Private Contracting and Corporate Governance: Evidence from the Provision of Tag-Along Rights in an Emerging Market*

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Abstract: Although private contracting is an alternative to legal protection of minority investors little is know about the incentive for controlling owners to provide minority protection. This paper analyses controlling owners incentive to provide non-controlling owners with better protection against self-dealing. Theoretically we analyse the benefits and costs for controlling shareholders to extend tag-along rights to minority investors. Empirically we test the implications of the model using data on equity offerings in Brazil. Consistent with the theoretical predictions we find that the probability of minority protection is a) increasing in the controlling owners cash flow stake, b) decreasing in the level of disproportional ownership and c) increasing in the stake of the firm being offered.

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1 Introduction

The law and finance literature suggests that the level of investor protection provided by the legal system is key to financial development (La Porta et. al. 1997, 1999) and economic growth (King and Levine 1993, Beck et. al. 2000, Mahoney 2001). The basic intuition behind this assertion is that investor protection is critical to the willingness of minority investors to participate in the financing of corproations (Shleifer and Wolfenzon, 2002). Thus, protection of outside investors is instrumental to both the overall development of financial markets as well as the development of individual firms.

Whereas the prior literature has showcased that the protection of outside investors at the country level is shaped by the legal origin, relatively lille is known about the determinants of protection of outside investors at the firm level. This is supricing since private contracting is one way to mitigate the lack of investor protection offered by the legal regime. Despite this important role, few papers have considered the incentive for controlling owners to make private contracts that increases the level of investor protection for non-controlling shareholders: Why do controlling owners voluntary give up the right to expropriate resources from non-controlling owners in the future? This is a key issue in corporate governance because it illustrates the scope and limitation for private contracting to substitute or complement public regulation in improving corporate governance.

In the present paper we analyze this question focusing on why controlling owners issue shares with tag-along rights. A tag-along right is a contractual right that in the event of a takeover secures, all shares within a given class will receive the same price. Thus, tag-along rigths is private contracting alternative to an equal price provision in the takeover legislation. We analyze theoretically benefits and costs for controlling shareholders of issuing tag-along rights and test our results using data from Brazil. We believe that the issue of tag-along rights in Brazil is an important example of private contracting in corporate governance for at least four reasons: First, tag-along rights is an instrument that is used voluntary by controlling owners to increase investor protection for non-controlling owners. Second, most private contracts are hard to observe for researchers, due to the difficulty of obtaining data. In Brazil issues with tag-along rights are publicly announced, which creates a novel opportunity to analyze empirically the incentives to engage in this form of contractual corporate governance. Third, Brazil is known to have poor investor protection and high private benefits of control, which increases the scope for contractual corporate governance. Fourth, recent regulation of the governance system in Brazil

has fostered an almost ideale laboratory for an empirical investigation of private contracting as a substitute for legal protection of minority investors.

Controlling owners interest in expropriating non-controlling owners can be significant if the takeover legilation is weak. As a case in point consider Endesa Españ takeover of Chile's largest private energy sector holding company, Enersis S.A., which has become a landmark case in minority shareholder rights and equitable treatment: In August 1997 Endesa made a tender offer to the shareholders of Enersis offering to buy the voting shares for USD 253.34 plus five Endesa options and the non-voting shares for USD 0.30 per share. Prior to the tender offer Enersis was controlled by five investments funds which again were controlled by the management and former employees of Enersis. Thanks to Enersis' dual class share structure this group managed to control the firm with less than 1 percent of cash flow rights.

Another example from Brazil illustrates that expropriation may involve government ownership as well. In 2000, the Brazilian Government was the controlling owner of the Banespa bank with 66.7 percent of the voting shares (33.3 percent of the total cash flow rights). In November 2000 the Government decides to sell their stake to the Spanish bank Banco Santander Central Hispano. The offer given by Banco Santander was 912 present above the current share price of the voting shares. The combination of absence of both mandatory tender offer and equal price provision in the Brazilian legislation made it possible for Banco Santander only to give a tender for the Government's shares without a tender offer to the residual voting shareholders or to the preference shareholders.[1]

One way to mitigate the lack of of legal protection of minority shareholders in emerging markets such as Brazil and Chile is to grant tag-along rights to minority shareholders. In the presence of full tag-along rights, Endesa España and Banco Santander would be required to extend their offers to the shares of the non-controlling owners, which would have made the price unrealistic high. To illustrate the effect of tag-along rights, compare the above examples to the HSBC takeover of the Brazilian firm Bital in August 2002. Bital was owned by the Berrondo family, Banco Santander, and other shareholders. The Berrondo family owned 54 percent of both the voting and cash flow rights at the time of the takeover. Without tag-along rights HSBC would have been able to acquire the controlling stake from the Berrondo family and thereby obtain control with 54 percent of the votes. However, Bital has extended full tag-along rights

[1]The are several other examples of recent takeovers in Brazil where minority investors have suffered the same faith, e.g. the takeover of the brewing group Quilmes by Ambev of Brazil and the takeover of the natural resource group Perex Companc by Petrobas (both in 2002).

to minority shareholders and consequently HSBC was forced to acquire all outstanding shares. It is natural to believe that the price that the Berrondo family received from their shares was much lower than what they could have obtained in the absence of tag-along rights.

The objective of this paper is twofold. The first part of our paper analyzes theoretically a controlling owner's incentive to issue shares with tag-along rights. The key benefit of tag-along rights from the controlling owner's perspective is that it is a commitment not to sell the firm to new owners that are incapable of creating weakly more value. In the absence of tag-along rights, the owner may sell to a new investor who creates less value, but are willing to pay the controlling owner more in order to expropriate the resources of the non-controlling owners. Our first result shows that when the controlling owner is the sole owner of the company and therefore internalizes the full cost and benefits of tag-along rights, he will always issue shares with tag-along rights.

We then proceed to analyze the case where there is a group of minority shareholders without tag-along rights already present in the firm. In this case, issuing shares with tag-along rights implies a rent transfer from the controlling owner to the existing - unprotected - minority owners. If the group of minority owners is sufficiently large it is beneficial for the controlling owner not to issue tag-along rights. Thus, tag-along rights may not be used when there is an externality present.

Our model delivers a number of testable results which we tests on data from equity offerings in Brazil. We combine data from three sources: First, data on equity issues are from the Securities and Exchange Commission of Brazil (Comissão de Valores Mobiliários - CVM). Second, we obtain the ownership structure prior to the issue from the firms' yearly CVM filings which are equivalent to 20-F files in the US. Third, we identify companies that have tag-along rights using data from The São Paulo Stock Exchange (BOVESPA).

Our dataset consists of 99 observations where each observation represents an equity offering. Our preliminary empirical analysis confirms the following: 1) If a firm is owned by a single shareholder, all equity offerings come with tag-along rights; 2) Companies that issue shares with tag-along rights have a smaller group of existing minority shareholders than companies that issues shares without take-along rights; 3) Companies that issue shares with tag-along rights issue larger claims than companies that issues shares without take-along rights; 4) Companies that issues shares with tag-along rights have less disproportional ownership structures than companies that issues shares without take-along rights; and, 5) Consider the group of offerings

with tag-along rights. Companies that issue shares (primary offering) issue larger claims than companies that issue existing shares (secondary offering).

The paper proceed as follows: Section 2 builds a simple model that provides testable results characterizing a controlling owner's incentive to issue shares with tag-along rights. Section 3 describes our empirical data and tests the implication of our model. Section 4 concludes.

2 A model of tag along rights.

In this section we present a simple framework to analyze controlling owners incentive to provide private protection of minority owners. The model focuses on the controlling owner's decision to issue shares with or without tag-along rights. We follow the legal approach in many countries and define tag-along rights as a right to receive the same price for shares as the controlling owner in any future sale of controlling ownership blocks.

The model has four dates. At Date 0, the firm consists of a controlling owner, which we will denote the founder, f and a group of (old) minority owners, who possess a cash flow stake of $\alpha_o \geq 0$. At date 1, the founder issues a stake, α_n, of the firm to a new group of minority owners. We assume that the old and new minority owners are different and that neither of the groups will possess any control rights absent of any tag-along rights that the controlling owner decides to give the minority owners. If the firm keeps its current controlling owner, he is able to create value of V at date 2. We assume that the controlling owner cannot divert any cash flow and, therefore, pays out V to the owners according to the distribution of cash flow rights.

At Date 1, after the founder has sold shares to the new minority owners, and before any value is realized, a potential buyer arrives and makes an offer for the founder's and the minority owners' ownership stakes. To be specific, we assume that the buyer can generate value V too. However, to introduce a role of tag-along rights we assume that the buyer is a worse owner/manager than the founder because he diverts cash flow, $d > 0$, at no cost.[2]

The buyer offers a price p_f for one unit of controlling owner's ownership stake and a price p_m per unit of minority ownership. The founder receives $(1-\alpha_o-\alpha_n)p_f$ for his stake in the firm and the two groups of minority owners receive $\alpha_o p_m$ and $\alpha_n p_m$ for their stakes, respectively. We

[2]It is straight forward to make several extensions of this simplified model. For instance we can assume that both owners can divert cash flow as long as the potential acquirer can divert more cash flow than the controlling owner. Similar, we can assume that the potential acquirer creates less value than the founder or we can assume a distribution of potential buyers that are heterogeneous in how much value they can create and allow for that some of these create more value than the current founder. The present assumption is chosen to simplify the algebra and the intuition below.

make the natural assumption that the founder has bargaining power in a sale situation but that the minority owners have not. To be specific, we, therefore, assume that the potential acquirer and the founder find a price, p_o, that share the rent from the sale equally between them and that the minority owners will receive a take it or leave offer. We further assume that minority owners are willing to sell as long as the price weakly exceeds the value of staying on as minority owners.

From our definition of tag-along rights, as an equal price rule, it follows that $p_m = p_f$ if the firm has granted tag-along rights to minority investors.

The following time line illustrates the model:

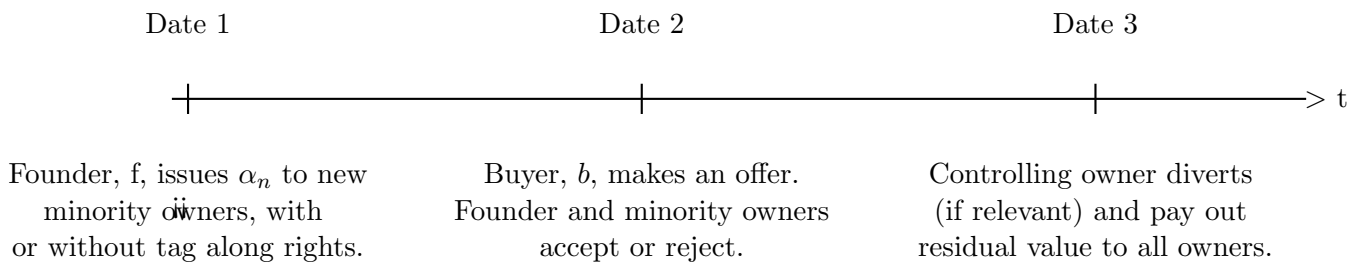

Figure 1: Time line.

The model is solved through backward induction. The minority owners will accept a price for the new shares at Date 1 that is at least as high as the expected value of the shares at date 3.

2.1 No existing minority owners

We begin with the simplified case where there are no existing minority owners, i.e. $\alpha_o = 0$.

Proposition 1. *Assume $\alpha_o = 0$ and the founder wishes to issue a minority fraction α_n:*
a) The founder's payoff decreases in the size of the stock issue (α_n) when shares are issued without tag-along rights.
b) The founder will always issue shares with tag-along rights.

Proof. First, assume the founder issues shares without tag-along rights. The founder will sell shares if and only if $(1-\alpha_n)p_f \geq (1-\alpha_n)V \Leftrightarrow p_f \geq V$. The buyer will buy if and only if $(1-\alpha_n)p_f + \alpha_n p_m \leq V$. The buyer will offer the minority owners a price which equals the continuation value given sale $p_m = (1-d)V$. The buyer will therefore extract rent $\alpha_n dV$ from the minority owners. This rent will be shared with the founder through the price negotiation, implying that

$$(1-\alpha_n)p_f = (1-\alpha_n)V + \frac{1}{2}\alpha_n dV \leftrightarrow$$
$$p_f = V + \frac{1}{2}\frac{\alpha_n}{1-\alpha_n}.$$

The payoffs for the buyer is:

$$\Pi_b^{-TA} \equiv V - (1-\alpha_n)p_f - \alpha_n p_m = \frac{1}{2}\alpha_n dV. \tag{1}$$

The founder issues α_n shares at Date 1 for the security price $S^{-TA} = (1-d)V$, which is the residual value for the minority owners after a sale of the company at Date 2. Thus, the total payoff for the founder, Π_f, becomes:

$$\begin{aligned} \Pi_f^{-TA} &\equiv \alpha_n S{-}TA + (1-\alpha_n)p_f = \alpha_n(1-d)V + (1-\alpha_n)V + \frac{1}{2}\alpha_n dV. \\ &= V - \frac{1}{2}\alpha_n dV. \end{aligned}$$

This proves part a) of the proposition.

Second, assume the founder issues shares with tag-along rights. In this case, the buyer has to offer an equal price to all shares. We will denote the equal price $p = p_f = p_m$. The condition for the founder to sell her shares is: $(1-\alpha_n)p \geq (1-\alpha_n)V$. The condition for the buyer to be willing to buy the shares remains: $p \leq V$. This is only satisfied for $p = V$, which makes the founder and the minority owners willing to sell. Given this price is offered at date 2, the security price per unit at date 1 will be $s^{+TA} = p$ and the expected payoff, Π_f^{+TA}, for the founder is V. The benefit of issuing shares with tag-along rights is:

$$\begin{aligned} \Delta_{TA} \equiv \Pi_f^{+TA} - \Pi_f^{-TA} &= V - (V - \frac{1}{2}\alpha_n dV) \\ &= \frac{1}{2}\alpha_n dV > 0 \ \forall \ \alpha_n > 0. \end{aligned}$$

□

This proposition is intuitive. The founder internalizes through the price of the minority shares all future value creation and rent extraction. Without tag-along rights, the potential buyer can buy the firm and exploit the minority owners through diversion of corporate resources. The rent that the buyer extracts is shared with the founder in order to pursuade the founder to sell the firm after the share issues. The problem for the founder is that she cannot commit not to sell the firm after the share issue. The potential buyers of the minority shares at date 1 recognize this problem, and therefore demand a discount in the security price up front. Hence, the founder internalizes the cost of being unable to commit not to sell the firm ex-post. Since we have assumed that the two types of controlling owners generate the same firm value, there is no

social loss from not granting tag-along rights to minority investors. However, there is a private cost for the founder, since he will have to share the ex-post private benefit with the future buyer of the firm.

2.2 Existing minority owners

Next, we analyze the situation where there is a group of old minority owners, $\alpha_o > 0$ without tag-along rights.

Proposition 2. *Assume that there exists minority owners, $\alpha_o > 0$, without tag-along rights before the founder makes a share issue of α_n shares. Then:*
a) The founder's payoff from issuing shares <u>without</u> tag-along rights relative to not issuing shares decreases in α_n.
b) The founder's payoff from issuing shares <u>without</u> tag-along rights relative to not issuing shares increases in α_o.
c) The founder will <u>not</u> provide tag-along rights on share issues if and only if $\alpha_o > \alpha_n$.

Proof. First, assume the founder issues shares without tag-along rights. After the issue the founder sells iff $(1-\alpha_n-\alpha_o)p_f \geq (1-\alpha_n-\alpha_o)V \Leftrightarrow p_f \geq V$. The buyer offers the minority owners the continuation value of staying in the firm, i.e. $p_m = (1-d)V$. The buyer extracts rent $(\alpha_n+\alpha_o)dV$ from the minority owners. This rent is shared with the founder through price negotiation, implying that

$$p_f = V + \frac{1}{2}\frac{\alpha_n+\alpha_o}{1-\alpha_n-\alpha_o}dV.$$

The security price for minority shares (from new as well as existing minority owners) is $S^{-TA} = (1-d)V$, which is the residual value for the minority owners after a sale of the company at Date 2. The payoff for the buyer is:

$$\Pi_b^{-TA} \equiv V - (1-\alpha_n-\alpha_o)p_f - (\alpha_n+\alpha_o)p_m = \frac{1}{2}(\alpha_n+\alpha_o)dV.$$

The founder issues α_n shares at Date 1 for the security price S^{-TA}. Thus, the total payoff for the founder, Π_f, becomes:

$$\begin{aligned}
\Pi_f^{-TA} &\equiv \alpha_n S^{-TA} + (1-\alpha_n-\alpha_o)p_f \\
&= \alpha_n(1-d)V + (1-\alpha_n-\alpha_o)(\frac{1}{2}\frac{\alpha_n+\alpha_o}{1-\alpha_n-\alpha_o}dV) \\
&= (1-\alpha_o)V + \frac{1}{2}(\alpha_o-\alpha_n)dV.
\end{aligned}$$

The founders payoff from issuing shares without tag-along rights relative to not issuing shares is $\Pi_f^{-TA} - (1-\alpha_o)V = \frac{1}{2}(\alpha_o - \alpha_n)dV$ which increases in α_o and decreases in α_n. This proves part a) and b) of the proposition.

Second, assume the founder issues new shares with tag-along rights. In this case, the buyer offers $p = p_f = p_m$ for both share classes. The condition for the founder to sell after the issue is: $(1-\alpha_n-\alpha_o)p \geq (1-\alpha_n-\alpha_o)V$. The condition for the buyer to buy is: $p \leq V$. Hence, the acquisition price will be $p = V$ which makes the founder and the minority owners willing to sell. Given this price, the security price per share at date 1 will be $s^{+TA} = p$ and the founder's expected payoff, Π_f^{+TA}, is $(1-\alpha_o)V$. The benefit of issuing shares with tag-along rights is:

$$\Delta_{TA} \equiv \Pi_f^{+TA} - \Pi_f^{-TA} = -\frac{1}{2}(\alpha_o - \alpha_n)dV < 0 \Leftrightarrow \alpha_o > \alpha_n.$$

□

The intuition behind the proposition is the following. Providing tag-along rights secures that the firm ends up with the controlling owner that diverts less corporate resources. As explained in the intuition of Proposition 1, this is beneficial for the owner in itself. However, the cost of issuing tag-along rights, is the transfer of rent from the founder to the old — previously unprotected — minority owners. This is an externality for the founder and increases in the size of the old minority claims. Part b) shows that when this externality is too large, the founder will prefer to issue share with tag-along rights even though he recognizes the possibility that he will sell the firm to a new buyer that diverts more.

The condition $\alpha_o > \alpha_n$ is intuitive: Without take along rights both groups of minority owners will be exploited ex-post and the founder and the buyer will equally share the derived rent. The rent extracted from the old minority owners increases both owners payoff. However, the rent extracted from the new owners decreases the founder's payoff because it is reflected in the security price of the issue at Date 1. Thus, the founder internalizes the rent that the new buyer extracts from the new minority owners. in the case where $\alpha_o > \alpha_n$ the rent that the new owner extract from the old group is larger than the rent extracted from the new group. However, the founder receives half of the rent extracted from the old group but pays ex-ante half of the rent extracted from the new group. Hence, the founder prefers not to use tag-along rights whenever the old group is larger than the new group.

Notice that the expected value of the existing minority owners' ownership stake strictly increases by the added protection when tag-along rights are given. Thus, when shares are

traded, the following corollary holds:

Corollary 1. *Issuing shares with tag-along rights increases the security price of the existing minority shares.*

Comparing Proposition 1 and 2 provides the main insight of our model. In the absence of any externality, security prices will reflect any future rent extraction in the firm. When the founder owns the whole corporations, she will internalize all future rent extraction and will, therefore, implement the best possible protection of all share classes through private contracting. When founders do not implement the strongest possible protection it is because of the presence of externalities, in this case the transfer of rent to existing unprotected minority owners.

2.3 Empirical implications

The two propositions and the corollary above contains a number of empirically refutable implications.

Hypothesis 1. *If a firm is public traded, issuing shares with tag-along rights increases the market value of the firm.*

This follows directly from Proposition 2. The market value reflects the value of the firm based on what the marginal investor pays. Since the marginal investor is a minority owner and existing minority owners continuation value increases after the new shares are issued with tag-along rights, there must be a positive stock price reaction. In the proof of Proposition 2 it is reflected by $S^{+TA} - S^{-TA} > 0$.

Hypothesis 2. *If a firm is owned by a single shareholder, all equity offerings extend tag-along rights to minority investors.*

This follows directly from Proposition 1. Since the cost of future rent extraction will be reflected in the security price of the new share issue and that the owner cannot internalize all the benefits of future rent extraction, it is optimal for the single owner to protect the new minority owners as well as possible. This is done through issuing shares with tag-along rights.

Hypothesis 3. *Conditioned on the size of the issue, companies that issue shares with tag-along rights have a smaller group of existing minority shareholders than companies that issue shares without take-along rights.*

This hypothesis follows from Proposition 2 c). The cost of take-along rights increases in the size of the group of existing minority owners. The benefit increases in the size of the new group of minority owners. Hence, given the size of the new issue, the incentives to use tag-along right decreases in the size of the existing minority owners.

Hypothesis 4. *Companies that issue shares with tag-along rights issue larger claims than companies that issue shares without take-along rights.*

This is consistent with Proposition 2. A larger share issue increases the incentives to use tag-along rights relative to issue shares without.

Hypothesis 5. *Assume that the controlling owners of firms with disproportional ownership structures in general internalizes less cash flow than the controlling owners of firms with proportional ownership structure. Then it follows that companies issuing shares with tag-along rights have less disproportional ownership structures than companies issuing shares without take-along rights.*

The assumption is empirical verifiable and true in most countries (see Bennedsen and Nielsen 2006 for evidence from European countries). Since a smaller cash flow stake implies that there are more existing minority owners in the firm, this reduces the founder's incentives to issue shares with tag-along rights.

3 Evidence from the Provision of Tag-Along Rights in Brazil

We now proceed by testing the theoretical prediction of the incentive to provide minority investors with tag-along rights on a sample of equity issues in Brazil. Evidence on the provision of tag-along rights in Brazil is interesting for at least four reasons. First, although Brazil classifies as an emerging market the Brazilian stock exchange accounts for nearly 70 percent of the trading volume in Latin America. Second, it is well-documented that the legal protection of minority investors in Brazil is poor: Brazil ranks 52 out of 72 in the anti-self-dealing index (Djankov et al., 2006) and laws are poorly enforced (La Porta et al., 2000). Third, Brasil has the *highest* average block premia among the countries in Dyck and Zingales (2004). Thus, in an international comparison the scope for contractual corporate governance is extremely high. Finally, Brazil's recent reforms of the governance system has fostered an almost ideale laboratory for an empirical investigation of private contracting as a substitute for legal protection of minority investors.

Prior to 1997 the Brazilian law protected minority voting shareholders by a mandatory offer for all voting shares upon acquisition of control or crossing of the 50 percent voting power threshold at a price equal to the purchase price of the controlling block. In addition, in case the offer was extended to non-voting share, the law granted a minimum price provision equal to the book value per share to the non-voting shares. In an effort to ease the privatization of Brazilian companies, Law 9457/1997 was adopted in May 1997. Among other things, the reform revoked the mandatory offer provision at an equal price.[3] In October 1999, pressure from local pension funds and international institutional investors resulted in the provision of Law 10.303 by the Securities and Exchange Commission of Brazil. The law reinstated tag-along rights to voting shares at the 80 percent threshold. Preference shares still have no tag-along rights. These dramatic changes to the legal protection of minority investors in Brazil create a novel opportunity to study private contracting as a substitute for legal protection.

3.1 Data

We combine data from three sources to empirically investigate the incentive to issue tag-along rights in Brazil.

First, data on equity issues are from the Securities and Exchange Commission of Brazil (Comissão de Valores Mobiliários - CVM). This data include information on the date of the issue, issue size, type and form. Second, we obtain the ownership structure prior to the issue from the firms' yearly CVM filings which are equivalent to quarterly 20-F files in the US. Part 3 in the CVM filing includes information on the largest shareholders as well as the definition of the controlling group, as it is in the company's shareholder agreement. Third, we identify companies that have tag-along rights using data from The São Paulo Stock Exchange (BOVESPA). On their homepage, www.bovespa.com.br, BOVESPA publishes an up-to-date list of firms that voluntarily have extended tag-along rights to minority shareholders. The list provides information on the corporate resolution and the date of the event as well as information on whether the firm has extended full or partial tag-along rights.

Panel A in Table 1 shows the development of the Brazilian stock market from 2000 to

[3] Law 9457/1997 abolishes existing requirements to disclose the price of sales of 5 percent blocks of voting stock or more, including controlling block. It further repeals article 254, which provides for a mandatory offer for all outstanding voting shares in case of a control transfer at the same price and terms as the control block sale. Non-voting shares have never been subject to a mandatory offer in Brazilian Law. Finally, the law eliminates withdrawal rights in most cases, including most mergers, and spin-offs, and lowers the price at which shareholders can withdraw in the cases in which withdrawal rights are still effective. See Nenova (2001) for a comprehensive overview of the legal reform.

2006. Although the number of firms has decreased, the size of the Brazilian stock market has increased significantly from 2000 to 2006. The number of IPOs have been relatively modest, but has increased toward the end of the period.

We restrict the sample to offerings from January 2000 until November 2006. We do this to avoid spurious correlations driven by the period in-between the two legal reforms. In total 116 equity offerings occurred from 2000 to 2006. We exclude offerings for companies that a) already have full tag-along rights prior to the offering and b) small OTC offerings for which no reliable data sources exist. We thereby exclude 9 and 7 offerings, respectively. Thus, our dataset consists of 99 observations where each observation represents an equity offering. The distribution of offering across years is shown in Panel B in Table 1.

Panel C in Table 1 shows the distribution of the type of equity offerings: Around 25 percent of all offerings are primary transactions, 37 percent are secondary, whereas the residual 37 percent is a combination of primary and secondary transactions.

In Brazil, some companies have decided to extend full tag-along rights with a 100 percent threshold for both voting and non-voting shares, whereas other firms have extended partial right by either including only voting share or by lowering the threshold. From Panel D it is evident that 54 of the issuing firms grated full tag-along rights, 6 granted partial tag-along rights (i.e. with a threshold below 100 percent), whereas 39 of the issuing firms decided not to provide tag-along rights to minority investors.[4]

Table 2 provides descriptive statistics on the equity offerings conditional on whether no, partial or full tag-along rights were offered to minority investors. We report both the average and median issue characteristics.

Table 2 shows that on average firms with no tag-along rights are slightly larger than firms with full tag-along rights, although this is reversed when we focus on the median size. As the differences might be explained by the size of the firm it is more informative to focus on the relative size of the offering. Interestingly, Table 2 shows that on average the relative size of the offering is larger for firms that grant full tag-along rights. Firms that grant full-tag along rights on average issues shares equivalent to 39 percent of the firm, whereas issues without tag-along rights on average is 21 percent of the firm.

Table 2 further shows that the share of the transaction that is primary is larger for firms with full tag-along rights compare to firms grating no rights. Firms with full tag-along rights

[4]XX - Details on firms with partial tag-along rights.

issue shares in the primary market in 77.8 percent of the cases compared to 43.6 percent for firms with no tag-along rights. If we focus on the share of issue which is primary, the average for firms with tag-along rights is 51.1 percent compared to 34.2 percent for firms without additional protection of minority shareholders.

Table 2 also reports the average minority stake using three definitions of majority investors. At first glance it appears that ownership is extremely concentrated in Brazil. The largest owner on average possesses around half of the firm. It appears for all three measures of the minority stake that the stake possessed by majority owners is larger in firms that grant full tag-along rights. If we focus on the largest owner the average minority stake is 47.6 percent compared to 54.2 percent for firms with no tag-along rights. This difference is even large if we define the controlling owner according to the shareholder agreement, since existing minority owners in firms with tag-along rights possess 35.4 percent, whereas they possess 54.2 percent in firms without tag-along rights.

In addition, firms with no tag-along rights use disproportional ownership more frequently and conditional on having a disproportional structure, also tend to have a larger wedge between concentration of votes and cash flow rights.

Finally, Table 2 shows a clear tendency toward a higher fraction of firms that undergo an IPO extends tag-along rights to minority shareholders compared to firms that do not. Out of the total 41 IPOs in the sample 40 (98 percent) extend tag-along rights to minority shareholders. These firms correspond to 74.1 percent of all firms that grant tag-along rights in Brazil from 2000 to 2006.

3.2 Preliminary empirical results

This section summarizes the empirical results regarding the hypothesized incentives to provide minority shareholders with tag-along rights.

Hypothesis 1 conjectures that the market value of firms that grant tag-along rights should increase as a response to the announcement. In Table 4 we test this prediction by conduction a (preliminary) event study of the share price reaction to the announcement of the provision of tag-along rights to minority shareholders. We analyse the stock price reaction around the announcement date using four alternative windows including 1, 5, 10 and 20 days one each side of the event, respectively. The average cumulative one-day return of granting tag-along rights is 2.42 percent, which is significant at the 5 percent level. If we use the three alternative event

windows we find similar although slightly larger positive stock price reactions. The five-day window has an average cumulative abnormal return of 4.67 percent, compared to 5.31 and 6.68 percent for the 10 and 20-day windows, respectively. Thus, we find strong evidence of a positive stock price reaction to tag-along rights, which is consistent with hypothesis 1.

Hypothesis 2, which follows directly from proposition 1, conjectures that firms in which the entire firm is owned by the founder should always issue shares with tag-along rights. Out of the 99 equity offerings in the sample, the founder possess the entire firm prior to the offering in 6 cases. In all 6 cases the founder choose to grant full tag-along rights to the new minority investors. We thereby gain empirical evidence in favor of proposition 1 (hypothesis 2) as all firms that are entirely owned by the founder have chosen to extend full tag-along rights to minority investors.[5]

We proceed by testing hypothesis 3 through 5 by estimating the probability of firm i granting tag-along rights using a logit model, where the dependent variable is an indicator variable taking the value 1 if the firm extends full tag-along rights to the minority shareholders. Thus, the benchmark also include firms that grant partial tag-along rights. We conjecture that the direction of this potential bias will make it harder for us to establish significant results.[6]

Table 5 reports the results from this analysis. We first test the three hypothesis separately (Model I through V), and subsequently perform a joint test (Model VI and VII). We do this because the correlation matrix in Table 3 shows that the variables of interest are highly correlated.

In Model I in Table 5 we test hypothesis 3, which states that companies that issue shares with tag-along rights have a smaller group of existing minority shareholders than companies that issue shares without rights. As predicted by the theoretical model, we find that the incentive to provide tag-along rights is negatively correlated with the minority investors' ownership stake. The marginal effect is significant both economically and statistically: an increase in the minority stake of 10 percentage points decreases the probability of granting tag-along rights with 8.5 percent - an effect that is significant at the 1 percent level. Thus, we find evidence consistent with hypothesis 3.

Hypothesis 4, which conjectures that firms that issue shares with tag-along rights issue larger

[5]Note, that we cannot formally test hypothesis 2 as the variation in tag-along rights is fully identified by the variable of interest.

[6]We obtain identical results in a robustness check where we include firms with partial tag-along rights among the firms with full tag-along rights or alternatively use an ordered probit model (See Section 3.3 for details).

claims than companies that issue shares with no right, is tested in Model II in Table 5. We include the relative size of the offering (number of shares issued over total outstanding shares) to proxy for offering size. We find a positive and significant correlation between the relative offering size and issue of tag-along rights. The marginal effect reveals that if the relative size of the offering increases with 10 percent the probability of tag-along rights increases with 12.4 percent. Thus, the incentive to grant tag-along rights to minority shareholders is increasing in the relative offering size, which is consistent with hypothesis 4.

In Model IV in Table 5 we test hypothesis 5, which states that firms that issue shares with full tag-along rights have less disproportional ownership compared to firms that grant no additional rights. To measure the degree of disproportional ownership we include the *wedge*, which is the largest owners votes over cash flow stake. When we include the wedge among our regressors we find a negative and significant effect on the provision of tag-along rights. The intuition behind this result is simple: When the founder controls the firm through disproportionality mechanisms the voting rights exceeds the cash flow rights, which makes is more expensive to grant tag-along rights to minority shareholders. In sum, we obtain evidence in favor of hypothesis 5.

Model V in Table 5 shows an additional test related to hypothesis 5 where we include an indicator for dual class shares. Following hypothesis 5 we expect firms with dual class shares to grant tag-along rights less often, since dual class shares allow the controlling owner to possess control with a small fraction of the cash flow rights. Thus, in firms with dual class shares the cost of granting full tag-along rights is higher. Consistently, we find a negative and significant correlation between firms with the dual class shares and the incentive to grant full tag-along rights to minority investors. The marginal effect is quite large, firms with dual class shares are 38 percent less likely to grant tag-along rights compared to firms following a one-share-one-vote rule.

Finally, in Model VI and VII in Table 5 we perform a joint test of hypotheses 2 through 5. In Model VI we include the wedge to test hypothesis 5, whereas Model VII uses the indicator variable for dual class shares. Although our results generally lose significance due to multicolinarity (see Table 3), our main results are confirmed. Firms with large minority shareholders are less likely to grant tag-along rights, whereas firms with relative large offerings and a high degree of disproportional ownership (or dual class shares) are less likely to offer tag-along rights when they issue equity.

3.3 Robustness

In this section we perform a number of robustness check related to the prior analysis. One valid concern with our results is the definition of majority versus minority investors. In the prior analysis we assumed that the majority owner is the largest owner of the firm. Although ownership (in an international comparison) is highly concentrated in Brazil, our results might be biased by measurement bias. In Table 6 we have therefore replicated our empirical analysis using two alternative definitions of the majority owner. In Model I through III we measure the majority ownership stake by the sum of three largest owners, whereas in Model IV through VI we use the controlling coalition reported by the firm to the Securities and Exchange Commission of Brazil.[7] Table 6 clearly shows that generally non of our results are affected by the definition of majority owner(s).

4 Conclusion

To be written...

[7] In Brazil it is mandatory to report the ownership stakes of the controlling coalition in the CVM-filing, which is the Brazilian equivalent to the 20-F statement in the US.

References

[1] Bebchuk, L.A. (1999), A Rent-Protection Theory of Coporate Ownership and Control, NBER Working Paper, 7203.

[2] Beck, T., R. Levine and N. Loyaza (2000), Financial Intermediation and Growth: Causality and Causes, *Journal of Monetary Economics* 46, 31-77.

[3] Berglof, E. and M. Burkart (2003), European Takeover Legislation, *Economic Policy*, 18, 173-213.

[4] Djankov, S., R. La Porta, F. Lopez-de-Silanes and A. Shleifer (2005), The Law and Economics of Self-Dealing, Working Paper, Harvard University.

[5] 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.

[6] Dyck, A. and L. Zingales (2004), Private Benefits of Control: An International Comparison, *The Journal of Finance*, 59, 537-600.

[7] King, R.S. and R. Levine (1993), Finance and Growth: Schumpeter Might be Right, *The Quarterly Journal of Economcis* 108, 717-37.

[8] La Porta, R., F. Lopez-de-Silanes and A. Shleifer (1999), Corporate Ownership Around the World, *The Journal of Finance*, 54, 471-517.

[9] La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R. Vishny (1998), Law and Finance, *Journal of Political Economy*, 106, 1113-55.

[10] La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R. Vishny (2000), Investor Protection and Corporate Governance, *Journal of Financial Economics*, 58, 3-27.

[11] La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R. Vishny (2002), Investor Protection and Corporate Valuation, *Journal of Finance*, 57, 1147-70.

[12] Lins, K. V. (2003), Equity Ownership and Firm Value in Emerging Markets, *Journal of Financial and Quantitative Analysis*, 38, 159-84.

[13] ahoney, P.G. (2001), The Common Law and Economic Growth: Hayek Might Be Right, *Journal of Legal Studies* 30, 503-25.

[14] Morck, R., A. Shleifer and R. Vishny (1988), Management Ownership and Corporate Performance: An Empirical Analysis, *Journal of Financial Economics*, 20, 293-315.

[15] Nenova, T. (2001), Control Values and Changes in Corporate Law in Brazil, Working paper, World Bank.

[16] Nenova, T. (2003), The Value of Corporate Voting Rights and Control: A Cross-Country Analysis, *Journal of Financial Economics*, 68, 325-51.

[17] Nenova, T. (2005), A Corporate Governance Agenda for Developing Countries, Working paper, World Bank.

[18] Nenova, T. (2006), Takeover Laws and Financial Development, Working paper, World Bank.

[19] Rossi, S. and P. Volpin (2004), Cross-Country Determinants of Mergers and Acquisitions, *Journal of Financial Economics*, 74, 277-304.

[20] Rydqvist, K. (1987), Empirical Investigation of the Voting Premium, Working paper, Northwestern University.

[21] Shleifer, A. and R. Vishny (1997), A Survey of Corporate Governance, *The Journal of Finance*, 52, 737-83.

[22] Shleifer, A. and D. Wolfenzon (2002), Investor Protection and Equity Markets, *Journal of Financial Economics*, 66, 3-27.

[23] Zingales, L. (1994), The Value of the Voting Right: A Study of the Milan Stock Exchange Experience, *The Review of Financial Studies*, 7, 125-48.

[24] Zingales, L. (1995a), Insider Ownership and the Decision to Go Public, *The Review of Financial Studies*, 62, 425-48.

[25] Zingales, L. (1995b), What Determines the Value of Corporate Votes, *The Quarterly Journal of Economics*, 110, 1047-73.

Table 1, Development of the Brazilian Stock Market 1998-2006

This table shows the development of the Brazilian stock market from 1998 to 2006. Panel A reports total market capitalization in billion USD, number of listed firms and number of IPOs, Panel B reports the number of equity issues and their type, whereas Panel C reports the number for firms granting full or partial tag-along rights to the shareholders.

	2000	2001	2002	2003	2004	2005	2006	Total
A. Market development								
Market capitalization (bn USD)	225	185	124	234	341	482	723	
Number of listed firms	534	495	468	426	410	390	381	
Number of IPOs	1	1	1	0	7	9	26	45
B. Equity issues								
All issues	17	14	17	4	13	18	33	116
Sample of issues	13	10	17	4	11	17	27	99
C. Type of issue								
Primary issue								
- Number of issues	5	2	5	1	1	4	7	25
- Share of all issues (%)	38.5	20.0	29.4	25.0	9.1	23.5	25.9	25.3
Secondary issue								
- Number of issues	7	7	10	2	3	5	3	37
- Share of total issues (%)	53.8	70.0	58.8	50.0	27.3	29.4	11.1	37.4
Combination of primary and secondary issue								
- Number of issues	1	1	2	1	7	8	17	37
- Share of total issues (%)	7.7	10.0	11.8	25.0	63.6	47.1	63.0	37.4
D. Provision of tag-along rights								
Full tag-along rights (N, firms)	1	0	7	0	9	13	24	54
Partial tag-along rights (N, firms)	0	0	4	0	1	0	1	6

Table 2, Descriptive Statistics on Equity Issues in Brazil, 2000-2006.

This table shows the descriptive statistics on equity issues in Brazil from 2000 to 2006. We report the mean and median of the variables for firm firms that have granted no, partial or full tag-along rights to shareholders. We measure the minority stake using three definitions of the majority owners(s): the largest owner measured by votes, the 3 largest owners measured by votes and the group of controlling owners as defined by the firm in its ownership filing at the Securities and Exchange Commission of Brazil. Dual class shares is a dummy for whether the firm has dual class shares. Wedge is defined as the largest owner's share of votes over share of cash flow. We only report the wedge for firms with dual class shares.

	Tag-along Rights					
	No (n=39)		Partial (n=6)		Full (n=54)	
	Mean	Median	Mean	Median	Mean	Median
Issue type						
Primary (%)	43.6	0.00	50.0	50.0	77.8	1.00
Secondary (%)	71.8	1.00	83.3	1.00	75.9	1.00
Primary share (%)	34.2	0.0	25.0	9.0	51.1	48.0
IPO (%)	2.6		0.0		74.1	
Issue size						
BR$	885.4	484.4	163.8	174.0	786.0	614.5
Share of firm	21.4	19.0	14.67	11.5	39.0	37.0
Minority stake (%)						
Largest owner	54.2	66.0	63.8	66.5	47.6	52.5
3 largest owner	46.3	44.0	51.3	61.0	26.5	26.5
Controlling owners	54.2	54.0	55.0	63.5	35.4	31.5
Dual class share (%)	64.1	100.0	83.3	100.0	28.8	0.00
Wedge	1.83	1.81	2.16	2.13	1.69	1.45

Table 3, Correlation matrix

Minority stake is the share of votes held by minority investors, where the largest owner is assumed to be controlling. *Offering size* is the relative size of the offering measured as a percentage of the firm. *Primary share* is the share of the offering that is sold in the primary market. *Wedge* is defined as the largest owner's share of votes over share of cash flow. *Dual class shares* is an indicator variable taking the value 1 if the firm has dual class shares.

	Minority stake (α_o)	Offering size (α_n)	Primary share (%)	Wedge	Dual class shares
Minority stake (α_o)	1.000				
Offering size (α_n)	-0.188	1.000			
Primary share	0.128	-0.256	1.000		
Wedge	0.470	-0.367	0.005	1.000	
Dual class shares	0.369	-0.429	-0.122	0.772	1.000

Table 4, Event study of the Announcement Effect of Granting Tag-Along Rights

This table shows the average cumulative abnormal return (CAR) for Brazilian companies around the announcement day where the firm decided to grant tag-along rights to minority shareholders. We report the average CAR for windows four alternative windows including 1, 5, 10 and 20 days one each side around the event, respectively. Test-statistics based on robust standard errors are reported in parentheses. ***, ** and * denote significance at the 1-, 5- and 10-percent levels, respectively.

	Event window			
	[-1;1]	[-5;5]	[-10;10]	[-2;20]
Cumulative abnormal return (%)	2.42	4.67	5.31	6.68
Standard deviation (%)	0.70	0.66	0.63	0.56
T-test	2.00**	2.13**	1.77*	1.79*
Signs-rank test	2.92***	1.10	2.19**	2.92***

Note: Preliminary results

Table 5, Determinants of Tag-Along Rights

This table shows the determinants of tag-along rights in a logit model. The dependent variable, *full tag-along rights*, is an indicator variable taking the value 1 if the firm extends full tag-along rights to the shareholders and 0 otherwise. *Minority stake* is the share of votes held by minority investors, where the largest owner is assumed to be controlling. *Offering size* is the relative size of the offering measured as a percentage of the firm. P*rimary share* is the share of the offering that is sold in the primary market. *Wedge* is defined as the largest owner's share of votes over share of cash flow. *Dual class shares* is an indicator variable taking the value 1 if the firm has dual class shares. T-statistics based on robust standard errors are reported in parentheses. ***, ** and * denote significance at the 1-, 5- and 10-percent levels, respectively.

	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)
Minority stake (α_o)	-3.452***					-3.833***	-3.714**
	(-3.57)					(-2.79)	(-2.51)
Offering size (α_n)		1.238***				4.056**	3.748**
		(3.57)				(2.54)	(2.30)
Primary share			0.274**			1.136*	1.063
			(2.06)			(1.66)	(1.55)
Wedge				-1.298**		-0.345	
				(-2.54)		(-0.59)	
Dual class shares					-1.649***		-0.645
					(-3.74)		(-1.29)
N	99	99	99	99	99	99	99
Pseudo-R^2	0.088	0.149	0.036	0.084	0.112	0.247	0.254

Table 6, Robustness of Determinants of Tag-Along Rights

This table shows the determinants of tag-along rights in a logit model. The dependent variable, *full tag-along rights*, is an indicator variable taking the value 1 if the firm extends full tag-along rights to the shareholders and 0 otherwise. *Minority stake* is the share of votes held by minority investors, where the largest owner is assumed to be controlling. *Offering size* is the relative size of the offering measured as a percentage of the firm, whereas *primary share* is the share of the offering that is sold in the primary market. Wedge is defined as the largest owner's share of votes over share of cash flow. *Dual class shares* is an indicator variable taking the value 1 if the firm has dual class shares. T-statistics based on robust standard errors are reported in parentheses. ***, ** and * denote significance at the 1-, 5- and 10-percent levels, respectively.

Definition of majority owner	3 largest owners			Controlling coalition		
	(I)	(II)	(III)	(IV)	(V)	(VI)
Minority stake (α_o)	-5.220***	-5.657***	-4.069**	-5.079***	-5.079***	-3.424**
	(-4.05)	(-3.06)	(-2.42)	(-2.85)	(-2.85)	(-2.21)
Offering size (α_n)		4.225**	3.278**		4.438***	3.776**
		(2.22)	(2.03)		(2.67)	(2.26)
Primary share		0.853	0.878		0.860	0.815
		(1.36)	(1.29)		(1.40)	(1.25)
Wedge		0.4 36			0.239	
		(0.41)			(0.34)	
Dual class shares			-0.982*			-0.989*
			(-1.83)			(-1.70)
N	99	99	99	99	99	99
Pseudo-R^2	0.175	0.285	0.306	0.137	0.270	0.291