



# VALUATION OF CONSTRUCTION

Construction companies require complex analyses in business valuation, and appraisers must be well versed in factors unique to the industry.

## COMPANIES

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It is logical that business owners must understand the value of their companies when contemplating a sale, and owners typically seek professional appraisal services to determine what a fair price might be. Business appraisals are also needed for a number of other purposes. Exit planning, particularly as baby boomers look for ways to transition ownership of their companies, should start with an understanding of the value that has been created by current and prior generations' hard work. Transitioning ownership via gifts to the next generation or to trusts requires a business valuation for tax-reporting purposes, performed by a qualified appraiser. Marital dissolution often requires that a family business be valued to inform the court on fair and reasonable division of marital property. Shareholder or partner buyouts, transitioning ownership to employees, and other exit strategies demand an understanding of the business and stock values to successfully complete the transactions. Each of these situations requires an appraiser familiar not

only with the company, but also with the company's industry.

Many industries require unique analyses in business valuation; construction companies are among the most challenging to value. Construction companies ranging from large general contractors to small niche contractors specializing in a particular trade typically track their financial performance using the percentage of completion method. This financial reporting convention requires nuanced finance and accounting knowledge on the part of a business valuation expert and has direct implications on value, distinct from other industries. In addition, construction is particularly vulnerable to prevailing economic forces, which can substantially influence the valuation of construction companies. Moreover, construction companies often rely heavily on fixed assets, and this requires special consideration.

### Revenue and cost recognition

Construction companies using the percentage of completion method to account for fixed-

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price jobs present a professional challenge for many business appraisers, as this financial reporting convention is atypical for most other industries. Many appraisers may be unfamiliar with the balance sheet items associated with the percentage of completion method, particularly the asset *billings in excess of costs and estimated earnings on uncompleted contracts* and the liability *costs and estimated earnings in excess of billings on uncompleted contracts*. These two accounts are unique to construction, although other industries (e.g., software companies) may have similar conventions (e.g., *deferred revenue*, or work for which they have been paid but have not yet completed).

A valuation expert must consider the percentage of completion method and its impact in any valuation. Some industry sources, such as Risk Management Associates, provide additional data for companies that use the percentage of completion method of accounting. Use of this data may bolster a financial analysis, as an appraiser may compare the subject company's financial statements to industry data based on financials reported using the same accounting method. A ratio analysis using this data would likely be more meaningful than an analysis based on companies using traditional accounting methods.

An analysis of a company's financial position and a conclusion of value must include a strong understanding of what jobs are included in *billings in excess of costs and estimated earnings on uncompleted contracts* and *costs and estimated earnings in excess of billings on uncompleted contracts*. For example, consideration of a company's cash and working capital position is unique in construction. An appraiser must understand whether the construction company will be able to meet its obligation to complete the work for which it has already billed and collected. If the billings in excess liability is large, meaning work has yet to be done, but the company has little cash and receivables on hand, an appraiser may conclude the company will be unable to pay subcontractors and employees to complete the work. On the other hand, if significant profit is buried in the liability, the company may, in fact, have excess assets that need to be considered in a valuation.

## Backlog

Construction companies' detailed records of jobs in progress, including the contracts in progress report often found in financial statements, along with information regarding backlog are also unique to construction. The contracts in progress report lists all open jobs as of the date of the financial statement and can provide a myriad of helpful information for an appraiser. Included in this report are the total revenue expected for each job, the expected profit on the job, the revenue earned to date, and the implied revenue and profit remaining on the job. The typical size of the contractor's jobs can be gleaned from this report, as well as a portion of the backlog of work at the valuation date.

Backlog is a useful piece of information for two purposes. First, a company's backlog can be a predictor of future performance. If backlog is down compared to prior years, the forecasted revenue for the near future may also be down. This may indicate an income approach or market approach assuming business as usual would result in an overvaluation of the business. Second, the backlog must be taken into consideration if an appraiser intends to use an asset approach to value the company. In this case, any expected future profit from these jobs may need to be included as an asset of the company.

## Fixed assets

Construction companies are frequently asset intensive. For example, a paving or excavation company would require a significant amount of heavy machinery and equipment to perform its work. General contractors are often an exception to this rule, as they typically hire subcontractors to do the work and, instead, perform job management duties that require less equipment but more experienced labor. In addition, many construction companies own the buildings and land where their machinery and equipment are stored. Given these factors, an appraiser may find that the value of a company is tied up in the fixed assets. For some companies, and certainly during some economic periods, cash flow may be insufficient to provide a suitable return on the fixed assets. The values



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indicated using a market approach and income approach must be checked against the company's net book value, and if net book value is close to or in excess of the value obtained via the other approach, an asset approach may be required.

Asset-intensive companies may also be heavily leveraged, with debt financing or capital leases providing funding for the purchase of the fixed assets. Consideration of the specific company's debt situation and any deviations from industry norms is a necessary component of any valuation. In addition, analysis of the company's debt covenants is essential when making assumptions about the capital structure of a construction company.

### **Bonding**

Many construction projects require bonding on the part of the contractors. Government work, in particular, has strict bonding requirements, although private work frequently requires bonding as well. A bond guarantees that the construction company is financially capable of doing the work and has a history of meeting its obligations. In order for the construction company to maintain its bonding, it must continue to meet specified requirements per the surety agreements; for example, total bonding may be based on a certain percentage of shareholder equity or working capital or on certain accounts receivable thresholds. A valuation analyst must be familiar with the company's bonding requirements and incorporate them into a working capital analysis.

### **Economic cyclicality**

Construction companies are particularly impacted by economic cycles. Residential work falls quickly in weak economies as

income levels drop, and small construction companies are particularly vulnerable to such downturns. To survive a slowdown in new construction, some companies may be able to shift to renovation and repair work, although healthy cash reserves also help companies ride out the slowdown. Larger contractors may see a delay in the impact of a slowing or recovering economy, as large contracts are often multiple years in length and the wind-down of old contracts may keep revenues high while the surrounding economy is in turmoil. Similarly, it may take time to acquire new work in a recovering economy as capital becomes available to start new construction projects. For this reason, an analysis of longer time periods is necessary for established construction companies. A pattern of growing revenue over three years, for example, may not necessarily indicate sustainable growth as it would in other industries. Care must be taken to consider the current and recent economic environment, so as not to overvalue a company under strong economic conditions. A weak economy, however, may be an indication that the company's assets should provide a floor to value.

### **Summary and conclusion**

Financial reporting convention, fixed asset and debt structure, bonding, backlog, and the economic environment all must be taken into consideration in the valuation of any company, but particularly for construction companies. These factors can influence the selection of the valuation approach and methods and also introduce complexities to such detailed analyses as working capital, which can have a large impact on value. It is vital for an appraiser to have a thorough understanding of the unique aspects of construction companies when performing a valuation in this industry. ■