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Are All Private Benefits of Control Ineffective? Principal–Principal Benefits, External Governance Quality, and Firm Performance

Steve Sauerwald^a, Pursey P. M. A. R. Heugens^b,
Roxana Turturea^c and Marc van Essen^{d,e}

^aUniversity of Illinois at Chicago; ^bErasmus University; ^cAalto University; ^dUniversity of South Carolina;
^eEMLYON Business School

ABSTRACT Private benefits of control (PBC) are benefits that controlling shareholders consume, but that are not shared with minority shareholders. Research focusing on the value protection role of corporate governance typically frames PBC as principal–principal (PP) agency costs, and interprets them as a form of minority shareholder expropriation that decreases firm performance. Taking a value creation perspective of corporate governance, however, we propose a more nuanced role for PBC. Specifically, we see them also as PP agency benefits that compensate controlling shareholders for their monitoring and advisory services, which can increase firm performance. Since both PP costs and benefits affect firm performance, we theorize that PBC enhance firm performance at a diminishing rate. Furthermore, we show that the effect of PBC on firm performance is more positive when country-level external governance mechanisms are strong.

Keywords: control transactions, comparative corporate governance, controlling shareholders, institutions, firm performance, private benefits of control

INTRODUCTION

In many parts of the world, controlling shareholders privately enjoy benefits not shared with minority shareholders (Dharwadkar et al., 2000; Dyck and Zingales, 2004; Young et al., 2008). In a narrow interpretation of corporate governance that emphasizes the value protection role of corporate governance (Shleifer and Vishny, 1997), private benefits of control (PBC) are overwhelmingly conceived as the result of an agency conflict

Address for reprints: Steve Sauerwald, Department of Managerial Studies, University of Illinois at Chicago, 601 South Morgan Street, 2210 University Hall, Chicago, IL 60607-1722, USA (ssauerw@uic.edu).

between controlling and minority shareholders, also called the principal–principal (PP) agency problem (Young et al., 2008). Viewed through this value protection lens, PBC are an expression of PP agency costs that reduce shareholder wealth and firm profitability. Direct PP costs refer to financial resources controlling shareholders appropriate that can no longer be used to advance firm performance (Gilson, 2006; Johnson et al., 2000). For instance, controlling shareholders may misuse corporate resources by transferring assets and profits out of firms via transfer pricing, subsidizing personal loans, higher compensation for executive or supervisory roles they perform, perks such as the use of corporate jets for personal use, and even outright theft. Indirect PP costs stem from the misalignment between the incentives of controlling owners and those of minority shareholders. Because controlling shareholders often have a less diversified investment portfolio, they tend to push for less risky strategies in the firms they control (Gomez-Mejia et al., 2003; Wright et al., 1996). This may result in the prevention of value-creating takeovers (Li and Qian, 2013), and the pursuit of ineffective investment decisions (Ward and Filatotchev, 2010).

While we acknowledge these negative effects of PBC, we also stress a positive side of PBC that emphasizes a broader value creation perspective of corporate governance (Filatotchev et al., 2006; Zahra et al., 2009). First, we propose that PBC are the ‘price’ minority shareholders pay for the valuable managerial control and advisory services rendered by the controlling shareholder (Gilson and Schwartz, 2013; Paccos, 2012). These monitoring and advisory services come at private *costs* to the controlling shareholder, such as efforts and under-diversification. Private *benefits* compensate the controlling shareholder for these private costs (Enriques et al., 2014). Second, we argue that PBC provide incentives for the controlling shareholder to engage in entrepreneurial opportunity recognition, a ‘process through which [they] identify meaningful patterns in complex arrays of events or trends’ (Baron and Ensley, 2006, p. 1331; Shane and Venkataraman, 2000). Controlling shareholders are often invested in multiple companies simultaneously, and thus may develop opportunity recognition templates that are ‘more clearly defined, richer in content, and more concerned with factors and conditions related to (...) generation of positive cash flow’ (Baron and Ensley, 2006, p. 1331; Holderness, 2003; Paccos, 2012). When engaging in this value creation role, controlling shareholders may seek to extract an amount of PBC that is large enough to serve as an incentive for their opportunity recognition efforts, but small enough to entail limited consequences for firm performance. After all, when the firms they control perform well, the magnitude and range of private benefits controlling shareholders can enjoy widens as well. In sum, while PBC are by definition *not* shared, PP benefits frequently do have an *indirect* positive effect on firm performance. By putting a private premium on control, advice, resource provision, and opportunity recognition activities, PBC encourage controlling owners to curb managerial opportunism and to initiate and support growth-oriented initiatives, which create shared benefits for all shareholders by improving firm performance (Zahra et al., 2009).

We do not, however, expect PP costs and benefits to accumulate in equal measure across the entire PBC spectrum. Specifically, while we expect the relationship between PBC and firm performance to be positive, we expect performance benefits to accrue with PBC at a diminishing rate (Gilson and Gordon, 2003). PP benefits tend to accumulate

already in the lower ranges of the PBC spectrum due to the incentives provided to controlling owners. However, in the higher ranges of the spectrum we propose that PP costs will begin to cancel out PP benefits. Specifically, when PBC become excessively high, minority shareholders may perceive them as unfair, or disproportionately large compared to the benefits brought to the table by controlling shareholders. This may result in internal conflicts between minority and controlling shareholders that could negatively affect firm performance. Even when controlling owners want to pursue entrepreneurial opportunities, they may have too few resources to realize such opportunities, because too many resources are converted into PBC. PP costs will therefore materialize predominantly and increasingly in the higher ranges of the PBC spectrum.

Our theory generalizes well, but it is not universal. PBC differ substantially across countries (Dyck and Zingales, 2004; Nenova, 2003). We direct attention to the quality of country-level *external* governance institutions as a potential contingency (Aguilera et al., 2015; Sauerwald and Peng, 2013). Specifically, we expect that the relationship between PBC and firm performance will be more positive in countries with strong external corporate governance mechanisms (such as effective rule of law or shareholder protection), because these mechanisms help protect the wealth of minority shareholders while leaving controlling owners' incentives to enhance firm performance largely intact (Aguilera et al., 2008).

An inherent difficulty in measuring PBC is their unobservable nature (Albuquerque and Schroth, 2010; Burkart et al., 2000; Dyck and Zingales, 2004). Various measurement approaches exist, centring either on price differentials between voting and non-voting dual-class stock (Nenova, 2003) or on the premiums paid for control block transactions (Barclay and Holderness, 1989; Dyck and Zingales, 2004). The block premium strategy, which builds on the price differentials between the share price for the control block, and the share price on the stock exchange, is often seen as the preferred method, as it also applies to firms that did not adopt dual class shares (Nenova, 2003) and to firms incorporated in countries where dual class shares are illegal (Dyck and Zingales, 2004). Conceptually, a positive block premium conveys the expectations of the new controlling owner in terms of how much PBC he or she will be able to extract. The higher the premium a new owner is willing to pay for gaining control over a firm, the higher the PBC he or she predicts to extract later on. We therefore opt for the block premium approach and estimate PBC by compiling a comprehensive sample of up to 962 control transactions, materializing between 1990 and 2016 in 57 countries around the globe.

Our study makes two contributions. First, we introduce the notion of PP *benefits* – shareholder value created by controlling owners through their provision of shareholder benefiting services in the areas of control, advice, resource provision, and the implementation of entrepreneurial opportunities. This concept complements our already robust understanding of PP costs – which is grounded in the narrow value protecting view of corporate governance (Li and Qian, 2013; Singla et al., 2014) – with a broader value creation view of corporate governance (Zahra and Filatotchev, 2004). Under this view, minority shareholders may be willing to accept a moderate level of PBC in exchange for the commitment of controlling shareholders. Our study supports the contention that

both PP costs and PP benefits influence firm performance by showing that the relationship between PBC and firm performance is positive at a diminishing rate.

Second, we identify the quality of external governance mechanisms, such as effective rule of law or strong shareholder protection, as a key contingency that can affect the relationship between PBC and firm performance. Strong external governance mechanisms have been shown to be effective at decreasing PBC (Dyck and Zingales, 2004), but prior research was silent regarding the potential role of these mechanisms in reducing the negative consequences of PBC for firm performance while preserving their incentivizing effects. We theorize and show that PP problems are lower when strong external governance mechanisms complement PP benefits (Aguilera and Crespi-Cladera, 2016). External governance does not just curb PP costs, but it also encourages controlling owners to exert greater efforts to improve firm performance. This is important because weak external governance mechanisms could incentivize controlling shareholders to quietly consume PBC instead of using PBC productively as an incentive to create shared benefits for all shareholders (Holderness, 2003).

PRIVATE BENEFITS OF CONTROL: PP COSTS OR PP BENEFITS?

PBC are benefits that *controlling* shareholders consume, but that are not shared with *minority* shareholders (Albuquerque and Schroth, 2010; Burkart et al., 2000; Dyck and Zingales, 2004; Gilson and Schwartz, 2013). Typically, PBC are taken as evidence of PP problems – a special form of agency conflict between controlling and minority shareholders (Li and Qian, 2013; Peng and Sauerwald, 2013; Young et al., 2008). PP problems are an important governance concern when controlling shareholders are present in the firm (La Porta et al., 1999). Controlling shareholders are ubiquitous in Asia (Claessens et al., 2002), Latin America (Céspedes et al., 2010), and Europe (Faccio and Lang, 2002; van Essen et al., 2013), but they also exist in countries in which corporate ownership is traditionally assumed to be more dispersed, such as the U.S. (Dalton et al., 2003; Holderness, 2009) and the UK (Franks et al., 2009).

According to a narrow interpretation of corporate governance that emphasizes its value protection role (Shleifer and Vishny, 1997), controlling shareholders are assumed to be a solution to principal-agent (PA) problems between shareholders (i.e., principals) and managers (i.e., agents). Their substantial equity stake allows controlling shareholders to closely monitor agents or to become owner-managers themselves (Shleifer and Vishny, 1986). Yet, controlling shareholders may also be tempted to abuse their control to expropriate minority shareholders, often with the cooperation of co-opted managers (Bae et al., 2012). This leads to ineffective PBC that we conceptualize as PP costs that depress firm profitability.

The existence of PP costs for firms raises the question of how organizational scholars, managers, and policy makers should respond. The common answer is that rigorously reducing PBC improves firm performance by lowering PP costs. This may be accomplished through legislative reforms aimed at improving minority shareholder rights (Aguilera et al., 2018; Campbell et al., 2012), expanding the responsibilities of activist shareholders (Anabtawi and Stout, 2008), and removing institutional impediments such as corruption

(Fisman and Miguel, 2007). Yet, such solutions may not only eliminate PP costs, but also PP *benefits* that create shared benefits for all shareholders (Gilson and Schwartz, 2013; Holderness, 2003). This may be the case if PBC are not just deadweight, unproductive costs, but also yield beneficial incentives that more than offset PP costs, thus maximizing the net expected economic value to all shareholders (Demsetz and Villalonga, 2001). This perspective requires us to take a broader corporate governance angle that also highlights the value creating function of corporate governance (Filatotchev, 2007; Filatotchev et al., 2006; Zahra and Filatotchev, 2004; Zahra et al., 2009).

The Benefits of PBC: PP Benefits

According to a broader *value creation* perspective of corporate governance (Filatotchev, 2007; Zahra and Filatotchev, 2004; Zahra et al., 2009), PBC may have an incentive dimension in that they compensate controlling shareholders for the private costs they incur (Gilson and Gordon, 2013; Gilson and Schwartz, 2013). Such incentives are necessary, because concentrated ownership by a controlling shareholder comes at significant private costs. At the most basic level, when shareholders hold controlling stakes in one or more firms, their investment portfolio is less diversified and consequently riskier (Maug, 1998). PBC can help offset these private costs, and in return for the privilege of consuming them, controlling shareholders may focus their efforts on creating value (such as monitoring and advice) for the firms they control.

First, it may benefit the firm if the controlling shareholder is motivated by PBC to provide additional services for which he or she is not formally compensated. Monitoring and advice efforts benefit the firm and its minority shareholders in the future, but are privately costly for the controlling shareholder (Shleifer and Vishny, 1986). Monitoring is particularly useful to prevent other powerful stakeholders such as employees (van Essen et al., 2013), managers (Coff, 1999), or activist shareholders (Romano, 1993) from extracting private benefits themselves. The presence of PBC also makes it attractive for controlling shareholders to advise management on strategic opportunities (Cheffins and Armour, 2012), finance uncertain and risky projects (Chang, 2003), supply rare goods and services (Inoue et al., 2013), and pledge their personal reputation as an intangible collateral asset (Gilson, 2007), since the returns from these endeavours benefit the controlling shareholder to a larger extent than less involved minority shareholders. These private returns may be nonpecuniary, such as the prestige associated with running a reputable and large organization (David et al., 2010), or pecuniary, such as being able to divert larger payments into the pocket of the controlling shareholder (Gilson and Schwartz, 2013).

Second, controlling shareholders are motivated by both shared and private benefits (Holderness, 2003). If PBC are present, the controlling shareholder is incentivized to exert greater opportunity recognition efforts (Baron and Ensley, 2006; Shane and Venkataraman, 2000), in anticipation of the private appropriation of a fraction of future surpluses (Zahra et al., 2009). For the controlling shareholder, it may pay off to ensure that these entrepreneurial opportunities materialize within the context of the controlled firm, to take advantage of the opportunity to access complementary resources for these endeavours, such as financial resources provided by minority shareholders or corporate

bonds provided by banks. Crucially, carrying out these entrepreneurial opportunities inside the controlled firm may result in benefits shared amongst *all* shareholders. For instance, entrepreneurial opportunities may generate positive cash flow, improve the visibility and reputation of the firm, and lead to corporate synergies with other products or services provided by the firm (Aguilera et al., 2008; Makadok, 2003).

The Costs of PBC: PP Costs

PBC may also resemble non-productive PP costs if they motivate the controlling shareholders to self-servingly pursue private interests and downplay the maximization of equity returns accruing to all shareholders. This unproductive use of corporate resources may reduce firm performance by making minority shareholders incur deadweight costs or by leaving profitable strategic opportunities on the table.

First, direct PP costs for the firm siphon profits to the controlling owner (Gilson, 2006; Jiang et al., 2010). A common form is asset tunnelling, through which controlling shareholders expropriate minority owners by selling assets to other entities they control for sub-market transfer prices (Johnson et al., 2000). When these costs are very high, they can prevent the firm from sustaining its core activities, and from investing in new opportunities, which can result in negative consequences for firm performance. PP costs may also raise the cost of capital, since minority shareholders are less likely to commit to a firm with a reputation for theft (Hail and Leuz, 2009).

Second, indirect PP costs for the firm may result from conflicts of interest between controlling and minority shareholders. PBC may exaggerate these conflicts of interest because the controller may derive income from both private benefits and the proportional share of equity returns (i.e., shared benefits), while outside shareholders are completely dependent on the returns from their equity investment. For example, the presence of PBC may make it more rewarding for controlling shareholders to use the firm for preserving a family dynasty (Gomez-Mejia et al., 2007), securing political influence (Morck et al., 2005), resisting profitable takeover attempts (Li and Qian, 2013), and supporting diversification not as a means to increase profits, but to incur the prestige associated with running larger corporations (David et al., 2010).

The Relationship Between PBC and Performance: Positive at a Diminishing Rate

While shareholders would prefer all PBC to express PP benefits without PP costs, the central question is whether the benefits outweigh the costs (Demsetz and Villalonga, 2001). We argue that the answer depends on the *magnitude* of the PBC. Specifically, we expect the relationship between PBC and firm performance to be positive, but at a diminishing rate. Therefore, at relatively low values of PBC, the benefits of PBC will be substantially larger than the costs. When PBC are low, the costs to the firm will be negligible. Low PBC are less likely to severely affect the firm's core activities, because they represent only a small fraction of the resources available for the firm to pursue its financial objectives. Low PBC are also less likely to trigger the dissent of internal and external stakeholders. Minority shareholders may not even be aware that PBC are

extracted by controlling shareholders. Even when minority shareholders are aware of a low level of PBC extraction, they may simply accept this state of affairs as a 'fair' reward for the value controlling shareholders create for the firm. When PBC are low, it will also be more difficult for external stakeholders to observe them, and hence they will be less likely to deem the firm as less legitimate due to PBC extraction. While the costs are minimal for relatively low levels of PBC, the benefits are substantial and increasing, and will therefore outweigh the costs.

When PBC reach excessive levels, the 'gap' between the benefits and costs of PBC for the firm will shrink (Bebchuk et al., 2000). On the one hand, the costs will become more poignant. High PBC are more observable and also more likely to be perceived as unfair by minority shareholders. This can lead to internal conflicts, instability in strategic decision-making, and even to minority shareholders selling their shares in a coordinated manner (Bae et al., 2012; Jiang and Peng, 2011), which will ultimately hamper firm performance (Bertrand and Mullainathan, 2003; Bloom and Milkovich, 1998). External stakeholders such as suppliers, business partners, or governmental agencies may also perceive the firm as less legitimate, and therefore refrain from cooperating with the firm or continue to do so but under less favourable terms (Alchian and Demsetz, 1972; Bainbridge, 2006). For instance, creditors may raise the cost of capital if they perceive high PBC (Anderson et al., 2003). Even when extreme PBC do not trigger the withdrawal of support of internal and external stakeholders, they may prevent the firm from performing its core functions effectively, because too many of its critical resources are converted into private benefits for the controlling owners.

On the other hand, the benefits will become less abundant as PBC reach high levels. Excessive PBC may 'over-incentivize' controlling shareholders, leading them to 'over-monitor' managers and 'micromanage' strategic decisions (Pagano and Röell, 1998). Controlling shareholders may feel compelled to reciprocate for high levels of PBC by providing overbearing advice (Fehr and Gächter, 2000). While this advice may be well-intended, controlling shareholders may lack the necessary management capabilities (Feldman and Montgomery, 2015). Moreover, if managers are very tightly monitored, they may feel pressured to generate positive short-run results (Kacperczyk, 2009) and managerial discretion may be suffocated (Finkelstein and D'Aveni, 1994). Additionally, over-monitoring may waste corporate resources because it reduces the returns from managerial incentives (Zajac and Westphal, 1994). Even when willing to pursue entrepreneurial opportunities, controlling shareholders may become constrained by their own greed. Because so many of the firm's resources are converted in PBC, there may simply be too few resources available for the implementation of such opportunities. Thus,

Hypothesis 1: The relationship between private benefits of control and firm performance is positive at a diminishing rate.

Complementary Effect of External Corporate Governance

Earlier studies have found that strong external governance in the form of well-developed institutions can help to lower the overall levels of PBC (Dyck and Zingales, 2004; Sauerwald and Peng, 2013). The literature has convincingly argued that the protection of minority shareholder rights lowers the ability of controlling shareholders to extract private benefits (Djankov et al., 2008; La Porta et al., 1998). Moreover, an effective legal system and strong 'rule of law' reduce expropriation incentives through the threat of litigation against controlling shareholders (Djankov et al., 2003, 2008). Finally, cultural norms opposing corruption may also lower the extraction of PBC (Aguilera et al., 2015; Fisman and Miguel, 2007).

We propose that the strength of external governance can also influence the consequences PBC entail for firm performance. Specifically, we expect that the presence of external governance in the form of institutions moderates the relationship between PBC and firm performance. Weak institutional protection of minority shareholders, ineffective 'rule of law', and pervasive corruption reduce managers' attention to shareholder interests, thus exacerbating PA problems (Cuervo-Cazurra and Dau, 2009; La Porta et al., 1998). Because managers' actions may not be sufficiently constrained, the monitoring needs of firms increase. Even when controlling shareholders are well-intended, and committed to engage in opportunity recognition and provide high-quality services, in weak institutional contexts the monitoring needs of firms may reach a level that could exceed the monitoring capabilities of controlling shareholders. Controlling shareholders therefore may address the more flagrant managerial excesses, but fail to tackle the more 'ordinary' PA problems. Moreover, while controlling shareholders can provide valuable advice (Carney et al., 2011), weak external control and scrutiny of such close advisory relationships may provide ample opportunities to collude and exploit PBC at minority shareholders' expense (Frank and Obloj, 2014). For instance, countries with weak external governance are more prone to establish close relationship-based ties between stakeholders that facilitate value-decreasing opportunities to collude (Peng, 2003). Weak external protection of minority shareholder interests may thus reduce the net performance effects of PBC.

On the other hand, when external institutions protect minority shareholders effectively, managers are kept in check and PA costs are reduced (Aguilera et al., 2018). With less attention needed to address PA costs, controlling shareholders have the possibility to broaden the type of value-creating services they provide to the firm, for instance, by investing time and effort in the pursuit of entrepreneurial opportunities (Maug, 1998; Zahra and Filatotchev, 2004). Professional managers, who are stewards of the business and minority shareholders, may see cooperating with the controlling shareholder as strategic value. Specifically, managers may encourage greater involvement from the controlling shareholder in terms of selecting and championing value-creating strategies in exchange for PBC. Thus, the incentive effects of PBC can be felt over a larger range of the PBC variable, as managers and controlling shareholders both have minority shareholder interests at heart and collectively work towards these objectives. Thus,

Hypothesis 2: The relationship between private benefits of control and firm performance will be more positive in countries with strong external corporate governance mechanisms [such that the positive effect will diminish at a lower rate as external governance mechanisms become stronger].

METHODS

Sample

We sampled public firms from around the world with private control transactions (i.e., sale of a control block from the current to the new controlling shareholder) taking place during the period 1990 to 2016. We required that all control transactions are covered in the Securities Data Company (SDC) database (Albuquerque and Schroth, 2010; Dyck and Zingales, 2004) and restricted our sample to firms with public share prices in Datastream. We complemented these two data sources with data on firm ownership from Thomson One Banker and firm annual reports. The specific selection of control transactions followed Dyck and Zingales (2004).

First, for PBC to be observed, the transaction must convey control rights and attract attention from minority shareholders. Thus, we only considered equity transactions of 10 per cent or larger to ensure sufficient market attention. In addition, we only considered transactions in which the acquirer held less than 20 per cent in the target company prior to the transaction, but more than 20 per cent as a result of it because shareholders of 20 per cent or larger are typically considered controlling shareholders (Faccio and Lang, 2002; La Porta et al., 1999, p. 476). From these transactions, we excluded spinoffs, recapitalizations, repurchases, acquisitions of remaining interest, and acquisitions by management (Dyck and Zingales, 2004, p. 545), as these transactions do not involve a control transfer between two independent parties.

Second, we considered only transactions where control was transferred privately to ensure that the control price and exchange price are distinct constructs. For this reason, we excluded all public transactions in which the buyer accumulated shares on a stock exchange. We also excluded private transactions that may trigger a tender offer because tender offers are an invitation to all shareholders to sell their shares at a predefined price. Tender offers may distort PBC because the new controlling shareholder must share PBC with minority shareholders and resisting managers (D'Aveni and Kesner, 1993). Some countries impose legal thresholds for mandatory tender offers, which requires acquirers to make a tender offer to all current shareholders. For instance, the UK mandates tender offers for control transactions of equal or more than 30 per cent. Consequently, transactions for share blocks above these thresholds are not fully private and are excluded from our sample. To do so, we researched the anti-takeover laws in all countries in our sample and identified the legal thresholds that trigger a mandatory tender offer, or restrict the conditions of the transaction in any other explicit way (for instance by making the offer price for the control block dependent on the share price on the open market). If the legal threshold varies over time within a country, we apply the threshold that was valid at the time of the transaction.

Third, we only selected transactions for which the private benefits are quantifiable. Thus, we excluded transactions for which the exchange share price and the size of the control block were not available. Additionally, we excluded transactions for which the share price for the control block could not be valued objectively (Dyck and Zingales, 2004). This occurs in situations in which the transaction involves warrants, convertible bonds, notes, equity swaps, or options to buy additional shares (irrespective of whether options were exercised or not).

Lastly, we checked each control transaction by reading news stories in Lexis-Nexis to exclude transactions that did not actually transfer control blocks. This may be the case when two subsidiaries of the same parent company rearranged their cross-shareholdings. After screening SDC transactions based on these criteria, we arrived at a comprehensive sample of up to 962 control transactions during the period 1990 to 2016 from 57 countries around the globe.

Dependent Variables

We chose *Return on Assets (ROA)* and *Return on Equity (ROE)* to measure firm performance (Wan and Yiu, 2009). ROA captures how profitable a company is relative to its assets and is calculated as the ratio of net income divided by total assets (expressed in per cent). ROE measures how much profit the firm generates with shareholder money and is calculated as the ratio of net income to book value of equity (expressed in per cent). We collected data for ROA and ROE from Datastream. A one-year lag was used between the independent/control variables and dependent variables to allow the incentive effects of PBC to become visible in firm performance. Finally, since both firm performance measures were skewed, we log-transformed ROA and ROE.

Independent Variable

Private Benefits of Control (PBC) are defined as the block premiums as a percentage of the value of equity (Dyck and Zingales, 2004). They are calculated as the price per share the acquirer paid for the control block (i.e., control price) minus the price per share on the stock exchange (i.e., exchange price) two days after the announcement of the control transaction. This difference is divided by the exchange price and multiplied by the proportion of cash flow rights conveyed by the control block. Since this variable was skewed, we applied a log transformation. We followed Dyck and Zingales (2004) and used the price per share on the stock exchange two days after the announcement instead of the price per share on the stock exchange on the day of the announcement. This approach is better able to capture PBC because it gives shareholders time to evaluate the intricacies of the control transaction. For instance, the ability to improve the competitive position of the firm due to synergies and improved management are more likely incorporated into the market price after the transaction was announced.

Moderating Variables

External Governance is an index of three variables: (1) investor protection, (2), rule of law, and (3) control of corruption, all of which were derived from the World Bank's *Worldwide Governance Indicators* (Kaufmann et al., 2010). Data for 'investor protection' was available from 2007–16 and data for 'rule of law' as well as for 'control of corruption' from 1996–2016. We used lagged values of these variables for earlier years until current values are available. For instance, for transactions that took place between 1990 and 1995, we used the scores for 1996. First, investor protection measures how well minority shareholders are protected against misuse of corporate assets by firm insiders. It captures the disclosure of related-party transactions, the ability of minority shareholders to hold insiders liable, and the ease of litigation. Second, rule of law captures the degree to which actors abide by the rules a society. It measures the quality of contract enforcement, property rights, the police, the courts, and the likelihood of crime and violence. Lastly, control of corruption captures the degree to which public officials can exercise actions for private gain as well as the influence private interest groups have over the state.

We created an index variable to improve construct measurement (Boyd et al., 2005). Specifically, we standardized all variable before creating the index via summation. Higher values of the index (and its components) suggest stronger and more effective external governance, whereas lower values suggest weaker external governance.

Control Variables

We controlled for variables at the country, industry, and firm levels of analysis. At the country-level, we controlled for four factors. *Gross Domestic Product (GDP)* is the total market value of all goods and services produced in a country divided by midyear population (in thousands of US dollars). *Stock Market Capitalization* is the market value of publicly traded firms as a percentage of GDP. It was included to control for alternative investment opportunities. *Stock Trading Value* is the value of all shares traded in a country at year end calculated as the total number of shares traded multiplied by their respective market prices (expressed as percentage of GDP). All three preceding variables were derived from the World Bank. *Financial Freedom* was derived from the Heritage Foundation and captures the relative openness of a country's banking and financial services system. This variable takes into account the degree of government regulation of financial services; the state intervention in banks and other financial institutions; the difficulty of opening and running financial services firms; and government influence on the allocation of credit. The variable is measured on a scale from 0 to 100, where 100 represent the maximum degree of financial freedom. *Cheating on Taxes* is a response to the World Values Survey (WVS) question 'cheating on taxes if you have a chance is justified?' The variable was included to control for informal institutions that condone private returns at the expense of society (Dyck and Zingales, 2004). Higher values indicate that tax violations are morally justified. Finally, *Freedom of the Press* reflects the freedom of journalists in a country to express their opinions, as well as the state's protection of this freedom, according to Freedom House. This variable was included because the media is an important extralegal constraint on controlling shareholders (Aguilera et al., 2015).

We controlled for firm-level characteristics of the acquiring firm. *Private Acquirer* is a binary variable that takes the value '1' if the company is privately held and '0' if the company is publicly held. It was included because private companies may not be subjected to the same legal restrictions as a public acquirer. *Foreign Acquirer* is a binary variable that takes the value '1' if the acquirer is from a different country than the target and '0' if the acquirer is from the same country as the target. The variable was collected from annual reports and accounts for foreign acquirers' different legal and cultural origins. *Stake acquired* reflects the size of the acquired stake in percentages. We also included the type of the acquiring shareholder to account for the possibility that the firm's strategic direction changes after the control transaction. For example, governments may take over firms for political reasons, which may not always be in the interest of shareholders (Inoue et al., 2013). We included four types of acquirers through dummy variables: *Family Acquirer*, *Institutional Acquirer*, *Corporate Acquirer*, and *Government Acquirer*.

We also included firm-level measures for the target firm from Datastream. *Firm Revenues* is the total sales of the target firm (in millions of US dollars). *R&D Spending* is the amount of financial resources allocated to research and development efforts (in millions of US dollars). *Financial Leverage* is the total debt burden of the firm divided by common equity and is expressed in percentage terms. We also included prior firm performance (either ROA or ROE depending on the dependent variable) measured at time t . Finally, we controlled for year and industry effects with dummy variables.

Analysis

Our data is hierarchically structured, nesting firm-level observations in countries. Nesting firms in countries may lead to stochastic dependencies between the observed characteristics and behaviours of the firms nested within each country. This may be the case when governments impose rules on firms to adopt certain governance mechanisms, such as allowing shareholders a 'say on pay' in the US and the UK. These within-country dependencies violate the ordinary least squares (OLS) assumption of stochastic independence of the error terms associated with individual observations (Raudenbush and Bryk, 2002). We use a two level multilevel modelling (MLM) approach to account for the nested nature of our data (Dalton and Dalton, 2011; Hitt et al., 2007). Level 2 refers to the country-level while level 1 refers to the transaction/firm-level. MLM estimates a random intercept for each level of analysis (Peterson et al., 2012). While parameter estimates are often not drastically different in MLM when compared to OLS, estimated standard errors are more accurately and conservatively measured in MLM.

The complex sampling procedure described earlier resulted in an unbalanced multi-level sample (see Table I). Some countries, such as the United States, have many observations satisfying our sampling criteria whereas other countries, such as Pakistan, have very few observations. Few level 1 observations within level 2 groups are typically unproblematic (Maas and Hox, 2005) as long as the average group size is larger than two (Clarke, 2008) and fewer than 30 per cent of level 1 observations are singletons (Bell et al., 2008). A greater adversarial effect would result from fewer level 2 observations (Maas and Hox, 2005). For our main analysis, therefore, we kept as many level 2 groups as possible (we vary this condition for robustness later).

Table I. Country and governance overview

<i>Country</i>	<i>N</i>	<i>Avg. Ext. Gov. Index</i>	<i>Country</i>	<i>N</i>	<i>Avg. Ext. Gov. Index</i>
Argentina	1	-3.27	Netherlands	9	1.69
Australia	60	1.52	New Zealand	14	4.45
Austria	2	2.13	Norway	26	3.80
Belgium	4	1.00	Oman	2	-2.86
Brazil	3	-2.23	Pakistan	2	-3.23
Canada	48	3.42	Peru	1	-3.21
Chile	5	0.81	Philippines	13	-5.16
China	201	-4.34	Poland	12	-0.63
Colombia	2	-1.93	Portugal	8	-0.16
Croatia	1	-1.07	Qatar	1	-3.10
Cyprus	4	0.44	Russian Fed	4	-3.98
Czech Republic	2	-1.16	Saudi Arabia	1	-2.18
Denmark	12	3.03	Singapore	33	2.05
Egypt	3	-4.36	Slovak Rep	1	-2.41
Finland	5	1.97	South Africa	6	-1.27
France	30	1.15	South Korea	39	0.54
Germany	17	1.19	Spain	16	0.68
Greece	7	-1.60	Sri Lanka	7	-2.51
Hong Kong	60	0.09	Sweden	13	3.09
Hungary	1	-2.34	Switzerland	6	0.96
Iceland	2	2.35	Taiwan	9	0.60
India	2	-1.28	Thailand	19	-2.27
Indonesia	31	-3.74	Tunisia	1	-3.85
Italy	8	-2.11	Turkey	27	-0.87
Jordan	4	-3.74	United Kingdom	46	2.84
Kazakhstan	1	-2.16	United States	76	1.28
Kuwait	9	-2.50	United Arab Emirates	2	1.29
Malaysia	41	0.47	Vietnam	1	-3.87
Mexico	1	-3.61			
[Continue right side of table]			Full Sample	962	

RESULTS

Table II presents the descriptive statistics and correlations for all variables; we included, but did not report year and industry dummies in the interest of brevity. Multicollinearity is not a major concern because the mean variance inflation factor (VIF) value in our models is 4.56, well below the maximum recommended threshold of 10.

Table II. Descriptive statistics and correlations

#	Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	ROA (t+1) ^b	1.10	15.81	1.00																					
2	ROE (t+1) ^b	1.37	17.63	0.52	1.00																				
3	GDP	14.64	18.39	-0.09	-0.05	1.00																			
4	Stock market cap ^b	73.71	92.26	-0.05	0.01	0.43	1.00																		
5	Stock trading value ^b	105.82	130.18	-0.06	-0.03	0.10	0.43	1.00																	
6	Financial freedom	58.39	20.74	-0.16	-0.10	0.45	-0.01	-0.28	1.00																
7	Cheating on taxes	2.04	0.65	-0.01	0.00	0.28	0.26	-0.23	0.36	1.00															
8	Freedom of the press	37.00	29.20	0.15	0.07	-0.47	-0.25	-0.08	-0.61	-0.28	1.00														
9	Private acquirer ^c	0.44	0.50	-0.03	0.01	0.32	0.39	-0.06	0.05	0.23	-0.10	1.00													
10	Foreign acquirer ^c	0.30	0.46	-0.06	-0.01	0.12	0.04	-0.07	0.23	0.13	-0.25	-0.09	1.00												
11	Stake acquired ^b	24.33	7.84	0.07	0.01	-0.06	-0.03	0.00	-0.10	-0.04	0.09	0.01	-0.02	1.00											
12	Family acquirer ^c	0.04	0.19	-0.01	0.04	-0.08	-0.13	-0.03	0.07	0.02	-0.03	-0.15	-0.02	-0.09	1.00										
13	Institutional acquirer ^c	0.30	0.46	-0.02	0.05	0.12	0.19	-0.03	0.04	0.15	-0.09	0.36	-0.05	0.01	0.20	1.00									
14	Corporate acquirer ^c	0.29	0.45	0.02	0.00	0.30	0.18	-0.12	0.12	0.13	-0.06	-0.06	0.14	-0.05	-0.09	-0.41	1.00								
15	Government acquirer ^c	0.06	0.23	0.06	0.03	-0.02	0.05	-0.03	-0.08	0.00	0.09	0.12	0.02	0.00	0.01	-0.14	1.00								
16	Firm revenues	356.35	609.72	0.13	0.09	0.02	-0.07	0.00	0.06	0.10	-0.11	-0.07	0.13	-0.04	0.04	-0.01	-0.03	0.11	1.00						

(Continued)

Table II. (Continued)

#	Variable Name	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
17	R&D spending	11.80	18.28	0.06	0.04	-0.41	-0.44	0.06	-0.05	-0.28	0.07	-0.51	-0.03	-0.04	0.16	-0.17	-0.34	-0.12	0.13	1.00					
18	Financial leverage	73.81	99.56	0.09	-0.07	-0.03	-0.06	-0.01	-0.01	0.03	-0.03	0.03	-0.01	-0.01	0.03	0.03	-0.06	0.05	0.22	0.03	1.00				
19	ROA (t) ^b	0.57	8.75	0.59	0.31	-0.12	-0.06	-0.11	-0.15	-0.01	0.17	-0.05	0.01	0.08	-0.04	-0.05	0.02	0.06	0.14	0.03	0.10	1.00			
20	ROE (t) ^b	0.75	17.33	0.30	0.29	-0.07	-0.02	-0.11	-0.08	0.02	0.11	-0.03	0.04	-0.01	0.00	-0.02	0.01	0.03	0.07	0.01	-0.17	0.64	1.00		
21	External government-ance index	-0.37	2.79	-0.16	-0.12	0.55	0.25	-0.04	0.79	0.35	-0.70	0.06	0.21	-0.14	0.04	0.07	0.12	-0.10	0.06	-0.07	0.02	-0.18	-0.12	1.00	
22	PBC ^b	4.35	20.73	0.11	0.10	0.00	-0.01	-0.12	0.10	0.13	-0.02	0.01	0.07	0.08	-0.03	0.05	0.08	-0.06	0.09	-0.08	0.04	0.08	0.07	0.03	1.00

N = 962. Correlations with an absolute value of larger than 0.11 are significant at the p < 0.05 level.

^aLog transformed.

^bPercentage terms.

^cBinary variable.

Hypothesis 1 suggests that PBC positively affect firm performance, but at a diminishing rate. We find statistical support in Table III for a diminishing effect of PBC on firm performance. Models 1 and 5 represent the baseline models with country-level and firm-level control variables included. Models 2 and 6 include the moderating variable external governance index. Models 3 and 7 include PBC as well as a quadratic term for PBC. The positive coefficients on the linear terms ($p < 0.001$ for ROA; $p < 0.001$ for ROE) and the negative coefficients on the quadratic terms ($p < 0.05$ for ROA; $p < 0.05$ for ROE) suggest a non-monotonic relationship between PBC and firm performance as predicted in Hypothesis 1.

The presence of a significant negative quadratic term suggests that the curve is concave, but it may also indicate the existence of an inverse U-shaped relationship (Meyer, 2009, p. 191). Therefore, it is important to carefully consider whether the curve inflects over the relevant data range, meaning a sufficient number of cases are present in both the upward and downward facing parts of the curve (Shaver, 2007). In our case, the turning point (which is around 50 per cent of PBC) lies outside of two standard deviations above the mean for both dependent variables, supporting a diminishing effect rather than an inverted U-shape effect. Recent management studies have suggested that a curvilinear effect is present if the turning point lies within two standard deviations of the mean (Haans et al., 2016; Meyer, 2009; Wang et al., 2014). Following Meyer (2009), we produce graphical representations of the hypothesized effect in Figure 1 (Panels A and B). Overall, the graphical representations in Figure 1 (Panels A and B) together with the statistical evidence in Table III provide strong evidence of a diminishing relationship between PBC and firm performance, thus supporting Hypothesis 1.

Hypothesis 2 states that PBC result in greater improvements in firm performance when external governance provides greater protection of minority shareholders. In Table III, Models 4 and 8 include the linear and quadratic-by-linear interaction terms between PBC and external governance index. The linear interaction terms are positive and significant in both models ($p < 0.05$). Moreover, the quadratic-by-linear interactions were negative and significant ($p < 0.05$). Overall, these results provide evidence for the interaction effect of external governance on the relationship between PBC and firm performance, and support Hypothesis 2. Additionally, we graphed the interaction effect in Figure 2. The slope of the curve is steeper when the country's institutional environment provides stronger external corporate governance. Overall, the available evidence supports Hypothesis 2.

Robustness Checks

We conducted a range of robustness checks. First, our main dependent variable is firm profitability (measured as ROA and ROE). While our main models include a one year forward lag, many initiatives that result from the monitoring and advice activities of the controlling owner may take longer to implement. We therefore also examine financial profitability at $t+2$ (two years after the control transaction completed). The results are included in Table IV and confirm our original results in terms of direction and significance.

Table III. Multilevel regression models: firm performance

Model	1	2	3	4	5	6	7	8
GDP	3.82 (3.50)	4.22 (4.24)	5.88 (4.29)	6.57 (4.41)	0.43 (3.50)	2.83 (4.91)	5.21 (4.62)	6.52 (5.10)
Stock market cap.	0.66 (0.85)	0.77 (0.97)	0.87 (0.92)	0.83 (0.89)	-0.09 (1.11)	0.20 (1.14)	0.24 (1.11)	0.19 (1.11)
Stock trading value	-0.14 (0.66)	-0.18 (0.69)	-0.18 (0.64)	-0.21 (0.64)	0.37 (0.84)	0.24 (0.87)	0.15 (0.88)	0.09 (0.89)
Financial freedom	-8.11* (3.91)	-6.85 (4.84)	-8.78+ (4.69)	-9.15+ (4.80)	-10.60* (4.79)	-6.44 (7.46)	-8.92 (7.35)	-9.54 (7.32)
Cheating on taxes	99.72 (108.87)	110.83 (106.69)	94.51 (106.57)	102.96 (105.36)	25.87 (89.47)	45.77 (80.59)	33.91 (80.41)	48.66 (79.41)
Freedom of press	2.69 (2.67)	1.95 (2.92)	1.58 (2.88)	1.02 (2.83)	-2.20 (4.17)	-4.25 (3.83)	-4.31 (3.80)	-4.87 (3.70)
Private acquirer	-31.31 (213.40)	-17.12 (209.46)	52.06 (208.38)	59.38 (210.30)	-77.99 (239.54)	-35.96 (234.02)	36.09 (239.35)	47.81 (242.24)
Foreign acquirer	-308.00* (146.12)	-302.69* (149.57)	-335.24* (145.11)	-329.35* (146.45)	-71.76 (207.13)	-55.39 (206.06)	-83.59 (201.52)	-74.04 (201.34)
Stake acquired	5.88 (6.51)	5.27 (6.62)	4.37 (7.49)	5.84 (7.20)	2.11 (7.65)	0.13 (8.00)	-2.04 (7.78)	-0.50 (7.42)
Family acquirer	122.64 (201.93)	111.12 (202.94)	120.35 (207.37)	108.29 (211.82)	573.84** (199.91)	545.83** (205.32)	548.16** (201.42)	528.11** (203.76)
Institutional acquirer	107.64 (148.96)	104.96 (152.53)	78.03 (151.23)	85.68 (153.31)	236.22 (151.81)	242.31 (158.11)	210.63 (155.14)	219.33 (157.30)
Corporate acquirer	175.37 (210.62)	200.52 (217.56)	192.48 (221.15)	203.02 (225.80)	-63.20 (356.30)	-0.48 (364.47)	-22.52 (367.86)	-10.61 (372.38)
Government acquirer	199.16 (151.14)	207.25 (148.91)	308.01* (127.73)	257.68+ (146.27)	111.95 (241.20)	125.21 (237.15)	219.48 (234.92)	170.54 (250.95)

(Continued)

Table III. (Continued)

	1	2	3	4	5	6	7	8
<i>Model</i>	<i>(ROA_{t+1})</i>	<i>(ROA_{t+1})</i>	<i>(ROA_{t+1})</i>	<i>(ROA_{t+1})</i>	<i>(ROE_{t+1})</i>	<i>(ROE_{t+1})</i>	<i>(ROE_{t+1})</i>	<i>(ROE_{t+1})</i>
Firm size	0.19*** (0.06)	0.19*** (0.06)	0.14** (0.05)	0.14*** (0.05)	0.27*** (0.10)	0.27*** (0.10)	0.21* (0.10)	0.21* (0.10)
R&D spending	12.02 (9.21)	12.17 (9.19)	12.36 (9.33)	12.28 (9.34)	16.84 (11.85)	16.87 (11.72)	16.67 (11.60)	16.53 (11.48)
Financial leverage	0.25 (0.61)	0.24 (0.60)	0.32 (0.58)	0.33 (0.59)	-1.19 (0.95)	-1.29 (0.94)	-1.31 (0.94)	-1.33 (0.94)
Financial performance (t)	1703.93*** (219.31)	1676.84*** (226.20)	1650.29*** (222.15)	1637.93*** (225.26)	555.15*** (108.37)	520.67*** (109.85)	497.90*** (102.62)	492.89*** (103.73)
External governance index		-25.53 (50.14)	-22.89 (50.20)	-25.80 (50.72)	-80.25 (59.57)	-80.25 (59.57)	-78.54 (55.81)	-81.54 (53.19)
Hypotheses testing								
Private benefits of control			21.41*** (6.26)	22.87*** (6.09)			24.80*** (6.93)	26.46*** (7.37)
Private benefits of control ²			-0.18* (0.08)	-0.19* (0.08)			-0.20* (0.08)	-0.22*** (0.08)
External governance × PBC				4.32* (1.95)				6.15* (2.80)
External governance × PBC ²				-0.04* (0.02)				-0.06* (0.03)
Constant	-2451.76* (1033.34)	-2418.72* (1087.04)	-1904.20+ (1125.10)	-1850.95 (1165.36)	2783.31*** (770.64)	2713.83*** (762.67)	3330.95*** (760.94)	3397.17*** (781.35)
Wald χ^2 (df)	128*** (53)	129*** (54)	141*** (56)	166*** (58)	88** (53)	91** (54)	100*** (56)	121*** (58)
Deviance	3003.7	3002.6	2965.6	2945.3	3522.4	3519.8	3486.3	3468.2
Δ Deviance		-1.1	-37.0***	-20.3***		-2.6	-33.5***	-18.1***
Level 2 N	57	57	57	57	57	57	57	57
Level 1 N	962	962	962	962	962	962	962	962

Robust standard errors in parentheses; year and industry effects included. Coefficients scaled by a factor of 1000.
⁺p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001.

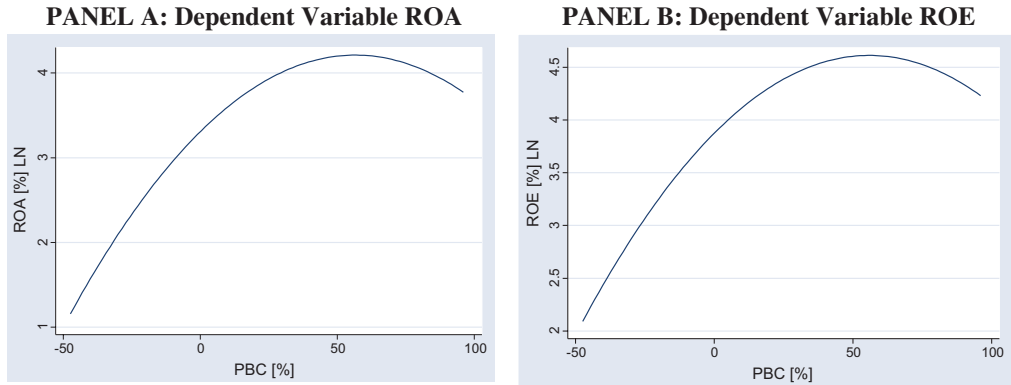


Figure 1. Curvilinear relationship between PBC and firm performance [Colour figure can be viewed at wileyonlinelibrary.com]

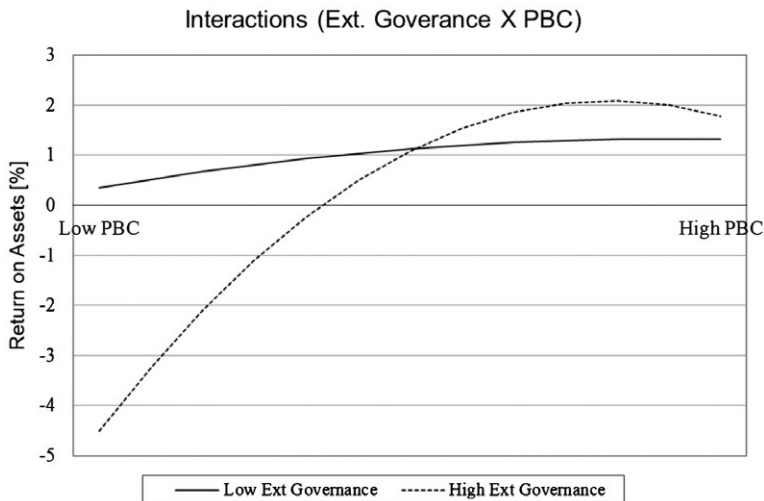


Figure 2. Interaction plot of the moderation effect of external governance

Second, multilevel groupings with only few observations on level 1 can be a problem when too many singletons are present in the data (Bell et al., 2008). Following previous research (Dyck and Zingales, 2004), we excluded all countries with only one observation. Our results are largely unchanged in terms of direction and statistical significance (see Table V). We also created several other truncated samples to ensure robustness. Specifically, we restricted the sample to countries with at least three control transactions, resulting in a sample that covers 38 countries with 943 transactions. Moreover, we excluded Chinese transactions to ensure our results are not driven by a single country. Our theory continues to be supported by these additional robustness checks.

Lastly, the main independent variable PBC may be affected by selection bias. Specifically, acquirers may choose certain types of firms, for instance, firms that are performing well (high ROA or ROE). Hence, we created a two-stage model to account for selection-based endogeneity (Clougherty et al., 2016). We first estimated a probit model that predicts whether an acquirer privately acquires at least 20 per cent of ownership interests in a target company (see Table VI, Model 1). The '0' case for the probit model in Model 1 is an acquirer that already had an ownership stake in the target firm and accumulated at least 20 per cent ownership in two transactions (this applies to roughly 23 per cent of our observations). Acquirers that accumulated at least 20 per cent ownership stakes in one transaction may use a more aggressive acquisition approach. Consistent with the idea that acquirers prefer better performing firms, we find a positive and significant coefficient for the variable prior firm performance (measured as ROA at time t). Furthermore, the PBC extracted by acquirers that accumulate 20 per cent ownership in one transaction is higher than the PBC acquired in two transactions, again supporting the idea of more aggressive acquisition behaviour (see Table VI, Model 2). We then calculated an adjustment factor (called inverse Mills ratio (IMR)) to be included in the main model (see Table VI, Model 3). We still find that PBC has a positive, non-linear effect on firm performance (measured as ROA at time $t+1$).

DISCUSSION

In this study, we present a balanced account of the net effects of PBC on firm performance. Specifically, our results support a positive (but diminishing) effect of PBC on firm performance. PBC, accordingly, have a brighter, more positive side that seems to encourage controlling shareholders to improve firm performance, but at a diminishing rate.

Contributions

This paper makes at least two contributions. First, we have introduced the concept of PP *benefits*. Taking a value creating perspective of corporate governance, PP benefits conceive a part of PBC as compensation awarded to the controlling shareholder to incentivize active monitoring of managers and other stakeholders as well as to provide advice and other resources to improve firm performance (Inoue et al., 2013). PBC may also allow the controlling shareholder to identify and pursue entrepreneurial opportunities in the firm, reducing the risk that other stakeholders ex-post capture a larger share of future equity returns without investing ex-ante effort and risk (Zahra et al., 2009). These PP benefits advance the corporate governance literature on PP costs (Young et al., 2008), which previously has mostly focused on the 'dark sides' of PP relationships grounded in a narrow definition of corporate governance as value protection (Li and Qian, 2013; Singla et al., 2014). PP benefits, on the other hand, show that controlling owners may act as a 'check' on opportunistic managers and provide important strategic resources to the firm that advance the interests of all shareholders and improve firm performance. It is therefore necessary to see extant PP relationship findings in a more

nuanced light: cracking down on controlling owners (by regulators or journalists) to lower PBC is not always the best response to maximize firm performance (Bebchuk and Jackson, 2012). In fact, with so many observations lying on the increasing part of the PBC–firm performance curve, it would seem that controlling owners are under-incentivized in many jurisdictions.

We also extend the literature on PP relationships by integrating PP benefits and PP costs in a comprehensive nonlinear theoretical framework that uncovers a complex functional form of the PBC–firm performance relationship (Peng and Sauerwald, 2013; Young et al., 2008). Our arguments suggest that high levels of PBC are an informative signal that may question the motives and abilities of the controlling shareholder, leading to an exodus of minority shareholders and reduced support by other stakeholders when PBC are considered excessive.

Our findings also resonate with recent U.S. studies that find that a new controlling owner increases stock market value by 19 per cent at the time of the control change (Albuquerque and Schroth, 2010, p. 34). Our findings suggest that firms also gain in terms of operational performance (i.e., ROA and ROE). Furthermore, Albuquerque and Schroth find that PBC constitute 3–4 per cent of the stock market capitalization of US firms (2010, p. 47), but PBC can go as high as 27 per cent (third quartile) to 615 per cent (maximum) (2010, p. 42). These findings show that even in a developed economy such as the US, PBC can be substantial, but also improve firm performance considerably. Overall, the practical significance of incentivizing controlling shareholders is not only relevant in emerging markets, but also in developed contexts (Grossman and Hart, 1980; Shleifer and Vishny, 1986).

Second, we also contribute new insights to the comparative corporate governance literature (Aguilera and Crespi-Cladera, 2016; Aguilera et al., 2008). We have shown and theorized why PP benefits can be leveraged in the case of stronger external governance: it is not just about curbing PP costs, but also about unleashing synergies between controlling owners and managers. External governance mechanisms can provide appropriate incentives for controlling owners to leverage their monitoring and advice abilities. These insights shed new light on the substitution/complementarity debate in comparative corporate governance scholarship (Misangyi and Acharya, 2014): some scholars support a ‘substitution’ effect between different types of governance mechanisms (Rediker and Seth, 1995; Zajac and Westphal, 1994) while others are more inclined to support ‘complementary’ effects between bundles of corporate governance mechanisms (Aguilera et al., 2008; Desender et al., 2016). Our study supports the complementarity view. The presence of highly incentivized controlling shareholders is mutually enhanced by strong external corporate governance mechanisms. More crucially, this finding suggests that PBC can actually be synergistic if properly supported by external governance mechanisms, which is quite different from the agency theoretical view that governance mechanisms combine in ‘optimal’ contracts that merely substitute one mechanism for another.

Managerial and Policy Implications

Our study also has managerial and policy relevance. For managers, our findings paint a less contested picture of PBC than is often observed in the literature (Li and Qian,

Table IV. Firm performance ($t+2$)

<i>Model</i>	1	2	3	4	5	6	7	8
	(ROA_{t+2})	(ROA_{t+2})	(ROA_{t+2})	(ROA_{t+2})	(ROE_{t+2})	(ROE_{t+2})	(ROE_{t+2})	(ROE_{t+2})
GDP	-1.13 (1.70)	-0.59 (2.31)	-0.26 (2.20)	0.18 (2.06)	-0.77* (0.36)	-0.44 (0.51)	-0.34 (0.47)	-0.16 (0.48)
Stock market cap.	0.66 (0.43)	0.63 (0.47)	0.60 (0.45)	0.60 (0.45)	0.09 (0.10)	0.10 (0.10)	0.07 (0.09)	0.07 (0.09)
Stock trading value	0.04 (0.21)	0.03 (0.23)	0.06 (0.22)	0.05 (0.22)	-0.02 (0.06)	-0.02 (0.06)	-0.01 (0.06)	-0.01 (0.06)
Financial freedom	-4.29* (2.13)	-3.83+ (2.29)	-4.18+ (2.32)	-4.36+ (2.32)	-0.91+ (0.52)	-0.44 (0.47)	-0.43 (0.48)	-0.49 (0.48)
Cheating on taxes	88.84+ (48.03)	100.23* (47.34)	101.78* (47.01)	103.67* (47.04)	6.22 (9.78)	8.87 (9.21)	10.00 (9.25)	10.48 (9.33)
Freedom of press	1.51 (1.41)	1.07 (1.43)	1.08 (1.44)	1.03 (1.45)	0.42 (0.37)	0.29 (0.34)	0.32 (0.33)	0.32 (0.33)
Private acquirer	-16.98 (98.02)	-3.42 (95.95)	19.75 (91.40)	22.55 (92.46)	-23.37 (14.32)	-21.17 (14.51)	-17.65 (12.34)	-16.95 (12.54)
Foreign acquirer	-72.36 (79.37)	-66.79 (79.77)	-79.46 (77.94)	-79.89 (78.15)	-5.71 (17.11)	-5.37 (17.40)	-8.73 (17.00)	-9.12 (17.10)
Stake acquired	5.16** (1.91)	5.00** (1.91)	5.73** (1.99)	6.03** (1.93)	1.84** (0.57)	1.80** (0.56)	2.07*** (0.61)	2.15*** (0.60)
Family acquirer	-176.84 (194.37)	-184.02 (196.22)	-187.01 (197.33)	-192.83 (197.53)	-30.45 (43.37)	-32.68 (43.89)	-32.69 (43.85)	-33.97 (43.95)
Institutional acquirer	140.79 (88.77)	141.74 (90.54)	143.00 (91.88)	145.05 (92.35)	29.28 (18.69)	30.40 (18.97)	31.51+ (18.98)	31.56+ (18.95)
Corporate acquirer	99.19 (70.01)	116.25+ (69.53)	108.94+ (65.67)	113.91+ (66.69)	13.73 (14.95)	17.22 (14.84)	11.49 (14.89)	12.14 (14.95)

Continued

Table IV. (Continued)

Model	1	2	3	4	5	6	7	8
Government acquirer	-40.44 (92.53)	-34.63 (93.56)	4.97 (98.10)	-8.55 (92.16)	-15.59 (22.87)	-14.44 (22.93)	-7.48 (21.62)	-10.03 (21.61)
Firm size	0.09* (0.04)	0.09* (0.04)	0.07+ (0.04)	0.07+ (0.04)	0.03* (0.01)	0.03* (0.01)	0.02* (0.01)	0.02* (0.01)
R&D spending	3.84 (3.84)	3.84 (3.83)	3.94 (3.86)	3.90 (3.87)	0.89 (0.93)	0.87 (0.92)	0.88 (0.92)	0.88 (0.92)
Financial leverage	0.69* (0.33)	0.68* (0.33)	0.71* (0.34)	0.71* (0.34)	0.30*** (0.07)	0.29*** (0.07)	0.29*** (0.07)	0.28*** (0.07)
Financial performance (t)	646.00*** (102.91)	629.56*** (102.68)	613.66*** (103.68)	607.91*** (104.94)	52.25*** (7.00)	49.54*** (6.71)	45.69*** (7.10)	44.76*** (7.29)
External governance index		-17.28 (26.34)	-16.99 (26.94)	-16.45 (28.47)		-8.47 (6.31)	-8.72 (6.28)	-8.09 (6.53)
Hypotheses Testing								
Private benefits of control			9.40*** (2.02)	9.78*** (2.03)			2.79*** (0.65)	2.86*** (0.70)
Private benefits of control ²			-0.11*** (0.03)	-0.11*** (0.03)			-0.04*** (0.01)	-0.04*** (0.01)
External governance × PBC				1.37* (0.60)				0.43* (0.19)
External governance × PBC ²				-0.02+ (0.01)				-0.01** (0.00)
Constant	461.67 (654.03)	479.91 (668.62)	617.12 (662.35)	646.40 (668.75)	4115.28*** (92.65)	4095.84*** (88.26)	4133.70*** (92.08)	4140.53*** (94.55)
Level 2 N	55	55	55	55	55	55	55	55
Level 1 N	894	894	894	894	894	894	894	894

Robust standard errors in parentheses; year and industry effects included. Coefficients scaled by a factor of 1000.

+ p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001.

Table V. Firm performance (min 2 N per country)

<i>Model</i>	1	2	3	4	5	6	7	8
	(ROA_{t+1})	(ROA_{t+1})	(ROA_{t+1})	(ROA_{t+1})	(ROE_{t+1})	(ROE_{t+1})	(ROE_{t+1})	(ROE_{t+1})
GDP	3.90 (3.49)	4.15 (4.23)	5.79 (4.28)	6.50 (4.40)	0.55 (3.48)	2.71 (4.86)	5.00 (4.58)	6.55 (5.05)
Stock market cap.	0.65 (0.87)	0.76 (0.98)	0.86 (0.91)	0.81 (0.89)	-0.09 (1.13)	0.18 (1.16)	0.23 (1.12)	0.15 (1.13)
Stock trading value	-0.09 (0.67)	-0.16 (0.70)	-0.16 (0.65)	-0.18 (0.64)	0.47 (0.85)	0.32 (0.88)	0.22 (0.87)	0.15 (0.90)
Financial freedom	-8.06* (3.94)	-7.08 (4.89)	-9.08* (4.72)	-9.44* (4.85)	-10.41* (4.84)	-6.63 (7.54)	-9.10 (7.43)	-9.89 (7.39)
Cheating on taxes	107.78 (116.74)	114.32 (112.01)	97.03 (111.73)	106.79 (110.69)	48.60 (95.63)	63.17 (84.88)	49.93 (84.50)	65.93 (84.26)
Freedom of press	2.82 (2.71)	2.04 (2.95)	1.65 (2.91)	1.09 (2.86)	-2.16 (4.22)	-4.21 (3.87)	-4.34 (3.86)	-4.78 (3.72)
Private acquirer	-33.49 (215.64)	-17.85 (211.97)	50.68 (211.17)	58.68 (213.30)	-90.50 (244.51)	-46.20 (239.14)	24.18 (244.65)	39.08 (247.77)
Foreign acquirer	-314.04* (147.56)	-305.73* (150.01)	-337.81* (145.65)	-332.95* (146.83)	-84.81 (209.41)	-64.60 (207.43)	-92.82 (202.73)	-83.15 (201.98)
Stake acquired	5.74 (6.59)	5.23 (6.71)	4.44 (7.61)	5.82 (7.29)	1.56 (7.73)	-0.29 (8.10)	-2.27 (7.92)	-1.03 (7.52)
Family acquirer	119.79 (203.12)	111.04 (203.64)	117.77 (208.08)	107.36 (212.15)	573.56*** (202.32)	548.36*** (207.64)	548.94*** (203.39)	526.72* (205.75)
Institutional acquirer	112.26 (151.00)	107.69 (154.33)	82.14 (153.20)	88.57 (155.23)	237.22 (156.16)	240.13 (161.70)	210.75 (159.56)	217.40 (161.72)
Corporate acquirer	176.63 (212.41)	200.39 (219.37)	195.38 (223.28)	203.42 (228.64)	-78.01 (363.32)	-16.84 (371.27)	-35.01 (375.58)	-25.16 (379.99)

(Continued)

Table V. (Continued)

	1	2	3	4	5	6	7	8
<i>Model</i>	(ROA_{t+1})	(ROA_{t+1})	(ROA_{t+1})	(ROA_{t+1})	(ROE_{t+1})	(ROE_{t+1})	(ROE_{t+1})	(ROE_{t+1})
Government acquirer	207.61 (158.22)	213.48 (155.80)	319.40* (133.59)	266.24+ (153.68)	110.05 (250.85)	120.36 (246.51)	220.14 (246.57)	167.85 (261.29)
Firm size	0.20*** (0.06)	0.19*** (0.06)	0.15** (0.05)	0.14** (0.05)	0.27** (0.10)	0.27* (0.10)	0.21* (0.10)	0.21* (0.10)
R&D spending	11.90 (9.32)	12.11 (9.32)	12.32 (9.46)	12.22 (9.47)	17.00 (12.09)	17.07 (11.97)	16.92 (11.87)	16.65 (11.70)
Financial leverage	0.26 (0.61)	0.24 (0.60)	0.33 (0.59)	0.33 (0.60)	-1.18 (0.96)	-1.28 (0.94)	-1.29 (0.94)	-1.32 (0.95)
Financial performance (t)	1702.15*** (220.21)	1675.98*** (226.86)	1648.89*** (222.63)	1636.78*** (225.94)	552.06*** (108.47)	518.55*** (109.82)	495.51*** (102.55)	491.41*** (103.66)
External governance index		-22.74 (50.43)	-19.85 (50.39)	-22.64 (51.02)		-76.17 (60.73)	-74.44 (56.94)	-77.68 (54.03)
Hypotheses testing								
Private benefits of control			21.65*** (6.34)	23.00*** (6.13)			24.90*** (6.99)	26.49*** (7.42)
Private benefits of control ²			-0.18* (0.08)	-0.19* (0.08)			-0.20* (0.08)	-0.22*** (0.08)
External governance × PBC				4.29* (2.00)				6.22* (2.82)
External governance × PBC ²				-0.04* (0.02)				-0.06+ (0.04)
Constant	-2456.10* (1042.98)	-2405.59* (1095.84)	-1884.04+ (1133.90)	-1831.15 (1175.59)	2772.97*** (783.30)	2726.47*** (777.87)	3340.01*** (777.20)	3425.72*** (798.38)
Level 2 N	46	46	46	46	46	46	46	46
Level 1 N	951	951	951	951	951	951	951	951

Robust standard errors in parentheses; year and industry effects included. Coefficients scaled by a factor of 1000.
+ p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001.

Table VI. Selection-based endogeneity

<i>Model</i>	1	2	3
	<i>DV: Stake acquired ≥ 20%</i>	<i>DV: Stake acquired ≥ 20%</i>	<i>DV: (ROA_{t+1})</i>
GDP	0.00 (0.00)	0.00 (0.00)	5.15 (4.51)
Stock market cap.	-0.00* (0.00)	-0.00 ⁺ (0.00)	2.49 ⁺ (1.37)
Stock trading value	0.00 ⁺ (0.00)	0.00 ⁺ (0.00)	-1.04 (0.93)
Financial freedom	-0.01** (0.00)	-0.01** (0.00)	7.72 (14.18)
Cheating on taxes	0.25** (0.08)	0.24** (0.09)	-175.37 (260.30)
Freedom of press	-0.00 (0.00)	-0.00 (0.00)	4.52 (4.28)
Private acquirer	0.10 (0.12)	0.12 (0.12)	-96.47 (227.17)
Foreign acquirer	-0.05 (0.10)	-0.04 (0.10)	-284.49 ⁺ (169.27)
Stake acquired			3.01 (8.12)
Family acquirer	-0.21 (0.23)	-0.18 (0.24)	318.26 (313.46)
Institutional acquirer	-0.14 (0.13)	-0.17 (0.13)	271.57* (125.69)
Corporate acquirer	-0.32* (0.14)	-0.34* (0.14)	599.48 ⁺ (324.88)
Government acquirer	0.22 (0.24)	0.24 (0.24)	94.57 (236.22)
Firm size	-0.00 (0.00)	-0.00 (0.00)	0.28** (0.10)
R&D spending	-0.00 (0.00)	-0.00 (0.00)	13.46 (9.15)
Financial leverage	0.00 (0.00)	0.00 (0.00)	-0.52 (0.79)
Financial performance (t)	0.15* (0.06)	0.14* (0.06)	1446.49*** (332.75)
External governance index	-0.07* (0.03)	-0.07* (0.03)	48.26 (80.87)

(Continued)

Table VI. (Continued)

Model	1	2	3
	DV: Stake acquired $\geq 20\%$	DV: Stake acquired $\geq 20\%$	DV: (ROA_{t+1})
Private benefits of control		0.00*	15.63 ⁺
		(0.00)	(8.27)
Private benefits of control ²			-0.17*
			(0.08)
IMR			-2551.39
			(2067.46)
Constant	0.49	0.58	-548.67
	(0.42)	(0.42)	(1935.05)
Level 2 N	57	57	57
Level 1 N	962	962	962

Robust standard errors in parentheses; year and industry effects included. Coefficients scaled by a factor of 1000 in Model 3.

⁺p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001.

2013; Singla et al., 2014; Young et al., 2008). Our results suggest a *symbiotic* picture, such that controlling shareholders and managers maximize firm performance in tandem when managers have shareholder interests at heart (i.e., external governance is strong). However, we also show that high levels of PBC may not be warranted when managers are prone to pursue their own interests (i.e., external governance is weak).

For policy makers, our results also hold important implications. According to the value protecting view of corporate governance, PBC are regulated because they are assumed to disadvantage minority shareholders, which is based on the belief that firm profitability falls as the controlling shareholder is awarded a disproportionate share of the returns (Gilson and Schwartz, 2013). Most policy efforts are directed at creating a level playing field in liquid equity markets that encourage monitoring by the invisible hand of the stock market. However, given that many markets in the world lack sufficient equity market development (Morck et al., 2000), providing incentives to controlling owners may eventually pay off.

An important question is also whether policy makers are not policing PBC too strictly. Across all control transactions in our sample, the mean level of PBC we retrieved was 4.35 per cent. While this percentage is lower on average than that identified by Dyck and Zingales (2004, p. 551) in their landmark study (14 per cent), this is largely due to the fact that PBC are globally diminishing over time. For control transactions effectuated in the 1990s, for example, we find an average PBC of 15 per cent, comparable to what Dyck and Zingales found for the same time period. In the 2000s, however, the average PBC fell to 9 per cent, and since 2010, the average PBC are 2 per cent. It thus appears that especially PP *costs* are on policy makers' radars, and that regulators are increasingly

effective in terms of preventing PBC extraction by concentrated owners. However, these efforts may reflect an underappreciation of the importance of PP *benefits*, such that concentrated owners may have inadvertently become under incentivized in recent years to continue performing the essential value creation role they can play in corporate governance (Filatotchev et al., 2006; Zahra et al., 2009).

Limitations and Future Research

Our study has some limitations that could constitute fruitful research opportunities. First, we only measure PBC in companies that experienced a control transaction. However, control can also be obtained without acquisitions. For instance, some controlling shareholders may extract very high amounts of PBC that are never quantified by the market. Families may transfer shares quietly and privately to the next family generation or founders may prevent outside investors from accumulating control blocks in open market transactions. In practice, this would mean that our sample includes firms where PBC are less likely to be ‘excessive’. With this in mind, we encourage future studies to consider the PP benefits that may emerge from ‘moderate’ PBC, but in no way turn a blind eye to the ‘extreme’ PBC that could harm firm performance. Further, control and the resulting PBC may also be granted via different classes of voting shares because these shares can promote or block important decisions at shareholder meetings (Nenova, 2003). Overall, future studies may examine more direct measures of PBC that consider the firm performance effects in companies without publically observable control transactions.

Second, while we theorize that PBC can be beneficial for firm performance because they incentivize new controlling owners to engage in opportunity recognition activities, we do not capture such activities directly. Future research could investigate the mechanisms through which PBC enhance firm performance by, for instance, zooming in on the strategic choices made by firms where controlling owners extract varying levels of PBC. Research that establishes more direct evidence of PBC may also be beneficial. Specifically, the main methods of quantifying PBC in the literature to date (i.e., the control block and the voting premium approach) suffer from similar limitations. Both of these approaches are *ex-ante*, meaning that PBC are measured *before* any real extraction or diversion of value into the pockets of controlling shareholders can occur. More direct measurement approaches are a welcome addition to the literature.

Third, our sampling strategy covered only control transactions that establish a new controlling owner in the firm (i.e., one single entity that purchases a control block). Other ownership structures exist, however, that may also result in pecuniary PBC that we were unable to capture. For instance, several large – but non-controlling – blockholders may create multiple blockholder structures (MBS). These blockholders may be able to monitor and control management collectively, creating PP benefits (Crespi and Renneboog, 2010). However, it is also possible that multiple blockholders collude to the dismay of minority shareholders, creating PP costs (Zwiebel, 1995). Future studies may investigate the performance consequences of these ownership structures.

CONCLUSION

Research on PP relationships is clearly becoming more visible in the management field (Li and Qian, 2013; Singla et al., 2014), offering exciting research opportunities to study PP costs and benefits not only in emerging economies (Young et al., 2008), but also in developed markets (Goranova et al., 2010). Using 962 control block transactions from 57 countries around the world, our findings make significant contributions to the management literature. We have suggested that part of the private benefits awarded to controlling shareholders can be interpreted as a form of compensation for monitoring and advice as well as for the provision of other strategic resources. The resulting effects on firm performance are then frequently positive, but regulators and activist minority shareholders must be mindful to constrain PBC before these private benefits become excessive. We also conclude that corporate governance mechanisms play a key role in unleashing the value-adding potential of controlling shareholders. Specifically, stronger external governance mechanisms extend the range along which PBC yield net PP benefits, and make minority shareholders benefit from the value-creating efforts of controlling owners.

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