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Government Ownership and Dividend Policy: Evidence from Newly Privatised Firms

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Abstract: In this paper we examine the relationship between government ownership and dividend policy. Using a multinational sample of newly privatised firms from 43 countries, we find strong and robust evidence indicating that dividend payout is negatively related to government ownership, consistent with the predictions of agency theory. We also find that country-level corporate governance affects the relationship between government ownership and dividend policy. Specifically, the adverse effects of government ownership on dividend policy are more pronounced in countries with weak law and order and a lower level of checks and balances. Our results are important, as they show that government ownership, as well as the institutional environment, does in fact affect the critical corporate policies, such as dividend policy, of newly privatised firms.

Keywords: corporate governance, privatisation, dividends, payout policy

1. INTRODUCTION

The impact of corporate governance and law on dividend policy has drawn the interest of numerous scholars. For instance, Adjaoud and Ben-Amar (2010) examine the impact of internal corporate governance on dividend policy in Canada. Ferris et al. (2009) explore the impact of legal origin on the propensity to pay dividends. Alzahrani and Lasfer (2012) examine the role of taxes and shareholder rights across countries in determining dividend policy. In a more recent paper, Brockman et al. (2014), using a sample of firms from 24 different countries, investigate the role of insider trading laws in determining dividend policy. We extend this strand of literature by examining the role of a particular shareholder, namely the state, in determining dividend policy around the world.

We focus on the role of state ownership in determining dividend policy for three main reasons. First, state capitalism appears to be 'the coming trend'. Despite the

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launch of large-scale privatisation programmes over the last three decades worldwide, state-owned companies today account for a large capitalisation of domestic stock markets in the developing world. In developed countries as well, the state is still an important owner of large companies, such as EDF in France (85% state-owned) and Deutsche Telekom in Germany (32% state-owned). Defining a state-owned firm as one in which the state owns more than 10% of the shares (United Nations Conference on Trade and Development, 2011), we can assert that the state is now the most powerful shareholder in the world.

Second, firms controlled by the state have another agency problem, in addition to the manager-shareholder agency problem, namely the conflict of interest between politicians, as controlling shareholders, and the ultimate owners, namely citizens (Shleifer and Vishny, 1997). Managers of these firms are poorly monitored (e.g., Borisova et al., 2012).[1] Additionally, they are evaluated based not on the achievement of value-maximising objectives but rather on the achievement of political objectives set by the government. With this in mind, we examine the impact of state ownership on dividend policy. Specifically, we attempt to answer the following questions: Does state ownership affect dividend policy? Does country-level governance, in particular the extent of legal investor protection and political constraints on the government, affect the relationship between state ownership and dividend policy?

Third, the impact of government intervention on corporate finance has been examined in several papers. For example, Boubakri et al. (2009) provide documentation to show that state ownership is associated with a lower firm value in privatised firms within strategic industries. Ben-Nasr et al. (2012) report evidence suggesting that firms with a higher degree of state ownership are penalised with a higher cost of equity. In the same vein, Borisova and Megginson (2011) find that state ownership is associated with a higher cost of debt. In a more recent work, Donghua et al. (2013) show that government ownership in China is positively associated with investment co-movement. Similarly, Ben-Nasr and Cosset (2014) illustrate that state ownership is associated with lower firm-level stock price variation – that is, stock price informativeness – around the world. We extend this strand of literature by examining the impact of government ownership on an important corporate finance decision, namely dividend distribution.

We use a multinational sample of privatised firms from 43 countries to test our hypothesis regarding the impact of government ownership on dividend policy. We find strong and robust evidence that the dividend level is negatively related to government ownership, even after controlling for standard firm-level and country-level determinants of dividend policy. This finding is consistent with the predictions of agency theory, suggesting that firms with weak governance pay lower dividends because, in such firms, minority shareholders are less likely to be able to force managers to disgorge cash out of the firm. We also find that state ownership affects dividend changes. Specifically, we show that higher degree of state ownership is associated with a lower propensity to pay dividends, a lower probability of increasing dividends, and a higher probability of decreasing dividends. Furthermore, we find that ownership dynamics after privatisation affect dividend payout changes. We test two additional hypotheses on the impact of country-level corporate governance on the

1 Borisova et al. (2012) provide cross-country evidence suggesting that firms with partial state ownership are poorly governed. Indeed, they show that government ownership is associated with a lower quality of corporate governance.

relation between state ownership and dividend payout. Specifically, we examine the impact of legal investor protection and political rights, respectively, on the relation between state ownership and dividend payout. We find that the adverse effects of state ownership on dividend payout are more pronounced in countries with a lower law and order index and fewer checks and balances. These findings are consistent with our findings related to our hypothesis regarding the impact of government ownership on dividend policy and again support the predictions of agency theory, implying that firms with weak country-level governance pay lower dividends.

Our paper contributes to the literature in several ways. First, it extends the literature on dividend policy by examining the role of state ownership in determining dividend policy around the world. In particular, our study is related to those of Bradford et al. (2013) and Su et al. (2014), who examine the impact of state ownership and political connections on dividends in China.[2] These studies show that, in China, SOEs (state-owned enterprises) pay higher dividends than non-SOEs. The results of these studies depend on China's specific conditions. In fact, SOEs in China, who can more easily obtain loans from state-owned banks than non-SOEs, face less pressure on internally generated funds to finance growth, which allows them to pay higher dividends than their non-SOE peers. Our study extends this strand of literature using a multinational sample of firms from developing and developed countries and the higher-power setting of newly privatised firms (NPFs). A worldwide sample allows us to examine how legal and political institutions that vary across countries might affect dividend policy. Furthermore, our study is related to cross-country studies that examine the impact of large shareholders on dividend payout. For example, Ferreira et al. (2010) examine the role of foreign institutional investors in determining dividend policy around the world. Goyal et al. (2014) examine the impact of insider ownership on the payout premium among a sample of privatised firms from 26 different countries. We add to this literature by focusing on the role of a particular shareholder: the state. Indeed, managers of firms with partial state ownership are poorly monitored; hence, they have incentives to retain cash, which allows them to achieve their empire-building objectives. It is therefore important to examine the impact of state ownership on dividend policy.

Second, our paper contributes to the privatisation literature by examining how post-privatisation ownership structure affects the dividend policy of NPFs. Privatisation studies have compared pre-privatisation and post-privatisation dividend policy. They concur that NPFs significantly increase their dividend payouts (Megginson et al., 1994; Boubakri and Cosset, 1998) (i.e., on average, cash dividend payments more than triple as a fraction of revenues). However, they have not yet examined the determinants of dividend policy in NPFs in detail. We attempt to fill this gap by examining the role of post-privatisation ownership structure, particularly state ownership, in determining dividend policy. Our results suggest that privatisation is associated with an increase in dividend payouts only if the government relinquishes control of the privatised firm. Third, we add to the literature on the impact of government intervention on corporate finance (e.g., Wang and Yung, 2011; Donghua et al., 2013; and Ben-Nasr and Cosset, 2014) by focusing on dividend policy. Finally, we contribute to the literature on

2 Our paper is also related to other single-country studies that examine the impact of ownership structure on dividend policy in other parts of the world (e.g., in the United Kingdom, Farinha, 2003 and Khan, 2006; in Australia, Setia-Atmaja et al., 2009; and in Italy, De Cesari, 2012).

the political economy of corporate finance (e.g., Bushman et al., 2004; and Durnev and Fauver, 2010) by examining how country-level political factors condition the relationship between state ownership and dividend policy.

The paper is organised as follows. Section 2 develops our testable hypotheses. Section 3 describes the sample, presents our variables, and provides descriptive statistics. Section 4 presents our main empirical evidence and reports the results of our additional tests. Section 5 reports the results of our analysis of dividend changes. Section 6 presents the results of our analysis of the impact of ownership structure changes after privatisation on the changes in dividend payout. Section 7 reports the results of the impact of country-level governance on the relationship between state ownership and dividend policy. Section 8 presents the results of our analysis of the role of family ownership. Section 9 summarises our findings and offers a conclusion.

2. HYPOTHESES DEVELOPMENT AND RELATED LITERATURE

(i) Literature Review on Dividend Policy

In this section we review the dividend theories related to our hypothesis on the impact of government ownership on dividend policy, namely (i) signalling theory, (ii) agency theory, (iii) life-cycle theory, and (iv) pecking order theory.

(a) Signalling Theory

This theory suggests that dividends are used as a signal to convey information to shareholders about future earnings of the firm (e.g., Bhattacharya, 1979; and Miller and Rock, 1995). This signal is credible only if it is too costly for lower-quality firms to replicate. Several empirical studies report evidence that supports the predictions of signalling theory. For example, Ofer and Siegal (1987) show that dividend announcements are associated with stock price increases while dividend cuts are associated with stock price decreases. In the same vein, Brav et al. (2005), in a survey of US chief financial officers, and Baker et al. (2009), in a survey of chief financial officers from 16 European countries, find evidence suggesting that managers are reluctant to change dividend policy. Consequently, dividend policy is a costly signal that may change investors' perceptions regarding the firm's future earnings prospects.

(b) Agency Theory

Under this theory, the agency problems stemming from the divergence between ownership and control affect dividend policy. In fact, forcing managers to disgorge cash out of the firm reduces the amount of free cash flow that they waste or invest in negative net present value (NPV) projects (Easterbrook, 1984; and Jensen, 1986). La Porta et al. (2000) propose two hypotheses for the relation between agency problems and dividend policy: (i) the outcome hypothesis, and (ii) the substitute hypothesis. The outcome hypothesis posits that firms with strong governance pay higher dividends because minority shareholders in such firms are more likely to be able to force managers to disgorge cash out of the firms. Several empirical studies support this hypothesis. For example, La Porta et al. (2000) show that firms from countries with stronger shareholder protection are more likely to pay dividends. In a more recent paper, Brockman and Unlu (2009) show that firms with a higher level of creditor rights protection are more likely to initiate dividend payments and pay higher dividends. By contrast, the substitute hypothesis suggests that managers in firms with weak corporate governance, in which agency costs are high, pay higher dividends to create a reputation that helps them obtain better contracting terms when raising capital. Consistent with the prediction of this hypothesis, Rozeff (1982) shows that firms with lower insider ownership, in which agency costs are high, pay higher dividends. Similarly, Fenn and Liang (2001) show that firms with high managerial stock ownership pay higher dividends. Recently, Gan et al. (2011) show that firms with good growth prospects from countries with weak legal investor protection pay higher dividends.

(c) Life-Cycle Theory

As we have noted, distributing dividends mitigates agency problems by reducing free cash flows (FCFs) available to managers. The amount of FCFs is determined by the firm's growth stage. At the maturity stage, firms have a limited investment opportunity set (Fama and French, 2001; and DeAngelo and DeAngelo, 2006) and hence generate high FCFs and are able to pay higher dividends. At the growth stage, however, firms have abundant investment opportunities and hence have lower FCFs and tend to distribute lower dividends. Consistent with these predictions, Grullon et al. (2002) show that a firm's dividend payments increase when it moves from the growth stage to the maturity stage. Similarly, DeAngelo et al. (2006) report evidence suggesting that firms with a high earned/contributed capital mix, as measured by retained earnings to total equity, are at the maturity stage, with high accumulated profits, and hence pay higher dividends.

(d) Pecking Order Theory

Under this theory, firms finance their investment opportunities using their internally generated funds before tapping into more costly markets such as debt and equity markets, because of asymmetric information (Myers, 1984). Firms with less information asymmetry costs have more investment opportunities available because the cost of capital decreases with lower information asymmetry costs (Verrecchia, 2001). Thus these firms tend to use internally generated funds to finance investment opportunities instead of distributing dividends. However, firms with more information asymmetry problems, having fewer investment opportunities available, tend to distribute higher dividends.

(ii) Government Ownership and Dividend Policy

Privatised firms are characterised by the presence of the government as a particular shareholder, even several years after privatisation (e.g., Bortolotti and Faccio, 2009; and Boubakri et al., 2011). The predictions of the aforementioned dividend theories lead to two potential scenarios. On the one hand, signalling theory suggests that paying dividends will indicate to the shareholders (i.e., citizens) how well the firm is performing. Therefore, in firms with partial state ownership, paying dividends will indicate to the shareholders that the privatised firm is performing well. Dividends can thus act, as with traditional financial theory, as a signal of the privatised firm's quality.

The substitute hypothesis also suggests a positive relationship between state ownership and dividend distribution. In fact, the substitute hypothesis suggests that firms with higher agency costs tend to pay higher dividends in order to build a reputation and thus secure better contracting terms when they tap into financial markets to raise capital. Hence, paying dividends is more attractive in firms with partial state ownership, characterised by higher agency costs.

The life-cycle hypothesis suggests that firms at the maturity stage generate significantly more internal funds than the available investment opportunities and tend to pay dividends in order to reduce FCFs available to managers, hence mitigating agency problems. NPFs are mature and have a long operating history. They also generally benefit from soft budget constraints. Several studies indeed show that firms with partial state ownership have easier access to government funds and an implicit guarantee of government bailout in case of distress. Similarly, firms with political ties are shown to have relatively easy access to debt financing (e.g., Chahrumilind et al., 2006; Faccio, Masulis and McConnell, 2006; and Chaney et al., 2011).[3] Therefore, life-cycle theory suggests that firms with partial state ownership may pay higher dividends since they face less pressure on internally generated funds to finance growth.

Pecking order theory suggests that firms with higher information asymmetry costs, having a higher cost of capital and hence fewer investment opportunities available, tend to pay higher dividends. Partially privatised firms are less transparent (e.g., Guedhami et al., 2009; and Ben-Nasr et al., 2015) and are therefore penalised with a higher cost of equity (Ben-Nasr et al., 2012), and hence have fewer investment opportunities. Consequently, these firms are more likely to use internally generated funds to distribute dividends.

Based on these arguments, our first hypothesis can be stated as follows:

H1a: The dividend payout ratio is positively related to state ownership, *ceteris paribus.*

On the other hand, the outcome hypothesis predicts that the shareholders of firms with weak corporate governance are less able to force managers to disgorge cash through dividends, thus keeping more cash within the firm to be used by managers for expropriation purposes. State ownership is usually seen as a source of inefficiency and value destruction. In fact, the inefficiencies of SOEs are attributed to the separation of ownership and control. As noted earlier, the ultimate owners of state-controlled firms are citizens, while the controlling shareholders are the politicians (Shleifer and Vishny, 1997). The managers of these firms are not subject to external monitoring by markets such as financial, good and labour markets and are not evaluated by the government based on the achievement of value-maximising objectives. Rather, they are evaluated by politicians, who are interested in staying in power for a longer period, based on the

3 In fact, Faccio et al. (2006) find that politically connected firms are more likely to be bailed out than their non-politically connected peers. In the same vein, Chahrumilind et al. (2006) show that Thai firms with connections to banks and politicians obtained more long-term loans and needed less collateral during the period preceding the Asian financial crisis of 1997 compared to firms without such connections. Similarly, firms with political ties are shown to have relatively easy access to debt financing. Chaney et al. (2011) report evidence suggesting that politically connected firms with a lower earnings quality are not penalised with a higher cost of debt; in fact, they find that the cost of debt of politically connected firms is lower than the cost of debt of comparable non-politically connected peers.

achievement of political objectives. One of the objectives could be maintaining a high level of employment and promoting regional development by locating production in politically desirable rather than economically attractive regions (Dewenter and Malatesta, 2001; and Megginson and Netter, 2001). In such a case, managers, who are poorly monitored in state-controlled firms (e.g., Borisova et al., 2012), have incentives to keep cash within the firm for their own benefit as this facilitates empire-building. Employees may also benefit from this empire-building because it creates employment opportunities, and possibly bonuses. Based on this view, the alternative hypothesis is as follows:

H1b: The dividend payout ratio is negatively related to state ownership, *ceteris paribus.*

(iii) Country-Level Governance, State Ownership and Dividend Policy

Legal investor protection affects the dividend policy of a firm. The outcome hypothesis suggests that firms operating in countries with strong investor protection pay higher dividends (La Porta et al., 2000), which helps to reduce FCFs, hence mitigating agency problems. Given this observation, we expect that the positive (negative) relation between state ownership and dividends is stronger (weaker) in countries with stronger investor protection.

However, the substitute hypothesis suggests that firms from countries with weak investor protection pay higher dividends to create a reputation that helps them obtain better contractual terms when raising capital (Gan et al., 2011).[4] Given this argument, the positive (negative) relation between state ownership and dividends is expected to be stronger (weaker) in countries with weaker investor protection.

Based on the above discussion, our hypothesis for the impact of legal investor protection on the relationship between state ownership and dividends is non-directional:

H2: The relationship between state ownership and dividend payout of NPFs depends on legal investor protection.

Political institutions could also condition the relationship between state ownership and dividend policy. Specifically, the impact of state ownership on dividend policy is expected to vary with political constraints on the government. Indeed, under tight political constraints, government ad-hoc political interference is less likely, so policy changes that might affect the post-privatisation valuation of the firms or that might result in a modification of the shareholders' control and ownership rights are less likely to be observed. As argued by Durnev and Fauver (2010), the accountability of the government is higher under stronger political constraints, and thus its potential predation and expropriation behaviour is more mitigated.

The outcome hypothesis suggests that firms should distribute higher dividends in countries with tighter political constraints on the government (i.e., stronger country-level corporate governance). Therefore, we expect that the positive (negative) relation

4 La Porta et al. (2000, p. 7) put forward the following argument: 'A reputation for good treatment of shareholders is worth the most in countries with weak legal protection of minority shareholders, who have little else to rely on. As a consequence, the need for dividends to establish a reputation is the greatest in such countries. In countries with stronger shareholder protection, in contrast, the need for a reputational mechanism is weaker, and hence so is the need to pay dividends. This view implies that, other things equal, dividend payout ratios should be higher in countries with weak legal protection of shareholders than in those with strong protection.'

between state ownership and dividends is stronger (weaker) in countries with tighter political constraints on the government. However, the substitute hypothesis is that firms from countries with fewer political constraints on the government, where the risk of government predation is higher, should pay higher dividends for reputational reasons. Therefore, we expect that the positive (negative) relation between state ownership and dividend payout is stronger (weaker) in countries with fewer political constraints on the government.

Based on these arguments, our hypothesis concerning the impact of political constraints on the relationship between state ownership and dividends is non-directional:

H3: The relationship between state ownership and dividend payout of NPFs depends on the political constraints on the government.

3. SAMPLE AND DESCRIPTIVE STATISTICS

(i) Sample

To investigate the impact of government ownership on dividend policy, we compile a sample of 262 privatised firms from 43 countries. We use Ben-Nasr et al.'s (2012) sample firms, except for firms operating in the financial sector. We update it using several data sources, including the *World Bank* privatisation database for developing countries, the *Privatisation Barometer* for OECD countries, and Megginson's (2003) updated list of privatised firms in developed and developing countries.[5] We add dividend and financial data and update ownership data to cover a period of up to nine years surrounding privatisation (i.e., three years before privatisation to five years after privatisation, including the privatisation year). Dividend and financial data are updated using *Worldscope* and annual reports. Ownership data are updated using *Osiris* and annual reports.[6]

Table 1 provides some descriptive statistics for our sample of 262 firms from 43 countries privatised over the period 1985 to 2007. We conduct our empirical analysis over a period of nine years (i.e., from three years before privatisation to five years after, including the privatisation year), so that our sample period begins in 1982 and ends in 2012.[7] The 262 firms are diversified across geographical regions as categorised by the World Bank. Specifically, 6.49% are from Africa and the Middle East, 32.44% from East and South Asia and the Pacific, 7.25% from Latin America and the Caribbean, and 53.82% from Europe and Central Asia. Our sample firms are also diversified

5 These databases represent the transaction level. As a firm may be privatised in tranches, our sample includes some firms in which the government has already begun privatisation (i.e., state ownership is less than 100%) but which are not fully privatised (i.e., state ownership is higher than 0%). In such a case, the privatisation date used is not the date when privatisation was first begun but the date of the privatisation transaction that appears in the privatisation sources that we use (i.e., Ben-Nasr et al., 2012, the *World Bank* privatisation database, the *Privatisation Barometer*, and Megginson's [2003] updated list of privatised firms). That is why, in some of the firms included in our sample, state ownership is lower than 100% in the pre-privatisation period.

6 We control for the market-to-book ratio in all our specifications. Therefore, our sample includes only privatised companies that become listed companies.

7 Our full sample includes 1,008 firm-year observations. We lose several observations because of missing financial and ownership data. This results in an unbalanced panel. To ensure that our findings are not the result of the changes in our sample composition over time, we re-estimate our basic model on a balanced panel. Balanced panel estimation substantially reduces our sample size. The unreported results (due to space limitations) show that our main evidence remains robust.

Table 1
Description of the Sample of Newly Privatised Firms

Distribution of Privatisations					
By year			*By industry*		
Year	*Number*	*Percentage*	*Industry*	*Number*	*Percentage*
1985	1	0.38	Basic industries	46	17.56
1986	1	0.38	Capital goods	11	4.20
1987	5	1.91	Construction	6	2.29
1988	2	0.76	Consumer durables	22	8.40
1989	5	1.91	Food/tobacco	4	1.53
1990	9	3.44	Leisure	7	2.67
1991	7	2.67	Petroleum	26	9.92
1992	13	4.96	Services	7	2.67
1993	7	2.67	Textiles/trade	7	2.67
1994	21	8.02	Transportation	37	14.12
1995	19	7.25	Utilities	89	33.97
1996	20	7.63	Total	262	100
1997	24	9.16	*By region*		
1998	18	6.87	*Region (countries)*	*Number*	*Percentage*
1999	21	8.02	Africa and the Middle East (6)	17	6.49
2000	20	7.63	East and South Asia and the Pacific (14)	85	32.44
2001	12	4.58	Latin America and the Caribbean (4)	19	7.25
2002	10	3.82	Europe and Central Asia (19)	141	53.82
2003	10	3.82	Total (43)	262	100
2004	14	5.34	*By legal origin*		
2005	9	3.44	*Category (countries)*	*Number*	*Percentage*
2006	7	2.67	Common Law (12)	75	28.63
2007	7	2.67	Civil Law (31)	187	71.37
Total	262	100	Total (43)	262	100

Notes:
This table provides some descriptive statistics for the sample of 262 privatised firms used to investigate the impact of state ownership on dividend policy. We report the distribution of privatisation in the countries included in the sample by year, industry, region, and legal origin.

across legal origin. Indeed, 71.37% of the firms are located in civil law countries and 28.63% in common law countries. The geographical and legal diversifications are important as they also involve different political and institutional environments that determine dividend policy. As shown in Table 1, our sample is diversified across industries, with 8.40% in consumer durables, 9.92% in the petroleum sector, 17.56% in basic industries, 14.12% in the transportation sector, and 33.97% in the utility sector. Furthermore, the vast majority (68.32%) of the privatisation transactions in our sample occurred during the period 1990 to 2000.[8]

8 Our sample firms show patterns similar to those for privatised firms listed on *Worldbank*, implying that our sample is representative of the underlying population. The distribution of our sample firms by legal origin is comparable to that of *Worldbank*. Indeed, 65% of the privatised firms listed on *Worldbank* come from civil law countries and 35% come from common law countries. Additionally, we note that 80% of the privatisation transactions on the *Worldbank*'s list occurred in the 1990s.

(ii) Dependent Variable

We collect data on dividends mainly using annual reports and *Worldscope*. We examine the impact of state ownership on dividend payout ratio. We use the ratio of cash dividends over total assets as a proxy for payout ratio (*DIV/TA*). To ensure the robustness of our findings, we use the following alternative proxies for payout ratio: (i) the ratio of cash dividends over total sales (*DIV/SALES*), the ratio of cash dividends over cash flow (*DIV/CF*), and the ratio of cash dividends over net income (*DIV/NI*). Panel A of Table 2 reports descriptive statistics on the dividend variables for the pre-privatisation period (i.e., the three years before privatisation). Panel B reports descriptive statistics on the dividend variables for the post-privatisation period (i.e., the five years following privatisation). As can be observed, all of our proxies for dividend payout (i.e., *DIV/TA*, *DIV/SALES*, *DIV/CF* and *DIV/NI*) are significantly higher in the post-privatisation period than in the pre-privatisation period, suggesting that dividends increased with privatisation, confirming the findings of prior research (e.g., Megginson et al., 1994; Boubakri and Cosset, 1998; and von Eije and Megginson, 2008).[9] We perform tests for differences in means and medians pre- and post-privatisation for our main proxy for dividend payout, namely *DIV/TA*. The unreported results (due to space limitations) show that the mean and the median of *DIV/TA* are significantly higher at the 1% level for the post-privatisation sub-sample when compared to the mean and the median of *DIV/TA* for the pre-privatisation sub-sample. These findings remain qualitatively unchanged when we use *DIV/SALES*, *DIV/CF* or *DIV/NI* as a proxy for dividend payout.

(iii) Ownership Structure

We hand-collect data on the ownership structure of our sample firms, mainly by relying on annual reports. We use additional sources, such as *Worldscope*, *Osiris*, *Moody's International*, Kompass Egypt Financial Year Book, and the Asian and Brazilian handbooks. Furthermore, we exploit information about the identity of major shareholders, namely the state and foreigners, provided by Boubakri et al. (2005), Megginson (2003), and Bortolotti and Siniscalco (2004). The ownership data cover a period of up to nine years (i.e., from three years before privatisation to five years after, including the privatisation year). Panel A (B) of Table 2 reports descriptive statistics on shareholder identity for the pre-privatisation (post-privatisation) period.[10] We observe that the stake held

9 As can be seen in Panel A of Table 2, dividend payout is different from zero in the pre-privatisation literature, in line with the privatisation literature (e.g., Megginson et al., 1994; and Boubakri and Cosset, 1998), suggesting that SOEs may pay dividends. The dividends of SOEs should be paid to the Ministry of Finance (Kuijs et al., 2005) and may be used to finance investment consumption (i.e., invested in education and health care) or invested in other companies and projects. Paying dividends allows SOEs – for example, in China – to channel their profits to other companies and projects and consumption through the financial markets. Therefore, it may lead to greater scrutiny of the allocation of capital and enhance the corporate governance of SOEs (Kuijs et al., 2005). However, managers of SOEs may want to retain some of the generated profits. This will allow them to reward better-performing employees, which may also enhance the efficiency of the SOE. Evidence from Kuijs et al. (2005) suggests that some large publicly listed SOEs in China have a 20–60% dividend payout. Evidence from the same note suggests that SOEs from OECD countries do pay dividends. For instance, 'SOE boards in Denmark, Finland, Norway, and Sweden set multi-year payout targets – for example, 33 percent, 50 percent, or 67 percent of earnings projected over an entire business cycle' (Kuijs et al., 2005, p. 6)

10 As can also be seen in Panel A of Table 2, we drop observations for which state ownership (*STATE*) is equal to zero in the pre-privatisation period. The shares of the state might be transferred to another

Table 2
Descriptive Statistics

Variable	*Mean*	*Median*	*SD*	*Min*	*Max*
Panel A: Pre-privatisation Period					
DIV/TA	0.014	0.008	0.017	0.000	0.123
DIV/SALES	0.026	0.013	0.042	0.000	0.405
DIV/CF	0.129	0.109	0.135	0.000	0.796
DIV/NI	0.309	0.258	0.334	0.000	2.396
STATE	0.742	0.840	0.270	0.132	1.000
FOR	0.146	0.049	0.210	0.000	1.000
SIZE	14.465	14.644	1.485	10.556	18.235
LEVERAGE	0.203	0.164	0.179	0.000	0.922
TA_GROWTH	0.461	0.046	2.233	−1.000	24.376
MTB	2.326	1.400	3.241	0.010	28.049
PROFITABILITY	0.153	0.115	0.175	−0.798	0.882
CASH	0.091	0.042	0.112	0.000	0.514
RE/TE	0.133	0.156	0.549	−5.182	1.082
STDEV_ROA	0.085	0.025	0.167	0.002	0.982
LNGDPC	8.806	9.745	1.394	5.974	10.269
Panel B: Post-privatisation Period					
DIV/TA	0.026	0.016	0.041	0.000	0.515
DIV/SALES	0.043	0.024	0.053	0.000	0.332
DIV/CF	0.193	0.167	0.179	0.000	1.978
DIV/NI	0.430	0.348	0.427	0.000	2.925
STATE	0.367	0.400	0.283	0.000	1.000
FOR	0.187	0.110	0.207	0.000	1.000
SIZE	14.427	14.495	1.656	8.388	18.365
LEVERAGE	0.172	0.146	0.139	0.000	0.739
TA_GROWTH	0.306	0.073	1.458	−0.991	24.648
MTB	2.236	1.732	2.081	0.000	27.280
PROFITABILITY	0.172	0.132	0.147	−0.376	0.980
CASH	0.101	0.064	0.108	0.000	0.726
RE/TE	0.270	0.214	0.295	−1.579	1.375
STDEV_ROA	0.052	0.021	0.114	0.001	0.982
LNGDPC	8.999	9.823	1.310	5.817	10.592
Panel C: Full Sample					
DIV/TA	0.023	0.014	0.037	0.000	0.515
DIV/SALES	0.039	0.020	0.051	0.000	0.405
DIV/CF	0.178	0.155	0.171	0.000	1.978
DIV/NI	0.401	0.329	0.410	0.000	2.925
STATE	0.465	0.505	0.324	0.000	1.000
FOR	0.178	0.100	0.208	0.000	1.000
SIZE	14.437	14.532	1.612	8.388	18.365
LEVERAGE	0.180	0.155	0.151	0.000	0.922
TA_GROWTH	0.346	0.066	1.694	−1.000	24.648
MTB	2.259	1.618	2.435	0.000	28.049
PROFITABILITY	0.167	0.128	0.155	−0.798	0.980
CASH	0.098	0.057	0.109	0.000	0.726
RE/TE	0.234	0.196	0.382	−5.182	1.375

(*Continued*)

Table 2
Continued

Variable	*Mean*	*Median*	*SD*	*Min*	*Max*
Panel C: Full Sample					
STDEV_ROA	0.061	0.024	0.131	0.001	0.982
LNGDPC	8.949	9.779	1.334	5.817	10.592

Notes:
This table presents descriptive statistics for the regression variables used in our multivariate analysis to examine the impact of state ownership on dividend policy for a sample of 262 privatised firms from 43 countries. *DIV/TA* is the ratio of cash dividends over total assets. *DIV/SALES* is the ratio of cash dividends over total sales. *DIV/CF* is the ratio of cash dividends over cash flow. Cash flow is calculated as net income plus depreciation. *DIV/NI* is the ratio of cash dividends over net income. *STATE* is the stake held by the government. *FOR* is the stake held by foreign investors. *SIZE* is the logarithm of the firm's total sales in US dollars. *LEVERAGE is* the ratio of long-term debt over total assets. *TA_GROWTH* is the sales growth for the year. *MTB* is the market-to-book ratio. *PROFITABILITY* is the ratio of EBIT over net sales. *CASH* is the ratio of cash and short-term investments over total assets. *RE/TE* is the ratio of retained earnings over common equity. *STDEV_ROA* is the standard deviation of return on assets. *LNGDPC* is the natural logarithm of GDP per capita. Data sources for the explanatory variables are outlined in the Appendix.

by the state declines after privatisation. Indeed, average (median) state ownership decreases from 74.2% (84.0%) in the pre-privatisation period to 36.7% (40.0%) in the post-privatisation period. These findings support the evidence in Bortolotti and Faccio (2009) and Boubakri et al. (2011) suggesting that the government is reluctant to relinquish control and remains a large shareholder even several years after privatisation.[11] As for foreign ownership, we observe that the average (median) foreign ownership increases from 14.6% (4.9%) in the pre-privatisation period to 18.7% (11.0%) in the post-privatisation period, indicating that a part of the relinquished state ownership is absorbed by foreign shareholders. We perform tests for differences in means and medians pre- and post-privatisation for state ownership and foreign ownership. The unreported results show that the mean and the median of *STATE* (*FOR*) are significantly lower (higher) at the 1% level for the post-privatisation sub-sample when compared to the values for the pre-privatisation sub-sample.

government agency, but that does not really represent privatisation. We also drop, for the same reason, observations for which *STATE* is equal to 100% in the post-privatisation period.

11 The principal reason behind partial sales and government control observed in privatised firms is that full privatisation is costly. In fact, in fully privatised firms government loses its influence on the firm's decisions and hence on the country's overall direction (Boubakri et al., 2013). Furthermore, full privatisation has distributional effects, as it 'involves a transfer of wealth from insiders of state-owned enterprises (such as employees) to outsiders, especially shareholders' (Bortolotti and Pinotti, 2008, p. 335). In a recent publication, Boubakri et al. (2013) show that strong labour protection at the country level delays full privatisation, suggesting that stringent employment laws increase the wealth transfer concerns and the political cost of privatisation. Empirical evidence also shows that political institutions determine residual state ownership and the time needed for full privatisation. Specifically, it has been shown that stronger political constraints are associated with higher residual state ownership (Boubakri et al., 2011) and delay full privatisation (Boubakri et al., 2013). These findings are consistent with the conjecture that in political systems with a higher degree of checks and balances, a large number of veto players are involved in the process, so it is more difficult to reach consensus about reforms, and this situation may delay full privatisation.

(iv) Control Variables

Following the recent literature on dividend policy (e.g., Ferreira et al., 2010; Shao et al., 2010; and Alzahrani and Lasfer, 2012), we include several control variables. First, we control for firm size using the natural logarithm of the firm's total sales in US dollars (*SIZE*). We expect that the coefficient of *SIZE* is positive, indicating that larger firms are more able to raise capital in financial markets and hence distribute dividends. Second, we control for leverage using the ratio of long-term debt to total assets (*LEVERAGE*). We expect a negative sign for *LEVERAGE*, indicating that firms with higher bankruptcy risk distribute lower dividends. Third, we control for growth using annual total assets growth (*TA_GROWTH*) and the market-to-book ratio (*MTB*). We expect a negative sign for *TA_GROWTH* and *MTB*, indicating that firms with high growth pay a lower level of dividends. Fourth, we control for firm profitability using the ratio of *earnings before interest and taxes* (*EBIT*) over net sales. Profitable firms distribute a high level of dividends (e.g., von Eije and Megginson, 2008; and Shao et al., 2010).

Fifth, we control for cash holdings using the ratio of cash and short-term investments over total assets (*CASH*). We expect a positive sign for *CASH* as firms that have greater cash holdings distribute more dividends (e.g., Shao et al., 2010). Sixth, we control for the firm's life-cycle stage using the ratio of retained earnings over common equity (*RE/TE*). Firms with a higher *RE/TE* are mature firms that have large cumulative profits and that are therefore self-financing. Thus, firms with higher retained earnings over common equity ratio distribute a higher level of dividends (DeAngelo and DeAngelo, 2006). Seventh, we control for business risk, using the standard deviation of return on assets (*STDEV_ROA*). We expect a negative sign for *STDEV_ROA*, indicating that firms with higher business risk distribute a lower level of dividends (e.g., Alzahrani and Lasfer, 2012). Finally, we control for the level of economic development using the natural logarithm of the GDP per capita (*LNGDPC*), which may affect dividend policy (Ferreira et al., 2010). The Appendix presents the definition and the data sources of all regression variables and Table 2 reports descriptive statistics on the variables used in our multivariate analysis of state ownership and dividend policy.

4. GOVERNMENT OWNERSHIP AND DIVIDEND POLICY

(i) Univariate Analysis

We perform univariate tests to investigate the impact of state ownership on the payout ratio. Table 3 reports the results of our mean and median comparisons of *DIV/TA* as well as *DIV/SALES*, *DIV/CF* and *DIV/NI* between sub-samples of high and low state ownership. As can be observed, the mean (median) of *DIV/TA* is significantly lower at the 1% level for the sub-sample of firms with high state ownership. This finding is consistent with H1b and suggests that state ownership is associated with lower dividend payout. The result remains qualitatively unchanged when we use *DIV/SALES*, *DIV/CF* or *DIV/NI* as a proxy for dividend payout.

Table 4 provides Pearson correlation coefficients for the regression variables. The correlation coefficients that are significant at the 1% level are shown in bold. Consistent with our predictions in H1b, we find that *STATE* is significantly and negatively correlated at the 1% level with *DIV/TA*, *DIV/SALES*, *DIV/CF* and *DIV/NI*. As for the control variables, we report several significant correlations that are consistent

Table 3
Univariate Tests

	Mean			*Median*		
Variable	*High*	*Low*	*T-statistic*	*High*	*Low*	*Z-statistic*
DIV/TA	0.017	0.028	-4.432^{***}	0.011	0.016	-4.026^{***}
DIV/SALES	0.032	0.045	-3.845^{***}	0.018	0.023	-4.081^{**}
DIV/CF	0.149	0.201	-4.689^{***}	0.127	0.149	-4.626^{***}
DIV/NI	0.360	0.434	-2.736^{***}	0.275	0.364	-3.502^{***}

Notes:
This table compares our proxies for dividend payout between high and low sub-samples of state ownership. The full sample comprises 262 privatised firms from 43 countries. *DIV/TA* is the ratio of cash dividends over total assets. *DIV/SALES* is the ratio of cash dividends over total sales. *DIV/CF* is the ratio of cash dividends over cash flow. Cash flow is calculated as net income plus depreciation. *DIV/NI* is the ratio of cash dividends over net income. Data sources for the explanatory variables are outlined in the Appendix. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively.

with our predictions. We generally report lower correlation coefficients between state ownership and our control variables.

(ii) Multivariate Analysis

To test the relationship between the stake held by the state in privatised firms and the dividend level, we estimate several specifications of the following model:

$$DIV_{i,j,t} = \delta_0 + \delta_1 STATE_{i,j,t} + \delta_2 CONTROLS_{i,j,t} + \gamma_j + \gamma_t + \varepsilon_{i,j,t} \tag{1}$$

where $DIV_{i,j,t}$ is the ratio of cash dividends over total assets, $DIV/TA_{i,j,t}$; or the ratio of cash dividends over cash flow $DIV/CF_{i,j,t}$; or the ratio of cash dividends over total sales $DIV/SALES_{i,j,t}$; or the ratio of cash dividends over net income $DIV/NI_{i,j,t}$. $STATE_{i,j,t}$ is the stake held by the state in firm i from country j at time t, while $CONTROLS_{i,j,t}$ comprises the set of firm- and country-level variables (*SIZE, LEVERAGE, TA_GROWTH, MB, PROFITABILITY, CASH, RE/TE, STDEV_ROA* and *LNGDPC*). γ_j are country dummies controlling for unobserved differences within countries that may affect dividend policy. γ_t are year dummies controlling for year-fixed effects. $\varepsilon_{i,t,j}$ is the error term.[12]

In Model (1), we examine the impact of government ownership on the dividend level as proxied by the ratio of cash dividends over total assets (*DIV/TA*). We find a

12 We are aware of the heterogeneity issue due to the cross-country nature of our sample, which may affect our results. In fact, the context of, and reasons behind, privatisation vary from one country to another. For example, SOEs in China, characterised by the dominance of state-owned banks in the economy, can easily obtain loans from state-owned banks when compared to non-SOEs. Hence, SOEs distribute higher dividends than non-SOEs, because they face less pressure on internally generated funds to finance growth. Consistent with this point of view, we find that the average and median dividend payouts are statistically lower only for firms with higher state ownership situated in countries with lower state ownership of banks. In these countries, firms with partial state ownership cannot easily obtain loans from state-owned banks and face more pressure on internally generated funds to finance growth, and hence distribute lower dividends. We use, from La Porta et al. (2002), the percentage of the banking assets that are owned by the state as a proxy for state ownership of banks. We address the heterogeneity issue using country fixed effects. Indeed, we estimate all regressions using country fixed effects, which allows us to control for the unobserved differences within countries that may affect dividend policy.

Table 4

Pearson Correlation Coefficients

Variable	*DIV/ TA*	*DIV/ SALES*	*DIV/ CF*	*DIV/ NI*	*STATE*	*SIZE*	*LEVERAGE*	*TA_GROWTH*	*MTB*	*PROFITABILITY*	*CASH*	*RE/ TE*	*STDEV_ROA*
DIV/SALES	**0.788**												
DIV/CF	**0.692**	**0.682**											
DIV/NI	**0.460**	**0.449**	**0.558**										
STATE	**−0.179**	**−0.162**	**−0.199**	**−0.109**									
SIZE	−0.077	**−0.154**	**−0.092**	**0.091**	0.058								
LEVERAGE	−0.207	−0.067	**−0.200**	−0.047	0.183	0.113							
TA_GROWTH	0.063	0.057	0.040	0.006	0.019	−0.051	−0.043						
MTB	**0.147**	**0.092**	0.050	−0.032	0.035	−0.061	−0.057	−0.022					
PROFITABILITY	**0.253**	**0.554**	**0.229**	0.001	−0.013	**−0.239**	**0.102**	**0.101**	**0.143**				
CASH	**0.297**	**0.237**	**0.204**	−0.024	−0.020	**−0.191**	**−0.255**	−0.022	**0.191**	**0.193**			
RE/TE	**0.126**	**0.142**	**0.167**	**0.120**	**−0.194**	**0.226**	**−0.156**	−0.058	**0.109**	**0.245**	0.037		
STDEV_ROA	−0.033	0.046	−0.018	−0.029	0.071	0.010	−0.058	**0.197**	**−0.085**	**0.107**	−0.016	**−0.130**	
LNGDPC	**−0.120**	−0.062	−0.041	**0.118**	**−0.104**	**0.423**	0.036	−0.058	0.042	**−0.217**	**−0.199**	**0.221**	**−0.137**

Notes:
This table shows Pearson pairwise correlation coefficients between the regression variables for a sample of 262 firms privatised in 43 countries. Boldface indicates statistical significance at the 1% level. The statistics are reported for a period of up to nine years surrounding privatisation (i.e., from three years before privatisation to five years after, including the privatisation year). *DIV/TA* is the ratio of cash dividends over total assets. *DIV/SALES* is the ratio of cash dividends over total sales. *DIV/CF* is the ratio of cash dividends over cash flow. Cash flow is calculated as net income plus depreciation. *DIV/NI* is the ratio of cash dividends over net income. *STATE* is the stake held by the government. *SIZE* is the logarithm of the firm's total sales in US dollars. *LEVERAGE is* the ratio of long-term debt over total assets. *TA_GROWTH* is the sales growth for the year. *MTB* is the market-to-book ratio. *PROFITABILITY* is the ratio of EBIT over net sales. *CASH* is the ratio of cash and short-term investments over total assets. *RE/TE* is the ratio of retained earnings over common equity. *STDEV_ROA* is the standard deviation of return on assets. *LNGDPC* is the natural logarithm of GDP per capita. Data sources for the explanatory variables are outlined in the Appendix.

negative and significant coefficient for *STATE* at the 1% level, consistent with H1b. This is also economically highly significant. In fact, a one standard deviation increase in state ownership is associated with a 19.7% decrease in *DIV/TA*.[13] This finding is consistent with the outcome hypothesis. We can interpret it as implying that managers of partial state ownership firms, who are poorly monitored, tend to keep cash within the firm for their own benefit because it may be used for empire-building purposes. Employees may also benefit from this empire-building, because it creates employment opportunities, and possibly bonuses.

In Model (2) we follow a common practice in dividend studies (e.g., Alzahrani and Lasfer, 2012) and exclude non-dividend payers. The results show that the coefficient for *STATE* is still negative and significant at the 1% level, corroborating our earlier finding. *STATE* is also still economically highly significant. Indeed, a one standard deviation increase in state ownership is associated with a 22.5% decrease in dividend payout. Our dependent variable is censored at zero, as dividends cannot be negative. To address this issue, we run a Tobit model as specified in equation (1). The results reported in Model (3) show that the coefficient for *STATE* remains negative and statistically significant at the 1% level, supporting our earlier finding.

We test the robustness of our findings as they pertain to the use of alternative proxies for government intervention. First, we replace *STATE* in our basic regressions (Models 1–3 of Table 5) with *CONTROL*, a dummy variable equal to 1 if the state holds more than 50% of the shares of a privatised firm and 0 otherwise. The results for the full sample are reported in Model (4). We find that the coefficient for *CONTROL* is negative and significant at the 1% level, implying that the dividend payout ratio is lower when the government maintains control of the privatised firm, supporting our earlier findings. The magnitude of the coefficient is economically large. In fact, moving *CONTROL* from 0 to 1 (i.e., from a non-government-controlled firm to a government-controlled firm) decreases *DIV/TA* by 0.009, which is a 39.1% decrease relative to the mean value of *DIV/TA*. The results for the sub-sample of dividend payers are reported in Model (5). As can be observed, the coefficient for *CONTROL* is negative and significant at the 1% level, corroborating our earlier finding. *CONTROL* is still economically highly significant. Indeed, moving *CONTROL* from 0 to 1 decreases *DIV/TA* by 0.010, which is a 43.5% decrease relative to the mean value of *DIV/TA*. Finally, the results for the Tobit model are reported in Model (6). The results show that *CONTROL* is still negative and significant at the 1% level, supporting our earlier findings.

Second, we replace *STATE* with *GOLDEN*. *GOLDEN* is a dummy variable equal to 1 if the government maintains control of the privatised firm and 0 otherwise.[14] We collect data on golden shares using the following sources: (i) Megginson (2003), (ii) Bortolotti and Siniscalco (2004), and (iii) Boubakri et al. (2009). The results for the

13 The average value of *DIV/TA* for the full sample is 0.023. The coefficient for *STATE* is equal to −0.014. The standard deviation of *STATE* for the full sample is 0.324. A one standard deviation increase in *STATE* is associated with a 19.7% decrease in *DIV/TA* $((-0.014*0.324)/0.023) = -19.7\%)$.

14 Following Bortolotti and Faccio (2009, p. 2918), we define golden share as 'the system of the State's special powers and statutory constraints on privatised companies. Typically, special powers include (i) the right to appoint members in corporate boards; (ii) the right to consent to or to veto the acquisition of relevant interests in the privatised companies; (iii) other rights such as to consent to the transfer of subsidiaries, dissolution of the company, ordinary management, etc. The above mentioned rights may be temporary or not. On the other hand, statutory constraints include (i) ownership limits; (ii) voting caps; (iii) national control provisions.'

Table 5
State Ownership and Dividend Payout

		STATE			*CONTROL*			*GOLDEN*		
Variable	*Prediction*	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*
STATE	?	−0.014	−0.016	−0.022						
		(−3.520)***	(−3.764)***	(−3.684)***						
CONTROL	?				−0.009	−0.010	−0.008			
					(−3.497)***	(−3.169)***	(−2.686)***			
GOLDEN	?							−0.009	−0.012	−0.012
								(−3.581)***	(−3.328)***	(−1.944)**
SIZE	+	0.003	0.003	0.004	0.003	0.003	0.004	0.000	0.001	0.000
		(3.350)***	(2.401)***	(1.884)**	(3.103)***	(2.212)**	(1.896)**	(0.185)	(0.949)	(0.126)
LEVERAGE	-	−0.038	−0.035	−0.052	−0.039	−0.036	−0.054	−0.029	−0.024	−0.041
		(−4.126)***	(−3.301)***	(−3.973)***	(−4.352)***	(−3.379)***	(−3.882)***	(−4.577)***	(−3.162)***	(−3.940)***
TA_GROWTH	-	0.002	0.003	0.002	0.002	0.003	0.002	0.000	0.000	0.000
		(1.115)	(1.224)	(1.050)	(1.102)	(1.221)	(1.058)	(0.223)	(0.057)	(0.004)
MTB	-	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
		(1.531)	(1.442)	(0.885)	(1.391)	(1.262)	(0.669)	(1.410)	(1.308)	(1.047)
PROFITABILITY	+	0.054	0.046	0.064	0.051	0.044	0.062	0.031	0.027	0.043
		(4.413)***	(3.495)***	(3.032)***	(4.290)***	(3.390)***	(2.938)***	(2.409)***	(1.788)**	(2.264)**
CASH	+	0.059	0.064	0.058	0.061	0.064	0.058	0.053	0.062	0.049
		(3.176)***	(3.188)***	(2.604)***	(3.312)***	(3.265)***	(2.592)***	(2.561)***	(2.920)***	(1.829)**
RE/TE	+	−0.002	0.002	0.014	−0.001	0.003	0.016	0.002	0.011	0.023
		(−0.551)	(0.326)	(2.971)***	(−0.190)	(0.517)	(3.267)***	(0.436)	(1.336)*	(2.239)**
STDEV_ROA	-	−0.002	0.004	−0.006	−0.007	0.003	−0.007	−0.001	0.011	0.002
		(−0.222)	(0.490)	(−0.401)	(−0.825)	(0.312)	(−0.511)	(−0.139)	(1.259)	(0.200)
LNGDPC	+	0.016	0.009	0.012	0.017	0.010	0.014	0.004	0.015	0.008
		(1.779)**	(0.972)	(0.744)	(1.846)**	(1.065)	(0.837)	(0.407)	(1.883)**	(0.419)
Intercept	?	−0.195	−0.087	−0.138	−0.180	−0.101	−0.162	−0.035	−0.169	−0.052
		(−2.275)**	(−1.054)	(−0.867)	(−2.051)**	(−1.182)	(−0.972)	(−0.336)	(−1.918)*	(−0.275)

(*Continued*)

Table 5

Continued

		STATE			*CONTROL*			*GOLDEN*		
Variable	*Prediction*	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*
R^2		0.281	0.314		0.268	0.310		0.499	0.569	
Pseudo R^2				−0.130			−0.127			−0.212
N		1008	862	1008	1008	862	1008	456	386	456

Notes:

This table presents tests of the impact of state ownership on dividend payout. The sample includes 262 firms privatised in 43 countries. The dependent variable is *DIV/TA* (the ratio of cash dividends over total assets). Our dependent variable, *DIV/TA*, is the ratio of cash dividends over total assets. *STATE* is the stake held by the government. *SIZE* is the logarithm of the firm's total sales in US dollars. *LEVERAGE is* the ratio of long-term debt over total assets. *TA_GROWTH* is the sales growth for the year. *MTB is* the market-to-book ratio. *PROFITABILITY* is the ratio of EBIT over net sales. *CASH* is the ratio of cash and short-term investments over total assets. *RE/TE* is the ratio of retained earnings over common equity. *STDEV_ROA* is the standard deviation of return on assets. *LNGDPC* is the natural logarithm of GDP per capita. All specifications are obtained using a country fixed-effects model. In Models 1 to 3 we use *STATE* as a proxy for government intervention in privatised firms. In Models 4 to 6 we use *CONTROL*, a dummy variable equal to 1 if the government maintains control after privatisation and 0 otherwise, as an alternative proxy for government intervention in privatised firms. In Models 7 to 9 we use *GOLDEN*, a dummy variable equal to 1 if the government retains a golden share and 0 otherwise, as an alternative proxy for government intervention in privatised firms. In Models 1, 4, and 7 we estimate an OLS regression for all sample firms. In Models 2, 5, and 8 we estimate an OLS regression for the sub-sample of dividend payers. In specifications 3, 6, and 9 we estimate a Tobit regression for all sample firms. Data sources for the variables are outlined in the Appendix. The results are reported for a period of up to nine years (i.e., from three years before privatisation to five years after, including the privatisation year). *Z*-statistics based on robust standard errors are shown below each estimate. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively, one-tailed when directional predictions are made and two-tailed otherwise.

full sample are reported in Model (7). As can be observed, the coefficient for *GOLDEN* is negative and significant at the 1% level, indicating that the dividend payout ratio is lower when the government retains a golden share in the privatised firm, supporting our earlier finding. The magnitude of the coefficient is economically large. Indeed, moving *GOLDEN* from 0 to 1 (i.e., from a firm in which the government does not retain a golden share to a firm in which the government does retain a golden share) decreases *DIV/TA* by 0.009, which is a 39.1% decrease relative to the mean value of *DIV/TA*. The results for the sub-sample of dividend payers are reported in Model (8). The coefficient for *GOLDEN* is negative and highly significant, corroborating our earlier findings. *GOLDEN* remains economically highly significant. In fact, moving *GOLDEN* from 0 to 1 decreases *DIV/TA* by 0.012, which is a 52.2% decrease relative to the mean value of *DIV/TA*. Finally, the results for the Tobit model are reported in Model (9). We can observe that the coefficient for *GOLDEN* remains negative and highly significant, supporting our earlier findings. Overall, our results suggest that our inferences on the link between the government's influence over privatised firms and dividend payout are not affected by our choice of government intervention variables.

We report several significant relationships between the control variables and *DIV/TA* that are generally consistent with our predictions and the literature. The coefficient for *LEVERAGE* is negative and highly significant across all specifications, supporting the conjecture that leveraged firms pay lower dividends. Furthermore, we find a positive and generally highly significant coefficient for *SIZE*, suggesting that larger firms distribute higher dividends, consistent with Alzahrani and Lasfer (2012). We also find a positive and highly significant coefficient for *PROFITABILITY*, supporting the conjecture that more profitable firms pay a higher level of dividends. Furthermore, we find that the coefficient for *CASH* is positive and highly significant. Consistent with Shao et al. (2010), this finding suggests that firms with higher cash holdings pay a higher level of dividends. Overall, our results suggest that higher state ownership is associated with a lower dividend payout ratio.

(iii) Additional Tests

In this section we describe additional tests conducted to ensure the robustness of our findings. The results of these tests, as reported in Table 6, generally confirm the core findings presented in Table 5: dividends are decreasing under state ownership.

(a) Alternative Dividend Payout Proxies

We test the sensitivity of our findings to the use of alternative proxies for dividend payout. In Model (1) of Table 6 we use the ratio of dividends over total sales (*DIV/SALES*). We report a negative and significant coefficient for *STATE* at the 1% level, a corroboration of our earlier evidence. This is also economically highly significant. Indeed, a one standard deviation increase in state ownership is associated with a 37.7% decrease in *DIV/SALES*. In Models (2) and (3) we use the ratio of cash dividends over cash flow (*DIV/CF*) and the ratio of cash dividends over net income (*DIV/NI*) as proxies for dividend payout. The results show that our previous findings remain unchanged. In unreported tests, we run Models (1), (2), and (3) again for the sub-sample of dividend payers. The results show that the coefficient for *STATE*

Table 6
Additional Tests

Variable	Prediction	Alternative Payout Proxies DIV/SALES (1)	DIV/CF (2)	DIV/NI (3)	1990–2000 Period (4)	Post-privatisation Period (5)	Developed Countries (6)	Developing Countries (7)	Instrumental Variable 1st Stage (8)	2nd Stage (9)
STATE	?	−0.017	−0.069	−0.147	−0.014	−0.013	−0.007	−0.044		−0.056
		(−3.778)***	(−3.609)***	(−2.940)***	(−3.520)***	(−2.862)***	(−1.806)**	(−4.897)***		(−2.261)**
SIZE	+	0.002	0.005	0.021	0.003	0.002	0.002	0.007	0.023	0.004
		(1.774)**	(1.247)	(1.697)**	(3.350)***	(1.510)*	(1.873)**	(2.885)***	(3.150)***	(3.413)***
LEVERAGE	-	−0.051	−0.251	−0.249	−0.038	−0.015	−0.024	−0.047	0.053	−0.037
		(−4.130)***	(−5.316)***	(−1.980)**	(−4.126)***	(−1.708)**	(−2.158)**	(−3.455)***	(0.672)	(−3.895)***
TA_GROWTH	-	0.001	0.005	0.008	0.002	0.002	0.002	0.002	−0.001	0.002
		(0.624)	(0.818)	(0.928)	(1.115)	(0.949)	(0.877)	(0.861)	(−0.257)	(1.018)
MTB	+	0.000	−0.001	−0.005	0.001	0.000	0.002	−0.001	0.006	0.001
		(0.080)	(−0.358)	(−0.838)	(1.531)*	(0.112)	(2.019)**	(−0.706)	(1.415)*	(1.939)**
PROFITABILITY	+	0.184	0.237	0.078	0.054	0.020	0.031	0.067	0.049	0.056
		(8.878)***	(5.377)***	(0.688)	(4.413)***	(1.720)**	(2.354)**	(3.712)***	(0.610)	(4.375)***
CASH	+	0.016	0.100	−0.199	0.059	0.016	0.051	0.054	−0.111	0.053
		(0.834)	(1.544)*	(−1.362)	(3.176)***	(0.919)	(2.699)***	(1.898)**	(−1.191)	(2.945)***
RE/TE	+	−0.010	0.012	0.055	−0.002	−0.006	0.009	−0.011	−0.105	−0.006
		(−2.456)**	(0.992)	(1.582)*	(−0.551)	(−1.166)	(2.376)**	(−2.115)**	(−2.983)***	(−1.285)
STDEV_ROA	-	0.016	−0.011	−0.047	−0.002	0.001	0.002	0.009	0.158	0.005
		(0.892)	(−0.254)	(−0.476)	(−0.222)	(0.199)	(0.073)	(1.045)	(1.680)*	‘(0.626)
LNGDPC	+	0.068	0.250	0.294	0.016	−0.003	0.010	0.006	0.027	0.017
		(4.960)***	(5.122)***	(2.914)***	(1.779)**	(−0.286)	(1.273)	(0.420)	(0.394)	(2.013)**
PRE_PRIV_DIV						1.013				
						(10.209)***				

(*Continued*)

Table 6
Continued

		Alternative Payout Proxies							*Instrumental Variable*	
Variable	*Prediction*	*DIV/SALES (1)*	*DIV/CF (2)*	*DIV/NI (3)*	*1990–2000 Period (4)*	*Post-privatisation Period (5)*	*Developed Countries (6)*	*Developing Countries (7)*	*1st Stage (8)*	*2nd Stage (9)*
LEFT	+								0.082	
									(3.977)***	
Intercept	?	−0.664	−2.285	−2.731	−0.195	0.006	−0.088	−0.134	−0.274	−0.213
		(−4.632)***	(−4.636)***	(−2.708)***	(−2.275)**	(0.075)	(−1.159)	(−1.225)	(−0.403)	(−2.498)**
R^2		0.492	0.283	0.133	0.281	0.555	626.000	382.000	1008.000	1008.000
N		932	932	932	1008	746	518	388	906	906

Notes:
This table presents additional tests of the impact of state ownership on dividend payout. The sample comprises 262 firms privatised in 43 countries. The dependent variable is *DIV/TA* (the ratio of cash dividends over total assets) in all models except Models 1, 2, 3, and 8. *STATE* is the stake held by state ownership. *SIZE* is the logarithm of the firm's total sales in US dollars. *LEVERAGE is* the ratio of long-term debt over total assets. *TA_GROWTH* is the sales growth for the year. *MTB* is the market-to-book ratio. *PROFITABILITY* is the ratio of EBIT over net sales. *CASH* is the ratio of cash and short-term investments over total assets. *RE/TE* is the ratio of retained earnings over common equity. *STDEV_ROA* is the standard deviation of return on assets. *LNGDPC* is the natural logarithm of GDP per capita. *LEFT* is a dummy variable equal to 1 for left-oriented governments and 0 otherwise. *PRE_PRIV_DIV* is the average of the dividend payout over the pre-privatisation period. All specifications are obtained using a country fixed-effects model. Models 1 to 3 use alternative proxies for dividend payout (i.e., *DIV/SALES*, *DIV/CF*, and *DIV/NI*). Model (4) reports the results for the 1999–2000 period. Model (5) reports the results for the post-privatisation period while controlling for the pre-privatisation dividend payout. Models 6 and 7 report the results for the sub-samples of firms from developed and developing countries, respectively. Model (8) reports the results for the first stage regression of *STATE* on *LEFT* as well as the control variables. Model (9) reports the results for the second stage regression of *DIV/TA* on the predicted value of *STATE*. Data sources for the variables are outlined in the Appendix. The results are reported for a period of up to nine years (i.e., from three years before privatisation to five years after, including the privatisation year), except for Model (5). *Z*-statistics based on robust standard errors are shown below each estimate. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively, one-tailed when directional predictions are made and two-tailed otherwise.

remains negative and significant at the 1% level across all models, again corroborating our earlier findings. Additionally, we run Models (1), (2), and (3) another time to account for the fact that our dependent variable is censored at zero. The unreported results show that the coefficient for *STATE* remains negative and significant at the 1% level across all models, corroborating our earlier finding.

(b) The 1990–2000 Period

The majority of our sample firms were privatised during the period 1990 to 2000. To ensure that our findings are not driven by privatisations that occurred outside this period, we re-estimate Model (1) of Table 5 for the sub-sample of firms privatised during the 1990–2000 period. The results are reported in Model (4). We find that the coefficient for *STATE* remains negative and significant at the 1% level, reinforcing our earlier findings. This is also economically highly significant. A one standard deviation increase in state ownership is associated with a 19.7% decrease in *DIV/TA*. In unreported tests, we run Model (4) again for the sub-sample of dividend payers. The results show that the coefficient for *STATE* remains negative and significant at the 1% level, substantiating our earlier findings. Furthermore, we run Model (4) yet again using a Tobit model. The unreported results show also that the coefficient for *STATE* remains negative and significant at the 1% level.

(c) The Post-Privatisation Period

The majority of our firm-year observations belong to the post-privatisation period. To ensure that our findings are not driven by firm-year observations belonging to the pre-privatisation period, characterised by lower dividends, we re-run our basic model for the post-privatisation sub-sample. The results are reported in Model (5). In this model we control for the pre-privatisation dividend policy using the average of the dividend payout (*PRE_PRIV_DIV*) over the pre-privatisation period.[15] The results are reported in Model (5). We find that the coefficient for *STATE* remains negative and significant at the 1% level, upholding our earlier findings. This is also economically highly significant. A one standard deviation increase in state ownership is associated with a 26.8% decrease in *DIV/TA*. In unreported tests, we run Model (4) again for the sub-sample of dividend payers. The results show that the coefficient for *STATE* remains negative and significant at the 1% level, reinforcing our earlier findings. Furthermore, we re-run Model (4) using a Tobit model. The unreported results also show that the coefficient for *STATE* remains negative and significant at the 1% level.

(d) Developed Versus Developing Countries

We run Model (1) of Table 5 separately for the sub-sample of firms from the 20 developed countries in our sample as well as the sub-sample of firms from the 23 developing countries. The results reported in Models (6) and (7) show that the

15 As seen in Table 2, some firms were paying a dividend before privatisation – and some were not paying a dividend but could have been. We might expect this behaviour to continue afterwards. To ensure that our results are not driven by the pre-privatisation behaviour of our sample firms, we control for the pre-privatisation dividend policy using the average of the dividend payout (*PRE_PRIV_DIV*) over the pre-privatisation period.

coefficient for *STATE* is negative and highly significant for the sub-sample of firms from developing countries and the sub-sample from developed countries, respectively, further confirming our previous findings.

(e) Excluding Firms from Strategic Industries

The state tends to retain a significant stake in privatised firms from strategic industries for national security reasons and in order to regulate the price of goods and services provided by such industries (e.g., Boubakri et al., 2009). To ensure that our results are not driven by strategic industries, we re-run our basic model after excluding firms belonging to one of the five strategic industries (i.e., Steel and Mining, Financial, Petroleum, Transportation and Utilities). The unreported results show that the coefficient for *STATE* is still negative and significant at the 1% level, suggesting that our previous results are not driven by strategic industries.

(f) Endogeneity of State Ownership

One potential concern is that *STATE* itself may not be exogenous. In fact, state ownership may be governed by unobserved variables that also affect dividend payout, and this can lead to biased and inconsistent OLS estimates.[16] We address this issue by using an instrumental variable approach. The instrumental variables must be highly correlated with *STATE*, but not with *DIV/TA*. We use political orientation (*LEFT*) from the *Database for Political Institutions* (*DPI*) as an instrument for *STATE*. *LEFT* is a dummy variable equal to 1 for left-oriented governments and 0 otherwise. Left-wing governments tend to be less committed to programmes of market reform, such as privatisation (Biais and Perotti, 2002), suggesting that we should observe less complete privatisation and control relinquishment in left-wing countries. Therefore, we expect a positive association between *STATE* and *LEFT*. We re-estimate Model (1) of Table 5, using a two-stage least squares regression. For the first stage, we predict *STATE* on the basis of *LEFT* along with the other independent variables used in Model (1) of Table 5. The results reported in Model (8) show that *LEFT* loads positive and significant at the 1% level, in line with the results reported by Bortolotti and Faccio (2009).

For the second stage, we use the first-stage fitted value as an instrument for *STATE*.[17] The results reported in Model (9) show that the coefficient for *STATE* remains negative and statistically highly significant, confirming our earlier findings. To validate our choice of *LEFT* as an instrument for *STATE*, we follow Larcker and Rusticus (2010, p. 190) and perform an over-identifying restriction test – that is, we regress the residuals of the second stage on the exogenous variables (i.e., *LEFT* and the control variables). We find that the explanatory variables are jointly not significant, suggesting that *LEFT* is exogenous. We also re-estimate the two-stage least squares regression for the sub-sample of dividend payers. Finally, we re-estimate the second stage regression using a Tobit model. The results of these tests confirm our earlier findings.

16 For example, Boubakri et al. (2005) argue that conditional on the economic and institutional environment, the government may choose to sell higher or lower stakes in firms with better governance. Hence, corporate governance may also determine dividend policy (e.g., La Porta et al., 2000); using OLS regression may lead to biased and inconsistent estimates (e.g., Guedhami et al., 2009).
17 The standard errors for the second stage are adjusted for clustering by country.

As can be observed in Panel C of Table 2, our sample includes companies in which the state retains a very high proportion of shares. To ensure that our results are not driven by these companies, we re-run our basic regression after excluding observations for which the government sells 20% or less of the shares to private investors. The results, which are unreported (due to space limitations), show that *STATE* remains negative and significant at the 1% level, suggesting that our findings are not driven by the fact that the government sells only a very small proportion of shares to private investors in some privatised firms.

(iv) Additional Controls

In this section we introduce additional control variables to ensure the robustness of our findings. The results of these tests, as reported in Table 7, generally confirm the core findings presented in Table 5: dividends are decreasing under state ownership.

(a) Foreign Ownership

The presence of foreign investment may also influence the dividend policy of NPFs. Foreign investors may prefer firms that pay low dividends because of taxes and transaction costs, consistent with the clientele theory. For example, foreign investors, who have to pay taxes in their host countries, may prefer low dividends because capital gains are taxed more favourably than dividends.[18] Consistent with this point of view, Dahlquist and Robertsson (2001) show that foreign investors in Sweden prefer firms that pay low dividends. In a more recent work, Ferreira et al. (2010) document a negative relationship between dividend payout and foreign institutional ownership.[19]

Model (1) of Table 7 introduces *STATE* and *FOR* along with our control variables. We still observe a negative and significant coefficient for *STATE* at the 1% level. *STATE* is also economically highly significant. In fact, a one standard deviation increase in state ownership is associated with a 35.2% decrease in dividend payout ratio. We also find that the coefficient for *FOR* is not significant, failing to provide support for the conjecture that foreign participation is associated with lower dividends. We also test the robustness of our findings to the introduction of a proxy for control by foreign investors. To do so, we introduce a dummy variable (*HIGH_FOR*) in Model (2) equal to 1 if the foreign ownership of a given firm is higher than our sample median foreign ownership and 0 otherwise. The results show that the coefficient for *HIGH_FOR* is negative and highly significant, suggesting that large foreign investors are able to impose their preferences in NPFs, consistent with the clientele theory. More

18 Foreign investors may prefer low dividend firms for other reasons. For example, Ferreira et al. (2010) argue that 'international investors may face outright restrictions in repatriating dividends as well as costs in their reinvestment. In the presence of these frictions, international institutions prefer lower payouts, and pressure firms to retain and reinvest their earnings' (p. 4).

19 Ownership concentration may also affect dividend policy. We test the robustness of our findings with the introduction of a proxy for the concentration of private ownership. Specifically, we control for the percentage of shares held by the three largest private investors, *L3*. Following Boubakri et al. (2005), we apply a logistic transformation to *L3*, using the formula log (*L3*/(1–*L3*)) to convert a bound variable into an unbound one. The resulting variable is *LL3*. We re-run our Model (1) of Table 5, while controlling for *LL3*. The unreported results show that the coefficient for *LL3* is not statistically significant, failing to provide support for the predictions of the outcome hypothesis and the substitute hypothesis. More importantly for our purposes, we find that the coefficient for *STATE* is still negative and significant at the 1% level, consistent with our previous findings.

Table 7
Additional Controls

Variable	*Prediction*	*FOR* *(1)*	*HIGH_FOR* *(2)*	*DP* *(3)*	*Additional Country-Level Controls* *(4)*	*TAX_ADV* *(5)*
STATE	?	−0.025	−0.014	−0.014	−0.016	−0.015
		(−2.857)***	(−3.527)***	(−3.509)***	(−4.232)***	(−2.990)***
FOR	−	−0.010				
		(−0.816)				
HIGH_FOR	−		−0.004			
			(−1.756)**			
SIZE	+	0.005	0.003	0.003	0.002	0.002
		(2.417)***	(3.363)***	(3.332)***	(2.199)**	(2.187)**
LEVERAGE	−	−0.021	−0.039	−0.039	−0.035	−0.030
		(−1.595)	(−4.173)***	(−4.135)***	(−3.748)***	(−2.985)***
TA_GROWTH	−	0.003	0.002	0.002	0.002	0.004
		(1.254)	(1.116)	(1.115)	(1.158)	(1.183)
MTB	+	0.001	0.001	0.001	0.001	0.000
		(1.004)	(1.529)*	(1.534)*	(1.779)**	(0.960)
PROFITABILITY	+	0.049	0.055	0.055	0.046	0.047
		(2.870)***	(4.437)***	(4.398)***	(3.840)***	(3.352)***
CASH	+	0.076	0.059	0.059	0.059	0.051
		(2.754)***	(3.196)***	(3.228)***	(3.039)***	(2.411)**
RE/TE	+	−0.009	−0.001	−0.002	0.000	0.003
		(−1.850)**	(−0.436)	(−0.549)	(0.027)	(0.602)
STDEV_ROA	−	0.001	−0.002	−0.002	−0.001	−0.022
		(0.092)	(−0.234)	(−0.209)	(−0.187)	(−1.125)
LNGDPC	+	0.020	0.015	0.015	0.005	−0.001
		(1.471)*	(1.707)**	(1.643)*	(0.352)	(−0.136)
DP	+			0.000		
				(0.362)		
C_RIGHTS	+				0.008	
					(0.064)	
DISC_REQ	+				−0.012	
					(−0.031)	
RISKOFEXP	−				0.000	
					(0.725)	
MARKET_CAP	+				0.000	
					(2.443)***	
TAX_ADV	+					0.445
						(0.859)
Intercept	?	−0.245	−0.187	−0.191	−0.048	−0.381
		(−1.907)*	(−2.137)**	(−2.117)**	(−0.562)	(−0.938)

(*Continued*)

importantly for our purposes, we still report a negative coefficient for *STATE* at the 1% level, supporting our earlier findings.

(b) Control for Catering

Under catering theory proposed by Baker and Wurgler (2004), dividend payout is determined by investor demand. To account for catering theory, we introduce

Table 7
Continued

Variable	*Prediction*	*FOR* (1)	*HIGH_ FOR* (2)	*DP* (3)	*Additional Country-Level Controls* (4)	*TAX_ADV* (5)
Adj R^2		0.299	0.283	0.281	0.224	0.204
N		549	1008	1008	928	796

Notes:
This table presents additional tests of the impact of state ownership on dividend payout. The sample comprises 262 firms privatised in 43 countries. The dependent variable is *DIV/TA* (the ratio of cash dividends over total assets). *STATE* is the stake held by the government. *FOR* is the stake held by foreign investors. *HIGH_FOR* is a dummy variable equal to 1 if the firm's foreign ownership is higher than our sample median for foreign ownership and 0 otherwise. *SIZE* is the logarithm of the firm's total sales in US dollars. *LEVERAGE is* the ratio of long-term debt over total assets. *TA_GROWTH* is the sales growth for the year. *MTB* is the market-to-book ratio. *PROFITABILITY* is the ratio of EBIT over net sales. *CASH* is the ratio of cash and short-term investments over total assets. *RE/TE* is the ratio of retained earnings over common equity. *STDEV_ROA* is the standard deviation of return on assets. *LNGDPC* is the natural logarithm of GDP per capita. *DP* is the difference in the log of the weighted-average market-to-book ratio for dividend payers and non-dividend payers. The weight used to calculate the weighted-average market-to-book ratio is the book value of total assets. *C_RIGHTS* is the creditor rights index from Djankov et al. (2007). *DISC_REQ* is the disclosure requirements index from La Porta et al. (2006). *RISKOFEXP* is the ICRG's assessment of the risk of outright confiscation or forced nationalisation by the state. *MARKET_CAP* is the ratio of stock market capitalisation over GDP. *TAX_ADV* is the tax advantage of dividends in a country measured by the after-tax value of $1 in dividends divided by the after-tax value of $1 in capital gains from La Porta et al. (2000). All specifications are obtained using a country fixed-effects model. In Model 1 (2) we include foreign ownership (control). In Model (3) we control for dividend premium. In Model (4) we include additional control variables. In Model (5) we control for the tax advantage of dividends. Data sources for the variables are outlined in the Appendix. The results are reported for a period of up to nine years (i.e., from three years before privatisation to five years after, including the privatisation year). *Z*-statistics based on robust standard errors are shown below each estimate. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively, one-tailed when directional predictions are made and two-tailed otherwise.

dividend premium (*DP*), in line with Baker and Wurgler (2004), in our basic model (Model (1) of Table 5), calculated as the difference between the log of the weighted-average market-to-book ratio of dividend payers and that of non-dividend payers. The weight used to calculate the weighted-average market-to-book ratio is the book value of total assets. The results reported in Model (3) show that the coefficient for *DP* is positive but not significant, failing to provide support for the conjecture that firms pay higher dividends when the dividend premium is high. More importantly for our purposes, the coefficient for *STATE* is negative and highly significant at the 1% level, upholding our earlier findings. *STATE* is also still economically highly significant, as a one standard deviation increase in state ownership is associated with a 19.7% decrease in dividend payout.

(c) Additional Country-Level Controls

In the remainder of Table 7 we introduce country-level control variables used in recent empirical studies (e.g., Shao et al., 2010; and Alzahrani and Lasfer, 2012) to explain dividend payout. First, creditor rights have been shown to affect dividend payout. Indeed, Brockman and Unlu (2009) find evidence suggesting that firms from countries with weak creditor rights pay more dividends, which is consistent with the substitute hypothesis. In Model (4) we introduce the creditor rights index (*C_RIGHTS*) from Djankov et al. (2007). Second, disclosure quality has also been used to explain dividend payout. Brockman and Unlu (2011) show that dividend payout is related to disclosure quality. In Model (5) we introduce the disclosure requirements index from La Porta et al. (2006). Third, the risk of expropriation has been shown to affect cash holdings. In fact, Caprio et al. (2013) provide evidence indicating that firms operating in countries with a high risk of government expropriation hold less cash to avoid government extraction. We therefore control for the risk of outright confiscation or forced nationalisation by the state (*RISKOFEXP*) from the *International Country Risk Guide* (ICRG). A higher score for *RISKOFEXP* indicates a higher risk of government expropriation or confiscation. Fourth, in line with Alzahrani and Lasfer (2012), we control for stock market development using the ratio of stock market capitalisation over GDP (*MARKET_CAP*). The results reported in Model (4) show that only *MARKET_CAP* is significant among the added control variables. Indeed, *MARKET_CAP* loads positive and significant at the 1% level, suggesting that firms located in more financially developed countries pay higher dividends. More relevantly for our purposes, we find that the coefficient for *STATE* is still negative and significant at the 1% level. *STATE* is also still economically significant. In fact, a one standard deviation increase in state ownership is associated with a 22.5% decrease in dividend payout.

Finally, we separately control for the tax advantage of dividends using the tax advantage of dividends against capital gains (*TAX_ADV*) from La Porta et al. (2000), because it reduces our sample size. The results reported in Model (5) show that the coefficient for *STATE* is still negative and significant at the 1% level, supporting our earlier findings. This is also economically highly significant, showing a one standard deviation increase in state ownership that is associated with a 21.1% decrease in dividend payout.

5. CHANGES IN DIVIDENDS

In this section we examine how state ownership determines the decisions to pay, increase and decrease dividends. Model (1) of Table 8 reports the results for the Probit regression of a dummy variable (*DIV_PAYER*) equal to 1 if the firm pays dividends and 0 otherwise, on government ownership as well as our control variables. Consistent with H1b, we find that the coefficient for *STATE* is negative and statistically significant at the 1% level, implying that firms with greater state ownership are less likely to pay dividends. Model (2) reports the results of the Probit regression of a dummy variable (*DIV_INCREASE*) equal to 1 if the firm increases dividends and 0 otherwise on government ownership as well as our control variables. We find a negative and significant coefficient for *STATE* at the 1% level, consistent with H1b. This finding suggests that firms with greater state ownership are less likely to increase dividends. Model (3) reports the results of the Probit regression of a dummy variable (*DIV_DECREASE*) equal to 1 if the firm decreases dividends and 0 otherwise on government ownership as well as our control variables. We find a positive and significant coefficient for *STATE* at the 5% level, implying that firms with greater state ownership are more likely to decrease dividends. This finding is consistent with H1b and suggests that firms with state ownership are more likely to decrease dividends.

Table 8
State Ownership and Dividend Changes

Variable	*Prediction*	*DIV_PAYER* (1)	*DIV_INCREASE* (2)	*DIV_DECREASE* (3)
STATE	?	−0.495	−0.469	0.293
		(−2.540)***	(−2.718)***	(1.803)**
SIZE	+	0.127	0.058	−0.083
		(2.716)***	(1.673)*	(−2.542)**
LEVERAGE	-	−1.664	−0.819	0.538
		(−3.526)***	(−2.178)**	(1.537)
TA_GROWTH	-	−0.009	−0.035	0.016
		(−0.240)	(−1.271)	(0.614)
MTB	+	−0.030	0.000	0.014
		(−1.288)	(0.020)	(0.759)
PROFITABILITY	+	2.113	0.658	0.149
		(3.975)***	(1.870)**	(0.459)
CASH	+	0.559	0.203	−0.159
		(0.812)	(0.448)	(−0.365)
RE/TE	+	1.188	0.291	0.114
		(5.189)***	(1.658)**	(0.862)
STDEV_ROA	-	−0.760	0.143	−0.867
		(−0.989)	(0.294)	(−2.387)**
LNGDPC	+	0.111	0.188	−0.061
		(0.799)	(1.556)*	(−0.761)
Intercept	?	−3.010	−3.715	2.408
		(−2.462)**	(−4.416)***	(3.238)***
Pseudo R^2		0.286	0.070	0.048
N		1008	1008	1008

Notes:
This table presents the results of the analysis of the impact of state ownership on dividend changes. Model (1) reports the results of the Probit regression of *DIV_PAYER* (a dummy variable equal to 1 if the firm pays dividends and 0 otherwise) on *STATE* (the stake held by the government) as well as our control variables. Model (2) reports the results of the Probit regression of *DIV_INCREASE* (a dummy variable equal to 1 if the firm increases dividends and 0 otherwise) on *STATE* as well as our control variables. Model (3) reports the results of the Probit regression of *DIV_DECREASE* (a dummy variable equal to 1 if the firm decreases dividends and 0 otherwise) on *STATE* as well as our control variables. *SIZE* is the logarithm of the firm's total sales in US dollars. *LEVERAGE* is the ratio of long-term debt over total assets. *TA_GROWTH* is the sales growth for the year. *MTB* is the market-to-book ratio. *PROFITABILITY* is the ratio of EBIT over net sales. *CASH* is the ratio of cash and short-term investments over total assets. *RE/TE* is the ratio of retained earnings over common equity. *STDEV_ROA* is the standard deviation of return on assets. *LNGDPC* is the natural logarithm of GDP per capita. All specifications are estimated using a country fixed-effects model. Data sources for the variables are outlined in the Appendix. The results are reported for a period of up to nine years (i.e., from three years before privatisation to five years after, including the privatisation year). *Z*-statistics based on robust standard errors are shown below each estimate. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively, one-tailed when directional predictions are made and two-tailed otherwise

Turning to the control variables, we observe several significant relationships between the control variables and our test variables, consistent with our predictions and with the literature. Indeed, *SIZE* and *PROFITABILITY* are positive and generally highly significant in paying (Model (1)) and increasing (Model (2)) regressions. *LEVERAGE* is also negative and highly significant in paying and increasing regressions. Finally, *RE/TE* is also positive and significant in paying and increasing regressions.

6. IMPACT OF OWNERSHIP CHANGES ON DIVIDEND PAYOUT

In Section 4.iii.f we addressed endogeneity problems of state ownership using the instrumental variable approach. In this section we further address this issue using a changes specification, in line with Nikolaev and Van Lent (2005). Specifically, we examine whether ownership structure dynamics after privatisation are associated with changes in dividend payout. This specification is also important because it is less vulnerable to endogeneity and problems associated with omitted correlated variables (e.g., Han et al., 2013). We identify the number of control privatisations and full privatisations that occurred during our sample period. We find that the government relinquished control in eight firms and fully privatised 13 firms during the five-year post-privatisation period.

Table 9 reports the results of the multivariate analysis for the impact of the changes in the ownership structure on changes in dividend policy. In Model (1) we regress the changes in our dividend proxy ($\Delta DIV/TA$) on the changes in state ownership ($\Delta STATE$) as well as the changes in our control variables. We find that the coefficient of $\Delta STATE$ is negative and significant at the 1% level, corroborating our earlier findings. In Model (2) we regress $\Delta DIV/TA$ on *RELINQUISH* (a dummy variable that is equal to 1 if the government relinquishes control after privatisation and 0 otherwise and the changes in our control variables. We find that the coefficient of *RELINQUISH* is positive and significant at the 1% level, suggesting that relinquishment of control by the government is associated with an increase in dividends. Finally, in Model (3) we regress $\Delta DIV/TA$ on the change in foreign ownership (ΔFOR) and the changes in our control variables. We find that that the coefficient of ΔFOR is not significant, failing to provide support for the conjecture that foreign ownership is associated with lower dividends.

7. COUNTRY-LEVEL GOVERNANCE, STATE OWNERSHIP, AND DIVIDEND PAYOUT

In this section we examine the impact of country-level governance on the relationship between state ownership and dividend payout. We use the law and order index (*LAW*) from ICRG as a proxy for legal investor protection and the checks and balances index (*CHECKS*) from *DPI* as a proxy for government predation. *LAW* assesses the strength and impartiality of the legal system as well as the popular observance of the law. It ranges from 0 to 6, with a higher score indicating that a country enjoys an effective system wherein law enforcement is strong. *CHECKS* is the number of veto players adjusted for electoral competitiveness. A higher score indicates tighter political constraints on the government. Tighter political constraints decrease the likelihood of unilateral policy changes afterwards (Henisz, 2004; Henisz et al., 2005).

We run Model (1) of Table 5 again separately for sub-samples based on the median of *LAW*. The results reported in Models (1) and (2) of Table 10 show that the coefficient for *STATE* is negative and significant at the 1% level only for the sub-sample of firms from countries with a low level of law and order, suggesting that the adverse effects of state ownership on dividend policy are more pronounced in countries with weak legal investor protection, consistent with H2. The results of an unreported *F*-test show that the difference in coefficients between the low *LAW* sub-sample and the high *LAW* sub-sample is significant at the 1% level. We also re-run the Tobit regression used to estimate Model (1) of Table 5 for the sub-sample of firms with high and low *LAW*.

Table 9
Ownership Changes and Dividend Payout

Variable	*Prediction*	*(1)*	*(2)*	*(3)*
Δ *STATE*	?	−0.047		
		(−2.912)***		
RELINQUISH	?		0.028	
			(3.650)***	
Δ *FOR*	-			0.063
				(1.594)
Δ *SIZE*	+	0.002	0.002	0.030
		(0.319)	(0.393)	(3.419)***
Δ *LEVERAGE*	-	−0.031	−0.026	0.040
		(−1.066)	(−0.916)	(0.988)
Δ *TA_GROWTH*	-	0.004	0.004	0.006
		(3.163)***	(3.207)***	(4.121)***
Δ *MTB*	+	0.000	0.000	0.001
		(0.416)	(0.214)	(0.532)
Δ *PROFITABILITY*	+	−0.025	−0.021	−0.014
		(−0.997)	(−0.822)	(−0.511)
Δ *CASH*	+	−0.057	−0.055	0.001
		(−2.100)**	(−2.045)**	(0.036)
Δ *RE/TE*	+	−0.011	−0.011	−0.019
		(−1.090)	(−1.123)	(−1.352)
Δ *STDEV_ROA*	-	−0.025	−0.021	−0.014
		(−0.997)	(−0.822)	(−0.511)
Δ *LNGDPC*	+	−0.005	0.007	−0.048
		(−0.061)	(0.090)	(−0.656)
Intercept	?	0.012	0.008	−0.001
		(0.703)	(0.465)	(−0.200)
R^2		0.085	0.095	0.130
N		524	524	276

Notes:
This table presents the results of the analysis of the impact of state ownership on dividend changes. Model (1) reports the results of the regression of the changes in our dividend proxy (Δ*DIV/TA*) on the changes on state ownership (Δ*STATE*) as well as the changes in our control variables. Model (2) reports the results of the regression of Δ*DIV/TA* on *RELINQUISH* (a dummy variable that is equal to 1 if the government relinquishes control after privatisation and 0 otherwise) and the changes in our control variables. Model (3) reports the results of the regression of Δ*DIV/TA* on the change in foreign ownership (Δ*FOR*) and the changes in our control variables. *SIZE* is the logarithm of the firm's total sales in US dollars. *LEVERAGE is* the ratio of long-term debt over total assets. *TA_GROWTH* is the sales growth for the year. *MTB* is the market-to-book ratio. *PROFITABILITY* is the ratio of EBIT over net sales. *CASH* is the ratio of cash and short-term investments over total assets. *RE/TE* is the ratio of retained earnings over common equity. *STDEV_ROA* is the standard deviation of return on assets. *LNGDPC* is the natural logarithm of GDP per capita. All specifications are estimated using country fixed-effects model. Data sources for the variables are outlined in the Appendix. The results are reported for the post-privatisation period, including the privatisation year. *Z*-statistics based on robust standard errors are shown below each estimate. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively, one-tailed when directional predictions are made and two-tailed otherwise.

The unreported results confirm the findings in Models (1) and (2), that *STATE* is negative and statistically significant only at the 1% level for the sub-sample of firms with low *LAW*, again supporting H2.

Models (5) and (6) report the results of the sub-sample analysis based on the median value of *CHECKS*. We find that the coefficient for *STATE* is negative and significant only at the 1% level for the sub-sample of firms from countries with low

Table 10

The Impact of Country-Level Governance on the Relationship between State Ownership and Dividend Payout

		LAW		*CHECKS*	
Variable	*Prediction*	*High*	*Low*	*High*	*Low*
		(1)	*(2)*	*(3)*	*(4)*
STATE	?	0.001	−0.026	−0.007	−0.014
		(0.275)	(−3.824)***	(−0.939)	(−2.907)***
SIZE	+	0.002	0.006	0.006	0.001
		(1.931)**	(3.321)***	(2.891)***	(1.123)
LEVERAGE	−	−0.039	−0.037	−0.038	−0.037
		(−6.346)***	(−2.585)***	(−3.076)***	(−2.964)***
TA_GROWTH	−	0.002	0.002	0.008	0.000
		(0.899)	(0.841)	(1.382)	(0.027)
MTB	+	0.001	0.001	0.000	0.002
		(1.477)*	(1.154)	(0.361)	(1.731)**
PROFITABILITY	+	0.033	0.071	0.042	0.048
		(2.570)***	(3.850)***	(1.984)**	(3.558)***
CASH	+	0.027	0.068	0.075	0.061
		(1.651)*	(2.930)***	(1.712)**	(3.051)***
RE/TE	+	0.001	−0.006	−0.006	0.003
		(0.259)	(−1.290)*	(−1.014)	(0.790)
STDEV_ROA	−	−0.048	0.010	−0.004	0.001
		(−2.031)**	(1.171)	(−0.381)	(0.108)
LNGDPC	+	0.017	0.004	0.018	0.010
		(1.915)**	(0.291)	(0.488)	(1.414)*
Intercept	?	−0.156	−0.108	−0.233	−0.125
		(−1.703)*	(−0.852)	(−0.662)	(−1.719)*
Adj R^2		0.427	0.285	0.261	0.415
N		409	599	377	631

Notes:
This table presents the results of our sub-sample analysis. The sample comprises 262 firms privatised in 43 countries. The dependent variable is *DIV/TA* (the ratio of cash dividends over total assets). *STATE* is the stake held by state ownership. *SIZE* is the logarithm of the firm's total sales in US dollars. *LEVERAGE is* the ratio of long-term debt over total assets. *TA_GROWTH* is the sales growth for the year. *MTB* is the market-to-book ratio. *PROFITABILITY* is the ratio of EBIT over net sales. *CASH* is the ratio of cash and short-term investments over total assets. *RE/TE* is the ratio of retained earnings over common equity. *STDEV_ROA* is the standard deviation of return on assets. *LNGDPC* is the natural logarithm of GDP per capita. *LAW* is the ICRG's law and order index. The index ranges from 0 to 6, with higher scores indicating stronger legal investor protection. *CHECKS* is the number of checks and balances in the country from *DPI*, a higher score indicating tighter political constraints. All the specifications are obtained using country fixed-effects model. Models 1 and 2 report regression results of dividend payout on state ownership for sub-samples of high and low *LAW*. Models 3 and 4 report regression results of dividend payout on state ownership for sub-samples of high and low *CHECKS*. Data sources for the variables are outlined in the Appendix. The results are reported for a period of up to nine years (i.e., from three years before privatisation to five years after, including the privatisation year). *Z*-statistics based on robust standard errors are shown below each estimate. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively, one-tailed when directional predictions are made and two-tailed otherwise.

checks and balances, suggesting that the adverse effects of state ownership on dividend policy are more pronounced in countries with a lower level of political constraints on the government, consistent with H3. The results of an unreported *F*-test show that the difference in coefficients between the low *CHECKS* sub-sample and the high *CHECKS* sub-sample is significant at the 1% level. We also re-estimate Model (1) of Table 5 using a Tobit model separately for the high *CHECKS* sub-sample and the low *CHECKS* sub-sample. The unreported results confirm those of Models (5) and (6), suggesting that the adverse effects of state ownership on dividends are more pronounced in countries with a lower level of political constraints on the government, and therefore the risk of government predation is high, consistent with H3.

Overall, the results of our tests of H2 and H3 are consistent with that of H1b. That is, they all support the outcome hypothesis.

8. THE ROLE OF FAMILY OWNERSHIP

We collect data on family ownership from *OSIRIS* and *Securities Data Corporation* (*SDC*). We find that families are present in 98 firms in our sample of privatised firms (37.4%). The empirical literature (e.g., Khan, 2006) shows that family ownership is associated with lower dividend payout. To ensure that our findings are not driven by the presence of family owners in our sample firms, we re-run our basic regression (Model 1 of Table 5) separately for the sub-sample of firms with family participation (*FAMILY_DUMMY* = 1) and the sub-sample of firms without family participation (*FAMILY_DUMMY* = 0). The results reported in Models (1) and (2) of Table 11 show that *STATE* remains negative and significant at the 1% level for both sub-samples, suggesting that the presence of family as a shareholder in privatised firms does not affect the relationship between state ownership and dividend policy. We also re-run our basic regression separately for the sub-sample of firms controlled by a family (*FAMILY_CONTROL* = 1) and the sub-sample not controlled by a family (*FAMILY_CONTROL* = 0). We define a family-controlled firm as a firm in which a family or individuals hold more than 10% of the shares. The results reported in Models (3) and (4) of Table 11 show that the coefficient for *STATE* remains negative and significant at the 1% level for the sub-sample of family-controlled and non-family-controlled firms, suggesting that family control does not affect the relationship between state ownership and dividends.

Additionally, we examine whether family ownership/control explains our results indicating that the negative relationship between state ownership and dividends holds only in weak investor-protection countries.[20] To do so, we exclude firms from countries with strong investor protection as measured by the ICRG's law and order index and re-run our basic regression separately for the sub-sample of firms with family ownership and the sub-sample without family ownership. The results reported in Models (5) and (6) of Table 11 show that the coefficient for *STATE* remains negative and significant at the 1% level for the sub-samples with family participation (*FAMILY_DUMMY* = 1) and without family participation (*FAMILY_DUMMY* = 0). We also re-run our basic regression separately for the sub-sample controlled by a family (*FAMILY_CONTROL* = 1) and the sub-sample of firms not controlled by a family (*FAMILY_CONTROL* = 0). The results reported in Models (7) and (8) of Table 11 show that the coefficient for *STATE* remains negative and significant at the 1% level for both family-controlled and non-family-controlled firms. These findings suggest that our results related to the impact of investor protection on the relationship between state ownership and dividends are not driven by family ownership/control.

20 The author thanks the reviewer who suggested adding this test.

Table 11

The Role of Family Ownership

		Full Sample				*Low LAW Sub-sample*			
		FAMILY_DUMMY		*FAMILY_CONTROL*		*FAMILY_DUMMY*		*FAMILY_CONTROL*	
Variable	*Prediction*	*High*	*Low*	*High*	*Low*	*High*	*Low*	*High*	*Low*
		(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*
STATE	?	−0.015	−0.020	−0.022	−0.014	−0.020	−0.029	−0.023	−0.026
		(−2.121)**	(−4.299)***	(−2.406)***	(−3.476)***	(−2.127)**	(−3.906)***	(−2.227)**	(−3.788)***
SIZE	+	0.002	0.003	0.006	0.003	0.005	0.005	0.007	0.005
		(1.580)*	(1.962)**	(4.325)***	(2.862)***	(2.532)***	(2.206)**	(1.813)**	(3.016)***
LEVERAGE	-	−0.009	−0.060	−0.044	−0.037	0.023	−0.073	−0.005	−0.038
		(−0.480)	(−5.396)***	(−3.889)***	(−3.762)***	(0.792)	(−4.206)***	(−0.251)	(−2.294)**
TA_GROWTH	-	0.008	0.000	−0.002	0.002	0.024	0.000	0.006	0.002
		(0.985)	(0.551)	(−0.311)	(1.143)	(1.412)*	(0.728)	(0.671)	(0.878)
MTB	+	0.001	0.001	0.000	0.001	0.001	0.001	−0.001	0.001
		(1.254)	(0.639)	(0.118)	(1.452)*	(1.718)**	(0.217)	(−0.620)	(1.103)
PROFITABILITY	+	0.042	0.053	0.057	0.065	0.043	0.077	0.054	0.089
		(2.872)***	(2.854)***	(3.587)***	(4.056)***	(2.095)**	(2.673)***	(1.178)	(3.634)***
CASH	+	0.068	0.048	0.042	0.059	0.072	0.060	0.115	0.067
		(3.264)***	(1.457)*	(1.763)**	(2.686)***	(2.756)***	(1.309)*	(3.539)***	(2.389)***
RE/TE	+	0.000	−0.008	−0.005	−0.003	0.002	−0.013	−0.007	−0.008
		(0.020)	(−1.581)	(−0.992)	(−0.717)	(0.368)	(−2.049)**	(−0.963)	(−1.574)
STDEV_ROA	-	−0.085	0.005	0.496	−0.001	−0.036	0.008	−0.723	0.011
		(−2.456)***	(0.768)	(3.744)***	(−0.069)	(−1.495)*	(1.045)	(−1.900)**	(1.201)
LNGDPC	+	−0.011	0.058	−0.007	0.020	−0.011	0.045	0.024	0.009
		(−0.897)	(3.820)***	(−5.652)***	(2.002)**	(−0.783)	(2.094)**	(1.421)	(0.575)

(*Continued*)

Table 11
Continued

		Full Sample				*Low LAW Sub-sample*			
		FAMILY_DUMMY		*FAMILY_CONTROL*		*FAMILY_DUMMY*		*FAMILY_CONTROL*	
Variable	*Prediction*	*High*	*Low*	*High*	*Low*	*High*	*Low*	*High*	*Low*
		(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*
Intercept		0.133	−0.595	−0.002	−0.244	0.063	−0.469	−0.239	−0.161
		(1.084)	(−3.974)***	(−0.114)	(−2.447)**	(0.478)	(−2.799)***	(−2.487)**	(−1.051)
Adj R^2		0.317	0.360	0.662	0.269	0.415	0.393	0.812	0.275
N		526	482	121	887	302	297	93	506

Notes:
This table presents the results of our sub-sample analysis. The sample comprises 262 firms privatised in 43 countries. The dependent variable is *DIV/TA* (the ratio of cash dividends over total assets). *STATE* is the stake held by state ownership. *SIZE* is the logarithm of the firm's total sales in US dollars. *LEVERAGE is* the ratio of long-term debt over total assets. *TA_GROWTH* is the sales growth for the year. *MTB* is the market-to-book ratio. *PROFITABILITY* is the ratio of EBIT over net sales. *CASH* is the ratio of cash and short-term investments over total assets. *RE/TE* is the ratio of retained earnings over common equity. *STDEV_ROA* is the standard deviation of return on assets. *LNGDPC* is the natural logarithm of GDP per capita. *LAW* is our proxy for investor protection (the ICRG's law and order index). The index ranges from 0 to 6, with higher scores indicating stronger legal investor protection. *FAMILY_DUMMY* is a dummy variable equal to 1 if the firm has a family or individuals among its shareholders and 0 otherwise. *FAMILY_CONTROL* is a dummy variable equal to 1 if a family or individuals hold more than 10% of the shares and 0 otherwise. All specifications are estimated using country fixed-effects model. Models 1 to 4 report the results of our sub-sample analysis for the full sample. Models 5 to 8 report the results of our sub-sample analysis for the low *LAW* sub-sample. Descriptions and data sources for the variables are outlined in the Appendix. The results are reported for a period of up to nine years (i.e., from three years before privatisation to five years after, including the privatisation year). *Z*-statistics based on robust standard errors are shown below each estimate. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively, one-tailed when directional predictions are made and two-tailed otherwise

9. CONCLUSION

To contribute to the literature on the determinants of dividend policy, we chose to use the privatisation framework as a test laboratory. Using a multinational sample of privatised firms from 43 countries, we find strong and robust evidence that the dividend level is negatively related to government ownership, even after controlling for standard firm- and country-level determinants of dividend policy. This finding is consistent with the predictions of agency theory, suggesting that firms with weak governance pay lower dividends because, in such firms, minority shareholders are less likely to be able to force managers to disgorge cash out of the firm. We can interpret our first finding as implying that managers of firms with partial state ownership who are poorly monitored tend to keep cash within the firm for their own benefit, because it may be used for empire-building purposes. Employees may also benefit from this empire-building, because it creates employment opportunities and possibly bonuses. We also find that state ownership affects dividend changes. Specifically, we show that higher state ownership is associated with a lower propensity to pay dividends, a lower probability of increased dividends, and a higher probability of decreased dividends, providing additional support for the predictions of the outcome hypothesis. Furthermore, we find that ownership dynamics after privatisation affect dividend payout changes.

The results of our tests of the hypotheses regarding the impact of country-level governance on the relation between government ownership and dividend payout (H2 and H3) are consistent with that for the hypothesis with respect to the impact of government ownership on dividend payout (H1b), and all our results support the outcome hypothesis. In fact, we find that state ownership is associated with lower dividends only in the sub-sample of firms from countries with a lower law and order index and a lower level of checks and balances. This suggests that the adverse effects of state ownership on dividend policy are more pronounced in countries with weaker country-level corporate governance (i.e., lower levels regarding both law and order and political constraints on the government).

Our findings have several policy implications. The continued participation of government in newly privatised firms leads to lower dividend distribution, which may impede the achievement of privatisation objectives such as the redistribution of wealth and the promotion of popular capitalism. Furthermore, lower dividends may signal poor performance in a newly privatised firm. Therefore, shareholders will require more costly equity financing, which may have adverse effects on the survival of these firms and could be associated with poorer economic growth. The improvement of the country's political institutions is also important, as strong political institutions mitigate the adverse effects of state ownership on dividend policy.

One potential avenue of future research would be to examine the economic outcomes of retaining cash by poorly monitored managers of state-controlled firms, beyond the levels justified by economic fundamentals (i.e., excess cash holdings). For instance, future research could compare the impact of corporate governance structure on the value of excess cash holdings among firms controlled by the state versus firms not controlled by the state.

APPENDIX

Variables, Descriptions and Sources

Variable	*Description*	*Source*
Panel A: Proxies for Dividend Payout		
DIV/TA	The ratio of cash dividends over total assets	Author's calculation
DIV/SALES	The ratio of cash dividends over total sales	Author's calculation
DIV/CF	The ratio of cash dividends over cash flow; cash flow is calculated as net income plus depreciation	Author's calculation
DIV/NI	The ratio of cash dividends over net income	Author's calculation
Panel B: Proxies for Dividend Changes		
DIV_PAYER	A dummy variable equal to 1 if the firm pays dividends and 0 otherwise	Author's calculation
DIV_INCREASE	A dummy variable equal to 1 if the firm increases dividends and 0 otherwise	Author's calculation
DIV_DECREASE	A dummy variable equal to 1 if the firm decreases dividends and 0 otherwise	Author's estimation
Panel C: Ownership Variables		
STATE	The stake held by the government	Author's calculation
CONTROL	A dummy variable equal to 1 if the government maintains control after privatisation and 0 otherwise	Author's calculation
GOLDEN	A dummy variable equal to 1 if the government retains a golden share and 0 otherwise	Author's calculation
FOR	The stake held by foreign investors	Author's calculation
HIGH_FOR	A dummy variable equal to 1 if the firm's foreign ownership is higher than our sample median for foreign ownership and 0 otherwise	Author's calculation
FAMILY_DUMMY	A dummy variable equal to 1 if the firm has a family or individuals among its shareholders and 0 otherwise	Author's calculation
FAMILY_CONTROL	A dummy variable equal to 1 if the firm has a family or individuals among its shareholders holding more than 10% of its shares and 0 otherwise	Author's calculation
Panel D: Firm-Level Control Variables		
SIZE	The logarithm of the firm's total sales in US dollars	Author's calculation
LEVERAGE	The ratio of long-term debt over total assets	Author's calculation

(*Continued*)

Variable	*Description*	*Source*
Panel D: Firm-Level Control Variables		
TA_GROWTH	Sales growth for the year	Author's calculation
MTB	The market-to-book ratio	Worldscope
PROFITABILITY	The ratio of EBIT over net sales	Author's calculation
CASH	The ratio of cash and short-term investments over total assets	Author's calculation
RE/TE	The ratio of retained earnings over common equity	Author's calculation
STDEV_ROA	The standard deviation of return on assets	Author's calculation
DP	The difference between the log of the weighted-average market-to-book ratio of dividend payers and that of non-dividend payers; the weight used to calculate the weighted-average market-to-book ratio is the book value of total assets	Author's calculation
Panel E: Country-Level Control Variables		
LNGDPC	The natural logarithm of GDP per capita	World Development Indicators
LEFT	A dummy variable equal to 1 for left-oriented governments and 0 otherwise	*Database of Political Institutions*
C_RIGHTS	Creditor Rights Index	Djankov et al. (2007)
DISC_REQ	The disclosure requirements index; the index ranges from 0 to 10, with a higher score indicating more extensive disclosure requirements	La Porta et al. (2006)
RISKOFEXP	The ICRG's assessment of the risk of outright confiscation or forced nationalisation by the state; the index ranges from 0 to 12, with higher scores for higher risk	ICRG
MARKET_CAP	The ratio of stock market capitalisation over GDP	World Development Indicators
TAX_ADV	The tax advantage of dividends in a country measured by the after-tax value of $1 in dividends divided by the after-tax value of $1 in capital gains	La Porta et al. (2000)
LAW	*LAW* assesses the strength and impartiality of the legal system as well as the popular observance of the law; it ranges from 0 to 6, with a higher score indicating that a country enjoys an effective system where law enforcement is strong	ICRG
CHECKS	The number of checks and balances in the country	*Database of Political Institutions*

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