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# Insider sales vs. short selling: Negative information trading in Australia<sup>☆</sup>



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## ABSTRACT

We show that Australian short sellers do not front-run insider sales. Results are robust to conditional trading classified by book-to-market, intangible ratios, industry and multiple factor analysis. The combination of insider sales and short selling provides a contrarian signal that dampens prior overpricing, but is not associated with subsequent abnormal returns. We contend that the business environment in Australia, together with the daily reporting of short sales, plays a significant role in restraining short selling profitability. Our results contradict front-running by short sellers in the U.S., where the reporting and litigation environment induces the leakage of pre-traded negative information by corporate insiders. Overall, we highlight how information flow direction and profitability can be affected by different country legal and business cultures.

## 1. Introduction

Prior studies examine the selling by well-informed market actors such as corporate insiders (Beneish and Vargus, 2002; Ali et al., 2011) and short sellers (Desai et al., 2006), and show an asymmetric trading advantage. Short sellers and corporate insiders (directors, senior management) derive their trading advantage from access to information not generally available to the investing public. Hence, their individual trading represents a potential leading signal for negative information cues.

In this paper, we study the combined and conditional trading behaviour of short sellers around corporate insider sales in Australia. Specifically, we examine whether short sellers trade ahead, or follow, corporate insider sales. We find that Australian corporate insiders significantly provide the trading lead with short sellers, in the main, undertaking mimic trades. Short sellers focus on large insider sales and results are robust to conditional trading classified by market-to-book, intangible ratios, and industry. The one exception is front-running by short sellers in firms with a large positive accrual component in earnings. Our final analyses show that sell trading by insiders and short traders does not result in abnormal profits, but provides a contrarian signal that stabilises prior strong price increases.

These results contrast with a recent U.S. study by Khan and Lu (2013) who report that short sellers provide the major price information lead by front-running the trading of corporate insiders. We view the directional trading reversal in Australia through the lens of trading incentives that are driven by disparities in business culture, litigation risk and reporting requirements. First, short selling and information content in Australia is not as intensive. The proportion of short volume is 24% and 31% of the trading volume for NYSE and NASDAQ stocks (Diether et al., 2009), compared to a short ratio of 13.29% in Australia (Do and Gray, 2011). Second, under Australian Regulatory Guide 196 (hereafter, RG196), short selling is highly visible with the requirement to report on a daily

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basis.<sup>1</sup> This compares with insider trades that have up to one week to report. Consequently, this weakens the incentive for short sellers to undertake costly information search and provides a constraint on their trading advantage (per Kyle, 1985).

Further, the reporting requirements and litigation environment in the U.S. reverse the first trade incentive for insiders. Short sales to the SEC can be reported on a delayed one month basis, but insider sales must be reported within two business days. Moreover, in the U.S. corporate insiders face higher litigation risk which increases reluctance to profit and risk public exposure through the lodgement of a Form 4 on EDGAR (Huddart et al., 2007). Consequently, this provides U.S. insiders with a greater incentive to leak or tip negative information to short sellers before they trade (Campbell et al., 1993; Christophe et al., 2010; Khan and Lu, 2013). Finally, price related information contained in insider sales in the U.S. is difficult to decode (Cohen et al., 2012), consistent with a high concentration of liquidity and/or rebalancing trades from executive salary perquisites (Lakonishok and Lee, 2001).

In implementing our research, we follow Khan and Lu (2013) by dissecting our sample into large, medium and small insider trades and analyse accounting ratios as indicators of possible trading asymmetry. We add a methodological improvement by using RG196 to track actual daily short sales rather than using short selling potential (i.e. lendable shares) or monthly measures to estimate the competition from short sellers (per Khan and Lu, 2013; Massa et al., 2015).<sup>2</sup> In addition, real time short sales data is hand collected and this allows us to more efficiently trace, on a micro basis, the inter-temporal daily transfer of information.

Our paper contributes in several ways. This is the first Australian study to contemporaneously extract negative price discovery from two trading sources and to show how the business environment can affect information flow direction. We show that abnormal short sales peak on the day, and day after, large insider sales and in combination provide a halt to prior price run-ups. Our study also affirms the importance of conditioning informed selling and in anchoring on accounting numbers. Results are informative to investors in revealing that short selling accelerates price discovery by aiding in the reduction of overpricing, consistent with Diamond and Verrechia (1987); Chen and Rhee (2010); and Beber and Pagano (2013). Improved investor equity is also evidenced by increased competition from short sellers that restricts the ability of insiders to rent extract through stealth trading. In this regard, RG196 likely plays a significant role in requiring rapid one day reporting.

The remainder of the paper is organised as follows. Section 2 develops hypotheses, Section 3 describes the data sources and research methodology, and Section 4 reports the results. Section 5 undertakes further analyses and reports multiple factor and trading profitability results and Section 6 concludes the paper.

## 2. Background motivation and hypotheses development

### 2.1. Do short sellers front-run insider sales?

Our first research question focusses on which informed trader provides the superior negative information lead to the market. It is well documented that corporate insider purchases in the U.S. contain superior information about a firm's future prospects (Seyhun, 1992; Lustgarten and Mande, 1999; Aboody and Lev, 2000; Ke et al., 2003; Ali et al., 2011; Badertscher et al., 2011; Hillier et al., 2015; Gider and Westheide, 2016). This is not so much the case for insider selling which tends to consist of non-information based liquidity and rebalancing trades from executive salary perquisites (Lakonishok and Lee, 2001). However, Cohen et al. (2012), show that non-routine inside sales contain price sensitive information, but they are more likely to attract the ire of stockholders and the adverse attention of litigators.

Short sellers are also considered particularly well informed (Drake et al., 2011). They are consistently profitable in identifying overvalued stocks (Diamond and Verrechia, 1987; Chen and Rhee, 2010; Karpoff and Lou, 2010; Beber and Pagano, 2013), and they front-run price sensitive announcements (Berkman and McKenzie, 2012; Engel et al., 2012), earnings announcements (Christophe et al., 2004; Feng and Chan, 2016), analyst downgrades (Christophe et al., 2010), and negative earnings restatements and financial misconduct (Desai et al., 2006; Karpoff and Lou, 2010). Importantly, they do not have the same internal firm and regulatory constraints that are imposed on corporate insiders.

We develop hypotheses that examine the trading interaction between these two informed competitors. In doing so we build on Khan and Lu (2013), who argue that short sellers in the U.S. front-run because: (i) they have a dominant information set, or (ii) insider sellers strategically delay trading in order to mitigate legal jeopardy from regulatory attention (see also Huddart et al., 2007).

We note that (ii) does not preclude corporate insiders from possessing a superior volume of asymmetric negative information. Christophe et al. (2010) say they do, arguing that front-running by short sellers arises, not from information search, but from direct tipping by corporate insiders (Khan and Lu, 2013). Campbell et al. (1993) contend that the primary reason for insider tipping is to mitigate problems induced by a litigious U.S. corporate environment. From an insider's perspective the tipping to short sellers increases trading liquidity, raising the possibility of stealth trading (Kyle, 1985), and supports the argument that insiders are trading on publicly known information. In total, reducing the possibility of attracting regulatory, shareholder, and unwanted media attention.

Khan and Lu (2013) add a trading volume caveat and document that short sellers trade strategically by only front-running the information content of large insider sales. According to Hillier and Marshall (2002) and Fidrmuc et al. (2006) higher insider trading volume reflects a stronger belief about future direction, and Seyhun (1986) and Scott and Xu (2004) report that large insider sales are

<sup>1</sup> Appendix 1 summarises recent legislation and operational changes made by RG196.

<sup>2</sup> RG196 provides a rich data base that is not available in other countries. Do and Gray (2011) document the data reporting and research advantages of Australian short selling compared to the U.S., U.K., Hong Kong, Canada and Japan.

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