New Facts in Finance

John H. Cochrane
Economic Perspectives
Federal Reserve Bank of Chicago
vol. 23, no. 3 (Third Quarter 1999):36–58

Researchers' understanding of financial markets has undergone a tremendous change during the past two decades. Researchers now know that stock and bond returns are, to some extent, predictable at long horizons. They also know that the capital asset pricing model does not describe well the return behavior of several assets. The author surveys these and other new facts and suggests that holding risk that is related to financial distress and recession can be rewarding.

Great strides have been made during the past 15 years in researchers' understanding of the investment world. The author examines these newly understood facts and shows that in each case, price variables can be used to estimate expected future returns.

Until the mid-1980s, researchers believed that the capital asset pricing model (CAPM) provided a good relationship between risk and return. Researchers now know that the CAPM cannot fully explain why average returns of some assets, such as stocks of small firms and value stocks, are higher than the returns of other assets. Multifactor extensions of the CAPM have been successfully used to better describe the returns of these assets.

Most investors prefer to hold assets that do well during recessions because by doing so the aggregate effect of a recession on their well-being is not as severe as it would be with procyclical stocks. Thus, covariance with recessions matters in determining returns. Other factors, such as size and the book-to-market value ratio, have been found to be additionally priced risk factors. Interestingly,

John H. Cochrane is at the Graduate School of Business, the University of Chicago. The summary was prepared by Rajiv Kalra, CFA, Moorhead State University.

macroeconomic factors, such as industrial production, investment growth, and inflation, do not explain size and value effects well.

The concept that prices follow “random walks” and that risky returns are unpredictable is still valid, but recent studies show that returns on stocks are associated with business cycles and financial distress and are predictable for long investment horizons. As in the case of bonds, a series of good past returns drives up stock prices and results in a poor outlook for future returns. Stocks that do poorly and reach a low price do well subsequently. Exploiting the small predictability of monthly individual returns is known as a momentum strategy. The author notes that transaction costs, thin trading of small stocks, and high short sales costs render a momentum strategy essentially unprofitable.

The time-honored expectation hypothesis states that long-term rates represent an average of future short-term rates and that an upward-sloping yield curve indicates expectations of rising short-term rates. Recent evidence shows that the expectation hypothesis seems to do a good job of predicting interest rates for long horizons but not for short horizons. A high forward rate does not necessarily mean that interest rates will be higher one year from today; it appears to suggest that investors will earn much more by investing in long-term bonds.

An interest rate differential between two countries is expected to be associated with foreign currency revaluation: The currency of the country with the higher interest rate is expected to depreciate. Interest rate differentials on long-term bonds correctly forecast changes in the values of currencies over the long term, but rather than resulting in a higher depreciation in the value of the foreign currency, temporary higher interest rates abroad lead to further appreciation in the foreign currency. Researchers are still puzzled about why investors earn more by holding bonds in a country with higher than usual interest rates.

Researchers have known for some time that, on average, actively managed mutual funds underperform the market index. Recent evidence shows that the so-called value funds underperform the market because they do not follow value strategies. Also, researchers now know that the apparent persistence in fund performance is the result of persistence in the underlying stocks, not the result of consistent stock-picking skills. Active management continues to lack empirical support. Nonetheless, research shows that the passively managed "style" investing earns returns that cannot be explained by the CAPM.

The newly found facts suggest that investors can earn sizable returns by assuming risks of recession and financial distress in addition to the risk associated with market movements. Also, strategies such as value and growth, dynamic bond and foreign exchange, and market timing based on return predictability can be rewarding.

Keywords: Investment Theory: other