.6) | 0.02 (0.7) | 0.04 (1.8) | 0.05 (1.9) | 0.04 (1.3) | 0.03 (1.2) | 0.03 | 0.02% | | | | | | |
| Debt | | | | | | | | | | | | | | 0.01 (0.3) | 0.00 (-0.0) | 0.03 (0.8) | 0.01 (0.5) | -0.06 (-1.8) | -0.03 (-0.8) | -0.07 (-2.4) | -0.03 (-1.5) | 0.05 (1.9) | -0.03 (-1.2) | 0.01 (0.3) | 0.01 (0.3) | -0.06 (-2.4) | -0.05 (-1.8) | -0.02 | 0.02% | | | | | | | |
| GAAP Earnings (GQ) | | | | | | | | | | | | | | | -0.02 (-0.1) | 0.17 (1.3) | 0.23 (1.5) | 0.14 (0.7) | 0.04 (0.2) | -0.12 (-0.6) | 0.98 (4.5) | 0.65 (3.7) | 0.46 (3.1) | 0.08 (0.4) | 0.14 (0.5) | 0.02 (0.1) | 0.65 (2.4) | 0.32 (1.6) | 0.03% | | | | | | | |
| GAAP Earnings (GA) | | | | | | | | | | | | | | | 0.18 (1.3) | 0.03 (0.3) | -0.04 (-0.4) | 0.34 (3.4) | -0.02 (-0.1) | 0.07 (0.7) | 0.14 (1.6) | -0.05 (-0.6) | 0.00 (0.0) | 0.13 (1.3) | 0.31 (2.9) | 0.02 (0.2) | 0.01 (0.1) | 0.07 (0.7) | 0.01% | | | | | | | |
| Cost of Goods Sold | | | | | | | | | | | | | | | | | -0.16 (-2.0) | 0.00 (0.1) | -0.05 (-1.1) | -0.08 (-1.9) | 0.00 (0.1) | 0.00 (-0.0) | -0.14 (-3.7) | -0.11 (-2.4) | -0.04 (-1.0) | -0.06 (-1.3) | 0.03 (0.5) | -0.05 (-1.2) | 0.02% | | | | | | | |
| Capital Expenditure | | | | | | | | | | | | | | | | | | | | | 0.03 (0.9) | -0.14 (-1.1) | -0.01 (-0.1) | -0.03 (-0.5) | -0.09 (-1.7) | -0.15 (-2.5) | -0.05 (-0.8) | -0.05 (-0.8) | 0.01% | | | | | | | |
| Capital Expenditure (GA) | | | | | | | | | | | | | | | | | | | | | -0.03 (-0.5) | -0.10 (-1.6) | -0.07 (-1.7) | 0.02 (0.5) | -0.09 (-1.9) | 0.05 (1.0) | -0.02 (-0.4) | 0.03 (0.4) | -0.02 (-0.4) | 0.01% | | | | | | |
| Cash Flow From Financing | | | | | | | | | | | | | | | | | | | | | | -0.12 (-1.4) | 0.04 (0.6) | 0.06 (1.3) | -0.13 (-2.5) | -0.06 (-1.3) | 0.04 (0.7) | -0.11 (-2.3) | 0.00 (-0.0) | -0.10 (-1.8) | -0.04 (-0.7) | 0.01% | | | | |
| Cash Flow From Investing | | | | | | | | | | | | | | | | | | | | | | 0.17 (1.8) | -0.09 (-1.2) | -0.04 (-0.8) | -0.05 (-0.9) | -0.05 (-0.9) | 0.03 (0.6) | -0.15 (-3.0) | -0.02 (-0.4) | -0.01 (-0.2) | -0.02 (-0.6) | 0.01% | | | | |
| Shareholder's Equity | | | | | | | | | | | | | | | | | | | | | | 0.01 (0.2) | 0.03 (1.0) | 0.06 (1.9) | -0.02 (-0.6) | 0.06 (2.1) | 0.02 (0.5) | 0.03 (0.8) | 0.02 (0.5) | 0.03 (0.8) | 0.01% | | | | | |
| Total Assets | | | | | | | | | | | | | | | | | | | | | | 0.02 (0.7) | 0.01 (0.4) | 0.00 (-0.1) | 0.00 (0.3) | 0.03 (1.4) | -0.02 (-1.0) | -0.04 (-1.5) | 0.01 (0.4) | 0.00 (0.1) | 0.00% | | | | | |
| SG&A Expense | | | | | | | | | | | | | | | | | | | | | | 0.28 (1.0) | 0.10 (0.9) | -0.23 (-2.0) | -0.23 (-2.3) | 0.08 (0.6) | -0.05 (-0.4) | 0.17 (1.5) | 0.21 (1.9) | 0.04 (0.2) | 0.04 (0.2) | 0.01% | | | | |
| Goodwill | | | | | | | | | | | | | | | | | | | | | | -0.05 (-0.6) | 0.01 (0.2) | -0.10 (-1.8) | -0.11 (-2.0) | -0.09 (-1.5) | -0.02 (-0.4) | -0.07 (-1.1) | -0.02 (-0.2) | -0.06 (-0.9) | 0.01% | | | | | |
| Interest Expense | | | | | | | | | | | | | | | | | | | | | | | -0.21 (-0.4) | -0.21 (-0.6) | 0.22 (1.0) | -0.25 (-1.0) | 0.20 (0.9) | 0.38 (1.7) | 0.26 (1.0) | 0.05 (0.4) | 0.01% | | | | | |
| Research and Development | | | | | | | | | | | | | | | | | | | | | | | 0.49 (2.5) | 0.02 (0.1) | 0.59 (3.4) | 0.39 (1.6) | 0.35 (1.9) | -1.35 (-6.9) | -0.06 (-0.4) | 0.06 (0.3) | 0.06 (0.3) | 0.06% | | | | |
| Depreciation and Amortization | | | | | | | | | | | | | | | | | | | | | | | -0.71 (-1.5) | -0.03 (-0.1) | 0.51 (2.4) | 0.17 (0.9) | -0.69 (-5.1) | -0.34 (-2.2) | -0.18 (-0.9) | -0.18 (-0.9) | 0.04% | | | | | |
| Tax Expense | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0.10 | 0.10 | | | |
| Current Assets | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0.02 | 0.02 | | |
| Inventories | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0.02 | 0.01% | |
| Current Liabilities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0.02 | 0.00% | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0.01 | 0.01% |

TABLE 5

Category Analysis: Mean estimated coefficients and *t*-statistics from annual OLS regressions of abnormal 3-day stock returns at firms' earnings announcements on 34 non-KPI point-in-time surprises, 2008–2016. One-quarter-ahead guidance surprises are denoted by GQ; one-year-ahead guidance surprises are denoted by GA. Surprises are included only when the percentage of analyst-covered firms for which the surprise is present is $\geq 5\%$. We show mean coefficient estimates and *t*-statistics for only the 13 forecast surprises reported in table 3, panel B. Street earnings surprise is highlighted in green, forecast surprises other than Street earnings in blue, and management guidance surprises in yellow. Insignificant mean *t*-statistics are unhighlighted (white).

| Line Item Surprise | Mean annual estimated coefficient (t-statistic) over 2008-16 | | | | | |
|-----------------------------------|--|----------------|----------------|----------------|----------------|---------------|
| | Management Guidance | | Sales Growth | | Profit / Loss | |
| | Guidance | No Guidance | High Growth | Low Growth | Street Profit | Street Loss |
| UNIVARIATE SPECIFICATION | | | | | | |
| Street Earnings | 0.80 (15.6) | 0.45 (14.7) | 0.53 (11.0) | 0.60 (18.1) | 0.78 (18.2) | 0.34 (8.3) |
| Mean annual # obs. | 8,369 | 6,966 | 5,916 | 8,979 | 11,685 | 3,650 |
| Mean annual adj. R2 | 2.8% | 3.1% | 2.1% | 3.6% | 2.8% | 1.9% |
| MULTIVARIATE SPECIFICATION | | | | | | |
| Street Earnings | 0.25 (3.8) | 0.18 (4.4) | 0.19 (2.9) | 0.24 (5.4) | 0.33 (6.4) | 0.12 (2.1) |
| Sales | 0.32 (5.5) | 0.23 (5.2) | 0.38 (5.6) | 0.24 (5.5) | 0.23 (5.7) | 0.26 (3.6) |
| Street Earnings (GA) | 0.62 (5.9) | | 0.64 (3.7) | 0.61 (4.5) | 0.75 (6.3) | 0.27 (1.1) |
| Street Earnings (GQ) | 0.72 (4.2) | | 0.99 (2.7) | 0.68 (3.2) | 1.60 (5.8) | 0.26 (0.9) |
| EBITDA | 0.54 (5.4) | 0.17 (2.3) | 0.24 (2.2) | 0.32 (4.4) | 0.36 (4.7) | 0.20 (1.7) |
| EBIT | 0.26 (2.6) | 0.14 (1.9) | 0.16 (1.4) | 0.18 (2.6) | 0.25 (3.3) | 0.13 (1.1) |
| Pre-Tax Income | 0.24 (2.6) | 0.22 (3.4) | 0.22 (2.3) | 0.27 (4.3) | 0.33 (5.0) | 0.15 (1.7) |
| GAAP Earnings | 0.05 (0.7) | 0.12 (2.1) | 0.11 (1.4) | 0.09 (1.6) | 0.10 (1.8) | 0.08 (1.0) |
| Sales (GQ) | 0.60 (8.5) | | 0.75 (6.0) | 0.53 (5.9) | 0.65 (7.9) | 0.45 (2.9) |
| Sales (GA) | 0.19 (5.2) | | 0.19 (3.3) | 0.18 (3.7) | 0.16 (4.3) | 0.23 (2.2) |
| CFOPS | 0.19 (3.6) | 0.09 (1.6) | 0.15 (2.2) | 0.15 (3.0) | 0.16 (3.8) | 0.12 (1.4) |
| EBITDA (GA) | 0.41 (4.6) | | 0.45 (2.9) | 0.42 (3.7) | 0.44 (4.2) | 0.46 (2.3) |
| FCF | 0.18 (2.9) | 0.17 (1.7) | 0.25 (2.8) | 0.15 (2.5) | 0.21 (3.8) | 0.10 (1.0) |
| Mean annual # obs. | 8,369 | 6,966 | 5,916 | 8,979 | 11,685 | 3,650 |
| Mean annual adj. R2 | 10.2% | 6.0% | 7.5% | 8.9% | 9.0% | 5.2% |

Note 1: Guidance is when there is at least one guidance surprise available at the earnings announcement. High sales growth is when prior quarter's sales is $\geq 10\%$ higher than sales four quarters earlier. Profit is when Street earnings announced at the earnings announcement > 0 .

Note 2: The sum of the observations in the High/Low Growth columns is less than the full 2008–2016 sample because sales growth requires same-quarter-prior-year sales to calculate.

TABLE 6

Annual OLS regressions (as in table 3) of abnormal 3-day stock returns at firms' earnings announcements (*ABRET*) on point-in-time consensus analyst forecast surprises and management guidance surprises in the IUF dataset, except that in each year, each surprise is ranked into 100 quantiles. One-quarter-ahead guidance surprises are denoted GQ; one-year-ahead guidance surprises are denoted GA. Intercepts are estimated but not reported; dummies for data-absent forecast errors are included but not reported; *t*-statistics are in parentheses. Data are from sample [2C] in figure 1, 1990:Q1–2016:Q4.

Panel A: Univariate panel regressions of *ABRET* on Street earnings surprise ranked into 100 quantiles (gray)

| Surprise variable | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Avg. 2008-16 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Street Earnings (univariate) | 0.03 (19.9) | 0.03 (19.6) | 0.03 (21.6) | 0.03 (22.7) | 0.03 (24.5) | 0.03 (24.8) | 0.03 (26.5) | 0.03 (26.3) | 0.03 (23.6) | 0.03 (23.4) | 0.04 (23.1) | 0.03 (20.7) | 0.03 (21.5) | 0.03 (30.2) | 0.03 (31.4) | 0.04 (39.0) | 0.04 (38.3) | 0.05 (37.8) | 0.06 (32.0) | 0.05 (36.8) | 0.04 (38.8) | 0.04 (38.5) | 0.04 (35.5) | 0.04 (37.8) | 0.04 (35.4) | 0.05 (33.3) | 0.04 (29.3) | 0.04 (35.3) |
| # obs. | 6,609 | 7,401 | 8,483 | 9,987 | 11,775 | 12,845 | 14,539 | 15,630 | 16,207 | 16,500 | 15,837 | 14,318 | 14,199 | 14,290 | 14,961 | 15,746 | 16,005 | 16,088 | 15,812 | 15,305 | 15,445 | 15,020 | 14,540 | 14,825 | 15,718 | 15,884 | 15,468 | 15,335 |
| Adj. R2 | 5.7% | 4.9% | 5.2% | 4.9% | 4.8% | 4.6% | 4.6% | 4.2% | 3.3% | 3.2% | 3.2% | 2.9% | 3.2% | 6.0% | 6.2% | 8.8% | 8.4% | 8.2% | 6.1% | 8.1% | 8.9% | 9.0% | 8.0% | 8.8% | 7.4% | 6.5% | 5.3% | 7.6% |

Panel B: Multivariate panel regressions of *ABRET* on all 34 non-KPI consensus surprises ranked into 100 quantiles. Significant analyst Street earnings surprise are highlighted in green, forecast surprises other than Street earnings in blue, and management guidance surprises in yellow. This panel shows the 13 forecast surprises with a mean $abs\{t\text{-stat}\} \geq 1.95$ over 2008–2016. Individual coefficient estimates with $abs\{t\text{-stat}\} < 1.95$ are unhighlighted (white).

| Line Item Surprise | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Avg. 2008-16 | incr.R2 2008-16 | | |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|--------------|-----------------|------------|-------|
| Street Earnings (multivariate) | 0.03 (19.9) | 0.03 (19.6) | 0.03 (21.6) | 0.03 (22.7) | 0.03 (24.5) | 0.03 (24.8) | 0.03 (26.5) | 0.03 (26.3) | 0.03 (23.3) | 0.03 (22.4) | 0.03 (20.6) | 0.03 (18.8) | 0.03 (17.0) | 0.02 (17.2) | 0.02 (14.6) | 0.02 (15.2) | 0.02 (14.2) | 0.02 (12.3) | 0.03 (9.9) | 0.02 (9.8) | 0.02 (11.1) | 0.02 (11.2) | 0.02 (11.5) | 0.02 (11.8) | 0.02 (10.5) | 0.02 (10.0) | 0.02 (8.2) | 0.02 (10.4) | 0.62% | | |
| Sales | | | | | | | | | 0.01 (2.5) | 0.01 (5.4) | 0.02 (10.2) | 0.00 (2.3) | 0.01 (6.5) | 0.01 (10.0) | 0.01 (10.0) | 0.01 (12.6) | 0.01 (10.9) | 0.01 (8.8) | 0.02 (9.9) | 0.01 (5.0) | 0.01 (7.0) | 0.01 (9.3) | 0.01 (9.9) | 0.01 (11.2) | 0.02 (9.9) | 0.01 (6.1) | 0.01 (8.7) | 0.01 (8.7) | 0.45% | | |
| Street Earnings (GA) | | | | | | | | | | | 0.06 (8.2) | 0.02 (5.6) | 0.03 (7.2) | 0.02 (8.6) | 0.02 (8.2) | 0.02 (9.3) | 0.02 (8.6) | 0.03 (10.6) | 0.03 (7.3) | 0.02 (7.1) | 0.02 (7.1) | 0.02 (7.3) | 0.02 (9.7) | 0.01 (5.8) | 0.01 (5.2) | 0.02 (5.3) | 0.02 (5.6) | 0.02 (6.7) | 0.02 (6.7) | 0.27% | |
| Street Earnings (GQ) | | | | | | | | | | | | 0.03 (7.0) | 0.04 (8.8) | 0.04 (12.5) | 0.03 (11.1) | 0.03 (11.0) | 0.03 (9.1) | 0.03 (9.3) | 0.03 (6.6) | 0.03 (6.5) | 0.02 (6.7) | 0.02 (8.4) | 0.02 (8.8) | 0.03 (7.4) | 0.03 (7.4) | 0.03 (5.8) | 0.03 (7.1) | 0.03 (5.8) | 0.03 (7.1) | 0.29% | |
| EBITDA | | | | | | | | | | | | | 0.01 (1.8) | 0.00 (0.8) | 0.00 (0.2) | 0.01 (3.1) | 0.01 (3.1) | 0.01 (4.6) | 0.01 (3.9) | 0.01 (3.7) | 0.01 (4.4) | 0.01 (7.0) | 0.01 (4.8) | 0.01 (8.1) | 0.01 (7.1) | 0.01 (7.1) | 0.01 (7.9) | 0.01 (6.0) | 0.01 (6.0) | 0.22% | |
| EBIT | | | | | | | | | | | | | 0.01 (2.5) | 0.01 (4.0) | 0.01 (5.3) | 0.01 (5.4) | 0.01 (6.8) | 0.01 (6.8) | 0.00 (1.2) | 0.01 (4.8) | 0.01 (4.3) | 0.01 (1.5) | 0.01 (3.7) | 0.01 (4.8) | 0.01 (3.9) | 0.01 (1.1) | 0.01 (5.0) | 0.01 (3.4) | 0.01 (3.4) | 0.08% | |
| Pre-Tax Income | | | | | | | | | | | | | 0.01 (1.9) | 0.00 (1.3) | 0.00 (2.0) | 0.01 (6.3) | 0.01 (4.0) | 0.01 (3.3) | 0.01 (3.4) | 0.01 (5.5) | 0.01 (5.3) | 0.01 (5.3) | 0.01 (5.3) | 0.01 (1.8) | 0.01 (2.1) | 0.01 (2.6) | 0.01 (1.3) | 0.01 (3.6) | 0.01 (3.6) | 0.09% | |
| GAAP Earnings | | | | | | | | | | | | | 0.00 (-1.1) | 0.00 (1.8) | 0.00 (0.9) | 0.00 (0.6) | 0.00 (1.9) | 0.00 (1.2) | 0.01 (5.0) | 0.01 (4.8) | 0.01 (2.9) | 0.01 (3.4) | 0.01 (0.1) | 0.01 (1.7) | 0.01 (1.6) | 0.01 (3.3) | 0.01 (1.5) | 0.01 (2.7) | 0.01 (2.7) | 0.05% | |
| Sales (GQ) | | | | | | | | | | | | | 0.00 (0.8) | 0.03 (9.3) | 0.03 (9.9) | 0.03 (11.4) | 0.02 (8.8) | 0.02 (6.1) | 0.02 (5.4) | 0.02 (5.7) | 0.01 (8.6) | 0.01 (9.5) | 0.01 (12.3) | 0.01 (9.3) | 0.01 (10.9) | 0.01 (8.4) | 0.01 (9.7) | 0.01 (8.9) | 0.01 (8.9) | 0.47% | |
| Sales (GA) | | | | | | | | | | | | | | 0.01 (2.2) | 0.01 (4.1) | 0.01 (6.8) | 0.01 (6.3) | 0.02 (7.4) | 0.02 (5.0) | 0.01 (4.2) | 0.01 (4.7) | 0.01 (3.5) | 0.01 (6.1) | 0.01 (7.2) | 0.01 (4.4) | 0.01 (3.8) | 0.01 (5.5) | 0.01 (4.9) | 0.01 (4.9) | 0.14% | |
| CFOPS | | | | | | | | | | | | | | | | -0.01 (1.4) | 0.00 (-0.4) | 0.00 (1.3) | 0.01 (2.7) | 0.00 (1.6) | 0.01 (3.7) | 0.01 (2.8) | 0.01 (4.0) | 0.01 (2.0) | 0.01 (4.9) | 0.01 (2.7) | 0.01 (2.8) | 0.01 (3.1) | 0.01 (3.1) | 0.06% | |
| EBITDA (GA) | | | | | | | | | | | | | | | | | 0.00 (0.6) | 0.02 (3.9) | 0.02 (3.5) | 0.03 (4.8) | 0.01 (3.8) | 0.01 (4.0) | 0.01 (3.5) | 0.01 (6.3) | 0.01 (5.3) | 0.01 (5.9) | 0.01 (5.2) | 0.01 (4.7) | 0.01 (4.7) | 0.13% | |
| FCF | | | | | | | | | | | | | | | | | | | 0.01 (1.1) | 0.01 (2.4) | 0.00 (2.1) | 0.01 (4.7) | 0.01 (3.9) | 0.01 (3.2) | 0.01 (3.4) | 0.01 (2.5) | 0.01 (2.9) | 0.01 (2.9) | 0.01 (2.9) | 0.01 (2.9) | 0.05% |
| # obs. | 6,609 | 7,401 | 8,483 | 9,987 | 11,775 | 12,845 | 14,539 | 15,630 | 16,207 | 16,500 | 15,837 | 14,318 | 14,199 | 14,290 | 14,961 | 15,746 | 16,005 | 16,088 | 15,812 | 15,305 | 15,445 | 15,020 | 14,540 | 14,825 | 15,718 | 15,884 | 15,468 | 15,335 | | | |
| Adj. R2 | 5.7% | 4.9% | 5.2% | 4.9% | 4.8% | 4.6% | 4.6% | 4.2% | 3.4% | 3.4% | 4.4% | 3.7% | 5.0% | 11.0% | 11.4% | 16.3% | 14.4% | 14.4% | 10.5% | 12.4% | 14.6% | 15.5% | 15.2% | 16.0% | 14.1% | 11.7% | 10.5% | 13.4% | | | |

TABLE 6 (continued)

Panel C: From the regressions in table 6, panel B, this panel shows the 21 forecast surprises ranked into 100 quantiles with coefficients that have a mean $abs\{t\text{-stat}\} > 1.95$ during 2008–2016 (unhighlighted). Individual coefficient estimates with $abs\{t\text{-stat}\} > 1.95$ are highlighted in blue for analyst forecast surprises other than Street earnings and in yellow for management guidance surprises.

| Surprise variable | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Avg. 2008-16 | Avg. incr.R2 2008-16 | | | | | | | |
|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|-----------------|----------------------------|--------|-------|------|--|--|--|--|
| Dividends Per Share | | | | | | | | | | | | | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | |
| Book Value Per Share | | | | | | | | | | | | | (1.2) | (0.4) | (0.8) | (0.8) | (1.4) | (-0.5) | (-1.6) | (-0.5) | (-0.3) | (-1.2) | (-0.3) | (-0.3) | (0.4) | (-0.4) | (0.4) | (-0.4) | (-0.4) | (-0.4) | 0.00% | | | | | |
| Debt | | | | | | | | | | | | | | | (-0.3) | (-0.1) | (-1.8) | (0.3) | (-0.4) | (2.5) | (0.7) | (0.2) | (0.4) | (0.8) | (0.0) | (1.8) | (1.4) | (0.6) | (0.9) | 0.01% | | | | | | |
| GAAP Earnings (GO) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GAAP Earnings (GA) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cost of Goods Sold | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capital Expenditure | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capital Expenditure (GA) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cash Flow From Financing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cash Flow From Investing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shareholder's Equity | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Assets | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SG&A Expense | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Goodwill | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interest Expense | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Research and Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Depreciation and Amortization | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tax Expense | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current Assets | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inventories | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Current Liabilities | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |