The superiority of earnings over cash flows in predicting cash flows available to investors over the long run*

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Abstract

Recent research has reignited the debate over whether earnings or cash flows better predict future cash flows. These studies and prior work generally focus on predicting future operating cash flows over the short run (one to three years ahead). In contrast, we examine the ability of earnings versus cash flows to predict cash flows available to investors after investment outlays over the long run (up to 20 years), which have a greater impact on equity valuation than near-term operating cash flows. We show that earnings dominate cash flows in predicting free cash flows over the long run, and this superiority is attributable in part to earnings' inclusion of long-term investment accruals. We also find the superiority of earnings over cash flows and the importance of long-term investment accruals are more pronounced among firms with more volatile investment activities and longer investment cycles. Overall, our results help explain why earnings, not cash flows, are the predominant metric used for valuation and contracting purposes.

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1. Introduction

Standard setters have long asserted that accrual-based earnings are a more useful summary measure of performance for investors than current cash flows because earnings better predict future cash flows to the entity and thus to investors (see FASB SFAC1). A sizeable literature tests this assertion, focusing primarily on predicting future cash flows from operations over the short run (i.e., the next one to three years), but the results have been mixed. Two recent studies have renewed debate in this area. Nallareddy et al. (2020) emphasize the importance of measuring cash flows from the statement of cash flows rather than the balance sheet. They do so and find that operating cash flows outperform earnings in predicting future operating cash flows. In contrast, Ball and Nikolaev (2022) highlight the need to remove non-operating items from earnings and to predict cash flows within firms. In doing so, they find that various operating earnings measures have similar or better predictive ability compared with current operating cash flows.

In this study, we deviate from this recent research and prior work in three important ways: (1) We go beyond operating cash flows and focus on cash ultimately flowing to investors. While operating cash flows are no doubt important, the value of a firm's equity is ultimately determined by the present value of expected dividends, which are future net cash flows available to equity holders after investment outlays (and debt financing); (2) We examine the prediction of future cash flows over the long run (i.e., up to twenty years). Evidence on predicting long-run cash flows is important because cash flows over longer horizons beyond the near term have a greater impact on equity value and the predictive ability of earnings relative to cash flows can differ between shorter and longer prediction horizons (Finger 1994); (3) We examine the role of investment accruals in enhancing earnings' ability to predict cash flows. To our knowledge, we are the first study to examine the role of long-term accruals – which are more economically significant than working capital accruals (Larson et al. 2018) – in mitigating timing and matching problems in cash flows and thereby enhancing earnings' ability to predict cash flows.

We posit that the superiority of earnings over cash flows is more likely to manifest itself in predicting cash flow measures that are more directly linked to equity value over a longer horizon. The predictive ability of earnings relative to cash flows stems from the role of accruals in adjusting cash flows for timing and matching problems related to operating and investment activities (e.g., Dechow 1994; Dechow et al. 1998). Compared to working capital accruals, which help predict operating cash flows, investment accruals can enhance earnings' ability to predict cash flows after investment expenditures. However, the role of accruals in predicting cash flows depends critically on the cycle from cash outlay to cash receipt (Dechow 1994; Dechow et al. 1998). Compared to the operating cycle (i.e., the cycle from the outlay of cash for inventory to receipt of cash from sales), the investment cycle (i.e., the cycle from the outlay of cash for long-term investments to receipt of cash from the investments) is much longer. As a result, investment accruals shift cash flows over much longer time periods and thus play a more important role in enhancing earnings' ability to predict cash flows over a longer horizon.

To illustrate, consider predicting cash flows available to investors for a firm with a long investment cycle. When the firm makes a long-term, positive NPV investment in the current year, this investing activity will reduce cash flows in the current year but increase cash flows in the long run, generating a significant difference in the timing of cash outlays and inflows. Thus, lower current cash flows will be a poor predictor of the higher long-run cash flows. In contrast, current earnings use investment accruals to shift current cash outlays to future periods (via capitalization and depreciation). By matching payoffs from investment with the outlays needed to generate those payoffs, earnings provide a better measure (and predictor) of the firm's long-run cash flows. We note that because investing activity can persist over multiple consecutive years, current cash flows after investment may be the best predictor of future cash flows after investment in the short run. However, in the long run, as cash receipts from past investment are realized, we expect current earnings to outperform current cash flows in predicting long-run cash flows available to investors.

To test these hypotheses, we compare earnings' versus cash flows' ability to predict free cash flows (FCF, operating cash flows less net capital expenditures) over a long horizon of 20 years. We choose FCF for our main tests because long-run FCF is the key driver of long-run cash flows available to investors. To benchmark our results with prior literature, we also predict cash flows from operations (CFO, from the statement of cash flows) over long horizons, but FCF is our primary focus.

Our measure of earnings is "bottom-line" earnings (i.e., income before extraordinary items) excluding special items (IBSI). We exclude special items because they are one-time, non-recurring charges with low predictive power and are typically excluded by analysts and investors in forecasting and valuation. However, inferences are qualitatively similar if we use "bottom-line" earnings (IB). For our primary analyses we use a constant sample of firms that have at least 20 years of available future cash flow data from 1987 to 2020. To gauge the predictive ability of earnings vs. cash flows, we run pooled predictive regressions and compare the explanatory power (Adj. R^2) of earnings and cash flows.

As a baseline comparison to prior work, we begin with the prediction of future CFO. Consistent with Nallareddy et al. (2020), we find that current CFO outperforms current earnings in predicting near-term CFO. Examining longer horizons, we find that current CFO continues to outperform earnings. However, consistent with Ball and Nikolaev (2022), we find that once depreciation is removed from CFO (because CFO has no investment component), current earnings perform equally well as current CFO in predicting near-term CFO. Interestingly, and consistent with our predictions, we find that earnings outperform current CFO in predicting long-run CFO, which is a key insight from our long-run focus.

Next, for our main tests, we examine the prediction of future FCF. We find that similar to CFO prediction, current FCF outperforms current earnings in predicting future FCF over short horizons. However, as we cumulate FCF over a longer horizon, FCF's predictive power decreases monotonically and quickly, with an explanatory power of 27, 18, and 11 percent for a horizon of 1, 10 and 20 years, respectively. In contrast, earnings' predictive power actually increases from short to intermediate horizons and then falls only moderately from intermediate to long horizons, with an explanatory power of 13, 21, and 17 percent for horizons of 1, 10 and 20 years, respectively. These results highlight our primary finding and key takeaway: current earnings dominate current FCF in predicting long-run FCF.

We subject this main finding to a battery of additional tests to ensure robustness. First, we address a potential concern about survivorship bias: non-survivors might affect our results if they survived and were included. At a high level, we note that even in our constant sample of firms, we find very similar patterns to recent research (CFO dominates bottom-line earnings in predicting CFO over short horizons), which mitigates concerns our main findings are due simply to different sample constituents. More importantly, we find similar results when we (1) include the universe of firms and conduct our analysis at the industry level, which only requires industries, not firms, to survive long horizons, or (2) impute non-survivors' cash flow data using a procedure similar to Kothari et al. (2002). These results suggest survivorship bias is unlikely to drive our findings. Second, because equity value is a function of the cumulative cash flows available to investors, we cumulate cash flows for each horizon in our tests. However, our results are robust to predicting individual future years' cash flows. Third, we find similar patterns if we discount cumulative future cash flows using cost of equity capital estimates. Fourth, we find our inferences hold in out-of-sample tests.

After ensuring robustness, we next explore the role investment accruals play in our findings. We show that removing accruals for investment expenditures increases earnings' predictive power for near-term FCF but decreases its ability to predict long-run FCF. As expected, this pattern occurs because investment expenditures are persistent or "sticky" in the near term. Thus, FCF forecasts itself well in the short run, but poorly in the long run, when payoffs to past investment emerge in future cash flows. As a result, earnings, using accruals to better match current investing cash outflows with future long-run inflows, provide a better predictor of long-run FCF. Further, in contrast to its negative impact on earnings' ability to predict future CFO, we find that depreciation enhances earnings' ability to predict future FCF, highlighting the role of depreciation in better matching the costs of investments with their benefits.

We then examine the cross-sectional variation of our findings for predicting FCF with the volatility of investment expenditures and the length of the investment cycle. If investment accruals help earnings predict long-run FCF by adjusting the timing difference between cash outflows for investments and cash inflows from those investments, then the superiority of earnings over FCF in predicting long-run FCF should be more pronounced for firms with more volatile investment expenditures and longer investment cycles. Our cross-sectional tests yield evidence in support of these expectations.

Next, we decompose earnings into its accrual components: capitalized investment, working capital accruals, depreciation, and other accruals. Focusing on regression slopes, we show that each component plays an important role in the superior ability of earnings at predicting long-run free cash flows. Specifically, investments in capital assets, working capital, and other accruals predict long run cash inflows, while depreciation predicts cash outflows, as capital-intensive firms must maintain capital spending in the future. Importantly, we show our main findings are not driven by depreciation simply "smoothing out" past capital spending to better predict future capital spending. In fact, we find earnings better predicts future FCF even when we exclude depreciation from earnings or examine firms where depreciation predicts future capital spending relatively poorly.

For our final tests, we examine the prediction of cash flows available to equity investors (FCFE), which equal FCF after net debt financing, and are the ultimate cash flows available for dividends or share repurchases. As expected, we find that earnings better predict future FCFE than FCFE itself, over both short and long horizons.

Overall, our findings contribute to the cash flow prediction literature in several ways. First, we move the literature beyond a focus on predicting near-term CFO. Investors likely care more about cash flows that will accrue to them over long horizons, net of investing outlays. Second, in contrast to prior literature that has mainly focused on working capital accruals, we offer new evidence on the role of long-term investment in enhancing earnings' ability to predict cash flows. Our study thus answers the call by Larson et al. (2018) to better understand the role of long-term accruals. Third, we show that the superior ability of earnings over cash flows to predict future cash flows varies systematically across firms with the volatility of investing activities and the length of the investment cycle.

Our results also help resolve a puzzle in the literature. Cross-sectional regressions show that "bottom-line" earnings dominate cash flows in explaining stock returns (e.g., Dechow 1994) but cash flows beat "bottom-line" earnings in predicting future operating cash flows (Nallareddy et al. 2020; Ball and Nikolaev 2022). This begs the question: If earnings are more useful in explaining the cross section of equity valuation, how can they be less useful in predicting future cash flows cross-sectionally? Our results show that the key is that earnings are a superior predictor of the long-run future cash flows that investors likely care most about.

Our overall conclusion – earnings are more useful for cash flow prediction than current cash flows – is consistent with Ball and Nikolaev (2022). However, the reasons for our conclusion are distinct from theirs and we offer several new findings to the literature. Importantly, they do not examine measures of cash flows available to investors over long horizons, which are the focus of our study; nor do they examine the role of long-term accruals. Our findings complement theirs in at least two important ways. First, compared to the prediction of near-term CFO, our analysis reveals that the superior predictive ability of earnings is much more significant (e.g., adjusted R^2 differences that are 7 to 15 times larger) when forecasting broader cash flow measures over the long run. Second, our analysis shows *why* – the accrual processes for long-term investment activities contribute significantly to these patterns.

The next section reviews prior research and develops our hypotheses. Section 3 describes our research design. Section 4 reports our sample construction and empirical findings. Section 5 concludes the paper.

2. Prior research and hypothesis development

2.1. Prior research

Whether earnings or cash flows provide a better summary measure for predicting future cash flows is a central question in the accounting literature. One line of research addresses this question by comparing the relative ability of earnings versus cash flows at predicting future cash flows. Evidence from this research is mixed. As shown in Appendix A, about half of the studies report that earnings outperform cash flows (e.g., Dechow et al. 1998; Kim and Kross 2005), while the other half find the opposite (e.g., Bowen et al. 1986; Subramanyam and Venkatachalam 2007).

As discussed in the previous section, Nallareddy et al. (2020) show that the conflicting evidence from prior research is largely driven by measurement error from using the balance sheet approach to measure CFO. Using the cash flow statement approach to measure CFO, they show with cross-sectional and firm-specific regressions that current CFO outperforms current earnings in predicting CFO over the future 1 to 3 years. For example, they report that current CFO's explanatory power for next year's CFO is about 1.5 times that of current earnings. Ball and Nikolaev (2022) report similar findings comparing "bottom-line" earnings and current CFO using cross-sectional regressions. However, when they remove non-operating items and/or allow for firm heterogeneity (via firm fixed effects or firm-level regressions), Ball and Nikolaev (2022) find that various earnings measures have either equal or better predictive ability for future CFO relative to current CFO.

As shown in Appendix A, prior studies generally focus on predicting future CFO over the short run. The only study that examines a prediction horizon of more than 5 years is Finger (1994), who analyzes a small sample of 50 firms to examine the prediction of CFO over the future 1 to 8 years. Interestingly, Finger (1994) finds that the relative predictive ability of earnings versus cash flows varies with prediction horizon. For example, she reports that relative to current earnings, current CFO is a better predictor of one-year-ahead CFO, but performs equally well in predicting eight-years-ahead CFO. A few studies have examined broader cash flow measures over short horizons. Bowen et al. (1986) and Nallareddy et al. (2020) examine FCF and find that current FCF outperforms current earnings in predicting next year's FCF. However, allowing for heterogeneity in prediction across firms, Ball and Nikolaev (2022) find their current earnings measures either perform similarly or outperform current FCF in predicting next year's FCF.[1]

Another line of research provides evidence on this question by comparing the ability of earnings versus cash flows to predict stock prices – a proxy for expected future cash flows (e.g., Ball and Brown 1968; Beaver and Dukes 1972; Dechow 1994). In contrast to the mixed findings from testing cash flow prediction (e.g., Nallareddy et al. 2020), results from this line of research consistently indicate that earnings dominate cash flows in explaining stock prices and returns. For example, Dechow (1994) shows that annual earnings' explanatory power for contemporaneous returns is more than 5 times that of annual CFO. One concern with current stock prices or returns is that investors may fixate on reported earnings (Sloan 1996). To avoid this bias, Subramanyam and Venkatachalam (2007) construct a measure of ex-post intrinsic value of equity using discounted dividends and stock prices three years ahead. They find that earnings continue to dominate CFO in explaining this measure.

We provide new evidence on this question by focusing on the relative ability of earnings versus various cash flow measures (CFO, FCF) to predict cash flows over the long run. In contrast to prior research, our focus is on the prediction of future cash flows available to investors over the long run, which are a more important determinant of equity value. To our knowledge, no prior studies offer such evidence. In doing so, we also highlight the importance of long-term investment accruals, which have received scant attention in prior work, but play a critical role in enhancing earnings' predictive ability.

[1] Related to the literature on the *relative* predictive ability of earnings versus cash flows, some studies find that current accruals have *incremental* ability over current cash flows in predicting future cash flows (e.g., Barth et al. 2001, 2016).

2.2. Hypotheses

We begin with some terminology. We define accruals as any difference between an earnings measure and a cash flow measure. IBSI ("bottom-line" earnings excluding special items) is our main earnings measure and we compare it primarily to two cash flow measures: CFO and FCF. Comparing IBSI to CFO, the primary differences are working capital accruals (WC) and depreciation expense (DEPR). Thus,

IBSI = CFO + WC – DEPR + OTH ACC

Since FCF equals CFO less net investment spending (NET INV), comparing IBSI to FCF adds net investment spending as an additional accrual. These outlays reduce FCF, but are capitalized and depreciated in earnings. We refer to net investment spending less depreciation collectively as "investment accruals," so when comparing IBSI and FCF, the primary accruals are working capital and investment accruals. Thus,

IBSI = FCF + NET INV + WC – DEPR + OTH ACC

In one test, we also examine the prediction of free cash flows available to equity holders (FCFE), which equals FCF plus debt financing cash flows. This adds the net change in debt as an additional accrual (Richardson et al. 2005).

Since CFO is the primitive construct underlying FCF, our first hypothesis involves predicting long-run CFO. Nallareddy et al. (2020) find that CFO dominates earnings in predicting future CFO up to three years ahead. However, as Ball and Nikolaev (2022) observe, CFO does not include any investment spending, so the inclusion of depreciation in earnings creates an "apples to oranges" problem that hampers the ability of earnings to predict future CFO.[2] In cross-sectional

[2] This is compounded by the fact that depreciation, which reduces earnings, actually predicts higher future CFO (Barth et al. 2001). Barth et al. (2001) conjecture that because depreciation is driven by investment, and investment is generally undertaken when it has positive NPV in expectation, higher depreciation should predict higher CFO in the future, all else equal.

regressions, Ball and Nikolaev (2022) find that earnings excluding depreciation and other non-operating items has *similar* predictive ability to CFO in predicting *near-term* CFO. Extending this finding, we expect earnings excluding depreciation will have *superior* predictive ability over current CFO in predicting *long-run* CFO.

To see why, we note that earnings contain working capital accruals, which help mitigate timing and matching problems in CFO (Dechow 1994). For example, firms spend cash to invest in inventory, which reduces current CFO, in anticipation of profitable sale of the inventory, which boosts future CFO. This timing and matching problem hampers the predictive ability of current CFO. Working capital accruals (i.e., via an increase in inventory) ensure that earnings are not reduced for this outlay and will therefore better predict future CFO. We expect the benefits of these accruals to grow as the prediction horizon lengthens. In the short run, firms may have somewhat persistent high or low CFO due to working capital decisions. For example, a firm may invest heavily in inventory for several periods, depressing CFO, or a firm might aggressively collect (delay) payments from customers (to suppliers) for several periods, raising CFO. These decisions can help CFO predict itself well over a short horizon, but in the long run, these patterns are not sustainable. Working capital accruals – which offset these *short-term* changes to cash – can therefore provide a better projection of the *long-run* operating cash flows of the business. We therefore predict:

H1: Earnings excluding depreciation will have superior ability relative to current CFO in predicting long-run CFO

We next turn to our primary predictions related to FCF. Nallareddy et al. (2020) report that, compared to earnings, FCF better predicts future FCF, up to three years ahead. We expect this pattern to reverse in the long run. To see why, recall that FCF = CFO – NET INV. Investment spending is likely to be persistent in the short run. For example, firms may spend heavily on investment for several consecutive years due to life cycle or capital budget plans that take time to implement. Since investment spending likely predicts itself well in the short run, so will FCF. However, in the long run, this stickiness in investment spending will dissipate, and the payoffs from investment will begin to manifest in future CFO, boosting future FCF. This means *lower* current FCF portends *higher* long-run future FCF, which hurts the predictive ability of FCF. This is the same concept as that in the inventory example above, just over a longer horizon.

Earnings, via investment accruals, address this issue by capitalizing investment spending and spreading it out (through depreciation) over the payoff period. In the language of Dechow (1994), these investment accruals mitigate the matching/timing problems inherent in cash accounting for investment. Earnings, with payoffs from past investment matched against the depreciation needed to generate those payoffs, provide a better picture of the long-run operating cash flows of the business, after taking investment spending into account. We therefore predict:

H2a: Earnings outperform free cash flows in predicting future free cash flows over the long run.

H2b: Investment accruals enhance the ability of earnings to predict future free cash flows, and these accruals grow in importance over the length of the predictive horizon.

We expect the matching/timing problems with cash accounting for investment will be more (less) acute when investment is more volatile (stable) and/or takes a longer (shorter) time to pay off. For example, if a firm is in a steady state and investment is stable every year, there is no difference between cash accounting versus capitalize-and-amortize accounting, so investment accruals are not critical. Likewise, if investment payoffs manifest quickly in CFO, then matching issues with cash accounting for investment are mitigated. We therefore predict:

H2c: Investment accruals are more important in enhancing the long-run predictive ability of earnings for firms with more volatile investing environments and for firms with longer investment cycles.

3. Research Design

To test the predictive ability of cash flows versus earnings (H1 and H2a), we compare the adjusted R^2 from the following OLS regressions:

$$\sum_{t+1}^{t+i} \text{CashFlow} = \text{CashFlow}_t + \varepsilon \quad (1)$$

$$\sum_{t+1}^{t+i} \text{CashFlow} = \text{Earn}_t + \varepsilon \quad (2)$$

where CashFlow is one of our two main cash flow measures (i.e., CFO, FCF), and Earn is our primary measure of earnings, IBSI. Ball and Nikolaev (2022) point out that to evaluate the relative predictive power of earnings and cash flows one should use comparable measures. In our case, IBSI is not perfectly comparable to FCF, as it includes certain items that never flow through FCF (e.g., some non-operating income). Thus, in the Online Appendix we re-run our tests of FCF prediction and show our results hold for alternative measures of earnings. All variables are defined in detail in Appendix B. We note two things related to the equations above.

First, the dependent variables in (1) and (2) are *cumulative* future cash flows, up to 20 years ahead, since equity values are a function of the cumulative cash flows expected to flow to investors. We believe this design choice makes the most sense given our long-run focus, but in Section 4, we report similar findings if we simply use future cash flows each year. Second, the regressions in (1) and (2) use pooled cross-section and time-series data, which is a common approach in the cash flow prediction literature. However, some studies also utilize firm-specific and/or annual, cross-sectional regressions. Because our prediction horizon extends to 20 years, such estimation approaches would rely on small sample sizes (e.g., a *maximum* of n=13 at the longest horizon for firm-specific regressions). Thus, we do not use these specifications in our tests. In Section 4, we discuss out-of-sample prediction tests, which corroborate our main results.

To measure the various accrual components to test H2b, we define all cash flow and accrual measures using the statement of cash flows to avoid any measurement error in cash flows and accruals from the balance sheet approach (see Nallareddy et al. 2020). All cumulative measures for each year $t + i$ are scaled by the average total assets over the years t to $t + i$. For example, Cumulative FCF in year $t + 2$ is scaled by the average of total assets at the end of years t, $t + 1$, and $t + 2$. To test our predictions in H2c, we divide our sample based upon the extreme quintiles of volatility in investment spending and length of the investment cycle.

4. Sample and Empirical Findings

4.1. Sample

Panel A of Table 1 summarizes our sample selection procedures. Our sample begins with all firm-years in the Compustat annual file from 1987 to 2020. We start in 1987 due to the availability of statement of cash flow data. We eliminate firm-years with share prices less than $1, negative reported assets, sales less than $10 million, or missing earnings or cash flow data.[3] We also remove financial firms because working capital and investment accruals are not well defined for these firms. Finally, we only retain firm-years that have at least 20 years of future cash flow data available for prediction. Thus, we use earnings and cash flows from 1987 to 2000 to predict cash flows from 1988 to 2020. Our final sample consists of a constant 12,518 firm-years for each predictive horizon. We note that our sample captures the majority of economically significant firms over the last 40 years. For example, our sample includes 75% of non-financial S&P 500 firms as of 2019 (untabulated).

Panels B and C of Table 1 present standard descriptive statistics and correlations. CFO is more positive than IBSI due to the exclusion of depreciation expense. FCF is lower than CFO as most firms have positive net investment, but it is also more volatile. The correlations are as

[3] In untabulated tests, we find similar results if we require firms to have average share prices above $1 and average sales above $10 million.

expected, with negative correlations between working capital accruals and CFO, and net investment and FCF, and a positive correlation between depreciation and net investment.

4.2. Predicting CFO

As a baseline, and to benchmark our findings against prior work, we begin with predictive regressions of cumulative future CFO. Table 2 presents the results. Column 1 reports adjusted R^2 when current CFO is used to predict future CFO, while column 2 uses IBSI as the predictor variable. Figure 1 plots these patterns in adjusted R^2 across horizons. CFO outperforms the earnings measures in predicting future cumulative CFO, in every horizon, up to 20 years ahead ($p < 0.01$). The dominance of CFO over bottom-line earnings in predicting future CFO is consistent with Nallareddy et al. (2020) and other studies (e.g., Finger 1994; Lorek and Willinger 2009), and we show here this dominance extends up to 20 years into the future.

Consistent with Ball and Nikolaev (2022), depreciation expense hurts the predictive ability of earnings for future CFO. Note how the adjusted R^2 for earnings increases ($p < 0.01$) once depreciation is removed in Table 2. This is attributable to the "apples to oranges" problem discussed in Section 2. In fact, Ball and Nikolaev (2022) find that operating income before depreciation has the same predictive ability as current CFO when predicting one-year-ahead CFO in cross-sectional and pooled regressions. We find a similar pattern for predicting one-year-ahead CFO.[4] However, over the long run, starting at about a 7-year horizon, we find that earnings stripped of depreciation significantly outperforms CFO in predicting future CFO. This is consistent with H1 and is an important, new insight that a short horizon prediction test would not be able to uncover.

[4] We note that operating income before depreciation per Compustat and IBSI + DEPR are not equal. The latter contains expenses not included in the former that do impact CFO (i.e., interest and taxes).

4.3. Predicting FCF

For our primary tests, we next examine the prediction of future FCF.[5] To test H2a, Table 3 compares the predictive ability of FCF itself (column 1) to IBSI (column 2), and Figure 2 presents the adjusted R^2 lines visually. Consistent with Nallareddy et al. (2020), we find that FCF is a better predictor of future FCF in the short run. Specifically, FCF is a better predictor of future cumulative FCF than IBSI up to about a six-year horizon. However, as we conjecture in H2a, earnings, are a better predictor of *long-run* future FCF. This can be readily seen in Figure 2 by the "cross-over" of the adjusted R^2 lines for earnings above FCF as the horizon lengthens. This is a key insight from our study. It highlights the importance of examining FCF over a long horizon. The takeaway is that the cash flows accruing to investors over the long run must account for, or be net of, investment outlays, and earnings do a better job of forecasting these cash flows than cash flows themselves. Because this is a key result from our study, we next conduct a variety of tests to ensure this finding is robust.

4.4. Robustness of Main Findings

4.4.1. Survivorship concerns

A common concern with studies that require long predictive horizons is that non-survivors are excluded from the sample (e.g., due to mergers or delisting). This could generate a potential survivorship bias if the inclusion of these non-survivors would have changed inferences (assuming they had survived). This concern can be mitigated but never eliminated in any prediction study. As discussed in the introduction, we note that in our sample we find similar one to three-year results regarding CFO and FCF prediction as Nallareddy et al. (2020), who only require one to

[5] Free cash flows are defined as cash flows from operations less cash flows from extraordinary items and discontinued operations minus net capital spending (sppe – capx). However, our findings are unchanged if we subtract stock-based compensation expense from our measures of free cash flows (Mohanram et al. 2020).

three-year survival. Thus, even in our restricted sample, we find the same basic patterns for cash flow prediction as prior research.

We conduct two robustness tests to mitigate survivorship concerns. In the first test, we include the universe of firms and re-run our main tests at the industry level rather than at the firm level. For each year from 1987 to 2000 and each Fama-French 48 industry (excluding financials), we take the average values of cash flows and earnings using all firms in Compustat with available data. We then run our regressions using these industry level data, predicting future cumulative cash flows from 1988 to 2020.[6] The idea is the same timing/matching issues discussed in Section 2 should aggregate up to the industry level. For example, if an industry has a long investment cycle, we expect industry FCF to predict itself well in the short run, but lose to industry earnings in the long run. An advantage of this approach is we require only an industry, not a firm, to survive for at least 20 years. Non-survivors thus remain in the sample (for the years they are available) and help proxy for the earnings and cash flow activity of their industry.

Panel A of Table 4 presents results for the prediction of cumulative industry FCF. Similar to our firm-level results, industry FCF beats IBSI in predicting future FCF in the first 12 years (although they are not statistically different after 10 years), after which industry IBSI starts beating industry FCF.

In our second survivorship test, we follow the approach in Kothari et al. (2002) by keeping non-survivors in the sample and imputing their future cash flows. Specifically, we calculate the Z-score from Altman (1968) for each firm-year with available earnings and cash flow data in Compustat during our sample period. Each year, we assign firms to deciles based on their Z-score,

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[6] Specifically, for our cumulative measures, we take the average for each industry-year and cumulate those averages across years. Results are similar if, instead of taking averages, we sum the measures for all firms in each industry-year, and cumulate those totals across years.

and calculate the average future cash flows for each Z-score decile. For any future firm-year with missing data, we assign the average cash flows of the Z-score decile that the firm belongs to. This process leads to a much larger sample size of 51,247 observations for these tests. Panel B of Table 4 presents these results. Not surprisingly, the adjusted R^2 values in this table are lower due to firm-level future cash flows being imputed rather than observed. However, the same pattern we see in our main test is evident here. FCF beats IBSI in early years, but beginning in year 9 IBSI is a statistically stronger predictor of future cumulative FCF. Overall, the results in Table 4 suggest that survivorship bias is unlikely to drive our findings.

4.4.2. Predicting individual years and out-of-sample tests

Although we believe cumulative cash flows make the most sense as a primary measure, most prior literature evaluates the relative ability of earnings and cash flows at predicting cash flows in individual years in the future. Thus, in this section we test the robustness of our result to the prediction of free cash flows in individual years in the future, instead of cumulative measures. In Panel A of Table 5, we test the relative predictive ability of FCF and IBSI at predicting FCF in each individual year in the future. We see a similar pattern as that using cumulative measures, with FCF being a better predictor in the near term, but being dominated by IBSI in later years. Moreover, these tests show FCF is only a statistically stronger predictor for the first 3 years, whereas IBSI becomes a statistically significant predictor in year 6, and remains so up to year 20. These results suggest earnings are superior at predicting FCF for horizons beyond the very short term, suggesting it is a more useful metric for predicting the cash flows of firms expected to survive in the long run.

Using individual year tests has the added advantage of allowing us to assess the robustness of our result to out-of-sample tests. In Panel B, we show the results of conducting out-of-sample tests similar to those in Nallareddy et al. (2020). Specifically, for each year in our sample period, we estimate two sets of cross-sectional regressions (one using IBSI and the other using FCF as the explanatory variables) with predictive horizons from 1 to 20 years ahead. We then use the coefficients from these models, applied to the following year's earnings and cash flows, to forecast future cash flows for each estimation horizon, and compare prediction errors. For example, we run cross sectional regressions of the ability of earnings and FCF in 1990 to predict FCF in 2000. We apply the coefficient estimates of those regressions to actual earnings and cash flows in 1991, yielding our forecasts for 2001 FCF. We then compare which of the two forecasts (the one based on earnings or the one based on cash flows) has a smaller predictive error. We do a similar exercise for each year in our sample and for each horizon, and test differences in prediction errors between earnings and cash flows using the Diebold and Mariano (1995) statistic.

The results, presented in Table 5, Panel B are remarkably similar to those of our pooled OLS tests in Panel A. FCF has lower prediction errors for the first 4 years, but IBSI begins to have lower prediction errors in year 5, and continues to do so up to our longest horizon of 20 years, the difference being statistically significant for every horizon starting with year 6. Overall, the results in this section support our argument that, in examining the relative ability of earnings and cash flows to predict future cash flows, it is important to evaluate longer horizons and more relevant measures. Previous research rarely evaluated horizons beyond 3 years (see Appendix A), but we show that inferences change once the horizon is extended beyond the very short run.

4.4.3. Discounted cash flows

An additional concern with our main results is related to our use of undiscounted cash flow measures. Similar to previous research, the main objective of our paper is to test the ability of earnings relative to cash flows at predicting cash flows in the future. We argue using undiscounted future cash flow measures is better suited for a purely predictive exercise. However, our findings are only relevant for equity valuation if earnings can predict discounted cash flows better than cash flow measures themselves. From that perspective, holding the ability to predict cumulative future cash flows constant, predicting near-term cash flows is more important. Thus, in this section we show that our primary finding holds when predicting discounted cash flows, which can help explain why prior literature finds earnings are more important than cash flows for equity valuation.

To do so, we re-estimate our main tests using a measure of discounted future cumulative cash flows as our dependent variable. We follow prior research in estimating discount rates (Francis et al. 2000; Subramanyam and Venkatachalam 2007). Specifically, we set discount rates equal to one plus the industry cost of equity, estimated using the model $R_f + \beta[E(r_m) - R_f]$. R_f is the risk-free rate, estimated as the sum of the 1-month treasury bill rates over the previous 12 months. To estimate the industry beta factor β, we first estimate firm-specific beta coefficients from daily market model regressions estimated over the previous fiscal year. We then take the average coefficient for each Fama-French 48 industry, and assume an equity market premium $[E(r_m) - R_f]$ of 6 percent. We apply these estimated discount rates to cash flows in each future year before cumulating the discounted cash flows for each horizon. The results for these tests are shown in Table 6. Albeit slightly later than in our main tests (year 13 instead of year 8), we see the same cross-over pattern in these tests, with a continuing monotonic increase in the predictive power of earnings relative to free cash flows up to year 20. Thus, our results support the idea that earnings' superior ability to predict future free cash flows make it a more useful measure to estimate equity value. [7]

[7] In the Online Appendix we also replicate the main result in Subramanyam and Venkatachalam (2007), and show that IBSI is a much stronger predictor of their measure of intrinsic value than CFO or FCF are, thus confirming that the well documented finding that earnings dominate cash flows in explaining equity value holds in our sample.

4.5. The role of investment accruals

Having established the robustness of our primary findings, we next explore how both components of investment accruals contribute to these predictive patterns. Recall that investment accruals equal (net) investment spending (NET INV) less depreciation expense (DEPR).[8] Examining the role of depreciation in predicting FCF helps benchmark our findings against the results in Table 2, where we find that depreciation expense hurts the predictive ability of earnings at predicting operating cash flows. However, in predicting future FCF, we expect depreciation to help. Table 7 compares the predictive ability of IBSI (column 1) to IBSI plus depreciation (column 2) and IBSI less net investment spending (column 3) and Table 3 plots these results graphically.

Comparing columns 1 and 2 in Table 7, we can see that depreciation expense *enhances* the predictive ability of earnings for future FCF ($p < 0.01$). Equivalently, the adjusted R^2 line for IBSI shifts downward once depreciation is removed. This stands in contrast to the findings in Table 2, where depreciation *hurts* the predictive ability of earnings for future CFO. The key is FCF, unlike CFO, subtracts cash outflows for investment spending. Thus, the "apples to oranges" problem no longer exists, and including depreciation in earnings helps predict the long-run investment spending that will be needed to sustain or generate CFO. Thus, although it has not received much attention in the prior literature, depreciation expense is an important accrual that helps the long-run predictive ability of earnings for future cash flows.

Comparing columns 1 and 3 in Table 7, we see that removing net investment spending *helps* the predictive ability of earnings in the short run. Note how the adjusted R^2 line for IBSI shifts upward in earlier years when capital spending is removed. Thus, capitalizing net investment spending (the first part of the investment accrual) actually *hurts* the predictive ability of earnings,

[8] We also consider including acquired intangibles in investment accruals. Unfortunately, the Compustat data item for acquired intangibles (acqintan) is not well populated during our sample period.

through a cumulative window of about 9 years. This result is consistent with the patterns in Table 3, where FCF dominates earnings in predicting itself in the short run. This is because FCF has strong persistence over shorter horizons, which arises because investment spending is highly persistent in the short run, as we demonstrate in the Online Appendix.

However, consistent with our prediction in H2b, we see that capitalizing net investment spending begins to help the predictive ability of earnings for future FCF slowly over time. Eventually, we see in Figure 3 that there is a "cross over," where IBSI is a better predictor than IBSI less net investment spending ($p < 0.01$). As the cumulation window lengthens, FCF and investment spending lose persistence (i.e., the serial correlation in investment spending declines), and the future operating payoffs from past investment start to emerge in future FCF. Thus, consistent with H2b, capitalizing investment spending and spreading it out over the investment cycle helps the predictive ability of earnings, and this effect becomes more important over time.

H2c predicts these patterns should be stronger in the long run for firms with volatile investment spending and firms with long investment cycles. Table 8 presents results consistent with these predictions. We remove both components of investment accruals from earnings (i.e., add back depreciation and remove net investment spending) and examine how the long-run predictive ability of earnings is affected for firms in extreme quintiles of investment volatility (Panel A) and investment cycle (Panel B).

We discuss just one example for brevity. Panel B indicates that investment accruals do not enhance earnings' predictive ability in the long run when the investment cycle is short. There is no significant difference in adjusted R^2 between IBSI and IBSI without investment accruals beyond a window of seven years. However, investment accruals do significantly enhance earnings' predictive ability in the long run when the investment cycle is long. Panel B shows that removing investment accruals from IBSI significantly hurts predictive ability by about 5 to 14 percentage points in adjusted R^2 from year 11 onward. From this point forward, investment accruals contribute more to earnings' predictive ability for firms with long investment cycle compared to firms with short investment cycles ($p < 0.01$). Patterns for investment volatility are quite similar.[9]

4.6. The role of all accruals in predicting FCF

Next, we use a regression approach to examine the role of accruals in predicting future cumulative cash flows. Specifically, we decompose our earnings measure (IBSI) into a cash flow component and multiple accruals components and estimate regressions using the following model:

$$\sum_{t+1}^{t+i} FCF = FCF_t + NET\ INV_t + WC_t + DEPR_t + OTH\ ACC_t + \varepsilon \qquad (3)$$

Where FCF, NET INV, and DEPR are as previously defined, WC is working capital accruals, and OTH ACC is the difference between IBSI and FCF not accounted for by the other accrual components. This decomposition allows us to identify how different accruals, not just investment accruals, contribute to the pattern we observe in our main results. To help triangulate inferences with our prior tests, in these tests we focus on regression slopes (instead of adjusted R^2) to assess how the various accrual components contribute to the prediction of long-run FCF.

We present the coefficients from estimating model (3) for each of our estimation horizons in Table 9. Because the dependent variable cumulates cash flows for each horizon, the magnitudes of the coefficients increase over time, so we focus on the relative, not absolute magnitudes in our interpretations. The first noticeable pattern is that working capital accruals and other accruals help predict FCF for every horizon in the future, consistent with these accruals helping predict cash inflows in future periods. However, although their magnitudes are comparable for the first five

[9] We also find similar patterns when we compare high sales growth to low sales growth firms (untabulated), suggesting investment accruals enhance earnings' predictive ability more for growth firms.

years, the importance of WC relative to OTH ACC becomes larger as the horizon lengthens. This finding is consistent with our interpretation of the results in Table 2 and Figure 1 that the contribution of working capital in helping earnings predict cash flows from operations is larger for longer horizons.

The second insight from these tests is that both components of investment accruals (i.e., net investment spending and depreciation) are predictive of future FCF, but in opposite directions: higher NET INV predicts higher future FCF, as investment projects payoff in the future, while higher DEPR predicts lower FCF, as capital-intensive firms must engage in future capital spending to sustain operations in the future. The third insight is these investment accruals are more predictive of long-term than short-term cash flows, which underscores the importance of looking at longer horizons. For example, whereas the magnitude of WC relative to NET INV is about three times larger in year 5, it is only about two-thirds larger by year 15. In addition, the predictive ability of NET INV and DEPR appears to grow in tandem over the predictive horizon. Overall, we show that several different accruals contribute to the ability of earnings to predict future free cash flows. However, the key finding in our study that earnings predictive ability *relative* to that of free cash flows grows for longer horizons, which leads to the cross-over pattern we see in our main results, appears to be driven primarily by investment accruals.

4.7. Are the results mechanically driven by depreciation?

One potential concern from our findings is that depreciation may be a key driver of earnings' predictive ability in later periods due to a mechanical relation between depreciation and future net capital spending. The concern is that, because depreciation equals the average of past capital spending, it is not surprising that it helps predict cumulative capital spending in the future.[10]

[10] To help see this potential problem more formally, consider model (2) as capturing the covariance of cumulative FCF with IBSI, or Cov(∑ FCF, IBSI). Ignoring other accruals, we can decompose this covariance as Cov(∑ [CFO –

Several of our previous results point against depreciation being the main driver of our findings. Table 7 shows that either adding back depreciation or removing capital spending accruals from earnings weakens our results, and suggests that the decrease in predictive power from adding back depreciation is only slightly larger for later periods than it is for earlier periods. Table 9 also shows both components of investment accruals are important, and that additional accruals contribute to the predictive power of earnings.

As a further test, in Table 10 and Figure 4 we also show that, even when stripped of depreciation, earnings continue to dominate FCF at predicting future cumulative FCF in the long run. Specifically, both IBSI with depreciation added back (IBSI + DEPR, column 2) and operating earnings before depreciation (OIBDP, column 3) outperform FCF (column 1) at predicting itself starting 11 years in the future. Moreover, in the Online Appendix, we split the sample into firms for which depreciation's ability to predict future cumulative NET INV twenty years ahead is above the median and those for which its predictive ability is below the median, and show that our main result is similar across the two groups. Overall, our findings do not appear to be driven solely or even primarily by depreciation.

4.8. Predicting FCFE

Our last set of tests involves the prediction of future FCFE, or FCF after cash flows from net debt financing. These are ultimately the cash flows available to equity holders after investment and financing needs. Because cash flows related to debt financing are likely to be transitory from year to year and must reverse in the long-run (absent default, debt must be paid back), we expect FCFE to predict itself relatively poorly. However, since earnings ignores these cash flows via

NET INV], CFO + WC – DEPR) = Cov(∑ CFO, CFO + WC – DEPR) – Cov(∑ NET INV, CFO + WC) + Cov(∑ NET INV, DEPR). The last term in this decomposition captures the ability of depreciation to predict cumulative spending in the future.

financing accruals, we expect earnings to better predict future FCFE. To test this prediction, Table 11 compares the predictive ability of FCFE itself (column 1) to IBSI (column 2). Figure 5 plots the adjusted R^2 for each predictor across horizons. Consistent with our expectations, earnings dominate FCFE in predicting future FCFE at every horizon ($p < .01$ in all years but one).

Table 11, along with Table 3 earlier, also reveals that the superior predictive ability of earnings relative to cash flows is much more significant when predicting broader cash flow measures over the long run compared to short-term CFO. For example, at the 15-year horizon, IBSI beats FCF in predicting future FCF by 6.0 percentage points in adjusted R^2 (Table 3) and IBSI beats FCFE in predicting future FCFE by about 12.3 percentage points (Table 11). In contrast, at the 3-year horizon, IBSI + DEPR only beats CFO in predicting future CFO by a statistically insignificant 0.8 percentage points in adjusted R^2 (Table 2). Thus, in terms of differences in adjusted R^2, when predicting broader cash flows over a longer horizon, the superiority of earnings over cash flows is about 7 to 15 times higher than when predicting short-term CFO.

4.9. Other tests

The Online Appendix contains a variety of additional tests we do not discuss in detail for brevity. These tests include showing that “bottom-line” earnings (IB) better predicts future FCF in the long run, as well as additional analyses on working capital and financing accruals, along with tests on the persistence of investment spending and financing cash flows.

5. Conclusion

Recent research has reexamined the mixed evidence as to whether cash flows or earnings are more useful in predicting operating cash flows over the short run. Our innovation in this paper is to examine cash flow measures that are more directly linked to equity value over the long run and to analyze the role of long-term investment accruals in earnings' cash flow predictability. We show that earnings better predict free cash flows in the long run, using a horizon of up to 20 years. Further, we show various accruals – including working capital accruals and investment accruals – play important roles in this predictive ability. Specifically, while working capital accruals aid in the prediction of operating cash flows, depreciation hurts earnings in predicting operating cash flows. However, when we turn to free cash flows, which are net of investment spending, both depreciation and total investment accruals (investment spending less depreciation) help earnings predict long-run future free cash flows. Finally, we find that the role of these accruals is more important among firms with longer investment cycles and more volatile operations, investment, and financing.

Overall, our results help explain why earnings play a central role in valuation and contracting despite mixed evidence on earnings' usefulness in predicting short-term operating cash flows. The key is that earnings are a better predictor of long-term cash flows accruing to equity holders, which are a more important determinant of equity value. Our study provides new evidence in support of standard setters' and accounting educators' long-standing assertion that earnings are a superior summary measure for predicting future cash flows.

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Appendix A: Summary of cash flow predictability literature

N	Paper	Longest Horizon	Cash Flow Measure(s)	Best Predictor
1	Brooks (1982)	2.5 years	CFO	Earnings
2	Bowen et al. (1986)	2 years	CFO, FCF, and FCFE	Cash Flows
3	Greenberg et al. (1986)	5 years	CFO	Earnings
4	Finger (1994)	8 years	CFO	Cash Flows in the short run, Equivalent in the long run
5	Lorek and Willinger (1996)	1 year	CFO	Earnings
6	Dechow et al. (1998)	3 years	CFO	Earnings
7	Kim and Kross (2005)	1 year	CFO	Earnings
8	Subramanyam and Venkatachalam (2007)	3 years	CFO	Cash Flows
9	Lorek and Willinger (2009)	1 year	CFO	Cash Flows
10	Nam et al. (2012)	2 years	CFO (primary) and FCF (supplemental)	Earnings
11	Chen et al. (2020)	1 year	CFO	Cash Flows
12	Nallareddy et al. (2020)	3 years	CFO (primary) and FCF (supplemental)	Cash Flows
13	Ball and Nikolaev (2022)	3 years	CFO (primary) and FCF (supplemental)	Earnings

Appendix B: Variable definitions

Variable	Definition (compustat variables)
CFO	Cash flows from operations (oancf) less cash flows from extraordinary items and discontinued operations (xidoc)
Cumulative CFO_i	Sum of cash flows from operations less cash flows from extraordinary items and discontinued operations from year *t+1* to year *i*
FCF	Free cash flows, defined as cash flows from operations less cash flows from extraordinary items and discontinued operations minus net capital spending (sppe – capx)
Cumulative FCF_i	Sum of free cash flows from year *t+1* to year *i*
Discounted FCF_i	Sum of discounted free cash flows from year *t+1* to year *i*. The discount factor is calculated as one plus estimated cost of equity. Cost of equity is estimated as $R_f + \beta[E(r_m) - R_f]$, where R_f is the risk-free rate, estimated as the sum of the 1-month treasury bill rates over the previous 12 months; β is the average for each Fama-French 48 industry of firm specific beta coefficients from daily market model regressions estimated over the previous fiscal year; $E(r_m) - R_f$ is the market equity premium, assumed to be 6%
FCFE	Free cash flows to equity, defined as free cash flows plus net financing (dltis – dltr)
Cumulative $FCFE_i$	Sum of free cash flows to equity from year *t+1* to year *i*
IBSI	Income before extraordinary items and discontinued operations minus special items (spi)
OIBDP	Operating earnings before depreciation (oibdp)
WC	Change in working capital accruals, defined as the sum of increases in accounts receivable (-recch), increases in inventory (-invch), and decreases in accounts payable and other accrued liabilities (-apalch)
DEPR	Depreciation and amortization (dpc)
NET INV	Net capital spending (sppe – capx)
INV ACC	Investment accruals, defined as net capital spending minus depreciation
OTH ACC	Other accruals, defined as IBSI – (CFO + WC – DEPR)
Investment Volatility	Standard deviation of scaled NET INV for each firm during the sample period
Investment Cycle	Net PPE (ppent) divided by depreciation expense (dp – am)

All earnings, cash flows, and accruals variables are scaled by average total assets and winsorized at the 1^{st} and 99^{th} percentiles. For cumulative cash flow measures, average total assets is calculated as the average of the yearly total assets from year *t* to year *i*.

Figure 1: Prediction of Cumulative CFO

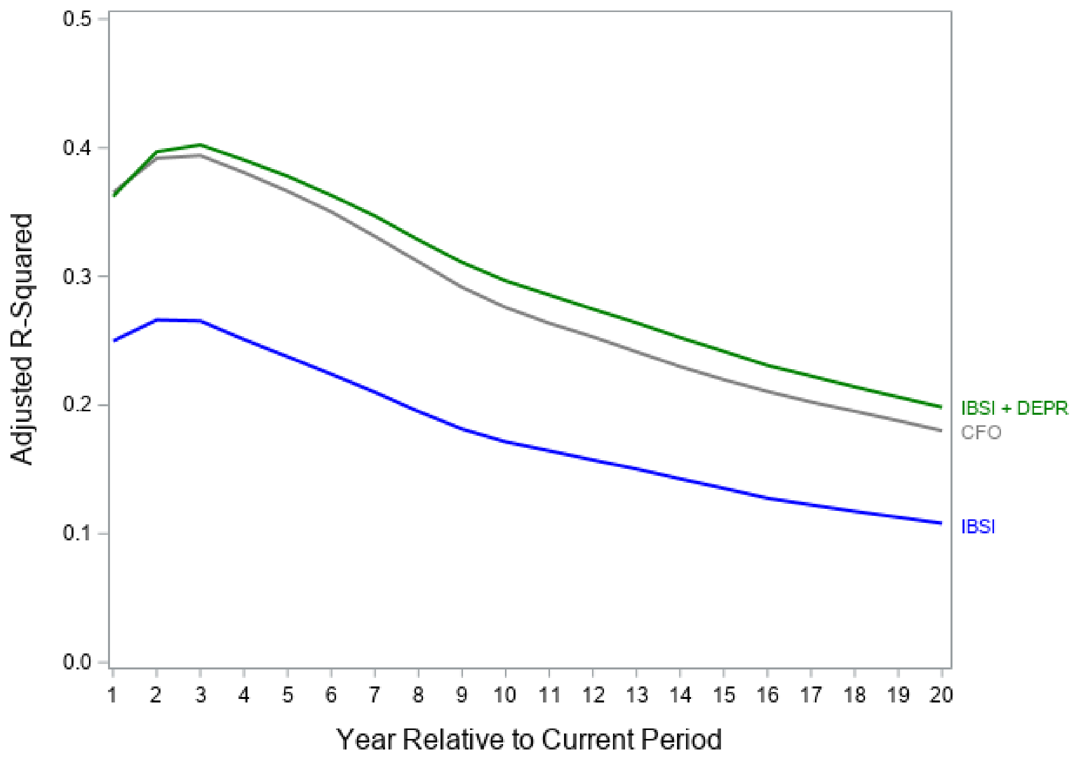


Figure 2: Prediction of Cumulative FCF

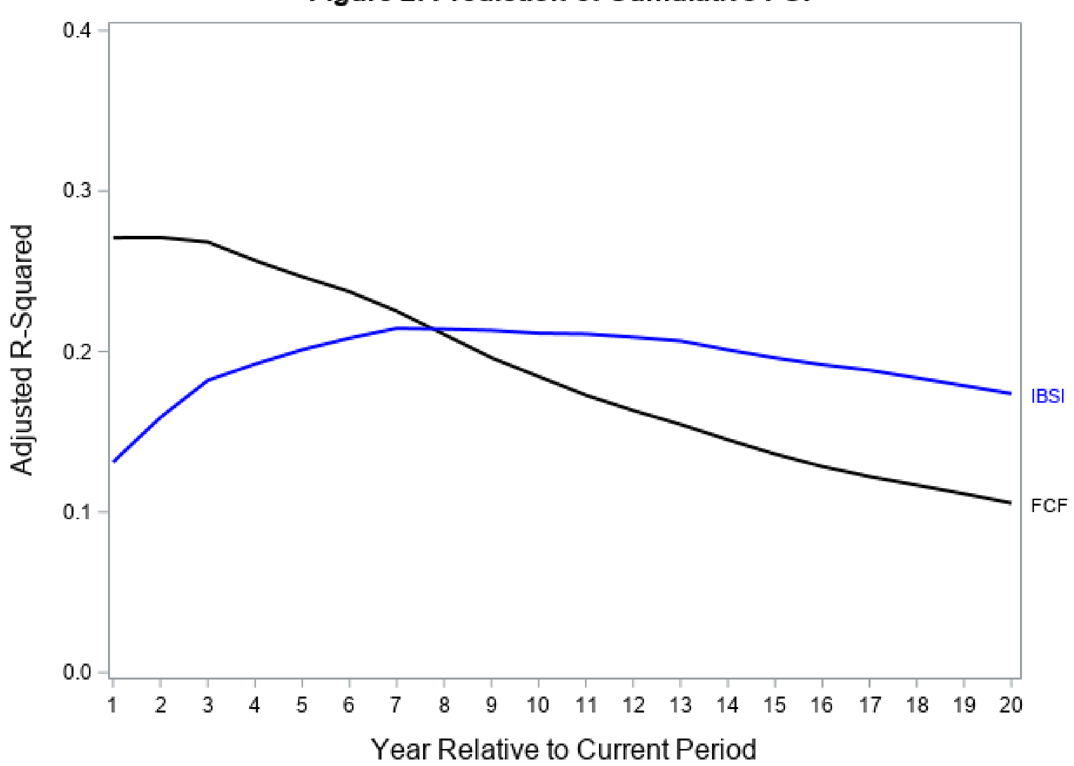


Figure 3: Contribution of Investment Accruals to Prediction of Cumulative FCF

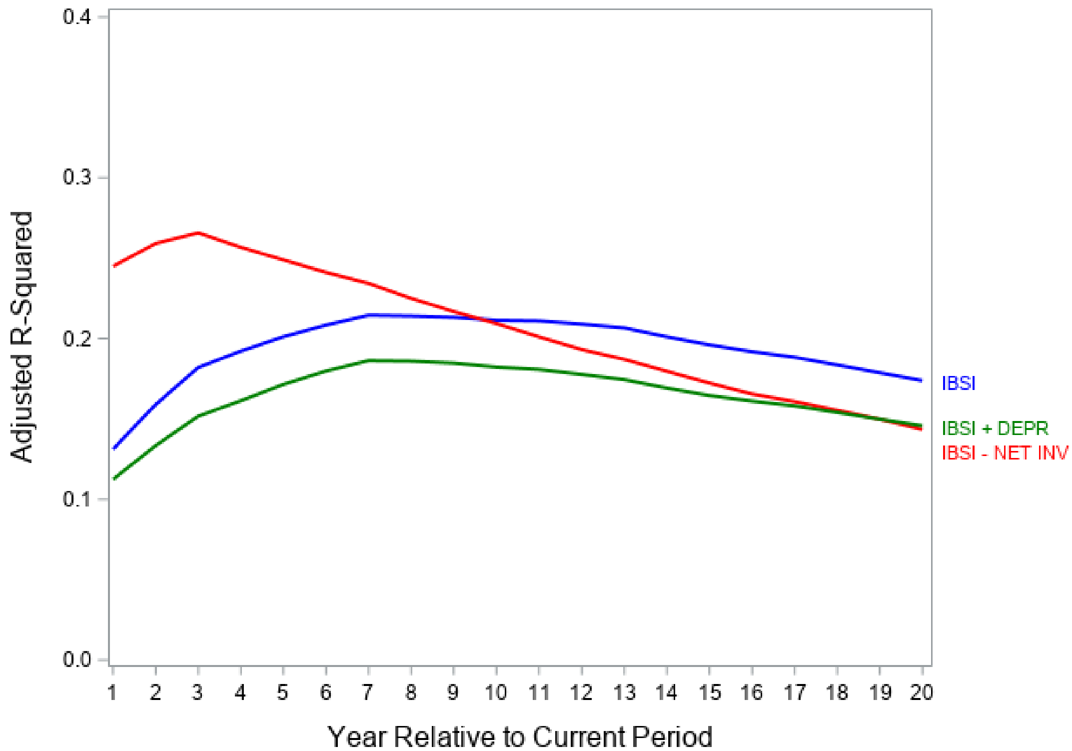
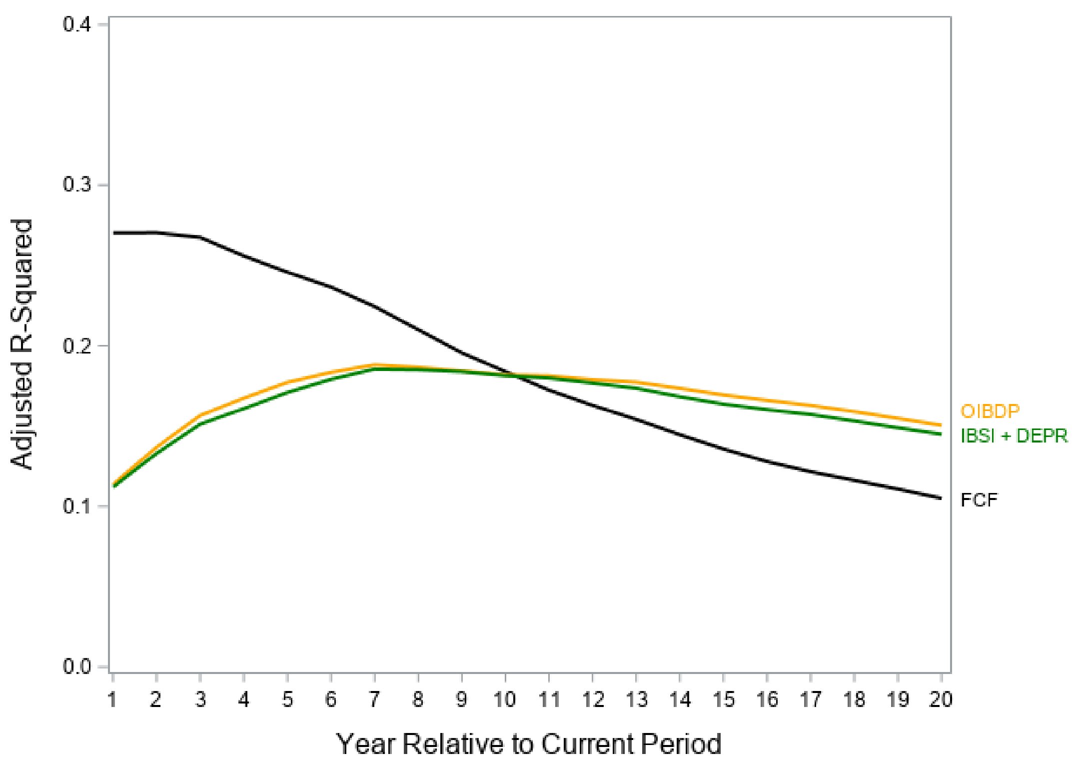


Figure 4: Contribution of Depreciation to Prediction of Cumulative FCF



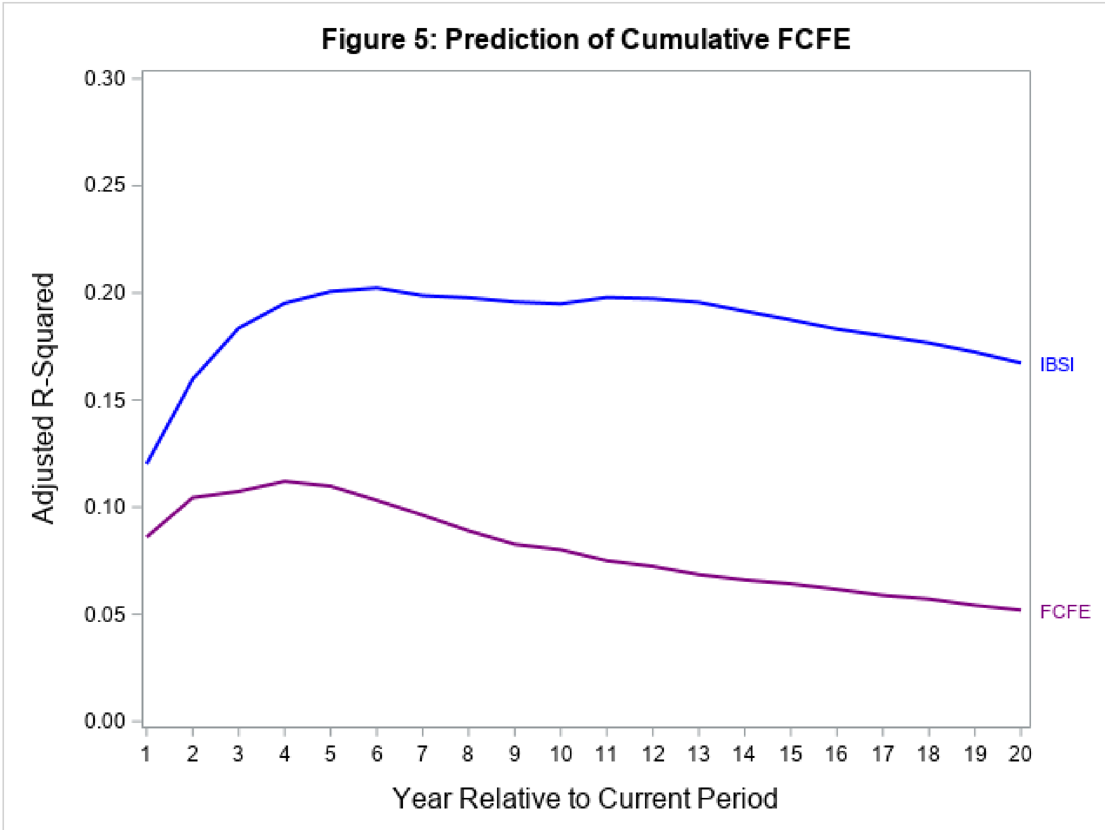


Figure 5: Prediction of Cumulative FCFE
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Adjusted R-Squared
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
Year Relative to Current Period
IBSI
FCFE

Table 1: Sample description

Panel A – Effect of selection criteria on sample size

Criteria		Number of firm-years
Fiscal-years in Compustat annual file between 1987 and 2020		369,441
Closing price above $1 (prcc_f)	(106,139)	
Positive assets (at)	(44,713)	
Sales above $10M (sale)	(28,910)	
Available earnings and cash flow measures (ib, oancf)	(17,824)	
Remove financial firms (sich between 6000 and 6999)	(29,145)	
Twenty years of lead data to calculate cumulative measures	(130,192)	
Final sample		12,518

Panel B – Descriptive statistics

Variable	N	Mean	SD	Min	P25	Median	P75	Max
CFO	12,518	0.104	0.087	-0.226	0.057	0.100	0.150	0.408
FCF	12,518	0.028	0.096	-0.366	-0.016	0.032	0.080	0.326
IBSI	12,518	0.070	0.069	-0.328	0.034	0.062	0.102	0.338
NET INV	12,518	0.076	0.066	-0.055	0.033	0.059	0.097	0.491
WC	12,518	0.021	0.057	-0.161	-0.006	0.009	0.040	0.312
DEPR	12,518	0.051	0.028	0.000	0.033	0.047	0.063	0.170
OTH ACC	12,518	-0.004	0.041	-0.221	-0.019	-0.003	0.013	0.154

Panel C – Correlation matrix

	CFO	FCF	IBSI	NET INV	WC	DEPR	OTH ACC
CFO		**0.699**	**0.565**	**0.298**	**-0.313**	**0.355**	**-0.280**
FCF	**0.727**		**0.418**	**-0.353**	**-0.312**	**0.025**	**-0.192**
IBSI	**0.602**	**0.466**		**0.176**	**0.237**	-0.015	**-0.016**
NET INV	**0.259**	**-0.458**	**0.115**		**0.047**	**0.464**	**-0.080**
WC	**-0.389**	**-0.375**	**0.232**	**0.025**		**-0.087**	**-0.207**
DEPR	**0.323**	-0.011	**-0.075**	**0.441**	**-0.110**		0.004
OTH ACC	**-0.287**	**-0.201**	0.008	**-0.083**	**-0.246**	**0.026**	

This table presents details about our sample. The sample includes fiscal years between 1987 and 2020. Panel A describes the effect of our sample selection criteria on sample size, with the associated Compustat variable names presented in parenthesis. Panel B provides descriptive statistics for our cash flows, earnings, and accruals measures. All variables are scaled by average total assets and winsorized at the 1st and 99th percentiles. See Appendix B for detailed variable definitions. Panel C presents the variable correlations. Pearson (Spearman) correlation coefficients are presented below (above) the diagonal. Coefficients are bolded if significant at the 1% level or better.

Table 2: Pooled estimation of Cumulative CFO

	Adjusted R^2				
Predictor	CFO	IBSI	IBSI + DEPR	Difference	
Years ahead	(1)	(2)	(3)	(2) – (1)	(3) – (1)
1	**0.365**	**0.250**	**0.362**	-0.115***	-0.003
2	**0.392**	**0.266**	**0.397**	-0.126***	0.005
3	**0.394**	**0.265**	**0.402**	-0.129***	0.008
4	**0.381**	**0.251**	**0.390**	-0.130***	0.010
5	**0.366**	**0.238**	**0.378**	-0.129***	0.012
6	**0.350**	**0.224**	**0.363**	-0.126***	0.013
7	**0.331**	**0.210**	**0.347**	-0.121***	0.016*
8	**0.311**	**0.195**	**0.328**	-0.116***	0.017**
9	**0.292**	**0.181**	**0.311**	-0.110***	0.019**
10	**0.276**	**0.171**	**0.297**	-0.104***	0.021***
11	**0.264**	**0.164**	**0.286**	-0.099***	0.022***
12	**0.253**	**0.157**	**0.275**	-0.096***	0.022***
13	**0.241**	**0.150**	**0.264**	-0.091***	0.022***
14	**0.230**	**0.143**	**0.252**	-0.087***	0.023***
15	**0.220**	**0.135**	**0.242**	-0.084***	0.022***
16	**0.211**	**0.128**	**0.231**	-0.083***	0.020***
17	**0.202**	**0.122**	**0.223**	-0.080***	0.020***
18	**0.195**	**0.117**	**0.214**	-0.078***	0.019***
19	**0.188**	**0.113**	**0.206**	-0.075***	0.018***
20	**0.180**	**0.108**	**0.198**	-0.072***	0.018***

This table presents the results of testing the relative ability of cash flows from operations and earnings in the current period at predicting future cumulative cash flows from operations, from one to twenty periods ahead. The coefficients in columns 1 to 3 represent the Adjusted R^2 from separate pooled OLS regressions of Cumulative CFO on operating cash flows and earnings measures, using 12,518 firm-year observations between 1987 and 2020. Figure 1 depicts the results in graphical form. See Appendix B for detailed variable definitions. The last two columns present the differences in Adjusted R^2. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively, from Vuong (1989) tests of the difference in explanatory power between competing non-nested models.

Table 3: Pooled estimation of Cumulative FCF

	Adjusted R^2		
Predictor	FCF	IBSI	Difference
Years ahead	(1)	(2)	(2) – (1)
1	**0.271**	**0.131**	-0.140***
2	**0.271**	**0.159**	-0.112***
3	**0.268**	**0.182**	-0.086***
4	**0.257**	**0.192**	-0.065***
5	**0.247**	**0.201**	-0.045***
6	**0.237**	**0.208**	-0.029***
7	**0.225**	**0.214**	-0.011
8	**0.211**	**0.214**	0.003
9	**0.196**	**0.213**	0.017*
10	**0.184**	**0.211**	0.027***
11	**0.173**	**0.211**	0.038***
12	**0.163**	**0.209**	0.046***
13	**0.155**	**0.207**	0.052***
14	**0.145**	**0.201**	0.056***
15	**0.136**	**0.196**	0.060***
16	**0.128**	**0.192**	0.063***
17	**0.122**	**0.188**	0.066***
18	**0.117**	**0.184**	0.067***
19	**0.111**	**0.179**	0.067***
20	**0.106**	**0.174**	0.068***

This table presents the results of testing the relative ability of free cash flows and earnings in the current period at predicting future cumulative free cash flows, from one to twenty periods ahead. The coefficients in columns 1 and 2 represent the Adjusted R^2 from separate pooled OLS regressions of Cumulative FCF on free cash flows and earnings measures, using 12,518 firm-year observations between 1987 and 2020. Figure 2 depicts the results in graphical form. See Appendix B for detailed variable definitions. The last column presents the differences in Adjusted R^2. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively, from Vuong (1989) tests of the difference in explanatory power between competing non-nested models.

Table 4: Alternative samples

Panel A – Industry-year sample (575 observations)

	Adjusted R^2		
Predictor	FCF	IBSI	Difference
Years ahead	(1)	(2)	(2) – (1)
1	**0.497**	**0.239**	-0.258***
2	**0.516**	**0.245**	-0.271***
3	**0.506**	**0.245**	-0.261***
4	**0.480**	**0.245**	-0.234***
5	**0.449**	**0.253**	-0.196***
6	**0.421**	**0.258**	-0.163***
7	**0.422**	**0.273**	-0.148***
8	**0.411**	**0.288**	-0.123***
9	**0.397**	**0.308**	-0.089*
10	**0.391**	**0.326**	-0.065
11	**0.379**	**0.346**	-0.032
12	**0.367**	**0.363**	-0.004
13	**0.356**	**0.379**	0.024
14	**0.336**	**0.397**	0.061
15	**0.315**	**0.412**	0.098**
16	**0.309**	**0.421**	0.112***
17	**0.306**	**0.427**	0.121***
18	**0.302**	**0.429**	0.127***
19	**0.297**	**0.429**	0.132***
20	**0.287**	**0.427**	0.140***

Table 4, continued.

Panel B – Surviving sample (51,247)

	Adjusted R^2		
Predictor	FCF	IBSI	Difference
Years ahead	(1)	(2)	(2) – (1)
1	**0.213**	**0.113**	-0.100***
2	**0.158**	**0.080**	-0.078***
3	**0.121**	**0.062**	-0.059***
4	**0.096**	**0.052**	-0.044***
5	**0.076**	**0.043**	-0.032***
6	**0.062**	**0.038**	-0.023***
7	**0.053**	**0.040**	-0.013***
8	**0.045**	**0.042**	-0.003*
9	**0.039**	**0.044**	0.005***
10	**0.036**	**0.045**	0.009***
11	**0.033**	**0.048**	0.014***
12	**0.030**	**0.049**	0.019***
13	**0.027**	**0.050**	0.023***
14	**0.025**	**0.052**	0.027***
15	**0.023**	**0.053**	0.030***
16	**0.021**	**0.054**	0.033***
17	**0.020**	**0.055**	0.035***
18	**0.019**	**0.056**	0.037***
19	**0.018**	**0.057**	0.038***
20	**0.016**	**0.055**	0.039***

This table presents results of tests of the relative ability of free cash flows and earnings in the current period at predicting future cumulative free cash flows, from one to twenty periods ahead. Panel A uses measures aggregated at the industry level. Variables are averaged across firms for each Fama-French 48 industry-year. Panel B uses a sample corrected for survivorship bias with the approach described in Kothari et al. (2002). Specifically, missing data for future years is imputed with the average for all other firms in the firm's Altman (1968) Z-score decile in the latest year with available data. The coefficients in columns 1 and 2 represent the Adjusted R^2 from pooled OLS regressions of Cumulative FCF on free cash flows and earnings measures, for fiscal years 1987 to 2020. See Appendix B for detailed variable definitions. The last column presents the differences in Adjusted R^2. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively, from Vuong (1989) tests of the difference in explanatory power between competing non-nested models.

Table 5: Alternative dependent variables

Panel A – Individual years

	Adjusted R^2		
Predictor	FCF	IBSI	Difference
Years ahead	(1)	(2)	(2) – (1)
1	**0.277**	**0.135**	-0.142***
2	**0.167**	**0.121**	-0.046***
3	**0.136**	**0.120**	-0.015**
4	**0.112**	**0.106**	-0.006
5	**0.097**	**0.105**	0.008
6	**0.085**	**0.102**	0.016**
7	**0.072**	**0.097**	0.025***
8	**0.069**	**0.091**	0.022***
9	**0.053**	**0.087**	0.034***
10	**0.048**	**0.079**	0.031***
11	**0.043**	**0.079**	0.036***
12	**0.041**	**0.073**	0.032***
13	**0.039**	**0.067**	0.028***
14	**0.032**	**0.060**	0.028***
15	**0.029**	**0.063**	0.034***
16	**0.027**	**0.058**	0.032***
17	**0.029**	**0.062**	0.034***
18	**0.029**	**0.056**	0.027***
19	**0.027**	**0.052**	0.025***
20	**0.027**	**0.053**	0.026***

Table 5, continued.

Panel B – Out-of-sample tests

Predictor	Diebold-Mariano Statistic * 1,000
	FCF – IBSI
Years ahead	(1)
1	**-1.020*** **
2	**-0.280*** **
3	**-0.100**
4	**-0.040**
5	**0.079**
6	**0.141*** **
7	**0.172*** **
8	**0.157** **
9	**0.234*** **
10	**0.201*** **
11	**0.258*** **
12	**0.204*** **
13	**0.159*** **
14	**0.143*** **
15	**0.190*** **
16	**0.174*** **
17	**0.214*** **
18	**0.159*** **
19	**0.148*** **
20	**0.162*** **

This table presents the results of testing the relative ability of cash flows and earnings in the current period at predicting future individual year cash flows, from one to twenty periods ahead. The coefficients in columns 1 and 2 of Panel A represent the Adjusted R^2 from separate pooled OLS regressions of FCF on free cash flows and earnings, using 12,518 firm-year observations between 1987 and 2020. Panel B presents results of out-of-sample tests. Each column presents the Diebold-Mariano (1995) test statistic (multiplied by 1,000 for clearer presentation) for the prediction of future free cash flows, using a benchmark model of current free cash flows and an alternative model of current IBSI. Specifically, each year we estimate cross sectional OLS regressions of free cash flows 1 to 20 years ahead, and use the estimates to construct forecasts for the year following each estimation horizon. The Diebold-Mariano statistic is calculated as the difference in the average mean squared prediction error of the cash flows model and the earnings model for each horizon. See Appendix B for detailed variable definitions. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively.

Table 6: Predicting Discounted Cumulative FCF

	Adjusted R^2		
Predictor	FCF	IBSI	Difference
Years ahead	(1)	(2)	(2) – (1)
1	**0.271**	**0.130**	-0.141***
2	**0.277**	**0.157**	-0.120***
3	**0.277**	**0.177**	-0.099***
4	**0.267**	**0.185**	-0.082***
5	**0.258**	**0.190**	-0.068***
6	**0.249**	**0.195**	-0.054***
7	**0.240**	**0.200**	-0.040***
8	**0.231**	**0.202**	-0.029***
9	**0.220**	**0.201**	-0.019**
10	**0.209**	**0.194**	-0.014*
11	**0.196**	**0.186**	-0.010
12	**0.183**	**0.178**	-0.005
13	**0.171**	**0.173**	0.002
14	**0.158**	**0.168**	0.011
15	**0.146**	**0.165**	0.020***
16	**0.134**	**0.161**	0.027***
17	**0.126**	**0.158**	0.032***
18	**0.121**	**0.157**	0.036***
19	**0.118**	**0.157**	0.039***
20	**0.116**	**0.159**	0.044***

This table presents the results of testing the relative ability of free cash flows and earnings in the current period at predicting future cumulative discounted free cash flows, from one to twenty periods ahead. The coefficients in columns 1 and 2 represent the Adjusted R^2 from separate pooled OLS regressions of Discounted Cumulative FCF on free cash flows and earnings measures, using 12,518 firm-year observations between 1987 and 2020. Discounted cash flows are obtained by discounting the future cash flows for each using one plus the estimated cost of equity of the firm's Fama-French 48 industry, and cumulating over each predictive horizon. See Appendix B for detailed variable definitions. The last column presents the differences in Adjusted R^2. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively, from Vuong (1989) tests of the difference in explanatory power between competing non-nested models.

Table 7: Contribution of investment accruals to prediction of Cumulative FCF

	Adjusted R^2				
Predictor	IBSI	IBSI + DEPR	IBSI – NET INV	Difference	
Years ahead	(1)	(2)	(3)	(2) – (1)	(3) – (1)
1	**0.131**	**0.112**	**0.245**	-0.019***	0.114***
2	**0.159**	**0.133**	**0.259**	-0.026***	0.100***
3	**0.182**	**0.152**	**0.266**	-0.030***	0.084***
4	**0.192**	**0.161**	**0.257**	-0.031***	0.065***
5	**0.201**	**0.171**	**0.249**	-0.030***	0.048***
6	**0.208**	**0.180**	**0.241**	-0.029***	0.033***
7	**0.214**	**0.186**	**0.234**	-0.028***	0.020***
8	**0.214**	**0.186**	**0.225**	-0.028***	0.011
9	**0.213**	**0.185**	**0.217**	-0.028***	0.004
10	**0.211**	**0.182**	**0.209**	-0.029***	-0.002
11	**0.211**	**0.181**	**0.201**	-0.030***	-0.010
12	**0.209**	**0.178**	**0.193**	-0.031***	-0.016**
13	**0.207**	**0.174**	**0.187**	-0.032***	-0.020***
14	**0.201**	**0.169**	**0.180**	-0.032***	-0.021***
15	**0.196**	**0.165**	**0.172**	-0.032***	-0.024***
16	**0.192**	**0.161**	**0.166**	-0.031***	-0.026***
17	**0.188**	**0.158**	**0.161**	-0.030***	-0.028***
18	**0.184**	**0.154**	**0.155**	-0.030***	-0.028***
19	**0.179**	**0.150**	**0.150**	-0.029***	-0.029***
20	**0.174**	**0.146**	**0.143**	-0.028***	-0.030***

This table presents the results of testing the contribution of investment accruals for the ability of earnings in the current period to predict future cumulative free cash flows, from one to twenty periods ahead. The coefficients in columns 1 to 3 represent the Adjusted R^2 from pooled OLS regressions of Cumulative FCF on our earnings measures, using 12,518 firm-year observations between 1987 and 2020. Figure 3 depicts the results in graphical form. See Appendix B for detailed variable definitions. The last two columns present differences in Adjusted R^2. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively, from Vuong (1989) tests of the difference in explanatory power between competing non-nested models.

Table 8: Cross-sectional tests of Cumulative FCF prediction

Panel A – NET INV Volatility Quintiles (2,463 observations)

	Lowest Quintile Adjusted R^2			Highest Quintile Adjusted R^2			
Predictor	IBSI	IBSI – INV ACC	Difference	IBSI	IBSI – INV ACC	Difference	Difference in Differences
Years ahead	(1)	(2)	(3)	(4)	(5)	(6)	(3) – (6)
1	**0.208**	**0.271**	-0.063***	**0.076**	**0.235**	-0.159***	0.096***
2	**0.251**	**0.312**	-0.061***	**0.091**	**0.214**	-0.123***	0.061**
3	**0.271**	**0.325**	-0.055***	**0.116**	**0.208**	-0.093***	0.038
4	**0.258**	**0.307**	-0.049***	**0.126**	**0.191**	-0.065***	0.016
5	**0.236**	**0.279**	-0.042***	**0.133**	**0.181**	-0.048***	0.006
6	**0.226**	**0.260**	-0.035***	**0.140**	**0.171**	-0.030**	-0.004
7	**0.219**	**0.252**	-0.032***	**0.148**	**0.164**	-0.016	-0.017
8	**0.209**	**0.240**	-0.031***	**0.153**	**0.157**	-0.004	-0.027*
9	**0.199**	**0.224**	-0.025***	**0.159**	**0.152**	0.007	-0.032**
10	**0.189**	**0.208**	-0.019**	**0.157**	**0.145**	0.012	-0.031*
11	**0.182**	**0.197**	-0.015*	**0.161**	**0.137**	0.024	-0.039**
12	**0.177**	**0.188**	-0.011	**0.163**	**0.128**	0.035**	-0.046***
13	**0.174**	**0.183**	-0.009	**0.164**	**0.121**	0.044***	-0.052***
14	**0.170**	**0.177**	-0.007	**0.165**	**0.116**	0.048***	-0.056***
15	**0.164**	**0.171**	-0.006	**0.165**	**0.113**	0.053***	-0.059***
16	**0.159**	**0.165**	-0.006	**0.169**	**0.111**	0.058***	-0.064***
17	**0.156**	**0.163**	-0.007	**0.168**	**0.109**	0.059***	-0.066***
18	**0.154**	**0.162**	-0.008	**0.164**	**0.105**	0.059***	-0.067***
19	**0.158**	**0.166**	-0.008	**0.156**	**0.099**	0.057***	-0.065***
20	**0.160**	**0.168**	-0.008	**0.150**	**0.093**	0.057***	-0.065***

Panel B – Investment Cycle Quintiles (2,489 observations)

	Lowest Quintile Adjusted R^2			Highest Quintile Adjusted R^2			
Predictor	IBSI	IBSI – INV ACC	Difference	IBSI	IBSI – INV ACC	Difference	Difference in Differences
Years ahead	(1)	(2)	(3)	(4)	(5)	(6)	(3) – (6)
1	**0.185**	**0.242**	-0.058***	**0.055**	**0.297**	-0.243***	0.185***
2	**0.215**	**0.261**	-0.047***	**0.070**	**0.287**	-0.217***	0.170***
3	**0.235**	**0.272**	-0.038***	**0.090**	**0.260**	-0.170***	0.132***
4	**0.231**	**0.260**	-0.028**	**0.098**	**0.227**	-0.129***	0.101***
5	**0.227**	**0.251**	-0.024**	**0.105**	**0.207**	-0.102***	0.078***
6	**0.226**	**0.246**	-0.020**	**0.119**	**0.185**	-0.066***	0.046*
7	**0.225**	**0.242**	-0.017*	**0.138**	**0.174**	-0.036*	0.018
8	**0.215**	**0.227**	-0.011	**0.141**	**0.158**	-0.017	0.005
9	**0.208**	**0.216**	-0.008	**0.150**	**0.148**	0.002	-0.010
10	**0.197**	**0.202**	-0.005	**0.159**	**0.133**	0.026	-0.031
11	**0.188**	**0.189**	-0.001	**0.164**	**0.112**	0.052***	-0.053**
12	**0.181**	**0.180**	0.002	**0.167**	**0.099**	0.069***	-0.067***
13	**0.177**	**0.176**	0.000	**0.172**	**0.085**	0.086***	-0.086***
14	**0.168**	**0.166**	0.003	**0.171**	**0.078**	0.093***	-0.090***
15	**0.160**	**0.156**	0.004	**0.169**	**0.065**	0.103***	-0.100***
16	**0.150**	**0.146**	0.003	**0.172**	**0.058**	0.114***	-0.111***
17	**0.144**	**0.141**	0.004	**0.174**	**0.053**	0.121***	-0.117***
18	**0.138**	**0.136**	0.002	**0.177**	**0.048**	0.129***	-0.127***
19	**0.133**	**0.130**	0.003	**0.174**	**0.041**	0.133***	-0.130***
20	**0.129**	**0.125**	0.004	**0.171**	**0.035**	0.136***	-0.132***

This table presents the results of testing the contribution of accruals to the prediction of future cumulative free cash flows across different firms, from one to twenty periods ahead. The coefficients in columns 1-2 and 4-5 represent the Adjusted R^2 from pooled OLS regressions of Cumulative FCF on our earnings measures, using firm-year observations between 1987 and 2020. Panel A (B) presents results for firms in the extreme quintiles of Investment volatility (Investment Cycle). See Appendix B for detailed variable definitions. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively.

Table 9: Contribution of all accruals to prediction of Cumulative FCF

	Coefficients					
Predictor	FCF	NET INV	WC	DEPR	OTH ACC	
Years ahead	(1)	(2)	(3)	(4)	(5)	Adjusted R^2
1	**0.593*** **	**-0.013**	**0.334*** **	**0.042**	**0.323*** **	0.31
2	**1.070*** **	**0.101*** **	**0.646*** **	**-0.094* **	**0.645*** **	0.32
3	**1.508*** **	**0.267*** **	**0.964*** **	**-0.280*** **	**0.903*** **	0.32
4	**1.910*** **	**0.468*** **	**1.259*** **	**-0.471*** **	**1.176*** **	0.31
5	**2.292*** **	**0.673*** **	**1.569*** **	**-0.587*** **	**1.416*** **	0.31
6	**2.664*** **	**0.908*** **	**1.864*** **	**-0.736*** **	**1.678*** **	0.31
7	**3.012*** **	**1.139*** **	**2.208*** **	**-0.885*** **	**1.902*** **	0.30
8	**3.315*** **	**1.345*** **	**2.522*** **	**-1.056*** **	**2.144*** **	0.29
9	**3.576*** **	**1.519*** **	**2.823*** **	**-1.215*** **	**2.367*** **	0.28
10	**3.841*** **	**1.700*** **	**3.109*** **	**-1.420*** **	**2.587*** **	0.27
11	**4.093*** **	**1.930*** **	**3.391*** **	**-1.696*** **	**2.734*** **	0.26
12	**4.315*** **	**2.133*** **	**3.614*** **	**-1.975*** **	**2.868*** **	0.25
13	**4.531*** **	**2.310*** **	**3.877*** **	**-2.216*** **	**3.013*** **	0.25
14	**4.697*** **	**2.430*** **	**4.104*** **	**-2.369*** **	**3.156*** **	0.24
15	**4.867*** **	**2.571*** **	**4.333*** **	**-2.529*** **	**3.304*** **	0.23
16	**5.032*** **	**2.718*** **	**4.550*** **	**-2.654*** **	**3.451*** **	0.22
17	**5.216*** **	**2.843*** **	**4.814*** **	**-2.756*** **	**3.610*** **	0.21
18	**5.388*** **	**2.957*** **	**5.026*** **	**-2.863*** **	**3.737*** **	0.21
19	**5.540*** **	**3.065*** **	**5.224*** **	**-2.979*** **	**3.823*** **	0.20
20	**5.679*** **	**3.189*** **	**5.390*** **	**-3.102*** **	**3.973*** **	0.19

This table presents the results of testing the contribution of different accruals for the ability of earnings in the current period to predict future cumulative free cash flows, from one to twenty periods ahead. Columns 1 to 5 show coefficients from pooled OLS regressions of Cumulative FCF on different accrual measures, using 12,518 firm-year observations between 1987 and 2020. See Appendix B for detailed variable definitions. The last column presents the Adjusted R^2 for each regression. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively.

Table 10: Contribution of depreciation to prediction of Cumulative FCF

	Adjusted R^2				
Predictor	FCF	IBSI + DEPR	OIBDP	Difference	
Years ahead	(1)	(2)	(3)	(3) – (1)	(3) – (2)
1	**0.270**	**0.112**	**0.114**	-0.158***	-0.157***
2	**0.270**	**0.133**	**0.137**	-0.137***	-0.133***
3	**0.267**	**0.151**	**0.157**	-0.116***	-0.111***
4	**0.256**	**0.161**	**0.167**	-0.095***	-0.089***
5	**0.246**	**0.171**	**0.177**	-0.075***	-0.069***
6	**0.236**	**0.179**	**0.183**	-0.057***	-0.053***
7	**0.224**	**0.185**	**0.188**	-0.039***	-0.036***
8	**0.210**	**0.185**	**0.187**	-0.025***	-0.023***
9	**0.196**	**0.184**	**0.184**	-0.012	-0.011
10	**0.184**	**0.181**	**0.182**	-0.002	-0.002
11	**0.172**	**0.180**	**0.181**	0.008	0.009
12	**0.163**	**0.177**	**0.179**	0.014*	0.016**
13	**0.154**	**0.174**	**0.177**	0.019**	0.023***
14	**0.145**	**0.168**	**0.173**	0.024***	0.029***
15	**0.136**	**0.164**	**0.169**	0.028***	0.034***
16	**0.128**	**0.160**	**0.166**	0.032***	0.038***
17	**0.122**	**0.157**	**0.163**	0.036***	0.041***
18	**0.116**	**0.153**	**0.159**	0.037***	0.043***
19	**0.111**	**0.149**	**0.155**	0.038***	0.044***
20	**0.105**	**0.145**	**0.150**	0.040***	0.045***

This table presents the results of testing the contribution of depreciation for the ability of earnings in the current period to predict future cumulative free cash flows, from one to twenty periods ahead. The coefficients in columns 1 to 3 represent the Adjusted R^2 from pooled OLS regressions of Cumulative FCF on free cash flows and earnings measures, using 12,518 firm-year observations between 1987 and 2020. Figure 4 depicts the results in graphical form. See Appendix B for detailed variable definitions. The last two columns present the differences in Adjusted R^2. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively, from Vuong (1989) tests of the difference in explanatory power between competing non-nested models.

Table 11: Pooled estimation of Cumulative FCFE

	Adjusted R^2		
Predictor	FCFE	IBSI	Difference
Years ahead	(1)	(2)	(2) – (1)
1	**0.086**	**0.120**	0.034***
2	**0.104**	**0.160**	0.056***
3	**0.107**	**0.184**	0.077***
4	**0.112**	**0.195**	0.083***
5	**0.110**	**0.201**	0.091***
6	**0.103**	**0.202**	0.099***
7	**0.096**	**0.199**	0.103***
8	**0.089**	**0.198**	0.109***
9	**0.083**	**0.196**	0.113***
10	**0.080**	**0.195**	0.115***
11	**0.075**	**0.198**	0.123***
12	**0.072**	**0.197**	0.125***
13	**0.069**	**0.196**	0.127***
14	**0.066**	**0.191**	0.125***
15	**0.064**	**0.187**	0.123***
16	**0.062**	**0.183**	0.121***
17	**0.059**	**0.180**	0.121***
18	**0.057**	**0.177**	0.120***
19	**0.054**	**0.172**	0.118***
20	**0.052**	**0.167**	0.115***

This table presents the results of testing the relative ability of free cash flows to equity and earnings in the current period at predicting future cumulative free cash flows to equity, from one to twenty periods ahead. The coefficients in columns 1 and 2 represent the Adjusted R^2 from pooled OLS regressions of Cumulative FCFE on our cash flows and earnings measures, using 12,518 firm-year observations between 1987 and 2020. Figure 5 depicts the results in graphical form. See Appendix B for detailed variable definitions. The last column presents the differences in Adjusted R^2. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively, from Vuong (1989) tests of the difference in explanatory power between competing non-nested models.

ONLINE APPENDIX

This Online Appendix presents the results of additional tests not tabulated in the manuscript.

Alternative Earnings Definitions
Table A2 demonstrates that both operating income after depreciation (OIADP) and "bottom-line" earnings (IB, or earnings before extraordinary items) have better long run predictive ability for future FCF than FCF itself.

Working Capital Accruals and the Prediction of Future CFO
In Table 2 of the manuscript, note that the primary difference between current CFO (column 1) and IBSI plus depreciation (column 3) is working capital accruals. Thus, the difference in predictive ability between these measures sheds light on the importance of working capital accruals over time. Table 2 and Figure 1 show that this difference generally grows over the predictive horizon, although the increase is not quite monotonic. Thus, there is some evidence that over longer horizons, the importance of working capital accruals in enhancing the predictive ability of earnings grows. In Table A3, we split our sample on firms with low versus high operating volatility (panel A) and firms with short versus long operating cycle length (panel B). As expected from Dechow (1994), we find working capital accruals enhance long-run predictive ability more when working capital is more volatile and the operating cycle is longer.

Predicting Intrinsic Value
To complement our tests on the ability of earnings to predict discounted future cash flows, we also examine the ability of earnings versus cash flows to explain the ex-post intrinsic value of equity measure from Subramanyam and Venkatachalam (2007), which is the discounted value of dividends and stock price three years ahead. As expected, Table A4 indicates IBSI better explains intrinsic value of equity relative to CFO and FCF.

Persistence of Investment and Financing Cash Flows
In section 4 of the manuscript, we contend that FCF is persistent in the short run because investment spending is persistent in the short run, while FCFE likely lacks persistence because debt financing cash flows lack persistence. In Table A5, we provide formal evidence on these claims. In Panel A, we find the persistence coefficient on investment spending is high (0.702) at a one-year horizon, but then falls significantly over time. This helps explain why FCF (which equals CFO less investment spending) forecasts itself well in the short run, but not the long run. In Panel B, we find the persistence coefficient on debt cash flows is low (0.057) at a one-year horizon and falls to virtually zero thereafter. This explains why FCFE predicts itself poorly and why financing cash flows improve the predictive ability of earnings.

Further tests on Depreciation and the Prediction of FCF
Table A6 divides the sample into two groups of firms: firms above versus below the median in the ability of depreciation to predict future cumulative investment spending. Across both partitions, the results are similar to our main findings: IBSI is a better predictor of future long-run FCF than FCF itself. Thus, the ability of depreciation to predict future investment spending is the not the sole or primary driver of our main findings.

Further tests on Investment and Financing Accruals

Table A7 demonstrates that investment and financing accruals each contribute to the higher predictive ability of earnings. Specifically, when investment and financing accruals are removed, the ability of earnings to predict long-run FCFE declines. Table A8 demonstrates that, as expected, the importance of financing accruals to the predictive ability of earnings is higher when financing activity is more volatile and when the investment cycle is longer.

Table A1: Additional variable definitions

Variable	Definition (compustat variables)
OIADP	Operating income after depreciation (oiadp)
NET DEBT	Net financing (dltis – dltr)
FIN ACC	Financing accruals, defined as NET DEBT × (-1)
Intrinsic value	Measure developed in Subramanyam and Venkatachalam (2007). Equals discounted dividends plus stock repurchases (dvc + prstkcc) over the following three years, added to discounted equity value at the end of the third year (prcc_f × csho). The discount factor is calculated as in the Discounted FCF variable (see Appendix B of the manuscript)
Operating Volatility	Standard deviation of scaled WC for each firm during the sample period
Financing Volatility	Standard deviation of scaled NET DEBT for each firm during the sample period
Operating Cycle	Number of days' sales in accounts receivable (rectr) plus number of days from production (invt) to sale (cogs), from Dechow (1994)

Table A2: Alternative earnings measures at predicting Cumulative FCF

	Adjusted R^2				
Predictor	FCF	OIADP	IB	Difference	
Years ahead	(1)	(2)	(3)	(2) – (1)	(3) – (1)
1	**0.271**	**0.129**	**0.105**	-0.141***	-0.166***
2	**0.271**	**0.158**	**0.130**	-0.113***	-0.141***
3	**0.268**	**0.182**	**0.149**	-0.086***	-0.119***
4	**0.257**	**0.194**	**0.155**	-0.063***	-0.102***
5	**0.247**	**0.204**	**0.161**	-0.043***	-0.085***
6	**0.237**	**0.210**	**0.165**	-0.028***	-0.072***
7	**0.225**	**0.214**	**0.169**	-0.011	-0.056***
8	**0.211**	**0.212**	**0.167**	0.001	-0.043***
9	**0.196**	**0.210**	**0.164**	0.014	-0.032***
10	**0.184**	**0.208**	**0.162**	0.024***	-0.022***
11	**0.173**	**0.208**	**0.162**	0.035***	-0.011
12	**0.163**	**0.207**	**0.160**	0.043***	-0.003
13	**0.155**	**0.206**	**0.158**	0.051***	0.003
14	**0.145**	**0.202**	**0.153**	0.057***	0.008
15	**0.136**	**0.197**	**0.149**	0.061***	0.013*
16	**0.128**	**0.193**	**0.146**	0.065***	0.018**
17	**0.122**	**0.190**	**0.143**	0.068***	0.021***
18	**0.117**	**0.185**	**0.139**	0.068***	0.022***
19	**0.111**	**0.181**	**0.135**	0.069***	0.024***
20	**0.106**	**0.176**	**0.131**	0.070***	0.025***

This table presents the results of testing the relative ability of free cash flows and earnings in the current period at predicting future cumulative free cash flows, from one to twenty periods ahead. The coefficients in columns 1 to 3 represent the Adjusted R^2 from pooled OLS regressions of Cumulative FCF on our cash flows and earnings measures, using 12,518 firm-year observations between 1987 and 2020. See Appendix B and Table A1 in this appendix for detailed variable definitions. The last two columns present the differences in Adjusted R^2. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively, from Vuong (1989) tests of the difference in explanatory power between competing non-nested models.

Table A3: Cross-sectional tests of Cumulative CFO prediction

Panel A – Operating Volatility Quintiles (2,461 observations)

	Lowest Quintile Adjusted R^2			Highest Quintile Adjusted R^2			
Predictor	IBSI	IBSI – WC	Difference	IBSI	IBSI – WC	Difference	Difference in Differences
Years ahead	(1)	(2)	(3)	(4)	(5)	(6)	(3) – (6)
1	**0.422**	**0.407**	0.015**	**0.125**	**0.099**	0.026*	-0.011
2	**0.418**	**0.399**	0.019***	**0.149**	**0.114**	0.036**	-0.017
3	**0.414**	**0.398**	0.016***	**0.159**	**0.116**	0.043***	-0.027
4	**0.401**	**0.388**	0.013**	**0.151**	**0.111**	0.040***	-0.027
5	**0.387**	**0.375**	0.012**	**0.147**	**0.103**	0.044***	-0.033*
6	**0.372**	**0.359**	0.013**	**0.145**	**0.100**	0.045***	-0.032*
7	**0.353**	**0.339**	0.014**	**0.141**	**0.089**	0.052***	-0.038**
8	**0.333**	**0.322**	0.012**	**0.130**	**0.080**	0.050***	-0.039**
9	**0.315**	**0.302**	0.013**	**0.122**	**0.073**	0.049***	-0.036**
10	**0.299**	**0.286**	0.013**	**0.117**	**0.069**	0.047***	-0.035**
11	**0.288**	**0.276**	0.012**	**0.109**	**0.063**	0.046***	-0.034**
12	**0.274**	**0.261**	0.012**	**0.103**	**0.060**	0.042***	-0.030**
13	**0.255**	**0.244**	0.011**	**0.098**	**0.055**	0.043***	-0.032**
14	**0.236**	**0.227**	0.010**	**0.091**	**0.052**	0.040***	-0.030**
15	**0.219**	**0.210**	0.009*	**0.087**	**0.048**	0.039***	-0.030**
16	**0.203**	**0.195**	0.008*	**0.080**	**0.045**	0.035***	-0.027**
17	**0.189**	**0.181**	0.008*	**0.077**	**0.044**	0.034***	-0.025**
18	**0.180**	**0.171**	0.008**	**0.073**	**0.042**	0.031***	-0.022*
19	**0.173**	**0.164**	0.009**	**0.070**	**0.040**	0.030***	-0.021*
20	**0.166**	**0.157**	0.009**	**0.069**	**0.040**	0.030***	-0.021*

Panel B – Operating Cycle Quintiles (2,374 observations)

	Lowest Quintile Adjusted R^2			Highest Quintile Adjusted R^2			
Predictor	IBSI	IBSI – WC	Difference	IBSI	IBSI – WC	Difference	Difference in Differences
Years ahead	(1)	(2)	(3)	(4)	(5)	(6)	(3) – (6)
1	**0.377**	**0.352**	0.025	**0.182**	**0.184**	-0.002	0.027
2	**0.376**	**0.341**	0.034**	**0.232**	**0.224**	0.008	0.026
3	**0.374**	**0.340**	0.033**	**0.246**	**0.234**	0.012	0.021
4	**0.361**	**0.323**	0.038***	**0.240**	**0.227**	0.013	0.025
5	**0.342**	**0.301**	0.041***	**0.232**	**0.213**	0.020	0.022
6	**0.323**	**0.281**	0.042***	**0.222**	**0.200**	0.022	0.020
7	**0.299**	**0.255**	0.043***	**0.209**	**0.175**	0.034**	0.009
8	**0.273**	**0.234**	0.039***	**0.195**	**0.159**	0.037**	0.002
9	**0.250**	**0.213**	0.036***	**0.185**	**0.145**	0.040***	-0.004
10	**0.234**	**0.201**	0.033***	**0.178**	**0.133**	0.045***	-0.011
11	**0.224**	**0.190**	0.034***	**0.174**	**0.125**	0.049***	-0.015
12	**0.211**	**0.178**	0.033***	**0.171**	**0.121**	0.051***	-0.018
13	**0.196**	**0.165**	0.031***	**0.171**	**0.116**	0.055***	-0.025
14	**0.183**	**0.156**	0.027***	**0.166**	**0.110**	0.056***	-0.029*
15	**0.169**	**0.146**	0.023***	**0.161**	**0.101**	0.060***	-0.037**
16	**0.157**	**0.139**	0.019**	**0.152**	**0.094**	0.058***	-0.039**
17	**0.146**	**0.129**	0.017**	**0.145**	**0.091**	0.055***	-0.037**
18	**0.139**	**0.124**	0.015*	**0.139**	**0.086**	0.052***	-0.037**
19	**0.129**	**0.115**	0.014*	**0.131**	**0.083**	0.048***	-0.034**
20	**0.121**	**0.109**	0.012	**0.126**	**0.080**	0.046***	-0.034**

This table presents the results of testing the contribution of accruals to the prediction of future cumulative cash flows from operations across different firms, from one to twenty periods ahead. The coefficients in columns 1-2 and 4-5 represent the Adjusted R^2 from pooled OLS regressions of Cumulative CFO on our earnings measures, using firm-year observations between 1987 and 2020. Panel A (B) presents results for firms in the extreme quintiles of Operating Volatility (Operating Cycle) in each year. See Appendix B and Table A1 in this appendix for detailed variable definitions. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively.

Table A4: Predicting intrinsic value

Predictor	Adjusted R^2				
	CFO	FCF	IBSI	Difference	
	(1)	(2)	(3)	(3) – (1)	(3) – (2)
	0.085	**0.032**	**0.171**	0.086***	0.139***

This table presents results of tests of the relative ability of free cash flows and earnings in the current period at predicting the intrinsic value measure described in Subramanyam and Venkatachalam (2007) as the dependent variable. Columns 1 to 3 present the Adjusted R^2 from pooled OLS regressions of intrinsic value separately on operating cash flows, free cash flows, and earnings, for fiscal years 1987 to 2020. See Appendix B and Table A1 in this appendix for detailed variable definitions. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively, from Vuong (1989) tests of the difference in explanatory power between competing non-nested models. We have 12,488 observations here.

Table A5: Tests of persistence of investment and financing

Panel A – Estimation of Future Net Investment Spending

	Dependent Variable: NET INV	
Predictor	NET INV	
Years ahead	Coefficient	Adj R^2
1	**0.702**	**0.515**
2	**0.550**	**0.349**
3	**0.482**	**0.287**
4	**0.440**	**0.255**
5	**0.416**	**0.236**
6	**0.378**	**0.205**
7	**0.372**	**0.204**
8	**0.360**	**0.202**
9	**0.353**	**0.201**
10	**0.341**	**0.197**
11	**0.319**	**0.183**
12	**0.296**	**0.164**
13	**0.283**	**0.155**
14	**0.270**	**0.147**
15	**0.265**	**0.142**
16	**0.256**	**0.137**
17	**0.251**	**0.136**
18	**0.229**	**0.117**
19	**0.213**	**0.107**
20	**0.202**	**0.104**

Table A5, continued.

Panel B – Estimation of Future Net Financing

	Dependent Variable: NET DEBT	
Predictor	NET DEBT	
Years ahead	Coefficient	Adj R^2
1	**0.057**	**0.004**
2	**0.014**	**0.000**
3	**0.012**	**0.000**
4	**0.027**	**0.001**
5	**0.009**	**0.000**
6	**-0.004**	**0.000**
7	**-0.005**	**0.000**
8	**-0.005**	**0.000**
9	**0.008**	**0.000**
10	**-0.005**	**0.000**
11	**-0.005**	**0.000**
12	**0.009**	**0.000**
13	**0.008**	**0.000**
14	**-0.001**	**0.000**
15	**0.012**	**0.000**
16	**0.013**	**0.000**
17	**0.012**	**0.000**
18	**0.017**	**0.000**
19	**0.002**	**0.000**
20	**0.004**	**0.000**

This table presents results of testing the ability of net investment spending and net financing in the current period at predicting future net investment spending and net financing in individual years, from one to twenty periods ahead. Panel A (B) presents results for the prediction of net investment spending (net financing). Columns 1 and 2 show the coefficients and adjusted R^2 of pooled OLS regressions of future NET INV and future NET DEBT on the respective measures in the current year using 12,518 firm-year observations between 1987 and 2020. See Appendix B and Table A1 in this appendix for detailed variable definitions.

Table A6: Cross-sectional tests on depreciation's ability to predict Cumulative NET INV

Panel A – Predictive ability below median

	Adjusted R^2		
Predictor	FCF	IBSI	Difference
Years ahead	(1)	(2)	(2) – (1)
1	**0.247**	**0.107**	-0.140***
2	**0.251**	**0.139**	-0.112***
3	**0.255**	**0.167**	-0.088***
4	**0.245**	**0.179**	-0.066***
5	**0.235**	**0.188**	-0.047***
6	**0.226**	**0.197**	-0.029**
7	**0.215**	**0.206**	-0.009
8	**0.201**	**0.209**	0.008
9	**0.189**	**0.209**	0.020
10	**0.181**	**0.205**	0.023*
11	**0.171**	**0.204**	0.033***
12	**0.162**	**0.200**	0.038***
13	**0.152**	**0.196**	0.044***
14	**0.142**	**0.186**	0.044***
15	**0.133**	**0.179**	0.046***
16	**0.128**	**0.175**	0.047***
17	**0.122**	**0.172**	0.050***
18	**0.117**	**0.167**	0.050***
19	**0.112**	**0.163**	0.051***
20	**0.108**	**0.159**	0.051***

Table A6, continued.

Panel B – Predictive ability above median

	Adjusted R^2		
Predictor	FCF	IBSI	Difference
Years ahead	(1)	(2)	(2) – (1)
1	**0.290**	**0.153**	-0.137***
2	**0.286**	**0.176**	-0.111***
3	**0.279**	**0.192**	-0.087***
4	**0.267**	**0.201**	-0.065***
5	**0.257**	**0.209**	-0.047***
6	**0.247**	**0.217**	-0.030**
7	**0.236**	**0.223**	-0.013
8	**0.223**	**0.221**	-0.002
9	**0.208**	**0.221**	0.013
10	**0.193**	**0.223**	0.029**
11	**0.181**	**0.225**	0.043***
12	**0.172**	**0.225**	0.053***
13	**0.165**	**0.226**	0.061***
14	**0.156**	**0.224**	0.068***
15	**0.147**	**0.222**	0.075***
16	**0.137**	**0.218**	0.081***
17	**0.129**	**0.213**	0.084***
18	**0.123**	**0.207**	0.084***
19	**0.117**	**0.202**	0.085***
20	**0.110**	**0.196**	0.086***

This table presents the results of testing the relative ability of free cash flows and earnings in the current period at predicting future cumulative free cash flows across different firms, from one to twenty periods ahead. The coefficients in columns 1 and 2 represent the Adjusted R^2 from pooled OLS regressions of Cumulative FCF on free cash flows and earnings measures, using 12,518 firm-year observations between 1987 and 2020. Panel A (B) presents results for firms for which the Adjusted R^2 of a pooled OLS regression of 20-years-ahead Cumulative NET INV on current year depreciation falls below (above) the median. See Appendix B for detailed variable definitions. The last column presents the differences in Adjusted R^2. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively, from Vuong (1989) tests of the difference in explanatory power between competing non-nested models.

Table A7: Contribution of accruals to prediction of Cumulative FCFE

	Adjusted R^2				
Predictor	IBSI	IBSI – INV ACC	IBSI – FIN ACC	Difference	
Years ahead	(1)	(2)	(3)	(2) – (1)	(3) – (1)
1	**0.120**	**0.151**	**0.040**	0.031***	-0.080***
2	**0.160**	**0.191**	**0.051**	0.031***	-0.109***
3	**0.184**	**0.209**	**0.056**	0.026***	-0.128***
4	**0.195**	**0.214**	**0.061**	0.019***	-0.134***
5	**0.201**	**0.211**	**0.064**	0.011*	-0.137***
6	**0.202**	**0.209**	**0.062**	0.007	-0.141***
7	**0.199**	**0.201**	**0.059**	0.003	-0.140***
8	**0.198**	**0.196**	**0.056**	-0.002	-0.141***
9	**0.196**	**0.189**	**0.057**	-0.007	-0.139***
10	**0.195**	**0.182**	**0.058**	-0.013**	-0.137***
11	**0.198**	**0.177**	**0.059**	-0.021***	-0.139***
12	**0.197**	**0.170**	**0.060**	-0.028***	-0.137***
13	**0.196**	**0.165**	**0.059**	-0.031***	-0.137***
14	**0.191**	**0.160**	**0.058**	-0.031***	-0.133***
15	**0.187**	**0.156**	**0.058**	-0.032***	-0.129***
16	**0.183**	**0.151**	**0.056**	-0.032***	-0.127***
17	**0.180**	**0.147**	**0.056**	-0.033***	-0.124***
18	**0.177**	**0.142**	**0.055**	-0.035***	-0.121***
19	**0.172**	**0.137**	**0.054**	-0.035***	-0.118***
20	**0.167**	**0.133**	**0.053**	-0.034***	-0.115***

This table presents the results of testing the contribution of investment and financing accruals for the ability of earnings in the current period to predict future cumulative free cash flows to equity, from one to twenty periods ahead. The coefficients in columns 1 to 3 represent the Adjusted R^2 from pooled OLS regressions of Cumulative FCFE on our earnings measures, using 12,518 firm-year observations between 1987 and 2020. See Appendix B and Table A1 in this appendix for detailed variable definitions. The last two columns present the differences in Adjusted R^2. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively, from Vuong (1989) tests of the difference in explanatory power between competing non-nested models.

Table A8: Cross-sectional tests of Cumulative FCFE prediction

Panel A – Financing Volatility Quintiles (2,461 observations)

	Lowest Quintile Adjusted R^2			Highest Quintile Adjusted R^2			
Predictor	IBSI	IBSI – FIN ACC	Difference	IBSI	IBSI – FIN ACC	Difference	Difference in Differences
Years ahead	(1)	(2)	(3)	(4)	(5)	(6)	(3) – (6)
1	**0.191**	**0.224**	-0.033**	**0.087**	**0.004**	0.083***	-0.116***
2	**0.230**	**0.250**	-0.020	**0.109**	**0.003**	0.106***	-0.126***
3	**0.265**	**0.280**	-0.016	**0.116**	**0.003**	0.113***	-0.128***
4	**0.281**	**0.289**	-0.008	**0.118**	**0.005**	0.113***	-0.121***
5	**0.278**	**0.281**	-0.003	**0.116**	**0.005**	0.111***	-0.114***
6	**0.275**	**0.274**	0.001	**0.115**	**0.005**	0.110***	-0.109***
7	**0.278**	**0.270**	0.008	**0.108**	**0.004**	0.103***	-0.096***
8	**0.265**	**0.253**	0.011	**0.109**	**0.004**	0.105***	-0.094***
9	**0.258**	**0.245**	0.013*	**0.110**	**0.004**	0.106***	-0.092***
10	**0.251**	**0.239**	0.013*	**0.109**	**0.005**	0.104***	-0.091***
11	**0.249**	**0.237**	0.012	**0.115**	**0.005**	0.110***	-0.098***
12	**0.242**	**0.229**	0.013*	**0.115**	**0.007**	0.108***	-0.096***
13	**0.240**	**0.227**	0.013*	**0.112**	**0.006**	0.105***	-0.092***
14	**0.235**	**0.221**	0.014**	**0.109**	**0.006**	0.103***	-0.089***
15	**0.229**	**0.210**	0.019***	**0.110**	**0.008**	0.102***	-0.083***
16	**0.220**	**0.200**	0.020***	**0.107**	**0.007**	0.100***	-0.080***
17	**0.217**	**0.197**	0.020***	**0.106**	**0.007**	0.099***	-0.079***
18	**0.206**	**0.187**	0.019***	**0.105**	**0.008**	0.097***	-0.078***
19	**0.195**	**0.176**	0.018***	**0.105**	**0.008**	0.096***	-0.078***
20	**0.185**	**0.166**	0.019***	**0.103**	**0.008**	0.095***	-0.076***

Table A8, continued.

Panel B – Investment Cycle Quintiles (2,489 observations)

	Lowest Quintile Adjusted R^2			Highest Quintile Adjusted R^2			
Predictor	IBSI	IBSI – FIN ACC	Difference	IBSI	IBSI – FIN ACC	Difference	Difference in Differences
Years ahead	(1)	(2)	(3)	(4)	(5)	(6)	(3) – (6)
1	**0.167**	**0.095**	0.072***	**0.067**	**0.015**	0.052***	0.020
2	**0.199**	**0.108**	0.091***	**0.083**	**0.017**	0.066***	0.025
3	**0.214**	**0.113**	0.101***	**0.106**	**0.015**	0.091***	0.010
4	**0.214**	**0.113**	0.101***	**0.120**	**0.023**	0.097***	0.004
5	**0.208**	**0.116**	0.092***	**0.130**	**0.025**	0.105***	-0.013*
6	**0.200**	**0.112**	0.088***	**0.149**	**0.025**	0.124***	-0.036**
7	**0.190**	**0.103**	0.087***	**0.159**	**0.029**	0.130***	-0.042***
8	**0.178**	**0.093**	0.085***	**0.163**	**0.028**	0.136***	-0.051***
9	**0.170**	**0.093**	0.077***	**0.170**	**0.028**	0.142***	-0.065***
10	**0.167**	**0.092**	0.075***	**0.179**	**0.037**	0.142***	-0.067***
11	**0.166**	**0.091**	0.075***	**0.187**	**0.038**	0.149***	-0.074***
12	**0.164**	**0.094**	0.070***	**0.192**	**0.040**	0.152***	-0.082***
13	**0.162**	**0.091**	0.071***	**0.192**	**0.043**	0.149***	-0.078***
14	**0.155**	**0.087**	0.068***	**0.194**	**0.048**	0.146***	-0.077***
15	**0.146**	**0.083**	0.063***	**0.197**	**0.053**	0.144***	-0.081***
16	**0.139**	**0.078**	0.061***	**0.194**	**0.053**	0.140***	-0.079***
17	**0.132**	**0.075**	0.057***	**0.202**	**0.054**	0.148***	-0.091***
18	**0.125**	**0.074**	0.051***	**0.210**	**0.058**	0.152***	-0.101***
19	**0.118**	**0.070**	0.048***	**0.208**	**0.056**	0.153***	-0.105***
20	**0.115**	**0.069**	0.046***	**0.202**	**0.052**	0.150***	-0.104***

This table presents the results of testing the contribution of accruals to the prediction of future cumulative free cash flows to equity across different firms, from one to twenty periods ahead. The coefficients in columns 1-2 and 4-5 represent the Adjusted R^2 from pooled OLS regressions of Cumulative FCFE on our earnings measures, using firm-year observations between 1987 and 2020. Panel A (B) presents results for firms in the extreme quintiles of Financing Volatility (Investment Cycle) in each year. See Appendix B and Table A1 in this appendix for detailed variable definitions. *, **, *** indicate two-tailed p-values below 10%, 5%, and 1%, respectively.