STOCK REPURCHASES WITH LEGAL RESTRICTIONS. EVIDENCE FROM SPAIN

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Abstract

This paper analyses the consequences of legal restrictions on the volume of shares firms can repurchase. Our results suggest that the imposition of a limit on the volume of common stock favours the use of open market repurchases (OMRs) compared to other methods of repurchase such as tender offer repurchases (TORs) and Dutch auctions (DAs). The positive share abnormal returns around both announcements of open market buybacks and sellbacks in the full sample suggest that they are basically used to change the ownership structure of the firm in a consistent way with the convergence of interest hypothesis. The positive abnormal stock returns around open market repurchases which are significantly different to the negative ones around sellbacks when there are no changes in ownership structure also indicates the existence of a signalling and free cash flow effects.

Keywords: buybacks, sellbacks, corporate control, signalling, free cash flow, event study.

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1. INTRODUCTION

This paper analyses the characteristics of stock repurchases and sellbacks and the share price reactions around their announcements when such practices, as happens in most European countries, are subjected to severe legal restrictions on the volumes. Specifically, we analyse the degree of use for each share repurchase method and the stock abnormal returns around announcements of open market repurchases and sellbacks in Spain, whereas previous empirical research has focused on countries without limits on the volume of shares that firms can repurchase. The results allow us to ascertain the effect of varying legislation on the use of share repurchase programmes.

The firm's acquisition of its own equity is governed by different regulations depending on the country. Limits in the repurchase size and in the use of repurchased shares exist in some European countries such as Austria, Denmark, France, Germany, Greece, Italy, Switzerland and the U.K. However, in the US without any limitation on the volume, corporations have dramatically increased in the last decade the amount of funds devoted to repurchasing their own shares (Jagannathan et al. 1999).

This distinct regulation is based on the different view of regulators about the consequences of repurchase programmes. So, in the US such programmes are seen as an instrument to signal the private manager's information to the market. The benefits derived from the signalling explanation require disclosure mechanisms work properly and a semi-strong efficient market. In this case insiders will not obtain capital gains trading with shares of the firm because the market's response to the announcement will be complete and instantaneous. However, the justification for a limiting regulation in

most European countries reflects two main concerns. First, share repurchases could allow a company to manipulate its stock price. Second, if managers will only buy back shares when the shares are undervalued, an open market repurchase where the seller is not aware that he is selling to the corporation essentially allows a company to engage in insider trading. These two concerns are the consequence of the believe that disclosure mechanisms can not be perfectly implemented. So, although companies are generally obliged to announce in advance that they have created an option to buy back stocks, some possibility of insider trading can survive as firms are free to choose the moment of share repurchases and investors can not totally anticipate that.

Previous empirical studies in the US have shown that there exist positive abnormal returns around announcements of all types of repurchase programmes (Vermaelen, 1981 and 1984; Comment and Jarrel, 1991). However, it is not possible to extrapolate the empirical results about repurchase programmes carried out in the US to countries where those practices are subjected to legal restrictions on the volumes[1]. Thus, even though the effects of repurchasing are well known in countries with flexible regulations, the characteristics of such operations have not been analysed where their use is restricted. The analysis of these differences will allow us to study the effect of the limiting regulation. This is the main contribution of the present paper.

The results of this paper show that legislated ceilings on buyback amounts have two main consequences: first) they implicitly condition the repurchase method to be chosen by a firm's managers, discarding those methods which are only optimal for large volumes as tender offers repurchases (TORs) and Dutch auctions (DAs), whereas they favour the use of open market repurchases (OMRs), and second) as buybacks have to be "selective" or scarce in order not to exceed the legal limitations on their volume, they can be basically used for objectives that can not be reached with alternative forms of

funds distributions to shareholders as dividend payments. While dividends can also be also an effective alternative for signalling or reducing the free cash flow in the firm, they can not be used for changing the firm's ownership structure as they are proportional payments of funds among shareholders. For this reason, buybacks will be basically exploited used for corporate governance effects or for changing the firm's ownership structure when their use is limited by legal ceilings.

Consistent with these hypotheses, the analysis of buybacks in the Spanish market reveals that open market repurchases are the only method of repurchase and that they are basically used to modify the ownership structure of the firm.

The rest of this paper is organised as follows: Section 2 shows the legal restrictions and the institutional characteristics of this type of operation in Spain. The hypotheses to be tested appear in Section 3. Section 4 describes the methodology and the sample analysed. The results obtained are discussed in Section 5, and, finally, a brief conclusion is presented in Section 6.

2. LEGAL LIMITATIONS AND INSTITUTIONAL CHARACTERISTICS OF SHARE REPURCHASES IN SPAIN.

The limit set in Article 75 of the Spanish LSA (Ley de Sociedades Anónimas or Law of Public Limited Companies) consists in that "the nominal value of the acquired shares, including those already owned by the company and their subsidiaries, should not exceed 10% of the equity capital (this limit is reduced to 5% when the shares are traded in the secondary official stock market). The acquisition must be authorised by the General Assembly by an agreement which must include the methods of acquisition, the maximum number of shares to be acquired, the maximum-minimum price range and the maturity of the authorisation, which may never exceed eighteen months".

So, Spanish traded firms are allowed to buy back and hold up to 5% of their shares as treasury stock. After the firm buys back its shares, it is free to reissue (sell them back) in the market or to cancel them through a capital reduction. Only when the amount of shares repurchased is over the limit of 5%, are firms obliged to choose between one of these two options.

Companies have to notify the Stock Exchange of all repurchases that represent at least 1% of the firm common stock before seven days following the repurchase. The LSA and its later developments do not specify the repurchase method. The choice of the method is delegated to the Board of Directors. If they select open market repurchases, acquisitions can be made without announcement. This makes it difficult to know, at a given moment, whether management is trading or not. However, unlike OMRs, the TORs and DAs do require the operation to be announced to stockholders.

Unlike the US, in Spain it is not possible to use the announcement date of repurchase programme authorisation to analyse the effect on the wealth of the shareholders for two reasons[2]. In the first place, this announcement is made together with other decisions taken at the General Assembly, and thus it is impossible to separate their effects. In the second place, once the Board of Directors has been authorised to acquire the shares, later General Assemblies merely renew this authorisation. Hence, subsequent authorisations are incorporated in market expectations, and thus the only new information would be that of the initial authorisation or its cancellation. However, after analysing the announcements of the recorded agreements of General Assemblies communicated to the Spanish SEC, there were no cancellations of prior authorisation, nor any initial authorisation which was not potentially contaminated by other factors also on the agenda of the General Assembly.

In this scenario, we have analysed the announcements of buybacks and sellbacks made by managers in the secondary stock market as well as announcements of reductions of capital made to cancel shares previously repurchased by the firm. In fact, the announcements of this type of capital reductions are the closest substitutes to a programme of common stock acquisition, similar to that analysed in the American case. Given the 5% limit on the maximum volume of common stock to be repurchased, it is impossible to carry out a continuous common stock acquisition policy without sellbacks or capital reductions that cancel stocks previously repurchased by the firm. Thus, the announcement of a cancellation of previously repurchased shares acts as an indicator to the market that management is willing to continue a policy of net acquisition of firm's shares. Otherwise, management would not announce the reduction of capital in order to avoid the transaction costs of those operations. At the same time, the announcement of this type of capital reduction also indicates that the firm has been undertaking a programme of net acquisition of common stocks in the past, since if as many sellbacks as buybacks have taken place, it would not be necessary to cancel shares to adjust the treasury stock to the legal maximum limit of 5%.

3. HYPOTHESES

3.1. Ceilings on buyback amounts and repurchase method

Numerous previous studies document that TORs and DAs are significantly larger than OMRs (Vermaelen, 1981; Comment and Jarrel, 1991; Ofer and Thakor, 1987). This can be explained by the transaction costs of repurchasing shares in the open market being largely variable since they are mainly a function of broker commission rates. However, the transaction cost of a tender offer and a Duch auction is partly fixed (publicizing the offer, paying underwriter fees). Therefore, OMRs are preferable for smaller transactions

that can not justify the tender-related fixed transaction costs, while self-tenders are preferable larger transactions for which OMR-related brokerage commissions would be excessively high. Following this argument our first hypothesis will be related to the consequences of legislated ceilings on buyback amounts on the method chosen by firms to buy back their shares. As the higher fixed costs of TORs and DAs can make them profitable only for a high volume of buybacks, limitations on their volume can be an economically binding restriction for these methods and make it non-optimal for firms to use such methods to repurchase shares. However, the lower fixed cost of OMRs will make them more attractive to repurchase the small amount of a firm's shares that can be repurchased under a legal ceiling. So our first hypothesis is the following:

> *H.1. Limitations on buyback amounts favour the use of OMRs over DAs and TORs as a method of repurchase.*

From the information supplied to the Spanish SEC by the companies trading at the Madrid Stock Exchange, we observe that for the 1990-1997 period, at least 55.8% of the total General Assemblies authorised Boards of Directors to repurchase common stocks[3]. However, according to information sent to the Spanish SEC and announcements in the Spanish financial newspapers, no announcements of TORs or DAs were made. Then, the exclusive use of OMRs in Spain is consistent with the idea that limiting the amount of shares to be repurchased prevents the use of TORs and DAs, which are only optimal for large volumes of share repurchases.

3.2. Ceilings on buybacks amounts and purpose of the repurchase

In addition to the repurchase method, we aim to analyse if legal ceilings on buyback amounts affect the managers' motivation for using them. We consider three possible

motivations which are not mutually exclusive for explaining Spanish firms' repurchase activity in the open market: signalling, free cash flow, and ownership structure or corporate control effects. The relative importance of each explanation has basically been previously tested analysing the share abnormal returns around announcements of OMRs[4]. We briefly describe each of these explanations.

(i) Information-Signalling theory

The signalling effect consists in the transmission of positive (negative) information that the announcements of open market buybacks (open market sellbacks) originate when the investors cannot distinguish the quality of the firm's investment opportunities. An open market repurchase can be used by managers of high quality firms to reveal the true value of the firm if managers of low quality firms can not mimic such a repurchase. Undervalued firms find it optimum to announce share repurchase programmes whereas overvalued firms consider it optimum to announce sellbacks and seasoned equity offerings. In this setting, positive abnormal returns around announcements of open market repurchases and negative abnormal returns around announcements of sellbacks are predicted. The informative effect forecasted by theoretical models has been empirically confirmed by the share price reaction around announcements of open market repurchase programmes (Bartov, 1991; Comment and Jarrell, 1991; Vermaelen, 1981; Franz et al. 1995; Ikenberry et al. 1995, and Stephen and Weisbach, 1998).

(ii) Free Cash Flow theory.

A second effect would be related to the conflict between managers and owners about the use of free cash flow in firms with low investment opportunities (Easterbrook, 1984; Jensen 1986). Following this hypothesis, open market repurchases reduce the funds under manager control and their announcement would generate positive stock abnormal

returns. On the other hand, an announcement of a sellback would have a negative share price reaction as it increases the firm's free cash flow under manager control.

As only firms with low investment opportunities experience the free cash flow conflict, the positive (negative) share price reaction around announcements of open market repurchases (sellbacks) should only be present in firms with low Tobin's q ratios. Consistent with this hypothesis, several studies have found that the greatest positive abnormal returns around announcements of open market repurchases are observed in shares of the companies with the lowest Tobin´s q ratio (Porter et al. 1994, Vafeas and Joy, 1995; Gombola et al. 1994).

However, although the free cash flow theory explains the existence of repurchases it does not suggest any potential advantage for repurchases compared to dividends, as both mechanisms have an identical effect on the firm's free cash flow given the transaction size.

(iii) Corporate Control theory

Finally, the open market repurchase activity may also reflect corporate control motivations. Unlike dividends, buybacks and sellbacks in the secondary market are funds distributions non-proportional between shareholders that affect the ownership structure of the firm, and may modify the control rights and the voting power in the company. These changes may have two different effects on firm's valuation.

In the first place, managers may follow this practice in order to reinforce their control (management entrenchment hypothesis*)* increasing their number of shares and making takeovers more difficult (Mork et al. 1988). According to this hypothesis, if an open market repurchase reduces the percentage of equity owned by outside shareholders and increases the managerial shareholding in order to secure an entrenchment, it may have a

negative effect on the corporate value. However, a sellback of shares previously purchased by the firm reduces inside ownership and consequently, positive share abnormal returns would be predicted by the entrenchment hypothesis. In line with this hypothesis, Davidson and Garrison (1989) find that announcements of OMRs made to prevent takeovers have negative share price reactions, while those announcements of the purchase of undervalued stock as an investment have the largest and most statistically positive significant cumulative abnormal returns.

In the second place, managers could use buybacks and sellbacks in the secondary market as a bonding mechanism that reduces agency costs in an attempt to attain the optimal ownership structure to provide incentives for the supervision and discipline of managers (convergence of interests hypothesis). According to this hypothesis, announcements of both sellbacks and buybacks would have positive share abnormal returns in that they search for an ownership structure with greater supervision. In connection with sellbacks, Fields and Mais (1994) analyse the stock price responses to announcements of seasoned public equity issues and their results are consistent with an alignment of interest effect that is progressively offset by an entrenchment effect as management ownership concentration increases.

Although these three explanations are not necessarily mutually exclusive, it is possible to distinguish the predominant effect with the analysis of abnormal stock returns given that each one predicts a different sign in the share price reaction. Table 1 shows the signs of abnormal returns predicted for each explanation around announcements of buybacks and sellbacks.

INSERT TABLE 1

Despite the existence of these alternative explanations, most of the previous empirical evidence in the US and UK concludes the signalling motivation as the main reason for explaining firms' repurchase activity (Asquith and Mullins, 1986; Dann, 1981; Vermaelen, 1981; Ikenberry et al., 1995). However, the existence of legal ceilings on buybacks amounts can modify the predominant reason for firms repurchasing shares of common stock. In this sense, the capacity of OMRs to modify corporate control is a differential characteristic compared to dividends, which may account for the existence of repurchase programmes in countries with legal limitations on buyback volumes. Whereas dividends can also be substitutes of buybacks for signalling the quality and/or reduce the cash flow of the firm (Bhattacharya, 1979; Miller and Rock, 1985; John and Lang, 1991), they can not be use to modify the firm's ownership structure given that they are paid to all firm's shareholders on a proportional basis. In such circumstances, OMRs may be particularly useful for modifying the control rights of the firm and the difficulty of finding an alternative to this aim in dividends can incentive managers to reserve the use of repurchase programmes for this purpose. Then, the possibility of using dividends for reducing information asymmetries and the free cash flow in the firm, but not for changing the corporate governance justifies our second hypothesis:

H2. Limitations on buyback amounts favour the use of OMRs to modify the ownership structure of the firm instead of signalling and/or reducing the free cash flow of the firm as the proportional distribution of funds with dividends can attain the two latter purposes but not the former.

4. DATABASE AND METHODOLOGY

As in previous studies we analyse the share abnormal returns around announcements of buybacks and sellbacks to know the predominance of each of the three motivations that can explain the firm repurchase activity. The announcements of open market buybacks and sellbacks were identified from the Spanish financial press registered in the Baratz database for the years 1990-1997, in companies trading at Madrid Stock Exchange. To be included in the final test sample, buybacks and sellbacks must satisfy several criteria.

Those announcements of buybacks and sellbacks made simultaneously were excluded. The OMRs carried out to eliminate a takeover threat or defensively motivated buybacks (greenmail) were omitted. The OMRs and sellbacks of shares previously repurchased which were accompanied by announcements of equity issues, payment of dividends, earnings, takeovers, divestitures and debt offerings within ten days before or after the open market announcements were also excluded. Such exclusions aim to eliminate announcements contaminated with confounding effects.

The final sample, therefore, contains 24 announcements of open market sellbacks, and 58 announcements of open market buybacks. The characteristics of the sellbacks and buybacks are shown in Table 2. The buybacks of common stock have an average volume of 4.15% of the equity book value, greater than the 2.60% of sellbacks.

INSERT TABLE 2

The abnormal stock returns are estimated using the standard event study methodology with daily returns. An estimation period ranging from (-140, -21) before the date of the announcement is used to estimate parameters of the market model. The significance of the abnormal stock returns was estimated using the Brown and Warner test (1985) as

well as Corrado´s test (1989), which is more suitable for solving the problems of asymmetrical distributions of the securities excess returns when analysing small samples.

In order to correct the potential biases that the existence of delays in price adjustments or asynchronous trading would introduce in the estimation of the betas and the specification of the statistical tests[5], stock price reactions were analysed correcting the estimation of betas according to Cohen et al. (1983).

5. EMPIRICAL RESULTS

The stock abnormal returns around announcements of buybacks and sellbacks are shown in Table 3.

INSERT TABLE 3

(i) Open Market Sellbacks

The announcements of sellbacks have an abnormal return of 2.26% on the event window (-1,0), statistically significant at 0.01 level. The cumulative abnormal return in the period (-20, +20) also shows the existence of positive abnormal returns before the announcement, which are greater on the days close to the announcement (Figure 1).

INSERT FIGURE 1

This positive reaction is contrary both to a signalling effect in which managers sell shares when believing them to be overvalued. The free cash flow hypothesis is not consistent with the result obtained either. As an open market sellback increases funds under management control, its announcement is expected to generate negative share price reactions. Meanwhile, the corporate control theory predicts a positive reaction around the announcements of sellbacks, in line with the result obtained. However,

positive abnormal returns do not allow entrenchment and convergence of interest hypotheses to be differentiated because both predict a positive share price reaction[6].

In order to discriminate between the entrenchment and the convergence of interest hypotheses, the sample was therefore divided according to the type of buyer. Thus, three different types of sellbacks were established: sales to the main shareholder who has control of the firm, sales to institutional investors, and sales to other investors who have no control over the company.

Table 4 shows abnormal returns around announcements of sellbacks, classified according to the type of buyer.

<center>INSERT TABLE 4</center>

Although the small size of the subsamples obliges us to be cautious in drawing conclusions from Table 4, the existence of positive abnormal returns only in the sample of sellbacks to the main shareholder is consistent with the convergence of interest hypothesis but it is contrary to the management entrenchment hypothesis. Only when the main shareholder increases his equity capital participation and, therefore, reinforces his control over management do we observe significant positive abnormal share price reactions. On the other hand, the announcements of sales of shares previously repurchased that are not acquired by the main shareholder or institutional investors have negative abnormal returns, although not significant. These negative abnormal returns can suggest the presence of signalling and free cash flow effects when the sellback does not change the ownership structure of the firm.

(ii) Open Market Repurchases

The announcements of OMRs originate positive share abnormal returns, statistically significant at 0.05 level (Table 3). The cumulative abnormal return during the period (-20, +20) is shown in Figure 2.

INSERT FIGURE 2

The management entrenchment hypothesis is not consistent with our results, as OMRs increase the inside ownership, which would predict negative abnormal returns, instead of the positive ones observed. However, positive abnormal returns around OMRs are consistent both with the signalling, free cash flow and with the convergence of interest hypotheses. In order to discriminate between these three possible explanations, the total OMRs sample was divided into two subsamples based on the existence of changes in the equity capital participation of the main shareholder. The results are shown in Table 5.

INSERT TABLE 5

The positive abnormal returns only around announcements of repurchases which caused changes in the ownership structure suggests that managers handle OMRs to modify the firm's control rights in order to reduce the agency costs between managers and shareholders or increase the firm's value. In a similar way to announcements of sellbacks, this result is consistent with the convergence of interest hypothesis and not with the signalling or free cash flow hypotheses.

(iii) Cross-Sectional Analysis

The previous analysis of subsamples indicates the predominance of the convergence of interest hypothesis in buybacks and sellbacks made in the Spanish market, but does not

reject the existence of signalling or free cash flow effects. So, the signalling effect predicts negative abnormal returns around announcements of sellbacks, and positive ones around repurchase announcements. The simultaneous existence of this signalling effect with the predominant convergence of interest effect would prevent the positive reactions of the sellbacks from being as high as the ones caused by announcements of buybacks.

In order to identify not only the predominant effect, but also to contrast the existence of a signalling effect and free cash flow effect, a regression analysis was performed. This would enable us to determine the existence of differences in the reactions between share sellbacks and buybacks, isolating the effect of ownership changes. The regression analysis was as follows:

$$AR = a_0 + a_1\,TYPE + a_2\,OWNERSHIP + a_3\,TOB + a_4\,OWNERSHIPxTYPE + a_5\,TOBxTYPE + \varepsilon$$

The dependent variable (AR) is the abnormal return in the period (-3,3). TYPE is a dummy variable with the value of 1 in the case of buybacks, and with value 0 in the case of sellbacks. OWNERSHIP is a dummy variable with the value of 1 if the operation originated a change in the equity capital participation of the main shareholder, and 0 otherwise. TOB is the company Tobin´s q ratio before the sellback or buyback was carried out. We also include the interaction terms between the OWNERSHIP and TYPE dummy variables and the TOB and TYPE dummy variables. These interaction terms are included to determine whether the free cash flow hypothesis and the changes in the percentage of equity of the main shareholder bring about different effects depending on whether buybacks or sellbacks are carried out. Finally, ε is a random disturbance term.

The results are shown in Table 6. In the specification we have also included industry and year dummy variables to take into account industry and time specific factors that could affect the carrying out of buybacks and sellbacks. We do not report the coefficients estimated on these variables because they are not statistically significant.

INSERT TABLE 6

The positive coefficient of the TYPE variable indicates that announcements of share repurchases cause higher positive abnormal returns than the announcements of sellbacks after controlling for changes in ownership structure and for firm's investment opportunities. The subsample in which there is no change in the main shareholder ownership has positive reactions around announcements of buybacks which are significantly different from the negative ones observed in the case of sellbacks. The different price reaction suggests the existence of a signalling effect in buybacks and sellbacks when the operation does not change the equity capital participation of the main shareholder. The coefficient of the OWNERSHIP variable is positive and statistically significant indicating that programmes affecting the ownership structure were implemented to increase the firm's value or to achieve a better ownership structure. The coefficient of the interaction variable OWNERSHIP x TYPE is not statistically significant, revealing that there is no difference between the positive effect caused by changes in the ownership structure following share sellbacks or buybacks.

The positive and statistically significant coefficient of the TOB variable is also consistent with the existence of a free cash flow effect. Firms with worse investment opportunities or lower Tobin's q ratio have less positive or more negative share price reactions. The non-statistically significant coefficient of the interaction term TYPE x TOBIN indicates that the positive effect of investment opportunities is present both in sellbacks and buybacks.

These results are in accordance with the coexistence of different motivations in the use of sellbacks and buybacks even if the maximum volume is restricted by law at 5% of the capital. When there are no changes in the ownership structure, the signalling and free cash flow effects cause positive abnormal stock returns around buybacks, significantly different to the negative ones around announcements of sellbacks. However, when buyback and sellback programmes are used to change the ownership structure and the control rights of the firm, both operations have positive abnormal returns, in line with the convergence of interests hypothesis.

6. CONCLUSIONS

This paper analyses the share price reaction around announcements of open market buybacks and sellbacks in Spain, where severe restrictions are imposed on the volume of shares that companies can repurchase. Our results support the existence of a relationship between the volume of repurchased shares and the optimal method of repurchase, as this shows that the imposition of a limit on the volume of common stock favours open market repurchases as opposed to tender offer or Dutch auctions. So, the restriction on the maximum volume of shares that the firm can repurchase in Spain (5% of the capital book value) is associated with the exclusive existence of OMRs, whereas neither DAs or TORs are used.

The results also shows the predominance of the corporate governance motivation for explaining the firm share price reaction observed around announcements of buybacks and sellbacks in the Spanish market. So, we observe positive share abnormal returns around both announcements of open market buybacks and sellbacks that are consistent with the use of such operations to affect the control of the company in its search for an ownership structure that diminishes the entrenchment of management. This hypothesis

is confirmed when we divide the sample according to the type of buyer or the change in the equity participation of the main shareholder.

Although not predominant, the regression analysis also shows the existence of signalling and free cash flow effects. So, when there are no changes in the ownership structure, we observe positive abnormal stock returns around buybacks, significantly different to the negative ones around announcements of sellbacks that are consistent with signalling and free cash flow explanations.

The different effect these operations have in markets where their use is not regulated reflects the influence that limiting regulations impose on the use of repurchase programmes. Such legal restrictions limit the use of repurchase programmes in order to signal private managerial information to the market or reduce the firm's free cash flow and favour their use to modify the ownership structure of the firm in line with the convergence of interest hypothesis.

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[1] In fact, Rau and Vermaelen (2000) and Rees (1996) find that UK firms announcing share repurchases have smaller abnormal returns than those obtained by US firms. Rau and Vermaelen (2000) explain this result using two factors. First, because the UK regulatory environment discourages share repurchases designed to take advantage of an undervalued stock price. Second, many buyback programmes are set up to allow pension funds to earn tax credits.

[2] These reasons also justify the small size of the sample of open market buybacks and sellbacks in the Spanish case.

[3] This figure represents the minimum number of authorisations, as some firms do not indicate the agenda in their notification for meetings. This prevents us from knowing whether authorisation was granted or not.

[4] Although studies in the US have proposed tax advantages of repurchase programs compared to cash dividends, such motivation can not be applied in the Spanish case. In our analysis period (1990-1997), the

effective taxation of dividends and capital gains depends on the type of shareholder. For individual investors there is not a clear different taxation because whereas dividends were taxed at higher rates, special tax deductions were also applied. Pension funds and mutual funds were indifferent between dividends and capital gains for tax reasons because they were tax-exempt investors. However, when the shareholder is another firm, this type of shareholder prefers dividends over capital gains because dividends have tax additional deductions for them. So, contrary to the US case the Spanish Tax System does not provide reasons for using repurchase programs instead of cash dividends as the only type of investors with a clearly different treatment of dividends and capital gains has a preference for dividends. For this reason, the tax explanation is not included as a potential motivation of the repurchase activity in the Spanish market.

[5] See, among others, Cowan and Sergeant (1996) and Maynes and Rumsey (1993) for a review of the consequences of the presence of nonsynchronous trading on the standard tests of event study.

[6] The share abnormal returns could also reflect microstructure effects different to the three motivations explaining the repurchase activity. So Barclay and Smith (1988) suggest that if additional informed traders (managers) enter in the market purchasing or selling shares of the own firm, the bid-ask spread will be wider and will reduce the liquidity of firm securities. However, this liquidity effect will elicit negative share abnormal returns both for open market buybacks and sellbacks that is not consistent with the positive ones observed in the paper. The previous empirical evidence is not clear about this microstructure effect even in the US. Although Barclay and Smith (1988) find an increase in the annual bid-ask spread of the repurchasing US firms, Singh et al. (1994) and Leach et al. (1998) do not support this result using daily bid-ask spread data.

REFERENCES

Asquith, P. and D.W. Mullins (1986), "Signalling with dividends, stock repurchases and equity issues". *Financial Management, vol.* 15, pp.. 27-44.

Barclay, M.J. and L.H. Smith (1988), "Corporate payout policy. Cash dividends versus open-market repurchases". *Journal of Financial Economics*, vol. 22, pp. 61-82.

Bartov, E. (1991), "Open market stock repurchases as signals of earnings and risk changes". *Journal of Accounting and Economics*, pp. 275-294.

Bhattacharya, S. (1979), "Imperfect information, dividend policy, and 'the bird in the hand' fallacy". *Bell Journal of Economics*, vol. 10, pp. 259-270.

Brown, S. J. and J. Warner, (1985), "Using daily stock returns". *Journal of Financial Economics* 14, pp. 3-31.

Cohen, K.J.; G.A. Hawawini; S.F. Maier; R.A. Schwartz and D.K. Whitcomb (1983), "Friction in the trading process and the estimation of systematic risk". *Journal of Financial Economics* 12, pp. 263-278.

Comment, R. and G.A. Jarrell (1991), "The relative signalling power of Dutch auction and fixed-price self-tender offers and open-market share repurchase". *The Journal of Finance*, vol. 46, pp. 1243-1271.

Corrado, C.J. (1989), "A nonparametric test for abnormal security price performance in event studies". *Journal of Financial Economics* 23, pp.385-395.

Cowan, A.R. and M.A. Sergeant (1996), "Trading frequency and event study test specification". *Journal of Banking and Finance* 20, pp. 1731-1757.

Dann, L.Y. (1981), "Common stock repurchases. An analysis of returns to bondholders and stockholders". *Journal of Financial Economics*, vol. 9, pp. 113-138.

Davidson, W.N. and S.H. Garrison (1989), "The stock market reaction to tender offer repurchases of stock: size and purpose perspective". *The Financial Review* 2, pp. 93-107.

Easterbrook, F.H. (1984), "Two agency-cost explanations of dividends". *American Economic Review*, vol. 74, pp. 650-659.

Fields, P. and E. Mais (1994), "Managerial voting rights and seasoned public equity issues". *Journal of Financial and Quantitative Analysis* 29, pp. 445-458

Franz, D.R. ; R.P. Rao and N. Tripathy (1995), "Informed trading risk and bid-ask spread changes around open market stock repurchases in the Nasdaq market". *The Journal of Financial Research* 18, nº 3, pp. 311-327.

Gombola, M. F. Liu and G. Tesetsekos (1994), "The information content of open market repurchases: free cash flow vs. investment opportunities". Working paper. Philadelphia: Drexel University.

Ikenberry, D; J. Lakonishok and T. Vermaelen (1995), "Market underreaction to open market repurchases". *Journal of Financial Economics* 39, pp.181-208.

Jagannathan, M.; C.P. Stephens and M.S. Weisbach (1999), "Financial flexibility and the choice between dividends and stock repurchases". Working paper, University of Missouri.

Jensen, M.C. (1986), "Agency costs of free cash flow, corporate finance, and takeovers". *American Economic Review* 76, pp. 323-329.

John K. and L. Lang (1991), "Insider trading around dividend announcements: theory and evidence". *The Journal of Finance* 46, pp.1361-1389.

Leach, J.C.; D.O. Cook and L. Krigman (1998): "Corporate repurchase programs: evidence on the competing-market-maker hypothesis". SSRN working paper.

Maynes, E. and J. Rumsey (1993), "Conducting event studies with thinly traded stocks" *Journal of Banking and Finance* 17, pp. 145-157.

Miller, M. and K. Rock (1985), "Dividend policy under asymmetric information". *The Journal of Finance*, vol. 40, pp. 1031-1051.

Mork, R.; A. Shleifer and R.W. Vishny (1988), "Management ownership and market valuation ". *Journal of Financial Economics* 20, pp. 293-315.

Ofer, A.R. and A.V. Thakor (1987), "A theory of stock price responses to alternative corporate cash disbursement methods: stock repurchases and dividends". *The Journal of Finance*, vol. 42, pp. 365-394.

Porter, G.; C. Roenfeldt and N. Sicherman (1994), "Open market repurchases and agency cost of free cash flow". Working paper. The University of South Carolina.

Rau, R. and T. Vermaelen (2000), "Regulation, taxes, and share repurchases in the U.K.". Working paper, Purdue University.

Rees, W. (1996), The impact of open market equity repurchases on U.K. equity prices. *European Journal of Finance* 2, pp. 353-370.

Singh, A.K.; M.A. Zaman and CH. Krishanamurti (1994): "Liquidity changes associated with open market repurchases". *Financial Management*, Spring, pp. 47-55.

Stephens, C.P. and M.S. Weisbach (1998), "Actual share reacquisitions in open-market repurchase programs". *The Journal of Finance*, vol. LIII, pp. 313-333.

Vafeas, N. and O.M. Joy (1995), "Open market share repurchases and the free cash flow hypothesis". *Economic Letters* (June), pp. 405-410.

Vermaelen, T. (1981), "Common stock repurchases and market signalling. An empirical study". *Journal of Financial Economics*, vol. 9, pp. 139-183.

Vermaelen, T. (1984), "Repurchase tender offers, signalling, and managerial incentives". *Journal of Financial and Quantitative Analysis*, vol. 19, pp. 163-181.

Table 1

Sign of abnormal stock returns forecasted for each explanation

The table shows the signs of abnormal stock returns forecasted for each explanation around announcements of open market buybacks and sellbacks.

Type of Announcement	Signalling theory	Free Cash-Flow theory	Corporate Control theory	
			Management Entrenchment	Convergence of Interests
Buybacks	Positive	Positive	Negative	Positive
Sellbacks	Negative	Negative	Positive	Positive

Table 2

Sellbacks and Buybacks of common stock

The table shows the characteristics of open market buybacks and sellbacks of the sample analysed. In the

open market sellbacks the type of buyer is also shown.

	Percentage of Equity Book Value		Destination of sales (%)	
Sellbacks	Mean :	2.60	Sales to a shareholder who increases equity capital participation	29.41
	Standard deviation : 1.83		Sales to institutional investors	19.05
			Sales to employees	17.64
			Others	29.41
Buybacks	Mean :	4.15	Change in main shareholder capital participation	46.55
	Standard deviation: 4.17		No change in main shareholder capital participation	53.45

Table 3

Abnormal returns

The table shows the abnormal stock returns around the announcement of open market sellbacks and open market buybacks. The market model is estimated over the period (-140, -21) around the announcement day and beta coefficients are corrected for asynchronous trading following Cohen et al. (1983). A parametric test (Brown and Warner, 1985) and a non-parametric test (Corrado, 1989) are used for measuring the statistical significance of share abnormal returns.

*** Statistically significant at the 1% level.

** Statistically significant at the 5% level.

		CAR (%)	Brown and Warner Test	Corrado's Test	%CAR >0
Open market sellbacks N=24	(-1,0)	2.26	3.16***	2.85***	66.67
	(-1,+1)	2.65	2.74***	2.34**	45.83
	(-2,+2)	3.86	2.60***	2.31**	50.00
	(-3,+3)	5.17	2.75***	2.44**	54.17
Open market buybacks N=58	(-1,0)	1.32	3.99***	2.72***	62.07
	(-1,+1)	1.74	4.24***	3.11***	63.79
	(-2,+2)	2.04	3.07***	2.35**	65.52
	(-3,+3)	1.95	3.12***	2.22**	58.62

Table 4

Abnormal returns around announcements of open market sellbacks according to the type of buyer

The sample of open market sellbacks is divided into three subsamples depending on whether the buyer is the main shareholder, an institutional investor or other investors. As the buyer may not be identified in four cases, a total of only 20 announcements are presented. Both, a parametric test (Brown and Warner, 1985) and a non-parametric test (Corrado, 1989) are used for measuring the statistical significance of stock abnormal returns.

*** Statistically significant at the 1% level.

Buyer		CAR (%)	Brown and Warner Test	Corrado's Test	% CAR >0
Main shareholder N=8	(-1,0)	5.62	4.38***	3.49***	75
	(-1,+1)	7.04	4.41***	3.68***	87.5
	(-2,+2)	10.58	3.96***	2.96***	50
	(-3,+3)	14.55	5.46***	4.39***	62.5
Institutional investors N=4	(-1,0)	1.39	0.49	0.82	50
	(-1,+1)	0.61	0.21	0.33	25
	(-2,+2)	1.23	0.35	0.02	75
	(-3,+3)	0.82	0.43	0.65	50
Others N=8	(-1,0)	-0.15	0.18	0.26	50
	(-1,+1)	-0.46	-0.33	-0.02	25
	(-2,+2)	-0.79	-1.10	-1.60	25
	(-3,+3)	-1.10	-1.49	-1.02	50

Table 5

Abnormal returns in open market buybacks and change in the ownership structure

The sample of open market buybacks is divided into two subsamples depending on whether or not they change the equity capital participation of the main shareholder. Both a parametric test (Brown and Warner, 1985) and a non-parametric test (Corrado, 1989) are used for measuring the statistical significance of stock abnormal returns.

*** Statistically significant at the 1% level.

		CAR (%)	Brown and Warner Test	Corrado's Test	% CAR >0
Changes in the main shareholder equity capital participation N=27	(-1,0)	2.12	5.70***	3.40***	74.07
	(-1,+1)	2.24	5.18***	2.87***	74.07
	(-2,+2)	3.50	4.24***	3.53***	74.07
	(-3,+3)	3.33	4.82***	3.05***	66.67
No changes in the main shareholder equity capital participation N=31	(-1,0)	0.61	0.14	0.18	51.61
	(-1,+1)	1.31	0.96	1.23	54.84
	(-2,+2)	0.78	0.25	0.22	58.06
	(-3,+3)	0.74	-0.24	-0.12	51.61

Table 6

Regression analysis

The dependent variable is the stock abnormal return in the period (-3,+3). TOB is the Tobin's q ratio of the firm before sellback or buyback announcements. OWNERSHIP is a dummy variable with the value of one if the operation changes the equity capital participation of the main shareholder. TYPE is a dummy variable with the value of one for buybacks and zero for sellbacks. In brackets t-statistics are shown.

** Statistically significant at the 5% level.

* Statistically significant at the 10% level.

	CONSTANT	TYPE	OWNERSHIP	TOB	OWNERSHIP x TYPE	TOB x TYPE	R^2
Coefficient	-0.0179	0.0406*	0.0339*	0.0140**	-0.0251	-0.0186	5.75%
t-statistic	(-1.08)	(1.83)	(1.88)	(2.27)	(-1.20)	(-1.39)	

Figure 1

Cumulative abnormal returns around the sellback announcement

The stock abnormal returns have been estimated using event study methodology with daily returns. In order to obtain the expected return a market model is estimated over the period (-140, -21) around the announcement day. The stock abnormal returns are accumulated in the period (-20,+20), where t=0 is the day of announcement.
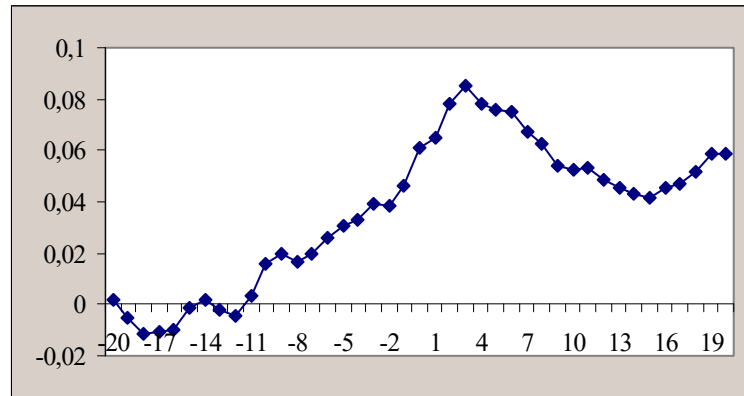
Figure 2

Cumulative abnormal returns around the repurchases announcement

The stock abnormal returns have been estimated using event study methodology with daily returns. In order to obtain the expected return a market model is estimated over the period (-140, -21) around the announcement day. The stock abnormal returns are accumulated in the period (-20,+20), where t=0 is the day of announcement.