
Licensing Deal Valuations

The Effect of the Credit Crunch, US Healthcare Reform and the Shortage of New Innovative Products

Roger Davies

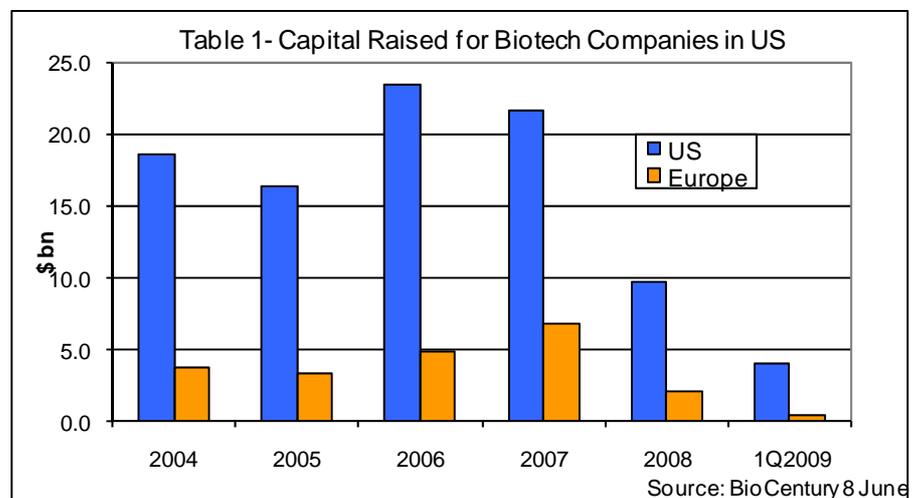
Medius Associates

This article was borne from personal experience negotiating deals from both sides of the table between biotech and pharmaceutical companies. It is our perception that the licensing behaviour of biotech companies had changed over the past two years as a result of the credit crunch.

To test if this was true, Medius undertook a 'snapshot' survey in the last two months amongst 10 biotech companies, 6 multinational pharmaceutical companies and 5 investor groups. The survey was undertaken using a questionnaire and telephone interviews. The objective of the survey was to discover if behaviour amongst investors, biotech and pharma companies had changed in the past two years and, if so, how that change of behaviour had affected licensing deals and deal values.

This led to a second question: whether the momentous events on the horizon such as the 'patent cliff' and the healthcare reform in the US will affect future deal values? From the survey we compared pairs of results: investors versus biotech companies; and biotech versus pharmaceutical companies.

The story starts with the events leading to the credit crunch and the effect this has had on the pharmaceutical and biotech sector. The immediate effect of the credit crunch was a reduction in the amount of cash available from investors to fund biotech companies. According to BioCentury, the capital raised for biotech companies in the US and Europe in 2008 was 50% less than the previous years and the funds raised in Europe now represents less than 10% of the US (Table 1).



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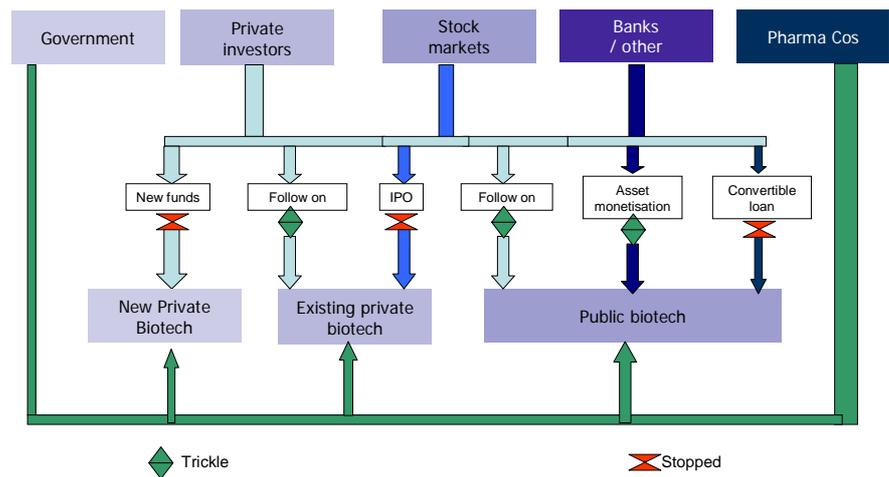
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The outlook is not much better. According to Ernst and Young's 2009 report¹ "Several characteristics of the current crisis make it unlike any previous funding challenge faced by the biotech industry" because of the size and speed of the financial crisis and the inter-connectedness with the real economy. The consequence of this is that a number of biotech companies have either gone into administration, merged or are struggling to survive. According to a report² by the European Biopharmaceutical Enterprises trade association, "Over 20% of European biotech SMEs and start-ups will be facing potential bankruptcy before end 2009 and the number of bankruptcies may be significantly higher in 2010 if the crisis effect on access to liquidities ...continues."

This crisis of liquidity is summarised in Table 2 which shows the sources of funds for biotech companies - the 'financial plumbing'. All the traditional sources of funds have either completely dried up or have been reduced to a trickle. Government funds are still available but tend to be small so the only real source of funds for the biotech companies is deals with the pharmaceutical companies.

Table 2
Biotech Companies - the Financial Plumbing

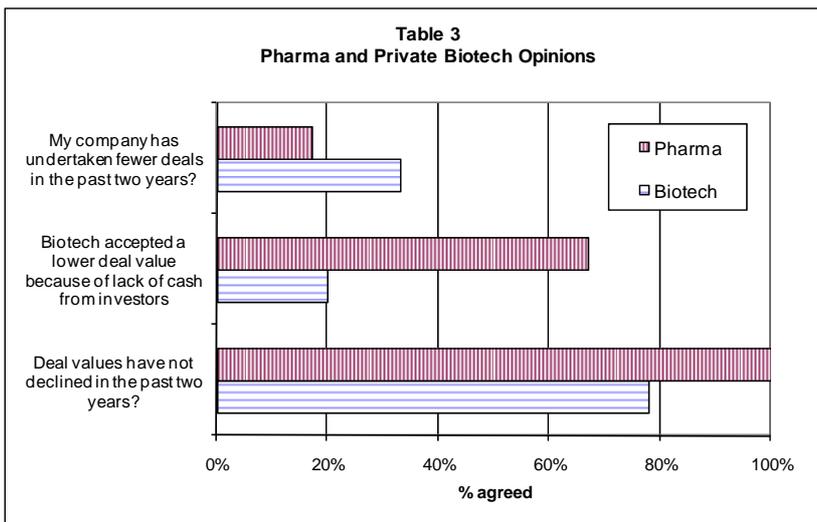


To understand how the investors' behaviour had changed as a result of the lack of availability of cash arising from the credit crunch, we asked if investors were limiting and drip feeding funds to existing companies and whether they were reluctant to invest in new companies. Needless to say both the investors and biotech companies unanimously agreed this was the case (Table 4). The investors commented that they were asking their biotech companies: to reduce costs; focus on cash and milestones; partner early; delay timelines and find non-dilutive sources of cash. Investors are now risk averse and are seeking to exit from their investments in private biotech companies.

In terms of finding non-dilutive cash, we have direct experience of biotech companies asking licensees for advanced payments on supply or assistance with working capital and capital expenditure. Some companies fortunate enough to have concluded deals have had the chance to monetise future revenue streams. For example Vertex sold their future milestone receipts on telapravir for \$155m representing 62% of the total potential value. Perhaps a high price to pay!

Many of the investor objectives are easier said than done for example to “partner early”. One pharmaceutical company said they were “swimming in opportunities” but were not rushing to close more deals. In fact according to Medtrack data the number of product and technology deals completed in 2005 and 2006 was nearly 4,000 but in 2007 and 2008 there were around 12% fewer deals and the first 9 months of 2009 the annual deal count has fallen to 3,200 (20% below the 2005/06 level). This reflects the results from our survey where 29% of the pharma and biotech companies said they had done fewer deals in the past two years (Table 3).

This raises the question why fewer licensing deals are being done. One would assume biotech companies are more desperate for cash and therefore more likely to accept a lower value deal. This is certainly the perception amongst pharma companies (but not biotech companies) where 67% agreed that biotech companies had accepted lower deal values because of the lack of availability of cash from their investors (Table 3). However, when asked if actual deal values had declined, 100% of the pharma companies said the reverse, namely, actual deal values have not declined. The response from the survey showed that none of the 6 pharma companies and only 2 biotech companies out of 9 thought that licensing deal values had declined over the past year (Table 3). This opinion contradicts the opinion expressed by In Vivo:3 “In an efficient partnering world, the collapse of the financial market should have decreased deal prices while increasing volume. It has done the former but not the latter.”

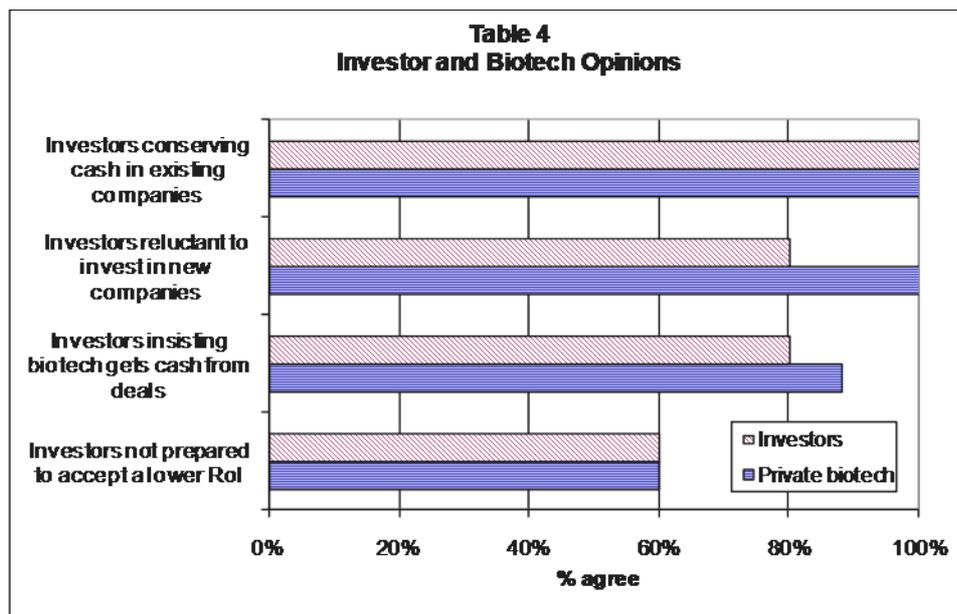


While deal values may not have declined there is a tremendous pressure to get more upfront cash from deals. This was confirmed by 80% of the investors and 88% of the biotech companies (Table 4). The problem is, a deal has to be completed before cash can be secured!! So what is stopping deals being done?

In our opinion it is primarily the behaviour of the investors that is stopping more licensing deals being done. We asked the **private** biotech companies if they had been prepared to accept a licensing deal but it was refused by their investors. 50% said yes.

We then asked the investors and private biotech companies “Are investors prepared to accept a lower return on investment?”

If they are, then by implication they would accept a lower deal value and more deals could be completed. 60% of the investors and 60% of the private biotech companies said that investors would not accept a lower ROI (Table 4). There was an underlying impression amongst the biotech companies that some investors “just haven’t got it”, namely, they have not adjusted to the new world brought about by the credit crunch. On the other hand 40% of the investors said they would accept lower multiples now, such as 5x (or lower) instead of 10x. Finally we asked the pharma and private biotech companies if the biotech companies were trying to sell the company rather than license the product or technology. 50% of the private biotech and 100% of the pharma companies said yes.



We have been unable to obtain any reliable information to explain why some investors are blocking licensing deals. We think the most likely reason is, firstly, because the investors believe that a licensing deal will require them to continue funding the biotech company and secondly because a licensing deal may make the biotech company less saleable in the short term and thereby delay the investors' exit.

So in summary, we concluded from the first part of our survey that the credit crunch has led to a substantial reduction in cash available to biotech companies, they have responded by seeking more licensing deals with more cash upfront but they have been unable to complete more deals partly because some investors are reluctant to accept lower deal values (or any licensing deal) because it will delay the investors' exit.

The second part of our survey dealt with **future** deal values. We were interested to understand what effect:

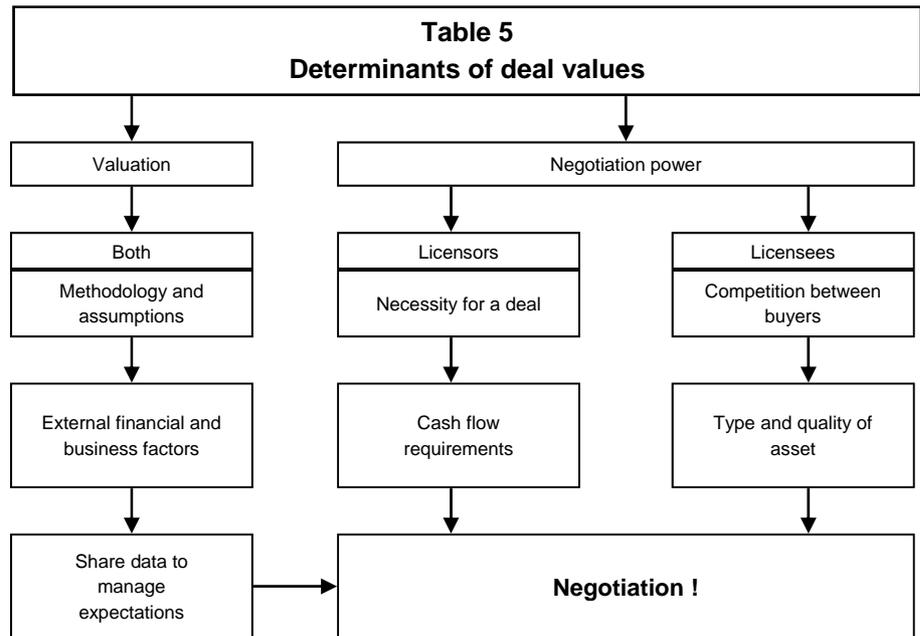
- a) The continued effect of the credit crunch on biotech companies plus
- b) The effect of the impending US healthcare reform plus
- c) The continued shortage of new innovative products versus the demand for such products (perhaps stimulated by demand from pharma companies facing the 'patent cliff')

would have on future deal values.

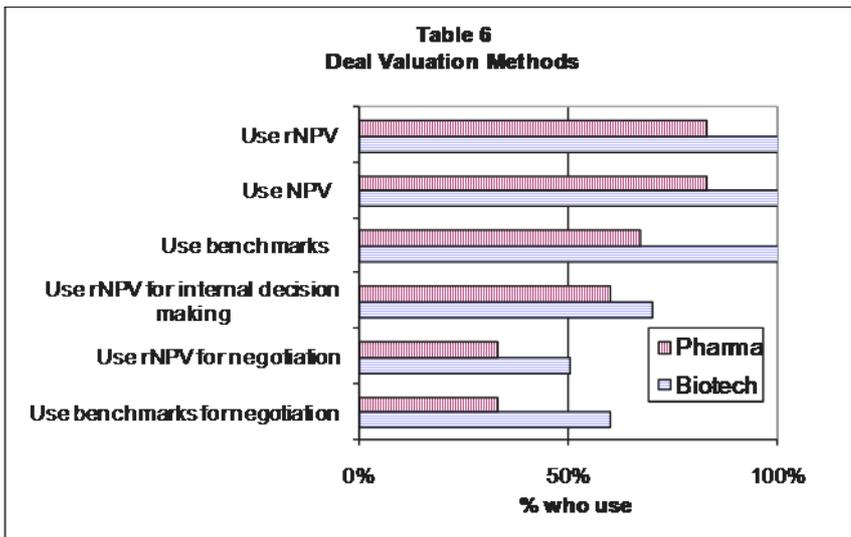
The \$80bn of price cuts agreed by the US pharma companies over the next 10 years as part of the US healthcare reform has been forecast to reduce worldwide industry profits by 3.6% and US company profits by 9%⁴. We can hypothesise that as a result of the reduction in prices, forecast peak sales for new products would be lower and as deal values are linked to peak sales, so deal values would also be lower. On the other hand, will the shortage of new innovative products mean that the biotech companies will have a stronger negotiating position and as a result deal values would continue to rise?

One key assumption in this hypothesis is that both pharma and biotech companies use similar valuation models and there is some degree of sharing of results e.g. peak sales, in negotiations that allows both companies to reach a consensus on the commercial potential for a new product. If they use different financial valuation methodologies and assumptions (such as the discount rate) then the effect on valuation of the external factors of healthcare reform and shortage of new products would be distorted.

The relationship between the valuation methodologies and assumptions and the external factors is shown in Table 5.



In terms of the financial methodology, we found a high degree of consistency in the results. 94% of the pharma and biotech companies used risk adjusted NPV (rNPV), 94% used NPV and 88% used benchmarks (Table 6). 67% of the companies said the technique they used most for internal decision making was rNPV and nearly 50% said rNPV and benchmarks were of use in negotiations. However there was a marked difference between biotech and pharma companies in the use of benchmarks. Basically pharma companies seldom use benchmarks for internal decision-making and negotiation, whereas benchmarks are used in negotiation by 60% of all biotechs and 80% of early stage biotechs. A number of companies commented that NPV was of limited use for early stage projects and benchmarks were preferred.

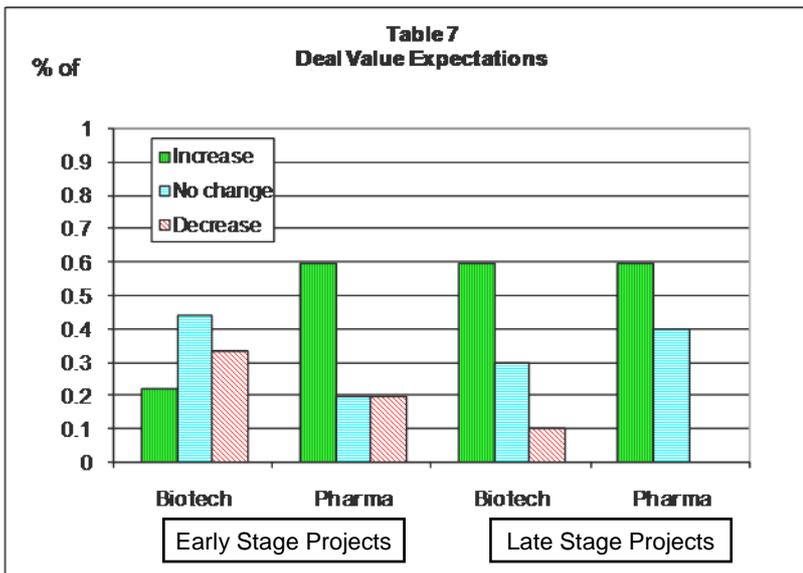


In terms of financial assumptions we found that the discount rates were often applied to pre-tax cash flow and were almost all in the range 10% to 15% with an average of 12%. Most of the discount rates were based on the company's WACC but the rest used hurdle rates. Few companies included in their calculations, working capital and tax relief on amortisation costs. 94% of the companies calculated the NPV for both themselves and the other side but only 31% shared this information. However 75% of companies shared peak sales results and 94% shared R&D costs. In the interviews it became clear that the pharma companies were much more reluctant to share data than the biotechs.

From this analysis we concluded that the financial methodologies and assumptions used by both pharma and biotech companies were similar and that there was a reasonably high degree of sharing of results that would lead to a consensus about the future commercial potential of new products. Having eliminated the financial methodology and assumptions as a factor in creating differences in future deal valuations, we then looked at the effect the external factors might have.

In reply to our questions as to what the major drivers of future deal values will be, shortage of innovative products and/or US healthcare reform, 92% said that it would be shortage of innovative products and 57% said healthcare reform. From the interviews it was apparent there is a general scepticism that the healthcare reform will have any significant downward pressure on future sales and profit of the industry and therefore on deal values. The reasons ranged from “the reform will never be implemented” to “if it is implemented, there will be an increase in volume to offset the reduction in price”. This latter argument we find surprising because if there is a 50% price reduction on a product with an 80% margin, the volume would have to increase by 75% increase to compensate. We can't help but think many companies still have a 'head in the sand' attitude to this issue.

Finally we asked the respondents to tell us if they thought deal values would increase, stay the same or decrease in the future, whatever the reason (Table 7). For early stage deals there was no real consensus except that four out of five of the early stage biotech companies thought that early stage deal values would stay the same or increase. Some wishful thinking perhaps!! On the other hand, 60% of companies thought that deal values of late stage products would increase and 33% thought they would stay the same.



However the companies commented that late stage deal values would only increase for 'quality' products. To demonstrate 'quality' requires the biotech companies to be able to generate convincing data preferably clinical data. To do so requires bigger, more expensive and longer duration studies because the regulatory authorities are constantly imposing tougher requirements for approval. As a result the biotech companies with products that have incremental rather than revolutionary improvements seek to partner without extensive data and therefore are unable to convince pharma of the 'quality' of their product. This we believe is another reason that deal volumes are falling. The biotech companies are desperate to partner early to obtain cash but they cannot demonstrate 'quality' and as a result the pharma companies, who in any case have limited capacity to absorb new projects, are saying no.

In conclusion, the last two years has seen a reduction in licensing deal volumes partly driven by investor behaviour and partly by pharma companies not participating in the 'partner early' strategy sought by biotechs. While deal values have not declined in the past two years according to most companies, there is an expectation that 'quality' late stage product deal values will increase in the future because the upward pressure from the shortage of new innovative products is expected to be a greater influence than the downward pressure from the US healthcare reform.

Biography

Roger Davies of Medius Associates is the former Chairman of the UK Pharmaceutical Licensing Group and is the course leader of the Finance module of the MSc in Business Development and Licensing at the University of Manchester.

At Medius, Roger specialises in structuring, valuing and negotiating licensing deals and product acquisitions.

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4. BioCentury, "PhRMA's \$80b Deal", 22nd June 2009, page A2.

If anyone would like a copy of the full report, please e-mail Linda Sterrett at Medius : linda@medius-associates.com