

Section: Features

Benchmarking – A Market Approach to Valuation

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Benchmarking is a well-used valuation approach that derives a value for an asset by direct comparison with historic transactions for similar assets. This feature discusses the mistakes that are commonly made in undertaking benchmarking and outlines best practice for effective use of this valuation methodology.

WHAT IS VALUE ANYWAY?

Valuation is an inexact science. It tries to pinpoint an objective property whilst allowing for free movement based on need and demand. Perhaps akin to the photon it can be in two places at the same time depending on how we choose to measure it. There are three well-used approaches to valuation. Firstly, there is the mathematically sophisticated, forward-looking approach of discounted cash flow (DCF) where all future cash flows (e.g. sales income, development cost outgoings) are 'discounted' back to today's money value and can also be risk adjusted with probabilities of occurrence. Secondly, valuation can be determined using the present day financial multiples approach, most useful where current sales or profits exist and industry sector data on transactions is readily available for comparison. The value of a going concern might be valued as, for example, 4 times its revenue (sales multiple approach) or say 10 times its EBITDA (earnings multiple approach). This 'multiples' approach can be combined with a DCF approach in growth situations where future performance multiples are discounted back to today's value. Lastly, 'benchmarking' can derive a value by direct comparison with similar historic transactions. For deals involving early-stage or precommercial companies the DCF and benchmarking approaches are most commonly used and are particularly useful in valuations involving risk-sharing arrangements such as licensing.

Unlike the DCF methodology that attempts to fix a narrow raft of assumptions in order to derive a set 'value' return, benchmarking follows a broader approach yet one that more comfortably handles the paradox of different values existing at the same time. At its heart, DCF is an internally focused approach that tempers intrinsic value with external variables. In contrast, benchmarking is essentially an externally focused approach that tempers its reflected value with internal variables. Critics might say that benchmarking therefore ignores the uniqueness of the subject preferring to draw 'value' from similarities found elsewhere. However, benchmarking does provide something that DCF approaches cannot, insight into the potential 'buyer'. When no one wants to buy gold its value goes down, when many seek to buy it the value of gold rises, so clearly value is as much a function of the buyer as it is the 'asset'. By benchmarking against historical

transactions we can uncover value-affecting behaviours relating to urgency, risk and maybe even negotiating competency within buyer groups. In the bio/pharmaceutical world uncovering that benchmarking behaviour is an essential part of preparing for a deal, particularly partnership deals such as licensing and collaborative R&D agreements. But having the right approach to benchmarking is critical to understanding its output. It is not enough to average out the upfront, milestone and royalty values, or the cumulative biodollar totals, from a basket of historic deals. Benchmarking is all about finesse, about finding the closest comparable transactions, uncovering the motives of the buyers, the current climate and buyers' appetite, the underlying trends that have affected the behaviour of dealmakers and seeking to draw parallels with your own subject asset.

COMMON MISTAKES IN BENCHMARKING

Avoid a tendency towards the average. Deals are unique and their values should reflect this. Imagine the six faces of a die, each different from the other. Knowing the mean value to be 3.5 $[(1+2+3+4+5+6)/6]$ tells us nothing about the likelihood of any number coming up on the next roll, and in benchmarking terms knowing the mean, that 'average' value, tells us nothing about which of, for example, six values best matches our own. Too often we see clients' benchmarking studies where 'mean' figures are quoted, derived from a seemingly relevant cohort of deals. As an example let us consider a Phase I oncology drug, in this case a small molecule with a broad range of potential indications, which we wish to out-license. What terms might we achieve and how do these terms reflect the value of this asset to us? We search our database, in this case PharmaDeals® v4, looking for Phase I oncology deals agreed in the past 10 years where upfront values were declared. Our search reveals 21 deals with an average upfront value of US\$29.54 M. Surely we can now expect to license worldwide rights to our asset for an upfront of about US\$30 M? No, if we consider only worldwide rights our data set falls to 11 deals with an average upfront payment of US\$44.72 M. Is the fact that our asset is a small molecule relevant? The average upfront for small molecules is only US\$26.67 M. The average for worldwide rights for small molecules is

US\$36.45 M. Is this the right target? How relevant is this subset? The range might give us some clue. Our worldwide small molecule upfronts range from US\$1 M to US\$75 M. Are we average? Lower? Higher? Already it should be obvious that averages, whichever of these sets or subsets we consider, tell us little. The PharmaDeals database is a powerful ally if we use it correctly, but like all data, misuse it at your peril. We need to bring in a host of other variables such as novelty, market opportunity size, molecule precedence and some of these will necessitate looking beyond the therapy area, particularly in the case of novel approaches to high unmet needs. Average then is a definite 'AVOID'.

Another area of possible confusion concerns the development phase of the 'comparable' deal. A licensing deal including a Phase I product is not necessarily the same as a Phase I licensing deal. Database searches will often identify any deal that includes a Phase I product, even though there may be, for example, a more highly developed asset also involved such as a Phase III drug or Phase III indication that is the major value driver for the deal figures. When the upfront appears to be too good to be true, the subject matter of the deal must be scrutinised.

Another distortion of the pure licensing data set can come from so-called 'options'. Sometimes an initial option payment can appear to be a licensing upfront. Initial option payments are of course upfront payments, but at this stage they are not components of a full licensing deal – the real deal will only occur if the option is exercised. Typically option payments will be less than the theoretical upfront and so if it is pure licensing deals that you wish to source as comparables, then the data set should be checked carefully and these option-based agreements discarded.

Watch too for out-of-date fashions. Certain therapeutic categories may have passed their heyday either from a change in attitude or from a saturation perspective. If there have been no deals in the past 5 years that match your own development phase and indication, despite high upfront values for such deals in the previous 5 years, you might be in a stronger position and therefore more attractive from a supply and demand perspective. Alternatively, no one may be interested in assets such as yours, particularly at your stage of development. Search for more developed comparables in recent years to see if the market is now more active for later stage assets. Categories such as drug delivery technologies or device plus drug combination products might have seemed to be a great idea 10 years ago but their appeal has waned somewhat, particularly in indications where genericisation has lowered the price umbrella. Now we can see the benefits of a good benchmarking process and the finesse that gives some timely insight into the buyer's role in

valuation, a role almost non-existent in the DCF approach, which assumes someone will license the asset and often that same someone will commercialise it successfully.

Beware of scaling factors when adjusting benchmarks. If you have a reasonable comparable, for example in geography and development stage, but believe your indication addresses a market ten times greater, it does not automatically follow that your upfront and milestone payments will be similarly scaled up. Many collaborative R&D deals involving the same big pharma partner, especially early-stage high risk ones, appear to have almost identical upfront and lump sum terms regardless of the market opportunity. Research your would-be partners deal-making history. In licensing deals, royalties constitute the lion's share of theoretical value and it is therefore through royalties, and particularly tiers in royalties, that the scale of the opportunity is addressed and not through the lump sum components.

SUCCESSFUL BENCHMARKING

When it comes to best practice in benchmarking there is no substitute for reading all available information on a deal in depth. The goal should be to find good comparables and these should be, hopefully, a few good 'probables', not baskets of 'possibles'.

If we are successful in our benchmarking quest, we will uncover three main pieces of information. Firstly, if we are lucky, we will see how broad or narrow the structure of a deal could be in terms of lump sum payments and, secondly, we will understand what percentages have been agreed as royalties in deals for products such as ours; this may be particularly relevant if we are benchmarking against deals involving a common (potential) licensee who may have preferred maximum and minimum splits around the key value components. Thirdly, we will see what directly competitive products or technologies have been the subject of those royalty and deal structure benchmarks.

When it comes to valuation there is no definitive answer to the right methodology or for that matter the right answer. Benchmarking, however, can tell us the most about the market, its behaviours and perceptions, its approach to risk and in the end it is the market that determines whether we have value to offer it.