Testing the Separability Condition: do investors price social policy disclosures correctly? *

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Abstract

Corporations increasingly undertake and disclose policies that target social issues like poverty and racism. Theoretically, firms should not implement policies if they have no comparative advantage in executing them — such policies are called *separable* because their implementation can be easily *separated* from the regular business of the firm. We examine corporate disclosures to test whether investors distinguish between separable and non-separable activities when evaluating the implications of social policy disclosures. Consistent with theory, we find that both institutional and retail investors are less likely to exit holdings in firms that disclose non-separable policies. Moreover, we find a positive announcement return to non-separable policies but not separable policies. The results help resolve a puzzle regarding the lack of consistent announcement returns around social policy disclosures and suggest that regulators should distinguish between separable and non-separable activities when developing reporting standards.

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1 Introduction

Increasingly, investors and regulators are pushing the managers of firms to do more than increase shareholder value, and managers have responded by undertaking and disclosing a variety of policies and practices that either promote a public good or prevent a public bad.[1] Despite the growing demand for such "social policies" (e.g., Krueger et al. (2020)), there remains much disagreement about whether firms should undertake social policies at all and, if so, under what conditions.

This debate about social policies is related to a broader question about the extent to which firms' investment choices should reflect investors' non-pecuniary preferences. Fisher (1930) argued that managers of a firm should maximize firm value, and then investors can take proceeds from the firm to satisfy their consumption preferences. Put differently, Fisher (1930) showed that, absent externalities and in the presence of complete markets, investment decisions and consumption decisions can be made sequentially. This result provides the foundation for much of modern corporate finance, including the idea that managers of a firm should only pursue positive net present value projects in an effort to maximize firm value (an edict further popularized by Friedman (1970)).[2] Subsequent literature relaxes Fisher's assumptions and provides a more nuanced assessment of the net present value rule and the idea of maximizing firm value. For example, Hart and Zingales (2017) study a market characterized by externalities, incomplete markets, and a government that is incapable of imposing a Piguvian tax to deter externalities. They argue that, because collective action through the government is not practical, the firm should incorporate shareholder preferences and pursue social policies whenever the firm has a comparative advantage relative to shareholders. This condition is referred to as "separability," as any policy or project that is separate from the production process is one in which the firm does not have a comparative

[1] For example, the Security and Exchange Commission's Investor Advisory Committee advocates that firms disclose information on environmental, social, and governance (ESG) issues to investors (IAC (2020)).

[2] While it is widely taught that managers should only take projects that have a positive net present value, this is a result that relies on many assumptions. Our paper provides novel evidence on whether some of these assumptions hold in practice.

advantage relative to its shareholders. For example, Friedman (1970) notes that firms have no natural advantage in donating to charity—this activity can easily be separated from the production decisions of the firm. As such, if investors care about a charity, managers should maximize firm value and give the profits to shareholders, who can then choose to donate to the charity. In contrast, a firm might have a comparative advantage in preventing pollution; if so, then the firm should take the action that prevents pollution.

Even though the theoretical importance of the separability condition is well known, there is almost no empirical evidence on the extent to which investors act in accordance with the separability condition. As a result, several important questions remain unanswered. Do investors value separable social policies differently than non-separable policies? Does the disclosure of separable policies lead to changes in investor composition? And finally, can differential responses to separable policies help explain the mixed findings in the literature on the value of disclosing social policies? The answers to these questions are crucial to understanding the assumptions underlying corporate finance theory.

In this paper, we attempt to answer these questions by examining investor reactions to the disclosure of social policies in response to the Black Lives Matter movement. Following the death of George Floyd in May 2020, a large number of U.S. firms issued statements about their social policies. To measure the separability of these corporate social policies, we collect all public statements issued by firms in the S&P 500 in the period immediately following May 2020.[3] We manually classify firms' policies into one of three categories: internal policies, external policies, or donation policies.

A simple verbal model illustrates the intuition behind our categorization procedure. Define a firm as a legal entity that takes a variety of inputs (i.e., capital, labor, raw materials), feeds them through a production function to generate outputs, and finally converts these outputs to money. Further, assume investors have a preference for a particular social policy. If firms do not have a comparative advantage in implementing the social policy, then the

[3]See Section B of the Internet Appendix for a detailed overview of our sample collection.

policy is separable and investors should take the action outside the firm. Otherwise, the policy should be implemented inside the firm. Accordingly, we define *internal policies* as those policies in which the firm has a comparative advantage in implementing, typically because they involve changes to the firm's operations. For example, adding more diverse directors to the board is an example of an internal policy. We define external policies as those that take place or reference action outside of the firm (for example, advising a local school on information technology education). Finally, donation policies occur when a firm pledges any amount of money to a social cause outside the firm. It is possible for a firm to disclose a social policy in none, one, two, or three of these categories.

Overall, we find that 284 of the firms in the S&P 500 voluntarily disclose social policies, and 202 of these firms disclose social policies that we classify as either separable (i.e., external policies and donations) or non-separable (i.e., internal policies) [4]. Consistent with theory (Hart and Zingales (2017)), we find that investors react differently to the disclosure of separable versus non-separable policies. Stock returns around the announcement of a policy are significantly positive for non-separable (i.e., internal) policies, while stock returns tend to be negative around donation (separable) policies. Moreover, retail investors are significantly less likely to sell their positions in companies that disclose non-separable policies. The results suggest that investors understand and care about the theoretical efficiency of firms' disclosed social policies. Furthermore, using political donations by mutual fund managers, we measure whether the response to social policy disclosures varies by the political affiliation of fund managers. We find that the coefficient signs are consistent with managers being less likely to sell their position in firms that disclose non-separable (i.e., efficient) policies.

Of course, firms do not randomly choose to disclose social policies. It is therefore possible that a policy is correlated with latent firm characteristics that could also be related to stock returns and investor holding decisions. In such a case, our results could suffer from an omitted variable bias. Moreover, if our sample only considered firms that disclose a policy,

[4]We use the variables *internal*, *external*, and *donation* as proxies for the true underlying comparative advantage of these policy choices. In section 2, we discuss the necessary conditions for valid proxy variables.

our results might also suffer from a selection bias. We address these concerns in several ways.

First, to avoid a selection bias, our analyses include all firms in the S&P 500, regardless of whether they disclose a social policy. However, it is still possible that the choice to disclose (or not disclose) a social policy is correlated with an omitted variable that also correlates with our dependent variables. To address this concern, we develop an identification strategy that compares investor responses *across* different social policy disclosure categories. In other words, even if firms that disclose social policies are different (in unobservable ways) from firms that do not disclose, our empirical design identifies variation off of the category of the social policy disclosure (e.g., internal versus external versus donation). For our empirical strategy to be subject to an omitted variable bias, the omitted variable would have to be correlated with the timing of the policy disclosure and both the choice of a separable versus non-separable policy as well as investor responses to the policy disclosure. While this is difficult to definitively rule out, we are not aware of any theoretical predictions that would support such a channel.

We assess the plausibility of an omitted variable bias by examining the determinants and characteristics of various disclosed social policies by firms. Across market capitalization ($size$), leverage, return on assets (ROA), and market-to-book ratio, we see little evidence of economically meaningful differences between firms that do not disclose a social policy, firms that disclose an internal policy, firms that disclose an external policy, and firms that disclose donations. We also examine the governance characteristics of firms in our sample using eleven key variables from the ISS Governance database. While we find some evidence that firms that disclose a separable or non-separable policy are better-governed than firms that do not disclose a social policy, we find little difference in governance between firms that disclose internal, external, or donation social policies. In other words, we see almost no evidence of observable differences between firms that disclose separable versus non-separable policies.

Importantly, we also show that our results are not driven by earnings announcements. If

the timing of firm social policy disclosures is correlated with the release of other important information about firm fundamentals, such as earnings information, then our results may be spuriously driven by investor reactions to earnings. We do not find evidence that policy statements are clustered around earnings reports. As such, it is unlikely our results are driven by the information released on earnings report dates.

Our paper makes a number of contributions. Importantly, we provide the first direct evidence on the relation between the separability condition and investor behavior following firm social policy disclosures. We find that the separability condition is important for informing investor responses to social disclosures. While our analyses focus on one setting, the results provide a lens with which to understand and reconcile the mixed evidence in the prior literature that finds inconsistent stock return responses to the disclosure of social policies. Our results suggest that not all policy disclosures are equal; to understand the impact, it is necessary to consider whether or not a policy is separable.

Our results also have important regulatory implications. As discussed in Christensen et al. (2021), regulators and investors are increasingly advocating for mandatory disclosure about social polices. For example, the Investor Advisory Committee of the Securities and Exchange Commission (SEC) has pushed for firms to disclose more on ESG issues (IAC (2020)). Similarly, the European Union (EU) has issued a Non-Financial Reporting Directive (NFRD 2014/95/EU) for certain large firms to disclose non-financial and diversity information. Moreover, BlackRock (2022), one of the largest equity managers in the world, has pushed for more disclosure on environmental and social issues and has publicly stated, "[w]e believe that effective disclosure can lead to real change in how companies are managed for the benefit of all stakeholders." Our results suggest that the push for more disclosure of social policies should carefully consider the characteristics of each policy. In particular, it is important to differentiate between separable and non-separable policies.

We also contribute to the growing literature that specifically focuses on social disclosures. To date, much of the prior literature either focuses on environmental disclosures or combines

many types of ESG measures together (Clarkson et al. (2008, 2013); Plumlee et al. (2015)). There are exceptions: Christensen et al. (2017) study how the venue of mine safety disclosures affects real-world outcomes. Both Balakrishnan et al. (2022) and Chen et al. (2021) study determinants of social disclosure and performance, the latter of which examines responses to Black Lives Matter without a separability lens. Perhaps the closest study to ours is Mkrtchyan et al. (2022), which examines the value relevance of CEO activism. The main difference between our paper and theirs is that their paper studies *verbal* CEO support for topics, not actual firm commitments, and they do not specifically examine the separability condition. In that sense, their results have more to do with the impact of the "tone at the top" than with the separability of social policies.

Finally, we contribute to the practitioner literature on a manager's optimal decision-making process in selecting a social policy. Our findings show that when investors have preferences for non-pecuniary policies, firms should only pursue those policies in which they have a comparative advantage in implementing.

The rest of the paper proceeds as follows. Section 2 discusses institutional details and related literature. Section 3 discusses data and Section 4 provides an overview of our research design. Section 5 presents the main results. Section 6 concludes.

2 Related Literature and Theoretical Motivation

The separability condition rose to prominence in Milton Friedman's 1970 New York Times article that argues firms have a social responsibility to maximize profits, not social objectives; however, the idea has its origins in much earlier work. Notably, Fisher's separation theorem (Fisher (1930)) proves that in complete markets, a firm's investment decision is independent of the preferences of its owners. This implies that firms should focus on maximizing firm value regardless of shareholder preferences.[5] Subsequent research has relaxed the restrictive

[5]Similarly, as noted in Bénabou and Tirole (2010), the textbook view of corporate finance holds that that managers should maximize firm value and governments, not firms or individuals, should be responsible for

assumptions in Fisher (1930); for example, Hart (1979) shows that in incomplete markets, firms should focus on maximizing value regardless of investor preferences as long as each firm is perfectly competitive.

More recent work has examined the conditions under which firms should consider stakeholder preferences. Magill et al. (2015) shows that a sufficiently large firm may generate externalities on its stakeholders and, as a result, the firm's managers should maximize the total welfare of their stakeholders instead of maximizing firm value. Hart and Zingales (2017) argue that firms should take actions that produce a public good (or avoid a public bad), even at the expense of shareholder value, whenever the firm has a comparative advantage in producing the good.[6] This result is termed the *separability condition* — firms should care about the preferences of their stakeholders whenever the firm's actions generate externalities that are not separable from its production decisions.

Despite the large theoretical literature on stakeholder theory and the separability condition, there is almost no empirical evidence on the extent to which investors act in accordance with the separability condition. Theoretically, investors should prefer firms that implement non-separable social policies because the firm has a comparative advantage in the implementation of such policies. Conversely, investors should react negatively to the implementation of separable policies, such as donations, because the firm is undertaking a project in which it has no comparative advantage, thereby destroying value. To date, there is no evidence on investor behavior following the disclosure of separable versus non-separable social policies, nor is there evidence on the value implications of such policies.

We study investor and market responses to separable versus non-separable social policies; however, if investors already know about a firm policy, then it should already be incorporated into market prices and holding decisions. Accordingly, we focus on unexpected changes to firms' social policies. Specifically, we use the Black Lives Matter movement as a catalyst

correcting market failures as in Pigou (1920).

[6]The result is broadly consistent with Coase's (1937) theory of the nature of the firm, which argues that firms should organize production internally when the transaction costs are lower for production within a firm than with external markets.

that causes firms to abruptly respond to a new social environment. On May 25, 2020, video evidence of George Floyd's death in police custody prompted one of the largest series of protests in United States history, with an estimated 15-26 million people participating (Buchanan et al., 2020). In response to the public outcry, managers at firms across the country issued social policy disclosures detailing commitments and policies regarding racial equity and social justice. We use this setting as a laboratory to study investor reactions to separable and non-separable social policies.

Multiple features of this setting make it apt for credible inference on the value relevance of firms' social policies. First, because we focus on social policies following a single precipitating event, it is less likely that different firm responses are driven by different conditions. In other words, since all firms have the same opportunity to respond to the same unexpected event at the same time, the setting allows us to hold fixed market and macro-economic conditions, making it less likely that our results are driven by a time-varying omitted variable. Second, this setting provides substantial variation both in the decision to disclose and in the type of disclosed social policy (i.e., separable or non-separable) without compromising sample size. Other papers focus on a single type of social policy made by a small set of firms, which could lead to poor external validity. In contrast, because our sample has a large number of firms with different characteristics that take different actions, and because we examine the behavior of a broad set of market participants, it is more likely that our results can be generalized outside our singular setting. Third, because there is variation in policies *within* the set of firms that make a policy disclosure, we are able to design an identification strategy that controls for the decision to take an action and the decision to disclose. In other words, as discussed in Christensen et al. (2021), there are at least two main endogeneity concerns in this setting: (1) firms that choose to implement a social policy may be different from firms that do not choose to implement a social policy and (2) firms that choose to disclose their social policies may be different than firms that do not choose to disclose such policies. Our setting allows us to examine variation within the set of firms that take and disclose an

action; as such, in order to bias our results, an omitted variable would have to be correlated with the timing of the policy and both the choice of a separable versus non-separable policy as well as investor responses to the policy disclosure.

In addition to using characteristics of the Black Lives Matter movement setting to mitigate omitted variable bias concerns, we use three variables (*internal*, *external*, and *donation*) to proxy for the true latent comparative advantage status of firms' policy choices. As discussed in Wooldridge (2011), there are several conditions that must be met for valid inference using proxy variables. First, policy type should be irrelevant for explaining our outcome variables once comparative advantage is controlled for. In other words, if we could truly measure the comparative advantage of these policies, then separability/non-separability status would be highly correlated with it. Condition two requires that proxies be closely enough related to the true underlying comparative advantage so that comparative advantage would no longer be correlated with our explanatory variables once policy type is included in the regression. Our identification assumptions would be violated if either of these conditions did not hold.

3 Data

To examine the separability condition, we hand-collect social policies that are disclosed after the death of George Floyd for all firms in the S&P 500 index as of May 1, 2020. In total, we review the social policy disclosures of 490 firms; we lose 10 firms because they were acquired or merged with another entity during the sample period. Out of the 490 firms, we identify 284 firms that voluntarily disclose a social justice policy statement ("response firms"), and 202 firms that disclose social policy statements that are classified as either separable or non-separable ("policy firms"). Appendix B describes the data collection process.

To classify a policy as separable or non-separable, we assign firms' social policies into three categories: internal, external, and donations. Examples of internal policies are commitments to overhaul internal hiring practices to increase minority employment and to provide addi-

tional training and support to people of color. These are policies for which the firm has a comparative advantage relative to the investor and are therefore non-separable. Examples of external policies include commitments to partner with local schools with high minority student enrollment to provide STEM expertise/training and to increase supplier relations with minority-owned businesses. These are policies for which the firm likely has a comparative advantage relative to the investor and we classify these as separable policies; however, the separability of external policies is less clear than that of internal policies or donations. Donation policies are dollar donations to social justice organizations, including the NAACP, the Southern Poverty Law Center, and the Equal Justice Initiative. Because firms do not have a natural advantage relative to investors in making donations, this is a separable policy.

Figure 1 displays a Venn diagram of the various firm responses. The most common type of policy is internal (88); however, many of the firms that disclose internal social policy actions also make donations (25), disclose external policy actions (30), or all three (37). Seven firms only make donations, while nine firms undertake only external policy actions.

In order to examine the reaction of both equity markets and professional investors to disclosed social policies, we build two separate data sets using the social policy data. First, we construct a sample of daily returns for the 490 firms over a sample period of February 2019 through July 2021. This data comes from the Center for Research in Security Prices (CRSP), WRDS Beta Suite, and the NYSE Trade and Quote (TAQ) database. We supplement these return data with firm governance measures from the Institutional Shareholder Services (ISS) Governance database to test for differences in governance between firms that disclose a social policy and firms that do not. We also include firm financial performance data from Compustat to assess the comparability of disclosing and non-disclosing firms. We calculate daily retail buy and sell trading volume using the methodology in Boehmer et al. (2021) and scale these measures by shares outstanding (as reported in the CRSP daily stock file).

Second, we use the CRSP Mutual Funds database to build a sample of monthly-reported mutual fund holdings for active mutual funds that traded in at least one of the firms in the

S&P 500 index as of May 1, 2020. In order to be consistent with measurements, we only keep funds that report holdings information on a monthly interval, which drops roughly 16% of the original sample. Moreover, fund management fees can be reported as negative values in the CRSP Mutual Funds database due to reimbursements. We replace all negative management fees with missing values. The final fund data set includes 1,450 CRSP fund numbers that hold shares in a firm in the S&P 500 index at some point during the sample period (February 2019 through July 2021) and report holdings on a monthly basis. Additionally, following prior literature, we use data from the United States Federal Election Commission (FEC) Individual Contributions database to infer the political leanings of mutual fund managers (Hong and Kostovetsky (2012); Bradley et al. (2016)).

In Table 1, we report the summary statistics for both data sets.[7] Panel A summarizes the stock-day data. We find that 37% of the total 490 sample firms disclose internal policies (63% of 284 response firms); 17% of total firms disclose external policies (29% of response firms); and 16% of total firms disclose donation policies (26% of response firms). Relatedly, Figure 1 presents the overlap between the types of policies; e.g., 88 firms disclose only internal policies, while six firms disclose internal and donation policies only. Returning to Table 1, we find that retail buy and sell volumes are comparable. The average ROA of a sample firm is 2.3%, the average leverage to asset ratio is 0.35, and the average market-to-book ratio is 3.1.

Panel B summarizes the fund-month data. We first describe fund trading activity and performance. The variable *Exit* is an indicator equal to 1 if the change in fund holdings of ticker i decreases from period *t-1* to period *t*. *Exit* is equal to 1 for 18% of observations. In general, the one, two, and three month lagged stock returns of held firms are positive over our sample period. The average total net assets of a fund is $1.2 billion and the average net asset value (NAV) per share is $23. The average fund expense and turnover ratios are 1% and 89%, respectively, and the mean of fund management fees is 0.56% of average net

[7] Variable definitions and calculations are reported in Appendix A.

assets. The average fund return per share is 1.4% and the average monthly net percentage fund flow is 0.125%. We next turn to the political leanings of mutual fund management. Over the course of our sample, the average percentage of each fund's managers who donated to a political cause (i.e. appeared in the FEC database, called *Pct. Ideological*) was 30%, and an average of 27% of managers gave to a Republican cause (*Pct. Republican Manager*). Funds had a *majority* Democrat manager for roughly 8% of observations and a *majority* Republican managers for roughly 39% of observations.

In Table 2, we report the comparability of financial performance for sample firms by disclosure decision and policy type. After obtaining firm financial characteristic data from Compustat, we are left with 488 firms. In general, we find that the mean and standard deviation are comparable across nearly all groups. Asterisks denote a significant difference between the no-policy and the policy groups. The exception is *Size*—firms that issue a social policy disclosure are, on average, larger than firms that do not issue a social policy disclosure (10.59 average across all disclosing firms versus 9.59 average for no-policy firms). Overall, however, the comparability of the various sub-samples suggests that financial performance does not drive the disclosure decision or type of policy.

Table 3 uses the same taxonomy as Table 2 but reports corporate governance measures. We find that firms that do not disclose a policy differ only marginally from firms that do disclose a policy for two governance metrics: classified boards and the use of confidential votes (signified by asterisks). Taken as a whole, however, the results suggest that no-policy and policy firms are not governed differently from one another, which suggests the sample is comparable across policy-disclosing and non-policy-disclosing firms.

4 Research Design

Our goal is to examine trading activity and market responses to the disclosure of firms' social policies. In the stock-level data, we begin by calculating 3-day compound raw and abnormal

returns (using the four-factor model (Fama and French (1992) plus Carhart (1997))). We then examine the following linear regression:

$$Return_{i,t} = \beta_1 Policy_{i,t} + \beta_2 Volume_{i,t} + \beta_3 Bid\ Ask_{i,t} + Industry\ FE_i + \epsilon_{i,t}, \tag{1}$$

where i is firm; t is date; and *Policy* is an indicator equal to 1 on the announcement date if firm i issued a social policy disclosure and zero otherwise; here we combine both separable and non-separable policies. *Volume* is trading volume as a fraction of shares outstanding and *Bid Ask* is the bid-ask spread as a fraction of the closing mid-price. We also include a two-digit SIC code industry fixed effect (*Industry FE*) to absorb common industry-wide shocks. *Return* is measured in four ways: announcement day and 3-day compound raw return and announcement day and 3-day compound abnormal return. More specifically, *Raw Return*$_{t=0}$ is the raw returns on the announcement day, and *Raw Return*$_{t=0:t=2}$ is 3-day compound raw returns (i.e., from the announcement day to two days after the announcement day, with the announcement day being the date of a firm's social policy disclosure). We report the abnormal returns using a four-factor model for the same horizons in *FF4 Return*$_{t=0}$ and *FF4 Return*$_{t=0:t=2}$. Standard errors are clustered by firm and date.

To examine the effects of separable versus non-separable policies on stock returns, we revise Equation 1 to distinguish between internal, external, and donation social policy actions. Formally, we estimate the following model:

$$\begin{aligned} Return_{i,t} = \beta_1 Internal_{i,t} + \beta_2 External_{i,t} + \beta_3 Donation_{i,t} + \\ \beta_4 Volume_{i,t} + \beta_5 Bid\ Ask_{i,t} + Industry\ FE_i + Policy\ Issued\ FE_i + \epsilon_{i,t}, \end{aligned} \tag{2}$$

where i is firm; *Internal* is an indicator equal to 1 on announcement day if the firm's policy is an internal action (i.e., non-separable) and zero otherwise; *External* is an indicator equal to 1 on announcement day if the firm's policy is an external action (i.e., separable) and

zero otherwise; and *Donation* is an indicator equal to 1 on announcement day if the firm's policy action is a donation (i.e., separable) and zero otherwise. In some models, we also include a fixed effect for whether a firm takes and discloses a social policy ($Policy\,Issued\,FE$) or not. The fixed effect allows us to examine the response to separable versus non-separable actions *within* the set of firms that take and disclose an action. As such, it helps mitigate concerns that firms that take and disclose an action are different than other firms (Christensen et al. (2021)). All other variables are unchanged from Equation 1. We continue to cluster standard errors by firm and date.

We then examine the trading activity of professional investors using the fund-month level data and the following linear regression equation:

$$\begin{aligned} Exit_{i,j,t} =& \beta_1 Policy\ Period_{i,j,t} + \lambda C'_{i,j,t} \\ &+ Fund\,FE_j + Year * Month\,FE_t + Policy\,Issued\,FE_i + \epsilon_{i,j,t}, \end{aligned} \tag{3}$$

where i is firm, j is mutual fund, t is month, and *Exit* is an indicator equal to 1 if the change in fund holdings of ticker i decreases from period *t-1* to period *t*. *Policy Period* is an indicator variable that is equal to one in the month of the event (t) and the month after the event ($t+1$) for firm i, if firm i discloses a separable or non-separable policy and zero otherwise. The equation includes a vector of control variables (C) for fund j: total net asset value; expense ratio; turnover ratio; management fee; return per share; one, two, and three month lagged return for stock i; and fund flow in month t. In addition, we include an policy-issued fixed effect ($Policy\,Issued\,FE$) to restrict the comparison to within firms that disclose social policies, fund fixed effects ($Fund\,FE$) to absorb mutual fund-specific shocks, and year-month fixed effects ($Year * Month\,FE$) to absorb time-varying macro-economic shocks. Standard errors are clustered by firm and year-month.

Again, to examine whether investors respond differently to separable versus non-separable policy disclosures, we amend Equation 3. First, to extend the examination of trading activity

of fund managers to the separability realm, we estimate the following linear regression:

$$\begin{aligned} Exit_{i,j,t} =& \beta_1 Internal_{i,j,t} + \beta_2 External_{i,j,t} + \beta_3 Donation_{i,j,t} + \\ & \lambda C'_{i,j,t} + Fund\ FE_j + Year * Month\ FE_t + Policy\ Issued\ FE_i + \epsilon_{i,j,t}, \end{aligned} \tag{4}$$

where i is firm, j is mutual fund, and t is month. $Internal$, $External$, and $Donation$ are indicator variables that are equal to one in the month of the event (t) and the month after the event ($t+1$) for stock i, when firm i discloses a social policy in these categories, and zero otherwise. The remaining variables are unchanged.

Second, we amend Equation 3 to include the interaction of fund manager political affiliation with separable and non-separable policies. This analysis speaks to whether left- or right-leaning mutual fund managers are more likely to employ the separability condition in their value assessment.

$$\begin{aligned} Exit_{i,j,t} =& \beta_1 Internal_{i,j,t} + \beta_2 External_{i,j,t} + \beta_3 Donation_{i,j,t} + \\ & \beta_4 MajorityRep._{j,t} + \beta_5 MajorityDem._{j,t} + \\ & \beta_6 Internal_{i,j,t} \times MajorityRep._{j,t} + \beta_7 Internal_{i,j,t} \times MajorityDem._{j,t} + \\ & \beta_8 External_{i,j,t} \times MajorityRep._{j,t} + \beta_9 External_{i,j,t} \times MajorityDem._{j,t} + \\ & \beta_{10} Donation_{i,j,t} \times MajorityRep._{j,t} + \beta_{11} Donation_{i,j,t} \times MajorityDem._{j,t} + \\ & \lambda C'_{i,j,t} + Fund\ FE_j + Year * Month\ FE_t + Policy\ Issued\ FE_i + \epsilon_{i,j,t}, \end{aligned} \tag{5}$$

where i is firm, j is mutual fund, and t is month. *Majority Rep.* is an indicator variable that is equal to one if greater than half of fund j managers who appear in the FEC database donate to a Republican cause and zero otherwise. Similarly, *Majority Dem.* is an indicator variable that is equal to one if greater than half of fund j managers who appear in the FEC database donate to a Democrat cause and zero otherwise. All other variables remain

unchanged. Note that we do not make assumptions about the political preferences of fund managers who do not appear in the FEC database. Standard errors are clustered by firm ticker and year-month.

Lastly, in addition to examining equity market reactions and mutual fund trading activity, we follow the methodology in by Boehmer et al. (2021) to calculate daily retail trading volume in order to examine the behavior of retail investors. We examine the impact of the separable versus non-separable policies on retail trading volume by estimating the following equation:

$$\begin{aligned} Volume_{i,t} =& \beta_1 Internal_{i,t} + \beta_2 External_{i,t} + \beta_3 Donation_{i,t} + \\ & \lambda C'_{i,t} + Firm\ FE_i + Date\ FE_t + Policy\ Issued\ FE_i + \epsilon_{i,t}, \end{aligned} \tag{6}$$

where i is firm, t is day, and *Volume* takes on three different variables: *Retail Buy Volume*, which is the scaled volume of retail buying of firm i on day t; *Retail Sell Volume*, which is the scaled volume of retail sales of firm i on day t; and *Total Retail Volume*, which is the sum of retail buying and selling of firm i on day t. $Internal$, $External$, and *Donation* are indicator variables that are equal to one on the day of the event (t) and the day after the event ($t+1$) for firm i, when firm i discloses a social policy in these categories, and zero otherwise. The equation includes a vector of control variables (C) for firm i: *Size* is the log of total assets, *ROA* is the ratio of operating income to total assets, *Leverage* is the ratio of long-term debt and short-term debt to total assets, and *Market-to-Book* is the ratio of market capitalization to total common equity. In addition, we include a policy-issued fixed effect ($Policy\ Issued\ FE$), firm fixed effects ($Firm\ FE$), and date fixed effects ($Date\ FE$). Standard errors are clustered by firm ticker and date.

5 Results

In this section, we examine the implications of both an aggregated policy (i.e., disclosing any social policy) and separable versus non-separable policies (i.e., disclosing internal, external, or donation policies). We start by examining the relation between policy disclosures and stock returns. We then examine the trading behavior of institutional and retail investors.

5.1 Stock Returns

The existing literature documents mixed evidence on the value implications of social policy disclosures – some studies find positive announcement returns to social policies (e.g., Servaes and Tamayo (2013)) while others find no effect or even negative effects (e.g., Manchiraju and Rajgopal (2017)).

Accordingly, we first examine the relation between stock returns and *any* social policy disclosure following the Black Lives Matter movement. In other words, we do not condition on whether the action was internal (non-separable), external (separable), or a donation (separable). Table 4 reports the results from estimating Equation 1.

Insert Table 4 about here

The dependent variable is a measure of stock returns; in columns (1) through (4) the dependent variable is the raw return while in columns (5) through (8) the dependent variable is the abnormal return. In columns (1), (2), (5), and (6), we examine announcement day returns, while in columns (3), (4), (7), and (8) we examine three-day compound returns. We include control variables (trading volume and the bid-ask spread) in odd-numbered columns. In all models, the key variable of interest is *Policy*, which is an indicator equal to one on the announcement date if firm i issues a social policy disclosure and zero otherwise. In columns (1) through (4), we consistently find that the coefficient on *Policy* is positive and statistically significant: firms that disclose a policy experience a 0.71% higher announcement day return (column 2) than non-disclosing firms and a 2.36% higher three day return (column 4) than

non-disclosing firms. These results indicate a positive raw return to social policy disclosures irrespective of whether the policy is separable or not.

We next turn to columns (5) through (8), which examine abnormal returns calculated using the 4 factor model. Here, the result is different. None of the abnormal returns load significantly in columns (5) through (8), which suggests that there is no difference in returns between policy firms and no-policy firms.

The results are consistent with the mixed findings in the existing literature on the relation between stock returns and social policy disclosures. For example, Chen et al. (2021) study the determinants of voluntary social justice disclosures in the form of tweets and find statistically insignificant equity market responses to social justice disclosures.[8] However, Servaes and Tamayo (2013) find positive returns while Manchiraju and Rajgopal (2017) document negative returns to social policy disclosures.

Our positive result on raw returns suggests, at first glance, that social policy disclosures create firm value. However, the lack of a result for abnormal returns suggests these policies may be correlated with systematic risk and, after accounting for this, do not appear to create value. In other words, it remains unclear whether social policy disclosures are good or bad for firm value.

The results in Table 4 confirm the lack of consensus in the existing literature. Yet theory suggests that these tests are missing important conditioning information: not all policies are the same. Some policies may be efficient for a firm to undertake while others may be inefficient. Theoretically, Hart and Zingales (2017) argue that separable policy actions should not be undertaken by the firm, while non-separable (internal) actions should be undertaken by the firm.

Accordingly, we next examine whether the market prices separable and non-separable actions differently. Table 5 reports our estimation of Equation 2, which amends Equation 1 to examine the stock return response to separable versus non-separable social policies.

[8]They do find a positive and statistically significant stock price reaction to viral tweets.

Insert Table 5 about here

Table 5 follows the same structure as Table 4 in that we examine firm returns in different windows surrounding the social policy announcement. We include raw returns in columns (1) through (4) and abnormal returns in columns (5) through (8). The separability condition predicts that internal (non-separable) policies are priced positively by investors. Such actions can only be taken by the firm, indicating that the firm has a comparative advantage in undertaking them. Consistent with expectations, we find significantly higher event day and 3-day raw and abnormal returns in response to internal policies across every specification. For example, in Column (8), we find that internal (non-separable) policies are associated with a positive 0.33% abnormal return response. In other words, in contrast to the inconsistent results observed in Table 4, we find that non-separable actions are associated with positive and statistically significant returns across all models (both raw returns and abnormal returns).

We next turn to the market response for the two categories of separable policies: external policies and donation policies. We find a negative and statistically insignificant abnormal return to donations, which is again consistent with the separability condition. Theoretically, it is unlikely that a firm has a comparative advantage in donating to charitable causes. Instead, theory suggests the firm should maximize shareholder value, and then give the money to shareholders who can then donate it (or not) according to their own preferences. Consistent with theoretical predictions, the empirical results in Table 4 indicate that firm donations, on average, destroy value.

Finally, we find a statistically insignificant abnormal return to external policies across all models. The result likely suggests that external policies may straddle the boundary between separable and non-separable actions. For example, if a firm takes an external action that uses its unique capabilities to produce a public good, then it is likely efficient. However, if a firm takes an external action that investors could do themselves, it is likely inefficient. The results suggest that external actions include a mix of separable and non-separable actions.

Overall, our results provide the first evidence of investors valuing corporate disclosures using the separability condition, providing clarification on the mixed results in the prior literature. Consistent with theory, we find that, on average, internal policy actions create value while donation actions destroy firm value.

5.2 Trading Behavior

5.2.1 Institutional Trading Behavior

The results so far suggest that treating all social policy disclosures the same likely ignores an important distinction: some policies create value and others destroy it. Accordingly, we next test whether professional investors trade in accordance with this distinction. Specifically, we examine the relation between selling decisions by mutual funds and social policy disclosures. We start by examining the relation between mutual fund divestitures and all disclosed social policies to establish a baseline.

The results are shown in Table 6, which reports our estimation of Equation 3.

Insert Table 6 about here

The model is a linear probability model, where the dependent variable *Exit* is equal to one when there has been a decrease in holdings from period *t-1* to period *t*. Accordingly, a positive coefficient should be interpreted as a higher likelihood of divestiture. Across the four columns in Table 6, we incrementally add in control variables and fixed effects to eventually include fund, year-month, and policy-issued fixed effects. The independent variable of interest is *Policy Period*, which is an indicator variable that is equal to one only for the month of the event and the month after the event that a firm takes any policy actions, and zero otherwise. In general, the coefficient is unstable, ranging from negative and statistically insignificant to positive and significant, depending on the specification. The other coefficients are equally unstable across models. As with Table 4, the result is largely

consistent with findings in the existing literature: there is no clear consensus on the relation between policy disclosures, in general, and mutual fund selling decisions.

Of course, as with the return analysis, the results in Table 6 ignore important information: some policies create value while others destroy it. Accordingly, we next examine fund divestitures after conditioning on whether a firm policy disclosure was separable or non-separable. Table 7 reports the estimation of Equation 4.

Insert Table 7 about here

Table 7 follows the same structure as Table 6, in that we examine the likelihood of divestiture as a function of disclosed social policy, but here we classify the policy using *Internal*, *External*, and *Donation* indicator variables that are equal to one in the month of the event (t) and the month after the event ($t+1$) for stock i, when firm i discloses a policy in these categories, and zero otherwise. The separability condition predicts that investors will negatively value firms with separable policies and thus be more likely to sell their shares. Consistent with expectations, the coefficient on *Donation* is consistently positive and significant at the 1% level across Columns (1), (3), and (4), and at the 5% level in Column (2), indicating that funds are more likely to divest from firms that commit to donation-based social policies. Moreover, the estimate is economically meaningful: in column (2), the coefficient of 0.034 on *Donation* indicates that mutual funds are 3.4% more likely to exit firms that disclose a donation policy following Black Lives Matter. Similarly, the coefficient on *External* is also positive across all models, but it is not statistically significant except for Column (1), which does not include controls or fixed effects. Again, this result suggests that external actions are likely a mix of value-destroying and value-creating activities.

Importantly, column (4) includes the *Policy Issued* fixed effect which absorbs any firm-level heterogeneity that is correlated with the decision to undertake and voluntarily disclose a social policy, thus reducing the threat of omitted variable bias. In other words, this specification estimates off of variation in the choice of a particular policy and is therefore not subject to concerns that firms that take or a disclose an action are different than firms that

do not. Moreover, we find that the coefficients on *External* and *Donation* are stable across all specifications, including column (4), and this stability suggests the results are unlikely to be affected by a correlated omitted variable. Finally, we note that the coefficient of -0.011 on *Internal* in column (4) is again consistent with theory, although it is not statistically significant. The results suggest that mutual funds are (slightly) less likely to sell firms that undertake a non-separable (and likely efficient) action.

Overall, the results in Tables 4 through Table 7 provide important new information the relation between social policy disclosures and market reactions. Consistent with theory (Hart and Zingales (2017)), we find that stock returns and trading behavior suggest that internal actions create value, likely because the firm has a comparative advantage in actions taken within the firm, but not in donation or external policies.

5.2.2 Retail Trading Behavior

The results in Table 7 indicate that professional investors (i.e., mutual fund managers) do distinguish between separable and non-separable social policy disclosures by their portfolio firms, as predicted by theory. However, some evidence suggests that professional investors are significantly more skilled than non-professional investors (Berk and van Binsbergen (2015)). Accordingly, it is unclear whether other investors, particularly retail traders, behave similarly.

While we cannot directly observe retail ownership, we can estimate a measure of daily retail trading volume, in shares, using the methodology developed in Boehmer et al. (2021). We construct measures of retail buying, retail selling, and total retail trading (buying + selling) and examine the relation between these measures and firm policy disclosures. In all cases, we scale our measure of retail trading by shares outstanding to adjust for differences in the number of shares outstanding across firms.

Column (2) of Table 8 reports the relation between daily retail buying volume and firm policy disclosures, split out across *Internal*, *External*, and *Donation* actions. The results are slightly weaker than the findings on professional investors, but again suggest that even

retail investors do distinguish between separable and non-separable firm policies. In columns (1) through (3), which examine *Retail Buying Volume* as the dependent variable, we find negative coefficient in all models on *Donation* and *External Policy* actions, and positive coefficients in all models on *Internal* actions. Although the results are not always statistically significant, they broadly suggest that retail investors are more likely to buy stocks that are disclosing non-separable, internal actions, and sell stocks that are disclosing separable (i.e., inefficient) donation and external actions. Moreover, the results remain stable when we include the policy-issued fixed effect in model (3), suggesting the results are not sensitive to a potential omitted variable that varies between firms that take and disclose actions and to firms that do not.

We then examine retail selling volume in columns (4) through (6). Initially, the results are surprising. The negative and statistically significant coefficient on *External* in models (4) through (6) indicates that retail traders are less likely to sell stocks that take inefficient external actions. In other words, at first glance, the estimates goes in the wrong direction. However, the estimates in columns (7) through (9), which examine total trading volume, provide a possible explanation. Here again, the estimate on *External* is negative, suggesting that retails traders are simply less likely to trade in firms that take inefficient external actions. As a result, both buying and selling volume is lower. In contrast, our results for mutual fund managers use holdings decisions, so the analysis explicitly conditions on funds that initially start with a position in a stock. Because the retail trading volume measure cannot condition on who initially starts with a position, it is unable to speak to this distinction.

Overall, retail trading is significantly lower for firms that disclose external (separable) policies, suggesting that investors lack interest in either buying or selling the firms that disclose inefficient external social policies. We contrast this with Brownen-Trinh and Orujov (2020), who use the same Black Lives Matter setting to study retail investor preferences and holdings. They find that retail investors held more of the companies that "spoke out." On the other hand, Moss et al. (2021) use the same data as Brownen-Trinh and Orujov

(2020) but find that retail investors do not make economically meaningful changes to their portfolios in response to ESG press releases by firms. Here again, our findings provide a possible resolution between these seemingly contradictory findings: when examining retail trading, it is important to distinguish between separable and non-separable firm actions.

5.2.3 Political Affiliation and Trading Behavior

Finally, we examine whether heterogeneity in investor preferences changes the relation between investor responses and firm actions. In many theoretical models (e.g., Fisher (1930)), investors have homogeneous preferences yet in reality, evidence suggests investors differ in a number of dimensions. In particular, there is a growing political debate about the role of environmental and social preferences in investing. While Democratic politicians have often supported ESG investing, Republicans politicians have often been against it.[9]

Accordingly, we examine whether the political beliefs of fund managers affect their assessment of firm social policies. Table 9 reports our estimation of Equation 5. Recall that Equation 5 extends Equation 4 by examining divestiture risk as a function of separable versus non-separable social policies *and* fund management political affiliation. We measure the political affiliation of fund managers using data on political donations from the United States Federal Election Commission (FEC), as in Hong and Kostovetsky (2012) and Bradley et al. (2016).

Columns (1) through (3) use *Policy Period (0, 1)* as the main independent variable of interest, while columns (4) through (6) use *Internal (0, 1)*, *External (0, 1)*, and *Donation (0, 1)* as the independent variables of interest. Columns (3) and (6) repeat the regression specification in columns (2) and (5), but with an additional policy-issued fixed effect that restricts the comparison to firms that disclose a separable or non-separable social policy.

Insert Table 9 about here

[9]For example, during the Biden Presidential administration, the U.S. Department of Labor proposed reversing policies created during the Trump Presidential administration that prohibited retirement plans from offering environmental, social and governance-focused assets. See Dore (2021).

The highlighted row is the interaction term between fund managers that are majority Democrat and a firm issuing a separable or non-separable policy statement. Column (2) shows that funds with a majority of Democrat managers are 5 percentage points less likely to divest firms that release a social policy statement during the social unrest of 2020, regardless of whether the policy is separable or not. The result holds when we add an additional policy-issued fixed effect in column (3) in order to compare among firms that disclose a separable or non-separable social policy. Within the subset of firms that disclose a policy, Democrat fund managers are less likely to divest policy firms during event period months than during other months in the sample, regardless of a firm's disclosed policy type.

Additionally, although we do not find significance, the sign on the interactions of both of the political affiliations with *Internal* in Columns (4)-(6) is consistent with managers valuing social policies according to the separability condition and showing less divestiture for firms that choose to release non-separable policies for which they have a comparative advantage.

Overall, the results suggest that Republican fund managers are more likely to trade in a manner consistent with the separability condition, while Democratic fund managers are more likely to value any policy disclosure, regardless of separability status. One possible explanation for this is that Democrats' trading decisions may be more likely to be driven by non-pecuniary interests, so the economic efficiency of firm decisions may be less important.

5.3 Robustness Discussion

Our results show strong evidence that the separability condition matters for investors. Nonetheless, our findings are based off of a sample of S&P 500 firms in 2020. While these firms likely have a wide variety of investors, suggesting that the results are likely to hold outside this sample, it is possible that results in smaller firms or in earlier time periods might differ. As such, we note that at present, the external validity of our results remains unclear. Future research should continue to explore the generalizability of these findings in other samples and time periods. We also note that our empirical estimates necessarily examine one

dimension of the market response at a time. As such, our findings cannot speak to the overall welfare implications of social policy disclosures or actions. While our results do suggest that regulators should consider the difference between separable and non-separable actions when advocating for mandatory disclosure about social polices, they do not indicate whether such mandates are efficient. Future research should continue to explore this important issue.

6 Conclusion

While investors, firms, and regulators are increasingly focused on the disclosure of social policies, the value implications of such policies remain unclear. Motivated by Fisher's Separation Theorem (Fisher (1930)) and the theory of the firm (Coase (1937)), Hart and Zingales (2017) note that maximizing firm value and maximizing investor welfare may not always correspond to the same set of policies. In particular, if a policy can be separated from the firm's normal business, then the argument in Friedman (1970) holds and the two goals are equivalent. For example, if investors have preferences to support a particular charity, a firm can focus solely on maximizing shareholder value and pay out its profits to investors, who can then donate to the charity. However, if investors have preferences for a non-separable policy, this no longer holds and investors should push firms to adopt internal policies.

To date, there is little evidence on the role of the separability condition in shaping investor behavior and firm value. We fill this void by examining the response to firm social policy disclosures. We use the Black Lives Matter movement as a laboratory for understanding the relation between the separability condition and investor behavior. Consistent with theory, we find that both retail and institutional investors are less likely to sell stocks that disclose economically efficient (i.e., non-separable) policies. Interestingly, we find evidence to suggest that funds that with a majority of Democrat managers value any type of policy disclosure, regardless of separability, while the coefficient signs suggest that Republican managers are less likely to divest firms that disclose non-separable (efficient) policies. Our results also help

to reconcile conflicting findings in the literature regarding the value of social disclosures; we show that the stock market response to policy disclosures depends on whether the firm discloses separable or non-separable policies. Overall, our results have important implications for investors, practitioners, and regulators, and suggest that the separability condition is crucial to understanding the impact of social policy disclosures.

References

Balakrishnan, Karthik, Rafael Copat, Daniela De la Parra, K. Ramesh. 2022. Social unrest as an impetus for racial diversity. *Working Paper* .

Bénabou, R., J. Tirole. 2010. Individual and corporate social responsibility. *Economica* **77** 1—-19.

Berk, Jonathan B., Jules H. van Binsbergen. 2015. Measuring managerial skill in the mutual fund industry. *Journal of Financial Economics* **118**(1) 1–20.

BlackRock. 2022. BlackRock Corporate Sustainability. URL https://www.blackrock.com/corporate/sustainability.

Boehmer, Ekkehart, Charles M. Jones, Xiaoyan Zhang, Xinran Zang. 2021. Tracking retail investor activity. *Journal of Finance* **76**.

Bradley, Daniel, Christos Pantzalis, Xiaojing Yuan. 2016. The influence of political bias in state pension funds. *Journal of Financial Economics* **119**(1) 69–91.

Brownen-Trinh, Ruby, Ayan Orujov. 2020. Corporate support for black lives matter: Determinants and effects on retail investors. *Working Paper* .

Buchanan, Larry, Quoctrung Bui, Jugal K. Patel. 2020. Black Lives Matter May Be the Largest Movement in U.S. History. *The New York Times* .

Carhart, Mark. 1997. On persistence in mutual fund performance. *Journal of Finance* **52**(1) 57–82.

Chen, AJ, Patricia Dechow, Samuel T Tan. 2021. Beyond shareholder value? Why firms voluntarily disclose support for Black Lives Matter. *Working Paper* .

Christensen, Hans B, Eric Floyd, Lisa Yao Liu, Mark Maffett. 2017. The real effects of mandated information on social responsibility in financial reports: Evidence from mine-safety records. *Journal of Accounting and Economics* **64**(2-3) 284–304.

Christensen, Hans B, Luzi Hail, Christian Leuz. 2021. Mandatory csr and sustainability reporting: economic analysis and literature review. *Review of Accounting Studies* **26**(3) 1176–1248.

Clarkson, Peter M, Xiaohua Fang, Yue Li, Gordon Richardson. 2013. The relevance of environmental disclosures: Are such disclosures incrementally informative? *Journal of Accounting and Public Policy* **32**(5) 410–431.

Clarkson, Peter M, Yue Li, Gordon D Richardson, Florin P Vasvari. 2008. Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. *Accounting, Organizations and Society* **33**(4-5) 303–327.

Coase, Ronald Harry. 1937. The nature of the firm. *Economica* **4**(16) 386–405.

Dore, Kate. 2021. Labor department proposes reversing trump-era rules on socially conscious investing. URL https://www.cnbc.com/2021/10/15/labor-dept-proposes-reversing-trump-era-rules-on-socially-conscious-investing.html.

Fama, Eugene, Kenneth French. 1992. The cross-section of expected stock returns. *Journal of Finance* **47**(2) 427–65.

Fisher, Irving. 1930. *The Theory of Interest: As determined by impatience to spend income and opportunity to invest it*. Kelley and Millman, New York.

Friedman, Milton. 1970. The social responsibility of business is to increase its profits. *New York Times Magazine* **32** 173–178.

Hart, Oliver. 1979. On shareholder unanimity in large stock market economies. *Econometrica* **47** 1057–1083.

Hart, Oliver, Luigi Zingales. 2017. Companies should maximize shareholder welfare not market value. *Journal of Law, Finance, and Accounting* **2** 247–274.

Hong, Harrison, Leonard Kostovetsky. 2012. Red and blue investing: Values and finance. *Journal of Financial Economics* **103**(1) 1–19.

IAC. 2020. Recommendation from the investor-as-owner subcommittee of the SEC investor advisory committee relating to ESG disclosure, U.S. Securities and Exchange Commission investor advisory committee. URL https://www.sec.gov/spotlight/investor-advisory-committee-2012/recommendation-of-the-investor-as-owner-subcommittee-on-esg-disclosure.pdf.

Krueger, Philipp, Zacharias Sautner, Laura T Starks. 2020. The importance of climate risks for institutional investors. *The Review of Financial Studies* **33**(3) 1067–1111.

Magill, Michael, Martine Quinzii, Jean-Charles Rochet. 2015. A theory of the stakeholder corporation. *Econometrica* **83**(5) 1685–17258.

Manchiraju, Hariom, Shivaram Rajgopal. 2017. Does corporate social responsibility (csr) create shareholder value? evidence from the indian companies act 2013. *Journal of Accounting Research* **55**(5) 1257–1300.

Mkrtchyan, Anahit, Jason Sandvik, Vivi Zhu. 2022. Ceo activism and firm value. *Working Paper* .

Moss, Austin, James P. Naughton, Clare Wang. 2021. The irrelevance of esg disclosure to retail investors: Evidence from robinhood. *Working Paper* .

Pigou, Arthur Cecil. 1920. *The Economics of Welfare*. Macmillan, London.

Plumlee, Marlene, Darrell Brown, Rachel M Hayes, R Scott Marshall. 2015. Voluntary environmental disclosure quality and firm value: Further evidence. *Journal of Accounting and Public Policy* **34**(4) 336–361.

Servaes, Henri, Ane Tamayo. 2013. The impact of corporate social responsibility on firm value: The role of customer awareness. *Management Science* **59**(5) 1045–1061.

Wooldridge, Jeffrey. 2011. *Econometric Analysis of Cross Section and Panel Data*. MIT Press.

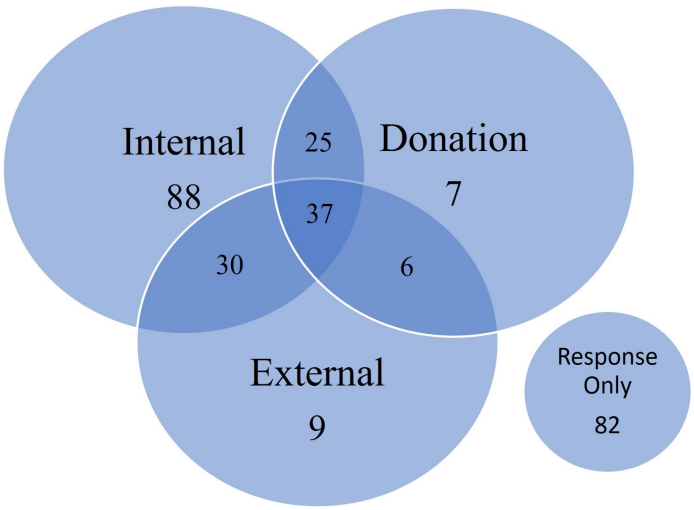

Figure 1:
Firm Social Policy Types

This figure displays the number of firms that disclose social policies containing Internal, External, and Donation actions and their intersections. Overlap indicates that a firm commits to both or all of the respective actions in their social policy statement. The "Response Only" circle indicates the number of firms that issued a policy statement but did not commit to any separable or non-separable policy actions.

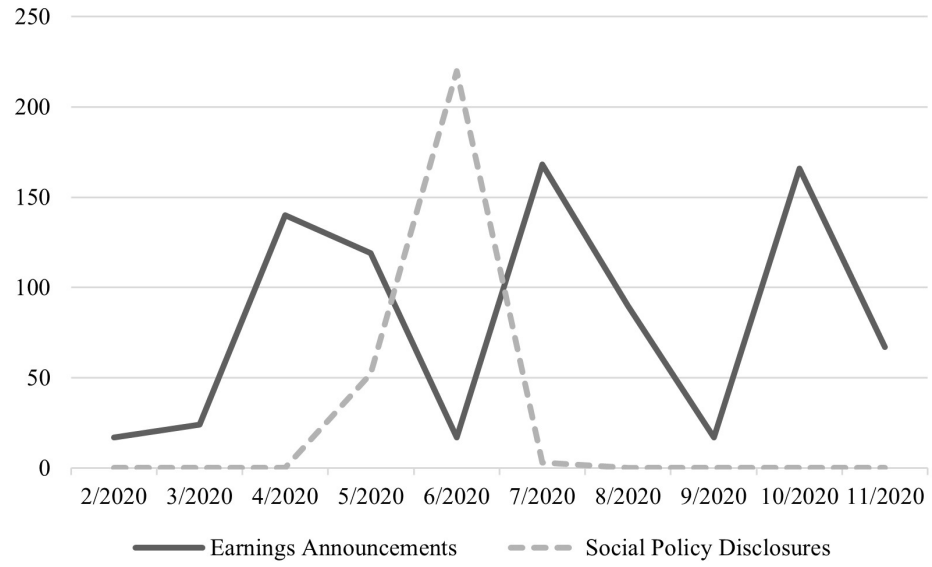

Figure 2:
Earnings Announcements and Social Policy Disclosures

This figure plots earnings announcements and firm social policy disclosures between February and November of 2020. The dashed gray line displays the number of firm social policy disclosures each month and the black line displays the number of firm earnings announcements each month.

Table 1: Summary Statistics

This table displays summary statistics for our sample. Panel A reports the stock-level summary statistics. *Internal, External, and Donation* are indicator variables that classify the type of social policy disclosure. *Return* is raw return and *FF4 Abn. Return* is abnormal return relative to a 4 factor model. *Retail buy volume* and *Retail sell volume* are daily measures of retail traders' trading volume and are scaled by shares outstanding, as reported in the CRSP daily stock file. Compustat variables are quarterly. *Size* is the log of total assets, *ROA* is the ratio of operating income to total assets, *Leverage* is the ratio of long-term debt and short-term debt to total assets, and *Market-to-Book* is the ratio of market capitalization to total common equity. Panel B reports the fund-level summary statistics. *Exit* is an indicator equal to 1 if the change in fund holdings of ticker i decreases from period *t-1* to period *t*. *Pct. Ideological* reports the percentage of total fund managers that appear in the FEC database by year, and *Pct. Republican Mngr* reports the percentage of donating fund managers that donated to a Republican cause. *Majority Republican Mngr* and *Majority Democrat Mngr* are both indicator variables that are equal to one if greater than half of donating managers donate to a Republican or Democrat cause, respectively. *TNA*, *NAV per Share*, *Return per Share*, *Expense Ratio*, *Turnover Ratio*, and *Management Fee* are all reported by CRSP Mutual Funds. Fund flow is calculated as $[TNA_{i,t} - TNA_{i,t-1}(1 + R_{i,t})]/TNA_{i,t-1}$. *1, 2, and 3-Month Lagged Stock Return* are lagged versions of monthly stock return as reported by the CRSP Monthly stock file.

Panel A: Stock-Level

Variable	Mean	St. Dev	1st p-tile	Median	99th p-tile
Internal	0.368	0.482	0.000	0.000	1.000
External	0.169	0.375	0.000	0.000	1.000
Donation	0.155	0.362	0.000	0.000	1.000
Raw Return	0.001	0.043	-0.098	0.000	0.110
FF4 Abn. Return	0.000	0.039	-0.087	0.000	0.098
Retail Buy Volume (Scaled)	0.457	1.967	0.028	0.148	7.127
Retail Sell Volume (Scaled)	0.459	1.984	0.029	0.151	7.000
Size	10.158	1.321	7.516	9.982	13.925
ROA	0.023	0.025	-0.036	0.020	0.097
Leverage	0.353	0.242	0.012	0.341	0.980
Market-to-Book	3.149	97.984	-87.248	3.154	104.720

Panel B: Fund-Level

Variable	Mean	St. Dev.	1st p-tile	Median	99th p-tile
Exit	0.184	0.387	0.000	0.000	1.000
Pct. Republican Mngr	27.383	42.913	0.000	0.000	1.000
Pct. Ideological	30.233	31.323	0.000	25.000	1.000
Majority Republican Mngr	39.494	48.889	0.000	0.000	1.000
Majority Democrat Mngr	8.276	27.555	0.000	0.000	1.000
TNA (Millions)	1,211.584	5,436.286	0.100	86.600	16,612.400
NAV per Share	22.950	18.196	5.590	17.160	103.910
Expense Ratio (%)	1.006	0.449	0.080	0.920	2.112
Turnover Ratio (%)	89.368	111.976	7.000	58.000	395.000
Return per Share	0.014	0.048	-0.137	0.015	0.139
Management Fee (%)	0.558	0.197	0.000	0.529	1.102
Fund Flow	0.125	7.631	-0.229	0.007	0.388
1-Month Lagged Stock Return	0.018	0.101	-0.257	0.019	0.300
2-Month Lagged Stock Return	0.018	0.102	-0.262	0.019	0.302
3-Month Lagged Stock Return	0.017	0.103	-0.270	0.018	0.308

Table 2: Summary Statistics by Policy Type

This table displays sample summary statistics by social policy type (separable versus non-separable). Compustat variables are quarterly. *Size* is the log of total assets, *ROA* is the ratio of operating income to total assets, *Leverage* is the ratio of long-term debt and short-term debt to total assets, and *Market-to-Book* is the ratio of market capitalization to total common equity. Panel A reports summary statistics for firms that did not disclose a social policy statement and an asterisk signifies a significantly different variable mean than firms that disclosed a social policy. Panel B reports summary statistics for firms who disclose internal social policies, Panel C reports summary statistics for firms who disclose external social policies, and Panel D reports summary statistics for firms who disclose donation social policies. The total sample contains 202 firms that disclose a separable or non-separable social policy and 204 non-disclosing firms from February 2019 to July 2021.

Panel A: No Policy Issued

Statistic	Size	Leverage	ROA	Market-to-Book
N	204	184	204	204
Mean	9.59	0.34	0.02	3.85
St. Dev.	1.06	0.20	0.03	24.10
1st p-tile	7.51	0.01	-0.06	-89.79
Median	9.56	0.32	0.01	2.92
99th p-tile	12.05	1.11	0.10	53.04

Panel B: Internal

Statistic	Size	Leverage	ROA	Market-to-Book
N	177	161	174	177
Mean	10.66	0.38	0.02	6.50
St. Dev.	1.39	0.21	0.03	41.90
1st p-tile	8.48	0.03	-0.05	-67.78
Median	10.54	0.38	0.01	2.73
99th p-tile	14.82	0.88	0.15	234.38

Panel C: External

Statistic	Size	Leverage	ROA	Market-to-Book
N	81	73	80	81
Mean	10.73	0.37	0.02	5.40
St. Dev.	1.34	0.18	0.03	13.32
1st p-tile	8.49	0.02	-0.06	-67.78
Median	10.70	0.39	0.01	3.56
99th p-tile	14.82	0.78	0.15	49.53

Panel D: Donation

Statistic	Size	Leverage	ROA	Market-to-Book
N	75	72	75	75
Mean	10.73	0.43	0.02	7.23
St. Dev.	1.48	0.34	0.03	57.21
1st p-tile	7.37	0.04	-0.04	-294.89
Median	10.76	0.40	0.02	4.21
99th p-tile	14.82	2.79	0.15	378.12

Table 3: Governance by Policy Type

This table displays summary statistics for governance measures by disclosed social policy type, including non-disclosing firms. Governance data is collected from the ISS Governance database. Panel A reports governance summary statistics for firms that did not disclose a social policy and an asterisk signifies a significantly different variable mean than firms that disclose a separable or non-separable social policy. Panel B reports governance summary statistics for firms who disclose an internal social policy, Panel C reports governance summary statistics for firms who disclose an external social policy, and Panel D reports governance summary statistics for firms who disclose a donation social policy. The total sample contains 202 separable or non-separable social policy disclosure firms and 204 non-disclosure firms from February 2019 to July 2021.

Panel A: Non-Disclosing Firms

Statistic	Supermajority to Amend Charter	Supermajority to Approve Merge	Blank Check	Classified Board	Confidential Vote	Cumulative Vote	Fair Price	Golden Parachute	Limited Ability to Amend Bylaws	Limited Ability to Amend Charter	Poison Pill
N	202	202	202	202	202	202	202	202	202	202	202
Mean	1.00	0.21	0.94	0.14*	0.16*	0.01	0.14	0.84	0.97	0.99	0.02
St. Dev.	0.00	0.41	0.25	0.37	0.36	0.12	0.35	0.37	0.17	0.10	0.14
1st percentile	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Median	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00
99th percentile	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Panel B: Internal

Statistic	Supermajority to Amend Charter	Supermajority to Approve Merge	Blank Check	Classified Board	Confidential Vote	Cumulative Vote	Fair Price	Golden Parachute	Limited Ability to Amend Bylaws	Limited Ability to Amend Charter	Poison Pill
N	174	174	174	174	174	174	174	174	174	174	174
Mean	1.00	0.17	0.95	0.06	0.29	0.02	0.10	0.80	0.97	0.99	0.02
St. Dev.	0.00	0.38	0.22	0.24	0.45	0.15	0.31	0.40	0.18	0.08	0.13
1st percentile	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Median	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00
99th percentile	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Panel C: External

Statistic	Supermajority to Amend Charter	Supermajority to Approve Merge	Blank Check	Classified Board	Confidential Vote	Cumulative Vote	Fair Price	Golden Parachute	Limited Ability to Amend Bylaws	Limited Ability to Amend Charter	Poison Pill
N	80	80	80	80	80	80	80	80	80	80	80
Mean	1.00	0.16	0.91	0.08	0.31	0.01	0.14	0.80	0.95	1.00	0.01
St. Dev.	0.00	0.37	0.28	0.27	0.47	0.11	0.35	0.40	0.22	0.00	0.11
1st percentile	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Median	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00
99th percentile	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Panel D: Donation

Statistic	Supermajority to Amend Charter	Supermajority to Approve Merge	Blank Check	Classified Board	Confidential Vote	Cumulative Vote	Fair Price	Golden Parachute	Limited Ability to Amend Bylaws	Limited Ability to Amend Charter	Poison Pill
N	74	74	74	74	74	74	74	74	74	74	74
Mean	1.00	0.19	0.91	0.07	0.31	0.00	0.09	0.72	0.99	1.00	0.01
St. Dev.	0.00	0.39	0.29	0.25	0.47	0.00	0.29	0.45	0.12	0.00	0.12
1st percentile	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Median	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00
99th percentile	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00

Table 4: Stock Returns around the Announcement of a Social Policy

This table examines stock returns around the announcement of social policy using a regression of the form:

$$Return_{i,t} = \beta_1 Policy_{i,t} + \beta_2 Volume_{i,t} + \beta_3 Bid\,Ask_{i,t} + Industry\,FE_i + \epsilon_{i,t}$$

In columns (1) through (4), the dependent variable is raw returns, while in columns (5) through (8) the dependent variable is the abnormal return from a 4 factor model (Fama and French (1992) plus Carhart (1997)). In models (1), (2), (5), and (6), we examine announcement day returns (i.e., at t=0), while in models (3), (4), (7), and (8), we examine 3-day compound returns starting on the announcement day (i.e., t=0:t=2). *Policy* is an indicator equal to 1 on announcement date if firm i issued a separable or non-separable social policy disclosure and zero otherwise. $Volume\%$ is volume as a fraction of shares outstanding, $BidAsk\%$ is the bid-ask spread as a fraction of the closing mid-price. We include industry fixed effects in even-numbered models, calculated at the 2-digit SIC level. Standard errors are clustered by firm and date. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Explanatory	Raw Return$_{t=0}$		Raw Return$_{t=0:t=2}$		FF4 Return$_{t=0}$		FF4 Return$_{t=0:t=2}$	
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Policy	0.0072**	0.0071**	0.0238***	0.0236***	0.0015	0.0014	0.0015	0.0014
	(2.39)	(2.36)	(2.62)	(2.60)	(0.74)	(0.70)	(0.74)	(0.71)
Volume %		0.0000		0.0001		0.0000		0.0000
		(0.64)		(0.86)		(1.48)		(1.46)
Bid-Ask %		-0.0035		-0.0081		0.0003		0.0003
		(-1.16)		(-1.26)		(0.20)		(0.19)
Intercept	0.0010*	0.0007*	0.0031***	0.0025***	0.0000	-0.0002	0.0000	-0.0002
	(1.81)	(1.96)	(3.29)	(3.96)	(0.16)	(-1.43)	(0.12)	(-1.43)
Observations	369,648	369,648	368,666	368,666	368,805	368,805	367,823	367,823
R-squared	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.001
Industry FE	No	Yes	No	Yes	No	Yes	No	Yes
SE	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date

Table 5: Stock Returns around the Announcement of Separable and Non-Separable Social Policies

This table examines stock returns around the announcement of social policies using a regression of the form:

$$Return_{i,t} = \beta_1 Internal_{i,t} + \beta_2 External_{i,t} + \beta_3 Donation_{i,t} + \beta_4 Volume_{i,t} + \beta_5 Bid\,Ask_{i,t} + Industry\,FE_i + Policy\,Issued\,FE_i + \epsilon_{i,t}$$

In columns (1) through (4), the dependent variable is raw returns, while in columns (5) through (8) the dependent variable is the abnormal return from a 4 factor model (Fama and French (1992) plus Carhart (1997)). In models (1), (2), (5), and (6), we examine announcement day returns (i.e., at t=0), while in models (3), (4), (7), and (8), we examine 3-day compound returns starting on the announcement day (i.e., t=0:t=2). *Internal*, *External*, and *Donation* are indicator variables that equal one on the event date ($t = 0$) if firm i issues a social policy in these categories, and zero otherwise. We include an *Policy Issued* fixed effects in all models to control for the possibility that firms that disclose a social policy may be different from firms that do not disclose a social policy. $Volume\%$ is volume as a fraction of shares outstanding, $Bid-Ask\%$ is the bid-ask spread as a fraction of the closing mid-price. We include industry fixed effects in even-numbered models, calculated at the 2-digit SIC level. Standard errors are clustered by firm and date. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Explanatory	Raw Return$_{t=0}$		Raw Return$_{t=0:t=2}$		FF4 Return$_{t=0}$		FF4 Return$_{t=0:t=2}$	
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Internal Policy	0.0097**	0.0095**	0.0294**	0.0292**	0.0035**	0.0033*	0.0035**	0.0033*
	(2.58)	(2.58)	(2.32)	(2.34)	(2.02)	(1.93)	(2.03)	(1.94)
External Policy	0.0023	0.0024	-0.0006	-0.0003	0.0007	0.0008	0.0007	0.0008
	(0.74)	(0.78)	(-0.06)	(-0.04)	(0.28)	(0.30)	(0.28)	(0.30)
Donation Policy	-0.0095	-0.0095	-0.0238**	-0.0237**	-0.0008	-0.0007	-0.0008	-0.0007
	(-1.44)	(-1.42)	(-2.16)	(-2.13)	(-0.22)	(-0.21)	(-0.22)	(-0.21)
Volume %		0.0000		0.0001		0.0000		0.0000
		(0.63)		(0.86)		(1.48)		(1.46)
Bid-Ask %		-0.0035		-0.0081		0.0003		0.0003
		(-1.16)		(-1.26)		(0.20)		(0.19)
Intercept	0.0010*	0.0007*	0.0031***	0.0025***	0.0000	-0.0002	0.0000	-0.0002
	(1.81)	(1.96)	(3.29)	(3.97)	(0.15)	(-1.43)	(0.11)	(-1.43)
Observations	369,648	369,648	368,666	368,666	368,805	368,805	367,823	367,823
R-squared	0.000	0.000	0.001	0.001	0.000	0.001	0.000	0.001
Policy-Issued FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	No	Yes	No	Yes	No	Yes	No	Yes
SE	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date

Table 6: Fund Divestiture after Social Policy Disclosure

This table contains the coefficient estimates from the linear regression of the form:

$$Exit_{i,j,t} = \beta_1 Policy\ Period_{i,j,t} + \lambda C'_{i,j,t} + Fund\ FE_j + Year * Month\ FE_t + Policy\ Issued\ FE_i + \epsilon_{i,j,t},$$

where i is firm, j is mutual fund, t is month, and *Exit* is an indicator equal to 1 if the change in fund holdings of ticker i decreases from period *t-1* to period *t*. *Policy Period* is an indicator variable that is equal to one in the month of the event (t) and the month after the event ($t+1$) for firm i, if firm i releases a separable or non-separable social policy statement, and zero otherwise. The equation includes fund fixed effects ($Fund\ FE$), year-month fixed effects ($Year * Month\ FE$), and a vector of control variables (C) for fund j: total net asset value; expense ratio; turnover ratio; management fee; return per share; one, two, and three month lagged return for stock i; and fund flow in month t, which is calculated as $[TNA_{i,t} - TNA_{i,t-1}(1 + R_{i,t})]/TNA_{i,t-1}$. Additionally, we use an policy-issued fixed effect in Column (4). Standard errors are clustered by firm and year-month. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Explanatory Variable	Dependent Variable = *Exit*			
	(1)	(2)	(3)	(4)
Policy Period (0, 1)	0.045**	0.034	0.020***	0.007
	(0.022)	(0.032)	(0.006)	(0.004)
TNA		0.000***	-0.000***	-0.000***
		(0.000)	(0.000)	(0.000)
Expense Ratio		-0.977**	-16.020**	-16.024**
		(0.423)	(6.349)	(6.348)
Turnover Ratio		-0.015***	-0.041***	-0.041***
		(0.004)	(0.011)	(0.011)
Management Fee		-0.041***	0.048	0.049
		(0.014)	(0.055)	(0.055)
Total Return per Share as of Month End		-0.088	0.057	0.056
		(0.174)	(0.113)	(0.113)
1-Month Lag Stock Return		-0.013	0.028	0.027
		(0.069)	(0.035)	(0.033)
2-Month Lag Stock Return		0.057	0.057	0.056
		(0.143)	(0.042)	(0.040)
3-Month Lag Stock Return		-0.063	0.086***	0.087***
		(0.094)	(0.026)	(0.024)
Fund Flow		-0.000	-0.000	-0.000
		(0.000)	(0.000)	(0.000)
Observations	4,059,840	2,665,919	2,665,919	2,665,919
R-squared	0.001	0.004	0.115	0.116
Fund FE	N	N	Y	Y
Year*Month FE	N	N	Y	Y
Policy-Issued FE	N	N	N	Y
Controls	N	Y	Y	Y
SE	Firm & Year*Month	Firm & Year*Month	Firm & Year*Month	Firm & Year*Month

Table 7: Fund Divestiture by Policy Type

This table contains the coefficient estimates from the linear regression of the form:

$$Exit_{i,j,t} = \beta_1 Internal_{i,j,t} + \beta_2 External_{i,j,t} + \beta_3 Donation_{i,j,t} + \lambda C'_{i,j,t} + Fund\,FE_j + Year \times Month\,FE_t + Policy\,Issued\,FE_i + \epsilon_{i,j,t}$$

where i is firm, j is mutual fund, t is month, and *Exit* is an indicator equal to 1 if the change in fund holdings of ticker i decreases from period $t-1$ to period t. *Internal*, *External*, and *Donation* are indicator variables that are equal to one in the month of the event (t) and the month after the event ($t+1$) for stock i, when firm i discloses a policy statement in these categories, and zero otherwise. The equation includes fund fixed effects ($Fund\,FE$) and year-month fixed effects ($Year * Month\,FE$) and a vector of control variables (C) for fund j: total net asset value; expense ratio; turnover ratio; management fee; return per share; one, two, and three month lagged return for stock i; and fund flow in month t, which is calculated as $[TNA_{i,t} - TNA_{i,t-1}(1+R_{i,t})]/TNA_{i,t-1}$. Additionally, we use an policy-issued fixed effect in Column (4). Standard errors are clustered by firm and year-month. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Explanatory Variables	Dependent Variable = *Exit*			
	(1)	(2)	(3)	(4)
Internal Policy (0, 1)	0.025	0.016	0.006	-0.011
	(0.019)	(0.024)	(0.010)	(0.008)
External Policy (0, 1)	0.017*	0.017	0.012	0.008
	(0.010)	(0.011)	(0.008)	(0.008)
Donation Policy (0, 1)	0.039***	0.034**	0.028***	0.024***
	(0.010)	(0.013)	(0.008)	(0.008)
TNA		0.000***	-0.000***	-0.000***
		(0.000)	(0.000)	(0.000)
Expense Ratio		-0.975**	-15.995**	-16.008**
		(0.424)	(6.358)	(6.353)
Turnover Ratio		-0.015***	-0.041***	-0.041***
		(0.004)	(0.011)	(0.011)
Management Fee		-0.041***	0.048	0.048
		(0.014)	(0.055)	(0.055)
Total Return per Share as of Month End		-0.085	0.056	0.056
		(0.173)	(0.113)	(0.113)
1-Month Lag Stock Return		-0.012	0.027	0.026
		(0.068)	(0.035)	(0.033)
2-Month Lag Stock Return		0.058	0.057	0.055
		(0.141)	(0.041)	(0.040)
3-Month Lag Stock Return		-0.067	0.086***	0.086***
		(0.093)	(0.025)	(0.024)
Fund Flow		-0.000	-0.000	-0.000
		(0.000)	(0.000)	(0.000)
Observations	4,059,840	2,665,919	2,665,919	2,665,919
R-squared	0.001	0.004	0.115	0.116
Fund FE	N	N	Y	Y
Year*Month FE	N	N	Y	Y
Policy-Taken FE	N	N	N	Y
Controls	N	Y	Y	Y
SE	Firm & Year*Month	Firm & Year*Month	Firm & Year*Month	Firm & Year*Month

Table 8: Retail Trading Volume

This table contains the coefficient estimates from the linear regression of the form:

$$Volume_{i,t} = \alpha + \beta_1 Internal_{i,t} + \beta_2 External_{i,t} + \beta_3 Donation_{i,t} + \lambda C'_{i,t} + \gamma_i + \delta_t + \epsilon_{i,t}$$

where i is firm, t is day, and *Volume* takes on three different variables: *Retail Buy Volume* (columns (1) through (3)), which is the scaled volume of retail buys of firm i on day t; *Retail Sell Volume* (columns (4) through (6)), which is the scaled volume of retail sells of firm i on day t; and *Total Retail Volume* (columns (7) through (9)), which is the sum of retail buys and sells of firm i on day t. *Internal*, *External*, and *Donation* are indicator variables that are equal to one on the day of the event (t) and the day after the event ($t+1$) for firm i, when firm i issues a social policy in these categories, and zero otherwise. The equation includes firm fixed effects (γ) and date fixed effects (δ) and a vector of control variables (C) for firm i: *Size* is the log of total assets, *ROA* is the ratio of operating income to total assets, *Leverage* is the ratio of long-term debt and short-term debt to total assets, and *Market-to-Book* is the ratio of market capitalization to total common equity. Additionally, we add a policy-issued fixed effect in Columns (3), (6), and (9). Standard errors are clustered by firm and date. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Explanatory	Retail Buy Volume			Retail Sell Volume			Total Retail Volume		
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Internal Policy	0.673	0.346	0.346	0.640	0.331	0.331	1.313	0.677	0.677
	(0.483)	(0.392)	(0.392)	(0.453)	(0.362)	(0.362)	(0.936)	(0.754)	(0.754)
External Policy	-0.554*	-0.392*	-0.392*	-0.524*	-0.360*	-0.360*	-1.078*	-0.752*	-0.752*
	(0.295)	(0.232)	(0.232)	(0.280)	(0.218)	(0.218)	(0.574)	(0.449)	(0.449)
Donation Policy	-0.353	-0.423	-0.423	-0.356	-0.433*	-0.433*	-0.708	-0.856	-0.856
	(0.305)	(0.279)	(0.279)	(0.284)	(0.258)	(0.258)	(0.589)	(0.536)	(0.536)
Size		0.448	0.448		0.392	0.392		0.840	0.840
		(0.365)	(0.365)		(0.370)	(0.370)		(0.734)	(0.734)
ROA		-4.928*	-4.928*		-4.695*	-4.695*		-9.622*	-9.622*
		(2.520)	(2.520)		(2.458)	(2.458)		(4.977)	(4.977)
Leverage		0.262	0.262		0.148	0.148		0.410	0.410
		(0.866)	(0.866)		(0.858)	(0.858)		(1.721)	(1.721)
Market-to-Book		-0.000	-0.000		-0.000	-0.000		-0.000	-0.000
		(0.000)	(0.000)		(0.000)	(0.000)		(0.000)	(0.000)
Observations	123,399	111,225	111,225	123,399	111,225	111,225	123,399	111,225	111,225
R-squared	0.000	0.534	0.534	0.000	0.519	0.519	0.000	0.532	0.532
Ticker FE	N	Y	Y	N	Y	Y	N	Y	Y
Date FE	N	Y	Y	N	Y	Y	N	Y	Y
Policy-Issued FE	N	N	Y	N	N	Y	N	N	Y
Controls	N	Y	Y	N	Y	Y	N	Y	Y
SE	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date	Firm & Date

Table 9: Policy Type and Manager Political Affiliation

This table contains the coefficient estimates from a linear regression of the indicator variable *Exit* on *Internal*, *External*, *Donation*, and each of these interacted with *Majority Rep.* and *Majority Dem.*, separately. *Exit* is an indicator equal to 1 if the change in fund holdings of ticker i decreases from period *t-1* to period *t*. *Internal*, *External*, and *Donation* are indicator variables that equal one in the month of the event (t) and the month after the event ($t+1$) for stock i, when firm i discloses a social policy in these categories, and zero otherwise. *Majority Rep.* and *Majority Dem.* are indicator variables that equal one if greater than half of fund j managers who appear in the FEC database donate to a Republican cause or Democrat cause, respectively, and zero otherwise. The equation includes fund fixed effects and year-month fixed effects and a vector of control variables for fund j: total net asset value; expense ratio; turnover ratio; management fee; return per share; one, two, and three month lagged return for stock i; and fund flow in month t, which is calculated as $[TNA_{i,t} - TNA_{i,t-1}(1+R_{i,t})]/TNA_{i,t-1}$. Additionally, we use a policy-issued fixed effect in Columns (3) and (6). Standard errors are clustered by firm and year-month. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Explanatory Variables	Dependent Variable = *Exit*					
	(1)	(2)	(3)	(4)	(5)	(6)
Internal Policy (0, 1) = 1				0.011	0.013	-0.004
				(0.015)	(0.010)	(0.009)
Majority Rep. Mngrs = 1	-0.108*	-0.185***	-0.186***	-0.108*	-0.186***	-0.186***
	(0.057)	(0.049)	(0.049)	(0.056)	(0.049)	(0.049)
Internal * Majority Rep. Mngrs				-0.013	-0.034	-0.033
				(0.057)	(0.027)	(0.027)
Donation Policy (0, 1) = 1				0.035**	0.028**	0.025**
				(0.015)	(0.012)	(0.012)
Donation * Majority Rep. Mngrs				0.028	0.015	0.015
				(0.045)	(0.046)	(0.046)
External Policy (0, 1) = 1				0.019**	0.017**	0.013*
				(0.008)	(0.008)	(0.007)
External * Majority Rep. Mngrs				-0.020	-0.010	-0.010
				(0.015)	(0.009)	(0.009)
Majority Dem. Mngrs = 1	-0.014	-0.011	-0.012	-0.014	-0.013	-0.013
	(0.013)	(0.020)	(0.020)	(0.013)	(0.020)	(0.020)
Internal * Majority Dem. Mngrs				-0.007	-0.024	-0.024
				(0.016)	(0.019)	(0.019)
Donation * Majority Dem. Mngrs				-0.018	-0.021	-0.021
				(0.015)	(0.014)	(0.014)
External * Majority Dem. Mngrs				-0.023	-0.029	-0.029
				(0.016)	(0.018)	(0.018)
Policy Period (0, 1)	0.030	0.028***	0.014***			
	(0.020)	(0.005)	(0.004)			
Policy Period * Majority Dem. Mngrs	-0.027	-0.050**	-0.050**			
	(0.018)	(0.022)	(0.022)			
Policy Period * Majority Rep. Mngrs	0.004	-0.019	-0.019			
	(0.077)	(0.045)	(0.045)			
Observations	4,059,840	2,665,919	2,665,919	4,059,840	2,665,919	2,665,919
R-squared	0.016	0.124	0.125	0.016	0.124	0.125
Fund FE	N	Y	Y	N	Y	Y
Year*Month FE	N	Y	Y	N	Y	Y
Policy-Issued FE	N	N	Y	N	N	Y
Controls	N	Y	Y	N	Y	Y
SE	Firm & Year*Month	Firm & Year*Month	Firm & Year*Month	Firm & Year*Month	Firm & Year*Month	Firm & Year*Month

Internet Appendix for "Separating Efficient from Inefficient Social Policy Disclosures"

AMY CYR-JONES, SARA MALIK, AND MATTHEW C. RINGGENBERG[10]

This Internet Appendix provides additional information to supplement the analyses and discussion provided in the main paper. Below, we briefly describe each section.

1. Section A defines the key variables used in our analyses.

2. Section B explains our data collection procedure.

[10]Citation format: Cyr-Jones, Amy, Sara Malik, and Matthew C. Ringgenberg, Internet Appendix for "Testing the Separability Condition: do investors price social policy disclosures correctly? ," 2022, Working Paper.

A Variable Definitions

Variable	Definition	Source
Leverage	Equal to the sum of debt in current liabilities and long-term total debt divided by the total book value of assets (quarterly)	Compustat
Market-to-Book (MTBE)	Equal to daily price multiplied by shares outstanding divided by the total total common/ordinary equity (quarterly)	CRSP, Compustat
ROA	Equal to net income divided by the total book value of assets (quarterly)	Compustat
Size	Equal to the log of total assets (quarterly, listed in millions)	Compustat
Action Period	Binary variable that is equal to one on the day (month) that a firm issued an SJRE statement and one day (month) after, and 0 otherwise	Hand-collected
Fund Flow	Measures net percentage fund flow in period t. Calculated as $[TNA_{i,t} - TNA_{i,t-1}(1 + R_{i,t})]/TNA_{i,t-1}$	CRSP Mutual Funds
Pct. Ideological	A continuous variable equal to the number of fund managers that made a political donation divided by the total number of fund managers	FEC Donations Database
Pct. Republican	A continuous variable equal to the number of fund managers that made a political donation to a Republican cause divided by the number of fund managers that made a political donation (*Pct. Ideological)*	FEC Donations Database
Majority Dem. Mngrs	An indicator variable equal to one if greater than half of managers who donated gave money to a Democrat cause (with the total percentage of donating managers given by *Pct. Ideological*)	FEC Donations Database
Majority Rep. Mngrs	An indicator variable equal to one if greater than half of managers who donated gave money to a Republican cause (with the total percentage of donating managers given by *Pct. Ideological*).	FEC Donations Database
Retail Buy Volume	The total volume of retail buys (daily)	TAQ
Retail Sell Volume	The total volume of retail sales (daily)	TAQ
Retail Total Volume	The sum of the total volume of retail sales and the total volume of retail buys (daily)	TAQ
Total Net Assets (TNA)	Total net assets of a fund	CRSP Mutual Funds
Net Asset Value (NAV) per Share	Net value of fund's assets less its liabilities, divided by the number of shares outstanding	CRSP Mutual Funds
Expense Ratio	Ratio of fund's operating expenses to its average net assets	CRSP Mutual Funds
Turnover Ratio	Minimum (of aggregated sales or aggregated purchases of securities), divided by the average 12-month total net assets of the fund	CRSP Mutual Funds
Management Fee	Ratio of fund's management fees to fund's average net assets	CRSP Mutual Funds

B Data Collection

We manually collected firm-level policy statements and classified them into categories (i.e., internal, external, donation). We started with all firms in the S&P 500 as of May 1, 2020. We searched for each firm in Google, along with a statement relating to the Black Lives Matter movement or George Floyd. For example, if Apple was the target firm, the Google query might be "Apple Black Lives Matter statement" using a custom time frame range of May 25, 2020 through December 31, 2020. If we were able to find a statement, we then recorded and coded it as containing internal, external, or donation actions, with multiple simultaneous actions allowed. We attempted to locate the statement at its original source, but if not possible, we use data from referenced statements from secondary sources, such as news articles. A firm's event date is the date of the statement release, and if not available, the earliest date where reference is made to the statement.

If a firm statement was not located with a first search, we made several subsequent

searches while varying the query section referencing Black Lives Matter. For example, if no result was found from "Apple Black Lives Matter statement", other possible search attempts might include "Apple George Floyd statement" or "Apple CEO George Floyd statement", or some iteration of these. If no statement could be found through this iterative search process, we coded the firm as having no response.

Our classification of actions into internal, external, and donation groups can be shown by example. Internal actions include actions that the firm has a comparative advantage in (e.g. creating a new diversity training course for employees). Also included in the internal category were reaffirmations of core company beliefs regarding equity, inclusion, and diversity. Donation actions were coded as one when a firm pledged any amount of money to a social justice cause. External actions are actions that took place or referenced action outside of the firm (e.g. referencing the community), and can be unclear in the comparative advantage holder. Examples of external actions include the following: increasing the diversity of minority suppliers in the surrounding community; supporting the underserved in local communities through hunger relief and educational support; and lobbying for legislative actions in regards to equity.