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Why does shareholder protection matter for abnormal returns after reported insider purchases and sales? ☆

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ABSTRACT

We use a unique data set of more than 240,000 reported insider transactions across 15 European countries and the USA to analyze the link between country-level shareholder protection and abnormal returns following insider trades. We show that abnormal returns after insider transactions are positively correlated with country-level shareholder protection against expropriation by corporate insiders, which supports the information-content hypothesis. Market reaction to insider purchases increases with shareholder protection because shareholder protection enhances the transparency and trustworthiness of insiders' actions, and limits possibilities for direct profit diversion, so that more information is eventually reflected in stock prices. For insider sales, shareholder protection decreases their negative information content. We conjecture that this is due to the effect of greater transparency and trustworthiness strengthening the diversification and liquidity reasons for selling in better shareholder protection countries. We find limited support for the rent-extraction hypothesis that conjectures that shareholder protection is associated with insider trading dollar profits.

1. Introduction

The literature based on one-country samples documents significant abnormal returns following reported share transactions by corporate insiders. The finding suggests that insiders use their superior information about their firms when trading.[1] As the issue of insider trading has led to many controversies regarding the role of insiders' transactions, an analysis of the link between abnormal returns after insider trades and country-level shareholder protection seems to be particularly appealing and important. This link is quite natural as ample empirical evidence indicates that country-level corporate governance is the key factor shaping insider behavior (La Porta et al., 2000; Leuz et al., 2003; Doidge et al., 2007). Still, empirical evidence on the relation is so far missing in the literature. In this paper we analyze this issue on a unique data set of reported insider transactions across 15 European countries and the USA.

To make predictions about how shareholder protection may influence price changes after insider trades, we build on the discussion in the academic literature as well as on arguments stemming directly from insider trading regulations. Perhaps not surprisingly, no clear-cut view prevails. Insider trading regulations in many countries clearly prohibit trading on the basis of 'material' and 'non-public' information. They are usually justified as providing fairness and equity (Bainbridge, 2000) and, hence, they aim to limit rent extraction by informed inside traders at the expense of less well-informed outside investors. At the same time, however, regulators acknowledge that transactions by corporate insiders should be disclosed in a timely manner because they provide 'a highly valuable source of information to investors' (EU Market Abuse Directive).[2]

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[1] See, for example, Seyhun (1986), Datta and Iskandar-Datta (1996) and Ravina and Sapienza (2010) for US evidence; Friederich et al. (2002) and Fidrmuc et al. (2006) for UK evidence; and Betzer and Theissen (2009) for evidence from Germany.

[2] Also the US Securities and Exchange Commission (SEC) acknowledges that 'many investors believe that reports of directors' and executive officers' transactions in company equity securities provide useful information as to management's views of the performance or prospects of the company' (Brochet, 2010, Footnote 2).

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The academic literature also reflects the two arguments of rent extraction and information content. Ausubel (1990), Fishman and Hagerty (1992) and Leland (1992) argue that insider trading transfers wealth from uninformed investors to informed insiders, and that it results in adverse effects of insider trading on investment, liquidity and informational efficiency of the stock market. In a similar vein, Fried (1998) and Bebchuk and Fried (2003) present abnormal trading profits made by corporate insiders as agency costs. In contrast, Manne (1966) and Carlton and Fischel (1983) stress the informational role of insider trading and they argue that it helps information to flow and stock prices to reflect private information faster. In support of the informational role of insider trades, Piotroski and Roulstone (2004) document that insider trading increases the relative amount of firm-specific information incorporated into stock prices, and Aktas et al. (2008) find that price discovery is faster on insider trading days.

An analysis of the link between investor protection and abnormal returns following insider transactions should therefore explore these two dimensions: rent extraction and information content. Towards this end, we consider two sets of hypotheses. First, approaching insider trading as a mechanism for rent extraction, better shareholder protection might curb insider trading and result in smaller returns following insider trades (the *monitoring hypothesis*). Alternatively, shareholder protection might curb only profit diversion by insiders directly from the firm and leave space for more rent extraction through insider trading, and hence result in larger post-trade returns (the *substitution hypothesis*).

Second, exploring the informational role of insider transactions for outside investors, we propose another set of opposing hypotheses. The *ex-ante information hypothesis* emphasizes the impact of good shareholder protection on a better pre-event information environment, which implies that the incremental information revealed by the trade is smaller and therefore good shareholder protection has a negative effect on post-trade abnormal returns. Alternatively, the *information-content hypothesis* emphasizes the process of information incorporation into stock prices and focuses on how outside investors trust and interpret insiders' actions. The literature shows that when insiders purchase additional shares, they send a positive signal to outside investors by committing more of their own money to their firms. Insider sales, however, might not convey a negative signal because they are often attributed to insiders' liquidity and diversification needs. We propose that good investor protection enhances the transparency and trustworthiness of visible insiders' actions and impacts on how the market reads into insider trades. In a weak shareholder protection environment, insiders' actions are less credible because insiders are able to divert profits more easily (Morck et al., 2000). As a result, better shareholder protection affects market reaction to insider purchases positively as insiders in better shareholder protection countries are more trusted and the positive signal conveyed in their purchases is stronger. However, we propose that the market reaction to insider sales is less negative in stronger shareholder protection countries as the market perceives the claims of liquidity and diversification reasons for selling as more credible. Our empirical strategy is to see which of the hypotheses are supported by the data.

We choose to proxy the quality of shareholder protection with the anti-self-dealing (ASD) index introduced by Djankov et al. (2008). The index is constructed on the basis of legal rules governing a hypothetical related-party transaction and as such it directly measures the ability of insiders to divert corporate wealth to themselves at the expense of outside investors. Hence the index reflects the central aspect of corporate governance, which is at the core of the arguments behind rent extraction and information content. In the context of our study, the index is likely to shape both insiders' behavior and market perception of insiders' actions. Even though our data set covers only developed countries, sample variation with respect to shareholder protection is surprisingly high. The ASD index ranges from 0.20 for the Netherlands to 0.95 for the UK (on a scale from 0 to 1), with the sample mean of 0.42 and the standard deviation of 0.22, which are not far from the mean of 0.44 and the standard deviation of 0.24 for 72 countries covered by Djankov et al. (2008).

Overall, our results for more than 100,000 purchases and more than 140,000 sales across 16 countries show that better shareholder protection against expropriation by corporate insiders is associated with more positive post-trade abnormal returns for purchases and less negative abnormal returns for sales. For purchases the positive correlation is persistent for event windows of 6, 11 and 101 days starting on the insider purchase day. For sales the positive correlation is robust only for the 101-day horizon.

We develop tests to differentiate between the rent-extraction versus information-based explanations for the positive shareholder protection effect. We find more support for the information-content hypothesis. In particular, for both purchases and sales, the effect of the anti-self-dealing index is strongest when information asymmetry between insiders and outside investors is likely to be larger: in smaller firms and in those with lower analyst coverage. Similarly, the effect of the anti-self-dealing index is greater for larger transactions when more information is likely to be conveyed. For purchases this means that the market adjusts prices upwards the most when information is relatively scarce and insiders' actions are more trustworthy. For insider sales we see that insiders' claims of selling for liquidity and diversification reasons are translated into a less negative market reaction in better shareholder protection countries, in firms with greater information asymmetry and when insiders sell more shares. In contrast, when testing the rent-extraction explanations, we find an insignificant relationship between shareholder protection and abnormal profits (abnormal returns multiplied by the value of shares traded that should capture profits made by insiders).

To support the robustness of the results to alternative explanations potentially correlated with shareholder protection and abnormal returns, we discuss stock-market efficiency, insider trading law enforcement, ownership concentration and executive remuneration. We find that our results are robust to all these alternative influences. Also, all of our results are robust to excluding from the sample all US transactions, which constitute a relatively large part of our data set. Our results are unlikely to be driven by differences in insider trading laws and reporting requirements because recent regulatory changes in both the USA and the EU resulted in the unification of insider trading regulation across all countries in our sample.[3]

Overall, our results favoring the information-content hypothesis contribute to the wider literature on the relation between corporate governance and equity returns (Morck et al., 2000; Gompers et al., 2003; Cremers and Nair, 2005; Ferreira and Laux, 2007). Understanding the link between shareholder protection and the way the market reads into information conveyed through insider transactions helps us comprehend the wider picture of why stock-price informativeness differs across countries. Our analysis provides new evidence that stronger shareholder protection is an important factor contributing to prices better reflecting fundamental firm values. The fact that our results do not support the rent-extraction hypotheses perhaps reinforces the importance and effectiveness of insider trading regulations that prohibit trading on material information.

The remainder of this paper is organized as follows. Section 2 explains the hypotheses in more detail. Section 3 outlines insider

[3] See Section 3 for details.