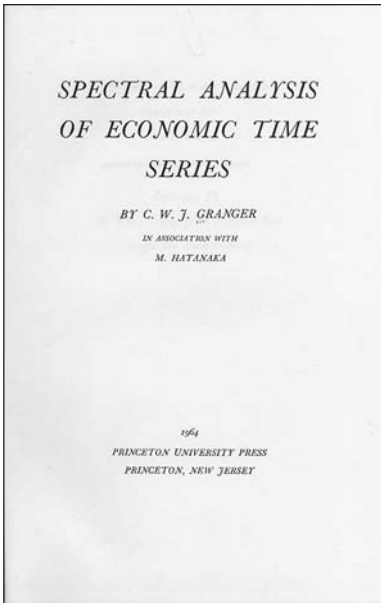


Spectral Analysis of 1964
Economic Time Series

C.W.J. Granger, in
association with
M. Hatanaka



In *Spectral Analysis of Economic Time Series*, Clive Granger showed that then-established statistical methods were inadequate to the analysis of economic variables such as stock prices, interest rates, and GDP, which tend to drift over long periods

without reverting to a stationary point. Drawing upon work done by members of the Time Series Project of the Econometric Research Program of Princeton University, Granger developed spectral analysis, a technique for inspecting such cyclical phenomena, and introduced it into the study of time series (chronological observations of changes in economic variables). This technique helped economists address the problem of feedback between economic variables and allowed for more realistic and accurate accounting by economists of time series data.

Granger's volume would help establish the econometric foundations of modern economics. Michio Hatanaka's two chapters, which conclude the book, discuss applications of cross-spectral analysis to business cycles and inventory cycles.

Nearly four decades after the publication of *Spectral Analysis of Economic Time Series*, Granger won the 2003 Nobel Prize for Economics. The Nobel Foundation noted that the methods developed by Granger had become invaluable in areas of economic research and policy including "the relations between wealth and consumption, exchange rates and price levels, and short- and long-term interest rates."