Valuation: Closing Thoughts

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Back to the very beginning: Approaches to Valuation

- **Discounted cashflow valuation**, where we try (sometimes desperately) to estimate the intrinsic value of an asset by using a mix of theory, guesswork and prayer.
- **Relative valuation**, where we pick a group of assets, attach the name “comparable” to them and tell a story.
- **Contingent claim valuation**, where we take the valuation that we did in the DCF valuation and divvy it up between the potential thieves of value (equity) and the potential victims of this crime (lenders)
DISCOUNTED CASHFLOW VALUATION

Cash flows
Firm: Pre-debt cash flow
Equity: After debt cash flows

Expected Growth
Firm: Growth in Operating Earnings
Equity: Growth in Net Income/EPS

Value
Firm: Value of Firm
Equity: Value of Equity

Discount Rate
Firm: Cost of Capital
Equity: Cost of Equity

Length of Period of High Growth

Forever

Terminal Value

Firm is in stable growth: Grows at constant rate forever
Dante meets DCF: Nine layers of valuation hell.. And a bonus layer..

- The Wasserstein-Perella bonus layer
- From aggregate to per share value?
- No garnishing allowed!!
- The terminal value: It's not an ATM
- Debt ratios change, don't they?
- Are you paying for growth?
- What's in your discount rate?
- High growth for how long?
- Death and taxes
- Base year and accounting fixation
Layer 1: Base Year fixation....

- You are valuing Exxon Mobil, using the financial statements of the firm from 2008. The following provides the key numbers:
  - Revenues $477 billion
  - EBIT (1-t) $58 billion
  - Net Cap Ex $3 billion
  - Chg WC $1 billion
  - FCFF $54 billion

- The cost of capital for the firm is 8% and you use a very conservative stable growth rate of 2% to value the firm. The market cap for the firm is $373 billion and it has $10 billion in debt outstanding.
  a. How under or over valued is the equity in the firm?
  b. Would you buy the stock based on this valuation? Why or why not?
Layer 2: Taxes and Value

- Assume that you have been asked to value a company and have been provided with the most recent year’s financial statements:

  EBITDA 140
  - DA 40
  EBIT 100
  - Interest exp 20
  Taxable income 80
  Taxes 32
  Net Income 48

  Free Cash flow to firm
  EBIT (1-tax rate)
  -(Cap Ex – Depreciation)
  - Change in non-cash WC
  =FCFF

Assume also that cash flows will be constant and that there is no growth in perpetuity. What is the free cash flow to the firm?

  a) 88 million (Net income + Depreciation)
  b) 108 million (EBIT – taxes + Depreciation)
  c) 100 million (EBIT (1-tax rate)+ Depreciation)
  d) 60 million (EBIT (1- tax rate))
  e) 48 million (Net Income)
  f) 68 million (EBIT – Taxes)
Layer 3: High Growth for how long…

Assume that you are valuing a young, high growth firm with great potential, just after its initial public offering. How long would you set your high growth period?

- < 5 years
- 5 years
- 10 years
- >10 years

Typically, the revenue growth rate of a newly public company outpaces its industry average for only about five years.

Source: Andrew Metrick, The New York Times
Layer 4: The Cost of Capital

The cost of capital for Chippewa Technologies, a US technology firm with 20% of its revenues from Brazil, has been computed using the following inputs:

Cost of equity:
- Riskfree Rate = 5%
- Beta = 1.20
- ERP = 5%
- Small firm premium = 3%

Cost of equity = Riskfree Rate + Beta (ERP) + Small firm premium = 14%

Cost of capital:
- Cost of equity = 14% (Equity/ (Debt + Equity))
- Cost of debt = 3% (1-.30) (Debt/ (Debt + Equity))
- Debt/ (Debt + Equity) = (1000/2000)

Cost of capital = Cost of equity + Cost of debt = 8.05%

- Replaced current T.Bond rate of 3% with normalized rate of 5%
- Adjusted Beta from Bloomberg
- Both from Ibbotson data base, derived from 1926-2008 data
- ERP: Stocks - T.Bonds (Arithmetic average)
- Small firm: Smal stocks - Overall market

- From above
- Used market value of equity
- Company is not rated and has no bonds. Used book interest rate = Int exp/ BV of debt
- Used effective tax rate of 30%
- To be conservative, counted all liabilities, other than equity, as debt and used book value.
## The Correct Cost of Capital for Chippewa

<table>
<thead>
<tr>
<th>Input</th>
<th>What was used...</th>
<th>What should have been used...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riskfree Rate</td>
<td>Corrected treasury bond rate = 5%</td>
<td>Actual treasury bond rate = 3%</td>
</tr>
<tr>
<td>Beta</td>
<td>Bloomberg adjusted beta = 1.20</td>
<td>Sector average adjusted beta = 1.60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Based on small cap companies in sector)</td>
</tr>
<tr>
<td>Equity Risk Premium</td>
<td>Ibbotson premium = 5%</td>
<td>Updated implied ERP = 6.5%</td>
</tr>
<tr>
<td>Other adjustments to cost of equity</td>
<td>Small cap premium = 3%</td>
<td>No small cap premium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Country risk adjustment = Lambda_{Brazil}*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brazil CRP = 0.26*6.77% = 2.28%</td>
</tr>
<tr>
<td>Cost of equity</td>
<td>5% + 1.2 (5%) + 3% = 14%</td>
<td>3% + 1.6 (6.5%) + 2.28% = 15.68%</td>
</tr>
<tr>
<td>Cost of debt (pre-tax)</td>
<td>3%</td>
<td>3% + 6% (based on synthetic rating) = 9%</td>
</tr>
<tr>
<td>Tax rate</td>
<td>Effective tax rate = 30%</td>
<td>Marginal tax rate = 40%</td>
</tr>
<tr>
<td>Cost of debt (after-tax)</td>
<td>3% (1 -.3) = 2.1%</td>
<td>9% (1 -.4) = 5.4%</td>
</tr>
<tr>
<td>Debt ratio</td>
<td>Book ratio: Liabilities=50% Equity=50%</td>
<td>Market ratio: Interest bearing debt = 30%; Equity= 70%</td>
</tr>
<tr>
<td>Cost of capital</td>
<td>14% (.5) + 2.1% (.5) = 8.05%</td>
<td>15.68% (.7) + 5.4% (.3) = 12.60%</td>
</tr>
</tbody>
</table>
Layer 5: The price of growth..

You are looking at the projected cash flows provided by the management of the firm, for use in valuation

<table>
<thead>
<tr>
<th>Year</th>
<th>Current</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth rate</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Revenues</td>
<td>$100.00</td>
<td>$110.00</td>
<td>$121.00</td>
<td>$133.10</td>
<td>$146.41</td>
</tr>
<tr>
<td>EBIT (1-t)</td>
<td>$30.00</td>
<td>$33.00</td>
<td>$36.30</td>
<td>$39.93</td>
<td>$43.92</td>
</tr>
<tr>
<td>+ Depreciation</td>
<td>$15.00</td>
<td>$16.50</td>
<td>$18.15</td>
<td>$19.97</td>
<td>$21.96</td>
</tr>
<tr>
<td>- Cap Ex</td>
<td>$18.00</td>
<td>$19.80</td>
<td>$21.78</td>
<td>$23.96</td>
<td>$26.35</td>
</tr>
<tr>
<td>- Chg in WC</td>
<td>$3.00</td>
<td>$3.30</td>
<td>$3.63</td>
<td>$3.99</td>
<td>$4.39</td>
</tr>
<tr>
<td>FCFF</td>
<td>$24.00</td>
<td>$26.40</td>
<td>$29.04</td>
<td>$31.94</td>
<td>$35.14</td>
</tr>
</tbody>
</table>

What questions would you raise about the forecasts?
Layer 6: The “fixed debt ratio” assumption

You have been asked to value Hormel Foods, a firm which currently has the following cost of capital:

Cost of capital = 7.31% (.9) + 2.36% (.1) = 6.8%

a. You believe that the target debt ratio for this firm should be 30%. What will the cost of capital be at the target debt ratio?

b. Which debt ratio (and cost of capital) should you use in valuing this company?
Layer 7: The Terminal Value

- The best way to compute terminal value is to
  - Use a stable growth model and assume cash flows grow at a fixed rate forever
  - Use a multiple of EBITDA or revenues in the terminal year
  - Use the estimated liquidation value of the assets

You have been asked to value a business. The business expects to $120 million in after-tax earnings (and cash flow) next year and to continue generating these earnings in perpetuity. The firm is all equity funded and the cost of equity is 10%; the riskfree rate is 3% and the ERP is 7%. What is the value of the business?

- Assume now that you were told that the firm can grow earnings at 2% a year forever. Estimate the value of the business.
Layer 8. From firm value to equity value: The Garnishing Effect…

- For a firm with consolidated financial statements, you have discounted free cashflows to the firm at the cost of capital to arrive at a firm value of $100 million. The firm has:
  - A cash balance of $15 million
  - Debt outstanding of $20 million
  - A 5% holding in another company: the book value of this holding is $5 million. (Market value of equity in this company is $200 million)
  - Minority interests of $10 million on the balance sheet

- What is the value of equity in this firm?

- How would your answer change if you knew that the firm was the target of a lawsuit it is likely to win but where the potential payout could be $100 million if it loses?
Layer 9. From equity value to equity value per share

- You have valued the equity in a firm at $200 million. Estimate the value of equity per share if there are 10 million shares outstanding.

- How would your answer change if you were told that there are 2 million employee options outstanding, with a strike price of $20 a share and 5 years left to expiration?
Layer 10. The final circle of hell…

<table>
<thead>
<tr>
<th></th>
<th>Cost of Equity</th>
<th>Cost of Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennecott Corp (Acquirer)</td>
<td>13.0%</td>
<td>10.5%</td>
</tr>
<tr>
<td>Carborandum (Target)</td>
<td>16.5%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>
The Models You Used in DCF Valuation
What you found ...
<table>
<thead>
<tr>
<th>Company Name</th>
<th>Price</th>
<th>DCf Value</th>
<th>Price as % of value</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kodak</td>
<td>$2.88</td>
<td>$13.47</td>
<td>21.38%</td>
<td>Buy</td>
</tr>
<tr>
<td>Nabi Biopharmaceuticals</td>
<td>5.8</td>
<td>24.11</td>
<td>24.06%</td>
<td>Buy</td>
</tr>
<tr>
<td>E.ON</td>
<td>22.88</td>
<td>55.95</td>
<td>40.89%</td>
<td>BUY</td>
</tr>
<tr>
<td>Audiovox</td>
<td>$7.08</td>
<td>$13.68</td>
<td>51.75%</td>
<td>Buy</td>
</tr>
<tr>
<td>Netflix (NFLX)</td>
<td>$230.31</td>
<td>$385.87</td>
<td>59.69%</td>
<td>Buy</td>
</tr>
<tr>
<td>Grand Canyon</td>
<td>13.60</td>
<td>21.23</td>
<td>64.06%</td>
<td>Buy</td>
</tr>
<tr>
<td>Valiant Petroleum</td>
<td>5.17</td>
<td>8.05</td>
<td>64.22%</td>
<td>BUY</td>
</tr>
<tr>
<td>Woongjin Thinkbig Co. (KSE: 095720.KS)</td>
<td>17,100</td>
<td>25,880.00</td>
<td>66.07%</td>
<td>Buy</td>
</tr>
<tr>
<td>Banco Compartamos</td>
<td>$80.00</td>
<td>$119.97</td>
<td>66.68%</td>
<td>Buy</td>
</tr>
<tr>
<td>Goldman Sachs, &amp; Co.</td>
<td>$150.10</td>
<td>$224.54</td>
<td>66.85%</td>
<td>Buy</td>
</tr>
<tr>
<td>Paddy Power PLC</td>
<td>32.98</td>
<td>48.35</td>
<td>68.21%</td>
<td>Buy</td>
</tr>
<tr>
<td>Urban Outfitters</td>
<td>$31.73</td>
<td>$45.82</td>
<td>69.25%</td>
<td>BUY</td>
</tr>
<tr>
<td>Molycorp</td>
<td>$70.14</td>
<td>$98.88</td>
<td>70.93%</td>
<td>Buy</td>
</tr>
<tr>
<td>Apple</td>
<td>346.66</td>
<td>459,827,8739</td>
<td>75.39%</td>
<td>Buy</td>
</tr>
<tr>
<td>American Airlines</td>
<td>6.51</td>
<td>8.1</td>
<td>80.37%</td>
<td>BUY</td>
</tr>
</tbody>
</table>
The Most Overvalued stocks are...

<table>
<thead>
<tr>
<th>Company</th>
<th>Price</th>
<th>DCF value</th>
<th>Price as % of value</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>OpenTable, Inc.</td>
<td>$90.70</td>
<td>$50.10</td>
<td>181.04%</td>
<td>Sell</td>
</tr>
<tr>
<td>CEMEX</td>
<td>9.39</td>
<td>5.11</td>
<td>183.76%</td>
<td>Sell</td>
</tr>
<tr>
<td>Amazon.com, Inc. (NASDAQ: AMZN)</td>
<td>$197.60</td>
<td>$106.51</td>
<td>185.52%</td>
<td>Sell</td>
</tr>
<tr>
<td>Lions Gate Entertainment</td>
<td>$6.27</td>
<td>3.20</td>
<td>195.94%</td>
<td>Sell</td>
</tr>
<tr>
<td>NFLX</td>
<td>$229.47</td>
<td>117.09</td>
<td>195.98%</td>
<td>Sell</td>
</tr>
<tr>
<td>Tencent</td>
<td>185.53</td>
<td>86.71</td>
<td>213.97%</td>
<td>Sell</td>
</tr>
<tr>
<td>Lululemon Athletica</td>
<td>$91.28</td>
<td>$42.16</td>
<td>216.51%</td>
<td>Sell</td>
</tr>
<tr>
<td>OpenTable</td>
<td>$90.70</td>
<td>41.74</td>
<td>217.30%</td>
<td>Sell</td>
</tr>
<tr>
<td>Human Genome Sciences</td>
<td>$28.11</td>
<td>$12.09</td>
<td>232.51%</td>
<td>Sell</td>
</tr>
<tr>
<td>Starwood Hotels &amp; Resorts</td>
<td>$58.71</td>
<td>$19.41</td>
<td>302.47%</td>
<td>Sell</td>
</tr>
<tr>
<td>Geeknet</td>
<td>$24</td>
<td>$5</td>
<td>480.00%</td>
<td>BUY</td>
</tr>
<tr>
<td>NetFlix Inc</td>
<td>$231.05</td>
<td>$43.13</td>
<td>535.71%</td>
<td>Buy</td>
</tr>
<tr>
<td>Baidu</td>
<td>$148.52</td>
<td>$21.17</td>
<td>701.56%</td>
<td>Hold</td>
</tr>
<tr>
<td>Vertex Pharmaceuticals</td>
<td>$55.54</td>
<td>$7.34</td>
<td>756.68%</td>
<td>Sell</td>
</tr>
</tbody>
</table>
The ultimate test… Did undervalued stocks make money?
More on the winners...

- About 60% of all buy recommendations make money; about 45% of sell recommendations beat the market.
- There are two or three big winners in each period, but the payoff was not immediate. Buying Apple in 1999 would have led to negative returns for a year or more, before the turnaround occurred.
- Stocks on which there is disagreement among different people tend to do worse than stocks on which there is no disagreement.
- Stocks that are under valued on both a DCF and relative valuation basis do better than stocks that are under valued on only one approach.
Anna Kournikova knows PE…. Or does she?

- In use, the same multiple can be defined in different ways by different users. When comparing and using multiples, estimated by someone else, it is critical that we understand how the multiples have been estimated.

8 times EBITDA is not always cheap…

- Too many people who use a multiple have no idea what its cross sectional distribution is. If you do not know what the cross sectional distribution of a multiple is, it is difficult to look at a number and pass judgment on whether it is too high or low.

You cannot get away without making assumptions

- It is critical that we understand the fundamentals that drive each multiple, and the nature of the relationship between the multiple and each variable.

There are no perfect comparables

- Defining the comparable universe and controlling for differences is far more difficult in practice than it is in theory.
Value of Stock = \( \frac{DPS}{k_e - g} \)

**Equity Multiples**

- **PE** = Payout Ratio \( \frac{1+g}{r-g} \)
- **PEG** = Payout ratio \( \frac{1+g}{g(r-g)} \)
- **PBV** = ROE (Payout ratio) \( \frac{1+g}{r-g} \)
- **PS** = Net Margin (Payout ratio) \( \frac{1+g}{r-g} \)

**Firm Multiples**

- **\( \frac{V}{FCFF} \)** = f(g, WACC)
- **\( \frac{V}{EBIT} \)** = f(g, RIR, WACC)
- **\( \frac{Value}{FCFF} \)** = \( \frac{1+g}{WACC-g} \)
- **\( \frac{Value}{EBIT} \)** = \( \frac{1+g}{1-RiR}/(WACC-g) \)

Value of Firm = FCFF \( \frac{1}{WACC - g} \)
The Multiples you used were ...

![Bar chart showing the number of firms for various multiples]
DCF vs Relative Valuations

DCF as % of Relative Value

DCF as fraction of Relative Value

<50%  50-67%  67-90%  90%-100%  100-110%  110%-150%  150-200%  >200%

30.0
25.0
20.0
15.0
10.0
5.0
0.0
Most undervalued on a relative basis...

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Price</th>
<th>DCF Value</th>
<th>Multiple used</th>
<th>Relative Value</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadiz Inc.</td>
<td>12.00</td>
<td>10.70</td>
<td>EV/Sales</td>
<td>568.65</td>
<td>SELL</td>
</tr>
<tr>
<td>Rolter S.A.</td>
<td>$ 116.22</td>
<td>$ 116.22</td>
<td>VS</td>
<td>$ 1,228.49</td>
<td>Hold</td>
</tr>
<tr>
<td>Citigroup (NYSE: C)</td>
<td>$ 4.50</td>
<td>$ 5.37</td>
<td>PBV</td>
<td>$ 35.82</td>
<td>Buy</td>
</tr>
<tr>
<td>JIDMA</td>
<td>$ 2.45</td>
<td>$ 2.52</td>
<td>EV/EBITDA</td>
<td>$ 8.53</td>
<td>Sell</td>
</tr>
<tr>
<td>Nabi Biopharmaceuticals</td>
<td>5.8</td>
<td>24.11</td>
<td>VEBITDA</td>
<td>17.45</td>
<td>Buy</td>
</tr>
<tr>
<td>Fiat SpA</td>
<td>6.87</td>
<td>7.95</td>
<td>EV/Sales</td>
<td>16.45</td>
<td>BUY</td>
</tr>
<tr>
<td>Nokia Oyj (Helsinki: NOK1V)</td>
<td>€ 5.92</td>
<td>€ 6.93</td>
<td>PEG</td>
<td>€ 13.31</td>
<td>Buy</td>
</tr>
<tr>
<td>Hovnanian Enterprises</td>
<td>$ 2.88</td>
<td>$ 2.10</td>
<td>EV/Sales</td>
<td>$ 6.47</td>
<td>SELL</td>
</tr>
<tr>
<td>Geeknet</td>
<td>$24</td>
<td>$5</td>
<td>EV/Sales</td>
<td>$52</td>
<td>BUY</td>
</tr>
<tr>
<td>Valero Energy</td>
<td>26.79</td>
<td>32.79</td>
<td>VEBITDA</td>
<td>57.58</td>
<td>Buy</td>
</tr>
<tr>
<td>Atlantic Tele Network Inc.</td>
<td>$ 37.76</td>
<td>36.05</td>
<td>EV-EBITDA</td>
<td>80.72</td>
<td>Buy</td>
</tr>
<tr>
<td>Kodak</td>
<td>$ 2.88</td>
<td>$ 13.47</td>
<td>VEBITDA</td>
<td>$ 5.19</td>
<td>Buy</td>
</tr>
<tr>
<td>Valiant Petroleum</td>
<td>5.17</td>
<td>8.05</td>
<td>EV/Sales</td>
<td>9.22</td>
<td>BUY</td>
</tr>
</tbody>
</table>
Most overvalued on a Relative Basis

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Price</th>
<th>DCf Value</th>
<th>Multiple used</th>
<th>Relative Value</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>OpenTable, Inc.</td>
<td>$90.70</td>
<td>$50.10</td>
<td>PE</td>
<td>$30.48</td>
<td>Sell</td>
</tr>
<tr>
<td>Universal Health Services</td>
<td>$54.39</td>
<td>$41.86</td>
<td>EV/EBITDA</td>
<td>$43.20</td>
<td>Sell</td>
</tr>
<tr>
<td>Human Genome Sciences</td>
<td>$28.11</td>
<td>$12.09</td>
<td>EV/SALES</td>
<td>$12.30</td>
<td>Sell</td>
</tr>
<tr>
<td>NFLX</td>
<td>$229.47</td>
<td>$117.09</td>
<td>EV/Sales</td>
<td>$70.27</td>
<td>Sell</td>
</tr>
<tr>
<td>Lions Gate Entertainment</td>
<td>$6.27</td>
<td>3.20</td>
<td>EV/Revenue</td>
<td>$2.52</td>
<td>Sell</td>
</tr>
<tr>
<td>LULU</td>
<td>$94.95</td>
<td>$63.37</td>
<td>EV/Sales</td>
<td>$52.54</td>
<td>Sell</td>
</tr>
<tr>
<td>K+S AG</td>
<td>€54.96</td>
<td>53.74</td>
<td>PBV</td>
<td>€47.10</td>
<td>Sell</td>
</tr>
<tr>
<td>ERTS</td>
<td>$21.75</td>
<td>22.51</td>
<td>VEBITDA</td>
<td>$26.76</td>
<td>Buy</td>
</tr>
<tr>
<td>Anellotech</td>
<td>144.78</td>
<td>144.78</td>
<td>VS</td>
<td>$37.10</td>
<td>Hold</td>
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<td>OpenTable</td>
<td>$90.70</td>
<td>41.74</td>
<td>PS</td>
<td>$13.81</td>
<td>Sell</td>
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<tr>
<td>Pandora Media, Inc.</td>
<td>$5.93</td>
<td>5.93</td>
<td>EV/Sales</td>
<td>$2.53</td>
<td>Buy</td>
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<tr>
<td>CEMEX</td>
<td>9.39</td>
<td>5.11</td>
<td>P/E</td>
<td>6.40</td>
<td>Sell</td>
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<td>Ossurhf.</td>
<td>$1.75</td>
<td>$1.88</td>
<td>P/E</td>
<td>$1.71</td>
<td>Buy</td>
</tr>
<tr>
<td>Amazon</td>
<td>$197.60</td>
<td>$175.70</td>
<td>EV/Sales</td>
<td>$187.90</td>
<td>Sell</td>
</tr>
</tbody>
</table>
Contingent Claim (Option) Valuation

- Options have several features
  - They derive their value from an underlying asset, which has value
  - The payoff on a call (put) option occurs only if the value of the underlying asset is greater (lesser) than an exercise price that is specified at the time the option is created. If this contingency does not occur, the option is worthless.
  - They have a fixed life

- Any security that shares these features can be valued as an option.
Results of Option Valuations

- Number of firms valued using option models = 10
- Number of firms where equity was worth nothing before DCF model used = 3
- Median Percent increase in value for remaining firms = 58%
Your recommendations were to ..
Choices…Choices…Choices…

Valuation Models

- Asset Based Valuation
  - Liquidation Value
  - Replacement Cost
- Discounted Cashflow Models
  - Stable
  - Two-stage
  - Three-stage or n-stage
- Relative Valuation
  - Equity
  - Firm
  - Sector
  - Current
  - Normalized
- Contingent Claim Models
  - Option to delay
  - Option to expand
  - Option to liquidate
  - Young firms
  - Equity in troubled firm
  - Undeveloped land
  - Undeveloped Reserves

Equity Valuation Models
- Firm Valuation Models
- Excess Return Models
- Cost of capital approach
- APV approach
- Patent

Firm Valuation Models
- Book Value
- Revenues
- Sector specific

Equity
- Book Value
- Revenues
- Sector specific

Dividends
- Free Cashflow to Equity
Picking your approach

- Asset characteristics
  - Marketability
  - Cash flow generating capacity
  - Uniqueness

- Your characteristics
  - Time horizon
  - Reasons for doing the valuation
  - Beliefs about markets
What approach would work for you?

- As an investor, given your investment philosophy, time horizon and beliefs about markets (that you will be investing in), which of the approaches to valuation would you choose?
- Discounted Cash Flow Valuation
- Relative Valuation
- Neither. I believe that markets are efficient.
Some Not Very Profound Advice

- Its all in the fundamentals. The more things change, the more they stay the same.
- Focus on the big picture; don’t let the details trip you up.
- Experience does not equal knowledge.
- Keep your perspective. It is only a valuation.
- Luck dominates…
Or maybe you can fly…. 