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Week 3 Writing Assignment

American Military University

Finc 600

Here are some historical data on the risk characteristic of Dell and McDonald’s.

Dell McDonald’s

Beta 1.41 .77

Yearly standard deviation of return 30.9 17.2

Assume the standard deviation of the return on the market was 15%.

1. The correlation coefficient of Dell’s return versus McDonald’s is .31. What is the standard deviation of a portfolio invested half in Dell and half in McDonald’s?
2. What is the standard deviation of a portfolio invested one-third in Dell, one-third in McDonald’s, and one-third in risk-free Treasury bills?
3. What is the standard deviation of a portfolio is spilt evenly between Dell and McDonald’s and is financed at 50% margin, i.e., the investor puts up only 50% of the total amount and borrows the balance from the broker?
4. What is the approximate standard deviation of a portfolio composed of 100 stocks with betas of 1.41 like Dell? How about 100 stocks like McDonalds’s?