How do Insider Trading Policies Affect the Information Content of Insider Trades?

1. Introduction

We examine how a firm's policy on trading by its insiders affects the returns to these trades. A firm's insider trading policy is part of its overall corporate governance system which describes how a company is directed and managed such that its objectives are met, risks are monitored and performance is maximised. The role of a firm's trading policy with respect to governance is to ensure and promote decision making that is both ethical and responsible such that investor confidence is preserved, with a better understanding of the policies around such insider activities (ASX Corporate Governance Council, Principles of Good Corporate Governance and Best Practice Recommendations, 2003). Since insider trading can be viewed as an agency cost, an effective governance system can reduce this agency cost. In a study of reported insider trades in 15 European countries and the US, Fidrmuc, Korczak and Korczak (2009) reported a stronger reaction to purchases in countries with better governance institutions. They argued that this reflects the dominance of the positive impact of corporate governance on the precision of the information disclosed over its impact on the precision of previously disclosed information.

We are initially interested in how various aspects of the trading policy affect the firm's information environment and the trading behaviour of insiders within the bounds of the over-arching corporate governance policy of the firm. A trading policy disclosure score was constructed for each firm to reflect its consideration of trading policy items in nine categories. This was necessary because items disclosed in each trading policy differed between firms and the

disclosure score allowed us to aggregate the various categories. Next we examine the influence of the trading policy on the returns to insider trades. Fidrmuc et al. (2009) tested two alternative hypotheses with respect to the effect of corporate governance on the market reaction to the announcement of insider trades. The first supports the contention that market reaction is stronger in better governance systems as there is higher precision in the information disclosed upon trading (more credible information). There is empirical support for this contention where there are stronger reactions to earnings announcements after firms cross-list in the US (Bailey, Karolyi and Salva, 2006).

The second hypothesis predicts an opposite effect where corporate governance reduces the reaction to insider trading due to the higher precision in the information available prior to the announcement. Chung, Elder and Kim (2010) also show that in better governed firms, there are narrower spreads, smaller price impact of trades and lower likelihood of informed trading. This negative relationship between corporate governance and information asymmetry is also found within Australian firms where Beekes and Brown (2006) found that better governed firms made more informative disclosures. Specifically, these firms were associated with more price-sensitive disclosures, more analyst following, more accurate and less biased analyst forecasts and faster price discovery. In relation to insider trading, Chang, Hillman and Watson (2005) found that when firms disclosed a trading policy, insiders sales were associated with lower returns. As these effects can co-exist, the reaction to the announcement would depend on the dominant effect.

In March 2003, the ASX Corporate Governance Council (ASXCGC) released its Principles of Good Corporate Governance and Best Practice Recommendations. It included 10 core principles

and guidance on implementation in the form of best practice recommendations. Firms were required to report on the extent to which the best practice recommendations were observed in the annual report and if recommendations were not adhered to, the reasons for not doing so.

Principle 3 is relevant to trading policy where it discusses the need for integrity among those who influence company strategy and financial performance and it actively promotes ethical and responsible decision making. In particular, Recommendation 3.2 refers to the establishment of a policy concerning trading in company securities by directors, senior executives and employees and the disclosure of such a policy. Prior to this, the disclosure of a trading policy was not mandatory although the requirement of the Continuous Disclosure Regime applied.

The introduction of these best practice recommendations may have changed the information environment in terms of lowering information asymmetry and also changing the trading behaviour of insiders within these firms. Some firms may have started introducing policies while others with existing policies may have included more aspects to the policies. In firms with current best practice policies, it would be business as usual. However in all these firms, it is expected that the policy will be reinforced to those it applies, to with stronger enforcement. It is predicted that the existence of a formally disclosed trading policy will change the trading habits of insiders and the resultant returns and volume around these trades. For example, Brochet (2010) compared the information content of insider trades before and after the Sarbanes-Oxley Act 2002 (SOX) where SOX required the reporting of trades within two business days and greater scrutiny of insider activities. Post SOX, insider purchases were accompanied by higher abnormal returns and trading volume while for insider sales, the returns were lower. Jagolinzer,

Larcker and Taylor (2011) examined the role of the general counsel (GC) who was responsible for enforcing corporate governance within a firm. Trades requiring GC approval had lower returns and were less informative about future firm operations. We expect the introduction and disclosure of firm-specific trading policies to lead to a change in trading behaviour due to the change in the information environment where there is lower propensity for informed trading such that insiders will alter the frequency of their trades as well as the size of their trades.

Previous studies such as Roulstone (2003) and Chang and Lock (2011) have examined the effect of timing restrictions on insider trades where such restrictions are predicted to reduce managerial incentives and effort because profits from insider trading are an alternative form of compensation. Insiders in firms with trading restrictions received higher total compensation relative to their counterparts in firms without restrictions.

Bettis, Coles and Lemmon (2000) found firm-imposed trading restrictions in over 92% of their sample with 78% enforcing explicit blackout periods. Spread was narrower during the blackout periods and trades conducted during this period were less profitable. Hillier and Marshall (2002) examined the effect of trading bans imposed by the London Stock Exchange Model Code in which a two month black out period was in effect prior to a firm's earnings announcement. They found that although the timing of trades was affected, there was no effect on the performance or distribution of these trades. On the Amsterdam Stock Exchange where insiders were not allowed to trade in the two month window before the annual earnings announcement, Kabir and Vermaelen (1996) reported a drop in liquidity such that prices adjusted slower to earnings news. Betzer and Theissen (2009) confirmed the need for exchange imposed blackout periods showing

that in Germany where no such period exists, trades conducted before an earnings announcement had larger price impact. In this study we pay close attention to this specific aspect of the firm imposed trading policy that is, the effect of timing restrictions on trades and their returns.

We investigate the effect of firm specific insider trading policies for a sample of Australian firms for the period 2002 to 2007 which represent two distinct times. The earlier period from 2002 to 2003 is considered the voluntary period before the 1st edition Best Practice and Recommendations were released while the 2004 to 2007 period denotes when they were in place. This allows a comparison of the adoption of voluntary and recommended governance systems, specifically in terms of trading policies.

Studies with Australian data (Brown, Foo and Watson, 2003) have reported more information content in insider sales compared to purchases. While there is general agreement that insider purchases signal the firm's favourable future prospects, the information associated with sales is ambiguous. Insider sales can signal negative information about the firm's future prospects or they may be conducted for liquidity, rebalancing or diversification reasons, which are not information related. Likely reasons for the inconsistency between Australian results and others are the proportional difference in non-information trading by insiders (Hodgson and van Praag, 2006). Remuneration differences exist between countries where for example in the US, executives receive a relatively higher proportion of their remuneration in options and share schemes than in Australia such that higher information content is predicted for sales. Fidrmuc, Korczak and Korczak (2011) also provide a similar viewpoint when they reported a relation between market reaction to insider transactions and firm ownership.

The composition of reported insider trades differs between countries due to the various definitions of insider: that is, parties who are required to report changes in their shareholding. In the US, corporate insiders are defined as a company's officers, directors and any beneficial owners of more than ten percent of a class of the company's equity securities (equivalent to substantial shareholders in Australia) while in Australia, the definition is restricted to company directors, being the parties who are required to disclose under s205G of the Corporations Act (2001). Therefore when insider trades are examined in Australia, the reasons for trading can be different to US insiders which also include substantial shareholders.

The results indicate that the introduction and application of the 1st Edition of the Best Practice Principles and Recommendations significantly increased the number of items referred to in firms' insider trading policies. There was no evidence of a trading policy in only 12% of the overall sample and this figure ranged from a high of 28% in 2002 to 6.7% in 2007. On average, firms disclosed items in three out of the nine disclosure categories and this represented an average of 11 items. The median score is also three categories while the median number of items is six. Firms with active trading by insiders also disclosed in more categories than those without such activity. This indicates that the policies were developed to monitor activity.

The trading policy disclosure reduced returns insiders earn when they sell their shares, showing that the information environment changed with the more detailed disclosure and the lower likelihood of informed trading. This result is consistent with sales by Australian insiders having

more information content than their purchases. Within firms that impose blackout periods, insiders who trade during these periods earn higher returns on their purchases.

The rest of the paper is structured as follows: Section 2 provides the institutional and regulatory background while the hypotheses are discussed in Section 3. In Section 4, the sample and research method including descriptive statistics are given. The results are presented in Section 5 and Section 6 concludes the paper.

2. Background: Institutional and Regulatory

In Australia, insiders are required to report any changes in their shareholdings to the ASX in a timely manner. At present, s205G of the Corporations Act requires directors to notify the securities exchange of a change in holdings within 14 days while ASX Listing Rule 3.19A requires notification within five business days. Directors are allowed to trade on information as long as such information is generally available to other market participants and a reasonable person would not expect the information to impact materially on the price or value of shares. In addition, in accordance with s.300 (11) of the Corporations Act, directors must disclose their end of financial year holdings in the Annual Report.

In March 2003, the ASX Corporate Governance Council (ASXCGC) released its corporate governance Principles and Recommendations where it defined corporate governance as "the system by which companies are directed and managed" (p. 3). Of the 10 core principles, Principle 3 discusses the need for integrity among those who influence company strategy and financial performance and it actively promotes ethical and responsible decision making. In

particular, Recommendation 3.2 refers to the establishment of a policy concerning trading in company securities by directors, senior executives and employees and the disclosure of such a policy. There were eight suggestions for the content of the trading policy including:

a) Clear identification of the directors, officers and employees restricted from trading;
b) Identification and raising awareness of the legal prohibitions and the firm policy requirements;
c) Requiring parties covered by the policy to notify an appropriate senior member of the company of their intention to trade;
d) Requiring parties covered by the policy to confirm that the trading has occurred;
e) Identification of trading windows or blackout period if applicable and their details;
f) Specification of any discretion to permit trading in certain circumstances;
g) Specification of whether the company prohibits its officers trading in financial products issued or created over the company's securities; and
h) Specification of whether the company prohibits its officers from entering into transaction to limit risk associated with holding the company's securities.

The 2nd edition of the Best Practice Principles and Recommendation, released in August 2007 retained Recommendation 3.2. However it has since been deleted because the ASX Listing Rule 12.9 requires firms to have a trading policy, to be implemented from 1 January 2011. According to ASX Listing Rule 12.12, a trading policy should, at a minimum contain the following: closed period, trading restrictions that apply to key management personnel, trading not covered by the trading policy, exceptional circumstances when management may be allowed to trade during a

restricted period with prior written clearance and the procedures for obtaining such prior written clearance.

3. Hypotheses

The introduction and disclosure of a firm specific insider trading policy is expected to affect the behaviour of the insiders it applies to and the level of informativeness associated with each trade. The requirement to disclose an insider trading policy may have necessitated the introduction and improvement of a formal policy in some firms, the disclosure of an established policy in others while in some firms, no change was required. In a study done prior to the introduction of 1st edition of the Best Practice Principles and Recommendations, Chang et al (2005) found that 60% of the firms disclosed a policy. These firms were larger, had more independent boards and lower block ownership. Brown, Taylor and Walter (1999) examined the effect of the Continuous Disclosure Regime on voluntary corporate disclosure and found increases in disclosure in small and poorly performing firms only. Therefore the recommendation to disclose ITP may only affect a proportion of listed firms, particularly the smaller ones.

An ITP is expected to alter the extent of informed trading associated with insider trades. The suggested content of the policy includes an awareness that insiders cannot trade on price sensitive undisclosed information; shares and other financial products the policy applies to, requirements with respect to permission and reporting of trading, and timing restrictions on trades. These aspects of the policy are expected to alter the informativeness of trades with respect to future returns (sometimes referred to as profitability of trades) and future firm performance. In

line with a good corporate governance system monitoring the activities of insiders to reduce the extraction of private benefits, the hypothesis is stated as follows:

H1: Insiders in firms with more detailed trading policies earn lower returns on their trades.

While the ASXCGC has provided recommendations for the content of a policy, firms decide on the details within their individual policy. Much of the work conducted on the effect of ITP has examined the timing restrictions on trades. Seventy eight percent of firms in Bettis, Coles and Lemmon's (2000) sample had explicit blackout periods which resulted in reduced trading by insiders and narrower spread. This resulted in trades outside the blackout period being more profitable than those within the prohibited periods. Hillier and Marshall (2002) found that while trading bans on LSE firms affected the timing of the trades, their performance remain unchanged. The ASX recommends a trading ban on insiders in the blackout period between the end of the firm's financial year and the release of its annual earnings report and many firms impose this restriction on their insiders. Therefore, the timing restrictions are expected to affect the returns to insider trades and the hypothesis tests Bettis et al's (2000) findings:

H2: Insiders in firms with timing restrictions earn lower returns on their trades when they trade in the restricted windows.

4. Sample and Method

The structure that relates to trading policies of Australian firms can be roughly segmented into two time periods for this study. We consider the calendar years 2002 and 2003 part of the voluntary period prior to the application of the 1st edition Best Practice Principles and

Recommendations. The latter period, 2004 to 2007 represents the time when the 1st edition policy was in force because the 2nd edition was released in August 2007. For each firm in the ASX300 over the 2002 to 2007 period, the trading policy was sourced, either from the annual report or firm website. The sample consists of 1,709 trading policy firm-years. Details about each firm's trading policy were collected and converted to a disclosure category score (ITP_Cat). Based on the ASXCGC's recommendation for the content of a trading policy, nine disclosure categories were identified. Therefore, the ITP_Cat minimum and maximum is 0 and 9 respectively. The nine categories are as follows:

1) definitions of information on which insiders are not allowed to trade and reinforcement of regulation (def_info);

2) shares and financial products the policy refers to (app_itp);

3) restrictions on short term dealing (st_dealing);

4) awareness and monitoring of compliance with policy (comp_policy);

5) details of director shareholding requirements (dir_shh);

6) reporting of trading (report_trading);

7) prior notification/approval of trading (prior_notification/approval);

8) windows in which directors cannot trade (dir_cannottrade); and

9) windows in which directors can trade (dir_cantrade); and

The second disclosure score (ITP_Items) is based on individual items disclosed in the firm's trading policy where a score of 1 is allocated for each item.

Insider trade data was collected for firms with reported trading policies. Under s.205G of the Corporations Act, directors are required to inform the Australian Securities Exchange (ASX) when they trade in their own firm's shares, known as the Change in Director's Interest Notice. They are required to notify the ASX within 14 calendar days and under the ASX Listing Role 3.1, within five working days. Data on change in director interest (trade) were obtained from Morningstar FinAnalysis while firm data were sourced from Morningstar FinAnalysis and I/B/E/S.

After trades were identified, the following requirements were used to retain trades in the final sample: the trade must be an on-market trade, the interest held by the director must be direct; the trade is not an initial or final change in shareholdings and the trade is informative where changes in shareholding based on stock option exercises, bonus issues and rights issues are excluded. These requirements reduced the sample to 11,874 purchases and 2,372 sales.

Standard event study methodology was applied where the event is the reported date of a change in an insider's interest. Cumulative abnormal returns (CAR) associated with these trades were measured as market-adjusted returns over five, 10, and 20 days after the trade date. Therefore, CAR is estimated as:

$$CAR_{i,t} = AR_{i,t} - AR_{Mi,t}$$

where $CAR_{i,t}$ is the cumulative market adjusted return of share *i* on day *t*, $AR_{i,t}$ is the ratio of the price of share *i* on day *t* relative to its price at the start of the period and $AR_{Mi,t}$ is the price relative for the market, proxied by the All Ordinaries Accumulation Index. A similar method of estimating returns was applied in Brown et al. (2003).

The research method involves an analysis of the returns to insider trades that is explained by the individual firm's insider trading policy, trade and firm characteristics. The following equation will be used to test this relationship for insider purchases and sales separately:

$$CAR_{i,t} = \alpha + \beta_1 ITP + \beta_2 EXEC + \beta_3 TXN_VAL + \beta_4 REL_VAL + \beta_5 REP_LAG + \beta_6 MB + \beta_7 LOG(MVE) + \beta_8 PAST_RTN + e_{i,t}$$

Where:

CAR	=	cumulative market-adjusted returns measured over five, 10, 20 day windows around the trade date;
ITP	=	ITP_Cat (based on the number of trading policy categories disclosed) or ITP_Items (based on the number of trading policy items disclosed);
EXEC	=	indicator variable that take son a value of 1 if the insider is an executive director and 0 otherwise;
TXN_VAL	=	transaction value measured as the number of shares traded multiplied by the trade price;
REL_VAL	=	transaction value divided by the market capitalisation at the beginning of the year;
REP_LAG	=	the lag between the trade date and the date the trade is reported to the Exchange;
MB	=	the market to book ratio at the beginning of the year;
LOG(MVE)	=	the natural logarithm of the market capitalisation at the beginning of the year; and
PAST_RTN	=	the cumulative abnormal returns estimated over 100 days in the lead up to the trade.

Descriptive statistics

Table 1 provides the descriptive statistics on the two insider trading policy scores, ITP_Cat and ITP_Items. From Panel A, the mean ITP_Cat (based on the nine categories) is 2.98 with a median of 3 while the mean number of ITP items disclosed (ITP_Items) is 11.12 with a median

of 6. These figures indicate that firms refer to a number of items within each category and the category score reflects the presence of items within it.

There were 84 firms with no trading policy in 2002 (28%) and this figure reduced to 20 firms in (6.7%) in 2007. Compared to the 40% no policy rate in 2000 and 2001 from Chang et al (2005), there was an increase in the number of firms disclosing trading policies prior to the release of the 1st edition Best practice Principles and Recommendations. In terms of categories, 81% of the sample included items referring to the application of the policy (App_itp), 61% referred to definition and information (Def_info) while 45% included items on prior notification of trading (Prior_notification). These categories highlight the information firms consider important within their trading policies, referring to the shares and other financial products covered by the policy, definitions of information on which insiders are not allowed to trade and reinforcement of regulation and the requirement to provide prior notification or seek approval prior to trading. The least referred to category is Dir_shh (5.3%) which indicates director shareholdings.

Panel B shows the breakdown of categories and overall score over time. The overall scores indicate a steady increase over the 2002 to 2007 period with a sharp increase evident in 2003 with the release of the 1st edition ASXCGC. Similar figures were observed in the categories with the exception of Dir_shh. The figures indicate that while the 1st edition Best Practice Principles and Recommendations were released in March 2003, firms had begun extending their policies prior to the official application period, benefiting from the consultation process prior to its release.

In Table 2, some characteristics of firms with trading by insiders such as market capitalisation, total assets, market to book ratio and analyst following are given. Of the firms with trading policies, approximately 68% have insiders who trade in their own shares. In these firms, the mean ITP_Cat is 3.32 vs. 2.98 (mean ITP_Items = 12.54 vs 11.12), higher than in the full sample. This shows that firms with insider trading have more detailed trading policies than those without insider trading. These firms are also relatively larger within the ASX300 with mean market capitalisation of $4,390 million, mean market to ratio of 3.15 and mean analyst following of 7.13.

Table 3 shows the returns associated with insider purchases and sales with the cumulative abnormal returns estimated over five, 10 and 20 days after the trade date and the 100 days in the lead up to the trade. From Panel A, the mean returns are small and range from 0.03% to 0.15% from five to 20 days after the trade. The returns for sales are lower with means close to 0 over the three windows. Consistent with prior work, purchases occur more frequently and are smaller in terms of both transaction and relative value than sales.

Pearson correlation analysis is provided in Table 4. The disclosure score (ITP_Cat) is positively correlated with ITP_Items, Horwath Corporate Governance Rating (overall firm corporate governance rating), market capitalisation, total assets and analyst following. It is negatively correlated with Horwath Corporate Governance Ranking (where a lower ranking indicates higher quality governance) and market to book ratio. The correlation analysis shows that larger firms in terms of market valuation and total assets have higher quality overall governance systems and higher insider trading policy disclosure scores. These policies are more detailed, referring to a

greater number of items and are therefore expected to be higher quality and more restrictive to insiders.

5. Results

The regression results are presented in Table 5 where the cumulative abnormal returns from insider buying (Panel A) and selling (Panel B) are regressed on trading policy disclosure score (ITP_Cat). For purchases over the three windows, the coefficients on ITP_Cat were insignificant, indicating that returns from insider purchases are not related to the trading policy. The control variables have the expected signs where the returns are positively related to MB and negative related to firm size (LOG(MVE) significant at $p < 0.01$) and past returns (PAST_RTN significant at $p < 0.01$).

For sales, ITP_Cat is negative and significant, consistent with lower returns when trading policies are more detailed. In firms with higher trading policy disclosure scores, insiders earn lower returns when they sell their shares over all three windows. This result is consistent with Chang et al (2005) where lower returns from sales were reported when firms disclosed trading policies. The control variables for firm valuation (MB), size (LOG(MVE)) and past returns (PAST_RTN) are significant with the predicted signs. Similar results were obtained when ITP_Cat was replaced with ITP_Items.

The results suggest that firm specific trading policies affect returns on insider sales but not their purchases. If better disclosure and enforcement of the trading policy results in increased investor

confidence and transparency evidenced by lower sales returns, it could be that such policies are only effective for sales because sales by Australian directors have information content.

Table 6 shows the frequency of and returns to insider trading within and outside the restricted periods. Over the two year period from 2006 to 2007, of the 113 firms with restricted trading windows, 71% of these firms complied with the restriction, i.e. insider trades only occurred outside the restricted period. There were 48 firms where insiders traded within the half yearly report (HYR) restricted period (303 trades) and 54 firms where trading occurred within the final earnings report (PFS) restricted window (414 trades). About thirty percent of insiders have not complied with firm imposed trade timing restrictions and there is a higher incidence of noncompliance around the annual earnings window compared to the half yearly one.

For purchases, the returns for trades in the restricted windows (both HYR and PFS) are generally higher than for those outside the windows. When the HYR and PFS trades are compared, the returns in the former are higher. With sales, the returns are lower for trades conducted with the HYR restricted windows only compared to those outside the restricted times. This result is inconsistent with Bettis et al. (2000) who reported that trading restrictions lowered returns to trades in the restricted windows and Hillier and Marshall (2002) where the trading ban had no effect on the performance of trades.

In Table 7, regression results are presented where returns are regressed on restricted trading window indicator variables. For purchases, four of the six coefficients are significant, showing that insider earn higher returns when they trade during the restricted period. For sales, the results

are weaker with only one coefficient being negative and significant. Therefore the restrictions on the timing of the trade affect the returns for purchases but not for sales.

6. Findings and Conclusions

We examine the relationship between firm-imposed insider trading policy and the returns associated with insider trades. A firm's insider trading policy explains and directs the behaviour of insiders when they are in their own firm's shares. Such policies are important because they provide confidence to investors that insiders are not abusing their position of privilege in the firm by extracting private benefits to the detriment of other shareholders in terms of the information they possess and the timing of their trades. The trading policy is expected to affect the firm's information environment and the behaviour of insiders when they trade. This is specifically due to the requirement to obtain permission before trading can occur, notification of the trade and also restrictions on the timing of the trade.

Our results show that the introduction of the Best Practice Principles and Recommendations increased the number of firm insider trading policies disclosed and also the details within these policies. As expected, larger firms had more detailed policies, in terms of more categories and items disclosed. These firms are usually associated with better governance systems and better corporate transparency. In terms of returns from insider trades, returns from sales were lower in firms with more detailed trading policies. This suggests that trading policies affected the information content of insider sales but not their purchases. When the returns to trades conducted within and outside the restricted windows were compared, the returns in the former were higher for purchases only. Not all firms impose restriction on the timing of insider trades and it appears

that these restrictions were ineffective and non-complaint insiders benefited more from their trades. It is also possible that the timing restriction is the only aspect of the policy that affects purchases because the overall policy had no effect on the returns to purchases.

Our findings indicate that a firm's insider trading policy is an important governance mechanism to reduce the extraction of insiders' private benefits of control by affecting the firm's information environment. Its development should be further encouraged, as seen as for the mandatory requirement for listed firms to disclose as trading policy as of January 2011. The effects of various characteristics of a trading policy on a firm's information environment should be better understood together with its effect on insider trading behaviour. It is possible that the reaction to an insider's trade depends not only on the size of the transactions but also its timing within the firm's financial year.

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Table 1 Scores statistics for S&P ASX300 firms

Insider trading policy statistics are reported for the firms in the S&P ASX300 index for the period 2002 to 2007. Panel A shows the cross sectional summary statistics of the ITP items and scores. Panel B shows the variation in the ITP items and scores across the years in the sample period. The items are as follows: Definitions of information on which insiders are not allowed to trade and reinforcement of regulation (def_info);Shares and financial products the policy refers to (app_itp); Restrictions on short term dealing (st_dealing); Awareness and monitoring of compliance with policy (comp_policy); Details of director shareholding requirements (dir_shh); Reporting of trading (report_trading); Prior notification/approval of trading (prior_notification/approval);windows in which directors cannot trade (dir_cannottrade); and Windows in which directors can trade (dir_cantrade).

Panel A: ITP Items and Scores

	n	Proportion/ Mean	Median	Min	Max	Std
Def_info	1,709	0.610				
App_itp	1,709	0.807				
St_deal	1,709	0.135				
Comp_policy	1,709	0.073				
Dir_shh	1,709	0.053				
Report_trading	1,709	0.162				
Prior_notification	1,709	0.449				
Dir_cannottrade	1,709	0.347				
Dir_cantrade	1,709	0.349				
ITP_Cat	1,709	2.984	3.000	0.000	9.000	1.967
ITP_Items	1,709	11.122	6.000	0.000	45.000	10.488

Panel B: Proportion of firms with items and ITP scores by year

	2002	2003	2004	2005	2006	2007
n	298	254	277	290	291	299
No trading policy	84	42	21	19	20	20
Def_info	0.423	0.575	0.603	0.641	0.718	0.696
App_itp	0.597	0.776	0.874	0.872	0.876	0.850
St_deal	0.087	0.130	0.141	0.134	0.162	0.157
Comp_policy	0.013	0.032	0.058	0.069	0.124	0.134
Dir_shh	0.064	0.063	0.065	0.048	0.041	0.040
Report_trading	0.081	0.091	0.170	0.190	0.223	0.207
Prior_notification	0.322	0.409	0.480	0.483	0.505	0.492
Dir_cannottrade	0.211	0.280	0.329	0.379	0.433	0.441
Dir_cantrade	0.275	0.378	0.379	0.362	0.357	0.351
ITP_Cat	2.074	2.732	3.097	3.179	3.440	3.368
ITP_Items	7.903	11.000	11.466	11.538	12.430	12.442

Table 2 Characteristics of firms with trading by insiders

Insider trading policy statistics are reported for the firms in the S&P ASX300 index with trading by insiders for the period 2002 to 2007. ITP_Cat is the trading policy disclosure score based on the number of categories disclosed; ITP_Items is the trading policy disclosure score based on the number of items disclosed; MVE is the market capitalisation in $ millions; TA is total assets in $ millions; MB is the market to book ratio and Analysts is the number of analyst following.

Panel A: Firm Characteristics

	n	Mean	Median	Min	Max	Std
ITP_Cat	1,163	3.32	4.00	0.00	9.00	1.84
ITP_Items	1,163	12.54	9.00	0.00	45.00	10.28
MVE	1,163	4,390.35	840.75	0.00	174,000.00	12,587.39
TA	1,163	10,850.45	873.02	0.00	484,785.00	46,819.38
MB	1,163	3.15	2.01	-10.88	84.30	4.90
Analysts	1,163	7.13	7.00	0.00	18.00	4.15

Panel B: Variation across years

	2002	2003	2004	2005	2006	2007
n	207	188	199	230	207	132
ITP_Cat	2.60	3.05	3.38	3.40	3.77	3.87
ITP_Items	10.20	12.63	12.72	12.53	13.90	13.69
MVE	3,186.57	3,279.81	3,476.74	4,290.32	5,553.18	7,560.56
TA	9,129.38	9,745.11	9,736.77	9,821.63	12,882.32	15,369.84
MB	2.62	2.16	2.61	3.89	3.71	3.99
Analysts	8.41	7.38	6.29	6.19	6.38	8.85

Table 3 Cumulative Abnormal Returns on Insider Purchases and Sales

Cumulative abnormal returns are the cumulative market adjusted returns where 0 is the insider trade date. TXN_VALUE is the transaction value measured as the number of shares traded multiplied by the trade price; REL_VALUE is the transaction value divided by the market capitalisation at the beginning of the year

Panel A: Purchases

		Mean	Median	Min	Max	Std
CAR(-100,-1)	11,874	0.067	0.080	-2.157	1.670	0.240
TXN_VALUE	11,874	639	10	0	684,915	8,686
REL_VALUE	11,874	0.081	0.001	0.000	105.670	1.280
CAR(0,+5)	11,874	0.003	0.000	-2.153	1.320	0.100
CAR(0,+10)	11,874	0.008	0.004	-2.510	1.200	0.120
CAR(0,+20)	11,874	0.015	0.015	-2.562	1.210	0.140

Panel B: Sales

		Mean	Median	Min	Max	Std
CAR(-100,-1)	2,372	-0.120	-0.123	-1.094	2.500	0.270
Trans_Value	2,372	2,960	150	0	556,520	19,066
Rel_Value	2,372	0.300	0.008	0.000	45.310	1.850
CAR(0,+5)	2,372	0.000	0.000	-1.315	1.520	0.110
CAR(0,+10)	2,372	0.000	0.000	-1.199	1.590	0.120
CAR(0,+20)	2,372	-0.010	-0.008	-1.211	1.650	0.130

Panel C: Variation across years

	Purchases			Sales		
Year	n	Trans_Value	Rel_Value	n	Trans_Value	Rel_Value
2002	1,808	760	0.062	392	694	0.130
2003	1,816	523	0.122	429	2,355	0.505
2004	2,033	536	0.138	345	2,396	0.354
2005	2,505	400	0.052	538	2,555	0.217
2006	2,333	961	0.079	454	2,605	0.327
2007	1,379	679	0.024	214	11,091	0.308

Table 4 Correlation Matrix

ITP_Cat is the trading policy disclosure score based on the number of categories disclosed; ITP_Items is the trading policy disclosure score based on the number of items disclosed; MVE is the market capitalisation in $ millions; TA is total assets in $ millions; MB is the market to book ratio; Analysts is the number of analyst following; HR_Rank is the Horwath Corporate Governance Ranking; HR_Stars is the Horwath Corporate Governance rating based on the number of stars (max of 5); TXN_VALUE is the transaction value measured as the number of shares traded multiplied by the trade price; and REL_VALUE is the transaction value divided by the market capitalisation at the beginning of the year

	ITP Categories	ITP Items	HR_Rank	HR_Stars	MVE	TA	MB	Analysts	Txn_Value	Rel_Value
ITP_Cat	1.000									
ITP_Items	0.625[a]	1.000								
HR_Rank	-0.208[a]	-0.245[a]	1.000							
HR_Stars	0.273[a]	0.253[a]	-0.938[a]	1.000						
MVE	0.215[a]	0.160[a]	-0.331[a]	0.333[a]	1.000					
TA	0.153[a]	0.209[a]	-0.337[a]	0.330[a]	0.721[a]	1.000				
MB	-0.015[c]	-0.062[a]	-0.018[c]	0.072[a]	0.040[a]	-0.040[a]	1.000			
Analysts	0.239[a]	0.216[a]	-0.459[a]	0.418[a]	0.496[a]	0.428[a]	0.053[a]	1.000		
Txn_Value	-0.004	0.005	0.079[a]	-0.077[a]	0.008	0.000	0.005	-0.013	1.000	
Rel_Value	-0.011	0.002	0.069[a]	-0.076[a]	-0.034[a]	-0.027[a]	-0.007	-0.070[a]	0.505[a]	1.000

Table 5 Regression of Returns on ITP Scores

OLS regression results with firm fixed effects included. ITP_Cat is the trading policy disclosure score based on the number of categories disclosed; MVE is the market capitalisation in $ millions; TA is total assets in $ millions; MB is the market to book ratio; PAST_RTN = the prior year's annual returns; EXECUTIVE =indicator variable that take son a value of 1 if the insider is an executive director and 0 otherwise; TXN_VALUE = transaction value measured as the number of shares traded multiplied by the trade price; REL_VALUE = transaction value divided by the market capitalisation at the beginning of the year; REPORT_LAG = the lag between the trade date and the date the trade is reported to the Exchange; MB = the market to book ratio at the beginning of the year; LOG(MVE) = the natural logarithm of the market capitalisation at the beginning of the year

	CAR(0,+5)			CAR(0,+10)			CAR(0,+20)		
Variable	Coefficient	*t*-stats		Coefficient	*t*-stats		Coefficient	*t*-stats	
Panel A: Purchases (n=10,204)									
C	0.4718	8.845	***	0.7722	12.008	***	1.0295	13.737	***
ITP_Cat	0.0012	1.171		0.0005	0.376		-0.0006	-0.390	
MB	0.0011	3.681	***	0.0014	3.828	***	0.0008	1.805	*
LOG(MVE)	-0.0223	-8.732	***	-0.0361	-11.726	***	-0.0476	-13.274	***
PAST_RTN	-0.0443	-11.144	***	-0.0521	-10.882	***	-0.0229	-4.111	***
EXECUTIVE	0.0037	1.517		0.0013	0.423		-0.0075	-2.193	**
TXN_VALUE ('000)	-0.0003	-1.667	*	-0.0002	-1.012		-0.0004	-1.516	
REL_VALUE %	0.0621	0.678		-0.0091	-0.083		0.0719	0.559	
REPORT_LAG	0.0000	-0.085		0.0000	-0.041		0.0000	-0.947	
Adj R^2	0.083			0.089			0.145		
F-statistic	3.852			4.092			6.350		
Prob(F-statistic)	0.000			0.000			0.000		

Variable	CAR(0,+5) Coefficient	*t*-stats		CAR(0,+10) Coefficient	*t*-stats		CAR(0,+20) Coefficient	*t*-stats	
Panel B: Sales (n=1,879)									
C	-0.1630	-1.270		-0.3293	-2.185	**	-1.0939	-6.510	***
ITP_Cat	-0.0076	-2.821	**	-0.0133	-4.185	***	-0.0132	-3.715	***
MB	0.0081	4.352	***	0.0123	5.639	***	0.0155	6.369	***
LOG(MVE)	0.0071	1.134		0.0149	2.028	**	0.0504	6.155	***
PAST_RTN	-0.0541	-6.406	***	-0.0700	-7.061	***	-0.0625	-5.655	***
EXECUTIVE	0.0058	1.116		0.0023	0.383		0.0047	0.682	
TXN_VALUE ('000)	-0.0001	-0.607		-0.0002	-0.963		-0.0004	-1.570	
REL_VALUE %	-0.2654	-1.606		-0.2434	-1.255		-0.0969	-0.448	
REPORT_LAG	-0.0001	-1.473		0.0000	-0.564		0.0000	-0.052	
Adj R^2	0.174			0.190			0.203		
F-statistic	2.570			2.751			2.894		
Prob(F-statistic)	0.000			0.000			0.000		

Table 6 Summary Statistics/Returns of Trades Within and Outside Restricted Periods

	Firms with restricted trading window	Trades outside restricted window	Trades within HY restricted window	Trades within PFS restricted window
Number of Companies	113	80	48	54
Average Number of Trades per Company		9.903	2.681	3.664
Sales				
n		170	40	71
CAR(0,+5)		-0.017	-0.008	-0.008
CAR(0,+10)		-0.018	-0.037	-0.019
CAR(0,+20)		-0.006	-0.039	0.013
Purchases				
n		949	263	343
CAR(0,+5)		-0.005	0.000	0.010
CAR(0,+10)		-0.016	0.033	0.012
CAR(0,+20)		-0.002	0.045	-0.014

Table 7 Regression of Returns on whether Trade is conducted within or outside Restricted Period

OLS regression results with firm fixed effects included. PFS_RESTR_DUM is an indicator variable that takes on the value of 1 when the insider trades in the PFS restricted window and 0 otherwise; HYR_RESTR_DUM is an indicator variable that takes on the value of 1 when the insider trades in the HYR restricted window and 0 otherwise; MB is the market to book ratio; PAST_RTN = the prior year's annual returns; EXECUTIVE =indicator variable that take son a value of 1 if the insider is an executive director and 0 otherwise; TXN_VALUE = transaction value measured as the number of shares traded multiplied by the trade price; REL_VALUE = transaction value divided by the market capitalisation at the beginning of the year; REPORT_LAG = the lag between the trade date and the date the trade is reported to the Exchange; MB = the market to book ratio at the beginning of the year; LOG(MVE) = the natural logarithm of the market capitalisation at the beginning of the year

	CAR(0,+5)			CAR(0,+10)			CAR(0,+20)		
Variable	Coefficient	*t*-stats		Coefficient	*t*-stats		Coefficient	*t*-stats	
Panel A: Purchases (n=1,346)									
C	3.0061	5.067	***	5.5036	7.872	***	8.0553	10.479	***
PFS_RESTR_DUM	0.0141	1.765	*	0.0374	3.971	***	-0.0117	-1.127	
HY_RESTR_DUM	0.0004	0.041		0.0556	5.499	***	0.0628	5.656	***
EXECUTIVE	0.0110	1.277		0.0038	0.373		-0.0024	-0.215	
MB	0.0109	1.574		0.0229	2.789	**	0.0781	8.667	***
LOG(MVE+1)	-0.1371	-4.996	***	-0.2522	-7.797	***	-0.3753	-10.554	***
PAST_RTN ('000)	-0.0812	-5.712	***	-0.1183	-7.060	***	-0.0734	-3.984	***
TXN_VALUE %	-0.0015	-0.583		0.0019	0.625		0.0019	0.568	
REL_VALUE	1.5765	0.371		-4.4897	-0.897		-8.7835	-1.596	
REPORT_LAG	0.0000	-0.301		0.0001	0.532		-0.0002	-1.155	
Adj R^2	0.151			0.191			0.238		
F-statistic	3.818			4.737			5.943		
Prob(F-statistic)	0.000			0.000			0.000		

Variable	CAR(0,+5) Coefficient	*t*-stats		CAR(0,+10) Coefficient	*t*-stats		CAR(0,+20) Coefficient	*t*-stats	
Panel B: Sales (n=199)									
C	1.1556	0.623		-0.9689	-0.503		-3.9021	-1.709	*
PFS_RESTR_DUM	0.0433	1.838	*	0.0248	1.012		-0.0092	-0.318	
HY_RESTR_DUM	-0.0105	-0.448		-0.0599	-2.474	**	-0.0164	-0.572	
EXECUTIVE	0.0166	0.789		0.0142	0.651		0.0024	0.092	
MB	0.0139	0.805		-0.0029	-0.163		0.0074	0.350	
LOG(MVE+1)	-0.0587	-0.661		0.0436	0.472		0.1790	1.636	
PAST_RTN ('000)	-0.1172	-3.119	**	-0.1518	-3.888	***	-0.0729	-1.576	
TXN_VALUE %	0.0005	0.125		0.0033	0.840		0.0002	0.042	
REL_VALUE	-2.2949	-0.221		-10.0184	-0.929		-1.9982	-0.156	
REPORT_LAG	0.0000	0.100		0.0001	0.910		0.0005	3.207	**
Adj R^2	0.146			0.355			0.306		
F-statistic	1.536			2.727			2.385		
Prob(F-statistic)	0.020			0.000			0.000		