Journal of Corporate Finance 22 (2013) 35–53

Contents lists available at SciVerse ScienceDirect

Journal of Corporate Finance

journal homepage: www.elsevier.com/locate/jcorpfin

Insider trading and share repurchases: Do insiders and firms trade in the same direction?

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ARTICLE INFO

Article history:
Received 8 December 2012
Received in revised form 20 March 2013
Accepted 21 March 2013
Available online 28 March 2013

JEL classification:
G35
G14

Keywords:
Share repurchases
Insider trading
Long-run performance

ABSTRACT

Signaling undervaluation is often considered a primary motive for repurchasing stock, but insider trading activity by repurchasing firms is not always consistent with undervaluation. Net insider buying and selling are both more frequent in quarters when firms are repurchasing non-trivial amounts of stock, with the odds of observing a repurchase the highest in quarters with net insider selling. In multinomial logit models, share repurchases associated with net insider selling are positively related to illiquidity, option exercises by insiders, and pre-repurchase returns and negatively correlated with industry-adjusted book to market ratios when compared to other repurchases. Hence, repurchases when insiders are selling stock are more likely done to support share prices or avoid dilution and are less likely undervaluation signals. We find that insider trades either validate or mitigate the undervaluation signal of the repurchase. Abnormal returns of repurchasing firms with net insider buying versus net insider selling in a given quarter are significantly higher for the quarter immediately after the repurchase and the three subsequent years. For repurchases accompanied by net insider selling, abnormal returns are negligible after only one year.

1. Introduction

Share repurchases have long been viewed as a means for management to signal firm undervaluation (e.g., Vermaelen, 1981). Consistent with the signaling rationale, repurchases are, on average, greeted with positive abnormal returns at their announcement, and abnormal returns persist in the three years after their announcement.[2] Managerial stock ownership lends credibility to repurchase signals because managers suffer a loss on their shares if the shares repurchased are overvalued. Consequently, repurchases might not convey positive information if management is selling their stock at the same time the repurchase is undertaken (e.g., Fried, 2001). Insider selling at the time of a repurchase could be viewed as using repurchases to enable management to reduce their holdings at a favorable price by supporting stock price levels. Yet, in most repurchase programs there is no prohibition on insider sales while repurchases are in progress.

This paper addresses three questions related to the relationship between insider trading and stock repurchase activity by a firm. First, do insiders trade in the same direction as their company in a given quarter in the case of share repurchases? If insider trades and stock repurchases are based on private information about stock valuation, then actual repurchases should occur more frequently conditional on net insider buying and less frequently conditional on net insider selling. Given that repurchase quantities can differ substantially from announced amounts (Bonaime, 2012; Stephens and Weisbach, 1998) based on market movements and real time valuation, and other repurchases are not pre-announced at all, we examine actual as opposed to announced repurchases and

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[2] See, e.g., Ikenberry et al. (1995), Stephens and Weisbach (1998), Ikenberry et al. (2000), Jagannathan and Stephens (2003), Chan et al. (2004), and Chan et al. (2010).

0929-1199/$ – see front matter © 2013 Published by Elsevier B.V.
http://dx.doi.org/10.1016/j.jcorpfin.2013.03.003

determine if insiders are more likely to be net buyers in quarters when their firm is repurchasing company stock.[3] Second, does the direction of insider trades affect the strength of the undervaluation signal inherent in a share repurchase? More precisely, are returns after a repurchase quarter different based on the direction of insider trading in that same quarter? Third, to the extent insiders and firms do or do not trade in the same direction in a quarter, can we explain what factors cause variation in combinations of insider trading and repurchases in a quarter that are consistent with post repurchase return evidence?

We employ a simple empirical design. From 1989 through 2007,[4] we use Compustat quarterly data to identify whether or not a firm conducted a non-trivial common stock repurchase (at least 1% of the firm's market capitalization). We next use the Thomson Reuters Insiders data to calculate net insider trading as the dollar value of open market and private insider purchases less the dollar value of open market and private insider sales. Firms with insider buying exceeding insider selling by at least $200,000 or 0.01% of market capitalization are labeled "net buying" firms; firms whose insider selling surpasses insider buying by the same threshold are categorized as "net selling" firms. The remaining cases are classified as neutral. If the primary motivation for repurchases is stock price undervaluation, insiders should be net buyers (net sellers) more (less) frequently conditional on a firm repurchasing substantial amounts of stock in the same quarter.

We find that in quarters when companies are repurchasing, the frequency of net buying *and* net selling tends to be higher than usual. An alternative way of framing the data is that, conditional on the presence of insider selling or insider buying, share repurchases are more frequently observed relative to the case where insider trading is neutral. Surprisingly, share repurchases are most frequently observed conditional on insiders being net *sellers*.

The fact that repurchases are more likely to be associated with insider net selling than net buying is puzzling in a signaling context, but could be explained by attempts to support price levels or provide liquidity for selling insiders. It could be explained by the exercise of stock options. For a sample of dividend increases and stock repurchase increases in the 1990s, Kahle (2002) finds that firms are more likely to repurchase shares when the firm has more options outstanding (see also Dittmar (2000)) and when employees are exercising options.[5] Kahle (2002) conjectures that repurchases are motivated to avoid dilution from employee option exercises and that the exercises provide funds to undertake repurchases.[6] Executives exercising options may also sell some of the acquired stock to cover their option exercise expenses (i.e., exercise price and taxes). The combination of these two factors suggests that the high frequency of joint repurchase/net insider selling quarters may result from option exercises. Consistent with this extension of Kahle's (2002) argument, we find that firms with higher levels of options exercised by insiders are more likely to have simultaneous repurchasing and net insider selling.[7] To determine if the concurrence of insider selling and repurchases is driven by insider option exercises coupled with liquidity driven open market insider sales, we exclude insider open market stock sales potentially associated with paying off the exercise cost of options from our calculation of net insider selling in a quarter. We continue to find that the frequency of a repurchase occurring conditional on net insider trading status, while smaller, is still highest with this alternative net trading measure. Our results also hold when we classify all share acquisition and disposition activities as buys or sells.

While increased repurchases make sense in quarters with net insider buying, more repurchases with net insider selling seem inconsistent with repurchases signaling undervaluation. Hence, we investigate whether abnormal returns during and after firm repurchase quarters differ conditional on the direction of insider trading. Prior research has found that stocks perform well after open market repurchase announcements (e.g., Ikenberry et al. (1995), Ikenberry et al. (2000), Chan et al. (2004), Peyer and Vermaelen (2009)) and after self-tender offers (Lakonishok and Vermaelen (1990)). A number of these papers also find higher post-repurchase announcement returns if there is insider buying in advance, but stock returns are also considerably higher in the year after insider buying and somewhat lower in the year after selling (Seyhun (2000)) without conditioning on repurchases. We anticipate that repurchasing firms with net insider buying in the same quarter are more likely to be undervalued (i.e., earn positive abnormal returns after repurchase) than firms with net insider selling.

Our results confirm this hypothesis. When insiders and firms are both buying in a given quarter, returns are abnormally high immediately after the actual repurchase and over the next three years. During the first quarter after a repurchase with net insider buying quarter, a firm's stock has an average positive abnormal return of 4.06%. Since investors may not have information on repurchases and insider trading early in this quarter, the first quarter return might be viewed as an announcement effect. By the end of the quarter subsequent to the repurchase/net insider buying quarter, investors would have the information, in most cases, to implement a trading strategy of buying these stocks.[8] Following a strategy of holding these stocks in the three years subsequent to the first post-repurchase

[3] Stephens and Weisbach (1998) document that completion rates associated with open market repurchases conducted between 1981 and 1990 were between 74 and 82% on average. Using open market repurchases announced between 1988 and 2007, Bonaime (2012) finds average completion rates of 73% and that completion rates vary substantially across firms; the completion rate at the 10th (90th) percentile is 10% (100%) . Though for other types of share repurchase plans (i.e., tender offers, Dutch auctions, and accelerated share repurchases), actual repurchase do not differ from announced amounts, open market repurchases account for 90% of all repurchases (Grullon and Michaely (2004)).

[4] We use Compustat firms with 2006 fiscal years. This includes firms with fiscal year ends through May 2007.

[5] Kahle (2002) finds that options outstanding have more explanatory power than option exercises, but firms with option exercises will tend to have more options outstanding and we do not have the latter variable.

[6] Kahle (2002) also notes that when options are outstanding, distributing cash via repurchases rather than dividends preserves managerial option values, giving managers an additional incentive to use repurchases.

[7] Kahle (2002) finds no incremental impact from executive stock option exercises above and beyond employee exercises, but that still implies an impact equal to employee exercises. She also does not examine selling activity accompanying insider option exercises.

[8] In virtually all cases, except extremely late reporting, the insider trading data would be available. When we require that a purchase or sale be reported within 3 months of the repurchase quarter, only 7% of repurchase observations are lost and we obtain virtually identical results. The repurchase data should be available in most cases within three months of the end of a fiscal quarter. Current SEC rules require 10-Q and 10-K filings within three months of the end of a quarter, though some firms seek extensions, but such firms are often financially troubled and unlikely to be buying back stock.