Corporate Finance, Module 15, “Common Stock Dividends”

Homework Assignment

(The attached PDF file has better formatting.)

{This homework assignment has two problems.}

Exercise 15.1: Cash Dividend

A firm with 20 million shares trading at $60 per share declares a 25% cash dividend: the dividend is 25% × $60 = $15 per share. If nothing else changes, and the dividend conveys no new information to shareholders, what is the price per share after the dividend is paid?

Use the following reasoning to answer this problem:

A. What is the total value of the firm before the cash dividend? (The number of shares times the price per share.)
B. What is the total cash distributed to shareholders? The money can not be created from thin air, so it must come from the firm’s market value. What is the market value of the firm after the cash dividend?
C. The number of shares has not changed. What is the value per share?

Exercise 15.2: Stock Dividend

A firm has 20 million shares trading at $60 per share when it declares a 25% stock dividend (not a cash dividend). If nothing else changes, what is the price per share after the new stock is distributed?

Use the following reasoning to answer this problem:

A. What is the total value of the firm before the stock dividend? (The number of shares times the price per share.)
B. The stock dividend is a paper transaction. No money changes hands, and no party incurs a financial obligation. An investor with 100 stock certificates receives another 25 stock certificates. The number of shares changes, but not the value of the firm. What is the number of shares after the stock dividend?
C. The paper transaction does not change the market value of the firm. If the market value does not change, what is the new value per share?

Question: The value of the firm has not changed and the value of each investor’s stock has not changed. The share price has changed, and the number of shares has changed, so the firm has reporting and mailing requirements that add expenses. Why does the firm do this?

Answer: Two reasons are often given for stock dividends and stock splits. A stock split is similar to a stock dividend, except that a stock split is usually larger. Typical examples are

! *Stock split:* each 100 shares become 200 shares
! *Stock dividend:* each 100 shares become 125 shares

These terms are conventions; we might have a 100% stock dividend or a 4 for 5 stock split.

The most common reason given for stock splits is to form more attractive stock prices. Some investment analysts believe that stock prices of $30 to $100 are the most marketable.

! If the price exceeds $100 a share, investors must pay over $10,000 for a block of 100 shares. Small investors may be reluctant to pay more than $10,000, so firms may try to keep their stock prices below $100.

! If the price is low, such as $5 a share, a block of 100 shares costs only $500, and the transaction expenses become a large percentage of the stock price.

The most common reason for stock dividends is that the firm wants to pay a regular cash dividend, since it is profitable, but it does not have the cash to do so. This might be true for a start-up high-tech firm, which is doing well, but wants to conserve its cash for growth. It pays a stock dividend to its investors to let them know that it is doing well but doesn't want to pay a cash dividend yet.