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Abstract

Using a novel dataset that comprehensively classifies the quantitative financial disclosures in firms' 10-Ks, including those hidden in the footnotes and the MD&A, we show that disclosures of non-operating and less persistent income-statement items are both frequent and economically significant, and increasingly so over time. Adjusting GAAP earnings to exclude these items creates a measure of core earnings that is highly persistent and that forecasts future performance. Street earnings for firms that meet or just beat analyst expectations are more likely to selectively exclude these items. Analysts and market participants also are slow to impound the implications of these items. Trading strategies that exploit cross-sectional differences in firms' transitory earnings produce abnormal returns of 7-to-10% per year.

Keywords: Core Earnings; Transitory Earnings; Non-Operating Earnings; Quantitative Disclosures; Equity Valuation; Big Data

JEL: C14, G10, G18, M40, M41

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1 Introduction

Firms' financial statements contain a wealth of information about the net flow of value to a firm over a period, but not all components of the financial statements are created equal. For example, some components of earnings reported in firms' 10Ks and 10Qs are likely persistent over time, stemming the core operations of the firm, whereas others reflect transitory shocks and are unlikely to persist. As a result, distinguishing between these types of items is important for both interpreting and forecasting firms' performance.

The behavior of sell-side analysts attests to the importance of identifying persistent components of firms' earnings. Analysts regularly report and forecast firms' earnings on a non-GAAP basis (frequently referred to as street earnings) by excluding from GAAP earnings any items deemed nonrecurring or not a core part of the company's operations. Similarly, managers usually present period performance on a non-GAAP basis, via so-called "pro forma" or "core" earnings that exclude from GAAP items that managers consider non-core, nonrecurring, or unimportant for understanding the firm's performance.

The usefulness of these core earnings metrics is hampered by the evidence that managers and analysts selectively choose which items to include (e.g., Doyle, Lundhom, and Soliman, 2003). Nonetheless, prior research shows that non-GAAP earnings tend to be more value relevant in the sense that they seem to better explain movements in firms' stock prices (e.g., Brown and Sivakumar, 2003). One likely reason for the relevance of these adjustments is that although line items excluded from pro forma or street earnings tend to be recurring, they are less persistent than non-excluded items (e.g., Doyle et al., 2003; Gu and Chen, 2004)

Prior studies provide mixed evidence about the extent to which market participants understand the implications of transitory earnings for future earnings and cash flows (Doyle

et al., 2003; Gu and Chen, 2004).[1] In studying this question, a critical challenge arises from the practical difficulty of identifying a comprehensive set of non-operating or less persistent revenues, expenses, gains, or losses. Prior literature relies on the non-operating earnings as calculated by managers and analysts, but these adjustments can be systematically biased (Doyle et al., 2003).

This paper examines the extent to which market participants understand the implications of transitory earnings for future earnings and cash flows. We overcome the aforementioned empirical challenges by employing a novel dataset compiled by New Constructs (NC), a financial-technology and research firm. NC relies on a combination of human analysts and machine learning to collect and classify quantitative disclosures embedded in the 10-Ks of publicly listed firms in the Russell 3000.

NC collects quantitative information that specifies or is pertinent to a firm's net income, including items reported on the income statement and items hidden in the footnotes or the management discussion and analysis section (MD&A). These data facilitate systematic identification of less persistent and non-operating items (i.e., non-timing-related accruals) that are included in a firm's GAAP income. Thus these data can be used to construct measures of core or operating earnings that could be more relevant for forecasting future performance. Importantly, because of the comprehensive nature of NC's approach to identifying non-operating and transitory income-statement-related items, and because of its status as an independent research firm, the resulting measure of core earnings is less likely to exhibit the systematic bias that has been found in managers' pro-forma earnings.

Using this novel dataset, which consists of about 60,000 firm-year observations from

[1]For example, Doyle et al. (2003) finds that investors do not fully appreciate bias in the exclusions made by managers. By contrast, Gu and Chen (2004) suggests that investors do understand the implications of the items excluded from street earnings.

1998–2017, we adjust GAAP net income to create a measure of core income (*Core Earnings*) that excludes non-timing-related accruals and is thus more likely to embody the sustainable portion of firms' profits. Specifically, *Core Earnings* adds back to GAAP net income the non-core net expenses related to (1) acquisitions, (2) currency devaluations or revaluations, (3) discontinued operations, (4) legal or regulatory events, (5) pension adjustments, (6) restructuring, (7) gains and losses that companies disclose as "other," and (8) other unclassified gains and losses that NC deems non-operating. Based on these adjustments and our measure of core earnings, our study documents the following four main findings.

First, we show that the number of income-statement-related line items or quantitative disclosures that are deemed non-operating has grown over the last 20 years. In 1998 average total adjustments to net income averaged six. By 2017, total adjustments averaged about eight (a 34% increase in the average adjustments). The magnitude of the adjustments is also significant. In 2017, for example, the average adjustment per firm was 26 cents per share or about 15% of average GAAP earnings per share.

Second, the adjustments for non-operating items that we make are less persistent than the other components of GAAP net income. In particular, earning per share (EPS) defined using GAAP net income exhibits a cross-sectional AR(1) parameter of 0.65, and EPS defined using income before special items, as reported by Compustat, exhibits an AR(1) parameter of 0.77. EPS defined using *Core Earnings*, on the other hand, exhibits an AR(1) parameter of 0.83, about 30% higher than GAAP net income and 10% higher than income before special items.

Third, we show that while the total adjustments we make to compute *Core Earnings* are different from, and incremental to, the common alternative adjustments made by academics or practitioners. Although *Core Earnings* adjustments are positively associated with those

income-statement items classified by Compustat as *Special Items* as well as with the adjustments made in firms' street earnings, a significant amount (about 40%) of their variation is not explained by these two common alternatives. Consequently, we find that *Core Earnings* provides predictive power for various measures of one-year-ahead performance—GAAP net income, income before special items, cash flow from operations, and street earnings—that is incremental to their current-period counterparts. In addition, we find that firms' announced street earnings—a standard metric of firms' core income—appear to be selective in their exclusion of non-operating income-statement items. On average, for every dollar of income-increasing *Core Earnings* adjustments, only 55 cents are incorporated in street earnings; similarly, for every dollar of income-decreasing *Core Earnings* adjustments, only 54 cents are incorporated in street earnings. Finally, the selectivity of adjustments in street earnings appears to be in part driven by managerial bias: firms that meet or just beat consensus EPS forecasts more likely to include income-increasing adjustments or exclude income-decreasing adjustments in their street earnings numbers.

Fourth, we show that market participants are slow to take into account the implications of transitory earnings. The magnitude of total non-operating net expenses contained in GAAP EPS is associated with positive and significant revisions in analysts' earnings-per-share forecasts in the 12 months following a firm's 10-K filing. Consistent with markets' slow adjustments over time, we find that the magnitude of total transitory net expenses contained in GAAP EPS forecasts firms' stock returns in the 12 months following their 10-K filing, even after controlling for characteristics found to be associated with future returns (e.g., size, book-to-market, gross profit, accruals, and momentum). An equal-weighted trading strategy that buys firms in the highest decile of non-operating net expenses and sells firms in the lowest decile produces monthly excess returns of 54 basis points. A value-weighted

strategy produces 65 basis points per month.

We contribute to the literature by documenting novel descriptive evidence on the prevalence, magnitude, and growth of income-statement related line items or quantitative disclosures that can be deemed non-operating or nonrecurring in nature. Our analysis is made possible by a novel dataset compiled by New Constructs that identifies a comprehensive set of revenues, expenses, gains, and losses—including those hidden in the footnotes or disclosed in the MD&A—that a sophisticated analyst could deem to be nonrecurring or non-core to a firm's operations.

We also show that operating earnings obtained by sophisticated users of firms' financial statements contain value-relevant information beyond that of operating earnings used by managers and analysts. We complement Brown and Sivakumar (2003), which finds that the operating earnings reported by managers and analysts are more value-relevant than GAAP net income, by showing that incorporating non-operating earnings-related items disclosed in the 10-K yields a novel measure of operating earnings that embeds information about future performance that differs from, and is incremental to, street earnings.

We also contribute to the literature on sell-side analysts' expertise at processing earnings information. Although prior research shows that the exclusions made by analysts yield a more value-relevant measure of operating earnings (Gu and Chen, 2004), our evidence suggests that they are slow to impound the implications of certain transitory gains and losses in their earnings forecasts.

We also contribute novel evidence on the types of adjustments that are embedded in street earnings. Prior work suggests that firms' pro forma earnings are biased (Doyle et al., 2003), and that managers define non-GAAP earnings to meet or beat consensus (Doyle, Jennings, and Soliman, 2013). We build on this research by providing more direct tests of

the degree to which street earnings incorporates the total amount of transitory gains and losses disclosed in firms' 10-Ks, and how meet-or-beat incentives influence these decisions.

Finally, our findings contribute new insights to the debate about the usefulness of accounting information in firm valuation. Recent research has found that the well-documented negative relation between accruals and cash flows has decreased over time, resulting in a higher relative ability of current cash flows to predict future cash flows and lower relative ability of accruals to do so (e.g., Barth and Taylor, 2010; Lev, Li, and Sougiannis, 2010; Bushman, Lerman, and Zhang, 2016; Chen, Melessa, and Mergenthaler, 2017; Nallareddy, Sethuraman, and Venkatachalam, 2017). Researchers have attributed this phenomenon to such factors as measurement error, temporal shifts in the presence of one-time items, and temporal shifts in accounting complexity (Barth, Li, and McClure, 2017; Bushman et al., 2016; Chen et al., 2017; Nallareddy et al., 2017). Notably, Bushman et al. (2016) finds that the negative correlation between accruals and cash flows has evaporated due to an increase in non-timing-related accruals in recent years, thus weakening the relation between earnings and future cash flows. Our paper extends this evidence by providing large-scale and direct evidence on the nature of these non-timing-related accruals, which we show to be important for forecasting, valuation, and research on the usefulness of GAAP accruals. Because we can *directly* identify these items using NC's database, we illustrate that careful accounting analysis can lead to more powerful accrual-based forecasts of future income and cash flows.[2]

The paper proceeds as follows. Section 2 describes the NC data and how we use it

[2]Our study differs from Bushman et al. (2016) in several important ways. First, that paper examines the contemporaneous relation between accruals and cash flows; we examine how earnings (i.e., accruals plus cash flows) relate to future performance. Second, Bushman et al. (2016) examines the temporal shift in these relations; we explore firm-level panel data. Third, Bushman et al. (2016) uses the cross-sectional standard deviation of the difference between operating income after depreciation and pre-tax income as a proxy for non-timing-related accruals at the annual level; we create a direct measure of non-recurring earnings using NC data.

to construct a measure of operating earnings. Section 3 provides descriptive statistics and reports the empirical results. Section 4 examines the extent to which analysts and market participants understand the implications of non-core-earnings items. Section 5 concludes.

2 Background and Data

This section describes the NC database, and our use of it to adjust net income to estimate operating or "core" earnings. We also provide summary statistics of the data.

2.1 Identifying Non-Core-Earnings Items

For much of the last 25 years, evidence has supported the claim that—given that accruals mitigate timing differences in when cash is received—earnings is superior to cash flows at predicting future cash flows (e.g., Dechow, Kothari, and Watts, 1998; Kim and Kross, 2005). This finding explains the well-documented negative relation between current accruals and current cash flows (Dechow, 1994).

However, recent research has documented an important temporal change in these relations (Bushman et al., 2016). These findings argue for removing non-timing-related accruals from net income—less-persistent or non-operating revenues, expenses, and gains or losses—to develop a measure of "core" or "operating" earnings that will be more relevant for forecasting future performance and cash flows.

However, making these adjustments on a large scale is infeasible. For one thing, comprehensively identifying non-timing-related accruals across firms is both challenging and time-consuming. Analysts and investors who conducting manual adjustments to GAAP earnings must comb through more than 200 pages of firms' 10-Ks, which have grown in

length and complexity over time (Li, 2008; Loughran and Mcdonald, 2014; Dyer, Lang, and Stice-Lawrence, 2017). Also, the semantic and structural diversity of disclosure choices has increased: Firms describe similar economic events differently.[3] Moreover, information about a given non-operating item may be disclosed in different sections of the 10-K: for example, as a distinct line item on the income statement, or grouped with other revenues and expenses in an aggregated line item, or separately disclosed in the footnotes or the MD&A. As a result, the detailed accounting analysis that is needed to create a measure of core earnings is difficult for researchers to scale.

That prior research has variously examined street earnings used by analysts or pro-forma earnings used by managers as proxies for core earnings attests to the importance of adjusting GAAP earnings to understand operating performance (e.g., Bradshaw and Sloan, 2002; Gu and Chen, 2004). Reporting of these non-GAAP earnings measures has increased in recent years, but their consistency in excluding non-recurring items is unclear for the reasons stated above (Bentley, Christensen, Gee, and Whipple, 2018). It remains unclear to what extent bias introduced via subjective selection—by managers or analysts—of items to exclude from GAAP earnings undermines the comparability of operating or core earnings. This question has not been comprehensively examined, largely because there has been no comprehensive aggregation of non-recurring income-statement items covering a large sample of publicly traded firms.

Much prior research has used the Compustat item "income before extraordinary items" or "income minus special items" (as defined by Compustat) as a proxy for core earnings that exclude non-timing-related accruals. However, these measures continue to capture many

[3]For example, the sale of property may be described as "Gains from sales of property," "(Gain) loss on used rental equipment," "Gains/losses on investments," or otherwise. Section 2.1 describes New Constructs' process for identifying and classifying such items.

such accruals (e.g., transitory revenues and expenses aggregated in an income statement line item and separately disclosed only in footnotes) (e.g., Bradshaw and Sloan, 2002; Burgstahler, Jiambalvo, and Shevlin, 2002). There are exceptions: For example, Gu and Chen (2004) uses "street earnings" from First Call as the measure of recurring or "core" earnings.[4] However, a limitation of the street earnings data is that they are available only for companies that analysts choose to cover.

Other papers have also examined management-reported non-GAAP earnings as proxies for core earnings (Bhattacharya, Black, Christensen, Larson, and Bradshaw, 2003). However, in keeping with the findings of Gu and Chen (2004), Bentley et al. (2018) finds that, for a large majority of firms, manager-reported non-GAAP earnings are identical to the street earnings reported in IBES, which suggests general agreement between analysts and managers on how to adjust GAAP earnings to reflect core operating performance. This consensus raises the possibility that managerial bias is also reflected in street earnings.

Bushman et al. (2016) relies on an alternative strategy to measure non-timing-related accruals. The paper uses the yearly cross-sectional standard deviation of the difference between operating income after depreciation and pre-tax income (both from Compustat) as a proxy for the annual amount of non-timing-related accruals. This strategy provides an indirect measurement of the magnitude of non-timing-related accruals *in the aggregate*; it does not allow for a firm-level examination of transitory earnings.

To overcome these practical challenges, we leverage the income-statement-related quantitative information collected by New Constructs from firms' 10-Ks to create a firm-level measure of earnings that is more reflective of the core operations—the most persistent component of operating earnings— across public firms and over time. To our knowledge, this is

[4]Street earnings calculated by other data vendors, such as IBES, use a methodology similar to that of First Call (Gu and Chen, 2004).

the most comprehensive dataset that captures what a fundamental analyst would be likely to identify as transitory or non-operating earnings items in detailed analyses of firms' 10-Ks.

NCs' data collection process consists of three steps. The initial step is an internal application that allows human analysts to quickly and easily locate, tag, and mark up all relevant quantitative data points from financial statements, footnotes, and the MD&A. This tool facilitates the collection of "information about every data point, including original text, data value, units, and specific location in the filing," according to New Constructs. The second step is the development of a taxonomy that assigns each collected quantitative number to the appropriate category (e.g., operating and recurring; financing; non-recurring revenues and expenses) to facilitate computation of measures of core operating income. The last component is automation, via a machine-learning algorithm that parses the entire corporate filing (i.e., an algorithm that can read, locate, tag, extract, and categorize every data point). The fundamental idea is that "if a human expert parsed certain data points into the same bucket enough times, then the machine could take over," according to New Constructs. Whenever the machine comes across an item that it has not seen before, like "fracking waste disposal charge," a human analyst is notified and will manually tag, mark up, and classify the disclosure (e.g., as operating/recurring or non-operating/non-recurring). Over time, the choices made by analysts constitute an ever-growing training data set from which machines learn to improve their ability to parse 10-Ks. The result of this process is a database of fully parsed 10-Ks (and 10-Qs) from 1998 through the present, available through EDGAR.[5]

For purposes of measuring core income, New Constructs classifies income-statement-related quantitative disclosures as either likely to be more persistent and operating in nature

[5]Parsing a 10-K, which averages about 200 pages, with 70 tables and 256 data points, takes less than 10 minutes. For more details on the data collection and quality assurance processes employed by New Constructs, see Wang and Thomas (2018).

or likely to be less persistent and non-operating ("non-core") in nature. Non-core revenues and expenses, or gains and losses, are identified by New Constructs as separately disclosed line items in the income statement or as portions of an aggregate line item that are separately disclosed only in footnotes or the MD&A. The next section describes these items and how we use them to construct a measure of core earnings.

2.2 Defining *Core Earnings*

NC assigns firms' non-core revenues and expenses, or gains and losses, to eight main categories: *Net Acquisition Expenses*, *Net Currency Expenses*, *Net Discontinued Ops Expenses*, *Net Legal Expenses*, *Net Pension Adjustments*, *Net Restructuring Expenses*, *Net Company-Defined Other Expenses*, and *Net Other Expenses*. Each category includes non-operating-related components of *Net Income* that are either reported as separate line items on the income statement or reported in the MD&A or footnotes and aggregated into a summary measure (e.g., COGS or SG&A). Quantitative disclosures hidden in the footnotes are not generally collected or made available by databases like Compustat. Street earnings reported by IBES may or may not make these adjustments, but there is relatively little transparency about specific adjustments, which may reflect the biases of management or analysts.

Net Acquisition Expenses is total losses minus total gains arising from acquisitions or sales of assets. An example of such an adjustment that would have a material impact on a company's income is Yahoo's net gain of $4.4 billion in 2012 from its sale of shares of Alibaba.

Net Currency Expenses is total losses minus the total gains that arise from foreign-currency devaluations or revaluations. For example, Tesla had a foreign-currency-exchange gain of $12 million in 2013 due to the weakening of the Japanese Yen, which decreased the

value of its Yen-denominated liabilities. This gain, reported in *Net Income*, is not included in *Core Earnings*.

Net Discontinued Ops Expenses is total losses minus total gains arising from discontinued operations. Pfizer's 2012 10-K provides a stark but not uncommon example of the impact of *Net Discontinued Ops Expenses* on net income and the importance of adjusting for it when calculating measures of operating income. The company's *Net Income*, but not its *Core Earnings*, included $5.1 billion, or 8.6% of revenue, for the sale of its Nutrition business to Nestle.

Net Legal Expenses is total losses minus total gains arising from legal or regulatory events, which can have a material impact on net income without a similar impact on operations. For example, in 2007 Nautilus Group reported a net loss of $56 million, but that loss included a one-time payout of $18 million to settle a lawsuit.

Net Pension Adjustments consists of all net non-service-cost items that are included in a firm's net period benefit-cost—the total cost expensed for a firm's pension or post-retirement plans—minus any service income (reported as negative service costs). Non-service-cost items include interest cost (increases in the obligation due to the passage of time), expected return on plan assets (typically a credit for deferred expected realized return on plan assets), settlements and curtailments (non-recurring charges that lower the obligation due to payouts or changes in plan terms), and amortization of actuarial gains or losses (charges that reflect changes in assumptions to explain change in benefit obligations, amortized from other comprehensive income over time). An example of what is included in *Net Pension Adjustments* comes from Johnson & Johnson's 2016 10-K, which included in its net income of $16.5 billion a $2.0 billion gain from expected returns on pension plan assets. As another example, Accenture in 2017 reported a pension settlement charge of $510 million, a significant portion

of the company's $3.4 billion net income that year. NC's classification of net period benefit cost is largely consistent with FASB's pension accounting standards update in 2017 (ASC 715-30), which requires firms to report the components of net period pensions costs other than the service cost component as part of the line item "other income/(expense)" in the income statement.[6] Thus, the only pension-related expenses included in *Core Earnings* are service costs and amortization of prior service costs of pension and post-retirement plans.

Net Company-Defined Other Expenses are gains and losses that the company defines as "other" without reporting additional information. *Net Other Expenses* is a catch-all category that captures other types of adjustments that occur infrequently or are deemed non-operating by NC, but for which there is no specific categorization assigned.

Net Other Expenses largely consists of amortization of capitalized interest, unrealized gains or losses related to derivatives and unconsolidated subsidiaries, and real-estate revaluations. *Net Other Expenses* also includes goodwill amortization and employee stock options expenses, items that are normalized to adjust for changes in accounting treatments and to make all measures comparable over time. Before the update of FAS 142 in 2002, companies amortized goodwill annually; since 2002, companies are no longer required to amortize goodwill annually but are instead subject to an impairment standard. For all firm-years before the rule change, *Net Other Expenses* includes goodwill amortization expense; after 2002, *Net Other Expenses* includes goodwill impairment expense. Similarly, before the update of FAS 123 in 2006, companies were not required to expense stock options; since 2006, NC extracts these costs from footnotes and includes them in *Net Other Expenses*.

Using these data, we construct a measure of core operating earnings, which we call *Core*

[6]The only difference is that NC classifies amortization of prior service cost as an operating expense while the FASB's updated standard treats it as a non-operating expense.

Earnings, as follows:

$$
\begin{aligned}
\textit{Core Earnings}_{i,t} &= \textit{Net Income}_{i,t} + \textit{Total Adjustments}_{i,t}, \qquad (1)\\
\text{where } \textit{Total Adjustments}_{i,t} &= \textit{Net Acquisition Expenses}_{i,t}\\
&+ \textit{Net Currency Expenses}_{i,t}\\
&+ \textit{Net Discontinued Ops Expenses}_{i,t}\\
&+ \textit{Net Legal Expenses}_{i,t}\\
&+ \textit{Net Pension Adjustments}_{i,t}\\
&+ \textit{Net Restructuring Expenses}_{i,t}\\
&+ \textit{Net Company-Defined Other Expenses}_{i,t}\\
&+ \textit{Net Other Expenses}_{i,t}.
\end{aligned}
$$

Appendix Table A.1 provides examples of non-operating and non-recurring items identified by NC. Where available, we also report whether and where these items can be found in Compustat. We note that some of the items in each category are reported on a pre-tax basis, while others are reported on an after-tax basis. To standardize all of our adjustments, we apply a tax rate of 34% to all pre-tax non-operating gains or expenses before aggregating into the respective categories.

It is worth noting that many of the income-statement-relevant quantitative disclosures collected by NC do not appear to be easily identifiable in Compustat. This pattern suggests that it would be substantially more difficult to *directly* measure non-operating and non-recurring earnings using Compustat data *per se*.

As an example, in 2016 CBS reported on its income statement "Pension settlement

charges," an operating expense of $211 million on $1.3 billion in net income. This item is identified by New Constructs (and included in *Net Pension Adjustments*) and thus included in our adjustments to *Net Income*. By contrast, Compustat reports net income of $1.3 billion and income before extraordinary items of $1.6 billion for CBS in 2016 and does not report this pension settlement charge in any of the relevant variables. To further explore Compustat's treatment of non-recurring items that appear on the income statement, we examined a random sample of 30 firm-years that reported economically meaningful items on income statements to determine if and where Compustat reported these items. In all instances, NC identified the items as non-operating, and *Core Earnings* includes corresponding adjustments. In 10 of the firm-years, the item in question was not reported in any Compustat variable; the other 20 items were reported in 13 different variables.

Our analysis highlights the empirical and practical challenges of directly and comprehensively identifying the set of non-recurring or non-operating revenues, expenses, gains, and losses. It also highlights the usefulness of NC's novel database for accounting and finance researchers.

2.3 Summary Statistics on Non-Core-Earnings Items

Table 1 reports pooled summary statistics for the variables underlying our analysis. Panel A describes the frequency within the sample of each income-increasing and income-decreasing adjustment. *N* reports the number of firm-years with at least one adjustment: 8,251 firm-year observations reported at least one acquisition adjustment that increased net income (*Acquisition Increase*); 1,405 firm-year observations reported at least one acquisition adjustment that decreased net income (*Acquisition Decrease*).

Panel A shows that, when an adjustment is made for a firm-year observation in a par-

ticular category, we observe on average only one such adjustment. The exception is pension adjustments: There are on average 3.64 adjustments relating to *Pension Increases* among firm-year observations characterized by income-increasing pension adjustments; similarly, there are on average 2.34 adjustments relating to *Pension Decreases* among firm-year observations characterized by income-decreasing pension adjustments.

In terms of incidence, Panel A suggests that the most frequent adjustments involve restructuring: 36,714 firm-year observations entail *Restructuring Increases* and 20,133 entail *Restructuring Decreases*. By contrast, the least frequent adjustments involve *Acquisition Decreases* (i.e., gains due to acquisitions) and *Legal Decreases* (i.e., gains due to legal or regulatory events).

Also noteworthy is that, for all categories of adjustment except *Company-Defined Other*, income-increasing adjustments are more common than income-decreasing adjustments. Of 62,047 firm-year observations, 58,453 (94%) report at least one adjustment; 82% report at least one income-increasing adjustment and 75% report at least one income-decreasing adjustment.

Table 1, Panel B, reports the distribution of magnitudes for each adjustment category, among the sub-sample of firms with adjustments. The average value of adjustments varies significantly across categories. Pension adjustments are the largest on average: The average adjustment for *Pension Increases* is $112 million; for *Pension Decreases* it is $110 million. The smallest-magnitude adjustments on average are *Acquisition Decreases* ($3.6 million), *Currency Decreases* ($3.8 million), and *Legal Increases* ($6.0 million).

On average, the dollar value of *Total Adjustments* is $55 million; the average values of increasing and decreasing adjustments are $158 million and $98 million respectively. For almost all adjustments, the median is less than half the value of the mean, which is consistent

with large one-time events.[7]

2.4 Summary Statistics on *Core Earnings*

Table 1, Panel C, reports distributional statistics for *Core Earnings*, our main variable of interest, and the net adjustments used to calculate it. As benchmarks to compare with *Core Earnings*, we also examine measures of income that are standard in the literature. We merge in companies' reported GAAP earnings (*Net Income*), income before special items (*Income Before Special Items*), and net operating cash flow (*Cash Flow from Operations*), along with other relevant accounting data, from Compustat.[8] We also merge in companies' street earnings (*Street Earnings*), along with analysts' consensus forecasts and revisions, from IBES. All variables are defined in Table A.2; descriptive statistics for the main Compustat and IBES variables are reported in Panel D.

Of particular interest is that, on average, total adjustments amount to a $28 million increase in a firm's net income. These magnitudes are significant: average total adjustments amount to 13% of average GAAP earnings, and about 11% of operating earnings (*Core Earnings*) are due to these adjustments. The total non-operating-earnings adjustments identified by NC also differ substantially in magnitude from Compustat's special items and adjustments in street earnings. For example, average *Total Adjustments* is 17 cents per share, compared to 0 cents per share for *Special Items*. Moreover, average *Core Earnings* per share for the sub-sample with non-missing *Street Earnings* is $1.19 (untabulated), or 25% higher than average *Street Earnings*.

[7] The minimum value for all adjustments is less than $10,000, which appears as $0.00 million.

[8] *Income Before Special Items* is a frequently used Compustat measure of operating income that excludes the influence of special and transitory items (e.g., Bradshaw and Sloan, 2002; Burgstahler et al., 2002). In untabulated results, we conduct all our analyses using the Compustat variable *Income before Extraordinary Items* instead of *Income before Special Items* and find that our inferences remain unchanged.

2.5 Trends in Non-Core-Earnings Items

Figure 1, Panel A, examines how non-core-earnings adjustments to net income have evolved over time. It displays the average number of adjustments identified in the 10-K each year from 1998 to 2017; on average, firms made more than six adjustments in a given year. Moreover, the number of adjustments gradually increased, from approximately six in 1998 to nine in 2017. Much of this growth came from income-increasing adjustments (i.e., expenses or losses that NC deemed non-operating in nature), and could be consistent with increasingly detailed and transparent quantitative disclosures.

Figure 1, Panel B, examines the average annual dollar value per share of net adjustments, core earnings, and GAAP net income during the sample period. The per-share value of adjustments has increased over time, and the magnitude of the adjustments is also economically meaningful. The average adjustment in 2017, 23 cents per share, represented 15% of average GAAP net income per share. This figure also demonstrates that these adjustments smooth out net income, a finding consistent with these adjustments removing the transitory or non-operating shocks to recover operating earnings.

The finding that *Core Earnings* is on average larger than net income could be consistent with accounting conservatism. For example, U.S. GAAP does not allow for write-ups. That non-core expenses appear more frequently than non-core income could also be explained by the nature of business conditions. Generally speaking, unexpected sources of expense outnumber unexpected sources of income. This reality is reflected in the structure of the income statement, which typically provides only one line for income or revenue and sometimes a second line for "other income" but specifies numerous ways to spend the money that a company earns.

We also analyze the extent to which non-core-earnings adjustments are located in the

footnotes or the MD&A section of the 10-K. These "hidden" adjustments are difficult to identify systematically due to their unstructured nature. Figure 2, Panel A, examines how hidden non-core-earnings adjustments to net income have evolved over time. It shows that, in any given year, there are more than three hidden adjustments per firm, Thus a substantial proportion (about half) of all non-core-earnings adjustments are identified by combing through the footnotes and the MD&A.

The period between 1998 and 2017 saw a 12% increase in the average number of hidden adjustments, from 3.35 to 3.78. Interestingly, we see opposing trends in the average number of income-increasing and income-decreasing adjustments: the average number of hidden income-increasing adjustments per firm increased by 42%, from 1.84 in 1998 to 2.61 in 2017; meanwhile, the average number of hidden income-decreasing adjustments per firm declined by 23%. In other words, in 1998 a hidden adjustment was equally likely to be a gain or a loss; by 2017 a hidden adjustment was far more likely to be a loss than a gain.

By combining the data displayed in Figures 1 and 2, we also see that managers are increasingly likely to report non-operating gains on the face of the income statement but to disclose non-operating losses only in the footnotes or the MD&A. In 1998 the mean number of hidden income-decreasing adjustments (i.e., non-operating revenues or gains) accounts for 55.9% (=1.84/3.29) of the mean number of total income-decreasing adjustments; by 2017, this percentage had declined to 50.9% (=2.61/5.14). By contrast, in 1998 the mean number of hidden income-increasing adjustments (i.e., non-operating expenses or losses) accounts for 54.1% (=1.51/2.79) of the mean number of total income-decreasing adjustments; by 2017, this percentage had declined to 77% (=2.91/3.78).

Finally, Figure 2, Panel B, examines the average annual dollar value per share of hidden total adjustments, hidden income-increasing adjustments, and hidden income-decreasing

adjustments. The per-share value of hidden total adjustments increased significantly over time, from \$0.015 in 1998 to \$0.127 in 2017. These magnitudes also suggest that a significant portion (about half) of total adjustments per share are reported only in the footnotes or the MD&A.

These figures provide the first evidence on how managers disclose revenues, expenses, gains and losses on and off the income statement, and illustrate the importance of hidden items in comprehensively identifying non-core earnings. These items are difficult to identify manually, and to our knowledge are not systematically collected and classified elsewhere. Jointly, these figures show that the NC dataset provides a novel opportunity to study the properties of non-operating items disclosed in 10-Ks, and to examine the extent to which the market impounds their implications.

3 Forecasting Properties of *Core Earnings*

We begin our analysis by examining the time series and the pooled characteristics of the adjustments made to calculate *Core Earnings*. If such adjustments, in fact, represent non-operating or less-persistent components of a company's financial performance, we expect *Core Earnings* to be more persistent than GAAP net income and to contain incremental information about future performance.

3.1 Persistence

We begin by analyzing the autoregressive behavior of *Core Earnings*. If the non-operating or non-core-earnings adjustments are transitory or less persistent, *Core Earnings* should be more persistent than *Net Income*.

To examine these properties, we first summarize the firm-specific time-series AR(1) parameter for *Net Income* and *Core Earnings*, estimated by regressing one-year-ahead income on current-period income. Since our database consists of only 21 years of data, we perform this analysis using the sample of firms with at least 15 years of data, totaling 1,768 unique firms, to mitigate the concern that small samples create noisy estimates.

Table 1, Panel E, reports the cross-sectional summary statistics of the estimated time-series persistence parameters. The mean time-series AR(1) parameter is 0.45 for *Net Income* and 0.60 for *Core Earnings*, a significant increase of 33%. In contrast, the mean time-series AR(1) parameter for *Total Adjustments* is only 0.18, about one-third of the persistence of *Core Earnings*. These summary statistics validate the claim that the non-core-earnings adjustments identified in the NC database are significantly less persistent on average than other components of net income.

We also examine the *cross-sectional* persistence of various measures of income. That is, we examine the extent to which differences in income between firms in one year forecast differences in income the following year. We estimate regressions of the following form:

$$Income_{i,t+1} = \alpha + \phi \times Income_{i,t} + \eta_t + \epsilon_{i,t+1}, \tag{2}$$

where η_t are year-fixed effects. We consider the following measures of *Income*: *Net Income*, *Income Before Special Items*, *Cash Flow from Operations*, and *Core Earnings*, as defined in Eq., (1). As in all analyses going forward, all variables of interest are scaled by shares outstanding. For each regression, we estimate two-way cluster robust standard errors, clustered at the firm and year levels (Petersen, 2009; Gow, Ormazabal, and Taylor, 2010).

Table 2 reports the results of estimating Eq., (2). We find each measure of performance to

be cross-sectionally persistent. *Net Income* exhibits the lowest persistence, with a coefficient of 0.65. *Income before Special Items*, which removes from *Net Income* the influence of "special items" as identified by Compustat, exhibits a slightly higher persistence of 0.77. At 0.83, *Core Earnings* exhibits the highest cross-sectional persistence parameter, an increase of 28% and 8% relative to the persistence of *Net Income* and *Income Before Special Items*. These findings suggest that *Core Earnings* removes a significant amount of transitory earnings embedded in the other accrual-based income measures, increasing the persistence of earnings. These findings also suggest that *Income before Special Items* is not a good measure of operating or core income. We also find that *Cash Flow from Operations* has a high degree of persistence, with a cross-sectional persistence parameter of 0.81.

3.2 Forecasting Future Income

Next, we examine the forecasting properties of this core performance measure. To the extent that *Core Earnings* removes from *Net Income* revenues and expenses (or gains and losses) that are less recurrent, we would also expect *Core Earnings* to help forecast future operating performance. We assess how well *Core Earnings* forecasts measures of future income by estimating several variations of the following equation:

$$\begin{aligned} Income_{i,t+1} &= \gamma_0 + \gamma_{AE} \times Core\ Earnings_{i,t} + \gamma_{NI} \times Net\ Income_{i,t} \\ &+ \gamma_{IB} \times Income\ Before\ Special\ Items_{i,t} \\ &+ \gamma_{CFO} \times Cash\ Flow\ from\ Operations_{i,t} + \eta_t + \epsilon_{i,t+1}, \end{aligned} \tag{3}$$

where $Income_{i,t+1}$ refers to one-year-ahead *Net Income*, *Income before Special Items*, or *Cash Flow from Operations*, and η_t are year-fixed effects as before.

Table 3 reports the results of estimating Eq., (3). Columns (1) and (2) report the ability of contemporaneous measures of income to predict one-year-ahead *Net Income*. In both columns, *Core Earnings* is incremental to other measures of performance when predicting future *Net Income*; each coefficient is significant at the 1% level. We find similar patterns for predicting future *Income before Special Items* in columns (3) and (4), and future *Cash Flow from Operations* in columns (5) and (6). In all specifications, *Core Earnings* is incremental to other measures of performance in predicting future performance. The predictive ability of *Net Income*, on the other hand, becomes negative in columns (4) and (6), and *Income Before Special Items* provides only weak incremental predictive ability for future *Cash Flow from Operations*.

The magnitudes of the coefficients on *Core Earnings* in Table 3 are also noteworthy. One interpretation is that the slope coefficients on the various income measures provide weights with which one can create a composite predictor of future income. From this framework, we see that *Core Earnings* carries the greatest weight for forecasting future *Net Income* and *Income Before Special Items*. In particular, whereas contemporaneous *Net Income* carries a weight of 0.13 for forecasting one-year-ahead *Net Income*, at 0.67 the weight on *Core Earnings* is five times as large. Similarly, whereas contemporaneous *Income before Special Items* carries a weight of 0.30 for forecasting one-year-ahead *Income before Special Items*, at 0.53 the weight on *Core Earnings* is nearly twice as large. For purposes of forecasting one-year-ahead *Cash Flow from Operations*, current *Cash Flow from Operations* carries the largest weight at 0.64; however, the weight on *Core Earnings* remains the second-largest at 0.33 when including all performance measures. Overall, these findings suggest that adjusting GAAP net income for non-operating or non-recurring earnings yields an accounting measure of performance that is useful for forecasting future performance in the cross section.

3.3 Future Income and the Components of *Core Earnings*

We next examine the roles of the individual adjustment categories in the relations between *Core Earnings* and future income. Table 4 reports the results of regressing measures of year-ahead performance on *Net Income* and on the net value of each adjustment category used to calculate *Core Earnings*, as described in Eq., (1). Ex ante, the categories of adjustment that help to drive the observed predictive relations should exhibit a positive slope coefficient. This is the case because, holding current-period income constant, a larger degree of transitory net expenses in the current period is expected to be associated with higher future income.

The predictive ability of *Core Earnings* for future income appears to be salient across all adjustment categories except for *Net Company-Defined Other Expenses*. As predicted, the coefficients on all adjustment categories are positive and statistically significant, with the exception of *Net Company-Defined Other Expenses* in columns 1–3. While *Net Company-Defined Other Expenses* does not appear to provide incremental predictive ability for future *Net Income*, *Income before Special Items*, or *Cash Flow from Operations*, it is worthwhile noting that this adjustment is relatively small in dollar value ($660,000 on average).

These results illuminate an important aspect of the calculation of *Core Earnings*, that various types of adjustments have an impact on the ability of earnings to forecast future performance. By weighting or selectively excluding various adjustments, it may be possible to improve on our *Core Earnings* measure. Our measurement is intended to be comprehensive in nature, capturing the adjustments routinely made by fundamental analysts, and free of our subjectivity. To the extent that *Core Earnings* can be improved on by excluding adjustment categories, our performance-prediction results can be considered conservative.

3.4 Comparing the Predictive Abilities of *Core Earnings* and *Street Earnings*

The above results suggest that *Core Earnings* is a superior accounting measure of a company's operating earnings, and incremental to other measures when predicting future performance. The question remains, however, whether this measure is incremental to other types of adjusted earnings measures common in the literature in forecasting future performance (e.g., Burgstahler et al., 2002; Bhattacharya et al., 2003; Brown and Sivakumar, 2003; Gu and Chen, 2004).

Table 5 tackles this question by comparing the performance-predictive ability of *Core Earnings* to that of *Street Earnings*, the non-GAAP income measure created by IBES as a proxy for core earnings.[9] IBES earnings measures have often been used as proxies for managers' non-GAAP disclosures, and Bentley et al. (2018) finds that the two overlap in a majority of instances.

Table 5 Panel A reports the results of regressing one-year-ahead income measures— *Net Income* in Column (1), *Income before Special Items* in Column (2), *Cash Flow from Operations* in Column (3), and *Street Earnings* in Column (4)—on contemporaneous measures of income. All regression specifications include as contemporaneous measures of income *Core Earnings*, *Street Earnings*, *Net Income*, *Income before Special Items*, and *Cash Flow from Operations*. Year-fixed effects are also included throughout.

Consistent with the results of Table 3, the results of Panel A show that *Core Earnings*

[9]Compustat provides a variable, "S&P Core Earnings," that adjusts for eight factors to better measure core earnings: impairment of goodwill, settlements, implied option expense, gain/loss on sale, restructuring charge, pension adjustments, and retirement adjustments. We do not examine this variable for three reasons. First, transparency is lacking about what is included in these adjustments. Second, the set of adjustments does not reflect the entire population of adjustments. Third, the variable is available for only one-third of all firm-years in Compustat.

provides incremental information about future performance, even after controlling for *Street Earnings*.

Panel B of Table 5 examines the relation between *Total Adjustments* and two frequently used types of adjustments, *Special Items* from Compustat and *Street Adjustments*, calculated as *Street Earnings* - *Net Income* scaled by shares outstanding. While both of these measures are significantly related to *Total Adjustments*, each explains only about half of the non-core adjustments embedded in *Net Income*. The adjusted r-squared when regressing *Total Adjustments* on *Special Items* (*Street Adjustments*) is 0.50 (0.56), and when both types of adjustments are included in the regression in column 3, the adjusted r-squared increases to 0.64.

Taken together, the results in Table 5 suggest that the adjustments made by analysts and Compustat to better capture core earnings are incomplete. Moreover, the non-core items identified by NC produce a measure of core earnings that is incremental to alternative measures of operating performance in predicting an array of future income measures.

4 Market Processing of Transitory Earnings

Having established that *Core Earnings* removes the less recurrent and non-operating income-statement items from net income, we will now examine the extent to which market participants grasp these subtleties in firms' income statements and 10-Ks. In particular, we will examine whether and how analysts, and the market more broadly, react to the non-core-earnings items embedded in *Net Income*.

4.1 Bias in *Street Adjustments*

Table 5 provided evidence that the adjustments used to calculate *Street Earnings* are incomplete. In this section, we examine whether the adjustments embedded in *Street Earnings* may be systematically biased.

To do so, we examine whether the relation between *Street Adjustments* and the magnitude of total income-increasing and income-decreasing adjustments is stronger for firms that meet or just exceed analysts' consensus expectations. Similar to prior literature (e.g., Doyle et al., 2013), we consider those firms whose *Street Earnings* were between 0 and 5 cents of mean analyst expectations to have just met or beat the consensus. *Meet-or-Beat* is an indicator that equals 1 for these firms and equals 0 for all other firms. Specifically, we regress a firm's *Street Adjustments* on *Meet-or-Beat*, the magnitude of its total income-increasing adjustments (*Total Income-Increasing*), the magnitude of its total income-decreasing adjustments (*Total Income-Decreasing*), and interactions between *Meet-or-Beat* and the two total adjustment types. If *Street Adjustments* are biased to increase earnings for firms near analyst consensus, we expect the coefficients on either, or both, of the interaction terms to be positive and significant.

Table 6, column 1, estimates this regression using the full sample of firms with non-missing *Street Earnings*. We report a positive and significant (at the 1% level) coefficient on *Total Income-Increasing* and a negative and significant (at the 1% level) on *Total Income-Decreasing*. These coefficients suggest that, in general, for every dollar of income-increasing *Core Earnings* adjustments, only 55 cents is incorporated in *Street Earnings*; similarly, for every dollar of income-decreasing *Core Earnings* adjustments, only 54 cents is incorporated in street earnings. These results are consistent with the earlier conclusion that the adjustments used to compute *Street Earnings* are incomplete.

Moreover, the coefficients on the interaction terms suggest that firms that meet or just beat consensus exhibit a more positive association between *Total Income-Increasing* adjustments and *Street Adjustments*, consistent with managers defining non-GAAP earnings to exclude more losses to meet or beat analysts' expectations.[10] These results are similar when estimated using the sub-sample of firms with non-negative earnings surprises (column 2), or using the sub-sample of firms that missed analysts' expectations and those firms that met or just beat them (column 3).

Lastly, in column 4 we examine the sub-sample of firms whose reported *Street Earnings* are right around (i.e., within five cents of) the consensus forecast. In this sub-sample, we find a slightly different empirical pattern, although the results fundamentally reflect the same phenomenon. We do not find that firms that met or just beat consensus exhibit a more positive association between *Total Income-Increasing* adjustments and *Street Adjustments*. Instead, relative to firms that just missed consensus, firms that met or just beat analysts' expectations exhibit a *less negative* association between *Total Income-Decreasing* adjustments and *Street Adjustments*, consistent with managers defining non-GAAP earnings to include more non-operating gains to meet or beat analysts' expectations. Taken together, the evidence suggests that the adjustments embedded in *Street Earnings* are not only an incomplete reflection of firms' non-operating earnings but also reflect managerial biases. These empirical results are consistent with, and perhaps constitute a more direct test of, the findings of Doyle et al. (2013).

[10] Bentley et al. (2018) finds that, for the overwhelming majority of firms, *Street Earnings* is equal to management non-GAAP earnings. Relatedly, Doyle et al. (2013) finds evidence that managers define these earnings to meet or beat analyst expectations.

4.2 Earnings Adjustments and Future Forecast Revisions

We next examine how non-core-earnings items relate to analysts' future forecasts. To the extent that analysts respond promptly to information about a given firm's transitory earnings, we should not find any systematic relation between the magnitude of non-core earnings and analysts' forecast revisions in the year following a 10-K filing.

Table 7 reports the cross-sectional results of regressing *Forecast Revisions* on *Total Adjustments*, where *Forecast Revisions* is the average month-over-month difference in mean analyst earnings-per-share forecast for the 12 months after the 10-K filing date, and *Total Adjustments* is the net dollar value of all adjustments, scaled by shares outstanding. Year-fixed effects are included in all specifications.

Table 7, Column (1), suggests that higher *Total Adjustments*—that is, understatement of *Net Income* as a measure of core earnings due to non-core expenses—is associated with increases in analysts' earnings-per-share forecasts over the 12 months following the 10-K filing. The coefficient on *Total Adjustments* is positive and significant at the 5% level. This result is robust to controlling for *Earnings Surprise* in column (2), which suggests that unexpected firm earnings in the contemporaneous period, though related to future *Forecast Revisions*, does not directly impact the relation between *Total Adjustments* and *Forecast Revisions*. This result remains unchanged when adding firm characteristics in columns (3) and (4) and *Street Earnings Adjustments* in column (5). Because we are examining analysts' revisions over a long time horizon, the findings in Table 7 suggest that analysts adjust slowly to nuanced information about different types of earnings, expenses, gains, or losses. These findings could be consistent either with behavioral inefficiencies or with incentive-misalignment problems (see, e.g., Kothari, So, and Verdi, 2016, for a recent review of this literature).

4.3 Stock Market Returns

Our next set of tests builds on our analyst-based findings by examining the implications of total adjustments for firms' stock returns. To the extent that investors overweight analysts' earnings forecasts (e.g., So, 2013), predictable patterns in analysts' revisions in the year following a 10-K filing may yield predictive power in the cross-section of firms' stock returns.

We conduct three tests to determine whether investors respond to the transitory components of earnings efficiently. Table 8 divides firm-years into deciles, based on the magnitude of *Total Adjustments* relative to the distribution from the prior calendar year, and examines firms' returns during the 12 months following the filing of their 10-Ks.[11] Firms in the highest decile have the greatest income-increasing adjustments; those in the lowest decile have the highest dollar value of income-decreasing adjustments. To the extent that investors underappreciate the implications of the transitory components of earnings, perhaps because they overweight analysts' forecasts, we would expect firms in the highest decile to outperform those in the lowest decile. This is the case because the GAAP net income of the firms in the highest decile is relatively low compared to core earnings, and that of the firms in the lowest decile is relatively high. As investors learn about the core earnings of a firm over time, stock prices would be expected to adjust gradually.

Table 8, Panel A, reports the equal-weighted average post-10-K annual returns by decile; Panel B reports equivalent value-weighted returns. In Panel A, firms in decile 10 have an average market-adjusted return of 17%; firms in decile 1 have an average market-adjusted return of 7.6%. The difference, 9.5%, is both statistically and economically significant. The results are similar when we use raw returns. Panel B reports value-weighted averages,

[11] In all of our return-prediction tests, *Total Adjustments* is scaled by total assets to neutralize the potential effects of firm size on stock returns.

using as weights firms' market capitalization in the month prior to the 10-K filing. Value-weighted average post-10-K filing annual returns exhibit similar patterns: we continue to find economically (and statistically) significant average decile spreads in excess of 7.5%, suggesting that the association between non-core-earnings adjustments and future returns is not purely driven by small firms.

We complement these portfolio-based findings by examining the firm-level relationship between future returns and *Total Adjustments*. Table 9 reports the results of regressing firms' market-adjusted returns during the 12 months following the 10-K filing date on *Total Adjustments* and firm characteristics. To distinguish our findings from prior research, we also control for standard return prediction variables known to explain the cross-section of returns. To alleviate the concern that our findings stem from underreaction to accruals, we include as an additional control the accrual component of firms' earnings (Sloan, 1996). Similarly, to distinguish our findings from those in Novy-Marx (2012), we include controls for firms' gross profitability.

In columns (1) and (2), the coefficients on *Total Adjustments* are positive and significant, consistent with the results in Table 8. Controlling for current period *Net Income*, higher *Core Earnings*—that is, GAAP net income lower than core earnings—portends more positive cumulative returns in the 12 months after the release of the 10-K. These results hold both with time fixed effects (column 1) and without (column 2).

To facilitate interpretations of economic significance, in columns (3) and (4) we run the same tests using ranked variables as regressors: that is, we rank predictor variables cross-sectionally into deciles, but the deciles are re-scaled to range from 0 (the lowest decile) to 1 (the highest decile). The findings in columns (3) and (4) suggest that firms in the highest decile of *Total Adjustments* outperform firms in the lowest decile by approximately 9–10%

in the year after firms' 10K filings. These results are not merely statistically significant (at the 5% level) after controlling for firm characteristics that the literature has found to be associated with expected returns; they also preserve the economic significance shown in univariate decile portfolio tests reported in Table 8.

Finally, we examine whether the market's slow adjustment to transitory earnings is associated with risk-adjusted returns in a calendar-time portfolio trading strategy. To construct such a strategy, we update or rebalance portfolios when firms file 10-Ks: we assign each firm that files a 10-K in a particular month to a decile portfolio by comparing its *Total Adjustments* to the decile breakpoints computed using the prior calendar year's cross-sectional distribution of *Total Adjustments*.

Table 10 reports the risk-adjusted monthly returns for each decile portfolio and the hedged portfolio ("High–Low"). We estimate abnormal returns ("*ALPHA*") using the Fama-French three-factor model and including the momentum factor, and consider both an equal-weighted strategy (Panel A) and a value-weighted strategy (Panel B). Panel A shows the mean difference in monthly abnormal returns between the tenth-decile and first-decile equal-weighted portfolios to be 0.54%. These excess returns are not merely statistically significant but also economically significant, equating to an annualized difference of 6.7%. Panel B shows the mean difference in monthly abnormal returns between the tenth-decile and first-decile value-weighted portfolios to be 0.65%. Again, these monthly excess returns are both statistically and economically significant, equating to an annualized difference of 8.12%. These excess returns are particularly impressive in light of the fact that our portfolio-trading strategy is characterized by fairly low turnover. This is the case because each firm files only one 10-K per year.

In conjunction with our analysis of analysts' revisions of earnings, our findings diverge

from the prior literature by suggesting that markets are slow to grasp the nuances of the various components of net income. Our findings contrast with those of the prior literature. Unlike Gu and Chen (2004), which suggests that investors grasp the implications of transitory components of earnings by examining street earnings, our evidence suggests that markets are slow to respond to other transitory earnings components. And unlike Doyle et al. (2003), which finds expense exclusions made by managers to be *negatively* related to future returns, we find total net expenses that are non-operating to be *positively* related to future returns.

5 Conclusion

This paper shows non-core-earnings disclosures to be significant in both frequency and magnitude, and to be increasingly so over the last 20 years. Using a novel database that comprehensively identifies these items for public firms, we find that adjusting GAAP earnings to exclude these items produces a measure of operating performance that is more persistent and that forecasts future *Net Income*, *Income before Special Items*, *Street Earnings*, and *Cash Flow from Operations*. However, analysts' adjustment decisions appear to be biased, and both analysts and market participants are slow to impound the implications of transitory earnings.

The implications of these findings are potentially far-reaching for investors and researchers. Our results suggest that accounting is not losing its relevance for forecasting future performance; on the contrary, our analysis highlights the importance of detailed accounting analysis to create useful metrics for forecasting performance. GAAP net income combines transitory elements of firm performance with elements that are persistent and thus more useful for forecasting future income and cash flows. Hence an appropriate measure of accounting per-

formance for purposes of forecasting future performance requires detailed analysis of *all* quantitative performance disclosures detailed in the annual report, including those reported only in the footnotes and in the MD&A.

Our work offers a measure of core earnings that is free of managerial bias. We believe that this measure has many applications in research and practice. For example, it can be used to examine biases in managers' and analysts' estimates of non-GAAP earnings. Finally, our work introduces a novel dataset with which it is possible to examine new research questions. For example, researchers can examine how, and where, managers disclose certain quantitative information in the 10-K, and can assess what these choices convey. Many other important and exciting research questions can be pursued with this data, and we encourage such endeavors.

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Table A.1. Examples of non-operating items, their impact on income, and their visibility in Compustat

This table lists examples of non-core-earnings items that are reported as line items in operating income, and describes their treatment by Compustat. Compustat variables, and the reported values, in the last column are Gain/loss after tax (GLA); Gain/loss pretax (GLP); Goodwill written off (GWO); Core pension adjustment (PNCA); Gain/loss on sale of property (SRET); Writedowns after tax (WDA); and Pension and retirement expense (XRP).

Company	Year	Description of non-operating item	Impact on pretax income ($ millions)	Compustat NI ($ millions)	Compustat IB ($ millions)	Compustat adjustment ($ millions)
Accenture	2017	Pension settlement charge	(510)	3,400	3,400	SPI: Special items
ACCO Brands	2006	Restructuring and asset-impairment charge	(23)	7	7	N/A
Bluelinx Holdings	2016	Gain from sale of property	28	16	16	N/A
CAI International	2016	(Gain) loss on sale of used rental equipment	12.7	6	6	N/A
CBS	2016	Pension settlement charge	(211)	1,300	1,600	N/A
Fortune Brands	2011	Goodwill impairment charge	(90)	(35)	(35)	GDWLIP: Impairments of goodwill, pretax
IPG Photonics	2014	Gain (loss) on foreign exchange	6.6	200	200	FCA: Foreign exchange income (loss)
Jack Henry & Associates	2016	Gain on disposal of a business	19	249	249	NOPIO: Nonoperating income (expense), other
Nautilus Group	2007	Litigation settlement	(18)	(56)	(46)	SETP: Settlement (litigation/insurance), pretax
RLJ Lodging	2011	IPO costs	(11)	11	(10)	SPI: Special items
Tsakos Energy	2013	Vessel-impairment charge	(28)	(39)	(35)	N/A
Zimmer Biomet	2009	Net curtailment and settlement	32	717	717	N/A

Table A.2.
Description of Variables

This table defines variables used in our analysis. Accounting variables are retrieved from New Constructs and Compustat, as described below. Where Compustat variables are used, the variable abbreviation is reported in brackets. Returns data are downloaded from CRSP.

Variable	Description	Computation
Accruals	Total accruals	(*Income Before Extraordinary Items* [IB] - *Operating Cash Flow* [OANCF] - (*Discontinued Operations* [XIDOC])/*Common Shares Outstanding* [CSHO]
Book-to-Market	Natural log of the book-to-market ratio	Calculated as book value of equity [CEQ]/(common shares outstanding [CSHO] * share price [PRCC$_F$])
Cash Flow from Operations	Annual net operating cash flow	Net Operating Cash Flow [OANCF] - Extraordinary Items and Discontinued Operations [XIDOC]/*Common Shares Outstanding* [CSHO]
Core Earnings	Annual core earnings excluding all transitory and non-operating items	*(Net Income* [NI] + *Net Acquisition Expenses* + *Net Currency Expenses* + *Net Discontinued Ops Expenses* + *Net Legal Expenses* + *Net Pension Adjustments* + *Net Restructuring Expenses* + *Net Company-Defined Other Expenses* + *Net Other Expenses*)/*Common Shares Outstanding* [CSHO]
Earnings Surprise	Difference between *Street Earnings* and mean analyst estimate	*Street Earnings* [Actual] - *Mean Analyst Estimate* [Meanest] from IBES
Forecast Revisions	Average monthly change in analysts' consensus earnings-per-share estimate for the following year	Month-over-month change in the mean analyst estimate [Meanest] from IBES
Gross Profit	Annual gross profit	(*Revenue* [REVT] - *COGS* [COGS])/*Total Assets* [AT]
IB Adjustments	Difference between *Income before Extraordinary Items* and *Net Income*	(*Income before Extraordinary Items* [IB] - *Net Income* [NI])/*Common Shares Outstanding* [CSHO]
Income before Special Items	Annual net income excluding Special Items	*Net Income* [NI] - *Special Items* [SPI]/*Common Shares Outstanding* [CSHO]
Momentum	Momentum factor	12-month cumulative buy-and-hold returns during the 12 months ending 10 days before 10-K filing, from CRSP
Net Acquisition Expenses	Annual net acquisition expenses	Net acquisition-related transactions that impact *Net Income*, calculated by New Constructs and scaled by *Common Shares Outstanding* [CSHO]
Net Company-Defined Other Expenses	Annual net "company-defined" other expenses	Net transactions that impact *Net Income* that the company defines as "other," calculated by New Constructs and scaled by *Common Shares Outstanding* [CSHO]

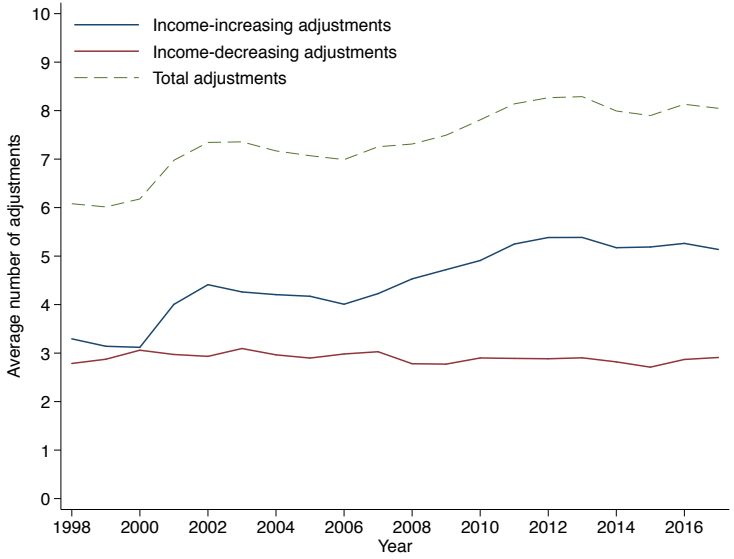
Table A.2 Continued.

Variable	Description	Computation
Net Currency Expenses	Annual net foreign currency expenses	Net foreign-currency-related transactions that impact *Net Income*, calculated by New Constructs and scaled by *Common Shares Outstanding* [CSHO]
Net Discontinued Ops Expenses	Annual net discontinued-operations expenses	Net transactions related to discontinued operations that impact *Net Income*, calculated by New Constructs and scaled by *Common Shares Outstanding* [CSHO]
Net Income	Annual net income	Net Income [NI]/*Common Shares Outstanding* [CSHO]
Net Legal Expenses	Annual net legal, regulatory, and insurance expenses	Net transactions related to legal, regulatory, or insurance events that impact *Net Income*, calculated by New Constructs and scaled by *Common Shares Outstanding* [CSHO]
Net Other Expenses	Annual net other expenses	Net unclassified transactions that impact *Net Income*, calculated by New Constructs and scaled by *Common Shares Outstanding* [CSHO]
Net Pension Expenses	Annual net pension expenses	Net pension-related transactions that impact *Net Income*, calculated by New Constructs and scaled by *Common Shares Outstanding* [CSHO]
Net Restructuring Expenses	Annual net restructuring expenses	Net restructuring-related transactions that impact *Net Income*, calculated by New Constructs and scaled by *Common Shares Outstanding* [CSHO]
Ret	Market-adjusted annual return	Calculated as firm return minus market return (using the CRSP value-weighted index) for the 12 months beginning three months after the fiscal-year end
Size	Natural log of market capitalization	Calculated as common shares outstanding [CSHO] * share price [$PRCC_F$]
Street Earnings	Income adjusted by management, analysts, and/or IBES to exclude transitory items	[Actual] income per share from IBES
Street Adjustment	Difference between *Street Earnings* and *Net Income*	[Actual] income per share from IBES - *Net Income* [NI] from Compustat
Total Adjustments	All transitory and non-operating items that impact *Net Income*	*Net Acquisition Expenses* + *Net Currency Expenses* + *Net Discontinued Ops Expenses* + *Net Legal Expenses* + *Net Pension Adjustments* + *Net Restructuring Expenses* + *Net Company-Defined Other Expenses* + *Net Other Expenses*)/*Common Shares Outstanding* [CSHO]

Fig. 1. Non-Core Earnings Adjustments, 1998–2017

This figure displays time-series patterns in non-core-earnings adjustments across the sample period. Panel A documents change in the average number of total adjustments identified in 10-Ks; it also reports the average number of income-increasing and income-decreasing adjustments over time. Panel B shows how the average level of total adjustments per share, GAAP net income per share, and *Core Earnings* per share evolve over time.

A. Annual Average Number of Non-Core-Earnings Adjustments



B. Annual Average Value per Share of Total Adjustments, and GAAP and Core Earnings

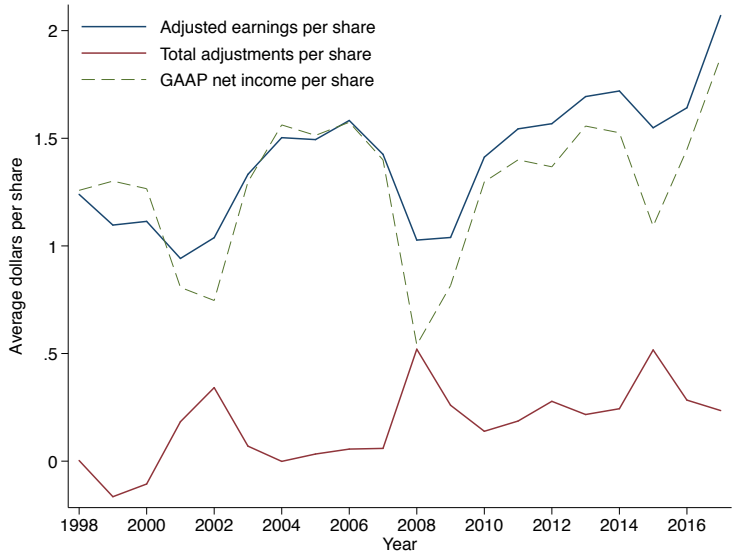
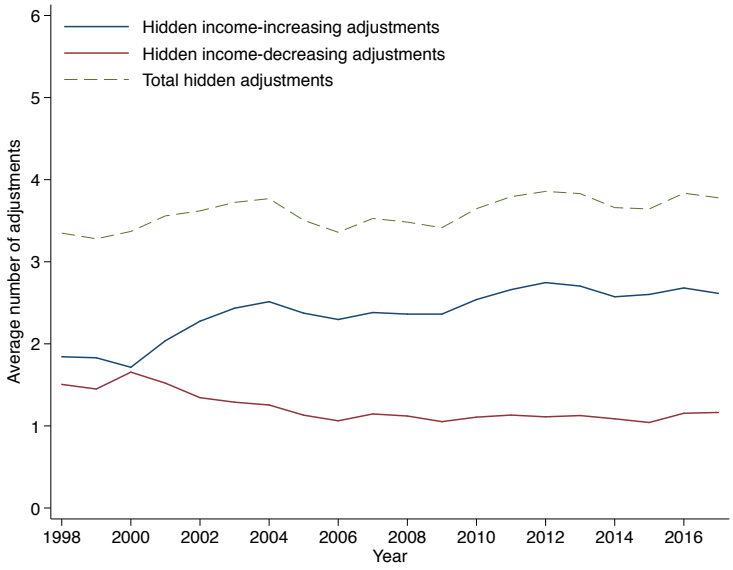


Fig. 2. Non-Core Earnings Adjustments, 1998–2017

This figure displays time-series patterns in "hidden" non-core-earnings adjustments, found in the footnotes or the MD&A section of the 10-K, between 1998 and 2017. Panel A documents change in the average number of total hidden adjustments identified in 10-Ks. It also reports the average number of hidden income-increasing and hidden income-decreasing adjustments over time. Panel B traces the evolution over time of the average levels of total hidden adjustments per share, total hidden income-increasing adjustments per share, and total hidden income-decreasing adjustments per share.

A. Average Annual Number of Hidden Non-Core-Earnings Adjustments



B. Average Annual Value per Share of Hidden Total, Income-Increasing, and Income-Decreasing Adjustments

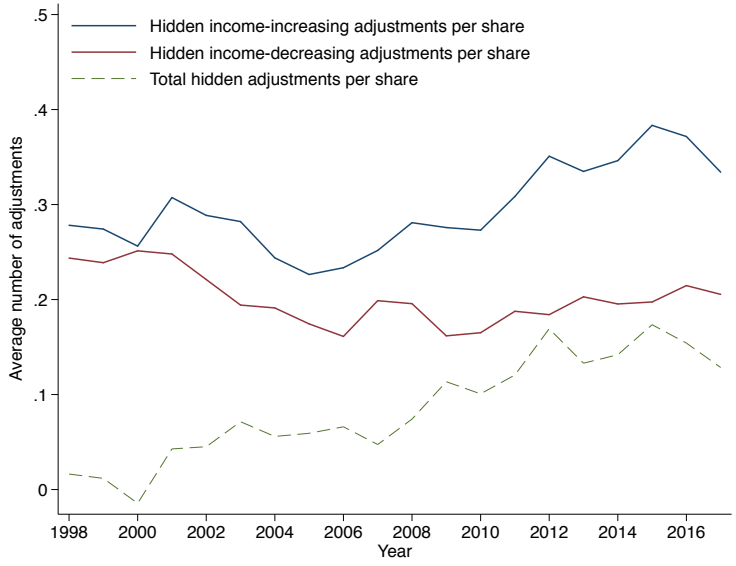


Table 1.
Descriptive Statistics

This table reports descriptive statistics—non-missing-value count (N), minimum (Min), 5^{th} percentile ($p5$), 25^{th} percentile ($p25$), average ($Mean$), median ($p50$), 75^{th} percentile ($p75$), 95^{th} percentile ($p95$), maximum (Max), and standard deviation (SD)—for the non-core-earnings adjustments and our main variables of interest. Panel A reports distributional statistics on the frequency with which each income-increasing and income-decreasing non-core-earnings adjustment type appears appears in the sub-sample of firms with at least one adjustment in that category. Panel B reports the distributional statistics of the magnitudes (in $ millions) of each income-increasing and income-decreasing non-core-earnings adjustment type in the subsample with at least one adjustment in that category. Panel C reports distributional statistics on *Core Earnings*, its sub-components, and the difference between *Core Earnings* and GAAP earnings (*Total Adjustments*). Panel D reports distributional statistics on various measures of income, valuation, and analysts' forecasts obtained from Compustat or IBES. Panel E reports cross-sectional distributional statistics on time-series persistence parameters of various income measures. The AR(1) parameters are obtained from firm-level regressions of one-year-ahead income on current-period income, estimated for a sub-sample of firms with at least 15 years of data. All variables in Panels B, C, and D are winsorized at the top and bottom 1% of the cross-sectional distribution. Variables are defined in Table A.2.

Variable	*N*	*Min*	*p5*	*p25*	*Mean*	*p50*	*p75*	*p95*	*Max*	*SD*
	Panel A: Adjustment Data, Frequencies									
Acquistion Increases	8,251	1.00	1.00	1.00	1.19	1.00	1.00	2.00	9.00	0.56
Acquistion Decreases	1,405	1.00	1.00	1.00	1.04	1.00	1.00	1.00	5.00	0.23
Currency Increases	4,233	1.00	1.00	1.00	1.02	1.00	1.00	1.00	3.00	0.17
Currency Decreases	2,886	1.00	1.00	1.00	1.02	1.00	1.00	1.00	3.00	0.14
Discontinued Operations Increases	5,218	1.00	1.00	1.00	1.09	1.00	1.00	2.00	6.00	0.30
Discontinued Operations Decreases	4,384	1.00	1.00	1.00	1.10	1.00	1.00	2.00	5.00	0.31
Legal Increases	3,637	1.00	1.00	1.00	1.07	1.00	1.00	2.00	5.00	0.30
Legal Decreases	1,843	1.00	1.00	1.00	1.07	1.00	1.00	2.00	5.00	0.28
Pension Increases	15,201	1.00	1.00	2.00	3.64	3.00	5.00	7.00	16.00	1.81
Pension Decreases	14,276	1.00	1.00	1.00	2.34	2.00	3.00	5.00	12.00	1.35
Restructuring Increases	36,714	1.00	1.00	1.00	1.95	2.00	2.00	4.00	16.00	1.31
Restructuring Decreases	20,133	1.00	1.00	1.00	1.32	1.00	1.00	3.00	8.00	0.65
Company-Defined Other Increases	13,075	1.00	1.00	1.00	1.02	1.00	1.00	1.00	3.00	0.14
Company-Defined Other Decreases	19,110	1.00	1.00	1.00	1.02	1.00	1.00	1.00	4.00	0.13
Other Increases	19,950	1.00	1.00	1.00	1.57	1.00	2.00	4.00	12.00	0.98
Other Decreases	16,244	1.00	1.00	1.00	1.56	1.00	2.00	3.00	10.00	0.91
All Increases	51,101	1.00	1.00	2.00	4.44	3.00	6.00	12.00	37.00	3.64
All Decreases	46,423	1.00	1.00	1.00	3.05	2.00	4.00	8.00	29.00	2.51
Total Adjustments	58,453	1.00	1.00	2.00	6.30	5.00	9.00	17.00	51.00	5.39

Table 1. [Continued] Descriptive Statistics

Variable	*N*	*Min*	*p5*	*p25*	*Mean*	*p50*	*p75*	*p95*	*Max*	*SD*
	Panel B: Adjustment Data, Magnitudes (in $ millions)									
Acquistion Increases	8,251	0.00	0.20	1.14	15.81	4.13	14.66	80.00	234.00	30.92
Acquistion Decreases	1,405	0.00	0.00	0.19	3.58	1.53	5.41	13.60	19.45	4.61
Currency Increases	4,233	0.00	0.03	0.37	8.58	1.43	5.87	41.00	163.07	21.10
Currency Decreases	2,886	0.00	0.03	0.23	3.79	1.10	4.20	18.00	29.77	6.16
Discontinued Operations Increases	5,218	0.00	0.07	0.80	15.74	4.00	18.00	73.00	127.60	24.57
Discontinued Operations Decreases	4,384	0.00	0.09	1.00	28.24	6.00	31.40	144.00	233.41	47.97
Legal Increases	3,637	0.00	0.23	1.73	18.93	5.60	23.00	101.50	162.00	29.89
Legal Decreases	1,843	0.00	0.09	1.00	5.96	3.50	10.02	18.00	19.38	5.76
Pension Increases	15,201	0.00	0.24	3.07	111.72	18.24	93.49	606.67	1,406.00	230.79
Pension Decreases	14,276	0.00	0.20	3.26	109.72	18.24	92.00	616.00	1,186.00	218.26
Restructuring Increases	36,714	0.00	0.05	1.10	81.03	6.53	36.48	396.74	3,716.88	271.34
Restructuring Decreases	20,133	0.00	0.02	0.48	36.18	3.09	17.75	202.02	911.29	102.06
Company-Defined Other Increases	13,075	0.00	0.02	0.22	7.54	0.98	4.72	39.90	178.31	18.82
Company-Defined Other Decreases	19,110	0.00	0.02	0.24	9.00	1.10	5.07	57.43	286.00	24.10
Other Increases	19,950	0.00	0.07	0.74	26.48	3.34	16.04	143.22	700.00	70.26
Other Decreases	16,244	0.00	0.03	0.40	18.51	1.89	9.47	121.00	362.20	46.18
All Increases	51,101	0.00	0.11	2.06	157.59	12.00	66.21	772.00	6,498.76	527.28
All Decreases	46,423	0.00	0.06	0.97	98.37	5.63	34.36	510.00	3,638.58	332.27
Total Adjustments	58,453	-1,006.47	-67.70	-1.14	55.37	1.70	21.94	330.24	4,206.04	298.12
	Panel C: Net Adjustment Data, Magnitudes (in $ millions)									
Core Earnings	62,047	-876.09	-78.12	-1.48	244.34	23.36	120.47	1,202.30	9,919.98	889.41
Net Acquistion Expenses	62,047	-9.57	0.00	0.00	1.32	0.00	0.00	4.95	141.00	7.96
Net Currency Expenses	62,047	-18.48	0.00	0.00	0.24	0.00	0.00	0.24	79.20	3.29
Net Discontinued Ops Expenses	62,047	-224.00	-1.00	0.00	-0.64	0.00	0.00	1.93	127.60	16.30
Net Legal Expenses	62,047	-11.55	0.00	0.00	0.60	0.00	0.00	0.47	106.92	5.56
Net Pension Adjustments	62,047	-124.74	-1.09	0.00	1.17	0.00	0.00	7.00	216.48	14.99
Net Restructuring Expenses	62,047	-325.44	-9.54	0.00	22.69	0.01	4.76	112.20	2,040.55	122.01
Net Company-Defined Other Expenses	62,047	-145.41	-6.07	-0.08	-0.66	0.00	0.00	2.89	117.69	9.46
Net Other Expenses	62,047	-581.29	-25.26	-1.57	-0.17	0.00	0.00	22.42	616.77	42.22
Total Adjustments	62,047	-753.71	-49.63	-2.33	28.00	0.25	9.85	176.06	2,758.14	181.95

Table 1. [Continued] Descriptive Statistics

Variable	*N*	*Min*	*p5*	*p25*	*Mean*	*p50*	*p75*	*p95*	*Max*	*SD*
	Panel D: Compustat and IBES Data, Magnitudes (in $ millions)									
Net Income	61,997	-2,474.00	-124.38	-3.17	222.90	22.06	115.46	1,171.30	9,862.00	872.26
Income Before Special Items	61,288	-1,943.30	-82.72	-0.57	243.67	25.01	123.81	1,216.24	10,114.56	889.47
Street Earnings	51,507	-773.21	-56.07	6.61	302.80	39.13	162.55	1,424.86	11,562.72	1,016.57
Cash Flow from Operations	60,840	-436.77	-31.86	8.27	451.06	56.31	240.37	2,133.10	18,096.00	1,504.01
Accruals	51,051	-6,380.00	-295.60	-5.61	113.94	23.04	138.00	923.40	4,852.00	625.72
Size	61,435	1.55	3.59	5.40	6.69	6.61	7.92	10.04	12.15	1.91
Book-to-market	58,879	-4.21	-2.36	-1.29	-0.82	-0.74	-0.28	0.40	2.09	0.84
IB Adjustments per Share	61,881	-2.12	-0.08	0.00	0.00	0.00	0.00	0.10	5.75	0.28
Earnings Surprise per Share	51,497	-5.11	-0.41	-0.05	-0.02	0.01	0.06	0.30	1.70	0.34
Forecast Revision per Share	49,288	-0.37	-0.03	-0.00	0.00	0.00	0.01	0.04	0.29	0.03
Street Adjustments per Share	51,497	-7.15	-0.83	-0.07	0.24	0.00	0.28	2.02	14.44	1.25
	Panel E: Persistence of Performance and Adjustment Measures									
Net Income	1,768	-1.55	-0.09	0.22	0.45	0.46	0.67	0.99	1.53	0.33
Core Earnings	1,768	-1.00	0.09	0.39	0.60	0.61	0.81	1.07	2.10	0.31
Total Adjustments	1,768	-3.38	-0.26	-0.04	0.18	0.14	0.37	0.71	2.79	0.34

Table 2.
Cross-Sectional Persistence of Performance Measures

This table reports the OLS estimation results from regressing a measure of performance from the next fiscal year on the same measure of performance for the current fiscal year. The measures of performance are *Net Income* (column 1), *Income before Special Items* (column 2), *Cash Flow from Operations* (column 3), and *Core Earnings* (column 4). *Core Earnings* adds to GAAP net income the net non-operating expenses identified in the income statement, the footnotes, and the MD&A, following Eq., (1). All variables are scaled by total shares outstanding and winsorized at the top and bottom 1% of the cross-sectional distribution. Variables are defined in Table A.2. Standard errors, reported in parentheses, are two-way-cluster robust, clustering at the firm and year levels. Significance levels are indicated by *, **, *** for 10%, 5%, and 1% respectively.

	Forward Net Income (1)	*Forward Income before Special Items* (2)	*Forward Cash Flow from Operations* (3)	*Forward Core Earnings* (4)
Net Income	0.6522***			
	(0.040)			
Income Before Special Items		0.7692***		
		(0.025)		
Cash Flow from Operations			0.8116***	
			(0.020)	
Core Earnings				0.8256***
				(0.023)
Year FE	Yes	Yes	Yes	Yes
Observations	54,228	54,228	54,228	54,228
Adjusted R^2	0.4067	0.5490	0.6233	0.6337
F-Stat	75.27	82.32	92.01	59.47
p-Value	0.00	0.00	0.00	0.00

Table 3. Predicting One-Year-Ahead Performance

This table reports OLS estimation results from regressing one-year-ahead firm performance on measures of performance from the current fiscal year. The measures of future performance are *Net Income* (columns 1 and 2), *Income before Special Items* (columns 3 and 4), and *Cash Flow from Operations* (columns 5 and 6). *Core Earnings* adds to GAAP net income net non-operating expenses identified in the income statement, the footnotes, and the MD&A, following Eq., (1). All variables are scaled by total shares outstanding and winsorized at the top and bottom 1% of the cross-sectional distribution. Variables are defined in Table A.2. Standard errors, reported in parentheses, are two-way-cluster robust, clustering at the firm and year levels. Significance levels are indicated by *, **, *** for 10%, 5%, and 1% respectively.

	Forward Net Income		*Forward Income Before Special Items*		*Forward Cash Flow from Operations*	
	(1)	(2)	(3)	(4)	(5)	(6)
Core Earnings	0.6734***	0.4385***	0.5272***	0.4289***	0.3599***	0.3289***
	(0.037)	(0.048)	(0.051)	(0.048)	(0.022)	(0.039)
Net Income	0.1328***	0.0167		-0.1289***		-0.2117***
	(0.033)	(0.033)		(0.021)		(0.020)
Income Before Special Items		0.2709***	0.3001***	0.4282***		0.2643***
		(0.041)	(0.042)	(0.035)		(0.040)
Cash Flow from Operations		0.0818***		0.0980***	0.6529***	0.6417***
		(0.023)		(0.018)	(0.021)	(0.022)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	54,228	54,228	54,228	54,228	54,228	54,228
Adjusted R^2	0.4691	0.4790	0.5760	0.5887	0.6488	0.6512

Table 4. Predicting One-Year-Ahead Performance Using Core Earnings Components

This table reports OLS estimation results from regressing one-year-ahead performance on *Net Income* and the sub-components of *Core Earnings* from the current fiscal year. The measures of future performance are *Net Income* (column 1), *Income before Special Items* (column 2), *Cash Flow from Operations* (column 3), and *Core Earnings* (column 4). *Core Earnings* adds to GAAP net income net non-operating expenses identified in the income statement, the footnotes, and the MD&A, following Eq., (1). All variables are scaled by total shares outstanding and winsorized at the top and bottom 1% of the cross-sectional distribution. Variables are defined in Table A.2. Standard errors, reported in parentheses, are two-way-cluster robust, clustering at the firm and year levels. Significance levels are indicated by *, **, *** for 10%, 5%, and 1% respectively.

	Forward Net Income (1)	*Forward Income before Special Items* (2)	*Forward Cash Flow from Operations* (3)	*Forward Core Earnings* (4)
Net Income	0.7571***	0.7673***	0.9938***	0.7584***
	(0.026)	(0.026)	(0.036)	(0.022)
Net Acquistion Expenses	0.4264***	1.6831***	3.8155***	1.4310***
	(0.122)	(0.155)	(0.379)	(0.133)
Net Currency Expenses	0.4960	1.7055*	3.5988**	1.7687*
	(1.268)	(0.979)	(1.559)	(0.997)
Net Discontinued Ops Expenses	1.2827***	1.2517***	2.0182***	1.4174***
	(0.122)	(0.115)	(0.190)	(0.092)
Net Legal Expenses	1.2483***	1.8396***	2.2718***	1.8630***
	(0.296)	(0.236)	(0.467)	(0.207)
Net Pension Adjustments	1.0517**	1.2962***	3.1548***	1.8455***
	(0.383)	(0.365)	(0.733)	(0.406)
Net Restructuring Expenses	0.7124***	0.8377***	1.6629***	0.9342***
	(0.059)	(0.059)	(0.111)	(0.057)
Net Company-Defined Other Expenses	0.4118	0.3899	-0.4416	0.6418**
	(0.289)	(0.243)	(0.443)	(0.236)
Net Other Expenses	0.6450***	0.6997***	1.0369***	0.8868***
	(0.056)	(0.035)	(0.066)	(0.085)
Year FE	Yes	Yes	Yes	Yes
Observations	54,228	54,228	54,228	54,228
Adjusted R^2	0.4512	0.5454	0.4486	0.5946

Table 5. Comparing the Predictive Abilities of *Core Earnings* and *Street Earnings*

This table examines the relation between *Core Earnings* and *Street Earnings*, as well as their adjustments. Panel A reports OLS estimation results from regressing one-year-ahead measures of performance on current-period *Core Earnings*, *Street Earnings*, *Net Income*, *Income before Special Items*, and *Cash Flow from Operations*. The measures of future performance are *Net Income* (column 1), *Income Before Special Items* (column 2), *Cash Flow from Operations* (column 3), and *Street Earnings* (column 4). *Core Earnings* adds to GAAP net income net non-operating expenses identified in the income statement, the footnotes, and the MD&A, following Eq., (1). *Street Earnings* is obtained from IBES. Panel B reports OLS estimation results from regressing *Total Adjustments* on *Special Items* and *Street Adjustments*. *Total Adjustments* is the net sum of all non-core adjustments. *Special Items* is from Compustat. *Street Adjustments* is the difference between *Street Earnings* and *Net Income*. All variables are scaled by total shares outstanding and winsorized at the top and bottom 1% of the cross-sectional distribution. Variables are defined in Table A.2. Standard errors, reported in parentheses, are two-way-cluster robust, clustering at the firm and year levels. Significance levels are indicated by *, **, *** for 10%, 5%, and 1% respectively.

Panel A: Comparing the predictive abilities of *Core Earnings* and *Street Earnings*

	Forward Net Income (1)	*Forward Income before Special Items* (2)	*Forward Cash Flow from Operations* (3)	*Forward Street Earnings* (4)
Core Earnings	0.2994***	0.2703***	0.1720***	0.1146***
	(0.061)	(0.050)	(0.042)	(0.036)
Street Earnings	0.2769***	0.3211***	0.2542***	0.6872***
	(0.039)	(0.033)	(0.039)	(0.063)
Net Income	0.0650	-0.0913***	-0.1664***	-0.0973***
	(0.045)	(0.021)	(0.024)	(0.020)
Income Before Special Items	0.1604**	0.3176***	0.1788***	0.1209***
	(0.056)	(0.047)	(0.042)	(0.022)
Cash Flow from Operations	0.0492*	0.0619***	0.6279***	0.0540***
	(0.026)	(0.021)	(0.025)	(0.013)
Year FE	Yes	Yes	Yes	Yes
Observations	43,380	43,380	43,380	43,380
Adjusted R^2	0.4873	0.6051	0.6544	0.7237

Panel B: Relation among *Total Adjustments*, *Street Adjustments*, and *Special Items*

	Total Adjustments (1)	*Total Adjustments* (2)	*Total Adjustments* (3)
Special Items	0.7056***		0.3822***
	(0.018)		(0.032)
Street Adjustments		0.5660***	0.3815***
		(0.031)	(0.040)
Year FE	Yes	Yes	Yes
Observations	43,380	43,380	43,380
Adjusted R^2	0.5019	0.5613	0.6404

Table 6. Biases in *Street Adjustments*

This table reports OLS estimation results from regressing *Street Adjustment* on *Total Income-Increasing* adjustments, *Total Income-Decreasing* adjustments, and interactions between *Meet-or-Beat* with each of these adjustment types. *Street Adjustments* is the difference between *Street Earnings* and *Net Income*, scaled by total shares outstanding. *Meet-or-Beat* is an indicator equal to 1 if *Street Earnings* minus mean analyst expected earnings is between 0 and 5 cents, and 0 otherwise. *Total Income-Increasing* (*Total Income-Decreasing*) is the magnitude of total non-core adjustments that increase (decrease) *Core Earnings*, scaled by total shares outstanding. All control variables are scaled by total shares outstanding, winsorized at the top and bottom 1% of the cross-sectional distribution, and defined in Table A.2. Standard errors, reported in parentheses, are two-way-cluster robust, clustering at the firm and year levels. Significance levels are indicated by *, **, *** for 10%, 5%, and 1% respectively.

	Street Adjustments			
	(1)	(2)	(3)	(4)
	Full Sample	Surprise$\geq$ 0	Surprise $\leq$ 0.05	$-0.05 \leq$Surprise $\leq$ 0.05
Total Income-Increasing $\times$*Meet-or-Beat*	0.0630**	0.0501**	0.0753***	-0.0177
	(0.023)	(0.021)	(0.025)	(0.023)
Total Income-Decreasing $\times$*Meet-or-Beat*	-0.0568	-0.0545	-0.0374	0.0577*
	(0.034)	(0.039)	(0.038)	(0.029)
Total Income-Increasing	0.5543***	0.5650***	0.5468***	0.6395***
	(0.019)	(0.022)	(0.021)	(0.030)
Total Income-Decreasing	-0.5361***	-0.5300***	-0.5590***	-0.6547***
	(0.023)	(0.035)	(0.022)	(0.028)
Meet-or-Beat	0.0142	-0.0774**	0.0767***	0.0178
	(0.016)	(0.034)	(0.016)	(0.011)
Size	-0.0087	-0.0289**	0.0073	-0.0027
	(0.007)	(0.010)	(0.007)	(0.006)
Book-to-Market	-0.0328	-0.0609*	0.0071	-0.0070
	(0.029)	(0.034)	(0.021)	(0.023)
Forecast Dispersion	0.0006**	0.0012***	0.0001	0.0004***
	(0.000)	(0.000)	(0.000)	(0.000)
Cash Flow from Operations	-0.0258***	-0.0310***	-0.0243***	-0.0254***
	(0.008)	(0.008)	(0.007)	(0.007)
Year FE	Yes	Yes	Yes	Yes
Observations	36,882	21,816	25,787	17,090
Adjusted R^2	0.4844	0.4828	0.5119	0.5889

Table 7. Earnings Adjustments and Future Forecast Revisions

This table reports OLS estimation results from regressing analysts' future forecast revisions on total non-core earnings adjustments. The dependent variable, *Forecast Revisions*, is the average monthly revision of mean analyst earnings-per-share forecasts in the 12 months after the release of the 10-K. *Total adjustments* is the net value of total non-core earnings adjustments per share. All variables are winsorized at the top and bottom 1% of the cross-sectional distribution. Variables are defined in Table A.2. Standard errors, reported in parentheses, are two-way-cluster robust, clustering at the firm and year levels. Significance levels are indicated by *, **, *** for 10%, 5%, and 1% respectively.

	Forecast Revisions				
	(1)	(2)	(3)	(4)	(5)
Total Adjustments	0.0014**	0.0013***	0.0014***	0.0016***	0.0016***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Earnings Surprise		-0.0005	-0.0007	-0.0007	0.0001
		(0.003)	(0.003)	(0.003)	(0.003)
Size			0.0000	0.0000	0.0003
			(0.000)	(0.000)	(0.000)
Book-to-Market			-0.0011	-0.0011	-0.0010
			(0.001)	(0.001)	(0.001)
Total Accruals			-0.0020	-0.0016	-0.0019
			(0.002)	(0.002)	(0.001)
IB Adjustments				-0.0014*	-0.0013*
				(0.001)	(0.001)
Street Adjustments					-0.0004
					(0.001)
Year FE	Yes	Yes	Yes	Yes	Yes
Observations	44,852	44,852	44,852	44,852	44,852
Adjusted R^2	0.0291	0.0291	0.0299	0.0299	0.0303

Table 8. Future Returns across Deciles of Total Adjustments

This table reports average market-adjusted and raw returns in the 12 months following the month in which a firm files a 10-K. We summarize these average returns by deciles of *Total Adjustments* scaled by total assets, as well as the difference in average returns between the top and bottom deciles ("10 – 1"). Decile assignments are made by comparing each firm's scaled *Total Adjustments* to the decile breakpoints computed using the prior calendar year's cross-sectional distribution. Panel A reports equal-weighted average annual returns; Panel B reports value-weighted average annual returns. Value weights are based on firms' market capitalization in the month prior to their 10-K filings. T-statistics, based on the time-series of annual returns, are reported in parentheses.

Panel A: Equal-Weighted Average Post-10K-Filing Annual Returns, by *Total Adjustments* Decile											
Average	**10 − 1**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
N		81.60	73.43	80.76	82.26	75.21	72.98	119.50	36.88	69.46	75.04
Mkt-Adj	9.50	7.56	8.61	8.89	8.65	8.31	6.35	9.74	6.43	15.37	17.05
	(2.83)	(2.00)	(3.24)	(4.07)	(4.32)	(5.37)	(4.11)	(4.68)	(2.36)	(5.36)	(3.88)
Raw	9.56	14.67	15.78	16.14	15.93	15.53	13.49	16.94	13.56	22.59	24.23
	(2.84)	(2.99)	(4.21)	(4.86)	(5.66)	(6.12)	(5.65)	(5.94)	(4.03)	(5.81)	(4.44)

Panel B: Panel A: Value-Weighted Average Post-10K-Filing Annual Returns, by *Total Adjustments* Decile											
Average	**10 − 1**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
N		81.60	73.43	80.76	82.26	75.21	72.98	119.50	36.88	69.46	75.04
Mkt-Adj Returns	7.70	-4.67	0.53	3.70	2.40	0.24	1.85	1.04	0.22	4.20	3.03
	(2.75)	-(2.72)	(0.22)	(1.24)	(1.57)	(0.15)	(1.24)	(0.72)	(0.09)	(2.37)	(1.38)
Raw Returns	7.51	2.80	7.97	10.91	9.62	7.85	9.09	8.37	7.91	11.62	10.31
	(2.59)	(0.95)	(2.36)	(2.83)	(3.95)	(3.30)	(4.26)	(4.07)	(2.77)	(4.59)	(3.23)

Table 9. Cross-Sectional Annual-Return Regressions

This table reports OLS estimation results from regressing firms' cumulative returns over the 12 months following their 10-K filing dates on the net value of non-core-earnings adjustments identified in the 10-K and firm-level controls. *Total adjustments* is the net value of total non-core earnings adjustments scaled by total assets. In columns (1) and (2), the explanatory variables are raw (i.e., unranked). In columns (3) and (4), the explanatory variables are decile-ranked: for each explanatory variable in each year, we assign firms to a decile, re-scaled so that firms in the lowest decile take on a value of 0 and firms in the highest decile take on a value of 1 (the highest decile). Odd-numbered columns include year-fixed effects; even-numbered columns do not. All variables, except for returns, are winsorized at the top and bottom 1% of the cross-sectional distribution. Variables are defined in Table A.2. T-statistics, reported in parentheses, are based on two-way-cluster robust standard errors, clustering at the firm and year levels. Significance levels are indicated by *, **, *** for 10%, 5%, and 1% respectively.

	Raw Variables		Ranked Variables	
	(1)	(2)	(3)	(4)
Total Adjustments	9.866***	10.913**	9.532**	9.767**
	(2.80)	(2.45)	(2.17)	(2.13)
Size	-2.707**	-3.487**	-16.649**	-15.732**
	(-2.13)	(-2.50)	(-2.13)	(-2.06)
Book-to-Market	11.342***	14.769***	11.379***	13.784***
	(3.00)	(3.29)	(3.73)	(3.80)
Gross Profit	10.543***	11.809***	9.745***	10.470***
	(3.69)	(4.35)	(3.65)	(3.67)
Accruals	-18.233	-34.437**	-5.461	-5.425
	(-1.14)	(-2.07)	(-1.60)	(-1.40)
Momentum	-0.066*	-0.059	-6.514	-6.771
	(-1.84)	(-1.49)	(-0.78)	(-0.81)
Year FE	Yes	No	Yes	No
Observations	54,256	54,256	54,132	54,132
Adj. R^2	0.075	0.032	0.070	0.015

Table 10. Monthly Strategy Alphas

This table reports factor loadings and abnormal monthly returns from a calendar-time equal-weighted and value-weighted portfolio trading strategy. We form, update, and rebalance portfolios when firms file 10-Ks. We assign a firm that files a 10-K in a particular month to a decile portfolio by comparing its *Total Adjustments* to the decile breakpoints computed using the prior calendar year's cross-sectional distribution of *Total Adjustments*. Abnormal returns ("*ALPHA*") are estimated using the Fama-French three-factor model—with a market factor (MKTRF), a size factor (SMB), and a value factor (HML)—augmented with the momentum factor (UMD). Panel A reports factor loadings and abnormal monthly returns from an equal-weighted portfolio strategy for each decile portfolio and for the hedged portfolio ("High – Low"); Panel B does the same for a value-weighted portfolio strategy. Value portfolio weights are based on firms' market capitalization in the month prior to their annual 10-K filing. T-statistics, based on the time-series monthly returns of the respective portfolios, are reported in parentheses.

Panel A: Equal-Weighted Alphas by *Total Adjustments* Deciles					
	ALPHA	MKTRF	SMB	HML	UMD
10 (High Adjustments)	1.029	1.197	1.075	0.243	-0.421
	(4.06)	(18.78)	(13.57)	(2.98)	-(8.36)
9	0.766	1.069	0.675	0.457	-0.257
	(5.41)	(29.97)	(15.22)	(10.00)	-(9.12)
8	0.527	0.977	0.442	0.622	-0.162
	(3.78)	(27.82)	(10.14)	(13.81)	-(5.85)
7	0.442	0.900	0.371	0.519	-0.109
	(3.47)	(28.11)	(9.33)	(12.63)	-(4.32)
6	0.338	0.833	0.478	0.513	-0.138
	(2.58)	(25.23)	(11.64)	(12.11)	-(5.31)
5	0.344	0.915	0.521	0.523	-0.113
	(3.30)	(34.91)	(15.98)	(15.56)	-(5.47)
4	0.472	0.956	0.542	0.341	-0.117
	(4.54)	(36.58)	(16.68)	(10.18)	-(5.66)
3	0.759	1.088	0.660	-0.019	-0.165
	(2.91)	(16.56)	(8.09)	-(0.22)	-(3.19)
2	0.390	1.099	0.964	-0.252	-0.220
	(2.62)	(29.25)	(20.64)	-(5.23)	-(7.43)
1 (Low Adjustments)	0.486	1.252	1.224	-0.634	-0.310
	(1.90)	(19.41)	(15.27)	-(7.66)	-(6.10)
High – Low	0.543	-0.055	-0.149	0.877	-0.110
	(2.33)	-(0.94)	-(2.05)	(11.68)	-(2.38)

Table 10. [**Continued**] Monthly Strategy Alphas

Panel B: Value-Weighted Alphas by *Total Adjustments* Deciles					
	ALPHA	MKTRF	SMB	HML	UMD
10 (High Adjustments)	0.241	0.961	0.145	0.129	-0.265
	(1.06)	(16.82)	(2.04)	(1.76)	-(5.88)
9	0.199	0.958	-0.093	0.213	-0.116
	(1.35)	(25.87)	-(2.01)	(4.49)	-(3.97)
8	0.333	0.926	-0.179	0.265	-0.128
	(2.40)	(26.55)	-(4.14)	(5.93)	-(4.66)
7	0.121	0.963	-0.286	0.214	-0.044
	(0.86)	(27.34)	-(6.54)	(4.74)	-(1.57)
6	0.072	0.959	-0.112	0.306	-0.083
	(0.49)	(25.81)	-(2.42)	(6.42)	-(2.84)
5	-0.278	1.030	-0.147	0.251	-0.015
	-(1.96)	(28.93)	-(3.33)	(5.51)	-(0.54)
4	0.038	1.091	-0.008	0.392	-0.075
	(0.24)	(28.00)	-(0.17)	(7.84)	-(2.42)
3	0.486	0.984	0.062	-0.119	-0.151
	(2.91)	(23.41)	(1.19)	-(2.20)	-(4.56)
2	-0.169	1.072	0.094	-0.555	-0.196
	-(0.99)	(24.98)	(1.76)	-(10.09)	-(5.79)
1 (Low Adjustments)	-0.412	1.252	0.079	-0.790	-0.273
	-(1.52)	(18.37)	(0.94)	-(9.05)	-(5.08)
High – Low	0.653	-0.291	0.066	0.919	0.008
	(1.89)	-(3.34)	(0.61)	(8.23)	(0.12)