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Core Earnings: New Data and Evidence*

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Abstract

Using a novel dataset that comprehensively classifies the quantitative disclosures in firms' 10-Ks, we show that disclosures of income-statement items stemming from ancillary business activities or transitory shocks are frequent and economically significant, and increasingly so over time. Adjusting GAAP earnings to exclude these items creates a measure of core earnings that effectively distinguishes between the persistent and transitory components of GAAP earnings and that forecasts future performance. Analysts and market participants are slow to impound the implications of these items. Trading strategies that exploit cross-sectional differences in firms' non-core earnings produce abnormal returns of approximately 8% 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 their earnings as an indication of the net flow of value over a period, but the components of firms' earnings are not created equal. Some components of firms' earnings stem from their central operations and are more persistent—what we refer to as its "core" earnings—whereas the remaining components reflect the results of its ancillary business activities or transitory shocks. Distinguishing between these components to discern core earnings is important for interpreting, communicating, and forecasting firm performance.

The financial performance metrics presented or analyzed by key capital market institutions attest to the importance of isolating and identifying components of firms' earnings. For example, sell-side analysts regularly report and forecast firms' earnings on a non-GAAP basis ("street earnings") by excluding from GAAP earnings items deemed nonrecurring or not reflective of the central business operations. Similarly, managers commonly present performance on a non-GAAP basis ("pro forma" earnings) that exclude items they consider nonrecurring or unimportant for understanding firm performance.

A concern with common alternative metrics that modify GAAP earnings, such as street or pro forma earnings, is that managers and analysts choose the composition of items to include versus exclude in a biased fashion (e.g., Doyle, Lundhom, and Soliman, 2003; Curtis, Mcvay, and Whipple, 2014). For example, street earnings often excludes stock-based compensation expenses, which often stem from central operations and are recurring (Barth, Gow, and Taylor, 2012). These compositional concerns are compounded by concerns over selection biases stemming from analysts' and managers' choices about the firms and fiscal periods for which earnings are modified: Analysts do not cover all firms, and managers do not always report non-GAAP earnings. Widespread use of these alternative performance metrics by

firms, investors, and the financial press raises several important questions about the role of earnings measurement for valuation and forecasting future performance.

This study addresses three central sets of questions constructed to aid financial economists in understanding the properties of earnings and earnings' relation to future performance and stock returns. First, what drives the discrepancy between GAAP and core earnings, and how have the differences evolved? Second, how can researchers systematically and impartially measure core earnings in a way that can be applied to large samples and that facilitates the forecasting of future performance? And finally, do market participants understand and impound the distinction between core and non-core earnings in a timely fashion?

In studying these questions, a practical challenge arises from attempting to comprehensively identify revenues, expenses, gains, or losses stemming from transitory shocks or ancillary business activities. Doing so for one firm requires the identification and categorization of earnings components often disclosed in the footnotes or management discussion and analysis section (MD&A) of firms' 10Ks, which have grown in length (often exceeding 200 pages) and complexity (Loughran and Mcdonald, 2014). Moreover, proper categorization of items as core versus non-core is highly context specific (e.g., it depends on a firm's primary line of business) and requires judgment. Measuring core earnings is therefore difficult to scale in the cross section and over time, and represents a critical hurdle for researchers interested in conducting large-sample studies.

We address these challenges by leveraging data compiled by New Constructs (NC), a financial research firm that identifies and classifies all income-statement-related quantitative disclosures appearing in the 10-K. The data are available for a large sample, covering more than 60,000 firm-year observations from 1998 to 2017. The information collected is both granular and comprehensive, capturing items reported on the face of the income statement and items reported in the footnotes or MD&A that are aggregated into an income-statement

line item (e.g., as part of selling, general, and administrative expense).[1]

To measure core earnings, we exclude from GAAP earnings the items NC identifies as non-recurring or a result of ancillary business activities. Specifically, our core earnings measure (*Core Earnings*) adds back to GAAP earnings (what we refer to as *Net Income*) the net expenses stemming from (1) acquisitions, (2) currency fluctuations, (3) discontinued operations, (4) legal or regulatory events, (5) pension plans, (6) restructuring, (7) gains and losses that companies label as "other" as a separate line item on the income statement, and (8) other gains and losses that NC analysts classify as non-recurring or outside the central operations. Because the underlying data are produced by an independent research firm, a key appeal of our measure is that the classification of earnings components is less likely to exhibit the systematic biases found in street or pro-forma earnings provided by analysts or managers.

Our first set of analyses provide novel insights into the magnitude, composition, location, and time trend of the adjustments that reconcile *Net Income* and *Core Earnings*. We find that these adjustments are economically large. For example, in 2017 the average adjustment per firm was 23 cents per share, or 12% of average *Net Income* per share. These findings suggest that *Net Income* likely contains substantial noise as an indicator of core earnings.

We also show that adjustments separating *Net Income* and *Core Earnings* are fairly common and increasingly so in the last 20 years. From 1998 to 2017, the average number of adjustments rose more than 30% from six to eight. These adjustments most commonly consist of gains and losses from restructuring, but also often stem from acquisitions, pension plans, legal or regulatory events, and currency fluctuations. Finally, about half of the adjustments are identified from footnote disclosures or the MD&A section of firms' 10-K.

[1]NC collects both the value of each item but also its location (i.e., whether it appears on the face of the financial statements, or is reported in the footnotes or MD&A).

These findings highlight the practical difficulty of measuring core earnings in large samples and point to growing data collection costs as a potential impediment to the timely reflection of earnings information in market prices.

Our second set of tests examines the statistical and forecasting properties of *Core Earnings*. We begin by assessing how effectively *Core Earnings* distinguishes between the persistent and transitory components of *Net Income*. A measure that effectively does so should satisfy two key properties: (i) The measure should exhibit a high level of persistence, in particular higher than *Net Income* (due to the removal of transitory components of GAAP earnings); and (ii) the difference between the measure and *Net Income* (i.e., the adjustments) should exhibit a relatively low degree of persistence.

We show that *Core Earnings* satisfies both key properties: The persistence of *Core Earnings* is roughly 26% *higher* than *Net Income*, whereas the adjustments used to calculate *Core Earnings* are roughly 70% *lower* than *Net Income*. In fact, our measure is more effective at distinguishing these components of earnings than commonly used alternative metrics. For example, although cash flow from operations and Compustat-defined "operating income after depreciation" (*OIADP*) exhibit high degrees of persistence, their exclusions from *Net Income* (i.e., the adjustments) remain relatively persistent. *OIADP* adjustments to *Net Income* is 71% as persistent as *OIADP*, and *Cash Flow from Operations* adjustments (i.e., total accruals) is 61% as persistent as *Cash Flow from Operations*. In contrast, *Core Earnings* adjustments is only 24% as persistent as *Core Earnings*.

We also show that *Core Earnings* offers strong predictive power for forecasting firms' future performance, both independently and incrementally to commonly used alternative performance metrics. In univariate tests, we find *Core Earnings* is a significantly better predictor of one-year-ahead *Net Income* than current-period *Net Income*. In multivariate tests, we find *Core Earnings* helps forecast one-year-ahead *Net Income*, *OIADP*, cash flow from

operations, and street earnings, even after controlling for contemporaneous measures of the target. Together, these results provide evidence that our approach offers significant promise for financial economists interested in measuring firms' core earnings and in forecasting future performance.

The remainder of our paper analyzes the extent to which market participants understand the implications of differences between core and non-core components of *Net Income*. We do so by analyzing the predictive power of the core-earnings adjustments made to *Net Income* (*Total Adjustments*) for future revisions in sell-side analysts' earnings forecasts and firms' stock returns.

Our evidence suggests that market participants are slow to take into account the implications of transitory earnings. The magnitude of *Total Adjustments* contained in GAAP earnings positively forecasts revisions in analysts' earnings forecasts in the 12 months following a firm's 10-K filing. This finding is consistent with analysts relying on a subset of adjustments in making initial forecasts of earnings, which are gradually updated in response to new information about recurring profits.

Strikingly, *Total Adjustments* also significantly forecasts firms' stock returns in the 12 months following their 10-K filing, even after controlling for characteristics known to explain the cross-section of future returns (e.g., size, book-to-market, gross profit, accruals, and momentum) and other transitory earnings proxies (e.g., Compustat-identified special items and non-operating income or IBES-identified street earnings adjustments). A value-weighted trading strategy that buys firms in the highest decile of *Total Adjustments* and sells firms in the lowest decile produces monthly excess returns of 66 basis points per month (8.2% annualized), suggesting that the predictably gradual assimilation of core earnings information into prices applies broadly and is unlikely to be limited to smaller firms. Results are similar using equal-weighted portfolios.

Collectively, our findings provide three main contributions. First, in documenting the significant magnitude, complex composition, varied disclosure location in the 10-K, and growth of non-core earnings components, our findings highlight the importance of financial statement analysis and processing of information disclosed in the footnotes and MD&A in firms' 10-Ks for understanding the nuances in earnings.

Our findings also contribute new evidence on the changing properties of GAAP earnings. Bushman, Lerman, and Zhang (2016) shows that the negative relation between accruals and cash flows has dramatically declined over time. GAAP earnings' ability to forecast future operating cash flow has correspondingly declined (Nallareddy, Sethuraman, and Venkatachalam, 2017). Our results provide direct evidence in support of a prominent explanation posited by Bushman et al. (2016), that the changing nature of GAAP earnings is at least in part driven by the increasing importance of one-time items and non-operating items.

A second key contribution of our paper is in providing a systematic large-sample approach for measuring firms' core earnings. Our measure is empirically distinct from commonly used alternatives, and is less likely to be susceptible to compositional and selection biases found in analysts' and managerial estimates. By distinguishing between the core and non-core components of net income, we offer a novel measure that facilitates forecasting of future performance.

Finally, our findings contribute new evidence on the relation between earnings and stock returns (e.g., Abarbanell and Bernard, 1992; Chan, Chan, Jegadeesh, and Lakonishok, 2006; Fama and French, 2006; Da and Warachka, 2011) by showing that analysts and investors inefficiently incorporate the implications of the distinction between core and non-core earnings.[2]

[2]Prior studies provide mixed evidence on whether market prices reflect the implications of transitory earnings in a timely fashion. For example, while Curtis et al. (2014) provides evidence that a large subset of firms opportunistically uses transitory items in non-GAAP earnings, 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. Our analysis is

Our findings suggest that the earnings-returns relation depends crucially on the measure of earnings used to reflect firms' economic profitability (e.g., Dechow and Ge, 2006; Novy-Marx, 2012; Ball, Hail, and Vasvari, 2018) and underscore the importance of adjusting GAAP earnings to account for non-core earnings items for the purposes of forecasting and valuation.

2 Background and Data

This section discusses related research, details our measurement of core earnings, and describes the data used in our main tests.

2.1 Challenges with Measuring Core Earnings

Measuring a firm's core earnings is challenging and time-consuming. It involves adjusting GAAP earnings for the earnings items that result from either transitory shocks or ancillary business activities (what we refer to as "non-core earnings" items). Because the quantitative information relevant for these adjustments can be disclosed on the face of the income statement as well as in the footnotes and MD&A sections of the 10-K, comprehensively identifying non-core items requires combing through hundreds of pages for each firm's 10-K, which has grown in length and complexity over time (Li, 2008; Loughran and Mcdonald, 2014; Dyer, Lang, and Stice-Lawrence, 2017). Therefore, measuring core earnings comprehensively in large samples represents a significant practical challenge for researchers.

Relying exclusively on computers to automate the processing of 10-Ks and identification of non-core items engenders both semantic and structural challenges for identifying adjustments on a large scale. The different terminology firms use to describe similar economic

novel, introducing a measure of core earnings whose exclusions from GAAP earnings are more likely to be comprehensive and less likely to be subject to bias. Moreover, return-prediction results control for the alternative measures of transitory earnings analyzed by these prior studies.

events creates a significant semantic challenge in processing 10-Ks. 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. A structural challenge in processing 10-Ks stems from the various sections in which information about a given item may be disclosed. For example, a non-recurring item can be disclosed as a distinct line item on the income statement, or grouped with other revenues and expenses in an aggregated line item and separately disclosed in the footnotes or the MD&A. These practices can vary across firms and even across 10-Ks for the same firm.

To be sure, existing databases offer alternative metrics that could be used to approximate core earnings. For example, prior research commonly uses street earnings reported by IBES. Although the line items excluded from street earnings tend to be less persistent than non-excluded items (e.g., Doyle et al., 2003; Gu and Chen, 2004), the usefulness of these data are limited to the subset of firms with analyst coverage. In addition, the adjustments embedded in these measures are not necessarily complete or comparable across firms: Prior research suggests they can systematically exclude certain operating and recurring items such as stock compensation expense (Barth et al., 2012), and can be subject to managerial incentives and thus biased.[3]

Prior research also commonly uses metrics compiled by Compustat, such as "income before extraordinary items" or "income minus special items" (e.g., Bradshaw and Sloan, 2002; Burgstahler, Jiambalvo, and Shevlin, 2002). More recently, Bushman et al. (2016) uses Compustat's *OIADP*. These measures are available for a broad cross section of firms.

[3]Bentley, Christensen, Gee, and Whipple (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 that could be reflected in pro forma earnings (Curtis et al., 2014) is also reflected in street earnings, for which Doyle, Jennings, and Soliman (2013) provides empirical evidence.

Naturally, use of these metrics as proxies for core earnings depends on the completeness of Compustat data collection processes as well as the classification decisions made by its analysts and how they are reflected in the metrics, raising concerns about consistency similar to those faced by street and pro forma earnings.

Comprehensively assessing the extent to which these concerns materialize in the Compustat database is beyond the scope of this paper. Instead, with the help of S&P Global's Enterprise Client Services team, we studied a number of examples in detail. Our examination suggests that, for the most part, Compustat does a comprehensive job identifying and collecting income-statement-related quantitative information that firms disclose in the 10-K. Nevertheless, we identified cases where Compustat did not collect information relating to firms' income that is useful in assessing core earnings. An example is Geokinetics Inc., which in 2012 disclosed a total of $12.2 million in restructuring expenses that was aggregated into operating expenses line items on the firm's income statement. Compustat identified (and included in its special items field) only half of the restructuring expense, which was reported in a table in the footnotes. It did not identify the other half, which Geokinetics reported in the text of its footnotes as "professional fees" related to the restructuring.[4]

We also found cases in which Compustat collected quantitative disclosures that could be reasonably classified as stemming from ancillary business activities or from transitory shocks (as our data do) but where Compustat classified and included them as part of their operating performance metrics. For example, in 2012 UPS disclosed in the MD&A of the 10-K a mark-to-market loss of $4.831 billion from its defined benefit plan. This loss is aggregated as a part of the "Compensation and benefits" expense line item on the income statement. Compustat identified this MD&A disclosure then classified and included it as part of Compustat's "Cost

[4]These "professional fees" are identified and reflected in our data as a non-core expense. As a consequence of our communications with S&P Global, the data team has since updated Compustat to include these "professional fees" related to the restructuring in special items and exclude them from its SG&A field.

of Goods Sold" field. Thus, neither income before special items nor operating income after depreciation excludes this item.[5]

These examples are consistent with prior research (e.g., Bostwick, Lambert, and Donelan, 2016; Johnson, Karpoff, and Yi, 2015) that suggests that certain key Compustat fields may not readily or fully reflect the constructs of interest to researchers. Nevertheless, in our main empirical analyses we will include performance metrics provided by these alternative data sources—*OIADP* from Compustat and *Street Earnings* from IBES—as benchmarks.[6]

2.2 Data

To overcome practical challenges associated with measuring core earnings for a large sample of firms, we leverage the database compiled by New Constructs (NC), a financial research technology firm. NC was founded with the primary objective of helping investors assess firms' economic earnings (net operating profit after tax in excess of a capital charge) and return on invested capital (ROIC) to facilitate the analyses of intrinsic and market valuations. The computations of these measures involve a complex set of adjustments to the balance sheet and income statement, requiring the identification and classification of various balance sheet and income statement items and the capitalization of off-balance-sheet

[5]Another example is YUM Brands, which disclosed in 2005 "Store Impairment Charges" of $62 million (8.1% of net income) in the footnotes. This value was rolled up into a "Facility Actions" operating expense line item totalling $19 million. NC identified the $62 million and classified it as a non-recurring expense, and thus it is excluded from our *Core Earnings* measure. While Compustat identified (and included in its SG&A field) the $19 million "Facility Actions" charge, the $62 million impairment charge was not collected and not reflected in the data. Thus, neither income before special items nor operating income after depreciation exclude this item. This example reflects a hybrid of the differences illustrated by the Geokinetics and UPS examples above because Compustat identified the aggregate line item (i.e., the $19 million), but made a different classification decision from our data provider, in part because it did not collect the disaggregated components that were disclosed in the footnotes.

[6]We follow Bushman et al. (2016) in using *OIADP* as the Compustat measure of operating earnings. In untabulated results, we conduct our analyses using *Income Before Special Items*, which has been commonly used in prior literature (e.g., Bradshaw and Sloan, 2002; Burgstahler et al., 2002), and find that our main inferences remain unchanged.

liabilities such as operating lease obligations (similar to, e.g., McKinsey & Company, Koller, Goedhart, and Wessels, 2010).

To facilitate data collection and classification efforts, NC designed a process that combines the intelligence and judgment of a human analyst with the processing power of machines. Thus, the starting point for its data collection process was a team of analysts who carefully identified all relevant quantitative disclosures and exercised consistent judgment regarding the classification of a quantitative disclosure. Most relevant to this study, as part of its data collection efforts, NC analysts classified into separate categories income-statement items deemed to have resulted from ancillary business activities or to be nonrecurring in nature (non-core earnings items). To ensure the consistency of classification decisions, NC created a shared knowledge base through a training program in finance and accounting (based on the principles and ideas covered in *Valuation: Measuring and Managing the Value of Companies* by McKinsey & Company et al. (2010), *Creating Shareholder Value* by Rappaport (1998), *The Quest For Value* by Stewart (1991), and *Expectations Investing* by Rappaport and Mauboussin (2001)) that all new analysts must pass, and by promoting a culture of open discussion and idea exchange among analysts, particularly when it comes to the classifications of novel quantitative disclosures. NC also maintains an internal wiki (not publicly available) that documents and explains the rationale behind classification decision rules on various types of quantitative disclosures.

To speed and scale up its analysts' efforts, NC developed three technological tools. The first is an internal application that allows analysts to locate, tag, and mark up all relevant quantitative data points from financial statements, footnotes, and the MD&A. According to NC, this tool facilitates the collection of "information about every data point, including original text, data value, units, and specific location in the filing." The second is a taxonomy that allows analysts to assign each collected quantitative number to the appropriate cate-

gory to facilitate the computation of economic earnings and ROIC. The last is an automation technology, a machine-learning algorithm that learns over time to mimic the collection and classification decisions made by human analysts. The fundamental idea is that when the human analyst classifies certain data points into the same bucket enough times, the machine can learn this pattern and execute it automatically. However, whenever the machine comes across a quantitative disclosure that it has not seen an analyst classify in the past, it will notify a human analyst who will subsequently manually tag, mark up, and classify the disclosure. The accumulated choices made by analysts across firms constitute an ever-growing training data set from which machines learn to improve their ability to collect and classify quantitative information disclosed in 10-Ks.

It is worthwhile emphasizing that NC's use of machine learning was not meant to alter or improve upon the decisions made by humans, but rather to mimic human analysts' decisions. Most relevant to this paper, NC's machine learning algorithm did not optimize the classification of non-core earnings items, for example, based on their historical or realized statistical properties. Instead, the machine learned and replicated the human analysts' judgments, based on prior decisions made by human analysts, and it did so with greater speed and at a scale to produce a database covering a broad cross section of firms.

From its database, NC provided to us the non-core earnings items summarized in various categories of "adjustments" for Russell 3000 firms from 1998 to 2017.[7] Our deep dive into Compustat suggests that, with respect to the estimation of core earnings, NC and Compustat mainly differ in terms of the granularity with which these items are made available to the user and the classification decisions that the analysts at each data provider make with respect to

[7]Some of the early parts of the data were parsed at a later time. To mitigate concerns about potential look-ahead bias, the Online Appendix reports the reexamination of our main empirical tests using a subsample that begins after 2007. This subsample covers the years after the last major change in NC's data parsing and classification processes. Beginning in 2008, the data were parsed and classified on a real-time going-forward basis (with no back-filling). Our main inferences are unchanged in this post-2007 subsample.

these items. The next section details how we use these adjustments to construct a measure of core earnings.

Although NC has an extensive protocol to assure the quality of the data collection and classification decisions made by its analysts and machines, we conducted two quality checks on the data.[8] First, to provide a detailed quality assessment, we hand-checked a sample of roughly 350 unique specific non-core income-statement items NC identified. In this exercise, we compared the name of the item and the value of that item to what was actually reported in the 10-K. In 100% of instances, we perfectly matched both the description of the non-recurring item and the value of that item in the 10-K. Second, to provide a broader assessment of quality, we compared the similarity in net income as reported by NC (and scraped from EDGAR) and as reported by Compustat. Net income is a field that is not subject to any classification discretion by analysts and should therefore be extremely similar between the two datasets. We find a correlation of 99% between the net income measures reported in the two datasets.

2.3 Defining *Core Earnings*

Our dataset groups the non-core revenues, expenses, gains, and losses identified by NC analysts for a given firm into eight main categories. We define each of these categories below, and provide an example of an item identified by NC analysts from that category.

Net Acquisition Expenses equals total losses minus total gains from acquisitions or sales of assets. An example of such an expense is Yahoo's net gain of $4.4 billion in 2012 from its sale of shares of Alibaba.

Net Currency Expenses equals total losses minus the total gains that arise from foreign-

[8]For more details on the data collection and quality assurance processes employed by New Constructs, see Wang and Thomas (2018), which was written for class discussion purposes and based on non-public information, including interviews with the organization.

currency devaluations or revaluations. For example, in 2013, Tesla had a foreign-currency-exchange gain of $12 million due to the weakening of the Japanese Yen, which decreased the value of its Yen-denominated liabilities.

Net Discontinued Ops Expenses equals total losses minus total gains arising from discontinued operations. An example of a gain included in this category is Pfizer's 2012 sale of its nutrition business to Nestle, which resulted in $5.1 billion of revenue (8.6% of total revenue).

Net Legal Expenses equals total losses minus total gains arising from legal or regulatory events. An example of an expense included in this category is Nautilus Group's one-time payout of $18 million (32% of its $56 million net loss) to settle a lawsuit in 2017.

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 returns 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 changes in benefit obligations, amortized from other comprehensive income over time). For 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 treats all net period benefit cost components outside of service cost and amortization of prior service costs as outside of the firm's central operations. This treatment is largely consistent with GAAP's accounting treatment of these pension components.[9] Thus, the only pension-related expenses included in *Core Earnings* are service costs and

[9]FASB's pension accounting standards update in 2017 (ASC 715-30) requires firms to report all but the service cost components of net period pensions costs as part of the line item "other income/(expense)" in the income statement.

amortization of prior service costs of pension and post-retirement plans.

Net Company-Defined Other Expenses are net losses that the company reports as "other" on the income statement. Items included in this category are those for which the company provides no additional information in the 10-K about the underlying event or transaction.

Finally, *Net Other Expenses* is a catch-all category that captures other types of gains and losses deemed non-recurring or stemming from ancillary business activities and that do not belong to the categories above. *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. To normalize these differences, pre-2006 *Core Earnings* are adjusted to reflect the expensing of stock options using data culled from footnote disclosures.

Using these data on adjustments categories detailed above, we construct an after-tax measure of core operating earnings (*Core Earnings*) as follows:

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

Because 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 estimate and apply an effective tax rate to all pre-tax non-operating gains or expenses before aggregating them into the respective categories. We compute the effective tax rate as the ratio of pre-tax income and GAAP net income, and winsorize the measure at 0 and 1. For firms with missing values, we apply the statutory rate of 35%.[10]

Having defined the adjustments and our measure of core earnings, the empirical analyses below begins by documenting their summary statistics and time-series patterns. We then examine *Core Earnings*' statistical and forecasting properties. Finally, we examine the extent to which market participants appreciate the distinction between core and non-core earnings, and their implications for future performance.

[10]In the Online Appendix, we show our main results are robust to two alternative tax rate assumptions: a flat statutory rate of 35% applied to all firms and firms' cash effective tax rates computed following Dyreng, Hanlon, and Maydew (2008).

3 Characterizing Core versus Non-Core Earnings

In this section, we characterize the adjustments that separate *Net Income* and *Core Earnings*. In doing so, we establish the magnitude, composition, and time trend in these adjustments.

3.1 Summary Statistics on Non-Core-Earnings Items

Table 1 reports pooled summary statistics on non-core-earnings adjustments. Panel A describes the frequency within the sample of each income-increasing (e.g., a loss) and income-decreasing (e.g., a gain) adjustment.[11] *N* reports the number of firm-years with at least one adjustment. For example, there are 8,251 firm-year observations reported at least one acquisition-related adjustment that increased net income (*Acquisition Increase*) and 1,405 firm-year observations reported at least one acquisition adjustment that decreased net income (*Acquisition Decrease*).

Panel A, Table 1, shows that, when an adjustment is made for a firm-year observation in a particular 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 the most frequent adjustments involve restructuring: 36,714 firm-year observations report *Restructuring Increases* and 20,133 report *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

[11] Income-increasing adjustments are those that increase *Core Earnings* relative to *Net Income*. The opposite is true for income-decreasing adjustments.

events). 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. Across our sample, estimating *Core Earnings* requires, on average, more than six total adjustments to a firm's *Net Income*.

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 is $112 million for *Pension Increases*, but the average adjustment for *Pension Decreases* is a similar $110 million, suggesting the average net pension adjustments are much smaller in magnitude. The smallest-magnitude adjustments on average are *Acquisition Decreases* ($3.6 million), *Currency Decreases* ($3.8 million), and *Legal Increases* ($6.0 million).

Combining all adjustments, the average values of total increasing and decreasing adjustments are $158 million and $98 million respectively, which is consistent with there being a higher frequency of income-increasing adjustments. For almost all adjustments, the median is less than half the value of the mean, which is consistent with large one-time events.[12]

3.2 Summary Statistics on *Core Earnings*

Table 1, Panel C, reports distributional statistics for *Core Earnings*, our main variable of interest, and the net adjustments from each category used to calculate it. In this panel, we summarize these variables for our full sample of observations. Thus, whereas the prior panels report summary statistics for those firms with adjustments in particular categories, going forward we set the adjustment value in a particular category to 0 if a firm is identified

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

as having no adjustments in that category.

As benchmarks to compare with *Core Earnings*, we also examine measures of firms' operating performance that are standard in the literature. We merge in companies' reported GAAP earnings (*Net Income*), operating income after depreciation (*OIADP*), and net operating cash flow (*Cash Flow from Operations*), along with other relevant accounting data, from Compustat. We also merge in companies' street earnings (*Street Earnings*), along with analysts' consensus forecasts and revisions, from IBES. All variables are winsorized at the top and bottom 1% of the cross-sectional distribution and defined in Table A.1. Panel D contains analogous descriptive statistics for the main Compustat and IBES variables.

Of particular interest is that, on average, non-core earnings adjustments (*Total Adjustments*) amounts to a $27 million increase in a firm's *Net Income*. These magnitudes are significant: average *Total Adjustments* represents 12% of average *Net Income* and about 11% of average *Core Earnings*. *Total Adjustments* also differs substantially in magnitude from the adjustments implicit in Compustat's *OIADP* and *Street Earnings*. For example, whereas the average *Core Earnings* is $243 million, the average *Street Earnings* is $303 million (24% higher than *Core Earnings* and 36% higher than *Net Income*), and the average *OIADP* is $436 million (79% higher than *Core Earnings* and 96% higher than *Net Income*).

3.3 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, there are more than six adjustments to a firm's net income in a given year. Moreover, the number of adjustments gradually increased, from six in 1998 to eight in 2017. Much of this growth came from income-increasing adjustments

(i.e., expenses or losses that NC analysts deemed non-recurring in nature or stemming from ancillary activities).

Figure 1, Panel B, examines the average annual dollar value per share of net adjustments, *Core Earnings*, and *Net Income* during the sample period. For much of our empirical analysis, we examine performance measures of interest on a per-share basis for comparability, consistent with Barth and Clinch (2009). 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 is 23 cents per share, which represents 12% of average GAAP net income per share. This figure also demonstrates that non-core-earnings adjustments smooth out net income, consistent with these adjustments removing transitory or less persistent earnings shocks.

Our 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. The greater frequency of non-core expenses is likely also attributable to the nature of business conditions. For example, 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 revenue and sometimes a second line for "other income" but specifies numerous ways to spend the money that a company earns. Finally, the growing number of income-increasing adjustments (i.e., non-core losses) could be consistent with conservative accounting and an increase in transparency and detail with which firms disclose quantitative information.

We also analyze the extent to which non-core-earnings adjustments are disclosed in the footnotes or the MD&A section of the 10-K (and rolled up into an aggregate line item on the income statement). Figure 2, Panel A, examines how non-core-earnings adjustments to *Net Income* disclosed in these sections of the 10-K have evolved over time. It shows that,

in any given year, there are more than three adjustments from the MD&A or footnotes 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 these types of 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 income-increasing adjustments from the MD&A and the footnotes increased by 42%, from 1.84 in 1998 to 2.61 in 2017, but the average number of income-decreasing adjustments from the MD&A and the footnotes declined by 23%. In other words, in 1998 an adjustment identified in the footnotes or the MD&A was equally likely to be a gain or a loss; by 2017 such an 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 managers increasingly report non-core gains on the face of the income statement but disclose non-core losses in the footnotes or the MD&A. In 1998, the mean number of income-decreasing adjustments from the footnotes and the MD&A accounted 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 income-increasing adjustments from the footnotes and the MD&A accounted for 54.1% (1.51/2.79) of the mean number of total income-decreasing adjustments; by 2017, this percentage increased to 77% (2.91/3.78).

Finally, Figure 2, Panel B, examines the average annual dollar value per share of total, income-increasing, and income-decreasing adjustments from the footnotes and the MD&A. The per-share value of total adjustments from the footnotes and the MD&A increased significantly over time, from \$0.016 in 1998 to \$0.128 in 2017. These magnitudes also suggest a significant portion of total adjustments per share are reported only in the footnotes or the MD&A. In 2017, for example, the mean per-share value of total adjustments from the

footnotes and the MD&A represented 57% of the total adjustments.

These figures provide the first evidence on the difference between GAAP earnings and core earnings, and how managers disclose non-core revenues, expenses, gains and losses on and off the income statement. Our results illustrate the importance of the quantitative information disclosed in the footnotes or in the MD&A in comprehensively identifying non-core earnings items, and suggest that GAAP earnings likely contains substantial noise as an indicator of core earnings. These findings also highlight the practical difficulty of measuring core earnings in large samples and point to growing data collection costs as a potential impediment to the timely reflection of earnings information in analysts' forecasts and market prices.

4 Forecasting Properties of *Core Earnings*

This section examines the time-series and cross-sectional properties of *Core Earnings* and *Total Adjustments*.

4.1 Persistence

We begin by examining how well *Core Earnings* distinguishes between the recurring and non-recurring components of *Net Income*. A performance measure that successfully separates these components should display two key properties. First, by removing the less persistent components, such a measure should exhibit a high level of persistence, and in particular higher than that of *Net Income*. Second, the adjustments made to *Net Income* to arrive at such a core earnings measure (i.e., the difference between *Net Income* and the measure) should exhibit a relatively low degree of persistence.

The first property (i.e., the persistence of the core earnings measure) alone is not sufficient to assess how effectively a measure distinguishes between the persistent and transitory

components of earnings. For example, the cross-sectional persistence parameter corresponding to revenues in our sample is 0.98 and statistically indistinguishable from 1 (untabulated). However, revenues do not effectively separate out the transitory components of earnings because it excludes various persistent components of operating profits. Not surprisingly, we also find the difference between *Net Income* and revenues to be highly persistent.

To examine these properties for *Core Earnings*, we first summarize its time-series AR(1) parameters, estimated by regressing the one-year-ahead measure on the current-period measure at the firm level. As benchmarks, we also examine the time-series persistence of *Net Income* and *Total Adjustments*. Because 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 cross-sectional summary statistics of the estimated time-series persistence parameters for *Core Earnings*, *Net Income*, and *Total Adjustments*, where all variables are scaled by shares outstanding following Barth and Clinch (2009). The mean time-series AR(1) parameter is significantly larger for *Core Earnings* at 0.59 compared to 0.45 for *Net Income*, which represents a increase of 31%. Similarly, the mean time-series AR(1) parameter is roughly four times as large for *Core Earnings* compared to that for *Total Adjustments*, the latter being 0.17. These results suggest *Core Earnings* is effective at separating the persistent and transitory components of earnings.

We next examine the *cross-sectional* persistence properties of various measures of performance. These tests seek to measure the extent to which differences in performance between firms in one year forecast differences in performance the following year, and are more relevant for many asset-pricing contexts. We estimate cross-sectional persistence parameters across

performance measures using regressions of the following form:

$$Performance_{i,t+1} = \alpha + \phi \times Performance_{i,t} + \eta_t + \epsilon_{i,t+1}, \quad (2)$$

where η_t are year-fixed effects. We consider the following measures of *Performance*: *Net Income*, *OIADP*, *Cash Flow from Operations*, and *Core Earnings* as defined in Eq., (1). All variables are again scaled by shares outstanding, and inferences are based on two-way cluster robust standard errors, clustered at the firm and year levels (Petersen, 2009).

Table 2 reports the results from estimating Eq., (2) where the reported coefficients represent the persistence of the corresponding measure. For each measure (except for *Net Income*), we also examine the cross-sectional persistence of its "adjustments" (i.e., the difference of a given measure from *Net Income*). Column 1 reports the persistence of *Net Income*; columns 2, 4, and 6 report the persistence of *OIADP*, *Cash Flow from Operations*, and *Core Earnings*, and columns 3, 5, and 7 report the persistence of their adjustments.

Each income measure exhibits a significant degree of cross-sectional persistence. *Net Income* exhibits the lowest persistence, with a coefficient of 0.65; *OIADP*, *Cash Flow from Operations*, and *Core Earnings* exhibit considerably higher persistence of 0.89, 0.81, and 0.82, respectively. These findings suggest each of the operating income measures capture the more persistent components of *Net Income*.

Although *OIADP* exhibits the highest cross-sectional persistence (about 9% higher than that of *Cash Flow from Operations* and 8% higher than that of *Core Earnings*), its adjustments also exhibit the highest degree of persistence. In fact, with a persistence parameter of 0.63, *OIADP Adjustments* is nearly as persistent as *Net Income*, which is not what we would expect if these measures' adjustments effectively identified and isolated the non-recurring components of GAAP earnings.

In contrast, *Core Earnings* exhibits the second highest cross-sectional persistence (0.82), and its corresponding adjustments exhibit the lowest persistence. At 0.20, the persistence of *Total Adjustments* is less than a third of the persistence of *OIADP Adjustments* and less than half of the persistence of *Total Accruals*. Alternatively, *OIADP Adjustments* is 71% as persistent as *OIADP*, and *Total Accruals* is 61% as persistent as *Cash Flow from Operations*, but *Total Adjustments* is only 24% as persistent as *Core Earnings*. These results suggest that, among the three alternative income measures, *Core Earnings* is the measure that best distinguishes the persistent versus transitory components of *Net Income*.

4.2 Forecasting Future Performance

Our next tests examine whether *Core Earnings* helps forecast firms' future performance. We begin by assessing how well *Core Earnings* forecasts future *Net Income*. This is a natural extension of the persistence tests because a measure that effectively separates the more and less persistent components of *Net Income* is also expected to be predictive of future *Net Income*. In particular, such a measure is expected to be a better forecaster of future *Net Income* than current-period *Net Income*.[13]

Panel F of Table 1 reports the cross-sectional mean-squared errors (MSE) from forecasting one-year-ahead *Net Income* using current-period *Net Income* and current-period *Core*

[13]To see this, consider the following simplified model of earnings (e_t) which contains a persistent (z_t) and a transitory (v_t) component:

$$\begin{aligned} e_{t+1} &= z_{t+1} + v_{t+1}, \text{ and} \\ z_{t+1} &= z_t + u_{t+1}, \end{aligned}$$

where u_{t+1} and v_{t+1} are iid and mean-zero innovations with finite variance. This implies that the only predictive component of future earnings is the persistent component of current-period earnings:

$$e_{t+1} = z_t + u_{t+1} + v_{t+1}.$$

Thus, isolating the persistent component of e_t will improve upon its forecasting power for e_{t+1}.

Earnings. Our results show the time-series average MSE produced by *Core Earnings* is 20% lower than that produced by *Net Income*, suggesting that *Core Earnings* is a significantly better forecaster of future *Net Income* than current-period *Net Income*. These results are consistent with the findings that *Core Earnings* effectively distinguishes between the more and less persistent components of GAAP earnings.

We also provide a more general assessment of the incremental predictive ability of *Core Earnings* for future performance in a multivariate regression setting. For these tests, we measure firms' future performance using four metrics—one-year-ahead *Net Income*, *OIADP*, *Cash Flow from Operations*, and *Core Earnings*—representing a set of accrual- and cash-flow-based operating performance measures that could be important to managers' and investors' decision contexts. To examine whether *Core Earnings* provides information on a diverse set of performance metrics commonly used in valuing firms and evaluating their future prospects, we estimate variations of the following equation:

$$\begin{aligned} Performance_{i,t+1} &= \gamma_0 + \gamma_{AE} \times Core\ Earnings_{i,t} + \gamma_{NI} \times Net\ Income_{i,t} + \gamma_{OIADP} \times OIADP_{i,t} \\ &\quad + \gamma_{CFO} \times Cash\ Flow\ from\ Operations_{i,t} + \eta_t + \epsilon_{i,t+1}, \end{aligned} \tag{3}$$

where $Performance_{i,t+1}$ refers to one-year-ahead *Net Income*, *OIADP*, *Cash Flow from Operations*, or *Core Earnings*, and η_t are year-fixed effects as before. Unlike the MSE tests, which rely on a single predictor and restrict the coefficient on the predictor to be one, these regression-based tests allow for the coefficients to differ from one and offer an assessment of whether a given measure's predictive ability is incremental to other measures.

Table 3, columns (1) and (2), report the estimation results of Eq., (3) using *Net Income* as the forecast variable of interest. In both columns, *Core Earnings* is statistically significant at the 1% level, suggesting it contains information about future *Net Income* incremental to

the other contemporaneous measures of performance we consider. We find similar patterns in *Core Earnings* for predicting future *OIADP* in columns (3) and (4), future *Cash Flow from Operations* in columns (5) and (6), and future *Core Earnings* in columns (7) and (8). *Core Earnings* is statistically significant at the 1% level in all specifications with the exception of column (3), where it is significant at the 10% level.

4.3 Future Income and the Components of *Core Earnings*

We also examine the roles of the individual adjustment categories in the relations between *Core Earnings* and future performance. Table 5 reports results from regressing measures of year-ahead performance on *Net Income* and the net adjustment value of each component of *Total Adjustments*, as described in Eq., (1). The categories of adjustment that help drive the observed predictive relations will exhibit a positive slope coefficient.

The coefficients on all adjustment categories are positive and statistically significant, with the exception of *Net Currency Expenses* in columns 1, 2, and 4, and *Net Company-Defined Other Expenses* in columns 1–3. Although *Net Company-Defined Other Expenses* does not incrementally predict future *Net Income*, *OIADP*, or *Cash Flow from Operations*, it is worthwhile noting this adjustment is relatively small in dollar value ($660,000 on average) and depends on managers' classification of expenses. Similarly, the average *Net Currency Expenses* adjustment is also economically small at $240,000.

To better understand the relation between the adjustment categories and future performance, we further analyze the persistence of each adjustment category. Table 5, column 1 reports estimates of cross-sectional persistence for the net adjustments for each of the eight adjustment categories. As expected, across all categories, we find the persistence of net adjustments is lower than the persistence of *Core Earnings* (column 6 of Table 2). How-

ever, we find some variation in the persistence across adjustments categories. For example, while *Currency*, *Discontinued Operations*, *Legal*, and *Restructuring* exhibit relatively low persistence, ranging from 0.13 to 0.24, *Acquisitions*, *Pension*, and *Company-Defined Other* adjustments exhibit relatively high persistence, ranging from 0.41 to 0.60.

The presence of some adjustment categories with higher persistence is not surprising, because the adjustments identified by NC analysts contain income-related items that are deemed to be either non-recurring or stemming from ancillary business activities (i.e., our definition of non-core earnings). For example, although the expected return or interest cost on plan assets may be recurring in nature, they are considered to be outside of the firm's central operations, consistent with the FASB pension accounting standard. It is possible to identify the non-recurring components of pension adjustments more precisely using the underlying NC data, but the current aggregation level of our data prevents such an analysis. In the Online Appendix, we show our main results are robust to excluding firms with pension adjustments, suggesting that pension adjustments do not drive our findings.

Columns 2 and 3, Table 5, decompose total net adjustments into total income-increasing and income-decreasing adjustments, and report their persistence. Overall, we find similar levels and variation in persistence across categories. However, we find a generally lower level of persistence in the income-decreasing adjustments (i.e., the transitory gains) in a given category compared to the income-increasing adjustments (i.e., the transitory losses).

Together, these results provide novel evidence on the predictive ability and persistence properties of non-core-earnings components of GAAP net income. Our analyses also suggest that, by weighting or selectively excluding certain adjustment categories, it may be possible to improve upon *Core Earnings* in terms of its ability to distinguish between the persistent and transitory components of earnings. To the extent that *Core Earnings* can be improved by applying varying weights across adjustment categories or refining the identification of

non-core-earnings items, our performance-prediction results can be considered conservative.

4.4 *Core Earnings* and *Street Earnings*

Our final analysis of the forecasting properties of *Core Earnings* examines whether its predictive power for future performance is incremental to *Street Earnings*, a non-GAAP income measure provided by IBES commonly used and analyzed in the literature.[14] This measure also can serve as a proxy for managers' non-GAAP earnings, as Bentley et al. (2018) finds the two overlap in a majority of instances. Because about 20% of our sample does not have analyst forecast data from IBES, we conduct this analysis separately using a subsample of observations with non-missing *Street Earnings*.

Table 6 reports the results of regressing one-year-ahead income measures—*Net Income* in Column (1), *OIADP* 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 year-fixed effects and *Core Earnings*, *Street Earnings*, *Net Income*, *OIADP*, and *Cash Flow from Operations* as contemporaneous measures of income. Consistent with the results of Table 3, the results in this table show *Core Earnings* provides incremental information about future performance, even after controlling for *Street Earnings*.

Table 6, Columns 5–7, further examine the relation between *Total Adjustments* and the adjustments reflected in *OIADP* and *Street Earnings*. Both *OIADP Adjustments* and *Street Adjustments* are positively, statistically significantly, but imperfectly associated with *Total Adjustments*. Individually, *OIADP Adjustments* and *Street Adjustments* explain about 30% and 50% of the variation in *Total Adjustments*; jointly, *OIADP Adjustments* and *Street*

[14]Compustat provides a variable, "S&P Core Earnings," that makes eight adjustments to net income 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 because it is available for only one-third of all firm-years in Compustat.

Adjustments explain 59% of the variation in in *Total Adjustments*. Taken together, these results suggest a significant amount of the variation in *Total Adjustments* is not explained by the adjustments reflected in *OIADP* or *Street Earnings*.

5 Market Processing of Transitory Earnings

Having established that *Core Earnings* distinguishes the persistent component of GAAP net income from its less persistent components, and that adjusting net income for non-core earnings items produces incremental information for future performance, we proceed to analyze whether market participants grasp these subtleties and impound the implications of the distinction between core and non-core earnings.

5.1 Earnings Adjustments and Future Forecast Revisions

We begin by examining how analysts respond to non-core-earnings items. To the extent that analysts respond promptly, we should not find any systematic relation between the sign and magnitude of non-core earnings and analysts' earnings 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 scaled by shares outstanding. We include year-fixed effects 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—forecasts increases in analysts' earnings-per-share forecasts during 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 *Lagged Forecast Revisions* and *Earnings Surprise* in column (2). This result remains unchanged when adding firm characteristics in column (3), *OIADP Adjustments* in column (4), and *Street Earnings Adjustments* in column (5). Columns (4) and (5) suggest that neither *OIADP Adjustments* nor *Street Earnings* are significantly (at the 10% level) associated with analysts' future forecast revisions; only *Total Adjustments* and *Total Accruals* exhibit statistically significant relations. Because we examine analysts' revisions over a long time horizon, the findings in Table 7 suggest analysts are not efficient in incorporating the implications of none-core earnings in their forecasts. These findings could be consistent either with behavioral biases or with incentive-misalignment problems (see, e.g., Kothari, So, and Verdi, 2016, for a recent review of this literature).

5.2 Stock Market Returns

Our next set of tests examines whether market prices impound the implications of non-core earnings items efficiently. Our first return-based tests focus on portfolio-level average returns. Specifically, 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.[15] Firms in the highest decile have the highest dollar value of income-increasing adjustments; those in the lowest decile have the highest dollar value of income-decreasing adjustments.

To the extent investors under-appreciate the implications of non-core earnings, for example due to underreacting to low-salience earnings signals (e.g., Sloan, 1996) or overweighting analysts' forecasts (e.g., So, 2013), we would expect firms in the highest decile to outperform those in the lowest decile. This is because the core earnings of the firms in the highest decile

[15] 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.

is relatively high compared to GAAP earnings, and vice versa for the firms in the lowest decile. As investors learn about the core earnings of firms over time, stock prices would be expected to adjust gradually.

Table 8 summarize the value-weighted returns to each decile of total adjustments scaled by assets. Value weights are based on firms' market capitalization in the month prior to the 10-K filing. The first column summarizes average 12-month raw returns. We find that firms in decile 10 have a value-weighted average annual return of 11.9% and firms in decile 1 have an average return of 3.5%. The 8.4% spread in raw returns is both statistically and economically significant.

The remaining columns in Table 8 report factor loadings and abnormal monthly returns from a calendar-time portfolio trading strategy. We estimate and report abnormal returns (ALPHA) for each decile portfolio as well as the long-short portfolio (decile 10 minus decile 1) 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). We find the mean difference in monthly abnormal returns between the tenth-decile and first-decile value-weighted portfolios to be 0.66%. These monthly excess returns are both statistically and economically significant, equating to an annualized difference of 8.2%. These excess returns are particularly impressive in light of the fact that they are produced by a fairly low-turnover portfolio-trading strategy, since each firm files only one 10-K per year.[16]

We complement the portfolio-based findings in Table 8 by examining the link between future returns and *Total Adjustments* in multivariate tests. 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 several control variables. In columns (1) through (3), the

[16]In untabulated results, we find qualitatively similar results using equal-weighted portfolios. For example, the mean difference in monthly abnormal returns between the tenth-decile and first-decile equal-weighted portfolios is 0.57%, or 7.1% annualized.

coefficients on *Total Adjustments* are positive and significant, consistent with the results in Table 8, and incremental to a set of standard control variables known to explain the cross-section of returns: firm size, book-to-market, momentum, gross profit, and share turnover. These findings suggest our findings are unlikely driven by well-known asset pricing factors.

In columns (4), the coefficient on *Total Adjustments* remains positive and significant after controlling for analyst dispersion and coverage, which prior research links to the cross-section of returns (e.g., Kothari et al. (2016) and Lee and So (2017)). These results mitigate concerns our results stem from the pricing of information asymmetries or investor disagreement stemming from complexity in the financial reporting process.

Finally, to illustrate that the NC data identifies adjustments that are distinct from those identified by Compustat and IBES, in columns (5) and (6) we control for alternative earnings adjustments measures considered in this paper, in particular the adjustments embedded in *Cash Flow from Operations*, *OIADP*, and *Street Earnings*. In addition, in column (6) we also control for Compustat's *Special Items*, which Burgstahler et al. (2002) and Dechow and Ge (2006) show can be related to future returns. As with *Total Adjustments*, we scale *Gross Profit*, *Total Accruals*, *OADIP Adjustments*, *Street Adjustments*, and *Special Items* by total assets and winsorize at the 1% and 99% level of each cross-section. Across both specifications, we find that the coefficient on *Total Adjustments* remains positive and statistically significant, indicating that the NC adjustments provide information distinct from alternative earnings adjustments studied in prior research.

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. Unlike Gu and Chen (2004), which suggests investors grasp the implications of transitory components of earnings by examining street earnings, our evidence suggests 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 the net expenses embedded in net income that are less persistent are *positively* related to future returns.

6 Conclusion

This paper shows that disclosures of income-statement items stemming from ancillary business activities or transitory shocks are frequent and economically significant, and 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 core earnings that possesses several desirable properties: it distinguishes the persistent and transitory components of net income and forecasts future *Net Income*, *OIADP*, *Street Earnings*, and *Cash Flow from Operations*. However, both analysts and market participants are slow to impound the implications of the distinction between core and non-core 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 financial statement analysis to create useful metrics for forecasting performance.

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Table A.1.
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 (IBES) {CRSP} variables are used, the variable abbreviation is reported in brackets (parentheses){curly brackets}.

Variable	Description	Computation
Book-to-Market	Natural log of the book-to-market ratio	Calculated as 1 + Book value of Equity [CEQ]/(Shares Outstanding {SHROUT} from five days prior to the 10-K filing × Share Price {PRC} from five days prior to the 10-K filing)
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 estimated using NC data	(*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]
Coverage	Analyst coverage	Natural log of the total number of analysts covering the firm (NUMEST)
Dispersion	Analyst forecast dispersion	1 + the natural log of the standard deviation of analysts' earnings forecasts (STDEV)
Earnings Surprise	Difference between *Street Earnings* and mean analyst earnings estimate	*Street Earnings* (ACTUAL) - *Mean Analyst Estimate* (MEANEST)
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)
Gross Profit	Annual gross profit	(*Revenue* [REVT] - *COGS* [COGS])/*Total Assets* [AT]
Momentum	Stock return from prior 12 months	12-month cumulative buy-and-hold returns RET during the 12 months ending 10 days before 10-K filing
Net Acquisition Expenses	Annual non-core net expenses due to acquisitions	Net acquisition-related transactions that impact *Net Income* and that are deemed to be non-core by NC/Common Shares Outstanding [CSHO]
Net Company-Defined Other Expenses	Annual net expenses from company-defined "other" expenses	Net transactions that impact *Net Income* that the company defines as "other" on the income statement/Common Shares Outstanding [CSHO]
Net Currency Expenses	Annual non-core net expenses due to foreign currency fluctuations	Net foreign-currency-related transactions that impact *Net Income* and that are deemed to be non-core by NC/Common Shares Outstanding [CSHO]
Net Discontinued Ops Expenses	Annual non-core net expenses due to discontinued operations	Net transactions related to discontinued operations that impact *Net Income* and that are deemed to be none-core by NC/Common Shares Outstanding [CSHO]

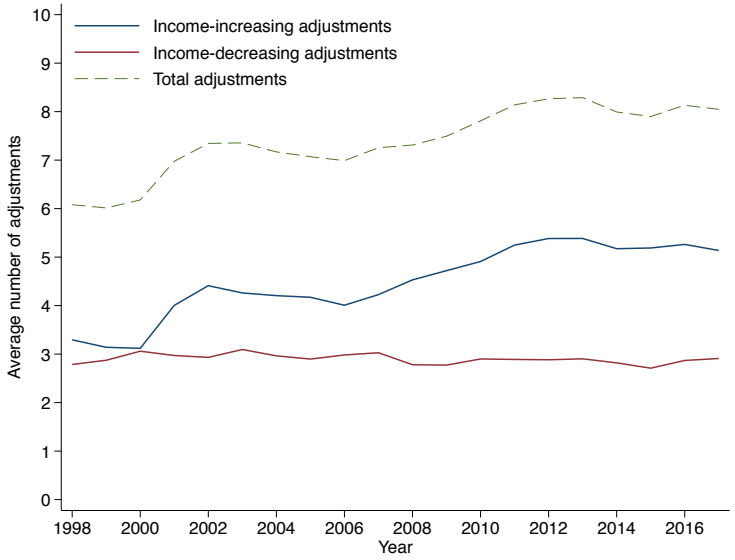
Table A.1 Continued.

Variable	Description	Computation
Net Income	Annual net income	GAAP Earnings [NI]/Common Shares Outstanding [CSHO]
Net Legal Expenses	Annual non-core net expenses due to legal, regulatory, and insurance events	Net transactions related to legal, regulatory, or insurance events that impact *Net Income* and that are deemed to be non-core by NC/Common Shares Outstanding [CSHO]
Net Other Expenses	Annual non-core net expenses that do not belong to other categories	All other net transactions that impact *Net Income* and that are deemed to be non-core by NC/Common Shares Outstanding [CSHO]
Net Pension Expenses	Annual non-core net expenses due to pension plans	Net pension-related transactions that impact *Net Income* and that are deemed non-core by NC/Common Shares Outstanding [CSHO]
Net Restructuring Expenses	Annual non-core net expenses due to restructuring	Net restructuring-related transactions that impact *Net Income* and that are deemed non-core by NC/Common Shares Outstanding [CSHO]
OIADP	Operating income	Operating income after depreciation [OIADP]/Common Shares Outstanding [CSHO]
OIADP Adjustments	Non-operating income	(*OIADP* [OIADP] - *Net Income* [NI])/Common Shares Outstanding [CSHO]
Ret	Market-adjusted annual return	Calculated as firm return {RET} minus market return (using the CRSP value-weighted index {VWRETD}) for the 12 months beginning three months after the fiscal-year end
Share Turnover	Trading volume	Daily Trading Volume {VOL} / Daily Shares Outstanding {SHROUT}, averaged over the six months prior to the 10-K filing date
Size	Natural log of market capitalization	Log(Shares Outstanding {SHROUT} from five days prior to the 10-K filing × Share Price {PRC} from five days prior to the 10-K filing)
Street Earnings	Adjusted earnings per share as compiled by IBES	Street earnings per share (ACTUAL)
Street Adjustment	Difference between *Street Earnings* and *Net Income*	(Street earnings per share (ACTUAL) × Shares outstanding used for street EPS (SHOUT) - *Net Income* [NI])/Common Shares Outstanding [CSHO]
Total Accruals	Total accruals	(*Net Income-Cash flow from Operations*)/Common Shares Outstanding [CSHO]
Total Adjustments	Net expenses from income-statement items that are transitory or stem from ancillary business activities	(*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 earnings 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

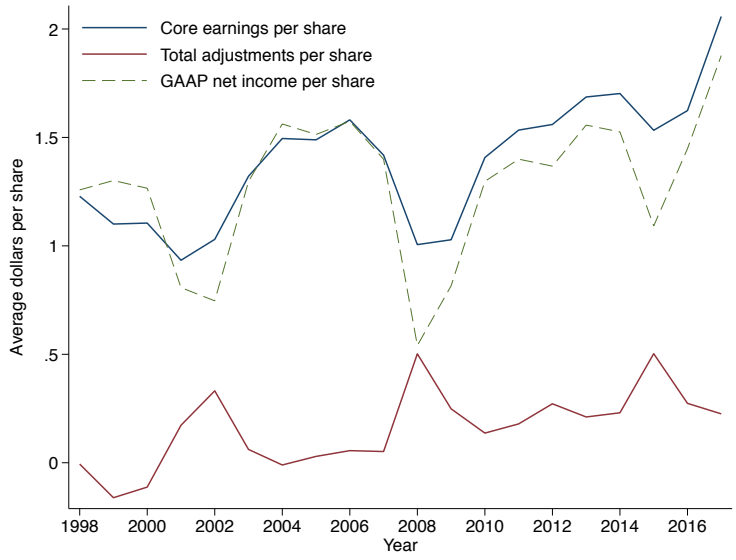
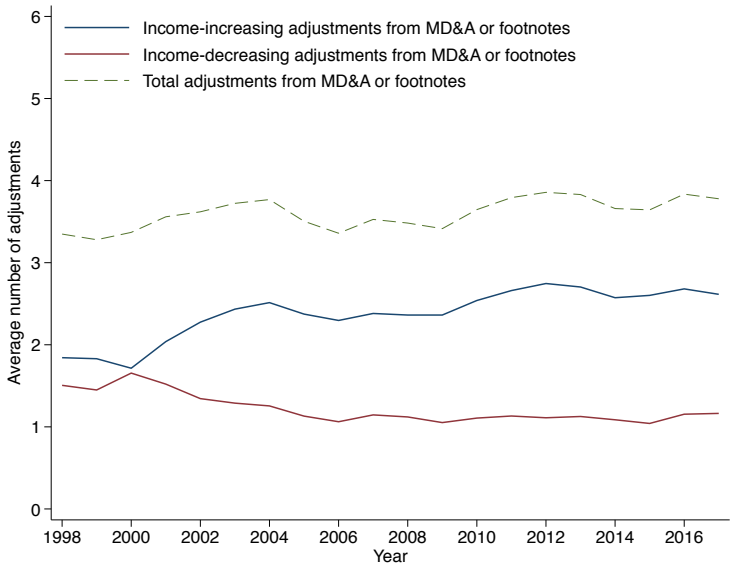


Fig. 2. Non-Core Earnings Adjustments, 1998–2017

This figure displays time-series patterns in 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 adjustments identified in the footnotes or the MD&A of the 10-Ks. It also reports the average number of income-increasing and income-decreasing adjustments reported in the MD&A and footnotes over time. Panel B traces the evolution over time of the average levels of total adjustments per share, total income-increasing adjustments per share, and total income-decreasing adjustments per share reported in the MD&A or footnotes.

A. Average Annual Number of Non-Core Earnings Adjustments Reported in the MD&A or Footnotes



B. Average Annual Value per Share of Total, Income-Increasing, and Income-Decreasing Adjustments Reported in the MD&A or Footnotes

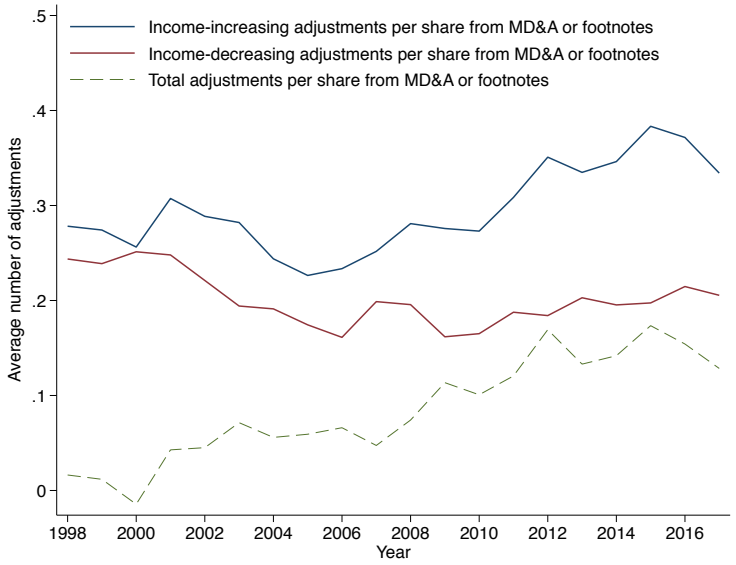


Table 1.
Descriptive Statistics

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 *Net Income* (*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 *Net Income*, *Core Earnings*, and *Total Adjustments*. The AR(1) parameters are obtained from firm-level regressions of the one-year-ahead performance on current-period performance, estimated for a sub-sample of firms with at least 15 years of data. Panel F reports time-series distributional statistics on the cross-sectional average squared forecast errors (MSE) from forecasting one-year-ahead *Net Income*. The first two rows of this panel report the distributional statistics of MSEs using as forecasters current-period *Net Income* and *Core Earnings*; the last row reports the distributional statistics of the difference between the MSE from *Core Earnings* and the MSE from *Net Income*. All variables in Panels B, C, D, E, and F are winsorized at the top and bottom 1% of the cross-sectional distribution. Variables are defined in Table A.1.

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
All 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	26.24	3.31	15.99	141.93	700.00	69.71
Other Decreases	16,244	0.00	0.03	0.39	18.37	1.87	9.36	121.00	362.20	45.92
All Increases	51,101	0.00	0.11	2.06	157.48	12.00	66.08	772.00	6,497.95	526.96
All Decreases	46,423	0.00	0.06	0.97	98.29	5.63	34.35	509.65	3,622.95	332.00
	Panel C: Net Adjustment Data, Magnitudes (in $ millions)									
Adjusted Earnings	62,047	-910.12	-79.75	-1.91	243.33	22.52	118.25	1,198.08	10,048.45	895.84
Net Acquistion Expenses	62,047	-9.99	0.00	0.00	1.33	0.00	0.00	4.86	135.85	8.15
Net Currency Expenses	62,047	-18.32	0.00	0.00	0.24	0.00	0.00	0.22	85.82	3.32
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	-11.69	0.00	0.00	0.59	0.00	0.00	0.39	102.70	5.45
Net Pension Adjustments	62,047	-120.90	-1.02	0.00	1.19	0.00	0.00	7.03	230.75	15.41
Net Restructuring Expenses	62,047	-449.55	-9.61	0.00	21.77	0.00	4.43	107.56	2,415.97	123.19
Net Company-Defined Other Expenses	62,047	-136.19	-6.16	-0.07	-0.67	0.00	0.00	2.83	118.89	9.53
Net Other Expenses	62,047	-569.58	-25.08	-1.52	-0.10	0.00	0.00	22.15	608.99	42.55
Total Adjustments	62,047	-742.29	-50.45	-2.30	26.73	0.20	9.39	174.02	2,761.59	179.25

Table 1. [Continued] Descriptive Statistics

Variable	*N*	*Min*	*p*5	*p*25	*Mean*	*p*50	*p*75	*p*95	*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
OIADP	61,997	-1,925.77	-45.67	5.31	436.04	52.31	227.67	2,079.00	14,693.00	1,443.62
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
Total Accruals	51,051	-6,380.00	-295.60	-5.61	113.94	23.04	138.00	923.40	4,852.00	625.72
Size	61,570	1.55	3.59	5.40	6.68	6.61	7.92	10.04	12.15	1.91
Book-to-market	59,003	-4.21	-2.36	-1.29	-0.82	-0.74	-0.28	0.40	2.09	0.84
	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	-0.93	0.08	0.39	0.59	0.60	0.80	1.07	2.07	0.31
Total Adjustments	1,768	-3.31	-0.26	-0.04	0.17	0.13	0.37	0.71	2.66	0.34
	Panel F: Mean Squared Errors from Forecasting One-Year-Ahead Net Income									
Net Income	19	1.6423	1.6423	2.1719	4.4305	3.4007	6.8561	9.1193	9.1193	2.5617
Core Earnings	19	1.4196	1.4196	1.8503	3.5338	2.7844	5.1574	8.7111	8.7111	2.2493
MSE Difference	19	-2.9046	-2.9046	-1.6988	-0.8967	-0.5391	-0.2790	0.0024	0.0024	0.9229

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), *OIADP* (column 2), *OIADP Adjustments* (column 3), *Cash Flow from Operations* (column 4), *Total Accruals* (column 5), *Core Earnings* (column 6), and *Total Adjustments* (column 7). *Core Earnings* adds to *Net Income* the net non-core expenses identified in the income statement, the footnotes, or 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.1. 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.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Net Income	0.6528***						
	(0.040)						
OIADP		0.8873***					
		(0.017)					
OIADP Adjustments			0.6329***				
			(0.053)				
Cash Flow from Operations				0.8110***			
				(0.019)			
Total Accruals					0.4949***		
					(0.035)		
Core Earnings						0.8219***	
						(0.023)	
Total Adjustments							0.1988***
							(0.028)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	54,734	54,734	54,734	54,734	54,734	54,734	54,734
Adjusted R^2	0.4071	0.7529	0.3893	0.6221	0.2512	0.6270	0.0740
F-Stat	75.94	46.50		94.72		61.99	
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), *OIADP* (columns 3 and 4), *Cash Flow from Operations* (columns 5 and 6), and *Core Earnings* (columns 7 and 8). *Core Earnings* adds to *Net Income* net non-core expenses identified in the income statement, the footnotes, or 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.1. 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 OIADP*		*Forward Cash Flow from Operations*		*Forward Core Earnings*	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Core Earnings	0.6695***	0.3931***	0.0375*	0.1022***	0.3559***	0.1943***	0.8219***	0.5832***
	(0.038)	(0.038)	(0.019)	(0.027)	(0.021)	(0.037)	(0.023)	(0.032)
Net Income	0.1338***	0.1342***		-0.0754***		-0.0991***		-0.0479**
	(0.035)	(0.030)		(0.019)		(0.019)		(0.021)
OIADP		0.2694***	0.8544***	0.8149***		0.4004***		0.2580***
		(0.049)	(0.026)	(0.032)		(0.034)		(0.037)
Cash Flow from Operations		0.0420*		0.0440**	0.6545***	0.5781***		0.0625***
		(0.023)		(0.017)	(0.021)	(0.023)		(0.015)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	54,734	54,734	54,734	54,734	54,734	54,734	54,734	54,734
Adjusted R^2	0.4686	0.4852	0.7532	0.7570	0.6476	0.6600	0.6270	0.6525

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), *OIADP* (column 2), *Cash Flow from Operations* (column 3), and *Core Earnings* (column 4). *Core Earnings* adds to *Net Income* net non-core expenses identified in the income statement, the footnotes, or 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.1. 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 OIADP* (2)	*Forward Cash Flow from Operations* (3)	*Forward Core Earnings* (4)
Net Income	0.7551***	0.7168***	0.9867***	0.7550***
	(0.025)	(0.025)	(0.035)	(0.022)
Net Acquistion Expenses	0.4351*	2.5506***	3.6145***	1.4056***
	(0.156)	(0.171)	(0.397)	(0.125)
Net Currency Expenses	0.3159	1.5943	3.4083*	1.5556
	(1.258)	(0.831)	(1.611)	(1.014)
Net Discontinued Ops Expenses	1.2779***	1.4943***	2.0033***	1.4140***
	(0.117)	(0.102)	(0.189)	(0.090)
Net Legal Expenses	1.1022**	2.6888***	2.1349***	1.6799***
	(0.292)	(0.260)	(0.518)	(0.246)
Net Pension Adjustments	1.1137**	1.4781**	2.9208***	1.7784***
	(0.359)	(0.415)	(0.704)	(0.405)
Net Restructuring Expenses	0.7226***	0.9459***	1.6619***	0.9284***
	(0.055)	(0.079)	(0.110)	(0.057)
Net Company-Defined Other Expenses	0.3972	0.4142	-0.4645	0.5910*
	(0.270)	(0.265)	(0.417)	(0.243)
Net Other Expenses	0.6350***	0.8167***	1.0194***	0.8699***
	(0.054)	(0.039)	(0.070)	(0.079)
Year FE	Yes	Yes	Yes	Yes
Observations	54,734	54,734	54,734	54,734
Adjusted R^2	0.4511	0.5659	0.4435	0.5878

Table 5. Persistence of Adjustment Categories

This table reports the slope coefficient from OLS regressions of the non-core adjustments from a given category of *Core Earnings* in the next fiscal year on the adjustments from the same category in the current fiscal year. Following Table 2, these regressions also include year-fixed effects. Column 1 slope coefficients are estimated using the net adjustments in a given category; in column 2 slope coefficients are estimated using the sum of income-increasing adjustments in a given category; in column 3 the slope coefficients are estimated using only the sum of income-decreasing adjustments in a given category. 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.1. 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.

	(1) Net Adjustments	(2) Income-Increasing Adjustments	(3) Income-Decreasing Adjustments
Acquisitions	0.4065***	0.4220***	0.2967***
	(0.022)	(0.022)	(0.040)
Currency	0.2279*	0.4521***	0.3239***
	(0.118)	(0.118)	(0.044)
Discontinued Operations	0.1298***	0.2064***	0.1868***
	(0.012)	(0.017)	(0.018)
Legal	0.2001***	0.2313***	0.2060***
	(0.021)	(0.024)	(0.033)
Pension	0.6016***	0.7031***	0.6415***
	(0.077)	(0.063)	(0.110)
Restructuring	0.2125***	0.2302***	0.2460***
	(0.041)	(0.048)	(0.030)
Company-Defined Other	0.4243***	0.4277***	0.5172***
	(0.024)	(0.033)	(0.025)
Other	0.2447**	0.1887	0.4090***
	(0.103)	(0.111)	(0.083)

Table 6. Comparing the Predictive Abilities of *Core Earnings* and *Street Earnings*

This table examines the properties of *Core Earnings* for the sample of observations that have *Street Earnings* from IBES. Columns 1-4 report OLS estimation results from regressing one-year-ahead measures of performance on current-period *Core Earnings*, *Street Earnings*, *Net Income*, *OIADP*, and *Cash Flow from Operations*. The measures of future performance are *Net Income* (column 1), *OIADP* (column 2), *Cash Flow from Operations* (column 3), and *Street Earnings* (column 4). *Core Earnings* adds to *Net Income* net non-core expenses identified in the income statement, the footnotes, or the MD&A, following Eq., (1). Columns 5-7 reports OLS estimation results from regressing *Total Adjustments* on *OIADP Adjustments* and *Street Adjustments*. 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.1. 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 OIADP* (2)	*Forward Cash Flow from Operations* (3)	*Forward Street Earnings* (4)	*Total Adjustments* (5)	*Total Adjustments* (6)	*Total Adjustments* (7)
Core Earnings	0.2712***	0.0622*	0.0689*	0.1187***			
	(0.048)	(0.030)	(0.038)	(0.032)			
Street Earnings	0.2389***	0.0878***	0.1592***	0.6695***			
	(0.032)	(0.026)	(0.040)	(0.064)			
Net Income	0.1280***	-0.0829***	-0.0955***	-0.0479**			
	(0.034)	(0.024)	(0.019)	(0.020)			
OIADP	0.2042***	0.7990***	0.3827***	0.1054***			
	(0.046)	(0.042)	(0.037)	(0.028)			
Cash Flow from Operations	0.0250	0.0363*	0.5818***	0.0424***			
	(0.026)	(0.018)	(0.026)	(0.013)			
OIADP Adjustments					0.2361***		0.1162***
					(0.031)		(0.011)
Street Adjustments						0.5497***	0.4741***
						(0.033)	(0.030)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	43,808	43,808	43,808	43,808	43,808	43,808	43,808
Adjusted R^2	0.4912	0.7562	0.6624	0.7253	0.2789	0.5391	0.5866

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.1. 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**	0.0015***	0.0013***	0.0017**	0.0015*
	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)
Earnings Surprise		-0.0018	-0.0014	-0.0013	-0.0015
		(0.002)	(0.002)	(0.002)	(0.002)
Lagged Forecast Revision		0.0613	0.0599	0.0607	0.0611
		(0.042)	(0.041)	(0.042)	(0.042)
Size			-0.0002	-0.0001	-0.0001
			(0.000)	(0.000)	(0.000)
Book-to-Market			-0.0012	-0.0011	-0.0011
			(0.001)	(0.001)	(0.001)
Total Accruals			-0.0007***	-0.0008***	-0.0008***
			(0.000)	(0.000)	(0.000)
OIADP Adjustments				-0.0005	-0.0005
				(0.001)	(0.001)
Street Adjustments					0.0002
					(0.000)
Year FE	Yes	Yes	Yes	Yes	Yes
Observations	43,189	43,189	43,189	43,189	43,189
Adjusted R^2	0.0309	0.0354	0.0383	0.0388	0.0388

Table 8. Future Returns across Deciles of Total Adjustments

This table reports value-weighted average returns in the 12 months following the month in which a firm files its 10-K. Value weights are based on firms' market capitalization in the month prior to their 10-K filings. We summarize these average returns among firms that filed a 10-K in each calendar quarter by deciles of *Total Adjustments* scaled by total assets per share. We also summarize the difference in average returns between the top and bottom deciles ("High – Low"). 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. The first column summarizes value-weighted average 12-month raw returns. The remaining columns report factor loadings and abnormal monthly returns from a calendar-time 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). We report T-statistics based on the time-series of 12 month returns across calendar quarters in parentheses.

	Annual Returns	Factor-Adjusted Alphas and Factor Loadings				
	Raw	ALPHA	MKTRF	SMB	HML	UMD
10 (High Adjustments)	11.927	0.157	0.937	0.188	0.078	-0.225
	(3.71)	(0.78)	(18.46)	(2.97)	(1.19)	-(5.63)
9	9.825	0.197	0.921	-0.058	0.190	-0.091
	(4.34)	(1.55)	(28.75)	-(1.45)	(4.63)	-(3.59)
8	11.532	0.360	0.944	-0.154	0.255	-0.081
	(4.23)	(2.53)	(26.34)	-(3.45)	(5.54)	-(2.87)
7	8.886	0.110	0.957	-0.230	0.219	-0.043
	(4.62)	(0.87)	(30.24)	-(5.85)	(5.41)	-(1.70)
6	10.568	0.023	0.964	-0.143	0.262	-0.069
	(4.63)	(0.17)	(28.01)	-(3.34)	(5.95)	-(2.56)
5	10.875	-0.251	1.050	-0.104	0.268	0.017
	(4.57)	-(1.67)	(27.75)	-(2.22)	(5.52)	(0.58)
4	9.060	0.058	1.089	0.040	0.370	-0.054
	(3.85)	(0.37)	(27.76)	(0.82)	(7.35)	-(1.73)
3	11.149	0.443	1.012	0.054	-0.125	-0.099
	(2.90)	(2.41)	(21.83)	(0.94)	-(2.10)	-(2.71)
2	9.390	-0.108	1.083	0.107	-0.544	-0.101
	(2.90)	-(0.58)	(23.11)	(1.83)	-(9.06)	-(2.73)
1 (Low Adjustments)	3.529	-0.504	1.224	0.130	-0.725	-0.248
	(1.27)	-(1.80)	(17.37)	(1.49)	-(8.02)	-(4.45)
High – Low	8.398	0.661	-0.287	0.057	0.802	0.022
	(2.74)	(1.94)	-(3.34)	(0.54)	(7.30)	(0.33)

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. Cross-sectional-fixed effects, based on the year and quarter of the 10-K filing, are included in all specifications. Variables are defined in Table A.1; however, *Total Adjustments*, *Gross Profit*, *Total Accruals*, *OIADP Adjustments*, *Street Adjustments* and *Special Items* are all scaled by total assets in this table. All explanatory variables are winsorized at the top and bottom 1% of the cross-sectional distribution. 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.

	(1)	(2)	(3)	(4)	(5)	(6)
Total Adjustments	86.813**	71.007**	69.610**	84.325**	84.553***	65.657**
	(2.42)	(2.33)	(2.36)	(2.49)	(3.00)	(2.06)
Size		-4.186***	-3.987**	-5.573***	-5.105***	-4.917***
		(-2.70)	(-2.42)	(-2.79)	(-2.71)	(-2.73)
Book-to-Market		2.324	2.374	1.988	2.536	2.492
		(1.06)	(1.26)	(1.16)	(1.43)	(1.38)
Momentum			-0.037	-0.034	-0.036	-0.037
			(-0.67)	(-0.57)	(-0.61)	(-0.61)
Gross Profit			8.439**	1.834	2.572	3.581
			(2.43)	(0.51)	(0.69)	(1.05)
Share Turnover			-0.199	-0.225	-0.248	-0.254
			(-0.86)	(-1.17)	(-1.35)	(-1.41)
Dispersion				-6.599***	-6.905***	-7.095***
				(-6.90)	(-7.56)	(-7.74)
Coverage				5.202***	4.626***	4.381***
				(2.95)	(2.71)	(2.70)
Total Accruals					-33.136***	-28.456***
					(-2.71)	(-2.65)
OIADP Adjustments					-10.155	-34.493**
					(-0.50)	(-2.03)
Street Adjustments						1.688
						(0.07)
Special Items						-60.360
						(-1.61)
Filing Year-Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	60,295	60,295	60,293	50,056	50,056	49,443
Adjusted R^2	0.0531	0.0634	0.0646	0.0687	0.0698	0.0705

Core Earnings: New Data and Evidence Online Appendix

June 2020

Abstract

This Online Appendix contains supplementary results for the paper "Core Earnings: New Data and Evidence." We establish the robustness of our main findings to alternative implementations and assumptions. Specifically, we show our main findings are qualitatively similar when (i) removing pension adjustments, (ii) limiting our sample to post-2007 data, and (iii) estimating tax effects using cash effective tax rates and statutory tax rates.

1 Overview

In this Online Appendix, we establish the robustness of the main findings in the paper "Core Earnings: New Data and Evidence" to alternative implementations and assumptions. These tests reinforce our main findings and seek to mitigate concerns that our findings are sensitive to the particular implementation used in our main paper.

The tables in this appendix re-estimate three sets of analyses central to our main paper. In the first, we re-examine the cross-sectional persistence of core earnings and non-core-earnings adjustments (Table A.1). In the second set of analyses, we re-examine the ability of different measures of firm performance in year t to forecast measures of performance in year $t+1$ (Table A.2). Finally, in our third set of analyses below, we re-examine the ability of non-core-earnings adjustments to forecast firms' future returns (Table A.3).

Within each set of analyses, we implement and test four alternative measures of core earnings and/or total adjustments denoted by the parenthetical appended to the original variable name. For example, *Core Earnings (No Pensions)* and *Total Adjustments (No Pensions)* are analogous to the variables *Core Earnings* and *Total Adjustments* used in our main paper, but differ by excluding all firm-years in the sample that the data provider identified as having pension-related adjustments to income. These tests examine the sensitivity of our results to the inclusion of firms with pension adjustments.

The variables *Core Earnings (Post-2007)* and *Total Adjustments (Post-2007)* correspond to the same variable used in our main paper but are limited to firm-years from 2008 to 2017. This subsample covers the years after the last major change in the data provider's data parsing and classification processes. Beginning in 2008, the data were parsed and classified on a real-time going-forward basis (with no back-filling). These subsample tests help to mitigate concerns related to potential look-ahead bias in our results.

Finally, we consider two alternative sets of measures that alter the assumed corporate tax rate (and the after-tax impact of the non-core-earnings adjustments). *Core Earnings (Cash ETR)* and *Total Adjustments (Cash ETR)* adjust our main measures by using the cash effective tax rate to measure tax expenses. Following (Dyreng, Hanlon, and Maydew, 2008), we calculate the cash effective tax rate as total cash taxes paid divided by total pre-tax income over the prior 10 years, where we assign a tax rate of 35% for missing observations. Similarly, *Core Earnings (Statutory)* and *Total Adjustments (Statutory)* adjust our main measures by using the statutory tax rate of 35%. These tests help mitigate concerns that our main findings are driven by and sensitive to measurement errors associated with the estimation of tax implications associated with the non-core-earnings adjustments.

References

Dyreng, S. D., M. Hanlon, and E. L. Maydew (2008). Long-run corporate tax avoidance. *Accounting Review 83*(1), 61–82.

Table A.1.

Cross-Sectional Persistence of *Core Earnings* and *Total Adjustments*

This table reports the OLS estimation results from regressing alternative measures of *Core Earnings* and *Total Adjustments* from the next fiscal year on the same measure for the current fiscal year. *Core Earnings (No Pensions)* and *Total Adjustments (No Pensions)* exclude all firm-years in the sample that the data provider identified as having pension-related adjustments to income. *Core Earnings (Post-2007)* and *Total Adjustments (Post-2007)* examine all firm-years from 2008 to 2017. *Core Earnings (Cash ETR)* and *Total Adjustments (Cash ETR)* recalculate the *Core Earnings* and *Total Adjustments* measures by estimating the tax effects of adjustments using the cash effective tax rate, calculated as cash taxes paid divided by pre-tax income. *Core Earnings (Statutory)* and *Total Adjustments (Statutory)* recalculate the *Core Earnings* and *Total Adjustments* measures by estimating the tax effects of adjustments using the statutory tax rate of 35%. All variables are scaled by total shares outstanding and winsorized at the top and bottom 1% of the cross-sectional distribution. 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.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Core Earnings (No Pensions)	0.8000***							
	(0.022)							
Total Adjustments (No Pensions)		0.2093***						
		(0.028)						
Core Earnings (Post-2007)			0.8323***					
			(0.032)					
Total Adjustments (Post-2007)				0.1936***				
				(0.032)				
Core Earnings (Cash ETR)					0.8326***			
					(0.022)			
Total Adjustments (Cash ETR)						0.2106***		
						(0.029)		
Core Earnings (Statutory TR)							0.8245***	
							(0.023)	
Total Adjustments (Statutory TR)								0.2078***
								(0.029)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	41,353	41,353	26,433	26,433	54,734	54,734	54,734	54,734
Adjusted R^2	0.5912	0.0760	0.6341	0.0574	0.6432	0.0812	0.6313	0.0788

Table A.2. 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* (Panel A), *OIADP* (Panel B), *Cash Flow from Operations* (Panel C), and *Core Earnings* (Panel D). *Core Earnings (No Pensions)* and *Total Adjustments (No Pensions)* exclude all firm-years in the sample that the data provider identified as having pension-related adjustments to income. *Core Earnings (Post-2007)* and *Total Adjustments (Post-2007)* examine all firm-years from 2008 to 2017. *Core Earnings (Cash ETR)* and *Total Adjustments (Cash ETR)* recalculate the *Core Earnings* and *Total Adjustments* measures by estimating the tax effects of adjustments using the cash effective tax rate, calculated as cash taxes paid divided by pre-tax income. *Core Earnings (Statutory)* and *Total Adjustments (Statutory)* recalculate the *Core Earnings* and *Total Adjustments* measures by estimating the tax effects of adjustments using the statutory tax rate of 35%. All variables are scaled by total shares outstanding and winsorized at the top and bottom 1% of the cross-sectional distribution. See the main text for additional variable descriptions. 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: *Forward Net Income*			
	(1)	(2)	(3)	(4)
Core Earnings (No Pensions)	0.3900***			
	(0.037)			
Core Earnings (Post-2007)		0.3790***		
		(0.056)		
Core Earnings (Cash ETR)			0.3675***	
			(0.036)	
Core Earnings (Statutory TR)				0.3922***
				(0.038)
Net Income	0.1340***	0.1064***	0.1639***	0.1359***
	(0.039)	(0.023)	(0.031)	(0.030)
OIADP	0.2672***	0.3457***	0.2667***	0.2693***
	(0.054)	(0.050)	(0.048)	(0.049)
Cash Flow from Operations	0.0392	0.0368	0.0404*	0.0414*
	(0.025)	(0.031)	(0.023)	(0.023)
Year FE	Yes	Yes	Yes	Yes
Observations	41,353	26,433	54,734	54,734
Adjusted R^2	0.4589	0.5188	0.4847	0.4846
	Panel B: *Forward OIADP*			
	(1)	(2)	(3)	(4)
Core Earnings (No Pensions)	0.0992**			
	(0.038)			
Core Earnings (Post-2007)		0.1434***		
		(0.036)		
Core Earnings (Cash ETR)			0.0954***	
			(0.030)	
Core Earnings (Statutory TR)				0.1016***
				(0.029)
Net Income	-0.0941***	-0.0977***	-0.0676***	-0.0748***
	(0.028)	(0.025)	(0.019)	(0.019)
OIADP	0.8311***	0.8080***	0.8142***	0.8150***
	(0.036)	(0.048)	(0.033)	(0.033)
Cash Flow from Operations	0.0430**	0.0405	0.0436**	0.0438**
	(0.016)	(0.025)	(0.017)	(0.017)
Year FE	Yes	Yes	Yes	Yes
Observations	41,353	26,433	54,734	54,734
Adjusted R^2	0.7410	0.7680	0.7570	0.7570

Table A.2 Continued.

	Panel C: *Forward Cash Flow from Operations*			
	(1)	(2)	(3)	(4)
Core Earnings (No Pensions)	0.1827***			
	(0.050)			
Core Earnings (Post-2007)		0.2385***		
		(0.048)		
Core Earnings (Cash ETR)			0.1969***	
			(0.033)	
Core Earnings (Statutory TR)				0.1989***
				(0.038)
Net Income	-0.1087***	-0.1312***	-0.0910***	-0.1007***
	(0.030)	(0.022)	(0.017)	(0.020)
OIADP	0.3948***	0.4095***	0.3928***	0.3984***
	(0.035)	(0.043)	(0.033)	(0.033)
Cash Flow from Operations	0.5787***	0.5864***	0.5763***	0.5775***
	(0.023)	(0.032)	(0.023)	(0.023)
Year FE	Yes	Yes	Yes	Yes
Observations	41,353	26,433	54,734	54,734
Adjusted R^2	0.6293	0.6806	0.6602	0.6600

	Panel D: *Forward Core Earnings*			
	(1)	(2)	(3)	(4)
Core Earnings (No Pensions)	0.5975***			
	(0.034)			
Core Earnings (Post-2007)		0.5648***		
		(0.043)		
Core Earnings (Cash ETR)			0.5756***	
			(0.031)	
Core Earnings (Statutory TR)				0.5947***
				(0.033)
Net Income	-0.0668**	-0.0673***	-0.0264	-0.0543**
	(0.024)	(0.016)	(0.020)	(0.021)
OIADP	0.2548***	0.3225***	0.2500***	0.2555***
	(0.037)	(0.032)	(0.036)	(0.037)
Cash Flow from Operations	0.0558***	0.0596**	0.0622***	0.0608***
	(0.015)	(0.022)	(0.014)	(0.015)
Year FE	Yes	Yes	Yes	Yes
Observations	41,353	26,433	54,734	54,734
Adjusted R^2	0.6180	0.6699	0.6661	0.6559

Table A.3. 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. Cross-sectional-fixed effects, based on the year and quarter of the 10-K filing, are included in all specifications. *Core Earnings (No Pensions)* and *Total Adjustments (No Pensions)* exclude all firm-years in the sample that the data provider identified as having pension-related adjustments to income. *Core Earnings (Post-2007)* and *Total Adjustments (Post-2007)* examine all firm-years from 2008 to 2017. *Core Earnings (Cash ETR)* and *Total Adjustments (Cash ETR)* recalculate the *Core Earnings* and *Total Adjustments* measures by estimating the tax effects of adjustments using the cash effective tax rate, calculated as cash taxes paid divided by pre-tax income. *Core Earnings (Statutory)* and *Total Adjustments (Statutory)* recalculate the *Core Earnings* and *Total Adjustments* measures by estimating the tax effects of adjustments using the statutory tax rate of 35%. See the main text for additional variable descriptions; however, *Total Adjustments*, *Gross Profit*, *Total Accruals*, *OIADP Adjustments*,*Street Adjustments* and *Special Items* are all scaled by total assets in this table. All explanatory variables are winsorized at the top and bottom 1% of the cross-sectional distribution. 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.

	(1)	(2)	(3)	(4)
Total Adjustments (No Pensions)	76.322**			
	(2.19)			
Total Adjustments (Post-2007)		101.968**		
		(2.22)		
Total Adjustments (Cash ETR)			73.609**	
			(2.28)	
Total Adjustments (Statutory TR)				76.178**
				(2.26)
Size	-6.868***	-3.932	-5.393***	-5.387***
	(-2.76)	(-1.49)	(-2.70)	(-2.69)
Book-to-Market	2.694	2.607	3.144	3.151
	(1.46)	(0.95)	(1.65)	(1.65)
Momentum	-0.015	-0.158	-0.041	-0.041
	(-0.29)	(-0.94)	(-0.66)	(-0.66)
Gross Profit	2.511	-2.824	2.475	2.468
	(0.65)	(-0.67)	(0.69)	(0.69)
Share Turnover	-0.202	-0.204	-0.219	-0.219
	(-1.02)	(-1.09)	(-1.13)	(-1.13)
Dispersion	-7.364***	-8.133***	-7.107***	-7.101***
	(-6.97)	(-6.14)	(-7.77)	(-7.79)
Coverage	5.347***	5.003	4.696**	4.690**
	(2.78)	(1.55)	(2.60)	(2.59)
Total Accruals	-32.313***	-48.074***	-30.572***	-30.553***
	(-2.89)	(-2.80)	(-2.84)	(-2.84)
OIADP Adjustments	-37.998*	-16.553	-28.222	-28.533
	(-1.91)	(-0.53)	(-1.51)	(-1.49)
Street Adjustments	-20.623	-22.777	-4.253	-2.927
	(-0.94)	(-1.03)	(-0.15)	(-0.10)
Special Items	-46.972	-86.640***	-50.408	-52.226
	(-1.24)	(-2.90)	(-1.29)	(-1.33)
Filing Year-Quarter FE	Yes	Yes	Yes	Yes
Observations	33,476	22,730	45,460	45,460
Adjusted R^2	0.0779	0.0838	0.0753	0.0753