



## VALUING CONTINGENT CONSIDERATIONS

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Contingent considerations (also known as earn-outs) have become increasingly popular in the mergers and acquisitions (M&A) space over the last decade. Most often, acquisitions with contingent considerations include a base price paid at closing plus additional future payments contingent upon certain triggering milestones or underlying metrics. In some circumstances, the contingent consideration may involve reducing the base price (known as a clawback) upon the occurrence of certain negative events. Studies have shown that contingent considerations are included in approximately 25% to 30% of recent M&A transactions, with certain industries such as life-science, biotech, and pharmaceuticals reaching as high as 75% to 80%.

### ADVANTAGES OF CONTINGENT CONSIDERATIONS

M&A is an inherently risky endeavor. The main advantage of contingent considerations is to reduce uncertainties related to post-merger operations, therefore reducing risk.

***Bridging the Valuation Gap:*** The buyers of a business are interested in its capability to generate future cash flows. For businesses with a history of stable operations, historical results often provide a relatively reasonable approximation for future earning capabilities, and the valuation gaps between buyers and sellers tend to be small. For businesses with limited operating history, temporary changes in operations, or high growth potentials, future earnings expectations could vary significantly between buyers and sellers, resulting in larger valuation gaps that could derail negotiations. By making a part of the purchase price contingent on future performance, contingent considerations reduce uncertainties related to financial expectations, therefore bridging the valuation gap. Further, contingent considerations ensure that buyers would not overpay for unrealized post-merger improvements and sellers would not be excluded from the benefits of these improvements.

***Aligning Buyer/Seller Interests:*** Due to complexities involved in post-merger activities, it could take some time before the sellers can transfer their body of knowledge, management capabilities, and customer relationships to the buyers. During those critical transition times, contingent considerations tend to better align the diverging interests of the buyers and sellers by making sure the latter also benefit from a seamless transition and improvements in operations.

**Reducing Earning Volatilities:** The value of contingent considerations is closely correlated to the performance of the business post acquisition; i.e. if the business performs better than expected, the value of contingent consideration liability (or asset in case of a clawback) tend to rise (or fall for a clawback). For companies that follow fair value reporting, this increase in liability value (or decrease in asset value for clawbacks) helps a business by reducing its post-merger earning volatilities.

## DISADVANTAGES OF CONTINGENT CONSIDERATIONS

The primary disadvantage of including contingent considerations in a deal is potentially creating additional complexities during the M&A process.

**Selecting Appropriate Metrics and Measuring Periods:** The selection of the appropriate underlying metrics and measuring periods should focus on the areas that contain the highest level of uncertainty and disagreement between buyers and sellers. For companies with wide expectations on revenue growth, the appropriate metric should be based on revenue while companies with operational issues should focus more on earning measures (EBITDA, operating profit, net earnings, etc.).

**Ensuring Proper Post-Merger Operating and Monitoring Balance:** Proper controls must be in place to ensure balance in post-merger operating and monitoring capabilities. On one hand, sellers have an interest in maintaining a certain level of operating and monitoring independence in order to execute their plans to successfully achieve the specified metrics and milestones. On the other hand, buyers have an interest in making sure the business's long-term performance is not negatively affected by efforts to reach short-term targets. Striking the right balance and making the operating and monitoring process a fair one is critical to assure successful implementations of contingent considerations.

**Increasing Counter-Party Risk:** Since the contingent payments are deferred until the end of future measurement periods, sellers are exposed to additional counter-party risk as the buyers' financial conditions may deteriorate during the earn-out periods. While establishing escrow accounts specifically for contingent payments would mitigate the increased risk, in practice, it is rarely done.

## TYPES OF UNDERLYING METRICS

There are many types of underlying metrics for contingent considerations, depending on the specifics of each business' risks and uncertainties, which include:

**Financial Metrics:** The most common type of contingent considerations for well-established businesses are based on financial metrics such as revenue and EBITDA levels or growth rates. Financial metrics are often correlated with overall economy and market conditions and the risks associated with these metrics are known as systematic risk.

**Business or Technical Milestones:** Contingent considerations based on business or technical milestones are most often seen in early-stage software and pharma/bio-tech/life-science companies. Pharma milestones often include regulatory approval while software milestones may include release launches. Other milestones include resolution of legal disputes, execution of certain contracts, etc. The risks of a company reaching these milestones are often unique to its specific product and are often not related to the overall economy and market. This is known as unsystematic risk.

**Operating Metrics:** Contingent considerations can also be based on non-financial operating metrics such as number of customers, level of assets under management (AUM), rental occupancy rates, operating margins, etc. While these metrics are not strictly financially based, they are often closely correlated to financial metrics. For example, the first three examples listed above are closely related to revenue, while the last one is related to both revenue and profits.

**Employee Retention:** Occasionally, terms of contingent payouts are related to employee retention. For financial reporting purposes under U.S. GAAP, payments tied to retention of employees are often classified as compensation rather than contingent considerations. A consultation with an auditor may be needed to determine the most appropriate classification.

## CHARACTERISTICS OF PAYOUT STRUCTURES

**Non-Linearity:** Linear payouts refer to structures where the payout is equal to a fixed percentage of the underlying metric. Most practical contingent considerations, however, are non-linear, including items such as thresholds, caps, or tiered payouts. Non-linearity introduces significant challenges that are difficult to address using traditional valuation techniques. These challenges are discussed in the next section.

**Path Dependency:** Often contingent considerations include metrics and payouts from multiple measurement periods. For some contingent consideration arrangements, the payouts are independent of results from prior periods (for example, each payout is based solely on the revenue level in that period). More often, the payouts are dependent on results from prior periods (for example, each payout is based on the growth rate of revenue from prior periods). This is known as path dependent earn-outs. In these cases, the valuation model must take into consideration the path dependent nature of the payouts. Often, close-form models are inadequate to deal with path dependency, and numerical approaches or Monte Carlo simulation may be needed.

**Multiple Metrics:** Sometimes multiple underlying metrics are used to determine a payout. In such cases, the correlation between these metrics must also be considered within the valuation model. In these situations, Monte Carlo simulation may be needed to fully model the interactions between these multiple metrics.

## VALUATION METHODS

In practice, there are two methods valuation specialists use to value contingent considerations - a Scenario Based Method (SBM) and an Option Pricing Method (OPM).

**SBM:** This method establishes multiple payout scenarios, probability-weights the outcome from each scenario, and discounts the result at an appropriate discount rate to arrive at the present value of the payouts. The SBM is most appropriate for valuing contingent considerations that have a linear payoff structure or when the underlying risk is unsystematic (i.e. business and technical milestones). Non-linear payoffs with systematic risk present significant challenges for SBM specifically in the determination of discount rates for different scenarios where there are currently no generally accepted solutions to these challenges.

**OPM:** Non-linear contingent consideration payouts often have similar structures to those of financial options. As such, the Option Pricing Method is often more appropriate when valuing non-linear payoffs with systematic risk. OPM applies a risk-neutral framework to price contingent considerations as real options on the underlying metric. There remain some challenges in this application of OPM and risk-neutral framework; however, reasonable solutions to these challenges are available to provide reasonable values for contingent considerations. The specifics of these challenges are outside of the scope of this article.

**Monte Carlo Simulation:** Monte Carlo simulation is not a valuation method, but rather a computational tool for the modeling and analysis of the complex relationships between various random processes. Monte Carlo simulations can be used for both SBM and OPM in order to address issues such as path-dependency and multiple correlated metrics.

Contingent considerations have become an increasingly common solution for reducing risks associated with M&A. This increased popularity has led to a need to address these valuation issues. Over the last three years, Empire Valuation Consultants, along with representatives from the Big Four accounting firms, and other leading industry experts, has participated as a member of The Appraisal Foundation's working group, providing guidance to the valuation community on issues stemming from valuing contingent considerations. We have been on the forefront of developing and practicing this important new body of knowledge. In addition, the valuation of contingent considerations is closely related to purchase price allocations (PPA). We combine industry leading expertise in both fields into a single dedicated team to better serve our clients and help them navigate through the complexities of M&A.

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