**Chapter 6**

**The Meaning and Measurement of Risk and Return**

**Part I**

1. Compare Apple, Google, GE, Wal-Mart, Ford, and Exxon Mobil. Which one is the safest one? Which is the most risky one?
2. Find those stocks’ current and historical stock prices.
3. Find a way to measure each one’s return and risk.
4. Pick the safest one.
5. What is Holding Period Return?

Example:

You bought 1 share of HPD for $19.70 in May 2011 and sold it for $32.32 in May 2012. The company paid divided of 8 cents every quarter during the last two years.

How much is holding period return?

1. Expected return and expected cash flow
   1. Definition
   2. Example

|  |  |  |  |
| --- | --- | --- | --- |
| **State of the economy** | **Probability of the states** | **Cash flow from the investment** | **% Return (Cash Flow/Inv. Cost)** |
| Economic Recession | 20% | $1,000 | 10% ($1,000/$10,000) |
| Moderate Economic Growth | 30% | 1,200 | 12% ($1,200/$10,000) |
| Strong Economic Growth | 50% | 1,400 | 14% ($1,400/$10,000) |

How much is expected cash flow? Expected return?

1. What is risk?

How to measure risk?

Why diversification can reduce risk?

Example:

Treasury Bill

100% 3%

Stock

10% 0%

20% 5%

40% 15%

20% 25%

10% 30%



Why Treasury Bill is less risky than stock?

Calculate expected return and standard deviation of both.

1. Learn some basic concepts



Nominal Return:

Standard deviation:

Real return:

Risk Premium