Sydney hosts seminal finance scholars

A recent investment management conference attracted leading academics to discuss finance theory. Russell Thomas reports.

Dimensional Fund Advisors (DFA) Professor Emeritus, Eugene Fama and Robert Merton (of LTCM fame) were recently invited by DFA to speak to the investment management community in Sydney. Both speakers are well known in industry and academic circles as seminal contributors to modern finance theory, in particular, the efficient market hypothesis which provides a benchmark for modern portfolio management theory.

Both presenters reflected on the tried and true perspectives that first earned them fame; namely, the techniques for pricing options (Merton) and the significance of multi-factor models for explaining above-market returns for individual stocks (Fama).

Merton, who received the Bank of Sweden prize in Economic Science (1997), reflected on the role he had played (with Paul Samuelson) in laying the groundwork for the better known Fischer Black and Myron Scholes 1973 paper, ‘The Pricing of Options and Corporate Liabilities’ (Journal of Political Economy). He also revisited a credit-pricing model first put forward in 1974.

In that paper Merton argued for the use of structural models that “build on the Miller-Modigliani insights that all elements of the firm’s capital structure depend on the same set of asset values and risks”, as opposed to the more commonplace credit scoring models (historical experience based on accounting variables). Structural models extract information from the equity markets and interest rate markets to assess credit quality. Merton’s model, and indeed his 1974 paper, attracted significant attention in the wake of AAA-rated companies (in the late 90s) being exposed as having little more than junk status.

Moreover, the explosive growth in credit derivative markets and a convergence in tools used for equity and credit analysis have signalled the need for fresh perspectives on pricing credit.1

Eugene Fama leveraged his scholarly research into real-world investment management by inspiring the founding of Dimensional Fund Advisors. Even today, he continues to supply key research and inform the firm’s investment process. Fama’s best-known work (with Kenneth French) was a series of papers that described the factors that characterise stock returns in terms of market capitalisation and ‘value’.

In his presentation on ‘Risk Dimensions of the Market’, Fama provided further evidence (1963–1997) to support his two-factor model: “There is a strong relation between book-to-mark equity and profitability. Low BtM firms, big and small, have strong earnings on assets for at least 11 years around portfolio formation. High BtM firms, big and small, have poor earnings. There is also a secondary size effect in profitability. Therefore, BtM constant, small firms have weaker earnings on assets than big firms.”

The reputations of both scholars (i.e. Merton’s involvement with LTCM’s collapse) and the Efficient Market Hypothesis have both been criticised in the years following the dot-com crash, Asian economic crisis, and several high-profile US corporate collapses.

Fertile reassessment of the premises underscoring Efficient Market Theory (EMT) has emerged over the last decade from the nascent field of ‘behavioural finance’, which studies how cognitive or emotional biases, whether individual or collective, create anomalies in market prices and returns and other deviations from the EMH. When questioned on the value of behavioural finance, both Fama and Merton emphasised that despite the ‘anomalies’ described by behavioural models of stock market activity, no grand theory of the relationship between market risk and stock returns has replaced the EMH. Merton alluded to the need for ‘institutional analysis’ in better understanding how markets operate (and should operate).

In a recent article, ‘Design of Financial Systems: Towards a Synthesis of Function and Structure’, Merton (with Zvi Bodie) cites examples of how sophisticated institutional investors and modern investment vehicles overcome the apparent flaws in EMH.

One example of how EMH works in today’s investment environment is seen in the mutual fund, according to the paper. Mutual funds allow investors to gain exposure to several securities at once, thereby allowing them to avoid the high trading costs they would incur by having to invest in individual securities.2 Another example provided relates to the importance of investment policy committees in large institutions, which mitigate the bias of individual analysts.

Contrary to the behavioural finance perspective (anomalies caused by ‘irrational’ behaviour), institutional analysis provides fresh perspectives on how markets are structured to produce certain effects. These sociological perspectives are providing fresh insights into the derivation and movement of stock prices.
A number of recent articles in the *American Sociological Review* (June 2004), reveal some of these new perspectives. For example, Edward Zajac examines the social construction of market value by suggesting that the market's reaction to particular corporate practices, such as stock repurchase plans, are not, as financial economists contend, simply a function of the inherent efficiency of such practices.

Rather, the prevailing institutional logic and the degree of institutionalisation of the practice also influences stock market reactions. Or, from another perspective, Ezra Zuckerman argues in the same edition that the “efficiency of the price-setting process in the stock market is contingent on the coherence of a stock’s position in the industry-based classificatory structures that guides valuation. While this structure helps investors interpret ambiguous economic news, it is imperfect because stocks vary in the extent to which they are coherently classified, as revealed by the stock’s position in the network of coverage by securities analysts.”

In the Q&A session, Merton and Fama were asked to reflect on the fertile academic environment that provided a platform for their significant contributions in the late 60s and 70s. Several attendees might have been surprised to discover that both academics faced an uphill battle from the disciplines of economics and mathematics to justify both their research projects and the separate field of finance.

Their concluding remarks on the need to look past ‘anomalies to EMH’ and focus on the institutional features that promote efficiency, is an indication that the academic field is changing. The contributions of economic sociology (structure of markets, relational behaviour of participants) have as much to contribute to theories of stock returns as do mathematical models. All in all, as Callo argues, ‘EMH is alive and well’ and deservedly so. Merton, Fama, and many of their peers, have introduced the kind of discipline into investment decision-making that promotes, rather than assumes, market efficiency.

Russell Thomas, National Policy Adviser, attended the seminar hosted by Dimensional Fund Advisors in Sydney, 22 July 2005.

**Notes**


