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Institutional trading and share returns

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ABSTRACT

Using a unique database of daily transactions from Australian equity managers, we investigate the relation between institutional trading and share returns. The 34 institutional investors included in our sample exhibit a statistically and economically significant ability to predict large capitalization share returns for the ten days following their trades. Detailed analysis indicates that investment manager style is important in understanding the link between institutional trading and stock returns. The contemporaneous relation between institutional trading and returns depends on trade size, broker use, and investment style. We find growth-oriented managers are momentum traders, while style-neutral and value managers are contrarian.

1. Introduction

Professional fund managers, as significant holders of equities, have the capacity to influence share returns and trading volume. Given the enormous value of assets under their management, these professional investors not only comprise a large percentage of daily trading volume but also have access to a wide pool of resources to gather costly information and develop expertise. As such, key institutional investors have the capacity to move prices both directly through their own trading, as well as indirectly by influencing the trading decisions of other market participants who may observe their actions.[1] The literature shows individual institutional trades have a permanent price impact,[2] suggesting that in aggregate, researchers should expect to observe active fund managers moving prices through trading. Additionally, research examining changes in the periodic holdings of fund managers indicate that increases (decreases) in holdings are contemporaneously correlated with increasing (decreasing) stock prices.[3] We use detailed data from a sample of Australian institutional investors and find that links between institutional investor trades and stock returns are more nuanced than current literature suggests.

Although our sample is limited in a number of ways (time period covered, number of funds, shares universe, and size of local market), our study provides new and interesting insights, while being consistent with a significant body of prior work. Using daily institutional investor trade data, we find no contemporaneous relation between stock returns and aggregate manager trading based on either the number of managers buying (selling), or the total volume of their purchases (sales). While this result at first seems counterintuitive, it can be reconciled with prior studies in that the contemporaneous price reaction depends on a fund manager's investment style. Value managers are contrarian and may act as price stabilizers; they provide liquidity to the market during periods of high volatility through buying on weakness and selling on strength. Hence, value manager trading yields a *negative* relation with contemporaneous stock returns. Conversely, growth managers tend to buy (sell) shares whose price is rising (falling), so growth managers trading is *positively* correlated with contemporaneous stock returns. In aggregate, the net contemporaneous effect of both value and growth manager trading can be inconsequential.

We explore possible price stabilization by closely examining value manager trading activity, and find their ability to obtain a *negative* correlation with contemporaneous stock returns requires unstable (or highly volatile) intraday stock prices. Therefore, when measuring the overall average market impact of value

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[1] Market impact studies documenting the effect of trade activity on stock prices include Chan and Lakonishok (1995), and Chiyachantana et al. (2004).

[2] See for example, Chan and Lakonishok (1993, 1995), Keim and Madhavan (1997), and Chiyachantana et al. (2004).

[3] See Lakonishok et al. (1992), Nofsinger and Sias, (1999), and Wermers (1999).

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managers we must take into account market volatility (as a proxy for the likelihood of a price stabilization trade), or we may introduce a downward bias to the average market impact estimate. We find the relation between market impact and volatility depends on manager style – the market impact incurred by growth managers has little relation with volatility, while for value managers, high volatility is associated with a negative market impact from trade.

Our findings also have important implications for the study of institutional ownership and stock returns. Empirical studies document a contemporaneous relation between changes in institutional holdings and stock returns (on a monthly, quarterly or yearly basis) and imply: (1) institutional traders push prices in the direction of their trade through their permanent market impact (price pressure); (2) institutional investors are intra-period momentum traders, buying as prices rise during the month, thereby inducing a positive monthly contemporaneous relation; or (3) institutions are able to predict intra-period stock returns. Without more frequent trading data, distinguishing between these three competing hypotheses is difficult. However, with daily trading data testing each hypothesis is relatively straightforward. We show that aggregate manager trading volume is *not* correlated with contemporaneous stock returns, rejecting the price pressure hypothesis. We also show that momentum trading depends on investment style: growth managers are momentum traders, while value managers are not. This weakens the intra-period momentum trading hypothesis since not all managers are momentum traders. Finally, we show our sample of fund managers are able to predict future stock returns, supporting the third hypothesis that manager trading contains intra-period information. Hence, our sample suggests the documented contemporaneous relation between periodic changes in fund manager holdings and stock returns may be due to fund manager trading on intra-period information.

Finally, we observe the manner in which investment managers choose to process their trades. For example, we know which broker (using an established broker identification number through the Exchange) was used to facilitate the order. Analysis of the order submission corroborates our breakdown of liquidity and information-related trades. We argue that when a single fund manager splits their order across many brokers, they are more likely doing so because they have an informed basis for their trade, and there are likely to be longer-term price consequences. Further, when a single broker manages a number of similar orders from a range of fund managers, it may be a consequence of the broker soliciting liquidity to offset a prior trade. If this is the case, we expect transitory price reactions to these trades as the liquidity need is met. Both of these interpretations are confirmed by our data.

The remainder of the paper is organized as follows. Section 2 provides a brief background and outlines foundations for our study. Section 3 presents a description of the data and provides basic statistics. Section 4 outlines our research design while Section 5 reports the results. Section 6 provides a summary.

2. Background

Our research is related to studies examining the link between changes in institutional holdings and stock returns; however, we examine this issue with more detailed (daily) data than previous studies.[4] Prior studies document a strongly positive contemporaneous relation between changes in institutional ownership and stock returns on a monthly, quarterly or yearly basis (Grinblatt et al., 1995; Nofsinger and Sias, 1999; Wermers, 1999; Sias et al., 2006). We explore four main explanations for this result and outline how our work adds to each literature in Sections 2.1–2.4.

2.1. Price pressure

Institutions may push prices in the direction of their trades. If active institutional traders trade on the premise of superior information, this price pressure may be a result of the information revealed through trading. Alternatively, active institutional traders may induce a counter-party to trade by offering a liquidity fee, thereby shifting the counter-party away from their preferred inventory positions, which could have a liquidity impact on prices. While we expect such liquidity impacts to be short-lived, sustained aggregate institutional trading (such as when several large institutions transact large trade packages over many days) may create a contemporaneous monthly relation.

The debate between the liquidity and information effects of institutional trading has a long history.[5] The empirical research overwhelmingly rejects the liquidity hypothesis (Holthausen et al., 1990; Lakonishok et al., 1992). Using data similar to ours, Chan and Lakonishok (1993, 1995) document a positive open-to-trade market impact for purchases, followed by price *continuation* rather than reversal (even after taking trading packages into account), which supports the information rather than liquidity hypothesis. However, for sales, they document *reversal* rather than continuation, suggesting liquidity rather than information motivations dominate sales. Prior work has used the observed market impact to determine the relative strengths of information versus liquidity effects. We take a different approach and develop measures to track the information content of manager trades (versus the potential liquidity impact they may have on prices).

Liquidity effects are likely to be related to the volume of shares traded – in inventory models, the liquidity premium demanded by liquidity suppliers is related to the total volume of demanded liquidity rather than the number of traders demanding liquidity (Stoll, 1978; Grossman and Miller, 1988). To proxy for information effects we consider the unanticipated *number* of fund managers buying or selling on each day. If an institutional investor is trading because of a particular view about future returns, they may be unable to defer transactions as competition from other fund managers, or public announcement of information would both serve to limit discretion. From microstructure models we expect these forces to be especially striking when information is highly correlated and when the insight is fully revealed through a public signal in the near future (Foster and Viswanathan, 1996). Accordingly, if we see a number of mutual fund managers trading in the same manner on the same day, we argue that it is more likely that the motive for trade is information-based.[6]

Our research shows, in aggregate, neither the number of funds trading, nor the volume of shares purchased and sold by institutions is correlated with *contemporaneous* stock returns. However, we show that the number of value managers purchasing has a *negative* contemporaneous effect, while that of growth managers is positive.

Consistent with prior empirical research, our findings support the information rather than the liquidity hypothesis. However, we make one important qualification: growth managers push prices in the direction of their trade due to information; *however* value managers often act as price stabilizers incurring *negative* market impact for the service of supplying liquidity. Further, we

[4] Some recent studies that examine trading and return effects with high frequency daily data for investors include Keswani and Stolin (2008) and Yan and Zhang (2009).

[5] For example, the liquidity effect is explored in Stoll (1978) and Grossman and Miller (1988).

[6] This method of breaking down the information and liquidity effect by volume and number of institutions trading is also consistent with the prior empirical work; see Sias et al. (2006).