Executive compensation, share repurchases and investment expenditures: Econometric evidence from U.S. firms

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Abstract

This paper modeled the dynamic inter-relationships between average salary, bonus, and stock options granted to top five executives of approximately 700 U.S. firms in the period 1996-2005 using a merged ExecuComp and Compustat database. Comprehensive models were estimated for firms' share repurchases and research and development and investment expenditures, taking into account simultaneity issues. Simple autoregressive models showed that while salaries increased steadily, time profiles of bonus and stock options were complex. Second, firms' total assets, intangible assets, market-to-book value, and share repurchases were positively associated with values of stock options granted. Third, stock options exercised in the previous year were significant predictors of share repurchases. Fourth, share repurchases were negatively and significantly associated with firms' expenditures on research and development and short-term investments. Finally, previous levels of options granted had non-linear effects on research and development and investment expenditures. Overall, the results showed that high levels of stock options granted to executives and share repurchases by U.S. firms were unlikely to have beneficial effects for research and development and investment expenditures.

Keywords: Compustat and ExecuComp databases; dynamic random effects models; endogeneity; investment; maximum likelihood; share repurchases; stock options.