Corporate social responsibility and seasoned equity offerings

Marie Dutordoir, Norman C. Strong, Ping Sun

PII: S0929-1199(17)30180-3
DOI: doi:10.1016/j.jcorpfin.2018.03.005
Reference: CORFIN 1359

To appear in: *Journal of Corporate Finance*

Received date: 22 March 2017
Revised date: 13 March 2018
Accepted date: 14 March 2018

Please cite this article as: Marie Dutordoir, Norman C. Strong, Ping Sun , Corporate social responsibility and seasoned equity offerings. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Corfin(2017), doi:10.1016/j.jcorpfin.2018.03.005

Corporate Social Responsibility and Seasoned Equity Offerings[1]

Marie Dutordoir
marie.dutordoir@manchester.ac.uk
Alliance Manchester Business School, Manchester M15 6PB, United Kingdom

Norman C. Strong (corresponding author)
norman.strong@manchester.ac.uk
Alliance Manchester Business School, Manchester M15 6PB, United Kingdom

Ping Sun
ping.sun@manchester.ac.uk_
Alliance Manchester Business School, Manchester M15 6PB, United Kingdom

[1] We are grateful to Michael Brennan, Abe de Jong, Alberta Di Giuli, Maria Teresa Marchica, Willem Schramade, Konstantinos Stathopoulos, Patrick Verwijmeren, Cheng Zeng, Xintong Zhan, and seminar participants at Alliance Manchester Business School and the 2016 Surrey-IFABS conference at the University of Surrey for helpful comments and suggestions.

Corporate Social Responsibility and Seasoned Equity Offerings

Abstract

We examine whether corporate social responsibility (CSR) creates value for seasoned equity issuers. Using a sample of seasoned equity offerings (SEOs) by U.S. companies between 2004 and 2013, we find a positive association between CSR performance and the stock price reaction to SEO announcements. Surprisingly, however, further tests reveal that seasoned equity issuers with high CSR scores tend to have higher post-SEO increases in cash holdings, and lower investments in real assets, than issuers with low CSR scores. Moreover, high-CSR issuers have worse post-SEO operating and stock price performance than low-CSR issuers. Together, our findings suggest that high CSR scores mislead shareholders into attributing value-increasing motives to seasoned equity issues.

Key words: Seasoned equity offerings, corporate social responsibility, shareholder value, event study, use of proceeds.

1. Introduction

Corporate social responsibility (CSR) generally refers to firms' actions towards stakeholders, including employees, customers, communities, and society, in ways that go beyond legal requirements (Freeman, 1994; Barnea and Rubin, 2010; Jo and Harjoto, 2014). Over the period 2011 to 2013, Fortune Global 500 firms spent on average $20 billion per year on CSR (EPG, 2015). While CFOs and investment professionals seem to believe that CSR activity creates value for shareholders (McKinsey & Company, 2009), academic studies examining the link between CSR and shareholder value provide mixed evidence.[2] This suggests the need for further research on the economic benefits of investments in CSR.

In this paper, we examine whether CSR activity creates shareholder value for seasoned equity issuers. We focus our analysis on seasoned equity offerings (SEOs) for two reasons. First, SEOs are frequent and important corporate events. U.S. firms conducted approximately 2,000 SEOs between 2004 and 2013, with a total value of $216 billion.[3] Second, while firm-specific and macroeconomic characteristics affect the likelihood of an SEO (Bayless and Chaplinsky, 1991), SEO announcements are largely unanticipated, which can mitigate reverse causality problems associated with studies of the relation between CSR activities and firm value (Deng et al., 2013).

Our main analysis addresses the impact of firms' CSR activity, as measured by externally

[2] For instance, Margolis and Walsh (2003) find an insignificant relation between CSR and corporate financial performance; Jiao (2010), Edmans (2011, 2012), Wu and Shen (2013), Fatemi et al. (2015), Flammer (2015), Cornett et al. (2016), and Ferrell et al. (2016) document a positive relation; and Griffin and Mahon (1997), Brammer et al. (2006), Di Giuli and Kostovetsky (2014), and Bhandari and Javakhadze (2017) report a negative relation.

[3] Based on SEO data from the Securities Data Corporation (SDC) Global New Issues database.

provided CSR performance scores, on the stock price reaction to SEO announcements. We hypothesize that investors interpret CSR performance as signaling firms' underlying motives for SEOs. The signal content, however, is not clear a priori. Under the 'stakeholder value maximization' view, investors may interpret strong CSR performance as signaling that a firm's management has an altruistic orientation and is unlikely to use SEO proceeds to reduce value, leading to lower agency costs associated with equity financing (Jensen, 1986; Freeman, 1994; Godfrey et al., 2009). Conversely, under the 'shareholder expense' view, investors may interpret strong CSR performance as signaling a firm's tendency to undertake wasteful investment, leading to higher agency costs associated with equity financing (Friedman, 1998; Pagano and Volpin, 2005; Barnea and Rubin, 2010; Jo and Harjoto, 2012). CSR performance could also affect the stock price reaction to SEOs through its impact on the level of information asymmetry about a firm's assets in place (Myers and Majluf, 1984), but the relation between CSR performance and information asymmetry is ambiguous (Dhaliwal et al., 2011; El Ghoul et al., 2011). The direction of the impact of CSR performance on the stock price reaction to SEOs is, therefore, an empirical question.

We examine this question using a sample of U.S. SEOs made between 2004 and 2013. To measure CSR performance, we use CSR scores from the Kinder, Lydenberg, and Domini (KLD) database (now MSCI ESG KLD STATS), in line with previous studies (Jiao, 2010; El Ghoul et al., 2011; Attig et al., 2013; Deng et al., 2013; Jiraporn et al., 2014; Cahan et al., 2015; Lee,

2017).[4] KLD scores offer a multidimensional, stakeholder-defined assessment of firms' areas of strength and concern related to CSR activity. As our focus is on corporate activities benefiting society at large rather than only shareholders, we remove the corporate governance dimension from the KLD CSR scores, consistent with Dhaliwal et al. (2011). A cross-sectional regression analysis of announcement-period stock price effects shows that issuers with higher CSR scores have less negative stock price reactions to their SEOs. This result is robust to including a wide range of firm- and offer-specific control variables. It survives a Heckman two-stage procedure addressing endogeneity concerns (Hoi et al., 2013), as well as other robustness tests. Decomposing CSR scores shows that low CSR concerns, rather than high CSR strengths, drive the positive impact of CSR performance on SEO announcement returns.

Subsequently, we examine the mechanisms driving the positive impact of CSR performance on SEO announcement returns. First, we test whether the impact of CSR scores on the stock price reaction is stronger for firms facing higher equity-related financing costs. Inconsistent with an agency or adverse selection explanation for the positive association between CSR and SEO announcement returns, we find that this is not the case.

Second, we examine differences in the uses of SEO proceeds for high- versus low-CSR issuers.[5] Surprisingly, we find that high-CSR issuers are more likely to store SEO proceeds as cash reserves, though they do not seem to have urgent cash needs. Our results therefore suggest

[4] RiskMetrics acquired KLD Research and Analytics in 2009 and MSCI acquired RiskMetrics in 2010.
[5] We do not examine stated uses of proceeds because they lack variation and are often vague. In our sample, 82.8% of SEOs list 'general corporate purposes' as their primary use of proceeds.

that opportunistic motives inspire SEOs by high-CSR issuers (Walker et al., 2016). Conversely, low-CSR issuers are more likely to use their SEO proceeds for capital expenditure and research and development (R&D) investment, suggesting that they use SEOs for genuine investment purposes. Since a uses of proceeds analysis cannot definitively tell us whether particular uses are value-creating or value-destroying, we analyze long-term operating and stock price performance following SEOs. In line with our tentative conclusion from the uses of proceeds analysis, we find that high-CSR issuers show significant decreases in post-issuance operating performance, while low-CSR issuers do not underperform after issuance. A zero-cost portfolio that buys high-CSR issuer stocks and sells low-CSR issuer stocks generates significant negative abnormal long-term stock returns.

Together, the results of our additional tests show that the positive impact of CSR performance on SEO announcement returns is inconsistent with issuers' subsequent use of offering proceeds and long-term performance. Investors seem to mistakenly associate high CSR scores with more value-creating SEOs. This behavioral bias is consistent with experimental research showing that CSR performance can have an unintended, affect-driven positive impact on investors' assessments of firms' fundamental values (Elliott et al., 2014). The positive stock price impact of CSR scores does not weaken over our research period, suggesting the absence of investor learning.

Our main contributions are as follows. First, we add to a growing literature on the impact of CSR performance on firms' external financing terms and conditions. Previous studies have

examined the impact of CSR performance on the cost of bank loans (Goss and Roberts, 2011), credit ratings (Attig et al., 2013), and access to finance (Cheng et al., 2014). More closely related to our work, Sharfman and Fernando (2008), Dhaliwal et al. (2011), and El Ghoul et al. (2011) examine the impact of CSR performance on firms' costs of equity. While these studies regress cost of capital measures on CSR performance scores, we examine the impact of CSR performance on daily stock price reactions to SEO announcements. Focusing on the stock price reactions to SEOs, which are economically important, incremental, and largely unanticipated events, can reduce the effects of reverse causality that typically arise in studies of the relation between CSR performance and firm value. Our findings reveal a tension between investor perceptions of CSR performance and the actual behavior of high-CSR firms, thereby painting a more subtle picture of the link between CSR, investor behavior, and corporate finance outcomes than in previous CSR studies.

Second, we contribute to the literature on SEOs and security offerings more generally. Previous event studies document a negative impact of SEO announcements on firm value (Masulis and Korwar, 1986; Denis, 1994; Jung et al., 1996; Hauser et al., 2003; Veld et al., 2017), consistent with adverse selection and agency cost theories (Myers and Majluf, 1984; Jensen, 1986). We still have only a limited understanding, however, of the drivers of cross-sectional differences in SEO announcement returns (Eckbo et al., 2007). Our study highlights the role of CSR performance as a determinant of SEO announcement effects. On a broader level, our findings are novel in showing that investors are not always rational in their assessment of signals

when inferring security issuance motives. While there is a large behavioral finance literature, the security offerings literature has largely ignored this type of investor irrationality.

As a third contribution, our study extends previous literature on the use of SEO proceeds. The few studies of this topic find that firms use SEO proceeds for both value-increasing investment and opportunistic market timing purposes (Kim and Weisbach, 2008; Walker and Yost, 2008; DeAngelo et al., 2010; Hertzel and Li, 2010). We highlight substantial differences in uses of proceeds, as well as in long-term operating and stock price performance, between high- and low-CSR issuers. As such, we obtain the novel insight that investors are incorrect in interpreting CSR performance as a positive signal about SEO motives. We hope that our study will help market participants interpret CSR performance correctly in the context of SEOs, thereby enabling them to make more rational investment decisions around SEO announcements.

The paper proceeds as follows. The next section develops hypotheses. Section 3 describes the sample. Section 4 reports the results on the impact of CSR performance on SEO announcement effects. Section 5 reports the results from additional tests examining the reasons why CSR influences SEO announcement returns. Section 6 concludes the paper.

2. Hypothesis development

Event studies commonly find that SEO announcements result in negative stock price reactions (Masulis and Korwar, 1986; Denis, 1994; Jung et al., 1996; Hauser et al., 2003; Veld et al., 2017). Corporate finance theory suggests two non-mutually exclusive explanations for this

result. Jensen's (1986) agency costs of free cash flow theory implies that investors are concerned about firms using SEO proceeds for negative net present value (NPV) investments, including empire-building projects. Myers and Majluf's (1984) adverse selection model in turn predicts that, when there is asymmetric information about the value of firms' assets in place, investors perceive SEO announcements as signaling firm overvaluation. Together, these theories suggest that SEO announcement returns are more negative for firms with higher equity-related agency and adverse selection costs.

Combining the above insights with theory on the shareholder value effects of CSR activities, we identify three potential explanations for an impact of CSR performance on SEO announcement effects. A first explanation, based on the stakeholder value maximization view of CSR, holds that firms' CSR activities can mitigate the agency costs of free cash flow. This view starts from the premise that the interests of managers, shareholders, and other stakeholders are better aligned in firms that invest more in CSR activities (Jensen, 2001; Jawahar and McLaughlin, 2001; Freeman et al., 2004). Under this view, CSR activities act as a signal that stakeholders, including investors, use to determine the extent of a firm's altruistic orientation (Godfrey et al., 2009). Applying this view to an SEO setting, CSR activities may signal that the firm and its managers are not completely self-interested or self-serving, thereby mitigating investor concerns about value-decreasing, agency-driven uses of SEO proceeds.

A second explanation is based on the shareholder expense view of CSR. In contrast to the stakeholder value maximization rationale, this view holds that CSR activities are a form of

wasteful spending of free cash flow, with the primary goal of enhancing managers' private benefits at the expense of shareholders (Friedman, 1998; Barnea and Rubin, 2010; Jo and Harjoto, 2012; Adhikari, 2016). For example, managers may raise wages to increase their employees' loyalty, even when this is not optimal for shareholders (Pagano and Volpin, 2005). The market may therefore perceive CSR performance as signaling that a firm suffers from high agency costs of free cash flow (Jensen, 1986), thereby increasing investor concerns about value-decreasing, agency-driven uses of SEO proceeds.

A final explanation derives from the potential impact of CSR activities on equity-related adverse selection costs. The literature argues that CSR activities can increase the level of trust between investors and managers (Hosmer, 1995; Pivato et al., 2008; Kim et al., 2012; Lopatta et al., 2016). This higher level of trust may reduce investors' perceptions that issuers are engaging in opportunistic market timing, thereby mitigating adverse selection costs associated with equity issuance.[6] CSR activities can also affect adverse selection costs through their association with the level of information asymmetry about firms' assets in place. However, the relation between CSR performance and information asymmetry is complex. On the one hand, high-CSR firms might engage in more disclosure to signal their value as good corporate citizens. Moreover, for a given disclosure level, high-CSR firms tend to receive greater coverage from analysts and the

[6] Baker and Wurgler's (2000, 2002) market timing hypothesis argues that managers, in the interests of existing shareholders, raise equity during windows of opportunity that occur when the firm's stock is overvalued. Consistent with Walker et al. (2016), we view the market timing hypothesis as a variant of Myers and Majluf's (1984) adverse selection framework, with the difference being the prediction of a market underreaction to the announcement of a firm's intention to issue equity.

media than 'sin' firms, as well as obtain more attention from socially conscious investors (Hong and Kacperczyk, 2009; El Ghoul et al., 2011; Hung et al., 2015). These arguments imply that CSR activities can improve firms' information transmission processes (Merton, 1987), resulting in lower information asymmetry for high-CSR firms. On the other hand, poor CSR performance might be associated with increased corporate disclosure as firms try to explain their underperformance, thereby resulting in lower information asymmetry for low-CSR firms (Dhaliwal et al., 2011).

In sum, theory does not provide a clear prediction for the impact of CSR performance on SEO announcement effects. The stakeholder value maximization view predicts a positive impact, the shareholder expense view a negative impact, and the adverse selection view is ambiguous. We thus test the following dual hypothesis.

H1a: A firm's CSR performance has a positive impact on the stock price reaction to SEO announcements.

H1b: A firm's CSR performance has a negative impact on the stock price reaction to SEO announcements.

3. Data and SEO sample characteristics

3.1. CSR performance measurement

We measure a firm's CSR performance based on the KLD database. Use of this database is widespread in the literature (Jiao, 2010; El Ghoul et al., 2011; Attig et al., 2013; Deng et al.,

2013; Jiraporn et al., 2014; Cahan et al., 2015; Lee, 2017). The database is based on a variety of public information sources, including financial statements, governmental and non-governmental organization data, surveys, and media reports. KLD evaluates each firm annually on strengths and concerns in seven qualitative areas: community, corporate governance, diversity, employee relations, environment, human rights, and product quality and safety.[7] In addition, it provides concern ratings for six controversial business issues: alcohol, gambling, firearms, military, nuclear power, and tobacco. We exclude these additional concern ratings from our calculation of CSR scores as they reflect firms' involvement in particular industries rather than managers' discretionary CSR choices (Kim et al., 2014).

Within a given qualitative area, KLD provides a set of indicators for each strength and concern activity. A firm receives a score of one if it meets the assessment criteria for an indicator, otherwise its score is zero. The score for each qualitative area is the strength score minus the concern score. We exclude corporate governance in calculating the CSR scores as our definition of CSR focuses on benefits to stakeholders as a whole rather than just to shareholders (Dhaliwal et al., 2011). Accordingly, we measure a firm's raw CSR score as the sum of six qualitative issue area scores. As the raw CSR score gives equal weight to individual indicators and the number of indicators has varied over time, comparing raw CSR scores across years and areas might lead to biased results (El Ghoul et al., 2011; Deng et al., 2013). To overcome this potential problem, we construct an adjusted CSR score following the methodology of Deng et al. (2013). We divide the

[7] Appendix A provides more details of the qualitative areas.

strength (concern) scores by the number of strength (concern) indicators for each area in each year to obtain adjusted strength (concern) scores, and sum the six adjusted strength (concern) scores to derive adjusted total strength (concern) scores. The adjusted CSR score (*AdjCSR*) of a firm is its adjusted total strength score minus its adjusted total concern score.

3.2. SEO sample construction

Our sample contains U.S. common stock seasoned equity offerings between January 2004 and December 2013. We begin in 2004 as the coverage of firms in the KLD database is substantially less comprehensive before 2003.[8] We draw the initial sample of SEOs from the SDC Global New Issues database. Consistent with prior studies, we exclude initial public offerings (IPOs), rights offerings, unit issues, closed-end funds, simultaneous international offerings, offerings by non-U.S. firms, and offerings consisting only of existing shares. The final sample includes SEOs that meet the following requirements: (1) the issuer's stock is listed on the New York Stock Exchange (NYSE), NYSE MKT (previously AMEX), or NASDAQ;[9] (2) the issuer has at least 30 days of prior stock return data available from the Center for Research in Security Prices (CRSP) database; (3) the issuer is not a financial or utility firm (main Standard Industrial Classification (SIC) codes 6000–6999 or 4900–4999); (4) the issuer has non-missing values for the firm and offer characteristics that we use in our baseline regression analysis in

[8] Before 2003, the KLD database provided CSR data for approximately 650 firms. Since 2003, KLD has expanded the coverage to include the largest 3,000 U.S. companies by market capitalization (MSCI, 2015).

[9] On October 1, 2008, NYSE Euronext acquired the American Stock Exchange (AMEX) and renamed it NYSE Alternext. In March 2009, NYSE Alternext changed its name to NYSE AMEX Equities, and in May 2012 the name changed to NYSE MKT.

Table 3; (5) the issuer appears in the KLD database in the year before its SEO. After imposing these exclusion criteria, the final sample comprises 757 SEOs by 493 firms.

We note that the average (median) total assets size of our sample firms is $3,635.38 ($350.85) million, compared with an average (median) total assets size of $2,646.54 ($206.95) million for a 'full SEO' sample (N = 1,074) meeting requirements (1)–(4) above. Thus, the requirement of CSR performance score availability does not drastically change the firm size of our SEO sample observations. For further comparison, Figure 1, panel A shows the industry distributions of our final SEO sample and of the full SEO sample, based on one-digit SIC codes. The two samples are very similar to one another. Figure 1, panel B shows that the annual distribution of SEOs is also similar across the two samples. Notably, for both samples, we find a peak of offerings in 2009. Possible reasons for this pattern include a new regulation in the U.S. allowing smaller firms (which had typically resorted to private offerings) to undertake public shelf SEOs as of the end of 2008 (Gustafson and Iliev, 2017), as well as the credit crunch during the Global Financial Crisis, which might have spurred more firms to seek equity instead of debt financing. Overall, we conclude from Figure 1 that the requirement of CSR data availability does not drastically change the industry or temporal distribution of our sample SEOs.

[Please insert Figure 1 here]

3.3. Firm and offer characteristics

Our regression analysis controls for a set of firm- and offer-specific determinants of SEO

announcement returns suggested by the literature. We now motivate our use of these variables. Appendix B provides detailed descriptions of their construction and sources.

The pecking order theory predicts that firms with greater information asymmetry about the value of their assets in place suffer larger value losses around SEO announcements (Myers and Majluf, 1984; Lee and Masulis, 2009). Since the literature lacks a consensus on the best measure(s) of information asymmetry (Maskara and Mullineaux, 2011), we use several proxies. Our first proxy is an *Opacity* index, suggested by Anderson et al. (2009). The index is based on trading volume, bid-ask spreads, analyst following, and analyst forecast dispersion. Our second information asymmetry proxy is stock return volatility (*Volatility*). More volatile stock returns capture higher levels of uncertainty, resulting in lower information quality (Lee and Masulis, 2009; Maskara and Mullineaux, 2011).

The pecking order theory also predicts that greater financial slack implies higher adverse selection costs, which may signal that an offering is motivated by overvaluation rather than external financing needs (Bayless and Chaplinsky, 1991). We therefore control for a firm's financial *Slack*, and predict a negative impact for this variable.

We also control for the abnormal stock return before the SEO announcement (*Runup*), but have no clear expectation for the impact of this variable. On the one hand, higher pre-announcement stock price run-ups may signal more profitable growth opportunities, resulting in a more favorable stock price reaction to SEO announcements (Lucas and McDonald, 1990). On the other hand, greater pre-announcement stock price run-ups may increase the

market's perception of firm overvaluation, giving an opposite prediction (Autore et al., 2008).

More efficient firms may be more skilled at developing CSR strengths and addressing CSR concerns (Erhemjamts et al., 2013), as well as being more able to make optimal use of SEO proceeds (Demerjian et al., 2012). This may result in a spurious, positive impact of CSR on SEO announcement returns, if we do not control for firm efficiency. To avoid this, we include a *FirmEfficiency* measure capturing firms' ability to generate valuable resources, constructed as in Demerjian et al. (2012). We expect this variable to positively affect SEO announcement returns.

Our next control variable is *Leverage*. Jensen (1986) and Stulz (1990) argue that a high debt ratio restricts management's discretion and reduces agency problems of free cash flow, implying a positive impact of *Leverage* on the stock price reaction to SEO announcements.

SEOs by firms with a larger debt capacity may send a stronger signal of firm overvaluation, as investors will be aware that these firms could have raised debt finance instead (Bayless and Chaplinsky, 1991; Lemmon and Zender, 2010). We include firm profitability (*ROA*), the ratio of fixed to total assets (*AssetTangibility*), and total assets (Ln*TA*) as proxies for firms' debt capacity (Lemmon and Zender, 2010). Under the debt capacity viewpoint, investors react more negatively to SEOs by firms with higher profitability, more tangible assets, and a larger firm size.[10] However, we note that some studies also use tangible assets and firm size as proxies for information quality (Gao, 2011; Hui and Matsunaga, 2014), yielding the opposite prediction.

[10] In unreported robustness tests, we use alternative debt capacity measures, including the debt capacity proxies of Hahn and Lee (2009). We find that these proxies are never significant, and their inclusion leaves the impact of CSR performance on SEO announcement effects unaltered.

Finally, we include the market-to-book (*MTB*) ratio. Previous studies use this variable to proxy for information quality, growth opportunities, overvaluation, and debt capacity (Bayless and Chaplinsky, 1991; Denis, 1994; Jung et al., 1996; Dechow et al., 2001; Diether et al., 2009; Lemmon and Zender, 2010). We thus have no clear prediction for the relation between *MTB* and SEO announcement returns.

In addition to these firm characteristics, we control for four offer-specific variables. Equity issues with larger offering proceeds relative to their issuer's size may send a stronger signal of firm overvaluation (Krasker, 1986). We thus predict a negative impact of relative offering proceeds (*RelOfrSize)* on SEO announcement effects. The market may interpret the selling of secondary shares as a signal that insiders think the firm is overvalued (Leland and Pyle, 1977). We therefore include a dummy variable equal to one for SEOs including a secondary component in the offering, and expect a negative impact for this *Secondary* dummy variable on SEO announcement returns. We further include a *Shelf* dummy variable that takes a value of one for shelf-registered offerings, and zero for traditional offerings. Denis (1991) documents that shelf offerings in the mid-1980s had more negative stock price reactions than traditional offerings due to the lack of underwriter certification associated with the shelf procedure. In contrast, Autore et al. (2008) find no difference in stock price reactions between shelf and traditional offerings, and argue that shelf issuers are likely to mitigate the under-certification problem through alternative mechanisms. Therefore, we have no clear prediction for the impact of the *Shelf* dummy variable on SEO announcement returns. Finally, we control for SEOs' intended use of proceeds through a

GeneralPurpose dummy variable equal to one for offerings that do not state specific investment or debt redemption purposes in their associated filings and equal to zero for those that do state such specific purposes. Investors might perceive the absence of detailed intended uses of proceeds information as a signal of opportunistic issuer motives (Walker and Yost, 2008; Dutordoir et al., 2016). We therefore predict a negative impact for this dummy variable.

Table 1, panel A reports summary statistics of CSR performance, and firm and offer characteristics, for the final sample and subsamples of SEOs by high- and low-CSR issuers. We define high-CSR issuers as issuers with a CSR score equal to or above the median adjusted CSR score of all observations in the KLD database in the relevant year, and low-CSR issuers as all other issuers. The last two columns report *p*-values for differences between high- and low-CSR issuers based on standard *t*-tests (means) and Wilcoxon signed-rank tests (medians). Unsurprisingly, high-CSR issuers have higher *AdjCSR* scores than low-CSR issuers. High-CSR issuers have higher *Slack*, and lower *ROA* and *AssetTangibility* than low-CSR issuers. Other firm and offer characteristics do not differ significantly between the two SEO subsamples.

Table 1, panel B reports the Pearson correlation coefficients between the explanatory variables in our analysis, and suggests that multicollinearity is not a problem for our SEO announcement return regressions.

[Please insert Table 1 here]

4. The impact of CSR on the stock price reaction to SEOs

To estimate abnormal returns, we follow a conventional event study methodology, as in Brown and Warner (1985). We measure normal stock returns by estimating market model regressions over 200 trading days ending 60 days before the announcement date (day 0) with the CRSP value-weighted return proxying for the market return, and subtract predicted from actual stock returns to obtain abnormal stock returns around the announcement date.[11] Cumulative abnormal returns (CARs) are the sum of daily abnormal returns from day t_1 to day t_2.

We retrieve SEO announcement dates from the SDC. For traditional offerings, we use the SDC filing date as the offering announcement date, in line with Duca et al. (2012). The filing date is the date on which a firm first files its offering registration with the Securities and Exchange Commission (SEC). Many shelf offering registrations, however, never result in an actual security offering, or only result in a security offering after several years (Autore et al., 2008). We therefore use the SDC launch date as the announcement date for shelf offerings. The launch date is the date on which a firm first files its actual takedown of a shelf offering with the SEC and the market learns about the offering (SDC, 2016).

4.1. Univariate analysis

Our key event window of interest includes day 0 (the SEO announcement date) and the next trading day. We include the next trading day to control for announcements made after stock market closure on the event day (Lease et al., 1991).[12] Table 2 reports CARs over the window (0,

[11] In alternative tests, we use (1) the CRSP equally-weighted return to proxy for the market return when calculating abnormal returns and (2) market-adjusted returns. The results we report are robust to these alternative designs.

[12] Event studies relying on printed sources for event date identification also need to consider day −1, in order to

1) for our final SEO sample and subsamples of high- and low-CSR issuers.

[Please insert Table 2 here]

The last two columns report *p*-values for differences between high- and low-CSR issuers based on standard *t*-tests (means) and Wilcoxon signed-rank tests (medians). For the final sample, the mean (median) CAR over the window (0, 1) is −4.51% (−4.06%).[13] The subsample results show that CARs are more negative for low-CSR issuers than for high-CSR issuers, though only the difference in mean *CAR*(0, 1) is significant (at 10%). We now turn to a multivariate analysis of the effect of CSR on announcement returns.

4.2. Regression analysis

To examine the effect of a firm's CSR score on SEO announcement returns, we use an ordinary least squares (OLS) regression with *CAR*(0, 1) as the dependent variable and firms' adjusted CSR score (*AdjCSR*) as the key explanatory variable of interest. All regressions include the firm and offer characteristics from Section 3.3 as control variables. We also include year and industry fixed effects to account for temporal and sector-related trends in SEO announcement returns. Reported *t*-statistics are based on standard errors adjusted for heteroscedasticity. Table 3, column (1) reports the baseline regression results.

[Please insert Table 3 here]

control for a one-day gap between the announcement of the news and its publication in print. However, we use event dates retrieved from an electronic source (the SDC).

[13] In untabulated results, we analyze CARs over longer windows of three and five days around the announcement day. We find that mean and median CARs over these extended windows are very similar to those for a (0, 1) window.

As predicted by *H*1*a*, *AdjCSR* has a positive impact on the stock price reaction to SEO announcements. In terms of economic significance, a one standard deviation increase in *AdjCSR* increases announcement returns by 0.59%, corresponding to $4.06 million for the median issuer.[14] The control variables *Opacity*, *Volatility*, and *Secondary* affect *CAR*(0, 1) negatively, consistent with predictions. Coefficients on the other explanatory variables are not significant. The limited number of significant independent variables in our baseline regression analysis is in line with SEO announcement return regression results that previous studies report (Bayless and Chaplinsky, 1991, 1996; Denis, 1994; Walker and Yost, 2008; Lee and Masulis, 2009; Lemmon and Zender, 2010; Kim and Purnanandam, 2014). Eckbo et al. (2007) argue that regression analyses of SEO announcement returns typically have *R*-squares lower than 10%, which is the case for our baseline regression. The low explanatory power of SEO announcement return regressions is consistent with the typically high noise-to-signal ratio of daily stock returns (Wurgler and Zhuravskaya, 2002). Our baseline regression has a maximum variance inflation factor (VIF) of 3.95, suggesting that multicollinearity is not a problem. We obtain similar VIFs for the other regressions in Table 3.

4.3. Robustness and additional tests

We conduct several tests to examine the robustness of our finding that CSR scores positively affect SEO announcement returns. A first set of tests examines the sensitivity of our

[14] To determine economic significance, we multiply the standard deviation of *AdjCSR* by its coefficient (0.366 × 0.016 = 0.0059). To calculate the dollar amount, we multiply the increase in announcement returns by the median market value of our SEO firms (0.0059 × $688.778m = $4.06m).

main finding to other versions of CSR performance measures based on KLD data. Table 3, column (2) uses *RawCSR*, which is the sum of the six non-corporate-governance-related qualitative areas in KLD, with no correction for variation in the number of indicators over time. We still find a significant positive impact for this variable (t = 1.91). Table 3, column (3) replaces *AdjCSR* with *AdjCSRTotal*, which includes the corporate governance dimension of KLD CSR scores. We find that the effect of the total CSR score on SEO announcement returns is still positive. The slightly stronger statistical significance of CSR scores incorporating corporate governance quality (t = 2.78 for *AdjCSRTotal*, compared with 2.20 for *AdjCSR* in the original regression) is consistent with Kim and Purnanandam's (2014) findings showing a positive impact of corporate governance quality on SEO announcement returns.

In Table 3, column (4), we supplement our baseline regression with two corporate governance measures constructed as Appendix B outlines. Our first corporate governance proxy is the percentage of executive ownership of the firm. Jensen and Meckling (1976) argue that the quality of corporate governance is a function of managerial ownership. Higher managerial ownership better aligns manager and shareholder interests, which may result in more positive SEO announcement returns (Kim and Purnanandam, 2014). Our second corporate governance measure is the percentage of institutional ownership of the firm. Shleifer and Vishny (1986) argue that large shareholders such as institutional investors have a greater incentive to monitor management. Barber (2007), Chen et al. (2007), Burns et al. (2010), and McCahery et al. (2016) all document the key role of institutional investors in corporate governance. Due to missing data,

the sample size drops from 757 to 300 observations in this regression. We find that *AdjCSR* still has a positive impact (t = 2.82) when we control for the two corporate governance proxies. Unlike in the baseline regression, the control variables *Opacity*, *Volatility*, and *Secondary* are not significant. We attribute this drop in statistical significance to the fact that, by construction, the regression in column (4) is restricted to larger firms for which data on executive compensation are available in Execucomp. The market may be less concerned about adverse selection problems for this subsample, leading it to place less weight on adverse selection cost proxies. The coefficients on *ExecOwnership* and *IO* are not significant either. Ln*TA* has a significant negative coefficient in this model, consistent with our prediction based on the role of debt capacity in explaining SEO announcement returns.

Our *AdjCSR* measure does not include firms' quality of CSR disclosure, as this is part of the excluded corporate governance dimension of KLD CSR scores. In a further robustness test, we therefore control for firms' CSR disclosure practice by including a *CSRReport* dummy variable equal to one for firms that publish a CSR report in the year before the SEO announcement, and equal to zero otherwise. We obtain this variable from Datastream. Table 3, column (5) provides the results of this sensitivity check. We find that the positive impact of *AdjCSR* is robust to controlling for firms' CSR disclosure. The coefficient on *CSRReport* is insignificant (t = −1.16), with findings for the other explanatory variables in the regression remaining unchanged.

We conduct an additional test to obtain more insight into the drivers of the positive impact of CSR performance on SEO announcement returns. We first split *AdjCSR* into its *Strengths* and

Concerns components, consistent with Erhemjamts et al. (2013), and report the result in Table 3, column (6). We find no impact of *Strengths* (t = 0.94) and a negative impact of *Concerns* (t = −2.30), indicating that investors put a more positive value on low CSR concerns than on high CSR strengths when reacting to SEO announcements. This result is consistent with some other event studies documenting an asymmetric impact of positive and negative information on investor reactions (Tellis and Johnson, 2007).

In a second additional test, we verify whether firms' agency or adverse selection costs moderate the positive impact of CSR performance, by adding interaction terms to our baseline regression. The stakeholder value maximization view implies that CSR activities might mitigate investor concerns about the unproductive use of SEO proceeds. This view yields the prediction that the positive impact of *AdjCSR* on SEO announcement returns is stronger for firms with more severe agency problems of free cash flow. The adverse selection view, in turn, argues that CSR performance might mitigate adverse selection problems associated with equity issuance. As such, it yields the prediction that the positive impact of *AdjCSR* is stronger for firms with higher equity-related adverse selection costs. All of the firm and offer characteristics in our baseline regression could in principle proxy for one or both of these equity-related financing cost types, and may as such moderate the impact of *AdjCSR* on SEO announcement returns. Accordingly, we supplement the baseline regression in Table 3, column (1) with interactions between *AdjCSR* and each of the explanatory variables. We do not report the lengthy output of this augmented regression analysis for space reasons. In short, we find that none of the interactions is significant,

with the overall effect of *AdjCSR* on *CAR*(0, 1) (evaluated at the mean value of the interacted variables) remaining significantly positive (t = 2.27). We conclude that the interaction term analysis does not provide a convincing explanation for the positive impact of CSR on SEO announcement returns.

In a final additional test, we verify whether the impact of *AdjCSR* changes over time, by augmenting the baseline regression with an interaction between *AdjCSR* and an annual time trend variable *T*, and *T* itself. The results of this unreported test show an insignificant coefficient for the interaction term (t = −0.53), indicating that the positive stock price effect of CSR performance for seasoned equity issuers does not strengthen or weaken over the sample period. The main effect of *AdjCSR* remains significant (t = 1.76).

4.4. Addressing endogeneity

A remaining concern is that an endogeneity bias may drive our finding of a positive effect of CSR performance. We address this concern in this subsection. Reverse causality is one potential source of endogeneity in our research setting. If managers believe that high CSR leads to less negative SEO announcement returns, they may invest more in CSR activities if they intend to conduct an SEO (Cahan et al., 2015). However, we do not believe that such manipulation would be straightforward for firms, given that CSR scores are only reported annually, and SEOs are typically not planned far in advance. This holds, in particular, for shelf offerings, which make up 91.3% of our sample, and which firms often announce and place overnight (Autore and Gehy,

2013). Consistent with this intuition, and inconsistent with pre-SEO issuer manipulation of CSR scores, Table 4, panel A shows that there are no abnormal increases in CSR performance for the seasoned equity issuers in our sample (relative to changes in CSR scores for the overall population of KLD firms) in any of our sample years, nor over the entire sample period. Nor do we find abnormal decreases in CSR performance scores after SEOs (Table 4, panel B).[15]

[Please insert Table 4 here]

Omitted variables are another potential source of endogeneity in our research setting. Firms with certain characteristics could choose to become high-CSR companies (Deng et al., 2013). If unobservable characteristics associated with CSR activity selection also influence the way the market reacts to SEO announcements, then this could impose a self-selection bias on our main finding of a positive impact of CSR performance on SEO announcement returns (Li and Prabhala, 2007; Roberts and Whited, 2012). The direction of the self-selection bias is unclear a priori. For example, if high-quality firms typically invest more in CSR, then we might observe a positive association between unobservable factors affecting CSR performance and the stock price reaction to SEO announcements. In that case, the OLS regression coefficient on *AdjCSR* in Table 3 would be biased upward. Conversely, if low-quality firms typically engage in more CSR (as proponents of the shareholder expense view of CSR would argue), then we might observe a negative association between unobservable factors affecting CSR performance and the stock

[15] As panel A of Table 4 shows, in 2009 seasoned equity issuers actually exhibit an abnormal decrease in CSR performance prior to their SEOs. This goes against the hypothesis that they might manipulate their CSR scores upward in anticipation of an SEO. In other years, there are no significant pre-SEO abnormal changes in CSR scores.

price reaction to SEO announcements. In that case, the OLS regression coefficient on *AdjCSR* in Table 3 would be biased downward. To deal with the potential for omitted factors simultaneously affecting CSR activity and the stock price reaction to SEO announcements, we implement a two-step Heckman procedure (Heckman, 1979), as in Deng et al. (2013) and Hoi et al. (2013).

The first step of this procedure involves estimating a probit selection regression with a *HighCSR* dummy equal to one for high-CSR issuers (defined in Appendix B) as the dependent variable. The second step involves estimating the SEO announcement return outcome regression. The first-stage probit selection equation includes the same explanatory variables as the outcome regression, as well as one or more additional variables labeled 'exclusion restrictions' (Li and Prabhala, 2007). A suitable exclusion restriction should affect the selection variable but not the outcome variable.[16] In the context of our research design, this implies that we need to find one or more variables driving firms' CSR activity that do not affect the stock price reaction to SEOs other than through the CSR activity. Consistent with several previous studies (Hoi et al., 2013; Deng et al., 2013; Di Giuli and Kostovetsky, 2014), we use variables based on the location of firms' headquarters as exclusion restrictions. Appendix B provides detailed definitions of the variables. The first exclusion restriction, *Religion*, is motivated by the observation that firms' CSR activity tends to be affected by the degree of religiosity in the state of their headquarters

[16] Technically, we could estimate the Heckman procedure without such additional variables, by relying on the non-linearity of the inverse Mills ratio for identification (Li and Prabhala, 2007). However, since most empirical papers include one or more exclusion restrictions in the selection equation, we follow a similar approach. For completeness, we mention that our results remain similar when we omit the exclusion restrictions from the first-stage probit analysis.

(Angelidis and Ibrahim, 2004). There is no theoretical reason, however, to expect a relation between this variable and the stock price reaction to firms' SEOs. The second exclusion restriction, *Blue*, is motivated by the observation that firms with headquarters in Democratic ('blue') states are typically more engaged in CSR activities (Rubin, 2008). Again, there is no theoretical reason to expect a relation between this variable and the stock price reaction to SEOs by the firm.

The second-stage outcome regression includes the same explanatory variables as the baseline SEO announcement regression in Table 3, column (1), with the addition of the inverse Mills ratio from the first stage. This ratio captures unobservable factors affecting both the selection and outcome (Appendix B gives a formal definition of the ratio).

Table 5 gives the results of the two-step Heckman procedure. Our key focus is the second-stage outcome regression. We find that the coefficient value and significance of *AdjCSR* are highly similar to those in the baseline regression of Table 3, column (1). This suggests that our original results are not strongly affected by omitted variables driving firms' choice of CSR engagement. As a more formal test of the presence of self-selection bias, we look at the coefficient on the inverse Mills ratio. The coefficient is insignificant, consistent with the conjecture that self-selection does not play a role in explaining the positive effect of CSR performance on SEO announcement returns.

[Please insert Table 5 here]

Similarly to Hoi et al. (2013), we examine the suitability of the exclusion restrictions by

assessing their significance in the first-stage analysis. As is clear from the probit results in Table 5, both variables have a strongly significant positive impact on firms' decision to undertake CSR activity, in line with predictions. As a second test, we include the exclusion restrictions in the outcome regressions, consistent with the approach of Hoi et al. (2013). The results of this unreported analysis indicate that *Religion* and *Blue* do not significantly affect SEO announcement returns (t = 0.01 for *Religion* and t = 0.11 for *Blue*), with *AdjCSR* retaining its significant positive impact. As such, we conclude that these variables fulfil the essential requirements for exclusion restrictions and that our Heckman procedure is well-specified.

5. Examining SEO uses of proceeds and issuer performance

In this section, we analyze differences in uses of SEO proceeds and in post-SEO performance between high- and low-CSR issuers. We conduct these analyses to obtain more insight into the drivers of the positive impact of CSR performance on the stock price reaction to SEO announcements.

5.1. Uses of SEO proceeds for high- versus low-CSR issuers

In an initial analysis, we examine how high- and low-CSR firms use their SEO proceeds. This analysis is a joint test of stakeholder value maximization and adverse selection explanations for the positive impact of CSR, as both explanations yield similar predictions regarding uses of proceeds. In particular, under the stakeholder value maximization view, CSR performance acts as a signal that firms will use SEO proceeds for positive-NPV opportunities, as investors believe

that high CSR performance implies a less self-serving managerial culture within the company. The adverse selection channel, in turn, implies that CSR activity can reduce investor concerns that opportunistic market timing motives might inspire SEOs, or in other words, that it can enhance investor trust that firms will use SEOs for value-creating purposes. Thus, both views predict more value-creating, and less opportunistic, uses of SEO proceeds by high-CSR issuers than by low-CSR issuers. The shareholder expense view yields the opposite prediction. However, given the results of the event study analysis, we do not expect to find evidence supporting the latter view.

We first analyze firm-specific variables measuring potential uses of proceeds for high- and low-CSR issuers, following the approach of Walker and Yost (2008). Consistent with previous studies, we consider five uses of proceeds variables. *Invest*1 and *Invest*2 capture investment of proceeds in real assets, where *Invest*1 is capital expenditure plus R&D expenditure and *Invest*2 is inventory plus property, plant, and equipment (Lyandres et al., 2008; Walker and Yost, 2008).[17] Cash (*Cash*), working capital (*WC*), and redemption of long-term debt (*RedLTD*) measure uses of proceeds other than direct investment. We scale each variable by total assets at the fiscal year end before the offering (year −1). The literature on uses of security offering proceeds considers positive-NPV investments, as captured by *Invest*1 and *Invest*2, to be the most value-creating use of SEO proceeds. In contrast, the literature views using SEO proceeds to increase cash reserves or working capital as indicative of opportunistic issuance motives (Kim and Weisbach, 2008;

[17] We use property, plant, and equipment to measure investment in long-lived assets, and inventories to measure investment in short-lived operational assets.

Hertzel and Li, 2010).[18] The literature is unclear on the relation between long-term debt redemptions and issuer motives. Some studies perceive such redemptions as a sign of genuine value-creating motives (Kim and Weisbach, 2008). Others perceive them as an indicator of market timing, as overvalued firms may want to replace debt with cheaper equity (Hertzel and Li, 2010; Walker et al., 2016).

Table 6, panel A reports annual means and medians of the five uses of proceeds variables for high- and low-CSR issuers for the year before to two years after the SEO. Asterisks against the figures in years 0 (the year of the SEO), 1, and 2 indicate significant changes relative to year −1, using a standard *t*-test for mean values and a Wilcoxon test for median values. Both high- and low-CSR issuers show significant increases in the two investment uses, and in cash holdings and working capital, in the year of issuance and the following two years, relative to the year before the issue. Additionally, we find that both issuer types increase long-term debt redemptions in year 0 and some of the subsequent years.

[Please insert Table 6 here]

Our key aim is to verify whether high-CSR firms use SEO proceeds differently than low-CSR firms. To answer this question, Table 6, panel B shows changes in the uses of proceeds variables relative to year −1 for high- and low-CSR issuers. Our main focus is on the final three

[18] Of course, a simple analysis of uses of proceeds cannot establish whether investments are effectively value-increasing rather than reflecting agency spending motives (Walker et al., 2016). Moreover, so-called opportunistic uses of proceeds such as cash stockpiling could be optimal from a shareholder wealth creation perspective for some firms (e.g., firms with an urgent need for cash). We therefore supplement the uses of proceeds analysis with an analysis of post-issuance changes in operating performance in the next subsection.

columns of the table, which show differences in the changes in uses of proceeds for high- versus low-CSR firms. Asterisks indicate significance of the differences based on standard *t*-tests (mean values) and Wilcoxon tests (median values). The mean increase in *Invest*1 and the median increase in *Invest*2 are higher for low-CSR issuers than for high-CSR issuers in year 0. High-CSR issuers, in turn, have larger median increases in their cash holdings in year 1. There are no significant differences in changes in working capital and long-term debt redemption between high- and low-CSR issuers in any of the three years.

A concern with the findings in Table 6 is that the observed changes in firm-specific variables may be unconnected to SEOs. To examine this issue, we regress the changes in the five variables relative to year −1 on SEO proceeds and control variables, following the methodology of Kim and Weisbach (2008). This approach provides a more direct link between SEO proceeds and firm-level characteristics. For issuers that conduct more than one equity offering in a fiscal year, we sum the proceeds. For use of proceeds variables based on balance sheet items (*Invest*2, *Cash*, and *WC*), we calculate the change in each variable as $V_t - V_{t-1}$, where V is the use of proceeds variable of interest and t is the relevant year. For use of proceeds variables based on income statement and cash flow statement items (*Invest*1 and *RedLTD*), we cumulate each variable over the time since the SEO ($\sum_{i=0}^{t} V_i$). We control for other sources of funds, *Other*, defined as the difference between the accumulation of total sources of funds since the SEO and SEO proceeds, $\sum_{i=0}^{t} total\ sources\ of\ funds_i - proceeds$. To minimize the effect of outliers, we scale each variable by the firm's total assets one year before the SEO announcement and take the

log of one plus the scaled variable. We also include interactions between a *HighCSR* dummy variable and *Proceeds* (*Proceeds* × *HighCSR*) and *Other* (*Other* × *HighCSR*). Our main focus is on the coefficient of *Proceeds* × *HighCSR*, which indicates whether a particular use of SEO proceeds (captured by the dependent variable of each regression) is stronger for high-CSR issuers. In addition to *HighCSR*, we include pre-issue firm size (Ln*TA*), leverage (*Leverage*), and market-to-book (*MTB*), as well as year and industry fixed effects, in the regressions.

Table 7 presents the regression results, omitting the coefficients on Ln*TA*, *Leverage*, and *MTB* for brevity. We find positive coefficients on *Proceeds* × *HighCSR* in the regressions for *Cash* (at 1% significance) and *WC* (at 10% significance), suggesting that high-CSR issuers are more likely than low-CSR issuers to store SEO proceeds as cash reserves and working capital. The coefficients on *Proceeds* × *HighCSR* are insignificant in the equations estimating changes in *Invest*1, *Invest*2, and *RedLTD*, indicating no significant differences in investment and long-term debt redemption between high- and low-CSR issuers.

[Please insert Table 7 here]

In conclusion, the consistent finding from both analyses of the use of proceeds is that high-CSR issuers are more likely to stockpile SEO proceeds as cash. Such behavior could result from near-term cash needs, making large increases in cash holdings justifiable from a shareholder value perspective (DeAngelo et al., 2010). However, Table 1, panel A shows that, compared to low-CSR issuers, high-CSR issuers have significantly higher *Slack* than low-CSR issuers. In an untabulated, more refined test, we compare industry-adjusted financial slack for

high- and low-CSR issuers. Inconsistent with a near-term shortage of cash as a motive for SEOs, we find that the mean and median values of industry-adjusted financial slack for high-CSR issuers are higher than for low-CSR issuers (*p*-value for differences in means = 0.04 and *p*-value for differences in medians = 0.06). Another potential explanation for high-CSR issuers' cash-stockpiling behavior is market mispricing, spurring them to sell overpriced equity and store the proceeds as cash until value-increasing investment opportunities arise (Hertzel and Li, 2010). Table 1, panel A casts doubt on this interpretation. In particular, we find that *Runup* and *MTB*, two common proxies for firm overvaluation, are not significantly higher for high-CSR issuers. We obtain similar findings when we measure *MTB* on an industry-adjusted basis. Having ruled out urgent cash needs and firm overvaluation as likely explanations, we conclude that agency spending motives most likely drive high-CSR issuers' behavior. Specifically, our results suggest these firms use SEOs to boost their cash reserves irrespective of their current valuation, with an option to spend these reserves later on potentially value-reducing projects.

On the whole, our findings on uses of SEO proceeds seem inconsistent with the positive impact of CSR performance on SEO announcement returns, and are therefore surprising. In fact, our results in this subsection are consistent with the shareholder expense view of CSR, which predicts that low-CSR firms are more likely to use SEO proceeds for value-increasing investment purposes. A uses of proceeds analysis alone, however, cannot establish whether the higher investments of low-CSR issuers are justified by more valuable investment opportunities. We therefore consider these results alongside results on long-term operating and stock price

performance following SEOs.

5.2. Long-term performance for high- versus low-CSR issuers

Hansen and Crutchley (1990), McLaughlin et al. (1996), Loughran and Ritter (1997), and Fu (2010) document that seasoned equity issuers' operating performance deteriorates relative to non-issuers' over the years following the offering. A potential explanation is that a large inflow of free cash to managers intensifies agency problems and results in worse operating performance (Jung et al., 1996; McLaughlin et al., 1996; Fu, 2010). Loughran and Ritter (1997) link the post-SEO decline in operating performance to poor stock returns following SEOs, and attribute the deterioration in firms' operating performance to opportunistic mispricing motives for SEOs. Both the stakeholder value maximization and the adverse selection view predict better operational and stock price performance for high-CSR seasoned equity issuers, as the SEOs of these firms should be less motivated by agency spending or market mispricing. In contrast, the shareholder expense view predicts worse operating and stock price performance for high-CSR issuers.

We use Deng et al.'s (2013) approach to examine the impact of CSR activities on firms' long-term operating performance after an SEO. We regress the difference in post-SEO operating performance between each SEO firm and a matched control firm on the difference in pre-SEO operating performance between the SEO firm and the control firm, separately for high- and low-CSR groups. We consider two operating performance measures, namely operating income

before depreciation scaled by total assets (*OIBD*/*TA*) and free cash flow scaled by total assets (*FCF*/*TA*) (Healy et al., 1992; Walker and Yost, 2008). The regression intercept captures the abnormal change in operating performance between the pre- and post-SEO periods. The matched control firm design controls for the possibility that some of the difference between the pre- and post-SEO performance could be due to industry or firm-specific factors (Healy et al., 1992).

To select control firms, we use a nearest neighbor matching approach.[19] We match each equity issuer in our sample to a firm that does not conduct an SEO in the SEO announcement year and is in Compustat and the KLD database. The set of matching variables includes adjusted CSR score (*AdjCSR*), firm size (Ln*TA*), leverage (*Leverage*), market-to-book ratio (*MTB*), industry (two-digit SIC code), and year. The pre- and post-SEO periods are the two years before and the two years after the SEO announcement.[20]

Table 8, panel A reports the overall balance of the matched samples. The first row reports the *p*-values of a likelihood-ratio test of the joint insignificance of all matching variables. The second row reports Rubin's *B*, representing the absolute standardized difference of the means of the linear index of the propensity score. According to Rubin (2001), *B* should be less than 25 to indicate a sufficiently balanced sample. We find that *p*-values of both high- and low-CSR issuer matched samples are below 0.05 and *B*s of both matched samples are below 25, indicating that

[19] We use propensity score matching, imposing a tolerance on the maximum distance of 0.001 for each matching variable to avoid poor matches. All matches allow for replacement and impose a common support requirement.

[20] For robustness, we change the pre- and post-SEO periods to the one year before and the one year after the SEO announcement respectively, and the two years before and the one year after the SEO announcement respectively, and obtain qualitatively similar results.

they provide a sufficient degree of balancing.

[Please insert Table 8 here]

Table 8, panels B and C report the results for the changes in operating performance of seasoned equity issuers. We include the matching variables in the regressions to control for less than perfect matches. In panel B, the dependent variable is the difference in post-issue *OIBD*/*TA* between equity issuers and control firms. In panel C, the dependent variable is the difference in post-issue *FCF*/*TA* between the two groups. We omit the coefficients on the matching variables for brevity. In both regressions, the intercept in the subsample of low-CSR issuers is insignificantly different from zero, while the intercept in the subsample of high-CSR issuers is negative.

Low-CSR issuers increase investment following SEOs but experience no significant change in post-SEO operating performance, indicating that they do not misuse SEO proceeds by making value-decreasing investments. For firms with high CSR scores, however, we observe significant declines in operating performance following the issue. These results corroborate the findings from the uses of proceeds analysis suggesting that high-CSR issuers are more inclined to use SEO proceeds for value-decreasing purposes.

In addition, we examine long-term stock price performance following SEOs. Loughran and Ritter (1995), Spiess and Affleck-Graves (1995), and Jegadeesh (2000) provide evidence of negative post-SEO abnormal stock returns, consistent with a stock price underreaction at the time of the SEO announcement.

We compare the long-term stock returns of high- and low-CSR issuers using a calendar-time portfolio approach (e.g., Fama, 1998). Specifically, for each calendar month from 2004 to 2013, we construct equally-weighted portfolios of all sample firms for which the respective month is in their test periods. We examine test periods of 12 and 24 months. In line with Autore et al. (2009), we begin these testing periods at the start of the seventh month following the SEO, because underwriter stabilization practices consisting of open-market share purchases typically introduce noise into returns measured over the first six months after an SEO. We require at least six firms to be in a portfolio and rebalance portfolios each month as firms exit and enter. We regress the time-series portfolio excess returns on the Fama–French–Carhart four factors (Fama and French, 1993; Carhart, 1997). We use weighted least squares regressions, following the weighting procedure that Savor and Lu (2009) outline.

Table 9, panel A reports the long-term abnormal stock returns of the equally-weighted portfolios of all issuers in our sample. The alpha values are insignificant for these sample portfolios for the two holding periods, inconsistent with the earlier work of Loughran and Ritter (1995) and Spiess and Affleck-Graves (1995) who find negative long-run stock returns following SEOs. In unreported tests, we also find insignificant long-run abnormal returns for the full sample of SEOs (N = 1,074), which includes SEOs that are not represented in the KLD database. These untabulated results confirm that our final sample is not atypical. One possible reason for the insignificant long-run stock returns for our sample is a difference in datasets between our study and previous papers. We exclude all unit offerings from our sample (unlike Loughran and

Ritter) and include offerings with a secondary component (unlike Spiess and Affleck-Graves). Moreover, our sample period is more recent (2004–2013, compared with 1970–1990 and 1975–1989). Our results are consistent with those of Brav et al. (2000) and Eckbo et al. (2000), who find that long-term abnormal stock returns following SEOs are insignificantly different from zero.

[Please insert Table 9 here]

To examine whether long-term post-SEO abnormal stock returns differ between high- and low-CSR issuers, we construct portfolios separately, and re-estimate the four-factor model separately, for the two groups. Table 9, panel B shows that the portfolio of high-CSR issuers exhibits significantly negative abnormal returns (alphas) for the two holding periods. In contrast, panel C indicates that the portfolio of low-CSR issuers does not exhibit significant abnormal returns for either of the two holding periods. As a more direct test of differences in long-term stock price performance between high- and low-CSR issuers, we construct a zero-cost portfolio that buys stocks of high-CSR issuers and sells stocks of low-CSR issuers. Panel D shows that we obtain a negative alpha for this portfolio over the 12-month holding period. Overall, this analysis of long-term stock price performance supports our earlier conjecture based on the uses of proceeds and operating performance analysis, that high-CSR seasoned equity issuers are more likely to engage in shareholder-value-decreasing agency expenditure.

6. Conclusion and discussion

This paper examines the impact of a firm's CSR performance on its SEO performance. To develop a hypothesis for the impact of CSR performance on SEO announcement returns, we combine theoretical and empirical insights on the stock price reaction to SEOs with theory on the shareholder value effect of CSR activities. As such, we predict that CSR performance can influence stock price reactions to SEO announcements by affecting firms' equity-related agency or adverse selection costs.

We present three main pieces of empirical evidence. First, firms with higher CSR scores experience more favorable stock price reactions around SEO announcements, even when we control for a wide range of other potential SEO announcement return determinants. Second, high-CSR issuers tend to increase cash holdings following their SEOs, while low-CSR issuers are more likely to invest SEO proceeds in real assets. Third, high-CSR issuers have worse long-term operating and stock price performance than low-CSR issuers. Together, our findings suggest that the market is misguided in placing a positive value on high CSR performance for seasoned equity issuers, as high CSR performance does not translate into more value-creating SEOs. We do not find evidence that firms deliberately increase their CSR performance before an SEO, which is consistent with the fact that most SEOs are planned and executed over a short time frame (Autore and Gehy, 2013). Our results continue to hold in a two-step Heckman procedure that controls for self-selection bias.

Our findings on the role of CSR performance for seasoned equity issuers differ strongly from those of Deng et al. (2013). Their results suggest that investors correctly use CSR as an

indicator of merger quality in their reaction to Mergers and Acquisition (M&A) announcements, and that high-CSR bidders effectively have better operating performance following their deals. One reason for the difference between their results and our more pessimistic findings on the role of CSR is the following. According to the stakeholder value maximization view, CSR performance results in lower contracting costs for interactions between firms and their various stakeholders. The reason is that CSR activities, and the trust they generate, enable the firm to rely more strongly on implicit contracts with stakeholders, which tend to be cheaper than explicit contracts (Jensen and Meckling, 1976; Cornell and Shapiro, 1987; Hill and Jones, 1992). These more efficient stakeholder interactions are likely to be of much greater operational advantage in the context of M&As than in the context of SEOs. For example, for a merger to be successful it is crucial that employees function well within the newly integrated company, and that the product ranges of the bidder and target firms are integrated efficiently (Hoberg and Phillips, 2016). Such goals might indeed be more achievable for firms that have made significant investment in CSR activities aimed at increasing employee satisfaction. In other words, in an M&A context, CSR is likely to have a causal impact on firm value, by improving the likelihood of a successful deal completion and post-merger integration. For SEOs, in contrast, the hypothesized role of CSR is mainly to act as a signal affecting investors' expectations about the issuer's motives for making the offering. In other words, we do not hypothesize that there is any direct causal link from CSR activities to firm value in the context of SEOs. Instead, we hypothesize that investors interpret CSR activity as a signal of issuer motives, along with other

signals provided by firm characteristics, offer design, and stated uses of proceeds (all of which our analysis controls for). The much weaker direct benefits of CSR in the context of SEOs, in terms of facilitating relations between the stakeholders of the company, could explain why we find no positive impact of CSR on seasoned equity issuers' post-offering operating performance. In fact, we document worse operating performance for high-CSR issuers.

A remaining question is why investors misinterpret CSR scores as a positive signal of value-creating motives when reacting to SEOs. The experimental research of Elliott et al. (2014) provides a possible explanation. Elliott et al. find that, in certain circumstances, investors unintentionally make higher fundamental value estimates for firms with higher CSR scores, everything else being equal. The reason is that CSR performance tends to provoke affective reactions in investors (Keller and Block, 1997). Translated to the context of SEOs, this affection-driven bias could explain why investors mistakenly attribute more value-creating purposes to SEOs by high-CSR firms, resulting in a more favorable stock price reaction to such offerings. Inconsistent with studies showing investor learning in the context of SEOs (Duca, 2016; Walker et al., 2016), our results suggest that investors' mistakes persist over time.

We hope that our research will help investors to make more appropriate investment decisions with regard to seasoned equity issuing firms. Our results indicate that high-CSR firms use offering proceeds for opportunistic purposes and underperform following SEOs, suggesting that investors should place a negative instead of a positive value on higher CSR performance in their reactions to SEO announcement news. Future research should establish whether investors

eventually realize their mistake in valuing CSR scores for seasoned equity issuers, and whether differences in uses of proceeds and post-SEO performance between high- and low-CSR seasoned equity issuers subsequently disappear.

References

Adhikari, B.K. 2016. Causal effect of analyst following on corporate social responsibility. Journal of Corporate Finance 41, 201–216.

Anderson, R.C., Duru, A. and Reeb, D.M. 2009. Founders, heirs, and corporate opacity in the United States. Journal of Financial Economics 92, 205–222.

Angelidis, J. and Ibrahim, N. 2004. An exploratory study of the impact of degree of religiousness upon an individual's corporate social responsiveness orientation. Journal of Business Ethics 51, 119–128.

Attig, N., El Ghoul, S., Guedhami, O. and Suh, J. 2013. Corporate social responsibility and credit ratings. Journal of Business Ethics 117, 679–694.

Autore, D.M. and Gehy, D. 2013. Changing the rules again: Short selling in connection with public equity offers. Journal of Banking and Finance 37, 1974–1985.

Autore, D.M., Kumar, R. and Shome, D.K. 2008. The revival of shelf-registered corporate equity offerings. Journal of Corporate Finance 14, 32–50.

Autore, D.M., Bray, D.E. and Peterson, D.R. 2009. Intended use of proceeds and the long-run performance of seasoned equity issuers. Journal of Corporate Finance 15, 358–367.

Baker, M. and Wurgler, J. 2000. The equity share in new issues and aggregate stock returns. Journal of Finance 55, 2219–2257.

Baker, M. and Wurgler, J. 2002. Market timing and capital structure. Journal of Finance 57, 1–32.

Barber, B.M. 2007. Monitoring the monitor: Evaluating CalPERS' shareholder activism. Journal of Investing 16, 66–80.

Barnea, A. and Rubin, A. 2010. Corporate social responsibility as a conflict between shareholders. Journal of Business Ethics 97, 71–86.

Bayless, M. and Chaplinsky, S. 1991. Expectations of security type and the information content of debt and equity offers. Journal of Financial Intermediation 1, 195–214.

Bayless, M. and Chaplinsky, S. 1996. Is there a window of opportunity for seasoned equity issuance? Journal of Finance 51, 253–278.

Bhandari, A. and Javakhadze, D. 2017. Corporate social responsibility and capital allocation efficiency. Journal of Corporate Finance 43, 354–377.

Brammer, S., Brooks, C. and Pavelin, S. 2006. Corporate social performance and stock returns: UK evidence from disaggregate measures. Financial Management 35, 97–116.

Brav, A., Geczy, C. and Gompers, P.A. 2000. Is the abnormal return following equity issuances anomalous? Journal of Financial Economics 56, 209–249.

Brown, S.J. and Warner, J.B. 1985. Using daily stock returns: The case of event studies. Journal of Financial Economics 14, 3–31.

Burns, N., Kedia, S. and Lipson, M. 2010. Institutional ownership and monitoring: Evidence from financial misreporting. Journal of Corporate Finance 16, 443–455.

Cahan, S.F., Chen, C., Chen, L. and Nguyen, N.H. 2015. Corporate social responsibility and media coverage. Journal of Banking and Finance 59, 409–422.

Carhart, M.M. 1997. On persistence in mutual fund performance. Journal of Finance 52, 57–82.

Chen, X., Harford, J. and Li, K. 2007. Monitoring: Which institutions matter? Journal of Financial Economics 86, 279–305.

Cheng, B., Ioannou, I. and Serafeim, G. 2014. Corporate social responsibility and access to finance. Strategic Management Journal 35, 1–23.

Cornell, B. and Shapiro, A.C. 1987. Corporate stakeholders and corporate finance. Financial Management 16, 5–14.

Cornett, M.M., Erhemjamts, O. and Tehranian, H. 2016. Greed or good deeds: An examination of the relation between corporate social responsibility and the financial performance of U.S. commercial banks around the financial crisis. Journal of Banking and Finance 70, 137–159.

DeAngelo, H., DeAngelo, L. and Stulz, R.M. 2010. Seasoned equity offerings, market timing, and the corporate lifecycle. Journal of Financial Economics 95, 275–295.

Dechow, P.M., Hutton, A.P., Meulbroek, L. and Sloan, R.G. 2001. Short-sellers, fundamental analysis and stock returns. Journal of Financial Economics 61, 77–106.

Demerjian, P., Lev, B. and McVay, S. 2012. Quantifying managerial ability: A new measure and validity tests. Management Science 58, 1229–1248.

Deng, X., Kang, J.K. and Low, B.S. 2013. Corporate social responsibility and stakeholder value maximization: Evidence from mergers. Journal of Financial Economics 110, 87–109.

Denis, D.J. 1991. Shelf registration and the market for seasoned equity offerings. Journal of Business 64, 189–212.

Denis, D.J. 1994. Investment opportunities and the market reaction to equity offerings. Journal of Financial and Quantitative Analysis 29, 159–177.

Dhaliwal, D.S., Li, O.Z., Tsang, A. and Yang, Y.G. 2011. Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility report. The Accounting Review 86, 59–100.

Diether, K.B., Lee K.H. and Werner, I.M. 2009. Short sale strategies and return predictability. Review of Financial Studies 22, 575–607.

Di Giuli, A. and Kostovetsky, L. 2014. Are red or blue companies more likely to go green?

Politics and corporate social responsibility. Journal of Financial Economics 111, 158–180.

Duca, E. 2016. Do investors learn from the past? Evidence from follow-on equity issues. Journal of Corporate Finance 39, 36–52.

Duca, E., Dutordoir, M., Veld, C. and Verwijmeren, P. 2012. Why are convertible bond announcements associated with increasingly negative issuer stock returns? An arbitrage-based explanation. Journal of Banking and Finance 36, 2884–2899.

Dutordoir, M., Li, H., Liu, F.H. and Verwijmeren, P. 2016. Convertible bond announcement effects: Why is Japan different? Journal of Corporate Finance 37, 76–92.

Eckbo, B.E., Masulis, R.W. and Norli, Ø. 2000. Seasoned public offerings: Resolution of the 'new issues puzzle'. Journal of Financial Economics 56, 251–291.

Eckbo, B.E., Masulis, R.W. and Norli, Ø. 2007. Security offerings. In: *Handbook of Corporate Finance: Empirical Corporate Finance* 1, 233–373. Elsevier, North-Holland, Amsterdam.

Edmans, A. 2011. Does the stock market fully value intangibles? Employee satisfaction and equity prices. Journal of Financial Economics 101, 621–640.

Edmans, A. 2012. The link between job satisfaction and firm value, with implications for corporate social responsibility. Academy of Management Perspectives 26, 1–19.

El Ghoul, S., Guedhami, O., Kwok, C.C. and Mishra, D.R. 2011. Does corporate social responsibility affect the cost of capital? Journal of Banking and Finance 35, 2388–2406.

Elliott, W.B., Jackson, K.E., Peecher, M.E. and White, B.J. 2014. The unintended effect of corporate social responsibility performance on investors' estimates of fundamental value. The Accounting Review 89, 275–302.

EPG. 2015. Business Backs Education report. Available at http//www.unesco.org/education/BBE-EPG-Report2015.pdf

Erhemjamts, O., Li, Q. and Venkateswaran, A. 2013. Corporate social responsibility and its impact on firms' investment policy, organizational structure, and performance. Journal of Business Ethics 118, 395–412.

Fama, E.F. 1998. Market efficiency, long-term returns, and behavioral finance. Journal of Financial Economics 49, 283–306.

Fama, E.F. and French, K.R. 1993. Common risk factors in the returns on stocks and bonds. Journal of Financial Economics 33, 3–56.

Fatemi, A., Fooladi, I. and Tehranian, H. 2015. Valuation effects of corporate social responsibility. Journal of Banking and Finance 59, 182–192.

Ferrell, A., Liang, H. and Renneboog, L. 2016. Socially responsible firms. Journal of Financial Economics 122, 585–606.

Flammer, C. 2015. Does corporate social responsibility lead to superior financial performance? A regression discontinuity approach. Management Science 61, 2549–2568.

Freeman, R.E. 1994. The politics of stakeholder theory: Some future directions. Business Ethics Quarterly 4, 409–421.

Freeman, R.E., Wicks, A.C. and Parmar, B. 2004. Stakeholder theory and "the corporate objective revisited". Organization Science 15, 364–369.

Friedman, M. 1998. The social responsibility of business is to increase its profits. In: Pincus, L.B. (Ed.), Perspectives in Business Ethics. McGraw-Hill, Singapore.

Fu, F. 2010. Overinvestment and the operating performance of SEO firms. Financial Management 39, 249–272.

Gao, N. 2011. The adverse selection effect of corporate cash reserve: Evidence from acquisitions solely financed by stock. Journal of Corporate Finance 17, 789–808.

Godfrey, P.C., Merrill, C.B. and Hansen, J.M. 2009. The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. Strategic Management Journal 30, 425–445.

Goss, A. and Roberts, G.S. 2011. The impact of corporate social responsibility on the cost of bank loans. Journal of Banking and Finance 35, 1794–1810.

Griffin, J.J. and Mahon, J.F. 1997. The corporate social performance and corporate financial performance debate: Twenty-five years of incomparable research. Business and Society 36, 5–31.

Gustafson, M.T. and Iliev, P. 2017. The effects of removing barriers to equity issuance. Journal of Financial Economics 124, 580–598.

Hahn, J. and Lee, H. 2009. Financial constraints, debt capacity, and the cross-section of stock returns. Journal of Finance 64, 891–921.

Hansen, R.S. and Crutchley, C. 1990. Corporate earnings and financings: An empirical analysis. Journal of Business 63, 347–371.

Hauser, S., Kraizberg, E. and Dahan, R. 2003. Price behavior and insider trading around seasoned equity offerings: The case of majority-owned firms. Journal of Corporate Finance 9, 183–199.

Healy, P.M., Palepu, K.G. and Ruback, R.S. 1992. Does corporate performance improve after mergers? Journal of Financial Economics 31, 135–175.

Heckman, J.J 1979. Sample selection bias as a specification error. Econometrica 47, 153–161.

Hertzel, M.G. and Li, Z. 2010. Behavioral and rational explanations of stock price performance around SEOs: Evidence from a decomposition of market-to-book ratios. Journal of Financial and Quantitative Analysis 45, 935–958.

Hill, C.W.L. and Jones, T.M. 1992. Stakeholder-agency theory. Journal of Management Studies 29, 131–154.

Hoberg, G. and Phillips, G.M. 2016. Product integration and merger success. Working paper. Cass Business School, City University London.

Hoi, C.K., Wu, Q. and Zhang, H. 2013. Is corporate social responsibility (CSR) associated with tax avoidance? Evidence from irresponsible CSR activities. The Accounting Review 88, 2025–2059.

Hong, H. and Kacperczyk, M. 2009. The price of sin: The effects of social norms on markets. Journal of Financial Economics 93, 15–36.

Hosmer, L.T. 1995. Trust: The connecting link between organizational theory and philosophical ethics. Academy of Management Review 20, 379–403.

Hui, K.W. and Matsunaga, S.R. 2014. Are CEOs and CFOs rewarded for disclosure quality? The Accounting Review 90, 1013–1047.

Hung, M., Shi, J. and Wang, Y. 2015. Mandatory CSR disclosure and information asymmetry: Evidence from a quasi-natural experiment in China. The Hong Kong University of Science and Technology Working Paper.

Jawahar, I.M. and McLaughlin, G.L. 2001. Toward a descriptive stakeholder theory: An organizational life cycle approach. Academy of Management Review 26, 397–414.

Jegadeesh, N. 2000. Long-term performance of seasoned equity offerings: Benchmark errors and biases in expectations. Financial Management 29, 5–30.

Jensen, M.C. 1986. Agency costs of free cash flow, corporate finance and takeovers. American Economic Review 76, 323–329.

Jensen, M.C. 2001. Value maximization, stakeholder theory, and the corporate objective function. Journal of Applied Corporate Finance 14, 8–21.

Jensen, M.C. and Meckling, W.H. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics 3, 305–360.

Jiao, Y. 2010. Stakeholder welfare and firm value. Journal of Banking and Finance 34, 2549–2561.

Jiraporn, P., Jiraporn, N., Boeprasert, A. and Chang, K. 2014. Does corporate social responsibility (CSR) improve credit ratings? Evidence from geographic identification. Financial Management 43, 505–531.

Jo, H. and Harjoto, M.A. 2012. The causal effect of corporate governance on corporate social responsibility. Journal of Business Ethics 106, 53–72.

Jo, H. and Harjoto, M.A. 2014. Analyst coverage, corporate social responsibility, and firm risk. Business Ethics: A European Review 23, 272–292.

Jung, K., Kim, Y.C. and Stulz, R.M. 1996. Timing, investment opportunities, managerial discretion, and the security issue decision. Journal of Financial Economics 42, 159–186.

Keller, P.A and Block, L.G. 1997. Vividness effects: A resource-matching perspective. Journal of Consumer Research 24, 295–304.

Kim, E.H. and Purnanandam, A. 2014. Seasoned equity offerings, corporate governance, and investments. Review of Finance 18, 1023–1057.

Kim, W. and Weisbach, M.S. 2008. Motivations for public equity offers: An international perspective. Journal of Financial Economics 87, 281–307.

Kim, Y., Park, M.S. and Wier, B. 2012. Is earnings quality associated with corporate social responsibility? The Accounting Review 87, 761–796.

Kim, Y., Li, H. and Li, S. 2014. Corporate social responsibility and stock price crash risk. Journal of Banking and Finance 43, 1–13.

Krasker, W.S. 1986. Stock price movements in response to stock issues under asymmetric information. Journal of Finance 41, 93–105.

Lease, R.C., Masulis, R.W. and Page, J.R. 1991. An investigation of market microstructure impacts on event study returns. Journal of Finance 46, 1523–1536.

Lee, D. 2017. Corporate social responsibility and management forecast accuracy. Journal of Business Ethics 140, 353–367.

Lee, G. and Masulis, R.W. 2009. Seasoned equity offerings: Quality of accounting information and expected flotation costs. Journal of Financial Economics 92, 443–469.

Leland, H.E. and Pyle, D.H. 1977. Informational asymmetries, financial structure, and financial intermediation. Journal of Finance 32, 371–387.

Lemmon, M.L. and Zender, J.F. 2010. Debt capacity and tests of capital structure theories. Journal of Financial and Quantitative Analysis 45, 1161–1187.

Li, K. and Prabhala, N. 2007. Self-selection models in corporate finance. Chapter 2 in: Eckbo, B.E. (Ed.), *Handbook of Corporate Finance*, Volume 1. Elsevier, North-Holland, Amsterdam.

Lopatta, K., Buchholz, F. and Kaspereit, T. 2016. Asymmetric information and corporate social responsibility. Business and Society 55, 458–488.

Loughran, T. and Ritter, J.R. 1995. The new issues puzzle. Journal of Finance 50, 23–51.

Loughran, T. and Ritter, J.R. 1997. The operating performance of firms conducting seasoned equity offerings. Journal of Finance 52, 1823–1850.

Lucas, D.J. and McDonald, R.L. 1990. Equity issues and stock price dynamics. Journal of Finance 45, 1019–1043.

Lyandres, E., Sun, L. and Zhang, L. 2008. The new issues puzzle: Testing the investment-based explanation. Review of Financial Studies 21, 2825–2855.

McCahery, J.A., Sautner, Z. and Starks, L.T. 2016. Behind the scenes: The corporate governance preferences of institutional investors. Journal of Finance 71, 2905–2932.

McKinsey & Company. 2009. Valuing corporate social responsibility: McKinsey Global Survey Results. Available at https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/valuing-corporate-social-responsibility-mckinsey-global-survey-results.

McLaughlin, R. Safieddine, A. and Vasudevan, G.K. 1996. The operating performance of seasoned equity issuers: Free cash flow and post-issue performance. Financial Management 25, 41–53.

Margolis, J.D. and Walsh, J.P. 2003. Misery loves companies: Rethinking social initiatives by business. Administrative Science Quarterly 48, 268–305.

Maskara, P.K. and Mullineaux, D.J. 2011. Information asymmetry and self-selection bias in bank loan announcement studies. Journal of Financial Economics 101, 684–694.

Masulis, R.W. and Korwar, A.N. 1986. Seasoned equity offerings: An empirical investigation. Journal of Financial Economics 15, 91–118.

Merton, R.C. 1987. A simple model of capital market equilibrium with incomplete information. Journal of Finance 42, 483–510.

MSCI. 2015. MSCI ESG KLD STATS: 1991-2014 DATA SETS Methodology. Available at https://wrds-web.wharton.upenn.edu/wrds/support/Data/_001Manuals%20and%20Overviews/_070KLD/_001General/_001MSCI%20ESG%20KLD%20STATS%20Methodology%20--%201991-2014.pdf.cfm.

Myers, S.C. and Majluf, N.S. 1984. Corporate financing and investment decisions when firms have information that investors do not have. Journal of Financial Economics 13, 187–221.

Pagano, M. and Volpin, P.F. 2005. Managers, workers, and corporate control. Journal of Finance 60, 841–868.

Pivato, S., Misani, N. and Tencati, A. 2008. The impact of corporate social responsibility on consumer trust: The case of organic food. Business Ethics: A European Review 17, 3–12.

Roberts, M.R. and Whited, T.M. 2012. Endogeneity in empirical corporate finance 1. In: *Handbook of the Economics of Finance* 2, 493–572. Elsevier, North-Holland, Amsterdam.

Rubin, A. 2008. Political views and corporate decision making: The case of corporate social responsibility. Financial Review 43, 337–360.

Rubin, D.B. 2001. Using propensity scores to help design observational studies: Application to

the tobacco litigation. Health Service and Outcomes Research Methodology 2, 169–188.

Savor, P.G. and Lu, Q. 2009. Do stock mergers create value for acquirers? Journal of Finance 64, 1064–1097.

SDC. 2016. New Issues Definitions. Available at http://mergers.thomsonib.com/td/DealSearch/help/nidef.htm

Sharfman, M.P. and Fernando, C.S. 2008. Environmental risk management and the cost of capital. Strategic Management Journal 29, 569–592.

Shleifer, A. and Vishny, R.W. 1986. Large shareholders and corporate control. Journal of Political Economy 94, 461–488.

Spiess, D.K. and Affleck-Graves, J. 1995. Underperformance in long-run stock returns following seasoned equity offerings. Journal of Financial Economics 38, 243–267.

Stulz, R.M. 1990. Managerial discretion and optimal financing policies. Journal of Financial Economics 26, 3–27.

Tellis, G.J. and Johnson, J. 2007. The value of quality. Marketing Science 26, 758–773.

Veld, C., Verwijmeren, P. and Zabolotnyuk, Y. 2017. Wealth effects of seasoned equity offerings: A meta analysis. Available at SSRN: https://ssrn.com/abstract=2697375.

Walker, M.D. and Yost, K. 2008. Seasoned equity offerings: What firms say, do, and how the market reacts. Journal of Corporate Finance 14, 376–386.

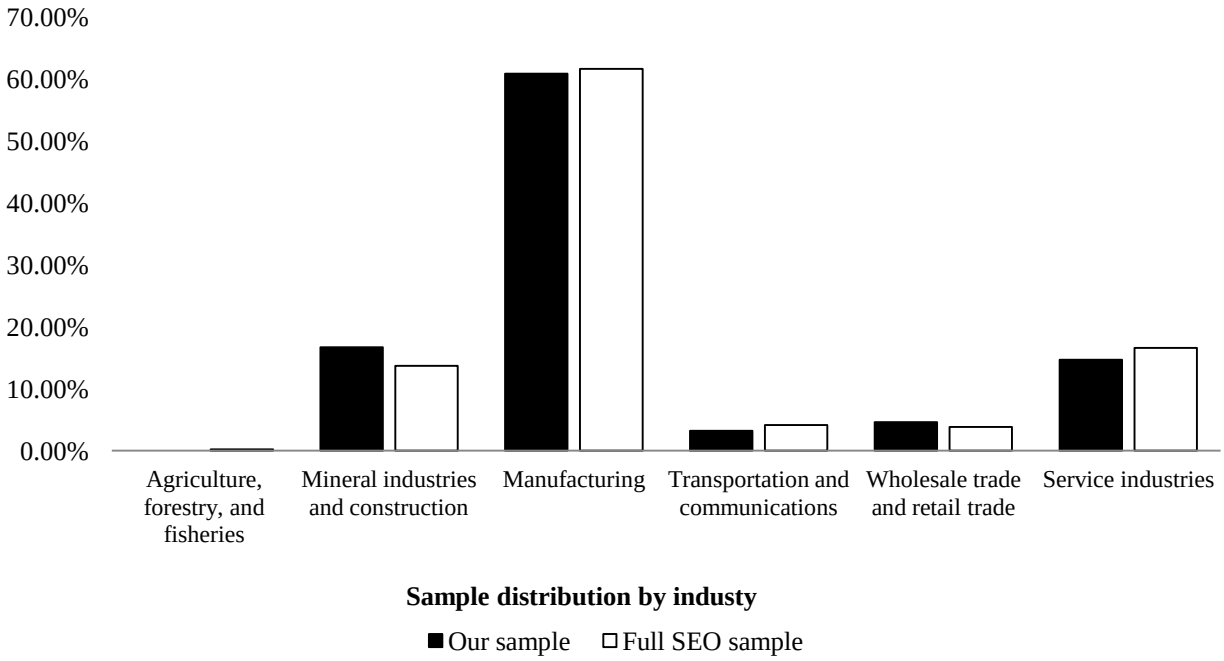
Walker, M.D., Yost, K. and Zhao, J. 2016. Credibility and multiple SEOs: What happens when firms return to the capital market? Financial Management 45, 675–703.

Wu, M.W. and Shen, C.H. 2013. Corporate social responsibility in the banking industry: Motives and financial performance. Journal of Banking and Finance 37, 3529–3547.

Wurgler, J. and Zhuravskaya, E., 2002. Does arbitrage flatten demand curves for stocks? Journal of Business 75, 583–608.

Figure 1: Distribution of SEOs by issuer industry and year for the final and full SEO samples

Panel A: The bar chart shows the distribution by industry for our final sample of SEO offerings with CSR performance data available in KLD, and the full SEO sample without this CSR performance data availability requirement. Industry classification is based on one-digit SIC codes. The black bars represent our final sample of SEOs (N = 757) and the white bars the full sample of SEOs (N = 1,074).



Panel B: The line chart shows the distributions by year of our final sample and the full sample of SEOs. The solid line represents our final sample of SEOs (N = 757) and the dashed line the full sample of SEOs (N = 1,074).

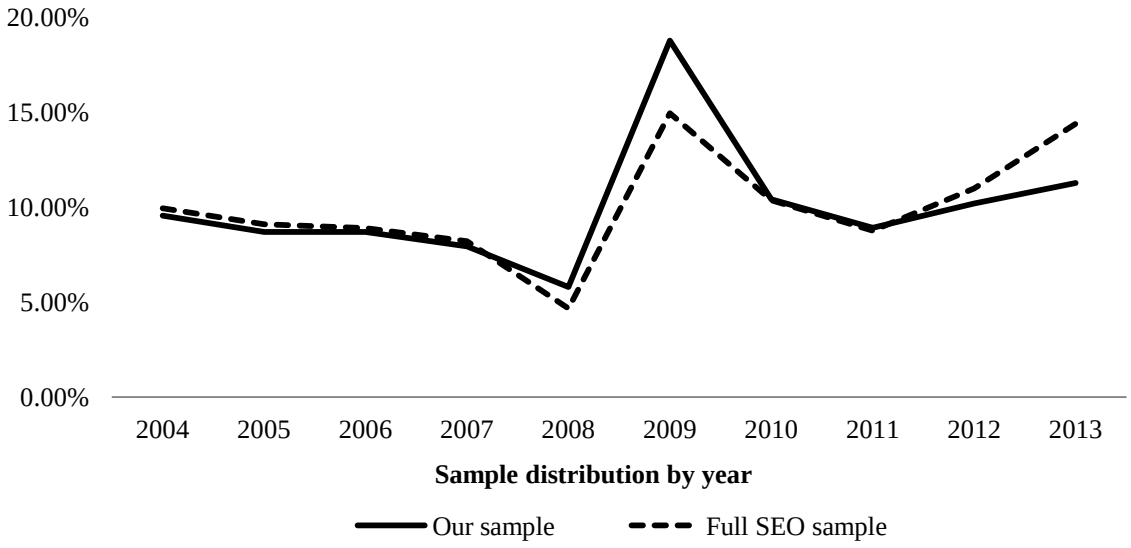


Table 1: Firm and offer characteristics

This table reports the mean and median values of firm and offer characteristics for our sample (panel A) and Pearson correlation coefficients between these variables (panel B), with the numbers referring to the corresponding variable name in panel A. The sample includes 757 seasoned equity offerings between January 2004 and December 2013, from the SDC. Appendix B gives the definitions of all the variables. We divide the sample into high- and low-CSR issuers according to the median adjusted CSR score of all observations in the KLD database in each year. *p*-values for differences in means (medians) between high- and low-CSR firms are based on standard *t*-tests (Wilcoxon signed-rank tests).

Panel A: Summary statistics

	Final sample (*N* = 757)		Subsample of high-CSR issuers (*N* = 365)		Subsample of low-CSR issuers (*N* = 392)		Differences	
							Mean	Median
	Mean	Median	Mean	Median	Mean	Median	*p*-value	*p*-value
(1) *AdjCSR*	−0.239	−0.250	0.033	0.000	−0.492	−0.476	0.000	0.000
(2) *Opacity*	2.750	2.712	2.692	2.750	2.730	2.750	0.333	0.489
(3) *Volatility*	0.618	0.530	0.611	0.527	0.624	0.532	0.569	0.751
(4) *Slack*	0.300	0.161	0.333	0.226	0.270	0.115	0.004	0.004
(5) *Runup*	0.176	0.105	0.163	0.104	0.189	0.107	0.372	0.429
(6) *FirmEfficiency*	0.287	0.256	0.284	0.255	0.290	0.257	0.658	0.647
(7) *Leverage*	0.260	0.193	0.251	0.190	0.268	0.200	0.416	0.258
(8) *ROA*	−0.151	−0.029	−0.179	−0.057	−0.125	−0.010	0.029	0.006
(9) *AssetTangibility*	0.546	0.352	0.502	0.326	0.587	0.395	0.031	0.012
(10) Ln*TA*	6.077	5.860	6.079	5.880	6.075	5.824	0.973	0.805
(11) *MTB*	2.786	2.039	2.917	2.172	2.663	1.910	0.122	0.060
(12) *RelOfrSize*	0.358	0.238	0.368	0.263	0.348	0.215	0.500	0.404
(13) *Secondary* (dummy)	0.161	0.000	0.148	0.000	0.173	0.000	0.341	0.341
(14) *Shelf* (dummy)	0.913	1.000	0.921	1.000	0.906	1.000	0.467	0.467
(15) *GeneralPurpose* (dummy)	0.843	1.000	0.855	1.000	0.832	1.000	0.382	0.382

Panel B: Pearson correlation matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(2)	−0.077**													
(3)	−0.062*	0.407***												
(4)	0.043	0.045	0.025											
(5)	−0.033	0.097***	0.245***	0.051										
(6)	−0.005	−0.142***	−0.079**	−0.231***	−0.055									
(7)	−0.025	0.018	0.013	−0.186***	−0.012	0.027								
(8)	−0.044	−0.167***	−0.251***	−0.399***	−0.098***	0.378***	0.016							
(9)	−0.078**	0.057	0.114***	−0.457***	0.047	0.117***	0.202***	0.086**						
(10)	0.077**	−0.176***	−0.067*	−0.565***	−0.062*	0.373***	0.251***	0.442***	0.251***					
(11)	0.015	−0.089**	−0.133***	0.533***	−0.040	−0.110***	0.001	−0.379***	−0.272***	−0.521***				
(12)	−0.016	0.202***	0.133***	−0.046	−0.061*	−0.116***	0.052	−0.011	0.020	−0.112***	−0.126***			
(13)	−0.045	−0.044	−0.163***	−0.129***	0.003	0.023	−0.038	0.186***	−0.029	−0.063*	−0.001	0.147***		
(14)	0.004	−0.090**	0.081**	0.029	0.038	0.030	0.114***	−0.110***	0.098***	0.126***	−0.063*	−0.131***	−0.450***	
(15)	0.093**	0.071*	0.136***	−0.007	0.078**	0.015	0.027	−0.039	0.018	0.044	−0.028	−0.045	−0.048	−0.005

Table 2: Cumulative abnormal returns (CARs) for issuers around SEO announcement dates

This table reports the mean and median values of CARs over the window (0, 1). Statistics are reported in percentages. The sample includes 757 SEOs from January 2004 to December 2013 from the SDC. CARs are measured over the window (0, 1) relative to the announcement date, using a market model estimated over 200 trading days ending 60 days before the announcement date. We divide the sample into high- and low-CSR issuers according to the median adjusted CSR score of all observations in the KLD database in each year. *p*-values for differences in means (medians) between high- and low-CSR firms are based on standard *t*-tests (Wilcoxon signed-rank tests).

	Final sample (N = 757)		Subsample of high-CSR issuers (N = 365)		Subsample of low-CSR issuers (N =392)		Differences	
							Mean	Median
	Mean	Median	Mean	Median	Mean	Median	*p*-value	*p*-value
CAR(0, 1)	−4.505	−4.061	−4.044	−3.677	−4.934	−4.494	0.090	0.117

Table 3: The impact of CSR on the stock price reaction to SEO announcements

This table presents the results of OLS regressions modeling the determinants of SEO announcement returns. The dependent variable is the *CAR*, measured over the window (0, 1) relative to the announcement day, using a market model estimated over 200 trading days ending 60 days before the announcement date. All regressions include year and industry fixed effects. Industry effects are based on one-digit SIC codes. Reported intercepts represent the average value of the fixed effects. Appendix B gives the definitions of all the variables. *t*-statistics based on heteroscedasticity-consistent standard errors are reported in parentheses. *N* denotes the number of observations. *, **, and *** indicate significance at 10%, 5%, and 1%.

	(1)	(2)	(3)	(4)	(5)	(6)
AdjCSR	0.016**			0.026***	0.018**	
	(2.20)			(2.82)	(2.39)	
RawCSR		0.003*				
		(1.91)				
AdjCSRTotal			0.018***			
			(2.78)			
ExecOwnership				0.000		
				(0.28)		
IO				0.026		
				(1.12)		
CSRReport					−0.023	
					(−1.16)	
Strengths						0.010
						(0.94)
Concerns						−0.021**
						(−2.30)
Opacity	−0.012**	−0.013**	−0.012**	−0.012	−0.012**	−0.012**
	(−2.14)	(−2.17)	(−2.07)	(−1.13)	(−2.09)	(−2.11)
Volatility	−0.040**	−0.040**	−0.041**	−0.028	−0.041**	−0.040**
	(−2.27)	(−2.23)	(−2.27)	(−0.89)	(−2.30)	(−2.25)
Slack	−0.011	−0.012	−0.011	−0.022	−0.011	−0.011

	(−0.74)	(−0.79)	(−0.73)	(−0.85)	(−0.77)	(−0.73)

Table 3 continued

	(1)	(2)	(3)	(4)	(5)	(6)
Runup	0.020	0.020	0.021	−0.017	0.020	0.020
	(1.07)	(1.08)	(1.11)	(−0.51)	(1.07)	(1.07)
FirmEfficiency	−0.001	−0.001	−0.001	0.002	0.000	0.000
	(−0.07)	(−0.05)	(−0.08)	(0.09)	(0.00)	(0.01)
Leverage	0.005	0.005	0.006	0.011	0.004	0.004
	(0.55)	(0.56)	(0.63)	(0.56)	(0.46)	(0.49)
ROA	−0.015	−0.014	−0.015	−0.062	−0.015	−0.015
	(−1.09)	(−1.06)	(−1.13)	(−1.63)	(−1.14)	(−1.11)
AssetTangibility	−0.008	−0.008	−0.008	−0.002	−0.008	−0.008
	(−1.16)	(−1.15)	(−1.19)	(−0.23)	(−1.16)	(−1.15)
Ln*TA*	−0.004	−0.004	−0.003	−0.009**	−0.003	−0.003
	(−1.49)	(−1.51)	(−1.37)	(−2.21)	(−1.15)	(−1.09)
MTB	−0.001	−0.001	−0.001	−0.003	−0.001	−0.001
	(−0.58)	(−0.58)	(−0.58)	(−1.04)	(−0.53)	(−0.52)
RelOfrSize	−0.018	−0.019	−0.019	−0.054	−0.019	−0.018
	(−0.61)	(−0.64)	(−0.62)	(−1.23)	(−0.63)	(−0.60)
Secondary	−0.016**	−0.017**	−0.016**	0.010	−0.016**	−0.017**
	(−2.35)	(−2.38)	(−2.34)	(−0.86)	(−2.36)	(−2.38)
Shelf	−0.010	−0.010	−0.009	−0.025	−0.010	−0.010
	(−1.00)	(−1.01)	(−0.93)	(−1.38)	(−1.06)	(−1.06)
GeneralPurpose	−0.010	−0.010	−0.010	−0.009	−0.010	−0.010
	(−1.31)	(−1.23)	(−1.34)	(−0.84)	(−1.29)	(−1.32)
Intercept	0.079***	0.079***	0.075***	0.117**	0.074***	0.075***
	(2.83)	(2.79)	(2.71)	(2.08)	(2.62)	(2.61)

R-sqr	0.098	0.097	0.101	0.175	0.100	0.099
N	757	757	757	300	757	757

Table 4: Yearly changes in adjusted CSR scores

This table reports the mean values of the yearly changes in adjusted CSR scores for our SEO sample and other firms covered in the KLD database. Panel A reports differences between the adjusted CSR scores in the issue year (year 0) and those in the year before the SEO (year −1). Panel B reports differences between the adjusted CSR scores in the year after the SEO (year 1) and those in the issue year (year 0). *p*-values for differences in means between our SEO sample and the KLD sample are based on standard *t*-tests.

Panel A: Changes in CSR scores before SEOs

SEO year	SEO sample	KLD sample	Difference	*p*-value
2004	−0.108	−0.050	−0.058	0.588
2005	0.164	−0.012	0.175	0.251
2006	0.102	−0.012	0.113	0.301
2007	−0.014	−0.041	0.026	0.884
2008	−0.135	−0.013	−0.122	0.275
2009	−0.022	0.001	−0.023	0.045
2010	−0.074	0.716	−0.789	0.127
2011	−0.022	0.318	−0.340	0.567
2012	0.118	0.294	−0.176	0.597
2013	−0.004	0.046	−0.051	0.798
Entire sample period	0.000	0.128	−0.128	0.154

Panel B: Changes in CSR scores after SEOs

SEO year	SEO sample	KLD sample	Difference	*p*-value
2004	0.058	−0.012	0.069	0.629
2005	−0.031	−0.012	−0.020	0.876
2006	−0.064	−0.041	−0.024	0.888
2007	−0.040	−0.013	−0.027	0.764
2008	0.000	0.001	−0.001	0.952
2009	0.089	0.716	−0.626	0.097
2010	0.059	0.318	−0.259	0.676
2011	0.338	0.294	0.044	0.890
2012	−0.007	0.046	−0.053	0.855
2013	−0.010	0.085	−0.095	0.710
Entire sample period	0.046	0.140	−0.094	0.333

Table 5: The impact of CSR on the stock price reaction to SEO announcements

This table presents the results of regressions using the Heckman two-stage model to control for potential selection bias. The first stage is a probit regression in which the dependent variable equals one for high-CSR issuers (*HighCSR*, defined as outlined in Appendix B). We divide the sample into high- and low-CSR issuers according to the median adjusted CSR score of all observations in the KLD database in each year. The exclusion restrictions in the first stage are the religion ranking of the state in which the seasoned equity issuer's headquarters are located (*Religion*) and a dummy variable equal to one if the seasoned equity issuer's headquarters are located in a Democratic state (*Blue*). In the second stage, we re-estimate the baseline OLS regression from Table 3, column (1) and include the inverse Mills ratio (*Lambda*) estimated from the first-stage probit. All regressions include year and industry fixed effects. Industry effects are based on one-digit SIC codes. Reported intercepts represent the average value of the fixed effects. Appendix B gives the definitions of all the variables. *t*-statistics based on heteroscedasticity-consistent standard errors are reported in parentheses. *N* denotes the number of observations. *, **, and *** indicate significance at 10%, 5%, and 1%.

Dependent variable =	*HighCSR*	*CAR*(0, 1)
	First stage	Second stage
AdjCSR		0.016**
		(2.24)
Religion	0.010**	
	(2.55)	
Blue	0.343***	
	(2.81)	
Opacity	−0.029	−0.013**
	(−0.29)	(−2.19)
Volatility	−0.119	−0.041**
	(−0.67)	(−2.32)
Slack	0.353	−0.006
	(1.59)	(−0.38)
Runup	−0.432*	0.015
	(−1.73)	(0.77)
FirmEfficiency	−0.096	−0.001
	(−0.32)	(−0.07)
Leverage	−0.100	0.004
	(−0.59)	(0.40)
ROA	−0.331*	−0.018
	(−1.77)	(−1.26)
AssetTangibility	−0.051	−0.008
	(−0.47)	(−1.24)
Ln*TA*	0.099**	−0.003
	(2.31)	(−1.05)

MTB	0.003	−0.001
	(0.11)	(−0.57)

Table 5 continued

Dependent variable=	*HighCSR*	*CAR*(0, 1)
	First stage	Second stage
RelOfrSize	−0.005	−0.020
	(−0.01)	(−0.67)
Secondary	0.019	−0.016**
	(0.13)	(−2.31)
Shelf	0.032	−0.009
	(0.17)	(−0.99)
GeneralPurpose	0.130	−0.009
	(1.01)	(−1.11)
Lambda		0.016
		(0.72)
Intercept	−1.228**	0.059
	(2.32)	(1.54)
R-sqr	0.079	0.099
N	757	757

Table 6: Univariate analysis of uses of proceeds

Panel A reports mean and median values of five firm-specific use of proceeds measures in the year before the SEO (year −1), the issue year (year 0), and the two years after the SEO (years 1 and 2). *, **, and *** indicate significant differences between the firm characteristics in years 0, 1, and 2 relative to those in year −1, at the 10%, 5%, and 1% confidence levels. We divide the sample into high- and low-CSR issuers according to the median adjusted CSR score of all observations in the KLD database in each year. Panel B reports increases in mean and median values for the five variables relative to the values in year −1 for high- and low-CSR issuers, as well as differences in means (medians) between the two groups of issuers (in the final three columns). *, **, and *** indicate significant differences between high- and low-CSR issuers at the 10%, 5%, and 1% confidence levels. All variables are scaled by the book value of total assets in year −1. Appendix B gives the definitions of all the variables.

Panel A

		Final sample (N = 697)				Subsample of high-CSR issuers (N = 332)				Subsample of low-CSR issuers (N = 365)			
		Year –1	Year 0	Year 1	Year 2	Year –1	Year 0	Year 1	Year 2	Year –1	Year 0	Year 1	Year 2
*Invest*1	Mean	0.230	0.277***	0.344***	0.402***	0.242	0.276***	0.344***	0.408***	0.219	0.278***	0.344***	0.397***
	Median	0.166	0.193***	0.226***	0.224***	0.177	0.200***	0.236***	0.248***	0.162	0.188***	0.199***	0.198***
*Invest*2	Mean	0.616	0.767***	0.969***	1.182***	0.573	0.717***	0.916***	1.129***	0.654	0.812***	1.018***	1.231***
	Median	0.486	0.569***	0.682***	0.766***	0.409	0.507***	0.601***	0.717***	0.556	0.646***	0.722***	0.797***
Cash	Mean	0.293	0.497***	0.551***	0.595***	0.322	0.548***	0.617***	0.627***	0.266	0.452***	0.491***	0.565***
	Median	0.152	0.249***	0.255***	0.230***	0.202	0.312***	0.329***	0.294***	0.115	0.180***	0.177***	0.169***
WC	Mean	0.285	0.506***	0.568***	0.617***	0.307	0.547***	0.625***	0.642***	0.266	0.469***	0.516***	0.593***
	Median	0.234	0.344***	0.383***	0.376***	0.253	0.364***	0.455***	0.432***	0.216	0.330***	0.352***	0.324***
RedLTD	Mean	0.116	0.166***	0.149***	0.187***	0.100	0.160***	0.139**	0.152***	0.130	0.172***	0.159	0.219***
	Median	0.029	0.047***	0.031	0.027***	0.025	0.035***	0.029	0.019	0.032	0.053***	0.036	0.040***

Table 6 continued

Panel B

		Subsample of high-CSR issuers (N = 332)			Subsample of low-CSR issuers (N = 365)			Differences between high- and low-CSR issuers		
		Year 0	Year 1	Year 2	Year 0	Year 1	Year 2	Year 0	Year 1	Year 2
*Invest*1	Mean	0.034	0.104	0.167	0.059	0.125	0.183	−0.025*	−0.021	−0.016
	Median	0.015	0.040	0.052	0.014	0.036	0.037	0.001	0.004	0.015
*Invest*2	Mean	0.144	0.337	0.533	0.157	0.355	0.571	−0.014	−0.019	−0.038
	Median	0.041	0.108	0.161	0.060	0.130	0.213	−0.019*	−0.022	−0.052
Cash	Mean	0.225	0.293	0.306	0.186	0.226	0.301	0.040	0.067	0.004
	Median	0.075	0.080	0.084	0.047	0.042	0.050	0.028	0.038*	0.034
WC	Mean	0.240	0.316	0.335	0.203	0.251	0.378	0.037	0.066	0.007
	Median	0.106	0.120	0.151	0.086	0.107	0.111	0.020	0.013	0.040
RedLTD	Mean	0.060	0.037	0.052	0.042	0.028	0.084	0.019	0.009	−0.033
	Median	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 7: Analysis of the uses of SEO proceeds

This table presents the results of regressions analyzing the effect of CSR on subsequent increases in investment and expenditure. The dependent variable for the asset-based variables is the change in each variable relative to its value in year −1, $V_t - V_{-1}$, where *V* is the variable and *t* is the year. The dependent variable for expenditure is the accumulation of each variable since the SEO, $\sum_{i=0}^{t} V_i$. The independent variables are SEO proceeds (*Proceeds*), other sources of funds (*Other*), interaction terms between *HighCSR*, a dummy variable indicating that the issuer is in the high-adjusted-CSR group (defined in Appendix B), and *Proceeds* and *Other* respectively, and *HighCSR* itself. We scale each variable by the firm's pre-issue size and take the log of one plus the scaled variable. Each regression controls for pre-issue firm size (Ln*TA*), leverage (*Leverage*), and market-to-book ratio (*MTB*) and includes year and industry dummies (not reported). *t*-statistics are based on heteroscedasticity-consistent standard errors. *, **, and *** indicate significance at 10%, 5%, and 1%.

			Proceeds		*Other*		*HighCSR*		*Proceeds×HighCSR*		*Other×HighCSR*			
	t	*N*	β_1	*t*-stat	β_2	*t*-stat	β_2	*t*-stat	β_3	*t*-stat	β_4	*t*-stat	*R*-sqr	*F*-stat
∑*Invest*1	0	696	0.054***	5.07	0.179***	3.66	0.044	0.75	−0.003	−0.25	−0.163***	−2.94	0.421	22.27
	1	670	0.121***	6.33	0.140***	4.67	−0.052	−0.57	0.012	0.61	−0.048	−1.31	0.467	24.03
	2	624	0.168***	6.50	0.125***	2.70	−0.142	−1.16	0.034	1.33	−0.005	−0.10	0.474	21.93
Δ*Invest*2	0	669	0.057***	5.05	0.193***	4.16	0.046	0.75	−0.010	−0.78	0.047	0.63	0.414	9.51
	1	610	0.134***	5.88	0.097***	3.38	−0.027	−0.27	0.005	0.25	0.058	1.55	0.401	11.72
	2	524	0.228***	6.78	0.156***	2.99	−0.330	−1.20	0.064	1.21	0.058	0.95	0.375	9.34
Δ*Cash*	0	697	0.138***	8.63	0.121**	2.41	−0.172**	−2.43	0.039***	2.67	−0.090	−1.36	0.383	12.35
	1	638	0.128***	7.02	0.119***	3.73	−0.283***	−3.03	0.057***	3.11	−0.021	−0.50	0.304	7.72
	2	551	0.112***	5.06	0.119***	2.79	−0.337***	−2.84	0.062***	2.79	−0.009	−0.18	0.272	6.32
Δ*WC*	0	683	0.133***	7.16	0.183*	1.86	−0.171*	−1.68	0.038*	1.90	−0.135	−1.29	0.304	11.20
	1	625	0.139***	6.68	0.108***	3.12	−0.208*	−1.78	0.040*	1.72	−0.013	−0.30	0.281	7.85
	2	539	0.119***	4.76	0.119**	2.42	−0.284**	−1.97	0.049*	1.79	−0.036	−0.64	0.253	5.77
∑*RedLTD*	0	688	−0.005	−0.52	0.404***	7.60	0.029	0.60	−0.004	−0.35	−0.001	−0.01	0.526	17.65
	1	670	0.043**	2.23	0.211***	7.63	−0.049	−0.63	0.010	0.61	−0.033	−0.75	0.406	13.29
	2	624	0.060**	2.39	0.211***	3.82	−0.008	−0.08	0.002	0.07	−0.012	−0.19	0.421	13.25

Table 8: Post-SEO changes in the operating performance of equity issuers

This table reports the post-SEO long-term operating performance of equity issuers. We match each equity issuer in our sample with a control firm in Compustat and KLD, using a nearest neighbor approach. The matching variables are the adjusted CSR scores (*AdjCSR*), firm size (Ln*TA*), leverage (*Leverage*), market-to-book ratio (*MTB*), industry (two-digit SIC code), and year. Appendix B gives the definitions of all the variables. Panel A reports on the overall balance of the matched samples. *PsR*2 is the *p*-value of a likelihood-ratio test of the joint insignificance of all matching variables. *B* is Rubin's *B*, measuring the absolute standardized difference of the means of the linear index of the propensity score. Panels B and C report the regression results. We omit the coefficients on the matching variables for brevity. In panel B, the dependent variable is the difference in the change in post-SEO operating income between the equity issuers and control firms. In panel C, the dependent variable is the difference in the change in post-SEO free cash flow between the equity issuers and control firms. All variables are scaled by the book value of total assets. The pre- and post-SEO periods are the two years before and the two years after the SEO year. The regression intercept measures the abnormal change in operating performance between the pre- and post-SEO periods. We divide the sample into high- and low-CSR issuers according to the median adjusted CSR score of all observations in the KLD database in each year. *t*-statistics based on heteroscedasticity-consistent standard errors are reported in parentheses. *N* denotes the number of observations. *, **, and *** indicate significance at 10%, 5%, and 1%.

	Subsample of high-CSR issuers	Subsample of low-CSR issuers
Panel A: Analysis of overall balance for the matched sample		
*PsR*2	0.006	0.011
B	14.9	14.8
Panel B: Dependent variable = Post-SEO Δ*OIBD*/*TA*		
Constant	−0.258**	−0.130
	(−2.13)	(−0.83)
Pre-SEO Δ*OIBD*/*TA*	0.178**	0.162**
	(2.52)	(2.22)
R-sqr	0.305	0.256
N	330	359
Panel C: Dependent variable = Post-SEO Δ*FCF*/*TA*		
Constant	−0.252**	−0.180
	(−2.10)	(−1.19)
Pre-SEO Δ*FCF*/*TA*	0.131***	0.110**
	(2.35)	(2.08)
R-sqr	0.209	0.198
N	330	359

Table 9: Calendar-time portfolio analysis of SEOs

This table reports the results of calendar-time portfolio regressions, using the Fama–French–Carhart four-factor model as the normal return benchmark. We construct equally-weighted portfolios of issuers that conduct SEOs, and keep them in the portfolio for 12 and 24 months, beginning in the seventh month after the SEO announcement. We require at least six firms per portfolio, and rebalance the portfolios monthly by dropping all issuers that have reached the end of the holding period and adding all issuers that announced an SEO seven months previously. We run weighted least squares (WLS) regressions, where the weights are given by the number of stocks in the portfolio. Panel A reports alphas and associated *t*-statistics, and adjusted *R*-square and sample size, for portfolios including all issuers in the sample. Panels B and C report corresponding results for the portfolios of high-CSR and low-CSR issuers. Panel D reports results for zero-cost portfolios that buy issuers with high CSR and sell issuers with low CSR. *, **, and *** indicate significance at 10%, 5%, and 1%.

	Months 7–18		Months 7–30	
		t-stat		*t*-stat
Panel A: Portfolios of all issuers				
α	−0.002	−1.12	−0.003	−1.38
Adj. *R*-sqr	0.905		0.910	
N	130		142	
Panel B: Portfolios of high-CSR issuers				
α	−0.005**	−2.00	−0.004*	−1.70
Adj. *R*-sqr	0.875		0.885	
N	130		142	
Panel C: Portfolios of low-CSR issuers				
A	−0.000	−0.01	−0.002	−0.66
Adj. *R*-sqr	0.827		0.835	
N	130		142	
Panel D: Zero-cost portfolios buying high-CSR issuers and selling low-CSR issuers				
A	−0.004**	−2.11	−0.002	−1.37
Adj. *R*-sqr	0.060		0.146	
N	130		142	

Appendix A: Qualitative issue areas

For each of the seven qualitative issue areas, KLD identifies a set of strength and concern indicators. Firms receive a score of one if they meet the assessment criteria for an indicator; otherwise the score is zero. To obtain adjusted strength (concern) scores, we divide the sum of the strength (concern) scores by the number of strength (concern) indicators. We calculate an adjusted score for each area, as the adjusted strength score minus the adjusted concern score. A firm's adjusted CSR score equals the sum of six areas' adjusted scores, excluding corporate governance.

Qualitative area	Strengths	Concerns
Community	Charitable giving	Investment controversies
	Innovative giving	Community impact
	Support for housing	Tax disputes
	Support for education	Other concerns
	Non-US charitable giving	
	Volunteer programs	
	Community engagement	
	Other strengths	
Corporate governance	Limited compensation	High compensation
	Ownership strength	Ownership concern
	Reporting quality	Accounting concern
	Political accountability strength	Reporting quality
	Public policy strength	Political accountability concern
	Corruption and political instability	Public policy concern
	Financial system instability	Governance structures
	Other strengths	Controversial investments
		Business ethics
		Other concerns
Diversity	CEO	Workforce diversity
	Promotion	Non-representation
	Board of directors-gender	Board of directors-gender
	Work-life benefits	Board of directors-minorities
	Women and minority contracting	Other concerns
	Employment of disabled	
	Gay and lesbian policies	
	Employment of underrepresented groups	
	Other strengths	
Employee relations	Union relations	Union relations
	No-layoff policy	Employee health and safety
	Cash profit sharing	Workforce reductions

	Employee involvement	Retirement benefits concern
	Retirement benefits strength	Supply chain

Appendix A continued

Qualitative area	Strengths	Concerns
Employee relations	Employee health and safety	Child labor
	Supply chain labor standards	Labor-management relations
	Compensation and benefits	
	Employee relations	
	Professional development	
	Human capital management	
	Other strengths	
Environment	Environmental opportunities	Hazardous waste
	Waste management	Regulatory compliance
	Packaging materials and waste	Ozone depleting chemicals
	Climate change	Toxic spills and releases
	Property, plant, equipment	Agriculture chemicals
	Environmental management systems	Climate change
	Water stress	Impact of products and services
	Biodiversity and land use	Biodiversity and land use
	Raw material sourcing	Operational waste
	Other strengths	Supply chain management
		Water management
		Other concerns
Human rights	Indigenous peoples relations strength	South Africa
	Labor rights strength	Northern Ireland
	Human rights policies and initiatives	Support for controversial regimes
		Mexico
		Labor rights concern
		Indigenous peoples relations concern
		Operations in Sudan
		Freedom of expression and censorship
		Human rights violations
		Other concerns
Product quality and safety	Quality	Product quality and safety
	R&D/innovation	Marketing and advertising
	Social opportunities	Anticompetitive practices
	Access to finance	Customer relations
	Other strengths	Privacy and data security
		Other concerns

Appendix B: Variable definitions and sources

This appendix provides detailed definitions of the variables we use in our study, and gives their sources. We obtain balance sheet data from Compustat and measure these at the fiscal year end before the SEO announcement date, unless noted otherwise. We specify the sources of the other variables along with the variable definitions.

Variable	Definition
AdjCSR	Sum of yearly adjusted community activities, diversity, employee relations, environmental record, human rights, and product quality and safety scores from KLD. We construct the adjusted CSR score by scaling the raw strength and concern scores of each category by the number of strength and concern items for that category in that year, and taking the net difference between the adjusted strength and concern scores.
AdjCSRTotal	Sum of adjusted scores of seven areas from KLD, including corporate governance.
AssetTangibility	Ratio of property, plant, and equipment to total assets.
Blue	Dummy variable equal to one if a firm's headquarters are located in a Democratic state and zero otherwise. A state is democratic if the Democratic Party won the last presidential election prior to the SEO announcement date in that state. The list of blue states is available at https://en.wikipedia.org/wiki/Red_states_and_blue_states.
Cash	Cash reserves.
Concerns	Sum of yearly adjusted community activities, diversity, employee relations, environmental record, human rights, and product quality and safety concern scores from KLD. We construct adjusted concern scores by scaling the raw concern scores of each category by the number of concern indicators for that category and year.
CSRReport	Dummy variable equal to one if the firm issues a CSR report in the year before the SEO announcement and zero otherwise. We obtain CSR disclosure information from Datastream.
ExecOwnership	Ratio of the number of shares held by executive officers (obtained from Execucomp) to the number of shares outstanding at the end of the financial year before the SEO announcement (obtained from CRSP).
FCF/TA	Ratio of free cash flow to total assets. Free cash flow is operating income before depreciation minus interest expenses, income taxes, and capital expenditures.
FirmEfficiency	Measure of a firm's efficiency within its industry, based on data envelopment analysis, with values ranging from zero to one, as calculated by Demerjian et al. (2012). We use the firm efficiency measure for the last fiscal year ending before the SEO announcement date. Firm efficiency measures are available at http://faculty.washington.edu/pdemerj/data.html.
GeneralPurpose	Dummy variable equal to one if the issuer's stated use of proceeds includes working capital, general corporate purposes, or related unspecified terms, and zero otherwise. We obtain this variable from the SDC.
HighCSR	Dummy variable equal to one for high-CSR issuers. High-CSR issuers are issuers with an adjusted CSR score above or equal to the median adjusted CSR score of all

	observations in the KLD database in each year.
Invest1	Sum of capital expenditure and R&D expenditures.

Appendix B continued

Invest2	Sum of inventory and property, plant, and equipment.
IO	Institutional ownership, measured as the number of shares held by institutions (obtained from Thomson Reuters' CDA/Spectrum Institutional (13f) Holdings database) divided by shares outstanding at the end of the quarter before the SEO announcement (obtained from CRSP).
Lambda	Inverse Mills ratio, defined as $\phi(\gamma \boldsymbol{Z}_i)/\Phi(\gamma \boldsymbol{Z}_i)$. $\boldsymbol{Z}_i$ and γ are the independent variables and coefficients estimated from the first-stage regression. ϕ and Φ are the normal density and cumulative distribution functions.
Leverage	Ratio of total liabilities to total assets.
Ln*TA*	Natural logarithm of total assets.
MTB	Ratio of the market value to the book value of equity.
OIBD/*TA*	Ratio of operating income before depreciation to total assets.
Opacity	Opacity index, measured as the average quintile ranking of an offering based on four proxies for information asymmetry (trading volume, bid-ask spread, analyst following and analyst forecast errors), consistent with Anderson et al. (2009). Trading volume is the natural logarithm of the average dollar volume over the 200 trading days ending 11 days before the announcement, obtained from CRSP. Bid-ask spread is the average daily bid-ask spread as a percentage of stock price, over the 200 trading days ending 11 days before the announcement, obtained from CRSP. Analyst following is the natural logarithm of one plus the number of analysts following the firm in the last month before the SEO announcement, obtained from the Institutional Brokers' Estimate System (I/B/E/S). Analyst forecast error is the square of the difference between the mean analysts' earnings forecast and actual firm's earnings, scaled by the firm's stock price, obtained from I/B/E/S.
Other	Difference between the accumulation of all sources of funds since the SEO and the SEO proceeds.
Proceeds	Total amount raised in the SEO, obtained from the SDC.
RawCSR	Sum of yearly community activities, diversity, employee relations, environmental record, human rights, and product quality and safety scores, obtained from KLD.
RedLTD	Redemption of long-term debt, measured as the quantity spent to retire long-term debt.
Religion	Religion ranking of the state in which the issuer's headquarters are located. The ranking is based on the ratio of the number of religious adherents in the issuer's state to the total population in that state in 2010. Data on religiosity are obtained from the Association of Religion Data Archive. Available at http://www.thearda.com/Archive/Files/Descriptions/RCMSST10.asp
RelOfrSize	Ratio of offering proceeds (obtained from the SDC) to total assets.

ROA	Ratio of earnings before extraordinary items to total assets.
Runup	Buy-and-hold abnormal return over the window (–60, –11) relative to the SEO announcement date net of the CRSP value-weighted market return, constructed based on data obtained from CRSP.

Appendix B continued

Secondary	Dummy variable equal to one for offerings including a secondary component and zero otherwise, constructed based on information obtained from the SDC.
Shelf	Dummy variable equal to one for shelf offerings and zero for traditional offerings, constructed based on information obtained from the SDC.
Slack	Cash and short-term investments divided by total assets.
Strengths	Sum of yearly adjusted community activities, diversity, employee relations, environmental record, human rights, and product quality and safety strength scores from KLD. We construct adjusted strength scores by scaling the raw strength scores of each category by the number of strength indicators for that category and year.
Volatility	Annualized stock return volatility, calculated from daily stock returns over the 200 trading days ending 11 days before the announcement. Stock return data are obtained from CRSP.
WC	Working capital.

Highlights

- Better CSR performance is associated with less negative SEO stock price reactions
- High CSR firms are more likely to keep SEO proceeds as cash reserves
- Low CSR firms are more likely to use SEO proceeds for investment
- Unlike low CSR firms, high CSR firms show long-term post-SEO operating and stock market underperformance
- Investors seem to misattribute value-creating motives to SEOs by high CSR firms