We present a model where firms choose a political stance and investors differ in political preferences. A firm’s political stance generates a non-pecuniary payoff to each investor that decreases in the distance between the firm’s political stance and the investor’s political preference. We show that heterogeneous political preferences endogenously lead to a polarization of corporate political stances and to risk sharing distortions. Investors tilt their portfolios towards firms with political stances close to their own, and value-maximizing firms cater to investors with high risk tolerance and strong political preferences. The deviation from optimal risk sharing increases in political preference dispersion and aggregate preference intensity, and decreases in aggregate risk aversion. In a competitive equilibrium, the value maximizing choice of corporate political stance is also optimal from a utilitarian social planner’s perspective. However, if a large investor can influence corporate political stances by strategically increasing the sensitivity of his investment to corporate political stances at low cost, then value maximization imposes significant welfare losses on small investors, and the resulting equilibrium is welfare-dominated by an equilibrium in which corporate political stances are determined by ownership-weighted averages of shareholder preferences.

Keywords: corporate political stance, political polarization, corporate governance, non-pecuniary utility

JEL Codes: G10, G11, G12, G30, G32, G34
1 Introduction

Corporations are increasingly engaging in political and social issues, such as voting rights, racial justice or gender policies. While such corporate social activism is not new, it has become increasingly salient due to powerful communication technologies, which not only make corporate political stance more visible and relevant but also provides corporate stakeholders with more effective tools to influence social and political outcomes by leveraging corporate resources. In the U.S., these developments have been reinforced by a landmark decision by the Supreme Court in 2010 (Citizens United v. Federal Election Commission), which gave corporations more flexibility to engage in political activities. All this is accompanied by a well-documented trend of rising political polarization in business, government, and society (e.g., Gentzkow et al. (2019), Fos et al. (2022), Engelberg et al. (2023a)).

From a corporate governance perspective, a firm’s political stance can be viewed from two angles. First, a firm’s social or political stance may affect the present value of future cash flows to shareholders. For example, the political stance may influence consumer decisions and therefore corporate profitability (Conway and Boxell (2023)). Through this lens, engaging in political and social issues is consistent with traditional shareholder value maximization as long as it increases the present value of future cash flows to equityholders.

Alternatively, corporate political stance may not (only) affect corporate profitability, but instead may be viewed through a broader set of objectives that shareholders may have, as suggested by Hart and Zingales (2017). For example, some shareholders may value individual rights, and others may value social justice or income and/or wealth equality very highly. Such characteristics of a society may be influenced by firms’ political stance. Firms’ political stance may therefore create non-pecuniary payoffs for their shareholders by helping to shape a political environment that is more or less supportive of a particular set of values. Thus, corporate political stance can be viewed in a broader governance framework, where firms’ political activities do not directly (or not only) affect future cash flows to shareholders, but the firm’s social or political positions may affect the perceived well-being of a broader set of corporate stakeholders, or of citizens at large.

Such a broader view of shareholder objectives raises interesting questions in the context of firms’ political stance. For example, how does such a broader objective affect investors’ portfolio decisions, stock prices, and risk sharing? How does investor behavior influence firms’ choices of their political stances? How does the strategic behavior of large investors affect the market equilibrium? What is the socially optimal equity ownership allocation and corporate political stance distribution and
how are they related to shareholder value maximization? This paper takes a first step to analyze these questions by presenting a model of financial market equilibrium with heterogeneous political preferences.

Our model features two types of mean-variance investors differing in both risk tolerance and political preferences. It encompasses two alternative settings. In the first setting, we assume that the two investor types represent two groups of small investors behaving atomistically. In the second setting, we assume that one type represents a group of small investors while the other type represents a large shareholder who behaves strategically. Investors are assumed to perceive non-pecuniary payoffs from a firm’s political stance, which can be positive or negative, depending on the distance between the firm’s political stance and an investor’s own political preference. Bonnefon et al. (2022) find in an experimental setting that investors’ willingness to pay for a stock is a linear function of corporate externalities, and is symmetric for positive or negative externalities. Motivated by this evidence, we assume that the non-pecuniary payoff functions are linear and symmetric, and are zero for politically neutral firms (for robustness, we also consider nonlinear non-pecuniary payoffs in Appendix). The non-pecuniary payoff also depends on how strongly an investor cares about a firm’s political stance, which we capture by a firm/investor-specific political preference intensity parameter. To isolate the effects of investor political preferences, we assume that corporate political stances are cash flow neutral.

We consider two alternative governance rules for the determination of corporate political stances. Under the first rule, corporate political stances are chosen by managers who are incentivized to maximize the value of the (all-equity financed) firm. The other governance rule we consider is one where corporate political stance is chosen to reflect the ownership-weighted average of shareholder preferences. This reflects a governance system where shareholders’ influence on managerial decisions is proportional to their ownership. We also distinguish between two types of political preferences, which we refer to as consequentialist and non-consequentialist, respectively, following Dangl et al. (2023b). Investors with non-consequentialist preferences care about the political stances of firms in their own portfolio, while investors with consequentialist preferences care about the political stances of all firms in the economy. In light of the empirical evidence (e.g., Heeb et al. (2022), Bonnefon et al. (2022)), we focus primarily on the case of non-consequentialist preferences.

We first analyze how exogenously given corporate political stances affect stock prices and ownership allocation in the setting with atomistic non-consequentialist investors. We find that, consistent with the evidence of political value alignment in stock holdings documented by Hong and Kostovet-
sky (2012), Bonaparte et al. (2017), there is a political preference clientele effect: investors tilt their portfolios towards firms with political stances that are close to their own preferences. The resulting deviation of ownership allocation from the optimal risk sharing allocation increases in the aggregate political preference intensity of all investors and the degree of political preference dispersion, and it decreases in aggregate risk aversion. The deviations of stock prices from the prices in the competitive equilibrium without political preferences are weighted averages of investors’ non-pecuniary payoffs, which can be either positive or negative.

We then analyze how corporate political stances are determined in a competitive equilibrium. We find that the value-maximizing corporate political stance is determined by the risk tolerance coefficient and the investor-firm specific political preference intensity. Firms cater perfectly to the preference of the investor group with a higher product of these two parameters. Thus, there is an endogenous polarization of corporate political stances under the value-maximization rule. Despite the deviation from the optimal risk sharing rule, we show that the competitive equilibrium under the value-maximization rule also maximizes aggregate utility, at least when cash flows are uncorrelated across firms. Because the positive non-pecuniary payoff perceived by one investor group more than offsets the negative payoff perceived by the other group and the efficiency loss in risk sharing, the stock prices in this equilibrium are at least as high as in the equilibrium without political preferences. However, this is not the case when the corporate political stance is determined by the ownership-weighted average of shareholder preferences. Under this alternative governance rule, the direction of the deviation of the ownership allocation from the optimal risk sharing rule is determined by the relative risk tolerance of the two investor groups and independent of investors’ political preference intensities. Corporate political stances gravitate towards the political preference of the more risk tolerant investor group, and the strength of this tendency depends on the aggregate political preference intensity instead of the intensity of any individual group. Therefore, a firm’s political stance could be very unfavorable to the more risk averse group even if the more risk tolerant group does not care much about it. As a result, the allocation under this rule is generally inefficient.

We further analyze the equilibrium where small and large non-consequentialist investors coexist. We show that if the large shareholder is politically passive, in the sense that he takes corporate political stances as given, then under the value-maximization rule, his influence on corporate political stances is weaker if he internalizes the price impact of his ownership than if he behaves non-strategically. This is because the concern for price impact lowers the sensitivity of the large
investor’s stock demand to corporate political stances, which makes value-maximizing firms cater less to his preference. However, the price impact also provides a powerful tool that can be exploited by a politically active large investor to influence corporate political stances. Such an investor can strategically increase the sensitivity of his investment to a firm’s choice of political stance by committing to completely divest when the firm’s political stance does not conform with his preference and to hold a sufficiently large stake otherwise. If the cost of such influence activity is low, then the equilibrium with a politically active large investor under the value-maximization rule can deviate substantially from the utilitarian first-best and impose significant political disutilities on small investors. When the corporate political stance is determined by the ownership-weighted average of shareholder preferences, the large shareholder takes into account that a larger ownership stake also moves the firm’s political stance closer to his preferences, and this incentivizes him to hold more equity. Unlike in the competitive equilibrium, in which the relation between ownership allocation and aggregate political preference intensity is purely driven by risk tolerance, the large investor’s ownership share may increase in aggregate political preference intensity even if he is more risk averse than the small investors.

We provide several numerical examples to compare different equilibria. In addition to confirming the analytical results, the numerical exercises also generate new insights. For example, they show that the competitive equilibrium stock price under the value-maximization rule is always higher than its counterpart under the weighted-average rule, except when the value-maximizing corporate political stance is indeterminate, in which case the two prices are equal. Under the weighted-average rule, the large investor’s pursuit of influence on corporate political stances significantly increases the stock price, but its impact on the welfare of small investors is relatively mild. In contrast, under the value-maximization rule, the large investor’s use of the divestment strategy to influence corporate political stances generates large negative externalities. It reduces not only the welfare of small investors but also the aggregate utilitarian welfare, and results in a lower stock price despite the increased ownership share of the large shareholder. Consequently, while the weighted-average rule is inferior to the value-maximization rule in the competitive equilibrium, it leads to higher aggregate utilitarian welfare if the cost of influence activity by a politically active large investor is low. Under our baseline parameterization, the politically active large investor becomes passive if the cost of the large investor’s influence activity reaches about 5% of the expected cash flow.

Lastly, we analyze the case of consequentialist investors. We show that in this case, investors’ political preferences have no effect on stock prices or ownership allocation in the competitive equi-
librium, irrespective of how corporate political stances are determined. The value-maximizing corporate political stances are indeterminate, which leaves open the possibility that a politically active large investor can have a strong influence on political stances of value-maximizing firms at low cost. If corporate political stances are determined by the ownership-weighted averages, the large investor’s pursuit of influence on corporate political stances increases his ownership shares and equilibrium stock prices, as in the case of non-consequentialist investors. Furthermore, the choice of socially optimal corporate political stances does not affect optimal risk sharing.

Our paper contributes to a growing literature on the role of political ideology and partisanship in economic activities. Using political affiliations from voter registration records for top executives of S&P 1500 firms between 2008 and 2020, Fos et al. (2022) show that executives of large U.S. firms are becoming more politically polarized. Recent research has also documented pervasive effects of political ideology and partisanship on a wide range of economic behaviors, including proxy voting and international capital allocation of institutional investors (Bolton et al. (2020), Kempf et al. (2023)), rating actions of credit rating analysts (Kempf and Tsoutsoura (2021))), economic expectations of consumers (Mian et al. (2023)), corporate misconduct (Hutton et al. (2015)), employer-labor relationship (Colonnelli et al. (2022)), entrepreneurship (Engelberg et al. (2022)), innovation and patenting activities (Engelberg et al. (2023b)), and residential choice (McCartney et al. (2023)). In an interesting recent paper, Conway and Boxell (2023) document that individuals’ consumption decisions are strongly influenced by firms’ stances on controversial social issues. They present evidence that firms take stances that align with their consumers’ and employees’ preferences and that corporate stances are also correlated with their ownership structure. Our theoretical model is consistent with these empirical findings, but rather than focusing on consumer preferences, we focus on shareholder preferences and their effects on corporate political stance.

Several studies find that political ideology and partisan identity affect investor behavior in the financial markets, including portfolio holdings of both retail and institutional investors (Hong and Kostovetsky (2012), Bonaparte et al. (2017)), beliefs and trading around presidential elections and during the COVID pandemic (Bonaparte et al. (2017), Meeuwis et al. (2022), Cookson et al. (2020), Sheng et al. (2023)), loan pricing by bankers (Dagostino et al. (2023)), and household stock market participation (Kaustia and Torstila (2011), Ke (2022)). Furthermore, the asset pricing literature has documented significant effects of political cycles on both time series and cross-section of stock returns (Santa-Clara and Valkanov (2003), Belo et al. (2013), Chen et al. (2023)). Despite the abundant evidence for the importance of political ideology and partisanship in economic activities
and financial markets, to the best of our knowledge, no previous studies have examined the effect of investor political preferences on financial market equilibrium. Our results suggest that the increasing partisanship in Corporate America can be an endogenous outcome of a more politically polarized economic and social environment. Our model also highlights the negative externalities of large shareholders’ influence on corporate political stances.

Our paper is also closely related to an emerging literature on social preferences of investors. An increasing number of studies have documented that investors value both financial and non-financial payoffs (Riedl and Smeets (2017), Hartzmark and Sussman (2019), Barber et al. (2021), Bauer et al. (2021), Starks (2023)). Heinkel et al. (2001), Pastor et al. (2021), Pedersen et al. (2021), and Dangl et al. (2023a) examine the impact of social and environmental preferences on expected returns and firm behavior. We complement this literature by examining the effects of investor political preferences on financial market equilibrium. Compared to the more popular ESG-oriented investing, institutionalized politically-oriented investing is still relatively rare. Nevertheless, it seems to be emerging (and is marketed as “politically responsible investing”). For example, the MAGA ETF launched by Point Bridge Capital in 2017 provides investors with the opportunity to invest in companies that align with the Republican political beliefs. It tracks an index that is made up of 150 companies in the S&P 500 index whose employees and political action committees are highly supportive of Republican candidates. Our model provides a starting point for understanding the impact of such politically active institutional investors.

Our paper also contributes to the literature on the effect of political activities on shareholder value. Many studies have found that political connections enhance shareholder value (e.g., Fisman (2001), Khwaja and Mian (2005), Faccio (2006), Faccio et al. (2006), Goldman et al. (2008), Goldman et al. (2013), Brown and Huang (2020)). One notable exception is Bertrand et al. (2018), who show that politically connected CEOs alter corporate employment decisions to help (regional) politicians in their re-election efforts but receive no detectable benefits in return. Albuquerque et al. (2020) find evidence consistent with a crowding-out effect of independent political spending on political connections. Previous research has also shown campaign contributions to winning candidates or the party in control of the U.S. Senate have a positive effect on shareholder value (e.g., Jayachandran (2006), Claessens et al. (2008), Akey (2015)). Borisov et al. (2015) find that corporate lobbying increases shareholder value and that part of the value increase may come from unethical practices of rent seeking instead of information provision. Our study complements this strand of literature by focusing on the non-pecuniary payoffs of corporate political stances perceived
by investors instead of the cash flow effects of political activities.

The rest of the paper is organized as follows. We present the model setup in Section 2, derive the competitive equilibria under two alternative rules for the determination of corporate political stances in Section 3, and analyze the equilibria with a strategic large investor in Section 4. We then conduct a utilitarian welfare analysis and compare the equilibria numerically in Section 5. We analyze the case of consequentialist investors in Section 6, and conclude in Section 7.

2 Model Setup

There are $N$ stocks representing equity shares of $N$ firms. The total supply of each stock is normalized to one. The payoffs of the stocks are jointly normally distributed with mean payoffs denoted by the vector $\mu$ and the variance-covariance matrix denoted by $V$, which is assumed to be invertible. In addition, there is a riskless asset with infinite elasticity of supply, whose gross return is normalized to one.

2.1 Mean-Variance With Political Preferences

We model investors’ risk preferences in a simple mean-variance framework, consistent with constant absolute risk aversion (CARA) utility. In addition to the financial payoffs, political considerations also enter the investors’ utility. In particular, investors care about firms’ political stances, e.g., which political party they support, via which party they channel their lobbying activities, or how they interact with governments in different political regimes. The underlying reason may be that firms’ political stances affect investors’ own welfare directly, or that investors internalize some effects of corporate political stances on the welfare of other stakeholders, including consumers, workers and citizens at large. For example, if an investor values living in a society that highly protects individual rights, this investor may prefer a certain corporate political stance, whereas investors who value strict environmental protection particularly highly may prefer the firm to take a different political stance. To isolate the pure role of investors’ political preferences, we normalize the effects of firms’ political stances on their cash flows to zero.

We model two types of investors: Type-$L$ investors have a political preference $\theta_L$ and risk tolerance $\tau_L$, and type-$R$ investors have a political preference $\theta_R$ and risk tolerance $\tau_R$. The difference between $\theta_L$ and $\theta_R$, $\delta \equiv \theta_R - \theta_L$, captures the dispersion of political preferences among investors. Without loss of generality, we assume $\theta_L < \theta_R$ and normalize $\theta_L$ to zero. Therefore, $\delta$ represents both the political preference of the $R$ type and the dispersion. The political stances of
all firms are denoted by an $N \times 1$ vector $\Theta$. The elements of this vector are normalized by $\delta$ so that $\Theta_i = 0$ indicates a firm perfectly aligned with the preference of investor type $L$ and $\Theta_i = 1$ indicates a firm perfectly aligned with investor type $R$.

We consider two alternative settings. In the first setting, each investor type consists of a continuum of small investors with a total mass of one, who act competitively and take both prices and corporate political stances as given. In this setting, $L$ ($R$) can be interpreted as the representative $L$-type ($R$-type) investor, representing the mass of competitive individual $L$-type ($R$-type) investors. In the second setting, one type still consists of a continuum of competitive small investors, while the other type is a large investor who behaves strategically. This alternative setting is similar to that of Admati et al. (1994). Without loss of generality, we assume that $R$ is the large investor in this setting.

To model investors’ political preferences, we assume that an investor perceives a non-pecuniary payoff that decreases in the difference between her own political preference and the firm’s political stance. Specifically, for a firm with political stance $\Theta_i$, $L$ perceives a non-pecuniary payoff specified as follows:

$$D_{L,i} = \Pi_{L,i} f(d_{L,i}) = \Pi_{L,i} f(\delta(1/2 - |\Theta_i|)),$$

where $d_{L,i}$ is $1/2$ minus the distance between firm $i$’s political stance $\Theta_i$ and $L$’s political preference (i.e., $|\Theta_i|$), scaled by the preference dispersion parameter $\delta$; $f(d_{L,i})$ is a function with $f'(d_{L,i}) > 0$ and $f(0) = 0$; and $\Pi_{L,i} \geq 0$ is a parameter characterizing how strongly $L$ cares about the political stance of firm $i$, which we refer to as $L$’s political preference intensity towards firm $i$. $\Pi_{L,i}$ can be viewed as an inverse measure of $L$’s tolerance of political disagreement with respect to firm $i$. We allow this parameter to vary across firms for both types of investors, independent of the sizes of their stakes in the firm. This captures the idea that an investor may care about the political stances of different firms to different degrees. For example, an investor with a strong view about income distribution and gender equality may pay close attention to the political stance of a financial firm, while an investor with a strong view about carbon emissions or labor conditions may care more about the political stance of a manufacturing firm. Also, both types of investors may pay more attention to firms actively engaging in political activities than to firms that are less engaged.

Note that $D_{L,i}$ obtains the highest value when the firm’s political stance perfectly coincides

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1The large investor can be an institutional investor, to which the individual small investors delegate their portfolio decisions, or a high-net-worth individual with significant market power, or simply a coalition of small investors with coordinated actions.
with \( L \)'s political preference, i.e., when \( \Theta_i = 0 \). It becomes negative when \( \Theta_i > \frac{1}{2} \) or \( \Theta_i < -\frac{1}{2} \). This captures the idea that investors perceive a positive non-pecuniary payoff (utility) when a firm’s political stance is sufficiently close to their own preferences and perceive a negative non-pecuniary payoff (disutility) when the distance between them is sufficiently large. The zero point of the function ensures that the non-pecuniary payoff of a politically neutral firm ((i.e., a firm with \( \Theta_i = \frac{1}{2} \)) is zero. The parameter \( \delta \) enters the function \( f \) because \( \Theta_i \) is normalized by \( \delta \).

Similarly, the non-pecuniary payoff perceived by \( R \) is:

\[
D_{R,i} = \Pi_{R,i}f(d_{R,i}) = \Pi_{R,i}f(\delta(\frac{1}{2} - |\Theta_i - 1|)),
\]

where \( d_{R,i} \) is \( \frac{1}{2} \) minus the distance between \( \Theta_i \) and \( R \)'s political preference (i.e., \( |\Theta_i - 1| \)), scaled by \( \delta \); \( \Pi_{R,i} \) is \( R \)'s political preference intensity toward firm \( i \). Note that \( D_{R,i} \) is the highest at \( \Theta_i = 1 \), when firm \( i \)'s political stance coincides with \( R \)'s political preference, and it is also zero for a politically neutral firm with \( \Theta_i = \frac{1}{2} \).

Due to the symmetry of the non-pecuniary payoffs around the preferred stances for both types of investors, firms that maximize shareholder value will not take on political stances more extreme than \( \Theta_i = 0 \) or \( \Theta_i = 1 \) in equilibrium. This is because any corporate political stance \( \Theta_i < 0 \) or \( \Theta_i > 1 \) can be replaced by a \( \Theta_i \in (0, 1) \) that either increases the payoffs to both types of investors or increases the payoff to one type while keeping the payoff to the other type constant. In other words, those extreme corporate political stances are Pareto dominated by some more moderate stances. Therefore, we consider only corporate political stances bounded by 0 and 1:

\[
\Theta_i \in [0, 1], \quad \forall i \in \{1, 2, ..., N\}.
\]

This means that Equations (1) and (2) can be simplified to:

\[
D_{L,i} = \Pi_{L,i}f(\delta(\frac{1}{2} - \Theta_i)),
\]

\[
D_{R,i} = \Pi_{R,i}f(\delta(\Theta_i - \frac{1}{2})).
\]

Until now, we have not yet specified whether investors’ non-pecuniary payoffs, \( D_{L,i} \) and \( D_{R,i} \), respectively, depend directly on their shareholdings. If they do, we refer to such preferences as non-consequentialist, since their non-pecuniary utility is derived from the act of holding certain
portfolios itself, even if it has no effect on the aggregate outcome. This can be interpreted as a case where investors feel that ownership of a firm with a political stance that deviates from their own political preferences is by itself morally undesirable. If investors exhibit such preferences, they only care about the political stances of firms in their portfolios. In contrast, if investors care about the entire vector \( \Theta \) of corporate political stances, irrespective of their own portfolio holdings, we refer to such preferences as \textit{consequentialist}. This is so because investors with such preferences internalize a fraction of the aggregate outcome instead of deriving utility from the act of holding certain stocks per se, and their holdings affect their non-pecuniary utilities only to the extent that they affect the aggregate outcome.\(^2\) While we also provide the analysis for consequentialist preferences in Section 6, we focus mostly on the case of non-consequentialist preferences, which are found to be more in accordance with investor behavior (Heeb et al. (2022), Bonnefon et al. (2022)).

For the case of non-consequentialist preferences, investor type \( R \)’s non-pecuniary payoffs are given by:

\[
D_{R}^{NC} = \alpha'_R (\Pi_R \circ F_R),
\]

where \( \alpha_R \) is a vector representing \( R \)’s equity portfolio weights, \( \Pi_R \geq 0 \) is an \( N \times 1 \) vector representing \( R \)’s political preference intensity across firms, \( F_R \) is an \( N \times 1 \) vector with the \( i \)-th element defined as discussed:

\[
F_{R,i} = f(\delta(\Theta_i - \frac{1}{2})).
\]

and \( \Pi_R \circ F_R \) is the Hadamard product of vector \( \Pi_R \) and vector \( F_R \). Therefore, the \( i \)-th element of the vector \( \Pi_R \circ F_R \) is \( D_{R,i} \) defined in Equation (5).\(^3\)

The non-pecuniary payoffs for investors of type \( L \) are defined similarly as:

\[
D_{L}^{NC} = \alpha'_L (\Pi_L \circ F_L),
\]

where \( \Pi_L \geq 0 \) is \( L \)’s political preference intensity vector and

\[
F_{L,i} = f(\delta(\frac{1}{2} - \Theta_i)).
\]

Bonnefon et al. (2022) provide evidence that investors’ willingness to pay for a stock is a linear and symmetric function of corporate externalities. Motivated by this evidence, we assume the

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\(^2\)See Bonnefon et al. (2022) and Dangl et al. (2023b) for more discussions of these two types of preferences.

\(^3\)More explicitly, \( \Pi_R \circ F_R \equiv (\Pi_{R,1} F_{R,1}, \Pi_{R,2} F_{R,2}, ..., \Pi_{R,N} F_{R,N})' \). We note that \( \alpha'_R (\Pi_R \circ F_R) = \alpha'_R (D_{\Pi_R} F_R) \), where \( D_{\Pi_R} \) is an \( N \times N \) diagonal matrix with the diagonal entries populated by the elements of vector \( F_R \).
following non-pecuniary payoff functions in our main analysis:

\[ F_{R,i} = \delta(\Theta_i - \frac{1}{2}), \]  
\[ F_{L,i} = \delta(\frac{1}{2} - \Theta_i). \]  

(10)  

(11)

We consider cubic non-pecuniary payoff functions in Appendix.

Adding the non-pecuniary payoff to the standard mean-variance utility yields the following utility functions for the two types of non-consequentialist investors:

\[ U_{NC}^{R} = (\alpha^0_R - \alpha_R)'P + \alpha'_R \mu - \frac{1}{2\tau_R} \alpha'_R V \alpha_R + \alpha'_R \left[ (\delta \Pi_R \circ (\Theta - \frac{1}{2} e) \right], \]  
\[ U_{NC}^{L} = (\alpha^0_L - \alpha_L)'P + \alpha'_L \mu - \frac{1}{2\tau_L} \alpha'_L V \alpha_L + \alpha'_L \left[ (\delta \Pi_L \circ (\frac{1}{2} e - \Theta) \right]. \]  

(12)  

(13)

where \( P \) is an \( N \times 1 \) vector of stock prices; \( e \) is a vector of ones; \( \alpha^0_R \) and \( \alpha^0_L \) denote the endowed ownership shares of \( R \) and \( L \), respectively, with \( \alpha^0_R + \alpha^0_L = e \); \( (\alpha^0_R - \alpha_R)'P \) and \( (\alpha^0_R - \alpha_L)'P \) are the corresponding investments in the risk-free asset, respectively.

2.2 Corporate Political Stances

To determine corporate political stances in equilibrium, we consider two alternative governance rules: (1) \( \Theta_i \) is chosen by a manager who is incentivized to maximize firm value; (2) \( \Theta_i \) is determined directly by shareholder engagement and equals the ownership-weighted average of shareholder political preferences. Since the political preference of \( L \) is normalized to zero, and \( \Theta \) is normalized by \( \delta \), corporate political stances under this latter rule are simply:

\[ \Theta = \alpha_R. \]  

(14)

Note that a value-maximizing manager does not have any incentive to choose a corporate political stance outside the interval \([0, 1]\), for the reason discussed above. Furthermore, we restrict our parameter value space so that all elements of any equilibrium ownership vector \( \alpha_R \) fall into the interval between zero and one. Therefore, under both mechanisms, we only need to consider corporate political stances that satisfy condition (3).
3 Competitive Equilibrium

In this section, we examine the competitive equilibrium with non-consequentialist investors where both types of investors take stock prices and corporate political stances as given.

3.1 Prices and Allocation as Functions of Corporate Political Stances

We first analyze how stock prices and ownership allocation depend on corporate political stances that are given exogenously. Taking partial derivatives of the utility function of each type of investors with respect to the ownership shares leads to the following first-order conditions for \( \alpha_R \) and \( \alpha_L \):

\[
\alpha_R = \tau_R V^{-1} [\mu + \delta \Pi_R \circ (\Theta - \frac{1}{2}e) - P],
\]

\[
\alpha_L = \tau_L V^{-1} [\mu + \delta \Pi_L \circ (\frac{1}{2}e - \Theta) - P].
\]

Imposing market clearing

\[
\alpha_R + \alpha_L = e,
\]

we obtain the following proposition:

**Proposition 1.** In a competitive market with two types of non-consequentialist investors, the market clearing stock prices and ownership allocation under a given set of corporate political stances are as follows:

\[
P = \mu - \frac{1}{\tau_R + \tau_L} Ve + \frac{\delta}{\tau_R + \tau_L} (\tau_R \Pi_R - \tau_L \Pi_L) \circ (\Theta - \frac{1}{2}e),
\]

\[
\alpha_R = \frac{\tau_R}{\tau_R + \tau_L} e + \frac{\delta}{\gamma} V^{-1} [\Pi \circ (\Theta - \frac{1}{2}e)],
\]

\[
\alpha_L = \frac{\tau_L}{\tau_R + \tau_L} e - \frac{\delta}{\gamma} V^{-1} [\Pi \circ (\Theta - \frac{1}{2}e)],
\]

where \( \gamma \) denotes aggregate risk aversion in the economy:

\[
\gamma \equiv \frac{1}{\tau_R} + \frac{1}{\tau_L} = \frac{\tau_R + \tau_L}{\tau_R \tau_L},
\]

and \( \Pi \) is a vector of aggregate political preference intensities:

\[
\Pi \equiv \Pi_R + \Pi_L.
\]
Proof. Substituting Equations (15) and (16) into the market clearing condition leads to Equation (18). Substituting (18) back into (15) and (16) yields equations (19) and (20). QED.

Note that if \( \delta = 0 \) (no political preference differences) or \( \Pi_L = \Pi_R = 0 \) (no non-pecuniary payoff), we have the standard competitive equilibrium, in which the stock prices are given by

\[
P^* = \mu - \frac{1}{\tau_R + \tau_L} Ve,
\]

and the ownership allocation is given by

\[
\alpha_j^* = \frac{\tau_j}{\tau_R + \tau_L} e, \text{ for } j \in \{R, L\}.
\]

Equation (24) defines optimal risk sharing, where each investor group’s ownership weights are constant across firms and equal to the proportion of the group’s risk tolerance in aggregate risk tolerance.

Define the vector of price premiums relative to the prices under optimal risk sharing as

\[
\Delta P \equiv P - (\mu - \frac{1}{\tau_R + \tau_L} Ve),
\]

and the vector of deviations of R’s ownership shares from the optimal risk sharing weights as

\[
\Delta \alpha_R \equiv \alpha_R - \frac{\tau_R}{\tau_R + \tau_L} e.
\]

From Equation (18), it follows that the price premium for any firm \( i \) is a weighted average of the two investor groups’ non-pecuniary payoffs, where the weights are given by the ownership under optimal risk sharing:

\[
\Delta P_i = \frac{\tau_R}{\tau_R + \tau_L} \delta\Pi_{R,i}(\Theta_i - \frac{1}{2} e) + \frac{\tau_L}{\tau_R + \tau_L} \delta\Pi_{L,i}(\frac{1}{2} - \Theta_i).
\]

This remarkable feature of the competitive equilibrium, namely that the price premiums depend only on the optimal risk sharing allocation and not on the actual equity allocation, follows from two facts: (1) in the competitive equilibrium, the sensitivity of each investor’s stock demands to corporate political stances is proportional to her risk tolerance, as shown in Equations (15) and (16); (2) the risk tolerance coefficients fully determine the optimal risk sharing allocation.
Equation (27) also shows that the premium of any stock \( i \) is only a function of the political stance of firm \( i \) itself and is independent of political stances of any other firm. This is similar to the effect of expected cash flows: while a change in the expected cash flow of one firm can affect the demands for other stocks, the clearing condition for a competitive market ensures that the price of the firm’s own stock adjusts sufficiently so that the prices of other stocks remain unchanged. The same intuition applies to the effect of non-pecuniary payoffs.

Importantly, Equations (19) and (20) show that the ownership allocation under any distribution of corporate political stances depends only on the aggregate political preference intensity, \( \Pi \equiv \Pi_L + \Pi_R \), and not separately on the preference intensity of each individual group, \( \Pi_L \) and \( \Pi_R \). Because the total shares outstanding of any firm must be allocated between the two investor groups, the positive non-pecuniary payoff to one group has the same effect as the negative non-pecuniary payoff to the other group. Even if one group does not care about a company’s political stance at all, the other group’s political preferences cause its holding to deviate from the optimal risk sharing level. In other words, the political preference intensities of the two groups are perfect substitutes in this regard.

Proposition 1 also shows that for firms with a neutral political stance (\( \Theta_i = \frac{1}{2} \)), both stock price and ownership allocation are the same as in the competitive equilibrium without political preferences. This is because such firms do not generate non-pecuniary payoffs for either group. The price premium \( \Delta P_i \) is also equal to 0 if \( \frac{\tau_R}{\tau_L} = \frac{\Pi_{L,i}}{\Pi_{R,i}} \). In this case, the non-pecuniary utility perceived by one investor group is fully offset by the non-pecuniary utility perceived by the other group.

For firms with \( \Theta_i \neq \frac{1}{2} \), we further have the following corollary from Proposition 1:

**Corollary 1.** In the competitive market equilibrium with two types of non-consequentialist investors, for any firm with \( \Theta_i \neq \frac{1}{2} \), the deviations from the optimal risk sharing equilibrium have the following properties:

\[
\text{Sign}[\frac{\partial \Delta P_i}{\partial \Theta_i}] = \text{Sign}[\frac{\tau_R}{\tau_L} - \frac{\Pi_{L,i}}{\Pi_{R,i}}],
\]

\[
\frac{\partial |\Delta P_i|}{\partial \delta} > 0 \quad \text{if} \quad \frac{\tau_R}{\tau_L} \neq \frac{\Pi_{L,i}}{\Pi_{R,i}},
\]

\[
\frac{\partial \Delta \alpha_{R,i}}{\partial \Theta_i} > 0, \quad \frac{\partial^2 \Delta \alpha_{R,i}}{\partial \Theta_i \partial \Pi_i} > 0,
\]

\[
\frac{\partial |\Delta \alpha_{R,i}|}{\partial \delta} \geq 0, \quad \frac{\partial |\Delta \alpha_{R,i}|}{\partial \gamma} \leq 0,
\]
where $\Pi_i \equiv \Pi_{R,i} + \Pi_{L,i}$. If cash flows are uncorrelated across firms, we further have

$$\frac{\partial |\Delta \alpha_{R,i}|}{\partial \Pi_i} > 0, \quad \frac{\partial |\Delta \alpha_{R,i}|}{\partial V_i} < 0,$$

where $V_i$ is firm $i$’s cash flow variance.

**Proof.** See in Section B.1 in Appendix.

Equation (28) shows that whether a move of the corporate political stance towards $\Theta_i = 1$ increases or decreases the stock price depends on the difference between the risk tolerance ratio between $R$ and $L$, $\frac{\tau_R}{\tau_L}$, and the inverse political preference intensity ratio, $\frac{\Pi_{L,i}}{\Pi_{R,i}}$, or equivalently, $\tau_R \Pi_{R,i} - \tau_L \Pi_{L,i}$. If $R$ is relatively more risk tolerant than $L$ and cares more strongly about a firm’s political stance, then adjusting the firm’s political stance towards $R$’s preference will increase $R$’s demand more than it reduces $L$’s. This leads to a higher market clearing price.

Inequality (29) shows that the price deviation from the optimal risk sharing equilibrium, in absolute value, is larger when political preferences of investors are more different, which is intuitive. Inequality (30) suggests a clientele effect in equity ownership. As $\Theta_i$ moves towards one, it becomes more aligned with the political preference of $R$, and less so with that of $L$. Thus the ownership share of $R$ increases while the ownership share of $L$ declines. This is consistent with the evidence of political value alignment in stock holdings documented by Hong and Kostovetsky (2012) and Bonaparte et al. (2017). They show, respectively, that Democratic mutual fund managers and retail investors underweight politically sensitive industries (tobacco, guns and defense, and natural resources). It is also consistent with the investment strategy of “politically responsible investing” funds such as the MAGA ETF mentioned in Introduction. Importantly, the strength of this effect is a function of the aggregate political preference intensity instead of the preference intensity of any group alone, as indicated by the positive cross derivatives. As discussed earlier, the preference intensities of the two investor groups are substitutes for each other. Thus the clientele effect exists as long as one group cares about the political stance of a firm. The clientele effect is particularly pronounced for firms that both groups care strongly about.

Inequalities (31) and (32) reflect a tension between political preferences and risk aversion. While political preferences push investors to hold more shares in firms that share their political stances, risk aversion pushes them towards optimal risk sharing. Therefore, the higher the aggregate risk aversion, or the higher the cash flow risk, the smaller the deviation from the optimal risk sharing allocation. The higher the aggregate preference intensity, the larger the deviation.
3.2 Value-maximizing Corporate Political Stances

In the above, we fix corporate political stances exogenously and analyze the effects on stock prices and ownership allocation. Now we analyze how corporate political stances are set in equilibrium. We first consider the case where firms choose their political stances such that their equity values are maximized. As discussed, this objective arises if managers are incentivized to maximize share prices, for example to induce optimal effort or investment choices. In this case a financial market equilibrium is a Nash equilibrium where investors conjecture the vector of firms’ political stances and, based on this conjecture they submit their demand schedules to a Walrasian auctioneer. Firms choose their political stances to maximize their values for a conjectured ownership allocation. Both conjectures must be confirmed in equilibrium, i.e. neither investors nor firms have an incentive to deviate from the conjectured strategies. If managers choose $\Theta$ to maximize shareholder values, then the competitive equilibrium is characterized by the following proposition:

**Proposition 2.** In the competitive equilibrium with non-consequentialist investors and value-maximizing firms, the political stance of any firm $i$ is:

$$
\Theta^*_i = \begin{cases} 
1 & \text{if } \frac{\tau_R}{\tau_L} > \frac{\Pi_{L,i}}{\Pi_{R,i}}; \\
\text{any } \Theta_i \in [0,1] & \text{if } \frac{\tau_R}{\tau_L} = \frac{\Pi_{L,i}}{\Pi_{R,i}}; \\
0 & \text{otherwise.}
\end{cases}
$$

(33)

and firm $i$’s stock price premium relative to its competitive equilibrium price in the absence of political preferences is:

$$
\Delta P^*_i = \frac{\delta}{2(\tau_R + \tau_L)}(\tau_R \Pi_{R,i} - \tau_L \Pi_{L,i}) \geq 0; \quad (34)
$$

The equilibrium shares of equity owned by the $R$-type shareholders are:

$$
\alpha^*_R = \frac{\tau_R}{\tau_R + \tau_L} e + \frac{\delta}{\gamma} V^{-1} A, 
$$

(35)

where the $i$th element of the $N \times 1$ vector $A$ is defined as:

$$
A_i = \begin{cases} 
\frac{1}{2} \Pi_i & \text{if } \frac{\tau_R}{\tau_L} > \frac{\Pi_{L,i}}{\Pi_{R,i}}; \\
(\Theta_i - \frac{1}{2}) \Pi_i & \text{if } \frac{\tau_R}{\tau_L} = \frac{\Pi_{L,i}}{\Pi_{R,i}}; \\
-\frac{1}{2} \Pi_i & \text{otherwise.}
\end{cases}
$$

(36)
If cash flows are uncorrelated, we further have

\[ \alpha_{R,i}^* = \frac{\tau_R}{\tau_R + \tau_L} + \frac{\delta}{\gamma} V_i^{-1} A_i, \]  

\[ (37) \]

\[ \Delta \alpha_{R,i}^* \leq 0 \text{ if and only if } \frac{\tau_R}{\tau_L} \leq \frac{\Pi_{L,i}}{\Pi_{R,i}}, \]  

\[ (38) \]

\[ \text{Sign}[\partial \Delta \alpha_{R,i}^*/\partial \Pi_i] = \text{Sign}[\frac{\partial \Delta \alpha_{R,i}^*}{\partial \delta}] = -\text{Sign}[\frac{\partial \Delta \alpha_{R,i}^*}{\partial V_i}] = \text{Sign}[\frac{\tau_R}{\tau_L} - \frac{\Pi_{L,i}}{\Pi_{R,i}}] \]  

\[ (39) \]

where \( \Delta \alpha_{R,i}^* \equiv \alpha_{R,i}^* - \frac{\tau_R}{\tau_R + \tau_L} \), and \( V_i \) is firm \( i \)'s cash flow variance and \( A_i \) is defined above.\(^4\)

**Proof.** See Section B.2 in Appendix.

This proposition shows that a firm’s value-maximizing political stance is determined by the political preference of the investor group that has a higher product of the risk tolerance coefficient and the political preference intensity coefficient. The high risk tolerance investors tend to hold a higher ownership share. Therefore, a value-maximizing firm gives more weight to the preferences of those investors. Furthermore, the value-maximizing firm also gives, ceteris paribus, more weight to the investor group that cares more strongly about its political stance. Overall, it is the product of these two parameters that determines the value-maximizing political stance of each firm.

Equation (34) shows that in the competitive equilibrium under the value-maximization rule, there is a positive price premium relative to the optimal risk sharing case unless \( \tau_R \Pi_{R,i} = \tau_L \Pi_{L,i} \). This is because when \( \tau_R \Pi_{R,i} \neq \tau_L \Pi_{L,i} \), a firm can always increase its stock price by catering to the more dominant investor group, i.e., the group with high risk tolerance and strong preferences about the firm’s political stance. The positive non-pecuniary utility perceived by this group is larger than the disutility perceived by the other group.

Proposition 2 has interesting and strong implications. It states that if firms choose their political stances to maximize their market values, then this endogenously leads to polarized corporate political stances. Investors gravitate toward firms whose political stances are close to their own, and value maximizing firms choose their political stance to cater to the dominant shareholder group. This makes them even more attractive to this investor clientele. Thus, we get a feedback effect. This of course diminishes the participation of the investor group with the opposite political preference. Equation (39) shows that the resulting deviation from the optimal risk sharing equilibrium is larger if the degree of political polarization \( \delta \) is high, or if the aggregate risk aversion (\( \gamma \)) is

\[^4\text{We assume proper parameter value restrictions to ensure } \alpha_{R,i}^* \in (0, 1) \text{ for both } \Theta_{L}^* = \theta_L \text{ and } \Theta_{R}^* = \theta_R.\]
low. Firm characteristics also play an important role. The deviation is larger for firms with a high aggregate political preference intensity (\(\Pi_i\)) and firms with a relatively low cash flow variance (\(V_i\)).

One may wonder whether this polarization result is specific to the case of linear non-pecuniary payoff functions we consider. This turns out not to be the case. For example, we obtain the same result in Section A of Appendix for the case where the non-pecuniary payoff is a cubic function of the difference between the investor’s political preference and the firm’s political stance.

### 3.3 Ownership-Weighted Corporate Political Stances

We now consider an alternative corporate governance system that determines corporate political stances. Instead of being chosen by a value-maximizing manager, we assume that a firm’s political stance is determined by an ownership-weighted average of the political stances of its shareholders, as defined in Equation (14).

In a competitive equilibrium where investors take both stock prices and corporate political stances as given, the demand functions are still provided by (15) and (16) under this alternative mechanism, and Proposition 1 still holds. Substituting (14) into (19) yields

\[
\alpha_R = \frac{\tau_R}{\tau_R + \tau_L}e + \frac{\delta}{\gamma}V^{-1}(\Pi \circ (\alpha_R - \frac{1}{2}e)),
\]

\[
\Rightarrow (\tau_R + \tau_L)\gamma\alpha_R = \gamma\tau_Re + (\tau_R + \tau_L)\delta V^{-1}(\Pi \circ \alpha_R - \frac{1}{2}\Pi),
\]

\[
\Rightarrow [(\tau_R + \tau_L)\gamma I - (\tau_R + \tau_L)\delta V^{-1}D_{\Pi}]\alpha_R = \gamma\tau_Re + \frac{1}{2}(\tau_R + \tau_L)\delta V^{-1}\Pi,
\]

\[
\Rightarrow \alpha_R^* = \left[ I - \frac{\delta}{\gamma}V^{-1}D_{\Pi} \right]^{-1} \left[ \frac{\tau_R}{\tau_R + \tau_L}e - \frac{\delta}{2\gamma}V^{-1}\Pi \right] - 1
\]

where \(I\) is an identity matrix, and \(D_{\Pi}\) is a diagonal matrix with the diagonal entries populated by the elements of vector \(\Pi\).

To see the intuition for the above results most clearly, we consider a special case in which cash flows are uncorrelated across firms (i.e., \(V\) is a diagonal matrix). The results are stated in the following proposition.

**Proposition 3.** If cash flows are uncorrelated across firms and corporate political stances are equal to ownership-weighted averages of shareholder political preferences, then in the competitive equilibrium with non-consequentialist shareholders, the ownership allocation and political stance of

\[5\]From the second equation to the third above, we use the fact \(V^{-1}(\Pi \circ \alpha_R) = V^{-1}D_{\Pi}\alpha_R\).
firm $i$ with cash flow variance $V_i$ are:\footnote{We impose the necessary restrictions to ensure $\alpha_{R,i}^* \in [0,1]$.}

$$\Theta_i^* = \alpha_{R,i}^* = \frac{1}{\tau_L} V_i - \frac{\delta}{2} \Pi_i \left( \frac{1}{\tau_R} + \frac{1}{\tau_L} \right) V_i - \delta \Pi_i. \quad (44)$$

The stock price premium relative to the price in the competitive equilibrium without political preferences is:

$$\Delta P^*_i = \frac{\delta}{\tau_R + \tau_L} \left( \tau_R \Pi_R - \tau_L \Pi_L \right) \left( \alpha_{R,i}^* - \frac{1}{2} \right). \quad (45)$$

Furthermore, we have

$$\text{Sign}[\Delta \alpha_{R,i}^*] = \text{Sign} \left[ \frac{\partial \Delta \alpha_{R,i}^*}{\partial \Pi_i} \right] = \text{Sign} \left[ - \frac{\partial \Delta \alpha_{R,i}^*}{\partial \delta} \right] = - \text{Sign} \left[ \frac{\partial \Delta \alpha_{R,i}^*}{\partial V_i} \right] = \text{Sign}[\tau_R - \tau_L], \quad (46)$$

where $\Delta \alpha_{R,i}^* \equiv \alpha_{R,i}^* - \frac{\tau_R}{\tau_R + \tau_L}$.

Proof. See Section B.3 in Appendix.

Proposition 3 shows that in the competitive equilibrium in which corporate political stances are determined by the ownership-weighted averages of shareholder political preferences, the ownership allocation is tilted towards the more risk tolerant group, compared to the optimal risk sharing allocation. The deviation is larger if aggregate political preference intensity is high, if political preferences are more polarized, or if cash flow risk is low. Therefore, the stronger the political preferences, the larger the influence of the more risk tolerant investors. To the extent that the higher risk tolerance is associated with more wealth, this implies that wealthy investors can impose high political disutilities on small investors. Furthermore, since the deviation depends on aggregate political preference intensity, wealthy investors can substantially lower the welfare of more risk averse investors with opposite political preferences, even when they do not have strong political preferences themselves.

To understand the intuition behind this result, consider a case where $\tau_R > \tau_L$. Assume $\Pi_i = 0$ at the beginning, so ownership allocation satisfies optimal risk sharing, which implies $\alpha_{R,i} > \frac{1}{2}$. Suppose now one group of investors starts to care about the political stance of the firm, i.e., $\Pi_i$ becomes positive. Since group $R$ holds more than 50% of the shares outstanding, the weighted-average rule then implies $\Theta_i > \frac{1}{2}$. As a result, group $R$ increases its ownership share and group $L$
reduces its share. This moves $\Theta_R$ even further to the right. This positive feedback loop leads to more extreme deviations from the optimal risk sharing allocation. Importantly, the deviation occurs as long as $\Pi_i > 0$. It does not require both groups to care about the political stance of the firm. Equation (45) shows that, unlike in the case of value-maximization, this alternative governance rule can lead to a competitive equilibrium stock price that is below the competitive equilibrium stock price in the absence of political preferences.

4 Equilibrium With a Large Investor

We now consider a setting in which $R$ represents a large, strategic investor while $L$ continues to represent a group of homogeneous small investors who take both stock prices and corporate political stances as given. As in the analysis of the competitive equilibrium, we again consider the two alternative governance rules to determine corporate political stances.

4.1 A Politically Passive Large Investor under the Value-maximization Rule

As a starting point, we first consider a politically passive large investor. Thus, when he submits his demand schedules to the Walrasian auctioneer, he accounts for the price impact of his ownership share, but takes corporate political stances as given. We consider this case not only since, in practice, some large investors may fall into this category, but also since the results for this case are helpful for understanding the behavior of a large investor who strategically accounts for his effects on both stock prices and corporate political stances. Corporate political stances are assumed to be chosen by managers incentivized to maximize shareholder value, as in Section 3.2.

When the large investor $R$ optimizes his demands for stocks, he rationally anticipates that conditional on his ownership shares $\alpha_R$, stock prices are determined by the market clearing condition $\alpha_L = e - \alpha_R$. Solving for the price vector using the demand function of $L$, i.e., Equation (20), we have

$$P(\alpha_R) = \mu - \frac{1}{\tau_L} V(e - \alpha_R) + \delta \Pi_L \circ \left(\frac{1}{2} e - \Theta\right).$$

(47)

This implies the following $N \times N$ Jacobian matrix of partial derivatives:

$$J_P \equiv \begin{pmatrix} \frac{\partial P_1}{\partial \alpha_{R,1}} & \frac{\partial P_2}{\partial \alpha_{R,1}} & \cdots & \frac{\partial P_N}{\partial \alpha_{R,1}} \\ \vdots & \vdots & \ddots & \vdots \\ \frac{\partial P_1}{\partial \alpha_{R,N}} & \frac{\partial P_2}{\partial \alpha_{R,N}} & \cdots & \frac{\partial P_N}{\partial \alpha_{R,N}} \end{pmatrix} = \frac{1}{\tau_L} V$$

(48)

Substituting (47) into Equation (12), we obtain the $N \times 1$ vector of partial derivatives of $R$’s utility,
\(U^{NC}_R\), with respect to \(\alpha_R\):

\[
\frac{U^{NC}_R}{\alpha_R} = -P + J_P(\alpha_R^0 - \alpha_R) + \mu - \frac{1}{\tau_R} V \alpha_R + \delta \Pi_R \circ (\Theta - \frac{1}{2} e).
\]

Substituting out \(J_P\) by (48), we get the first-order condition for the optimal \(\alpha_R\):

\[
P = \frac{1}{\tau_L} V (\alpha_R^0 - \alpha_R) + \mu - \frac{1}{\tau_R} V \alpha_R + \delta \Pi_R \circ (\Theta - \frac{1}{2} e).
\]

Substituting Equation (47) into the first-order condition and rearranging terms, we obtain:

\[
(\frac{1}{\tau_R} + \frac{2}{\tau_L}) V \alpha_R = \frac{1}{\tau_L} V (e + \alpha_R^0) + \delta \Pi_R \circ (\Theta - \frac{1}{2} e).
\]

Solving for \(\alpha_R\) yields

\[
\alpha_R = \frac{\tau_R}{2\tau_R + \tau_L} (e + \alpha_R^0) + \frac{\tau_R \tau_L \delta}{2\tau_R + \tau_L} V^{-1} [\Pi \circ (\Theta - \frac{1}{2} e)].
\]

Note that the first term on the right-hand side of Equation (51) represents the allocation in the absence of non-pecuniary payoffs (\(\Pi = 0\)) or political disagreement (\(\delta = 0\)). Therefore, the second term captures the distortion caused by political disagreement.

Compared to \(\alpha_R\) in the competitive equilibrium given in Equation (19), \(\alpha_R\) in Equation (51) has two distinctive features: First, while the former is independent of the initial endowment \(\alpha_R^0\), the latter increases in \(\alpha_R^0\). This is because the large investor internalizes the price impact of his ownership shares. As a result, he is reluctant to take a position that is far away from his initial endowment. Interestingly, if \(\alpha_R^0\) is equal to the optimal risk-sharing allocation, \(\frac{\tau_R}{\tau_R + \tau_L} e\), the first term in \(\alpha_R\) equals \(\frac{\tau_R}{\tau_R + \tau_L} e\) as well. Second, the second term in \(\alpha_R\), which represents the distortion due to political disagreements, is diminished relative to the distortion in the competitive equilibrium (the denominator in this term is \(2\tau_R + \tau_L\), while it is \(\tau_R + \tau_L\) in Equation (19)). Thus the large shareholder’s concern for price impact reduces the influence of political preferences on ownership allocation among investors.

The equilibrium prices and ownership allocation in this setting, which are summarized in the proposition below, depends on whether the following condition holds:

\[
\frac{\tau_R}{\tau_R + \tau_L} > \frac{\Pi_{L,i}}{\Pi_{R,i}}.
\]
Proposition 4. When corporate political stances are chosen by value-maximizing managers, and the large investor internalizes the price impact of his ownership but takes corporate political stances as given, the equilibrium corporate political stances are:

$$\Theta^*_i = \begin{cases} 
1 & \text{if } \frac{\tau_R}{\tau_R + \tau_L} > \frac{\Pi^L_i}{\Pi^R_i}, \\
\text{any } \Theta_i \in [0, 1] & \text{if } \frac{\tau_R}{\tau_R + \tau_L} = \frac{\Pi^L_i}{\Pi^R_i}, \\
0 & \text{otherwise.} 
\end{cases} \quad (53)$$

The equilibrium equity shares of $R$ are given by

$$\alpha^*_R = \frac{\tau_R}{2\tau_R + \tau_L} (e + \alpha^0_R) + \frac{\tau_R \tau_L \delta}{2\tau_R + \tau_L} V^{-1} B, \quad (54)$$

where the $i$th element of the $N \times 1$ vector $B$ is defined as follows:

$$B_i = \begin{cases} 
\frac{1}{2} \Pi_i & \text{if } \frac{\tau_R}{\tau_R + \tau_L} > \frac{\Pi^L_i}{\Pi^R_i}, \\
(\Theta_i - \frac{1}{2}) \Pi_i & \text{if } \frac{\tau_R}{\tau_R + \tau_L} = \frac{\Pi^L_i}{\Pi^R_i}, \\
-\frac{1}{2} \Pi_i & \text{otherwise.} 
\end{cases} \quad (55)$$

The equilibrium stock prices are given by

$$P^* = \frac{1}{\tau_L} V \alpha^0_R - \frac{\tau_R + \tau_L}{\tau_L (2\tau_R + \tau_L)} (e + \alpha^0_R) - \delta \left( \frac{\tau_R + \tau_L}{2\tau_R + \tau_L} V^{-1} D_\Pi - D_{\Pi^R} \right) (\Theta^* - \frac{1}{2} e), \quad (56)$$

where $D_\Pi$ and $D_{\Pi^R}$ are diagonal matrices with the diagonal entries populated by vectors $\Pi^R$ and $\Pi^R$, respectively.

If cash flows are uncorrelated across firms, we further have:

$$\alpha^*_{R,i} = \frac{\tau_R}{2\tau_R + \tau_L} (e + \alpha^0_{R,i}) + \frac{\tau_R \tau_L \delta}{2\tau_R + \tau_L} V^{-1} B_i, \quad (57)$$

where $V_i$ is the variance of firm $i$’s cash flows, and $B_i$ is defined as above.\footnote{We impose restrictions on parameter values to ensure $\alpha^*_{R,i} \in [0, 1]$.}

Proof. See Section B.4 in Appendix. \hfill \Box

Equations (53) and (33) show that, compared to a similar group of small investors who take prices as given, a politically passive large investor who internalizes the price impact of his ownership
is less likely to find a value-maximizing firm catering to his political preference. In particular, if
\[
\frac{\tau_R}{\tau_R + \tau_L} < \frac{\Pi_{L,i}}{\Pi_{R,i}} < \frac{\tau_R}{\tau_L},
\]
the value-maximizing corporate political stance is \( \Theta_i = 1 \) if \( R \) ignores the
price impact, and it is \( \Theta_i = 0 \) if he behaves strategically to account for price impact. This result
arises because concerns for price impact deter the large investor from trading aggressively. As a
consequence, his demand becomes less responsive to corporate political stances. Value-maximizing
managers therefore give a lower weight to his political preference.

Equation (56) shows that unlike in the two competitive equilibria derived in Section 3, the stock
price of any firm \( i \) in the equilibrium with a strategic large investor depends on the whole vector
of corporate political stances \( \Theta^* \) unless cash flows are uncorrelated across firms.

4.2 A Politically Active Large Investor Under the Value-Maximization Rule

Obviously, the large investor may not be politically passive. Instead, he may use his market power
to actively influence corporate political stances. We now consider a politically active large investor,
who not only takes into account his effect on stock prices, but also strategically uses his investment
strategy to influence the choices of value-maximizing managers.

We first analyze the necessary condition for investor \( R \) to be able to use his investment pol-
cy to influence a firm’s political stance. The analysis in the last section suggests that the large
investor cannot influence the choice of value-maximizing corporate political stances by uncondi-
tionally committing to a high ownership stake. Instead, he must credibly increase the sensitivity
of his investments with respect to corporate political stances. For a value-maximizing firm \( i \) to be
willing to choose \( \Theta_i = 1 \), the stock price under \( \Theta_i = 1 \) must be higher than under \( \Theta_i = 0 \). Assume
that cash flows are uncorrelated across firms. Equation (47) then implies

\[
P_i(\Theta_i = 0) = \mu_i - \frac{1}{\tau_L} V_i(1 - \alpha_{R,i}(\Theta_i = 0)) + \frac{1}{2} \delta \Pi_{L,i},
\]

\[
P_i(\Theta_i = 1) = \mu_i - \frac{1}{\tau_L} V_i(1 - \alpha_{R,i}(\Theta_i = 1)) - \frac{1}{2} \delta \Pi_{L,i}.
\]

Therefore, \( P_i(\Theta_i = 1) \geq P_i(\Theta_i = 0) \) if and only if

\[
\alpha_{R,i}(\Theta_i = 1) - \alpha_{R,i}(\Theta_i = 0) \geq \tau_L \delta V_i^{-1} \Pi_{L,i} \equiv \alpha_{R,i}.
\]

It is easy to verify that if Inequality (52) holds, this condition is satisfied even if shareholder
\( R \) passively responds to corporate political stances according to Equation (51). Thus no active
influence action is needed in this case. Consistent with this result, Proposition 4 shows that as long as (52) holds, the value-maximizing political stance perfectly coincides with R’s preference, even if he is politically passive.

Condition (60) suggests that if Inequality (52) does not hold, the large investor can induce a value-maximizing manager to adopt $\Theta_i = 1$ by increasing $\alpha_{R,i}$ for $\Theta_i = 1$, decreasing $\alpha_{R,i}$ for $\Theta_i = 0$, or both. In each of these cases, the large investor exerts his influence by increasing the sensitivity of his holdings to the firm’s political stance. Assuming that short sales are not allowed, the large investor $R$ can minimize the ownership share needed to induce $\Theta_i = 1$ by committing to $\alpha_{R,i} = 0$ for $\Theta_i = 0$. If this commitment is credible, then as long as he also commit to $\alpha_{R,i} \geq \sigma_{R,i}$ for $\Theta_i = 1$, the value-maximizing firm $i$ will cater to the political preference of $R$.

It is possible that even though Inequality (52) does not hold, $\alpha^*_{R,i}$ specified in Equation (57) for the case $\frac{\tau_R}{\tau_R + \tau_L} > \frac{\Pi_{L,i}}{\Pi_{R,i}}$, which we now denote by $\alpha_{R,i}^{High}$, is higher than $\sigma_{R,i}$. That is

$$\alpha_{R,i}^{High} = \frac{\tau_R}{2\tau_R + \tau_L}(1 + \alpha_{R,i}^0) + \frac{\tau_R\tau_L\delta}{2(2\tau_R + \tau_L)} V_i^{-1}\Pi_i > \sigma_{R,i}. \quad (61)$$

If this is the case, $\alpha_{R,i}^{High}$ is a better choice than $\sigma_{R,i}$ for $\Theta_i = 1$, because $\alpha_{R,i}^{High}$ is $R$’s optimal response to $\Theta_i = 1$. The condition for (61) to hold turns out to be:

$$\tau_R\Pi_{R,i} + \frac{2\tau_R(1 + \alpha_{R,i}^0)V_i}{\delta \tau_L} > (2\tau_L + 3\tau_R)\Pi_{L,i}. \quad (62)$$

We now analyze the large investor’s choice between a politically passive investment strategy that takes corporate political stance as given and a politically active strategy that aims to influence firm $i$’ political stance. Obviously, this choice depends on the relative costs and benefits of these two alternatives. Under the condition $\frac{\tau_R}{\tau_R + \tau_L} < \frac{\Pi_{L,i}}{\Pi_{R,i}}$, if the large investor $R$ chooses to be passive, then he would accept $\Theta_i = 0$ and choose his best response to it accordingly to Equation (51), i.e.,

$$\alpha_{R,i}^{Low} = \frac{\tau_R}{2\tau_R + \tau_L}(1 + \alpha_{R,i}^0) - \frac{\tau_R\tau_L\delta}{2(2\tau_R + \tau_L)} V_i^{-1}\Pi_i, \quad (63)$$

Alternatively, he can induce $\Theta_i = 1$ by committing to $\alpha_{R,i} = 0$ for $\Theta_i = 0$ and $\alpha_{R,i} = \max(\alpha_{R,i}, \alpha_{R,i}^{High})$ for $\Theta_i = 1$. Assuming that the cost of engaging in such influence activity, including making his investment commitment credible, is $c$, we have the following proposition:

Proposition 5. Assume that cash flows are uncorrelated across firms and that the large investor
can commit to his investment strategy at a cost of \( c \). If \( \frac{\tau_R}{\tau_R + \tau_L} < \frac{\Pi_{I,i}}{\Pi_{R,i}} \), we have the following results:

(i) If both Inequality (62) and (129) hold, then the large shareholder engages in influence activity, and the equilibrium outcome is \( \Theta_i^* = 1, \alpha_{R,i}^* = \alpha_{R,i}^{High} \);

(ii) If Inequality (62) does not hold but (130) holds, then the large shareholder also engages in influence activity, and the equilibrium outcome is \( \Theta_i^* = 1, \alpha_{R,i}^* = \alpha_{R,i} \);

(iii) If neither (130) nor (129) holds, then the large investor does not engage in influence activity, and the equilibrium outcome is \( \Theta_i^* = 0, \alpha_{R,i}^* = \alpha_{R,i}^{Low} \).

If \( \frac{\tau_R}{\tau_R + \tau_L} > \frac{\Pi_{I,i}}{\Pi_{R,i}} \), the equilibrium corporate political stance and ownership allocation are the same as in (i), but the large investor does not engage in influence activity.\(^8\)

Proof. See Section B.5 in Appendix.

Clearly, if a politically active large investor engages in influence activity to affect the corporate political stance, it imposes political disutilities on small shareholders. We conduct numerical analysis in Section 5.2 to assess the relevance of this possibility.

### 4.3 A Large Shareholder Under the Weighted Average Rule

If corporate political stances are determined by ownership-weighted averages of shareholder political preferences, as specified in Equation (14), then investors’ portfolio decisions have a direct impact on corporate political stances. We now analyze this case, assuming that the large investor internalizes the effects of his ownership on both stock prices and corporate political stances.\(^9\)

\(^8\)We assume that parameter values are properly restricted so that the values of \( \alpha_{R,i}^{High}, \alpha_{R,i}^{Low}, \) and \( \alpha_{R,i} \) are all between zero and one.

\(^9\)If the large investor internalizes only the price impact, then Equation (51) still holds. Substituting out \( \Theta \) on the right-hand side by \( \alpha_R \), we obtain

\[
\alpha_R^* = \left[ I - \frac{\tau_R \tau_L \delta}{2 \tau_R + \tau_L} V^{-1} D_{ii} \right]^{-1} \left[ \frac{\tau_R}{2 \tau_R + \tau_L} \left( c + \alpha_R^0 - \frac{1}{2} \delta \tau_L V^{-1} D_{ii} e \right) \right],
\]

where \( D_{ii} \) is a diagonal matrix with the diagonal entries populated by the elements of vector \( \Pi \). If cash flows are uncorrelated across firms, we have

\[
\alpha_{R,i}^* = \frac{\tau_R (1 + \alpha_{R,i}^0) V_i - \frac{1}{2} \tau_R \tau_L \delta \Pi_i}{(2 \tau_R + \tau_L) V_i - \tau_R \tau_L \delta \Pi_i},
\]

It can be shown that the following relations hold:

\[
\text{Sign} \left[ \frac{\partial \alpha_{R,i}^*}{\partial \Pi_i} \right] = \text{Sign} \left[ \frac{\partial \alpha_{R,i}^*}{\partial \delta} \right] = -\text{Sign} \left[ \frac{\partial \alpha_{R,i}^*}{\partial \delta} \right] = \text{Sign} \left[ 2 \tau_R \alpha_{R,i}^0 - \tau_L \right].
\]

Although this case can be analyzed like the other cases, we think it is economically less plausible given that the weighted average rule is common knowledge and that no action beyond stock ownership is required for the large shareholder to influence corporate political stances. Therefore, we do not include it in our main analysis.
Substituting (14) into (12) and (13), we obtain investors’ utility functions as follows:

\[ U^NC_R = (\alpha^0_R - \alpha_R)P + \alpha'_R\mu - \frac{1}{2\tau_R}\alpha'_RV\alpha_R + \alpha'_R[(\delta\Pi_R \circ (\alpha_R - \frac{1}{2}e))], \quad (67) \]

\[ U^NC_L = (\alpha^0_L - \alpha_L)P + \alpha'_L\mu - \frac{1}{2\tau_L}\alpha'_LV\alpha_L + \alpha'_L[(\delta\Pi_L \circ (\frac{1}{2}e - \alpha_R))]. \quad (68) \]

Assume that the representative small investor \( L \) does not internalize the effect of her ownership on prices or political stances of firms. Her demand function is then:

\[ \alpha_L = \tau_L V^{-1}[\mu + \delta\Pi_L \circ (\frac{1}{2}e - \alpha_R) - P]. \quad (69) \]

The market clearing stock prices conditional on the large investor \( R \)’s ownership shares \( \alpha_R \) are then:

\[ P = \mu - \frac{1}{\tau_L}V(e - \alpha_R) + \delta\Pi_L \circ (\frac{1}{2}e - \alpha_R), \quad (70) \]

which implies the following \( N \times N \) Jacobian matrix of the partial derivatives of \( P \) with respect to \( \alpha_R \):

\[ J_P = \frac{1}{\tau_L}V - \delta D_{\Pi_L}, \quad (71) \]

where \( D_{\Pi_L} \) is an \( N \times N \) diagonal matrix with the diagonal entries populated by the elements of vector \( \Pi_L \).

Substituting Equation (70) into (67), and setting the vector of partial derivatives of \( U^NC_R \) with respect to \( \alpha_R \) equal to zero, we obtain the first-order condition for the optimal \( \alpha_R \):\(^{10}\)

\[ P - J_P(\alpha^0_R - \alpha_R) = \mu - \frac{1}{\tau_R}V\alpha_R + 2\delta\Pi_R \circ \alpha_R - \frac{1}{2}\delta\Pi_R. \]

By substituting Equations (70) and (71) into the first-order condition above and rearranging terms, we obtain:

\[ \left(\frac{1}{\tau_R} + \frac{2}{\tau_L}\right)V\alpha_R - 2\delta\Pi \circ \alpha_R = \frac{1}{\tau_L}V(e + \alpha^0_R) - \frac{1}{2}\delta\Pi - \delta\Pi_L \circ \alpha^0_R, \quad (72) \]

or

\[ \alpha^*_R = \left[\left(\frac{1}{\tau_R} + \frac{2}{\tau_L}\right)V - 2\delta D_{\Pi}\right]^{-1}\left(\frac{1}{\tau_L}V(e + \alpha^0_R) - \frac{1}{2}\delta\Pi - \delta\Pi_L \circ \alpha^0_R\right), \quad (73) \]

For the special case with uncorrelated cash flows, we have the following proposition:

\(^{10}\)We use the fact \( \alpha'_R[\delta\Pi_R \circ \alpha_R] = \delta\alpha'_R D_{\Pi_R} \alpha_R \), where \( D_{\Pi_R} \) is diagonal matrix with the diagonal entries populated by the elements of vector \( \Pi_R \).
Proposition 6. If cash flows are uncorrelated across firms and if the large shareholder internalizes the impacts of his ownership on both stock prices and corporate political stances, then for each firm $i$ with cash flow variance $V_i$, we have

$$\Theta_i^* = \alpha_{R,i}^* = \frac{1}{\tau_L}(1 + \alpha_{0,R,i}^*)V_i - \frac{1}{2}\delta\Pi_i - \delta\Pi_{L,i}\alpha_{0,R,i}^*.$$ \hspace{1cm} (74)

If $\alpha_{0,R,i}^* = 0$, we have

$$\text{Sign}\left[\frac{\partial \alpha_{R,i}^*}{\partial \Pi_i}\right] = \text{Sign}\left[\frac{\partial \alpha_{R,i}^*}{\partial \delta}\right] = -\text{Sign}\left[\frac{\partial \alpha_{R,i}^*}{\partial V_i}\right] = \text{Sign}[2\tau_R - \tau_L].$$ \hspace{1cm} (75)

Proof. This result follows directly from Equation (73) as a special case in which $V$ is a diagonal matrix. Taking the partial derivative of $\alpha_{R,i}^*$ with respect to $\Pi_i$, $\delta$ and $V_i$ under the condition $\alpha_{0,R,i}^* = 0$ yields the results in Equation (75). $\square$

A comparison with Proposition 3 reveals that relative to the case in which $R$ represents a mass of competitive small investors, the large investor $R$ is less likely to reduce his ownership share when the aggregate political preference intensity increases. Equation (75) shows this explicitly for the stocks in which the large investor holds zero initial endowment. For those stocks, the large investor’s ownership share decreases in $\Pi_i$ and $\delta$ only if $\tau_R < \frac{1}{2}\tau_L$. In contrast, in the competitive equilibrium, type $R$ investors’ ownership share decreases in $\Pi_i$ and $\delta$ as long as $\tau_R < \tau_L$. This demonstrates that the large investor’s strategic consideration of the effect of ownership on corporate political stances leads him to hold more shares.

5 Welfare Analysis and Comparison of Equilibria

We now illustrate and compare the properties of ownership allocation and corporate political stances in various equilibria presented so far, using numerical examples. As a benchmark for welfare analysis, we first show that the competitive equilibrium under the value-maximization rule leads to first-best ownership allocation and corporate political stance distribution.

5.1 First-best Ownership Allocation and Corporate Political Stances

We define the (utilitarian) first-best as a distribution of political stances and ownership shares that maximizes the sum of the utilities of the two types of investors. We abstract from the issue of

\[\text{We impose the restrictions on parameter values to ensure } \alpha_{R,i}^* \in [0, 1].\]
welfare distribution among investors, because this can be solved through transfers between investors after the total “pie” is maximized.

In the case of non-consequentialist investors, for any given distribution of corporate political stances Θ and R’s ownership share \(0 \leq \alpha_R \leq e\), the aggregate utility of investors \(R\) and \(L\) can be written as:

\[
U^{NC} = U^{NC}_R + U^{NC}_L \tag{76}
\]

\[
= \mu - \frac{1}{2\tau_R} \alpha'R V \alpha_R - \frac{1}{2\tau_L} (e - \alpha_R)' V (e - \alpha_R) \\
+ \alpha'R [\delta \Pi_R \circ (\Theta - \frac{1}{2}e)] + (e - \alpha_R)' [\delta \Pi_L \circ (\frac{1}{2}e - \Theta)].
\]

Note that the price vector does not appear in the aggregate utility function. Because \(\alpha^0_R + \alpha^0_L = \alpha_R + \alpha_L = e\), changes in stock prices affect only the distribution of welfare between the two types of investors but not the aggregate. Taking the first-order derivatives with respect to vectors \(\alpha_R\) and \(\Theta\) yields

\[
\frac{\partial U^{NC}}{\partial \alpha_R} = -\frac{1}{\tau_R} V \alpha_R + \frac{1}{\tau_L} V (e - \alpha_R) + \delta \Pi \circ (\Theta - \frac{1}{2}e); \tag{77}
\]

\[
\frac{\partial U^{NC}}{\partial \Theta} = \delta (\Pi \circ \alpha_R - \Pi_L). \tag{78}
\]

Note that both \(\frac{\partial U^{NC}}{\partial \alpha_R}\) and \(\frac{\partial U^{NC}}{\partial \Theta}\) are \(N \times 1\) vectors.

It is clear that to maximize \(U^{NC}\), the optimal choice of \(\Theta_i\) should be 0 if \(\frac{\partial U^{NC}}{\partial \Theta_i} > 0\), and it should be 1 if \(\frac{\partial U^{NC}}{\partial \Theta_i} < 0\). When \(\frac{\partial U^{NC}}{\partial \Theta_i} = 0\), the optimal political stance of firm \(i\) is indeterminate. Therefore, conditional on \(\alpha_{R,i}\), we have

\[
\Theta_i = \begin{cases} 
1 & \text{if } \alpha_{R,i} > \frac{\Pi_{L,i}}{\Pi_i}; \\
\text{any } \Theta_i \in [0,1] & \text{if } \alpha_{R,i} = \frac{\Pi_{L,i}}{\Pi_i}; \\
0 & \text{otherwise.}
\end{cases} \tag{79}
\]

Setting \(\frac{\partial U^{NC}}{\partial \alpha_R}\) equal to zero, we obtain the first-order condition for the optimal choice of \(\alpha_R\):

\[
\alpha_R = \frac{\tau_R}{\tau_R + \tau_L} e + \frac{\delta}{\gamma} V^{-1} [\Pi \circ (\Theta - \frac{1}{2}e)]. \tag{80}
\]

This is identical to Equation (19). Therefore, as long as the distributions of \(\Theta\) in the utilitarian
first-best and the competitive equilibrium are the same, the ownership allocations in these two scenarios are the same.

The first-best combination of $\Theta$ and $\alpha_R$ arises when Equations (79) and (80) hold simultaneously. However, while the optimal $\Theta_i$ depends only on $\alpha_{R,i}$, the optimal $\alpha_{R,i}$ generally depends on political stances of all firms in the economy (vector $\Theta$), as can be seen from Equation (80). Therefore, it is not easy to fully characterize this combination analytically in terms of exogenous variables. To provide more intuition, we consider the special case of uncorrelated cash flows. In this case, $V$ and $V^{-1}$ are diagonal matrices, and the optimal $\alpha_{R,i}$ depends only on $\Theta_i$ (instead of $\Theta$). We can prove the following proposition:

**Proposition 7.** If cash flows are uncorrelated across firms, then the utilitarian first-best solutions to corporate political stances and ownership allocation are the same as the outcomes in the competitive equilibrium under the value-maximization rule of corporate political stances.

**Proof.** See Section B.6 in Appendix.

Proposition 7 is remarkable in that it shows that if managers choose corporate political stances to maximize shareholder value, the competitive equilibrium achieves the utilitarian first-best outcome despite the fact that investors value both pecuniary and non-pecuniary payoffs. Simple alternative rules such as the weighted-average rule we consider do not lead to a socially optimal outcome. The stock prices reflect both the financial benefits and non-financial benefits of corporate behaviors, making it the right corporate objective for welfare maximization. Therefore, in the simple setting we analyze, shareholder value maximization is equivalent to shareholder welfare maximization. This result is not specific to the linear non-pecuniary payoff functions we consider. In Section A of Appendix, we show that it also holds in a setting with nonlinear non-pecuniary payoff functions.

However, it is worth emphasizing that in deriving this result, we have abstracted from many potential frictions, in particular, we do not consider any information and agency issues. In practice, managers may pursue their own utility maximization instead of shareholder value maximization. Therefore, it may be very costly to ensure that they choose value-maximizing political stances. Investors may also not have perfect information about corporate political stances, which may prevent stock prices from correctly reflecting corporate political stances and investor preferences. Furthermore, as we show analytically in Section 4 and numerically in the next section, when investors are not perfectly competitive, then the equilibrium under the value-maximization rule can yield an outcome that is far from the first-best.
Table 1: Baseline parameter values and model outcomes

We consider a firm whose cash flows are uncorrelated with other firms in our numerical analysis. Panel A of this table summarizes the baseline parameter values. Panel B presents the key equilibrium outcomes in the competitive equilibrium without political preferences and in the competitive equilibrium with political preferences under the value-maximization rule.

Panel A. Parameter values

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Economic meaning</th>
<th>Baseline value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\mu_i$</td>
<td>Expected cash flow</td>
<td>100</td>
</tr>
<tr>
<td>$V_i$</td>
<td>Variance of cash flow</td>
<td>500</td>
</tr>
<tr>
<td>$\tau_R$</td>
<td>$R$'s risk tolerance</td>
<td>20</td>
</tr>
<tr>
<td>$\tau_L$</td>
<td>$L$'s risk tolerance</td>
<td>30</td>
</tr>
<tr>
<td>$\delta$</td>
<td>Political preference dispersion</td>
<td>1</td>
</tr>
<tr>
<td>$\Pi_{R,i}$</td>
<td>$R$'s political preference intensity</td>
<td>10</td>
</tr>
<tr>
<td>$\Pi_{L,i}$</td>
<td>$L$'s political preference intensity</td>
<td>5</td>
</tr>
<tr>
<td>$\alpha_{R,i}^0$</td>
<td>$R$'s endowed equity share</td>
<td>40%</td>
</tr>
<tr>
<td>$c$</td>
<td>Cost of influence activity</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Panel B. Model implied outcomes

<table>
<thead>
<tr>
<th>Outcome variable</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive equilibrium without political preferences</td>
<td></td>
</tr>
<tr>
<td>$R$'s ownership weight (optimal risk sharing)</td>
<td>40%</td>
</tr>
<tr>
<td>Stock price</td>
<td>90</td>
</tr>
<tr>
<td>Expected rate of return</td>
<td>11.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcome variable</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive equilibrium under the value-maximization rule</td>
<td></td>
</tr>
<tr>
<td>Corporate political stance ($\Theta_i^*$)</td>
<td>1</td>
</tr>
<tr>
<td>$R$'s ownership share ($\alpha_{R,i}^*$)</td>
<td>58%</td>
</tr>
<tr>
<td>Stock price ($P_i^*$)</td>
<td>90.5</td>
</tr>
<tr>
<td>Expected rate of return</td>
<td>10.5%</td>
</tr>
<tr>
<td>$R$'s non-pecuniary payoff</td>
<td>2.90</td>
</tr>
<tr>
<td>$L$'s non-pecuniary payoff</td>
<td>-1.05</td>
</tr>
</tbody>
</table>

5.2 Comparison of Equilibria

5.2.1 Parameterization

To compare the outcomes in the five different equilibria we derive in Sections 3 and 4, we provide numerical examples. We consider a firm whose cash flow is uncorrelated with other firms in the economy, which allows us to analyze it in isolation. We use the parameter values specified in Panel A of Table 1 as our baseline case. These parameter values are chosen to illustrate how our model behaves in an empirically plausible environment. Under the baseline parameterization, the expected cash flow is 100 and the variance of the cash flow is 500, corresponding to a standard
deviation of 22% for the rate of return. Investor L is more risk tolerant than investor R, but R has stronger political preferences. If the corporate political stance is perfectly in line with L’s preference, L perceives a non-pecuniary payoff of 2.5, while R perceives a non-pecuniary payoff of -5. The endowment of R is set at the optimal risk sharing level of 40%. The cost for a politically active large investor to engage in influence activity is assumed to be 1.5, which corresponds to 1.5% of the expected cash flow.

The baseline parameterization implies the following equilibrium outcomes. In the absence of political preferences, the competitive equilibrium yields an optimal risk sharing ownership weight of 40% for R, and an equilibrium stock price of 90, implying an expected rate of return of 11%. Since \( \frac{\tau_R}{\tau_L} (=0.67) \) is larger than \( \frac{\Pi_{L,i}}{\Pi_{R,i}} (=0.50) \), in the competitive equilibrium under the value-maximization rule, the political stance of firm i is \( \Theta_i = 1 \), and R’s ownership share is 58%, which is 18 percentage points higher than the optimal risk sharing weight. Despite the distorted risk sharing, the stock price is slightly higher than in the equilibrium without political preferences (90.5 vs. 90). This is because the non-pecuniary utility perceived by R more than offsets the disutility perceived by investors of type L and the efficiency loss in risk sharing.

5.2.2 Equilibrium Outcomes

Figure 1 shows how the model outcomes vary with R’s political preference intensity \( \Pi_{R,i} \). The five different equilibria are indicated by the superscripts of the plotted variables. Panel (A) shows the equilibrium political stance of the firm. The three piecewise linear lines demonstrate the corporate political stance under the value-maximization rule. They clearly show a catering effect. In all three equilibria under this rule, i.e., the competitive equilibrium (CV), the equilibrium with a politically passive large investor (SV), and the equilibrium with a politically active large investor (SV2), the corporate political stance is aligned with L’s preference when \( \Pi_{R,i} \) is low, and switches to be aligned with R’s preference when \( \Pi_{R,i} \) becomes sufficiently strong. The vertical lines indicate the points at which the switches occur. They show that the threshold value of \( \Pi_{R,i} \) that triggers the switch is the lowest in SV2, second lowest in CV, and the highest in SV. This is consistent with the analytical results presented in the previous sections. The large investor’s concern for price impact lowers the sensitivity of the large investor’s demand for the stock with respect to the firm’s political stance, which reduces the influence of a politically passive large investor on corporate political stances compared to that of a similar group of small investors. However, a politically active large shareholder can use his investment strategy as a bargaining tool. By committing to
Figure 1: Equilibrium outcomes. This figures shows the outcomes in five different equilibria: (i) competitive equilibrium under the value-maximization rule (denoted by the subscript “CV”), (ii) competitive equilibrium under the weighted-average rule (“CW”), (iii) equilibrium with a strategic but politically passive large investor under the value-maximization rule (“SV”), (iv) equilibrium with a strategic and politically active large investor under the value-maximization rule (“SV2”); (v) equilibrium with a strategic and politically active large investor under the weighted-average rule (“SW”). The plotted outcome variables include corporate political stance (Panel A), R’s ownership share (Panel B), stock price (Panel C), aggregate utilitarian welfare of L and R (Panel D), (E) R’s welfare; and (F) L’s welfare. In each panel, we vary R’s political preference intensity while keeping other relevant parameters at the baseline values summarized in Table 1.

exclude a non-complying firm from his investment portfolio, the politically active large investor can alter the firm’s political stance even if his political preference intensity is low, as long as the cost of making such commitments credible is sufficiently small.

The corporate political stance behaves very differently when it is determined by the ownership-
weighted average of shareholder preferences. There is no discrete jump in either the competitive equilibrium (CW) or the equilibrium with a strategic large investor (SW). In both equilibria, R’s ownership starts at a level slightly below the optimal risk sharing weight, but the two equilibria then diverge as R’s political preference becomes stronger. In the competitive equilibrium, the corporate political stance keeps moving away from R’s political preference as his preference becomes stronger, while it keeps moving towards it in the equilibrium in which R represents a large investor. This highlights the important role of strategic considerations. Because R is relatively more risk averse than L in our example, his optimal risk sharing ownership weight is lower than 50%. This makes the corporate political stance more in line with the preference of L when the aggregate political preference intensity is low. If R represents small investors who do not internalize price effects, then his non-pecuniary payoff from the firm becomes more negative as his political preference becomes stronger. This makes him reduce his ownership share, which in turn makes the firm’s political stance move further away from his preference. This downward slope is reversed if R is a strategic large investor, who internalizes the effect of his ownership on both the stock price and the corporate political stance. As his political stance gets stronger, the incentive to use his ownership to influence the corporate political stance is also stronger, which induces him to increase his equity holding. Therefore, the equilibrium corporate political stance curve is upward sloping in this case.

Panel (B) shows R’s equilibrium ownership share. When the corporate political stance is determined by the ownership-weighted average, the ownership curves are identical with the equilibrium corporate political stance curves in Panel (A). In the equilibria under the value-maximization rule, each switching point in Panel (A) corresponds to an upward jump in R’s ownership share in Panel (B). Before the upward jump, R’s ownership share declines steadily as R’s political preference becomes stronger; after the jump, it keeps increasing with R’s preference intensity. As long as the increase in the preference intensity is not sufficient to induce a switch of the corporate political stance, R’s non-pecuniary payoff becomes more negative as the intensity rises, which causes a reduction in his ownership. After the switch, the firm’s political stance coincides with R’s preference. Therefore, the stock becomes even more attractive as R’s political preference becomes stronger. Notably, before the corporate political stance switches in CV, R’s ownership share is lower in CV than in SV and SV2; after the switch, it is higher in CV. This reflects a dampening effect of the large shareholder’s price impact concern on his stock holdings, which makes him deviate less from his endowed ownership share. Interestingly, when R’s political preference reaches a sufficiently high level, his ownership share in SW becomes higher than those in SV and SV2. This is because the
marginal effect of \( R \)'s ownership share on the corporate political stance remains positive in SW, while it becomes zero after the switching point in SV and SV2.

Panel (C) illustrates how the equilibrium stock price varies with \( R \)'s political preference intensity. Between the two competitive equilibria CV and CW, the price in CV is always higher than the price in CW except at the switching point of the corporate political stance. This is not surprising because CV maximizes stock prices while CW does not. The value-maximizing corporate political stance is indeterminate at the switching point, which explains why the prices in the two equilibria are the same at that point. Note that this is also the point at which the price in CV is the same as in a competitive equilibrium without political preferences. In the equilibria with a large investor, the strategic behavior of \( R \) can cause the stock price to be higher. When \( R \)'s political preference is mild, his concern about price impact induces him to sell fewer endowed shares than a competitive investor sells, which makes the stock price higher in SV and SV2 than in CV. When \( R \)'s political preference is very strong, the pursuit of influence on the corporate political stance induces him to hold substantially more shares in SW, which makes the stock price higher in SW than in any other equilibrium. Interestingly, the stock price drops in SV2 when \( R \) switches from a passive strategy to an active one, which is accompanied by a large increase in \( R \)'s ownership share. This happens for two reasons. First, the corresponding shift in the corporate political stance imposes a large negative non-pecuniary payoff on \( L \). Second, the large increase in \( R \)'s ownership is associated with a significant loss in risk sharing efficiency (because \( R \) is less risk tolerant than \( L \)).

Panel (D) shows how aggregate utilitarian welfare varies with \( R \)'s political preference intensity. Consistent with Proposition 7, CV consistently generates the highest aggregate utilitarian welfare among all equilibria. The welfare in the two equilibria under the weighted-average rule is consistently below the welfare in CV. However, the welfare level in these two equilibria are quite stable and close to each other, despite the large differences in ownership allocation and stock price. The insensitivity of welfare to both parameter values and strategic behavior of the large shareholder can be explained by the following fact: under the weighted-average rule, as the corporate political stance moves further away from the preference of one type of investors, the ownership share of those investors declines. This limits the negative non-pecuniary payoff imposed on those investors. In contrast, aggregate utilitarian welfare under the value-maximization rule is very sensitive to the action of a politically active large investor. In particular, in SV2, when the large investor starts to engage in influence activity, there is a large downward jump in aggregate utilitarian welfare, which reflects both the deadweight loss due to the cost of the influence activity and the efficiency loss due
to suboptimal ownership allocation. When $R$’s preference intensity becomes large enough to make the influence activity unnecessary, the aggregate utilitarian welfare jumps back. This also coincides with the switch in the corporate political stance in SV. This switch is suboptimally delayed due to the price impact concern of the large shareholder. Therefore, there is a welfare increase when it occurs. Overall, the results in this panel reveal that while the value-maximization rule is socially optimal in the competitive equilibrium, the weighted-average rule can lead to higher aggregate utilitarian welfare if the cost of influence activity by a politically active large investor is low.

Panel (E) and (F) show the welfare of $L$ and $R$ separately. Notably, in the equilibria under the value-maximization rule, $L$’s welfare experiences a downward jump whenever the corporate political stance switches from 0 to 1, but the corresponding change in $R$’s welfare is very different in different equilibria. In the competitive equilibrium, which maximizes total welfare, $L$’s welfare loss due to the switch is fully offset by $R$’s welfare gain, leaving the aggregate utilitarian welfare unchanged. In SV, $L$’s welfare loss is more than offset by $R$’s gain. The switch is “overdue” from the social planner’s perspective, as it should have happened at the point when the switch in CV occurs. Therefore, it results in an increase in aggregate utilitarian welfare shown in Panel (D). However, in SV2, the downward jump in $L$’s welfare is not associated with any change in $R$’s welfare. As a result, it fully translates into a corresponding decline in aggregate utilitarian welfare. This is because the switching point is optimized by $R$. The value-matching condition for optimal switching ensures that $R$’s welfare is continuous at the switching point. That is, the influence cost paid by $R$ is fully covered by $R$’s gain in non-pecuniary payoff resulting from the switch in the corporate political stance.

5.2.3 Effects of Preference Dispersion, Risk, Risk Tolerance, and Influence Cost

Figure 2 shows the effects of preference dispersion, risk, risk tolerance, and influence cost on $R$’s ownership share in different equilibria. Consistent with intuition, Panel (A) shows that $\alpha_{R,i}$ is at the optimal risk sharing level in all equilibria when investors have the same political preference, i.e., when $\delta = 0$. (For the equilibria with a large investor, this has to do with our assumption that the large shareholder’s endowment is at the optimal risk sharing level. Otherwise the large shareholder’s price impact concern would cause some deviation.) When the political preferences become more dispersed, the deviation from the optimal risk-sharing allocation becomes larger in all equilibria. In contrast, Panel (B) shows that in all equilibria, the deviation from the optimal risk sharing allocation becomes smaller as cash flow variance increases, consistent with the idea
Figure 2: Effects of preference dispersion, risk, risk tolerance, and influence cost. This figure shows the relations between R’s equilibrium ownership share and various model parameters in different equilibria. The parameters of interest include preference dispersion (Panel A), cash flow variance (Panel B), R’s risk tolerance (Panel C), and the cost of engaging in influence activity faced by the large shareholder (Panel D). The different equilibria are indicated by the superscripts “CV”, “CW”, “SV”, “SV2”, and “SW”, respectively. In the first three panels, the variables of interest are on the X-axis. In Panel D, we plot $\alpha_{R,i}$ as a function of $\Pi_{R,i}$ under three different values of the influence activity cost, which correspond to 1.5% (baseline), 2.5%, and 4.9% of the expected cash flow, respectively. It also shows $\alpha_{R,i}$ in the equilibrium with a politically passive large investor. Parameter values not indicated in the figure are kept at the baseline levels summarized in Table 1.

that risk considerations become more dominant as the risk level increases. These results illustrate nicely the basic tension in our model: the tradeoff between risk sharing and non-pecuniary payoffs resulting from political preferences.

Panel (C) shows how R’s equilibrium ownership share varies with R’s risk tolerance. Not surprisingly, it increases in all equilibria as R becomes more risk tolerant. Notably, in all the three equilibria under the value-maximization rule, there is a discrete upward jump, which occurs the earliest (measured by the threshold risk tolerance value that triggers the switch) in SV2 and the latest in SV. Also, under the weighted-average rule, R’s ownership is consistently higher when it represents a strategic large shareholder instead of a group of small investors, further confirming that the strategic consideration of the effect of ownership on the corporate political stance incentivizes
To better understand the role of the cost of the influence activity in determining the large shareholder’s influence on corporate political stances, we plot in Panel (D) the ownership share of a politically active large investor as a function of his political preference intensity under three different levels of the influence activity cost, which correspond to 1.5%, 2.5% and 4.9% of the expected cash flow, respectively, along with the equilibrium share of a politically passive large shareholder. Consistent with intuition, the threshold value of $\Pi_{R,i}$ that triggers $R$ to engage in influence activity increases as the cost increases. When the cost reaches 4.9% of the expected cash flow, the threshold value in SV2 becomes close to that in SV, suggesting that a high cost of influence activity effectively turns a politically active large investor into a politically passive one.

To summarize, our analysis in this section shows that, while the value-maximization rule leads to the utilitarian first-best outcome in the competitive equilibrium, it can lead to an outcome far from the best-best in the presence of a politically active large investor. The strategic behavior of such an investor not only imposes a welfare loss on small investors, but also reduces total welfare. As a result, when the cost of the large investor’s influence activity is low, the value-maximization rule is dominated by the weighted-average rule.

6 Consequentialist Investors

In this section, we consider the case in which investors have consequentialist political preferences. Unlike non-consequentialist investors, who derive non-pecuniary utilities only from firms in their portfolios, consequentialist investors derive non-pecuniary payoffs from corporate political stances in the entire economy. For economically relevant corporate political stances, which are bounded by 0 on the left and 1 on the right, we specify the non-pecuniary payoff functions of consequentialist investors $R$ and $L$ as follows:

$$D^C_R = w'[\delta \Pi_R \circ (\Theta - \frac{1}{2}e)],$$  \hspace{1cm} (81)

$$D^C_L = w'[\delta \Pi_L \circ (\frac{1}{2}e - \Theta)],$$  \hspace{1cm} (82)

where $w$ is a vector of firm weights in the economy. Specifically, we assume that the weight a consequentialist investor assigns to firm $i$ corresponds to its relative size in the economy, defined in terms of expected cash flows:

$$w_i = \frac{\mu_i}{\sum_{i=1}^{N} \mu_i}.$$  \hspace{1cm} (83)
The idea is that a large firm’s political stance is more relevant for a consequentialist investor than a small firm’s. The utility functions of $R$ and $L$ are written, respectively, as:

$$U^C_R = (\alpha^0_R - \alpha_R)'P + \alpha'_R\mu - \frac{1}{2\tau_R}\alpha'_R V_{\alpha_R} + D^C_R,$$  \hspace{1cm} (84)

$$U^C_L = (\alpha^0_L - \alpha_L)'P + \alpha'_L\mu - \frac{1}{2\tau_L}\alpha'_L V_{\alpha_L} + D^C_L. \hspace{1cm} (85)$$

### 6.1 Competitive Equilibrium

In the competitive equilibrium, both types of investors take stock prices and corporate political stances as given, irrespective of how corporate political stances are determined. Taking the partial derivatives of $U^C_R$ with respective to $\alpha_R$ and setting them to zero, we obtain the demand functions of the two types of investors as follows:

$$\alpha_R = \tau_R V^{-1} [\mu - P], \hspace{1cm} (86)$$

$$\alpha_L = \tau_L V^{-1} [\mu - P]. \hspace{1cm} (87)$$

Thus, when all shareholders are consequentialist and behave atomistically, political preferences do not affect investors’ demands for stocks. By imposing the market clearing condition (17), we obtain the standard optimal risk sharing equilibrium, in which stock prices are characterized by Equation (23) and ownership allocation is characterized by (24). Therefore, while political disagreements affect investors’ utilities, they have no effect on stock prices and ownership allocation in the competitive equilibrium. This is because changing ownership allocation has no perceived effect on any investor’s non-pecuniary payoffs.

Since the stock prices are independent of corporate political stances, the value-maximizing corporate political stances in the competitive equilibrium with consequentialist investors are indeterminate. If corporate political stances are determined as ownership-weighted averages of shareholder political preferences, then the equilibrium corporate political stances are identical across firms and are summarized by the following $N \times 1$ vector:

$$\Theta = \frac{\tau_R}{\tau_R + \tau_L} e. \hspace{1cm} (88)$$
6.2 Equilibrium with a Large Consequentialist Investor

We now consider the case where one investor type can coordinate and acts strategically. Specifically, we assume that \( L \) still represents a group of small competitive investors whereas \( R \) represents a large investor.

6.2.1 Value-maximizing Corporate Political Stances

We first examine the optimal response of a politically passive large investor \( R \) to a given set of corporate political stances after accounting for the impact of his holdings on stock prices. Equation (87) and the market clearing condition imply that conditional on \( R \)'s ownership shares \( \alpha_R \), the vector of stock prices \( P \) is

\[
P = \mu - \frac{1}{\tau_L} V(e - \alpha_R). \tag{89}
\]

Substituting this into Equation (84), and setting \( \frac{\partial U_C}{\partial \alpha_R} = 0 \), we obtain the first-order condition for investor \( R \)'s optimal ownership shares:

\[
P - J_P(\alpha_R^0 - \alpha_R) = \mu - \frac{1}{\tau_R} V \alpha_R,
\]

\[
\Rightarrow P - \frac{1}{\tau_L} V(\alpha_R^0 - \alpha_R) = \mu - \frac{1}{\tau_R} V \alpha_R, \tag{90}
\]

where \( J_P \) is the Jacobian matrix of partial derivatives of \( P \) with respect to \( \alpha_R \). As a result, we have

\[
\alpha_R = \frac{\tau_R}{2\tau_R + \tau_L}(e + \alpha_R^0). \tag{91}
\]

Depending on whether \( R \)'s endowment in stock \( i \), \( \alpha_R^0 \), is larger or smaller than the optimal risk sharing weight \( \frac{\tau_R}{\tau_R + \tau_L} \), his optimal ownership share in the firm is larger or smaller than in the competitive equilibrium. Substituting Equation (91) into (89), we get the equilibrium stock price vector:

\[
P = \mu - \frac{\tau_R + \tau_L}{\tau_L(2\tau_R + \tau_L)} Ve + \frac{\tau_R}{\tau_L(2\tau_R + \tau_L)} V \alpha_R^0. \tag{92}
\]

Importantly, the results above are independent of investors’ political preferences. In fact, they would be identical if investors had no political preferences at all. Thus, if investors are consequentialist and if the large investor is politically passive and takes corporate political stance as given, then political preferences have no effect on equilibrium prices and allocation and corporate political stances are indeterminate, just as in the competitive equilibrium.

Now assume that the large investor \( R \) is politically active. Since stock prices are unrelated
to corporate political stances and increase in the large investor’s ownership shares, as shown in
Equation (89), the large investor can influence a value-maximizing manager’s choice of corporate
political stance simply by committing to a higher ownership share. Therefore, if investors are
consequentialist and large investors face no legal restrictions on their influence activity, they would
have strong influence on political stances of value-maximizing firms, thereby imposing potentially
large political disutilities on small shareholders.

6.2.2 Ownership-weighted Corporate Political Stances

If corporate political stances are determined by ownership structure, as described by Equation (14),
and if this is common knowledge, then the utility functions of the large and small consequentialist
investors are, respectively:

\[ U^C_R = (\alpha^0_R - \alpha_R)P + \alpha_R'\mu - \frac{1}{2\tau_R}\alpha'_R V \alpha_R + w'[\delta \Pi_R \circ (\alpha_R - \frac{1}{2}e)], \]

\[ U^C_L = (\alpha^0_L - \alpha_L)P + \alpha_L'\mu - \frac{1}{2\tau_L}\alpha'_L V \alpha_L + w'[\delta \Pi_L \circ (\frac{1}{2}e - \alpha_R)]. \]

Assume again that small investors do not internalize the effect of their ownership on stock prices
or corporate political stances. The market clearing stock prices conditional on \( R \)'s ownership share
\( \alpha_R \) are then still given by Equation (89). The first-order condition for \( R \)'s optimal ownership shares
is then

\[ P - J_P(\alpha^0_R - \alpha_R) = \mu - \frac{1}{\tau_R}V \alpha_R + \delta w \circ \Pi_R, \]

\[ \Rightarrow P - \frac{1}{\tau_L}V(\alpha^0_R - \alpha_R) = \mu - \frac{1}{\tau_R}V \alpha_R + \delta w \circ \Pi_R, \]

where \( J_P \) is the Jacobian maxtrix of partial derivatives of \( P \) with respect to \( \alpha_R \). Substituting out
\( P \) using Equation (89), we have

\[ \alpha_R = \frac{\tau_R}{2\tau_R + \tau_L}(e + \alpha^0_R) + \frac{\tau_R \tau_L \delta}{2\tau_R + \tau_L} V^{-1}(w \circ \Pi_R). \]

Compared to the ownership shares of a politically passive large investor (Equation (91)), the own-
ership shares of a politically active large shareholder are generally higher, and the differences are
captured by the second term in (96). Assuming that cash flows are uncorrelated across firms, then
the difference is more pronounced if (1) investors’ risk tolerance coefficients (\( \tau_R \) and \( \tau_L \)) are high,
or the variance of a firm’s cash flow $V_i$ is low; (2) the large investor $R$’s political preference intensity $(\Pi_{R,i})$ is high; (3) the political preferences are more polarized, i.e., $\delta$ is large; or (4) the cash flow weight of a firm in the economy, $w_i$, is large.

Substituting Equation (96) into (89), we get the equilibrium stock prices:

$$P = \mu - \frac{\tau_R + \tau_L}{\tau_L(2\tau_R + \tau_L)} Ve + \frac{\tau_R}{\tau_L(2\tau_R + \tau_L)} Ve^0 + \frac{\tau_R \delta}{2\tau_R + \tau_L} (w \circ \Pi_R).$$

(97)

Compared to the price vector under politically passive large investor (Equation (92)), the difference is $\frac{\tau_R \delta}{2\tau_R + \tau_L} (w \circ \Pi_R)$. This shows the large investor’s internalization of the effect of his ownership on corporate political stances increases stock prices, and the increase is bigger if (1) the risk tolerance of the small investors relative to the large investors, $\tau_L/\tau_R$, is small; (2) the intensity of the large investor’s political preference is high; (3) the gap in political stances between the small and large investors, $\delta$, is large; or (4) the firm’s weight in the economy, $w_i$, is large.

We summarize the results for the case of consequentialist investors in the following proposition:

**Proposition 8.** If investors are consequentialist, investors’ political preferences have no effect on stock prices or ownership allocation in the competitive equilibrium, irrespective of how corporate political stances are determined. The value-maximizing corporate political stances are indeterminate, which makes them susceptible to influence by a politically active large investor. If corporate political stances are determined by ownership structure, the large investor’s pursuit of influence on corporate political stances increases his ownership shares by

$$\frac{\tau_R \tau_L \delta}{2\tau_R + \tau_L} V^{-1}(w \circ \Pi_R),$$

(98)

and it increases the equilibrium stock prices by

$$\frac{\tau_R \delta}{2\tau_R + \tau_L} (w \circ \Pi_R).$$

(99)

*Proof.* See the discussion preceding the proposition. *QED.*

Proposition 8 is economically intuitive. The incentive to influence corporate political stances causes the large shareholder to hold more shares. When the large investor is more risk tolerant, or when the cash flow risk is low, he pursues influence on corporate political stances more aggressively. When small investors’ risk tolerance is high, the large investor is also more aggressive, because
the price impact of his ownership is relatively low. Furthermore, the large investor increases his ownership shares more if he cares more about a firm’s political stances, or if his political preference differs more from that of small shareholders. Lastly, because the political stances of large firms have larger weights in his utility function, the large investor tilts his portfolio towards larger firms.

6.3 First-best With Consequentialist Investors

In the case of consequentialist investors, the aggregate utility of investors can be written as

\[ U^C = \mu - \frac{1}{2\tau_R} \alpha_R' V \alpha_R - \frac{1}{2\tau_L} (e - \alpha_R)' V (e - \alpha_R) + w' \delta \Pi_R \circ (\Theta - \frac{1}{2})] + w' \delta \Pi_L \circ (\frac{1}{2} e - \Theta). \] (100)

Taking the first-order derivatives with respect to the vectors \( \alpha_R \) and \( \Theta \), we have

\[ \frac{\partial U^C}{\partial \alpha_R} = -\frac{1}{\tau_R} V \alpha_R + \frac{1}{\tau_L} V (e - \alpha_R); \] (101)

\[ \frac{\partial U^C}{\partial \Theta} = \delta w \circ (\Pi_R - \Pi_L). \] (102)

Notably, corporate political stances do not enter the first-order derivatives with respect to \( \alpha_R \) and \( \alpha_R \) does not enter the first-order derivatives with respect to \( \Theta \). Thus, there is a separation between the risk sharing and the choice of corporate political stances. This separability is due to the fact that the political disutilities of consequentialist investors are independent of their own portfolio holdings.

Using the same logic as before, we derive the following result:

**Proposition 9.** In an economy with consequentialist investors, the optimal risk sharing and the optimal choice of corporate political stances are separable. The first-best ownership allocation is given by Equation (24), and the first-best choice of corporate political stance is:

\[ \Theta^*_i = \begin{cases} 1 & \text{if } \Pi_{R,i} > \Pi_{L,i} \\ \text{any } \Theta_i \in [0,1] & \text{if } \Pi_{R,i} = \Pi_{L,i}; \\ 0 & \text{otherwise.} \end{cases} \] (103)

Therefore, in the consequentialist economy, political preferences do not affect risk sharing. Furthermore, the socially optimal choice of the corporate political stance caters to the preference of the investor group with a higher political preference intensity.
Comparing the first-best corporate political stances with the equilibrium ones, it is clear that unless $\Pi_R = \Pi_L$, corporate political stances determined by the ownership-weighted averages of shareholder preferences are not socially optimal, irrespective of whether there is a large investor. The equilibrium corporate political stances under the value-maximization rule are indeterminate if investors take corporate political stances as given. Therefore, they can in principle be set at the socially optimal level. However, the indeterminacy also means that they could potentially be influenced by a politically active large investors at low cost.

7 Conclusion

Previous studies have found that political ideology plays an important role in economic and financial activities. However, how investor political preferences and firm behavior interact to determine equilibrium prices and corporate political stance has so far remained unexplored. We present a model of financial market equilibrium with investors differing in political and risk preferences. A firm’s political stance is assumed to be cash flow neutral, but it generates non-pecuniary payoffs perceived by investors, which decrease in the distance between the firm’s political stance and an investor’s political preferences. We differentiate between consequentialist preferences, which are unrelated to stock ownership, and non-consequentialist preferences, which are tied to stock ownership.

We show that when investors are non-consequentialist, differences in shareholder political preferences endogenously lead to a polarization of corporate political stances. Investors tilt their equity holdings towards firms with political stances close to their own, and value-maximizing firms cater to investors with high risk tolerance and strong preferences towards their political stances. The resulting deviation from optimal risk sharing increases in political preference dispersion and aggregate political preference intensity, and decreases in aggregate risk aversion. Our results are consistent with the evidence of political value alignment in portfolio holdings documented in the literature, they also suggest that the increasing partisanship in Corporate America can be an endogenous outcome resulting from value maximizing firms responding to a more politically polarized economic and social environment.

We also show that while large investors’ concerns for price impact weaken their influence on corporate political stances, a politically active large investor can have strong influence on political stances value-maximizing firms by strategically increasing the sensitivity of his investment to corporate political stances. Such strategic behavior not only imposes a significant welfare loss
on small investors, but also reduces aggregate welfare. As a result, although the shareholder value-maximization rule leads to the utilitarian first-best outcome in a competitive equilibrium, it may lead to an inferior outcome in the presence of large, strategic investors. If large investors can influence corporate stance at low cost, then a governance system in which a firm's political stance is determined by the ownership-weighted average of shareholder preferences generates higher aggregate utilitarian welfare compared to a system in which political stance is determined by value-maximizing managers.

Our model can be extended in several directions. For example, to focus on the effect of political preferences, we abstract from the effect of firms' political stance on cash flows. Incorporating the cash flow effects of political engagement should allow us to have a more complete understanding of the interaction between investors' political preferences and firms' political stances. Also, we consider only one strategic large investor in our model. It would be interesting to analyze how strategic interactions of multiple large investors affect the market equilibrium. Finally, we only model the effects of corporate political stance on shareholders, but ignore those on other stakeholders, such as employees and consumers. We leave these interesting extensions for future research.

Appendix

A Cubic Non-Pecuniary Payoff Functions

To examine the sensitivity of our results to the assumption of linear non-pecuniary payoffs, we now consider an alternative specification. We only need to focus on the case of non-consequentialist investors because for consequentialist political preferences, the separability of risk sharing and the choice of corporate political stance does not depend on the functional form of the non-pecuniary payoffs. Instead of being linear, we now assume non-pecuniary payoffs to be cubic functions of the differences between corporate political stances and investors' political preferences.\footnote{A quadratic function is symmetric on the two sides of the central point, which makes it unsuitable to model the positive payoff on one side and negative payoff on the other side.} We show that this alternative specification does not change the main results of the simple model we analyze.

Specifically, we reformulate the utility functions of $R$ and $L$ as follows:

$$U_{R,N} = (\alpha_0^R - \alpha_R)^'P + \alpha_R^'\mu - \frac{1}{2\tau_R} \alpha_R^'V\alpha_R + \alpha_R^'\delta\Pi_R \circ (\Theta - \frac{1}{2}e)^{\circ3},$$

(104)
\[ U_{L,N} = (\alpha_0^L - \alpha_L)P + \alpha_L \mu - \frac{1}{2\tau_L} \alpha_L' V \alpha_L + \alpha_L' [\delta \Pi_L \circ (\frac{1}{2} e - \Theta)^3], \] (105)

where \((\Theta - \frac{1}{2} e)^3\) and \((\frac{1}{2} e - \Theta)^3\) are \(N \times 1\) vectors in which each element is the cube of the corresponding element in the basis vector.

### A.1 Competitive Equilibrium with Value-maximizing Corporate Political Stances

In the competitive equilibrium, both types of investors take prices as given, and we have

\[
\alpha_R = \tau_R V^{-1} [\mu + \delta \Pi_R \circ (\Theta - \frac{1}{2} e)^3 - P], \] (106)

\[
\alpha_L = \tau_L V^{-1} [\mu + \delta \Pi_L \circ (\frac{1}{2} e - \Theta)^3 - P]. \] (107)

Using market clearing condition (17), we obtain the equilibrium stock price vector:

\[
P = \mu - \frac{1}{\tau_R + \tau_L} V e + \frac{\delta}{\tau_R + \tau_L} (\tau_R \Pi_R - \tau_L \Pi_L) \circ (\Theta - \frac{1}{2} e)^3. \] (108)

Substituting (108) into (106) and (107) yields

\[
\alpha_R = \frac{\tau_R}{\tau_R + \tau_L} e + \frac{\delta}{\gamma} V^{-1} [\Pi \circ (\Theta - \frac{1}{2} e)^3], \] (109)

\[
\alpha_L = \frac{\tau_L}{\tau_R + \tau_L} e - \frac{\delta}{\gamma} V^{-1} [\Pi \circ (\Theta - \frac{1}{2} e)^3]. \] (110)

From Equation (108), it follows that the political stance that maximizes the stock price for any firm \(i\) is:

\[
\Theta_i^* = \begin{cases} 
1 & \text{if } \tau_R \Pi_{R,i} > \tau_L \Pi_{L,i}; \\
\text{any } \Theta_i \in [0,1] & \text{if } \tau_R \Pi_{R,i} = \tau_L \Pi_{L,i}; \\
0 & \text{otherwise.}
\end{cases} \] (111)

This is identical to what we obtain with linear non-pecuniary payoff functions. Substituting (111) into (109) and (110), we obtain the ownership allocation in the competitive equilibrium, which are qualitatively similar to the value-maximizing allocation in the linear model.
The aggregate utility of non-consequentialist investors $R$ and $L$ is given by:

$$U_{NC}^R = \mu - \frac{1}{2\tau_R} \alpha'_R V \alpha_R - \frac{1}{2\tau_L} (e - \alpha_R)' V (e - \alpha_R) + \alpha'_R \delta (\Pi_R + \Pi_L) \circ (\Theta - \frac{1}{2} e)^{\circ 3}] + e'[\delta \Pi_L \circ (\Theta - \frac{1}{2} e)^{\circ 3}] - \frac{1}{2} \tau_R \alpha'_R V \alpha_R + \frac{1}{2} \tau_L V (e - \alpha_R) + \delta [\Pi \circ (\Theta - \frac{1}{2} e)^{\circ 3}] + e'[\delta \Pi_L \circ (\Theta - \frac{1}{2} e)^{\circ 3}] + \alpha'_R \gamma V^{-1} [\Pi \circ (\Theta - \frac{1}{2} e)^{\circ 3}].$$

(112)

Taking the first-order derivatives of $U_C$ with respect to the vectors $\alpha_R$ and $\Theta$ yields

$$\frac{\partial U_{NC}}{\partial \alpha_R} = - \frac{1}{\tau_R} V \alpha_R + \frac{1}{\tau_L} V (e - \alpha_R) + \delta [\Pi \circ (\Theta - \frac{1}{2} e)^{\circ 3}],$$

(113)

$$\frac{\partial U_{NC}}{\partial \Theta} = 3 \delta \alpha'_R [\Pi \circ (\Theta - \frac{1}{2} e)^{\circ 2}] - 3 \delta e'[\Pi_L \circ (\Theta - \frac{1}{2} e)^{\circ 2}] + \gamma V^{-1} [\Pi \circ (\Theta - \frac{1}{2} e)^{\circ 3}].$$

(114)

Note that both $\frac{\partial U_C}{\partial \alpha_R}$ and $\frac{\partial U_C}{\partial \Theta}$ are $N \times 1$ vectors. Setting $\frac{\partial U_C}{\partial \alpha_R}$ equal to zero, we obtain the first-order condition for the optimal $\alpha_R$:

$$\alpha_R = \frac{\tau_R}{\tau_R + \tau_L} e + \frac{\delta}{\gamma} V^{-1} [\Pi \circ (\Theta - \frac{1}{2} e)^{\circ 3}].$$

(115)

This is identical to (109). Therefore, as long the distributions of corporate political stances in the first-best solution and in the competitive equilibrium are the same, the ownership allocations in these two cases are also the same. From (114) we have

$$\frac{\partial U_{NC}}{\partial \Theta_i} = 3 \delta (\alpha_{R,i} \Pi_i - \Pi_{L,i})(\Theta_i - \frac{1}{2})^2,$$

(116)

which shows that the socially optimal $\Theta_i$ for any firm $i$ is 1 if $\alpha_{R,i} > \frac{\Pi_{L,i}}{\Pi_i}$, and it is 0 if $\alpha_{R,i} < \frac{\Pi_{L,i}}{\Pi_i}$. If $\alpha_{R,i} = \frac{\Pi_{L,i}}{\Pi_i}$, the optimal $\Theta_i$ is indeterminate. Therefore, it is clear that the only stable optimal $\Theta_i$ is either 0 or 1. Following the same steps as in the proof of Proposition 7, we can show that the utilitarian first-best and the competitive equilibrium under the value-maximization rule of corporate political stances are the same at least for the case when cash flows are uncorrelated across firms.

## B Proofs not in the Main Text

### B.1 Proof of Corollary 1

Taking the partial derivative of $\Delta P_i$ with respect to $\Theta_i$ using Equation (27) yields

$$\frac{\partial \Delta P_i}{\Theta_i} = \frac{\delta}{\tau_R + \tau_L} [\tau_R \Pi_{R,i} - \tau_L \Pi_{L,i}],$$

(117)
which implies (28). Furthermore, we have

$$\frac{\partial |\Delta P|}{\partial \delta} = \frac{1}{\tau_R + \tau_L} |(\tau_R \Pi_R - \tau_L \Pi_L)(\Theta_i - \frac{1}{2})|, \tag{118}$$

which is positive as long as $\Theta_i \neq \frac{1}{2}$ and $\frac{\tau_R}{\tau_L} \neq \frac{\Pi_L}{\Pi_R}$. Taking the partial derivative of $\Delta \alpha_{R,i}$ with respect to $\Theta_i$ using Equation (19) yields

$$\frac{\partial \Delta \alpha_{R,i}}{\partial \Theta_i} = \frac{\delta}{\gamma} \omega_i \Pi_i, \tag{119}$$

where $\Pi_i \equiv \Pi_{R,i} + \Pi_{L,i}$, and $\omega_i$ is the $i$th diagonal term of the inverse of the covariance matrix $V$, which must be positive. Thus Inequality (30) holds. Furthermore, we have

$$\frac{\partial^2 \Delta \alpha_{R,i}}{\partial \Theta_i \partial \Pi_i} = \frac{\delta}{\gamma} \omega_i > 0. \tag{120}$$

Inequalities in (31) hold because they are about the absolute value of the deviation from the optimal risk sharing weight. $\delta$ and $\frac{1}{2}$ are scaling factors in Equation (19). As long as the term they multiply is nonzero, the absolute value of the deviation increases in $\delta$ and decreases in $\gamma$. Therefore, the partial derivatives in in (31) are non-negative. Inequalities in (32) hold because if cash flows are uncorrelated, the inverse covariance matrix $V^{-1}$ is diagonal with $\frac{1}{V_i}$ being the $i$-th diagonal entry.

### B.2 Proof of Proposition 2

From Equation (18), we have

$$\frac{\partial P_i}{\partial \Theta_i} = \frac{\tau_R \Pi_{R,i} - \tau_L \Pi_{L,i}}{\tau_R + \tau_L} \delta, \tag{121}$$

which has the same sign that $\frac{\tau_R}{\tau_L} - \frac{\Pi_{L,i}}{\Pi_{R,i}}$ has. Substituting Equation (33) into (27), we have $\Delta P_i^* = \frac{\delta}{2(\tau_R + \tau_L)} (\tau_R \Pi_{R,i} - \tau_L \Pi_{L,i})$ if $\tau_R \Pi_{R,i} \geq \tau_L \Pi_{L,i}$ and $\Delta P_i^* = -\frac{\delta}{2(\tau_R + \tau_L)} (\tau_R \Pi_{R,i} - \tau_L \Pi_{L,i})$ if $\tau_R \Pi_{R,i} < \tau_L \Pi_{L,i}$. Combining both cases yields (34).

Equation (35) is obtained by substituting Equation (33) into (19). Equation (37) is a special case of (35) with all off-diagonal elements of $V$ equal to zero. Results in (38) and (39) are straightforward.

### B.3 Proof of Proposition 3

Since $V$ is a diagonal matrix when cash flows are uncorrelated, from Equation (43) we have

$$\alpha_{R,i}^* = \frac{\tau_R}{\tau_R + \tau_L} - \frac{\delta}{2 \gamma} V^{-1}_i \Pi_i \frac{1}{1 - \frac{\delta}{\gamma} V^{-1}_i \Pi_i}, \tag{122}$$
Multiplying both the numerator and the denominator by $\gamma V$ and substituting out $\gamma$ yields (44).

Taking the partial derivative of $\Delta \alpha_{R,i}^*$ with respect to $\Pi_i$, $\delta$ and $V_i$ respectively, we have

$$\frac{\partial \Delta \alpha_{R,i}^*}{\partial \Pi_i} = \frac{\tau_R \tau_L (\tau_R - \tau_L) \delta V_i}{C^2},$$

(123)

$$\frac{\partial \Delta \alpha_{R,i}^*}{\partial \delta} = \frac{\tau_R \tau_L (\tau_R - \tau_L) \Pi_i V_i}{C^2},$$

(124)

$$\frac{\partial \Delta \alpha_{R,i}^*}{\partial V_i} = -\frac{\tau_R \tau_L (\tau_R - \tau_L) \delta \Pi_i}{C^2},$$

(125)

where $C \equiv \tau_R \tau_L \delta \Pi_i - (\tau_R + \tau_L) V_i$. Thus, the signs of these partially derivatives are determined by the sign of $\tau_R - \tau_L$. As to the sign of $\Delta \alpha_{R,i}^*$ itself, note that $\Delta \alpha_{R,i}^*$ is equal to zero if the aggregate preference intensity $\Pi_i$ is zero, and the partial derivative of $\Delta \alpha_{R,i}^*$ with respect to $\Pi_i$ is positive (negative) as long as $\tau_R > \tau_L$ ($\tau_R < \tau_L$). It follows that for any positive value of $\Pi_i$, we must have $\Delta \alpha_{R,i}^* > 0$ ($\Delta \alpha_{R,i}^* < 0$) as long as $\tau_R > \tau_L$ ($\tau_R < \tau_L$). This completes the proof of the relations stated in (46).

**B.4 Proof of Proposition 4**

To prove the equilibrium corporate political stances prescribed by (53), substitute (51) into (47) or (49) and take the partial derivative of $P_i$ with respect to $\Theta_i$ to obtain:

$$\frac{\partial P_i}{\partial \Theta_i} = \frac{\delta \tau_R}{2 \tau_R + \tau_L} (\Pi_{R,i} + \Pi_{L,i}) - \delta \Pi_{L,i},$$

(126)

which is positive if and only if Inequality (52) holds. Therefore, the political stances prescribed in (53) maximize shareholder values. For the proof of the equilibrium allocation (54), simply substitute the equilibrium corporate political stances in Equation (53) into (51). Substituting (54) into (49), we obtain the equilibrium stock prices given in (56).

**B.5 Proof of Proposition 5**

For the case with $\frac{\tau_R}{\tau_R + \tau_L} > \frac{\Pi_{L,i}}{\Pi_{R,i}}$, we have already shown in Proposition 4 that the equilibrium corporate political stance is $\Theta_i = 1$ even if the large investor is politically passive. The zero correlation among firms allows us to evaluate investor $R$’s utility associated with each stock separately. If $\frac{\tau_R}{\tau_R + \tau_L} < \frac{\Pi_{L,i}}{\Pi_{R,i}}$ and investor $R$ chooses the politically passive strategy with $\alpha_{R,i} = \alpha_{R,i}^{\text{Low}}$, his utility associated with investment in firm $i$ is:

$$U_{R,i}^{\text{Low}} = (\alpha_{R,i}^0 - \alpha_{R,i}^{\text{Low}}) P_i(\Theta_i = 0) + \alpha_{R,i}^{\text{Low}} \mu_i - \frac{1}{2 \tau_R} (\alpha_{R,i}^{\text{Low}})^2 V - \alpha_{R,i}^{\text{Low}} \Pi_{R,i} \delta,$$

(127)
where \( \alpha_{R,i}^{Low} \) is given in Equation (63) and

\[
P_i(\Theta_i = 0) = \mu_i - \frac{1}{\tau_L} (1 - \alpha_{R,i}^{Low}) V_i + \frac{1}{2} \delta \Pi_{L,i}.
\] (128)

Alternatively, the large investor can induce \( \Theta_i = 1 \) by committing to \( \alpha_{R,i}(\theta_L) = 0 \) and \( \alpha_{R,i}(\theta_R) = \max(\alpha_{R,i}, \alpha_{R,i}^{High}) \). The latter equals \( \alpha_{R,i}^{High} \) when Inequality (62) holds and equals \( \alpha_{R,i} \) if it does not. If he chooses this option, his utility associated with investment in firm \( i \) is defined similarly to (127) (with \( P_i(\Theta_i = 0) \) replaced by \( P_i(\Theta_i = 1) \)). Denote the utility functions under these two scenarios by \( U_{R,i}^{High} \) and \( U_{R,i}^{Low} \), respectively. After some algebra, we can show

\[
U_{R,i}^{High} > U_{R,i}^{Low} \text{ if and only if } c < \delta \left[ \frac{2 \tau_R \Pi_{R,i} - 3(\tau_R + \tau_L) \Pi_{L,i}}{2(2 \tau_R + \tau_L)} \right] + \frac{\tau_R \tau_L \delta^2 \Pi_{L,i} \Pi_{R,i}}{4(2 \tau_R + \tau_L)} V^{-1}_i.
\] (129)

and

\[
U_{R,i}^{Low} > U_{R,i}^{Low} \text{ if and only if } c < \frac{\tau_R \Pi_{L,i}}{2(2 \tau_R + \tau_L)} - \frac{\Pi_{L,i} \Pi_{R,i}}{2(2 \tau_R + \tau_L)} - \frac{\tau_R (1 + \alpha_{R,i}^0)^2}{2 \tau_R (2 \tau_R + \tau_L)} V.
\] (130)

Thus, if \( \frac{\tau_R}{2 \tau_R + \tau_L} < \frac{\Pi_{L,i}}{\Pi_{R,i}} \) and both Inequalities (62) and (129) hold, the large shareholder engages in influence activity and chooses \( \alpha_{R,i}^* = \alpha_{R,i}^{High} \); if Inequality (62) does not hold but (130) holds, then the large shareholder engages in influence activity and chooses \( \alpha_{R,i} \). Since short sales are not allowed, the large investor cannot lower the minimum \( \alpha_{R,i} \) needed for \( \Theta_i = 1 \) by choosing \( \alpha_{R,i} < 0 \) for \( \Theta_i = 0 \). Therefore, if \( \frac{\tau_R}{\tau_R + \tau_L} < \frac{\Pi_{L,i}}{\Pi_{R,i}} \) and neither (130) nor (129) holds, the large investor chooses the passive strategy and accepts \( \Theta_i = 0 \). This completes the proof of Proposition 5.

B.6 Proof of Proposition 7

From the first-order derivative of \( U^{NC} \) with respective to \( \Theta \) given in Equation (78), it is clear the only stable first-best choice of any element in \( \Theta \) must be a corner solution: 0 or 1. The corresponding \( \alpha_{R,i} \) values that satisfy the first order condition (77) are \( \frac{\tau_R}{\tau_R + \tau_L} + \frac{\delta}{2 \tau_R} V_i^{-1} \Pi \) and \( \frac{\tau_R}{\tau_R + \tau_L} - \frac{\delta}{2 \tau_R} V_i^{-1} \Pi \), respectively. The zero correlation among firms allows us to evaluation the aggregate utility associated with each stock separately. Denote the aggregate utility associated stock \( i \) by \( U^{NC}_i \). We have

\[
U^{NC}_i(\Theta_i = 1) - U^{NC}_i(\Theta_i = 0) = \frac{\delta (\tau_R \Pi_R - \tau_L \Pi_L)}{\tau_R + \tau_L}.
\] (131)
This expression has the same sign that \( (\tau_R \Pi_R - \tau_L \Pi_L) \) has. Therefore, the optimal choice of \( \Theta_i \) is the same as what is prescribed in Proposition 2, i.e., Equation (33). The first-order condition (80) then implies that the optimal ownership allocation is the same as Equation (37). Therefore, the first-best solutions are the same as the competitive equilibrium results under the value-maximization rule of corporate political stances.

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