

STATISTICS CLASS PROBLEM

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Suppose the return distributions for two risky assets are as follows:

<i>State</i>	p_s	$r_{a,s}$	$r_{b,s}$
1	1/3	-3%	36%
2	1/3	9%	-12%
3	1/3	21%	12%

1. Calculate the expected returns for assets a and b .
2. Calculate the variances and standard deviations for assets a and b .
3. Calculate the covariance and correlation between assets a and b .
4. Calculate the expected return and standard deviation for an equally weighted portfolio consisting of asset a and b .
5. Determine the least risky combination of assets a and b and calculate the expected return and standard deviation for such a portfolio.