HSCC 450

Week 3

Lecture 2

Chapter 6: Valuing Assets

Objectives

- Explain the differences among the major approaches to valuation
- Explain the conceptual origin of discounted cash flow valuation
- Apply discounted cash flow models to the valuation of health care organizations
- Apply discounted cash flow models to the valuation of securities for which no active trading is available to establish a reliable market price

Key Terms

- Adjusted book value
- Appraisal
- Discounted cash flow
- Dividend discount model
- Goodwill
- Market value
- Valuation

Introduction

- The valuation of assets is one of the most useful applications of the time value of money discussed in the previous chapter (Chapter 5)
  - And, as one might expect, the valuation of an asset is simple "what things are worth" (derived from the text)

Value 1

- Due to the trends of the financial environment of health care, one must posses an understanding of the valuation process
  - This process entails the ability to place a value of the assets possessed by a health care organization
    - Even items considered assets, which do not have physical properties

Value 2

- The text provides the following as a medical practice:
  - The diagnostic equipment, the office supplies, and machinery, and the right to occupy space

Value
3

- The ***value*** of the practice, however includes the following:
  - The value of the practice depends on the cash-generating power of patient and business relationships, rather than the market value of the things the practice owns
    - Accounts use the above definition to define “goodwill”
      - It is difficult to assign a “value” to goodwill

Value
4

- A few of the key terms for this chapter *valuation and appraisal* can now be defined
  - Appraisal is the process by which one determines the market value of the components of the organization
  - Valuation depends on the uses of the assets, name recognition, customer loyalty, and the degree of control being transferred

Valuation
5

- The change in the health care setting has required the process of valuation to change
  - Aside from physical assets the “reputation” of the organization must be considered
    - Consider the following situation; there are several different hospitals in your service area and you ask the patient which hospital they would like to go to
      - Why does the patient choose one facility over another

Approaches to Valuation
1

- There are essentially four methods to valuing firms, practices, assets, and securities

Approaches to Valuation
2

- One method is that an organization is worth twice its annual revenues
  - A share of corporate stock would be worth twice the issuing firm’s revenues per share.

Approaches to Valuation
3

- Another accepted measure advocates determine the organization’s worth as the sum of:
  - Equipment and fixtures at fair market value
  - Inventory valued at seller’s cost
  - Leasehold improvements at market value
  - One year’s net income

Approaches to Valuation 4

- Adjusted Book Value
  - This approach stipulates the numbers on the balance sheet (owner's equity or net assets) are an accurate reflection of an organization's value.
    - Additionally, this method would have a share of corporate stock share at the value as owner's equity per share.
      - The will be an attempt to account for inventory and AR at market value – this is ambiguous
      - *ACCOUNTING BOOK VALUES DO NOT REFLECT MARKET VALUES*

Approaches to Valuation 5

- Market Value
  - OK, this is what the book says about market value:
    - "Users of this approach seek to value one practice by identifying several comparable practices whose market values are known. Thus one might begin to value ABC Clinic by finding out the recent sale price of comparable XYZ Clinic. XYZ Clinic's recent sale price can be divided by its previous year's net income to determine its price / equity ratio. . . .

Approaches to Valuation 5 (continued)

- That ratio can then be multiplied by ABC's previous annual income to determine a market value for ABC
- ***W-O-W!***
- In plain language please . . .

Approaches to Valuation 5 (continued)

- This is an example some of you may be more familiar with:
  - Perhaps at your place of employment (as with mine) your salary (pay rate) my have recently undergone a "market study"

Approaches to Valuation 5 (continued)

- The salaries for "like services" (annual call volume, number of employees, number of ambulances, etc) are collected.
  - Then the salaries are adjusted for cost of living (as other areas of the country are different) and compared to the salary offered by your organization
    - Your pay is adjusted to reflect at least 90% of the "market value"
      - Most folks do not get a raise – sorry!

Approaches to Valuation 5 (continued)

- Can you identify a reasons why this approach may not be valid for:
  - Valuation of an organization
  - Salary adjustments (what we are really interested in!)

Discounted Cash Flow Valuation 1

- This particular approach is based on the assertion that any asset is worth the present value of all the cash flows that the asset will generate for its owner
  - Advocates feel that a bond's market value should be equal to the present value of the cash flows that its issuers promise to pay its buyers

Discounted Cash Flow Valuation 2

- Based on this method, a medical practice is the present value of the cash flows that the practice will generate for its owners.
  - An example for EMS
    - Take a private service for example, what is the value of the organization?

Discounted Cash Flow Valuation 3

- There are several questions that must be addressed regarding the discounted cash flow method
  - What is the logic which supports the idea of this method?
    - The text tells us to consider the topic of cash flows

Discounted Cash Flow Valuation 4

- This section begins the journey of "bonds"
  - In previous chapters the topic of bonds has been approached.
  - Let us visit the definition of bonds again
    - Bonds are a form of indebtedness that is sold to the public in set increments, normally in the neighborhood of $1,000. In return for loaning the debtor the money, the lender gets a piece of paper that stipulates how much was lent, the agreed-upon interest rate, how often interest will be paid, and the term of the loan.

Discounted Cash Flow Valuation 5

- So, what does this bond stuff have to do with the valuation of an organization?
  - Simple, if the organization can issue bonds to generate revenue to invest in the organization to increase the profitability of the organization; then the value of the organization is increased – right?

Discounted Cash Flow Valuation 6

- So, the term "discounted" comes from the previous chapter where we discussed "compounding" and "discounting"
  - The text covers a simple "zero-coupon" bond on page 112
    - A zero coupon bond bears no interest
      - Hence the term "zero"

Discounted Cash Flow Valuation 7

- Before we go any further, I would like for you to visit the following website for the “down and dirty” on bonds:
  - http://www.fool.com/bonds/bonds01.htm
- Please ensure you read the entire section on bonds – it will make the rest of the course much easier to understand

Applications of Valuations 1

- When the value of an asset needs to be determined but cannot be seen in the competitive market . . . Huh?
  - Oh, we need to determine the value of an asset which has no physical properties to it – that is corporate stock & bonds
    - Corporate stocks, regardless of the market price, will resolve at the present value of the expected cash flow

Applications of Valuations 2

- Stocks & Bonds
  - The primary difference between stocks and bonds is ownership
    - If you purchase bonds offered by a company, essential you are lending an organization funds
    - If you purchase stocks offered by a company, you become part owner of the company
      - As such, you have a “say” in the operation of the company

Applications of Valuations 3

- As we have previously discussed bonds, our major focus will be on stocks
  - There are two types of stock
    - Preferred stock
    - Common stock

Applications of Valuations 4

- Common stock
  - Represents the majority of stock held by the public
    - It has voting rights and the right to share dividends
      - When you hear about stocks being up or down, it always refers to common stock

Applications of Valuations 5

- Common stock
  - Actually, one of the most difficult to assign a value because the organization issuing the stock has no legal obligation to pay anything to its common stock holders
  - The dividend discount models is used to assign value to shares of common stock

Applications of Valuations 6

- Dividend discount models is based on the rule that the stock is worth the present value of the future dividends it will pay, to value corporate shares
  - The simplest DDM assumes that dividends will be constant forever
    - The following link provides a more detailed discussion of the DDM
      - http://www.fool.com/research/2000/features000406.htm

Applications of Valuations 7

- Preferred stock
  - Holders of preferred stock have fewer rights than those of common stock, except in the area of dividends
    - Companies issuing preferred stocks usually pay consistent dividends and preferred stock has first call on dividends over common stock
    - Generally, investors buy preferred stock for its current dividends

Applications of Valuations 8

- Now, for the bottom line
  - The calculations of dividends from the various stock options are too detailed for the purpose of this course.
  - However, the take home message is this:
    - Organizations can increase their value by the issuance of either stocks and/or bonds

The Case Study

- Please review the case study regarding the Mayo Foundation
  - The study outlines the various methods to arrive at the value of the foundation

Summary

- An organization may need to be valued in the absence of physical or tangible assets
  - These may include stocks and/or bonds