Assignment No:13

Optimal dividend policy

1. Assignment Description

Dividends are paid to shareholders in order to achieve several tasks. First, in order to reward them for investing in the company and to motivate them to continue to hold company shares. Secondly, to motivate other investors to invest in the company. Thirdly, to increase the share price in the stock exchange.
When a decision about distributing dividends is made, the following considerations should be taken:
First, money which is paid to shareholders leaves the company and does not return..
Secondly, shareholders are then mainly affected by the actual performance of the firm. Thus, paying dividends which exceed the actual profits of the firm may have an adverse affect.
Thirdly, when the share price is too high, relative to other shares in the Green State, dividends may have a weak affect since shareholders prefer to cash in their stocks by selling their investments.

The purpose of the current assignment is to build an optimal dividend policy for the firm. This policy should take into consideration the nature of the simulation. That is, the game ends after a fixed number of quarters!

Thus the goal of the policy is to maximize the value of the share at for the end point of the game.

2. Background Theory

The value of a share in the Green State is based on the following equation:

$V = A + B + C$

A is the NPV (Net Present Value) of a stream of quarterly payments with an average and standard deviation based on the fast performers of the firm.
B is the influence that the quarterly dividend has over the share price.

C is the influence that the average dividend paid in the Green State has on the share value. If the dividend paid by the firm is less than the average paid by other firms, C has negative impact and visa-a-versa.

3. Data Source

Log in as firm number 1 to the proper assignment domain.
Select a ratio between bonds and shares in order to set the initial price of the firm's share.
Build and operate the firm for eight quarters. Manage the firm in order to maximize its profits.
Select dividend policy and apply it. Return this process for several times with a different dividend policy.
Record the values of A, B and C for the eight quarters.

In order to have a sufficient number of records for a regression, run several policies.

4. Analysis Required

Run regression analysis over the data table built in section 3. Answer the following questions:

Which of the effects is stronger A or B?
What is the ratio between B and C above it paying dividend is inefficient?
What characterizes the policy of an optimal dividend distribution?