San Jose State University
Fall 2015

BUS 179B – Business Valuation and Venture Capital

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Class Hours/Days/Room: (Sec 1) MW 10:30-11:45 BBC 021
Final Exam: (Sec 1) Tuesday, 12/15/15, 09:45-12:00
(Sec 2) MW 15:00-16:15 BBC 107
Final Exam: (Sec 2) Friday, 12/11/15, 12:15-14:30

Office Hours: MW 11:45-14:30; 16:30-17:15
And by appointment in my Office BT 850D

Required Texts:
• The Little Book of Valuation, Aswath Damodoran, John Wiley & Sons, 2011 (“AD”)

Extra Reading:
• Wall Street Journal, daily

Websites:
• www.aswathdamodoran.blogspot.com/
• www.wiley.com/go/littlebookofvaluation
Course Content

This course focuses on valuing and funding of various maturities, sizes, and structure. In this regard, the course will be developed in two parts. The first part will be the valuation of public corporations for which public accounting data are available is considered. Both intrinsic and relative methodologies are presented and evaluated. In general, relationships are developed and analyzed which determine how business value is created and enables managers to optimize the value of a firm. This includes identifying the key drivers of value of the firm. The methods of valuing private firms of various ages are also considered. This part of the course is referred to as “Business Valuation”. The second part of the course will focus on young, start-up, firms for which very little, or no public accounting data are available. Specifically, the methods for valuing and funding start-up firms are examined. The types of funding at various levels of development are emphasized. An analysis of the venture capital process is also provided. This part of the course is referred to as “Venture Capital”. Accounting issues are emphasized in the course, including Sec. 409A Valuations. A major part of the course is a project which values and analyzes an existing corporation.

Professor Background

Dr. Frank J. Jones teaches MBA (273), MSA (220X) and undergraduate courses in Business Valuation and Venture Capital courses at San Jose State University. He also teaches portfolio management (172B).

Dr. Jones has been on the Board of Directors of the International Securities Exchange (ISE), an electronic options exchange. In this capacity, he was involved in two major transactions which required business valuation. During March 2005, ISE was involved in an IPO using Morgan Stanley and Bear Stearns as investment bankers. Dr. Jones was the Vice Chairman of the Board and the IPO Pricing Committee during the closing of this transaction. During May 2007, ISE was acquired by Deutsche Borse, the large Frankfurt, Germany-based securities exchange. ISE used Merrill Lynch and Evercore Partners as investment bankers. Dr. Jones was the Chairman of the Board and a member of the Executive Committee during this transaction. Both of these transactions required extensive valuation activities working with external investment bankers, lawyers and accountants.

Currently, while also teaching, Dr. Jones is also the co-Chairman of the Investment Committee and also a principal of Private Ocean Wealth Management, a private, high net worth wealth management firm. Dr. Jones is also on the Business Valuation Committee of Private Ocean. Dr. Jones is also a partner and co-Chairman of the Investment Committee of Boldpointe Partners LLC, a private equity firm which specializes in middle market companies. Dr. Jones is also a minority owner of two other start-up firms. Dr. Jones’ domain expertise is Fintech.
Course Objectives

1) Understand the various stages in the development of a firm from a beginning stage start-up firm to a mature buy-out stage firm.

2) Understand the mechanisms for valuing a firm from three perspectives: accounting, finance, and practical shortcuts.

3) Understand that how the manager optimizes the value of a firm and what the key drivers of value are.

4) Understand how to forecast the requisite inputs – variables and ratios – into these models from current, past, and projected I/S and B/S of the firm and comparable firms.

5) Understand the sensitivity of the overall firm value to various variables and ratios from I/S and B/S.

6) Able to present and defend an overall firm valuation to a critical audience; identify the critical variables in this valuation; specify “upside” and “downside” valuations and their related scenarios; and compare the valuation with publicly available valuations (e.g. Wall Street analysts).

7) On a macro basis, understand how alternate business strategies can be appraised by determining their effects on firm value by using the appropriate assumptions in this methodology.

8) With respect to start-up firms:
   - understand the valuation methods of start-up firms
   - understand deal structures including the economic and control aspects of a term sheet and also capitalization tables
   - understand the venture capital process
   - understand the funding stages of a start-up firm

9) The course experiences continuous tension between understanding the:
   - forest: how value is created and destroyed in a firm; and
   - trees: detailed inputs to and outputs from valuation models.

Understanding both extremes is critical.

Course Grade

The final grade will be determined as follows:

- Project (comprised of a team component and an individual component): 40%
- Mid Semester Exam: 20%
- Final Exam: 40%

Class Conduct:

- The course should be very participative and interactive (that is, be “engaged”). Class engagement and involvement are expected.
Course Project

The project for the course is the valuation of an existing technology corporation in the Silicon Valley area. For the project, the class will be divided into teams of four to five students each. Those teams will be formed randomly. Each team will be assigned a corporation by the professor. The output for the project will be of two types:

1. A written report providing data and analysis of the valuation. This report will be in the form of power points which will be used in the presentation, no other writing.

2. A presentation to the entire class of a maximum of twenty minutes followed by a participative Q&A with the class, if feasible.

The tone of this presentation is that of senior investment bankers presenting to the CEO and CFO of a corporation interested in conducting a transaction with the company being valued. That is, the tone is serious.

The content of the project is provided below.

The sources of data for the project include:
(1) The financial information provided by the corporation
(2) Information on Yahoo, Finance and Morningstar
(3) Information the team obtains from the public relations department of the corporation.
(4) Other current information about the corporation (Google, Wall Street Journal, etc.)

Specific components of (1) are as follows:
• Form 10K and Form 10Q
  o Annual and Quarterly Financial Data (I/S, B/S, Cash Flow Statement, etc.)
  o MD&A (Management Discussion and Analysis)
    ▪ Discussion of results of operations, liquidity, capital resources, off-balance-sheet arrangements, and contractual obligations. Discussion should include trends, significant events and uncertainties, causes of material changes, effects of inflation and changing prices, and critical accounting policies. Although this section contains useful information, investors should be aware that this section is unaudited.
• Schedule 13 D
  o Required by 5% (or more) equity owners within 10 days of the acquisition event, and additions to their holding.
• SEC Schedule 13 F (Information Required of Institutional Investment Managers)
  o Quarterly report filed by institutional investors managing over $100 million. Lists the name and amount of each security held at the end of each quarter within 45 days of the end of a calendar quarter.
Accredited Investors (AI)
  o Require $1 million of net worth (excluding value of primary residence) or $200,000 per year of annual income ($300,000 per year for couple).

Comments on Projects:
- The entire presentation is the set of power points. Make sure that I have the set of power points used before the presentation.
- Be prepared for the Q&A with the class and me after the presentation.
- Turn in to me in class before the presentation the following:
  • The complete set of power points used in the presentation
  • The output of the major tables from the valuation program
  • The MD&A section from the latest 10K
- No additional writing other than the power points is required or permitted to be presented or turned in.
The corporations which will be assigned randomly to the teams will be from among those listed below:

1. Broadcom (BRCM)
2. Agilent (A)
3. Brocade (BRCD)
4. Intuit (INTU)
5. National Semiconductor Corporation (NSM)
6. Juniper (JNPR)
7. Adobe (ADBE)
8. Symantec Corp. (SYMC)
9. Nvidia Corp (NVDA)
10. TIBCO (TIBX)
11. VMware (VMW)
12. Riverbed Technology (RVBD)
13. Electronic Arts (EA)
14. Xilinx (XLNX)
15. SanDisk (SNDX)
16. Net App (NTAP)
17. Fairchild (FCS)
18. PMC Sierra (PMCS)
19. Echelon (ELON)
20. LSI (LSI)
21. SalesForce (CRM)
22. Xynga (ANGA)
The course outline is as follows.

**Course Outline**

I. **Introduction / Overview**
   a. Valuation Issues by Type / Size of Firm
      - Public firms
      - Private firms

II. **Business Valuation**
    a. See page 7

III. **Venture Capital**
     a. See page 9

IV. **Tax Issues**
    a. 83(b)
    b. 409(A)
    c. 382
    d. 1202
II. Business Valuation

1. Present Value Topics
   • General
   • DDM
   • Gordon Model

2. Valuation Overview
   • My Handout
   • A.D. Ch. 3&4

3. Yahoo! Finance: HPQ
   • P/E, PEG and other topics

4. Financial Planning: BBM

5. DuPont Model: ROE, ROA, Turnover and Leverage

6. Growth and Funding: Growth (g), ROE, Plowback

7. Cash Flows

8. Residual Income Valuation Equation:

   \[ R_t = (\text{ROE}_t - r_e) \text{CE}_{t-1}, \]

   Where \( r_e \) is calculated via CAPM; \( \text{ROE}_t - r_e \) is profitability; and \( \text{CE}_{t-1} \) is growth
   ○ This equation shows that value depends on Profitability/Growth

9. WACC/CAPM

10. Structured Financing

11. Valuation Models/Examples

12. Example: Kohl

13. Life Cycle of Firm (9/23/12 Handout)
   • General
   • CFO, CFI, CFF
   • AD: Ch. 5: Chs. 5, 6, 7, 8

14. Drivers of Value (My 1-Pager)

15. Types of Financing:
   • Stocks
- Preferred
- Convertibles
- Bonds
- Loans (Non-Bank and Bank)

16. Private Firms

17. Examples:
- ISE: IPO & Mergers
- Private Firms (Mine)
III. Venture Capital

A. Introduction
   a. Life Cycle of a Company
   b. Table of Contents
   c. Glossary
   d. Summary: Venture Capital
   e. Stages of Development/Funding
      - VC as an intermediary
      - PE/MF

B. Valuation
   a. Pre Money / Post Money
   b. 5X Deal
   c. First Round / Second Round
      - Funding New Ventures (HBS: 12/20/06)
   d. My Example: Up Round and Down Round
   e. Deal Structuring: (LLH, Ch.5)
   f. LLH Valuation: Strength & Weaknesses; (LLH, Ch.4)
      - Venture Capital Method

C. Term Sheet
   a. Liquidation Preference and Participation
   b. Other Terms: Vesting / Covenants / Antidilution (LLH, Ch. 5 pp. 139-149)
      Pay to Play (FM: pp. 47-49)

D. “The Deal” (F&M)
   a. Term Sheets
      - Economic Terms
      - Control Terms
      - Others Terms
   b. Letters of Intent – The Other Term Sheet
   c. The Capitalization Table

E. Other
   a. Discount / Premium
   b. DD Example
Projects

A. Initial Presentation:
   1. Brief Overview of Company
      - Sector/Industry
      - NI (Net Income) History/Comments
      - Stock Price History/Comments
   2. Slide on:
      - Products
      - Competitors (by Product)
      - Suppliers
      - Customers (by Product)
   3. Basic Data
      - Market Cap
      - Beta
   4. Basic Valuation Metrics (vs. Competitors)
      - Market Cap
      - P/E
      - P/BV
      - P/CF
      - P/Sales
      - PEG, etc.
      - How do these compare to competitors.
   5. Summarize the MD&A in the latest 10K.
   6. Current events of the Company
   7. Compare your firm to its own past and its “Industry” (via eVal and Yahoo! Finance)
B. **Final Presentation:**

1. Baseline Forecast ( “Quick and Dirty” Valuation)
   - Brief Sensitivity Analysis (Sales Growth and ROE)
2. Key Strategic Assumptions (based on MD&A if relevant)
3. Sales Growth Forecast ( the critical forecast)
   - Moat
4. Ratio Forecasts
5. eVal Baseline Forecast
   - Based on complete set of assumptions
6. Evaluate Market Price
   - Is it now over/under valued?
   - Compare the following metrics
     - P/E
     - P/BV
     - P/Sales
     - P/CF
     - PEG
   Recommendation: Buy/Hold/Sell?
7. EPS
   - vs. Wall Street estimates (Yahoo! Finance)
8. Cash Flow Analysis
   - Cash From Operations, Cash From Investments, Free Cash Flow
   - Relate to Cash from Financing
   - If your company does not pay a dividend, should it initiate one during the forecast period?
9. Funding Future Growth
   - gs (sales) vs. gi (internal)
   - gs (sales) vs. gst (sustainable)
10. What is the future funding policy as the corporation grows or contracts?
    - Issuance or reduction of equity and/or long term debt
    - Provide table of eVal output on funding
11. Risks of Baseline Forecast
    - Cyclical
    - Structural
      - Management
      - Market Growth
      - Competitors
      - Technology
    - Does MD&A provide any guidance on the risk?
12. Scenario Analysis- Based on Risks of Baseline Forecast
    - Baseline
    - Optimistic Scenario
      - Why?
    - Pessimistic Scenario
      - Why?
13. Growth
- Organic
  • R&D/NI for your company vs. competitors
- Acquisitions
  • Past activity and track record for company acquisitions.
  • Ability to fund
    a. “Consideration”
      i. Cash – Liquidity; Sources of Financing
      ii. Stock – do they want stock
      iii. Consideration used in past transactions

14. Prospective Business Strategy
- What would your recommendation be to the firm’s value increase?
  • Strategy as is.
  • Change strategy? How?
    a. R&D
    b. Innovation
  • Internal/Organic Growth
  • Acquisitions/External Growth
  • How funded (considerations)?
  • Be Acquired

15. Comment on the following:
- Management Culture
  • Briefly identify the culture of the firm
- Key Metrics
  • Re (and Beta)
  • ROE
  • ROA
  • CFO, CFI, CFF
  • gs (sales)
  • gi (internal)
  • gst (sustainable)
- Hurdle Rates
  • ROE vs. re (Need β)
  • ROA vs. WACC (Need debt interest rate)
  • ROA vs. Corporate interest rate (for leverage)
  • Financing Sales Growth (vs. gs = ROE x Plowback Ratio)
- Value Creation – Big Picture
  • Growth/Profitability
- Provide a table on key metrics, hurdle rates and value creation and interpretations

16. Remember to include your eVal output as an Appendix to your submission.
17. Sources of Data
- 10K/10Q SEC Filings (see p.20 of L&S)
- Yahoo! Finance
- Other sources
  - Use Google
- Contact Investor’s Relations Firm of your Corporation
  - Listen to 10Q presentation by CEO/CFO