

Acquisition Valuation: Seven Steps back to Sanity...

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The original title I had was “Acquirer’s Anonymous: Seven Steps to Sobriety” but I decided that it showed my biases a little too strongly.

Lets start with a target firm

- The target firm has the following income statement:

Revenues	100
- Operating Expenses	80
= Operating Income	20
- Taxes	8
= After-tax OI	12

- Assume that this firm will generate this operating income forever (with no growth) and that the cost of equity for this firm is 20%. The firm has no debt outstanding. What is the value of this firm?

Could not be simpler:

Value of the firm = $12 / .20 = 60$ million

Test 1: Risk Transference...

- Assume that as an acquiring firm, you are in a much safer business and have a cost of equity of 10%. What is the value of the target firm to you?

Does not change. You cannot make the argument (though many do) that since it is your equity that is being used to fund the acquisition, you can use your cost of equity (which would lead you to double the value of the target firm).

Step 7: Don't transfer your risk characteristics to the target firm

- The cost of equity used for an investment should reflect the risk of the investment and not the risk characteristics of the investor who raised the funds.
- Risky businesses cannot become safe just because the buyer of these businesses is in a safe business.

The reason lies in a basic principle in capital budgeting - that a project's discount rate should reflect the risk of the project and not of the entity taking the project. (Of course, this would also imply that you would use project specific costs of equity and capital....)

If you fail on this principle, safe companies will end up overvaluing and overpaying for risky companies (as many did in the late 1990s)

Test 2: Cheap debt?

- Assume as an acquirer that you have access to cheap debt (at 4%) and that you plan to fund half the acquisition with debt. How much would you be willing to pay for the target firm?

This is a tougher one and you may be tempted to argue that the new cost of capital for the target firm will be:

$$\text{Cost of capital} = 20\% (.5) + 4\% (.5) = 12\%$$

This would lead you to value the target firm at 100.

What is the problem with doing this? Remember that the reason you are able to borrow money is because you as the acquiring firm have excess debt capacity and you are able to borrow at low rates because you have no default risk. If you use this lower cost of capital, you are in effect subsidizing the target firm stockholders with your excess debt capacity.

How about if the target firm could have afforded to have a 50% debt ratio and a 4% cost of debt? That is a different question and can be considered a value for control. If you pay 100, though, you do all the work of bringing them to their optimal debt ratio and the target firm stockholders walk away with all of the benefits.

Step 6: Render unto the target firm that which is the target firm's but not a penny more..

- As an acquiring firm, it is entirely possible that you can borrow much more than the target firm can on its own and at a much lower rate. If you build these characteristics into the valuation of the target firm, you are essentially transferring wealth from your firm's stockholder to the target firm's stockholders.
- When valuing a target firm, use a cost of capital that reflects the debt capacity and the cost of debt that would apply to the firm.

The minute you start building into the valuation strengths that flow from you (as the acquiring firm), you start giving target firm stockholders premiums that they do not deserve.

Test 3: Control Premiums

- Assume that you are now told that it is conventional to pay a 20% premium for control in acquisitions and that you are still okay because you will be paying only 6 times EBITDA. How much would you be willing to pay for the target firm?

Wrong on both counts. Control can be worth nothing (or 50%) and rules of thumb are useless.

Step 5: Beware of rules of thumb...

- Valuation is cluttered with rules of thumb. After painstakingly valuing a target firm, using your best estimates, you will be often be told that
 - It is common practice to add arbitrary premiums for brand name, quality of management, control etc...
 - The target company is cheap if it trades at below some arbitrary value - 8 times EBITDA, 15 times earnings, PE less than the growth rate, below book value...

Rules of thumb in billion dollar valuations are signs of laziness and indicate an unwillingness to actually estimate the value of control or what a reasonable value to EBITDA multiple is for a firm.

Control can be worth 20%,0% or 100%

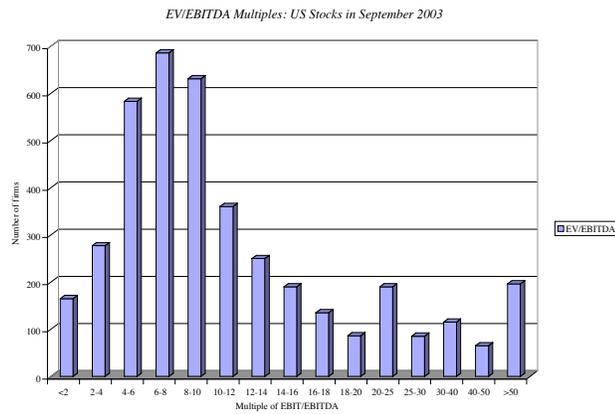
- The value of control is the difference between the firm run as is (status quo) and the value of the firm run optimally.
- In the illustration used, assume that you can run the target firm better and that if you do, you will be able to generate a 30% pre-tax operating margin (rather than the 20% margin that is currently being earned).
- Value of control = $30 (1-.4)/.20 - 20 (1-.4)/.20 = 30$
- Control as a percent of value is 50%.
- The bottom line is that control can be worth a lot in badly managed, badly run firms and not much in well managed, well run firms.

As a firm becomes badly run, the status quo value can very quickly deviate from the optimal value. In practice, getting an optimal value will require assumptions about:

- a. Investment policy: What types of margins and returns on capital a well run firm will have in this business? (You can compare your firm to the industry averages, for instance)
- b. Capital structure: Is your firm under levered?
- c. Dividend and Reinvestment policy: Is the firm reinvesting too little (if the ROC is way above the cost of capital) or too much (if it is earning well below the cost of capital)

Once you value control, you have to figure out how much of the control you are willing to concede to target firm stockholders and how much you will claim for yourself. As a general rule, you should try to lay claim to any part of control that you feel would be impossible to claim without your intervention.

Is 8 times EBITDA cheap?



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Shows you how dangerous rules of thumb can be. 8 times EBITDA is a commonly used rule of thumb on Wall Street. If you look at the distribution of multiples across the market, you can very quickly see that there are literally hundreds of firms that trade at well below this rule of thumb and that the median for the entire market is less than 8 times EBITDA.

Test 4: Synergy....

- Assume now that you are told that there are potential growth and cost savings synergies in the acquisition. Would that increase the value of the target firm?
- By how much?
- Should you pay this as a premium?

Answer to part a

Not unless I am given specifics. Buzz words are worth nothing.

Answer to part b

By the present value of the cashflows that will be generated by the synergy

Answer to part c

Since synergy requires both the acquiring firm and the target firm's strengths to be pooled, you (as the acquirer) should demand your fair share of that synergy. If there are literally dozens of firms that have the strength you bring to the merger, odds are that you will end up with very little of the synergy.

Step 4: Don't pay for buzz words

- Through time, acquirers have always found ways of justifying paying for premiums over estimated value by using buzz words - synergy in the 1980s, strategic considerations in the 1990s and real options in this decade.
- While all of these can have value, the onus should be on those pushing for the acquisitions to show that they do and not on those pushing against them to show that they do not.

To value synergy, you would need to do the following:

- a. Value the two firms independently
- b. Define how synergy will show up in the combined firm. It can take the form of higher growth (with growth synergies), higher margins (with cost saving synergies), longer growth period (with strategic synergies).
- c. Value the combined firm with the synergy built in.
- d. Value of synergy = Value of combined firm (from step c) - Sum of the values of the independent companies from step a.

Synergy: Oft promised, seldom delivered...

- o A stronger test of synergy is to **evaluate whether merged firms improve their performance (profitability and growth)**, relative to their competitors, after takeovers.
 - o McKinsey and Co. examined 58 acquisition programs between 1972 and 1983 for evidence on two questions -
 - o Did the return on the amount invested in the acquisitions exceed the cost of capital?
 - o Did the acquisitions help the parent companies outperform the competition?
 - o They concluded that **28 of the 58 programs failed both tests**, and 6 failed at least one test.
- o KPMG in a more recent study of global acquisitions concludes that most mergers (>80%) fail - the merged companies do worse than their peer group.
- o **Large number of acquisitions that are reversed within fairly short time periods.** About 20.2% of the acquisitions made between 1982 and 1986 were divested by 1988. In studies that have tracked acquisitions for longer time periods (ten years or more) the **divestiture rate of acquisitions rises to almost 50%**.

Though there is little evidence of it in performance post-merger....

The performance of firms after mergers suggests that it is difficult to make mergers work. In general,

Mergers of equals are less likely to work than mergers of unequals - the political and cultural clashes are much more difficult to resolve.

Cost saving mergers seem to have better odds of success than growth synergy mergers. (Perhaps cost savings are more tangible and easier to deliver)

Some of the most successful acquisition strategies have been directed towards acquiring private firms where you do not have to pay a premium on the market price.

Mergers are more likely to work when firms plan for synergy before the merger rather than just hope that synergy shows up.

Test 5: Comparables and Exit Multiples

- Now assume that you are told that an analysis of other acquisitions reveals that acquirers have been willing to pay 5 times EBIT. Given that your target firm has EBIT of \$ 20 million, would you be willing to pay \$ 100 million for the acquisition?

Two basic problems here:

1. Sampling bias: Looking at transaction multiples (on other acquisitions), you are looking a sample of firms that are likely to have over paid. If you are going to do relative valuation, at least look at how other publicly traded companies in the sector are trading at. Better still, try to control for differences between your firm and these comparable firms.
2. If the market is, on average, wrong and overpaying for stocks in a sector, you will end up overpaying as well. This problem becomes even worse when you use the industry average to estimate terminal value in acquisition valuations. If the market is wrong, it is likely to correct well before you get to your terminal year.

Step 3: Don't be a lemming...

- All too often acquisitions are justified by using one of the following two arguments:
 - Every one else in your sector is doing acquisitions. You have to do the same to survive.
 - The value of a target firm is based upon what others have paid on acquisitions, which may be much higher than what your estimate of value for the firm is.
- With the right set of comparable firms (selected to back up your story), you can justify almost any price.

The fact that everyone else in the sector is doing bad acquisitions and over paying for them is not a good reason to join the group. It is entirely possible that you are operating in a value destroying sector and it may be time for you to consider shrinking while everyone else is expanding or better still become a target of their acquisitions.

Test 6: The CEO really wants to do this...

- Now assume that you know that the CEO of your firm really, really wants to do this acquisition and that the investment bankers on both sides have produced fairness opinions that indicate that the firm is worth \$ 100 million. Would you be willing to go along?

Fairness opinions are not worth the paper they are written on. When the deal makers (investment bankers) also pass judgment on whether the deal makes sense (which is what the fairness opinion provides), you have a huge conflict of interest.

Step 2: Don't let egos or investment bankers get the better of common sense...

- If you define your objective in a bidding war as winning the auction, you will win. But beware the winner's curse.
- The premiums paid on acquisitions often have nothing to do with synergy, control or strategic considerations (though they may be provided as the reasons). They may just reflect the egos of the CEOs of the acquiring firms.
- The opinions of investment banks on the value of the deal itself are worth nothing (though they will charge you a substantial fee for offering them). Investment bankers make their money on the size of the deal and not on its quality.

This is not a macho game. CEOs are all too willing to fight out acquisitions with other people's money. Investment bankers are all too willing to go along. In a typical acquisition, who is watching out for the stockholders of the acquiring firm?

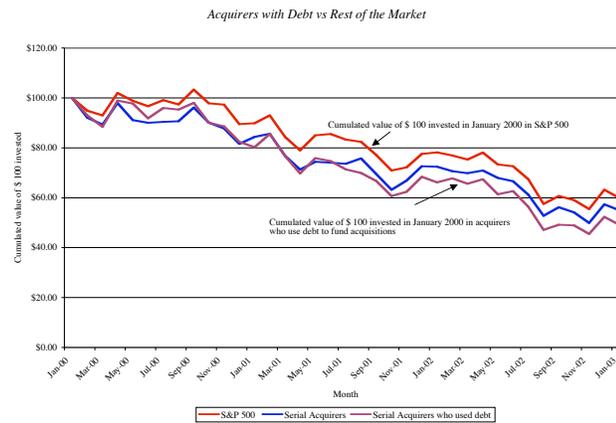
Step 1: With acquisitions, recognize that the odds are against you...

- Firms that do acquisitions often do so because they want to grow fast and at low cost.
- It is true that mature companies can buy growth companies and thus push up earnings growth, but at what price? If you pay too much for growth, your stockholders will be worse off...
- On average, the stock prices of acquiring firms falls on the date of the acquisition announcement by 3-4%.

This is a very tough game to win at. When you decide to grow through acquisitions, especially of publicly traded firms, the odds are against you because you always have to pay the market price plus a premium. It is not who you buy that determines the success of an acquisition, it is how much you pay.

The odds are better when you grow by buying private companies, where you assess the value and you are less likely to get into bidding wars. In addition, there are real constraints on private firms that may be removed when you take them over. This offers potential for increasing value.

And serial acquirers don't do well relative to their peer groups or the market...



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Small sample, short period but it does not look good for stockholders in acquisitive companies and it looks even worse for acquisitive companies that use debt.

Footnote: Of the top ten serial acquirers of the 1990s (Tyco, Cendant, GE, WorldCom....), 8 reported serious accounting problems in the years after. This is not surprising. Acquisitions complicate financial statements and allow for far more discretionary choices (remember pooling versus purchase) than would an equivalent amount spent on internal investments.