

The Effects of Current Income Attributes on Nonprofessional Investors' Say-on-Pay Judgments: Does Fairness Still Matter?

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Abstract The say-on-pay (SOP) regulation in the Dodd-Frank Act (Public L. no. 111–203, H.R. 4173 [2010](#)) requires publicly-traded U.S. firms to hold a nonbinding, advisory shareholder vote on executive compensation. Advocates claim that SOP voting gives shareholders a mechanism to hold managers and boards more accountable. Critics contend that SOP votes may simplistically reflect shareholders' reactions to the overall value of CEO compensation or the firm's net income. However, based on prior research, we contend that market participants' SOP votes are likely to consider current income attributes. For example, the market punishes firms that do not meet or beat benchmarks such as analyst earnings expectations, and that shareholders scrutinize the quality of the income sources of firms that consistently meet/beat analyst expectations. We thus expect that more shareholders will provide 'agree' SOP votes for a firm that consistently meets/beats analyst forecasts and does so when net income does not include (rather than includes) nonrecurring gains. Further, we consider whether perceptions about the fairness of CEO compensation play a mediating role in the relationship between the interaction of these two current income attributes and SOP votes. Results from an experiment using

evening MBA students as participants indicates that the two current income attributes significantly interact with respect to the percentage of agree SOP votes, and that compensation fairness perceptions fully mediate this relationship. Further, the mediating effect of compensation fairness perceptions is robust to including CEO-level and other determinants found in prior research. We conclude with a discussion of our findings and their implications for public policy and research.

Keywords CEO compensation · Say-on-pay · Earnings attributes · Income source · Analyst expectations · Fairness perception

Introduction

The say-on-pay (SOP) regulation in the Dodd-Frank Act ([2010](#)) requires publicly-traded U.S. firms to hold a non-binding, advisory shareholder vote on executive compensation. In part, the motivation for this requirement was to address a widely held view that CEOs compensation is “hugely generous” (Joutsenvirta [2013](#), p. 460) and that “CEO pay packages are grossly exorbitant” (Harris [2009](#), p. 147). In effect, SOP votes, along with firms' compensation-related disclosures, represent a form of limited discourse between the firm and its shareholders. This type of discourse “is a good means of finding out what stakeholders actually want, providing a more informed base of making decisions that have ethical import” (Van Buren [2001](#), p. 487). Thus, SOP voting provides shareholders with an opportunity to publicly register their support for or against the CEOs' compensation package, which under certain circumstances could be perceived as “unethical, in the sense of violating shareholders' rights or granting

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grossly inequitable compensation” (Matsumura and Shin 2005, 103).

Although nonbinding, SOP voting is intended to make the views of the firm’s shareholders more salient and to hold board members, and members of the compensation committee who are responsible for setting CEO compensation packages, more accountable. Although SOP votes are commonly supportive (i.e., agree), boards and compensation committees should be concerned when a non-trivial minority does not support the CEO’s compensation package (e.g., Thomas and Cotter 2007; Ertimur et al. 2010, 2011) because policy makers and the media “push say-on-pay votes to the forefront of the public consciousness” (Krause et al. 2014, p. 96). Given the growing relevance of SOP voting, researchers are increasingly interested in examining its economic and ethical determinants. For example, prior research finds that firms’ overall financial performance is positively associated with the percentage of shareholders’ voting to support executive compensation packages (e.g., Cai and Walkling 2011; Ferri and Maber 2013).

While important, prior studies of the economic determinants of SOP votes generally do not directly examine why shareholders decided to vote in support or not in support of executive compensation packages, nor do they consider what we characterize as *current income attributes*. By *current income attributes*, we mean attributes that do not change the firm’s net income but do change the context and/or source of the income. We contend, that for a given amount of net income, shareholders are likely to consider the context and/or source of income in their SOP vote. That is, in making decisions about whether to support the CEO’s pay package, we expect that current income attributes will impact shareholders’ SOP voting. However, if shareholders fixate on the amount of net income,¹ as has been suggested in prior research, then current income attributes will not impact SOP votes. Similarly, if shareholders fixate on the CEO’s high compensation, then neither the amount of the net income nor the current income attributes will have an impact on SOP votes.

Our study focuses on the interaction effects of two current income attributes on SOP votes—the consistency of meeting or beating analyst earnings expectations and the income source. Prior research finds that the market punishes firms that miss analyst earnings expectations, even by a small margin (Skinner and Sloan 2002), and that CEOs also are punished (e.g., his/her bonus is reduced in the subsequent period) for missing analyst earnings forecasts for at least two quarters during the year (Matsunaga and

Park 2001). These results suggest that shareholders’ reaction to and support for the firm and its CEO is likely to depend on the consistency of the firm meeting/beating analyst earnings forecasts. Thus, compared to firms that consistently report earnings that meet/beat analyst earnings forecasts, we expect the percentage of supportive SOP votes will be lower when firms do not consistently report earnings that meet/beat analyst earnings forecasts. However, when firms consistently report earnings that consistently meet/beat earnings forecasts, shareholders will not necessarily provide supportive SOP votes. Rather, when firms consistently meet/beat analyst earnings forecasts, shareholders become skeptical about the quality of those firms’ income sources (e.g., Koh et al. 2008). In this case, we expect that shareholders will more carefully scrutinize the sources of the firm’s income, which, in turn, will impact the percentage of supportive SOP votes.

In our research we distinguish between situations in which the firm’s net income includes or excludes nonrecurring transactions such as a gain from the sale of an investment. Such investment gains, while increasing current period net income, generally are not expected to recur in future periods. The results from a recent survey indicate that CFOs “believe that, above all, quality earnings are sustainable and repeatable” and identify “the absence of one-time items” as a specific characteristic of high quality earnings (Dichev et al. 2013, p. 2). When a firm consistently meets/beats analyst earnings forecasts *and* net income does not include any nonrecurring gains, we expect shareholders, while skeptical, will not find any evidence of low quality earnings, and thus, compared to when the firm does not consistently meet/beat analyst earnings forecasts, we expect the percentage of supportive SOP votes will be higher. In contrast, when a firm consistently meets/beats analyst earnings forecasts and net income does include nonrecurring gains, we expect shareholders, who are skeptical, will notice signs of low quality earnings, and be less likely to provide supportive SOP votes. Overall, we expect the two current income attributes will interact such that compared to the remaining three conditions, the percentage of supportive SOP votes will be higher when a firm consistently meets/beats analyst earnings forecasts *and* does so when net income does not include nonrecurring gains (i.e., from normal operations).

While much of the academic literature on CEO compensation relies on principal-agency theory and focuses on economic considerations (Murphy and Sandino 2010; Nyberg et al. 2010), a growing body of research incorporates ethical aspects such as fairness to provide additional insight into both the development of and support for CEO compensation. For example, discussions of corporate governance reform highlight the importance of an explicit ethical dimension into the determinants of CEO

¹ The tendency to focus on a firm’s net income and ignore the procedures and activities used to generate reported net income is referred to as earnings fixation (Bushee 2001; Elliott et al. 2011).

compensation (e.g., Matsumura and Shin 2005), and survey evidence indicates that compensation committee members strive to come up with CEO compensation packages that are “fair and balanced” (Hermanson et al. 2012). Consistent with this emerging “fairness-based perspective” of stakeholder behavior (Hayibor 2016, p. 2), we contend that perceptions about the overall fairness of the CEO’s compensation will explain shareholders’ SOP votes. CEO compensation represents a transaction between the firm and the CEO that is primarily determined by the firm’s compensation committee, but ultimately impacts shareholders, the firm’s residual claimants.

In our research, we expect that CEO compensation fairness perceptions will play a mediating role in the relationship between the two current income attributes discussed above and SOP votes. Specifically, we predict that perceptions that the CEO’s compensation is relatively unfair will largely explain participants’ negative SOP votes. This form of the fairness effect builds upon and extends prior research on the CEO-level determinants of shareholders’ SOP votes (Kaplan et al. 2015). If shareholders are perceptive about the fairness of the underlying CEO compensation contract, then we expect the interaction effect of the two current income attributes on SOP votes will be mediated by their fairness perceptions. However, if shareholders’ SOP votes only reflect a reaction to the firm’s overall financial performance or overall compensation, then fairness perceptions will not mediate the impact of current income attributes on SOP votes.

To test our predictions, we conduct a 2×2 between-participants experiment and manipulate the consistency of meeting/beating analyst earnings expectations (in only two or all four quarters) and the income source (e.g., net income with or without nonrecurring gains). The background information holds constant the firm’s current and past net income, CEO compensation and the compensation committee structure. Evening MBA students, serving as participants, provide an SOP vote (agreement or disagreement with a resolution stating approval of the compensation paid to the CEO), and indicate their fairness perceptions of the CEO’s compensation. Following prior research, evening MBA students are used to proxy for nonprofessional investors (Elliott et al. 2007).

Understanding the SOP voting behavior of nonprofessional shareholders is important for several reasons. First, research examining nonprofessional shareholders’ compensation-related votes is scant (Kaplan et al. 2015; Krause et al. 2014), and research suggests that nonprofessional shareholders make investment-related decisions differently than more sophisticated shareholders (Allee et al. 2007; Dilla et al. 2013; Fredrickson and Miller 2004). Moreover, critics claim that the SOP regulation triggers naïve voting, particularly among less sophisticated nonprofessional

shareholders, who may oppose high compensation packages and/or react simplistically to current financial performance. Second, as a class, nonprofessional shareholders have a substantial presence in U.S. equity markets (e.g., Cohen et al. 2011), and constitute about 25 percent of the equity value of publicly-traded U.S. firms.² Third, while prior research shows that institutional investors represent a large proportion of the SOP votes (e.g., Ertimur et al. 2011), firms are placing greater emphasis on the voting behavior of nonprofessional shareholders (Chasan 2013).³

Results from our study support both of our predictions. We find a significant interaction between the consistency of meeting/beating analyst earnings expectations and the income source on the percentage of agree SOP votes. Importantly, the pattern of results are as expected. Compared to the other three cells, the percentage of support is higher when the firm meets/beats analyst earnings forecasts in all four quarters and net income did not include nonrecurring gains. Further, perceptions about the overall fairness of the CEO’s compensation fully mediated the relationship between the interaction of the two income attributes and SOP votes. Finally, additional analyses indicate that the mediating effect of the compensation fairness factor is robust after controlling for shareholders’ assessments of management credibility and investment viability, respectively.

We contribute to the SOP literature in at least three ways. First, our research complements and extends archival research (e.g., Ertimur et al. 2010, 2011; Ferri and Maber 2013) by focusing on current income attributes rather the overall financial performance. Our research highlights the ability of shareholders, particularly nonprofessional shareholders, to understand financial performance in context and that, on average, nonprofessional shareholders do not fixate only on reported net income. Second, we extend recent research examining compensation fairness perceptions as a potential mediator for SOP votes and respond to a call for research examining whether SOP votes “are based on perceptions of the value the CEO creates for the company and/or expectations about [the] company’s future prospects” (Kaplan et al. 2015, p. 114). Our research thereby directly examines the relevance of the fairness-based stakeholder perspective (Hayibor 2016). Third, we add to emerging research on the determinants of

² Matteo Tonello and Stephan Robimov, “The 2010 Institutional Investment Report: Trends in Asset Allocation and Portfolio Composition,” published by the Conference Board (November 2010). Available at <http://www.conference-board.org/publications/publicationdetail.cfm?publicationid=1872>.

³ In 2012, 515 firms solicited votes from their nonprofessional investors, up from 163 firms in 2011. In 2011, 91 % of votes cast by nonprofessional investors were agree SOP votes, compared to 86 % of votes cast by institutional investors (Chasan 2013).

nonprofessional shareholders' SOP votes (Kaplan et al. 2015; Krause et al. 2014) and thereby deepen our understanding of the judgments of this important subset of shareholders. Specifically, our evidence suggests that nonprofessional shareholders consider current income attributes as a basis for SOP voting, but moreover, that this effect is mediated by their CEO compensation fairness perceptions.

This paper proceeds as follows. In the next section, we review the literature and develop our hypotheses. We then discuss the research methodology. This is followed by a discussion of the test of hypotheses and additional analyses. The last section discusses our results, as well as the limitations and implications of our research.

Background and Hypotheses Development

Even prior to the SOP regulation, some companies were voluntarily holding shareholder votes on company matters associated with executive compensation.⁴ However, SOP regulations under the Dodd-Frank Act of 2010 mandated that publicly-traded U. S. firms hold an advisory vote allowing shareholders to vote on whether they agree or disagree with a resolution stating approval of executive compensation and on the frequency of the SOP voting (Lee and O'Neill 2010), and report SOP voting results on a Form 8-K to the SEC within four business days of the annual meeting.⁵ At least once every 3 years, publicly-traded firms are required to hold a shareholder vote on whether the SOP votes will be held annually, biannually, or triennially. Advocates claim that SOP voting offers shareholders several benefits including a voice in CEO compensation, and increasing managerial and board member accountability for CEO compensation. Consistent with these views, Cai and Walkling (2011) find that the passage of SOP regulation in the U.S. House of

Representatives in 2007 is associated with stock price increases for firms with presumably excessive pay and low pay-for-performance sensitivities.

Prior archival research examining SOP voting generally finds high levels of shareholder support for compensation resolutions. Ferri and Maber (2013) find that the majority of U.K. votes are positive, particularly from institutional investors, and that negative votes are increasing in unexpected pay (given the level of firm performance). Kaplan (2012) finds that SOP voting supports compensation resolutions in S&P500 and Russell 3000 companies in 2011. Larecker et al. (2013) find that outsourcing institutional SOP voting to proxy advisors induces boards to make ex-ante compensation changes that are value-decreasing. Ertimur et al. (2014) find evidence consistent with proxy advisors helping institutional shareholders reduce the cost of making informed voting decisions; and Iliev and Vitanova (2014) find greater support for directors in firms requiring SOP votes and positive market reaction to SOP compliance. Taken together, these studies generally focus on governance players, and find that SOP votes increase with overall firm performance.

Meanwhile, research examining nonprofessional shareholders' SOP voting behavior is scant. For example, Krause et al. (2014) find evidence consistent with shareholders supporting pay-for-performance in CEO compensation because they are concerned about agency costs when the firm delivers poor financial performance. More relevant to our study is that of Kaplan et al. (2015), who find that the relationship between SOP votes and two CEO-level variables (i.e., CEO social ties and CEO reporting reputation) is fully mediated by fairness perceptions about CEO compensation.⁶ Together, these studies control for the overall firm's financial performance but do not directly examine the impact of current income attributes.

⁴ See Yermack (2010) for a review of shareholding voting opportunities. Prior research generally finds that company-initiated ratifications of incentive compensation plans (in compliance with exchange listing and/or tax regulations) generate higher negative votes (Gillan 2001; Martin and Thomas 2005); that negative votes are increasing in dilutions levels (Morgan and Poulsen 2001), broker votes (Bethel and Gillan 2002), involvement of proxy advisors (Morgan et al. 2006), and measures for excessive pay (Cai and Walkling 2011); and that negative votes are associated with subsequent reductions in stock option plans. Relatedly, shareholder votes against reelecting directors who are members of the board's executive compensation committee are associated with lower CEO compensation levels (e.g., Cai et al. 2009; Fischer et al. 2009).

⁵ The SOP voting mandate is not unique to the U.S. For example, the Remuneration Report Regulations in 2002 in the U.K. required listed companies to produce a detailed annual directors' remuneration report and to hold a nonbinding, majority shareholder vote on the directors' remuneration report.

⁶ Our study differs from Kaplan et al. (2015) in three key ways. First, we examine *economic* factors that impact SOP votes rather than *governance* factors. In particular, Kaplan et al. (2015, 114) indicate that "...further research should consider economically based sources." Second, we manipulate firm-level factors that impact SOP votes rather than CEO-level factors. Third, we directly tease out the financial performance construct by varying the firm's two income attributes rather than indirectly capturing the reporting performance construct by varying the favorability of a news story from the business press. Indeed, Kaplan et al. (2015, 109) state that because "CEO Reputation for financial reporting is a relatively broad concept and likely includes a variety of factors, this manipulation included several factors..."

Interaction Effect of Two Current Income Attributes

Consistency of Meeting/Beating Analyst Expectations

Analysts are an important part of public companies' financial reporting process. Analysts typically forecast quarterly earnings for public companies they follow (Asquith et al. 2005), and these analyst forecasts act as a key benchmarks for public companies reporting quarterly earnings (Brown and Caylor 2005). Bartov et al. (2002) find that meeting/beating analyst expectations signals better future performance, and survey results from Graham et al. (2005) indicate that CFOs believe that "meeting or exceeding benchmarks is very important." Indeed, Skinner and Sloan (2002) find that when firms report earnings less than analyst earnings expectations, even by a small margin, the market reacts negatively.

Recently, Dichev et al. (2013) surveyed CFOs, who indicate that they feel internal and external pressures to hit earnings benchmarks, in part, to avoid adverse compensation and/or career consequences. Hence, the ability to meet or beat analyst expectations appears to impact CEO compensation. In this regard, Matsunaga and Park (2001) find that compensation committees penalize CEOs by reducing their subsequent year bonus when reporting earnings below the analyst earnings forecasts for at least two quarters during the year. Overall, this discussion suggests that shareholders' reaction to and support for the firm and its CEO likely depends on the consistency of the firm's quarterly earnings meeting/beating analyst forecasts. When firms' earnings do not consistently meet/beat analysts' expectations (e.g., missing some of the time), shareholders infer that top management has not performed as well as expected, and will be less supportive of the CEO's compensation package. Thus, the percentage of supportive SOP votes will be lower when the firm's earnings does not consistently meet/beat analyst earnings expectations.

Income Source

Further, we expect that the above effect of the consistency of the firm meeting/beating analyst earnings expectations is conditional on shareholders' consideration of the firm's income sources. Consider a firm reporting earnings that consistently meets/beats analyst earnings forecasts. In broad terms, a firm can report earnings that meet/beat analyst earnings forecasts through the normal earnings generation process or by engaging in earnings management games (e.g., Bhojraj et al. 2009; Levitt 1998). In order to manage earnings, managers have wide discretion to take actions that will impact the firm's earnings. For example, managers could manipulate accruals by artificially

lowering the provision for bad debt expense (Gul et al. 2003). Alternatively, managers could engage in real activities management by postponing normal maintenance into the future or selling available for sale investments in the current period (Gunny 2010; Roychowdhury 2006).

As a result, in response to managers sometimes engaging in earnings management games, research finds that in the post-SOX period "the market has become more skeptical of firms that meet or beat expectations" (Koh et al. 2008, p. 1068). Their findings suggest that shareholders appear increasingly aware that managers sometimes engage in earnings management games, and that shareholders are likely to be particularly skeptical about and scrutinize reported earnings when the firm reports earnings that consistently meets or beats analyst earnings forecasts.⁷ In particular, when the firm consistently meets/beats analyst earnings forecasts, we expect shareholders will scrutinize the income statement for signs of low quality earnings. By low quality, we mean that net income includes income sources that are less persistent or sustainable (e.g., less likely to continue in the future). This notion of earnings quality is consistent with recent survey results from CFOs that high quality earnings are "sustainable and repeatable" (Dichev et al. 2013, p. 2). For example, one-time items included in the income statement, because they are generally not sustainable or repeatable, represent a specific characteristic that lowers earnings quality. Financial statement analysis textbooks and research generally distinguish between income generated from recurring sources (e.g., permanent earnings) such as net sales and operating income, and income generated from one-time transactions such as investment gains. Ohlson (2009) shows that more permanent earnings are associated with higher firm value. Further, Banker et al. (2009) show earnings persistence is significantly associated CEO compensation.

Taken together, and conditional on a firm consistently meeting/beating analyst forecasts, we expect that shareholders will be more skeptical of income quality, and consequently, discount income that includes a one-time

⁷ Specifically, Koh et al. (2008) find that after the find that after the accounting scandals in the early 2000s, the stock market rewards diminished for firms meeting or beating analyst forecasts. These authors suggest that the decline in premium may be due to an increase in investor skepticism about how firms manage to meet or beat analyst expectations. This investor response is consistent with Jensen (2006), who attributes the scandals to corporate managers, which in turn lead investors to more closely scrutinize the integrity of published reports produced by these corporate managers. This investor response is also consistent with Jensen et al. (2004) and Graham et al. (2005), who argue that because of market pressures and penalties for missing earnings expectations, managers feel pressure to manage earnings and/or manage expectations. As a result, investors will question the quality of income sources especially when a firm meets or beats analyst forecasts.

transaction. As such, relative to when a firm's earnings excludes one-time transactions, we expect the percentage of supportive SOP votes will be lower when a firm's earnings includes a one-time transaction. Overall, we predict that the consistency of meeting/beating analyst earnings expectation and the income source will interact to influence the percentage of supportive SOP votes. This discussion leads to the following interaction hypothesis.

H1 The percentage of SOP votes supporting the CEO's compensation package will be higher when a firm consistently meets/beats analyst earnings forecasts and reported net income does not include nonrecurring gains compared to when a firm does not consistently meets/beats analyst earnings forecasts and/or reported net income does include nonrecurring gains.

Mediating Effect of Beliefs about Compensation Fairness

As discussed above, we expect shareholders' SOP votes to be jointly influenced by two current income attributes. In this section, we develop the role of compensation fairness perceptions as a mediator of the relationship between current income attributes and shareholders' SOP votes. Our discussion relies on stakeholder theory, which holds that firms' decision making should take their stakeholders' preferences and interests into account (Donaldson and Preston 1995). Shareholders represent a key stakeholder, and consequently, managing the firm-shareholder relationship is important (Minoja 2012). Shareholders can take actions against the firm that could harm the firm's reputation and legitimacy, and cause the firm to incur public relations related and other costs (Harrison et al. 2010; Perez-Batres et al. 2012). In our context, shareholders can vote against the CEO's SOP, which could draw negative attention to the firm and its board, and potentially raise broader concerns about the firm's corporate governance processes.

Under the "fairness-based perspective", if stakeholders perceive that the firm has treated them unfairly, stakeholders will be motivated to take actions to punish the firm and/or to restore equity with the firm (Hayibor 2012; Hayibor and Collins 2016). Alternatively, if stakeholders perceive that the firm has treated them fairly, stakeholders will be motivated to take actions to support the firm's interests (Hayibor and Collins 2016; Hosmer and Kiewitz 2005). Perceptions of fairness can relate to individual transactions. In this regard, Bolton et al. (2003, p. 475) indicates that transaction fairness refers to "the extent to which sacrifice and benefit are commensurate for each party involved."

Prior research finds that individuals' preferences for fairness influence their chosen actions. Perceived fairness refers to an individual's assessment of how fair or unfair a particular action is, that is, his/her sense of equity. That fairness perceptions influence individual judgments is consistent with propositions from the contingent factors model (Jones 1991). For example, Cohen and Bennie (2006) find that in all stages of ethical decision-making the magnitude of consequential harm and benefits of a particular action are the most important moral intensity elements.

Prior research finds evidence consistent with fairness beliefs influencing an individual's propensity to behave opportunistically in various contexts including auditing (Jones et al. 2003), management accounting (Rutledge and Karim 1999; Cohen et al. 2007), tax (Cohen et al. 2015), audit committee member's support for auditors (Bierstaker et al. 2012) and other professional settings (Rest and Narvaez 1994). Most relevantly, Kaplan et al. (2015) find that the impact of the CEO's reporting reputation on shareholders' SOP votes is fully mediated by perceptions about CEO compensation fairness. However, in contrast to Kaplan et al. (2015), who examine the effect of CEO-level variables (e.g., CEO social ties and CEO reputation) on SOP voting behavior, the current study examines the effect of firm-level variables on SOP voting behavior. Potentially, whether perceptions about CEO compensation fairness serve as a mediating variable depend on the type or nature of the independent variables being manipulated. That is, fairness perceptions could be a mediator for CEO-level variables but not for firm-level variables.

Overall, we expect that shareholders' SOP votes will be explained, in part or in full, by their perceptions about the overall fairness of the CEO's compensation. When shareholders are faced with less than expected current financial performance, they will perceive the CEO's compensation contract as less justified and less appropriate, and consequently, less fair. For example, given the CEO's inability to deliver favorable current income attributes (e.g., missing analyst earnings forecasts), the contracting process might seem biased and/or the CEO's compensation package might seem excessive. Alternatively, when the CEO is able to deliver favorable current performance vis-à-vis consistently meeting/beating analyst earnings expectations, shareholders may still perceive the CEO's compensation package is less fair if they are skeptical about and discount nonrecurring sources of income such as investment gains.

Taken together, shareholders develop perceptions about the fairness of the CEO compensation package based on their view of current income attributes, and we expect these perceptions will influence and explain, in part or in full, the relation between current income attributes and the percentage supporting the CEO's compensation package. We thus propose the following mediation hypothesis:

H2 Perceptions about the fairness of the CEO's compensation package will mediate the association between the firm's current income attributes and the percentage of SOP votes supporting the CEO's compensation package.

Research Methodology

We conducted a between-participants experiment manipulating the consistency of a firm's earnings meeting/beat-ing analyst expectations at two levels and the income source at two levels. Other scenario information, discussed below, is held constant. Eighty-four evening MBA students completed the experiment in class. Consistent with prior research, we used evening MBA students to proxy for nonprofessional investors (Elliott et al. 2007; Koonce et al. 2010). For a similar task (i.e., to provide an SOP vote as to whether they agreed or disagreed with a resolution stating approval of the compensation paid to the CEO), Krause et al. (2014) and Kaplan et al. (2015) also used MBA students as participants. The cover sheet requesting participation offered a guarantee of anonymity, and provided general instructions indicating that the research study was about investor decision making.

Experimental Task

Our questionnaire, a modified version of that used in Kaplan et al.'s (2015) study, provided background information about the XYZ Company, a public company listed and traded on NASDAQ. The background information indicated that the Company is a producer and marketer of agricultural nutrients, industrial products, and specialty fertilizers worldwide, and briefly described the Company's operations. Also included was a brief description of the CEO's background, followed by a discussion of the financial performance and analyst coverage, both of which are discussed further below. Next, the questionnaire presented a three-year audited income statement, indicating that EPS for the last three years had been growing from \$1.72, to \$1.77 to \$1.94. Thus, based on EPS, the Company exhibited improved and growing financial performance. The contents of the first 2 years income statements were held constant, but the contents of the most recent year's income statement was manipulated, as discussed further below.

The next page of the questionnaire provided information held constant about the executive compensation committee (ECC), indicating that the ECC is comprised of three board members who are responsible for establishing the compensation programs for the CEO; and that each of the of the ECC members qualifies as an independent director under NASDAQ's listing requirements and as a non-employee director as defined under the Securities and Exchange Act

of 1934. This page of the questionnaire also discussed two key objectives and the ECC's work related to developing the CEO's compensation package as follows: (1) link a material portion of the CEO's total annual compensation directly to the CEO achieving or exceeding the Company's performance goals, and (2) align the CEO with the long-term interest of shareholders. In addition, the page indicated that the ECC performed a benchmarking analysis using compensation data of CEOs from peer companies, and that the CEO's compensation package was above the median compensation package for CEOs' in peer companies.⁸ The CEO's compensation package included a base salary, an incentive cash bonus, and restricted shares. For the current year, the CEO's compensation showed an increase of \$250,000 in base salary to a total of \$2,000,000, an increase of \$800,000 in incentive cash bonus to a total of \$3,000,000, and an increase of 40,000 restricted shares to a total of 200,000 restricted shares.⁹

After reading the background information, participants responded to a series of questions. First, consistent with the SOP regulation, participants were asked, as part of a non-binding advisory vote, to provide an SOP vote (i.e., whether they agreed or disagreed with a resolution stating approval of the compensation paid to the CEO). Second,

⁸ Following Kaplan et al. (2015), some disclosures are arguably proprietary and also voluntary rather than mandated. Thus, while our experiment explicitly states the two key objectives typically provided by firms, the experiment is silent on the company-specific performance goals, whether the CEO met those goals and the names of the peer firms. That said, firms do typically provide benchmarking information about their executive compensation package relative to a peer group, so do we include this detail in our experimental materials. Further, the experimental materials state that the CEO's compensation is above the median of the peer group to indicate that this firm pays their CEO a competitive package that is comparable to its peer group, and hence reflective of the CEO's relative talent and value that they bring to the firm (Albuquerque et al. 2013).

⁹ This sequence and set of disclosures is aimed at mimicking the typical events leading up to the SOP vote so as to increase the generalizability of our results. At the year-end earnings release date, shareholders obtain information about the firm's overall financial performance (Form 8-K) and as a result, whether the fourth-quarter earnings met or missed the analyst forecast. Then, at the annual report release date, shareholders obtain details about the firm's income sources (Form 10-K). Then, at the proxy statement release date, shareholders obtain CEO pay and peer firm information (Form DEF 14A). Then, at or around the annual shareholder meeting, shareholders cast their SOP votes. As such, it is only after the proxy statement release date that shareholders can use the available information to form their distributive fairness perceptions about CEO compensation. Importantly, it is also at this date that the ECC discloses how they have changed, if at all, the CEO's pay as a result of meeting or missing analysts' expectations (Matsunaga and Park 2001), so it is only at this date that shareholders can use this information to form their procedural fairness perceptions about CEO compensation. We consider distributive and procedural fairness as two underlying components of compensation fairness perceptions in the additional analysis section below.

participants provided their perceptions about the fairness of the CEO's compensation, which is described further below, as well as additional questions about the firm's future financial performance and investment viability, which are described further in the additional analysis section. Lastly, participants responded to manipulation check and demographic questions.

Independent Variables

The first independent variable is the consistency of EPS meeting/beating analyst expectations, manipulated at two levels. The questionnaire indicates that the Company is covered by quite a few analysts, each of whom issues an earnings forecast, the average of which is called the consensus EPS estimate. A summary by quarter indicating that the actual EPS exceeded the consensus estimate in the first and third quarter by 2 cents was held constant, but the information about the second and fourth quarters was manipulated. Under the all quarter conditions, the summary indicated that in both the second and fourth quarters the actual EPS exceeded the consensus estimate by 3 cents. Thus, in the all four quarters condition, the actual EPS exceeded the consensus estimate. Under the some quarters condition, the summary indicated that in both the second and fourth quarters the actual EPS was less than the consensus estimate by 3 cents. Thus, in two quarters the actual EPS was above the consensus estimate and in the other two quarters the actual EPS was below the consensus estimate.

The second independent variable is the firm's income source, also manipulated at two levels. While the current year's income statement held constant the amount of net after-tax income, the contents were manipulated. Under the net income without nonrecurring gains condition, the income statement did not include any nonrecurring items in the form of investment gains. Instead, the income statement showed a large increase in sales revenue (along with increases in relative increases in cost of goods sold and marketing, general and administrative expenses) which largely accounted for the increase in income from the prior year. Under the income with nonrecurring gains condition, the income statement included a nonrecurring item. Specifically, one line item showed a substantial gain from investments which largely accounted for the increase in income from the prior year. To emphasize that the gain is nonrecurring, no gains were indicated for the income statements for the previous 2 years, nor were any other nonrecurring items included in the income statements for the two previous income statements.

Dependent Variable and Mediation Factor

The dependent variable used to test hypothesis 1 is derived from the participant response to whether s/he agrees or

disagrees with the nonbinding, advisory resolution stating approval of the CEO's compensation (see "Appendix").

The mediation factor used to test hypothesis 2 is derived from five measures in the questionnaire that are intended to capture the participant's perceptions about the fairness of the CEO's compensation (see "Appendix"). The first three measures (total compensation fairness, base salary fairness, and non-base salary fairness) are representative of distributive fairness, that is, "the fairness of outcome distributions or allocations" (Colquitt et al. 2001, p. 425). The other two measures (fairness of the ECC process and ECC biased in favor of the CEO) are indicative of procedural fairness, that is, "the fairness of the procedures used to determine outcome distributions or allocations," (Colquitt et al. 2001, p. 425). These five measures, along with the response scale for each, are again shown in the "Appendix". As shown, participants' scores for all these measures (except for the ECC biased in favor of the CEO measures, which is reverse-ordered) range from 1 to 7, with higher values indicating stronger perceptions that the CEO's compensation is fair. The Cronbach alpha for these five measures is 0.858. We conducted an exploratory factor analysis on these five measures, and this yields a single factor eigenvalue of 4.28, which indicates that participants encoded the five items as belonging to a single construct. As such, we label this factor as the compensation fairness factor.¹⁰

Results

Manipulation Checks and Demographics

The questionnaire included two manipulation check questions, one for each independent variable. The first manipulation check question was used to assess whether participants attended to the manipulation about the consistency of quarterly earnings meeting/beating analyst expectations and read, "XYZ Inc.'s Actual EPS (a) exceeded the consensus estimate from analysts in all four quarters in 2014; or (b) did not exceed the consensus estimate from analysts in all four quarters in 2014." Four participants were dropped for incorrectly responding to this manipulation check question. The second manipulation check question was used to assess whether participants attended to the manipulation about the source of the current year's increase in earnings and read, "Relative to 2013, XYZ, Inc.'s positive financial performance in 2014 was mainly due to (a) gains in investments; or (b) activities other than gains in investments." Another thirteen

¹⁰ The effects of distributive fairness and procedural fairness are further discussed and analyzed in the additional analysis section.

participants were dropped for incorrectly responding to this manipulation check question.¹¹ Thus, out of 101 participants completing the questionnaire, 17 participants were dropped. Consequently, we perform statistical tests using the responses of 84 participants.

Table 1 presents demographics information for the final sample of participants. As shown, the mean age is about 29 years old, and eighty-one percent are male. The mean work experience is almost 7 years, and seventy-six percent report having experience owning stock. In addition, the mean number of financial statements examined in the last year is almost 11, and the mean self-assessing rating on one's ability to understand financial reporting is above the scale midpoint. The demographic profile of our participants is generally similar with other recent studies examining nonprofessional investors (e.g., Krause et al. 2014; Kaplan et al. 2015) and are considered appropriate proxies for investors given our research goals (Thaler et al. 1997; Libby et al. 2002; Elliott et al. 2007). Additionally, untabulated analysis indicates that none of the demographic variables are significantly associated with the assignment of either independent variable or the two-way interaction term, suggesting successful randomization of the participants ($p > 0.10$, two-tailed); and none are significantly correlated with the SOP vote. Consequently, no covariates are included in our main statistical tests.

Tests of Hypotheses

H1 predicts the percentage of agree SOP votes will be interactively influenced by the consistency of meeting/ beating analyst expectations and the income source. Specifically, H1 predicts that the percentage of agree SOP votes will be higher when a firm consistently meets/beats earnings forecasts and does so with net income without nonrecurring gains. The independent variables are the consistency of meeting/ beating analyst expectations, the income source, and the interaction between the two. For the consistency of meeting/ beating analyst expectations, in some quarters = 0, and in all quarters = 1. For the income source, with nonrecurring gains = 0, and without nonrecurring gains = 1. The dependent variable to test H1 is participant's response to whether s/he agrees (=1) or disagrees (=0) with the nonbinding, advisory resolution stating approval of the CEO's compensation.

Table 2, Panel A presents descriptive statistics for the percentage of agree and disagree SOP votes by cell and by

treatment. As shown, we refer to these cells as Cell A, B, C, and D. For example, Cell D refers to the all quarters/without nonrecurring gains cell condition. Also, as shown, the percentage of agree SOP votes for Cell D is substantially greater ($82 \% = 23 \div 28$) than for each of the other three cells ($36 \% = 8 \div 22$ for Cell A, $47 \% = 7 \div 15$ for Cell B, and $37 \% = 7 \div 19$ for Cell C). Table 2, Panel B presents the results of the logistic regression testing H1. Consistent with H1, there is a significant interaction between the consistency of meeting/ beating analyst expectations and the income source ($z = 1.70$, $p = 0.045$, one-tailed). In addition, untabulated Chi square comparisons using Table 2, Panel A indicate that the distribution of the all quarters/without nonrecurring gains cell is significantly different from each of the other cells as well as all other cells combined (all $p < 0.01$, two-tailed).¹² Overall, these results provide support for H1.

H2 predicts that investors' perceptions of the fairness of the CEO's compensation will mediate the association between the interaction of consistency of meeting/ beating analyst expectations and the income source with the percentage of agree SOP votes. Under H2, compensation fairness perceptions represent a mediator variable that explains the process by which the two independent variables interactively impact SOP voting behavior. As discussed above, the compensation fairness factor represents our proxy for perceptions of the fairness of the CEO's compensation. Table 3, Panel A presents descriptive statistics for the compensation fairness factor by cell and by treatment, with higher values indicating increasing or more favorable perceptions of compensation fairness. As shown, we refer to these cells as Cell A, B, C, and D. The mean for the all quarters/without nonrecurring gains cell, Cell D, is 4.82, which is higher than the means of each of the other three cell and of those three cells combined.

To test H2, we follow the steps outlined in Baron and Kenny (1986) to assess whether the compensation fairness factor is a mediator variable with respect to the interaction of the two current income attributes (i.e., consistency of meeting/ beating analyst expectations and income source).¹³ The mediating effect predicted in H2 would be

¹² As an additional analysis, we also conducted planned contrasts (Buckless and Ravenscroft 1990). Based on the pattern of results predicted under H1, the all quarters/without recurring gains cell condition was coded as +3, and the other three cell conditions were each coded as -1. These weights recognize that the percentage of agree SOP votes will be higher in one cell compared to the remaining three cells, and that the percentage of agree SOP votes in the remaining three cells are expected to be similar. Untabulated results indicate that the planned contrast is significant (contrast = 5.81, $z = 3.42$, $p = 0.001$, one-tailed), which is consistent with H1.

¹³ We use the mediation model framework [i.e., Baron and Kenny (1986), Kenny et al. (1998), Shrout and Bolger (2002); Frazier et al. (2004)] and apply the Preacher and Hayes (2004) alternative tests for indirect effects. Results are inferentially similar using alternative mediation tests (Sobel 1982; Sobel 1986; Muller et al. 2005).

¹¹ Untabulated analysis indicates no systematic demographic differences between the participants who failed either or both of the manipulation check questions and those participants who passed except for the (self-reported) ability to understand financial reporting and the number of accounting courses. Adding these two variables to our analysis does not inferentially change our main results.

Table 1 Sample demographics ($N = 84$)

Variable	Mean	Std. Dev.	Minimum	Maximum
Age	29.39	4.74	20	50
Gender (% male)	80.95	–	–	–
Years of professional work experience	6.60	5.15	–	29
Experience owning stock (% yes)	76.19	–	–	–
Number of financial statements examined last year	10.86	19.47	–	100
Ability to understand financial reporting (1 = very low to 7 = very high)	4.74	1.29	1	7
Number of finance courses	8.35	9.49	–	60
Number of accounting courses	9.00	6.47	–	40

There is no difference in any of the variables across the experimental conditions ($p < 0.10$), indicating that random assignment of participants is obtained

Table 2 Analysis of two current income attributes on participants' say-on-pay judgment

	Percentage of agree SOP votes Percentage of disagree SOP votes <i>N</i>	Consistency of meeting/beating analyst expectations		
		Some quarters	All quarters	By row
Panel A: By-cell frequency distribution of agree and disagree say-on-pay votes				
Income source	With nonrecurring gains	<u>Cell A</u>	<u>Cell B</u>	
		36 %	47 %	41 %
		64 %	53 %	59 %
		100 %	100 %	100 %
	Without nonrecurring gains	<u>Cell C</u>	<u>Cell D</u>	
		37 %	82 %	64 %
		63 %	18 %	36 %
		100 %	100 %	100 %
	By column	37 %	70 %	54 %
		63 %	30 %	46 %
		100 %	100 %	100 %
Variables	Intercept	Consistency of meeting/beating analyst expectations	Income source	Two current income attributes
Panel B: Regression results of two current income attributes on say-on-pay judgments (H1)				
Say-on-pay judgment				
Coefficient	−0.560	0.426	0.206	1.639
Standard error	0.443	0.681	0.650	0.966
Z-statistic	−1.260	0.630	0.030	1.700
<i>p</i> value	0.207	0.532	0.975	0.045*

The say-on-pay judgment reflects a participant's response to the following: RESOLVED, that the compensation paid to the company's Chief Executive Officer, as disclosed, including the additional information about the Executive Compensation Committee and its objectives and the compensation table, is hereby APPROVED, where 1 = Agree and 0 = Disagree. Consistency of meeting/beating analyst expectations was manipulated between participants as either exceeding two out of four quarters (=0) or four out of four quarters (=1). Income source was manipulated between participants as either gains from investment (=0) or sales from operations (=1). Two current income attributes is the interaction of the frequency of exceeding analyst expectations and income source

* One-tail probability, for directional prediction

Table 3 Descriptive statistics for the compensation factor and analysis of compensation fairness factor as a mediator variable on participants' say-on-pay judgment

	Mean (Std. Dev.)	Consistency of meeting/beating analyst expectations			
	N	Some quarters	All quarters	By row	
Panel A: Means (and standard deviation) of compensation fairness factor					
Income source	With nonrecurring gains	<u>Cell A</u>	<u>Cell B</u>		
		4.36	4.00	4.22	
		(1.76)	(1.60)	(1.69)	
		22	15	37	
	Without nonrecurring gains	<u>Cell C</u>	<u>Cell D</u>		
		4.21	4.82	4.57	
		(1.72)	(1.36)	(1.53)	
		19	28	47	
	By column	4.29	4.53	4.42	
		(1.72)	(1.49)	(1.60)	
		41	43	84	
Variables	Intercept	Consistency of meeting/ beating analyst expectations	Income source	Two current income attributes	Compensation fairness factor
Panel B: Regression results of compensation fairness factor on say-on-pay judgments (H2)					
Path A					
Compensation fairness factor					
Coefficient	4.364	−0.364	−0.153	0.975	
Standard error	0.341	0.535	0.501	0.716	
Z-statistic	12.810	−0.680	−0.310	1.360	
p value	0.000	0.497	0.760	0.087*	
Path B and Path C					
Say-on-pay judgment					
Coefficient	−12.828	2.007	0.147	2.602	2.490
Standard error	3.202	1.337	1.221	1.897	0.600
Z-statistic	−4.010	1.500	0.120	1.370	4.150
p value	0.000	0.133	0.904	0.170	0.000*

See Table 2 for descriptions of the say-on-pay judgment, and the two current income attributes. Compensation fairness factor is derived from participants' responses to the five questions about the fairness of the CEO's compensation as shown in the "Appendix"

* One-tail probability, for directional prediction

indicated if the following conditions are met. First, the independent variable of interest must be associated with the potential mediator (i.e., Path A). Next, the potential mediator must be associated with the dependent variable (i.e., Path B). Finally, when Paths A and B are controlled, a previously significant association between the independent and dependent variables (i.e., H1) is either diminished or reduced to zero (i.e., Path C).

Table 3, Panel B presents the results of tests for hypothesis 2. To test Path A, we used a general linear model (GLM) analysis of variance (ANOVA) since this is

the appropriate approach for testing unbalanced designs (Milliken and Johnson 1992). In this model for Path A, the compensation fairness factor is the dependent variable, and consistency of meeting/ beating analyst expectations, income source, and the interaction of these two current income attributes are the independent variables. As show in Table 3, Panel B (Path A) the interaction term for the two current income attributes is positively and marginally significantly associated with the compensation fairness factor ($z = 1.360$, $p = 0.087$, one-tailed). In addition, untabulated mean comparisons using Table 3, Panel A indicates

that the pattern of mean compensation fairness factor scores is consistent with expectations and similar to the pattern observed for SOP votes.¹⁴

To test Paths B and C, we use logistic regression. In these paths, the SOP votes are the dependent variable, and the consistency of meeting/beating analyst expectations, income source, and the interaction of these two current income attributes are the independent variables, and the compensation fairness factor is the mediating variable. As shown in Table 3, Panel B, (Path B and C), compensation fairness factor is significant ($z = 4.15$, $p < 0.001$, one-tailed), thereby satisfying the Path B requirement, and the interaction term for the two current income attributes becomes insignificant ($z = 1.37$, $p = 0.170$, two-tailed), thereby satisfying the Path C requirement. Figure 1 presents the full results of the multi-step mediation tests. Taken together, and consistent with H2, the results from the mediation testing indicate that the compensation fairness factor fully mediates the interaction of the two independent variables (i.e., consistency of meeting/beating analyst expectations and income source). Our results are consistent with the view that nonprofessional investors' SOP votes are jointly influenced by the two current earnings attributes and that their votes are explained by the compensation fairness factor.

Sensitivity Analyses

We run two sets of sensitivity analyses that yield results inferentially similar to our main results. First, we consider participants' perceptions about management's credibility to assess whether the mediation results are robust to including CEO-level factors since prior research finds that SOP votes are associated with the CEO's social capital (Kaplan et al. 2015). Included in our questionnaire are three questions about CEO performance, competence, and truthfulness that together represent management credibility. As shown in the "Appendix", the participants' scores for each of the three measures are scaled such that higher values indicate increasing or more favorable assessments of the management's credibility. The Cronbach alpha for the four measures is 0.788. We conducted an exploratory factor analysis on these the above three measures, and this process yields a single factor eigenvalue of 1.84, which indicates that the

three items belong to a single construct. We label this factor as management credibility, and add the management credibility factor to the models shown in Table 3, Panel B, testing Paths B and C. Untabulated results indicate that the compensation fairness factor remains significant ($z = 4.00$, $p < 0.001$) and continues to fully mediate the relationship between the independent variables and SOP voting ($z = 1.60$, $p = 0.111$, two-tailed). Further, the management credibility factor is insignificant in the model ($z = 1.35$, $p = 0.176$, two-tailed).

Second, we consider participants' assessments of the viability of the firm as an investment since prior research finds that SOP votes are associated with financial reporting reputation (Kaplan et al. 2015). Our questionnaire included four measures related to investment viability, as follows: investment attractiveness, investment impression, investment amount (out of \$10,000 to invest), and stock riskiness. As shown in the "Appendix", participants' scores for each of the four measures are scaled such that higher values indicate increasing or more favorable assessments of the firm's viability as an investment. The Cronbach alpha for the four measures is 0.686. We conducted an exploratory factor analysis on these four measures and this yields a single factor eigenvalue of 1.57. Thus, participants view the four items as belonging to a single construct, which we label as the investment viability factor. Again, to assess whether our previous mediation analysis results hold, we added the investment viability factor to the model shown in Table 3, Panel B, testing Paths B and C. Untabulated results indicate that the compensation fairness factor remains significant ($z = 4.07$, $p < 0.001$) and continues to fully mediate the relationship between the independent variables and SOP voting ($z = 1.41$, $p = 0.159$, two-tailed). Further, the investment viability factor is insignificant in the model ($z = 1.47$, $p = 0.141$, two-tailed).

Taken together, our sensitivity analyses suggest that our constructs are an incrementally informative and separate empirical phenomenon than those found in the CEO-level factors found in Kaplan et al. (2015). Specifically, we find that the mediating effect of the compensation fairness factor is robust after controlling for shareholders' assessments of management credibility and investment viability, respectively.

Additional Analyses

Our main and sensitivity analyses test the mediating impact of the overall compensation fairness factor on SOP voting. However, Hayibor (2016) augments the main propositions of the fairness-based stakeholder perspective to consider fairness components that may differentially impact overall fairness perceptions, and in turn, the individual's behavior towards the organization. For example, Hayibor (2016)

¹⁴ As an additional analysis, we again conducted planned contrasts. Based on the pattern of results predicted under H2, the all quarters/without recurring gains cell condition was coded as +3, and the other three cell conditions were each coded as -1. These weights recognize that perceived fairness will be higher in one cell compared to the remaining three cells, and that perceived fairness in the remaining three cells are generally expected to be similar. Untabulated results indicate that the planned contrast is significant (contrast = 1.89, $z = 1.70$, $p = 0.05$, one-tailed), which is consistent with H2.

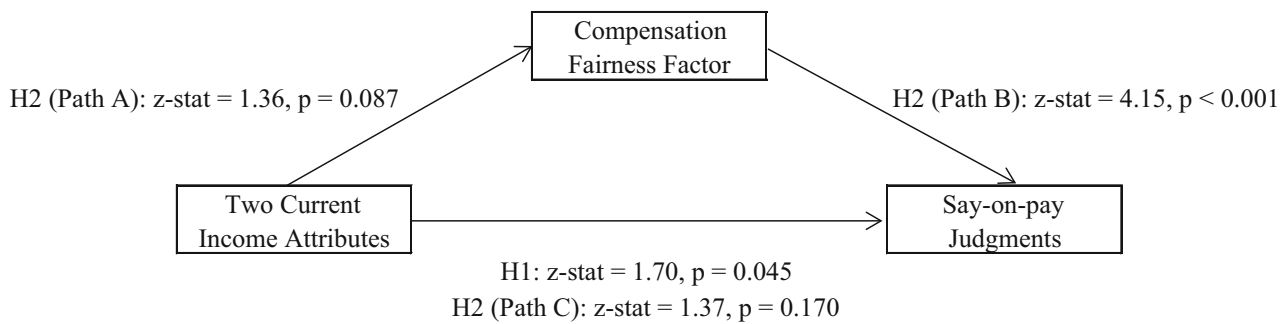


Fig. 1 Interaction coefficient (H1) and mediation model path coefficients (H2) using compensation fairness factor

suggests that if individuals are more sensitive to equity of the distribution of outcomes by the organization, then their distributive fairness-based perceptions will drive their behavior towards that organization. In particular, Hayibor (2016) characterizes distributive fairness perceptions as based on how material outcomes are shared by the organization among stakeholders. Hence if shareholders are outcome-sensitive, then measures of distributive fairness perceptions would act as a primary mediator for the relationship between the two income attributes and SOP voting. As another example, Hayibor (2016) suggests that if individuals are oriented towards the exchange process between stakeholders and the organization, then their procedural fairness-based perceptions will drive their behavior towards the organization. In particular, Hayibor (2016) characterizes procedural fairness perceptions as based on the rules governing the allocation of organizational resources or outcomes (i.e., fair treatment or fair play). Hence if shareholders are treatment-oriented, then measures of procedural fairness would act as a primary mediating factor for the relationship between the two income attributes and SOP voting.

To tease out the potential mediating impact of distributive and procedural fairness perceptions of compensation, we reran the main mediation tests by replacing the overall compensation fairness factor with two variables that proxy for the distributive fairness and procedural fairness of compensation. The distribution fairness score is the average response to the first three compensation fairness questions (see the “Appendix”). The procedural fairness score is the average response to the last two compensation fairness questions (see the “Appendix”). We then include both the distributive and procedural fairness scores in the H2 model. The results summarized in Fig. 2 indicate that the interaction of the two current income attributes is not significant (Path A, $z = 0.83$, $p = 0.204$, one-tailed), and that the distributive fairness score is significant (Path B, $z = 3.17$, $p < 0.05$, one-tailed), but does not act as a mediator for the relationship between the independent variables and SOP voting (Path C, $z = 1.76$,

$p = 0.078$, two-tailed). Likewise, the results summarized in Fig. 3 indicate that the interaction of the two current income attributes is not significant (Path A, $z = 0.09$, $p = 0.466$, one-tailed), and that the procedural fairness score is significant (Path B, $z = 2.83$, $p < 0.05$, one-tailed), but does not act as a mediator for the relationship between the independent variables and SOP voting (Path C, $z = 1.96$, $p = 0.049$, two-tailed). This additional analysis suggest that the mediation effect of compensation fairness is driven by participants’ overall perceptions of compensation fairness rather than the separate distributive or procedural fairness elements that comprise their overall compensation fairness perceptions.

Discussion

In 2010, Congress passed the Dodd-Frank Act (2010), which requires publicly-traded firms to hold a nonbinding, advisory shareholder vote on executive compensation. Advocates claim SOP voting increases managerial and board member accountability by giving shareholders a voice. Critics contend that while SOP voting gives shareholders voice, shareholders may be naïve and simply fixate on net income and/or exorbitant compensation packages when voting. Underlying this debate is the central question of what factors drive investors’ SOP votes. While extant research tends to focus on the impact of governance players and control for standard measures of firm performance (e.g., earnings and share price), there is little attention given to how specific current income attributes impact investors’ SOP votes or how to explain investors’ SOP votes.

Our study contributes to this emerging literature by providing evidence on the impact of two current earnings attributes on nonprofessional investors’ SOP votes. We conduct an experiment where we manipulate a fictitious firm’s consistency of meeting/beating analyst earnings expectations (in some or all quarters) and income source (with or without nonrecurring gains); holding constant the

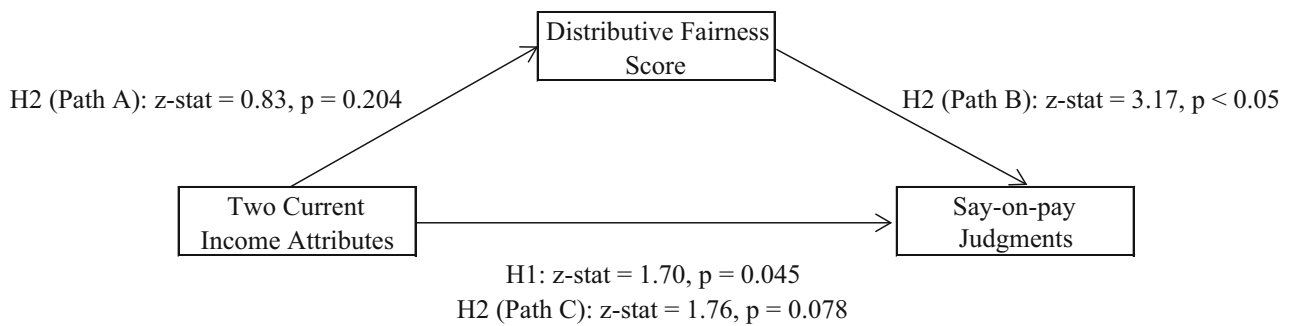


Fig. 2 Interaction coefficient (H1) and mediation model path coefficients (H2) using distributive fairness score

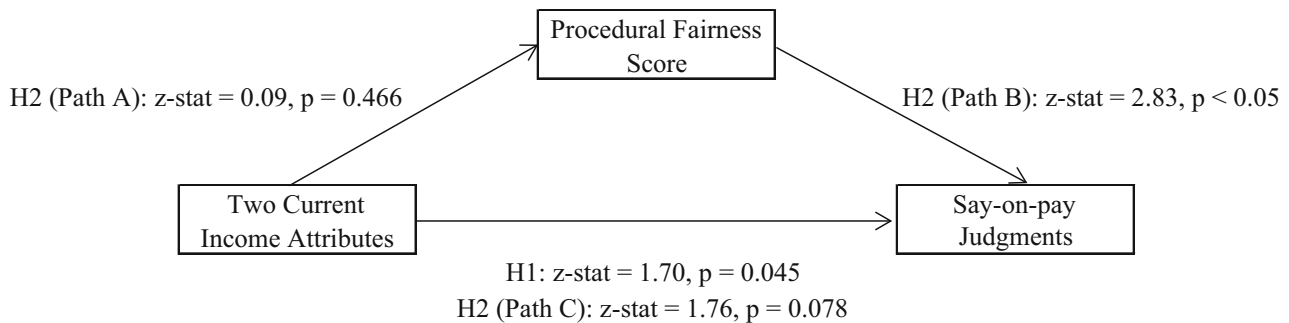


Fig. 3 Interaction coefficient (H1) and mediation model path coefficients (H2) using procedural fairness score. Say-on-pay judgments reflect participants' responses to the following: RESOLVED, that the compensation paid to the company's Chief Executive Officer, as disclosed, including the additional information about the Executive Compensation Committee and its objectives and the compensation table, is hereby APPROVED, where 1 = Agree and 0 = Disagree. Two current income attributes is the interaction of the consistency of meeting/beating analyst expectations and income source. Consistency of meeting/beating analyst expectations was manipulated between

participants as either exceeding two out of four quarters (=0) or four out of four quarters (=1). Income source was manipulated between participants as either gains from investment (=0) or sales from operations (=1). Compensation fairness factor is derived from participants' responses to the five questions about the fairness of the CEO's compensation as shown in the "Appendix". Distributive fairness score is the average response to the first three compensation fairness questions. Procedural fairness score is the average response to the last two compensation fairness questions. *p* values are presented as one-tailed for directional predictions and two-tailed otherwise

CEO's compensation package and the executive compensation committee structure; and ask for participants' SOP votes, perceptions of CEO compensation fairness, as well as perceptions about management credibility and investment viability beliefs. As expected, we find a significant interaction between the two current income attributes and the percentage of agree SOP votes, such that compared to the remaining three conditions, the percentage of agree SOP votes was higher when the firm's income consistently beats analyst forecasts and the firm's income results from normal operations. Further, we find that perceptions about the overall fairness of the CEO's compensation fully mediate the relationship between current income attributes and SOP votes. In effect, our results suggest that the firm's current income attributes interactively effect investors' perceptions about compensation fairness, which, in turn, influences their SOP votes.

Our findings should be of interest to shareholders, CEOs, firms, board and executive compensation committee members, among others. Nonprofessional shareholders as a class have a substantial presence in U.S. equity markets (e.g.,

Cohen et al. 2011). Firms are increasingly paying attention to nonprofessional shareholders and encouraging them to provide supporting votes as a way to lessen the influence of proxy advisors and/or institutional shareholders on SOP voting (Chasan 2013). More generally, board and executive compensation committee members should be aware that shareholders' perceptions of compensation fairness are likely to result in a higher percentage of agree SOP votes. Consequently, parties involved in the governance process of a firm should provide information to shareholders to justify and explain the procedures to determine CEO compensation package, and to enable shareholders to better judge whether that the CEO compensation represented a fair distribution of firm assets (e.g., Hayibor 2016). This focus on distributional fairness, in particular, is consistent with research by Malsch et al. (2012), who explicitly recognize the importance of board's obligation to compensate the CEO in a way that is fair to both the CEO and to shareholders.

The limitations in this study provide opportunities for future research. First, the participants were not provided financial incentives to participate in our study, so our results

In conclusion, understanding how shareholders make SOP judgments will remain an important issue so long as advocates claim that SOP voting gives shareholders a voice in CEO compensation, increases managerial and board

Appendix: Say-on-Pay Judgment, Compensation Fairness Perceptions, Management Credibility Assessments, and Investment Viability Beliefs

_____ Agree
_____ Disagree

 Springer

Say-on-Pay Judgment, Future Performance Prospects Assessments, Compensation Fairness Perceptions, and Investment Viability Beliefs

1. Earnings predictability is a measure of how reliably future earnings can be forecast from knowing current earnings. Predictability is generally based on the stability of current year-to-year earnings comparisons. What is your assessment of the predictability of earnings for XYZ Inc.?

1-----2-----3-----4-----5-----6-----7
 Very Low Predictability Of Earnings Very High Predictability Of Earnings

2. Compared to current fiscal year's EPS of \$1.94, you expect that EPS for the upcoming fiscal year will be:

1-----2-----3-----4-----5-----6-----7
 Much Lower About the Same Much Higher

Management Credibility Assessments:

3. Based on the available information, please assess you XYZ Inc.'s CEO, Craig Crawford, performance for 2013.

1-----2-----3-----4-----5-----6-----7
 Very Poor Performance Average Performance Very Good Performance

4. Based on the available information, you believe that XYZ Inc.'s CEO, Craig Crawford, is:

1-----2-----3-----4-----5-----6-----7
 Not at all Competent Somewhat Competent Very Competent

5. Based on the available information, you believe that XYZ Inc.'s CEO, Craig Crawford, is:

1-----2-----3-----4-----5-----6-----7
 Not at all Truthful Somewhat Truthful Very Truthful

Investment Viability Beliefs:

1. Your **overall impression** of XYZ Inc. as an investment is:

1-----2-----3-----4-----5-----6-----7
 Very Unfavorable Neutral Very Favorable

2. Assume you were to consider additional investments in the agricultural industry. Relative to other companies in the industry, how **attractive** do you think XYZ Inc. is as an additional investment option?

1-----2-----3-----4-----5-----6-----7
 Less Attractive About the same More Attractive
 in terms of attractiveness

3. Assume you have \$10,000 to invest in the agricultural industry. Any money you do not invest in XYZ Inc. would be invested in competitor companies. **How much** of the \$10,000 would you invest in XYZ Inc.?

\$0 \$1,000 \$2,000 \$3,000 \$4,000 \$5,000 \$6,000 \$7,000 \$8,000 \$9,000 \$10,000

4. Please indicate your assessment of the risk of a moderate stock price decline (1-10%) within the next year.

1-----2-----3-----4-----5-----6-----7
 Very Low Very High

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