

Introducing Professional Managers

Description

In this case, about a third of the participants are CEOs, and the others are investors. We may run multiple sessions so each person has the chance to play both roles. Each investor owns 100 shares in each firm and \$1,000 in cash in the beginning. Each firm starts with \$10,000 in capital, and will operate for 10 years. At the end of the ten-year period, affairs of the firm are wound up and all the proceeds are distributed among the shareholders in proportion to the number of shares held by each.

At the beginning of each period, for each firm, one of the investors will be chosen randomly to serve as its director. The director will have the choice to pick one of three possible compensation contracts for CEO. The set of three contracts is chosen by the instructor and remains unchanged throughout the session. Directors will receive a compensation of \$100 each period for their services.

Each compensation scheme consists of two parts: a cash salary and stock bonus. Stock bonus is specified in number of shares of the firm, but is paid to the CEO in cash equal to average market price of shares for that period. The total compensation is paid to the CEO at the end of the period in cash, and is subtracted in calculating the ending capital of the firm.

Capital invested (I) = Initial Capital (C) – Dividend Paid (D). Dividends are paid out at the beginning of the period into shareholders' personal bank accounts, and accumulate interest at the rate of 3 percent per period. They cannot be reinvested in the firm to increase its capital. The relationship between capital, investment and production is given by the following equation

$$P = C \times \left[\left(\frac{I}{C} \right)^{0.5} - 0.3 \times \left(\frac{I}{C} \right) \right]$$

The entire production is sold for cash at \$1 per unit. At the end of each period, the capital invested (I) depreciates by 30 percent. This means that only 70 percent of the capital is carried over into the following period. Therefore, a firm's capital at the end of a period (or at the beginning of the next period) consists of this residual capital (70 percent of (I)), cash from production (P), reduced by the amount of compensation paid to the CEO in accordance with his/her compensation contract, and the compensation paid to the directors. There will be no strikes.

Investors' ending wealth will consist of:

1. their initial cash balance of \$1,000,
2. dividends received,
3. bank interest at 3 percent you earn on your cash balances at the end of every period,
4. cash received from sale of stocks in the market,
5. liquidation value (at book) of the shares you hold at the end of session,
6. compensation received for services rendered as director of firms, less
7. the amounts you pay for purchase of shares.

The decisions investors have to make are:

1. portfolio of stocks you should hold,
2. which shares to buy and sell
3. when,

4. in what quantities, and
5. at what prices.
6. When an investor is assigned the role of a director, he/she also has to decide which of the three compensation schedules is given to the CEO.

At this early stage, make sure that you get to learn to conduct computer screen trading promptly and efficiently. CEO's ending wealth will consist of:

1. compensation received (stock plus bonus) from the firm, and
2. interest earned at 3 percent per period on their bank balances.

The decision CEOs have to make is the investment-dividend-production decision at the beginning of each period.

Learning Objectives

- Valuation of equity
- Motivating professional managers
- Absence of any link between rate of return on capital of the firm, and rate of return on shares in the market

Design Features

See appendix.

Strategy Assignment for Participants

If you are an investor, and you were assigned the additional role of a director who has to choose one of three possible compensation schedules (one mostly salary, a little bonus, a second which is mostly bonus, and little salary, and a third which has a moderate amount of both), how would you pick the compensation schedule. Explain your reasons.

Lab Assignment for Participants

Analyze the pattern of compensation paid to CEOs along the following dimensions:

1. What happened to salary as a percentage of total compensation as participants gained experience in this case?
2. What was the effect of offering high bonus/low bonus compensation packages on managerial decisions?
3. Also, analyze the pattern of stock transaction prices and their comparison to the net present values of subsequently realized cash flows of the firms.

Related Reading Assignments

Note: Using Pivot Tables is also available on the course web page to help you practice using the powerful pivot table feature of Excel. You may find it valuable for your career to learn this feature of Excel.

Note: Financial Statements, also available on the web page.