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Corporate Efficiency, Profitability, and Value Changes after the IPO

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I. INTRODUCTION

Agency theory predicts that when owner-managers sell a portion of their share in their firms, agency costs are incurred. They arise because the original owner-managers’ incentives change since they no longer bear all of the costs of the decisions they make. This suggests that when a firm undergoes an Initial Public Offering (IPO), agency costs should increase. An increase in agency costs should manifest itself in the form of reduced profitability, lower operational efficiency, and/or lower firm value. This study compares the profitability, operational efficiency, and firm value over the 1985–1990 period of 100 firms that had IPOs in 1985 compared to a matched sample of similar firms which had their IPO before 1980. We find that the 1985 IPO firms were more profitable, operationally more efficient, had more liquid assets, and had greater value over the 1985–1990 period.

Much of the IPO literature has focused on the short run performance of IPOs and the hot and cold markets phenomenon (Downs & Heinkel, 1982; Leyland & Pyle, 1977; Ritter, 1991). Recently, Muscarella and Vetsuypens (1990) examine reverse leveraged buyouts (LBOs). Relative to a matched sample, they compare the operating-efficiency and capital structure of these firms just before they go private and then when they go public again. They find that the reverse LBO firms emerged from private ownership more profitable and productive. The changes in ownership affected by the LBOs allowed the assets of the firms to be put to higher uses—agency costs were reduced.
The present research fills a gap in the IPO literature. An IPO is the opposite of an LBO relative to ownership changes. The LBO affects a less diffuse ownership structure, whereas the IPO affects a more diffuse one. Up to the present, no one has examined the effect of the diffusion of ownership caused by the IPO on corporate profitability, efficiency, and value. This study looks at the reverse of what Muscarella and Vetsuypens examine.

II. PROBLEM

Research into corporate buyouts indicates that a concentration of ownership increases corporate efficiency. This result is in line with the predictions of agency theory, which also predicts that a diffusion of ownership increases agency costs which reduce firm value. Hence, it is reasonable to assume that the IPO would eventually increase agency costs.

Managerial incentives will change when ownership changes, and changes in managerial behavior will follow in response to the changes in incentives. Over time, these changes will manifest themselves in terms of changes in profitability, operational efficiency, and firm value. We predict that firms that undergo a diffusion of ownership via an IPO will become less profitable, less operationally efficient, and less valuable.

III. DATA AND METHODOLOGY

The SEC's "Registered Offering Securities" (ROS) computer tape was used as the sample data source to identify firms that had their IPO in 1985. We use only "firm commitment" common stock offerings. To control for industry and size effects, we formed a control set of firms matched on the basis of the two-digit SIC code, or closer, and plus or minus 25 percent of sales as given by Compustat. We further defined the matched sample firms by requiring them to have had their IPO before 1980 so that the sample firms would be matched to firms which had existed for at least five years under a regime of diffuse ownership. This provided a set of 100 pairs of firms with annual mean sales of $82.7 million and median sales of $19.1 million in 1985. The largest firm had sales of $1804 million and the smallest, $0.184 million.

The pairs of firms are compared on the basis of the following calendar year ratios computed from Compustat: Gross Margin, Operating Margin, Sales/Employee, Cash Flow/Employee, Sales/Average Working Capital, Cur-
rent Ratio, Sales/Total Assets, Market-to-Book Equity, and Market Equity/Total Assets.

To test for significant differences in the median values of the data of the matched pairs of firms, we employed the Wilcoxon Signed-rank test for paired samples. Furthermore, to ascertain if the sets of firms differed significantly over the whole time period for a given ratio, we took the average of the median differences of each ratio for each one year period for each pair and tested if they were significantly different from zero using the Wilcoxon Signed-rank test.

IV. RESULTS

The IPO firms are slightly more profitable. Operating margin was higher in each period, and the significance of the differences over the entire six year period is 0.11. Gross margin, after depreciation, was not significantly different for the two sets.

The current ratio was higher for the IPO firms in each period, but was nonsignificant in 1990. Nevertheless, over the whole period, the IPO firms were significantly higher at the 0.03 level of significance. The decline in liquidity most likely indicates that the sample firms put to work the cash received from their IPOs in 1985. This is reflected also in sales/average working capital, which is significantly and increasingly higher in every period for the sample firms. Over the whole six year period, the significance of the difference is 0.002.

The IPO firms were operationally more efficient. Sales/employee was significantly higher in each period with a significance of 0.02 over the six years. Operating cash flow/employee behaved similarly, though it was much more variable, being significantly different at the 0.04 level over the period. Sales/total assets was initially lower for the sample firms but grew from 1987 on though the results are insignificant.

The IPO firms were more valuable as measured by market equity/book equity and total market equity/total assets. In all periods the sample firms were highly significantly different, but the differences shrank markedly over the six year period. From 1985–1990, the differences were significant at the 0.0001 level. Fama and French (1992, p. 451) feel that low BE/ME firms have persistently strong economic performance. The market seems to impute increasing agency costs to firms after they go public.
V. CONCLUSION

To summarize, the sample IPO firms were modestly more profitable, increasingly made working capital more productive, had more productive employees, and were valued more by investors than the control firms which had been public for at least five more years. Though the sample firms’ employees were consistently more productive and profitability was modestly higher, the market imputed increasing expected agency costs as evidenced by a declining market premium. The IPO changes managerial incentives which increase agency costs for several years after the IPO.

NOTE

We have extended this study to 1992 and examined rates of change in the financial ratios. The operating performance of the IPO firms significantly improved over the 1990–92 period, suggesting that earlier investments were paying off. The IPOs’ continued superior operating performance, along with inferior stock market performance, suggests that investors overpay for the growth prospects of firms at their IPO.

REFERENCES