J. of Multi. Fin. Manag. 23 (2013) 338–355

Contents lists available at ScienceDirect

Journal of Multinational Financial Management

journal homepage: www.elsevier.com/locate/econbase

Cash holdings of politically connected firms☆

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ARTICLE INFO

Article history:
Received 13 August 2012
Accepted 9 June 2013
Available online 17 June 2013

JEL classification:
G32
G34

Keywords:
Political connections
Cash holdings
Corporate governance

ABSTRACT

Politically connected firms benefit from soft-budget constraints and are unlikely to suffer from liquidity constraints. This argument suggests that politically connected firms should hold less cash than non-connected peers. Another view posits that these firms exhibit acute corporate governance problems. In this setting, politically connected firms are more likely to hold more cash than non-connected firms. Using a sample of 50,119 firm-year observations from 31 countries, we find that politically connected firms hold more cash than their non-connected peers. We put forth two explanations for this result. Firstly, politicians use politically connected firms as "cash cows" to advance their political agendas. Secondly, political connections are conducive to agency problems. In additional analyses, we find that the positive relationship between political connections and cash holdings is stronger when corporate governance is weak.

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1. Introduction

The agency conflicts raised by excess liquidity are described in Jensen (1986), who defines free cash flow as cash flow in excess of what is needed to finance all positive net present value (NPV) projects (Faleye, 2004). This excess cash flow can either be invested by the firm to finance growth

☆ We appreciate comments from Omrane Guedhami, Sattar Mansi, Jeffrey Pittman, Samir Trabelsi, and participants at the 2012 Illinois International Journal of Accounting Symposium. We gratefully acknowledge the generous financial support from Canada's Social Sciences and Humanities Research Council. All remaining errors are ours.

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http://dx.doi.org/10.1016/j.mulfin.2013.06.002

opportunities, or is returned to shareholders. In developing the free cash flow (FCF) hypothesis, Jensen (1986) and Stulz (1990) argue that leaving excess resources under management control will lead self-interested utility maximizing managers to squander them and use them for perquisite consumption, all at shareholders' expense. While managers would prefer to retain excess liquidity, shareholders try to limit the managers' access to free cash flow in order to mitigate agency conflicts.

The empirical literature offers several insights on the cash holdings of firms, notably on the determinants of corporate cash holdings. For instance, Kim et al. (1998) examine a sample of U.S. firms and find that firms facing higher costs of external financing, having more volatile earnings hold significantly larger liquid assets. They also find that cash holdings are relatively lower for those firms that exhibit a higher opportunity cost for investments in liquidity measured by the difference between returns on assets and the return on Treasury bills. In the same vein, Opler et al. (1999) show that larger cash holdings characterize small firms, firms with riskier cash flows, as well as firms with strong growth opportunities. For a cross-country sample of firms from the United States, Germany, and Japan, Pinkowitz and Williamson (2001) report similar evidence. More recently, the literature gained interest in international studies that address the link between cash holdings and country corporate governance, more specifically the protection of shareholders rights. Notable studies are Dittmar et al. (2003), Pinkowitz et al. (2006), and Kalcheva and Lins (2007). The main conclusion of these studies is that better country-level investor protection is associated with lower cash holdings, suggesting that whenever shareholders rights are better protected, managers are led to retain less cash, leaving them with less opportunity to squander the firm's resources and expropriate shareholders' wealth.

The purpose of this paper is to advance the literature on the firm-level determinants of corporate cash holdings using an international setting. More specifically, in this study we narrow the gap in the literature by examining the cash holdings of an international sample of politically connected firms (PCFs). We consider a firm to be politically connected if at least one of the firm's largest shareholders or one of its top officers is a member of parliament, a minister, a head of state, or is closely related to a top official (as in Faccio, 2006).[1] In conducting our analysis, we seek to provide an answer to the following question: Do PCFs around the world tend to stockpile cash reserves?

The literature puts forth several reasons to explain the incentives of firms to keep cash or liquid assets. First, firms hoard cash for precautionary reasons. According to this view, the firm keeps cash balances to avoid unanticipated events and costly foregone investment opportunities. Firms with volatile cash flows are thus, expected to hold more cash. Another view holds that cash is a low-cost financing means for firms (transaction cost view). To undertake investments while short of internal funds, the firm will have to raise external funds, which is a costly alternative, mostly because of informational asymmetries between firms and external investors (Myers and Majluf, 1984). To avoid the transaction costs associated with external financing in imperfect capital markets, firms are more likely to accumulate higher cash balances, especially those firms with large growth opportunities. Finally, Faleye (2004) rationalizes cash holdings as a takeover defense against hostile bidders. The author argues that excess cash, in fact, provides the firm with different antitakeover options, including the possibility to repurchase stock (and hence concentrate voting power), which increases the cost of the transaction to the bidder as well as the possibility to acquire a competitor of the bidder or the bidder himself.

Given that holding large amounts of free cash flows is costly as discussed above, and may lead to agency conflicts and overinvestment, the right amount of cash to be held in the firm becomes a trade-off between: (1) having enough money for precautionary and transaction costs motives, and (2) not having too much cash under the control of managers as this may create incentives to use it for perquisite consumption. We believe that, in this context, focusing our attention on PCFs that exhibit distinct corporate governance features may offer important insights on the link between corporate

[1] In this paper, we follow Chen et al. (2010) and Chaney et al. (2011) among others, and consider mainly the literature on politically connected firms. We do not take into account lobbying and campaign contribution in determining what constitute political connections. Faccio (2006) states that the political connections documented in her study are possibly more direct and more explicit.

liquidity policy and corporate governance. *First*, PCFs are close to politicians and, hence may obey political objectives (i.e., using firms and resources therein to enhance political support, maximizing employment, etc.) that generally go against shareholders' profit- and wealth maximization objectives. Since cash is the most valuable asset that entrenched managers can expropriate from the firms (Myers and Rajan, 1998), shareholders' expropriation in firms with excess cash becomes more likely. *Second*, typical corporate governance mechanisms, such as company boards within the firm, cannot play their role of monitoring decision makers. This may lead entrenched managers to pursue their own interests at the expense of shareholders, including retaining large free cash flows and squandering them by consuming perquisites or making inefficient investment decisions (Jensen, 1986) sometimes with impunity. *Third*, from a corporate governance perspective, PCFs exhibit acute agency problems as pointed out by Chaney et al. (2011) who argue that political connections are a reflection of a firm's agency problems and the quality of its corporate governance. As a matter of fact, PCFs are generally insulated from market discipline through government bailout guarantees and preferential access to bank lending, all of which contribute further to entrench politically connected managers compared to their non-connected peers. We conjecture that these particular corporate governance features will shape the corporate liquidity policy of PCFs. In a nutshell, analyzing the cash holdings of PCFs around the world provides us with a natural laboratory in which to examine how firm-level governance affects cash holdings, and how country-level governance affects this relation. Particularly, it allows us to investigate the corporate liquidity policy of these firms and determine whether it is a manifestation of agency problems (i.e., leading to shareholders' expropriation).

Under the agency view of PCFs, and given the typical corporate governance arguments described above that are related to the political objectives (i.e., political extraction) of managers, and the lack of effective monitoring mechanisms, we expect PCFs to hold more cash. Conversely, PCFs may not be likely to hold cash for transaction costs motives as typical firms do, since, as documented in the literature, they usually benefit from a soft budget constraint, easy access to credit at lower cost, and bailout protection in the event of financial distress. For example, Leuz and Oberholzer-Gee (2006) find that managers of PCFs tend to avoid bonding themselves to higher corporate governance standards associated with issuing American depository receipts (ADRs), as they prefer the private benefits extracted from their firms by maintaining them domestic. For the same reasons, they are unlikely to hold cash for precautionary motives. Therefore, we expect PCFs to have less need for large cash balances than typical non-connected firms under the transaction and precautionary motives. This is all the more true given their preferential access to credit and bank lending. Our empirical analysis of cash holdings of PCFs will allow us to disentangle these two competing effects, and will add insight to the ongoing, still unresolved, debate on the agency cost explanation for corporate cash holdings.

Using a sample of 50,119 firm-year observations from 31 countries over the period from 1997 to 2001, we find strong and economically significant evidence that PCFs hold larger cash balances than non-connected peers. These results go against evidence in Harford et al. (2008) who find that U.S. firms with weaker corporate governance structures actually have smaller cash reserves. However, our results are consistent with the findings of cross-country studies, which document that poorly governed firms hoard larger cash balances (e.g., Dittmar et al., 2003; Kalcheva and Lins, 2007). Our results are robust to a battery of tests and sensitivity analyses including considering alternative periods, econometric approaches, dependent variables, and confronting the issue of endogeneity. In additional analyses, we find that the positive relationship between political connections and cash holdings is stronger when corporate governance is weak. In a nutshell, one can conclude that political connections, despite their soft budget constraints, are a channel of political extraction by entrenched managers pursuing political objectives. Because they can raise funds at better terms (Boubakri et al., 2012b; Chaney et al., 2011) and pay fewer taxes than non-PCFs, these firms hold more cash than their non-connected peers. This allows entrenched managers to extract political benefits at the expense of shareholders, by undertaking such decisions as (1) financing election campaigns, paying bribes, and using the firms' funds to build popular support for the government, or (2) by making inefficient investment decisions (e.g., overinvesting in unprofitable regions to secure votes for connected politicians), very often in total impunity.

Our study contributes to the existing literature on several grounds. *First*, we add evidence to the literature on cash holdings in an international context by examining atypical firms where firm-level corporate governance is weak and hence expropriation of shareholders' rights more likely. *Second*, we

contribute to the corporate governance literature as we allow for cross-country variation in the extent of investor protection, while considering firms with weak firm-level governance. *Lastly*, we add to the recent extensive literature on the characteristics of PCFs, which have been shown to enjoy soft budget constraints, mainly owing to the implicit guarantee of government bailout of connected firms should they face economic downturn or financial distress (Faccio et al., 2006). Faccio (2010) also determines that PCFs generally pay fewer taxes and, thus benefit from lower operating costs. In addition, they have a lower cost of equity (Boubakri et al., 2012b) and a lower cost of debt (Chaney et al., 2011). Political connections and close ties to the government are supposed to allow corporations to overcome market and state failures, such as high corruption or weak investor protection (Hay and Shleifer, 1998). Our results provide evidence on the extent of agency costs in PCFs, thus adding to the extant literature that has mainly focused on the benefits of political connections.[2]

The remainder of the paper is organized as follows. Section 2 reviews the literature and lays out our main hypothesis. Section 3 describes our research design. Section 4 presents the empirical results and Section 5 states our conclusion.

2. Literature review and hypothesis

2.1. Cash holdings

The literature advances several reasons to explain why firms hoard cash. First, firms may hold cash for precautionary reasons. Specifically, firms accumulate cash balances to circumvent adverse economic shocks and avoid underinvestment problems. Firms with volatile cash flows should hold more cash. The transaction cost view offers another rationale for hoarding cash. Informational asymmetries between firms and external investors (Myers and Majluf, 1984) make it costly for firms to raise external funds. In instances where informational asymmetries are severe, firms may use cheaper alternatives such as internal funds to finance profitable investment opportunities. Therefore, firms with profitable growth opportunities should hold more cash. This view is largely based on the pecking order theory. Finally, cash holdings may serve as a powerful antitakeover defense against hostile bidders (Faleye, 2004). Excess cash balances offer potential targets opportunities to counter unfriendly takeover bids. These include the possibility to repurchase stock as well as the possibility to acquire a competitor of the bidder or the bidder himself.

The existing evidence on the value of cash reserves to shareholders is mixed, especially when one compares U.S. evidence to results from cross-country studies. Mikkelson and Partch (2003) show that large cash balances do not necessarily reflect agency conflicts between managers and shareholders as they enhance firm value. In the same vein, Opler et al. (1999) suggest that managers tend to hold cash as a precautionary measure. Harford (1999) finds, however, that entrenched managers of firms with large free cash flows are more likely to overinvest in negative NPV projects (namely acquisitions). Dittmar and Mahrt-Smith (2007) validate this finding as they uncover that shareholders assign a lower value to an additional dollar of cash reserves when agency problems are likely to be greater at the firm. More recently, Harford et al. (2008) sustain that free cash flow can be harmful to shareholders only when shareholders' rights are not protected, which brings light to the apparently conflicting results in the empirical literature. According to the authors, managers of firms with weakly enforced shareholders' rights can take advantage of the resources under their control with relative immunity. Such behavior cannot be sustainable in a market where investor protection is high, such as the U.S. Confirming results appear in an international study conducted by Dittmar et al. (2003), who show that in countries where investor protection is higher, firms tend to hold less cash.

Pinkowitz et al. (2006) also examine the effect of cross-country shareholders' rights protection on the amount of cash holdings, and show that in countries with low investor protection, cash is worth

[2] Examples of such benefits include borrowing from state-owned banks at advantageous terms (e.g., Sapienza, 2004; Dinç, 2005; and Charumilind et al., 2006); getting bailed out by the government (Faccio et al., 2006); securing favorable regulatory conditions (Agrawal and Knoeber, 2001); obtaining import licences more easily at favorable terms (Khwaja and Mian, 2005; and Mobarak and Purbasari, 2009); and discouraging foreign competition through import taxation (e.g., Goldman et al., 2009).

less to minority shareholders. This finding is consistent with the hypothesis that poor protection of investors' rights makes it easier for management and controlling shareholders to expropriate corporate resources for their own benefit. Similarly, Kalcheva and Lins (2007) provide evidence that firms around the world hold more cash in countries with weaker investor protection. Interestingly, they find strong evidence that when external country-level governance is weak, outside shareholders apply a valuation discount to high cash balances carried by firms whose managers are also expected to be entrenched, but do not discount high cash levels in general.

A way to contribute to this literature is to consider PCFs from a large sample of countries that are diverse in their legal and institutional environment attributes. We describe in what follows the extant literature on political connections before we draw our main hypothesis.

2.2. Political connections

Empirical evidence on the value of political connections points to three potential sources of benefits from political connections: preferential access to credit, tax discounts, and market power. Faccio (2010) finds that connected firms indeed have higher leverage (i.e., preferential access to credit), lower tax rates (i.e., tax discounts), and greater market shares (i.e., market power). Faccio et al. (2006) identify an additional direct channel through which connections create value by showing that PCFs are more likely than unconnected firms to be bailed out by the government in case of financial distress. In the same vein, Boubakri et al. (2012a) conduct an international event study, and find that firm performance and leverage increase after the nomination of a politician on the board of directors of publicly listed firms or after an executive enters politics. They also document that the political connection is more valuable, whenever the ties are closer to political power, which confirms evidence in Faccio (2006).

The potential costs of political connections are scarcely documented, except in the privatization literature, where Boubakri et al. (2008) find that with politically connected boards, privatization will not create the necessary managerial incentives to maximize shareholders' wealth and to improve overall firm performance. Additional evidence that close ties with the government may be costly to shareholders is found in Guedhami et al. (2009) who document that state-owned firms are associated with lower demand for accounting transparency. Few other studies have argued that the grabbing hand of governments make close ties detrimental to shareholders given the likely rent extraction from politicians of the firms' resources (Frye and Shleifer, 1997; Shleifer and Vishny, 1998). On this issue, Caprio et al. (2013) provide direct evidence by showing that firms anticipating such behavior will tend to structure their asset holdings in a way that shelters them from politicians and bureaucrats, especially in countries where the threat of political extraction is high.

More broadly, one can consider that, as recently pointed out by Chaney et al. (2011), PCFs exhibit acute agency problems and poor internal corporate governance.

2.3. Hypothesis

As documented by previous studies, PCFs are more likely to be bailed-out in the event of crisis. They also benefit from a soft budget constraint and easy access to credit at preferential rates. They are, thus unlikely to suffer from liquidity constraints, and do not need to hold large amounts of cash for either precautionary or transactions costs motives. Finally, holding cash as a takeover defense is highly unlikely outside the U.S., where there is barely a takeover market worth talking about. For all these reasons, we expect PCFs to hold lower cash balances than their non-connected peers.

Alternatively, from a corporate governance perspective, PCFs exhibit acute agency problems. As Chaney et al. (2011) point out, political connections may be considered a reflection of a firm's agency problems and quality of corporate governance. As such, weak firm-level governance will lead to higher cash holdings in PCFs, especially given that connected managers typically obey political objectives that may contradict profit-maximizing objectives and shareholders' wealth maximization. In addition, typical corporate governance mechanisms, such company boards within the firm, cannot play their role of monitoring decision makers. Besides, PCFs are better positioned to accumulate large cash balances given that they can raise funds at better terms (Boubakri et al., 2012b; Chaney et al., 2011) and pay fewer taxes than non-PCFs. This, combined with poor corporate governance in PCFs, may lead

entrenched managers to pursue their own interests at the expense of shareholders, including retaining large free cash flows and squandering them by consuming perquisites (e.g., pursuing political objectives, such as financing election campaigns, paying bribes, and using the funds to build popular support for the government, etc.) or making inefficient investment decisions (e.g., overinvesting in unprofitable regions to secure votes for connected politicians), very often in total impunity. Based on these arguments, we expect PCFs to hold higher cash balances than their non-connected peers.

3. Data description

3.1. The sample

To analyze the impact of political connections on cash holdings, we hand-match data from two sources: political connections data from Faccio (2006), and cash holdings and financial statement data from Worldscope. After dropping firm-years with insufficient data to measure corporate cash holdings and firm-level control variables and countries without political connections in Faccio (2006), we end up with a sample of 50,119 firm-year observations from 31 countries. Following Chen et al. (2010), we consider the period from 1997 to 2001 over which Faccio's (2006) database was constructed.

3.2. Variables measurement

3.2.1. Measuring cash holdings

We follow extensive prior research (Kim et al., 1998; Opler et al., 1999; Dittmar et al., 2003) by gauging cash holding using the ratio of cash and cash equivalents to net assets, where net assets are total assets minus cash and cash equivalents. We label this variable CASH. In sensitivity tests, we also look at two alternative methods to measure cash holdings. First, we compute cash holdings using the ratio of cash and cash equivalent to total assets. Then, we compute cash holdings using the ratio of cash and cash equivalent to total sales. Using either measure, we find similar results to those reported using the cash to net assets ratio.

3.2.2. Measuring political connections

We rely on Faccio's (2006) database and we consider a politically connected firm if, "at least one of its large shareholders (anyone controlling at least 10% of voting shares) or one of its top officers (CEO, president, vice president, chair, or secretary) is a member of parliament, a minister, or is closely related to a top politician or party."[3] Applying this definition, Faccio (2006) identifies 541 firms with political connections. We follow extensive recent research by specifying our main test variable as a dummy variable (POLITICAL) that takes the value of one if a company is identified as politically connected in Faccio's (2006) database and zero otherwise (e.g., Faccio et al., 2006; Boubakri et al., 2008; Faccio, 2010; Chaney et al., 2011). We exclude the countries without any PCF from our analysis.

3.2.3. Control variables

In our multivariate regression analysis, we control for two sets of variables known to affect cash holdings according to prior research (e.g., Opler et al., 1999; Dittmar et al., 2003). The first set includes the following firm-level characteristics: the market-to-book value of assets (MTB); the natural logarithm of total assets (SIZE); cash flow to net assets (CF); net working capital to net assets (NWK); and research and development expenses to sales (RDEV). The second set of controls covers two macroeconomic variables: the ratio of the stock value traded to GDP (SVTRADED), and the ratio of private credit to GDP (PVCRDGDP). Additionally, in all estimations, we control for industry (according to the 12 categories in Campbell, 1996), country, and year fixed effects.

[3] More comprehensive descriptions of the political connections database can be found in Faccio (2006), Faccio et al. (2006), Faccio (2010), and Chaney et al. (2011).

3.3. Descriptive statistics

Table 1 reports the descriptive statistics of the variables (CASH, POLITICAL, MTB, SIZE, CF, NWK, RDEV, SVTRADED, and PVCRDGDP) by country for all firms in the sample. The sample is fairly diversified across geographical regions, including South Asia, Eastern Europe, and Latin America, which is important when examining the impact of political connections in an international setting. Japan and the United Kingdom contribute the largest shares of the sample, 23.01% and 13.32%, respectively, followed by Germany (6.19%), Canada (4.64%), United States (4.61%), Malaysia and South Korea (4.58%), and Hong Kong (4.33%). All other countries comprise less than 4% of the sample. There is considerable cross-country variation in the cash to net assets ratio. On average, firms from Israel, Canada, Sweden, and Hong Kong have more than 30% of their net assets in cash. At the other end, firms from Mexico, India, and Portugal have an average cash to net assets ratios below 10%. Table 1 also presents the distribution of the PCFs by country. Consistent with Faccio (2006), we find that Malaysia, Thailand, and Indonesia have the highest incidence of PCFs; those firms account for more than 10% of the population. In contrast, PCFs are very rare in Hong Kong, Spain, Canada, Greece, Turkey, Australia, and the Netherlands, where they account for less than 1% of the population.

Panel A of Table 2 reports descriptive statistics for the variables used in the analysis. Included are the mean, median, standard deviation, minimum and maximum value for CASH, political connection, economic, and financial variables. The dependent variable CASH has a mean, median, and standard deviation of 0.225, 0.086, and 0.474, respectively. PCFs account for 3.5% of the total firm-year observations with a standard deviation of 0.18. In her original data, Faccio (2006) finds that connected firms represent 2.7% of all listed firms. In terms of economic variables, the mean (median) value of our first proxy for economic development (SVTRADED) is 0.78 (0.56) with a standard deviation of 0.63. Also, the mean (median) value of our second proxy for economic development (PVCRDGDP) is 1.16 (1.16) with a standard deviation of 0.44. In terms of firm-specific characteristics, the results show that our sample includes small and large firms, as well as high and low research-and-development-intensive firms. For our sample firm, the mean (median) size is 12.46 (12.27) and the mean (median) expense in research and development (R&D) is 0.01 (0.00). Companies in the sample exhibit a relatively high level of growth measured by the MTB with a mean (median) of 2.08 (1.24).

Panel B of Table 2 describes the industry distribution of the sample (in absolute numbers and in percentages) using the standard Security Industry Classification (SIC) codes that were used in Campbell (1996). We use two-digit SIC codes to control for industry effects in our empirical analysis. The industries are basic industries, capital goods, construction, consumer durables, food and tobacco, leisure, finance, petroleum, services, textile and trade, transportation, and utilities. A large portion of the sample is concentrated in finance (16.86), consumer durables (15.25%), basic industries (12.46%), capital goods (9.75%), textile/trade (8.90%), and services (8.68%).

Panel C of Table 2 provides the correlation coefficients between cash holding, political connection, and various control measures. CASH is positively correlated with MTB, RDEV, and PVCRDGDP, and negatively correlated with POLITICAL, SIZE, CF, NWK, SVTRADED. However, because of possible confounding effects by other variables, we use a multivariate framework to explore our hypotheses.

4. Empirical results

To investigate the impact of political connections on the level of cash holdings, we estimate the following regression (subscripts are omitted for simplicity):

$$Log(CASH) = \alpha + \beta_1 \cdot POLITICAL + \beta_2 \cdot Z + FIXED\,EFFECTS + e \quad (1)$$

where *CASH* is cash holdings divided by net assets, *POLITICAL* is an indicator variable for whether the firm is politically connected, Z is a vector of control variables commonly used in cash holdings regressions and discussed in Section 3.2.3 (*MTB*, *RDEV*, *PVCRDGDP*, *SIZE*, *CF*, *NWK*, and *SVTRADED*), and *FIXED EFFECTS* denotes a set of industry, country, and year fixed effects, and ε is the error term. To

Table 1
Descriptive statistics by country.

Country	*N*	%	CASH	POLITICAL	MTB	SIZE	CF	NWK	RDEV	SVTRADED	PVCRDGDP
Australia	1342	2.69	0.232	0.003	2.453	11.891	−0.114	−0.037	0.009	0.492	0.804
Austria	178	0.36	0.242	0.011	1.972	12.247	−0.056	0.031	0.008	0.053	0.975
Belgium	349	0.7	0.249	0.034	1.949	12.368	−0.028	−0.075	0.007	0.158	0.775
Canada	2312	4.64	0.315	0.007	2.919	11.987	−0.174	−0.009	0.026	0.613	0.968
Chile	537	1.08	0.113	0.017	1.326	12.153	−0.029	0.007	0.000	0.079	0.656
Denmark	799	1.6	0.241	0.023	2.155	11.860	−0.045	0.018	0.011	0.408	0.578
Finland	544	1.09	0.226	0.017	2.244	12.139	−0.031	0.045	0.013	1.005	0.527
France	1837	3.69	0.227	0.021	2.228	11.855	−0.057	0.011	0.008	0.678	0.824
Germany	3083	6.19	0.245	0.013	2.506	12.052	−0.082	0.084	0.011	0.470	1.136
Greece	790	1.59	0.241	0.006	3.406	11.282	−0.025	0.042	0.003	0.682	0.436
Hong Kong	2159	4.33	0.303	0.009	1.817	12.148	−0.109	−0.082	0.003	1.722	1.622
India	1372	2.75	0.071	0.027	1.895	11.846	−0.031	0.086	0.004	0.446	0.245
Indonesia	791	1.59	0.179	0.115	1.578	11.450	−0.140	−0.198	0.001	0.619	0.298
Ireland	263	0.53	0.183	0.023	2.082	12.186	−0.064	−0.017	0.009	0.315	0.903
Israel	286	0.57	0.445	0.035	2.416	12.845	−0.102	−0.022	0.045	0.184	0.777
Italy	1071	2.15	0.173	0.063	1.797	13.669	−0.033	0.024	0.005	0.467	0.655
Japan	11,461	23.01	0.223	0.011	1.487	13.093	−0.024	−0.040	0.009	0.371	1.412
Korea (South)	2283	4.58	0.193	0.013	1.261	12.437	−0.094	−0.090	0.004	1.440	1.324
Malaysia	2280	4.58	0.158	0.147	1.583	11.797	−0.068	−0.085	0.000	0.633	1.404
Mexico	409	0.82	0.091	0.073	1.250	13.143	−0.065	0.001	0.000	0.082	0.193
Netherlands	697	1.4	0.195	0.003	2.724	12.692	−0.035	0.039	0.009	1.244	1.243
Philippines	522	1.05	0.134	0.034	1.229	11.823	−0.069	−0.079	0.001	0.141	0.453
Portugal	271	0.54	0.047	0.037	1.337	12.587	−0.027	−0.005	0.000	0.340	1.061
Singapore	1180	2.37	0.242	0.058	1.688	11.795	−0.041	−0.044	0.003	0.835	1.265
Spain	654	1.31	0.161	0.009	1.934	12.944	−0.013	−0.034	0.001	1.286	0.856
Sweden	1101	2.21	0.307	0.011	2.889	11.819	−0.124	0.049	0.018	1.122	0.862
Switzerland	922	1.85	0.293	0.020	2.351	12.986	−0.036	0.018	0.018	1.976	1.615
Thailand	1092	2.19	0.127	0.117	1.222	11.465	−0.068	−0.098	0.000	0.250	1.302
Turkey	294	0.59	0.255	0.003	2.886	11.872	−0.096	0.005	0.004	0.505	0.188
U.K.	6636	13.32	0.279	0.079	2.690	11.815	−0.110	−0.043	0.014	1.020	1.214
U.S.	2298	4.61	0.160	0.011	3.410	15.689	−0.007	0.019	0.029	2.195	1.980
Total	50,119	100	0.225	0.035	2.080	12.460	−0.066	−0.023	0.010	0.781	1.163

Notes: This table reports summary descriptive statistics by country for the explanatory variables of the basic model used in the hypotheses tests to examine the impact of the political connections on the level of cash holding for a sample of 50,119 firms from 31 countries. The definitions and data sources for the regression variables are outlined in Appendix A.

Table 2
Descriptive Statistics.

	Mean	Median	Standard deviation	Min	Max
Panel A: Descriptive statistics of key regression variables					
CASH	0.225	0.086	0.474	0.000	3.518
POLITICAL	0.035	0.000	0.183	0.000	1.000
MTB	2.080	1.243	2.818	0.448	20.214
SIZE	12.460	12.275	2.202	−0.132	20.756
CF	−0.066	−0.016	0.233	−1.578	0.229
NWK	−0.023	−0.012	0.267	−1.432	0.552
RDEV	0.010	0.000	0.034	0.000	0.225
SVTRADED	0.781	0.566	0.635	0.020	3.268
PVCRDGDP	1.163	1.162	0.440	0.167	2.113

Industry classifications	Two-digit SIC codes	Number of observations	Percentage (%)
Panel B: Sample industry classifications			
Basic industries	10, 12, 14, 24, 26, 28, 33	6209	12.46%
Capital goods	34, 35, 38	4859	9.75%
Construction	15–17, 32, 52	3643	7.31%
Consumer durables	25, 30, 36, 37, 50, 55, 57	7594	15.25%
Food/tobacco	1, 9, 20, 21, 54	3097	6.22%
Leisure	27, 58, 70, 78, 79	2383	4.78%
Finance	60–69	8399	16.86%
Petroleum	13, 29	843	1.69%
Services	72, 73, 75, 80, 82, 87, 89	4322	8.68%
Textiles/trade	22, 23, 31, 51, 53, 56, 59	4434	8.90%
Transportation	40–42, 44, 45, 47	1760	3.53%
Utilities	46, 48, 49	2086	4.19%
Other	The remaining two-digit SIC codes	184	0.37%
Total		50,119	100.00%

	Cash	Political	MTB	Size	CF	NWK	RDEV	SVTRADED
Panel C: Pearson correlation coefficients								
POLITICAL	**−0.019**							
MTB	**0.377**	**−0.018**						
SIZE	**−0.229**	**0.083**	**−0.276**					
CF	**−0.137**	0.003	**−0.310**	**0.298**				
NWK	**−0.164**	**−0.046**	**−0.185**	**0.050**	**0.291**			
RDEV	**0.227**	**−0.025**	**0.348**	**−0.053**	**−0.210**	**0.054**		
SVTRADED	**−0.027**	**−0.022**	**0.112**	**0.120**	**−0.023**	−0.011	**0.081**	
PVCRDGDP	**0.090**	−0.007	−0.008	**0.216**	**0.030**	**−0.054**	**0.055**	**0.357**

Notes: Panel A reports summary descriptive statistics for the regression variables used in the empirical tests to examine the impact of political connections on corporate cash holding for a maximum sample of 50,119 firm-year observations from 31 countries over the period 1997–2001. The definitions and data sources for the regression variables are outlined in Appendix A. Panel B provides industry classification as in Campbell (1996) for a sample of 50,119 from 31 countries over the period 1997–2001. The definitions and data sources for the regression variables are provided in Appendix A. Panel C reports Pearson correlations for the regression variables. Boldface indicates statistical significance at the 1% level. The definitions and data sources for the variables are outlined in Appendix A.

control for outliers we winsorize the firm-level variables at the 1% and 99% levels. Our focus in the analysis is the coefficient β_1, which measures the sensitivity of cash holdings to political connection. A positive value indicates that connected firms hold more cash than non-connected firms do at the international level.

4.1. Main evidence

To examine the impact of political connections on cash holdings, we regress the log of cash to net assets on the political connection dummy, and firm- and country-level variables using pooled

Table 3
Regressions of cash holding on firm-level and macroeconomic variables.

Variable	Basic reduced model (1)	Full model (2)	Sales growth (3)
POLITICAL	0.228***	0.238***	0.264***
	(4.717)	(4.425)	(4.636)
MTB	0.178***	0.147***	
	(30.357)	(30.725)	
SIZE	−0.110***	−0.080***	−0.153***
	(−8.665)	(−5.739)	(−14.225)
CF	0.362**	0.138	0.346
	(2.125)	(1.054)	(1.412)
NWK	−0.752***	−1.069***	−1.052***
	(−4.362)	(−8.927)	(−4.371)
RDEV	5.554***	5.658***	10.020***
	(12.231)	(12.076)	(11.804)
SVTRADED	0.020	0.015	0.034
	(0.580)	(0.458)	(1.294)
PVCRDGDP	0.042	0.095*	−0.046
	(0.795)	(1.718)	(−0.608)
CAPEX		1.220***	
		(6.104)	
LEVERAGE		−1.089***	
		(−8.175)	
DIVIDEND		5.203***	
		(4.303)	
SALES GROWTH			0.180***
			(9.264)
Intercept	−2.303***	−2.771***	−1.417***
	(−9.704)	(−10.665)	(−6.151)
YEAR EFFECTS	Yes	Yes	Yes
IND effects	Yes	Yes	Yes
CNTRY effects	Yes	Yes	Yes
P-value	0.000	0.000	0.000
Adj. R^2	0.316	0.343	0.251
N	50,119	45,971	50,119

Note: This table reports pooled OLS estimation results of the following cash-holding model. $\text{Log}(\text{CASH}_{it}) = \alpha + \beta_1\ \text{POLITICAL}_{it} + \beta_2\ Z_{it} + \text{FIXED EFFECTS} + \varepsilon$. Where CASH_{it} is the level of cash holding over net assets; Political_{it} is a dummy variable equal to one if the firm is politically connected and zero otherwise; and *Z* is a set of firm- and country-level control variables. Fixed effects is a set of dummy variables controlling for the year, industry, and country fixed effects. Model 1 is our baseline specification. Model 2 controls for LEVERAGE, CAPEX, and DIVIDEND along with the other variables considered in our baseline model. Model 3 includes sales growth as an alternative proxy for future growth opportunities. The full sample includes 50,119 firm-year observations from 31 countries. Beneath each estimate is reported the robust *t*-statistic clustered at the country level. The definitions and data sources for the variables are outlined in Appendix A.

* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

cross-sectional time series regressions with robust standard errors clustered at the country level.[4] Table 3 reports the estimation of various specifications of Eq. (1).

In Model 1, our basic specification, we estimate a reduced model in which we include the political connection dummy (POLITICAL) and the main firm-level variables shown in the literature to explain cash holdings. We find the coefficient on POLITICAL is positive and statistically significant at the 1%

[4] Faccio (2006) and Chen et al. (2010) shed light on the impact of the country-level institutions in clustering the effects of the political connections.

level (*t*-stat = 4.717) implying that PCFs hoard more cash than non-PCFs.[5] This finding complements the evidence in Caprio et al. (2013) who show that firms hold less cash in countries where the likelihood of political extraction is high. Our results suggest that political connections, which reduce the likelihood of outside political extraction (i.e., government predation of firms' resources), attenuate the need to disgorge cash out of the firm. Our finding of excess cash holdings in PCFs is consistent with those firms accumulating liquidity to finance the various (legal or illegal) programs and the political agenda of the politicians to which they are close. As for the firm-specific controls, we find that firm size (SIZE) and net working capital to net assets (NWK) are significantly and negatively associated with cash holdings, suggesting that smaller firms hold more cash and that short-term assets are substitutes for cash. In addition, we find that MTB, CF, and RDEV enter the regressions with significantly positive coefficients. Those findings suggest that firms with better future growth opportunities, higher cash flows, and worse asymmetric information problems hoard more cash. Overall, those results are consistent with prior literature, including Dittmar et al. (2003) among others. Our result is also economically significant. Setting all other variables at their mean values and moving the variable POLITICAL from zero to one increases cash holdings by 24.31%, from 0.074 to 0.092.

In Model 2, we expand our analysis by estimating a more exhaustive model in which we augment the baseline model with additional firm-level variables, namely, the debt to assets ratio (LEVERAGE), capital expenditures to net assets (CAPEX), and total dividends to net assets (DIVIDEND). Although we recognize that those variables may be endogenous to cash holdings, our aim is to make sure those differences in capital structure, investment, and dividend policies across politically connected and non-connected firms are not driving our results. As expected, the adjusted R^2 increases from 31.6% to 34.3%. The results show that LEVERAGE is negatively associated with cash holdings, while CAPEX and DIVIDEND are positively associated with cash holdings, consistent with Opler et al. (1999). But, more important for our purposes, we continue to estimate a positive and highly significant coefficient on POLITICAL.

Finally, we recognize that the market to book ratio of assets (MTB) may be a less than a perfect proxy for future growth opportunities since it can be affected by cross-country differences in accounting practices and stock liquidity, among others. To address that issue, we replace MTB with sales growth (SALES GROWTH) in Model 3. Like MTB, we find that SALES GROWTH loads positively and significantly at the 1% level suggesting that measurement errors associated with MTB are not affecting our results. Importantly, we continue to find that POLITICAL is positively and significantly (at the 1% level) related to cash holdings.

In summary, the results of various specifications of Eq. (1) reported in Table 3 suggest that PCFs hold a significantly higher level of cash compared to non-connected firms. In the next section, we examine the robustness of our main finding.

4.2. Sensitivity checks

In Table 4, we report the results of additional tests that assess the robustness of our findings. Specifically, we employ alternative econometric approaches, alternative dependent variables, and alternative sample composition and period. We also address the endogeneity issue. Finally, we include additional firm-level control variables.

[5] Our research design follows prior research that investigates the impact of corporate governance on cash holdings (e.g., Dittmar et al., 2003; Kalcheva and Lins, 2007). As an alternative, we could estimate the optimal amount of cash for our sample firms and compare excess cash holdings (i.e., actual cash holdings minus optimal cash holdings) across PCFs and non-PCFs. We follow Opler et al. (1999) to determine the optimal amount of cash. Specifically, we estimate Eq. (1) after excluding POLITICAL and save the predicted values of the dependent variable. Since our dependent variable is logged, we take the exponential of the predicted values to obtain the optimal level of cash holdings. Then, we compute excess cash as the difference between actual cash and estimated optimal cash. A firm with positive excess cash holds more cash than predicted by our model. The results show that the average (median) of excess cash for our sample is 5.54% (0.72%). When we split our sample into connected firms and non-connected firms, we find that the mean (median) excess cash of connected firms is equal to 7.19% (1.80%) compared to 5.59% (0.76%) for non-connected firms. These differences are statistically significant at the 1% level. Hence, using this alternative research design, we reach the same conclusion that PCFs hold more excess cash than non-connected firms.

Table 4
Robustness Checks.

Variables	Firm clustering (1)	Firm random effect (2)	Cash to total assets (3)	Cash to sales (4)	Exclude financials (5)	Exclude U.K. (6)	Exclude Japan (7)	1997–2005 Period (8)	1992–2005 Period (9)	First stage (10)	Second stage (11)	Ownership/ Control rights (12)	Payout (13)
POLITICAL	0.228***	0.225***	0.215***	0.207***	0.228***	0.253***	0.243***	0.197***	0.211***		1.636***	0.256***	0.232***
	(3.927)	(4.016)	(4.822)	(4.616)	(4.145)	(4.000)	(4.378)	(3.449)	(5.613)		(3.387)	(4.533)	(4.521)
MTB	0.178***	0.133***	0.135***	0.135***	0.185***	0.179***	0.177***	0.179***	0.192***	0.023	0.175***	0.223***	0.176***
	(45.736)	(36.764)	(26.986)	(15.756)	(32.441)	(27.202)	(27.301)	(23.190)	(26.143)	(0.974)	(28.793)	(14.416)	(33.079)
SIZE	−0.110***	−0.176***	−0.087***	−0.038**	−0.081***	−0.113***	−0.103***	−0.118***	−0.107***	0.390***	−0.129***	−0.100***	−0.126***
	(−20.286)	(−31.409)	(−7.421)	(−2.448)	(−5.747)	(−7.590)	(−7.650)	(−9.033)	(−7.915)	(8.458)	(−9.303)	(−6.733)	(−9.623)
CF	0.362***	0.250***	0.385***	−0.098	0.103	0.473**	0.399**	0.396**	0.507***	−0.192	0.340*	1.019***	0.238
	(8.166)	(6.287)	(2.886)	(−0.549)	(0.637)	(2.366)	(2.303)	(2.606)	(4.153)	(−0.787)	(1.937)	(3.742)	(1.606)
NWK	−0.752***	−0.820***	−0.595***	−0.595***	−0.002	−0.676***	−0.891***	−0.526***	−0.682***	−0.482***	−0.695***	−0.741***	−0.807***
	(−16.391)	(−18.800)	(−4.127)	(−3.508)	(−0.017)	(−4.007)	(−6.217)	(−3.232)	(−4.273)	(−3.573)	(−3.745)	(−2.951)	(−5.429)
RDEV	5.554***	4.255***	4.817***	8.280***	5.149***	5.860**	5.514***	5.607***	6.079***	−0.648	5.603***	6.242***	5.951***
	(21.998)	(14.846)	(11.117)	(19.543)	(10.204)	(12.854)	(11.612)	(14.069)	(13.131)	(−0.278)	(12.000)	(12.381)	(12.008)
SVTRADED	0.020	0.051***	0.023	0.009	−0.021	0.007	0.023	0.022	0.022	−0.219	0.032	0.004	0.008
	(1.196)	(3.671)	(0.816)	(0.264)	(−0.551)	(0.210)	(0.676)	(0.597)	(0.469)	(−1.415)	(0.955)	(0.084)	(0.242)
PVCRDGDP	0.042*	−0.016	0.035	0.137	0.062	0.039	−0.049	0.181**	0.209***	0.164	0.054	0.035	0.064
	(1.692)	(−0.814)	(0.733)	(1.677)	(1.090)	(0.662)	(−0.376)	(2.576)	(4.252)	(0.822)	(0.935)	(0.984)	(1.226)
CAPITAL										0.186**			
										(2.259)			
OWNERSHIP												−0.004**	
												(−2.663)	
CONTROL–OWNERSHIP												0.001	
												(0.542)	
PAYOUT													0.327***
													(4.400)
INTERCEPT	−2.303***	−1.319***	−2.607***	−2.810***	−2.669***	−2.313***	−2.310***	−2.302***	−2.397***	−10.593***	−2.117***	−1.569***	−2.354***
	(−18.829)	(−11.114)	(−12.021)	(−11.047)	(−12.088)	(−8.621)	(−8.013)	(−12.097)	(−10.468)	(−13.669)	(−8.094)	(−7.093)	(−10.697)
Year effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IND effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CNTRY effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Adj. R^2	0.316		0.278	0.298	0.309	0.317	0.287	0.314	0.320	0.201	0.317	0.261	0.323
N	50,119	50,119	50,119	50,119	41,682	43,483	38,658	97,959	155,149	50,119	50,119	18,457	50,119

Note: This table reports pooled OLS estimation results of the following cash holding model. $\text{Log}(\text{CASH}_{it}) = \alpha + \beta_1\ \text{POLITICAL}_{it} + \beta_2\ Z_{it} + \text{FIXED EFFECTS} + \varepsilon$. Where CASH_{it} is the level of cash holding over net assets; POLITICAL_{it} is a dummy variable equal to one if the firm is politically connected and zero otherwise; and Z is a set of firm- and country-level control variables. Fixed effects is a set of dummy variables controlling for the year, industry, and country fixed effects. Model 1 considers clustering at the firm level. Model 2 is panel random-effects estimation. Models 3 and 4 use alternative dependent variables: cash to total assets and cash to sales, respectively. Models 5, 6, and 7 exclude non-financial, British, and Japanese firms, respectively. Model 8 and 9 consider alternative period: 1997–2005 and 1992–2005, respectively. Models 10 and 11 address the endogeneity of POLITICAL. The first-stage regression results predict POLITICAL by using CAPITAL as an instrument and by keeping the other control variables as reported in Model 10. In Model 11, we report the second-stage regressions of cash holding on fitted values of POLITICAL. Model 12 controls for the control rights and cash flow rights of the largest shareholder. Models 13 controls for PAYOUT. The full sample includes 50,119 firm-year observations from 31 countries. Beneath each estimate is reported the robust *t*-statistic clustered at the country level. The definitions and data sources for the variables are outlined in Appendix A.

* Statistical significance at the 10% level.

** Statistical significance at the 5% level.

*** Statistical significance at the 1% level.

4.2.1. Alternative standard errors

So far, we report robust standard errors adjusted for clustering at the country level. We examine the sensitivity of our results to alternative controls for cross-sectional and serial dependence in the residuals. Specifically, we present the results of estimating our baseline model using standard errors adjusted for clustering at the firm-level (Model 1) and firm-random effects (Model 2). In those two specifications, we still find that political connections exert a positive and significant impact on cash holdings at the 1% level. The control variables also load significantly with the expected sign. Hence, using different econometric approaches does not change our main inference on the positive impact of political connections on the level of cash holdings.

4.2.2. Alternative deflator variables

We follow standard practice in the literature (e.g., Dittmar et al., 2003) by deflating cash holdings, cash flow, and net working capital by net assets (i.e., total assets minus cash holdings). We identify two possible issues with this choice of the deflator variable. First, when cash holdings increase, the ratio of cash holdings to net assets increases more than proportionally, leading to the possibility of outliers in our regressions. To control for this possibility, we replace net assets by total assets as the deflator variable in Model 3. Second, previous research highlights that there are significant cross-country differences in earnings management (Leuz et al., 2003) and accounting practices, such as conservatism (i.e., the tendency to reflect bad news more often than good news in reported earnings). For instance, Leuz et al. (2003) show that firms in countries with poor investor protection are more likely to manage earnings downward in order to hide private benefit extraction. Bushman and Piotroski (2006) find that firms in countries with stronger judicial systems and securities laws use more conservative accounting. Earnings management and accounting conservatism depress asset values, which in turn, increase the cash to net assets ratio. In Model 4, we use total sales as an alternative deflator variable, because sales are less likely to be affected by earnings manipulation and accounting practices. In those two models, we continue to estimate a positive and significant coefficient on POLITICAL.

4.2.3. Alternative sample composition

Financial firms arguably hold cash for different reasons (e.g., regulation) than industrial firms. In order to increase comparability of our sample firms, in Model 5 of Table 4, we rerun our baseline regression after excluding financial firms (i.e., firms with a SIC code between 6000 and 6999). For this reduced sample, we continue to find that PCFs hold significantly more cash than other firms. POLITICAL loads positive and is statistically significant at the 1% level. Hence, financial firms are not behind our evidence.

Because political connections may be country specific, we consider different country samples in Models 6 and 7. The largest number of PCFs is in the United Kingdom. Therefore, we run our analysis excluding U.K. firms from our sample. The results reported in Model 6 show that the relation between politically connected firms and cash holdings remain unaffected. We also exclude Japanese firms as they represent the largest part in our sample. The results, reported in Model 7, show that our conclusions are not sensitive to this exclusion.[6]

4.2.4. Alternative sample period

We restrict the sample to the 1997–2001 period, which matches the time over which political connections are recorded in the Faccio's (2006) dataset. Political connections, however, may last longer or alternatively originate earlier than our actual sample period. In alternative specifications, we extend our sample period to 1997–2005 (Model 8) as in Chaney et al. (2011) and 1992–2005 (Model 9).

[6] We also exclude PCFs from East Asia given the substantial preferential treatment these firms enjoy in addition to the potential impact of the East Asian financial crisis on these firms (Johnson and Mitton, 2003). The unreported results show that our conclusions are not sensitive to the presence of Thai, Indonesian, or Malaysian firms. Indeed POLITICAL loads positive (0.217) and statistically significant at the 1% level (t-stat = 2.890).

Using those longer sample periods, we continue to find that political connections are positively and significantly associated with cash holdings at the 1% level in both models.[7]

4.2.5. Endogeneity

Some unobserved determinants of firms' cash holdings that may also explain political connections could potentially render our dummy variable POLITICAL endogenous and, cause our reported OLS estimates to be biased and inconsistent. In this section, we address the issue of endogeneity using instrumental variables' estimation. We specify firm's location as an instrument for political connections. This choice is motivated by previous studies providing evidence on the influence of the firm's location on political connections (Roberts, 1990; Agrawal and Knoeber, 2001; Bertrand et al., 2009).[8] In the first-stage regression, we employ a logit model to predict political connections using the location of the company's headquarters, CAPITAL, along with the set of independent variables that we included in Eq. (1). We define CAPITAL as a dummy variable that takes the value one if the firm is headquartered in the capital city of its country and zero otherwise. The first-stage fitted values for political connections are then used in the second-stage OLS regressions. In the first stage (Model 10), the results show that the presence of a firm's headquarters in the capital city is a significant predictor of political connections. Moreover, in the second stage regression (Model 11), the instrumented value of connections is positive and statistically significant. This result reinforces our basic inferences on the impact of political connections on cash holding and suggests that PCFs hold higher cash holdings compared to non-connected firms.

4.2.6. Additional controls

Kalcheva and Lins (2007) find that firm-level governance, measured by managerial control concentration, is positively associated with cash holdings. First, to make sure that firm-level corporate governance is not an omitted variable, we control in Model 12, for the cash flow right of the largest shareholder (OWNERSHIP) and excess control (CONTROL–OWNERSHIP) measured as the difference between the ultimate control and cash flow right of the largest shareholder, which we obtain from Claessens et al. (2000) for East Asian firms and Faccio and Lang (2002) for Western European firms.[9] Consistent with the incentive alignment effect of large shareholdings, we find that OWNERSHIP is negatively related to cash holding at the 5% level. Most important for our purposes, the political connections dummy, POLITICAL, still loads positive and statistically significant at the 1% level.

Second, we control in Model 13 for the dividend payout (PAYOUT) to ensure that differences in payout policy across PCFs and non-PCFs is not driving our results. We find that although PAYOUT is positively related to cash holdings as one might expect (e.g., Opler et al., 1999), we document that political connections are still positively and significantly associated with cash holdings.

Altogether the results reported in Table 4 reinforce our earlier evidence, namely that political connections are positively associated with cash holding. This result holds when we use alternative samples, alternative dependent variables, and additional control variables. Our results also hold when we employ an instrumental variables technique, thus alleviating concerns that political connections are endogenous.

4.3. The impact of corporate governance on the relationship between political connections and cash holdings

Previous research shows that effective corporate governance helps attenuate the tendency of insiders to hoard excessive cash reserves. Dittmar et al. (2003) find that firms operating in countries with

[7] When we follow Faccio (2010) and consider only the 1997 observations, we find similar results. The variable POLITICAL loads positive and significant at the 1% level.

[8] This approach to addressing endogeneity is typical in research on the role of political interference (e.g., Boubakri et al., 2008; Chen et al., 2010; and Chaney et al., 2011).

[9] In unreported tests, we compare the cash flow rights and excess control of PCFs to those of non-PCFs. We find that, on average, the largest shareholders of PCFs hold lower cash flow rights (20.96% compared to 22.51%) and achieve higher excess control (4.62% compared to 3.93%). These tests lend support to our conjecture that agency problems are more important in PCFs than in non-PCFs.

Table 5
The impact of corporate governance on the relationship between political connections and cash holdings.

Variable	Common law		SOX		Governance	
	No (1)	Yes (2)	Before (3)	After (4)	Low (5)	High (6)
Political	0.263**	0.161	0.217***	0.138	0.241***	0.172
	(2.062)	(1.531)	(3.443)	(1.401)	(3.152)	(0.604)
MTB	0.176***	0.177***	0.166***	0.187***	0.154***	0.154***
	(20.598)	(12.180)	(25.654)	(13.372)	(22.261)	(11.606)
Size	−0.124***	−0.120***	−0.123***	−0.123***	−0.118***	−0.215***
	(−6.028)	(−7.771)	(−10.215)	(−6.785)	(−7.699)	(−11.843)
CF	0.271	0.380*	0.252	0.522***	0.419*	0.113
	(1.015)	(1.950)	(1.428)	(3.909)	(1.852)	(0.719)
NWK	−0.544**	−0.362	−0.673***	−0.338*	−1.180***	−0.303*
	(−2.405)	(−1.345)	(−4.038)	(−2.005)	(−8.695)	(−2.067)
RDEV	5.814***	5.496***	5.506***	5.465***	6.477***	6.905***
	(13.864)	(9.057)	(10.738)	(15.454)	(5.520)	(6.289)
SVTRADED	−0.064	−0.061	−0.046	0.016	−0.058*	0.000
	(−1.406)	(−0.819)	(−0.651)	(0.278)	(−1.768)	(0.008)
PVCRDGDP	0.190	0.275	0.213	0.213	0.324**	0.438***
	(0.914)	(0.978)	(0.948)	(0.523)	(2.160)	(13.955)
INTERCEPT	−2.021***	−2.241***	−2.272***	−1.910***	−2.134***	−0.653**
	(−9.612)	(−6.540)	(−8.172)	(−6.273)	(−15.483)	(−2.619)
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
IND effects	Yes	Yes	Yes	Yes	Yes	Yes
CNTRY effects	Yes	Yes	Yes	Yes	Yes	Yes
P-value	0.000	0.000	0.000	0.000	0.000	0.000
Adj. R^2	0.298	0.334	0.328	0.321	0.386	0.433
N	26,552	23,567	31,464	34,002	7969	10,024

Note: This table reports pooled OLS estimation results of the following cash-holding model:.
$\text{Log}(\text{CASH}_{it}) = \alpha + \beta_1\ \text{POLITICAL}_{it} + \beta_2\ Z_{it} + \text{FIXED EFFECTS} + \varepsilon$. Where CASH_{it} is the level of cash holding over net assets; POLITICAL_{it} is a dummy variable equal to one if the firm is politically connected and zero otherwise; and Z is a set of firm- and country-level control variables. Fixed effects is a set of dummy variables controlling for the year, industry, and country fixed effects. Models 1 and 2 report the results for subsamples of firms from non-common law and common law countries, respectively. Models 3 and 4 report the results for periods of before and after SOX adoption, respectively. Models 5 and 6 report the results for subsamples of firms with low and high governance, respectively. The full sample includes 50,119 firm-year observations from 31 countries. Beneath each estimate is reported the robust *t*-statistic clustered at the country level. The definitions and data sources for the variables are outlined in Appendix A.

* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

strong legal protection hold less cash than firms located in countries with poor legal protection. Their evidence is consistent with strong legal protection forcing insiders to disgorge cash to shareholders. Kusnadi and Wei, 2011 find that firms' cash flow sensitivity of cash (i.e., the propensity to save cash out of cash flow) is lower in countries with strong shareholder protection. Kalcheva and Lins (2007) report that firms with entrenched managers hold less cash in countries with strong shareholder rights protection compared to countries with poor shareholder protection.

We investigate whether effective corporate governance attenuates the inclination of PCFs to hold more cash. We consider country- and firm-level proxies of corporate governance in Table 5. We start with country-level governance measured using the legal regime. Compared to civil law, common law provides better protection to minority shareholders (La Porta et al., 1998). We estimate in Models 1 and 2 our basic specification (Model 1 of Table 3) in subsamples of civil law and common law countries, respectively. We find that the coefficient on POLITICAL is positive in both subsamples, although this coefficient is only statistically significant in the civil law subsample. This result suggests that common law restrains the ability of PCFs to hoard excess cash.

Then, we consider the Sarbanes–Oxley Act (SOX). In the aftermath of an unprecedented wave of corporate fraud scandals, the U.S introduced the SOX, which contained a set of new and improved

corporate governance standards. Although the provisions of the SOX apply to firms listed on U.S stock exchanges, it appears that several countries have adopted these provisions as part of their regulatory regime.[10] We estimate our Model in equivalent windows that cover the pre-SOX (1999–2001) and post-SOX (2003–2005) periods. We find that POLITICAL has a positive and significant impact on cash holdings only in the pre-SOX period (Model 3 of Table 5). This result suggests that the tightening of corporate governance standards worldwide after the passage of the SOX has constrained the ability of PCFs to hold higher cash reserves.

Next, we turn to firm-level governance. We consider an index of corporate governance developed by Institutional Shareholder Services (ISS) and create in Models 5 and 6 two subsamples: firms with below- and above-median governance index, respectively. Despite the significant sample attrition due to the limited coverage of ISS, we find that the coefficient of POLITICAL is positive and significant only in the below-median governance subsample. This result suggests that as firm-level governance improves, the propensity of PCFs to hold excess cash decreases.

Overall, the results in Table 5 support the idea that effective corporate governance, measured at the firm- and country-levels, mitigates the tendency of PCFs to accumulate excessive cash holdings.

5. Conclusion

Previous studies show that PCFs are more likely to be bailed out in the event of crisis, to benefit from a soft budget constraint, and to have easy access to credit at preferential rates. They are, thus, unlikely to suffer from liquidity constraints as typical firms do and do not need to hold large amounts of cash for either precautionary or transactions costs motives. In addition, holding cash as a takeover defense is highly unlikely outside the United States, where there is barely a takeover market worth talking about. These arguments suggest that PCFs should hold less cash than non-PCFs.

However, an alternative view posits that PCFs are more likely to hoard cash in order to finance their political agenda through either legal or illegal activities. Also, because they reduce political extraction, these firms are more likely than their non-connected peers to hold liquidity. Finally, agency problems are likely to be more acute in PCFs, because of the divergent agendas of connected managers/boards and shareholders, which increases the likelihood of holding more cash. As shown by Jensen (1986) and Stultz (1990), this cash is likely to be used for perquisite consumption (to achieve political goals) to benefit self-interested, utility-maximizing managers at the expense of shareholders. In the case of PCFs, this can be done in all impunity.

Using 50,119 observations from 31 countries over the period from 1997 to 2001, we find that PCFs hold larger cash balances than non-connected peers. We put forth two explanations for this result: Firstly, politicians use PCFs as "cash cows" to advance their political agendas. Indeed, our results suggest that despite their soft budget constraints, PCFs constitute a channel of political extraction by entrenched managers in pursuing political objectives at the expense of the firms' shareholders. PCFs might hold more cash than their non-connected peers and use these funds to finance election campaigns, and to build popular support for the government. To this end, they are also likely to overinvest in unprofitable regions to secure votes for connected politicians, very often in total impunity. Secondly, political connections are conducive to agency problems. Political extraction in PCFs through excessive cash holdings is as detrimental to shareholders as the extraction of private benefits of control in regular firms. The economic cost of such behavior can be tremendous as these inefficiently high levels of cash could be directed toward profitable projects elsewhere in the country, and contribute to higher economic growth. As such, our results suggest that higher cash holdings could be a channel through which political connections are detrimental to economic growth as well.

[10] In his testimony before the U.S. House Committee on Financial Services in 2006, Chairman of the SEC, Christopher Cox states "While competitors in other countries are using Sarbanes–Oxley as a reason for foreign companies to list in their jurisdictions, many of those same countries are adopting provisions of the Act as part of their own regulatory regimes. As we consider the effect of Sarbanes–Oxley on U.S. competitiveness, it is important to keep in mind how broadly many of its tenets have been taken up overseas".

Appendix A.

Variables, definitions, and sources.

Variables	Definitions	Sources
POLITICAL	A dummy variable that is equal to one if the firm is politically connected, and zero otherwise	Faccio (2006)
CASH	The ratio of cash and cash equivalents to net assets, where net assets are total assets minus cash and cash equivalents	Authors calculations based on Worldscope data
MTB	The market to book value of assets	As above
SIZE	The natural logarithm of total assets	As above
CF	The ratio of cash flow to net assets	As above
NWK	The ratio of net working capital to net assets	As above
RDEV	The ratio of research and development expenses to sales	As above
CAPEX	The ratio of capital expenditure divided to net assets	As above
LEVERAGE	The ratio of total debt to total assets	As above
DIVIDEND	The ratio of dividends to net assets	As above
SALES GROWTH	Sales growth of the previous year	As above
PAYOUT	The dividend payout ratio	As above
CAPITAL	A dummy variable that is equal to one if the firm is located in the capital and zero otherwise	As above
OWNERSHIP	Ultimate ownership rights of the largest shareholder	Claessens et al. (2000) and Faccio and Lang (2002)
CONTROL	Ultimate control right of the largest shareholder	As above
SVTRADED	The ratio of stock value traded to GDP	Beck et al. (2000)
PVCRDGDP	The ratio of private credit to GDP	As above

References

Agrawal, A., Knoeber, C.R., 2001. Do some outside directors play a political role? J. Law Econ. 44, 179–198.
Beck, T., Demirguc-Kunt, A., Levine, R., 2000. A new database on financial development and structure. World Bank Econ. Rev. 14, 597–605.
Bertrand, M., Kramaraz, F., Schoar, A., Thesmar, D., 2009. Politicians, Firms and the Political Business Cycle: Evidence from France, Working Paper, University of Chicago.
Boubakri, N., Cosset, J.C., Saffar, W., 2008. Political connections of newly privatized firms. J. Corp. Financial 14, 654–673.
Boubakri, N., Cosset, J.C., Saffar, W., 2012a. The impact of political connections on firms' operating performance and financing decisions. J. Financial Res. 35, 397–423.
Boubakri, N., Guedhami, O., Mishra, D., Saffar, W., 2012b. Political connections and the cost of equity capital. J. Corp. Finance 18, 541–559.
Bushman, R., Piotroski, J., 2006. Financial reporting incentives for conservative accounting: the influence of legal and political institutions. J. Account. Econ. 42, 107–148.
Campbell, J.Y., 1996. Understanding risk and return. J. Political Econ. 104, 298–345.
Caprio, L., Faccio, M., McConnell, J.J., 2013. Sheltering corporate assets from political extraction. J. Law Econ. Org. 29, 332–354.
Chaney, P.K., Faccio, M., Parsley, D.C., 2011. The quality of accounting information in PCFs. J. Acc. Econ. 51, 58–76.
Charumilind, C., Kali, R., Wiwattanakantang, Y., 2006. Connected lending: Thailand before the financial crisis. J. Business 79, 181–218.
Chen, C.J.P., Ding, Y., Kim, C., 2010. High-level politically connected firms, corruption, and analyst forecast accuracy around the world. J. Int. Business Stud. 41, 1505–1524.
Claessens, S., Djankov, S., Lang, L.H.P., 2000. The separation of ownership and control in East Asian corporations. J. Financial Econ. 58, 81–112.
Dinç, S., 2005. Politicians and banks: political influences on government-owned banks in emerging markets. J. Financial Econ. 77, 453–479.
Dittmar, A., Mahrt-Smith, J., Servaes, H., 2003. International corporate governance and corporate cash holdings. J. Financial Quant. Anal. 38, 111–133.
Dittmar, A., Mahrt-Smith, J., 2007. Corporate governance and the value of cash holdings. J. Financial Econ. 83, 599–634.
Faccio, M., Masulis, R., McConnell, J., 2006. Political connections and corporate bailouts. J. Finance 61, 2597–2635.
Faccio, M., 2006. Politically connected firms. Am. Econ. Rev. 96, 369–386.
Faccio, M., 2010. Differences between politically connected firms and non-connected firms: a cross-country analysis. Financial Manage. 39, 905–927.
Faccio, M., Lang, L.H.P., 2002. The ultimate ownership of Western European corporations. J. Financial Econ. 65, 365–395.
Faleye, O., 2004. Cash and corporate control. J. Finance 59, 2041–2060.
Frye, T., Shleifer, A., 1997. The invisible hand and the grabbing hand. Am. Econ. Rev. 87, 354–358.
Goldman, E., Rocholl, J., So, J., 2009. Do politically connected boards affect firm value? Rev. Financial Stud. 22, 2331–2360.
Guedhami, O., Pittman, J., Saffar, W., 2009. Auditor choice in privatized firms: empirical evidence on the role of state and foreign owners. J. Acc. Econ. 48, 151–171.

Hay, J., Shleifer, A., 1998. Private enforcement of public laws: a theory of legal reform. Am. Econ. Rev. 88, 398–403.
Harford, J., 1999. Corporate cash reserves and acquisitions. J. Finance 54, 1969–1997.
Harford, J., Mansi, S.A., Maxwell, W.F., 2008. Corporate governance and firm cash holdings in the U.S. J. Financial Econ. 87, 535–555.
Jensen, M.C., 1986. Agency cost of free cash flow, corporate finance and takeovers. Am. Econ. Rev. 76, 323–329.
Johnson, S., Mitton, T., 2003. Cronyism and capital controls: evidence from Malaysia. J. Financial Econ. 67, 351–382.
Kalcheva, I., Lins, K.V., 2007. International evidence on cash holdings and expected managerial agency problems. Rev. Financial Stud. 20, 1087–1112.
Khwaja, A.I., Mian, A., 2005. Do lenders favor PCFs? Rent provision in an emerging financial market. Quart. J. Econ. 120, 1371–1411.
Kim, C.S., Mauer, D.C., Sherman, A.E., 1998. The determinants of corporate liquidity: theory and evidence. J. Financial Quant. Anal. 33, 335–359.
Kusnadi, Y., Wei, K.C.J., 2011. The determinants of corporate cash management policies: evidence from around the world. J. Corp. Finance 17, 725–740.
La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., 1998. Law and finance. J. Political Econ. 106, 1113–1155.
Leuz, C., Nanda, D., Wysocki, P., 2003. Earnings management and investor protection: an international comparison. J. Financial Econ. 69, 505–527.
Leuz, C., Oberholzer-Gee, F., 2006. Political relationships, global financing, and corporate transparency: evidence from Indonesia. J. Financial Econ. 81, 411–439.
Mikkelson, W.H., Partch, M.M., 2003. Do persistent large cash reserves hinder performance? J. Financial Quant. Anal. 38, 275–294.
Mobarak, A.M., Purbasari, D.P., 2009. Corrupt Protection for Sale to Firms: Evidence from Indonesia, Working Paper, University of Colorado, Boulder.
Myers, S., Majluf, N., 1984. Corporate financing and investment decision when firms have information that investors do not have. J. Financial Econ. 13, 187–221.
Opler, T., Pinkowitz, L., Stulz, R., Williamson, R., 1999. The determinants and implications of corporate cash holdings. J. Financial Econ. 52, 3–46.
Pinkowitz, L., Williamson, R., 2001. Bank power and cash holdings: evidence from Japan. Rev. Financial Stud. 14, 1059–1082.
Pinkowitz, L., Stulz, R., Williamson, R., 2006. Does the contribution of cash holdings and dividends to firm value depend on governance? A cross-country analysis. J. Finance 61, 2725–2751.
Roberts, B., 1990. A dead senator tells no lies: seniority and the distribution of federal benefits. Am. J. Political Sci. 34, 31–58.
Sapienza, P., 2004. The effects of government ownership on bank lending. J. Financial Econ. 72, 357–384.
Shleifer, A., Vishny, R.W., 1998. The Grabbing Hand: Government Pathologies and their Cures. Harvard University Press, Cambridge, MA.
Stulz, R., 1990. Managerial discretion and optimal financing policies. J. Financial Econ. 26, 3–27.