Assignment Two

Paper: Endogeneity and the dynamics of internal corporate governance

Journal: Journal of Financial Economics

Research question: The relationship between firm performance and the board structure

Main regression specification:

Dependent variable: firms' performances measured by return on assets (ROA)

Governance variables:

Board size measure by the logarithm of the number of directors on the board; *board composition* measured by the proportion of outside (non-executive) directors on the board., and *board leadership* measured by a dummy variable equal to one if the CEO is also the chairman of the board and zero otherwise).

Control variables:

Logarithm of the market value of equity, ratio of market-to-book value, standard deviation of (the past 12 months) of the firm's stock returns, the logarithm of the firm's age, where age is computed from the time the firm first appears on CRSP, the logarithm of the number of business segments.

Potential endogeneity problems (causes and consequences):

A. Simultaneity

Simultaneity can arise in the board structure/performance relation. Firms choose their board structure in any period with a view towards achieving a particular level of performance in that period while performance may be affected by board structure, the reverse will also be true—board structure will also be affected by performance. In this case, board structure and performance are simultaneously determined

B. Fixed effects estimation

Unobservable heterogeneity is a source of endogeneity if there are factors unobservable to the researcher that affect both performance and the explanatory variables. In the board structure/ performance context, theory suggests that this is the case. For example, consider the effect of managerial ability which, while generally unobservable, certainly affects performance.

When the authors fully account for unobservable heterogeneity, simultaneity, and the relation between current board structure and past firm performance, they find no statistically significant relation between firm performance and any aspect of board structure which is contracted with the results of the model without considering the endogeneity.

Remedies used in the paper:

To alleviate the endogeneity problem, paper uses a well-developed dynamic panel generalized method of moments (GMM) estimator. The authors apply the dynamic GMM panel estimator to the 'dynamic regression model and fully account for unobservable heterogeneity, simultaneity, and the relation between current board structure and past firm performance.

My idea:

GMM can only partly solve the endogeneity problem and we can also introduce the instrumental variables to solve this problem. Past realizations of firm characteristics can be served as the invalid instrumental variable in solving the endogeneity problem of the relationship between firm performance and structure of boards (Schultz, Tan and Walsh, 2006).

Reference

M. Babajide Wintoki, James S. Linck, Jeffry M. Netter, Endogeneity and the dynamics of internal corporate governance, 2012, Journal of Financial Economics, 3(581-606), DOI: /10.1016/j.jfineco.2012.03.005

Emma L. Schultz, David T. Tan, Kathleen D. Walsh, 2006, Endogeneity and the corporate governance –

performance relation, Australian Journal of Management, 35(2) 145–163, DOI: 10.1177/0312896210370079