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Staged Take-Overs

A take-over is usually a one-time transaction of assets against cash. Part of the price can also be paid in shares of the acquirer, sometimes even the full amount (in this case it is rather a merger). Recently, some more complex take-over structures made headlines.

Sep 14, 2009: Alcon-ESBATech

Alcon entered into a definitive agreement to acquire ESBATech AG, a Swiss biotechnology company. Alcon will pay ESBATech shareholders $150 million in cash at closing, plus contingent payments of up to $439 million based upon the achievement of future research and development milestones that would be expected to create value for Alcon.

Oct 1, 2009: sanofi-aventis-Fovea

Fovea Pharmaceuticals entered into a binding agreement with sanofi-aventis to sell 100% of its share to sanofi-aventis. The deal is valued to a total of EUR 370 M, including an immediate upfront payment and subsequent milestone payments related to the progress of the clinical compounds.

Dec 7, 2009: Celgene-Gloucester

Celgene will acquire Gloucester Pharmaceuticals for $340 million in cash plus $300 million in future U.S. and international regulatory milestone payments.

Table 1: Recent staged deals.

Target	Acquirer	Upfront	Milestones	Total
ESBATech	Alcon	$ 150 M	$ 439 M	$ 589 M
Fovea	sanofi-aventis	yes	yes	€ 370 M
Gloucester	Celgene	$ 340 M	$ 300 M	$ 640 M

The shareholders of the acquired company do not get an exit all at once, but receive first a part and then subsequent payments that are linked to an event very much like milestone payments in a license contract. What are the implications on valuation and why do companies even opt for such deals?

For the acquirer a staged deal has the obvious advantage that in case of a failure – at least – it has not paid the full acquisition price. Seen like this, it is some kind of risk mitigation. On the other hand, if the project is successful and reaches the agreed milestone, the overall money spent on the transaction is larger than if the whole company would have been bought at once. But it's still cheaper as if they would only have decided to acquire the company after having reached that milestone. A staged acquisition is a good way to have the foot in the door, without having to pay already the full price.

For the acquired company such a deal is an exit scenario, sometimes earlier than anticipated. Investors can cash in already a certain amount of the company value while keeping still an upside with the milestone payments.

But apart from these risk-related considerations such deals are an interesting way to bridge different assumptions with respect to the clinical success of the compounds. Naturally, the buyer is always a bit more conservative in this respect, as it's the buyer who has to put some more money at risk to get the compounds to the market. The valuation of such deals follows the same lines like any risk-adjusted valuation: Multiply the cash flows with their probability to happen and discount them back to today.

Let us take a closer look at the Fovea-sanofi-aventis deal. Fovea has a pipeline of one compound with finished phase 2 trials, one with ongoing phase 2 trials and 2 compounds that just finished preclinical trials. Let us assume, e.g., that the deal is composed of a EUR 100 Mio upfront payment and three milestone payments at EUR 90 Mio each linked to each of the clinical compounds and to whichever of the preclinical compounds reaches clinical proof of concept first.

Table 2: Success rate assumptions.

	Phase 1	Phase 2	Phase 3
Kola/Landis	67%	40%	63%
Fovea	90%	60%	63%

We assume that Fovea has good reasons to assume, based on the results of the most advanced molecules, that the success rates of the younger projects are higher than average (compared to ophthalmology success rates from Kola and Landis, Nature Review on Drug Discovery, 2004). sanofi-aventis, on the other hand, adopts a more cautious view and uses the standard success rates, as any manipulation of success rates is subjective and somewhat arbitrary. Let us further assume that the milestones are due if the two clinical compounds successfully conclude phase 3 trials and one of the preclinical compounds reaches clinical proof of concept, i.e. finishes phase 2 trials.

Table 3: Milestones of the deal.

Compound	1	2	3 or 4
Current phase	Phase 3	Phase 2	Phase 1
Milestone	End of P3	End of P3	End of P2
Time from now	2 years	2.5 years	3 years
Amount (EUR Mio)	90	90	90

If we use, for the sake of the example, for both parties a discount rate of 12%, then the value (for Fovea) and the price (for sanofi-aventis) are calculated as in table 4.

Table 4: Calculation of deal value/price.

	1	2	3 or 4	Upfront	**Total**
Amount	90	90	90	100	
Prob (F)	63%	38%	54%	100%	
Prob (s-a)	63%	25%	27%	100%	
Time	2	2.5	3	0	
Discount	80%	75%	71%	100%	
rNPV (F)	**45.2**	**25.6**	**34.6**	**100**	**205.4**
rNPV (s-a)	**45.2**	**17.1**	**17.2**	**100**	**179.5**

We notice that the perceived value by Fovea is higher than the perceived cost by sanofi-aventis. A staged deal is therefore a good remedy if the two parties cannot find an agreement about the price. Imagine that EUR 180 Mio is the upper limit sanofi-aventis was ready to pay, but Fovea's investors wouldn't have sold for a price below EUR 200 Mio.

All assumptions are purely hypothetical and should only serve as example.