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THE STOCK MARKET AS A LEADING ECONOMIC INDICATOR:
AN APPLICATION OF GRANGER CAUSALITY

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The stock market has traditionally been viewed as an indicator of economic activity. Movements in stock prices are believed to "lead" or forecast the direction of the economy at least to some extent. The basic argument is that stock prices reflect the expected earnings potential, or profitability, of corporations. And because profitability is directly linked to economic activity, fluctuations in stock prices are thought to lead the direction of the economy. Moreover, the fact that stock prices are included as one of the twelve components in the U.S. Index of Leading Economic Indicators suggests that the stock market is accepted to some degree as a forecast of economic activity.

The stock market as an indicator of future economic activity, however, does not go without controversy. Skeptics point to a variety of "false signals" that were given by the stock market as reasons to doubt its forecasting ability. The strong economic growth that followed the 1987 stock market crash is one example in which stock prices falsely led the direction of the economy.

The purpose of this paper is to focus on stock prices as a leading indicator of economic activity and to analyze the "causality" between the two variables. More specifically, time-series analysis and the methodology of "Granger causality" are used in this project to test "directional" relationships between stock prices and the economy. The notion of "Granger causality" attempts to answer whether one variable "drives" or "causes" the variation in the second variable. In other words, do stock prices "cause" what happens to the economy, or does the economy "cause" what happens to stock prices?