Statistics 434: Bullet Points for Day 16
Switching Regressions and Other Non-Linear Ideas for Forecasting Returns

We'll go over the Clive Graninger's article "Forecasting stock market prices: Lessons for forecasters." Graninger won the 2003 Bank of Sweden Prise in Honor of Alfred Nobel, and he has footprints all over financial econometrics. The paper is a little dated, but it is still full of relevant insights. Moreover, the paper is almost entirely accessible to 434 students at this stage of the course.

- Granger's Lessons
    1. Switching Regressions — finding a *fat* AR(1) when there was none
    2. Examples of effective trend-following and mean reverting strategies
    3. Forecasting in "normal times" versus exceptional times
- Research: Using ISI Citation Search (or Google Scholar) to find out more
- Volatility Drag — A Formula Revealing the Cost of Volatility
- Confirmation Bias — Worth Noting Again
- Comments on S-Code for Dynamic Regression
- Comments on Homework No. 6
    1. A "Personal Index" and "Personal CAPM"
    2. Risk Free Rates — Sources and Computations
    3. S Tools: seriesMerge etc.

Quotes of the Day:

"Does this mean that the EMH should be rejected? One has to say — not necessarily, yet."
— C. W. J. Grainger , (p. 12)

"The two regimes are thus the 'ordinary' excess returns, which seem to be forecastable, and the extra-ordinary returns which are not, from the lagged data at least."
— C. W. J. Grainger , (p. 6)

Remembering a Day — October 30, 1961:

On this day the USSR detonated the most powerful bomb in history — the 50 megaton *Tsar Bomba*. This explosive force of this one bomb was more than ten times greater than the explosive force of all the explosives of the Second World War — including the atomic bombs of Hiroshima and Nagaski.

Periodically one does well to note that we are indeed very lucky that the human race has survived so long in the presence of such nation destroying force.