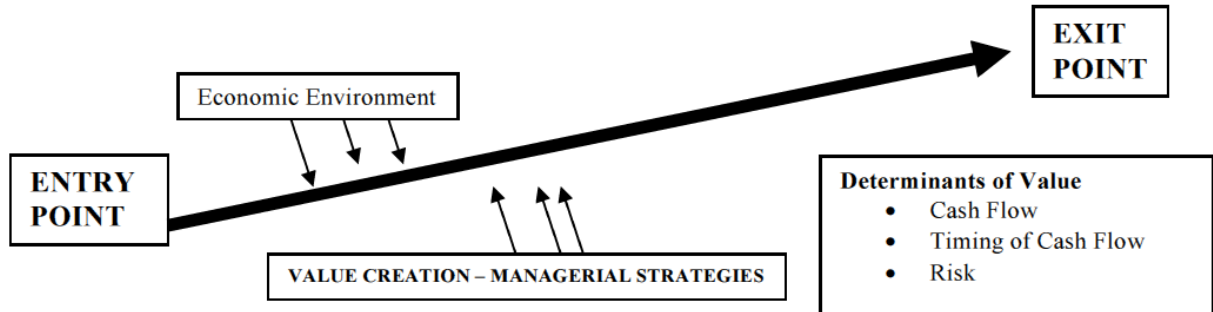


LECTURE 1

Value Creation



ECONOMIC ENVIRONMENT

- Level of economic activity
- Tax Rates & Regulations
- Competition

CHAPTER 1

Introduction to Valuation

- Every asset, financial as well as real has value – William Sharpe spent his whole life measuring values (CAPM). The key to successfully investing in and managing these assets lies in understanding not only what the value is, but the sources of value – level valuation (Easy to Difficult) – The Quants (The book) finding the TRUTH – finding ALPHA - The True Value
 - - the concept of that “the investor does not pay more for an asset than its worth” - every generation in every market the rediscovery of values – behavioral approach to valuation, technical approach and fundamental.
 - MYTHS:
 1. Valuation is objective (Quantitative models)
 2. Well researched analysis calculates the true val
 3. A good valuation provides a precise est. val
 4. The more quant the better value
 5. Markets are inefficient – money to be made

6. Process of val vs product of val

- TIME-Value of Money, Risk and Return concepts
- Role of Valuation
 - **Technical**
 - Portfolio management (Volatility, Return, Allocation and Time)
 - Chartists
 - Market Timers and Efficient Marketiers – The PIRANAS
 - **Fundamental Values** (Warren Buffet Approach)
 - Equity Valuation and Enterprise Value concepts
 - $EqV = (SO \times SP)$
 - $EV = Eq + D - C$

CHAPTER 2

Introduction to methodologies/models

DISCOUNT CASH FLOW

- Based on 4 assumptions: 1. Stream of cash, 2.Exit year, 3. Terminal Value and 4. Discount Rate

- **Present Value** = $\sum CF / (1+r)^t$
 - where CF = Cash flow for period t, r = Discount Rate (based on risk)

- **Equity Value** is $V_e = \sum CF(e) / (1+K_e)^t$
 - where CF(e) = Expected Cash flow to equity for period t, K_e = Cost of Equity based on equity risk)

- **Firm Value** is $V_f = \sum CF(f) / (1+WACC)^t$

- where CF(f) = Expected Cash flow to firm for period t, WACC = Weighted Average Cost of Capital based on firm risk)

DISCOUNT CASH FLOW CONCEPTS (VALUING EQUITY AND FIRM)									
Cost of Equity =	13.625%								
Borrowing Rate =	10.000%								
Tax Rate =	50.000%								
Value of LTD =	\$ 800								
Exit Year =	5								
		Interest (LT)							
	YEAR	CF (e)	After Tax	CF (f)		WACC	% Cap	Cost	WACC
	1	50	40	90	MV e =	\$ 1,073	57.3%	13.625%	7.805%
	2	60	40	100	LTD =	\$ 800	42.7%	5.000%	2.136%
	3	68	40	108	MV f =	\$ 1,873	100.0%		9.941%
	4	76.2	40	116.2					
	5	83.42	40	123.42					
Term Val=	5	1603.008		2363.008					
	PV (1) =	44		82					
	PV (2) =	46		83					
	PV (3) =	46		81	Method #1				
	PV (4) =	46		80	MV f =	using WACC $\sum CF(f) / (1+WACC)^t$			
	PV (5) =	44		77					
	PV (5) =	846		1471	Method #2				
	MV	1073	800	1873	MV f =	MV e + LTD			

- Transaction Sources & Uses
 - Firm can finance its assets using Debt or Equity or both - based Debt Capacity/Equity return expectation
 - Acquisition & LBO (Tax Benefits)
 - Bankrupt Firms (use of Black Sholes option)
 - Cyclical Firms – CF Assumptions adjusted
 - Asset based investments – equity values based on Residual Values/Terminal Values

RELATIVE VALUATION:

Most valuations are done on a relative value (M&A approach) – from house you buy to stock we invest are based on relative value – always compare

- Acquisition and Trading Multiples – *discussed at later lectures*
 - Valuation Methods for Publicly Traded Companies (Methods 2,3)
 - PE and EBITDA Multiples of publicly traded companies
 - PE and EBITDA Multiples of acquired companies

- Fundamentals Vs Comparables
 - Firm Growth Rates/Cost structure / ROE/ROA based on historical, industry, expectation
 - Comparables based on stock price trading multiples of industry sector / Beta concept (Vs market) – Eugen Fama’s recent Nobel price (2013) work on PE multiples – 15x and higher -

- Other Valuation Considerations
 - Size of Firm (Fama & French and William Sharpe)
 - BV Vs MV (BV Multiples –Fama & French) and Asset Based Valuation Models
 - Across Time (Mature vs New companies)
 - Option Pricing Model can determine value (Fischer Black and Myron Scholes, 1972 Black Scholes Model – *discussed later* – Using B/S and Binomial Pricing Models to value companies is called **Contingent Claim Valuation or Event Driven Valuation** (DCF for example assume no future events occur – everything is normal)
 - Call and Put Option – based on future value
LEAPS – Long term equity options

- **HOMEWORK**
 - **Text Book Question number 3a and 3b.**