Empirical Corporate Finance (Volumes I, II, III and IV)

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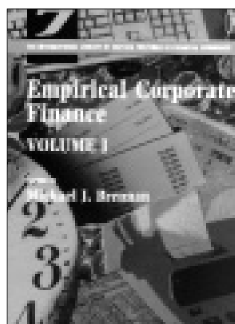

These four volumes (72 articles) provide an overview of the empirical research in corporate finance between 1969 and 1999. In this review, I will focus on the implications of the findings for business economists. Professor Michael Brennan, generally regarded as one of the world's leading financial economists, emphasizes a significant paradigm shift. The landmark paper on the classical theory of corporate finance by Modigliani-Miller (MM) (1958) focused on the cash flow streams to firms in a particular risk class. They analyze whether the proportions of debt versus equity claims could affect the value of these cash flow streams. Under the assumptions of pure and perfect competition, with no frictions or imperfections, they promulgated the capital structure irrelevance proposition and the dividend irrelevance proposition. An analogy was drawn to the Yogi Berra response to the question whether he wanted his pizza that day to be cut into four or six pieces; his response was that since he was somewhat hungry, he preferred the pizza to be cut into six pieces.

However, the *MM* propositions were subsequently turned around to focus on the factors that would make capital structure and dividend policy affect the value of the cash flow streams. Their 1963 paper recognized that the deductibility of corporate debt interest and the non-deductibility of common stock dividends increased the value of the firm by *TD*, where *T* is the corporate tax rate and *D* is the amount of corporate debt. Miller later argued that the personal tax rate on debt interest received and the personal tax rate on income from common stock must also be considered. But while these might modify the corporate tax advantages of debt, corporate leverage would be higher than observed patterns without a counter influence, bankruptcy costs. So the choice of the degree of debt leverage used by a firm involves balancing the tax advantages of debt versus the risks of bankruptcy costs.

It was also recognized that both leverage and dividend decisions could be used for signaling. Increased leverage could be used to signal stable, growing future cash flow streams. Dividend policy, particularly in conjunction with share repurchases, could provide signals of the level of future cash flow streams. This line of analysis led to the paradigm shift stimulated by the Jensen-Meckling (1976) paper, which recognizes the firm as an organization involving self-interested owners, board members, and managers interacting with investment bankers, venture capitalists, investment analysts as well as customers, employees, and suppliers. In addition, the legal and contractual frameworks establish the incentives and constraints within which the multiple stakeholders interact.

The subject matter ordering roughly reflects the life cycle of the firm, starting with venture capital and initial public offerings (IPOs), moving to leverage, dividend policy, share repurchases, ending with acquisitions and restructuring. The empirical studies show that venture capitalists take their firms public at market peaks and use private equity financing when market valuations are low. The apparent underpricing in IPOs is mitigated when underwriters employ a book-building system to require institutions to participate in all offerings. The apparent long-run underperformance of IPOs comes primarily from low returns for high market-to-book firms that have not received venture capital backing.

Studies of open market share repurchases find an initial positive price movement of about three percent, but continued abnormal positive returns of about forty-five percent over the next four years. Some regard this as evidence of signaling, others as evidence that this slow adjustment of stock prices is contrary to the efficient market hypothesis. Firms with an outlook for improved growth and cash flows can use stock options to compete for key executives and other employees. As options are exercised, share repurchases are used to offset the growth in common shares outstanding to avoid downward pressure on market prices.

In studies of control mechanisms to prevent managers from exploiting the firm, the role of boards of directors is assessed. Boards replace managers that underperform relative to their rivals in the same industry. In poorly performing industries, unresponsive management is replaced through takeovers. When the market response to acquisitions is negative, particularly with respect to the value of the acquiring firms, the bad bidders become good targets – they are

likely to be taken over themselves subsequently.

Early studies found that diversified firms in the United States traded at a discount to single-segment firms, implying that diversification destroyed value and that the higher the discount, the greater the likelihood that the firm will be taken over. Later studies find that when diversifying firms are matched against non-diversifying firms with similar characteristics, no diversification discount is found. Also, acquirers trade at a discount before making diversifying acquisitions. Many targets were discounted before they were acquired to become part of a diversified firm. The story seems to be that if firms are not managing their core assets well relative to their rivals, their managers will be disciplined. If the industry is performing poorly, firms may seek to move into more attractive product-market areas. The risk is that the less related activities may not be managed effectively. Unless some real synergies are achieved, the premium over the prevailing market may never be recouped.

The rise of activist institutional investors has been a positive influence on corporate monitoring and performance. Between 1980 and 1996, large institutional investors increased their ownership of U.S. corporations from under thirty percent to over fifty percent. Over the same period, equity-based compensation through option grants increased from about twenty percent to over fifty percent. CEO pay-to-performance sensitivities greatly increased. The share of equity ownership of officers and directors between 1985 and 1995 has also increased. These are all positive developments in corporate governance.

These trends also underscore the recognition that balancing the divergent goals and incentives of the multiple stakeholders is a continuing challenge. Further empirical studies will be required to understand how balancing the tensions can be made consistent with favorable overall economic performance and its equitable distribution.

J. Fred Weston
The Anderson School at UCLA

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