

### Checklist for DCF Valuation

<i>Item</i>	<i>These might be useful..</i>	<i>Try these data sets/ spreadsheets</i>
1. Pick a firm	Negearn.xls: Contains money losing firms Higrowth.xls: Contains high growth firms	
2. Obtain its financials	Bloomberg (Try FA) Annual reports 10-K	
3. Find out the businesses that your firm operates in	Usually in 10-K. Firms in the US have to break out revenues and operating income by segment.	
4. Obtain a riskfree rate	Depends upon the currency you do the analysis in	
5. Estimate a market risk premium	Depends upon where your firm does its business. If you can find this, use a weighted average. If you cannot, use the risk premium of the market where it is traded.	implprem.xls: (under spreadsheets) computes an implied premium for a market ctryprem.xls: (under datasets) has premiums for non-US markets
6. Estimate a bottom-up unlevered beta	You can either use the bottom-up unlevered betas that I have on my web site, or you can use the ESRCH option on Bloomberg for a more refined search.	betas.xls: (under data sets) has bottom-up betas by industry.
7. Estimate the market value of equity and debt	Remember to break up convertible debt into debt and equity and to estimate the market value of debt, using the average maturity of the debt. (If you cannot get the average maturity, use book value of debt as market value)	
8. Estimate a bottom-up levered beta	If you are using bottom-up unlevered betas from my site, remember that I did not capitalize operating leases in doing this computation. Use the debt to equity ratio, without operating leases, to compute the levered beta	levbeta.xls: (under spreadsheets) levers an unlevered beta
9. Estimate a pre-tax cost of debt (using actual or synthetic ratings)	If your firm has a rating, use the rating to come up with the pre-tax cost of debt.	Ratings.xls: (under spreadsheets) estimates a synthetic rating for your firm

	(using the default spread). If your firm does not have a rating, estimate a synthetic rating.	
10. Convert operating leases into debt	If you have a non-US firm that does not report commitments, and you cannot find the operating lease expenses from the current year, ignore this step. (You will need a pre-tax cost of debt to do this. Look at step 9)	Oplease.xls: (under spreadsheets) Converts operating leases into debt
11. Estimate a tax rate	You can use the effective tax rate, as long as it is not too different from the marginal tax rate (35% for US firms). If it is much lower, you might want to adjust this tax rate as you move through time.	
11. Estimate a cost of capital	Use the market value weights of debt (including operating leases) and equity (including conversion options) to estimate the cost of capital	Wacc.xls (under data sets): has typical costs of capital by sector. You can compare your cost of capital to these
12. Capitalize R&D expenses	You can use the broad guidelines that I have at the bottom of my spreadsheet to set an amortization period. Remember to adjust book value of equity, operating income and net cap ex as a consequence)	R&DConv.xls (under spreadsheets): does the conversion
13. Estimate an adjusted operating income	Adjust the operating income for one-time charges, operating leases and R&D. If you are going to normalized operating income, this is the place to do it.	Margin.xls (under data sets): has typical net and operating margins by sector.
14. Estimate net capital expenditures	Include R&D and acquisitions in cap ex. You might want to normalize acquisitions over time.	Capex.xls (under data sets) has typical net cap ex (before R&D) as a percent of after-tax operating income, by sector.
15. Estimate non-cash working capital	Include only non-cash current assets and non-debt current liabilities and look at it as a percent of revenues. You might want to average this number over time.	Wcdata.xls (under data sets) has typical non-cash working capital as a percent of revenues, by sector.
16. Estimate Free Cash Flow to Firm	Use the adjusted operating income,	

	adjusted net cap ex (including R&D) and non-cash working capital requirements.	
17. Estimate Free Cash Flow to Equity	You can either use book value debt to equity or market value debt to equity to compute FCFE. If you are conservative, go with the market value debt to equity ratio.	
18. Estimate a historical growth rate in earnings	This might not work for you if you have a short history or if your earnings were negative 5 years ago. Skip this step	Histgr.xls (under data sets) has historical growth rates in revenues and earnings by sector.
19. Obtain analyst forecasts of growth in earnings for your firm	You can get this from Bloomberg for your firm by typing EE	
20. Estimate growth in earnings from fundamentals	Use the net cap ex and non-cash working capital investments above (normalized) and compute a reinvestment rate. For ROC and ROE, remember to use book value of equity and debt at the beginning of the year. Use the adjusted earnings and book value	Fundgr.xls (under data sets) has fundamental growth rates in EPS, and FundgrEB.xls has fundamental growth rates in EBIT.
21. Choose a length for the high growth period	Look at the size of your company, its current growth rate and its competitive advantages. Be cautious as you go past 10 years.	
22. Choose a DCF model	Pick a model based upon leverage being stable over time (equity vs firm) and the difference between FCFE and dividends (if different, use FCFE)	Model.xls (under spread sheets) might help you pick a model. If it suggests an option model, use a 2-stage FCFE model
23. Value the firm/stock		You can use any of the valuation models that I have on my web site or build your own.