Chapter 1: Risk-and-Return Analysis

Problems

To answer the questions, use Chapter 1b Problem Spreadsheet – Template.xls

PART B

1.1-1.2. Given the following portfolio of historical returns,

Year	Rate of Return %
1	11.0
2	12.0
3	−6.0
4	−5.0
5	6.0
6	2.0
7	5.0

1. calculate the average historical return

2. standard deviation

1.3-1.4. Given the following historical stock information

Year	Stock Price
1	110
2	121
3	105
4	140
5	165
6	135
7	145

1. the average historical return

2. the standard deviation (use % and two decimals):

1.5-1.6. Given the following historical stock and dividend information

Year	Stock Price	Dividends
1	100	3.50
2	115	4.10
3	95	4.10
4	110	4.10
5	125	4.60
6	120	5.00
7	140	5.20

1. the average historical return

2. standard deviation (use percentage and two decimals)

1.7-1.8. Given the following scenario analysis:

Economic Scenario	Probability %	Rate of Return %
Recession	25	−10
Normal	50	12
Boom	25	25

1. the average historical return

2. standard deviation

1.9-1.10 Given the following scenario analysis of a single company that pays dividends. Please assume that the current stock price is $30:

Economic Scenario	Probability %	Average Stock Price $	Average Dividends $
Recession	20	25	1.00
Normal	50	36	2.40
Boom	30	56	3.00

1. average historical return

2. standard deviation