

# Mergers and Acquisitions: The Multiple Problems with Multiples

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In merger and acquisition situations, buyers and sellers frequently base their offers and asking prices on “multiples” of income – typically earnings before interest, taxes, depreciation, and amortization (EBITDA). While the theory behind multiples may be sound, the application of – and reliance upon – them in practical situations by buyers and sellers alike is often quite flawed.

## The Underlying Theory.

Though somewhat simplified, investment multiples are based, in part, on risk and return. Intuitively, we all understand that the greater the risk of an investment, the greater the potential return a buyer would need to induce them to make such an investment. That’s why, while you might be quite happy to earn five percent on an FDIC insured bank CD, you would expect a substantially higher return if you were to invest in, say, a riskier Internet start-up – or a home care company for that matter. Furthermore, since multiples are used to estimate the value of an investment *over time* based on *one year’s* earnings, they also reflect potential for growth (clearly, the greater an investment’s growth potential, the greater its prospective value). When the required rate of return on an investment, based upon its individual risk profile, is adjusted for

growth, you get what is referred to as a capitalization rate, which is the inverse of a multiple.

## A Simple Example:

Assume, based on the size, reimbursement climate, referral patterns, sales infrastructure, competition, management capacity, employee turnover, and other subjective criteria, that the risk profile of a subject company suggests a required rate of return of 25 percent. Furthermore, let’s assume an income growth rate of five percent. If we adjust the required rate of return for growth (by subtracting it), we get a capitalization rate of 20 percent (25 percent less five percent). To convert the cap rate to a multiple, we take its inverse (1/.20), giving us a multiple of 5.0. If the subject company’s representative earnings is \$1 million, then the implied value – based on *risk*, *return*, and future *growth* – would be 5.0 times \$1.0 million, or \$5 million.

That’s the theory. Here’s where, in practice, multiples can go wrong.

## Multiples May Understate the Value to a Particular Buyer.

As typically used in the market, the application of a multiple results in a measure of *fair market value*. That is, in simple terms, the average cash value a typical buyer would pay for a seller, with

both parties aware of all the relevant facts regarding the transaction, and neither being compelled to buy or sell. In the real world, however, buyers are often compelled to buy a specific company based on the specific and unique attributes of the seller and the specific and unique needs of the buyer. Under competitive market conditions then, such a strategically motivated buyer may be willing to pay an *investment value* premium above fair market value to acquire the firm. Accordingly, multiple calculations may understate the risk-return-growth fundamentals for a particular buyer.

## Required Rates of Return are Rarely Rigorously Determined.

While required rates of return can be rigorously estimated based upon historical returns on investments with similar risk patterns (often derived by combining risk-free rates of return based on government bonds with those derived from publicly traded companies – then adjusting these figures for company specific size and risk), buyers and sellers rarely consult such data. At best, buyers and sellers adjust base multiples (more on base multiples below) upward or downward to reflect reduced or heightened risk based on little more than anecdote and “feel.”

## Multiples are not intended to Capture “Hyper-growth.”

Since multiples are used to capture the value of a stream of income *over time* based on one year’s earnings, growth factors should conceptually represent that which could be expected in *perpetuity*. It is unreasonable to expect 20 percent, 30 percent, 40 percent or more growth for extended periods. Rather these growth rates tend to be limited to hyper-growth stages of three to five years. Furthermore, consider that if you adjust a 25 percent required rate of return with, let’s say, a 30 percent growth rate, you would wind up with a negative and meaningless capitalization rate (25 to 30 percent). Accordingly, although buyers and sellers try to adjust, i.e. force, multiples to fit hyper-growth situations, the result is, at best, guess work. The solution: a discounted cash flow analysis which, conceptually and separately values periods of hyper and perpetual growth.

Even in those situations in which firms are experiencing steady, “mature” growth, buyers and sellers rarely attempt to quantify long-term projections and specifically capture these assessments in their multiples. Rather, they “tweak” base multiples upwards or downwards to reflect better or less than average growth.

## Base Multiples are flawed.

As discussed above, we rarely see any rigor in analyzing and estimating required rates of return and growth, the building blocks of multiples. At best, we see buyers and sellers taking base multiples and adjusting them to reflect these critical factors. But where do these base figures come from? Conceptually, they are derived from industry “comps” (similar acquisition transactions). However, with extremely limited data available on comparable deals, in practice these base multiples are far more a function of “conventional wisdom” driven largely by self-confirming industry talk and speculation. Compounding this problem fur-

ther, promulgated over time by buyers and sellers alike, such “wisdom” often becomes quite “sticky” and resistant to change, even when the risk-return fundamentals of an industry have changed dramatically. That’s why, for example, still reeling from the devastating effects of the Balanced Budget Act of 1997, the market substantially undervalued home health providers even after the innovative and attractive Prospective Payment System was fully in place.

Moreover, “comps” often provide a distorted view of a transaction. Consider the fact that more often than not, sellers with the *lowest* EBITDA margins, counter intuitively, sell for *highest* multiples. Why? Because even the most underperforming companies, particularly those with size and infrastructure, have innate value. For example, in a competitive merger and acquisition market, a \$20 million, barely break-even company with \$100,000 in EBITDA could very well sell for \$3-4 million, *based on a percentage of revenue*, to reflect a buyer’s expectation of improving performance. The imputed multiple of 30-40, however, is *not meaningful*. That said, it makes for good press and can contribute to a distortion of the market and value expectations.

## The Earnings Base is often wrong.

In theory, multiples are supposed to be applied to the expected income stream in the period immediately *ahead*, i.e. next year’s earnings. However in many situations, multiples are inappropriately applied to historical earnings. This is particularly problematic for fast growing firms where an earnings base calculated on trailing twelve months results would be substantially less than even a conservative estimate for the go-forward twelve months based, perhaps on the last quarter annualized.

Additionally, while EBITDA is a widely accepted *measure* of earnings capacity, given the subjectivity regarding (a) *accounting* issues such as revenue recognition, accounts receivable reserves,

depreciation schedules, and other accruals, to name a few, that can have a profound impact on income, and (b) *adjustments* that should be considered to “normalize” earnings to adjust for excess compensation, discretionary expenses, one-time expenses, and others, there is no real *standard* for calculating earnings. Accordingly, the application of multiples against myriad computations of earnings is, at best, problematic.

## Multiples assume Cash Value when Transactions are often structured differently.

When multiples are properly used, the resultant value indication is cash value at close. To the extent that buyers structure transactions with notes at below-market-rate interest, contingent payments, restricted stock, or any other deferred or illiquid compensation, payments should be discounted to present value, yielding an adjusted multiple that may be lower than it initially appears.

## Multiples assume a Basic Transaction Structure that is often varied.

For value indications based upon multiples of EBITDA, it is fundamentally assumed that the buyer will acquire all of the operating assets of the company and the working capital (including acquired accounts receivable and assumed working capital liabilities) necessary to operate and sustain the business at its near-term projected level. Non-working capital or interest bearing debt is expected to be retained or paid off by the *seller*. If the basic structure is varied, however, the imputed multiple may be different than that initially proffered. For example, consider our previous example above in calculating a multiple. If the buyer paid \$5.0 million for the subject company and structured the deal so he acquired the accounts receivable, but the seller had to pay off \$500,000 in working capital liabilities, the “real” value of the deal would be \$4.5 million,

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corresponding to the “real” multiple of 4.5, vs. the 5.0 suggested.

### **Multiples, rather than Value, often become the Goal.**

Though all the problems with multiples above are significant, perhaps the most important problem of all is the tendency for buyers and sellers alike to fixate more on multiples than the dollars they are paying or receiving. Sellers can receive an extraordinarily high multiple of EBITDA, and an inappropriately low purchase price, if the earnings base is understated due to erroneous or inappropriate calculations of adjusted EBITDA, or choosing the wrong representative period. Alternatively, sellers can receive a low multiple of earnings and an extraordinarily high purchase price, if the

earnings base reflects a highly synergistic figure, absent all the overhead and infrastructure costs a buyer may be able to eliminate after the acquisition.

On the other side of the table, buyers, who may be unwilling to pay more than “x” times earnings, would do well to remember that while they may not want to pay for the above synergies that they bring to the table, when these synergies are conservatively estimated and factored in, they can yield a net multiple far more attractive than alternative acquisition candidates. Furthermore, buyers should conceptually evaluate their acquisition targets and valuation less so on whether they are at or below preordained multiple limits, but rather how each investment opportunity compares to others available to them, all within the context of their

near- and long-term goals.

Multiples, then, should not be the goal in buying or selling. Rather, they should serve merely as a tool to provide informative context to mergers and acquisitions. Better that buyers cultivate multiple investment opportunities, and sellers orchestrate strategically developed divestiture processes to arrive at aggressive, competitive, market driven value.

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