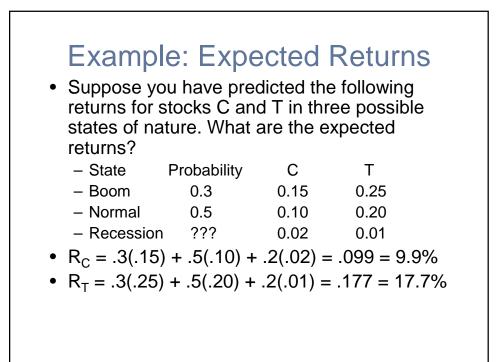
Key Concepts and Skills

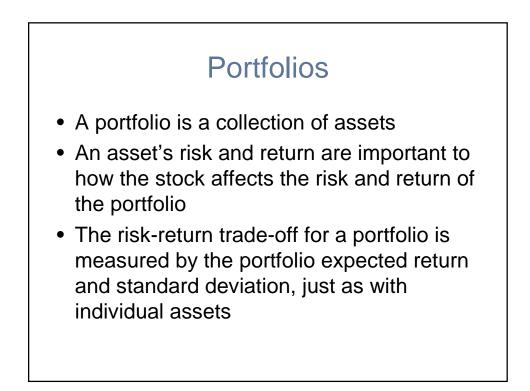
- Know how to calculate expected returns
- Understand the impact of diversification
- Understand the systematic risk principle
- Understand the security market line
- Understand the risk-return trade-off

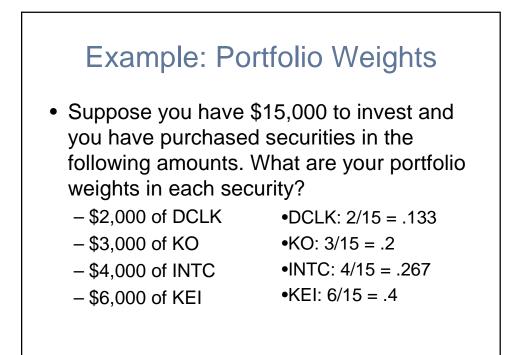
Expected Returns

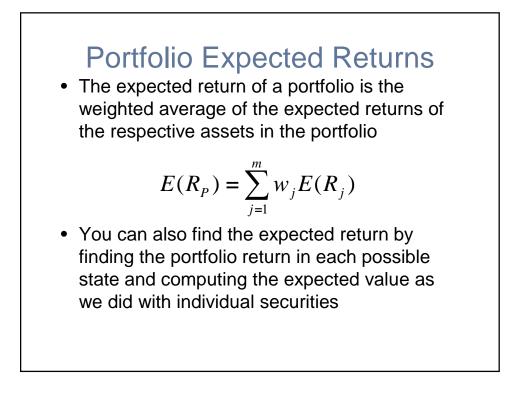
- Expected returns are based on the probabilities of possible outcomes
- In this context, "expected" means "average" if the process is repeated many times
- The "expected" return does not even have to be a possible return

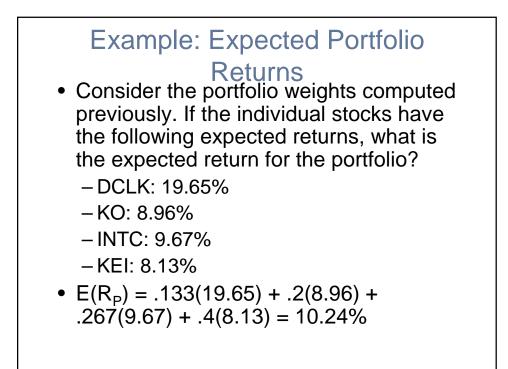
$$E(R) = \sum_{i=1}^{n} p_i R_i$$

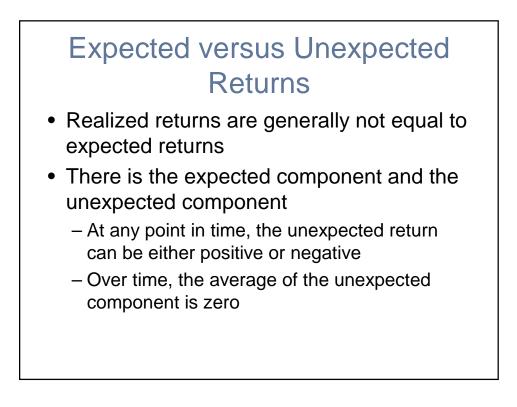






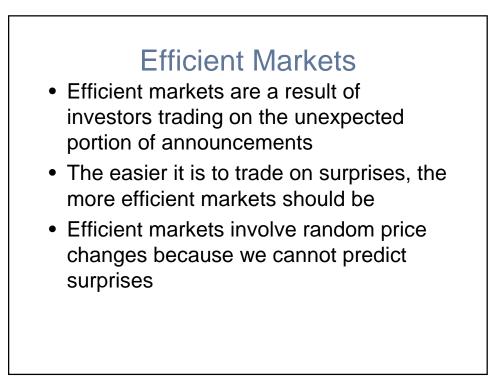


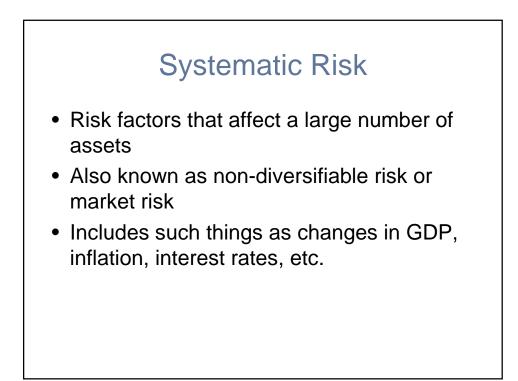


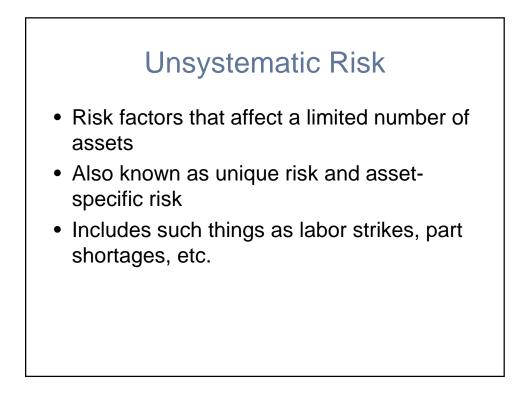


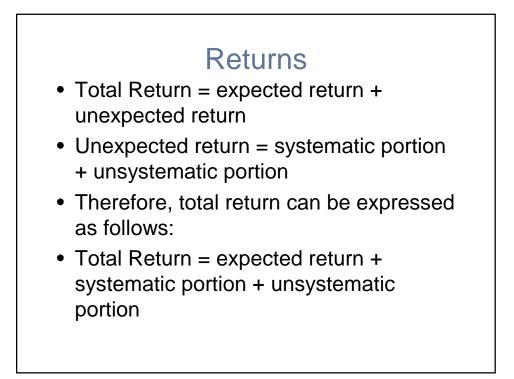
Announcements and News

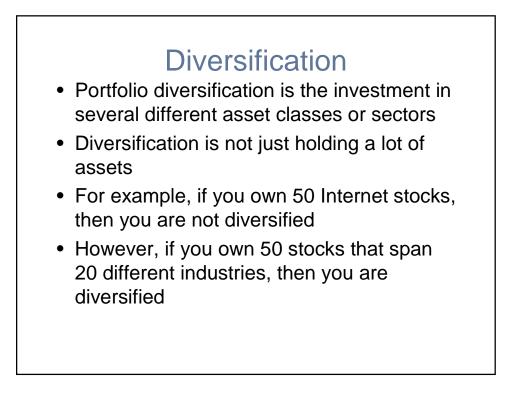
- Announcements and news contain both an expected component and a surprise component
- It is the surprise component that affects a stock's price and therefore its return
- This is very obvious when we watch how stock prices move when an unexpected announcement is made, or earnings are different from anticipated











(1) Number of Stocks in Portfolio	(2) Average Standard Deviation of Annual Portfolio Returns	(3) Ratio of Portfolio Standard Deviation to Standard Deviation of a Single Stock
1	49.24%	1.00
2	37.36	.76
4	29.69	.60
6	26.64	.54
8	24.98	.51
10	23.93	.49
20	21.68	.44
30	20.87	.42
40	20.46	.42
50	20.20	.41
100	19.69	.40
200	19.42	.39
300	19.34	.39
400	19.29	.39
500	19.27	.39
1,000	19.21	.39
nd Quantitative Analysis 22 (Sep	/leir Statman, How Many Stocks Make a Di tember 1987), pp. 353—64They were derive : An Analytic Solution, <i>Journal of Business</i> !	d from E. J. Elton and M. J. Gruber,