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**THE POLITICAL ECONOMY OF CORPORATE
GOVERNANCE, COST OF EQUITY, AND
EARNINGS QUALITY: EVIDENCE FROM NEWLY
PRIVATIZED FIRMS**

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RÉSUMÉ

Le contexte de privatisation a deux caractéristiques uniques. Premièrement, plusieurs études empiriques montrent que la majorité des transactions de privatisation sont partielles et le gouvernement reste un actionnaire dans la vaste majorité des firmes privatisées. Contrairement aux investisseurs privés, le gouvernement poursuit des objectifs politiques qui coïncident rarement avec la maximisation des profits. Par conséquent, la privatisation nous offre un contexte unique qui nous permet d'investiguer les répercussions de l'intervention du gouvernement dans les firmes nouvellement privatisées sur leur qualité des bénéfices comptables et leur coût du capital-actions. Deuxièmement, le changement majeur dans la structure de propriété des firmes nouvellement privatisées qui est accompagné de problèmes d'asymétrie d'information sévères, nous offre aussi un cadre unique dans lequel nous pouvons investiguer les déterminants du cout du capital-actions et de la qualité des bénéfices.

Dans le premier chapitre, nous examinons les déterminants politiques du cout de capital-actions. En utilisant un échantillon international de 126 entreprises en provenance de 25 pays et qui ont été privatisées durant la période 1987-2003, nous présentons des résultats suggérant que les firmes privatisées dans lesquelles le gouvernement maintient des droits de contrôle élevés enregistrent un cout du capital-actions élevé. Ce résultat a été trouvée après avoir contrôlé pour les déterminants au niveau de la firme et du pays du cout du capital-actions. Elle est cohérente avec l'hypothèse de l'interférence politique qui suggère que les actionnaires anticipent le risque d'intervention du gouvernement dans les opérations des firmes nouvellement privatisées et exigent une rémunération plus élevée pour investir dans les firmes

privatisées où le risque d'expropriation par le gouvernement est élevé. Ce qui se traduit par une augmentation du coût du capital-actions. Nous trouvons aussi que le coût de capital-actions est significativement relié au système politique et à la stabilité du gouvernement. En particulier, nous trouvons que les firmes en provenance de pays plus démocratiques et de pays avec des gouvernements plus stables bénéficient d'un coût de capital-actions moins élevé. Globalement, notre étude montre que les droits de contrôle du gouvernement et ses caractéristiques politiques déterminent le coût du capital-actions des firmes nouvellement privatisées.

Dans le deuxième chapitre, nous examinons comment l'État, les investisseurs institutionnels locaux et les investisseurs étrangers peuvent influencer la qualité des bénéfices des firmes nouvellement privatisées. En utilisant un échantillon unique de 174 firmes en provenance de 29 pays et qui ont été privatisées durant la période 1980-2003, nous trouvons une évidence forte et robuste qui suggère que la qualité des bénéfices est négativement reliée au contrôle et à la propriété du gouvernement. En particulier, nous trouvons plus de gestion des bénéfices et moins de prudence comptable dans les firmes privatisées où les droits de propriété du gouvernement sont élevés ou dans lesquelles le gouvernement conserve le contrôle. Ce résultat qui est cohérent avec l'hypothèse d'interférence politique suggère que le gouvernement a des fortes motivations à manipuler les bénéfices afin de cacher les bénéfices politiques du contrôle. Nous trouvons aussi un résultat qui suggère que la propriété des investisseurs institutionnels locaux est associée avec une meilleure qualité des bénéfices comptables. En effet, nous trouvons que la propriété des investisseurs institutionnels locaux est associée avec plus de prudence comptable. Ce résultat est cohérent avec le point de vue qui considère que les investisseurs institutionnels jouent un rôle actif dans la

surveillance des gestionnaires. De plus, nous rapportons une certaine évidence suggérant que la propriété des investisseurs étrangers est associée avec plus de prudence comptable i.e., une meilleure qualité des bénéfices. Globalement, notre étude suggère que la qualité de l'information comptable des firmes privatisées est reliée à l'identité de ses nouveaux investisseurs.

Mots Clés : Coût du capital-actions; Structure de propriété; Institutions Politiques; Gouvernance d'Entreprise; Gestion des bénéfices; Prudence Comptable; Privatisation.

SUMMARY

The privatization context is characterized by two unique features. First, several empirical studies document that the majority of privatization transactions are gradual and the government remains a shareholder in the overwhelming majority of privatized firms. Unlike typical shareholders, the state pursues political objectives, which rarely coincide with profit maximization, allowing us to examine the consequences of the state's direct influence over privatized firms. Second, the drastic change in the ownership structure of privatized firms, which is accompanied by severe information asymmetry problems, also provides us with a unique setting in which we can investigate the determinants of the cost of equity and the quality of accounting information.

In the first chapter, we examine the political determinants of the cost of equity. Using a multinational sample of 126 privatized firms from 25 countries between 1987 and 2003, we find strong, robust evidence that the cost of equity is increasing in government control, while controlling for other determinants of the cost of equity. This result which is consistent with the political entrenchment hypothesis suggests that minority shareholders will anticipate the post-privatization political interference and discount the share prices, hence raising the cost of equity financing of privatized firms. We also find that the cost of equity is significantly related to the political system and to the government's tenure. Specifically, we find that firms from more democratic countries and more stable governments enjoy a lower cost of equity. Overall, our study suggests that the government's control rights and political characteristics determine the privatized firm's equity financing costs.

In the second chapter, we examine the role of state owners, local institutional investors, and foreign investors in shaping the financial reporting incentives of privatized firms. Using a unique dataset of 174 privatized firms from 29 countries between 1980 and 2003, we find strong and robust evidence that state ownership is associated with lower earnings quality. In particular, we find that state ownership is associated with higher abnormal accruals and less persistence of negative earnings changes, consistent with the view that state owners have higher incentives to manipulate earnings in order to hide corporate resources expropriation for political purposes. We also find that local institutional ownership is associated with less persistence of negative earnings changes, providing support for the incentive effect of local institutions that get involved in active monitoring of management activities. In addition, we find weak evidence implying that foreign ownership is associated with less persistence of negative earnings changes. Overall, our study suggests that the reporting incentives of privatized firms are related to the new post-privatization shareholder identity.

Keywords: Cost of Equity; Ownership Structure; Political Institutions; Corporate Governance; Earnings Quality; Abnormal Accruals; Persistence of Negative Earnings Changes; Conservatism; Privatization.

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GENERAL INTRODUCTION

1. Presentation of the Study

Roe (2003:1) outlines the influence of politics on the firm's resources allocation and decision making:

Politics can affect a firm in many ways: it can determine who owns it, how big it can grow, what it can produce profitably, how it raises capital, who has the capital to invest, how managers or employees see themselves and one another, and how authority is distributed inside the firm.

Prior literature has investigated the link between political economy and finance. A strand of literature has examined the impact of the political environment on financial development. For instance, Rajan and Zingales (2003) show that incumbent firms can use laws and regulations in their advantage which should hinder financial development that would otherwise benefit young firms. Another strand of literature has examined the impact of politics on corporate governance. For instance, Roe (2003) argues that the political environment determines the firm's ownership structure as well as its governance arrangements. More specifically, he argues that the mechanisms that align the interests of managers and shareholders are weak in the political environment of the continental European democracies. Consequently, the managerial agency costs of public firms in such environments are higher and ownership concentration is the best corporate governance mechanism. In the same vein, Stulz (2005) shows that insider ownership increases as the protection of minority shareholders becomes weaker and as political risk increases.

Stulz (2006) discusses the impact of state interference and managerial agency problems i.e., the "twin-agency problem" on investment strategies and corporate ownership. The author argues that increasing insider ownership should align the

incentives of managers with those of shareholders, reducing the expropriation of shareholders' wealth by the state. Hence, the "twin-agency problem" leads to corporate insiders co-investment and thus to ownership concentration. Consistent with this argument, he finds for Eastern European countries that poor corporate governance leads to high ownership concentration, which in turn results in low firm valuation, low financial development, and thus low participation by foreign investors. This suggests that poor governance prevents countries from taking advantage of financial globalization. Similarly, Durnev and Fauver (2008) consider a "twin-agency problem" model where both managers and the government can divert corporate resources. This model implies that owners choose a corporate governance structure that allows managers to divert resources when government risk of expropriation is high because otherwise a high fraction of resources will be expropriated by the state. Consistent with this conjecture, they find that firms from countries with predatory governments have low quality corporate governance and disclose less information. They also find that the positive evaluation effect of corporate governance is weaker when the risk of expropriation by the state is higher. Additionally, Bushman et al. (2004) argue that political economy affects corporate transparency. Specially, they argue that insiders have higher incentives to disclose less information in order to prevent the government from interfering and extracting shareholders' wealth. In the same vein, Bushman and Piotroski (2006) show that firms from countries with higher state involvement in the economy and higher risk of expropriation report less conservative earnings i.e., lower quality earnings.

In this dissertation we analyze the direct importance of political economy to equity valuation and earnings quality in the specific context of privatized firms. Specifically, we attempt to answer the following questions:

1. How is the cost of equity related to the privatizing government's residual control rights and political characteristics?
2. How may the government's direct influence over privatized firms affect earnings quality? How may the drastic change in the ownership structure that accompanies privatization affect earnings quality?

Answering these questions allows us to examine how the government's influence over privatized firms may affect their equity financing costs and financial reporting incentives.

2. Context of Privatized Firms

Several theoretical studies have outlined the influence of politics on the resource allocation made by state-owned enterprises (SOEs). Shleifer and Vishny (1994) argue that SOEs are subject to high political interference that distorts the objectives defined for managers. Indeed, the managers of SOEs may be swayed to pursue the objectives of politicians which rarely coincide with profit maximization. Such objectives include maintaining a high level of employment; promoting regional development by locating production in politically desirable rather than economically attractive regions; ensuring national security, etc. Politicians generally pursue these objectives in order to achieve their goals of success in elections and long tenure in power. They also argue that the control rights must be transferred from the state to private owners. Otherwise, political interference will persist and privatization will not create the necessary managerial

incentives to maximize the shareholders' wealth and improve overall firm performance. In the same vein, Boycko et al. (1996) argue that privatization which results in the transfer of control rights from politicians to managers will depoliticize and restructure SOEs since it increases the cost of any future political interference. As a result, privatization usually enhances corporate efficiency. Furthermore, the authors argue that privatization is more efficient when it transfers the control rights to outside, large, and non-politicized investors. Additionally, Shleifer and Vishny (1998) argue that in order to increase corporate performance, privatization should neutralize the "grabbing hands" of governments by severing the link between politicians and managers of the former state-owned firms. Specifically, they argue that the design of privatization should reduce the ability of politicians to influence privatized firms through subsidies and regulations. In other words, in order to be effective privatization should trace a line between managers and politicians. Overall, this discussion suggests that if the control rights are not transferred to private investors, political interference will persist and privatization will not increase corporate performance.

Several other analytical and empirical studies suggest that politics also affect the decision to privatize as well as the design of privatization programs. Perotti (1995) argues that the type of the government, whether it is committed or populist, explains gradual sales and underpricing. A populist government undertakes privatization to raise money whereas a committed government undertakes privatization for its expected micro- and macro-economic benefits. Perotti's (1995) model implies that a committed government which is associated with lower post-privatization political interference would retain a passive stake in the privatized firm in order to signal its willingness to share residual risk with private investors. However, a populist

government is reluctant to engage in partial sales because it will incur revenue losses when its true identity is revealed.

In the same vein, Biais and Perotti (2002) argue that building confidence and credibility are influential factors in the privatization process: Right-wing governments are more likely to apply market-oriented policies and tend to be more committed than left-wing governments. Specifically, they argue that right-wing governments are more likely to undertake large scale privatization programs in which significant stakes are allocated to middle-class voters who will become more inclined as shareholders to vote with the right in the future. Therefore, right-wing governments are more likely to privatize control and sell large stakes.

Although the above cited theoretical studies suggest that privatization should be accompanied by a removal of the links with politicians, recent empirical studies show that the government remains a shareholder even several years after privatization. For instance, Bortolotti and Faccio (2007) show that the government is reluctant to surrender control and remains the largest owner of almost two thirds of their sample of privatized firms from OECD countries. In the present dissertation, we attempt to investigate the influence of the government as a residual shareholder on the cost of equity and earnings quality of privatized firms.

3. Work Plan

The dissertation consists of two parts. In each part, we examine the impact of political governance on newly privatized firms (NPFs). In the first part, we use a unique multinational sample of 126 privatized firms to investigate the political determinants of the cost of equity. Boycko et al. (1996) argue that by transferring the control of SOEs

from the government to private owners, political interference will decrease or disappear and thus there will be a lower risk of expropriation of minority shareholders. Therefore shareholders should demand a lower compensation for holding the shares of a privatized firm characterized by a lower level of government control. We also examine the influence of the political characteristics of the privatizing government on the cost of equity of NPFs. The theoretical work of Perotti (1995) and Biais and Perotti (2002) suggest that the political characteristics of the privatizing government influence the design of privatization programs and determine the expected level of post-privatization policy risk. Several political characteristics of the government should be related to policy risk such as political orientation, the prevailing political system and government stability.

In the second part, we examine the impact of the new post-privatisation ownership structure on the quality of accounting information. More specifically, we use a unique dataset of 174 privatized firms from 29 countries between 1980 and 2003 to investigate the relation between the new post-privatization shareholder identity and earnings quality. First, we examine the impact of the government's direct influence over privatized firms on earnings quality. The political view held by Boycko et al. (1996) and Shleifer and Vishny (1998), among others, argue that state owners have objectives that rarely coincide with profit maximisation. Therefore, they have strong incentives to manipulate earnings in order to hide corporate resources expropriation. Second, we examine the role of private owners, specifically local institutions and foreign investors which are shown by Boubakri et al. (2005) to benefit the most from the relinquishment of government ownership, in shaping the privatized firm's reporting incentives. The literature on whether local institutional ownership enhances or deters corporate

performance is still debated. On the one hand, the proponents of the monitoring hypothesis argue that institutional ownership is associated with an active monitoring of management activities (e.g., Pound (1988)) and thus should improve performance. On the other hand, the proponents of the entrenchment hypothesis argue that institutional ownership does not increase the monitoring of management activities and hence do not increase corporate performance. We attempt to contribute to this debate by testing whether institutional ownership is associated with better monitoring of management activities and thus with higher financial reporting incentives in privatized firms. As for the role of foreign investors, we examine the relation between foreign ownership which is generally considered to be associated with a restructuring of privatized firms and a demand of higher corporate transparency and earnings quality.

4. Contributions

This dissertation contributes to the recent literature on the link between political economy and finance in several ways:

First, focusing in the first part on the direct impact of political economy on equity valuation, we extend the recent literature that examine the influence of political economy on several issues related to the accounting and finance fields including corporate governance, corporate transparency, and corporate performance (e.g., Bushman et al. (2004) and Durnev and Fauver (2008)). Second, we contribute to the recent literature on the role of corporate governance in reducing the firm's cost of equity (e.g., Hail and Leuz (2006)) by focusing on a drastic change on the ownership structure, namely privatization. Third, we contribute on the privatization literature that gives few insights on the determinants of financing costs of privatized firms, except

Borisova (2007) who examines the cost of debt of privatized firms from the European Union.

As for the second part, we examine the role of state owners, local institutional investors, and foreign investors in shaping the financial reporting incentives of privatized firms. We use two measures of earnings quality: (i) discretionary abnormal accruals, and (ii) accounting conservatism. Several studies have examined the link between the ownership structure and the quality of accounting information of public firms (e.g., Fan and Wong (2002) and Wang (2006)). We contribute to this literature by examining the impact of the drastic change on the ownership structure that accompanies privatization on earnings quality. Several other studies have examined the influence of the legal and political environments on the quality of accounting information at the country level (e.g., Leuz et al. (2003), Bushman and Piotroski (2006), and Durnev and Fauver (2008)). We extend this strand of literature by investigating the direct influence of the government on privatized firms.

References

- Biais, B., Perotti, E., 2002. Machiavellian Privatization. *American Economic Review* 92, 240-258.
- Borisova, G., 2007. Does Privatization Affect the Cost of Debt? Evidence from the European Union. *Working Paper*, Oklahoma University.
- Bortolotti, B., Faccio, M., 2007. Government control of privatized firms. *Review of Financial Studies*, forthcoming.
- Boubakri, N., Cosset, J.C., Guedhami, O., 2005. Post-privatization corporate governance: The role of ownership structure and investor protection. *Journal of Financial Economics* 76, 369-399.
- Boycko, M., Shleifer, A., Vishny, R., 1996. A theory of privatization. *The Economic Journal*, 309-319.
- Bushman, R., Piotroski, J., Smith, A., 2004. What determines corporate transparency? *Journal of Accounting Research* 42, 207-252.
- Bushman, R., Piotroski, J., 2006. Financial reporting incentives for conservative accounting: The influence of legal and political institutions. *Journal of Accounting Economics* 42, 107-148.
- Durnev, A., Fauver, L., 2008. Stealing from thieves: Firm governance and performance when states are predatory. *Working Paper*, McGill University.
- Fan, J., Wong, T., 2002. Corporate ownership structure and the informativeness of accounting earnings in East Asia. *Journal of Accounting and Economics* 33, 401-425.
- Hail, L., and Leuz, C., 2006. International Differences in Cost of Equity Capital: Do Legal Institutions and Securities Regulations Matter? *Journal of Accounting Research* 44, 485-531.
- Leuz, C., Nanda, D., Wysocki, P.D., 2003. Earnings management and investor protection: an international comparison. *Journal of Financial Economics* 69, 505-527.
- Perotti, E., 1995. Credible Privatization. *American Economic Review* 85, 847-859.
- Pound, J., 1988. Proxy contests and the efficiency of shareholder oversight. *Journal of Financial Economics* 20, 237-265.
- Rajan, R., Zingales, L., 2003. The great reversals: The politics of financial development in the 20th Century. *Journal of Financial Economics* 69, 5-50.
- Roe, M., 2003. *Political Determinants of Corporate Governance*. Oxford University Press: Oxford.

- Shleifer, A., Vishny, R., 1994. Politicians and Firms. *Quarterly Journal of Economics* 109, 995-1025.
- Shleifer, A., Vishny, R., 1998. The grabbing hand: Government pathologies and their cures. Harvard University Press: Cambridge, MA.
- Stulz, R., 2005, Limits of globalization. *Journal of Finance*, 60, 1595-1638.
- Stulz, R., 2006, Financial globalization, corporate governance, and Eastern Europe. *Working Paper*, Ohio State University.
- Wang, D., 2006. Founding family ownership and earnings quality. *Journal of Accounting Research* 44, 619-656.

CHAPTER 1:
THE POLITICAL DETERMINANTS OF THE COST OF EQUITY:
EVIDENCE FROM NEWLY PRIVATIZED FIRMS

The Political Determinants of the Cost of Equity: Evidence from Newly Privatized Firms

Abstract

We use a unique dataset of 126 privatized firms from 25 countries between 1987 and 2003 to investigate the political determinants of the cost of equity. We find strong, robust evidence that the cost of equity is increasing in government control, while controlling for other determinants of the cost of equity. We also find that the cost of equity is significantly related to the political system and to the government's tenure. Overall, our research suggests that the government's control rights and political characteristics determine the privatized firm's equity financing costs.

JEL classification: G32, G31, G38, G30

Keywords: Cost of Equity; Control structure; Political institutions; Privatization.

The Political Determinants of the Cost of Equity: Evidence from Newly Privatized Firms

1. Introduction

In this paper, we investigate the political determinants of the cost of equity of firms operating in a wide set of countries. Several studies suggest that political economy has an influence on corporate finance. For instance, Durnev and Fauver (2007) argue that good corporate governance practices will not improve corporate performance unless accompanied with concomitant improvements in government policies. More specifically, they argue that the incentives of managers to pursue value maximizing objectives are lower when the risk of corporate resource expropriation by the government is higher (i.e., under predatory governments). Focusing on the impact of political economy on corporate transparency, Bushman et al. (2004) also show that countries with more state involvement in the economy have a lower financial transparency. In the context of privatization, which is by definition a politically-backed change in corporate ownership, several studies underline the conditions for a change in the corporate performance of former state-owned firms. Boycko et al. (1996), for example, argue that the transfer of cash flow rights from the government to private owners will deter privatized firms' corporate performance if the control rights are still in the hand of politicians. In the same vein, Shleifer and Vishny (1998) argue that if the existing links between politicians and managers of the former state-owned firms are not completely severed, the "grabbing hands" of governments will not be neutralized, allowing them to expropriate corporate resources.

In this study, we extend this strand of literature by directly analysing the importance of political economy to equity valuation. Specifically, we examine how government control and the political environment may affect the cost of equity capital required by shareholders, and attempt to answer the following questions: Do shareholders consider government control of the firm as a risk factor, and does such control influence the firms' cost of equity? Do the political characteristics of the government (e.g., its political leaning, its prevailing political system, and its stability) also affect the cost of equity?

We conduct our research in the specific context of privatization for several reasons. As previously explained, privatization is accompanied by a drastic change in ownership structure and thus allows us to study more formally the dynamic link between the (new) ownership structure (and hence new corporate governance) and the newly privatized firm's cost of equity. This switch from state to private ownership, which is accompanied by severe information asymmetry problems (Denis and McConnell (2003) and Dyck (2001)), also provides us with a unique setting in which we can investigate new potential determinants of the cost of equity: Specifically, the privatization context allows us to examine if and to what extent, political institutions that characterize the government matter to shareholders. The newly privatized firms also have a unique feature, which is the presence of the government as a shareholder, even several years after privatization (e.g., Bortolotti and Faccio (2007)). This is important since governments, unlike typical shareholders, tend to pursue political objectives that rarely coincide with profit maximization, allowing us to examine their role in determining the firm's cost of equity.

Our study is related to the literature on the impact of government ownership on post-privatization corporate performance. To date, this literature is still inconclusive. On the one hand, Boardman and Vining (1989) report that partially privatized firms underperform fully privatized firms and state-owned enterprises. In the same vein, Boubakri and Cosset (1998) find that the post-privatization performance of firms in developing countries increases more when the government relinquishes control. On the other hand, D'Souza et al. (2005) document that state ownership of firms in developed countries induces more capital spending, while Gupta (2005), echoing this evidence, shows that partially privatized Indian firms post higher profits after divestiture. We contribute to this debate by examining the potential effect of government control on the privatized firm's equity financing costs and, more generally, the possible effects of institutions and politics on resource allocation during the dramatic regime shift imposed by privatization.

Rather than focusing on performance and value as in earlier studies, we choose to focus on the cost of equity for three main reasons. First, good corporate governance may improve the firm's valuation by stemming the diversion of its cash flows (e.g., Claessens et al. (2002) and Gompers et al. (2003)). Corporate governance can also affect firm value through the discount rate of the firm's expected future cash flows (i.e., the cost of equity).¹ Examining the latter link through which corporate governance may affect firm value is important, because, as it is a direct measure of the external equity financing costs, the discount rate determines the firm's financing and investing

¹ Hail and Leuz (2006 p. 486) use a similar argument to motivate their choice of the cost of equity. They note: "It is possible that the valuation effects primarily reflect differences in the level of expropriation and firms' growth opportunities. But effective legal institutions may also reduce the risk premium demanded by investors, and hence firms' cost of capital."

decisions (e.g., Shleifer and Vishny (2003)). Second, Suchard et al., (2007) argue that, unlike Tobin Q, the cost of equity is based on the firm's current operation risk and is less likely to be exposed to the exogenous factors that affect the firm's growth opportunities. Therefore, the cost of equity is a more accurate measure of the changes in the firm's governance environments. Finally, the cost of equity captures the firm's agency and information asymmetry problems (e.g., Easley and O'Hara (2004) and Lambert, et al. (2007)).

Using a unique multinational sample of 126 privatized firms from 25 countries between 1987 and 2003, we find strong and robust evidence that the cost of equity is increasing in government control, while also controlling for other determinants of the cost of equity. Our results also show that the cost of equity of newly privatized firms is significantly related to government stability (tenure) and the political system. More specifically, we find evidence that firms from countries with more democratic and more stable governments enjoy a lower cost of equity. Therefore, our findings suggest that the presence of sound political institutions will lower the rate of return shareholders require for holding equity in privatized firms.

Our paper contributes to the literature on several grounds: First, it contributes to the recent literature on the role of corporate governance in determining the firm's cost of equity (e.g., Hail and Leuz (2006)), by introducing the corporate governance role that the government plays as a shareholder. Second, by investigating the political determinants of the cost of equity, it adds to the burgeoning literature on the political economy of corporate finance (e.g., Durnev and Fauver (2007) and Bushman et al.

(2004)). Finally, it contributes to the privatization literature which, to date, has provided few insights into the external financing costs of newly privatized firms.²

The rest of this paper is organized as follows. In section 2, we review the related literature and develop our hypothesis. Section 3 describes the sample construction, and provides descriptive information about the control structure of our sample of privatized firms. Section 4 presents our main empirical evidence and reports the results of our sensitivity analysis. Section 5 summarizes our findings and concludes.

2. Related Literature and Hypotheses

2.1 Government Control and the Cost of Equity

In the literature, the impact of state ownership on post-privatization performance is still a topic of debate. On the one hand, the political view implies that state ownership is associated with post-privatization political interference (Boycko et al. (1996) and Shleifer and Vishny (1994)). The proponents of this view argue that managers in state-owned enterprises (SOEs) may be swayed to pursue government leaders' political objectives, rather than to maximize profits. Typical evidence of this pursuit of political objectives would include maintaining a high level of employment and promoting regional development by locating production in politically desirable rather than economically attractive regions. Boycko et al. (1996) argue that a greater emphasis will be put on profits and efficiency only if privatization transfers control and ownership from the government to private shareholders, who will then strive to maximize firm value. In the same vein, Paudyal et al. (1998) argue that the level of post-

² A notable exception is Borisova (2007) who looks at the cost of debt of such firms from the European Union.

privatization political interference and the risk of renationalization will both be higher when the government sells a relatively low percentage of its capital. Therefore, the “political interference” hypothesis implies that greater government control is associated with a higher agency risk and will thus lower post-privatization corporate performance or firm value. According to this argument, government control and the cost of equity should be positively related.

Several empirical studies support the predictions of the political interference hypothesis. Boardman and Vining (1989) compare the performance of the private firms, SOEs, and partially privatized firms listed among the 500 largest non-US industrial firms. They report that partially privatized firms underperform private firms and SOEs. Similarly, Boubakri and Cosset (1998) find that, in developing countries, post-privatization performance improves more when the government relinquishes control. More recently, Fan et al. (2007) document lower accounting and post-IPO long-term performances for privatized Chinese firms, when the government maintains control through political connections.

On the other hand, state ownership may be positively related to firm performance/valuation because it carries an implicit guarantee of government bail outs (i.e., a soft-budget constraint). For example, Wang et al. (2008) argue that, because they can appeal to soft-budget constraints when they encounter financial difficulties, SOEs have lower incentives to report higher quality accounting information in order to obtain better contracting terms. Faccio et al. (2006) find that politically connected firms are more likely to be bailed out than non-politically connected peers. This implies that the cost of equity should be negatively associated with state ownership. In the same vein,

Charumilind 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. According to this view, the cost of equity should be negatively associated with government control.

Overall, because the literature provides two competing predictions about the impact of government control on privatized firms' cost of equity, our first hypothesis is non-directional and states:

H₁: The cost of equity is related to the control rights held by the government, all else being equal.

2.2 The Political Characteristics of the Government and the Cost of Equity

Perotti (1995) and Biais and Perotti (2002) suggest that the government's credibility and its commitment to privatization will command the way the process is conducted as well as the expected level of policy risk. Policy risk arises from post-privatization policies that may be applied by the government (e.g., deregulation, enactment of new legislations, and new administrative procedures) and could affect the allocation of previously established rights. Several characteristics of the privatizing government may be related to policy risk. The government's political orientation may determine the level of post-privatization policy risk. Left-wing governments are more likely to intervene in the economy and to affect the post-privatization valuation by issuing policy changes that modify shareholders' control and income rights. In the view of Biais and Perotti (2002), left-wing governments are less likely to apply market-oriented policies and tend to be less committed than right-wing governments. We

therefore expect policy risk to be higher in countries with left-wing governments.

The political system may also determine the level of post-privatization policy risk. Democratic governments are more likely to introduce market-supporting reforms and thus should be more committed to privatization. Therefore, democratic governments should be less inclined to interfere with the operations of newly privatized firms (NPFs) through regulation or renationalization. As argued by Banerjee and Munger (2004, p.220), democracy also changes the incentives for rent-seeking. They note: "The checks and balances penalize self-interested politicians and hence limiting rent-seeking opportunities." Consequently, minority shareholders should face a lower level of policy risk in countries with more democratic governments.

In addition, government stability may determine the level of post-privatization policy risk. High government turnover will increase the likelihood of policy reversals. Furthermore, governments uncertain about their chances of being re-elected may engage in sub-optimal policies in order to worsen the state of the economy to be inherited by a successor. Therefore, the policy risk faced by the shareholders of NPFs should be higher in countries with unstable governments. In light of this discussion suggesting that the political characteristics of the government determine the level of post-privatization policy risk, we can derive our second hypothesis:

H₂: The cost of equity is related to the political characteristics of the privatizing government, all else being equal.

3. Data and Variables

3.1 Sample Construction

We obtain the list of privatized firms from several sources such as the *World Bank* privatization database for developing countries, the *Privatization Barometer* for OECD countries, and Megginson's (2003) updated list of privatized firms in developed and developing countries. We follow the usual practice of eliminating firms from ex-communist countries and China (e.g., Megginson et al. (2004) and Bortolotti and Faccio (2007)).³ Next, we hand match this database on the details of privatization with *I/B/E/S* and *Worldscope*, which we use to collect data on contemporaneous stock prices, analysts' earnings forecasts, and financial data, respectively, for our post-privatization period of five years i.e., from the year following the privatization to five years after privatization.

For each observation we require: (i) a positive one-year-ahead and two-year-ahead earnings forecasts, (ii) either a three-year-ahead positive earnings forecast or a long-term growth rate forecast, (iii) a contemporaneous price per share, and (iv) a positive book value from *Worldscope*. Analysts' forecasts and stock prices are measured as of the fiscal year-end + 10 months while financial data is measured as of the fiscal year-end.⁴ All items are denominated in local currency. Next, we implement the four

³ Our sample does not include privatized companies in the ex-communist countries for at least two reasons. First, in these countries, the traditional law system is based on Soviet law which has undergone many changes during its transition period (La Porta et al., 2000). Second, post-privatization ownership structures in these countries are still mainly in the hands of insiders (managers and employees). Recent surveys of the experience of transition economies include Djankov and Murrell (2002) and Svejnar (2002).

⁴ Following Hail and Leuz (2006), we use analyst forecasts and the stock price at month +10 after the fiscal year end to compute our estimates of the implied cost of equity, in order to ensure that financial data are publicly available and priced at the time of our computations.

models of the implied cost of equity described in the Appendix B and exclude firm-year observations if: (i) the inflation rate for the country in that year is above 25%, (ii) one of the cost of equity models does not converge or is not defined, (iii) we do not have data on the firm's ultimate ownership structure. We end up with a final sample of 126 firms privatized in 25 countries over the 1987-2003 period.⁵ Appendix A defines the variables used in our empirical analysis and their sources.

Table 1 provides some descriptive statistics about the 126 firms from 25 countries used in this study.⁶ The 126 firms are diversified across development levels and legal origins. Specifically, 29.37% of the sample firms are located in developing countries, while the remaining 70.63% are located in industrialized countries. Additionally, 71.44% of the sample firms come from civil law countries, whereas 28.56% of our sample firms come from common law countries. Interestingly, this diversification involves countries with different legal, political, and institutional environments, allowing us to investigate what impact these cross-country differences have on the cost of equity. As reported in Table 1, our sample is also diversified across industries, with 17.46% in the financial sector, 7.94% in the petroleum sector, 11.91% in the transportation sector, and 22.22% in the utility sector. Furthermore, 81% of our sample's privatization transactions occurred in the 1990s.⁷

⁵ This number of firms represents 75% of the firms for which we are able to estimate the cost of equity.

⁶ This sample is comparable to those of multinational studies on privatized firms: Megginson et al. (1994) with a sample of 61 firms from 18 countries, Boubakri and Cosset (1998) with a sample of 79 firms from 21 countries, D'Souza and Megginson (1999) with a sample of 78 firms from 25 countries, Dewenter and Malatesta (2001) with a sample of 61 firms from 8 countries, D'Souza et al. (2005) with a sample of 129 firms from 23 countries, and Bortolotti and Faccio (2007) with a sample of 141 firms from 22 countries.

⁷ Our sample firms show patterns similar to those of the privatized firms listed on *Worldbank*, implying that our sample is representative of the underlying population. For example, 31% of the privatized firms listed

Insert Table 1 about here

3.2 Cost-of-Equity Estimates

One measure of the cost of equity commonly used in the asset pricing literature is the ex-post realized return. However, this measure has been criticized in the recent finance literature (e.g., Fama and French (1997) and Elton (1999)). For example, Elton (1999) argues that the realized return is a poor and potentially biased proxy for the cost of equity.⁸ Additionally, Fama and French (1997) conclude that the single-factor, capital-asset pricing model and the Fama-French three-factor model produce imprecise cost-of-equity estimates.⁹ An alternative cost-of-equity proxy widely used in the recent accounting and finance literature (e.g., Botosan and Plumlee (2005), Hail and Leuz (2006), Dhaliwal et al. (2006), among others) is the ex-ante rate of return implied by the discounted cash-flow method. We follow this line of research by relying on the discounted cash-flow method to estimate the cost of equity. We use estimates of the implied cost of equity based on the four following models: Claus and Thomas (2001 CT); Gebhardt, Lee, and Swaminathan (2001 GLS); Easton (2004 ES); and Ohlson and Juettner-Nauroth (2005 OJ), denoted as R_{CT} , R_{GLS} , R_{ES} and R_{OJ} , respectively. These four models—based either on the residual income valuation model or on an abnormal earnings growth valuation model—are primarily different in their assumptions about growth rates, forecast horizons, and inputs. A description of these models and detailed

on *Worldbank* come from common law countries and 65% come from civil law countries. Additionally, we note that 80% of the privatization transactions on the *Worldbank's* list occurred in the 1990s.

⁸ Elton (1999) shows that a sequence of correlated information surprises that have a significant permanent effect on realized returns will cause expected and realized returns to differ systematically over long periods.

⁹ Fama and French (1997) find that the cost of equity estimates based on the single-capital asset pricing model and their three-factor model are characterized by large standard errors.

implementation procedures for each of them are summarized in the Appendix B. Since the literature shows no strong consensus on which of the models most accurately estimates the cost of equity, we follow Hail and Leuz (2006) and Dhaliwal et al. (2006) by using the average of implied estimates from the four models as our estimate of the cost of equity.

Table 2 reports descriptive statistics for the implied cost-of-equity estimates. Panel A shows that the GLS model produces the lowest estimates of the cost of equity, consistent with Gode and Mohanram (2003) and Hail and Leuz (2006)'s findings, among others. Our estimate of the implied cost of equity R_{AVG} , the average of implied estimates from the four models, has a mean of 12.16% and a standard deviation of 4.30%. Panel B shows the pairwise Pearson correlations between the estimates from the four models. Similar to Hail and Leuz (2006), we find that the cost-of-equity estimates from the four models are highly correlated and that the GLS model exhibits the lowest pair-wise correlation coefficients. Panel C, which reports descriptive statistics on the implied cost of equity (R_{AVG}) by country, shows differences on R_{AVG} between countries. R_{AVG} ranges from 8.74% in New Zealand to 18.30% in Brazil.

Insert Table 2 about here

3.3 Explanatory Variables

3.3.1 Control Structure. To measure the ultimate control (voting) rights of the largest shareholders of our sample firms, we hand collected data on the ultimate ownership structure, mainly from annual reports. We also used additional sources such as *Worldscope* and the Asian and Brazilian handbooks. We used the approach described

in La Porta et al. (1999), Claessens et al. (2000) and Faccio and Lang (2002) to determine the ultimate control structure of privatized firms.

In this study, corporate ownership is measured by cash-flow rights, and control is measured by voting rights. Following Bortolotti and Faccio (2007), we define a large shareholder as an entity which holds directly or indirectly at least 10% of the privatized firms' voting rights. This approach accounts for ownership leveraging devices, namely: pyramids, dual-class shares, cross- holdings, and multiple control chains. These devices allow the largest shareholders to obtain excess control (control rights in excess of ownership rights). Using this approach allows us to tackle the problem of understatement of government control over NPFs. Indeed, the government may divest more than 50% of the privatized firm and yet still control the firm indirectly, for example through a pyramidal ownership structure that involves other state-owned-firms.

Following the above cited studies on ultimate ownership, we classify the largest ultimate owner of each firm under the six following types: (i) State, (ii) Family, (iii) Widely held corporation, (iv) Widely held financial institution, (v) Miscellaneous, and (vi) Cross-holdings. Table 3 reports descriptive information on the control structure of our sample firms over the period from year 0 to year +5. Panel A reports the percentage of firms controlled by each type of ultimate owner. In each of the six years, the largest ultimate owner of the privatized firms is most frequently the state. This evidence is consistent with Bortolotti and Faccio's (2007) findings for privatized firms from developed countries: the state is the largest ultimate owner in both of the two years for which they collected ultimate ownership data, i.e., 1997 and 2000.

Five years after privatization, the government is the largest ultimate owner in 68.96% of our sample firms. Thus, even five years after privatization, the government is the largest ultimate owner in almost two-thirds of the sample firms. The second most frequent type of ultimate owner is Family.¹⁰ Families control on average 7.66% of our sample firms during the post-privatization window. 5.54% of our sample firms do not have a large shareholder under the 10% threshold, and are classified as widely held. The percentage of widely held firms increases from 3.74% in year +1 to 10.34% in year +5. The largest owner is also frequently a widely held corporation. Widely held corporations control, on average, 5.11% of our sample firms over the post-privatization window. Panel B reports descriptive information on the control enhancing mechanisms used by the government in firms in which it is the largest ultimate owner. During the post-privatization window, 49.45% of privatized firms in which the government is the largest ultimate owner uses at least one of the enhancing control mechanisms. Globally, we find that the state is the largest ultimate owner in the post-privatization period. Panel C provides descriptive statistics on the ultimate control rights held by the government. The statistics indicate a decline in government control rights over the post-privatization window. The mean government voting rights decline from 44.98% in year +1 to 32.72% in year +5, which is equivalent to a shift of 27.26%. Interestingly, we note that the government was the ultimate controlling shareholder (more than 50% of shares) in 95.35% of the sample firms before privatization. The percentage of firms in

¹⁰ Family is an indentified family or an unlisted company on any stock exchange.

which the government is the ultimate controlling shareholder is also high during the post-privatization period. It ranges from 89.77% in year +1 to 77.05% in year+5.

Insert Table 3 about here

3.3.2 Political Economy Variables. As proxies for the political characteristics of the privatizing government, we use the following variables from the *Worldbank's* Database of Political Institutions (*DPI*):

Political orientation (*LEFT*): A dummy variable equal to one if the government is left-oriented, and 0 otherwise. Following Biais and Perotti (2002), we distinguish between left-wing and right-wing governments, since right-wing governments tend to be more committed and are thus expected to be associated with lower post-privatization policy risk. Hence a lower cost of equity.

Political regime (*SYSTEM*): This index is a proxy for the type of political system—democratic versus authoritarian. A higher score indicates more democratic governments. More democratic governments should be more inclined to set up market supporting institutions. Furthermore, as Banerjee and Munger (2004) argue, more democratic governments are more likely to counteract the rent-seeking incentives of their politicians. Therefore, more democratic governments should be associated with a lower policy risk. Hence a lower cost of equity.

Government tenure (*YRSOFFC*): We employ the number of years that the chief has been in office. This variable measures the credibility of the government and its ability to implement economic reforms and privatization (Cukierman and Leviatan (1992) and Banerjee and Munger (2004)), which both lower the post-privatization policy risk faced by shareholders (Perotti (1995)). Hence a lower cost of equity.

3.3.3 Institutional Variables. Recent empirical studies emphasize the important role the institutional environment plays in protecting minority shareholders' rights (e.g., Hail and Leuz (2006), among others). They report evidence suggesting that sound institutions and extensive disclosure standards are associated with lower agency risk and with lower equity financing costs. We rely on the following institutional variables that are likely to affect the cost of equity of privatized firms:

Risk of Government Expropriation (*GOV_EXPROP*): This index from La Porta et al. (1998) measures the risk of outright confiscation or forced nationalization by the state. Recent studies use this index as a proxy for the degree of state involvement in the economy and government predation (e.g., Bushaman and Piotroski (2006) and Durnev and Fauver (2007)). It ranges from 0 to 10 – higher scores indicating a lower probability that government will interfere in the economy to extract rents for self enrichment. We expect a negative association between the cost of equity and the government risk-of-expropriation index.

Law and Order (*LAW_ORDER*): This index from ICRG measures the country's law and order situation. The index ranges from 0 to 6, with higher scores indicating sound political institutions and a strong court system. We expect a negative association between the cost of equity and the country's law-and-order index.

Accounting Standards (*DISCLOSURE*): This variable from La Porta et al. (1998) is an indicator of disclosure standards based on the inclusion or omission of 90 items in the annual reports. A higher score indicates extensive disclosure standards. We expect a negative association between the cost of equity and the accounting standards index.

Anti-self Dealing (*ANTISELF*): This index is a new measure of legal protection developed by Djankov et al. (2008). The index ranges from 0 to 1, with higher scores indicating better legal protection of minority shareholders. We expect a negative association between the cost of equity and the anti-self dealing index.

3.3.4 Control Variables. Following the recent empirical literature on the cost of equity, we control for the following risk and control variables:

Firm size (*SIZE*): Fama and French (1992) suggest that the cost of equity is negatively related to the firm's size. Hail and Leuz (2006) document that the implied cost of equity is negatively and significantly related to the firm's size. We use the logarithm of the firm's total assets in US dollar as our proxy for the firm's size and we expect a negative association between the cost of equity and *SIZE*.

Volatility of Stock Returns (*RETURN_VOL*): The CAPM suggests that the market beta should be positively associated with the cost of equity. However, in the tests that use realized returns (e.g., Fama and French, 1992; 1997), the estimated cost of equity using beta is found to be imprecise. Furthermore, some empirical studies on the cost of equity (Gebhardt et al. (2001) and Lee et al. (2004), among others) document no association (or even a negative one) between the implied cost of equity and the market beta. In addition, Hail and Leuz (2006) find that stock-return variability explains cross-country differences in the cost of equity better than does the market beta. Thus, we use stock-return volatility rather than the market beta to measure market risk. Lee et al. (2004), and Hail and Leuz (2006) find that stock-return variability is positively related to the cost of equity. Consequently, we expect a positive association between stock-return volatility and the implied cost of equity.

Leverage (*LEVRAGE*): Modigliani and Miller (1958) show that, without taxes and transaction costs, the firm's cost of equity is an increasing function of its debt ratio. With corporate taxes, Modigliani and Miller (1963) also show that the cost of equity is positively related to the firm's leverage ratio. The same result is implied by Dhaliwal et al. (2006) who expand Modigliani and Miller (1963) to include investor level taxes. Using implied cost-of-equity estimates and proxies for the firm's corporate tax rate and the personal tax disadvantage of debt, Dhaliwal et al. (2006) conclude that the cost of equity is positively associated with leverage. Accordingly, we expect the cost of equity to be positively associated with the firm's leverage ratio.

Market-to-Book Ratio (*MARKET TO BOOK*): Fama and French (1992) find that realized stock returns are positively related to the book-to-market ratio, implying a negative association between the market-to-book ratio and the implied cost of equity. Recent empirical studies on the implied cost of equity (e.g., Gebhardt et al., 2001; Gode and Mohanram, 2003; Hail and Leuz, 2006) report evidence consistent with the findings of Fama and French's (1992). Accordingly, we expect a negative association between the market-to-book ratio and the implied cost of equity.

Long-term Growth Rate (*GROWTH_RATE*): Gebhardt et al. (2001) and Gode and Mohanram (2003), among others, measure the firm's long-term growth rate by the five-year earnings growth rate available in I/B/E/S, and they find a positive association between the earnings growth rate and the implied cost of equity. This evidence suggests that the market perceives high growth firms as riskier, consistent with the asset pricing theory. Consequently, we expect a positive association between the cost of equity and the expected long-term earnings growth rate.

Dispersion of Analyst Forecasts (*VAR_ANALYSTCOV*): A higher dispersion in earnings forecasts implies greater disagreement among analysts, thus causing greater uncertainty about forecasted earnings per share and a higher cost of equity. Empirical evidence provided by Gode and Mohanram (2003) is consistent with this point of view. Therefore, we expect a positive association between the cost of equity and the dispersion of analyst forecasts.

Inflation (*INFL*): Analyst forecasts, stock prices, the book value of equity – the key inputs of the cost of equity – are all expressed in nominal terms and local currencies. Consequently, our estimates of the cost of equity reflect the country's expected inflation rate. Following Hail and Leuz (2006), we control for the expected inflation rate, measuring it as the annualized yearly median of a country-specific, one-year-ahead realized monthly inflation rate.

GDP Growth (*GDPG*): We incorporate GDP growth per capita to control for cross-country differences in the level of economic development. We also introduce *GDPG*, which may capture country-fixed-effects, to control for potential country-specific unobservable or omitted variables.

Industry Membership (*INDUSTRY CONTROLS*): Several empirical studies on the cost of equity (e.g., Gebhardt et al. (2001), Gode and Mohanram (2003) and Hail and Leuz (2006), among others) show that the firm's implied cost of equity is positively and significantly associated with its industry membership. To control for this effect, we introduce a set of dummy variables representing the 12 industries in Campbell (1996).

4. Empirical Analysis

To test our predictions in H_1 and H_2 , we regress the privatized firm's cost of equity on *the* government control, political, and institutional variables, while controlling for standard firm- and country-level determinants of the cost of equity. More specifically, we estimate several specifications of the following general model:

$$R_{AVG_{it}} = \delta_0 + \delta_1 GOVCONT_{it} + \delta_2 POLITICAL_{it} + \delta_3 INSTITUTIONAL_{it} + \delta_4 CONTROLS_{it} + \gamma_t + \varepsilon_{it} \quad (1)$$

where $R_{AVG_{it}}$ is the average of implied cost-of-equity estimates for firm i at time t based on the four different models described in the Appendix B, $GOVCONT_{it}$ represents the ultimate control rights held by the government in firm i at time t , $POLITICAL_{it}$ represents the political economy variables outlined in section 3.3.2, $INSTITUTIONAL_{it}$ refers to the institutional environment variables outlined in section 3.3.3, $CONTROLS_{it}$ comprises the set of firm- and country-level control variables outlined in section 3.3.4, γ_t are year dummies (i.e., an indicator for each post-privatization year) controlling for year-fixed-effects, and ε_{it} is the error term.

Meggison and Netter (2001) identify some methodological shortcomings (mainly related to selection bias) that weaken existing empirical studies on the impact of privatization on corporate performance. One of the selection bias problems is related to the fact that, in order to make privatization "attractive", the government may divest the "healthiest" and the "easiest" firms first (Meggison and Netter (2001)). Therefore, government control may be systematically related to both unobservable and observable firm characteristics. Following several privatization studies (e.g., Villalonga (2000),

Boubakri et al. (2005) and Gupta (2005)), we address selection bias by estimating a fixed-effects model. We believe that a particular firm exhibits the same characteristics as the whole industry. Governments generally privatize firms from particular industries using the same timing and sales methods. Therefore, using industry-fixed effects allows us to control for unobservable selection effects.

Table 4 provides summary descriptive statistics on the regression variables and their pairwise correlations. Panel A presents statistical properties of individual explanatory variables. Panel B provides Pearson correlation coefficients between the regression variables. The correlation coefficients that are significant at the 1% level are shown in bold. Consistent with our predictions in H_1 , we find that *GOVCONT* is significantly and positively correlated with the cost of equity at the 1% level over our five-year post-privatization window. This initial evidence is consistent with the political interference hypothesis that higher government control is associated with greater post-privatization political interference and thus with a higher cost of equity. We also find that the correlation coefficients between the cost of equity and the political economy variables are highly significant, giving initial support for our conjecture in H_2 that the political characteristics of the privatizing government are priced. Additionally, we find that all institutional variables are negatively correlated at the 1% level with the cost of equity, except for *ANTISELF*. We generally report lower correlation coefficients between government control, the political economy variables, and our control variables, respectively, thus mitigating multicollinearity concerns that could affect our regression results. As expected, the pairwise correlation coefficients between the institutional variables are high. Given that, we follow the recent literature on the cost of equity (e.g., Hail and Leuz (2006)) by separately controlling for our institutional variables.

4.1 Main Evidence

Table 5 reports the results from estimating equation (1) for the five-year post-privatization window. In all models, we control for firm- and country-level determinants of the firm's cost of equity. In Model 1, our basic regression, we only include the government control and political economy variables. The model provides evidence which confirms our predictions in H_1 and H_2 : that the cost of equity of NPFs is related to government control and the political characteristics of the privatizing government. The coefficient of *GOVCONT* is positive and statistically significant at the 5% level, suggesting that higher government control is associated with higher post-privatization political interference and thus with a higher cost of equity. This finding is consistent with the political interference hypothesis. We can interpret it as implying that minority shareholders will anticipate the post-privatization political interference and discount the share prices, hence raising the cost of equity financing and potentially reducing the ability of the NPF to fund its investments. The coefficient of *LEFT* is positive, but is not statistically distinguishable from zero. Therefore, our regression results do not support our conjecture: It turns out that firms from countries whose left-wing governments pose a higher policy risk are not penalized by higher equity financing costs. The coefficient of *SYSTEM* is negative and significant at the 1% level, implying that firms from countries with a higher political system index benefit from a lower cost of equity. This suggests that firms from more democratic countries should be able to count on a lower cost of equity. This evidence is consistent with the argument that post-privatization policy risk is lower in more democratic countries. Furthermore, the coefficient of *YRSOFFC* is negative and statistically significant at the 1% level, suggesting that the cost of equity is decreasing in the number of years that the

government has been in power. This finding implies that governments which have been in power for a long time are more stable and are associated with a lower policy risk and thus with a lower cost of equity.

In Models 2 through 5, we separately control for the institutional variables. We find that the coefficient of *GOV_EXPROP* is negative and significant at the 5% level, suggesting that a higher risk of government expropriation is associated with a higher cost of equity. We can interpret this finding as implying that shareholders in NPFs from countries with greater state intervention in the economy will require higher returns on their investments in such firms. We also find that the coefficient of *ANTISELF* is negative but insignificant at the 10% level, suggesting that better legal investor protection is associated with a lower cost of equity. This evidence is consistent with recent studies on the implied cost of equity (e.g., Hail and Leuz (2006), among others) which find that firms from countries with sounder legal institutions benefit from a lower cost of equity. Furthermore, we find that the coefficients of *LAW_ORDER* and *DISCLOSURE* are both negative, but are not significant. Therefore, our results provide no evidence that the country's disclosure standards and law-and-order influence the cost of equity of NPFs. More importantly, for our purposes, we continue to estimate the positive and highly significant relation between *GOVCONT* and the cost of equity as well as the negative and highly significant association between *SYSTEM*, *YRSOFFC*, and the cost of equity. In Model 6, we include all of our institutional variables and we find that, as concerns the impact that government control and the political economy variables have on the cost of equity of NPFs, our inferences remain materially unchanged.

Turning to our firm-and country-level control variables, we find that the coefficient of our proxy for firm size is negative and highly significant. This evidence is consistent with the findings of Fama and French (1992) and Gebhardt et al. (2001) which suggest that the cost of equity is negatively associated with the firm's size. Consistent with the findings of Gode and Mohanram's (2003), we also observe that the coefficient on *VAR_ANALYSTCOV* is positive and significant at the 1% level across all models, suggesting that stronger disagreement among analysts on earnings forecasts will result in greater uncertainty and thus a higher cost of equity. Furthermore, we find positive and highly significant coefficients for *RETURN_VOL* and *GROWTH_RATE*, in line with the findings of the literature on the implied cost of equity (e.g., Gode and Mohanram (2003), among others). The coefficient of *LEVERAGE* is also positive and significant in four of the six models, lending support *to* the theoretical and empirical literature on the impact of leverage on the cost of equity. Additionally, we find that the coefficient of the market-to-book ratio is significant at the 1% level in all regressions, consistent with Gode and Mohanram (2003) and Hail and Leuz (2006), among others. Consistent with Hail and Leuz (2006), we find that the coefficient of our proxy for the country's expected inflation rate, *INFL*, is positive and significant at the 1% level across all models. Finally, the coefficient of *GDPG* doesn't seem to explain the cost of equity. A possible explanation of this finding is that our institutional variables capture the cross-country differences on the development level.

Insert Table 5 about here

The analysis of the impact of government control and political economy variables on the cost of equity presented in Table 5 is extended in Table 6, where we

control for the following privatization variables: (i) privatization progress, (ii) golden share, (iii) local institutional control, and (iv) foreign control. Privatization sustainability may affect policy risk and thus the cost of equity of privatized firms. Perotti (1995) argues that privatization sustainability transmits a credible signal of government commitment to investors. Additionally, Perotti and Laeven (2002) argue that only a sustained and consistent privatization program can convey a credible signal that eliminates policy risk. Therefore, we predict that sustained privatization will decrease policy risk, and thus be negatively associated with the cost of equity. To capture sustained privatization, we use *PRIV_PROGRESS*, which is the cumulated average of privatization proceeds to GDP.¹¹ Data on privatization proceeds come from *SDC Platinum* and data on GDP are collected from *World Development Indicators*. Golden share, which can be defined as a mechanism by which governments can maintain their control over privatized firms, may also influence the cost of equity. By retaining a golden share, governments may gain special veto power over the firm's major decisions such as merger and hostile takeover or may impose constraints on other owners such as limits on their voting rights.¹² The data on golden shares come mainly from Bortolotti and Siniscalco (2004) and Megginson (2003).

Furthermore, the presence of foreigners as large shareholders may influence the NPF's equity financing costs. In fact, foreign owners, moved by several concerns,

¹¹ See Perotti and Laeven (2002) for the details on the calculation of this variable.

¹² Bortolotti and Faccio (2007 p. 10) define golden share used by the government to maintain control over privatized firms as: "the system of the State's special powers and statutory constraints on privatized 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 privatized 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."

maintain strict control *over* managers' actions (Frydman et al. (1999) and D'Souza et al. (2005)). These concerns include reputation, corporate governance expertise, etc. In addition, foreign owners require a high quality of accounting information. For example, Stulz (1999) shows that the openness of domestic capital markets to foreign investors is associated with a higher demand for good corporate governance and higher corporate transparency. Therefore, foreign control which may result in better monitoring and a higher quality of accounting information should be associated with a lower cost of equity. Additionally, local institutional investors as large shareholders in NPFs may also affect the cost of equity. Boubakri et al. (2005) report results suggesting that local institutions may be an effective mechanism of post-privatization corporate governance. Therefore, we expect a negative association between the cost of equity and local institutional investors' control.

Model (1) indicates that the coefficient of *PRIV_PROGRESS* is negative and significant at the 5% level, suggesting that privatization sustainability is indeed associated with a lower policy risk and thus a lower cost of equity. This evidence supports Perotti's conjecture (1995) that privatization sustainability provides a credible signal of government commitment and reduces policy risk. Model (2) shows no effect of golden shares as an alternative mechanism of government control on the cost of equity of NPFs. Similarly, Model (3) reveals an insignificant relation between foreign control and the cost of equity. Therefore, our results do not provide support for the conjecture that the presence of foreign investors in NPFs is associated with a lower cost of equity.

Model (4) shows a negative and significant relation at the 5% level between local institutional investors' control and the cost of equity. This finding, which is consistent

with Boubakri et al. (2005)'s finding suggests that local institutions are associated with better monitoring of managers and thus with a lower risk of expropriation of shareholders' wealth. More interestingly for our purposes, we go on to estimate a positive and highly significant relation between *GOVCONT* and the cost of equity across the four models as well as a highly significant association between *SYSTEM*, *YRSOFFC* and the cost of equity. These findings are consistent with those reported in Table 5 and provide additional support for our predictions in H_1 and H_2 : that the cost of equity of NPFs is related to government control and the political characteristics of the privatizing government.

Insert Table 6 about here

4.2 Sensitivity Tests

In this section, we conduct a battery of sensitivity tests to ensure the robustness of our findings. The results of our main sensitivity tests reported in Table 7 generally reinforce our core findings in Table 5 and Table 6 that the cost of equity of privatized firms is related to government control and the political characteristics of the privatizing government.

4.2.1 Alternative and Additional Control Variables. The empirical studies on the implied cost of equity (e.g., Gebhardt et al. (2001)) use analyst coverage as a proxy for firm size. Indeed, large firms are more likely to have greater analyst coverage. Analyst coverage is also used as a proxy for information availability. In fact, firms with higher analyst coverage are more likely to have more precise public information (Bowen et al. (2006)) and will thus obtain fairer valuation of their stocks. Gebhardt et al. (2001), among others, document a negative association between the implied cost of equity and

analyst coverage. In Model (1) we control for *ANALYSTCOV*—measured as the number of analysts who provided estimates of the forecasted earnings per share reported in I/B/E/S. The coefficient of *ANALYSTCOV* is positive and significant at the 10% level. More importantly for our purposes, the coefficient of *GOVCONT* remains positive and significant at the 5% level and the coefficients of *SYSTEM* and *YRSOFFC* remain negative and significant at the 1% level, respectively.

Our estimates of the cost of equity are derived from stock prices and analysts' earnings forecasts. If analysts' earnings forecasts are biased estimates of future earnings, the errors in these forecasts could affect our cost of equity estimates. The forecast bias may reflect the firm's disclosure policies. For example, Hope (2003) documents significant cross-country differences in forecast accuracy and find a significant association between forecasted accuracy and the firm's annual reported disclosure. The forecast bias may also reflect earnings surprises. For example, Gebhardt et al. (2001) argue that the forecast bias reflects unpredictable earnings forecasts. Mikhail et al. (2004) find that firms with repeated earnings surprises experience a higher cost of equity. We define *FORBIAS* as the difference between mean one-year-ahead consensus forecasts and the actual earnings per share reported in I/B/E/S divided by mean one-year-ahead consensus forecasts. Model (2), which includes forecast bias, indicates that the coefficient of *FORBIAS* is positive and significant at the 10% level. This evidence is consistent with Hail and Leuz's (2006) findings. Previous evidence that the cost of equity is increasing in *GOVCONT* and decreasing in *SYSTEM* and *YRSOFFC* persists in this model, respectively.

We also check the sensitivity of our findings to the introduction of an additional control variable, country-specific risk. Erb et al. (1996), for example, show that the cost of equity is positively related to the country's credit rating. In model (3), we introduce *COUNTRY RISK*, which is equal to the natural logarithm of 100 *minus* the country's credit ratings from Institutional Investor.¹³ We find that the coefficient of *COUNTRY RISK* is positive and significant at the 5% level. More importantly for our purposes, our main findings that the cost of equity is increasing in *GOVCONT* and decreasing in *SYSTEM* and *YRSOFFC* are not driven by the country's risk exposure.

4.2.2 Alternative Political Economy Variables. Several recent studies examining the link between politics and corporate governance and transparency (e.g., Bushman et al. (2004) and Durnev and Fauver (2007)) use variables from *Polity V*. We check the sensitivity of our inferences about the role of politics by using alternative political economy variables from *Polity V*. In model (4), we replace our political economy variables from *DPI* by the autocratic index, *AUTOCRACY*, which is calculated as the difference between *Polity V*'s autocratic index and *Polity V*'s democratic index. The autocratic index measures the general secrecy of political institutions, whereas the democratic index measures the general openness of political institutions. We find that the coefficient of *AUTOCRACY* is positive and significant at the 5% level, suggesting that the risk of expropriation of shareholders' wealth is higher under autocratic governments.

4.2.3 Endogeneity of Government Control. One potential concern is that *GOVCONT* itself may not *be* exogenous. In fact, the control rights held by the government may be

¹³ Institutional Investor Magazine reports country credit ratings in March and Septemeber of each year. We

determined by unobserved variables that also affect the cost of equity, which can lead to biased and inconsistent OLS estimates. We address this issue by using an instrumental variable approach. The instrumental variables must be highly correlated with *GOVCONT* but not with our estimate of the implied cost of equity i.e., R_{AVG} . We use the country's legal origins as an *instrumental* variable. Specifically, we use a dummy variable, which is equal to 1 for firms from common law countries, and zero otherwise. The significant relation between government ownership and control and legal rights has been well documented in the finance literature (e.g., Bortolotti and Faccio (2007)). We estimate our basic model in table 5, using two-stage least squares regression. In the first stage, we predict *GOVCONT* using the country's legal origin as well as all of the other independent variables used in Model 1 of Table 5. In the second stage, we use the first-stage fitted values as instruments for *GOVCONT*. The 2SLS regression results are reported in Model 5. Importantly, we find that the coefficient of *GOVCONT* is positive and significant at the 5% level, indicating that our previous findings are not due to *the* endogenous nature of *GOVCONT*.

4.2.4 Alternative estimations and specifications. We use an alternative approach to control for cross-country differences in expected inflation rates. The approach consists in subtracting the expected inflation rates from the implied cost of equity estimates and using an inflation-adjusted cost of equity as a dependent variable. However, we acknowledge that this approach has the drawback of forcing a coefficient of minus one on our proxy for the expected inflation rates. Model (6), in which we use risk premia, we find that the coefficient of *GOVCONT* is positive and significant at the 5% level.

use country ratings reported in September.

However, our political economy variables become insignificant. Similarly to Hail and Leuz (2006), we find that the fit from this model ($R^2=0.242$) is lower than that from models in which we simply add the expected inflation rate as an explanatory variable.

As outlined in section 3.1, we use analyst forecasts and the stock price at the fiscal year end +10 months and financial data at the fiscal year end. This time lag allows the firm's financial information to be publicly traded and incorporated in prices. To ensure that our results are not affected by this time lag, we discount for each model the fiscal year end +10 months price to the fiscal year end using the corresponding implied cost of equity.¹⁴ We find that *GOVCONT* remains positive and significant at the 5% level and *SYSTEM* and *YRSOFFC* continue to load negative and significant at the 1% level. Therefore, our results are not affected by the fact that we use stock prices at the fiscal year end +10 months together with financial data at the fiscal year end.

We test the sensitivity of our findings to alternative assumptions on the long-term growth rate. In our previous analysis, we assume that the long-term growth rate is equal to the country's expected inflation rate. This assumption affects only the CT and OJ models that have the long-term growth rate as an input. We replace the country's expected inflation rate by a *fixed* constant rate of 3% for all countries. We show that *GOVCONT* continue to load positive and significant. We also find that *SYSTEM* and *YRSOFFC* remain positive and highly significant. Consequently, our findings are not driven by any particular assumption on the long term growth rate.

Finally, we use the four individual estimates of the cost of equity R_{OJ} , R_{CT} , R_{GLS}

¹⁴ Hail and Leuz (2006 p. 527) argue that this time lag doesn't affect earnings forecasts. They note: "In the absence of any new information, a US\$ 2 earnings per share forecast at the beginning of the fiscal year (t)

and R_{ES} to examine the impact of government control and the political characteristics of the privatizing government on the cost of equity. We find that *SYSTEM* and *YRSOFFC* generally continue to load negative and significant across all models. We also find that *GOVCONT* is positive and significant when the dependent variable is R_{CT} or R_{OJ} and insignificant when the dependent variable is R_{GLS} or R_{ES} . These findings are consistent with those of Botosan and Plumlee (2005) that the correlation coefficients between the implied cost of equity and the risk factors will vary across different models. These findings are also consistent with those of Dhaliwal (2006): that the impact of taxes and leverage on the cost of equity will vary across the four models.¹⁵ Overall, these findings outline the caveat associated with the use of a single model to estimate the implied cost of equity.

Insert Table 7 about here

5. Conclusions

In this paper, we investigate the effects of government control and the political characteristics of the privatizing government on the cost of equity of newly privatized firms. To do so, we use a unique sample of 126 firms from industrialized (19) and developing (6) countries that were privatized between 1987 and 2003. Descriptive information on our ultimate ownership data shows that the largest ultimate owner of the privatized firms is most frequently the state. More specifically, we find that the state

yields the same number just 10 months later (t'). Prices, on the other hand, increase as they move closer to future expected cash flows, even without new information."

¹⁵ Dhaliwal et al. (2006 p. 711) note that: "Using the average cost of equity estimate, the results provide consistent support for H2 and H3; however, these hypotheses are not uniformly supported by the individual models. Notably, we obtain insignificant results for personal-tax effects when the dependent variable is r_{gls} , and insignificant results for corporate tax effects when the dependent variable is r_{ct} and r_{mpg} ."

remains the largest ultimate owner of most firms in our sample even five years after privatization.

Using the cost of equity estimates (derived from the discounted cash flow method), we find strong evidence that it is increasing in government control, after controlling for firm-level and country-level variables that are shown to affect the cost of equity. This finding implies that minority shareholders, anticipating some level of post-privatization political interference, discount the share prices, hence raising the cost of equity financing for newly privatized firms. This behavior could adversely affect the ability of these firms to fund their investments and growth. We also find that the cost of equity of privatized firms is significantly related to the political system and the government's stability (tenure). More specifically, we find evidence that firms from countries with democratic and more stable governments enjoy a lower cost of equity. Therefore, our findings suggest that the presence of sound political institutions reduce the compensation demanded by shareholders for holding equity in privatized firms where the government is still a partial owner.

Our paper contributes to the literature on the link between political economy and corporate finance (e.g., Durnev and Fauver (2007) and Bushman et al. (2004)) by showing that corporate financing decisions are affected by the quality of political institutions. We also add to the literature on the external financing costs of privatized firms (e.g., Borisova (2007) who looks at the cost of debt of such firms). This issue is important, since the survival of the privatized firms (and hence the success of the privatization process) depends to a large extent on their easy access to new funding resources on capital markets, at a reasonable cost. Overall, economic growth is also at

stake, for when newly privatized firms can borrow money on capital markets at lower costs this enables them to carry forward value-enhancing and positive net-present-value projects that will foster economic growth.

APPENDIX A
Variables, Descriptions, and Sources

Variable	Description	Source
<i>RAVG</i>	Dependent variable, our estimate of the cost of equity, which is the average cost of equity estimated using the four models described in Appendix B.	Authors' estimation
<i>GOVCONT</i>	The ultimate control rights held by the government.	Authors' calculation
<i>LEFT</i>	A dummy variable equal to one for the left oriented government, and 0 otherwise.	Database of Political Institutions
<i>SYSTEM</i>	Political system index: Direct Presidential (0); Strong president elected by assembly (1); Parliamentary (2).	Database of Political Institutions
<i>YRSOFFC</i>	The years that the chief has been in office.	Database of Political Institutions
<i>GOV_EXPROP</i>	ICRG's assessment of the risk of outright confiscation or forced nationalization by the state. Scale from 0 to 10, with higher scores for lower risk.	La Porta et al. (1998)
<i>LAW_ORDER</i>	The ICRG assessment of both the strength and impartiality of the legal system (law component) and popular observance of the law (order component). Scale from 0 to 6, with higher scores indicating sound political institutions and a strong court system.	International Country Risk Guide.
<i>DISCLOSURE</i>	The ratings for disclosure standards based on inclusion or omission of 90 items in the annual reports.	La Porta et al. (1998)
<i>ANTISELF</i>	Average of ex-ante and ex-post private control of self-dealing.	Djankov et al. (2008)
<i>SIZE</i>	The logarithm of the firm's total assets in US dollar.	Worldscope
<i>RETURN_VOL</i>	The annual standard deviation of monthly stock returns.	Authors' calculation
<i>LEVERAGE</i>	Total book value of debt divided by the sum of market value of equity and the book value of debt.	Worldscope
<i>MARKET TO BOOK</i>	The market-to-book ratio.	Worldscope
<i>GROWTH_RATE</i>	Five year growth rate from I/B/E/S. If this rate isn't available in I/B/E/S we estimate it using forecasted second and third years earnings per share.	I/B/E/S
<i>VAR_ANALYSTCOV</i>	Standard deviation of estimated first year earnings per share divided by average forecasted first year earnings per share.	Authors' calculation
<i>INFL</i>	The annualized yearly median of a country specific one-year-ahead realised monthly inflation rate.	Datastream
<i>GDPG</i>	GDP growth per capita.	World Development Indicators

APPENDIX B
Models of Implied cost of Equity

We first define the following variables that are common to the four models:

- P_t = Market price of a firm's stock at time t .
 B_t = Book value per share at the beginning of the fiscal year.
 $FEPS_{t+i}$ = Mean forecasted earnings per share from I/B/E/S or implied EPS forecasts for year $t+i$.
 LTG = The consensus long term growth rate from I/B/E/S or the percentage change in forecasted earnings between year $t+2$ and year $t+3$.
 $POUT$ = The forecasted payout ratio. To estimate the dividend per share for year $t+i$, we use the firm's dividend payout ratio at time t if available and 50% if not, as in Claus and Thomas (2001).
 R_j = The implied cost of equity derived from each of the four different models.

Ohlson and Juettner-Nauroth (2005)

$$P_t = (FEPS_{t+1} / R_{OJ}) \cdot (g_{st} + R_{OJ} \cdot DPS_{t+1} / FEPS_{t+1} - g_{lt}) / (R_{OJ} - g_{lt}) \quad (1)$$

where $g_{st} = (FEPS_{t+2} - FEPS_{t+1}) / FEPS_{t+1}$.

This model is derived from the abnormal earnings valuation model developed by Ohlson and Juettner-Nauroth (2005). It uses one-year-ahead and two-years-ahead earnings per share, the future dividend per share and a proxy of the long term growth rate. The future dividend, DPS_{t+i} , is estimated as $FEPS_{t+i}$ multiplied by $POUT$. The asymptotic long term growth rate, g_{lt} , is calculated using the annualized yearly median of a country specific one-year-ahead realised monthly inflation rates. g_{lt} constitutes a lower bound for the cost of equity estimates.

Claus and Thomas (2001)

$$P_t = B_t + \sum_{i=1}^5 \frac{FEPS_{t+i} - R_{CT} B_{t+i-1}}{(1 + R_{CT})^i} + \frac{[FEPS_{t+5} - R_{CT} B_{t+4}](1 + g_{lt})}{(R_{CT} - g_{lt})(1 + R_{CT})^5} \quad (2)$$

In this model the price is a function of the future forecasted earnings per share, the book value per share and the asymptotic long term growth rate. Claus and Thomas (2001) implement the model using the I/B/E/S forecasted earnings per share for the next five years. If the forecasts for earnings per share, $FEPS_{t+i}$, are not available in I/B/E/S for the years $t+3$, $t+4$ and $t+5$, $FEPS_{t+i} = FEPS_{t+i-1}(1 + LTG)$. The long-term abnormal earnings growth rate, g_{lt} , is calculated using the annualized yearly median of a country specific one-year-ahead realised monthly inflation rates. The future book values are estimated by assuming the clean surplus relation i.e., $B_{t+i} = B_{t+i-1} + FEPS_{t+i} - DPS_{t+i}$. The future dividend, DPS_{t+i} , is estimated by multiplying $FEPS_{t+i}$ by $POUT$. g_{lt} constitutes a lower bound for the cost of equity estimates.

Gebhardt, Lee and Swaminathan (2001)

$$P_t = B_t + \sum_{i=1}^T \frac{(FROE_{t+i} - R_{GLS})B_{t+i-1}}{(1 + R_{GLS})^i} + \frac{(FROE_{t+T+1} - R_{GLS})B_{t+T}}{(1 + R_{GLS})^T R_{GLS}} \quad (3)$$

For the years $t+1$ to $t+3$, $FROE_{t+i}$ is equal to $FEPS_{t+i} / B_{t+i-1}$. After the forecast period of three years, $FROE_{t+i}$ is derived by linear interpolation to the industry-median ROE. Average ROEs are computed in a given year and country for each of the 12 industry classifications of Campbell (1996). Negative industry median ROEs are replaced by country-year medians. The abnormal earnings at year $t+12$ are then assumed to remain constant afterwards. Future book values are estimated by assuming clean surplus. The future dividend, DPS_{t+i} , is estimated as $FEPS_{t+i}$ multiplied by $POUT$. We assume that $T = 12$.

Easton (2004)

$$P_t = \frac{FEPS_{t+2} - FEPS_{t+1} + R_{ES} DPS_{t+1}}{R_{ES}^2} \quad (4)$$

To implement the model, Easton (2004) uses the one-year ahead and two-years ahead forecasted earnings per share reported in I/B/E/S. The future dividend, DPS_{t+i} , is estimated by multiplying $FEPS_{t+i}$ by $POUT$. This model requires a positive change in forecasted earnings per share to yield a numerical solution.

References

- Albuquerque, R., Wang, N., 2005. Agency conflicts, investment, and asset pricing. Working Paper, University of Rochester and Columbia Business School.
- Banarjee, G.B., Munger, M., 2004. Move to markets? An empirical analysis of Privatization in developing countries. *Journal of International Development* 16, 213-240.
- Biais, B., Perotti, E., 2002. Machiavellian Privatization. *American Economic Review* 92, 240-258.
- Boardman, A.E., Vining, A.R., 1989. Ownership and performance in competitive environments: A comparison of the performance of private, mixed, and state-owned enterprises. *Journal of Law and Economics*, 1-33.
- Borisova, G., 2007. Does privatization affect the cost of debt? Evidence from the European Union. Working Paper, Oklahoma University.
- Bortolotti, B., Faccio, M., 2007. Government control of privatized firms. *Review of Financial Studies*, forthcoming.
- Bortolotti, B., Siniscalco, D., 2004. *The challenges of privatization: an international analysis*. Oxford University Press, New York.
- Botosan, C., Plumlee, M., 2005. Assessing alternative proxies for expected risk premium. *The Accounting Review* 80, 21-53.
- Boubakri, N., Cosset, J.C., 1998. The financial and operating performance of newly privatized firms: Evidence from developing countries. *Journal of Finance* 53, 1081-1110.
- Boubakri, N., Cosset, J.C., Guedhami, O., 2005. Post-privatization corporate governance: The role of ownership structure and investor protection. *Journal of Financial Economics* 76, 369-399.
- Boycko, M., Shleifer, A., Vishny, R., 1996. A theory of privatization. *The Economic Journal*, 309-319.
- Bowen, R., Chen, X., Cheng, Q., 2006. Analyst coverage and the cost of raising equity capital: Evidence from underpricing of seasoned equity offerings. *Working Paper*, Sauder School of Business.
- Bushman, R., Piotroski, J., 2006. Financial reporting incentives for conservative accounting: The influence of legal and political institutions. *Journal of Accounting Economics* 42, 107-148.

- Bushman, R., Piotroski, J., Smith, A., 2004. What determines corporate transparency? *Journal of Accounting Research* 42, 207-252.
- Campbell, J.Y., 1996. Understanding risk and return. *Journal of Political Economy* 104, 298-345.
- Charumilind, C., Kali, R., Wiwattanakantang, Y., 2006. Connected lending: Thailand before the financial crisis. *Journal of Business* 79, 181-218.
- Claessens, S., Djankov, S., Fan, J., Lang, L., 2002. Disentangling the incentive and entrenchment effects of large shareholdings. *Journal of Finance* 57, 2741-2771.
- Claessens, S., Djankov, S., Fan, J., Lang, L., 2000. The separation of ownership and control in East Asian corporations? *Journal of Financial Economics* 58, 81-112.
- Claus, J.J., Thomas, J.K., 2001. Equity premia as low as three percent? Evidence from analysts' earnings forecasts for domestic and international stock markets. *Journal of Finance* 56, 1629-1666.
- Cukierman A., Leviatan, N., 1992. Dynamics of optimal gradual stabilisation. *World Bank Economic Review* 6, 439-458.
- Denis, D. K., McConnell, J.J., 2003. International corporate governance. *Journal of Financial and Quantitative Analysis* 38, 1-36.
- Dewenter, K.L., Malatesta, P.H., 2001. State-owned and privately owned firms: An empirical analysis of profitability, leverage, and labour intensity. *American Economic Review* 91, 320-334.
- Dhaliwal, D., Heitzman, S., Li, O.Z., 2006. Taxes, leverage, and the cost of equity capital. *Journal of Accounting Research* 44, 691-723.
- Djankov, S., La Porta, R., Lopez-de-Silanes, F., Shleifer, A., 2008. The law and economics of self-dealing. *Journal of Financial Economics* 88, 403-465.
- Djankov, S., Murrell, P., 2002. Enterprise restructuring in transition: A quantitative survey. *Journal of Economic Literature*, 739-792.
- D'Souza, J., Megginson, W., 1999. The financial and operating performance of privatized firms during the 1990s. *Journal of Finance* 54, 1397-1438.
- D'Souza, J., Megginson, W.L., Nash, R., 2005. Effect of institutional and firm-specific characteristics on post-privatization performance: evidence from developed countries. *Journal of Corporate Finance* 11, 747-766.
- Durnev, A., Fauver, L., 2007. Stealing from thieves: Firm governance and performance when states are predatory. Working Paper, McGill University.

- Dyck, A., 2001. Privatization and corporate governance: Principles, evidence, and future challenges. *The World Bank Research Observer* 16, 59-84.
- Easley D., O'Hara, M., 2004. Information and the cost of capital. *Journal of Finance* 59, 1553-1583.
- Easton, P., 2004. PE ratios, PEG ratios, and estimating the implied expected rate of return on equity capital. *The Accounting Review* 79, 73-96.
- Easton, P., Monahan, S., 2005, An evaluation of accounting based measures of expected returns. *The Accounting Review* 80, 501-538.
- Elton, E., 1999, Expected return, realized return, and asset pricing tests. *Journal of Finance* 54, 1199-1220.
- Faccio, M., 2006. Politically connected firms. *American Economic Review* 96: 369-386
- Faccio, M., Lang, L., 2002. The Ultimate ownership of western European corporations. *Journal of Financial Economics* 65, 365-395.
- Fama, E., French, K., 1992. The cross sections of expected stock returns. *Journal of Finance* 47, 427-466.
- Fama, E., French, K., 1997. Industry costs of equity. *Journal of Financial Economics* 43, 153-194.
- Fan, J.P.H., Wong, T.J., Zhang, T., 2007. Politically-connected CEOs, corporate governance and post-IPO performance of China's newly partially privatised firms. *Journal of Financial Economic* 84, 330-357.
- Frydman, R., Gray, C., Hessel, M., Rapaczynski, A., 1999. When does privatization work? The impact of private ownership on corporate performance in transition economies. *Quarterly Journal of Economics* 114, 1153- 1191.
- Gebhardt, W.R., Lee, C.M.C., Swaminathan, B., 2001. Toward an implied cost of capital. *Journal of Accounting Research* 39, 135-176.
- Gode, D., Mohanram, P., 2003. Inferring the cost of capital using the Ohlson-Juettner model. *Review of Accounting studies* 8, 399-431.
- Gompers, PA., Ishii, J.L., Metrick, A., 2003. Corporate governance and equity prices. *Quarterly Journal of Economics* 118, 107-155.
- Gupta, N., 2005. Partial privatization and firm performance. *Journal of Finance* 60, 987 -1015.
- Hail, L., Leuz, C., 2006, International differences in cost of equity capital: Do legal institutions and securities regulations matter? *Journal of Accounting Research* 44, 485-531.

- Hope, O., 2003, Disclosure practices, enforcement of accounting standards and analysts' forecast accuracy: An International study. *Journal of Accounting Research* 41 235-73.
- Laffont, J.J., Tirole, J., 1993. *A theory of incentives in procurement and regulation*. MIT Press, Cambridge, MA.
- Lam, S.S., Tan, R.S., and Wee, T.M., 2007. Initial public offerings of state-owned enterprises: An international study of policy risk. *Journal of Financial and Quantitative Analysis* 42, 313-338.
- Lambert R., Leuz C., Verrecchia, R., 2007, Accounting information, disclosure and the cost of capital. *Journal of Accounting Research* 45, 385-420.
- La Porta, R., Lopez-de-Silanes, R., Shleifer, A., 1999. Corporate ownership around the World. *Journal of Finance* 54, 471-517.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., 1997. Legal determinants of external finance. *Journal of Finance* 52, 1131-1150.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., 1998. Law and finance. *Journal of Political Economy* 106, 1113-1155.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., 2000. Investor protection and corporate governance. *Journal of Financial Economics* 58, 3-27.
- Lee, C., Ng, D., Swaminathan, B., 2004. International asset pricing: Evidence from cross section of implied cost of capital. Working paper, Cornell University.
- Lombardo, D., Pagano, M., 2002. Law and equity markets: a simple model. In Joseph A. McCahery, ed.: *Corporate Governance Regimes: Convergence and Diversity* (Oxford University Press, London).
- Majumdar, S.K., 1998. Slack in the state-owned enterprise: An evaluation of the impact of soft-budget constraints. *International Journal of Industrial Organization* 16, 377-394.
- Meggison, W. L., Nash, R., Netter, J.N., Poulsen, A.B., 2004. The choice of private versus public capital markets: Evidence from privatizations. *Journal of Finance* 59, 2835-2870.
- Meggison, W. L., Nash, R., van Randenborgh, M., 1994. The financial and operating performance of newly privatized firms: An international empirical analysis. *Journal of Finance* 49, 403-452.
- Meggison, W., Netter, J.N., 2001. From state to market: a survey of empirical studies on privatization. *Journal of Economic Literature* 39, 321-389.

- Meggison, W., Sutter, N.L., 2006. Privatization in developing countries. *Corporate Governance: An International Review* 14, 234-265.
- Meggison, W., 2003. Appendix 1: Details of share issue privatizations, 1961-2003. In: Meggison, W.L.(Ed.), *Financial Economics of Privatization*. Oxford University Press, New York.
- Mikhail, M., Walther, B., Willis, R., 2004. Earnings surprises and the cost of equity capital. *Journal of Accounting Auditing and Finance* 9, 491-514.
- Modigliani, F., Miller, M.H., 1958, The cost of equity, corporate finance, and the theory of investment. *American Economic Review* 48, 261-297.
- Modigliani, F., Miller, M.H., 1963, Corporate income taxes and the cost of equity: A correction. *American Economic Review* 53, 433-443.
- Ohlson, J., Juettner-Nauroth, B., 2005. Expected EPS and EPS growth as determinants of value. *Review of Accounting Studies* 10, 349-65.
- Paudyal, K., Saadouni, B., Briston, R., 1998. Privatisation initial public offerings in Malaysia: Initial premium and long-term performance. *Pacific-Basin Finance Journal* 6, 1 -25.
- Perotti, E., Guney, S.E., 1993. Successful privatization plans: Enhanced credibility through timing and pricing of sales. *Financial Management* 22, 84-98.
- Perotti, E., 1995. Credible privatization. *American Economic Review* 85, 847-859.
- Perotti, E., Laeven, L., 2002. Confidence building in emerging stock markets. CEPR Discussion Paper 3055.
- Shleifer, A., Vishny, R., 1994. Politicians and firms. *Quarterly Journal of Economics* 109, 995-1025.
- Shleifer, A., Vishny, R., 1997. A survey of corporate governance. *Journal of Finance* 52, 737-777.
- Shleifer, A., Vishny, R., 1998. *The grabbing hand: Government pathologies and their cures*. Harvard University Press: Cambridge, MA.
- Shleifer, A., and Vishny, R.W., 2003. Stock market driven acquisitions. *Journal of Financial Economics* 70, 293-311.
- Stulz, R., 1999. Globalization, corporate finance, and the cost of capital. *Journal of Applied Corporate Finance* 8-25.
- Suchard, J., Pham, P.L., Zein, J., 2007. Corporate governance cost of capital and performance: Evidence from Australian firms. Available at SSRN: <http://ssrn.com/abstract=1015986>.

- Svejnar, J., 2002. Transition economies: Performance and challenges. *Journal of Economic Perspectives* 16, 3-28.
- Vickers, J., Yarrow, G., 1991. Economic perspectives on privatization. *Journal of Economic Perspectives* 5, 111-32
- Villalonga, B. 2000. Privatization and efficiency: Differentiating ownership effects from political, organizational, and dynamic effects. *Journal of Economic Behavior and Organization* 42, 43-74.
- Wang, Q., Wong, T.J., Xia, L., 2008. State ownership, institutional environment, and auditor choice: Evidence from China. *Journal of Accounting and Economics* 46, 112-134.

TABLE 1
Description of the Sample of Newly Privatized Firms

Distribution of Privatizations					
By Country			By year		
Country	Number	Percentage	Year	Number	Percentage
Australia	3	2.38	1987	1	0.80
India	13	10.32	1989	1	0.80
Ireland	1	0.79	1990	1	0.80
Israel	4	3.17	1991	6	4.76
Malaysia	4	3.17	1992	4	3.17
New Zealand	1	0.79	1993	4	3.17
Singapore	2	1.59	1994	11	8.73
Thailand	5	3.97	1995	13	10.32
UK	3	2.38	1996	11	8.73
Common Law	36	28.56	1997	17	13.49
Austria	6	4.76	1998	19	15.08
Brazil	10	7.94	1999	16	12.70
Finland	7	5.56	2000	9	7.14
France	12	9.53	2001	4	3.17
Germany	7	5.56	2002	5	3.97
Greece	4	3.17	2003	4	3.17
Italy	12	9.53	Total	126	100
Indonesia	3	2.38			
Japan	2	1.59			
Korea	1	0.79			
Philippines	2	1.59			
Netherlands	4	3.17			
Norway	1	0.79			
Portugal	7	5.56			
Spain	11	8.73			
Sweden	1	0.79			
Non-common Law	90	71.44			
Total	126	100			

By industry		
Industry	Number	Percentage
Basic industries	20	15.87
Capital goods	7	5.56
Consumer durables	5	3.97
Construction	8	6.35
Finance/real estate	22	17.46
Leisure	1	0.79
Petroleum	10	7.94
Services	6	4.76
Textiles/trade	4	3.17
Transportation	15	11.91
Utilities	28	22.22
Total	126	100

By development level		
Category (countries)	Number	Percentage
Industrialized countries (19)	89	70.63
Developing countries (6)	37	29.37
Total (25)	121	100

This table provides some descriptive statistics for the sample of 126 privatized firms used in this study. We report the distribution of privatization in the countries included in the sample by year, industry, legal origin, and development level.

TABLE 2
Summary of Implied Cost of Equity

Panel A: Descriptive statistics								
Variable	N	Mean	Standard Deviation	Min	Q1	Q2	Q3	Max
R _{OJ}	382	13.49%	4.60%	3.77%	10.52%	12.63%	15.83%	30.45%
R _{CT}	382	11.10%	5.02%	3.55%	7.95%	9.91%	12.67%	37.23%
R _{GLS}	382	10.43%	5.60%	1.25%	6.37%	9.08%	13.47%	29.85%
R _{ES}	382	13.62%	5.44%	2.91%	9.90%	12.51%	16.38%	34.42%
R _{AVG}	382	12.16%	4.30%	4.24%	9.07%	11.22%	13.98%	27.51%
Panel B: Pearson correlation coefficients between implied cost of capital estimates								
	R _{OJ}	R _{CT}	R _{GLS}	R _{ES}				
R _{CT}	0.795							
R _{GLS}	0.468	0.444						
R _{ES}	0.878	0.622	0.407					
R _{AVG}	0.930	0.846	0.709	0.865				
Panel C: Implied cost of equity by country								
Country	N	Mean	Median	Standard Deviation	Min	Max		
Australia	7	9.53%	9.70%	2.41%	6.26%	13.23%		
Austria	18	12.28%	10.61%	4.31%	7.45%	20.99%		
Brazil	16	18.30%	17.06%	4.93%	10.84%	27.51%		
Finland	16	11.75%	12.14%	3.18%	6.35%	16.17%		
France	38	11.43%	11.86%	3.24%	5.53%	19.88%		
Germany	24	10.42%	10.44%	3.12%	4.82%	15.98%		
Greece	11	11.95%	11.96%	1.84%	8.34%	14.69%		
India	46	17.82%	17.39%	4.32%	9.87%	26.07%		
Indonesia	7	12.22%	12.74%	1.40%	10.37%	14.15%		
Ireland	2	11.22%	11.22%	0.01%	11.21%	11.23%		
Israel	11	12.06%	10.87%	3.75%	6.37%	20.04%		
Italy	41	9.07%	9.37%	2.88%	4.24%	19.94%		
Japan	4	9.32%	9.25%	1.93%	7.08%	11.68%		
Korea	3	11.05%	8.67%	4.66%	8.06%	16.41%		
Malaysia	14	8.83%	8.87%	1.67%	5.76%	11.75%		
Netherlands	11	12.64%	12.31%	4.25%	8.00%	23.92%		
New Zealand	3	8.74%	8.56%	0.39%	8.47%	9.19%		
Norway	4	8.89%	8.67%	0.60%	8.44%	9.75%		
Philippines	6	16.72%	18.74%	5.10%	9.34%	22.31%		
Portugal	23	10.75%	10.25%	2.82%	7.16%	19.86%		
Singapore	5	10.11%	9.98%	2.97%	7.56%	15.03%		
Spain	45	10.74%	10.77%	2.91%	5.83%	19.31%		
Sweden	4	16.11%	15.44%	2.69%	13.94%	19.61%		
Thailand	12	11.49%	12.06%	2.03%	8.48%	14.44%		
United Kingdom	11	11.29%	11.10%	2.46%	8.01%	15.18%		

This table reports descriptive statistics for the implied cost of equity estimates based on four models for a sample of 126 privatized firms from 25 countries between 1987 and 2003. The implied cost of equity estimates, R_{OJ} , R_{CT} , R_{GLS} , and R_{ES} are derived respectively from Ohlson and Juettner-Nauroth (2005), Claus and Thomas (2001), Gebhardt, Lee, and Swaminathan (2001), and Easton (2004). R_{GLS} is the average of the four estimates for the implied cost of equity. Detailed description of these models is given in the Appendix B.

TABLE 3
Distribution of the Control Structure

	(year relative to privatization)					
	0	1	2	3	4	5
Panel A: Distribution of owner type						
State	83.81	80.37	77.39	73.28	71.43	68.96
Identified family (A)	0.95	2.80	5.22	5.17	6.67	4.60
Unlisted firm (B)	3.81	4.67	3.48	3.45	2.85	2.30
Family (A) + (B)	4.76	7.47	8.70	8.62	9.52	6.90
Widely held corporation	3.81	3.74	4.34	5.17	4.76	8.05
Widely held financial	0.95	3.74	2.61	3.45	2.86	3.45
Miscellaneous	2.86	0.94	2.61	3.45	3.81	1.15
Cross holdings	0.00	0.00	0.87	0.86	0.95	1.15
Widely held	3.81	3.74	3.48	5.17	6.67	10.34
N	105	107	115	116	105	87
Panel B: Control enhancing mechanisms						
Number of government controlled firms	88	86	89	85	75	60
Firms using control enhancing devices (%)	36.36	36.05	46.07	48.23	58.57	58.33
Panel C: Post privatization government control						
Mean	47.90	44.98	41.01	37.42	34.46	32.72
Median	51.92	51.00	42.87	41.10	38.33	35.41
N	105	107	115	116	105	87

This table reports descriptive information on ultimate ownership structure of our sample of 126 privatized firms from 25 countries between 1987 and 2003. Panel A reports the percentage of firms controlled by each type of ultimate owner over the period from year 0 to year +5. The largest ultimate owners are classified in six types: (i) State, (ii) Family, (iii) Widely held corporation, (iv) Widely held financial institution, (v) Miscellaneous, and (vi) Cross holdings. Panel B reports descriptive information on the control enhancing mechanisms used by firms in which the government is the largest ultimate owner. Firms using control enhancing mechanisms denotes the percentage of government controlled firms using such mechanisms. Panel C reports summary statistics for the ultimate control rights held by the government.

TABLE 4
Descriptive Statistics for the Explanatory Variables

Panel A: Summary of the variables						
Variable	N	Mean	Median	Standard Deviation	Min	Max
<i>GOVCONT</i>	345	0.381	0.411	0.268	0	0.934
<i>LEFT</i>	367	0.414	0	0.493	0	1
<i>SYSTEM</i>	367	1.801	2	0.588	0	2
<i>YRSOFFC</i>	367	3.886	3	3.892	1	24
<i>GOV_EXPROP</i>	385	3.886	9.35	1.018	5.22	9.98
<i>LAW_ORDER</i>	365	4.784	5	1.158	1.5	6
<i>DISCLOSURE</i>	376	62.348	64	9.858	36	83
<i>ANTISELF</i>	385	0.473	0.42	0.213	0.2	1
<i>SIZE</i>	382	15.466	15.336	1.777	10.949	19.213
<i>RETURN_VOL</i>	382	0.352	0.296	0.234	0	1.623
<i>LEVERAGE</i>	383	0.437	0.43	0.298	0	4.252
<i>MARKET TO BOOK</i>	385	2.346	1.65	2.549	0.340	27.280
<i>GROWTH_RATE</i>	385	0.167	0.138	0.158	-0.353	1.625
<i>VAR_ANALYSTCOV</i>	382	0.296	0.125	1.221	0	21.111
<i>INFL</i>	385	0.025	0.023	0.020	0.001	0.203
<i>GDPG</i>	385	0.023	0.026	0.026	-0.115	0.106

TABLE 4 (continued)

Panel B: Correlation coefficients

VARIABLE	R_{AVC}	GOVCONT	SYSTEM	LEFT	YRSOFFC	GOV_EXPROP	LAW_ORDER	DISCLOSURE	ANTISELF	SIZE	RETURN_VOL	LEVERAGE	MARKET TO BOOK	GROWTH_RATE	VAR_ANALYSTCOV	INFL
GOVCONT	0.148															
SYSTEM	-0.260	-0.009														
LEFT	0.119	0.099	0.002													
YRSOFFC	-0.160	0.135	0.074	-0.082												
GOV_EXPROP	-0.389	-0.174	0.451	0.119	-0.013											
LAW_ORDER	-0.278	-0.040	0.455	0.081	-0.053	0.613										
DISCLOSURE	-0.153	-0.029	0.095	-0.148	0.157	0.169	0.179									
ANTISELF	-0.068	0.037	0.081	-0.278	0.172	-0.235	0.056	0.384								
SIZE	-0.062	-0.039	-0.016	0.129	-0.051	0.192	0.126	-0.061	-0.189							
RETURN_VOL	0.267	0.043	-0.195	0.136	-0.067	-0.237	-0.216	0.002	-0.001	-0.118						
LEVERAGE	0.049	0.040	0.037	0.027	-0.005	0.125	0.109	0.035	-0.063	0.521	-0.042					
MARKET TO BOOK	-0.267	-0.126	0.068	-0.008	0.073	0.080	-0.029	0.095	0.002	-0.190	0.054	-0.021				
GROWTH_RATE	0.221	0.057	-0.051	-0.010	-0.012	-0.081	-0.093	-0.022	0.019	-0.090	0.143	0.055	0.029			
VAR_ANALYSTCOV	0.115	0.041	-0.032	0.035	-0.062	0.049	0.046	-0.026	-0.102	-0.001	0.023	0.093	-0.034	0.028		
INFL	0.384	0.079	-0.321	0.062	0.025	-0.280	-0.382	-0.134	0.068	-0.094	0.130	-0.139	0.036	-0.002	-0.011	
GDPC	0.058	0.077	0.184	0.064	0.107	-0.085*	0.025	0.089*	0.170	-0.076	-0.153	-0.125	0.009	-0.088	0.015	0.175

This table reports summary descriptive statistics for the explanatory variables (Panel A) and Pearson pairwise correlation coefficients between the regression variables (Panel B) for a sample of 126 privatized firms from 25 countries between 1987 and 2003. Boldface indicates statistical significance at the 1% level. R_{AVC} is the average cost of equity estimated using the four models described in the Appendix B. Descriptions and data sources for the explanatory variables are outlined in Appendix A.

TABLE 5
Impact of Government Control and Political and Institutional Variables on the Cost of Equity

Variable	Prediction	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Intercept</i>	?	0.178*** (7.651)	0.209*** (8.213)	0.175*** (7.508)	0.194*** (7.942)	0.230*** (5.46)	0.233*** (7.960)
<i>GOVCONT</i>	+	0.016** (2.299)	0.015** (2.168)	0.018** (2.568)	0.015** (2.215)	0.016** (2.223)	0.016** (2.202)
<i>LEFT</i>	+	0.003 (0.754)	0.005 (1.257)	0.003 (0.709)	0.001 (0.175)	0.001 (0.302)	0.001 (0.223)
<i>SYSTEM</i>	-	-0.008*** (3.727)	-0.006*** (2.538)	-0.009*** (3.376)	-0.009*** (4.150)	-0.008*** (3.755)	-0.008*** (3.069)
<i>YRSOFFC</i>	-	-0.001*** (4.211)	-0.002*** (4.276)	-0.002*** (4.275)	-0.001*** (3.969)	-0.001*** (3.780)	-0.002*** (3.911)
<i>GOV_EXPROP</i>	-		-0.005** (2.137)				-0.008** (2.567)
<i>LAW_ORDER</i>	-			-0.001 (0.581)			0.001 (0.336)
<i>DISCLOSURE</i>	-				-0.001* (1.423)		-0.001 (0.010)
<i>ANTISELF</i>	-					-0.017** (1.669)	-0.020** (1.675)
<i>SIZE</i>	-	-0.005*** (3.189)	-0.004** (2.280)	-0.004*** (2.789)	-0.004*** (2.998)	-0.005*** (3.377)	-0.003** (1.969)
<i>RETURN_VOL</i>	+	0.024*** (2.785)	0.020*** (2.485)	0.023*** (2.768)	0.027*** (3.178)	0.024*** (2.811)	0.022*** (2.704)
<i>LEVERAGE</i>	+	0.024** (2.241)	0.023** (2.177)	0.020** (1.922)	0.017* (1.560)	0.024** (2.260)	0.012 (1.060)
<i>MARKET TO BOOK</i>	-	-0.004*** (3.600)	-0.004*** (3.429)	-0.004*** (3.534)	-0.004*** (3.347)	-0.004*** (3.601)	-0.004*** (3.367)
<i>GROWTH_RATE</i>	+	0.040*** (2.834)	0.041*** (2.936)	0.040*** (2.742)	0.037*** (2.776)	0.040*** (2.810)	0.038*** (2.754)
<i>VAR_ANALYSTCOV</i>	+	0.003** (1.958)	0.003** (2.083)	0.003** (1.967)	0.003** (2.242)	0.003** (1.847)	0.003** (2.106)
<i>INFL</i>	+	0.012*** (4.646)	0.011*** (4.420)	0.011*** (4.144)	0.013*** (4.731)	0.013*** (5.024)	0.013*** (4.774)
<i>GDPG</i>	-	0.074 (1.150)	0.058 (0.896)	0.083 (1.310)	0.078 (1.165)	0.080 (1.216)	0.067 (1.036)
<i>INDUSTRY EFFECTS</i>		YES	YES	YES	YES	YES	YES
<i>YEAR EFFECTS</i>		YES	YES	YES	YES	YES	YES
Adj R2		0.331	0.341	0.334	0.356	0.337	0.379
N		324	324	322	318	321	316

This table presents fixed effects estimation results from regressing the average of implied cost of equity estimates on government control, political and institutional variables and control variables. The full sample includes 126 privatized firms from 25 countries between 1987 and 2003. All models report results for the five years post-privatization period i.e., from one year after privatization to five years after privatization. Beneath each estimate is reported the z-statistic. The superscripts asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively, one-tailed when directional predictions are made, and two-tailed otherwise. R_{AVG} is the average cost of equity estimated using the four models described in the Appendix B. Descriptions and data sources for the variables are outlined in Appendix A.

TABLE 6
Impact of Government Control and Privatization and Political Variables on the Cost of Equity

Variable	Prediction	Model 1	Model 2	Model 3	Model 4
<i>Intercept</i>	?	0.175*** (7.227)	0.192*** (4.558)	0.175*** (7.547)	0.177*** (7.573)
<i>GOVCONT</i>	+	0.017** (2.264)	0.021** (2.050)	0.018*** (2.605)	0.016** (2.277)
<i>LEFT</i>	+	0.004 (0.995)	0.001 (0.194)	0.003 (0.743)	0.003 (0.702)
<i>SYSTEM</i>	-	-0.010*** (4.161)	-0.009** (2.060)	-0.006*** (2.866)	-0.006*** (2.589)
<i>YRSOFFC</i>	-	-0.002*** (4.361)	-0.002*** (3.311)	-0.001*** (3.946)	-0.001*** (3.829)
<i>PRIV_PROGRESS</i>	-	-0.534** (2.188)			
<i>GOLDEN_SHARE</i>	+		0.010* (1.507)		
<i>FOR</i>	-			0.039 (1.291)	
<i>LOCALINST</i>	-				-0.046*** (2.479)
<i>SIZE</i>	-	-0.004*** (2.899)	-0.007*** (2.589)	-0.005*** (3.065)	-0.005*** (3.139)
<i>RETURN_VOL</i>	+	0.026*** (2.864)	0.030*** (2.461)	0.025*** (2.663)	0.027*** (2.917)
<i>LEVERAGE</i>	+	0.022** (2.054)	0.060*** (3.504)	0.020** (1.962)	0.022** (2.163)
<i>MARKET TO BOOK</i>	-	-0.004*** (3.348)	-0.004*** (2.877)	-0.004*** (4.176)	-0.004*** (3.683)
<i>GROWTH_RATE</i>	+	0.038*** (2.637)	0.024** (1.870)	0.040*** (2.871)	0.038*** (2.834)
<i>VAR_ANALYSTCOV</i>	+	0.003** (2.179)	0.001 (0.710)	0.003* (1.609)	0.003** (1.886)
<i>INFL</i>	+	0.011*** (4.244)	0.007** (1.795)	0.012*** (4.720)	0.012*** (4.568)
<i>GDPG</i>	-	0.070 (0.981)	0.115 (0.745)	0.040 (0.588)	0.059 (0.861)
<i>INDUSTRY EFFECTS</i>		YES	YES	YES	YES
<i>YEAR EFFECTS</i>		YES	YES	YES	YES
Adj R2		0.349	0.311	0.328	0.330
N		313	184	318	318

This table presents fixed effects estimation results from regressing the average of implied cost of equity estimates on government control, privatization and political variables and control variables. The full sample includes 126 privatized firms from 25 countries between 1987 and 2003. All models report results for the five years post-privatization period i.e.,

from one year after privatization to five years after privatization. Beneath each estimate is reported the z-statistic. The superscripts asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively, one-tailed when directional predictions are made, and two-tailed otherwise. R_{AVG} is the average cost of equity estimated using the four models described in the Appendix B. Descriptions and data sources for the variables are outlined in Appendix A.

TABLE 7
Sensitivity Tests

Variable	Prediction	Analyst Coverage (1)	Forecast Bias (2)	Country Specific Risk (3)	Autocratic Index (4)	2SLS Model (5)	RP Model (6)
<i>Intercept</i>	?	0.115*** (14.601)	0.174*** (7.346)	0.135*** (3.994)	0.069 (1.150)	0.065 (0.979)	0.159*** (6.952)
<i>GOVCONT</i>	+	0.017** (2.279)	0.018*** (2.487)	0.015** (2.092)	0.015** (2.016)	0.150** (2.023)	0.014** (1.982)
<i>LEFT</i>	+	0.002 (0.504)	0.004 (0.984)	0.005* (-1.436)		-0.001 (0.192)	0.002 (0.486)
<i>SYSTEM</i>	-	-0.008*** (3.359)	-0.008*** (3.532)	-0.006** (2.319)		-0.007*** (3.040)	-0.004 (1.084)
<i>YRSOFFC</i>	-	-0.001*** (3.417)	-0.002*** (4.452)	-0.002*** (4.146)		-0.003*** (2.903)	-0.002*** (4.680)
<i>ANALYST_COV</i>	-	-0.001** (1.786)					
<i>FORBIAS</i>	+		0.001** (1.769)				
<i>COUNTRY RISK</i>	+			0.008** (1.878)			
<i>AUTOCRACY</i>	+				0.010** (2.160)		
<i>SIZE</i>	-		-0.005*** (3.023)	-0.004** (2.159)	-0.005*** (3.005)	0.001 (0.100)	-0.005*** (3.208)
<i>RETURN_VOL</i>	+	0.026*** (2.998)	0.023*** (2.558)	0.021*** (2.523)	0.024*** (2.811)	0.012 (1.107)	0.022*** (2.584)
<i>LEVERAGE</i>	+	0.008* (1.453)	0.024** (2.201)	0.026*** (2.437)	0.021** (1.664)	0.016* (1.380)	0.030*** (2.843)
<i>MARKET TO BOOK</i>	-	-0.004*** (3.491)	-0.004*** (3.551)	-0.004*** (3.565)	-0.004*** (3.422)	-0.003*** (2.456)	-0.005*** (3.493)
<i>GROWTH_RATE</i>	+	0.043*** (3.044)	0.047*** (3.076)	0.041*** (2.98)	0.040*** (2.884)	0.047*** (3.210)	0.041*** (3.227)
<i>VAR_ANALYSTCOV</i>	+	0.003*** (2.685)		0.003** (2.119)	0.003** (2.225)	0.002** (1.723)	0.003** (2.032)
<i>INFL</i>	+	0.012*** (4.647)	0.012*** (4.471)		0.009*** (3.413)	0.008*** (2.850)	
<i>GDPG</i>	-	0.068 (1.022)	0.078 (1.169)	0.061 (-0.960)	0.093 (1.140)	0.066 (1.015)	0.028 (0.451)
INDUSTRY EFFECTS		YES	YES	YES	YES	YES	YES
YEAR EFFECTS		YES	YES	YES	YES	YES	YES
Adj R2		0.314	0.334	0.340	0.298	0.331	0.242
N		321	316	324	307	323	324

This table presents the results of our main sensitivity tests. The full sample includes 126 privatized firms from 25 countries between 1987 and 2003. All models report results for the five years post-privatization period i.e., from one year after privatization to five years after privatization. Beneath each estimate is reported the z-statistic. The superscripts asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively, one-tailed when directional predictions are made, and two-tailed otherwise. R_{AVC} is the average cost of equity estimated using the four models described in the Appendix B. Descriptions and data sources for the variables are outlined in Appendix A.

CHAPTER 2:
**OWNERSHIP STRUCTURE AND THE EARNINGS QUALITY OF
PRIVATIZED FIRMS**

Ownership Structure and the Earnings Quality of Newly Privatized Firms

Abstract

We use a unique dataset of 174 privatized firms from 29 countries between 1980 and 2003 to investigate the relation between shareholder identity and earnings quality. We find strong and robust evidence that state ownership is associated with lower earnings quality. In particular, we find that state ownership is associated with higher abnormal accruals and more persistence of negative earnings changes, consistent with the view that state owners have higher incentives to manipulate earnings in order to hide corporate resources expropriation for political purposes. We also find that local institutional ownership is associated with less persistence of negative earnings changes, providing support for the incentive effect of local institutions that get involved in active monitoring of management activities. In addition, we find weak evidence implying that foreign ownership is associated with less persistence of negative earnings changes. Overall, our research suggests that the reporting incentives of privatized firms are related to new post-privatization shareholder identity.

JEL classification: G32, G34, M41

Keywords: Ownership Structure; Corporate Governance; Earnings Quality; Abnormal Accruals; Persistence of Negative Earnings changes; Conservatism; Privatization.

Ownership Structure and the Earnings Quality of Newly Privatized Firms

1. Introduction

Prior academic research has investigated the determinants of the quality of accounting information and several empirical studies have recently focused on the firm's ownership structure as a potential determining factor. Several empirical studies have focused on the ownership structure to explain cross-firm differences in the quality of accounting information. Warfield et al. (1995) find that earnings informativeness of U.S. firms is increasing in managerial ownership, consistent with the alignment effect of managerial ownership. This suggests that a higher managerial ownership which may align the incentives of both managers and shareholders results in lower incentives for managers to engage in an opportunistic reporting in order to hide corporate resources expropriation. Fan and Wong (2002) find for East Asian firms that higher ownership concentration is associated with lower earnings informativeness, consistent with the entrenchment hypothesis that controlling shareholders have higher incentives to manipulate earnings in order to hide outright expropriation. Francis et al. (2005) find for a sample of 205 U.S. dual class firms over 1990-1999 that the earnings of these firms—characterized by a separation between voting rights and cash flow rights—are less informative than the earnings of single class firms. This implies that dual-class shares are associated with higher incentives for controlling shareholders to manipulate earnings in order to hide private benefits of control. Wang (2006) shows for Standard & Poor's 500 companies that family ownership is associated with higher earnings quality, consistent with the alignment effect. This suggests that family ownership is associated with greater monitoring by controlling shareholders

and thus with lower incentives to opportunistically manipulate earnings for private purposes.

Several other studies have focused on the institutional environment to explain cross-country differences in the quality of accounting information. Leuz et al. (2003) examine the role of investor protection in explaining the cross-country differences in earnings management. They find that earnings management is negatively related to outsider rights and legal enforcement. This suggests that strong investor protection limits insiders' ability to acquire private control benefits, reducing their incentives to manipulate earnings. Haw et al. (2004) report for East Asian and Western European firms that a sound legal and extra-legal environment mitigate the negative effect of excess control on earnings quality, as measured by earnings management (as a proxy of earnings quality). More recently, Leuz (2006) investigates the role of home-country institutions in explaining the difference in earnings management between U.S and cross-listed firms. He reports that home-country investor protection is negatively related to the level of earnings management. Focusing on the influence of security laws and the political economy on accounting conservatism at the country-level i.e., the asymmetric recognition of economic gains and losses into earnings, Bushman and Piotroski (2006) find that high quality judicial systems and strong public enforcement of security laws are associated with higher conservatism in reporting earnings i.e., higher earnings quality. They also find that higher state involvement in the economy and a higher risk of government expropriation are associated with lower conservatism in reporting earnings. This suggests that insiders engage in an opportunistic reporting in order to avoid corporate resources expropriation by the government. In the same vein, Durnev and Fauver (2008) report evidence suggesting that firms from countries with

predatory government policies have lower incentives to increase corporate transparency in order to prevent the government from interfering and expropriating shareholders' wealth.

In this study, we extend this strand of literature by examining how the ownership structure of newly privatized firms (NPFs), having many unique features, may affect earnings quality. Indeed, the post-privatization ownership structure of NPFs is characterized by the presence of the government as a particular shareholder, even several years after privatization (e.g., Bortolotti and Faccio (2007)). This is important since governments, unlike typical shareholders; tend to pursue political objectives that rarely coincide with profit maximization, allowing us to examine the impact of the government's direct influence in privatized firms on their earnings quality. Shleifer and Vishny (1998), for example, argue that if the existing links between politicians and managers of the former state-owned firms are not completely severed, the "grabbing hands" of governments will not be neutralized, allowing them to expropriate corporate resources. Therefore, state owners have higher incentives to manipulate earnings in order to hide corporate resources expropriation for political purposes. Boycko et al. (1996) argue that if the cash flow and the control rights are transferred from the state to private owners, the political interference will decrease or completely disappear. We thus investigate the role of private owners, specifically local institutional investors and foreigners which are shown by Boubakri et al. (2005) to benefit the most from the relinquishment of government ownership, in shaping the privatized firm's reporting incentives.

Furthermore, the ownership structure of privatized firms is characterized by a drastic change, allowing us to examine how changes in ownership structure may affect the quality of accounting information. This drastic change in the ownership structure, which is accompanied by severe information asymmetry problems (Denis and McConnell (2003) and Dyck (2001)), also provides us with a unique setting in which we can investigate the determinants of the quality of accounting information. As argued by Bushman and Smith (2003), regime shifts within a country, such as the privatization of state-owned enterprises, suit exploring the determinants of the quality of accounting information which is important to improve the firm's economic outcomes.

We use a multinational sample of 174 firms from 29 firms privatized over the period of 1980 and 2003 to examine the impact of shareholder identity on earnings quality. We use two proxies of earnings quality, namely discretionary abnormal accruals and the persistence of negative earnings changes. We find strong and robust evidence that state ownership is associated with lower earnings quality, after controlling for the legal and political environments, as well as for firm- and country-level determinants of earnings quality. Specifically, we find that state ownership is associated with higher abnormal accruals i.e., more earnings management and more persistence of negative earnings changes i.e., lower conservatism in reporting negative earnings changes. This indicates that the state has higher incentives to report lower earnings quality in order to hide corporate resources expropriation for political purposes. We also find that local institutional ownership is associated with less persistence of negative earnings changes. This suggests that local institutions are associated with an active monitoring of management activities and thus with more conservatism in reporting negative earnings changes (i.e., higher earnings quality). In

addition, we find weak evidence implying that foreign ownership is associated with more conservatism in reporting negative earnings changes. Focusing on the post-privatization period, we continue to find that earnings quality is negatively related to state ownership. We also continue to estimate a negative relation between local institutional ownership and the persistence of negative earnings changes. In additional tests, we investigate whether the relation between state ownership and earnings quality is non-linear. Our results show that weak state ownership is associated with lower earnings management and more conservatism in reporting negative earnings changes, suggesting that the relation between state ownership and earnings quality is non-linear.

Our paper contributes to the literature on several grounds: First, it contributes to the recent literature on the impact of ownership structure on earnings quality (e.g., Francis et al. (2005) and Wang (2006)), by considering a drastic change in ownership structure, namely privatization. Second, it adds to the burgeoning literature on the link between the political economy and corporate transparency (e.g., Busham and Piotroski (2006) and Durnev and Fauver (2007)), by focusing on the direct influence of the government over privatized firms.

The rest of the paper is organized as follows. Section 2 presents our testable hypotheses. Section 3 presents our earnings quality proxies, describes the sample, and provides descriptive statistics for the regression variables. Section 4 presents our main empirical evidence and reports the results of our additional and sensitivity tests. Section 5 summarizes our findings and concludes.

2. Hypotheses Development

The State has higher incentives to expropriate other shareholders' wealth for political benefits of control. In fact, the state has other objectives than profitability maximization, such as maintaining a high level of employment and promoting regional development by locating production in politically desirable rather than economically attractive regions. Boycko et al. (1996) argue that a greater emphasis will be put on profits and efficiency only if privatization transfers control and ownership from the government to private shareholders, who will then strive to maximize firm value. In the same vein, Paudyal et al. (1998) argue that the level of post-privatization political interference and the risk of renationalization will both be higher when the government sells a relatively low percentage of its capital. Therefore, the "political interference" hypothesis implies that higher state ownership is associated with a higher political interference and will thus lower post-privatization corporate performance or firm value.

Several empirical studies support the predictions of the political interference hypothesis. Boardman and Vining (1989) report that partially privatized firms underperform private firms and state-owned enterprises (SOEs). Similarly, Boubakri and Cosset (1998) find that, in developing countries, post-privatization performance improves more when the government relinquishes control (sells more than 50% of shares) Fan et al. (2008) document lower accounting and post-IPO long-term performances for privatized Chinese firms, when the government maintains control through political connections. The results of our Chapter I also suggest that shareholders require a higher compensation (i.e., a higher cost of equity) to hold the

shares of a privatized firm with a higher government control. Although not directly related to earnings quality, this literature suggests that firms with higher state ownership have higher incentives to report lower quality earnings in order to hide corporate resources expropriation for political purposes.

Firms with higher state ownership have also lower incentives to improve the quality of their financial reporting because they have access to a preferential financing through political connections. Consistent with this view, Wang et al. (2008) find that SOEs from China are more likely to hire smaller auditors than private firms. In the same vein, Guedhami et al. (2008) find that firms with higher state ownership are less likely to appoint Big four auditors. In addition, Chaney et al. (2008) find that politically-connected firms report lower quality accounting information than non-connected peers. However, they find that politically-connected firms are not penalized by a higher cost of debt, giving support to the argument that politically-connected firms have lower incentives to improve their quality of accounting information in order to obtain better contracting terms. In light of this discussion suggesting that the state has lower incentives to report higher quality earnings, we can derive our first hypothesis:

H1: The earnings quality of privatized firms is negatively related to state ownership, all else being equal.

The literature is still inconclusive on whether institutional ownership enhances or deters corporate performance. On the one hand, the proponents of the monitoring hypothesis argue that institutional investors, having the expertise and the ability to monitor management play an active role in monitoring management activities (Pound (1988)). Consistent with this argument, McConnell and Servaes (1990) find that

corporate performance is positively related to institutional ownership. In the privatization context, Boutchkova and Megginson (2000) argue that institutional investors exert a high degree of monitoring of management activities to ensure superior returns. In Chapter I, we find that the cost of equity of NPFs is negatively related to local institutional ownership, suggesting that local institutions are associated with a closer monitoring of managers and thus with a lower risk of expropriation of shareholders' wealth. The above-cited empirical studies imply that local institutional ownership is associated with a better monitoring of management activities, reducing the ability of managers to opportunistically manipulate earnings.

On the other hand, the proponents of the entrenchment hypothesis based either on the "conflict of interest" argument or on the "strategic alliance" argument argue that institutional investors do not play an active role in monitoring management activities. The "strategic alliance" argument suggests that it is often mutually advantageous for institutional investors and the firm's owners to cooperate, reducing monitoring, which may enhance corporate performance. The "conflict of interest" argument suggests that the dual relations of investment and business between the firm and an institutional investor may reduce monitoring (Heard and Sherman (1987)). Indeed, institutional investors may be unable to exert their monitoring role and vote against managers because it may affect their business relations with the firm. This point of view suggests that institutional ownership may not improve corporate performance. Consistent with this point of view, Agrawal and Knoeber (1996) do not find that higher institutional ownership is associated with a higher corporate performance. Consequently, institutional ownership is not expected to be associated with a better monitoring of

management activities and thus may not reduce the ability of insiders to opportunistically manage earnings.

Given this discussion, our hypothesis on the relationship between local institutional ownership and earnings quality is non-directional and states:

H2: The earnings quality of privatized firms is related to local institutional ownership, all else being equal.

Foreign investment is considered to be associated with better monitoring and is thus expected to reduce the private benefits of control. Doidge et al. (2004) document that cross-listed firms in the US have higher Tobin's Q ratios than non-cross listed peers, implying that US cross-listing reduces the ability of controlling shareholders to extract private benefits of control. In the same vein, Doidge et al. (2004) show that voting premiums, their proxy for private benefits of control, are lower for cross-listed firms, suggesting that cross-listing in the US improves shareholder protection and decreases the private benefits of control, consistent with the bonding hypothesis. More recently, Hail and Leuz (2009) show that US cross-listing reduces the firm's cost of equity financing. In the privatization context, foreign investment is considered to be associated with restructuring and better governance of newly privatized firms. For instance, Frydman et al. (1999) argue that foreign owners have the financial resources, managerial know-how, and corporate governance expertise that give them an advantage over other owners in monitoring insiders and report a positive association between foreign ownership and post-privatization corporate performance. Dyck (2001) argues that foreign investors maintain for reputation concerns a strict control of managers' actions which should result in a higher post-privatization performance.

Chhibber and Majumdar (1999) document that Indian firms show superior performance when foreign investors are the controlling shareholders (i.e., when they hold more than 50% of shares). More recently, D'Souza et al. (2005) find evidence suggesting that greater foreign ownership results in greater efficiency gains in privatized firms. Therefore, foreign ownership which may be associated with a better monitoring reduces the ability of insiders to manipulate earnings for private purposes. Consequently, foreign ownership should result in a supply of higher earnings quality.

Foreign investment may also be argued to induce a demand for higher corporate transparency and corporate governance. Stulz (1999), for instance, shows that the openness of domestic capital markets to foreign investors is associated with a higher demand for good corporate governance and higher corporate transparency. Bradshaw et al. (2004) find higher U.S. ownership in non U.S. firms employing accounting methods consistent with U.S. GAAP, suggesting that U.S. investors prefer firms with higher accounting transparency. In the same vein, Lang et al. (2003) report that U.S. cross-listing is associated with higher information quality as measured by analyst coverage and forecast accuracy.

Given this discussion suggesting that foreign ownership is associated with a better monitoring of managers' actions and with a demand for higher corporate transparency, our third hypothesis states:

H3: The earnings quality of privatized firms is positively related to foreign ownership, all else being equal.

3. Research Design

3.1 Measures of Earnings Quality

Since there is no single measure of earnings quality in the existing literature, we use the following commonly used measures of earnings quality: (i) discretionary abnormal accruals and (ii) persistence of negative earnings changes.

3.1.1 Discretionary Abnormal Accruals. We use two proxies of discretionary abnormal accruals. As a first proxy for discretionary accruals, we use the Dechow and Dichev (2002)'s measure of abnormal accruals as modified by Ball et al. (2005) to include asymmetrically timely loss recognition. We estimate the following piecewise non-linear abnormal accruals model:

$$\frac{CAC_{it}}{TA_{it}} = \theta_0 + \theta_1 \frac{CFO_{it-1}}{TA_{it}} + \theta_2 \frac{CFO_{it}}{TA_{it}} + \theta_3 \frac{CFO_{it+1}}{TA_{it}} + \theta_4 DCFO_{it} + \theta_5 DCFO_{it} * \frac{CFO_{it}}{TA_{it}} + \varepsilon_{it} \quad (1)$$

where:

- CAC_{it} = firm i 's current accruals in year $t = (\Delta CA_{it} - \Delta CL_{it} - \Delta CASH_{it} + \Delta STDEBT_{it})$;
- ΔCA_{it} = firm i 's change in current assets between year $t-1$ and year t ;
- ΔCL_{it} = firm i 's change in current liabilities between year $t-1$ and year t ;
- $\Delta CASH_{it}$ = firm i 's change in cash and equivalents between year $t-1$ and year t ;
- $\Delta STDEBT_{it}$ = firm i 's change in short and current long term debt between year $t-1$ and year t ;
- TA_{it-1} = firm i 's total assets in year t ;
- CFO_{it} = firm i 's cash flows from operations in year $t = NIBE_{it} - CAC_{it}$;
- $NIBE_{it}$ = firm i 's net income before extraordinary items in year t ;
- CFO_{it-1} = firm i 's cash flows from operations in year $t-1$;
- CFO_{it+1} = firm i 's cash flows from operations in year $t+1$;

$$DCFO_{it} = \text{one if } \frac{CFO_{it}}{TA_{it}} - \frac{CFO_{it-1}}{TA_{it-1}} < 0, \text{ and zero otherwise.}$$

We estimate equation (1) for each of Campbell (1996)'s 12 industry groups. The absolute value of the residuals resulting from equation (1), $|AA_BALL|$, is our first proxy of discretionary abnormal accruals. A larger value of $|AA_BALL|$ indicates a poorer earnings quality.

As a second proxy for discretionary accruals, we use the Modified Jones' (1991) measure of abnormal accruals in the spirit of Kothari et al. (2005). First, we estimate the Modified Jones's abnormal accruals for our sample firms. To apply the Modified Jones Model, we run the cross-sectional regression (2) using all *Worldscope* firms in the same two-digit Sic Code except our sample firms.¹⁶ We estimate equation (2) for each of the 5 years surrounding privatization across 29 sample countries. Following Haw et al. (2004), we assume that the features underlying normal accruals are homogenous across the sample countries. Because expression (2) includes lag terms, each firm must have 6 years of data i.e., from two years before privatization to three years after privatization.

$$\frac{CAC_{it}}{TA_{it-1}} = k_1 \frac{1}{UA_{it-1}} + k_2 \frac{\Delta SA_{it}}{TA_{it-1}} + \varepsilon_{it} \quad (2)$$

where:

TA_{it-1} = firm i 's total assets in the beginning of year t ;

UA_{it-1} = firm i 's total assets in US dollar in the beginning of year t ;

ΔSA_{it} = firm i 's change in sales or revenue between year $t-1$ and year t ;

¹⁶ We only use *Worldscope* firms coming from our 29 sample countries.

We use the industry- and year-specific parameters estimated from equation (2) to breakdown the firm's current accruals into a normal component (NA):

$$NA_{it} = \hat{k}_1 \frac{1}{UA_{it-1}} + \hat{k}_2 \frac{(\Delta SA_{it} - \Delta AR_{it})}{TA_{it-1}} \quad (3)$$

where ΔAR_{it} is firm i 's change in accounts receivable between year $t-1$ and year t ,

and an abnormal component (AA), $AA_{it} = \frac{CAC_{it-1}}{TA_{it-1}} - NA_{it}$.

Second, we match each privatized firm with a firm in the same two-digit code having the closest return on assets during the same year. We estimate the abnormal accrual component for the matched firm. The performance matched abnormal accrual (AA_KOT) is the difference between the privatized firm's Modified Jones' abnormal accrual and the matched firm's Modified Jones' abnormal accrual during the same year. The absolute value of the resulting performance matched measure of abnormal accruals, $|AA_KOT|$, is our second proxy of discretionary abnormal accruals. A larger value of $|AA_KOT|$ indicates a poorer earnings quality.

3.1.2 Persistence of Negative Earnings Changes. Basu (1997) uses the asymmetric persistence of earnings changes as a measure of accounting conservatism. He argues that the conservative nature of earnings implies that negative earnings changes are less persistent than positive earnings changes i.e., negative earnings changes tend to reverse more than positive earnings changes. Ball and Shivakumar (2005) adopt Basu's (1997) serial dependence model to compare between earnings conservativeness of private and public UK firms. They find that negative earnings changes are less persistent in public firms than in private firms, indicating that public firms report higher quality earnings.

Similarly, Wang (2006) uses Basu's (1997) serial dependence model as modified by Ball and Shivakumar (2005) to examine the relation between family ownership and the asymmetric persistence of earnings changes. He finds that family firms have less persistent negative earnings changes (i.e., higher earnings quality) than non family peers. We follow this line of research by relying on the asymmetric persistence of earnings changes as our second proxy of earnings quality.¹⁷ Lower persistence of negative earnings changes i.e., negative coefficient of $\Delta NI_{it-1} * D\Delta NI_{it-1}$, α_3 , in equation (3) implies more conservative earnings and thus higher earnings quality.

$$\Delta NI_{it} = \alpha_0 + \alpha_1 D\Delta NI_{it-1} + \alpha_2 \Delta NI_{it-1} + \alpha_3 \Delta NI_{it-1} * D\Delta NI_{it-1} + \varepsilon_{it} \quad (4)$$

where:

ΔNI_{it} = firm i 's change in net income before extraordinary items between year $t-1$ and year t , scaled by average total assets in year $t-1$;

ΔNI_{it-1} = firm i 's change in net income before extraordinary items between year $t-2$ and year $t-1$, scaled by average total assets in year $t-1$;

$D\Delta NI_{it-1}$ = one if $\Delta NI_{it-1} < 0$, and zero otherwise;

3.2 Sample and Descriptive Statistics

3.2.1 Sample. To investigate the impact of ownership structure on the earnings quality of privatized firms, we compile a sample of 174 firms from 12 developing countries and 17 industrialized countries. We use Boubakri et al. (2005)'s sample of privatized firms and complement it using several data sources including *The World Bank* privatization database for developing countries, the *Privatization Barometer* for

¹⁷ We do not rely on the Basu's (1997) reverse regression model because it requires using stock market return data, which decrease substantially our number of observations since this data is only available for the post-privatization period.

OECD countries and Megginson's (2003) updated list of privatized firms in developed and developing countries. We follow the usual practice of eliminating firms from ex-communist countries and China (e.g., Megginson et al. (2004) and Bortolotti and Faccio (2007)).¹⁸ We collect financial data on our sample firms mainly from annual reports and *Worldscope*.

Table 1 provides some descriptive statistics about the 174 firms from 29 countries used in this study.¹⁹ The 174 firms are diversified across development level and legal origin. Specifically, 50.17% of the sample firms are located in developing countries while the remaining 49.43% are located in industrialized countries. Additionally, 79.89% of the sample firms come from civil law countries while 20.11% of our sample firms come from common law countries. As reported in Table 1, our sample is also diversified across industries, with 12.64% in the financial sector, 6.90% in the petroleum sector, 9.77% in the transportation sector and 24.71% in the utility sector. Furthermore, 78.74% of our sample privatization transactions occurred in the 1990s.²⁰

¹⁸ Our sample does not include privatized companies in the ex-communist countries for at least two reasons. First, the traditional law system in these countries is based on the Soviet law which has undergone many changes during their transition period (La Porta et al., 2000). Second, the post-privatization ownership structure in these countries is mainly in the hands of insiders (managers and employees). Recent surveys of the experience of transition economies include Djankov and Murrell (2002) and Svejnar (2002).

¹⁹ This sample is comparable with those of multinational studies on privatized firms: Megginson et al. (1994) with a sample of 61 firms from 18 countries, Boubakri and Cosset (1998) with a sample of 79 firms from 21 countries, D'Souza and Megginson (1999) with a sample of 78 firms from 25 countries, Dewenter and Malatesta (2001) with a sample of 61 firms from 8 countries, D'Souza et al. (2005) with a sample of 129 firms from 23 countries, Boubakri et al. (2005) with a sample of 209 firms from 39 countries, Guedhami and Pittman (2006) with a sample of 190 firms from 31 countries and Bortolotti and Faccio (2007) with a sample of 141 firms from 22 countries.

²⁰ Our sample firms show similar patterns to privatized firms listed on *Worldbank*, implying that our sample is representative of the underlying population. For example, 31% of the privatized firms listed on *Worldbank* come from common law countries and 65% come from civil law countries. Additionally, we note that 80% of the privatization transactions on the *Worldbank's* list occurred in the 1990s.

We use the stake held by major shareholders in privatized firms, namely the state, local institutions and foreigners as a proxy of the post-privatization ownership structure. We determine the stake held by each major shareholder in each of the five years period from year -1 to year +3 around the privatization year. We hand-collect data on the ownership structure mainly relying on annual reports. We also use additional sources such as *Worldscope*, *Moody's International*, *Kompass Egypt Financial Year Book*, and the Asian and Brazilian handbooks. Furthermore, we exploit information about the identity of major shareholders provided by Boubakri et al. (2005), Megginson (2003), and Bortolotti and Siniscalco (2004).

Panel A of Table 2 reports descriptive statistics on shareholder identity of our sample firms for the year preceding privatization, four years after privatization, including the privatization year and for the whole sample period i.e., the period of five years surrounding privatization. We observe that the stake held by state owners declines after privatization. Indeed, the average (median) state ownership decreases from 80.6% (97.4%) in the pre-privatization period to 38.6% (40%) in the post-privatization period. We also observe that much of the decrease in state ownership is absorbed by local institutional investors. The average (median) local institutional ownership increases from 3.5% (0.0%) in the pre-privatization period to 22.4% (16.8%) in the post-privatization period, confirming their important role in the post-privatization ownership of our sample firms. Furthermore, we observe an increase in foreign ownership after privatization. In fact, the average (median) stake held by foreign investors increases from 2.6% (0.0%) in the pre-privatization period to 11.3% (5%) in the post-privatization period. Finally, we observe that the state relinquishes control by selling more than 50% of the shares in only 51.1% of our sample firms,

confirming the earlier findings of Bortolotti and Faccio (2007), among others, that the state is reluctant to relinquish the control of privatized firms.

3.2.2 *Earnings Quality Proxies.* We collect data on the variables required to estimate our two proxies of earnings, outlined in section 3.1, mainly using annual reports and *Worldscope*. Panel B and Panel C of Table 2 report descriptive statistics on our estimates of Ball et al.'s (2005) abnormal accruals and Kothari et al.'s (2005) abnormal accruals surrounding the privatization date. We observe a decline in abnormal accruals, after privatization, estimated using Ball et al.'s (2005) piecewise non-linear model after privatization. Indeed, the average abnormal accruals decreases from 0.050 in the pre-privatization period to 0.046 in the post-privatization period. We also observe a decrease in the abnormal accruals estimated using Kothari et al.'s (2005) performance matched model. In fact, the average abnormal accruals decreases from 0.145 in the pre-privatization period to 0.136 in the post-privatization period. These descriptive statistics provide preliminary evidence suggesting that privatization is associated with an improvement in the quality of accounting information.

Panel D reports descriptive statistics for the variables related to the net income before extraordinary items used in the persistence of negative earnings changes analysis surrounding privatization. The means of changes in net income before extraordinary items ΔNI_t are 0.024 and 0.019 in the pre-privatization period and the post-privatization period, respectively. The means of $D\Delta NI_{t-1}$ are 0.341 in the pre-privatization period and 0.286 in the post-privatization period, suggesting that NPFs are less likely to report negative earnings changes after privatization.

3.2.3 *Control Variables.* We control for legal and extra-legal protections, given extensive research showing that the quality of the legal and extra-legal environments influence the firm's reporting incentives (e.g., Leuz et al. (2003) and Haw et al. (2004)). We exploit LLS (2006)'s data to control for the quality of the legal environment. We use an investor protection index (*PROT*), which is the principal component of (i) the anti-directors rights index, (ii) the liability standards index, and (iii) the disclosure requirements index. As for the quality of the extra-legal environment, we use the tax compliance index (*TAX*) from Dyck and Zingales (2004), a proxy for the effectiveness of the tax system. We expect that higher legal and extra-legal protections are associated with higher earnings quality of privatized firms.

We additionally control for the influence of the country's political economy, given the recent literature on the link between political economy and the quality of accounting information (e.g., Bushman and Piotroski (2006) and Durnev and Fauver (2008)). We include the autocratic index (*AUTOCRACY*) from *Polity V* to control for the country's political environment. *AUTOCRACY* is calculated as the difference between *Polity V*'s autocratic index and *Polity V*'s democratic index. The autocratic index measures the general secrecy of political institutions, whereas the democratic index measures the general openness of political institutions. Firms from autocratic countries characterized by a concentrated political power and in which it is easier for the government to extract rents for self-enrichment have lower incentives to improve corporate transparency (Durnev and Fauver (2008)). Given this, we expect that firms from more autocratic countries will have lower earnings quality.

Finally, following the recent literature on the determinants of earnings quality (Haw et al. (2004) and Wang (2006), among others), we control for several firm-level variables: First, we control for firm size using the natural logarithm of the firm's total sales in US dollar (*SIZE*). We expect that the coefficient of *SIZE* is negative, indicating that larger firms have lower abnormal accruals. Second, we control for default risk through leverage and losses. We use the ratio of long term debt to total assets (*LEV*) as a proxy of financial leverage and a dummy variable equal to one if the net income of the year is negative and zero otherwise (*LOSS*) as a proxy of economic losses. We expect a positive sign for both *LEV* and *LOSS*, indicating that firms with higher bankruptcy risk experience higher abnormal accruals. Third, we control for profitability using the ratio of net income to total assets (*ROA*). Fourth, we control for growth opportunities using the annual real sales growth (*REALSG*). Fifth, we control for the level of economic development using the natural logarithm of the GDP per capita (*LGDP*), which may affect the demand for corporate transparency (Leuz et al. (2003)).²¹ Table A1 presents the definition and the data sources of all regression variables and Table 2 reports descriptive statistics on the variables used in each of our multivariate analyses of shareholder identity and earnings quality.

3.3 Model Specification

To test the relation between the stake held by major shareholders in privatized firms and earnings management, we estimate the following regression model:

²¹The level of economic development may affect the demand for corporate transparency because more developed countries tend to benefit from a better institutional environment and more developed capital markets, which should affect the demand for corporate transparency.

$$|AA_{it}| = \delta_0 + \delta_1 STATE_{it} + \delta_2 LINST_{it} + \delta_3 FOR_{it} + \delta_4 LEGAL_{it} + \delta_5 POLITICAL_{it} + \delta_6 CONTROLS_{it} + \varepsilon_{it} \quad (5)$$

where:

- $|AA_{it}|$ = firm i 's absolute value of Ball et al.'s (2005) abnormal accruals in year t , $|AA_BALL_{it}|$, or Kothari et al.'s (2005) abnormal accruals in year t , $|AA_KOT_{it}|$;
- $STATE_{it}$ = the stake held by the state in firm i at time t ;
- $LINST_{it}$ = the stake held by local institutional investors in firm i at time t ;
- FOR_{it} = the stake held by foreign investors in firm i at time t ;
- $LEGAL_{it}$ = our proxies for the quality of the legal and extra-legal environments outlined in section 3.2;
- $POLITICAL_{it}$ = our proxy for the quality of the political environment outlined in section 3.2;
- $CONTROLS_{it}$ = a set of firm- and country-level control variables outlined in section 3.2;

We expect that the coefficient of state ownership, δ_1 , is positive, which indicates that state owners have higher incentives to opportunistically manage earnings in order to hide corporate resources expropriation for political purposes. The coefficient of local institutional ownership, δ_2 , is expected to be different from zero, indicating that local institutional investors influence the privatized firm's financial reporting incentives. Finally, the coefficient of foreign ownership, δ_3 , is expected to be negative indicating that foreign ownership, which may be associated with a better monitoring reduces the ability of insiders to manipulate earnings for political purposes.

To examine how the identity of major shareholders may affect the persistence of negative changes in earnings, we introduce $STATE$, $LINST$, and FOR respectively as interaction variables in model (4), as shown in model (6).

$$\begin{aligned}
\Delta NI_{it} = & \alpha_0 + \alpha_1 D\Delta NI_{it-1} + \alpha_2 \Delta NI_{it-1} + \alpha_3 \Delta NI_{it-1} * D\Delta NI_{it-1} + \alpha_4 STATE_{it} \\
& + \alpha_5 STATE_{it} * D\Delta NI_{it-1} + \alpha_6 STATE_{it} * \Delta NI_{it-1} + \alpha_7 STATE_{it} * D\Delta NI_{it-1} * \Delta NI_{it-1} \\
& + \alpha_8 LINST_{it} + \alpha_9 LINST_{it} * D\Delta NI_{it-1} + \alpha_{10} LINST_{it} * \Delta NI_{it-1} \\
& + \alpha_{11} LINST_{it} * D\Delta NI_{it-1} * \Delta NI_{it-1} + \alpha_{12} FOR_{it} + \alpha_{13} FOR_{it} * D\Delta NI_{it-1} \\
& + \alpha_{14} FOR_{it} * \Delta NI_{it-1} + \alpha_{15} FOR_{it} * D\Delta NI_{it-1} * \Delta NI_{it-1} + \alpha_{16} LEGAL_{it} \\
& + \alpha_{17} LEGAL_{it} * D\Delta NI_{it-1} + \alpha_{18} LEGAL_{it} * \Delta NI_{it-1} + \alpha_{19} LEGAL_{it} * D\Delta NI_{it-1} * \Delta NI_{it-1} \\
& + \alpha_{20} POLITICAL_{it} + \alpha_{21} POLITICAL_{it} * D\Delta NI_{it-1} + \alpha_{22} POLITICAL_{it} * \Delta NI_{it-1} \\
& + \alpha_{23} POLITICAL_{it} * D\Delta NI_{it-1} * \Delta NI_{it-1} + \alpha_{24} CONTROLS_{it} + \alpha_{25} CONTROLS_{it} * D\Delta NI_{it-1} \\
& + \alpha_{26} CONTROLS_{it} * \Delta NI_{it-1} + \alpha_{27} CONTROLS_{it} * D\Delta NI_{it-1} * \Delta NI_{it-1} + \varepsilon_{it}
\end{aligned} \tag{6}$$

We expect the coefficient for α_7 to be positive indicating that firms with higher state ownership tend to have more persistent negative earnings changes (lower earnings quality). We also expect that the coefficient for α_{11} is different from zero, indicating that local institutional ownership influences the persistence of negative earnings changes. In addition, we expect a negative coefficient for α_{15} indicating that foreign ownership is associated with less persistent negative earnings changes (higher earnings quality).

4. Empirical Evidence

4.1 Main evidence

4.1.1 Abnormal Accruals Analysis. Table 3 reports the least-squares estimation results for the multivariate analysis of shareholder identity and the abnormal accruals estimated using Ball et al.'s (2005) piecewise non-linear model. Our analysis is conducted over the period of five years surrounding privatization i.e., the period from one year before privatization to four years after privatization, including the privatization year. The results of Models (1) and (2), our basic regressions, where we include shareholder identity variables, firm-level controls, the natural logarithm of GDP per capita, and dummy variables identifying the post-privatization year show that

state ownership varies systematically with Ball et al. (2005)'s unsigned abnormal accruals.

In Model (1), where we do not condition on industry effects, we find that the coefficient for *STATE* is positive and significant at the 5% level, implying that greater state ownership is associated with a higher level of abnormal accruals. More specifically, an increase in state ownership by 1% is associated with a 0.57% increase in abnormal accruals.²² This evidence is consistent with our predictions in H_1 , suggesting that state owners have lower incentives to report higher quality earnings. However, we find that the coefficient for *LINST* is not significant, suggesting that local institutional ownership doesn't influence earnings management activities of privatized firms. Consistent with the findings of Agrawal and Knoeber (1996) for private firms, this evidence doesn't provide a support to the argument that local institutional owners play an active role in monitoring management activities in privatized firms and thus does not help to reduce the managers' ability to manipulate earnings. Similarly, we find that the coefficient for *FOR* is not significant, indicating that the presence of foreign owners in NPFs does not curb insiders' earnings management incentives. This evidence lends support to Boubakri et al.'s (2005) findings that foreign investment is not associated with higher corporate performance, suggesting that foreign investors do not play a monitoring role in privatized firms. This evidence is also consistent with Bradshaw et al. (2004)'s findings suggesting that an increase in U.S. ownership does not induce an increase in U.S. GAAP conformity for non U.S. firms.

²² The average value $|AA_BALL|$ in our full sample period is 0.047. The coefficient for *STATE* is equal to 0.027. An increase in *STATE* of 1% is associated with a 0.57% increase in abnormal accruals ($0.027\%/0.047 = 0.57\%$).

Given that our sample covers firms from various industries, we control in Model (2) for industry fixed effects using Campbell et al.'s (1996) industry classifications. The results show that the statistically and economically significant impact of state ownership on earnings management that supports H_1 persists. The coefficient of *STATE* is positive and significant at the 1% level, indicating that an increase of 1% in state ownership is associated with a 0.81% increase in abnormal accruals. However, we still estimate insignificant coefficients for *LINST* and *FOR*, indicating that local institutions and foreigners do not affect earnings management in privatized firms.

In Model (3), we replace *STATE* by *CONTROL* to distinguish between revenue and control privatizations and use data on the post-privatization period. Control privatizations are characterized by a control relinquishment by the government and should result in a lower level of post-privatization political interference and thus higher corporate performance (Boycko et al. (1996)). We find that the coefficient for *CONTROL* is negative and significant at the 1% level, implying that control privatizations are associated with a lower level of earnings management after privatization. The magnitude of the coefficient is economically large, indicating that abnormal accruals are 47.8% $(-0.022/0.046=-0.478)$ lower when the government surrenders control after privatization. This evidence implies that our inferences on the link between the government's influence over privatized firms and earnings quality are not affected by our choice of state ownership variables. This finding also suggests that the earnings quality of NPFs is higher when the government relinquishes control after privatization.

In Model (4), we control for the quality of the legal environment by introducing investor protection, *PROT*, the principal component of three indexes from LLS (2006): (i) anti-director rights, (ii) disclosure requirements, and (iii) liability standards. The results show that the coefficient for *PROT* is negative and significant at the 5% level, suggesting that earnings management is less extensive in NPFs from countries with higher investor protection. More importantly for our purposes, we find that the statistically and economically significant impact of state ownership on earnings management persists: the positive and significant coefficient for *STATE* at the 1% level indicates that increasing state ownership by 1% leads to a 0.74% ($0.035\%/0.047=0.74\%$) increase in abnormal accruals. In additional tests reported in Table 8, we separately introduce anti-director rights (*RIGHTS*), disclosure rights (*DISCLOSURE*), liability standards (*LIABILITY*) and Djankov et al.'s (2008) anti-self index (*ANTISELF*). The results of Models (1), (2), (3), and (4) reported in Table 8 show that the coefficients for the separately included variables, except *LIABILITY*, are negative and significant at the 5% level. We also find that the coefficient for *STATE* remains positive and significant at the 1% level.

In Model (5), we control for the quality of extra-legal institutions using Dyck and Zingales (2004)'s tax compliance index. Consistent with Haw et al.'s (2004) findings, we find that the coefficient for *TAX* is not significant. More importantly, we find that the coefficient for *STATE* remains positive and significant at the 1% level, giving support to H₁. Additionally, we separately introduce Dyck and Zingales (2004)'s product market competition (*COMPETITION*) and newspaper circulation indexes (*NEWSPAPER*). The results of Models (5) and (6) reported in Table 8 show the coefficients for *COMPETITION* and *NEWSPAPER* are not significant. These findings

are consistent with the evidence in Guedhami and Pittman's (2006) that extra-legal institutions do not influence information quality in privatized firms.

In Model (6), we control for the country's political economy using *AUTOCRACY* derived from *Polity V*. Consistent with Bushman et al.'s (2004) findings, we find that the coefficient for *AUTOCRACY* is not significant. In additional tests, we separately replace *AUTOCRACY* by political orientation from *Worldbank's* database of political institutions (*LEFT*) and government stability index from *ICRG (GS)*. The results of Model (7) reported in Table 8 show an insignificant coefficient for *LEFT*, a dummy variable equal to 1 if the government is left-oriented and zero otherwise. Similarly, we find in Model (8) of Table (8) that the coefficient for *GS* is not significant. More interesting for our purposes, we continue to report positive and significant coefficient for *STATE* at the 1% level. Overall, our findings suggest that firm-level variables, *STATE* and *CONTROL*, measuring the government's direct influence over privatized firms and thus the level of political interference are more important in determining the firm's level of earnings management than country-level political economy variables.

In Model (7) we re-estimate Model (2) for the post-privatization period. This model allows us to investigate the impact of post-privatization state ownership on earnings quality. Furthermore, it allows addressing causality concerns. Indeed, our findings may be due to the fact that local institutional ownership and foreign ownership originally choose to invest in NPFs with a higher quality of accounting information. The results show that the coefficients for *LINST* and *FOR* remain insignificant. Furthermore, we find that the statistically and economically significant impact of state ownership is more important in the post-privatization period: an

increase in state ownership by 1% is associated with a 0.96% ($0.044/0.046=0.96\%$) increase in abnormal accruals.

As for the control variables, we report several significant relations, which are generally consistent with our predictions and prior literature. Specifically, we generally report a positive and significant coefficient for *ROA*—our proxy for firm profitability, indicating that earnings management is more extensive in highly profitable firms. Consistent with the findings of recent studies (e.g., Wang (2006) and Chaney et al. (2008)), we also generally report positive and significant coefficients for *REALSG* and *LOSS*, suggesting that firms with a greater growth rate and negative income have higher abnormal accruals. Furthermore, we generally report a negative and significant coefficient for *LNGDP*, which is consistent with the findings of Leuz (2003) and Haw et al. (2004). However, we find that the coefficient of *LEV* is negative and significant in Models (1), (3), and (5). Although this evidence is contrary to our prediction (highly levered firms having higher bankruptcy risk should have higher earnings management) it is consistent with the findings of Cheng and Warfield (2005) and Wang (2006), among others.

We repeat our analysis of abnormal accruals and shareholder identity using Kothari et al.'s (2005) performance matched abnormal accruals as a dependent variable. The new results are reported in Table 4. All the results on the link between the government's influence over privatized firms and earnings quality are supported when we use Kothari et al.'s (2005) performance matched abnormal accruals as a proxy for earnings management. Model (2) reports a positive and significant coefficient for *STATE* at the 1% level, indicating that increasing state ownership with 1% leads to a

0.64% ($0.088\%/0.138=0.64\%$) increase in abnormal accruals. When we use *CONTROL* in model (3) as an alternative proxy for the government's political influence over privatized firms and we estimate our regression over the post-privatization period, we continue to estimate lower abnormal accruals i.e., lower earnings management for control privatizations. The magnitude of the coefficient for *CONTROL* is also economically large. In fact, if the government relinquishes control abnormal accruals decrease by 30.90% ($-0.042/0.136=-0.309$) after privatization. This result is significant at the 5% level.

As we can see in Table 4, the coefficients for *LINST* and *FOR* are not significant, implying that the presence of local institutional investors and foreigners does not seem to affect the privatized firms' incentives to manipulate earnings. In contrast, the state influences their incentives to manage earnings. Consistent with our finding in Table 3, we find that the coefficient for *PROT* is negative and significant at the 1% level, corroborating recent empirical evidence showing the importance of security regulations and legal protection in determining the firm's financial reporting incentives (e.g., Haw et al. (2004)).

4.1.2 Persistence of Negative Earnings Changes Analysis. Table 5 reports the least-squares estimation results for the multivariate analysis of performance negative earnings changes and shareholder identity of privatized. This analysis is also conducted over the period of five years surrounding privatization. We estimate several specifications of equation (6). Following Basu (1997) and Ball et al. (2005), we consider that a given firm reports more conservative accounting earnings and thus has higher earnings quality if negative earnings changes are less persistent than positive earnings

changes. As outlined in section 3.4 our test variable in the persistence of negative earnings changes analysis are *STATE*, *LINST*, *FOR* interacted with ΔNI_{t-1} and $D\Delta NI_{t-1}$. Consistent with Basu (1997) and Ball et al. (2005), we report negative and highly significant coefficients for $D\Delta NI_{t-1} * \Delta NI_{t-1}$ across all models, implying that negative earnings changes are less persistent than positive earnings changes.

Following prior studies (e.g., Ball et al. (2005) and Wang (2006)), we control in Model (1) for the firm's size and leverage by introducing interaction terms for *SIZE* and *LEV*. We also include interaction terms for *LGDP* and privatization window dummies. In Model (1), we find a positive and significant coefficient at the 5% level for $STATE * D\Delta NI_{it-1} * \Delta NI_{it-1}$, implying that state ownership is associated with more persistent negative earnings changes i.e., less conservative earnings and thus lower earnings quality. Economically, a 1% increase in state ownership is associated with a 0.10% ($0.008\% / -0.082 = -0.001$) increase in the persistence of negative earnings changes. We also report a negative and significant coefficient at the 1% level for $LINST * D\Delta NI_{it-1} * \Delta NI_{it-1}$, indicating that local institutional ownership is associated with less persistence of negative earnings changes i.e., quick reversal of negative earnings changes. Specifically, increasing local institutional ownership with 1% reduces the persistence of negative earnings changes of privatized firms by 0.12% ($-0.01 / -0.082$). This result suggests that local institutional ownership is associated with a better monitoring of management activities and with more conservatism in reporting negative earnings changes (i.e., higher earnings quality). Furthermore, we find a negative and significant coefficient at the 10% level for $FOR * D\Delta NI_{it-1} * \Delta NI_{it-1}$, suggesting that foreign ownership is associated with less persistent negative earnings changes. This result implies that foreign ownership is associated with more conservatism in reporting negative earnings

changes (i.e., higher earnings quality), consistent with our predictions in H₃. In model (2), we control for industry-fixed effects using interaction industry dummies. The statistically and economically significant coefficients for $STATE * D\Delta NI_{it-1} * \Delta NI_{it-1}$, $LINST * D\Delta NI_{it-1} * \Delta NI_{it-1}$, $FOR * D\Delta NI_{it-1} * \Delta NI_{it-1}$ persist, suggesting that state ownership is associated with less conservatism while local institutional ownership and foreign ownership are associated with more conservatism in reporting negative earnings changes.

In Model (3) we replace state ownership with *CONTROL* and limit the analysis on the post-privatization period. We report a negative and significant coefficient at the 1% level for *CONTROL*, indicating that control privatizations are associated with lower persistence of negative earnings changes than revenue privatizations. More specifically, we find that the negative earnings changes of firms where the government surrenders control are 16.3% $(-0.008 / -0.049 = 0.163)$ less persistent than those of firms where the government remains the controlling shareholder. As for local institutional ownership, we find that its statistically and economically significant impact on conservatism in reporting negative earnings changes persists: increasing local institutional ownership by 1% reduces the persistence of negative earnings changes by 0.14% $(-0.007 / -0.049 = 0.14\%)$.

In Models (4) and (5), we control for investor protection and the country's political economy by introducing interaction terms for *PROT* and *AUTOCRACY*, respectively. We find that the coefficients for $PROT * D\Delta NI_{it-1} * \Delta NI_{it-1}$ and $AUTOCRACY * D\Delta NI_{it-1} * \Delta NI_{it-1}$ are not significant, suggesting that conservatism in reporting negative earnings changes is not related to the country's legal and political

environment. More interesting for our purposes, we continue to estimate the statistically and economically significant impact of *STATE*, *LINST*, and *FOR* on the persistence of negative earnings changes i.e., conservatism in reporting negative earnings changes.

In Model (6), we re-estimate Model (2) over the post-privatization period using the stake held by local institutional investors and foreigners after privatization. The results show that the coefficient for $STATE * D\Delta NI_{it-1} * \Delta NI_{it-1}$ is positive and significant at the 5% level, indicating that post-privatization state ownership is associated with more persistence of negative earnings changes (i.e., less conservatism and thus lower earnings quality). Specifically, we find that increasing state ownership by 1% leads to a 0.11% ($0.006 / -0.056 = -0.11\%$) increase in the persistence of negative earnings changes. We also report a negative and significant coefficient at the 1% level for $LINST * D\Delta NI_{it-1} * \Delta NI_{it-1}$, suggesting that post-privatization local institutional ownership is associated with an active monitoring of management activities and thus more conservatism in reporting negative earnings changes.

Overall, our main evidence show that the government's influence over privatized firms is associated with more earnings management and less conservatism in reporting negative earnings changes while local institutional ownership is associated with more conservatism in reporting negative earnings changes. We also report weak evidence suggesting that foreign ownership is associated with more conservatism in reporting negative earnings changes.

4.2 Additional and Sensitivity Analyses

4.2.1 *Ownership Structure and Changes in Earnings Quality.* We extend our analysis by examining whether ownership structure explains post-privatization changes in earnings quality. Specifically, we investigate how ownership structure may explain post-privatization changes in earnings management. Table 6 reports the results of mean and median comparison tests of abnormal accruals changes.

In Panel A, we use the median value of state ownership to split our sample in two sub-samples: firms with weak versus strong state ownership. As we can see, changes in abnormal accruals are not significantly different between the two sub-samples, except for Kothari et al.'s (2005) performance matched abnormal accruals. Indeed, the results of the median test show that the absolute value of abnormal accruals (i.e., earnings management) is lower for firms with lower state ownership. Furthermore, this finding suggests that the sub-sample of firms with lower state ownership shows a decrease in earnings management after privatization. This preliminary evidence suggests that an improvement of earnings quality occurs after privatization in NPFs with lower state ownership. In Panel B, we split our sample in two categories: those where the government relinquishes control by selling more than 50% of shares and those where the government remains a controlling shareholder (i.e., control vs. revenue privatizations) (Megginson et al. (1994) and Boubakri and Cosset (1998)). We observe that the average absolute value of Kothari et al.'s (2005) abnormal accruals is lower (i.e., earnings management is lower) for control privatizations. We also observe a decrease in earnings management after privatization for the category of firms where the government relinquishes control. This evidence suggests that NPFs report higher

quality earnings after privatization when the government relinquishes control. In Panel C, we consider median post-privatization local institutional ownership to split our sample accordingly: firms with weak *LINST* and with strong *LINST*. The results are not significantly different between both sub-samples. Panel C compares the changes of our two earnings management measures between firms with weak *FOR* and with strong *FOR*, and shows that earnings management changes are not significantly different between both sub-samples. Overall, these univariate results provide evidence suggesting that the changes in earnings management, our first proxy of earnings quality, are related to the stake held by the state in NPFs and whether the control is transferred to private investors.

We perform a multivariate analysis to control for other determinants of post-privatization earnings management changes. Following Boubakri et al. (2005b) and Fan et al. (2008), we examine the impact of the ownership structure on the post-privatization earnings management changes by running equation (5) over the period from one year before privatization to four years after privatization, excluding the privatization year. The dependent variables are our earnings management proxies ($|AA_BALL|$ and $|AA_KOT|$). In addition to our other explanatory variables, we include a dummy variable set equal to one if the observation is from the post-privatization period, *PRIV*, and an interaction term for the ownership structure variable and *PRIV*. Models (1) and (6) of Table 7 report the results for Ball et al.'s (2005) and Kothari et al.'s (2005) abnormal accruals analyses, respectively when the ownership variable used is *STATE*. We find that the coefficient for *STATE*PRIV* is not significant in Models (1) and (6). Contrary to our univariate results, this finding indicates that state ownership does not have a further effect on earnings management after privatization.

Furthermore, we introduce interaction terms for *LINST* and *FOR*, respectively. We find that the coefficients for *LINST*PRIV* and *FOR*PRIV* are not significant, corroborating the results of our univariate analysis and implying that local institutions and foreigners do not further affect earnings management after privatization.

4.2.2 *Non-linearity of State Ownership.* To investigate whether the relation between state ownership and earnings quality is non-linear, we introduce a dummy indicating whether state ownership is lower than the sample median and zero otherwise, *W_STATE*.²³ Model (2) of Table 7 reports the results for the Ball et al.'s (2005) abnormal accruals analysis. We find that the coefficient for *W_STATE* is negative and significant at the 5% level, indicating that firms with lower state ownership have lower abnormal accruals i.e., less earnings management. This evidence implies that low state ownership potentially reduce the ability of insiders to manipulate earnings in order to hide private benefits of control. In Model (7) of Table 7, we report the results for Kothari et al.'s (2005) performance matched abnormal accruals. We also find a negative and significant coefficient at the 5% level for *W_STATE*, implying that weak state ownership is associated with less earnings management. Finally, the results of the persistence of negative earnings changes are reported in Model (11) of Table 7. We observe a negative and significant coefficient at the 1% level for $W_STATE * \Delta NI_{it} - \Delta NI_{it}$, indicating that lower state ownership is associated with lower persistence of negative earnings changes i.e., more conservatism in reporting negative earnings changes. We also introduce dummy variables which indicate whether local institutional ownership and foreign ownership are high or not, *W_LINST* and *W_FOR*. We find that

²³ Anderson et al. (2003) also rely on this methodology to investigate whether the relationship between family ownership and the cost of debt is non-linear.

the coefficients for W_LINST and W_FOR are not significant in each of our three multivariate analyses, indicating that higher stakes held by local institutions and foreigners do not have a further effect on earnings quality.²⁴

4.2.3 Using Abnormal Total Accruals instead of Abnormal Current Accruals. In our previous analysis, we used for sake of parsimony abnormal current accruals instead of abnormal total accruals in our multivariate abnormal accruals analyses. In Models (3) and (8) of Table 7, we report the results of our multivariate Ball et al' (2005) and Kothari (2005) regressions estimated using abnormal total accruals as a dependent variable, respectively. As we can see, using abnormal total accruals results in smaller samples, motivating our use of abnormal current accruals in our previous analysis. In Models (3) and (8), we report a positive and significant coefficient for $STATE$ at the 5% level. These findings suggest that the statistically and economically significant impact of state ownership on earnings management persists. Specifically, we find that increasing state ownership by 1% is associated with a 0.67% ($0.032/0.048=0.67\%$) increase in abnormal total accruals in Ball et al.'s (2005) multivariate analysis and 0.69% ($0.08/0.116=0.69\%$) increase in abnormal total accruals in Kothari et al.'s (2005) multivariate analysis.

4.2.4 Excluding Financial Firms. In our previous analysis, we control for industry fixed effects using industry dummies. We check whether our results are affected by the exclusion of financial firms, a standard practice used in earnings management studies. Models (4), (9), and (12) of Table 7 report the results of multivariate Ball et al.'s (2005), Kothari et al.'s (2005), and the persistence of negative earnings changes analyses,

²⁴ We alternatively check for non-linear impact of state ownership by introducing $STATE$ and $(STATE)^2$ in the same regression. We find that the coefficient for $(STATE)^2$ is not significant, indicating that the relation between state and earnings management does not seem to be U-shaped.

respectively after excluding financial firms i.e., we exclude firms with SIC codes from 6000-6999. We find that the coefficient for *STATE* is positive and significant at the 5% level in Models (4) and (9). In Model (12), we find that the coefficient for $STATE * \Delta NI_{it-1} * \Delta NI_{it}$ is positive and significant at the 5% level. We also find that the coefficient for $LINST * \Delta NI_{it-1} * \Delta NI_{it}$ is negative and significant at the 5% level. Overall, our previous findings suggesting that state ownership is associated with more earnings management and less conservatism while local institutional ownership is associated with more conservatism persist for non-financial firms.

4.2.5 Summary of Annual Regressions. To mitigate concerns that our evidence is not spuriously induced by multiple observations belonging to the same firm and potential cross-correlation (e.g., due to the fact that multiple firms belong to the same industry or the same country), we gauge the significance of our results using coefficients estimated using regressions from each post-privatization year and corrected for first-order serial correlation using Newey and West's (1987) procedure. The t-statistics are the mean divided by the standard deviation of annual regression coefficients. Models (5), (10), and (13) summarize the annual regressions coefficients for our Ball et al.'s (2005), Kothari et al.'s (2005), and the persistence of negative earnings changes analyses, respectively. The results show that inferences about the impact of state ownership on earnings quality as measured by earnings management and conservatism remain similar to those of our pooled regressions.

5. Conclusions

Prior literature has investigated the determinants of corporate transparency. Several studies have investigated the influence of the ownership structure on the

quality of accounting information. Several other studies have examined the link between the legal and political environments and the quality of accounting information. We extend this strand of literature by focusing on a drastic change in the ownership structure, namely privatization and on the direct influence of the government on the quality of accounting information of privatized firms.

We use a multinational sample of 174 privatized firms from 29 firms privatized over the period of 1980 and 2003 to examine the impact of shareholder identity on earnings quality. Our results show strong and robust evidence suggesting that state ownership is associated with more earnings management and less conservatism while local institutional ownership is associated with more conservatism in reporting negative earnings changes. We also find weak evidence implying that foreign ownership is associated with more conservatism in reporting negative earnings changes. Finally, our results indicate a non-linear relation between state ownership and earnings quality.

Overall, our findings imply that firms with higher state ownership report lower earnings quality in order to obscure corporate resources expropriation for political purposes. The results also imply that local institutional ownership is associated with an active monitoring and reduce the ability of insiders to engage in an opportunistic financial reporting.

APPENDIX A
Variables, Descriptions, and Sources

Variable	Description	Source
AA_BALL	Absolute value of abnormal accruals estimated using Ball et al.'s (2005) model outlined in section 3.1.1.	Authors' estimation
AA_KOT	Absolute value of abnormal accruals estimated using Kothari et al.'s (2005) performance adjusted model outlined in section 3.12.	Authors' estimation
ΔNI_t	Change in net income before extraordinary items between year t and year $t-1$, scaled by average total assets in year t .	Authors' calculation
ΔNI_{t-1}	Change in net income before extraordinary items between year t and year $t-1$, scaled by average total assets in year t .	Authors' calculation
$D\Delta NI_{t-1}$	A dummy variable which is equal to one if $\Delta NI_{t-1} < 0$, and zero otherwise.	Authors' calculation
STATE	The stake held by the government.	Authors' calculation
CONTROL	A dummy variable which is equal to one if the government relinquishes the control of the privatized firm, and zero otherwise.	Authors' calculation
LINST	The stake held by local institutional investors.	Authors' calculation
FOR	The stake held by foreign investors.	Authors' calculation
PROT	The principal component of the indexes of (i) anti-director rights, (ii) disclosure requirements, and (iii) liability standards.	La Porta et al. (2006)
TAX	Assessment of the level of tax compliance. Scale from 0 to 6, where higher scores indicate higher compliance.	Dyck and Zingales (2004)
AUTOCRACY	The difference between <i>Polity V</i> 's autocratic index and <i>Polity V</i> 's democratic index. The autocratic index measures the general secrecy of political institutions, whereas the democratic index measures the general openness of political institutions	Polity V
SIZE	The logarithm of the firm's total sales in US dollar.	Authors' calculation
LEV	The ratio of long term debt to total assets.	Authors' calculation
ROA	The ratio of net income to total assets.	Authors' calculation
REALSG	Real sales growth for the year.	Authors' calculation
LOSS	A dummy variable equal to one if the firm's net income is negative in a given year, and zero otherwise.	Authors' calculation
LNGDP	The natural logarithm of GDP per capita.	World Development Indicators

References

- Agrawal, A., Knoeber, C., 1996. Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial and Quantitative Analysis* 3, 377-397.
- Anderson, R.C., Mansi, S.A., Reeb, D.M., 2003. Founding family ownership and the agency cost of debt. *Journal of Financial Economics* 68, 263-285.
- Ball, R., 2001. Infrastructure requirements for an economically efficient system of public financial reporting and disclosure. *Brookings-Wharton Papers on Financial Services*, 127-169.
- Boardman, A.E., Vining, A.R., 1989. Ownership and performance in competitive environments: A comparison of the performance of private, mixed, and state-owned enterprises. *Journal of Law and Economics*, 1-33.
- Ball, R., Shivakumar, L., 2005. Earnings quality in UK private firms: Comparative loss recognition. *Journal of Accounting and Economics* 38, 83-128.
- Basu, S., 1997. The conservatism principle and asymmetric timeliness of earnings. *Journal of Accounting and Economics* 24, 3-37.
- Bennasr, H., Boubakri, N., Cosset, J.C., 2008. The political determinants of the cost of equity: Evidence from newly privatized firms. *Working Paper*, HEC Montreal.
- Boardman, A.E., Vining, A.R., 1989. Ownership and performance in competitive environments: A comparison of the performance of private, mixed, and state-owned enterprises. *Journal of Law and Economics*, 1-33.
- Bortolotti, B., Faccio, M., 2007. Government control of privatized firms. *Review of Financial Studies*, forthcoming.
- Bortolotti, B., Siniscalco, D., 2004. The challenges of privatization: an international analysis. Oxford University Press, New York.
- Boubakri, N., Cosset, J.C., 1998. The financial and operating performance of newly privatized firms: Evidence from developing countries. *Journal of Finance* 53, 1081-1110.
- Boubakri, N., Cosset, J.C., Guedhami, O., 2005. Post-privatization corporate governance: The role of ownership structure and investor protection. *Journal of Financial Economics* 76, 369-399.
- Boubakri, N., Cosset, J.C., Guedhami, O., Fischer, K., 2005. Privatization and bank performance in developing countries. *Journal of Banking and Finance* 29, 2015-2041.

- Boutchkova, M.K., Megginson, W., 2000. Privatization and the rise of global capital markets. *Financial Management* 29, 31-76.
- Boycko, M., Shleifer, A., Vishny, R., 1996. A theory of privatization. *The Economic Journal*, 309-319.
- Bradshaw, M., Bushee, B., and Miller, G., 2004. Accounting choice, home bias, and investment in non-U.S. firms. *Journal of Accounting Research* 42, 795-841.
- Bushman, R., Smith, A., 2003. Transparency, financial accounting information, and corporate governance? *FRBNY Economic Policy Review* 9, 65-87.
- Bushman, R., Piotroski, J., 2006. Financial reporting incentives for conservative accounting: The influence of legal and political institutions. *Journal of Accounting and Economics* 42, 107-148.
- Bushman, R., Piotroski, J., Smith, A., 2004. What determines corporate transparency? *Journal of Accounting Research* 42, 207-252.
- Campbell, J.Y., 1996. Understanding risk and return. *Journal of Political Economy* 104, 298-345.
- Chaney, P., Faccio, M., Parsley, D., 2008. The quality of accounting information in politically connected firms. *Working Paper*, Vanderbilt University.
- Cheng, Q., Warfield, T.D., 2005. Equity incentives and earnings management. *The Accounting Review* 80, 441-76.
- Chibber, P., Majumdar, S., 1999. Foreign Ownership and profitability: Property rights, control, and the performance of firms in Indian industry. *The Journal of Law and Economics* 42, 209-238.
- Dechow, P., Dichev, I., 2002. The quality of accruals and earnings: The role of accrual estimation Errors. *The Accounting Review* 77, 35-59.
- Denis, D. K., McConnell, J.J., 2003. International corporate governance. *Journal of Financial and Quantitative Analysis* 38, 1-36.
- Dewenter, K.L., Malatesta, P.H., 2001. State-owned and privately owned firms: An empirical analysis of profitability, leverage, and labour intensity. *American Economic Review* 91, 320-334.
- Djankov, S., Murrell, P., 2002. Enterprise restructuring in transition: A quantitative survey. *Journal of Economic Literature*, 739-792.
- Djankov, S., La Porta, R., Lopez-de-Silanes, F., Shleifer, A., 2008. The law and economics of self-dealing. *Journal of Financial Economics* 88, 403-465.

- Doidge, C., 2004. U.S. cross-listings and the private benefits of control: Evidence from dual class firms, *Journal of Financial Economics* 72, 519-553.
- Doidge, C., Karolyi, A., Stulz, R., 2004. Why are foreign firms listed in the U.S. worth more? *Journal of Financial Economics* 71, 205-238.
- D'Souza, J., Megginson, W., 1999. The financial and operating performance of privatized firms during the 1990s. *Journal of Finance* 54, 1397-1438.
- D'Souza, J., Megginson, W., Nash, R., 2005. Effect of institutional and firm-specific characteristics on post-privatization performance: evidence from developed countries. *Journal of Corporate Finance* 11, 747-766.
- Durnev, A., Fauver, L., 2008. Stealing from thieves: Firm governance and performance when states are predatory, *Working Paper*, McGill University.
- Dyck, A., 2001. Privatization and corporate governance: Principles, evidence, and future challenges. *The World Bank Research Observer* 16, 59-84.
- Dyck, A., Zingales, L., 2004. Private benefits of control: An international comparison. *Journal of Finance* 59, 537-600.
- Fan, J., Wong, T., 2002. Corporate ownership structure and the informativeness of accounting earnings in East Asia. *Journal of Accounting and Economics* 33, 401-425.
- Fan, J.P.H., Wong, T.J., Zhang, T., 2008. Politically-connected CEOs, corporate governance and post-IPO performance of China's newly partially privatised firms. *Journal of Financial Economics* 84, 330-357.
- Francis, J., Schipper, K., Vincent, L., 2005. Earnings and dividends informativeness when cash flow rights are separated from voting rights. *Journal of Accounting and Economics* 39, 329-60.
- Frydman, R., Gray, C., Hessel, M., Rapaczynski, A., 1999. When does privatization work? The impact of private ownership on corporate performance in transition economies. *Quarterly Journal of Economics* 114, 1153-1191.
- Gillan, S.L., Starks, L.T., 2003. Corporate governance, corporate ownership, and the role of institutional investors: A global perspective. *Journal of Applied Finance* 13, 4-22.
- Guedhami, O., Pittman, J., 2006. Ownership concentration in privatized firms: The role of disclosure standards, auditor choice, and auditing infrastructure. *Journal of Accounting Research* 30, 129-146.

- Gúedhami, O., Pittman, J., Saffar, W., 2008. Auditor choice in privatized firms: Empirical evidence on the role of state and foreign owners. *Working Paper*, University of South Carolina.
- Gupta, N., 2005. Partial privatization and firm performance. *Journal of Finance* 60, 987-1015.
- Hail, L., Leuz, C., 2009. Cost of capital effects and changes in growth expectations around U.S. cross-listings. *Journal of Financial Economics*, forthcoming.
- Haw, I.M., Hu, B., Hwang, L.S., Wu, W., 2004. Ultimate ownership, income management, and legal and extra-legal institutions. *Journal of Accounting Research* 42, 423-462.
- Heard, J.E., Shepherd, H.D., 1987. Conflicts of interest in proxy voting system. Investor Responsibility Research Center, Washington DC.
- Jones, J.J., 1991. Earnings management during import relief investigations. *Journal of Accounting Research* 29, 193-228.
- Kothari, S.P., Leone A.J., Wasley, C.E., 2005. Performance matched discretionary accrual measures. *Journal of Accounting and Economics* 39, 163-197.
- Lang, M.H., Lins, K.V., Miller, D.P., 2003. ADRs, analysts, and accuracy: Does cross listing in the United States improve a firm's information environment and increase market value? *Journal of Accounting Research* 41, 317-345.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., 2006. What works in securities laws? *Journal of Finance* 61, 1-32.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., 1998. Law and finance. *Journal of Political Economy* 106, 1113-1155.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., 2000. Investor protection and corporate governance. *Journal of Financial Economics* 58, 3-27.
- Leuz, C., 2006. Cross listing, bonding and firms' reporting incentives: A discussion of Lang, Ready and Wilson (2006). *Journal of Accounting and Economics* 42, 285-299.
- Leuz, C., Nanda, D., Wysocki, P.D., 2003. Earnings management and investor protection: an international comparison. *Journal of Financial Economics* 69, 505-527.
- McConnell, J.J., Servaes, H., 1990. Additional evidence on equity ownership and corporate value. *Journal of Financial Economics* 27, 595-612.
- Meggison, W., 2003. Appendix 1: Details of share issue privatizations, 1961-2003. In: Meggison, W.L.(Ed.), *Financial Economics of Privatization*. Oxford University Press, New York.

- Meggison, W., Nash, R., Netter, J.N., Poulsen, A.B., 2004. The choice of private versus public capital markets: Evidence from privatizations. *Journal of Finance* 59, 2835-2870.
- Meggison, W., Nash, R., van Randenborgh, M., 1994. The financial and operating performance of newly privatized firms: An international empirical analysis. *Journal of Finance* 49, 403-452.
- Meggison, W., Sutter, N.L., 2006. Privatization in developing countries. *Corporate Governance: An International Review* 14, 234-265.
- Newey, W., West, K., 1987. Hypothesis testing with efficient method of moments estimation. *International Economic Review* 28, 777-788.
- Paudyal, K., Saadouni, B., Briston, R., 1998. Privatisation initial public offerings in Malaysia: initial premium and long-term performance. *Pacific-Basin Finance Journal* 6, 1-25.
- Pound, J., 1988. Proxy contests and the efficiency of shareholder oversight. *Journal of Financial Economics* 20, 237-265.
- Shleifer, A., Vishny, R., 1998. *The grabbing hand: Government pathologies and their cures.* Harvard University Press: Cambridge, MA.
- Stulz, R., 1999. Globalization of equity markets and the cost of capital. *Journal of Applied Corporate Finance*, 8-25.
- Svejnar, J., 2002. Transition economies: Performance and challenges. *Journal of Economic Perspectives* 16, 3-28.
- Wang, D., 2006. Founding family ownership and earnings quality. *Journal of Accounting Research* 44, 619-656.
- Wang, Q., Wong, T.J., Xia, L., 2008. State ownership, institutional environment, and auditor choice: Evidence from China. *Journal of Accounting and Economics* 46, 112-134.
- Warfield, T.D., Wild, J.J., Wild, K.L., 1995. Managerial ownership, accounting choices, and informativeness of earnings. *Journal of Accounting and Economics* 20, 61-92.

TABLE 1
Description of the Sample of Newly Privatized Firms

			Distribution of Privatizations		
By year			By industry		
Year	Number	Percentage	Industry	Number	Percentage
1980	1	0.57	Basic industries	26	14.9
1985	2	1.15	Capital goods	4	2.3
1986	1	0.57	Construction	11	6.32
1987	3	1.72	Consumer durables	17	9.77
1988	1	0.57	Finance/real estate	22	12.6
1989	3	1.72	Food/tobacco	10	5.75
1990	9	5.17	Petroleum	12	6.9
1991	10	5.75	Services	4	2.3
1992	9	5.17	Textiles/trade	8	4.6
1993	4	2.3	Transportation	17	9.77
1994	12	6.9	Utilities	43	24.7
1995	20	11.49	Total	174	100
1996	21	12.07			
1997	22	12.64			
1998	17	9.77			
1999	13	7.47			
2000	15	8.62			
2001	5	2.87			
2002	5	2.87			
2003	1	0.57			
Total	174	100			
			By region		
			Region (countries)	Number	Percentage
			Africa and the Middle East (2)	33	19
			East and South Asia and the Pacific (10)	37	21.3
			Latin America and the Caribbean (4)	17	9.77
			Europe and Central Asia (13)	87	50
			Total (29)	174	100
			By development level		
			Category (countries)	Number	Percentage
			Industrialized countries (17)	86	49.4
			Developing countries (12)	88	50.6
			Total (29)	174	100
			By legal origin		
			Category (countries)	Number	Percentage
			Common law (8)	35	20.1
			Civil law (21)	139	79.9
			Total (29)	174	100

Notes: This table provides some descriptive statistics for the sample of 174 privatized firms used to investigate the impact of post-privatization ownership structure on earnings quality. We report the distribution of privatization in the countries included in the sample by year, industry, region, development level, and legal origin.

TABLE 2
Descriptive Statistics

Panel A: Ownership of Newly Privatized Firms															
Variable	Pre-privatization Period					Post-privatization Period					Total Sample Period				
	Std.					Std.					Std.				
	Mean	Median	Dev.	Min	Max	Mean	Median	Dev.	Min	Max	Mean	Median	Dev.	Min	Max
STATE	0.806	0.974	0.245	0.132	1.000	0.386	0.400	0.278	0.000	1.000	0.470	0.505	0.320	0.000	1.000
CONTROL						0.511	1.000	0.500	0.000	1.000	0.431	0.000	0.495	0.000	1.000
LINST	0.035	0.000	0.093	0.000	0.584	0.224	0.168	0.222	0.000	0.994	0.183	0.116	0.215	0.000	0.994
FOR	0.026	0.000	0.097	0.000	0.686	0.113	0.050	0.153	0.000	0.902	0.093	0.017	0.146	0.000	0.902
Panel B: Ball et al.'s (2005) Abnormal Accruals (N=342)															
Variable	Pre-privatization Period					Post-privatization Period					Total Sample Period				
	Std.					Std.					Std.				
	Mean	Median	Dev.	Min	Max	Mean	Median	Dev.	Min	Max	Mean	Median	Dev.	Min	Max
AA BALL	0.050	0.025	0.075	0.000	0.481	0.046	0.027	0.065	0.000	0.698	0.047	0.027	0.066	0.000	0.698
SIZE	13.849	14.399	2.383	6.738	17.645	13.964	14.308	2.181	7.238	17.734	13.945	14.312	2.215	6.738	17.734
LEV	0.192	0.166	0.164	0.000	0.907	0.165	0.134	0.153	0.000	0.890	0.169	0.142	0.155	0.000	0.907
ROA	0.073	0.058	0.082	-0.069	0.535	0.078	0.062	0.087	-0.491	0.498	0.077	0.060	0.086	-0.491	0.535
REALSG	0.123	0.066	0.659	-0.929	5.646	0.204	0.073	0.976	-0.908	8.861	0.191	0.070	0.931	-0.929	8.861
LOSS	0.079	0.000	0.271	0.000	1.000	0.081	0.000	0.273	0.000	1.000	0.081	0.000	0.272	0.000	1.000
LNGDP	8.942	9.760	1.221	6.041	10.523	8.944	9.577	1.208	6.093	10.580	8.944	9.577	1.209	6.041	10.580

TABLE 2 (continued)

Panel C: Kothari et al.'s (2005) Performance Matched Abnormal Accruals (N=385)															
Variable	Pre-privatization Period					Post-privatization Period					Total Sample Period				
	Mean	Median	Std. Dev.	Min	Max	Mean	Median	Std. Dev.	Min	Max	Mean	Median	Std. Dev.	Min	Max
AA_KOT	0.148	0.055	0.300	0.001	2.640	0.136	0.066	0.228	0.000	2.676	0.138	0.063	0.242	0.000	2.676
SIZE	13.791	14.232	2.337	6.738	17.645	13.855	14.262	2.248	5.109	17.734	13.844	14.260	2.262	5.109	17.734
LEV	0.186	0.150	0.172	0.000	0.907	0.166	0.130	0.152	0.000	0.740	0.169	0.137	0.156	0.000	0.907
ROA	0.076	0.059	0.098	-0.316	0.535	0.079	0.062	0.080	-0.243	0.498	0.079	0.061	0.083	-0.316	0.535
REALSG	0.128	0.098	0.628	-0.929	5.646	0.220	0.067	1.081	-0.945	8.861	0.204	0.073	1.017	-0.945	8.861
LOSS	0.067	0.000	0.250	0.000	1.000	0.067	0.000	0.250	0.000	1.000	0.067	0.000	0.250	0.000	1.000
LNGDP	8.866	9.446	1.238	6.041	10.523	8.904	9.536	1.231	5.920	10.580	8.897	9.506	1.232	5.920	10.580

Panel D: Persistence of Negative Earnings Changes (N=445)															
Variable	Pre-privatization Period					Post-privatization Period					Total Sample Period				
	Mean	Median	Std. Dev.	Min	Max	Mean	Median	Std. Dev.	Min	Max	Mean	Median	Std. Dev.	Min	Max
ΔNI_{it}	0.024	0.011	0.076	-0.143	0.609	0.019	0.007	0.078	-0.263	0.719	0.020	0.007	0.077	-0.263	0.719
ΔNI_{it-1}	0.013	0.006	0.052	-0.173	0.397	0.015	0.009	0.051	-0.178	0.352	0.015	0.008	0.052	-0.178	0.397
$D\Delta NI_{it-1}$	0.341	0.000	0.476	0.000	1.000	0.286	0.000	0.452	0.000	1.000	0.296	0.000	0.457	0.000	1.000
SIZE	13.437	14.006	2.527	6.738	17.645	13.582	14.155	2.470	3.183	17.734	13.557	14.132	2.478	3.183	17.734
LEV	0.192	0.150	0.182	0.000	0.907	0.163	0.127	0.155	0.000	0.890	0.168	0.130	0.160	0.000	0.907
LNGDP	8.752	9.372	1.276	6.041	10.523	8.766	9.305	1.255	5.781	10.580	8.764	9.305	1.258	5.781	10.580

Notes: This table presents descriptive statistics for the regression variables used in our multivariate analysis to examine the impact of shareholder identity on earnings quality for a sample of 174 privatized firms from 29 countries. The descriptive statistics are reported for the pre-privatization period (the year preceeding privatization), the post-privatization period (the four years following privatization, including the privatization year), and the full five-year sample period. Panel A reports descriptive statistics for the variables used in the multivariate analysis of Ball et al.'s (2005) abnormal accruals and shareholder identity. Panel B reports descriptive statistics for the variables used in the multivariate analysis of Kothari et al.'s (2005) performance matched abnormal accruals and shareholder identity. Panel C reports descriptive statistics for the variables used in the multivariate analysis of the persistence of negative earnings changes and shareholder identity.

TABLE 3
Multivariate Ball et al.'s (2005) Abnormal Accruals Analysis

Variable	Prediction	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Intercept</i>	?	0.067 (1.557)	0.019 (0.478)	0.089** (2.288)	0.015 (0.385)	0.041 (1.002)	-0.017 (0.356)	0.049 (-1.228)
<i>STATE</i>	+	0.027** (2.091)	0.038*** (2.523)		0.035*** (2.347)	0.048*** (3.205)	0.035*** (2.420)	0.044*** (2.836)
<i>CONTROL</i>	-			-0.022*** (2.467)				
<i>LINST</i>	?	0.021 (1.274)	0.041 (1.510)	0.022 (-1.146)	0.042 (1.583)	0.026 (1.453)	0.013 (0.772)	0.023 (-1.385)
<i>FOR</i>	-	0.019 (0.828)	0.019 (0.797)	0.027 (-1.021)	0.024 (0.982)	0.034 (1.351)	0.017 (0.728)	0.035 (-1.300)
<i>PROT</i>	-				-0.010** (2.141)			
<i>TAX</i>	-					-0.003 (0.913)		
<i>AUTOCRACY</i>	+						0.001 (1.180)	
<i>SIZE</i>	-	-0.001 (0.409)	0.002 (0.910)	0.001 (-0.280)	0.004 (1.253)	0.002 (0.691)	0.002 (0.955)	0.002 (-1.079)
<i>LEV</i>	+	-0.073*** (3.431)	-0.031 (1.013)	-0.054** (2.116)	-0.018 (0.566)	-0.055** (2.049)	-0.043** (1.722)	-0.054** (2.159)
<i>ROA</i>	?	0.165** (1.963)	0.227** (1.893)	0.193** (1.682)	0.247** (2.010)	0.160* (1.593)	0.151* (1.521)	0.130 (-1.173)
<i>REALSG</i>	+	0.004 (1.264)	0.004* (1.396)	0.006** (1.770)	0.004 (1.221)	0.004* (1.495)	0.004* (1.376)	0.005** (1.753)
<i>LOSS</i>	+	0.034*** (2.780)	0.035** (2.311)	0.030** (1.937)	0.033** (2.204)	0.027** (2.010)	0.029** (2.195)	0.022* (-1.497)
<i>LNGDP</i>	-	-0.003 (0.729)	-0.006* (1.345)	-0.007* (-1.432)	-0.008* (1.549)	-0.006 (1.085)	-0.003 (0.696)	-0.008** (1.754)
INDUSTRY EFFECTS		NO	YES	YES	YES	YES	YES	YES
YEAR EFFECTS		YES	YES	-YES	YES	YES	YES	YES
Adj R ²		0.110	0.187	0.251	0.204	0.235	0.218	0.259
N		341	342	282	342	322	338	279

Notes: This table presents OLS estimation results from regressing Ball et al.'s (2005) abnormal accruals on shareholder identity and firm- and country-level control variables. The sample consists of 174 privatized firms from 29 countries. All models report results for the period of five years surrounding privatization i.e., from one year before privatization to four years after privatization, including the privatization year, except Models (3) and (7) which are estimated over the post-privatization period. The definitions and data sources of the variables are outlined in Table A1. Beneath each estimate is reported the robust z-statistic. The

superscripts asterisks *******, ******, and ***** denote statistical significance at the 1%, 5%, and 10% levels, respectively, one-tailed when directional predictions are made, and two-tailed otherwise. Boldface indicates the test variables and their statistics.

TABLE 4
Multivariate Kothari et al.'s (2005) Performance Matched Abnormal Accruals Analysis

Variable	Prediction	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Intercept</i>	?	0.183** (1.998)	0.111 (1.319)	0.209*** (2.625)	0.033 (0.258)	0.085 (0.670)	-0.022 (-0.155)	0.138 (-1.425)
<i>STATE</i>	+	0.060** (1.717)	0.088*** (2.488)		0.142*** (2.539)	0.146** (2.288)	0.132** (2.317)	0.090** (2.188)
<i>CONTROL</i>	-			-0.042** (-1.909)				
<i>LINST</i>	?	0.075 (1.429)	0.063 (1.164)	0.05 (-0.947)	0.048 (0.712)	0.113 (1.464)	0.048 (-0.678)	0.063 (-1.109)
<i>FOR</i>	-	0.081 (1.414)	0.096 (1.623)	0.089 (-1.398)	0.148 (1.620)	0.145 (1.550)	0.148 (-1.643)	0.099 (-1.523)
<i>PROT</i>	-				-0.072*** (2.425)			
<i>TAX</i>	-					-0.008 (0.671)		
<i>AUTOCRACY</i>	+						0.002 (-0.789)	
<i>SIZE</i>	-	-0.003 (0.548)	-0.002 (0.377)	-0.004 (-0.746)	0.009 (1.142)	0.003 (0.317)	0.006 (-0.749)	-0.003 (-0.511)
<i>LEV</i>	+	-0.178*** (4.314)	-0.149*** (3.179)	-0.133** (2.201)	-0.228*** (2.674)	-0.265*** (2.495)	-0.278*** (2.724)	-0.152*** (2.458)
<i>ROA</i>	?	0.181 (1.008)	0.197 (0.973)	0.295* (-1.287)	0.254 (1.078)	0.236 (1.062)	0.159 (-0.704)	0.318* (-1.360)
<i>REALSG</i>	+	-0.002 (0.500)	-0.002 (0.347)	0.001 (-0.214)	0.003 (0.460)	0.003 (0.474)	0.003 (-0.469)	0.001 (-0.177)
<i>LOSS</i>	+	0.040* (1.398)	0.041* (1.384)	0.053* (-1.465)	0.005 (0.153)	0.019 (0.524)	0.018 (-0.484)	0.052* (-1.439)
<i>LNGDP</i>	-	-0.009 (0.974)	-0.008 (0.816)	-0.004 (-0.369)	-0.016 (1.238)	-0.006 (0.409)	-0.005 (-0.382)	-0.004 (-0.402)
INDUSTRY EFFECTS		NO	YES	YES	YES	YES	YES	YES
YEAR EFFECTS		YES	YES	YES	YES	YES	YES	YES
Adj R ²		0.102	0.150	0.131	0.108	0.104	0.090	0.135
N		385	385	310	390	367	385	309

Notes: This table presents OLS estimation results from regressing Kothari et al.'s (2005) abnormal accruals on shareholder identity and firm- and country-level control variables. The sample consists of 174 privatized firms from 29 countries. All models report results for the period of five years surrounding privatization i.e., from one year before privatization to four years after privatization, including the privatization year, except Models (3) and (7) which are estimated over the post-privatization period. The definitions and data sources of the variables are outlined in Table A1. Beneath each estimate is reported the robust z-statistic. The

superscripts asterisks ^{***}, ^{**}, and ^{*} denote statistical significance at the 1%, 5%, and 10% levels, respectively, one-tailed when directional predictions are made, and two-tailed otherwise. Boldface indicates the test variables and their statistics.

TABLE 5
Multivariate Analysis of the Persistence of Negative Earnings Changes

Variable	Prediction	(1)	(2)	(3)	(4)	(5)	(6)
<i>Intercept</i>	?	0.042 (-0.847)	0.068 (-1.362)	0.039 (-1.030)	0.08 (-1.604)	0.062 (-0.913)	0.032 (-0.728)
$D\Delta NI_{it-1}$?	-0.045 (-1.193)	-0.032 (-0.929)	-0.04 (-1.219)	-0.04 (-1.119)	-0.032 (-0.795)	-0.053* (-1.716)
ΔNI_{it-1}	0	-0.003 (-0.062)	-0.011 (-0.228)	-0.025 (-0.589)	-0.001 (-0.018)	0.01 (-0.156)	-0.018 (-0.459)
$D\Delta NI_{it-1} * \Delta NI_{it-1}$	-	-0.082** (-1.943)	-0.092** (-2.266)	-0.049** (-1.645)	-0.101*** (-2.549)	-0.096* (-1.626)	-0.056** (-1.743)
<i>STATE</i>	?	0.005 (-0.216)	0.003 (-0.111)		0.002 (-0.093)	0.000 (-0.003)	0.002 (-0.075)
$STATE * D\Delta NI_{it-1}$?	0.001 (-0.411)	0.003 (-0.717)		0.002 (-0.637)	0.003 (-0.722)	0.004 (-1.195)
$STATE * \Delta NI_{it-1}$?	-0.009* (-1.855)	-0.009 (-1.838)		-0.009 (-1.795)	0.054** (-2.288)	-0.015*** (-2.852)
$STATE * D\Delta NI_{it-1} * \Delta NI_{it-1}$	+	0.008** (-2.215)	0.007** (-1.961)		0.006** (-1.868)	0.006** (-1.735)	0.006** (-1.949)
<i>CONTROL</i>	?			-0.011 (-1.064)			
$CONTROL * D\Delta NI_{it-1}$?			-0.004 (-1.073)			
$CONTROL * \Delta NI_{it-1}$?			0.014*** (-2.747)			
$CONTROL * D\Delta NI_{it-1} * \Delta NI_{it-1}$	-			-0.008*** (-2.649)			
<i>LINST</i>	?	-0.019 (-0.723)	-0.023 (-0.860)	-0.02 (-0.796)	-0.021 (-0.756)	-0.016 (-0.603)	-0.033 (-1.185)
$LINST * D\Delta NI_{it-1}$?	0.007** (-2.022)	0.006* (-1.738)	0.008** (-2.296)	0.006* (-1.671)	0.005 (-1.350)	0.009** (-2.393)
$LINST * \Delta NI_{it-1}$?	-0.007 (-1.439)	-0.007 (-1.482)	0.001 (-0.205)	-0.008* (-1.674)	-0.055*** (-2.716)	0.000 (-0.055)
$LINST * D\Delta NI_{it-1} * \Delta NI_{it-1}$?	-0.010*** (-2.409)	-0.011*** (-2.743)	-0.007** (-2.024)	-0.011*** (-2.637)	-0.011*** (-2.642)	-0.009*** (-2.368)
<i>FOR</i>	?	0.032 (-0.917)	0.029 (-0.806)	0.034 (-1.130)	0.022 (-0.612)	0.031 (-0.907)	0.021 (-0.614)
$FOR * D\Delta NI_{it-1}$?	0.001 (-0.305)	0.001 (-0.330)	0.003 (-0.786)	0.001 (-0.310)	0.000 (-0.151)	0.005 (-1.076)
$FOR * \Delta NI_{it-1}$?	-0.003 (-0.628)	-0.002 (-0.449)	-0.005 (-1.074)	-0.002 (-0.356)	0.012* (-1.721)	-0.006 (-1.161)
$FOR * D\Delta NI_{it-1} * \Delta NI_{it-1}$	-	-0.004* (-1.284)	-0.006** (-1.732)	0.004 (-1.180)	-0.007** (-1.868)	-0.006* (-1.628)	0.002 (-0.565)
<i>PROT</i>	?				0.010 (-1.292)		
$PROT * D\Delta NI_{it-1}$?				-0.003		

TABLE 6
Univariate Tests of Abnormal Accruals Changes

Earnings Management Proxy								
Group	AA_BALL				AA_KOT			
	Mean Change	T-statistic	Median Change	Z-statistic	Mean Change	T-statistic	Median Change	Z-statistic
Panel A: By State Ownership								
Weak <i>STATE</i>	-0.013		-0.002		-0.026		-0.004	
Strong <i>STATE</i>	-0.010	0.208	0.001	-0.419	0.010	0.823	0.027	-1.634*
Panel B: Control versus Revenue Privatization								
CONTROL	-0.006				-0.035			
REVENUE	-0.017	0.756			0.021	-1.319*		
Panel C: By Local Institutional Ownership								
Weak <i>LINST</i>	-0.02		-0.007		0.016		0.035	
Strong <i>LINST</i>	-0.008	0.737	0.002	-1.053	-0.012	-0.568	0.014	0.914
Panel D: By Foreign Ownership								
Weak <i>FOR</i>	-0.013		0.001		0.022		0.023	
Strong <i>FOR</i>	-0.011	0.146	0.000	0.163	-0.013	-0.680	0.015	0.505

Notes: This table presents comparisons between post-privatization earnings management changes based on ownership structure variables. The measures of earnings management are (i) Ball et al.'s (2005) abnormal accruals and (ii) Kothari et al.'s (2005) performance matched abnormal accruals. The earnings management changes are obtained by subtracting the mean pre-privatization abnormal accruals from the post-privatization abnormal accruals. The full sample includes 174 privatized firms from 29 countries. Panel A compares the changes in earnings management measures between the sub-sample of firms with weak state ownership (\leq median score) and the sub-sample of firms with strong state ownership ($>$ median score). Panel B compares the post-privatization earnings management changes of control privatizations (the government sells more than 50% of shares) and revenue privatizations (the government sells less than 50% of shares). Panel C compares earnings management changes after privatization between firms with weak local institutional ownership (\leq median score) and firms with strong institutional ownership ($>$ median score). Panel D compares post-privatization earnings management changes of firms with weak foreign ownership (\leq median score) and firms with strong foreign ownership ($>$ median score). The superscripts asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

TABLE 7
Additional and Sensitivity Analyses

Variable	Abnormal Accruals Analysis										Persistence of Negative Earnings Changes Analysis			
	AA_BALL					AA_KOT					Variable	ΔNI_{it-1}		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		(11)	(12)	(13)
<i>Intercept</i>	-0.017 (0.325)	0.059 (1.502)	-0.030 (0.658)	0.045 (1.155)	0.020 (0.507)	0.072 (0.821)	0.203*** (2.777)	0.081 (0.882)	0.213*** (2.708)	0.177** (2.303)	<i>Intercept</i>	0.066 (1.595)	0.035 (0.622)	0.045 (1.097)
<i>STATE</i>	0.080** (2.171)		0.034** (2.159)	0.036** (2.255)	0.039*** (2.501)	0.088** (1.810)		0.080** (2.241)	0.070** (2.084)	0.055** (1.668)	$D\Delta NI_{it-1}$	-0.007 (0.215)	-0.045 (1.114)	0.004 (0.777)
<i>W_STATE</i>		-0.016** (1.945)					-0.041** (2.053)				ΔNI_{it-1}	-0.032 (0.657)	-0.012 (0.239)	0.007 (1.169)
<i>LINST</i>	0.054 (1.611)	0.037 (1.252)	0.051 (1.150)	0.032 (1.069)	0.040 (1.524)	0.037 (0.610)	0.045 (0.910)	0.035 (0.530)	0.044 (0.798)	0.067 (1.220)	$D\Delta NI_{it-1} * \Delta NI_{it-1}$	-0.084** (2.112)	-0.078** (1.749)	-0.014*** (2.707)
<i>FOR</i>	0.028 (1.083)	0.007 (0.290)	0.003 (0.076)	0.029 (1.072)	0.019 (0.759)	0.108 (1.612)	0.081 (1.422)	0.059 (0.875)	0.073 (1.428)	0.101 (1.543)	<i>STATE</i>		0.008 (0.297)	0.017 (0.974)
<i>PRIV</i>	0.035 (1.321)					0.055 (1.372)					$STATE * D\Delta NI_{it-1}$		-0.000 (0.055)	-0.004 (1.114)
$STATE * PRIV$	-0.055 (1.415)					-0.005 (0.093)					$STATE * \Delta NI_{it-1}$		-0.010* (1.907)	-0.008** (2.142)
<i>SIZE</i>	0.002 (0.767)	0.001 (0.547)	0.005 (1.274)	0.002 (0.868)	0.002 (0.854)	-0.001 (0.217)	-0.003 (0.575)	-0.000 (0.035)	-0.004 (0.799)	-0.002 (0.454)	$STATE * D\Delta NI_{it-1} * \Delta NI_{it-1}$		0.009** (2.229)	0.006** (1.714)
<i>LEV</i>	-0.024 (0.672)	-0.030 (0.993)	-0.073 (1.306)	-0.020 (0.485)	-0.031 (0.982)	-0.148*** (2.852)	-0.136*** (2.956)	-0.090 (1.482)	-0.088* (1.760)	-0.145*** (3.059)	<i>W_STATE</i>	-0.013 (1.161)		
<i>ROA</i>	0.244** (1.750)	0.278** (2.304)	0.372** (1.974)	0.252** (2.066)	0.232** (1.881)	0.202 (0.851)	0.184 (0.920)	0.278 (1.106)	0.063 (0.479)	0.196 (0.966)	$W_STATE * D\Delta NI_{it-1}$	-0.003 (0.777)		
<i>REALSG</i>	0.004 (1.195)	0.004* (1.438)	0.006 (0.661)	0.003 (1.001)	0.004* (1.285)	-0.004 (0.920)	-0.001 (0.312)	0.027** (2.146)	-0.002 (0.494)	-0.001 (0.279)	$W_STATE * \Delta NI_{it-1}$	0.009* (1.804)		
<i>LOSS</i>	0.039**	0.041***	0.065***	0.051***	0.034**	0.035	0.042*	0.018	0.039*	0.039*	$W_STATE * D\Delta NI_{it-1} * \Delta NI_{it-1}$	-0.011***		

	(2.094)	(2.654)	(2.572)	(3.082)	(2.227)	(1.033)	(1.396)	(0.630)	(1.329)	(1.336)		(3.269)		
<i>LNGDP</i>	-0.006	-0.006	-0.004	-0.009*	-0.006*	-0.005	-0.008	-0.008	-0.007	-0.009	<i>LINST</i>	-0.012	-0.023	-0.023
	(1.166)	(1.218)	(0.859)	(1.632)	(1.289)	(0.418)	(0.830)	(0.666)	(0.865)	(0.862)		(0.479)	(0.691)	(0.891)
											<i>LINST*ΔANI_{it-1}</i>	0.005	0.008**	0.010**
												(1.542)	(1.990)	(2.505)
											<i>LINST*ANI_{it-1}</i>	-0.006	-0.006	-0.004
												(1.602)	(1.260)	(1.134)
											<i>LINST* ΔANI_{it-1}* ANI_{it-1}</i>	-0.009**	-0.011**	0.004
												(2.264)	(2.254)	(1.163)
											<i>FOR</i>	0.039	0.046	0.040
												(1.252)	(1.150)	(1.028)
											<i>FOR*ΔANI_{it-1}</i>	0.000	0.000	0.001
												(0.094)	(0.097)	(0.272)
											<i>FOR*ANI_{it-1}</i>	-0.001	-0.004	-0.004
												(0.281)	(0.836)	(0.986)
											<i>FOR* ΔANI_{it-1}* ANI_{it-1}</i>	-0.004	-0.004	0.004
												(1.226)	(1.138)	(1.030)
INDUSTRY EFFECTS	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	INDUSTRY EFFECTS	YES	YES	YES
YEAR EFFECTS	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YEAR EFFECTS	YES	YES	YES
Adj R ²	0.196	0.193	0.223	0.205		0.114	0.146	0.166	0.182		Adj R ²	0.202	0.195	
N	274	345	240	308	341	310	386	261	348	389	N	447	395	445

Notes: This table presents the results of our main sensitivity and additional tests for Ball et al.'s (2005) and Kothari et al.'s (2005) abnormal accruals analyses and the persistence of negative earnings changes analysis. The sample consists of 174 privatized firms from 29 countries. All models report results for the period of five years surrounding privatization i.e., from one year before privatization to four years after privatization, including the privatization year, except models (1) and (6) which are estimated over the period including the pre-privatization year and the three years following privatization. The definitions and data sources of the variables are outlined in Table A1. Beneath each estimate is reported the robust z-statistic. The superscripts asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively, one-tailed when directional predictions are made, and two-tailed otherwise. Boldface indicates the test variables and their statistics.

TABLE 8
Additional Tests

Variable	Prediction	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Intercept</i>	?	0.046 (1.165)	0.049 (1.311)	0.020 (0.512)	0.035 (0.918)	0.023 (0.406)	0.060 (1.126)	0.020 (0.512)	0.026 (0.625)
<i>STATE</i>	+	0.036*** (2.440)	0.037*** (2.446)	0.038*** (2.510)	0.036*** (2.386)	0.044*** (2.983)	0.040*** (2.666)	0.039*** (2.587)	0.040*** (2.647)
<i>LINST</i>	?	0.045 (1.644)	0.038 (1.492)	0.041 (1.521)	0.043 (1.582)	0.022 (1.269)	0.021 (1.161)	0.041 (1.517)	0.039 (1.430)
<i>FOR</i>	-	0.025 (1.030)	0.020 (0.809)	0.019 (0.790)	0.017 (0.705)	0.029 (1.185)	0.026 (1.099)	0.018 (0.763)	0.022 (0.896)
<i>RIGHTS</i>	-	-0.009** (2.184)							
<i>DISCLOSURE</i>	-		-0.059** (1.971)						
<i>LIABILITY</i>	+			-0.026 (1.197)					
<i>ANTISELF</i>	-				-0.041** (1.913)				
<i>COMPETITION</i>	-					0.006 (0.420)			
<i>NEWSPAPER</i>	-						0.002 (0.786)		
<i>LEFT</i>	+							0.004 (0.537)	
<i>GS</i>	-								-0.002 (1.055)
<i>SIZE</i>	-	0.004 (1.339)	0.003 (1.008)	0.003 (1.008)	0.003 (1.177)	0.002 (0.685)	0.002 (0.872)	0.002 (0.907)	0.002 (0.962)
<i>LEV</i>	+	-0.013 (0.381)	-0.027 (0.866)	-0.027 (0.866)	-0.012 (0.323)	-0.058** (2.171)	-0.061** (2.196)	-0.031 (1.027)	-0.036 (1.209)
<i>ROA</i>	?	0.247** (2.021)	0.240* (1.931)	0.240* (1.931)	0.240** (1.964)	0.158 (1.575)	0.155 (1.558)	0.232* (1.933)	0.231* (1.924)
<i>REALSG</i>	+	0.004* (1.329)	0.004* (1.287)	0.004* (1.287)	0.004* (1.323)	0.004* (1.451)	0.004* (1.448)	0.004* (1.409)	0.005* (1.430)
<i>LOSS</i>	+	0.033** (2.217)	0.035** (2.309)	0.035*** (2.309)	0.034** (2.297)	0.029** (2.050)	0.028** (2.057)	0.036*** (2.332)	0.036*** (2.349)
<i>LNGDP</i>	-	-0.009* (1.749)	-0.006 (1.264)	-0.006 (1.264)	-0.008* (1.561)	-0.008* (1.296)	-0.010* (1.416)	-0.007* (1.511)	-0.006* (1.285)

INDUSTRY EFFECTS	NO	YES	YES	YES	YES	YES	YES	YES
YEAR EFFECTS	YES	YES	YES	YES	YES	YES	YES	YES
Adj R ²	0.197	0.206	0.192	0.198	0.235	0.235	0.189	0.190
N	341	341	341	342	322	322	340	340

Notes: This table presents additional OLS estimation results from regressing Ball et al.'s (2005) abnormal accruals on shareholder identity and alternative institutional variables. The sample consists of 174 privatized firms from 29 countries. All models report results for the period of five years surrounding privatization i.e., from one year before privatization to four years after privatization, including the privatization year. *RIGHTS*, *DISCLOSURE*, and *LIABILITY* are the anti-director rights index, the disclosure requirements index, and the liability standards index, respectively. The three indexes are derived from LLS (2006). A higher score for each of the three indexes indicates higher legal protection. *COMPETITION* and *NEWSPAPER* are extra-legal variables extracted from Dyck and Zingales (2004). Higher scores indicate higher extra-legal protection. *LEFT* which is extracted from the *Worldbank's Database of Political Institutions* is a dummy variable equal to one for the left-oriented government, and 0 otherwise. *GS* is the government stability index from ICRG, with a higher score indicating more stable governments. The definitions and data sources of the rest of the variables used in this Table are outlined in Table A1. Beneath each estimate is reported the robust z-statistic. The superscripts asterisks ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively, one-tailed when directional predictions are made, and two-tailed otherwise. Boldface indicates the test variables and their statistics.

GENERAL CONCLUSION

In this dissertation, we examine the impact of several features that characterize privatized firms on their cost of equity and their quality of accounting information. Specifically, we seek to provide an answer to the following questions: Do shareholders consider government control of the firm as a risk factor, and does such control influence the firms' cost of equity? Do the political characteristics of the government (e.g., its political leaning, its prevailing political system, and its stability) also affect the cost of equity? How does the government's direct influence over privatized firms affect their quality of accounting information? Do private shareholders (i.e., local institutions and foreign investors) play a role in improving the quality of accounting information?

In the first chapter, we examine whether the political characteristics of the privatizing government are priced, and assess the effects of government control on the cost of equity of newly privatized firms. The political view of privatization held by Boycko et al. (1996) argues that by transferring the control of SOEs from the government to private owners, political interference will decrease or disappear and thus there will be a lower risk of expropriation of minority shareholders. A primary prediction is that shareholders will demand a lower compensation for holding the shares of a privatized firm characterized by a lower level of government control. The theoretical work of Perotti (1995) and Biais and Perotti (2002) suggests the political characteristics of the privatizing government namely its credibility and commitment to privatization determine the expected level of post-privatization political interference. Potential shareholders will ask for a higher cost of equity to hold newly privatized firms' shares if they anticipate high political interference after divestiture. We measure

government credibility and commitment to privatization by the political orientation of the government, the prevailing political system and government stability.

We rely on the discount cash flow method to estimate the cost of equity for our sample of 126 firms from industrialized (19) and developing (6) countries that were privatized between 1987 and 2003. We find strong evidence that the cost of equity is increasing in government control, after controlling for firm-level and country-level variables that are shown to affect the cost of equity. This finding implies that minority shareholders, anticipating some level of post-privatization political interference, discount the share prices, hence raising the cost of equity financing for newly privatized firms. This behavior could adversely affect the ability of these firms to fund their investments and growth. We also find that the cost of equity of privatized firms is significantly related to the political system and the government's stability (tenure). This evidence suggests that firms from countries with democratic and more stable governments enjoy a lower cost of equity. Hence, our findings suggest that the presence of sound political institutions reduce the compensation demanded by shareholders for holding equity in privatized firms where the government is still a partial owner.

In the second chapter, we examine the impact of the new post-privatization shareholder identity on earnings quality. Anecdotal evidence indicates that the government, whose objectives are political in nature, remains a shareholder even several years after privatization (e.g., Bortolotti and Faccio (2007)). We examine the impact of the government's residual control and ownership on the quality of accounting information of privatized firms. The proponents of the political view (e.g., Boycko et al. (1996)) argue that if the cash flow rights and the control rights of

privatized firms are not transferred from the state to private investors, political interference will persist and privatization will not create the necessary incentives for managers to maximise profits. Hence, state ownership and control should be rather associated with higher incentives to manipulate earnings in order to hide political benefits of control. Empirical evidence from Boubakri et al. (2005) suggests that local institutions and foreign investors benefit the most from the relinquishment of government ownership. Given that, we also investigate the role of these investors generally considered to be associated with a better monitoring of management activities in improving the quality of accounting information of privatized firms.

We use two proxies of earnings quality, namely discretionary abnormal accruals and the persistence of negative earnings changes. Using a multinational sample of 174 privatized firms from 29 firms privatized over the period from 1980 to 2003, we find strong and robust evidence that state ownership is associated with lower earnings quality, after controlling for the legal and political environments, as well as for firm- and country-level determinants of earnings quality. Specifically, we find that state ownership is associated with higher abnormal accruals i.e., more earnings management and less persistence of negative earnings changes i.e., lower conservatism in reporting negative earnings changes. We also find that local institutional ownership is associated with less persistence of negative earnings changes. This evidence suggests that local institutions are associated with an active monitoring of management activities and thus with more conservatism in reporting negative earnings changes (i.e., higher earnings quality). Furthermore, we find weak evidence implying that foreign ownership is associated with more conservatism in reporting negative earnings changes.

In conclusion, our study confirms the findings of recent studies (e.g., Bortolotti and Faccio (2007) and Boubakri et al. (2005)), suggesting that the government is reluctant to relinquish ownership and control in privatized firms. Our findings implies that the post-privatization ownership structure plays a crucial role in determining the firm's quality of accounting information and hence its financing costs. In particular, we show that the government ownership and control are associated with lower incentives to report higher quality earnings and also with a higher cost of equity capital. Consistent with previous research (e.g., Boycko et al. (1996) and Shleifer and Vishny (1998)), our findings suggest that privatization should be accompanied with a removal of the links between politicians and managers. Otherwise, the quality of accounting of privatized firms will be lower. The intuition is that politicians will have lower incentives to report higher quality earnings in order to hide political benefits of control. This is very important because the quality of accounting information determines the firm's financing costs (e.g., Lambert et al. (2007)) and condition financial market development (e.g., Ball et al. (2001)).

Our study which complements the recent literature on the link between political economy and corporate finance, also suggests that the quality of political institutions influences the firm's equity financing costs. This evidence outlines the importance of the political environment since it determines the level of post-privatization policy risk and the ability of privatized firms to raise capital in the equity capital markets. Understanding the political determinants of the cost of equity is of primary importance as it influences the firm's investment decisions and hence its growth.