Institutional Investors and Corporate Governance

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Abstract

We provide a comprehensive overview of the role of institutional investors in corporate governance with three main components. First, we establish new stylized facts documenting the evolution and importance of institutional ownership. Second, we provide a detailed characterization of key aspects of the legal and regulatory setting within which institutional investors govern portfolio firms. Third, we synthesize the evolving response of the recent theoretical and empirical academic literature in finance to the emergence of institutional investors in corporate governance. We highlight how the defining aspect of institutional investors – the fact that they are financial intermediaries – differentiates them in their governance role from standard principal blockholders. Further, not all institutional investors are identical, and we pay close attention to heterogeneity amongst institutional investors as blockholders.

Keywords: Institutional investors, corporate governance, exit, voice, shareholder activism, proxy voting advisors

JEL Classifications: G11, G15, G22, G23

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Outline

1. Introduction

Whenever the ownership of public corporations is dispersed amongst many shareholders, blockholders – owners of non-trivial percentages of a firm's shares – become central to good corporate governance. In contrast to small shareholders, who have neither the incentive nor the capacity to effectively monitor management, blockholders are able to govern firms to the benefit of all. The governance role of blockholders today must be viewed in the backdrop of the explosive growth of the asset management industry in recent decades, which has led to the large-scale *intermediation* of equity ownership.

Table 1 shows that 50 years ago households *directly* owned almost 80% of US corporate equity. Such direct ownership has declined dramatically over the years, reducing by more than a half, so that today only 38.3% of US corporate equity is directly owned by households. The remainder is *indirectly* held via different asset managers – commonly referred to as *institutional investors*. The table shows that such institutional ownership is dominated by four major types of domestic investors: Mutual funds (20.8%), exchange traded funds (ETFs) (6.6%), public pension funds (5.3%), and private pension funds (5.4%). The remaining institutional investors include insurance companies (1.9%), which have become progressively smaller over time, and "other" unclassified domestic investors (5.1%), a catch-all category including hedge funds or the proprietary holdings of financial institutions. Finally, 16.4% is held by foreign institutional investors.[1] Thus, a majority of equity holders in public US firms are institutional investors. This phenomenon is not limited to the US: below we provide evidence of a similarly significant growth of institutional ownership in other major economies around the world.

[Insert Table 1 here]

Institutional investors are different from the standard blockholders of the classical corporate governance literature in a number of ways. They are larger than most private investors, often subject to extensive regulations, and – perhaps most fundamentally – they differ from private blockholders because

[1] The measure of foreign ownership does not allow the separation between direct investments by households and institutional investors. However, the vast majority of this category likely originates from foreign hedge funds, pension funds, mutual funds, and sovereign wealth funds.

they invest other people's money. Given the preponderance of institutional investors in corporate equity ownership, it is important to understand the role they play in corporate governance.

In this review, we provide a comprehensive overview of the role of institutional investors in corporate governance. Our contribution has three main components. First, we trace the emergence of institutional investors as the modal concentrated owners of public firms in modern economies, using a wide variety of data sources to establish new stylized facts. Second, we provide a detailed characterization of key aspects of the legal and regulatory setting within which institutional investors operate with respect to the governance of their portfolio firms. Third, we synthesize the evolving response of the academic literature in finance to the emergence of institutional investors in corporate governance, attempting to link theoretical predictions to empirical findings.

Because of our focus on institutional investors as the holders of equity blocks we highlight the role that characteristics specific to this type of equity blockholder play in corporate governance. For example, we document how the defining aspect of institutional investors – the fact that they are financial intermediaries – differentiates them in their governance role from standard principal blockholders (e.g., individuals, families, and firms). As a result, we discuss how differences with respect to explicit and implicit incentives, organizational structures, and regulatory requirements shape their obligations, incentives and ability to govern. This focus leads us to highlight aspects of governance that are unique to institutional investors, for example, the institutions' voting processes, the role of proxy voting advisors, and conflicts of interests arising from business ties with portfolio firms.[2] Further, not all institutional investors are identical, and we pay close attention to *heterogeneity* amongst institutional investors as blockholders, arising because of differences in their incentives, size, investment horizons, preferred governance mechanisms, or regulatory constraints. We shine a light on heterogeneity across institution types by establishing stylized facts on ownership heterogeneity, and by synthesizing the emerging lessons from the theoretical and empirical literatures on the impact of such heterogeneity.

[2] Given our specific focus, we do not review the literature on the role of non-institutional blockholders, such as families or other corporations, which also play an important role in the governance of firms. While some aspects in our discussions also apply to these blockholders, notably the broader theories and the evidence on monitoring by institutional blockholders, most aspects in our review are specific to institutional blockholders.

Hence, our survey differs in two important ways from recent surveys that look at the role of blockholders *per se* in corporate governance (e.g., Edmans, 2014; Edmans and Holderness, 2017). First, we highlight governance issues specific to institutional investors, which can lead to substantial differences between the objectives of canonical blockholders who maximize the value of their blocks and the objectives of institutional investors. For instance, a labor union pension fund that manages pension accounts of a firm's employees might consider negative effects of a value increasing action on the employees and thus resist the action. Second, the main objective of a rising class of passive institutional investors is to not maximize the value of their investment but to rather track an index. For instance, with trillions of dollars in assets, the objective of most ETFs is to track the performance of a basket of securities. Investment companies managing ETFs are, however, required to vote in the best interest of their investors. Thus, there is an important gap between the fiduciary duties of ETF managers and their investment objectives.[3]

Though we do not focus on the role of non-institutional blockholders, such as families, wealthy individuals, or other corporations, we should note that these equity blockholders also play an important role in the governance of firms, both by themselves and in their interactions with institutional investors. Notably, in publicly traded firms Germany or even the US (outside of the largest firms), family ownership remains a significant governance factor. Villalonga *et al.* (2015) review the literature on corporate governance in family-owned firms.

A few other recent surveys cover related issues. Yermack (2010) surveys the literature on shareholder voting, while we in contrast delve in detail on institution-specific aspects of proxy voting. Brav *et al.* (2010) provides a survey of activist hedge funds specifically. While activist hedge funds feature prominently in our review, they are only one part of the much wider landscape of the role of institutional investors in corporate governance that is of interest to us. Schmalz (2018) surveys the emerging literature on common ownership, a specific topic tied to the existence of large institutional investors, which we only touch on briefly below. Institutional investors are sometimes under scrutiny for their role in environmental and social issues tied to corporate actions. In a recent review, Matos (2020) focuses specifically at this

[3] Despite our different focus, we pick up on key themes highlighted in Edmans and Holderness (2017), namely the role of blockholder heterogeneity and evidence from institutional settings beyond the US.

aspect of the role of institutional investors. Finally, Franks (2020) provides a contemporaneous review of institutional ownership around the world and discusses topics within their governance role.

The remainder of this survey is structured as follows. Section 2 provides a series of new stylized facts on the evolution of institutional ownership and its heterogeneity in the US and outside of the US. Section 3 describes the legal and regulatory environment within which institutional investors operate, with a focus on the obligations, ability, and incentives of such investors to engage in the corporate governance of firms. Section 4 reviews the theoretical literature on institutional investors and corporate governance while Section 5 discusses the empirical literature. Section 6 concludes.

2. Stylized Facts on the Importance of Institutional Investors

In this section, we present new stylized facts about the emergence and evolution of institutional investors as blockholders in firms. In Section 2.1 we characterize institutional ownership in the US. We report statistics on the cross-sectional and time-series variation of concentrated institutional stakes, measured at different block sizes, and document how the distribution of such stakes varies across key types of institutions. Following our detailed characterization of the US data, in Section 2.2 we trace the evolution of institutional ownership in China, Japan, Germany, the UK, and India, the five largest economies other than the US.[4]

2.1 Importance of Institutional Investors in the US

2.1.1 Data on Institutional Blockholdings

We rely on two sources of data to produce stylized facts on block ownership by institutional investors in the US. First, we use quarterly stock ownership data from Schedule 13F filings, which are required by the SEC for investment managers with over $100 million. Rather than utilizing the commonly used Thomson Reuters S34 database, we rely on the Schedule 13F dataset compiled by Backus *et al.* (2021). This dataset covers the years from 1999 to 2017 and arguably has better coverage than the

[4] Our classification follows from the GDP data provided by the IMF World Economic Outlook Database, April 2019, available at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx. We use the rankings from 2017, as that is the most recent year from which confirmed data is available for the full set of top-ten economies at the time of writing.

Thomson Reuters database (Backus *et al.*, 2021). In characterizing US institutional ownership, we pay particular attention to two key types of institutions, namely mutual funds (the largest single type of institutional investor) and hedge funds (arguably the type of institutional investor that is most active with respect to corporate governance). Further detailed discussion of the key role of these two types of institutions in corporate governance is provided throughout the paper, especially in Sections 3, 4, and 5.

To analyze hedge fund ownership, we merge the 13F dataset with the list of Schedule 13F filers identified as hedge funds by Agarwal *et al.* (2013). This list includes about 1,200 hedge fund management companies. Thus, we use the schedule 13F dataset to produce stylized facts on block ownership for all institutional shareholders as well as on blocks held by hedge funds in particular.

To analyze mutual fund ownership, in a separate analysis, we use the CRSP Survivor-Bias-Free US Mutual Fund Database, which includes a monthly history of each mutual fund's holdings. We use this database – rather than Schedule 13F filings – to construct blockholding for mutual funds because Thomson Reuters's institution classifications are often unreliable. Data on security prices and shares outstanding are obtained from the Center for Research in Security Prices (CRSP).

In our analysis, we focus on four institutional block sizes: 1%-blocks, 3%-blocks, 5%-blocks, and 10%-blocks. An institution is set to hold an X%-block if it holds *at least* X% of a security's shares outstanding. The literature has so far paid relatively little attention to blocks of 1% and 3%, focusing instead on 5%- or 10%-blocks. The reason is that crossing the 5% ownership threshold triggers a Schedule 13D or 13G disclosure, while owners of 10%-blocks become corporate insiders and are subject to the disclosure rules of the insider trading regulation of the *Securities Exchange Act of 1934* (Section 16). We explore blocks of 1% and 3% as such relatively small percentage blocks can require large capital commitments at firms with large market capitalizations. Further, such small blocks are important for several governance mechanisms relevant to institutional investors (e.g., such smaller blocks are arguably most relevant to governance via exit). Finally, given the emerging evidence that multiple institutional investors engage in parallel in target firms (see Section 5.4.5 for empirical evidence and Section 4.3.4 for theoretical foundations), such small blocks may collectively play a key role in achieving governance outcomes. Stylized facts about such smaller blocks therefore fill an important gap in the literature.

2.1.2 Results on Institutional Blockholdings

Table 2, Panel A, reports summary statistics on the number of institutional blockholders.[5] The unit of observations in the panel is the security-reporting quarter. We find that the average (median) number of institutions with a 1%-block *in a given security* is 11.2 (9.0); when we consider 3%-blocks, these statistics are 4.3 and 3.0, respectively. These figures show that a typical firm has several blockholders with the potential to play an active governance role. When we consider large blocks, the average number of 5%-blocks (10%-blocks) is 2.4 (0.9), indicating that the average firm has between one and two large institutional blockholders, depending on the definition of "large."

[Insert Table 2 here]

In Table 2, Panel B, we report the same statistics for blocks held by hedge funds. For such institutions, the average number of 1%- and 3%-blocks is 2.6 and 1.2, respectively, indicating that the average firm has a hedge fund blockholder in its shareholder base. There is substantial variation in the number of hedge fund blocks across firms. For instance, whereas the 10th percentile for 5%-blocks is zero, the 90th percentile of 3%- and 5%-blocks is 3.0 and 2.0, suggesting that a meaningful fraction of firms has several large hedge fund blockholders.

In Table 2, Panels C and D, we turn our attention to mutual funds. While Panel C reports statistics at the mutual fund *company level*, implying that the figures are directly comparable to those in Panels A and B, Panel D instead considers blocks at the *mutual fund level*. The distinction between these two levels of measurement for mutual fund ownership is important: while portfolio investment and selling decisions are typically made at the fund level, corporate governance decisions (e.g., how to vote) are usually made at the mutual fund company level.

In Panel C, the average number of 1%- and 3%-blocks for mutual fund companies is 2.5 and 0.6. Hence, relative to hedge fund blockholders, firms have fewer mutual fund blockholders in their shareholder base. For instance, the average number of hedge fund 5%-blocks is 0.7, while the average number of mutual fund 5%-blocks is 0.3. The results also indicate that, on average, firm have both hedge

[5] Data on institutional blockholders reported in the table (as well as data on blockholdings by the largest five institutional investors and the Big Three are available upon request from Vyacheslav Fos (fos@bc.edu).

fund and mutual fund blockholders in their shareholder base. For instance, the average number of 1%-blocks for mutual fund companies is 2.5 and for hedge funds it is 2.6 – thus, it is likely that there is a considerable level of interaction between different types of institutional investors when important corporate governance decisions are at stake. The evidence in Panel D indicates that, on average, a firm has more than two 1% mutual fund blockholders. Further, a typical firm has one 3% hedge fund blockholder but no 3% mutual fund blockholder. This difference is consistent with investment restrictions that prevent individual mutual funds from investing large fractions of their capital in just one security.

We next present a sequence of figures that document the time trends in concentrated institutional ownership. In Figure 1, we document a steady increase in the fraction of firms with at least one X%-block held by an institutional investor, with X% denoting again a block of 1%, 3%, 5%, and 10%, respectively. The increase in institutional blockholdings is independent of how we define block sizes. For instance, the percentage of firms with at least one 3%-block owned by an institutional investor increased from 65% in 1999 to more than 90% in 2017. Similarly, the fraction of firms with at least one 5%-block rose from 50% in 1999 to almost 80% in 2017.

[Insert Figure 1 here]

Figure 2 shows time-series evolution of the fraction of firms with at least one block held by a hedge fund. Similar to the evidence on the population of institutional investors in the previous figure, hedge funds blocks became more frequent during last two decades. For example, the fraction of firms with at least one hedge fund 3%-block increased from about 25% in 1999 to almost 70% in 2017.

[Insert Figure 2 here]

Figure 3 shows the fraction of firms with at least one block held by a mutual fund. Interestingly, whereas the frequency of mutual fund blocks increased during the first half of the sample, the fraction of firms with mutual fund blocks has been stable during the second half. For instance, the fraction of firms with at least one 3%-block increased from 25% in 1999 to about 50% in 2009 and remained stable since then.

[Insert Figure 3 here]

Next, Figure 4 shows the percentage of shares outstanding owned by the five largest institutional investors in a firm. The figure shows that the fraction of shares owned by the top-five institutional shareholders has increased during our sample period. Specifically, between 1999 and 2017, the fraction of shares outstanding held by the five largest institutional investors increased from about 20% in 1999 to about 35% in 2017.

[Insert Figure 4 here]

Finally, Figure 5 shows the fraction of shares owned by the three big passive fund families ("Big Three"), that is, by BlackRock, State Street, and Vanguard. The figure shows that ownership by these institutions has increased strongly during our sample period. Specifically, the fraction of shares outstanding held by increased from about less than 1% in 1999 to more than 14% in 2017.

[Insert Figure 5 here]

2.2 Importance of Institutional Investors outside the US

We next turn to the evolution of institutional ownership in firms in China, Japan, Germany, the UK, and India, the five largest economies after the US. In Figure 6, we report the percentage institutional ownership for different country-years over the period 2005 to 2017 (from 2009 onwards for China due to data quality issues). The figure is constructed based on data from FactSet Ownership (previously FactSet/LionShares).

[Insert Figure 6 here]

A few important observations emerge from the figure. First, across all five countries, institutional ownership has strongly increased over the sample period, which is consistent with the US evidence in the previous section (China experienced some small decline in institutional ownership since about 2009). Second, the overall increase in institutional ownership was largest in the UK. Third, at the end of the sample period, institutional ownership was highest in the UK (42%), followed by Germany (29.4%), Japan and India (about 20% each), as well as China (about 10%).

In Figure 7, we report the evolution of *foreign* institutional ownership across the same five countries (we discuss evidence on the governance role of foreign investors in Section 5.4.6). The figure

shows that foreign institutional ownership also trended upwards over the sample period. Further, at the end of the sample period, foreign institutional ownership was highest among UK firms (27.4%), followed by firms in Germany (23%), Japan (14%), India (13%), and China (only 8%).

[Insert Figure 7 here]

Combining information from the previous two figures, Figure 8 reports the time-series development of the *fraction* of foreign institutional ownership (relative to total institutional ownership). An interesting observation that emerges is that the fraction of foreign ownership remained relatively constant in Japan and the UK. In contrast, Germany and especially China experienced a steady increase in the fraction of foreign institutional owners, while India saw a decline. Relative to total institutional ownership, foreign ownership at the end of the sample period amounts to 80% in Germany, 76% in China, 70% in Japan, and 65% in India and the UK, respectively.

[Insert Figure 8 here]

3. Legal Environment: Obligations, Ability, and Incentives of Institutional Investors to Govern

The governance role of institutional investors is affected by the legal framework under which they conduct their business activities, which determines their *obligation* and *ability* to govern portfolio firms. This legal framework also has implications for *incentive structures* permissible to institutional investors that determine their willingness to govern. In this section, we discuss these aspects of the institutional investor landscape. Further, we discuss some of the "how" of corporate governance actions by institutional investors – in particular, the manner in which institutional voice is determined.

Table 1 demonstrates that four types of institutions – mutual funds (20.8%), ETFs (6.6%), and public (5.3%) and private (5.4%) pension funds – represent the bulk of institutional ownership. Accordingly, we organize the discussion of the institutional setting around these four groups of investors. However, throughout we also devote special attention to hedge funds, because *activist* hedge funds – while representing a much smaller ownership stake in comparison to the four largest types of institutions – have wielded a disproportionate influence on governance in the recent two decades. Thus, understanding the

extent to which the legal framework applies to hedge funds is also of relevance. While we devote the greatest amount of space to the US, the largest market for institutional investors and the area in which the literature is farthest developed, we also provide a comparative perspective for some of the countries for which we reported stylized facts in Section 2.

Our focus will be both on what distinguishes across institutional investors and what is common amongst them. Different types of institutional investors are often governed by different legal frameworks, imposing different legal obligations on them. For example, in the US, mutual funds, closed end funds, and the vast majority of ETFs are organized as so-called registered investment companies and governed by the *Investment Companies Act of 1940* (ICA). Such investment companies employ portfolio managers to make investment decisions, and the latter are governed in the US by the *Investment Advisers Act of 1940* (IAA). In contrast, private pension funds are subject to the *Employee Retirement Income Security Act of 1974* (ERISA). While pension funds invest significantly in mutual funds (see Figure 9), ERISA Section 3, paragraph 21(B) states that the investment by a pension plan into an investment company governed by the ICA does not render any ERISA fiduciary obligation on the investment company or its investment adviser.[6] Thus, private pension funds and mutual funds are governed by distinct laws. Public pension funds are subject to neither ERISA nor the ICA and IAA. Hedge funds are organized to be exempt from the ICA but, following the passage of the 2010 Dodd Frank Act, are subject to some of the requirements of the IAA.[7] We discuss the governance obligations of institutional investors in Section 3.1.

[Insert Figure 9 here]

In contrast, commonality arises from their shared identity as equity blockholders. In the US, for example, commonality stems from the unified legal framework in the *Securities Exchange Act of 1934* (SEA) and in the relevant state laws determining the ability of such parties to govern firms. We discuss the governance ability of institutional investors in Section 3.2.

Incentives to govern again vary significantly across institutional investors. While the vast majority of mutual funds charge flat assets under management fees (Elton *et al.*, 2003), hedge funds often charge

[6] Pension funds may either directly invest in a mutual fund product or hire an investment company to invest the money on its behalf and to vote the shares according to specific instructions.
[7] Formally, the advisers of hedge funds (i.e., the hedge fund managers) are governed by the IAA, not the hedge funds themselves. Some advisers were already subject to the IAA before the Dodd-Frank Act.

complex fees involving performance fees and watermarks (Fung and Hsieh, 1999). Public pension plans, on the other hand, are typically overseen by boards that may be politically motivated (Andonov *et al.*, 2018; Woidtke; 2002) and may have different incentives as a result. We discuss governance incentives in Section 3.3.

3.1 Legal Obligations of Institutional Investors to Govern

3.1.1 Obligation to Govern in the US

The legal obligations of institutional investors with respect to the governance of their portfolio firms arise from a variety of sources. For US mutual funds and their investment advisers, the basic obligation to govern arises from state law that pertains to each fund's incorporation.[8] As is succinctly described by the SEC (SEC, 2003a, p. 3):

> *"Mutual funds are formed as corporations or business trusts under state law and, […], must be operated for the benefit of their shareholders. Because a mutual fund is the beneficial owner of its portfolio securities, the fund's board of directors, acting on the fund's behalf, has the right and the obligation to vote proxies relating to the fund's portfolio securities. As a practical matter, however, the board typically delegates this function to the fund's investment adviser as part of the adviser's general management of fund assets, subject to the board's continuing oversight. The investment adviser to a mutual fund is a fiduciary that owes the fund a duty of "utmost good faith, and full and fair disclosure." This fiduciary duty extends to all functions undertaken on the fund's behalf, including the voting of proxies relating to the fund's portfolio securities. An investment adviser voting proxies on behalf of a fund, therefore, must do so in a manner consistent with the best interests of the fund and its shareholders."*

Thus, mutual funds and their investment advisers are obliged to use shareholder voice, that is, to vote their proxies in a manner that is deemed beneficial to the value of the funds. In recent decades, there has been a significant expansion of the obligations of mutual funds and their advisors with respect to the *transparent* and *unconflicted* use of shareholder voice. In particular, the obligations of mutual funds and their advisors now extend, under the ICA and the IAA, to:

1. The public disclosure of proxy voting policies.

[8] It has long been recognized that the relationship between the mutual funds and their investment advisors is highly intertwined, see, e.g., Schiffman (1976).

2. The reporting of votes actually cast either publicly (for mutual funds, under the ICA) or to clients (for investment advisors under the IAA).
3. The establishment of policies to manage conflicts of interest.

The regulatory push for the transparent and unconflicted use of shareholder voice started with pension funds. In 1988, in a letter responding to queries raised by the Chairman of the Retirement Board of Avon Products, Inc. (the so-called "Avon letter"), the US Department of Labor (DoL) opined for the first time that proxy votes were to be treated as ERISA plan assets and thus were captured under ERISA fiduciary obligations (DoL, 1988). The DoL followed this up by further correspondence two years later in the "Monks letter," sent to the then Chairman of ISS, and in 1994 in a legal interpretative bulletin (29 CFR 2509.94-2) that fleshed out ERISA obligations to vote, maintain voting records, and to have a proxy voting policy (DoL, 1990, 1994). While it appears the DoL did not enforce these obligations (McRitchie, 2014), the DoL's visible stance on the importance of proxy voting led to a number of representations (both public suggestions and formal petitions for rule making) to the SEC to make voting mandatory for investment companies governed by the ICA.

In 2003, in the wake of the *Sarbanes Oxley Act of 2002*, the SEC took action on this, making modifications to both the ICA (SEC, 2003a) and the IAA (SEC, 2003b) to enhance transparency in the proxy voting of mutual funds and their advisors. The basis for such amendments was that mutual funds and their advisers often had business ties with portfolio firms, which may have led them to vote their proxies in a manner that favored portfolio firms and their managers (who could otherwise withhold business) rather than their own fund shareholders. Under these amendments, mutual funds, ETFs, and their advisers are obliged to disclose their policies with regard to proxy voting.[9] For mutual funds and ETFs, actual votes cast (either directly, or through an investment adviser) must also be publicly disclosed. Advisers do not have to publicly disclose their votes but must disclose them to their clients upon request. Further, both funds and advisers are required to develop and disclose policies that govern conflicts of interest.

[9] For mutual funds and ETFs such policies may (and usually do) simply involve delegation of voting responsibility to their investment advisers. Advisers in turn are in principle able to have different policies for different client funds, though in practice, in the vast majority of cases mutual fund advisers apply a uniform policy across their client funds. In their large sample study involving all mutual fund proxy votes cast between 2003 and 2011, Cvijanovic *et al.* (2016) find that some 94% of their data involve family-level uniformity, i.e., the adviser who voted the shares followed the same policy across all funds advised.

While the initial regulatory push for transparent voting stemmed from the pension fund sector based on fiduciary obligations under ERISA, the 2003 ICA and IAA amendments have effectively rendered registered investment companies – mutual funds, ETFs, and their advisers – *more* obliged to the transparent exercise of shareholder voice than private pension funds. Indeed, the DoL clarified in a 2007 advisory letter that – since fiduciary duties under ERISA pertained *only* to taking actions that enhanced the economic value of plan investments – private pension funds must undertake a cost-benefit analysis ahead of voting their proxies (DoL, 2007). If the costs of becoming informed in order to vote and any cost arising as a consequence of voting is higher than the portfolio value added by voting, then it is the pension funds' trustees' fiduciary obligation *not* to vote. [10]

Further differences in legal obligations with respect to shareholder voice arise from the fact that *public* pension funds are not governed by ERISA, but instead only by state law (Black, 1992, Woidtke, 2002) and thus are not subject to ERISA fiduciary responsibilities.

Finally, hedge funds are usually organized as limited partnerships in which investors are the limited partners (LPs) and the general partners (GPs) manage the fund by acting as its investment advisers. Hedge funds avoid registration as investment companies (and thus regulation via the ICA) by utilizing two clauses that exempt pooled investment vehicles from registration under the ICA so long as they have either no more than 100 investors (clause 3(c)(1)) or only qualified purchasers (clause 3(c)(7)).[11] A further condition – common to both clauses – is that the fund only sells securities to such investors privately. However, since the passage of the *Dodd-Frank Act of 2010*, hedge fund advisers with more than $150 million under management must register under the IAA, which then subjects them to all applicable provisions of the IAA, including imposing the IAA standard of fiduciary obligation on them (Champ, 2012).[12]

[10] On a legal basis, registered investment companies may of course also still decide *not* to vote if it is in the best interest of their investors.

[11] Qualified purchasers are individuals with at least $5 million in investments or companies with at least $100 million in financial investments.

[12] In general, however, fiduciary obligation for hedge funds is complex due to their organization as limited partnerships and the flexibility permitted under relevant state limited partnership statutes. As Shadab (2009) puts it, *"the fiduciary duties of general partners are to a large extent waivable in the limited partnership agreement."* (Shadab, 2009, p. 248).

3.1.2 Obligation to Govern outside the US

Globally, the legal framework dictating the governance obligations of institutional investors vary significantly. In the UK, governance obligations are defined by a *Stewardship Code*, introduced in 2010 – one of the earliest examples of such stewardship codes – and revised in 2012 and 2020. Institutional investors and their "service providers" (e.g., proxy voting advisers) are required to abide by this code on a "comply or explain" basis – in effect this means that institutional investors must develop policies to either comply with the requirement of the code or explain on their webpages why they do not. Thus, in the UK – unlike in the US – there is less heterogeneity amongst mutual funds, hedge funds, and pension funds with regard to governance obligations. That said, since regulation is carried out under a "comply or explain" basis, there may be more *de facto* heterogeneity across institutional investors.

Interestingly, the UK code imposes some requirements not dissimilar to those of the ICA and IAA – institutional investors must vote proxies in their investors' best interest, must disclose voting policies, record proxy votes, and develop policies to deal with conflicts of interest. Importantly, the UK code requires institutional investors to "constructively engage" with portfolio firms, a condition without legal equivalent in the US.[13]

The UK Financial Reporting Council assess the reported stewardship activities to evaluate adherence to the code. However, it remains a challenge how to properly measure such adherence and especially the quality of engagement, as metrics such as the meeting frequency with portfolio firms contain little information on how deep the engagement is. Likewise, institutional investors may formally comply with the code by simply voting with proxy voting advisors' recommendations. Nevertheless, the UK *Stewardship Code* has been followed widely around the world, and by 2020 a total of 41 stewardship codes (and code revisions) were enacted in more than 20 countries (Katelouzou and Siems, 2020).

The UK code, and that of several other European countries, incorporate (and have influenced) the *EU Shareholder Rights Directive of 2017*, which modified the first *EU Shareholder Rights Directive of 2007*. The Directive was incorporated into national regulations during 2019 and 2020 and, as a result, reduced some aspects of cross-country heterogeneity in EU country governance obligations. However, important

[13] Despite the lack of a legal requirement in the US, McCahery *et al.* (2016) provide evidence that institutional investors do engage behind the scenes with their investee companies.

differences remain (e.g., Germany requires no disclosure of actual proxy votes cast) and not all European countries impose purely code-based governance obligations. Globally, different types of institutional investors are often governed by different laws imposing different requirements. In India, for example, mutual funds and pension funds are governed by (distinct) laws, while insurers are governed by a code, leading to distinct obligations for different types of institutional investors. Table 3 summarizes key corporate governance obligations of institutional investors in China, Japan, Germany, the UK, and India.

[Insert Table 3 here]

In Germany, the obligations of institutional investors are determined by a combination of statutory requirements in the law and codes of conduct privately developed by the investment industry. Thus, different from the UK, Germany has no official code mandating stewardship activities. According to Ringe (2020), a reason for the country's reluctance to introduce a code are concerns that it would be unable to mandate engagement principles for foreign institutions, which constitute about 80% of German total institutional ownership (see Figure 8). The most important private code of conduct was introduced in 2003 by the German Investment Funds Association (BVI) and operates on a "comply or explain" basis. However, the code does not address important governance issues, such as the disclosures of voting records or of conflict of interest policies, and there is no monitoring of compliance with the code.

Similar to the UK, since 2014 Japan has a "comply or explain" stewardship code, revised in 2020, in order to enhance the way in which institutional investors engage with portfolio firms. The Japanese code explicitly states that stewardship activities should not be confined to voting and that engagement should be "constructive." Interestingly, one of the seven code principles explicitly asks institutional investors to develop and disclose a policy on how they manage conflicts of interest with portfolio firms – this seems particularly relevant in Japan, given that some Japanese institutional investors are criticized for too close business ties with their portfolio firms (Miyajima and Hoda, 2015).

3.2 Ability of Institutional Investors to Govern

3.2.1 Ability to Govern in the US

3.2.1.1 US Federal Proxy Access Rules

Institutional investors can actively govern portfolio firms by exercising shareholder voice. As shareholders, institutional investors are able to approach managers through a number of informal, "behind the scenes," channels to make suggestions and express approval or disapproval (for a discussion, see Shleifer and Vishny, 1986). However, to account for instances where managers may not agree with such shareholder suggestions, the effective use of voice requires that institutional investors be able to make *formal* proposals to corporate executives and have the ability to let other shareholders vote on such proposals. Such proposals are commonly referred to as proxy proposals. In the US, the ability of equity blockholders to govern investee firms via proxy proposal and the associated constraints are delineated by the *Securities Exchange Act* and the laws in the states in which portfolio firms are incorporated. These rules apply to all equity blockholders regardless of identity, so individuals, mutual funds, pension funds, and hedge funds, all face identical constraints. Thus, unlike with regard to governance *obligations*, there is commonality in the governance *ability* of US institutional investors in this regard.

The *Securities Exchange Act* provides two ways for blockholders to make proxy proposals. First, under Rule 14a-8, any blockholder owning 1% or $2,000 in market value of a firm's shares for at least one year may include proposals on the firm's proxy statement. These are usually referred to as *shareholder proposals*. While this bar for proxy access is rather low, shareholder proposals must satisfy several conditions. The proposal may not relate to the firm's ordinary business operations, to director elections, and – crucially – they may not stand in conflict (or act as an alternative to) with any management proposal on the same proxy statement. Further, the blockholder is limited to a supporting statement of no more than 500 words. For normally scheduled annual general meetings, shareholder proposals must be filed 120 calendar days ahead of the issuance of the firm's proxy statement. Finally, the proposal also cannot conflict with state law. The net effect of all these restrictions, according to Black (1990) is that *"politically motivated shareholders can offer a wide variety of social responsibility proposals that most shareholders don't care about, while access is sharply limited for issues that affect the corporation as a profitmaking institution"* (Black, 1990, p. 541).

Given these limitations, as an alternative to shareholder proposals, institutional investors may sidestep the firm's proxy statement and solicit their own proxies, leading to what is commonly referred to as a "proxy fight." Fos (2017) shows that the majority of proxy fights are initiated by institutional investors. Avoiding the restrictions of Rule 14a-8 has the significant benefit of providing institutional investors with the ability to make a full case to shareholders and to address a much wider range of issues, including nominating an alternative slate of directors. Yet, it suffers from three important potential drawbacks.

First, a proxy fight is costly due to research, access, compliance, and potential legal costs (discussed below). Gantchev (2013) estimates that activist hedge fund campaigns ending in a proxy fight costs upward of $10 million. Within limits, the reimbursement of a dissident blockholder's expenses is undertaken at the discretion of the target firm board. This means that unless the blockholder is able to replace the majority of the board in the course of the activism campaign, the target board is unlikely to reimburse expenses.

Second, soliciting proxies requires access to shareholder lists. Rule 14a-7 of the *Securities Exchange Act* obliges companies to disclose shareholder lists or mail dissident proxy material to shareholders directly at the dissident's expense. Black (1990) notes that *"Companies invariably mail the materials themselves to avoid disclosing shareholder names…. For shareholder lists, Rule 14a-7 can fairly be called a "nonaccess" rule."* (Black, 1990, p. 542).[14]

Third, the most contentious aspect of proxy access are legal and regulatory risk associated with disclosure and official vetting requirements. The key issue relates to the obligation for pre-filing and approval by the SEC of any materials related to a proxy solicitation, with a lead time of 10 business days before any communication with other shareholders. Further, the term "solicitation" is defined broadly, with Rule 14a-1(1) of the *Securities Exchange Act* considering as solicitation *"communication to security holders under circumstances reasonably calculated to result in the procurement, withholding, or revocation*

[14] In a reform in 1992, discussed below, Rule 14a-7 was changed to impose further requirements on the target company. If the company chooses to mail the shareholder list, it has to disclose information on the number of shareholders management will solicit and provide an estimate of the costs incurred. Further, following the reform, shareholders launching a proxy fight may choose to have target company managers send communication to certain subsets of shareholders (Calio and Zahralddin, 1994).

of a proxy."[15] Finally, solicitation communications are subject to stringent anti-fraud provisions under *Securities Exchange Act* Rule 14a-9*.*

Overall, these provisions hindered the ability of institutional investors to exercise shareholder voice (Black, 1990; Black, 1992; Roe, 1991). In particular, the pre-disclosure requirements made it difficult to challenge management proposals by soliciting proxies, since the delay induced by pre-filing and approval combined with the fact that management proposals were only announced on the proxy statement a month before the annual general meeting formed a nearly insuperable obstacle. Further, the rules rendered difficult any form of pre-voting communication amongst shareholders and also fostered legal risk in obtaining professional advice from proxy advisory services.

In response to these concerns, the SEC undertook a revision to the proxy rules in 1992. A key element of the changes involved the narrowing of the definition of a solicitation – starting in 1992, public communications and declarations by shareholders of how they intended to vote are no longer considered solicitations under the revised Rule 14a-1. While this removed an impediment to the coordination of shareholder opinion, a limitation of the change is that private communication was excluded (Hornstein, 1993). A second key element involved a provision under Rule 14a-2(b) that excluded from the various pre-disclosure requirements communication by (or on behalf of) any person not seeking the power to act as proxy (though they remained constrained by the anti-fraud provisions of Rule 14a-9). A consequence of the change is that it allowed for a degree of communication between independent shareholders (who did not seek to act as proxy for each other) during proxy fights. In terms of actual effects, Choi (2000) shows that the reform only increased the proxy process participation of shareholders such as unions and religious groups with specific agendas, and Bradley *et al.* (2010) shows that it facilitated communication and helped open-ending of closed-end funds.

An outcome of the 1992 reform to Rules 14a-1 and 14a-2(b) is that it facilitated hedge fund activists. These activists usually do not seek the power to act as proxy for other investors, preferring instead simply to persuade other investors to vote in a manner consistent with their activist agenda, thus

[15] Black (1990) notes that the terms "communication" and "reasonably calculated" have been expansively interpreted by US courts so that the effective test is *"whether the communication is "part of a continuous plan ending in solicitation and which prepares the way for its success"."* (Black, 1990, p. 537). This effectively meant that any form of communication amongst shareholders with respect to how to vote would be considered a solicitation, and that even proxy advisory firms would be exposed to the relevant disclosure and vetting processes.

allowing them to benefit from the modifications to Rule 14a-2(b). Further, much of their persuasion is achieved via public means, for example, by active interventions during investor calls or via media campaigns. These interventions therefore benefit from the 1992 modifications to Rule 14a-1. Unsurprisingly, activism by hedge funds emerged as a major corporate governance force around 1994 (Brav *et al*., 2008).

3.2.1.2 US Federal Rules for Proxy Advisory Firms

A further effect of the 1992 reform is that the modifications to Rule 14a-2(b) provided a broad exemption for proxy advisory firms in their operations. While the legal clarity may well have been welcome in 1992 – Black (1990) suggests that prior to 1992 advisory firms such as the ISS were simply ignoring disclosure requirements and thus taking legal risk – in more recent times the exploitation of this exemption has become more controversial. Following the 2003 modifications to the ICA and IAA that made voting, its disclosure, and the declaration and management of conflicts of interest mandatory for mutual funds and their advisers, the use of proxy advisory services has increased substantially. For example, Rock (2018) suggests that in underscoring the need to avoid conflicts of interest, the 2003 reforms to the ICA and IAA *"…created a compliance challenge. By then indicating reliance on guidelines or a predetermined policy of voting based on "the recommendations of an independent third party," the SEC gave a boost to… the proxy advisory industry."* (Rock 2018, p. 20-21). For these reasons, proxy voting advisors are of special relevance for institutional investors. Over time, concern has grown on at least three fronts. First, the proxy advisory industry is highly concentrated, with two players, ISS and Glass Lewis, dominating the market. Second, while advising shareholders how to vote, some proxy advisers also advise target management on how to influence shareholders. Finally, their recommendations are criticized for being opaque and (perhaps necessarily) subjective and sometimes *"appear capricious, particularly on issues such as social responsibility"* (Tett, 2019). These concerns have led the US Chamber of Commerce to lobby for additional regulation of proxy advisory services. We discuss evidence on proxy voting advisors in Section 5.5.

While new regulation is not yet forthcoming, in August 2019, the SEC issued new guidance (SEC, 2019a) with regard to the degree to which the provisions of the *Securities Exchange Act* apply to proxy advisory services. In particular, the SEC reiterated that the opinions of proxy advisory services – notwithstanding the 1992 14a-2(b) exemption from pre-filing and disclosure – continued to fall within the definition of solicitation under the *Securities Exchange Act*, and thus was subject to the stringent anti-fraud

provisions of Rule 14a-9. The SEC went on to make several specific recommendations with regard to *how* a proxy advisory firm may provide reassurance that it was not in violation of Rule 14a-9. This could include, for example, *"an explanation of the methodology used to formulate its voting advice on a particular matter (including any material deviations from the provider's publicly announced guidelines, policies, or standard methodologies for analyzing such matters)"* (SEC, 2019a, p. 12). Thus, the SEC's efforts appear to be aligned with generating greater transparency in the operations and recommendations of proxy advisory firms. More ominously for such firms, the SEC also noted that: *"the staff is also considering recommending that the Commission propose rule amendments to address proxy advisory firms' reliance on the proxy solicitation exemptions in Exchange Act Rule 14a-2(b)"* (SEC, 2019a, p. 3). Simultaneously with this opinion, the SEC issued a second guidance document (SEC, 2019b) that commented at length on the responsibilities of investment advisers with regard to fiduciary obligations in proxy voting. This includes a lengthy discussion of the considerations that investment advisers should undertake when employing the services of a proxy advisory firm to assist in fulfilling their fiduciary obligation to vote proxies in the best interest of their clients. Proxy reform remains an ongoing process.

3.2.1.3 US Federal Ownership Filing Requirements

To exercise influence via voice, it is key for institutional investors to have a significant number of shares. In this regard, a different section of the *Securities Exchange Act* imposes restrictions on their ability to govern (arguably more so than proxy rules). The relevant requirements arise from Section 13(d), under which any person that owns more than 5% of a firm's shares must file a Schedule 13D providing information about themselves, their ownership, and intentions with regard to the firm (within ten business days of crossing the ownership threshold). The same requirement is jointly imposed on groups of investors who collectively have an ownership of more than 5%. The SEC's definition of a group is *"two or more persons who agree to act together for the purpose of acquiring, holding, voting, or disposing of equity securities"* (Rule 13d-5).[16] Anyone who owns more than 5% but does not wish to influence control of the firm may file instead on Schedule 13G.

[16] At large investment managers such as BlackRock, the definition of a "beneficial owner" combines different legal entities within the investment manager together. Morley (2019) shows how this affects the possibilities for activism by large investors.

The disclosure under Section 13(d), and the applicability of such requirements to groups of investors, creates significant legal risk for institutional investors. Even without group disclosure requirements, the obligation for institutional investors to declare their intentions *ex ante* can lead to lawsuits by firm managers on the grounds of concealment of true intent (Macey and Netter, 1987), with attendant costs and risks to the 13D filer. The group filing requirement increases legal risks, because there may be scope to question whether some investors who acted similarly *ex post* (perhaps for independent reasons) had agreed informally to act together *ex ante*.[17] In fact, Black (1990) alleges that 13D regulations are sometimes more restrictive than even the pre-1992 proxy solicitation rules – when shareholders could at most approach ten other shareholders to coordinate – when it comes to the exercise of voice. The definition of a group has legal implications beyond the 13D filing requirements – poison pills, for example, may be triggered when a group of shareholders crosses a certain ownership threshold. However, the legal environment is evolving with some notable changes. Notably, some recent court rulings in relation to 13D regulations provide greater latitude for shareholder coordination, stating that Section 13D does not require shareholders to disclose a group *until* they agreed to act together with respect to the voting of their shares – before that moment they can act together with respect to a target's corporate policy.[18] Nevertheless, McCahery *et al.* (2016) document that concerns about legal risks related to such acting as a group are key impediments for institutional investors to jointly engage with target firms.

3.2.1.4 US State Law

Important further rules governing the ability to exercise voting rights originate from the laws in the US states in which portfolio firms of equity blockholders are incorporated. As more than half of US publicly traded firms are incorporated in the state of Delaware, the laws and courts of this state are most applicable. Key regulation governing the ability of institutional investors to engage in governance activities of Delaware firms are specified in the *Delaware General Corporation Law*. Thus, it is Delaware corporate that determines for instance what institutions can vote on, including the election of directors, mergers, and amendments to the Certificate of Incorporation – the same holds for other governance activities, such the ability to sue a firm or its directors. As the majority of institutional investors neither submit shareholder

[17] Black (1990) provides examples of instances in which institutional investors have been subjected to lawsuits either alleging the existence of an undeclared 13D group or the delay in the revelation of a declared 13D group, and notes that courts have allowed circumstantial evidence to demonstrate the existence of such groups.
[18] See *CSX Corp. v. The Children's Investment Fund Management*, 08-2899-cv (2d Cir. July 18, 2011).

proposals nor enter into proxy fights, the possibility to vote against management at the general meeting – notably, on the election of the board of directors in a proxy contest – is in turn a key channel for many institutions to govern their portfolio firms. The implications of this practice is that the state laws legislating specific voting issues are arguably more important for the ability to govern than the federal proxy voting regulations of Rule 14a-8.

3.2.2 Ability to Govern outside the US

3.2.2.1 Proxy Access outside the US

There is significant variation in the ability to govern globally. In the UK, proxy access is governed by the *Companies Act of 2006* and influenced by the *UK Corporate Governance Code*. Shareholders in the that country have significantly more power conditional on a proxy vote than in the US, because shareholder votes are binding on corporate executives, whereas in the US shareholder proposals are only advisory. Buchanan *et al.* (2012) also note other important sources of enhanced shareholder power in the UK relative to the US. In the UK, a group of shareholders who in aggregate hold 5% or more in a firm can call an extraordinary general meeting (EGM) according to Sections 303 to 306 of the *Companies Act of 2006*. The shareholders can then use the EGM to demand the resignation of the entire board of directors, and they only need a strict majority of shareholders voting to do so. Activist investors in turn may use the *threat* of an EGM when engaging with companies in order to achieve their objectives. An example where an institutional investor successfully called for an EGM and replaced the board is the case of Brazit. In this firm, two institutional investors (one of them the Hermes UK Focus Fund) engaged with the board to demand various changes. When private negotiations failed, the two investors called for an EGM at which the entire board was dismissed (see Becht *et al*., 2009).

In general, UK director elections are determined by simple majority at the general meeting – in contrast to the US where plurality voting occurs – and institutional investors can vote down the re-election of directors at the general meeting. Further, the *UK Corporate Governance Code* requires directors of large (FTSE 350) listed firms to be reelected annually. Thus, UK regulation is arguably more shareholder friendly than in the US on issues such as board elections and the possibility of replacing the board.

To sponsor a proposal, shareholders in the UK need to own in aggregate 5% of the voting shares according to Sections 338 to 340 of the *Companies Act of 2006* (five times the US threshold). Alternatively,

a group of no less than 100 shareholder (each owning no less than £100 in market value) can sponsor a proposal, but this requirement imposes a significant coordination requirement – such shareholder resolutions can then be used to propose the election of a new director. Further, according to the *UK Corporate Governance Code*, if 20% or more shareholders vote against the board recommendation for a resolution at the general meeting, the firm should explain how it intends to consult shareholders in order to better understand the reasons behind the vote.

In Germany, institutional investors' abilities to govern firms are primarily regulated by the *Stock Corporation Act*. According to §122(1) of the act, shareholders owning together at least 5% can request an extraordinary shareholder meeting. Similarly, according to §122(2) shareholders who in aggregate own 5% or more (or at least EUR 500,000 of the share capital) can put an item on the agenda of the general meeting. An important governance tool for institutional investors is the threat to request a special audit according to §142 of the *Stock Corporation Act*, which then assesses whether compensation claims against the board can be raised. If a firm refuses the request of a special audit, investors owning at least 1% (or EUR 100,000) can go to court to request the appointment of a special auditor. A case in point is Volkswagen AG, where a court in 2020 appointed a special auditor in order to investigate the firm's emission scandal.

Another special governance feature in Germany is related to the country's two-tier board system. As a result of this structure, shareholders can only elect members of the supervisory board (with a simple majority), and this body in turn appoints the management board. However, shareholders can use the general meeting to pass a vote of no confidence against the management board. Though extremely rare in German corporate history and operating mostly as a threat, an example for the successful use of this governance channel is the case of Bayer AG – triggered by large legal costs associated with the acquisition of US firm Monsanto, a majority of investors at the general meeting in 2019 supported a no-confidence vote against the firm's management board.

In Japan, several points related to institutional investors' ability to govern are noteworthy. First, any shareholder owning 3% or more in a firm can call an EGM (Article 297 of the *Companies Act*), a hurdle that is lower than in the UK. Second, shareholders owning 1% or more can propose a resolution for the shareholder meeting according to Articles 303 and 305 of the *Companies Act*. Third, compared to many other countries, shareholders in Japanese firms have relatively strong rights with respect to shareholder proposals, as they can pass *binding* resolutions requiring the management to make or change major

business decisions. Despite these relatively strong formal rights for institutional investors, most engagements by institutions in Japanese firms occurs through more informal and private routes. Engagement by foreign activists seem particularly rare to date – despite the relatively large foreign institutional ownership in Japanese firms (Figure 8) – arguably due to cultural reasons and the difficulty of obtaining support from domestic institutional investors.

[Insert Table 4 here]

Table 4 summarizes key proxy access rules for the UK, Germany, and Japan, and the table also contains information for key regulations in China and India. Overall, the displayed information demonstrates that the ownership threshold for proxy access varies between 1% and 10%, with India requiring the largest equity stake. The lead time ahead of the general meeting for shareholders to make proposals known to management varies from 10 days to 45 days (India again requires the longest lead time). In terms of regulations, China is located somewhere in the middle across the five countries with respect to the minimum equity stakes required for proxy access (3% in China) and the lead times for shareholder proposals (10 days). The table also shows that there are differences across major economies with regard to deadlines for firms to respond to or publish shareholder proposals.

3.2.2.2 Ownership Filing Requirements outside the US

Globally, there exist a number of disclosure rules not dissimilar to the 13D regulation in the US. For China, Japan, Germany, the UK, and India, these rules are detailed in Table 5. Two points are noteworthy. First, an inspection of the table makes it clear that there are significant similarities in the disclosure rules between the UK and Germany. This is because they both trace their origins to a single 2004 EU directive, the so-called *EU Transparency Directive* (EU Directive 2004/109/EC). As is often the case with EU directives, member states have a degree of leeway in implementing these in national law, so that regulation need not be identical across countries.

Second, disclosure requirements stemming from the *EU Transparency Directive* are less onerous than those stemming from the *Securities Exchange Act* in the US. While the *EU Transparency Directive* simply requires disclosure of holdings and some information about the chain of ownership at 5% and at a number of thresholds thereafter, the 5% disclosure threshold in the US requires an explicit choice from blockholders – they have to decide whether to be passive (in which case they file a Schedule 13G) or active

(in which case they file a Schedule 13D); in the latter case, they are also required to provide further disclosure of their intentions.

[Insert Table 5 here]

A key related aspect is the question of what constitutes "acting in concert" by institutional investors outside the US, how this differs from the definition of a "group" for US Schedule 13D filings, and what the potential governance consequences of such rules are. The *UK Takeover Code* defines as acting concert the situation where "*persons who, pursuant to an agreement or understanding (whether formal or informal), co-operate to obtain or consolidate control*." In Germany, acting in concert is similarly defined by the *German Securities Acquisition and Takeover Act*. For the ability of institutional investors to govern it is key to note that mistakes in the filing requirements resulting from shareholders acting in concert (or mistakes in ownership filings in general) can lead to the full loss of the voting rights. Importantly, in the UK and Germany, shareholders acting in concert and jointly owning more than 30% of a target firm are required to make a mandatory takeover bid to the remaining shareholders.[19] Hence, rules on acting in concert also act as significant impediments to coordinated shareholder activism outside the US. Yet, similar to the US, some recent court rulings in Germany increased the leeway that investors have when coordinating engagement with target firms.[20]

3.3 Incentives of Institutional Investors to Govern

The impact of the law on incentives is more subtle than its impact on obligations and ability to govern: while in the latter two the impact is primarily direct, the impact on the former is likely to be indirect, working through trade-offs imposed on institutional investors and potentially interacting with the reactions of their clients to any behavior that arises in response to such trade-offs. A full understanding of the impact of regulation on governance behavior thus requires careful modeling and empirical analysis and extends beyond the domain of the legal literature. The academic literature in finance has engaged – theoretically and empirically – with several aspects of the impact of the (law-induced) incentives of institutional investors on their governance behavior. As a result, we take a two-stage approach: in this section, we focus on how the legal environment *fosters* particular trade-offs for asset managers and how

[19] In contrast, there is no mandatory bid requirement under US federal or Delaware corporate law.
[20] See the Ruling II ZR 190/17 by the German Bundesgerichtshof in 2018.

such trade-offs may vary *across* different institutional investors, but leave a more detailed discussion of *how* such incentives affect governance behavior to Sections 4 and 5.

A key manner in which the legal framework ultimately affects incentives to govern is via constraints on fees that institutional investors can charge. In the US, the IAA forbids registered investment advisers from the charging of performance fees to clients based purely on fund profits unless these fees are symmetric in losses and gains relative to a benchmark (the so-called "fulcrum fee rule"), leading to the vast majority of mutual funds to charge flat assets under management fees (Elton *et al.*, 2003). However, as Shadab (2009) notes, there is a key exemption. The adviser may charge performance fees when advising a fund which is exempted from registration under the ICA under Clause 3(c)(7) or if all fund investors meet certain qualifying (net worth or investment) characteristics. Since hedge funds are almost universally organized to be exempt under Clause 3(c)(7), this means that even following the *Dodd-Frank Act*, hedge funds advisers are free to charge performance fees to their clients. Accordingly, the vast majority of registered investment companies charge flat fees designated as a percentage of assets under management (AUM fees), while hedge funds charge a combination of such fees with (much higher percentage) performance fees designated on performance over some benchmark or watermark.

The preponderance of AUM fees fosters rather directly the temptation to increase assets under management and thus induces registered investment companies to "compete for flow." The asset pricing literature persuasively documents that mutual funds respond in their trading and risk-taking behavior to such flow incentives (Brown *et al.*, 1996; Chevalier and Ellison, 1997). The corporate governance literature, discussed in Section 4, show that such flow incentives may weaken the incentives of mutual funds to govern via exit and voice (Dasgupta and Piacentino, 2015; Song, 2017). Recent papers nevertheless also demonstrate how flow incentives can generate subtle positive governance effects by inducing mutual funds to support activist hedge funds in their engagement efforts (Brav *et al.*, 2021; Cvijanovic *et al.*, 2019).

The IAA's prohibition of asymmetric performance fees also makes it difficult for registered investment companies to tie fees to returns from specific governance activities that may – in principle – generate high returns. For example, an activist engagement in a firm may significantly enhance its value, and thus the portfolio value of a fund that holds a significant fraction of the firm's shares. Yet, if only the AUM fee fraction of the value enhancement (typically between 1% and 2% for mutual funds) can be earned

by the fund, then there is little incentive to pay the significant costs associated with the activist engagement (Bebchuk *et al.*, 2017).

Legal scholars suggest that a second manner in which the law affects governance incentives of investment companies is via the requirements for the transparent and unconflicted use of voice. Rock (2018) argues that these disclosure requirements have fostered "compliance type" incentives in governance. Referring to the 2003 SEC amendments to the ICA and IAA, Rock writes (p. 20-21):

> *"The SEC, in emphasizing money managers' fiduciary duties, and the extent to which conflicts of interest may breach those duties, created a compliance challenge. By then indicating reliance on guidelines or a predetermined policy of voting based on "the recommendations of an independent third party," the SEC gave a boost to "guideline based voting"… as well as to the proxy advisory industry."*

It is plausible that investment companies and advisers treat governance as a compliance issue. In indirect support of such a link, Bebchuk *et al.* (2017) and Rock (2018) note that the large asset management families have very small governance departments. According to data in Bebchuk and Hirst (2019), BlackRock, for example, had a team of only 45 people responsible for 11,000 equity positions worldwide. Rock (2018) also notes that the senior staff within these governance departments are not compensated in a manner that relies on the value of assets under management. However, the finance literature suggests that we should be cautious in attributing compliance incentives to asset managers when it comes to governance. Iliev and Lowry (2015) demonstrate substantial heterogeneity amongst mutual fund families in the degree to which they rely on third-party recommendations for their voting, with only 25% of such fund families following such recommendations uniformly. (Further related papers are discussed in Section 5.) Similarly, an examination of the SEC 2003 amendments also suggests that the SEC considered, but did not implement, a proposed further change (SEC, 2003a, p. 12):

> *"The Commission has determined not to adopt the proposed requirement that a fund disclose in its annual and semi-annual reports to shareholders proxy votes (or failures to vote) that are inconsistent with the fund's proxy voting policies and procedures… Opponents of proxy voting record disclosure argued that the disclosure of inconsistent votes would be burdensome because it would require funds to analyze a large volume of proxy votes to determine whether any vote triggered the disclosure and then to provide a lengthy explanation to shareholders regarding each inconsistent vote…"*

As a result, in practice, funds may have significant latitude with regard how they vote on a particular proposal at a particular firm: since large fund families (as is clear from the extract above) vote in a huge number of proxy proposals in any given reporting period, and it would not be difficult in principle to (quietly) vote in a manner that selectively violates its declared policy in a relevant case. This could, of course, have the benefit of rendering the exercise of voice less of a "compliance" issue as feared by Rock (2018), but it could also enable fund families to favor the management view in instances where they have other connections (e.g., due to existing business ties) with portfolio firms.[21] It is worth pointing out that the legal framework fosters a further difference between registered investment companies and hedge funds with respect to the exercise of voice: as Bebchuk *et al.* (2017) emphasize, since hedge funds cannot accept 401(k) investments, they are less tempted to pro-management voting.[22]

A final manner in which the legal framework affects governance incentives is through the nature of institutional investors' internal governance. As discussed above, state pension funds are often governed by elected boards with political objectives and may well have differing incentives from those of private funds (Black, 1992; Woidtke, 2002).[23] Labor union pension funds, which are regulated under ERISA (like private pension funds), represent a particularly interesting case. As discussed in Section 3.1, the exercise of shareholder voice falls within the purview of ERISA fiduciary obligations: various communications from the DoL in the 1980s and 1990s established that proxy votes were to be treated as plan assets. However, the 2007 clarification issued by the DoL stated that ERISA treats the economic value of plan investments as primary – if there is a conflict between the obligation to vote and the obligation to maximize the economic value of plan assets, then voting is not recommended. Thus, a plan that votes in a manner that reduces the economic value of plan assets would surely be in violation of ERISA fiduciary obligations, and thus at clear risk of lawsuits by plan beneficiaries. Yet, it turns out that ERISA fiduciary obligations have limited bite for labor union pension funds, because the plan beneficiaries are workers whose interests may sometimes diverge from the economic value of the companies that employ them. For example, if a labor union pension funds takes proxy voting actions that seek to support workers' rights at a particular

[21] As we discuss in Section 4, the finance literature documents evidence of such pro-management voting at the level of closely-contested individual proposals in individual firms with which large fund families have substantial 401(k) pensions management business ties (Cvijanovic *et al.*, 2016).

[22] Morley (2019) argues that activism by big investment advisers is impeded due to internal conflicts among their clients with regard to activism.

[23] Further complications for public pension and labor union pension funds arise because of the specific governance rules on how current employees and retirees elect the funds' boards (Webber, 2014).

corporation inducing a potential loss in the value of that corporation, they would be *de jure* in violation of ERISA fiduciary obligations, but their *de facto* risk of a lawsuit would be minimal because the actions are benefiting exactly the people who have the right to sue them. Indeed, the literature has documented evidence of such behavior: Agrawal (2012) shows that some labor union pension funds pursue worker's rights at firms in which they are significantly represented by aggressively voting against management recommendations in director elections.

4. Theoretical Literature on Institutional Investors and Corporate Governance

4.1 Classical Theoretical Literature on Blockholder Governance

The theoretical literature on the corporate governance role of institutional investors stems from the blockholder monitoring and engagement literature. The underlying need for blockholder monitoring arises from the separation of ownership and control in publicly traded firms coupled with the failure of compensation contracts and/or board monitoring to overcome the negative effects of such separation.[24] The classical blockholder monitoring literature has proposed three distinct (but interrelated) channels by which blockholders may govern firms.

At the *passive* end of the monitoring spectrum, blockholders may monitor firms via (the threat of) trade, also often referred to as "governance via exit" (Admati and Pfleiderer, 2009; Edmans, 2009). In these models corporate executives take actions of varying desirability from the perspective of firm value, and blockholders trade on the basis of the observation of such choices, impounding the impact of managerial actions into prices and delivering market discipline.

By way of comparatively *active* monitoring, blockholders may take actions – behind-the-scenes engagement, public interventions, shareholder proposals, voting on proposals, or proxy fights – in order to directly enhance firm value. Such activities are collectively referred to as blockholder "voice." The extensive theoretical literature (beginning with Shleifer and Vishny, 1986) on "governance via voice" has

[24] For insightful recent surveys of the benefits and limitations of boards and executive compensation see Adams *et al.* (2010) and Edmans *et al.* (2017), respectively.

focussed on issues such as the role of block size, the number and size distribution of blocks (Winton, 1993; Edmans and Manso, 2011), and the costs of external monitoring (Burkart *et al.*, 1997).

Finally, at the most active end of the intervention spectrum, blockholders may "govern via takeovers" (Grossman and Hart, 1980). A few papers allow for blockholder trade while focussing on active monitoring via either takeovers (Kyle and Vila, 1991) or voice (Kahn and Winton, 1998; Maug, 1998; Faure-Grimaud and Gromb, 2004), though in none of these papers is trade inherently a governance mechanism.[25]

The canonical models of blockholder monitoring are non-specific with respect to the *identity* of the blockholder: they apply equally well to (wealthy) private individuals and institutional investors. This is a consequence of the fact that such models feature governance actions that are readily accessible to any blockholder regardless of their identity. For example, for a given (qualifying) level of ownership, an individual blockholder is as well able as an institutional blockholder to place shareholder proposals on a firm's proxy statement, to vote on such proposals, to gain information about management's actions, and to trade on such information. Indeed, the early history of shareholder engagement, which formed the backdrop for the original theoretical literature on blockholder monitoring, involves both individuals and institutions. In their depiction of the history of shareholder activism in the US, Gillan and Starks (2007) highlight the early role both of prominent individuals (e.g., Evelyn Davis, Lewis and John Gilbert, and T. Boone Pickens in the 1970s and 1980s) and of institutions (e.g., the public pension funds CalPERS and CalSTRS in the 1980s).

The non-specificity of the classical theoretical literature with respect to the identity of blockholders stands in contrast to our specific interest in the role of institutional investors. As a result, we do not dwell in detail on this broader set of papers. For an excellent and comprehensive survey of this broader literature, we refer readers to Edmans and Holderness (2017). For our purposes, we focus on contributions that study institutional investors specifically. In other words, we trace the *response* of the theoretical blockholder monitoring literature to the significant growth of the asset management industry documented above.

[25] Recent papers have generalized models that incorporate trading and voice (Back *et al.*, 2018), modeled the choice between voice and takeovers (Burkart and Lee, 2021; Corum and Levit, 2019) and also considered the complementarity of governance via exit and voice (Dasgupta and Piacentino, 2015; Levit, 2019).

There are two conceptual ways in which this newer literature has focussed on institutions. First, this literature has identified institutions by focussing on "what they can do," that is, by conditioning on abilities specific to institutional investors. Second, this literature has identified institutions by focussing on "who they are," that is, by conditioning on the identity of institutional investors as *delegated* blockholders acting as agents of end-investors who provide them capital, which in turn defines their incentives to govern. We discuss these two strands of the literature in Sections 4.2 and 4.3. Finally, the theoretical literature has recently focussed in on the effect of proxy voting advisors, who have gained prominence in the voting process given the obligations of institutional investors to vote. We discuss this in Section 4.4. Overall, though they are presented in an order reflecting the chronological development of the literature, by focussing on the ability to govern, the incentives to govern, and the obligations to govern, Sections 4.2, 4.3, and 4.4 form conceptual parallels to Sections 3.2, 3.3, and 3.1, respectively. Finally, there are significant – albeit imperfect – links between the theoretical (Section 4) and empirical (Section 5) literatures in finance on the governance role of institutional investors. For expositional ease, we examine links between the theory and empirics – and discuss areas in which these can be enhanced – at appropriate points in Section 5. We also return to some key themes with regard to linking theory and empirics in our concluding Section 6.

4.2 Theories Centered on Institution-Specific Ability

Chronologically, the first set of theoretical papers that modelled factors specific to institutional investors in corporate governance focused on their ability as sophisticated traders. This strand was motivated by the growth of hedge funds, who are nimble and sophisticated traders, able to utilize trading strategies usually unavailable to individual investors. Early in the century, regulators, and practitioners expressed concerns that hedge funds were exploiting their trading ability, including access to sophisticated derivatives markets, to acquire voting power in excess of their economic interest thus nullifying the "one-share, one-vote" structure usually embodied in public firm charters (Grossman and Hart, 1988). Legal scholars (e.g., Hu and Black, 2007) argued that this phenomenon, often referred to as "empty voting," could lead to perverse outcomes.[26] For example, if hedge funds could first acquire an excess of votes by borrowing shares on the record date of an important vote, but then skilfully trade to a short position in

[26] The term "empty voting" is not meant to be taken literally, as in the situations under consideration hedge funds do not literally have zero economic interest in the firm.

the period by the time the voting date arrived, then they could vote against a proposal that would otherwise enhance firm value in order to profit from their short position.

Brav and Mathews (2011) consider the economics of empty voting. They recognize the underlying trade-off that while hedge funds may have the incentive and ability to manipulate outcomes, they may also be better informed about the value inherent in individual proposals. Due to this information advantage, when other shareholders are less likely to be informed or vote in the correct manner, empty voting by hedge funds may be value enhancing. However, Brav and Mathews (2011) also argue that if it is relatively inexpensive to separate voting power from economic ownership at the record date (as a result of being able to borrow shares easily and cheaply), or if the existing shareholder base is sufficiently likely to vote in the correct manner, then the negative aspect of hedge funds' manipulation incentive may dominate, making empty voting a net negative.

Other researchers study a phenomenon closely related to empty voting, namely a situation in which a hedge fund can acquire a short position in a firm's equity while holding a long position in its debt close to a restructuring. In this case a hedge fund could again obtain trading profits by voting – as debt holder – against a restructuring proposal that preserves or enhances firm value. This issue is particularly relevant since hedge funds are known to be involved in the vast majority of large debt-restructurings in the US (Jiang *et al.*, 2012). Of course, restructuring proposals are endogenous, and corporate executives may adjust their proposals to nullify such strategic manipulation. Zachariadis and Olaru (2017) consider when such manipulation may be possible despite the endogeneity of restructuring proposals. They show that such manipulation is feasible when non-hedge fund traders are net buyers in the equity market (providing cover to hedge fund short-selling) and debt and equity markets are informationally segregated (so that hedge funds purchases in debt markets do not affect their ability to short sell in equity markets) and that it is precisely under such circumstances that corporate executives are most tempted to risk extracting higher value for shareholders by making aggressive restructuring proposals.

Brav and Mathews (2011) and Zachariadis and Olaru (2017) apply to institutional investors specifically as the mechanisms rely on the ability of hedge funds to trade across markets, borrowing and short-selling shares, trading simultaneously in debt and equity markets, and hedging economic exposure in derivatives markets. In a similar vein, Edmans *et al.* (2019) focus on another distinctive aspect of institutional investors – that, by virtue of their size, they are *common* owners across large numbers of firms

as a result of their size.[27] Their insight is to recognize that such common ownership can potentially enhance governance via both exit and voice. This is because, when investors choose *which* of many potential firms to sell, their sale is more informative than if they held only a single firm. This increases the price impact of their sale which improves information aggregation (enhancing the exit governance mechanism) and simultaneously increases the cost to "walk away" from the firm (enhancing incentives to engage via voice). Interestingly, the positive characterization of the governance impact of common ownership in Edmans *et al.* (2019) stands in contrast to some of the empirical literature which focuses on the anti-competitive effects of common ownership (see Schmalz 2018 for a recent survey). Building on the ability of institutional investors to hold many shares – but simultaneously recognizing that there are limits to the attention that such investors can devote to each firm in a large portfolio – Gilje *et al.* (2020) develop a model to quantify the impact of ownership overlap. They show that the impact of common ownership on managerial actions depends simultaneously on the degree to which the manager cares about institutional investor preferences, the weight the institution places on the relevant cross-firm externality, and the likelihood that the institutional investor is well informed about the portfolio value impact of the manager's choices.

4.3 Theories of Blockholders as Agents

4.3.1 Dual-Layered Agency Structures

Institutional investors are – by definition – asset managers, that is, they manage other people's money. This endows their role in corporate governance with a unique set of characteristics. When institutional investors hold equity blocks they participate in a dual-layered agency relationship. On the one hand, as equity holders in the firms in which they hold blocks, institutional investors act as principals who must monitor the actions of their agents (corporate executives). On the other, institutional investors are themselves agents, acting on behalf of their own clients (fund investors) and are monitored by them. Thus, institutional blockholders are simultaneously principals and agents. The second strand of the theoretical literature takes this dual-layered agency relationship as a starting point to examine the role of institutional investors in corporate governance.

The essence of how dual-layered agency structures may affect the governance role of institutional investors stems from incentives arising from the agency relationship between asset managers and their

[27] Another contributory factor, particularly for mutual funds, are limits on holding concentrated positions in individual firms, which leads to a spreading of holdings over many firms.

investors. Any aspect of incentives arising from such a relationship that leads institutional investors to behave differently from the stylized profit maximizing agents of the traditional blockholder monitoring literature (see Section 4.1) can affect the nature of corporate governance.

One key aspect of differences in incentives is canonical: almost by definition, an asset manager holding a block of shares will have a lowered level of direct interest, i.e., lowered "skin in the game" than a proprietary blockholder (who owns 100% of the block). The degree to which such skin in the game is reduced may vary across types of institutions. At one extreme, retail-facing, large, long-only asset managers such as mutual funds tend to have very little skin in the game. According to Khorana *et al.* (2007) over half of mutual funds have zero managerial ownership. In contrast, smaller, less regulated vehicles such as hedge funds that cater to more sophisticated clients can have significantly higher skin in the game. The literature suggests that hedge funds' skin in the game can vary from around 7% (Agarwal *et al.*, 2009) to 20% (He and Krishnamurthy, 2013); recent data by Gupta and Sachdeva (2019) also documents large cross-sectional variation in hedge funds' skin in the game.

A second key aspect of the agency relationship between asset managers and their investors is shaped by regulation. As discussed in Section 3.3, in the US the IAA forbids registered investment advisers from the charging of performance fees to clients based purely on fund profits unless these fees are symmetric in gains and losses (the so-called "fulcrum fee rule"). This leads the vast majority of mutual funds to charge flat assets under management fees (Elton *et al.*, 2003). As discussed above this in turn fosters a temptation to increase assets under management and thus induces registered investment companies to "compete for flow." Such competition for flow is central to the incentives of mutual fund managers (Brown *et al.*, 1996; Chevalier and Ellison 1997). However, even hedge funds – which are exempt from registering as investment companies under Clause 3(c)(7) of the ICA and thus have complex contingent compensation contracts (see Section 3.3) – gain a majority of their overall compensation from future flows rather than from their explicit compensation (Lim *et al.*, 2016).[28]

[28] As Lim *et al.* (2016) find, flow considerations are more relevant for younger, growing hedge funds as older, successful hedge funds are often closed to new capital.

4.3.2 Dual-Layered Agency Models and the Exit Mechanism

The theoretical literature focussing on the dual-layered agency problem has considered both the effects of skin in the game and the role of competition for flow in affecting the governance role of institutional investors. Dasgupta and Piacentino (2015) study the role of competition for flow and skin in the game in a dual-layered agency model of the exit mechanism. In their model, funds (institutional investors) are differentially skilled stock pickers who must choose amongst firms on the basis of firms' future cash flows. These cash flows in turn are determined by the quality of firms' governance, about which funds have private information. In poorly governed firms, executives may take value destroying actions. Funds observe such choices and then decide whether to sell or not. The noisy market reacts imperfectly to such trades.

Exit governance works best if blockholders sell whenever executives make value destroying choices, thus lowering prices and punishing the executives. A credible threat of exit makes corporate executives take value destroying choices less often. In the canonical exit model of Admati and Pfleiderer (2009), which features proprietary blockholders, the threat of exit is always credible, because a blockholder who observes executives making value destroying choices would rather sell now in a noisy market than hold and feel the full negative value impact. Dasgupta and Piacentino (2015) show that competition for flow reduces the credibility of the exit threat, weakening exit as a governance mechanism. Funds who execute on a threat of exit convey information about their own *ex ante* choices to their investors. By exiting, the fund highlights that it chose a poorly governed firm to hold a block in, which reduces investors' confidence in the fund's stock picking ability. This leads to outflows which is costly for the fund, making the fund reluctant to exit and reducing the credibility of the exit threat.

Such competition for flow is complemented by the skin in the game effect. Exit governance works better the more keenly blockholders feel the value reducing impact of executives' choices. The lower the skin the game, the less the fund will suffer directly from value reduction. Dasgupta and Piacentino (2015) also show that when blockholder voice is non-binding on corporate executives (as is the case for shareholder proposals in the US), then blockholders who compete for flow will also be less likely to intervene. This is because the blockholder's threat to exit if his intervention is ignored is less credible, making it likely that executives will ignore that blockholder's voice, disincentivizing him from expending effort on interventions.

4.3.3 Dual-Layered Agency Models and Short-Termism

At the broadest level, competition for flow is a particularly salient manifestation of short-termism. For example, in the discussion above, when corporate executives make poor choices, institutional blockholders who compete for flow are hesitant to take the action (exit) that maximizes long-term payoffs, instead endogenously giving priority to the short-term gains and losses arising from retaining or losing assets under management. In an early contribution, Goldman and Strobl (2013) examine the implications of exogenously specified blockholder short-termism on the complexity of firm investments. In their paper, it is assumed that the horizon of a blockholder – interpreted as an institutional investor – is shorter than the amount of time required for the market to correctly value corporate investments. This tempts the blockholder to manipulate share prices, which executives try to counter by increasing the complexity of their investments. The overall effect is to reduce the informativeness of share prices, thus weakening monitoring via trade.

While Goldman and Strobl (2013) and Dasgupta and Piacentino (2015) both consider *passive* monitoring via trade, Burkart and Dasgupta (2021) consider whether competition for flow can induce short-termism in *active* monitoring as well. In particular, they show that activist funds who compete for investor flows may be sub-optimally myopic in their engagement strategy, taking actions that shift returns to their investors forward in time at the expense of long-term cash flows. In particular, activist funds excessively leverage their target firms, risking subsequent debt overhang if economic conditions deteriorate, significantly reducing the overall cash-flow generating potential of activists.

In a related but distinct context, Piacentino (2019) examines the governance impact of competition for investor capital by institutional investors who provide financing in *primary* markets. Such investors – venture capitalists – are differentially informed in Piacentino (2019). Uninformed venture capitalists are reluctant to back start-up firms because they fear being revealed as being uninformed down the road, curtailing their ability to obtain additional or follow-on investor capital. This improves the average quality of venture capital backed firms in primary markets, providing a “certification effect” and improving the allocation of financing to projects.

4.3.4 Dual-Layered Agency Models and Multiple (Interacting) Blockholders

A number of papers consider the role of competition for flow in *multiple* blockholder contexts. These papers demonstrate the nuanced impact of institutional investor incentives in a multiple blockholder setting. Song (2017) considers the interaction of a flow-motivated blockholder (a fund) with a second blockholder who is not flow-motivated (a proprietary blockholder). This interaction between dissimilar blockholders gives rise to two effects. First, as a result of the disincentive of the flow-motivated blockholder to intervene (as shown in Dasgupta and Piacentino, 2015) the proprietary blockholder recognizes that his effort is essential and may intervene more, that is, free-riding is reduced. In turn, Song (2017) argues that the fear that the flow-insensitive blockholder may exit and make an inactive flow-motivated blockholder look bad in the eyes of his clients may actually induce him to intervene directly.

In contrast to Song (2017)'s focus on interactions between dissimilar blockholders, Brav *et al.* (2021) study the possibility of parallel engagements by *similar* blockholders in the form of so-called "wolf packs" of several activist hedge funds who hold relatively small blocks – a phenomenon that has attracted significant recent attention from practitioners and lawmakers. Such multi-blockholder parallel engagements are salient precisely because of the preponderance of small institutional blockholders (as we document in Section 2): while each blockholder is unlikely to have much individual governance impact, collectively their joint engagement has significant potential. Yet, phenomena such as wolf packs are puzzling from a theoretical angle: When engagement is costly, small blockholders are likely to *under*-engage relative to the social optimum. This is because of the public goods problem inherent in blockholder engagement: successful engagement efforts benefit even those blockholders who do *not* engage. While a social planner would account for gains to the full set of shareholders, individual blockholders only take into account private returns. A potential solution to such public goods problems takes the form of transfers across agents: rewarding those that provide the public good at the expense of those who do not. In this context, Brav *et al.* (2021) consider the impact of a dual-layered agency relationship in fostering parallel engagement. They argue that while reduced skin in the game arising from delegation *worsens* the public goods problem, competition for flow can ameliorate it. The reason is that skilled funds enjoy an advantage over unskilled funds with respect to costs or information in activist engagements, which means that participation in a successful campaign signals ability to fund investors. Such fund investors then gain reallocatable investor capital from those funds who do not participate, because fund investors wish to invest with skilled funds. Thus, effectively, investor flows form an endogenous set of transfers that reward

those blockholders who engage at the expense of those who do not, ameliorating the public goods problem and enhancing engagement incentives across small blockholders.

Finally, like Song (2017), Cvijanovic *et al.* (2019) also focus on the interaction between different types of blockholders. They show that flow-sensitive blockholders may rush to sell out of a firm following the exit of an informed blockholder – potentially even ignoring their own information – fearing that they will otherwise be left invested in a firm that is likely to underperform, leading to outflow. This in turn enhances the price impact from the informed blockholder's exit, increasing his influence over management, enhancing governance via exit.

A key theme that emerges from the literature on dual-layered agency models is institutional investor heterogeneity. In Dasgupta and Piacentino (2015), Song (2017), and Cvijanovic *et al.* (2019) blockholders with differing incentives behave differently. Such differences in behaviour can lead to relevant interactions in governance as discussed above. This literature strongly suggests that empiricists should not expect institutional investors of different kinds to act identically as company stewards: the heterogeneity across blockholders provides a new focus for empirical analysis. We discuss empirical approaches to blockholder heterogeneity in Section 5.4, where we also outline specific ways in which the empirical literature has engaged with the theoretical predictions outlined here.

It is also worth noting that while the theoretical literature has, to date, only considered dual-layered agency relationships, in reality the investment choices of institutional investors may create ownership chains characterized by *multi*-layered agency relationships. For example, as Figure 9 shows, US pension funds invest significantly in mutual funds. When they do so, they create (at least) a *triple-layered* agency relationship. Similar multi-layered agency relationships are created by investment in funds-of-funds. The study of multi-layered agency relationships in the context of corporate governance represents a potential growth area for the theoretical literature.

4.3.5 Active and Passive Management

At a theoretical level, Corum *et al.* (2020) consider a different source of heterogeneity across institutional investors, namely, whether they are active or passive investors. Their paper sheds light on the empirical debate about the governance impact of the rise of passive investment vehicles (see Section 5). In contrast to the theoretical literature discussed above, which focuses on the incentives of active funds

to compete for flow, they look at reallocation of capital across three investment *modes*: private (non-intermediated) investment, investment in passive funds, and investment in active funds. The size of each sector and the fees paid to funds is endogenously determined. Corum *et al.* (2020) note that both the fund size (which determines exposure to the firm) and fund fees (which determines the fund's skin in the game) affect incentives to engage in the costly monitoring of portfolio firms. In this context, the expansion of low fee passive managers does not necessarily worsen governance. If, for example, the growth of low-fee passive funds occurs at the expense of private (non-intermediated) investment without affecting the size of the actively traded sector, then governance can improve because – despite their lower fees – the increasing size of passive funds may induce monitoring. If, on the other hand, the growth of low-fee passive funds occurs at the expense of active funds, then governance can decline, particularly so for undervalued firms in which actively managed funds try to invest.

Further subtle effects of the growth of indexing are examined by Levit *et al.* (2021). Their model explores the interaction of shareholder democracy (the determination of corporate policy by proxy voting) with share trading in a model with heterogeneous preferences. A key difference between political democracy and shareholder democracy is that in the latter the voters also trade, and trading affects the voter base. Because trading anticipates voting outcomes, but the outcome of trades affects the voting outcome, a feedback loop emerges that can introduce indeterminacy, and drive a wedge between prices and shareholder welfare (by making the marginal voter more extreme in their preferences than the average post-trade shareholder). In this context, Levit *et al.* (2021) argue that indexing – which reduces the degree of unrestricted share trading and thus the intensity of the feedback loop – can reduce indeterminacy, while having a non-monotone effect on firm value.

4.4 Theories on Institutional Investors and Proxy Voting Advisors

As noted in Section 3, the services of proxy voting advisors play a key role in the governance efforts of institutional investors. This role is unique to institutional investors as a result of at least two factors. The first factor stems from scale. Large institutional investors such as mutual fund companies hold shares in many companies, and must – by law – vote in a manner consistent with the best interest of their investors. This is a challenging task and has engendered a market for voting advice, leading to the rise of proxy voting advisors such as ISS and Glass Lewis. The second factor is stems from regulation. As discussed in Section 3, the mandated public reporting of both voting policy and votes actually cast by registered investment

companies since 2003 has increased scrutiny of institutional voting. This has fostered what legal scholars sometimes refer to as a "compliance challenge" for such institutional investors: it may simply be "safer" to outsource voting choices to external parties such as proxy voting advisors. In Section 5, we provide a careful discussion of the empirical evidence on the degree to which institutional investors rely on and are influenced by proxy voting advice.

The theoretical literature has lagged behind its empirical counterpart with regard to analysing the role of proxy advisors. However, the recent contribution of Malenko and Malenko (2019) provides a key analysis of several aspects of the economics of such information intermediaries. In their model, shareholders vote on a proxy proposal that may raise or lower firm value and can acquire information on the worth of such a proposal either by conducting (at some cost) private research or by paying a fee to a monopolistic proxy advisor. Shareholders then vote on the basis of this information and their votes determine the outcome and thus firm value. Therefore, in Malenko and Malenko's model, the availability of good information across shareholders translates into higher firm value. In this context, the presence of the proxy advisor fosters a key trade-off: on the upside, it provides the option to purchase an informative signal; on the downside, it reduces incentives to produce (independent) private signals about proposal value by conducting (independent) research, a "crowding out" effect. This matters because when shareholders undertake their own research, errors in their assessment of proposal value are uncorrelated with each other, and will wash out over a large number of shareholders. In contrast, if all or many shareholders purchase the same signal from a proxy voting advisor, any errors in the proxy advisor's assessment will be correlated across (all or many) shareholders, leading to a higher probability of incorrect voting outcomes. In other words, as Malenko and Malenko (2019) insightfully observe, for any given fee charged by the proxy advisor, there is a minimal level of precision of the information produced by the proxy voting advisor below which its presence is actually detrimental to firm value because the crowding out effect dominates. Further, if the proxy voting advisor strategically sets its fee to maximize profits, a second inefficiency arises. A proxy voting advisor with low quality information is likely to charge a low fee, enhancing the crowding out effect precisely when the quality of advice is poor. In contrast, a proxy voting advisor with high quality information may set a fee high enough to even ration access to its information, precisely when it is most valuable.

Malenko and Malenko (2019) also sheds light on two issues that arise prominently in our discussion in Sections 3 and 5. First, the "compliance challenge" created by the post-2003 regulatory

framework – as discussed in Section 3 – may make things worse: when institutional investors are motivated by a fear of litigation of regulatory censure, they are all the more likely to underinvest in private information production, exacerbating the crowding out problem. Second, the empirical literature discussed in Section 5 has focussed on the potential benefits of competition in the market for voting advice. However, holding the quality of advice constant, if competition lowers fees, it is again possible that the crowding out effect is enhanced.

As discussed in Section 3.2.1.2, there is growing concern amongst both institutional investors and regulators about the potential for conflicts of interest when proxy voting advisors make voting recommendations for proxy proposals at firms with which they have separate advisory relationships. The recent theoretical work of Levit and Tsoy (2021) speaks to this issue. They consider a setting in which an expert makes recommendations to multiple recipients. It is commonly known that the expert is biased because he prefers one (of several) recipient to act in a particular manner; but it is unknown *which* recipient forms the focal point of his bias. Such an expert is tempted to make one-size-fits-all recommendations – i.e., excessively correlated recommendations across disparate recipients – precisely in order to hide the identity of the recipient generating his bias. Since the advisory relationships of proxy voting advisors is not publicly known, such a model provides a lens through which to interpret the oft-criticized one-size-fits-all recommendations of proxy advisors. Empirical evidence on such one-size-fits-all recommendations is discussed in Section 5.5.3.

5. Empirical Literature on Institutional Investors and Corporate Governance

In this section, we provide a thematic overview of the empirical literature on institutional investors and corporate governance. We focus on two key ways in which institutional investors feature in the empirical literature. First, institutional investor data have been used to examine a number of classical theories of corporate governance. While such underlying theories – as noted in Section 4.1 – are not specific to institutional investors (and predate the institution-specific theoretical literature) the ready availability of data on institutional investors have meant that such theories have often been tested using institutional data. This literature is reviewed in Section 5.3. Following this, we focus on the strands of the literature that deal with institution-specific aspects of corporate governance. We discuss the role of institutional heterogeneity in Section 5.4, and subsequently discuss the role of institutional voting and

proxy voting advisors in Section 5.5. As a key preliminary to all of this, we begin our review of the empirical literature by discussing in Section 5.1 the data sources and in Section 5.2 the methodologies that have been employed to examine governance effects of institutional investors.

5.1 Institutional Investor Data

5.1.1 Archival Data on Institutional Investors

Most papers relating institutional ownership to governance outcomes use Schedule 13F filings (see Section 3.2.1.3). These data are publicly available in the SEC's EDGAR database and compiled by Thomson Reuters.[29] While having been a valuable source of data for many contributions, a disadvantage of the data is that Schedule 13F reports are filed on a quarterly basis only, and that investors can request confidential treatment for certain holdings (Agarwal *et al.*, 2013). Further, the data can be filed up to 45 days after the quarter-end, which implies that the filings can reflect investments made more than four months ago. The limited frequency of 13F filings can be overcome with data from outside the US. For example, the Australian Portfolio Analytics Database contains information on Australian institutions' holdings on a *monthly* basis (it also contains daily data on their trading) – these data are used in Gallagher *et al.* (2013). Studies from outside the US typically use data from national registries to identify institutional holdings (e.g., Achleitner *et al.*, 2010 for Germany). A limitation of such studies is that these datasets often only contain ownership stakes exceeding a certain threshold. German law, for instance, only requires that owners holding 3% or more in a firm need to disclose their stakes (see Section 3.2.2.2).

Ferreira and Matos (2008) provide the first comprehensive analysis on institutional ownership around the world covering 27 countries and firms representing 40% of the world's market capitalization. The authors obtain their data from FactSet Ownership (previously FactSet/LionShares).[30] Their work triggered a series of other contributions using these data to examine the governance role of institutional

[29] Iliev *et al.* (2021) use data on investor views of EDGAR filings to show that many investors devote significant amounts of time reading governance topics in EDGAR filings.

[30] Data coverage in FactSet increased substantially in 1999 since the data provider enhanced the ownership information it collects from 35,000 stocks to 85,000 stocks internationally. FactSet collects these data from firm proxies, annual reports, stock exchange announcements, national regulatory agencies, local and offshore mutual funds, mutual fund industry directories, or institutions' webpages.

investors (e.g., Ferreira *et al.*, 2010; Aggarwal *et al.*, 2011; Erkens *et al.*, 2012; Bena *et al.,* 2017). Data on international institutional ownership is also available in Bureau van Dijk's Orbis database.[31]

Some studies examine daily trading data to capture how changes in institutional ownership affect voting outcomes (Bethel *et al.*, 2009) or hedge fund activism (Gantchev and Jotikasthira, 2018) – these data are obtained from the ANcerno database, which is used widely in asset pricing research (see Hu *et al.*, 2018 for an overview). Similar data are provided by Campbell *et al.* (2009) who infer daily institutional trading behavior from the Transactions and Quotes database of the NYSE.

US studies that focus on *specific* institutional investor types – notably hedge funds – typically use data from Schedule 13D filings in the EDGAR database (e.g., Holderness and Sheehan, 1985; Brav *et al.,* 2008; Klein and Zur, 2009 and Clifford, 2008). As explained in Section 3.2.1.3, investors owning more than 5% of a publicly traded firm have to file a Schedule 13D with the SEC within 10 days if they intend to influence a firm. Most studies examine Schedule 13D data on the institutions' ownership stakes (Item 5), the identity of the filers (Item 2), and the purposes for acquiring shares (Item 4). However, other details in Schedule 13D filings have also provided useful insights. First, Item 5(c) requires investors to report the quantity, price, and date of all trades in a target firm during the 60 days that precede the filing date. Collin-Dufresne and Fos (2015) and Gantchev and Jotikasthira (2018) use this information to study trading behavior of Schedule 13D filers. These data are particularly useful as they provide high-frequency information about the block-formation process and on the relation between trading and governance. Second, Item 6 requires the disclosure of any derivative contracts that have been entered by filers. Collin-Dufresne *et al.* (2021) show that derivatives are rarely used by 13D filers, suggesting that such products are unattractive for such informed investors and play a minor role in the trading strategies of activists.

As discussed in Section 3.2.1.3, investors acquiring more than 5% of a publicly traded firm who intend to remain *passive* with regard to governance must file a Schedule 13G with the SEC. Edmans *et al.* (2013) use Schedule 13D and Schedule 13G filings to study how stock liquidity affects the choice to file Schedule 13D versus Schedule 13G. More recently, Albuquerque *et al.* (2020b) model the choice of an investor between filing Schedules 13D and 13G and then use the model to estimate the expected returns to activist and passive investing.

[31] These data are used relatively rarely in governance research (e.g., in Ginglinger *et al.*, 2017).

An alternative data source are proxy statements in which firms disclose their "principal" shareholders, that is, entities that are the beneficial owner of more than 5%. Proxy statements are usually a less relevant source of blockholder information, as information about principal shareholders is typically obtained from Schedule 13G and 13D filings (and amendments to these filings). However, proxy statements can become relevant as an additional data source when a group of shareholders ("dissidents") initiates a proxy contest and solicits votes in support of their director nominees or shareholder proposals excluded from the proxy statement filed by management. Since proxy contests are often initiated by shareholders who do not file Schedule 13Fs and own less than 5%, proxy statements can also provide information on the background and ownership of activists shareholders. In their proxy statement, dissidents need to disclosure their identities, intentions, and the number of shares they beneficially own. Fos (2017) uses these data to describe which shareholders stand behind proxy contests.[32]

Another data source is ISS Voting Analytics, which is based on Form N-PX filings. US registered investment companies must file these forms with the SEC to disclose proxy votes and procedures in portfolio firms around the world (see Section 3.1.1). A useful feature of ISS Voting Analytics is that it contains, in additional to the voting records, the voting recommendations of the firm's management and of the proxy voting advisor ISS.[33]

A benefit of archival data is that they allow researchers to establish broad evidence on whether institutional ownership, trading, or voting is associated with governance outcomes. The data also allow for the analysis of how dimensions of institutional investor heterogeneity – investor origins, horizon, or type – affect such associations. A limitation is that archival data do not necessarily capture *specific* channels through which institutional investors achieve beneficial governance outcomes. As a result, some researchers have turned to case study or survey data to fill this gap.

5.1.2 Case Study Data for Specific Institutional Investors

Case study-based research, often based on proprietary data, started in the mid-1990s with a contribution by Smith (1996) investigating 51 firms targeted by CalPERS, the largest US public pension

[32] He shows that a particular class of institutional investors – activist hedge funds – sponsor more than 50% of proxy contests. In contrast, pension funds and mutual funds rarely sponsor a proxy contest, suggesting heterogeneous incentives to engage in hostile corporate governance.

[33] A comprehensive database on voting by non-US institutional investors around the world does not yet exist.

fund. The key benefit of such data is that they include details on the institution's private engagements (e.g., internal memos and reports) unobservable in archival data. Though only one institution is examined, the analysis is still insightful as CalPERS is considered a leader in shareholder activism.[34] A similar approach is employed in Carleton *et al.* (1998) using data from TIAA-CREF, another major US pension fund, to study private negotiations between the investor and 45 portfolio firms.

More than 20 years later, Becht *et al.* (2009) revived case-study based governance research by examining private interventions in 30 targets by the Hermes UK Focus Fund (HUKFF). The analysis is enriched by three cases studies that precisely illustrate how the investor engages portfolio firms (one is cited in Section 3.2.2.1). Becht *et al.* (2009) have access to HUKFF's correspondence with the target firms as well as to the internal details on organization's engagement processes. This enables them to identify the connections between the activist's engagement actions and subsequent stock return reactions – thereby mitigating a common concern in the literature, namely that firm value changes are not the result of the engagement, but instead reflect the stock picking ability of the activists.

Over the last years, the engagement activities of institutional investors branched out to incorporate also environmental and social topics, and this trend affected the academic literature. A first analysis using proprietary ESG engagement data is offered by Dimson *et al.* (2015) who examine engagement in 613 US firms – similar data is used in Barko *et al.* (2018) and Pezier (2020). While a focus of these studies is the stock return reactions to engagement, Hoepner *et al.* (2021) use data provided by Federated Hermes to examine how engagement affects downside risk.[35]

While the papers in this section consider engagement by a single institutions, Doidge *et al.* (2019) combine public and proprietary information on *collective* activism by institutional investors that form part of the Canadian Coalition for Good Governance (CCGG) – a benefit of their data is the measurement of how investors coordinate engagement. A similar analysis if offered by Dimson *et al.* (2020) using coordinated engagement data from the Principles for Responsible Investment (PRI), an institutional investor coalition founded in 2006 with support from the United Nations.

[34] Another beneficial feature of the data in Smith (1996) is that he can use internal estimates by CalPERS of the costs of engagement to calculate a measure of the net benefit of activism.

[35] Federated Hermes is considered the most influential activist in terms of promoting ESG standards, and the authors use proprietary information on engagement activities and the investor's engagement success.

Case study data has benefits and costs. Apart from identifying the exact channels through which engagement affects firm value, an additional benefit is that they include the investor's measures of engagement success, usually in the form of some internally-tracked milestones.[36] A limitation is that general conclusions about the success rates of activism are harder to make when the data originate from one institution only. One reason is that the institutions that make their data available may be relatively successful activists; poorly performing institutions may be less willing to share their data.

5.1.3 Survey Data on Institutional Investors

A handful of papers use questionnaires among institutional investors to answer governance questions that are hard to address using archival or case study data.[37] McCahery *et al.* (2016) use a survey to understand how institutional investors engage with firms. A benefit of their survey is that it allows for a better understanding of governance activities that take place behind the scenes as opposed to publicly. Further, they provide evidence on specific predictions related to the (threat of) exit that cannot easily be tested using other forms of data. A related approach is used in Krueger *et al.* (2020) to understand whether and how institutional investors internally address climate risks.

The PRI now provides a publicly available survey-based database on institutional investors. Institutional investors that are signatories of the PRI are required to provide answers to an annual survey on various governance questions (e.g., proxy voting policies, shareholder engagement, ESG integration). As the responses are not anonymous, one can link the responses to investor characteristics. Gibson *et al.* (2020) provide a first analysis of these data. The richness of data suggests that more papers will follow.

A challenge in survey-based research is that the respondents may not be representative, which thus requires careful consideration of how response bias may affect the results. The reason is that investors with a high awareness of governance issues – and possibly with relatively high credentials in addressing them – are more likely to participate in such surveys. Nevertheless, understanding the preferences of such institutions is insightful as they are more likely to shape governance practices. To evaluate response bias, it is helpful to compare characteristics of responding and non-responding

[36] Researchers using archival data instead need to make assumptions on when an engagement is considered successful (e.g., if a shareholder proposal passes).

[37] This follows a trend in other areas of finance where surveys provided new insights into topics such as corporate financing (Graham and Harvey, 2001), capital allocation (Graham *et al.*, 2015), investor relations (Karolyi *et al.*, 2020), or ESG investing (Amel-Zadeh and Serafeim, 2018).

institutions. Another concern is that the respondents' answers are strategic or untruthful – to mitigate this concern, surveys usually guarantee that the answers are treated as being confidential.

5.2 Empirical Methods to Identify Governance Effects of Institutional Investors

A challenge in studying effects of institutional ownership on corporate governance outcomes is that both variables are affected by other variables that cannot be controlled for. This endogeneity makes it difficult to establish causal effects. In this section we discuss approaches used to tackle endogeneity.

5.2.1 Activism Campaign Announcements

A popular approach to study effects of institutional investors on firm value is the analysis of activism campaign announcements, with the goal of measuring the information effect of these event on the market prices of firms. Holderness and Sheehan (1985) adopt such an event study methodology to evaluate stock price reactions to Schedule 13D filings by six activist investors, Brav *et al.* (2008) and Klein and Zur (2009) study price reactions to Schedule 13D filings by activist hedge funds, and Fos (2017) evaluates the effects of proxy contest announcements. All these papers document positive stock price reactions to activism campaign announcements.

The literature considers two explanations for why activism campaign announcements are associated with positive announcement returns: i) market participants anticipate that activist investors will increase future cash flows by influencing the firm's corporate policies; or ii) activist investors are better at picking undervalued stocks, that is, at least part of these announcement returns are unrelated to the activist campaign. To distinguish between these explanations, Brav *et al.* (2015b) explore the stock market reactions when activists switch at the *same* target firm from a passive Schedule 13G filing to an active Schedule 13D filing. The idea is that the value attributable to stock picking should be obtained when a Schedule 13G is filed, while the value of a governance treatment is identified with the stock return around the announcement when the investor switches from a Schedule 13G to a Schedule 13D. Albuquerque *et al.* (2020b) rely on structural estimation to separate value creation and stock picking – they model the

choice of an investor between filing a Schedule 13D or 13G in order to estimate expected returns to activist and passive investing.[38]

5.2.2 Discontinuities in Voting Outcomes

Institutional investors often sponsor shareholder proposals to influence firms' governance practices. If these proposals enhance firm value, one would expect a positive stock price reaction to the passage of such proposal. An obvious endogeneity concern related to such an analysis is that the passage of a proposal is anticipated by markets and in turn should not move prices. Cuñat *et al.* (2012) overcome this concern by comparing the market reaction to proposals on governance topics that pass by a small margin to those that fail by a small margin – the identification assumption is that for "close" proposals, the outcome is unanticipated by the market, and thus price reactions capture causal value enhancement.[39] Bach and Metzger (2019) cast some doubts on the validity of this approach by showing that close votes are disproportionately more likely to be won by management than by activist shareholders – 75% more shareholder proposals were rejected by a thin margin of 1% of outstanding shares than proposals approved by the same margin.

5.2.3 Index Decompositions

The idea to use index inclusions to obtain some level of exogenous variation in institutional ownership originates from Clay (2000, 2002). He exploits the addition of firms to the S&P 500 as a shock to institutional ownership to then estimate how the ownership changes affect CEO pay and firm value. Subsequent papers using the MSCI All-Country World Index and the S&P 500 include Ferreira and Matos (2008) and Aghion *et al.* (2013), respectively. The appealing idea of this approach is that institutions that track an index are forced to invest in a firm that gets added to the index, which in turn causes an increase in institutional ownership ("relevance condition"). This comes with the assumption that a firm's index inclusion affects governance outcomes *only through* its effect on institutional ownership ("exclusion restriction"). A violation of this restriction may arise if the inclusion is based on a firm's stock market performance, which in itself could either reflect or affect governance outcomes. Further, index inclusion

[38] Albuquerque *et al.* (2020b) find that more than 75% of Schedule 13D announcement returns can be attributed to value creation. When they consider a subsample of filings by activist hedge funds, more than 92% of the Schedule 13D announcement returns can be attributed to value creation.

[39] Cuñat *et al.* (2012) show that governance proposal by shareholders that pass yield an abnormal return of 1.3% relative to those that fail. Flammer (2015) uses a similar approach for E&S proposals.

announcements – in particular for the S&P 500 – likely increase media and investor recognition, which possibly confounds the governance treatment of the inclusions.

Starting with Chang *et al.* (2015), a series of papers expanded and improved on this early work by exploiting variation in institutional ownership around the size *cutoffs* used to calculate whether or not a firm is an index member. These contributions focus on the Russell indexes and exploit the fact that portfolio weights within the Russell 1000 and the Russell 2000 indexes are value-weighted, so that the smallest Russell 1000 stocks have small index weights, while the largest Russell 2000 stocks have large index weights (they are about ten times larger). This implies that, for every dollar invested in the two indexes, much is invested in stocks at the top of the Russell 2000, and little is invested in stocks at the bottom of the Russell 1000. Thus, such differences in index weights lead to higher institutional ownership in firms at the top of the Russell 2000, and lower institutional ownership in firms at the bottom of the Russell 1000. In this approach it is less likely that the exclusion restriction is violated, as size or performance differences above versus below the Russell 1000/2000 threshold are close to random.

Chang *et al.* (2015) do not consider governance outcomes, but a series of studies have built on their approach by empirically testing how governance outcomes are affected by Russell-related variation in institutional ownership. These papers use either a regression-discontinuity design (RDD) or an instrumental variables (IV) framework. RDD studies exploit the differences in institutional ownership of firms just above (bottom of the Russell 1000) and below the threshold (top of the Russell 2000) (Boone and White, 2015). Somewhat differently, IV studies instrument institutional ownership with an indicator that captures whether a firm i) switches between the Russell 1000 and the Russell 2000 (Fich *et al.*, 2015 or Schmidt and Fahlenbrach, 2017); or ii) is assigned to the Russell 2000 (Appel *et al.*, 2016 or Crane *et al.,* 2016).[40]

5.2.4 Unexpected Mutual Fund Outflows

Index inclusions are less suitable in studies that use high frequency data on ownership changes by institutional investors as inclusions take place very infrequently. Gantchev and Jotikasthira (2018) therefore take a different approach to address the concern that firm-level changes in institutional

[40] Wei and Young (2019) criticize the use of Russell index reconstitution arguing that a problem with prior studies is that they exhibit selection bias. Notably, they show that firms close to, but on opposite sides of, the Russell 1000/2000 cutoffs already have different levels of institutional holdings before the index reconstitution takes place.

ownership are endogenous. They use trading in other stocks, outside of the firm's industry, as an instrument for institutional ownership. This approach builds on the idea that institutions experiencing large in- or outflows often scale their stock positions proportionally up or down (see Coval and Stafford, 2007; Edmans *et al.*, 2012). Relatedly, Michaely and Vincent (2013) use changes in institutional ownership that originate from mutual fund outflows to obtain exogenous variation.[41]

Two studies raise concerns about this approach. Berger (2019) argues that selection bias drives changes in corporate policies for firms affected by mutual fund outflows. She shows that firms affected by outflows alter financial policies compared to control firms even when no mispricing event occurs. Wardlaw (2020) shows that the standard approach to computing outflow-induced price pressure, which scales flow by the dollar volume of trading in a stock, produces a measure that is a direct function of a stock's realized return. He argues that this raises concerns about the exogeneity of the outflow measure as it violates the exclusion restriction for outcome variables such as firm valuation and performance.[42]

5.3 Institutional Investors as Blockholders: Classical Evidence on Voice and Exit

We set the stage for our discussion of empirical results on institutional investor heterogeneity by briefly reviewing the evidence related to classical theories of blockholder governance. Guided by the theoretical literature reviewed in Section 4.1, we divide the discussion into evidence on "governance via voice" and "governance via exit." Results that speak directly to heterogeneity across institutional investors are discussed in Section 5.4.

5.3.1 Evidence on Governance via Voice

Empirical research testing classical theories of blockholder governance by institutional investors typically examine shareholder proposals or direct engagement. Interestingly, the initial evidence on shareholder proposals paints a rather disappointing picture of institutional investors' ability to increase firm value through this channel. Notably, Karpoff *et al.* (1996) document that shareholders proposals –

[41] An alternative approach is used by Kempf *et al.* (2017), who consider a shock to the monitoring abilities of institutional investors instead of exploiting variation in their holdings. They thereby exploit the distraction of an institutional investor owning a specific firm that arises from unrelated industry performance shocks in other portfolio firms. A similar setting is used in Liu *et al.* (2020) to show that board oversight weakens when institutional investor are distracted.

[42] A way to address Wardlaw (2020)'s concerns is by scaling flows by market capitalization instead of trading volume.

while triggered by poor performance – do not improve firm performance or valuations (even if proposals get a lot of support). Similarly, Gillan and Starks (2000) demonstrate that proposals sponsored by institutional investors appear to have no effects on firm value, though such proposals gain substantially more support than proposals sponsored by individuals.

While these (and other) early contributions provide little evidence for value increases, studies using more recent or larger data provide a brighter picture.[43] An influential results is the finding in Cuñat *et al.* (2012) that proposals that pass by a small margin earn an abnormal announcement return compared to those that fail by a small margin (see Section 5.2.3). These returns are higher among firms with larger institutional ownership, and for proposals sponsored by institutions. Flammer (2015) demonstrates that the adoption of "close call" E&S proposals generates positive announcement returns and higher firm performance. He *et al.* (2020) find that even though E&S proposals nearly always fail, investor support for these proposals contains information regarding future firm risks.

Evidence on *direct* engagement comes from three broad categories: hedge fund activism, individual institutions, and surveys. Within the first category, Brav *et al.* (2008) document positive abnormal returns of around 7% around the announcement of Schedule 13D filings by hedge funds (with no evidence of a reversal). The largest returns arise if the objective of the activist is the sale of the target or a change in business strategy. Klein and Zur (2009) provide similar evidence with a focus on confrontational campaigns and Greenwood and Schor (2009) confirm that returns are largely driven by firms that are eventually taken over.[44] Becht *et al.* (2017) show that the target stock price increase most in response to activism if engagements yield positive real outcomes. Further, they find that activism is generally highest among firms with high institutional ownership, particularly for US institutions. Bebchuk *et al.* (2020) study settlements achieved by hedge fund activists with target firms to document that such arrangements are accompanied by positive stock price reactions.

In the second category, Smith (1996) demonstrates that firm value increases when firms targeted by CalPERS agree to the investor's demands and decreases if they resist. Carleton *et al.* (1998) find high

[43] This is possibly the result of several factors, including a broader understanding of the importance of blockholder governance, the rise in institutional ownership, innovation in the shareholder activism space, and advances in empirical methodology. Denes *et al.* (2017) provide a review of this literature.
[44] A comprehensive survey of the literature on hedge fund activism is provided in Brav *et al.* (2010).

success rates of engagements by TIAA-CREF when proposing changes in targeted firms. Similarly positive results come from Becht *et al.* (2009) who find that most private engagements by HUKFF increase firm value. Related evidence on ESG engagement is provided by Dimson *et al.* (2015) and Barko *et al.* (2018) for returns, and by Hoepner *et al.* (2021) for downside risk. Two key conclusions emerge from these papers: first, engagement by individual institutions increases value, and second, public engagement channels – such as shareholder proposals – may not be required if private engagements are successful.

In the third category, McCahery *et al.* (2016) document widespread use of behind-the-scenes engagement among the respondents to their survey, highlighting the usefulness of surveys or case studies to understand the governance by institutions. Their findings also confirm that institutions first try to engage privately with portfolio firms and only take a public route when such private engagements fail.

Several papers examine the channels through which the documented value increases arise. Two salient channels appears to be executive pay and turnover. Hartzell and Starks (2003) and Mullins (2014) document that institutional ownership relates positively to incentive pay and negatively to pay levels, while Ertimur *et al.* (2011) find that shareholder activists tend to target firms with high CEO pay. Further, voting support for activists' shareholders proposals on pay is higher if CEO pay was more excessive or less related to performance.[45] Del Guercio *et al.* (2008) find that firms experience a rise in forced CEO turnover when institutional investors withhold votes towards directors' elections. Further, Kang *et al.* (2018) demonstrate that the number of blocks held by firm's large institutions positively relates to the sensitivity of forced CEO turnover to firm performance.

A number of papers relate institutional ownership to payout, financing and investment policies. Grinstein and Michaely (2005) cannot detect that higher institutional ownership leads to increases in dividends, repurchases or total payout. However, using Russell index reconstitutions, Crane *et al.* (2016) revisit this finding to show that firms pay out more when they institutional ownership rises.[46] Higher institutional ownership is also related to lower leverage (Michaely and Vincent, 2013), higher innovation

[45] However, Fernandes *et al.* (2013) find that an increase in institutional ownership, specifically of foreign-based institutions, is associated with higher pay and higher equity compensation for CEOs. It also leads to a convergence of pay to US level.

[46] Brav *et al.* (2008) find for hedge funds that activism leads to an increase in target firms' payouts.

(Aghion *et al.*, 2013), and better M&A (Fich *et al.*, 2015). Further, Brav *et al.* (2015b) show that, following interventions by activist hedge funds, the plants of targets experience an increase in productivity.

Two recent papers show that firms change corporate policies also when they realize that the *likelihood* of intervention increases. Fos (2017) shows that when the probability of a proxy contest increases, firms reduce cash holdings, invest less, increase leverage, and increase payouts. Gantchev *et al.* (2019) demonstrate that the effects of hedge activism reach beyond actual targets, as non-targeted peer firms make improvements similar to those of the target firms under the threat of activism (they increase leverage and payout, and reduce investments and cash). Thus, threats of a proxy contest or of hedge fund activism appear to reduce agency costs of free cash flow (Jensen, 1986).

5.3.2 Evidence on Governance via Exit

The evidence supports existing theories modelling (the threat of) exit as an important governance mechanism utilized by institutional investors. A challenge for establishing such evidence is the difficulty of empirically capturing the exit *threat* which is inherently unobservable. To deal with this challenge, researchers have attempted to identify circumstances under which the threat is likely to be stronger.

The first empirical analysis of the importance of the exit mechanism dates back to Parrino *et al.* (2003) who show that CEO turnover increases after selling by investors.[47] The work of Parrino *et al.* (2003) predated the emergence of the theoretical literature on exit, which began with the work of Admati and Pfleiderer (2009) and Edmans (2009).The emergence of the theoretical literature on exit sparked a series of new papers taking specific predictions of these models to the data.

Edmans *et al.* (2013) document for hedge funds that governance through the exit threat increases when the liquidity of a stock is higher – this effect is stronger, as predicted by theory, when executive pay is more sensitive to the stock price. Edmans *et al.* (2013) measure the threat of governance through exit based on whether an institution has filed a Schedule 13G, that is, a filing that explicitly signals that an investor will not use direct activism (it would otherwise file a Schedule 13D), leaving the exit threat as the only remaining governance tool. Similar evidence is provided by Bharath *et al.* (2013) who document that

[47] Helwege *et al.* (2012) show that the importance of exit as a driver of CEO turnover decreased over time, while activism by institutional investors instead emerged as a driver of turnover.

firms with larger blockholdings experience increases in value when stock liquidity increases. Again, this effect is strongest if executive pay is more sensitive to the stock price, a situation in which the exit threat becomes more credible. Dimmock *et al.* (2018) exploit the role of a potential tax liability on capital gains accrued on a stock. Such liability makes it more costly for an institutional investor to sell a stake in a firm, which plausibly reduces the credibility of an exit threat. Indeed, greater capital gain lock-ins reduce the likelihood of exit being used as a governance tool (intervention becomes more likely).

McCahery *et al.* (2016) use their survey to directly ask institutional investors how plausible they consider the exit mechanism to be. They provide four key findings. First, the investors consider exit as a practically useful strategy, with 49% (39%) responding that they used the exit mechanism in the past. Second, 42% believe that the *threat* of exit is effective when it comes to disciplining firm management. Third, the respondents state that exit threat effectiveness depends on whether other investors also exit for the same reason, the equity stake size of the investor, managerial ownership, and whether other large shareholders are also present – the importance of the exit decision by others is consistent with Cvijanovic *et al.* (2019). Fourth, exit is seen as a governance mechanisms that complements voice (rather than substituting it), and intervention typically happens prior to a potential exit.

Three papers empirically examine the interaction of voice and exit as well as how the interplay between different institutions affects the exit effectiveness. Duan and Yao (2016) consider mutual funds' choice between exit and voice, showing that funds with smaller stakes and shorter horizons prefer exit, and that exit occurs more frequently among small, liquid firms with large inside ownership. Becht *et al.* (2019) use proprietary data from a UK asset manager to document that "Against" votes at the shareholder meeting by the asset manager (voice) leads to stock selling (exit), and even more so when the asset managers internal analysts downgraded the stock. Building on their own model (see Section 4.3.4), Cvijanovic *et al.* (2019) examine how institutional investors react to each other's exit. They document first evidence for correlated exit, that is, the result that following an exit by an activist hedge fund, (flow-motivated) mutual funds sell out of the target firms significantly more than other institutional investors.

5.4 Institutional Investor Heterogeneity

Having evaluated the broad evidence on the role of institutional investors for exit and voice, we next highlight findings indicating differences across institutional investor types in the governance of firms,

building on the key themes emerging from Sections 2, 3, and 4 above. We focus on differences in governance incentives, location, horizon, passive holdings, and business ties and relate – whenever possible – the evidence to the theoretical models in Section 4.2 and 4.3.

5.4.1 Institutional Investor Governance Incentives

The theoretical literature in Section 4.2 shows how heterogeneity across institutional investors – in terms of skin in the game and incentives to compete for flow – affect the governance role of institutional investors. Some early evidence in support of specific model predictions of this literature is provided by McCahery *et al.* (2016) who document that institutional investors are concerned that clients make negative inferences about their stock selection ability if an institution uses governance via exit. This directly supports the predictions of Dasgupta and Piacentino (2015) who show theoretically that the fear of outflows weakens the credibility of the exit threat for sufficiently flow motivated institutions.

Another contribution is Israelsen *et al.* (2019) who examine heterogeneity in incentives and skills across different block ownership forms. Specifically, they compare "committed blockholders" who likely have skin in the game (individuals or private equity firms) with "financial blockholders" who care mostly about fund flows (institutions that file Schedule 13Fs). Israelsen *et al.* (2019) show that committed blockholders are significantly more likely to "self-identify" as activists by filing a Schedule 13D in comparison to financial blockholders. Thus, consistent with the predictions of Dasgupta and Piacentino (2015), reduced skin in the game and enhanced incentive to compete for flow may weaken incentives to govern. Interestingly, they also find that firms with committed blocks appear to have *worse* governance structures. However, this result may arise due to an equilibrium effect: firms with committed shareholders have lower monitoring needs to begin with. External governance mechanisms beyond committed ownership may not be needed to the same extent as in firms with financial blockholders.

Lewellen and Lewellen (2021) provide an important building block to study flow motivations in governance by quantifying institutional investors' financial incentives to be engaged shareholders. They measure an institution's incentive to engage as the increase in the investor's cash flow (i.e., management fees) when a firm's stock increases by 1% in value. Notably, they consider the *direct* effect on assets under management as well as the *indirect* effect on subsequent fund flows – the latter in turn depends on relative performance across funds and thus on the degree to which a stock is over- versus underweight in the

institution's portfolio relative to peers. This measure should be helpful for more papers to shed light on why differences in incentive structures across institutional investors are important. While the quantification of flow-based incentives is an important step, it is noteworthy that the theoretical literature suggests that flow motivations have a nuanced effect on governance incentives, which can be either negative by inducing short-termism (Dasgupta and Piacentino, 2015; Burkart and Dasgupta, 2021) or positive by inducing intervention, particularly in multiple blockholder contexts (Song, 2017; Brav *et al.*, 2021). Thus, the quantification of flow-based incentives represents only a first step towards evaluating the role of institutional incentives to govern.

5.4.2 Conflicted versus Non-Conflicted Institutional Investors

While the theoretical literature has focused on heterogeneity in incentives arising from skin in the game and competition for flow, a key additional source of heterogeneity arises from the degree to which institutional investors have direct conflicts of interest arising from business ties to portfolio firms (see Section 3.3). To identify the role of such conflicts of interests, existing studies either classify institutional investor very broadly or use data on their actual business ties with portfolio firms.

Using the first approach, Ferreira and Matos (2008) define mutual funds and investment advisers as "independent institutions" and compare them with bank trusts, insurance companies, and other institutions, which they classify as "grey institutions." The idea is that independent institutions have fewer potential business ties with portfolio firms and, as a result, are involved in monitoring firm management. Using this classification, Ferreira and Matos (2008) as well as Aggarwal *et al.* (2011) demonstrate that independent institutional investors are more active in positively shaping firms' governance structures.

Using the second approach, Davis and Kim (2007) use data on mutual fund proxy votes to show that fund voting is not influenced by business ties for any given shareholder proposal, though they do find that fund families that have higher business ties overall tend to vote in a more pro-management manner across all portfolio firms irrespective of individual business ties. However, they use only six types of shareholder proposals. Ashraf *et al.* (2012) use data on executive pay proposals and reach similar conclusions. Using a much larger data set of proposals, Cvijanovic *et al.* (2016) challenge these results by showing that business relationships with portfolio firms are associated with pro-management proxy voting by mutual fund families. The richness of their dataset makes it possible to robustly control for unobserved

heterogeneity, enabling them to link pro-management voting with business ties at the level of given pairs of firms and fund families and for individual proposals. They also find that the effect is driven by shareholder-sponsored – as opposed to management-sponsored – proposals, thus suggesting that conflicts of interest prevalent among a particularly important class of institutional investors may actually impede, rather than facilitate, good corporate governance. Finally, the effect is strongest for proposals that pass or fail by modest margins, that is, in cases where the voting of individual fund families may potentially have decisive impact. In a similar vein, Hamdani and Yafeh (2009) find – using Israeli data – suggest that institutional investors owned by public companies provide greater support to management-sponsored proposals for those companies.[48] Bolstering the narrative of conflicted voting by mutual fund families captured in these papers, Cohen and Schmidt (2009) find that trustee fund families overweight their portfolio holdings in sponsor firms and are reluctant to exit in response to negative shocks.

As discussed above, a useful analysis is also offered by Agrawal (2012) who studies proxy votes of AFL-CIO union funds to show that some investors pursue other interests (here workers), rather than shareholder value alone. Specifically, he finds that AFL-CIO-affiliated investors are less opposed to directors when the AFL-CIO stops representing a firm's workers. Further, similar voting patterns cannot be found for public pension funds as well as mutual funds.

5.4.3 Long-term versus Short-term Institutional Investors

The empirical analysis of how institutional investor horizon affects firm outcomes is complicated by several factors. On a theoretical (or conceptual) dimension, the challenge is that investor horizons are not fundamental characteristics of institutional investors, but rather endogenous consequences of their incentives. As discussed in Section 4.3.3, the incentive to compete for flow may endogenously induce short-termism. Hence, the degree to which institutions have locked up capital (e.g., hedge funds may have more locked-up capital than mutual funds), patient final investors (e.g., institutional funds may differ in their responsive to short-term performance than retail funds), and skin in the game may lead to different degrees of short-termism. Investor horizons are also endogenous consequences of firm performance.

[48] The recent work of Dressler (2020) provides further backing for the "agency conflicts" view of institutional voting in the Israeli context, documenting that the greater the voting power of institutional investors, the lower the likelihood that they vote against management-sponsored proposals. The finding of promanagement voting behavior amongst Israeli institutional investors is reinforced in a subsample of delayed votes, suggesting that pre-vote negotiations may play a meaningful role.

Whether institutions are short term or long term often depends on how well the investment in a firm performs – if the firm does well, institutional investors will retain their stakes and become long-term investors, if the firm does poorly, they will sell their stakes and become short-term investors (see Edmans, 2009). A similar endogeneity holds for other firm outcomes, including corporate policies or governance practices. More broadly, there is not only an "influence effect" of investor horizon on firm outcomes but also a confounding "selection effect," that is, institutions with certain horizons may prefer to invest in firms with certain characteristics.[49]

On a measurement dimension, the challenge is that one ideally wants to use an *ex-ante* measure reflecting how long an institution *intends to hold* a specific firm's equity stake, rather than an *ex-post* proxy reflecting the past (realized) investment horizon of the institution as whole. Specifically, the past overall trading frequency of an institution may not be informative of its intention for how long to hold a stake in a given firm. For how long an institutions plans to hold a stake likely depends on the factors mentioned above as well as its perception of the resolution of any mispricing in a stock. The considerations along both dimensions show that it is important to empirically account for selection effects and the endogeneity in investor horizon. If not possible, one should carefully interpret any established relations between investor horizon proxies and governance outcomes, especially when *ex-post* measures are used.

The early empirical papers on institutional investor horizons significantly predate the theoretical literature on blockholder incentives surveyed in Section 4 and focuses – due to obvious data constraints – on *ex-post* measures of investor horizons.[50] Specifically, this literature make use of Schedule 13F data in order to capture investor horizon. Bushee (1998) measures short-term institutional ownership using ownership by transient investors, which are institutions with high portfolio turnover and diversified portfolios. He differentiates these investors from "quasi-indexer" institutions with low turnover and diversified portfolios, as well as from "dedicated" institutions which exhibit low turnover and concentrated portfolios. Gaspar *et al.* (2005) instead measure investor horizon using the churn rate or portfolio turnover of an institutional investor. A higher churn rate reflects that an institution turns over its holdings more frequently. Firms with higher ownership by institutional investors with high churn rates (i.e., high "fund

[49] For example, Starks *et al.* (2021) shows that institutional investors with long horizons prefer high-ESG firms, while short-term investors prefer the opposite.

[50] More recent papers have to some extent inherited the definitions of short-termism used in early papers in the literature.

turnover") are in turn defined as having more short-term institutional owners. A benefit of the measure is that it facilitates the interpretation of results obtained with it, as it does not conflate turnover and portfolio diversification (both variables in theory affect governance outcomes).

Early evidence on the effects of short-term investors is provided by the finding in Bushee (1998) that firms with more short-term institutions spend less on R&D (especially in cases where cuts to R&D can reverse a decline in earnings). Recent evidence in support of this result comes from Cremers *et al.* (2020) who demonstrate that an increase in short-horizon institutional ownership due to a firm's addition to the Russell 2000 index leads to cuts to long-term investment. Related evidence is provided by the finding in Derrien *et al.* (2013) that greater long-term ownership (measured using fund turnover) is associated with higher corporate investments when firms are valued lower than predicted based on firm fundamentals.

Other contributions indicate that the effects of short-term investors extend beyond R&D. For example, firms with more short-term investors perform worse in corporate takeovers, both as targets and acquirers (Gaspar *et al.*, 2005; Chen *et al.*, 2007), exhibit more fraud and empire building (Harford *et al.*, 2018), and use share buybacks more frequently to payout out more to shareholders (Gaspar *et al.*, (2013). Using Bushee (1998)'s classification, Borochin and Yang (2017) find that higher ownership by dedicated institutions is associated lower executive pay (which they interpreted as being better from a governance perspective), while the opposite holds when transient investors is higher. A more positive assessment of short-term institutional ownership emerges from Giannetti and Yu (2020) who find that firms with more short-term owners are better able to adapt to changes in their business environments via innovation or management changes.

These results provide important insights into our understanding of the role of heterogeneity in investor horizons. Yet, the growth of the theoretical literature in this area offers potential new ways to formalize and measure institutional short-termism. It thereby represents a potential area of growth for this literature and offers opportunities to reinterpret existing empirical results.

5.4.4 Passive versus Active Institutional Investors

The role of passive investors has significantly increased over the last ten years due to a sharp increase in index investing and ETFs. This shift in institutional ownership has potentially major effects on the governance of firms, as index funds and ETFs cannot use the threat of exit and as some passive

investors may be reluctant to engage in costly governance due to their low-fee business models. Despite these important considerations, relatively little empirical research exists to this date. In fact, the few studies that exist provide conflicting evidence on the governance effects of passive institutional ownership.

On the dark side, Schmidt and Fahlenbrach (2017) document that higher index fund or ETF ownership leads to more CEO power, fewer independent directors on the board, and worse corporate M&A. Heath *et al.* (2021) show that index funds rarely vote against management on contentious governance issues, and when dissatisfied with management, they do not use exit to express their dissatisfaction. They also find no evidence that index funds engage with firm management. Boone *et al.* (2020) document that the big passive fund families, BlackRock, State Street, and Vanguard, are increasingly likely to vote with management, especially in case of controversial proposals. Gutiérrez and Philippon (2018) show that firms owned by many passive investors (measured using ownership by quasi-indexers) tend to underinvest relative to their investment opportunities. In a recent paper, Bennett *et al.* (2020) demonstrate that the previously documented positive announcement returns of being added to the S&P 500 has disappeared, and argue that this is caused by the anticipation of negative governance effect due the increasing (decreasing) amount of passive (active) ownership after firms are added to the index.

In contrast and on the bright side, Appel *et al.* (2016) demonstrate that an increase in passive mutual fund ownership leads to more independent directors, the removal of antitakeover mechanisms, and more equal voting rights. Further, Appel *et al.* (2019) find that shareholder activism is generally more successful when a large fraction of the firm is owned by passively managed mutual funds. Schmidt and Fahlenbrach (2017) reconcile these findings with theirs by arguing that passive ownership has positive governance effects when low-cost governance activities are concerned (e.g., voting), while it has negative effects for high-cost governance (e.g., monitoring of corporate M&A activities). Filali Adib (2020) builds on this debate to zero in on the voting channel to better understand how index funds affect corporate governance. She finds that the market reaction to a proposal's passage (failure) is stronger if a more index funds vote to support (oppose) it and that higher ownership by index funds makes the passage of value-enhancing proposals more likely. This finding lends support to a positive role of index funds in low-cost governance activities (in this case voting).

One consequence of the increase in passive ownership is that holdings by a small number of investors, mostly providers of index funds, has increased significantly across most firms. This has caused a new phenomenon labelled "common ownership," whereby the same set of investors may have significant stakes in firms that compete on the product market.[51] We do not delve into this literature as Schmalz (2018) provides a recent review of these papers.

In both the areas of active versus passive ownership and the effects of common ownership discussed in this subsection, there is a significant gap between the theoretical and empirical literatures. In the case of the former, the only paper that considers passive *and* active institutional investors simultaneously within the same model is Corum *et al.* (2020), which underscores the relatively subtle interaction between the governance roles of these classes of investors. In the case of the latter, a paper that considers common ownership by institutional investors – Edmans *et al.* (2019) – demonstrates the positive role of common ownership on voice and exit in general, but does not consider the product market interactions that have been the focus of the majority of empirical papers in this area. Further, Anton *et al.* (2020) show theoretically that common ownership, specifically between product market competitors that strategically interact, can in fact make bad governance optimal. Thus, there is significant scope for the interface of theory and empirics in this area.

5.4.5 Interplay between Institutional Investors

The stylized facts in Section 2 suggest the presence of multiple institutional blocks per firm, both within and across types of institutional investors. This suggests that the interplay between institutions, both within and across types, is key to corporate governance. A series of papers look at how the interplay between different institutional investors affects governance outcomes. Focusing within the class of mutual funds, Matvos and Ostrovsky (2010) consider voting in director elections. Apart from finding some that funds are consistently more management friendly than others, they provide evidence for peer effects, that is, funds tend to oppose management when other funds also do so. Bebchuk *et al.* (2020) hand collect

[51] This has sparked an extensive debate about whether common ownership has anticompetitive effects. For example, using data on the airline industry, Azar *et al*. (2018) show that prices are higher and output is lower when firms have low incentives to compete due to common ownership. Dennis *et al.* (2019) challenge these results and argue that they are generated by the endogenous market share component of the common ownership measure. Lewellen and Lowry (2021) argue that many of the effects attributed to common ownership originate from other factors, such as differential responses of firms or industries to the global financial crisis, and Geng *et al.* (2021) find that common ownership can be beneficial by promoting innovation.

data on voting outcomes in proxy contests and look at the interplay between activist hedge funds and other institutional investors. They use this data to examine voting support by institutional investors when there is a proxy fight triggered by a dissident activist and find a positive relation between the propensity for activist targeting and pro-activist voting by mutual funds. Similar evidence on the importance of having a shareholder base of activism friendly institutions is provided by Brav *et al.* (2020). Kedia *et al.* (2021) demonstrate that investor dissatisfaction with management is associated with an increased probability of becoming an activism target. Crane *et al.* (2019) show that cliques of institutional investors (those connected through the network of institutional holdings) tend to vote together on proxy items, increasing the likelihood of votes against management. Fos (2017) finds that the presence of institutional and activist investors makes it more likely that a firm might be the target of proxy contests (which delivers positive abnormal returns upon its announcement).

A particularly prominent type of interplay between institutional investors arises in the form of so-called "wolf packs," a phenomenon by which several activist hedge funds engage in parallel at the same target firm, complementing each other's efforts while remaining sufficiently independent to avoid a joint 13D filing. A small number of recent empirical papers has examined the wolf pack phenomenon. Becht *et al.* (2017) document that as many as 20% of hedge fund activism events involve multiple activists intervening in parallel. Notably, wolf packs increase the probability of a successful engagement and they are associated with higher announcement returns when stakes are disclosed. More recently, Artiga Gonzalez and Caluzzo (2019) also show that wolf packs are more common in larger firms, where individual activists are unlikely to have sufficient influence.

Some recent evidence also highlights that blockholder diversity can have negative effects. Schwartz-Ziv and Volkova (2020) demonstrate that firms held by a blockholder base that is heterogeneous consistently perform worse than firms owned by homogeneous blockholders. They argue that this is the result of diverging views, preferences, and objectives among heterogeneous blockholders.

There is an emerging dialogue between the theoretical and empirical literatures in the area of the interplay between institutional investors – the relevant theoretical papers are discussed in Section 4.2. For example, the findings of both Becht *et al.* (2017) and Artiga Gonzalez and Caluzzo (2019) are broadly consistent with the model of Brav *et al.* (2021). Some recent theoretical papers have also started to consider the interaction between different types of institutional investors (Song, 2017 and Cvijanovic *et*

al., 2019). Given the subtlety of potential interactions between institutional investors, this is an area in which the dialogue between theoretical and empirical work is particularly salient.

5.4.6 Institutional Investor Location

Another dimension of heterogeneity relates to the origin of institutions, which can affect the cultural or social values promoted by institutions. Work in this area, pioneered by Miguel Ferreira and Pedro Matos in a series of articles (some of them with coauthors), demonstrates that the origin of investors matters strongly for governance outcomes. In Ferreira and Matos (2008), higher foreign ownership, particularly from the US, is associated with higher firm valuations and better performance, and these effects originate from foreign institutions' stronger monitor of corporate executives.[52] Further, the evidence in Aggarwal *et al.* (2011) reveals that the steady increase in foreign ownership due to the globalization of capital markets leads to the adoption of better governance practices across the world. Bena *et al.* (2017) find that foreign institutional ownership significantly increases long-term investments (capital expenditures and R&D) and innovation output. This evidence rejects the view that foreign institutions are "locust" that reap short-term gains only. Luong *et al.* (2017) reach similar conclusions.

Further evidence on the role of foreign institutional investors is provided in Leuz *et al.* (2008) and their observation that foreign institutions leave firms that do not improve their governance. Dyck *et al.* (2019) find that institutional investors increase firms' E&S performance when they originate from countries with norms that emphasize the importance of E&S issues. Ilhan *et al.* (2021) demonstrate that institutions from countries with high norms and stewardship codes demand more climate-related disclosure from their portfolio firms. Finally, Gibson *et al.* (2020) document that institutional investors from Europe are more likely to be signatories of the PRI, which promotes high governance (and E&S) standards around the world. In countries other than the US, such PRI signatories have better portfolio-level ESG footprints than non-PRI signatories.

Kim *et al.* (2016) show that domestic institutional investors may also be good for governance in some settings, as they show that higher domestic ownership is associated with less earnings management. Yet, they also show that foreign institutions become more effective as monitors if the firm environment reflects greater agency conflicts or weaker governance controls. Ng *et al.* (2016) study the impact of

[52] Similar evidence on the beneficial role of international institutional ownership is provided by Chan *et al.* (2009).

international investor origin on stock market liquidity, which affects governance as it makes the threat of exit more credible. They separate foreign ownership into foreign direct ownership (strategic foreign holdings larger than 5%) and foreign portfolio ownership (other institutional holdings). While strategic foreign ownership negatively relates to liquidity, foreign portfolio ownership seems to benefit liquidity. In their study, foreign institutional ownership is also positively associated with firm valuations.

Instead of using heterogeneity along the international origin of investors, Chhaochharia *et al.* (2012) look at the distance between a firm's headquarters and the location of the firm's institutional investors. They document that firms with more local institutional ownership exhibit better internal governance, are less likely to aggressively manage their earnings, and are genuinely more profitable.

5.4.7 Institutional Investor Ideology

Two recent papers examine heterogeneity across institutional investor along the political or governance spectrum. Bolton *et al.* (2020) map mutual funds and pension funds into the political left-right spectrum based on their proxy voting, using an innovative approach from political science. While far-left investors are characterized as "socially responsible" investors (they vote most consistently for social and environment shareholder proposals), far-right investors are characterized as "money-conscious" investors (they oppose proposals that might be financially costly to shareholders). They additionally also separate institutions along a governance dimension, based on the degree to which they believe discipline should be imposed on management. In the spirit of this second dimension, Bubb and Catan (2021) use voting data by mutual funds to classify them into three "parties" with different governance "philosophies": the Traditional Governance Party (the firm should be run by the board and management, not shareholders), the Shareholder Intervention Party (shareholders should intervene through proposals and proxy fights), and the Shareholder Veto Party (shareholders should monitor management and veto actions proposed by management when they have concerns).

5.5 Proxy Voting Advisors and Institutional Investors

5.5.1 Importance of Proxy Voting Advisors

As discussed in Section 3, proxy voting is important for regulatory and fiduciary duty, and many institutions are required (or voluntarily choose) to disclose their proxy votes, as well as their voting

policies. Proxy voting entails costs, particularly since many investors have to cast votes on thousands of securities. As a result, institutional investors increasingly make use of proxy voting advisors, along with information from sell-side and in-house analysts, when deciding on how they want their shares voted. The proxy advisory industry has therefore grown substantially over the past decade and proxy voting advisors provide a service to address many institutional investor's regulatory requirement to vote shares in portfolio firms in the best interest of their final beneficiaries. McCahery *et al.* (2016) provide survey evidence to examine the extent to which institutional investors use proxy voting advisors. They show that 60% of respondents to their survey make use of at least one proxy voting advisor, and almost half of these respondents use the proxy services of more than one advisor.

Two firms dominate the market for proxy voting advice. ISS, the market leader, was founded in 1985 and is majority owned by Deutsche Börse (since 2021). ISS employs 2,000 employees and covers about 44,000 annual meetings in 2020 worldwide. Its main competitor, Glass Lewis, is a portfolio firm of the Alberta Investment Management Corporation and the Ontario Teachers' Pension Plan Board and was founded in 2003. It employs more than 360 employees. Both firms make voting recommendations based on general voting guidelines, which are usually for specific countries.[53] Some early evidence on how firms try to game the specific rule that are described in these guidelines is provided in Ishida and Kochiyama (2020). Other firms offering proxy voting advice include US firms Egan-Jones Proxy Services, Segal Marco Advisors, and ProxyVote Plus; Swiss firms SWIPA and Ethos; UK firm Minerva; and the French firm Proxinvest. All of these "boutique" firms are substantially smaller than the "Big Two."

Shu (2020) provides the first estimates of the market shares of proxy advisory firms. He estimates that in 2017, ISS controlled 63% of the market for mutual funds in the US and Glass Lewis controlled 28%. Interestingly, Shu's estimates indicate that the proxy advice market has become less concentrated over the last decade, with ISS gradually losing market share to Glass Lewis and other smaller proxy advisors.

[53] See https://www.issgovernance.com/policy-gateway/voting-policies/ and https://www.glasslewis.com/guidelines/. The proxy voting advisors ask and receive feedback from firms and investors on their drafts for these proxy voting guidelines.

5.5.2 Influence of Voting Recommendations

A key question relevant to investors, firms, and regulators is whether and when recommendations of proxy voting advisors have an effect on voting outcomes. Some of the first evidence on the role of proxy voting advisors is provided by Choi *et al.* (2008, 2010) who study the effects of voting recommendations for uncontested director election at S&P 1500 firms. Choi *et al.* (2010) document that ISS is more influential than Glass Lewis in terms of effects on voting outcomes (their analysis also includes other proxy voting advisors, namely Proxy Governance and Egan Jones). Further, they estimate that an ISS recommendation shifts 6 to 10% of shareholder votes. The estimates originate from the years 2005 and 2006, so they are likely to provide a lower bound, since the services of proxy voting advisors have been used by more institutional investors since then. Further early empirical evidence is provided by Cotter *et al.* (2010) who study voting during the 2003 to 2008 proxy season. A benefit of their analysis is that they study a broad range of management and shareholder proposals. They find that mutual funds appear to vote consistently with recommendations by ISS, and more so than other shareholders. Brav *et al.* (2020) show how ISS recommendations serve as a coordination for concentrating withholding on the focal proxy voting candidate, which effectively helps dissidents win without confronting management.

Ertimur *et al.* (2013) use hand-collected data to study the role of proxy voting advisors for "say on pay" votes in the year 2011. Say-on-pay votes are nonbinding votes on executive pay that started to be required as a result of the *Dodd–Frank Act* in 2011. In their sample, ISS issued "Against" recommendations for 11% of the firms and Glass Lewis for 22%. Though say-on-pay plans are rarely voted down (only at 2% of firms), a negative ISS recommendation is associated with 24.7% (12.9%) more against votes (12.9% in case of Glass Lewis). They further find that the sensitivity of shareholder votes to "against" recommendations is higher if block ownership by institutional investors (ownership by institutions that hold more than 5%) is larger. Larcker *et al.* (2015) also study the role of proxy voting advisors for say-on-pay votes. Consistent with Ertimur *et al.* (2013), they find that the recommendations of proxy voting advisors are positively related to voting outcomes. Their evidence also indicates that several firms change their compensation plans *before* the annual meeting in a way that is consistent with the preferences of the proxy voting advisors. Shu (2020) also confirms such influence using very recent data.

Regressing the votes cast by institutions on the recommendations of proxy voting advisors may overstate the effect of proxy voting advice, as voters and advisors may independently come to the same

conclusion on how to vote. In other words, the same unobservable firm characteristics that lead proxy voting advisors to give a certain voting recommendation can affect institutions' actual voting, leading to an upward bias in a regression estimate. Thus, while the studies reviewed above show a positive correlation between proxy voting advisors' recommendations and voting outcomes, it remains unclear whether this means that institutions follow ISS recommendations or, instead, whether proxy voting advisors tailors their recommendations to institutions' voting preferences.

Two studies have made progress towards better understanding whether recommendations cause voting outcomes or coincide with investors preferences. Iliev and Lowry's (2015) analysis exploits the fact that different funds have different incentives to "actively" vote, i.e., to independently assess the issues up for vote. Incentives are higher if, for example, an investor has invested a higher percentage of fund assets in a portfolio firm. Consistent with variations in incentives for active voting across investors, they find also high variation in investors' reliance on proxy voting advisors. While more than 25% of mutual funds rely almost entirely on recommendations by ISS, others put only little weight on them. ISS recommendations have little predictive power in explaining the voting by investors that have strong incentives to actively vote but high predictive power when these incentives are low.

Malenko and Shen (2016) use a RDD framework to gauge how ISS recommendations effect say-on-pay voting outcomes. Specifically, to identify a causal effect, they exploit variation in ISS recommendations due to a rule in ISS's voting guidelines on say-on-pay proposals in the years 2010-2011. Under this rule, the ISS conducted an initial screen of firms focusing on their one- and three-year shareholder returns relative to certain cutoffs, and it then performed deeper analyses of the firms' pay practices only among firms ranked below the cutoff. Hence, firms below the cutoff were subject to greater scrutiny to achieve a favorable ISS recommendation (compared to firms above the cutoff). Malenko and Shen (2016) show a strong effect of ISS recommendations: relative to positive ISS recommendations, negative recommendations by ISS lead to a 25 percentage point decrease in voting support for say-on-pay proposals. Hence, they conclude that ISS moves about 25% of the votes. There is also evidence that voting recommendations vary significantly across the big two proxy voting advisors, as shown in Ertimur *et al.* (2013) for say-on-pay votes. While most papers focus on the effect of proxy voting advisors on US firms, Hitz and Lehmann (2018) study European firms. Their findings suggest that proxy voting advisors findings suggest also play an important role at European firms.

Two recent papers provide new evidence on how the role of proxy voting advisors has evolved over time. Aggarwal *et al.* (2014) find that investor voting on shareholder proposals has become more independent of ISS recommendations over time (2004-2010), but only in proposals where ISS recommends a vote against the proposal. Boone *et al.* (2020) examine the time period from 2005 to 2018 and also find that ISS has become less influential as mutual funds are less likely to follow the ISS recommendations.

Overall, these results suggest that the role of proxy voting advisors is not simply in aggregating shareholder preferences or in coinciding with them. Instead, the evidence suggest that proxy voting advisors actively influence voting decisions of institutional investors. However, there is significant heterogeneity in the degree to which institutions are influenced by proxy voting advice.

5.5.3 Determinants and Quality of Voting Recommendations

The evidence suggests that proxy voting advisors do have some influence on voting outcomes. This raises the question of how their recommendations are determined and how good they are. On this topic, views are divided. One view holds that proxy voting advisors offer institutional investors informed and reliable voting advice. The services of proxy advisors in turn reduce voting costs of institutional investors, which should lead to overall better voting decisions. To the contrary, the alternative view holds that the proxy voting advisors' recommendations ignore firm-specific circumstances and are too standardized. Further, their recommendation criteria entail a lack of transparency, which in turns makes it difficult to assess the quality of voting recommendation. This raises the question of what actually drives the recommendations made by proxy voting advisors.

Iliev and Lowry (2015) provide some evidence that indicates that ISS uses a one-size-fits-all approach (blanket recommendations) during their sample period from 2006 to 2010. The reason is that on many governance and pay proposals, ISS almost always recommends voting against firm management without accounting for firm-specifics. To the contrary, actively voting funds seem to be more likely to vote in a firm-specific manner. A more positive picture emerges from Ertimur *et al.* (2013) who find that proxy voting advisors are more likely to issue an "against" recommendation on say-on-pay proposals at firms with poor performance and higher levels of CEO pay, indicating that firm-specific circumstances are taken into account. The mixed view is also reflected in the survey evidence of McCahery *et al.* (2016). While they document that 55% of their survey respondents either agree or strongly agree that proxy voting advisors

are useful by helping them vote in a more informed way, they also find that 30% agree or strongly agree that proxy voting advisors' advice is too standardized.

Albuquerque *et al.* (2020a) examine compensation proposals to show that the quality of the voting advice by ISS depends on whether ISS faces a heavy workload or not; they find that high quality recommendations – defined as those for which ISS releases "Against" recommendations and negative assessments are associated with lower subsequent firm performance – occur only during the off season (that is, for firms where the fiscal year does not end in December).

Apart from firm-specific determinants of vote recommendations, public opinion also appears to play a role. For example, Aggarwal *et al.* (2014) show that ISS voting recommendations are associated with public confidence in banks and (negative) newspaper articles on executive compensation. They argue that this finding reflects that ISS uses a proxy policy formulation process that incorporates feedback from an annual survey of market participants.

Heinen *et al.* (2018) examine whether US-based proxy voting advisors "export" US corporate governance by not sufficiently considering local settings when making recommendations for non-US firms. They document that the voting recommendations diverge more between foreign and local proxy voting advisors than among foreign proxy advisors. Further, "Against" recommendations by local proxy voting advisors have an incremental effect on voting outcomes beyond the recommendations by foreign proxy voting advisors.

5.5.4 Firm and Market Reactions to Voting Recommendations

Several studies also examine how firms and stock prices react to recommendations by proxy voting advisors. As most proxy votes are non-binding, it is not *ex ante* obvious that the effect of proxy voting advisors on voting outcomes translates into real changes at firms. Alexander *et al.* (2010) study market reactions around recommendations by ISS issued during proxy contests involving board seats between 1992 and 2005. They find that the announcement of ISS recommendations creates abnormal stock returns at firms, which indicates that their views bring new information to the market. Ertimur *et al.* (2013) find that firms that receive a negative say-on-pay vote that was trigger by a negative recommendation from proxy voting advisors engage with investors and make changes to their compensation plans. They also find

negative abnormal returns (-0.5% to -0.7%) in the case of "Against" recommendations by ISS for firms where such a recommendation was unexpected by the market.

Larcker *et al.* (2015) find negative announcement returns for compensation plans that were adjusted before a shareholder vote to reflect the preferences of proxy voting advisors. This indicates that proxy voting advisors may trigger firms to make choices that are not beneficial to shareholders. Calluzzo and Dudley (2019) provide evidence that proxy voting advisors influence real outcomes through their recommendations, notably, director behavior, executive retention, and executive compensation practices. Guest and Nerino (2020) find that ISS has an effect beyond its influence via proxy recommendations and subsequent voting outcomes. Specifically, they show that downgrades in the governance ratings provided by ISS are associated with negative announcement returns of -1.14% over a three-day window.

5.5.5 Conflicts of Interest

Another issue surrounding the use of proxy voting advisors is whether they are exposed to conflicts of interests when developing their recommendations. Notably, ISS not only sells advice about how investors in portfolio firms should vote, but it also consults firms on how to improve their corporate governance practices – a concern is that this dual role may lead to voting recommendations tilted by conflicts of interest (e.g., Yermack, 2010). Glass Lewis does not provide such consulting services to firms. The empirical analysis of these potential conflicts of interest is still in its infancy. Yet, the results in McCahery *et al.* (2016) indicate that institutional investors are concerned to some degree about conflicts of interests, as 52% of their respondents agree or strongly agreeing that proxy voting advisors are exposed to conflicts of interest. Li (2018) shows that the entrance of Glass Lewis into the market for proxy voting advice in early 2003 has reduced the scope for conflicts of interests (i.e., favoritism by ISS). Specifically, he shows that ISS started to issue more pro-shareholder recommendations after the market entry by Glass Lewis, especially when Glass Lewis did not support the shareholder proponents.

6. Conclusions

We provide a comprehensive overview of the role of institutional investors in corporate governance. The first component of our analysis traces the emergence of institutional investors as concentrated owners of public firms in modern economies, using a wide variety of data sources to

establish new stylized facts. Subsequently, we provide a detailed characterization of key aspects of the current legal and regulatory setting within which institutional investors operate with respect to the governance of their portfolio firms. Finally, our review synthesizes the recent academic literature in finance on the role of institutional investors in corporate governance, attempting to link theoretical predictions to empirical findings.

In this concluding section, we reflect on the state of the literature on the governance role of institutional investors and outline a few thoughts on areas for potential research. There is now a significant literature, both theoretical and empirical, focusing directly on the role of institutional investors in corporate governance. The empirical literature is larger, and much of it predates the relatively new theoretical literature. But the theoretical literature is now growing and beginning to gain significant ground. In the process, it is providing foundations for economically relevant metrics and tests in empirical analysis via predictions regarding the role of institutional incentives. This in turn presents rich opportunities for further research in this area and guidance for how to examine the effects of institutional ownership.

At the broadest level, the heterogeneity that we document and highlight with regard to institutions' governance obligations, abilities, and incentives suggests that empirical research should reconsider how to account for institutional ownership. In the majority of governance studies, it is conventional to simply control for a catch-all category of total institutional ownership. Our examination of the data, the law, and the emerging academic literature suggests that it may be more informative to employ alternative metrics reflecting specific institutional characteristics, building on theoretical predictions. For example, a given degree of concentrated ownership by regulated, flow sensitive retail mutual funds is likely to differ significantly in its governance impact relative to a similar degree of ownership by unregulated hedge funds with sophisticated or locked-in investors. Similarly, focus should not be limited to sizeable (5%+) institutional blockholders: smaller blockholders may have incentives – deriving from the delegated nature of institutional blockholding – to bolster each other's engagement efforts. In essence, institutional heterogeneity matters, and must be accounted for.

Turning to specifics, our discussion throughout Section 5 suggests that there is significant variation across different strands within the literature with respect to the integration of theoretical and empirical analyses. In certain areas, there is a significant and growing dialogue between the theoretical and empirical

literatures. For example, on the fundamental issue of how institutional incentives arising from competition for flow and skin in the game affect governance actions (as discussed in Section 5.4.1) there is both established and emerging empirical evidence in support of theoretical predictions. There are also emerging empirical techniques that provide the prospect of deeper investigations in this area, and also call for richer theoretical models. Similarly, in the area of the interplay between multiple institutional blockholders in determining governance outcomes in a given firm (as discussed in Section 5.4.5) there are significant points of contact between the theoretical and empirical literatures. This is true both in the context of engagements by multiple blockholders of the same type, for example, wolf packs of activist hedge funds and in the context of interactions across different types of institutional investors. Further, the emerging empirical evidence on how institutional investors interact may guide further theoretical development in this area.

In other areas, there is less dialogue between the theoretical and empirical literatures, representing significant potential for further work. For example, the significant empirical literature on the horizons of institutional investors treats such horizons as a primitive characteristic of institutions. The beginnings of this literature significantly predate the existence of theory in this area. Partly as a result, the empirical literature has arrived at several parallel ways of classifying institutions according to their horizons. Ultimately, the degree to which institutional investors are short-term or long-term, however, must depend on the nature of their incentives – for example, the degree to (and the frequency at) which they must compete for investor flow as well as the extent to which their skin in the game fosters long-term incentives. The growing theoretical literature on such incentives, discussed in Section 4.3, provides opportunities for better founded measures of investor horizons and thus provides an opportunity to significantly enrich this area of the literature.

In contrast, in some other areas, the theoretical literature is sparse and there is significant guidance in the empirical literature to expand and extend theoretical analyses. This is particularly evident in the area of active versus passive management, where the theoretical literature is in its infancy, while the empirical literature is engaged in a lively debate. A similarly lively debate exists in the empirical literature on common ownership, but there is currently little by way of a systematic approach within the theoretical literature to speak to this debate. The dynamic rise of passive institutional owners also raises the question of whether “established” empirical facts from prior studies on the relation between institutional ownership and firm outcomes remain valid in the current environment. Finally, while there is

some theoretical analysis of the incentives of proxy voting advisors, the empirical literature that addresses these issues is very significant and provides opportunities for further theoretical work.

The phenomenal growth of the asset management industry has transformed the nature of equity ownership across developed economies. A majority of blockholders in publicly traded firms are today institutional investors who are themselves agents acting on behalf of their capital providers. This places a multi-layered agency problem at the heart of modern corporate governance and calls for an enriched academic approach to its analysis. Academic researchers have responded to this significant change, leading to the development of both a theoretical and empirical literatures in this area. The academic literature on the role of institutional investors in corporate governance is poised at a critical stage of development. In our view, the key to further progress is an active two-way dialogue between the theoretical and empirical literatures. The emergence and enrichment of such dialogue holds the promise to transform the way in which economists view corporate governance in the modern economy.

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Table 1: Ownership Shares of the US Stock Market in Percent

Sector	1950	1970	1990	2000	2010	2020
Private Pension Funds	0.0	8.1	16.2	11.2	7.8	5.4
Federal, State and Government Pension Funds	0.0	1.2	8.1	7.7	8.5	5.3
Insurance Companies	2.6	3.3	4.1	6.2	6.7	1.9
Mutual Funds	1.6	4.8	7.1	18.3	20.2	20.8
Closed-End Funds	0.9	0.5	0.5	0.2	0.4	0.2
Exchange-Traded Funds	0.0	0.0	0.0	0.4	3.6	6.6
Foreign Sector	1.6	3.3	6.9	9.3	13.7	16.4
Household Sector	92.8	78.2	56.5	45.6	37.2	38.3
Other	0.4	0.6	0.7	1.1	1.8	5.1

Source: Federal Reserve Statistical Release Data: Flow of Funds Data United States. Exchange-Traded Funds are first listed in December 7, 2001. The Household Sector includes Bank Personal Trusts.

Table 2: Institutional Blockholders in the US

	N	Mean	STD	10th percentile	Median	90th percentile
Panel A: Full Sample						
Number of 1%-blocks	353,729	11.19	11.11	1.00	9.00	23.00
Number of 3%-blocks	353,729	4.33	6.26	0.00	3.00	9.00
Number of 5%-blocks	353,729	2.40	4.77	0.00	1.00	5.00
Number of 10%-blocks	353,729	0.90	3.21	0.00	0.00	2.00
Panel B: Hedge Fund Blocks						
Number of 1%-blocks	353,729	2.64	2.71	0.00	2.00	6.00
Number of 3%-blocks	353,729	1.15	1.67	0.00	1.00	3.00
Number of 5%-blocks	353,729	0.68	1.31	0.00	0.00	2.00
Number of 10%-blocks	353,729	0.23	0.86	0.00	0.00	1.00
Panel C: Mutual Fund Blocks (company-level)						
Number of 1%-blocks	865,963	2.48	3.25	0.00	1.00	7.00
Number of 3%-blocks	865,963	0.64	1.13	0.00	0.00	2.00
Number of 5%-blocks	865,963	0.29	0.70	0.00	0.00	1.00
Number of 10%-blocks	865,963	0.03	0.19	0.00	0.00	0.00
Panel D: Mutual Fund Blocks (fund-level)						
Number of 1%-blocks	865,963	2.32	3.16	0.00	1.00	7.00
Number of 3%-blocks	865,963	0.31	0.67	0.00	0.00	1.00
Number of 5%-blocks	865,963	0.11	0.36	0.00	0.00	0.00
Number of 10%- blocks	865,963	0.01	0.09	0.00	0.00	0.00

Source: In Panels A and B, the Schedule 13F ownership data that is underlying the measures in this table covers the 1999-2017 period and is obtained from Michael Sinkinson's website (see Backus *et al.*, 2021). In Panel B, the analysis is limited to Schedule 13F filers who are identified as hedge funds in Agarwal *et al.* (2013). In Panels C and D, mutual fund ownership data covers the 1999-2017 period and is obtained from the CRSP Survivor-Bias-Free US Mutual Fund Database. Panel C reports the results at mutual fund company level and Panel D at the mutual fund level. The unit of observation is at the security-reporting quarter.

Table 3: Governance Obligations of Institutional Investors Globally

		Setting of Voting Policy	Disclosure of Voting Policy	Disclosure of Voting record	Setting Policy for Conflict of Interest	Disclosure for Conflict of Interest	Monitoring	Dialogue with Investee	Maintain supervision even if outsourced
US	Investment Companies	Law	Law	Law	Law	Law	Law		Law
	Private Pension Fund								Law
	Investment Advisers	Law	Law	Law	Law	Law	Law		Law
China	National Social Security Funds	Industry Assoc.	Code	Code					
	Pension Funds	Industry Assoc.	Code	Code					
	Insurance Funds	Industry Assoc.	Code	Code					
	Public Offering Funds	Industry Assoc.	Code	Code					
Japan	Institutional Investors	Code	Code	Code	Code	Code	Code	Code	Code
	Proxy Advisor	Code	Code	Code	Code	Code	Code	Code	Code
Germany	Investment Funds/Asset Managers	Code	Law, Code		Law, Code		Code	Code	Law, Code
United Kingdom	Institutional Investors	Code	Code	Code	Code	Code	Code	Code	Code
	Service Provider	Code	Code	Code	Code	Code	Code	Code	Code
India	Mutual Funds and Asset Managers	Law	Law	Law	Law				
	Insurers	Code	Code	Code	Code	Code	Code	Code	Code
	Pension Funds	Law	Law	Law	Law	Law	Law	Law	Law

Source: OECD Corporate Governance Factbook 2019. "Code" may also refer to codes developed by private initiatives.

Table 4: Proxy Access Rules Globally

	China	Japan	Germany	UK	India
Minimum Holding Required	3%	1% or 300 voting rights with 6 months holdings	5% or €500,000	5% or 100 shareholders holding together > GBP10,000	10% of voting share
Deadline for Request	10 days before the meeting	8 weeks before meeting	10 days before the meeting	7 weeks before meeting	21-45 days before the meeting
Deadline for Company to Respond	Two days to accept and publish		14 days for accepting and publishing	Company has to publish at same time as it gives notice of the meeting (Source: UK Companies Act 2006, 314 (2), 315 (1) b)	21 days

Source: OECD Corporate Governance Factbook 2019, unless otherwise stated.

Table 5: Disclosure Rules Globally

	Rules to Disclose Majority Shareholdings

China	- Only for issuer listed on Shanghai or Shenzhen stock exchange
	- Disclosure triggered when a shareholding reaches or exceeds 5% of total issued shares of an issuer, then:
	  o 5%-20%: basic disclosure
	  o 20%-30%: detailed disclosure
	  o >30%: tender offer disclosure report
	- Lock-in periods for shareholders:
	  o 5% or more shareholders restricted from selling shares for period of 6 months from purchase and from purchasing shares in issuer for period of 6 months from its last sale of such shares
	- Additional restriction selling shares:
	  o Aggregate divestment on open market within 3 months cannot exceed 1% of total shares of issuer
	  o Aggregate divestment through block trading within 90 days cannot exceed 2% of total shares of the issuer

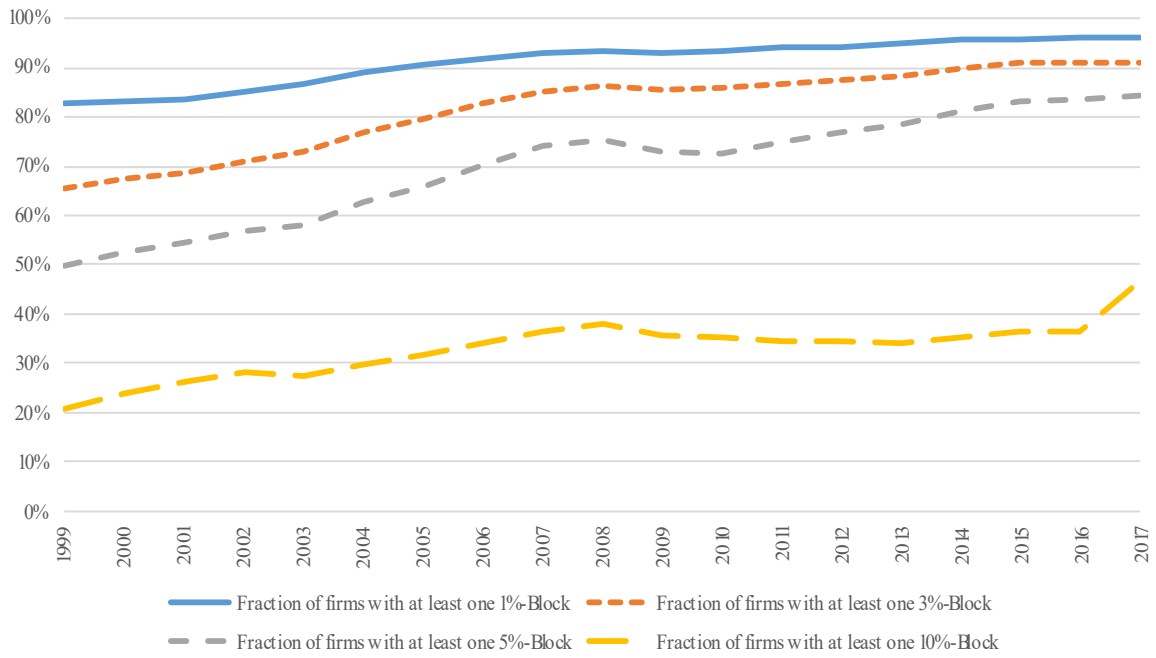
Japan	- Only for companies that are listed on stock exchange in Japan
	- Disclosure concerned with "ownership" of "Target Securities" and disclosure triggered when:
	  o "Ratio of Shareholdings" (calculated by specific formula) of a person exceeds 5% or,
	  o Ratio of Shareholdings of large shareholder changes by 1% or more, or
	  o There is material change to matters described in previously filed report
	- Special Reporting with lower frequency for certain institutional investors trading securities without control intent
	  o Need to report within 5 business days from every base date (occurs at least bimonthly)

Germany	- Only for issuer trading on EEA regulated market and whose home member state is Germany (separate disclosure obligation of holdings of ≥25% in shares of German stock corporation which is not listed) - Disclosure thresholds met from holding either voting shares or financial instruments referenced to voting shares or a combination - Disclosure triggered for: o 3% (only for shares not financial instruments), 5%, 10%, 15%, 20%, 25%, 30%, 50% and 75%

	○ If holder of previously reported financial instruments exercises and acquires underlying shares and shares threshold is met but overall % held is unchanged → new nature of holdings needs to be disclosed
UK	- Only for UK incorporated or non-UK incorporated issuer whose shares admitted to trading on EEA regulated market and whose member state is the UK or UK incorporated issuer whose shares admitted to trading on UK prescribed market - Disclosure thresholds met either voting shares or financial instruments referenced to voting shares or a combination - Disclosure triggered for: ○ UK-incorporated company: 3% of total voting rights and each whole percentage point after that ○ Non-UK incorporated issuer: 5%, 10%, 15%, 20%, 25%, 30%, 50% and 75% of total voting rights ○ If holder of previously reported financial instruments exercises and acquires underlying shares and shares threshold is met but overall % held is unchanged → new nature of holdings needs to be disclosed
India	- Only for issuer listed on recognized stock exchange in India - Disclosure triggered for: ○ Person (or group) acquiring ≥5% of total shares or voting rights of company ○ Disclosure required if change in holding of ≥5% holder and change exceeds 2% of total shares or voting rights

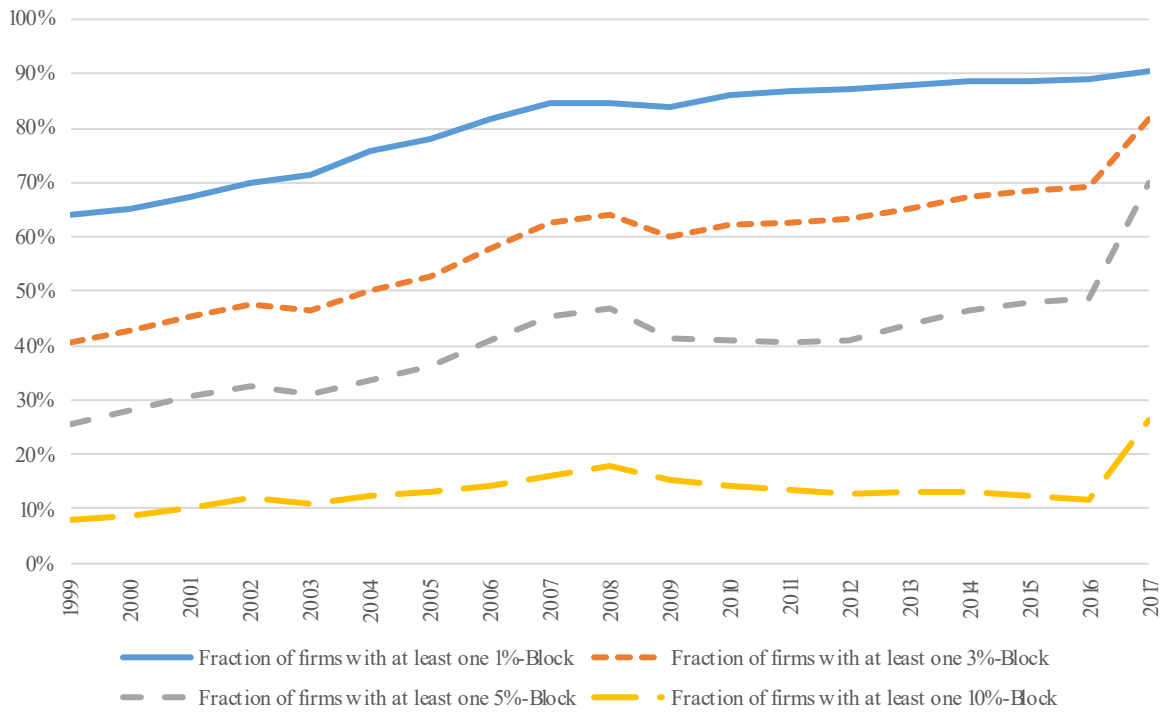
Source: AOSphere (Allen & Overy)

Figure 1: Time-series Evolution of Institutional Block Ownership in the US



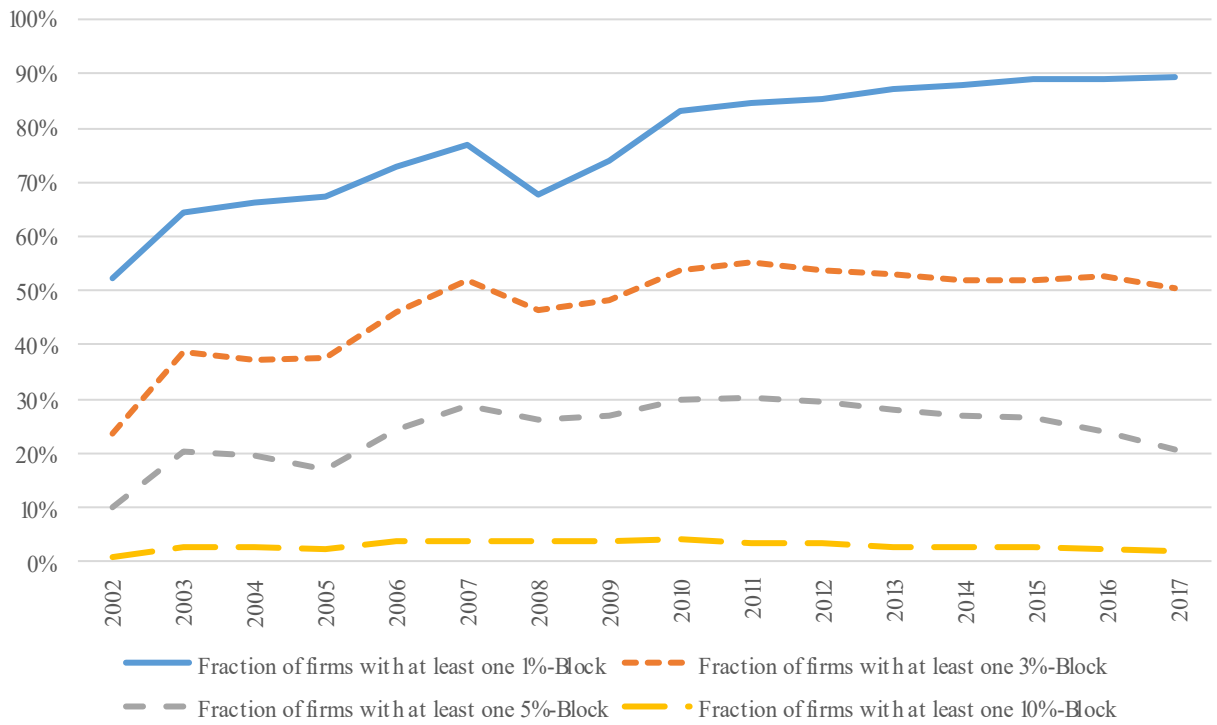
Source: The Schedule 13F ownership data that is underlying the measures in this figure covers the 1999-2017 period and is obtained from Michael Sinkinson's website (Backus *et al.*, 2021). The blue line represents 1%-blocks (i.e., cases when an institution owns at least 1% of shares outstanding), the orange line represents 3%-blocks, the gray line represents 5%-blocks, and the yellow line represents 10%-blocks.

Figure 2: Time-series Evolution of Hedge Fund block Ownership in the US



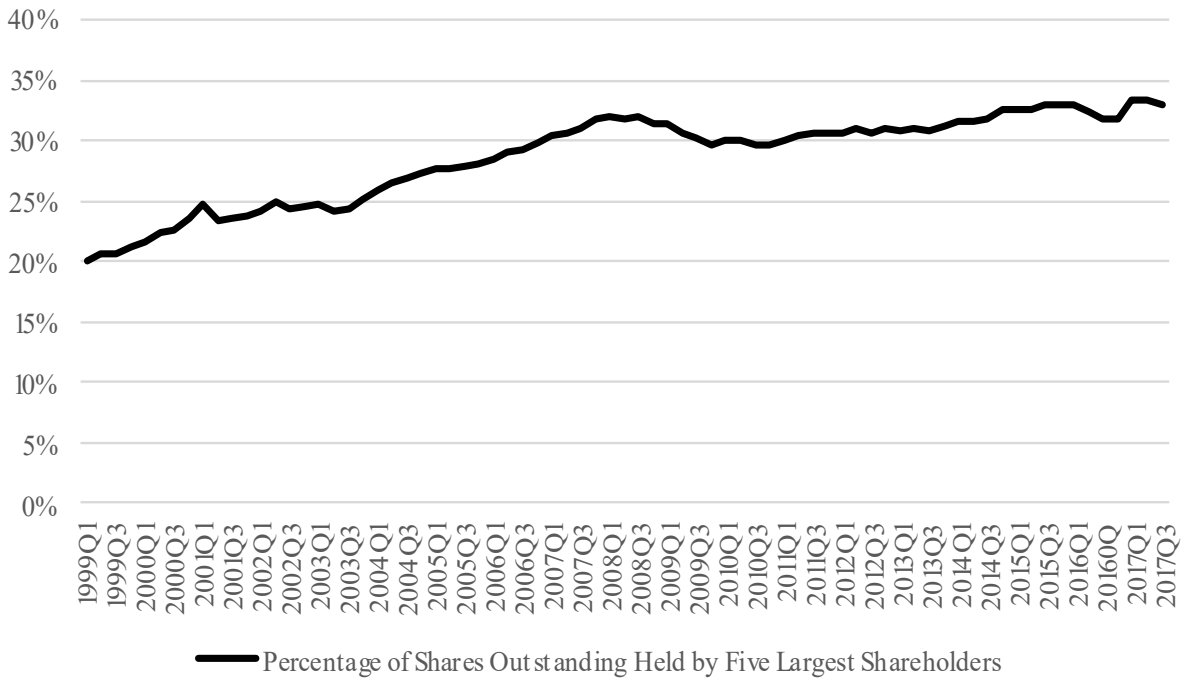
Source: The list of Schedule 13F filers who are identified as hedge funds is from Agarwal *et al.* (2013). The blue line represents 1%-blocks (i.e., cases when a hedge fund owns at least 1% of shares outstanding), the orange line represents 3%-blocks, the gray line represents 5%-blocks, and the yellow line represents 10%-blocks.

Figure 3: Time-series Evolution of Mutual Fund Block Ownership in the US



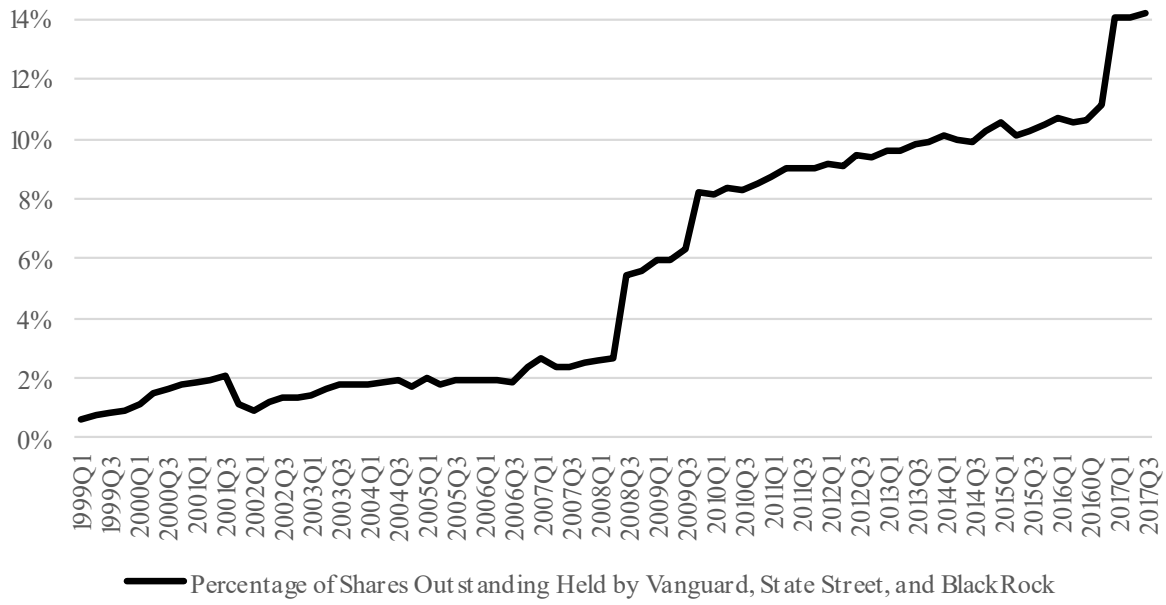
Source: Mutual fund holdings data are from the CRSP Survivor-Bias-Free US Mutual Fund Database. The blue line represents 1%-locks by mutual funds (i.e., cases when a mutual fund owns at least 1% of shares outstanding), the orange line represents 3%-blocks, the gray line represents 5%-blocks, and the yellow line represents 10%-blocks.

Figure 4: Time-series Evolution of Five Largest Institutional Blockholders



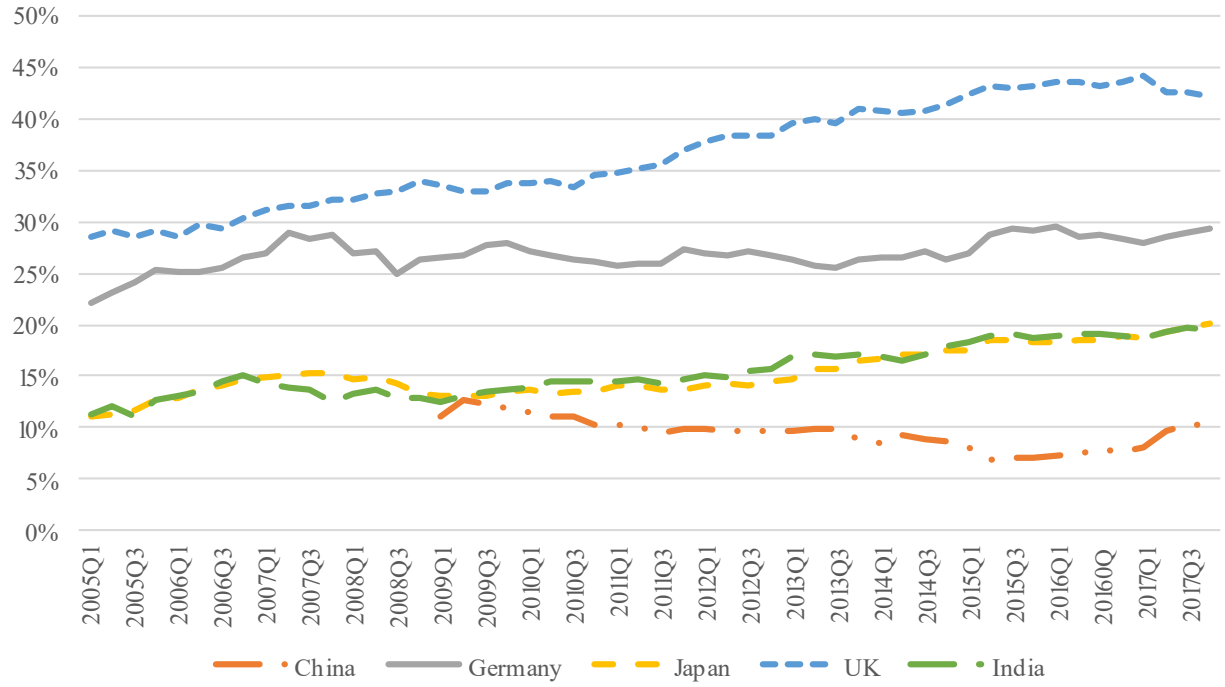
Source: The Schedule 13F ownership data that is underlying the measure in this figure covers the 1999-2017 period and is obtained from Michael Sinkinson's website (Backus *et al.*, 2021). The dark line represents the percentage of shares outstanding owned by five largest institutional blockholders in a firm.

Figure 5: Time-series Evolution of Big Three Institutional Ownership



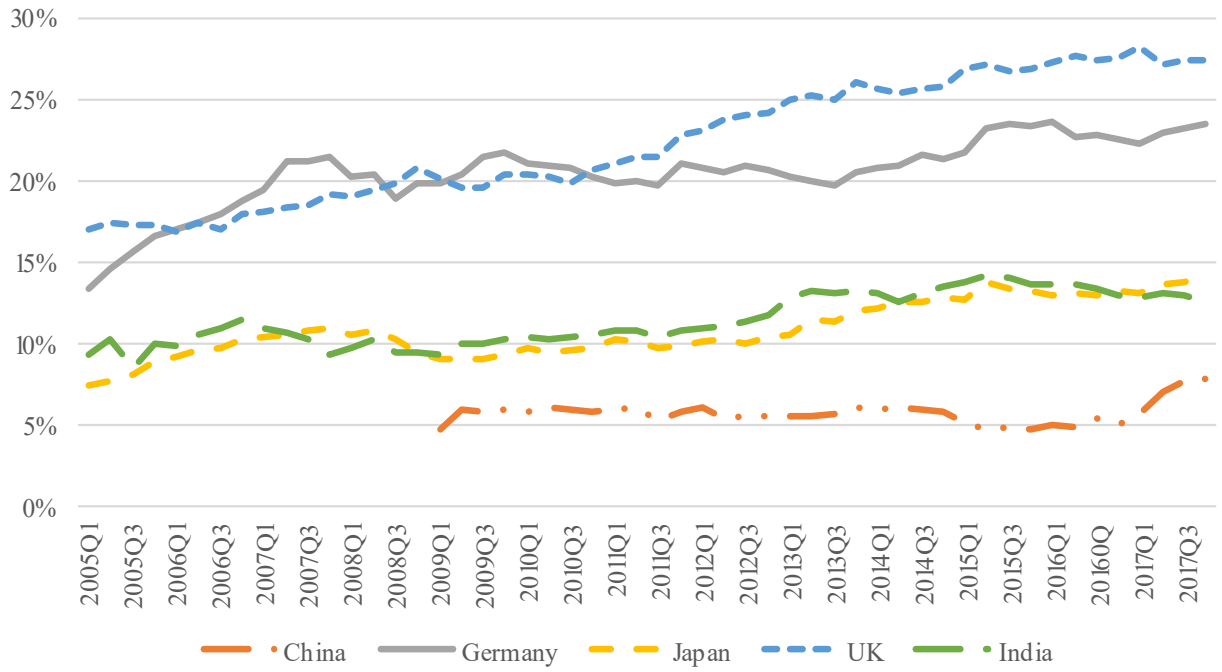
Source: The Schedule 13F ownership data that is underlying the measure in this figure covers the 1999-2017 period and is obtained from Michael Sinkinson's website (Backus *et al.*, 2021). The dark line represents the percentage of shares outstanding owned by the "Big Three," that is, BlackRock, State Street, and Vanguard.

Figure 6: Time-series Evolution of Institutional Ownership around the World



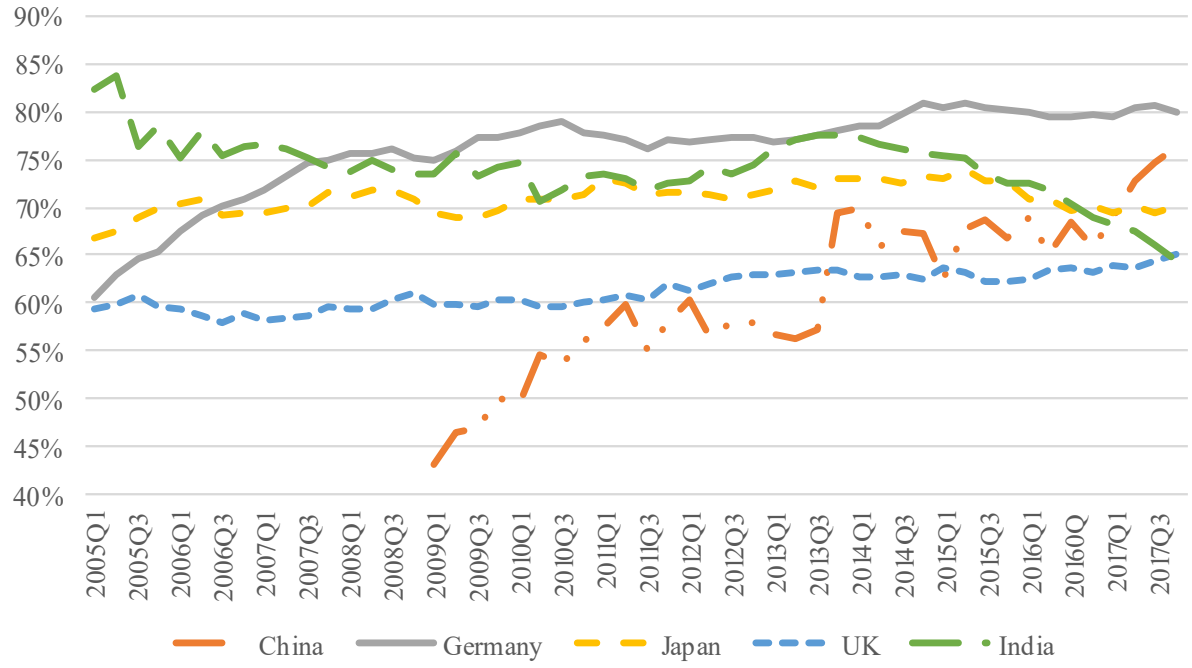
Source: FactSet Ownership. The blue line represents institutional ownership in UK firms, the grey line represents institutional ownership in German firms, the green line represents institutional ownership in Indian firms, the yellow line represents institutional ownership in Japanese firms, and the orange line represents institutional ownership in Chinese firms.

Figure 7: Time-series Evolution of Foreign Institutional Ownership around the World



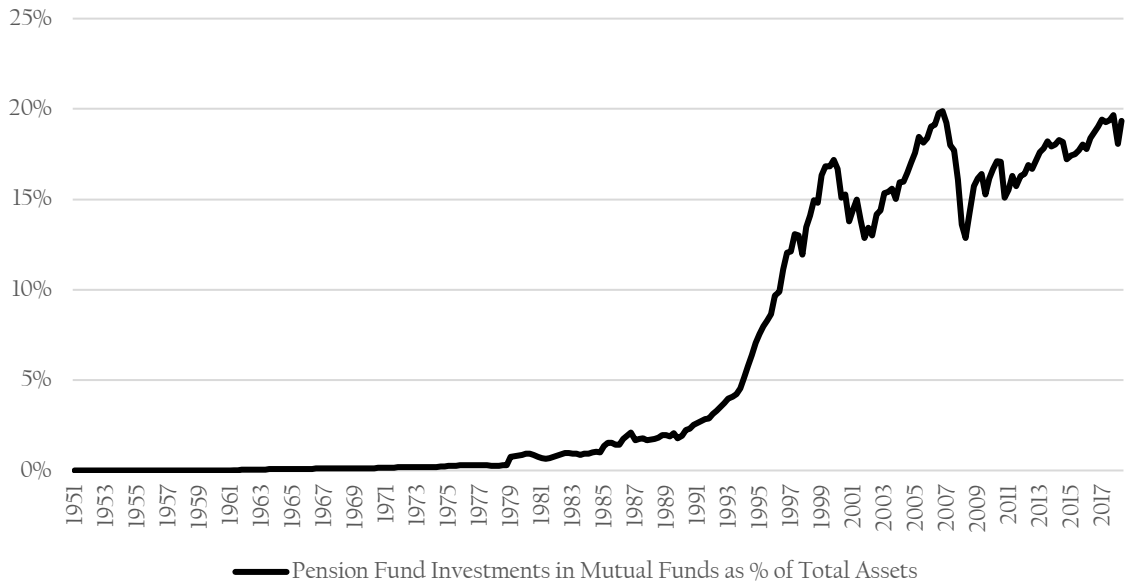
Source: FactSet Ownership. The blue line represents foreign institutional ownership in UK firms, the grey line represents foreign institutional ownership in German firms, the green line represents foreign institutional ownership in Indian firms, the yellow line represents foreign institutional ownership in Japanese firms, and the orange line represents foreign institutional ownership in Chinese firms.

Figure 8: International Data: Foreign to Total Institutional Ownership over Time



Source: FactSet Ownership. The blue line represents the fraction of foreign institutional ownership (relative to total institutional ownership) in UK firms, the grey line represents the same fraction n German firms, the green line represents the same fraction in Indian firms, the yellow line represents the same fraction in Japanese firms, and the orange line represents the same fraction in Chinese firms.

Figure 9: Investments of Pension Funds into Mutual Funds in the US



Source: Federal Reserve Statistical Release Data: Flow of Funds Data United States. Investments of pension funds into mutual funds are calculated by dividing the market value of mutual fund shares held by pension funds (FRED Source ID: LM593064205.Q) by the total amount of pension funds' (financial) assets (FRED Source ID: FL594090005.Q). For each calendar year, we use the end of year data.

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