Financial Econometrics

4. The Predictability of Asset Returns: Part I

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The Efficient Market Hypothesis

Samuelson (1965): "In competitive markets there is a buyer for every seller. If one could be sure that a price will rise, it would have already risen."

"...This means that there is no way of making an expected profit by extrapolating past changes in the futures prices, by chart or any other esoteric devices of magic or mathematics. The market quotation $Y(T, t)$ already contains in itself all that can be known about the future and in that sense has discounted future contingencies as much as is humanly possible."

The Efficient Market Hypothesis

Fama (1970): “...In general terms, the ideal is a market in which prices provide accurate signals for resource allocation: that is, a market in which firms can make production-investment decisions, and investors can choose among the securities that represent ownership of firms’ activities under the assumption that security prices at any time ‘fully reflect’ all available information. A market in which prices always fully reflect’ available information is called ’efficient’.”

The Efficient Market Hypothesis

Malkiel (1992): "...Formally, the market is said to be efficient with respect to some information set... if security prices would be unaffected by revealing that information to all participants. Moreover, efficiency with respect to an information set... implies that it is impossible to make economic profits by trading on the basis of [that information set]."

The Efficient Market Hypothesis

Malkiel (2003): "It was generally believed that securities markets were extremely efficient in reflecting information about individual stocks and about the stock market as a whole. The accepted view was that when information arises, the news spreads very quickly and is incorporated into the prices of securities without delay. Thus, neither technical analysis, which is the study of past stock prices in an attempt to predict future prices, nor even fundamental analysis, which is the analysis of financial information such as company earnings and asset values to help investors select undervalued stocks, would enable an investor to achieve returns greater than those that could be obtained by holding a randomly selected portfolio of individual stocks, at least not with comparable risk."

"...I will use as a definition of efficient financial markets that such markets do not allow investors to earn above-average returns without accepting above-average risks."