Systematic and Unsystematic Risk

What are the sources of Risk?

(pp. 297 - 300)
Announcements & Exp. Returns

Actual returns (R) will be:

\[ \bar{R} + U \text{ (expected + unexpected)} \]

Investors form “expectations” about future

- Expected information is already discounted by the market
  - i.e., the value of the information is already incorporated into the stock prices
  - Attempts to exploit Public information (make large returns) will not be successful
**Surprises**

- **Unexpected Returns**: caused by surprises
  - Surprises can be GOOD or BAD!
- **Total return** $(R) = E(R) + U$
- Announcements are news only to the extent they contain “surprise” element
  - “No burglary in BG on Sept. 28” --no *news*
  - “No burglary in New York on Sept. 28”-- *major news!*
Systematic vs. Unsys. Surprises

Systematic risk:
- surprises that affect “large” no. of assets
  - Usually in the same “direction”
  - I/Rs, Unemployment, Elections, GDP,……

Unsystematic risk:
- surprises that affect “small” no. of assets
- Some “firm-specific” news _turn_ into “economy-wide” events!!!

\[ R = \bar{R} + U = \bar{R} + m + \varepsilon \]
Risk: Systematic & Unsystematic

We can break down the risk, $U$, of holding a stock into two components: systematic risk and unsystematic risk:

$$ R = \bar{R} + U $$

becomes

$$ R = \bar{R} + m + \varepsilon $$

where

$m$ is the systematic risk

$\varepsilon$ is the unsystematic risk