Workshop about
"El mercado de control de empresas"
Universidad de Valencia, September 2008

Some determinants of shareholders´ behavior when facing a tender offer

The case of Spain

Pedro Durá
Department of Applied Economics III
Universidad Complutense de Madrid

Inés Pérez-Soba
Department of Applied Economics III
Universidad Complutense de Madrid

Final Draft: 24th September 2008

Objectives

To test the hypothesis (with Spanish evidence) about the influence of

- The threat of de-listing
- The bid premium
- The relationship between the actual Board and the acquirers: pacts to sell
- Other signals that the acquirer sends to the shareholders involved

on the shareholders behavior in order to sell in an offer

What's new?

- Considering the threat of de-listing as a mechanism of dilution
- A possible explanation for the "bid premium anomaly", based on Spanish evidence
- Distinguishing among shareholder categories to identify their determinants to sell.

The threat of being delisted

There are few papers in the literature in which dilution mechanisms are analyzed

<u>Real Statements From Tender Offer Prospectuses</u>

A. *"If, as it is expected, the offer is accepted by a large number of shareholders, the acquirer firm and the target firm* ***will ask*** *the CNMV for* ***permission to delist the target firm without making a new offer*** *for the shares that have not been offered in the actual tender offer".*

B. *" The acquirer firm is interested in keeping ZZZ shares trading on the Stock Exchanges where they are currently listed ….YYY declares that it has* ***no intention of proposing that ZZZ be delisted*** *from any of the Stock Exchanges on which is currently trades"*

Bid premium: the results of empirical models

Bid premium has no significant influence on the number of shares offered:
"the bid premium anomaly"

Walkling (1985)
Jennings and Mazzeo (1993)

Pelligrino (1972)
Ebeid (1974)
Hoffmeister and Dyl (1980)

Mitchell and Pulvino (2001)
Baker and Savasoglu (2001)

Bid premium has a significant positive influence on the number of shares offered

Theoretical background

Grossman-Hart models (1980, 1981)

"*Raids are unprofitable…Any profit the raider can expect from the price appreciation of the share he purchases can be captured by a shareholder if he does not tender* ". (G-H, 1980)

How to Avoid this Result (without abandoning assumptions of symmetrical information and no pivotal shareholders):

- Diluting shareholders´ property rights ϕ (G-H, 1980)
- Compulsory acquisition rights (Yarrow, 1985)

"The bid premium anomaly": explanations in the theoretical literature and variables suggested for testing

1. Dynamic games with asymmetric and incomplete information: price as a signal of quality of incomers (e.g. Hirshleifer, 1995; Durá and Pérez-Soba, 2005)
   - Buy shares on the market before launching the tender offer
   - Diluting shareholders´ property rights
   - Competitive offers
2. Pivotal shareholders (Holmström and Nalebuff, 1992; Bagnoli and Lipman, 1988)
   - Minimum
   - Pact to sell

Hypothesis

1. By increasing the level of threat, an acquirer could increase the likelihood of being successful in the acquisition, *ceteris paribus*.

2. By increasing the size of the bid premium, an acquirer could increase the likelihood of being successful in the acquisition, if there is asymmetric information and no pivotal shareholders.

Empirical Evidence: the Spanish Case

Sample

- Initial Sample (population): 205 Legal Tender Offers made in Spanish Stock Exchanges during the 1995 - 2007 (July) period

- Final Sample: 126 Legal Tender Offers (excluding De-listing Tender Offers, desisted offers against competitive offers and offers without complete data)

Dependent Variable

Likelihood of being successful in a tender offer →

→ **Proportion of shares offered in the tender offer =**

$$= \frac{\text{No. of shares offered in the tender offer}}{\text{total No. of shares} - \text{No. of "frozen" shares}}$$

If there are pacts to sell between large shareholder and acquirer

→ **Proportion of shares offered (by small shareholders) in the tender offer =**

$$= \frac{\text{No. of shares offered in the tender offer} - \text{No. of shares agreed to sell}}{\text{Total No. of shares} - (\text{No. of "frozen" shares} + \text{No. of shares agreed to sell})}$$

Independent variables

1. Threat of de-listing if tender offer is successful → Classification of tender offers depending on the level of threat that acquirers send by means of the prospectus

"Dummy" variable = 1 if the statements contain a degree of threat

and

= 0 if no threat is detected

(Source: based on the information obtained in tender offers prospectus, CNMV)

Independent variables

2. Price offered by acquirer → Premium paid to "market" shareholders

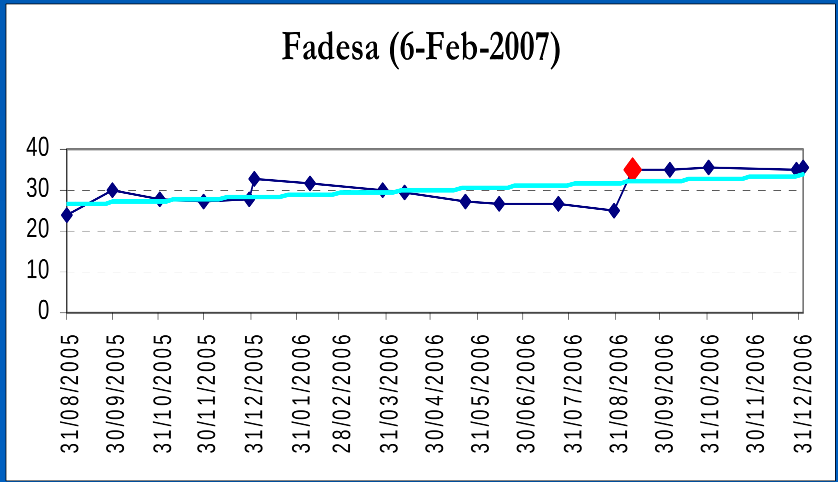
$$\text{PREMIUM} = \frac{(P_{\text{TENDER OFFER}} - P_{\text{REFERENCE}})}{P_{\text{REFERENCE}}}$$

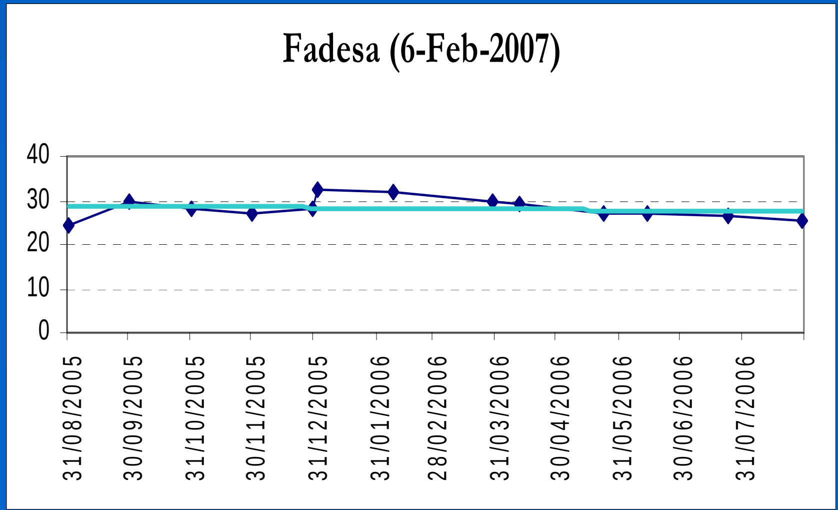
Where the reference price is the price attempting to show the value of the target firm before news about the tender offer reaches the market

(Source: BME, CNMV, Financial Press)

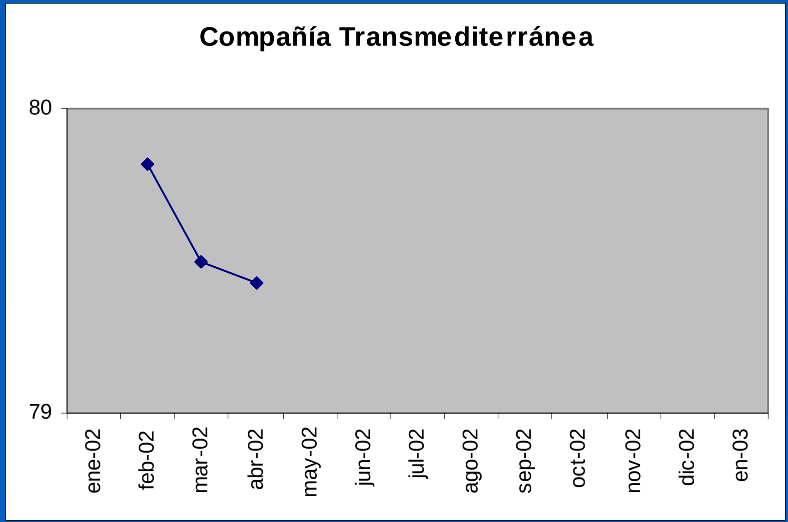
Bid premium specification

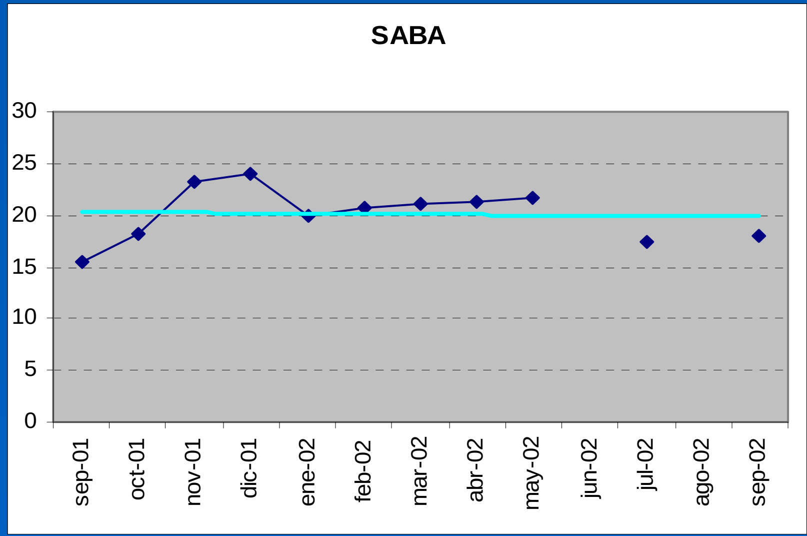
1. Public announcement of tender offer (t) (financial press, significant events CNMV) before the official filing date (in the example 6-feb-2007).
2. Monthly quotation series from t-12 to t.
3. Industry effect on firm trading price is eliminated subtracting the yield of industry index (İ)for the same period, taking into account the weight of the firm in its industry index (Ωj); in other words, subtracting (1-Ωj) İ.
4. The reference price is determined, in almost all cases, by a maximum likelihood estimator (M-estimator) of the series. However, sometimes the series presents a clear increasing or decreasing trend. In these cases, the reference price will be the monthly market price prior to the public announcement.

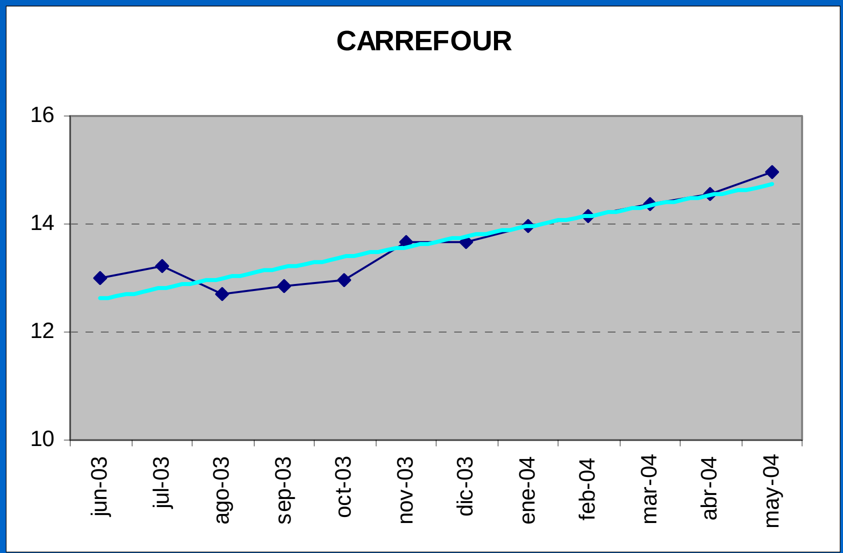


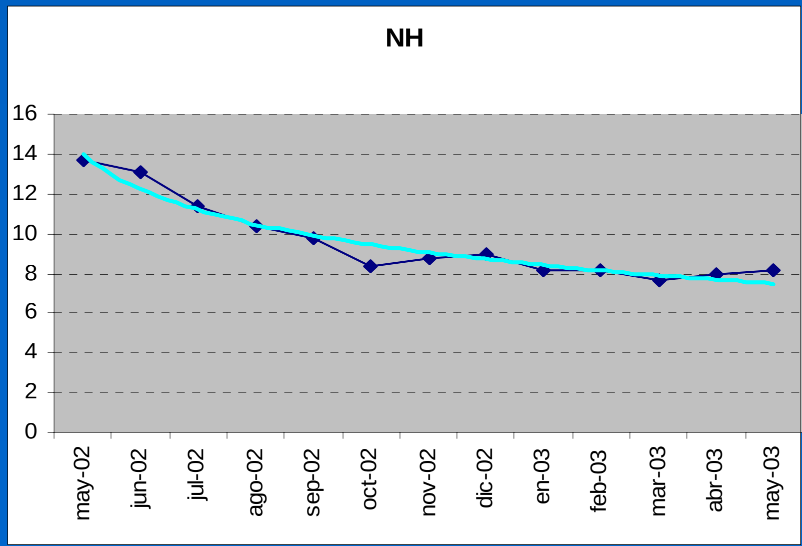


Bid premium specification









Bid premium specification 1995-2007

	Mean	Median	δ	Min.	Max.	Skewn.	Kurt.
Premium	0.14	0.13	0.39	-0.92	1.49	0.13	2.23

Other results in Spanish studies:

Ocaña *et al.* (1994,1997): 14% (1990-93)

Fernández and García (1995): 10% (1985-1993)

Fernández y Gómez-Ansón (1999): 15% (1988-1994)

Eguidazu (1996): 15% (1996)

Eguidazu (1999): 18.27% (1991- 1998)

Pérez-Soba (2000): 14% (1989-1996)

Independent variables

3. Minimum shares: proportion of shares on which the success of the offer depends (Source: CNMV)

$$\text{MINIMUM} = \frac{\text{No. of shares required by the acquirer to carry out the offer}}{\text{Total No. of shares}}$$

4. Previous holdings: proportion of target firm´s shares held by acquirer before launching the legal tender offer (Source: CNMV, Financial Press)

$$\text{PREVIOUS HOLDINGS} = \frac{\text{No. of target firm´s shares held by acquirer}}{\text{Total No. of shares}}$$

Independent variables

5. Pact to sell: "Dummy" variable
= 1 if there is a pact between acquirer and large shareholder to sell the control block

and

= 0 if there is not a pact

(Source: CNMV, Financial Press)

6. Competitive offer: "Dummy" variable
= 1 if there is a competitive offer

and

= 0 if there is not a competitive offer

(Source: CNMV)

Empirical results

PANEL A: OLS

Quantity 1: % of shares sells in the offer, including those shares that take part of the agreement between large shareholder and acquirer.
Quantity 2: % of shares sells in the offer by (supposedly) small shareholders, that is, it is not included the proportion of shares that take part of the agreement between large shareholder and acquirer.
Standard errors White consistent in parentheses
125 observations

	QUANTITY 1		QUANTITY 2	
	(I)	(II)	(III)	(IV)
Constant	0.5888 *** (0.014)	0.4155 *** (0.084)	0.3848 *** (0.083)	0.3149 *** (0.092)
Premium	0.0147 (0.055)	0.2627 ** (0.116)	0.2858 *** (0.075)	0.4644 *** (0.153)
$Premium^2$	—	—	— 0.2322 ** (0.091)	— 0.2898 *** (0.095)
Threat of de-listing	0.1924 *** (0.048)	0.1579 *** (0.092)	0.177 *** (0.053)	0.1600 *** (0.052)
Previous holdings	— 0.0702 (0.069)	0.0189 (0.7643)	0.078 (0.075)	0.1110 (0.076)
Competitive offers	— 0.0241 (0.0808)	— 0.0595 (0.075)	— 0.0084 (0.086)	— 0.0310 (0.086)
Minimum	0.2781 *** (0.077)	0.1680 ** (0.082)	0.3693 *** (0.114)	0.3223 ** (0.1252)
Pact to sell	—	0.2788 *** (0.065)	—	0.1268 (0.083)
Pact x premium	—	— 0.2671 ** (0.282)	—	— 0.1848 (0.161)
R2 adjusted	0.25	0.32	0.25	0.26
Ramsey Test	0.171 prob.[0.84]	3.411 prob.[0.03]	2.88 prob.[0.059]	2.45 prob[0.09]
Durbin-Watson	2.02	1.98	1.97	1.95

*, **, *** Coefficient significant at the 10%, 5% and 1% level respectively

Conclusions and contributions

1. Considering the threat of de-listing as a mechanism of dilution and testing it in an empirical model.
2. The threat of de-listing has a positive and significant relationship with the amount of shares offered in a bid, according to the Spanish evidence.
3. Current Spanish legislation about tender offers contemplates the situation of small shareholders after a bid through compulsory acquisition rights.

Conclusions and contributions

4. According to the empirical evidence in Spain, control premium is significant depending on the kind of shareholders involved.
5. Price is not a significant variable for explaining the behavior of shareholders who reach an agreement with the buyer before the announcement of the bid.
6. Including the variable representing "pact to sell" between large shareholder and acquirer in the model could explain the bid premium anomaly, that is, the lack of relationship between the likelihood of selling and the size of the bid premium (and upward-sloping supply curve).
7. Spanish legislation, based on the equal opportunity rule, could be avoided by means of such pacts so the market rule could, in fact, be prevailing in offers in which there is a large shareholder who wants to agree to sell his control block.