Equity Instruments: Newsletter – September 27, 2014

Where we are in class…

Lecture Notes Packet 1 (pdf)

Last session: Page 121

As of next week: Page 180

- Basics of DCF valuation
- Estimation of Discount Rates
- Estimation of Cash Flows
- Estimation of Growth Rates
- Estimation of Growth Patterns
- Choosing the Right Model
- Dealing with Loose Ends
- Valuation Examples
- The Dark Side of Valuation

Where you should be in the project…

DCF Valuation portion of Project

Item

1. Pick a firm
2. Obtain its financials
3. Find out the businesses that your firm operates in
4. Obtain a riskfree rate
5. Estimate a market risk premium
6. Estimate a bottom-up unlevered beta
7. Estimate the market value of equity and debt
8. Estimate a bottom-up levered beta
9. Estimate a pre-tax cost of debt (using actual or synthetic ratings)

→ 10. Convert operating leases into debt

11. Estimate a tax rate
11. Estimate a cost of capital
12. Capitalize R&D expenses
13. Estimate an adjusted operating income
14. Estimate net capital expenditures
15. Estimate non-cash working capital
16. Estimate Free Cash Flow to Firm
17. Estimate Free Cash Flow to Equity
18. Estimate a historical growth rate in earnings
19. Obtain analyst forecasts of growth in earnings for your firm
20. Estimate growth in earnings from fundamentals
21. Choose a length for the high growth period
22. Choose a DCF model
23. Value the firm/stock

Data Notes…

In the last week, we talked about both how to estimate bottom up betas and costs of debt. In the process, we also looked at bond ratings. You can get a description of how S&P rates companies at:
http://www2.standardandpoors.com/portal/site/sp/en/us/page.category/ratings/2,1,1,0,0,0,0,0,0,0,0,0,0,0,0,0.html
You can also get default spreads by rating class:
http://www.bondsonline.com (It used to be free but you have to pay $35 for one day's spreads now…. You can use the spreads I have on my site for free)
You can get a market value for equity and a book value of total debt at Yahoo! Finance (Type your symbol and click on comparison)
If you want to estimate a market value for the debt, you will need an average maturity for the debt (which should be in the 10-K as a footnote) and interest expenses from the most recent year. The market value would then be:
Estimated Market value of debt = PV of interest expenses as an annuity for debt's maturity using the pre-tax cost of debt as discount rate + PV of the book value of the debt discounted back for the debt maturity at the pre-tax cost of debt.
For example, if your book value of debt is $ 150 million, interest expenses are $ 10 million, your debt has an average maturity of 5 years and the pre-tax cost of debt is 7%, the market value would be:
Estimated Market Value = $ 10 m (PV of annuity, 7%, 5 years) + $ 150 mil/1.07^5
= $ 41.00 + $ 106.94 = $ 147.94 million.
You can get the information of EBIT, effective tax rate, operating leases and R&D expenses from the 10-K filing:
http://www.sec.gov/edgarhp.htm

Miscellaneous FAQs

Is it true that I cannot analyze a foreign company if it has an ADR?
No. You just cannot analyze the ADR. You have to analyze the company in the local currency.
My company has no debt. How do I estimate the cost of debt?
Why do you need a cost of debt and does it matter?
My company has substantial operating leases. How do I estimate a rating and cost of debt?
This is a tougher question. I would modify the interest coverage ratio as follows:
Interest coverage ratio = (EBIT + Operating lease expenses)/(Interest Expense + Operating lease expenses): Use this interest coverage ratio to estimate a rating and use the

rating to come up with a pre-tax cost of debt. Use that rate as the rate to compute the present value of operating leases)

My company has no operating leases or R&D. What am I missing?

Many companies have neither. Don't look a gift horse in the mouth.