This is supposed to demonstrate the reduction in portfolio risk from foreign investments.

Two single country funds to illustrate variability of returns from combining a country fund with an index fund based on S&P 500 stock index. S&P 500 has averaged a return of 10 percent with a standard deviation of 10 percent. The first country fund specializes in Japanese stocks and has a beta of 1.0 when compared to the returns on the Japanese market. The return has averaged 10 percent with a standard deviation of 14 percent. The second country fund specializes in Brazilian stocks and also has a beta of 1.0 when compared to returns on that stock market. Its return also averaged 10 percent but has a greater standard deviation of 20 percent. Neither fund has investments in U.S. stocks and historically the correlation coefficients relating the returns on the funds to the S&P 500 stock index have been 0.4 and -0.2. To isolate the impact of selecting one of these funds for diversification, assume that the returns on the funds and on the S&P 500 stock index will continue to be 10 percent so the investor can anticipate earning 10 percent regardless which choice is made. The only consideration will be the reduction in the variability of the returns (the reduction in risk as measured by the standard deviation). To show the reduction, compute the standard deviation of the return when combining the U.S. index fund w/ the Japanese or Brazilian fund for each of the following proportions:

Invested in U.S. fund
100%
90
80
70
60
50
40
30
20
10
0%

Proportion in the foreign fund:
0%
10
20
30
40
50
60
70
80
90
100%

See below-

1. What happens to the portfolio standard deviation as the investor substitutes the foreign securities for the U.S. securities? What combination of U.S. and Japanese stocks and U.S. and Brazilian stocks minimize risks?

2. Even though the risk reduction is greater for the Brazilian fund, why may the U.S. investor prefer the Japanese fund?

3. Should a Japanese investor who owns only Japanese stocks acquire U.S. stocks?

4. How would each of the following affect a U.S. investor’s willingness to acquire foreign stocks?

a. the dollar is expected to strengthen.

b. inflation in the foreign country is expected to increase.

c. globalization of financial markets should accelerate.