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Business Appraisers

Valuation updates | Valuation of contingent consideration

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This thought leadership paper provides insights on valuation of contingent consideration.

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Introduction to contingent consideration

Contingent considerations are typically employed in transactions to bridge the valuation gap between buyer and seller arising from differences of opinion regarding the target company's future economic prospects. It helps to get the buyer and seller on the same page when it comes to valuation.

Let's examine the basic concept by way of an example:

Company A intends to acquire company B. Company B has just introduced a new product line that is expected to generate significant sales. Company B's owners have projected significant amount of sales from the proposed product line and is considering the same to influence the deal size. The buyer on the other hand believes that, there is a risk of uncertainty in the achievement of targets contemplated by the acquiree and hence a disagreement in the deal valuation. By incorporating a contingent consideration clause in the purchase agreement, the seller accepts part of the business risk along with the buyer, and also participates in any upside post-transaction.
If Company B, post-acquisition is able to generate the revenue and margins as projected from the new product line, there shall be additional payments made to the owners on account of the same.
On the other hand, if the product line fails to get the desired results Company A need not make the additional payment.

In other words, a contingent consideration clause gives the parties to the transaction additional time in ironing out the uncertainties that exists at the time of deal closure by looking at actual performance post the closing.

Contingent consideration, also referred to as earn-out payment is an obligation of the acquiring entity to transfer additional assets or equity interests to the former owners of a target company. The consideration will only be paid if specified future events occur or conditions are met.

ASC 805, Business Combinations, IFRS 3 and Ind AS 103 requires that contingent consideration assets and liabilities be recorded at fair value on the acquisition date. Moreover, they also require the revaluation of most contingent consideration instruments at each subsequent reporting period until the final settlement of the obligation. Changes in the fair value of the instruments are then typically recognized in earnings. Thus, it is important to understand how to fair value contingent consideration and the different valuation models used.

Valuation of contingent consideration

❖ **Valuation models**

The materiality of the earnout estimate may influence the model complexity. Some methods may be risk-adjusted while others are risk neutral. Risk adjusted methods consider a discount rate to be the risk-free rate plus an additional risk premium. In risk-neutral methods, the discount rate considered is the risk-free rate. Following are various methods to fair value earnouts:

➢ **Discounted cash flow (DCF) analysis**

- **Framework:** Risk-adjusted method
- **Steps:**
  i. The target company's prospective financial information (PFI) is forecasted and analyzed over the term of the earnout
  ii. Expected payments and timing of the payment are determined which are then discounted to their present-value equivalent as of the acquisition date
- **Pros:** Approach is simplistic
- **Cons:** Limited to the analysis of a single scenario and is not well suited to capture multiple scenarios

Illustration:
The earnout is payable if EBITDA in year 1 is $5 million. The selected PFI assumes the EBITDA to be only $4 million, then the single PFI approach would conclude the fair value of the earnout to be $0.

➢ **Probability weighted expected return method (PWERM) or scenario methods**

- **Framework:** Risk-adjusted method
- **Steps:**
  i. Scenarios or outcomes with their respective probabilities are estimated
  ii. Expected payoffs are computed and discounted to their present value equivalent as of the acquisition date
- **Pros:**
  i. It is straightforward and intuitive
  ii. More robust than the DCF analysis regarding future outcomes
  iii. Suitable when volatility of PFI is high or where contingent payments are based on future events that will result in vastly different cash flows for the target company
- **Cons:** Difficulty in estimating appropriate discount rate, projecting the timing and occurrence of future events, as well as the associated cash flows.

Illustration:
$ 100 million is contingent upon obtaining FDA approval. Approval is expected to be received in year 1.

Particulars	Payment	Probability	Probability weighted payment
Approval obtained	$100	75%	$75
Approval denied	$0	25%	$0
Total		**100%**	**$75**
Discount rate			10%
Present value factor			0.91
FV of contingent consideration			**$68**

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Valuation of contingent consideration

➢ Monte Carlo method

- **Framework:** Risk-neutral method
- **Steps:**
  i. Random numbers are used to measure possible outcomes and the likelihood of occurrence
  ii. Assumptions must be made regarding the range of likely growth rates and earnings margins, as well as inputs related to minimum and maximum payouts under the earn out terms
  iii. If data is unavailable for multiple scenarios, then probability distributions related to key variables may be used
  iv. Simulation software may provide the expected value of the earnout, range of earnout payments, the frequency at which earnout is paid, etc.
- **Pros:** Numerous outcomes related to future company performance can be contemplated that may otherwise not be considered

➢ Black-Scholes Model

- **Framework:** Risk-neutral method
- **Steps:**
  i. The earnout represents a call option on the future performance of a target company
  ii. The price of a traditional call option is calculated by analyzing the volatility and opportunity cost of investing in the underlying asset
- **Pros:** Allows the calculation of many option prices in a short time
- **Cons:**
  i. It is complex and time consuming as it becomes difficult to convert cash flows to a risk-free basis and estimate certain inputs (E.g. volatility)
  ii. The model does not consider early exercise of an American option

Illustration:
Earn outs are contingent upon target achieving a benchmark EBIT of $ 1,125,000 within 3 years. EBIT is currently $ 1,000,000. At the end, acquirer will pay additional consideration equal to the excess EBIT over the benchmark.
The discount rate is 10 percent and the risk-free rate is 3 percent. Volatility of earnings is 14% based on historic EBIT.

<u>The inputs to the Black-Scholes Model for this example are:</u>

1. The current $ 1 million level of earnings is the value of the underlying,
2. the benchmark of $ 1,125,000 serves as the exercise price,
3. the term is 3 years,
4. the volatility is 14%,
5. the risk-free rate is 3% and
6. the dividend rate is 0%.

Based on the above inputs, calculations for the Black-Scholes Model can be incorporated into an excel spreadsheet. The resulting call option value of $ 84,413 will be the value of contingent consideration.

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➢ Lattice models

- **Framework:** Risk-neutral method
- **Steps:**
  i. A lattice model utilizes a "pricing tree" whereby future movement in a target variable is estimated based on a volatility factor.
  ii. In each time period, the model assumes that at least two movements are possible (up or down) representing the evolution in the value of the target variable.
  iii. In the case of an earnout, the strike price would be equal to the earnout hurdle and the underlying asset would represent acquisition date asset value (i.e., the trailing 12 months' sales prior to the acquisition date)
- **Pros:** Allows a multi-period view and probabilities can be incorporated
- **Cons:** The model is complex and includes an enormous number of calculations and variables over a long period of time.

❖ Conclusion

Understanding the future accounting and valuation implications of earnout arrangements prior to the transaction can be critical to evaluating alternative transaction terms to support negotiations, and can avoid unnecessary surprises down the road.

About us:

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