VALUATION: THE VALUE OF CONTROL

Control is not always worth 20%. 
## Disney: Inputs to Valuation

<table>
<thead>
<tr>
<th></th>
<th>High Growth Phase</th>
<th>Transition Phase</th>
<th>Stable Growth Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length of Period</strong></td>
<td>5 years</td>
<td>5 years</td>
<td>Forever after 10 years</td>
</tr>
<tr>
<td><strong>Tax Rate</strong></td>
<td>31.02% (Effective)</td>
<td>31.02% (Effective)</td>
<td>31.02% (Effective)</td>
</tr>
<tr>
<td></td>
<td>36.1% (Marginal)</td>
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</tr>
<tr>
<td><strong>Return on Capital</strong></td>
<td>12.61%</td>
<td>Declines linearly to 10%</td>
<td>Stable ROC of 10%</td>
</tr>
<tr>
<td><strong>Reinvestment Rate</strong></td>
<td>53.93% (based on normalized acquisition costs)</td>
<td>Declines gradually to 25% as ROC and growth rates drop;</td>
<td>25% of after-tax operating income. Reinvestment rate = g/ ROC = 2.5/10=25%</td>
</tr>
<tr>
<td><strong>Expected Growth Rate in EBIT</strong></td>
<td>ROC * Reinvestment Rate = 0.1261*.5393 = .068 or 6.8%</td>
<td>Linear decline to Stable Growth Rate of 2.5%</td>
<td>2.5%</td>
</tr>
<tr>
<td><strong>Debt/Capital Ratio</strong></td>
<td>11.5%</td>
<td>Rises linearly to 20.0%</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Risk Parameters</strong></td>
<td>Beta = 1.0013, k_e = 8.52%</td>
<td>Beta changes to 1.00; Cost of debt stays at 3.75%</td>
<td>Beta = 1.00; k_e = 8.51%</td>
</tr>
<tr>
<td></td>
<td>Pre-tax Cost of Debt = 3.75%</td>
<td>Cost of capital declines gradually to 7.29%</td>
<td>Cost of debt stays at 3.75%</td>
</tr>
<tr>
<td></td>
<td>Cost of capital = 7.81%</td>
<td></td>
<td>Cost of capital = 7.29%</td>
</tr>
</tbody>
</table>
Cost of capital = 0.885 \times 8.52\% + 0.115 \times 2.4\% = 7.81\% 

Financing Choices
Mostly US $ debt with duration of 6 years

Financing Mix
D=11.5\%; E=88.5\%

Expected Growth Rate = 12.61\% \times 53.93\% = 6.8\%

Current EBIT (1-t) = $6,920

Reinvestment Rate = 53.93\%

New Investments Return on Capital = 12.61\%

Existing Investments Return on Capital = 12.61\%

Reinvestment FCFF

Year | Expected Growth | EBIT (1-t) | Reinvestment | FCFF | Terminal Value | Cost of capital | PV |
---|---|---|---|---|---|---|---|
1 | 6.80\% | $7,391 | $3,985 | $3,405 | 7.81\% | $3,158 |
2 | 6.80\% | $7,893 | $4,256 | $3,637 | 7.81\% | $3,129 |
3 | 6.80\% | $8,430 | $4,546 | $3,884 | 7.81\% | $3,099 |
4 | 6.80\% | $9,003 | $4,855 | $4,148 | 7.81\% | $3,070 |
5 | 6.80\% | $9,615 | $5,185 | $4,430 | 7.81\% | $3,041 |
6 | 5.94\% | $10,187 | $4,904 | $5,283 | 7.71\% | $3,367 |
7 | 5.08\% | $10,704 | $4,534 | $6,170 | 7.60\% | $3,654 |
8 | 4.22\% | $11,156 | $4,080 | $7,076 | 7.50\% | $3,899 |
9 | 3.36\% | $11,531 | $3,550 | $7,981 | 7.39\% | $4,094 |
10 | 2.50\% | $11,819 | $2,955 | $8,864 | 7.29\% | $4,966 |

Value of operating assets of the firm = $125,477
Value of Cash & Non-operating assets = $6,780
Value of Firm = $132,257
Market Value of outstanding debt = $15,961
Minority Interests = $2,721
Market Value of Equity = $113,575
Value of Equity in Options = $972
Value of Equity in Common Stock = $112,603
Market Value of Equity/Share = $62.56

Disney: Corporate Financing Decisions and Firm Value
Ways of changing value...

- **Cashflows from existing assets**: Cashflows before debt payments, but after taxes and reinvestment to maintain existing assets.

- **Growth from new investments**: Growth created by making new investments; function of amount and quality of investments.

- **Efficiency Growth**: Growth generated by using existing assets better.

- **Expected Growth during high growth period**: Since value creating growth requires excess returns, this is a function of - Magnitude of competitive advantages - Sustainability of competitive advantages.

- **Length of the high growth period**: Stable growth firm, with no or very limited excess returns.

- **Cost of capital to apply to discounting cashflows**: Determined by - Operating risk of the company - Default risk of the company - Mix of debt and equity used in financing.

- **Are you investing optimally for future growth?**

- **How well do you manage your existing investments/assets?**

- **Are you building on your competitive advantages?**

- **Are you using the right amount and kind of debt for your firm?**

- **Is there scope for more efficient utilization of existing assets?**
Current Cashflow to Firm
EBIT*(1-t)= 10,032(1-.31)= 6,920
- (Cap Ex - Deprecn) 3,629
- Chg Working capital 103
= FCFF 3,188
Reinvestment Rate = 3,732/6920
=53.93%
Return on capital = 12.61%

Disney (Restructured)- November 2013

Reinvestment Rate 50.00%

More selective acquisitions & payoff from gaming

Return on Capital 14.00%

Expected Growth .50* .14 = .07 or 7%

Stable Growth
g = 2.75%; Beta = 1.20;
Debt %= 40%; k(debt)=3.75%
Cost of capital =6.76%
Tax rate=36.1%; ROC= 10%;
Reinvestment Rate=2.5/10=25%

EBIT* (1 - tax rate) $7,404 $7,923 $8,477 $9,071 $9,706 $10,298 $10,833 $11,299 $11,683 $11,975
- Reinvestment $3,702 $3,961 $4,239 $4,535 $4,853 $4,634 $4,333 $3,955 $3,505 $2,994
Free Cashflow to Firm $3,702 $3,961 $4,239 $4,535 $4,853 $4,634 $4,333 $3,955 $3,505 $2,994

First 5 years

Cost of Capital (WACC) = 8.52% (0.60) + 2.40%(0.40) = 7.16%

Cost of Capital declines gradually to 6.76%

Move to optimal debt ratio, with higher beta.

In November 2013, Disney was trading at $67.71/share

Terminal Value_{10} = 9,206/(.0676-.025) = 216,262

Term Yr
12,275 3,069 9,206

Unlevered Beta for Sectors: 0.9239

Riskfree Rate: 2.75%

Beta 1.3175

ERP for operations 5.76%

Value/Share $74.91

Op. Assets 147,704
+ Cash: 3,931
+ Non op inv 2,849
- Debt 15,961
- Minority Int 2,721
=Equity 135,802
-Options 972

In November 2013, Disney was trading at $67.71/share

Cost of Debit
(2.75%+1.00%)(1-.361)
= 2.40%
Based on synthetic A rating

Weights
E = 60% D = 40%

Cost of Equity 10.34%

Riskfree Rate
Riskfree rate = 2.75%

Beta 1.3175

X

ERP for operations 5.76%
The value of control

- We have two values for Disney.
  - The status quo value per share, run by existing management with its current policies in place, is $62.56.
  - The “optimal” value, with changes to investing, financing and dividend policy yields a value per share of $74.91.

- The difference between the two values can legitimately be called the value of control.
  - Value of control = $74.91 - $62.56 = $12.35/share
Implications

1. The value of control should be greater at poorly managed firms than well run firms.
2. The market price of a company should reflect the expected value of control, which incorporates the probability that management will change.
   a. If corporate governance is so weak that there is no chance of management change, the expected value of control should go to zero and the stock price should converge on the status quo value.
   b. In the event of a control change (an acquisition or an activist investor waging a control battle), the likelihood of management change will increase and the stock should trade at close to its optimal value.
Task
Estimate the status quo & optimal values for your firm, and the value of control.