ABSTRACT

We examine the impact of the recent CVM Instruction #299 of February 1999 aimed at improving minority investor rights. Prior to enactment of this Instruction, tender offers for repurchase of shares were not subject to neither disclosure nor mandatory offers. However, we have found evidence that even after enacting Instruction #299, minority shareholders are still subject to expropriation, ceteris paribus. We have also found that companies with lower degree of separation of cash-flow and voting rights, and higher liquidity are less likely to have their minority shareholders expropriated. In addition, we have found empirical evidence that CVM Instruction #299 may lead to an increase in takeover activities. To verify this, we applied a probit model to find the main factors driving the control change. The two most significant factors are the CVM Instruction #299, the company size, and the liquidity. Interesting to note that shareholders with limited capability to leverage on minority shareholders (e.g. issuing more preferred non-voting shares) are more subject to a takeover. The findings are associated with governance isses, and might partially explain the illiquidity and underpricing of equity offerings pattern of Brazilian stock market in recent years.

KEY WORDS

Share Repurchase; Corporate Governance; Minority Shareholders.

SUMMARY

SHARE REPURCHASE MECHANISMS AND EXPROPRIATION OF MINORITY SHAREHOLDERS: EVIDENCE FROM BRAZIL*

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I. INTRODUCTION

Share repurchases serve as an alternative way to distribute cash to shareholders rather than dividends. There have been a few studies investigating the factors driving the choice between dividends and share repurchases. Most studies agree that share repurchases are very pro-cyclical, while dividends increase steadily over time. According to Jagannathan et al. (2000), dividends are paid by firms with higher permanent operating cash flows, while share repurchases are used by firms with higher temporary non-operating cash flows. Repurchasing firms also have much more volatile cash flows and distributions (see e.g. Guay and Harford (2000), and Evans et. al. (2001)). This provides financial flexibility for managers in choosing between dividends and share repurchases to cash out its shareholders. However, this does not seem the case for Brazilian stock market.

In Brazil, there has been an increasing popularity of share repurchase programs. Between 1995 and 1999, the number of open market repurchase program announcements by Brazilian industrial firms has increased 391% from 11 to 54, and their announced value has increased 1437% from R$52.3 billion to R$803.3 billion. Correspondingly, dividends have risen slightly less during the same period; average

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dividend yield for non-financial firms listed on the São Paulo exchange has decreased from 3.51% in 1995 to 2.46% in the first half of 1999.

One of the possible reasons is the change in the Brazilian legislation environment. As a result of the privatization program, the proposed change in the Brazilian Corpora Law of 1997 decreased protection of minority shareholder rights and public disclosure in the event of a transfer of control. Later, the government tried to enhance the minority rights by enacting Brazilian Securities Exchange Commission Instruction #299 issued in February 1999. We investigate whether Instruction #299 had improved minority investor rights.

We argue that expropriation may still occur under Instruction #299. For example, the new controlling shareholder may offer a share price to minority shareholders lower than that paid to the former controlling shareholder. In addition, after the share repurchase offering ends, the new controlling shareholder may buy shares directly from the market at even lower prices, due to poor liquidity. We investigate the impact of the change in legislation on minority shareholders.

Another aspect is the dual-class share structure of Brazilian Corporations. Minority shareholders have generally no voting rights in Brazil, since they hold preferred non-voting shares. When the company is small, the controlling shareholder holds the majority of common (voting) shares, and a large fraction of preferred (non-voting) shares. As the firm grows, the controlling shareholder raises capital from the market to finance its projects. Given the private benefits[2] the controlling shareholders enjoy, it is of their interest to keep control of the Company. This could be reached in Brazil by offering up to two-thirds of the total shares as preferred non-voting shares to the market, and thus controlling the company with about 17% of total shares. Therefore, leveraged shareholding structure might be more likely to change provided the controlling shareholder does not want to give up control. Under this situation, share repurchases provide financial flexibility relative to dividends

[2] See e.g. Barclay and Holderness (1989), and Bergstrom and Rydqvist (1990).

because (i) they do not implicitly commit the firm to future payouts, and (ii) they provide shareholding flexibility by decreasing shareholding leverage. In this paper, we investigate empirically how allocation of differential voting rights can affect the firm's choice between paying out cash flows in the form of dividends or stock repurchases, and its impact on minority shareholders.

This paper contributes to the existing literature in three ways. First, we review the share repurchase mechanisms under legal requirements in Brazil and its possible expropriation on minority shareholders. Second, we analyze how the recent changes regarding the share repurchase mechanisms may have benefited minority shareholders (see. Instruction #299). Third, we evaluate which company profile may be more likely subject to a takeover (e.g. shareholding leverage and industry type), and thus, minority shareholders may be in jeopardy position.

This paper is structured as follows. Section II provides some background on the share repurchase mechanisms in Brazil, the legal determinants of the composition of the shares with voting and non-voting powers, and the degree of protection it offers to shareholders against expropriation risks. This section also highlights some characteristics of the Brazilian privatization process. Section III presents the empirical results of our analysis. Section IV presents our conclusions.

II. SHARE REPURCHASES IN BRAZIL

In Brazil, if repurchases are carried out through the facilities of an exchange, then all share repurchases must be executed under the requirements of CVM – "*Comissão de Valores Mobiliários*". Share repurchases can follow two courses (i) open market share repurchase; or (ii) public share repurchase offering.

An open market repurchase is made by an issuer bid at the market price, and may not exceed the greater of 5% of the issued and outstanding shares or 10% of the

public float over a twelve-month period. The procedure[3] for making an open market repurchase by the issuer bid on the São Paulo Stock Exchange (BOVESPA) is as follows. The issuer firm files with the exchange a notice of intention that contains material information about the bid. Once the notice of intention is finalized with the exchange, the firm is required to issue a press release that summarizes the material content of its BOVESPA filing. In Brazil, firms are not required to register their open market share repurchases with the CVM or to announce their repurchases. The normal course for the issuer bid may commence on the date that is two trading days after the latest of (1) the date of acceptance of the issuer's notice of intention or (2) the date of the press release announcement. The issuer firm is not required to announce the completion of the bid and generally does not.

Prior to May 1997 change in corporate law, a public share repurchase offering aimed at either (1) to delist its shares from the exchange, or (2) to transfer control were both subject to tag along rights. This used to imply that minority shareholders were to have the same price and terms as those of the controlling shareholder. However, to avoid likely lawsuits from minority shareholders in privatizing its stakes in state-owned companies, the Congress approved amendments to the Brazilian Corporate Law – known as Law #9457/1997 – in May 1997. Under this new legal framework, it was no longer required to the new controlling shareholder to publicly offer a tender with equal terms to the minority shareholders as those offered to the Government. This change has led to some opportunistic behaviors from large shareholders who could jeopardize minority shareholders. To mitigate the impact on minority shareholders, the new regulation entitles preferred non-voting shareholders an additional 10% dividends compared to those paid to common voting shareholders. This requirement could not be applied to cases where the corporate charters specify the size and features of the dividend rights of preferred non-voting shares.

[3] Law # 6404/76 article 30 and CVM Instructions #10 date February 14, 1980, and #268 dated of November 13, 1997 which oversees open market repurchases.

For the period May 1997 thru February 1999, there had been several share repurchase offers aimed at lower liquidity in secondary markets with a subsequent offer for the remaining minority shareholders to lead the company private. As a reaction, CVM Instructions #229, #299, and #345 were published to impose constraints on tender offers to take the company private. More specifically, CVM Instructions #299 and #345 deal with the full disclosure in the case of control transfer, requiring the terms of the transaction, including a statement from the new controlling shareholder of whether it aims at delisting the company. However, there is no requirement for tag along rights.

In Brazil proceeds from tendering into all forms of repurchases are taxed as capital gains. Capital gains are taxed at a 20% rate, while dividends[4] are not taxed in Brazil. Share repurchase give shareholders the option of not tendering and thereby deferring the capital gain. There has been a series of empirical studies in Brazil aimed at investigating the substitution hypothesis of dividends for share repurchase (e.g. Procianoy and Poli (1993)) based on tax gains.

III. EMPIRICAL MODEL

1. THE DATA

Data on normal course issuer bids were compiled from the archived information supplied by the São Paulo stock exchange (BOVESPA) as well as Economatica, a major supplier of information on public companies. A typical news announcement includes the date, the issuer firm's name, the quantity and class of shares sought, and the reason for the repurchase. Accounting data, and stock price and shares

[4] This has been in effect since 1989 under the Law# 7713 dated of December 22, 1988, in conjunction with Law #8383 dated December 30, 1991.

outstanding data were obtained from BOVESPA and Economatica. (The Economatica set is used to ensure the availability of accounting data.) Insider holdings were collected from annual information reports which list the shareholdings of directors and large blockholders (blockholders are shareholders who own more than 5% of the shares outstanding).

Our sample covers the period between January 1, 1994 and December 31, 1999. The data on Brazilian corporate stock buybacks announcements were obtained from Bovespa. The search yielded 132 issuer bid announcements that took place on the BOVESPA during the 1994-1999 period. We eliminated issuers that did not have trading data on the BOVESPA. To compile a sample of non-financial firms that had not made any normal course issuer bids during the same period, we started examining a sample of 272 Brazilian firms for 1994-1999, coming up with 30 firms of all sectors.

2. REGRESSION RESULTS

To measure expropriation of minority shareholders, we follow Claessens et al. (1999) by defining excess value variable, EVX, calculated as follows: the ratio of the actual value to its imputed value. The actual value measures the market capitalization of its shares. The imputed value is based on the average for the industry. The average is based on the median market-to-operating income for 22 industries using the Economatica database[5]. For each firm, we calculate the market-to-operating income as the market value divided by its operating income. The inputed value for each firm is computed as its operating income level times its corresponding industry median market-to-operating income.

[5] We have included the following industries: Food Processing, Auto Parts, Beverages, Toys, Cement, Retail, Construction, Electronics, Electricity, Fertilizers, Mechanics, Timber, Transportation, Metalworking, Paper, Petrochemical, Chemistry, Telecommunications, Textiles and Air Transport.

We investigate empirical evidence for three hypotheses related to the firm value, the separation of control and cash rights, the liquidity aspects, and the recent change in the Brazilian legislation as follows:

Hypothesis 1 *The firm value is expected to increase the more concentrated the cash-flow rights of the controlling shareholders, but the firm value is expected to decrease the more concentrated the voting rights*[6].

Hypothesis 2 *The degree of liquidity affects positively the firm value by reducing the risk of taking it privately.*

Hypothesis 3 *The CVM Instructions #299 and #345 have implied lower likelihood of a takeover.*

The initial specification model (Model 1) includes the regression of the market valuation, EVX, on cash-flow rights, CASH, and voting rights, CTRL, in addition capital expenditure over net operating income, CROL, and a dummy variable for CVM enactment, CBIO, equals 1 if true. Cash-flow rights are defined as the percentage of the largest shareholder's shares. Control rights is the percentage of common voting shares owned by the largest shareholder. The Model 1 is displayed in Table 1.

The following table presents the coefficient estimates for a fixed effects panel data model for the excess value for Brazilian listed companies from the first quarter of 1994 to the fourth quarter of 1999. The standard errors are robust to heteroscedasticity and autocorrelation of arbitrary forms. The t-statistics are reported below the coefficient estimates in parentheses.

[6] As previously mentioned by Jensen and Meckling (1976).

Table 1

Regression Results

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
CTRL	-0,070					
	(-1,165)					
CASH	0,072					
	(1,436)					
CROL	-0,230	-0,222	-0,228	-0,230	-0,216	-0,218
	(-1,026)	(-1,007)	(-1,001)	(-1,012)	(-0,982)	(-1,002)
CBIO	-1,997	-1,697	-1,684	-1,634	-1,665	-1,686
	(-2,208)	(-2,168)	(-2,130)	(-2,124)	(-2,093)	(-2,217)
(CASH/CTRL)		5,710	5,656	6,433	5,994	6,771
		(1,959)	(1,911)	(2,079)	(1,816)	(2,156)
DL1			1,644			
			(0,849)			
DL2				4,036		
				(1,318)		
DLV1					0,038	
					(0,028)	
DLV2						2,376
						(2,809)
Dummy - Control Change	2,298					
	(1,435)					
Adjusted R-squared	0,434	0,441	0,438	0,457	0,432	0,453
Number of Observations	154	153	150	150	150	150
Durbin-Watson stat	2,707	2,724	2,720	2,727	2,744	2,906

Note: Standard Errors of Coefficients (robust to heteroscedastity) in parentheses.

We find that the higher cash-flow right by the largest shareholder is positively correlated to excess valuation. The concentration of voting rights of the largest block-holder is negatively. However, both coefficients are not significant. We analyze a possible correlation between control and cash flow rights. This prompted us to further examination. The Table 2 shows the correlation among the variables used in the study:

Table 2

Correlation Matrix of Regressors

Correlation	CAPEX	CASH	CROL	CTRL	EXV	VM
CAPEX	1,000	0,007	0,003	-0,011	0,029	0,163
CASH	0,007	1,000	0,159	0,890	0,131	0,415
CROL	0,003	0,159	1,000	0,101	0,001	-0,057
CTRL	-0,011	0,890	0,101	1,000	0,111	0,271
EXV	0,029	0,131	0,001	0,111	1,000	0,075
VM	0,163	0,415	-0,057	0,271	0,075	1,000

As we can see in the table above, the correlation between the variables CASH and CTRL is of 0.89, which indicates evidence of multicolinearity. In other words, for the companies involved in our study, the cash flow rights of the largest shareholder are highly correlated with his control rights. In order to overcome this problem, we constructed a Cash-Control ratio, used in all following specfications (Model 2 thru 6).

We also started investigating the effects of liquidity in the excess value by adding dummy variables. For instance, DLV1 and DLV2 are dummies taking the value zero if the volume traded in year is below US$5 million, and below US$10 million, respectively. On the other hand, DL1 and DL2 are dummies taking one if more than 5% or 10% of all shares outstanding are traded in the year, respectively. Models 2 thru 6 differs from each other by taking different dummy variables in their specification.

We find that the separation of ownership and control yields to a negative effect on market valuation – the sign on CASH/CTRL is significantly positive. This provides evidence that the Hypothesis 1 in which deviations of voting to cash-flow rights are associated with expropriation. The magnitute is significant and is estimated at about 6, i.e., 10 times higher than a similar result obtained by Claessens et al. (1999). In other regressions, we had also included company size (the natural logarithm of total

sales), the capital expenditure over net operating income (CROL) as they have appeared to be significant in other studies. However neither variable was statistically significant.

On the other hand, the results concerning liquidity were statistically significant. Companies with annual trading volume above US$10 million are more likely to have a higher market valuation, *ceteris paribus*. This provides evidence for Hypothesis 2 in which liquid shares are associated with lower likelihood of expropriation. The same result applies to companies with annual trading volume higher than US$5 million, but not signicant. However, when liquidity is defined as a percentage of outstanding shares traded, the results are not significant, although the coefficient for both cases is positive. The negative coefficient for CBIO provides evidence that rather the CVM Instruction #299 has negatively affected the minority shareholders, contradicting Hypothesis 3.

To test the likelihood of a takeover we proceed in using a probit model which relates the probability for a change in control to firm-specific characteristics, such as growth rate, cash and control rights, liquidity, and a dummy to capture the CVM Instructions #299 and #345 (equals to one after enactment, defined as Dummy CVM).

The data for our panel comprises the following companies: Metal Leve; Cofap; Freios Varga; Elevadores Atlas; Lojas Renner; Ericsson; Telerj; Telebahia; Solorrico; and CPFL. These companies are the only ones in our database which have experienced a takeover with repurchase of shares. As indicated by Hausman and Wise (1979), albeit at a different context, much more information is gained from the change in a given individual's behavior than by comparing differences between the average behavior of experimental and control groups. We have collected data for these companies for the period ranging from the first quarter of 1995 to the fourth quarter of 1999. The specification is as follows:

$$PROB = C + b1^* \ln(VM) + b2^* CASH + b3^* (CASH)^2 + b4^* (Dummy\ CVM) + b5^* (Dummy\ Liquidity) + b6^* CTRL + error\ term$$

where *C* is a constant term, *PROB* denotes the likelihood of takeover with expropriation, and *b1*, *b2*, *b3*, *b4*, *b5*, and *b6* are the coefficients, and the remaining variable were defined as previously mentioned, including the dummies for liquidity. This equation was estimated by Maximum Likelihood approach, assuming normal density for the error term. The regression results are listed in Table 3.

We find evidence that the separation of cash-flow and control rights influence the likelihood of a takeover. The more concentrated cash flow rights leads to a more likelihood of a takeover, although there is a non-linearity evidenced by its square term (CASH^2). The same applies to control rights. Specific-firm variables have not been shown significant, except for the market value, *ln(VM)*, which provides evidence that larger firms are less likely to have their control transferred.

The following table presents the coefficient estimates for a fixed effects panel data model for the likelihood of takeover with expropriation for Brazilian listed companies from the first quarter of 1994 to the fourth quarter of 1999. The standard errors are robust to heteroscedasticity and autocorrelation of arbitrary forms. The t-statistics are reported below the coefficient estimates in parentheses. The p-values are in parentheses. These models were selected according to the values of the Log-Likelihood, and the R-squares of McFadden.

Table 3

Probit Model Results

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Final Model
C	-2,446	1,799	2,023	0,715	-2,201	1,328
	(0,000)	(0,086)	(0,050)	(0,547)	(0,147)	(0,172)
CVM	2,896	2,096	2,059	2,172	2,395	2,302
	(0,000)	(0,000)	(0,000)	(0,000)	(0,000)	(0,000)
LOG(VM)		-0,257	-0,282	-0,171	0,066	-0,265
		(0,004)	(0,001)	(0,113)	(0,608)	(0,002)
CASH	-0,038	0,065	0,046	0,058	0,085	0,065
	(0,000)	(0,001)	(0,008)	(0,001)	(0,000)	(0,000)
CASH^2		-0,001	0,000	-0,001	-0,001	-0,001
		(0,001)	(0,020)	(0,002)	(0,000)	(0,000)
CTRL	0,054					
	(0,000)					
DL1		-0,478				
		(0,086)				
DL2			0,258			
			(0,343)			
DLV1				-0,509		
				(0,103)		
DLV2					-1,470	
					(0,000)	
Log likelihood	-74,313	-77,700	-75,373	-79,758	-73,060	-82,748
Restr, log likelihood	-114,294	-114,294	-114,294	-123,653	-123,653	-139,070
McFadden R-squared	0,350	0,320	0,341	0,355	0,409	0,405
LR statistic (4 df)	79,961	73,188	77,841	87,789	101,186	112,644
Probability(LR stat)	8,9E-16	2,2E-14	2,3E-15	0,000	0,000	0,000
Schwarz criterion	1,086	1,127	1,099	1,059	0,985	0,920

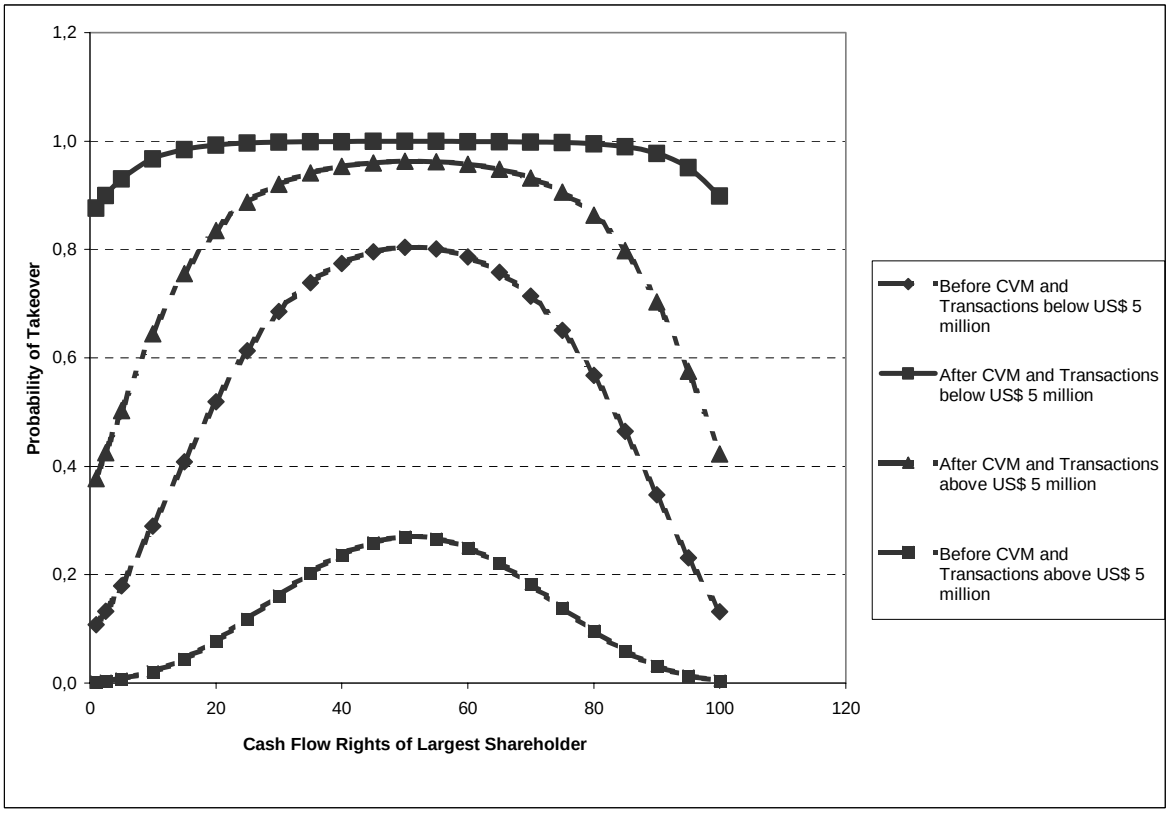
OBS. P-Values in parentheses

The enactment of CVM Instructions #299, and #345 have implied higher probability of a going private event. This contradicts again Hypothesis 3. A possible explanation for this might be that more companies foresee stricter legislation regarding expropriation of minority shareholders. Liquidity also plays an important role in diminishing the taleover as evidenced by a negative coefficient for DLV2.

The two most significant variables to determine the likelihood of a takeover are the dummies for CVM enactment and liquidity. To show their influence we have displayed how likelihood changes as the cash-flow rights of the largest shareholder changes prior and after CVM Instructions enactment. This is shown in Chart.

Chart

Likelihood of a Takeover Prior and after CVM Resolution



Interesting to note that shareholders with limited capability (about 50%) to leverage on minority shareholders (e.g. issuing more preferred non-voting shares) are more subject to a takeover. The same applies for companies with lower liquidity as previously mentioned. However, the change in probability of a takeover for higher

liquidy shares is comparatively higher, i.e., the change in legislation might trigger current listed Company with a reasonable liquidity to have their shares delisted in the event of a control change.

In summary, we have found evidence supporting our hypothesis that companies with shares with low liquidity and higher degree of separation cash-flow rights and voting rights ownership are the main targets for a takeover.

IV. CONCLUSIONS

We examine the impact of the recent CVM Instruction #299 of February 1999 aimed at improving minority investor rights. Prior to enactment of this Instruction, tender offers for repurchase of shares were not subject to neither disclosure nor mandatory offers, such as tag along rights for minority shareholders. However, we have found evidence that even after enacting Instruction #299, minority shareholders are still subject to expropriation, ceteris paribus. We have also found that companies with lower degree of separation of cash-flow and voting rights, and higher liquidity are less likely to have their minority shareholders expropriated.

In addition, we have found empirical evidence that CVM Instruction #299 may lead to an increase in takeover activities. To verify this, we applied a probit model to find the main factors driving the control change. The two most significant factors are the CVM Instruction #299, the company size, and liquidity. Interesting to note that shareholders with limited capability to leverage on minority shareholders (e.g. issuing more preferred non-voting shares) are more subject to a takeover. The findings might partially explain the illiquidity and underpricing of equity offerings pattern of Brazilian stock market in recent years.

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