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### Jack Treynor, Modest Genius

Jack Treynor was a very important but remarkably modest contributor to modern finance. Early on, he showed a reluctance to take credit for his own innovations. In the late 1950s, for instance, he wrote down the basic ideas of the Capital Asset Pricing Model (CAPM), roughly contemporaneously with Sharpe, Lintner and Mossin, all four of them working independently. Although a draft of Treynor's CAPM paper was circulated among the financial cognoscenti for decades, he didn't get around to publishing it for 40 years!

The CAPM is one of the fundamental ideas of modern financial economics. It explains how asset prices are set when investors are rational and concerned with both risk and expected return. A key insight it provides is that securities are in equilibrium priced with a tradeoff between risk and return, which makes all investors willing to hold all securities. The appropriate measure of a security's risk is how much adding a little more of that security to the aggregate portfolio of all assets (the market portfolio) increases the risk of that portfolio. It turns out that this incremental risk can be measured simply as the security's 'beta' with the market portfolio. Treynor's insights therefore provided a key underpinning for the modern theory of asset pricing and of investment under uncertainty.

One of the other most important finance research discoveries of the 20<sup>th</sup> century was the Black-Scholes Options Pricing Model. Black and Scholes, in their famous 1973 paper, give very major credit to Treynor's insights. The opening footnote of the paper says (citing Treynor's early work on CAPM) "The inspiration for this work was provided by Jack L Treynor (1961a, 1961b)."

Jack's career as a financial scholar was equally remarkable. He never held a regular academic appointment and did not have a Ph.D. But he had an extensive network of co-authors and admirers, including many of the most important contributors in the last half century of research in finance: Fischer Black, Harry Markowitz, Robert Merton, Franco Modigliani, Stephen Ross, and Mark Rubinstein, to mention just a few who have publicly lauded Jack's influence on their own thinking.

Evidently, one of Jack's cherished goals, though unspoken, was to bring the research of such luminaries to the attention of finance practitioners. I can't think of any other reason why he would toil as the editor of the *Financial Analysts Journal* for more than eleven years, 1969 to 1981. During this period, he wrote many editorials in the *FAJ*, frequently extolling academic research to an often less-than-receptive practitioner audience.

He also wrote more than two dozen articles of his own during this time and afterward. His modesty is exemplified by a few of these papers, among the best ones, being authored under a pseudonym, Walter Bagehot. Jack received no credit at all for these, at least until the profession figured out Bagehot's modern identity.<sup>1</sup> Nonetheless, Jack was eventually honored by the profession; several of his papers won various Graham & Dodd awards, conferred by the CFA (Chartered Financial Analysts) Institute. In 2007, he was named the Financial Engineer of the Year by the International Association of Financial Engineers. Both of these groups are composed primarily of finance professionals, which is a testament to Jack's success in reaching them.

Especially notable among his work as Bagehot is his famous paper, "The Only Game in Town," published in the *Financial Analysts Journal* in 1971. This provided some of the foundational ideas of the study of information and securities markets, which was eventually to develop into the field of market microstructure. A key insight of this article is that market makers need to charge spreads—explicit or implicit—to

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<sup>1</sup> The previous Walter Bagehot was editor of *The Economist* for 17 years, starting in 1860.

compensate for losses in trades against informed investors. The market maker makes up losses on trades with the informed through profits on trades with liquidity-motivated traders. Through this process, private information is incorporated into market prices.

Jack's expert stewardship of the *FAJ* was followed by an equally vital role as chief encourager and *eminence grise* of the Q Group. He served for years on the Q Group selection committee, which decides on the academic pre-publication working papers that will be delivered to investment professionals at semi-annual conferences. In Jack's honor and in recognition of his service, the "Jack Treynor Prize" is now awarded annually to the best three of these presented papers.

It's difficult, even with hindsight, to pick out the most influential publications from such a distinguished lifetime of work. But here is a list of some topics that Jack Treynor brought to the forefront of knowledge:

- ✓ Required return and risk
- ✓ Portfolio performance measurement
- ✓ Active investment management using security analysis
- ✓ Passive investment management
- ✓ Market timing and manager selection
- ✓ The game of trading
- ✓ Trade execution
- ✓ Corporate investment decisions
- ✓ The wisdom of crowds (market efficiency and the jelly bean experiment)

Despite Jack's modesty and self-effacing nature, his reputation among investment professionals, even the younger ones, is quite special. To illustrate, I was having lunch a few years ago at a restaurant in Westwood with two former UCLA MBA students, both of whom had gone on to notable success on Wall Street. I looked over at an adjacent table and there was Jack in his wool cap along with his wife Betsy and an

acquaintance from the UCLA law school. We waved and the former students asked me who they were. I was only slightly surprised when the former students became very excited and asked me to take them over for a personal introduction. They even asked for Jack's autograph!

Jack did not seek fame or even recognition, but he had them anyway. Good deeds are their own rewards and sometimes they are even acknowledged.

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