

## Internet Appendix A121: Gender/Insider Trading

### A121.1 Illustrative Reverse Engineered Pitch Template Example

Pitcher's Name	Ya Li (UQ Winter Scholar)	FoR category	Gender/Insider Trading	Date Completed	1 August 2016
(A) Working Title	Zhong, T., Faff, R, Hodgson, A. and Yao, L., "The Role of Board Gender on the Profitability of Insider Trading", International Journal of Accounting and Information Management, Vol. 22, No. 3, 2014, pp. 180-193. [reverse engineered]				
(B) Basic Research Question	Whether, and to what extent, the board gender diversity influence the probability of inside trading				
(C) Key paper(s)	Lakonishok, J. and Lee, I. (2001), "Are insiders' trades informative?", Review of Financial Studies, Vol. 14 No. 1, pp. 79-112. Gul, F.A., Srinidhi, B. and Ng, A.C. (2011), "Does board gender diversity improve the informativeness of stock prices?", Journal of Accounting and Economics, Vol. 51 No. 3, pp. 314-338. Adams, R. and Ferreira, D. (2009), "Women in the boardroom and their impact on governance and performance", Journal of Financial Economics, Vol. 94 No. 2, pp. 291-309.				
(D) Motivation/Puzzle	Literature on insider trading shows, with empirical evidence, that insiders have access to asymmetric knowledge on the firm and exploit it to secure material profits. There is also literature looking into the board gender diversity's influence on the firms' performance on which research outcomes vary. To contribute evidence to research associated with gender diversity and firm performance, the question posed is: How does the board gender structure affect insider trading activities?				
<b>THREE</b>	<b>Three core aspects of any empirical research project i.e. the "IDioTs" guide</b>				
(E) Idea?	<p>Hypotheses: Given there are mixed arguments, underpinned by different research, on whether males or females have a higher probability of insider trading, we construct a pair of competing hypotheses: H1a. The probability of insider trading by female directors is higher than male directors and H1b. The probability of insider trading by female directors is lower than male directors. On the other hand, literature suggests that the more females sitting on the board, the "better" is boardroom behaviour and the more transparent is company information, which results in less incentives for male directors to trade because of the more restrictive economic rents from privately withheld information. Thus, the second hypothesis relating to the influence of a gender-diverse board on the probability of insider trading by male directors is that: H2. With a gender-diverse board, the probability of insider trading by male directors is diminished, and the stronger this effect is the higher the percentage of female directors on the board.</p> <p>Variables: The key dependent variable is cumulative abnormal returns for male director trades. The key independent variable is Num_fem, which is the number of females on the board. Nine control variables including: the ratio of insider ownership to the total number of shares on issue at the time of the insider trading; the magnitude of changes in director's ownership for each transactions.</p> <p>Method: Estimate the regression model with key variables as well as control variables. H1 can be tested by comparing abnormal returns, in different time periods, on transactions done by males and females directors. H2 can be tested by looking at the coefficient of the key explanatory, which is predicts to be negative, and by running statistical tests on it.</p>				
(F) Data?	<p>(1) Source: This study will cover director transactions for Australian stocks listed on the Australian Stock Exchange from 2004-2009. These data will be hand-collected directors' trading data from Aspect Huntley's.</p> <p>(2) Cleansing: To be include in the sample, a given firm has to satisfy three major screening criteria: A. Incomplete, missing or obviously incorrect data are excluded. B. We will only analyse open-market purchase transactions for ordinary shares and we will also exclude trades associated with the exercise of options, security lending, and changes in capital structure. C. if two or more transactions for the same director occur in the same stock on a given day, we aggregate these multiple trades.</p> <p>(3) Size: The sample for H1-event consists of 7,232 director purchase transactions. The sample for H2 is restricted to 1,895 director transitions where there is at least one female sitting on the board.</p>				
(G) Tools?	We will apply the event study method outlined by MacKinley(1997) to test H1. We will choose a 5-day event window starting from day 0, the transaction date, as well as 1-day and 10-day event alternatives. Following Fidrmuc et al. (2006), the 100-trading day period to the event window is used as the estimation window and we apply the standard market model to estimate abnormal returns. All Ordinaries Index is used as market proxy. For H2, we will estimate a regression model				

	with the key dependent, independent and the control variables. Statistical tests will be run to examine the significance of the explanatory variables.
<b>TWO</b>	<b>Two</b> key questions
<b>(H) What's New?</b>	An interaction of inside trading, gender diversity and board of directors
<b>(I) So What?</b>	(1) Enrich the knowledge on the influence of board gender diversity and facilitate the construction of corporate governance strategies. (2) Provide implications from perspective of female compensation.
<b>ONE</b>	<b>One</b> bottom line
<b>(J) Contribution?</b>	(1) contribute to the literature associated with board gender diversity's influence on firm performance, which has not paid attention to insider trading of male and female directors (2) contribute to the literature about insider trading, mainly focusing on the significant signal effects of director purchasing.
<b>(K) 3 Key Findings</b>	(1) Gender-related "positives" and "negatives" documented in other board studies do not flow over into insider trading in Australia. (2) Female directors sitting on the board are associated with a reduction in the profitability of male directors' trading. (3) The market reacts positively to directors' purchases on the shares of their companies.

