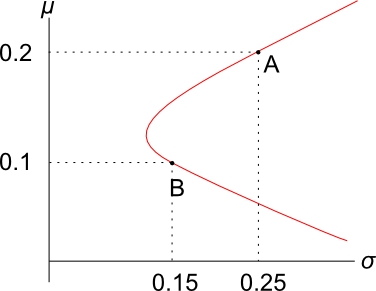
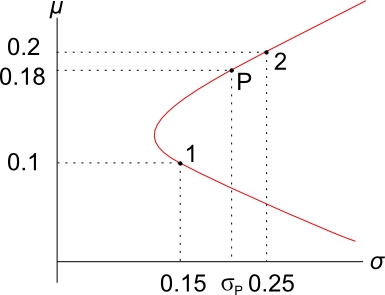
***Constructing the 2-stock Markowitz Bullet***

* In a two-stock world, the combination line is the Markowitz bullet.
* The line passes through the 2 stocks on the return-standard deviation graph.



***Calculation Example***

Q) Using the information in the diagram, find the variance of a portfolio with a target return of 0.18. Assume .

A) There are 2 steps:

1. Find the weight in stock 1 that yields the given return using the portfolio return equation:

Together with the ‘weights sum to one’ equation:

, so

So,

After solving to find ,

Therefore

These weights make sense since the target return of 0.18 is between stock 1 and 2’s returns so we should be long both stocks, which we are since both weights are positive.

1. Now calculate the portfolio variance by substituting the weights and into the portfolio variance equation:

