



Copyright © 2024 by the Construction Financial Management Association (CFMA). All rights reserved. This article first appeared in *CFMA Building Profits* (a member-only benefit) and is reprinted with permission.

Construction's Lifeline: Key Metrics for Measuring Financial Health

By Claire Wilson

Metrics play a crucial role in measuring and assessing a business's financial health. Companies rely on metrics to identify areas of improvement, track progress over time, and direct strategies. But in an industry as complex as construction, determining the most impactful metrics for a business can prove challenging.

This article covers some basics on financial metrics and explores a list of the top ones to track in construction.

THE IMPORTANCE OF FINANCIAL METRICS IN CONSTRUCTION

In commercial construction, every job starts in a negative cash position, as expenses are incurred before any revenue is generated.

Effective cash flow management strategies are crucial for the survival of any construction company. One of these strategies includes having the right financial metrics in place to gain insight into the health of a company's cash flow and maintain it over time to effectively grow the business.

Key financial metrics provide a quantitative understanding of:

- **Solvency and liquidity:** Knowing whether the business has enough liquid assets to cover immediate financial obligations (e.g., paying suppliers and meeting payroll) is essential to securing operational continuity.
- **Working capital:** Maintaining a healthy working capital ensures the business can operate smoothly and take advantage of growth opportunities.
- **Cash flow projections:** Forecasting cash movements empowers businesses to make informed decisions on future projects, investments, and risk mitigation strategies to prevent potential cash shortfalls.
- **Bargaining power:** Showcasing the ability to meet financial obligations instills confidence in creditors and investors, placing the company in a better

position to negotiate favorable terms when seeking additional funding.

FINANCIAL METRICS TO TRACK IN CONSTRUCTION

These financial metrics should provide a strong foundation for monitoring the financial health, profitability, and efficiency of your company and give you the confidence to identify other beneficial metrics.

Gross Profit Margin

Gross profit margin, also known as *gross margin ratio*, is the total revenue generated by a company before deducting the cost of goods sold (COGS), which is the total of equipment, labor, and material costs. It's typically expressed as a percentage of sales:

$$\text{Gross profit margin} = (\text{Revenue} - \text{COGS}) / \text{Revenue} \times 100$$

While there isn't a single "ideal" gross profit margin percentage that applies to all construction businesses, data from CSIMarket shows that the average gross margin for construction companies from Q1 2023 to Q1 2024 hovers around 26%.¹

As a general rule of thumb:

- **5% is considered a low margin:** This might be typical for businesses with high COGS or operating in highly competitive markets.
- **10% is a healthy margin:** This is often a good target for many businesses and indicates that it's covering its costs and generating a reasonable profit.

- *20% is a high margin:* This suggests solid pricing for products or services and effectively cost management.

If your gross profit margin is significantly lower than the industry average or declining over time, then it could indicate that your costs are too high, your pricing is too low, or changes in consumer behavior. As such, construction company owners and CFOs should review this metric every month to ensure that operations are running smoothly and the company's pricing strategy is sound.

Net Profit Margin

What's the amount of money your company makes after operating costs (e.g., interest and taxes) and COGS are subtracted from the total revenue generated? The answer to this would be the *net profit margin*, which is also expressed as a percentage of sales (think of the percentage as the actual profit each earned dollar yields):

$$\text{Net Profit Margin} = (\text{Revenue} - \text{COGS} - \text{Interest} - \text{Tax}) / \text{Revenue} \times 100$$

The construction industry is known for its relatively low net profit margins compared to other markets. Research from IBIS World states that the average net profit margin for construction businesses ranges from 3% to 7%,² although some data from CSIMarket suggests the average may be slightly higher at just over 8%.³ Regardless, this leaves very little room for error; even a small increase in costs or underestimation of project expenses can quickly erode profits.

This reality underscores the importance of reviewing net profit margin at least monthly, if not bimonthly, to identify issues early on, proactively control costs, and operate as efficiently as possible to remain profitable.

Operating Profit Margin

While net profit margin offers a comprehensive view of a company's profitability by considering all expenses and income, *operating profit margin* specifically shows how efficiently a company generates profits from its primary business activities, such as COGS, wages, rent, utilities, and other operating costs. This is because it doesn't include extraneous costs like taxes and interest:

$$\text{Operating Profit Margin} = (\text{Revenue} - \text{COGS} - \text{Operating Expenses} - \text{Depreciation} - \text{Amortization}) / \text{Revenue} \times 100$$

Operating profit margins in construction can vary significantly depending on company size, project types, and the specific economic climate. However, industry benchmarks and expert analysis typically place a healthy operating profit margin for construction companies between 10% and 15%. CSIMarket's research further supports this, indicating a market average of just over 15%.⁴

If your operating profit margin dips below 5%, then it could signal that your company is struggling to control costs, facing some stiff competition, or that the market is slowing. For larger construction companies, it's recommended to review net profit margin on a monthly basis. Smaller companies typically find quarterly reviews sufficient for keeping a finger on the pulse of this metric.

Project Profitability Index

The project profitability index (PPI) measures the profitability of individual construction projects; it can help identify high-performing projects, evaluate investment opportunities, and allocate resources effectively:

$$\text{PPI} = \text{Project's Net Profit} / \text{Total Costs}$$

If the PPI is consistently low, negative, or declining over time, then your projects aren't generating sufficient profit compared to their costs. This could be a sign of poor cost or resource management, ineffective pricing strategies, or even declining market demands.

Reviewing this metric monthly will help with spotting these trends and troubleshooting quicker.

Net Cash Flow

Cash flow is all the money moving in and out of a company or project over a specific period of time:

$$\text{Net Cash Flow} = \text{Cash In (Over a Given Period)} - \text{Cash Out (Over a Given Period)}$$

Reviewing cash flow is a great way to measure the short-term financial health

of an organization, as it serves several purposes:

- *Tracking revenue sources:* It provides a comprehensive view of where the company's cash is coming in, shedding light on all its income streams.

- *Identifying potential cash shortages:* A negative cash flow means the company is spending more than it's earning. This isn't always a cause for concern, particularly if the company is in the early stages of a significant growth phase, but it still warrants attention to prevent future shortfalls.

- *Predicting future cash flow:* By regularly assessing the company's incoming and outgoing funds, it will allow you to better predict its future cash position, aiding in proactive financial planning.

Working Capital

Working capital is an important metric that measures a company's short-term liquidity, helping professionals keep tabs on whether there is enough cash on hand to cover immediate financial obligations, like paying suppliers and meeting payroll:

Working Capital = Current Assets – Current Liabilities

Current assets include:

- Cash on hand
- Accounts receivable (A/R)
- Materials and supplies for ongoing projects (inventory)
- Work-in-progress (WIP)
- Retainage receivables

Current liabilities include:

- Accounts payable (A/P)
- Accrued expenses (e.g., wages, utilities, and interest)
- Short-term debt
- Billings in excess of costs
- Contract retainage payable

As mentioned, construction projects often have negative cash flow at the start, so maintaining a healthy working capital is crucial for sustaining operations and completing projects. It also helps companies identify potential cash shortages and make informed decisions to optimize their cash flow and financial stability. Therefore, it is important to review this metric regularly.

A/R & A/P Turnover

Tracking how fast your company gets paid (receivables) compared to how quickly it pays its bills (payables) shows how efficient its financial system is, which is why monitoring the A/R turnover and A/P turnover monthly is important for maintaining a healthy financial balance:

$A/R \text{ Turnover} = \text{Net Credit Sales} / \text{Average A/R}$

$A/P \text{ Turnover} = \text{Total Purchases} / \text{Average A/P}$

Keep in mind that the construction industry is known for slow payment, particularly if the company is in a commercial trade where the average time to payment is up to 90 days.⁵ Staying on top of the A/R turnover can help you detect collection issues before they spiral out of control.

The faster your company pays its bills, the lower the A/R turnover will be, and the less likely the company will incur additional interest charges or other late payment penalties.

Costs in Excess of Billings

Costs in excess of billings (also known as *underbilling*) refers to situations where contractors have incurred project costs but have not yet billed clients for these expenses. Underbilling is a common scenario in the construction industry and may indicate payment issues (such as delayed payments due to missed deadlines or incomplete documentation), unapproved change orders, or inaccurate cost completion estimates:

$\text{Costs in Excess of Billings} = \text{Costs Incurred} - \text{Amount Billed}$

Since project costs can have a significant impact on a contractor's financial

position and cash flows, reviewing this metric monthly is vital to maintaining healthy business operations.

Net Overbilling

Net overbilling is the difference between the amount that a company bills to clients and the revenue recognized by the percentage-of-completion method:

$\text{Net Overbilling} = \text{Amount Billed} - \text{Revenue Recognized}$

Its primary purpose is to identify instances of overbilling, which occurs when the client is charged for more work than has been completed.

For example, if a contractor completes 30% of the work but bills the client for 40%, then this would be considered overbilling.

While some level of overbilling is usually acceptable on the subcontractors' part, it's important to keep an eye on this metric to ensure that it's within reasonable limits. This not only helps prevent borrowing from other projects in case the estimated costs to complete a contract exceed the remaining amount of money to be billed, but also aids in maintaining a healthy financial standing for the project.

Cost Variance

Cost variance compares the actual costs incurred on a project with the budgeted costs for that project. It helps assess whether the project is within the planned budget:

$\text{Cost Variance} = \text{Actual Costs} - \text{Budgeted Costs}$

When there are significant differences in costs, it usually means that the cost estimation or project management is not going as planned. This is why it's important to keep regular tabs on this metric to quickly identify areas where actual expenses may have deviated from the plan and make necessary adjustments to bring the project back on track.

Quick Ratio

Quick ratio (also called acid-test ratio or quick) is used to measure a company's ability to pay its current liabilities with its liquid assets. It excludes inventory and

focuses solely on cash, cash equivalents, and A/R:

Quick Ratio = (Current Assets – Inventory) / Current Liabilities

The more assets and fewer liabilities a company has, the more confident banks and other financial institutions will be in its ability to repay its loans.

Quick ratios between 1.1 and 1.5 are considered ideal.⁵

Time Variance

Time variance measures how close a project is adhering to its original schedule. It compares the hours planned for a project with the actual hours worked over a specific period of time. This metric helps identify deviations and understand whether projects are being executed as planned:

Time Variance = Actual Hours – Planned Hours

If you notice a significant negative difference between planned hours and actual hours, then your team consistently works more hours than planned. This may indicate issues in project planning or resource allocation, which could potentially lead to delays, increased costs, and even project failure.

On the other hand, a positive difference means that the hours your team spends on the project consistently fall short of the planned hours. This may suggest unrealistic project timelines or overestimation of resource availability, which can result in underutilized resources or missed profitability opportunities.

Average Months in Backlog

Average months in backlog measures the time it takes for construction companies to complete their backlog of projects, assuming no new projects are added. Tracking this metric can provide valuable insights into a company's project pipeline and backlog management, specifically, the company's capacity to take on new projects and its ability to meet customer demand:

Average Months in Backlog = Backlog Value / Monthly Revenue

A healthy average months in backlog depends on the specific circumstances and goals of a company. Generally, a lower value indicates a more manageable backlog, allowing the company to complete projects promptly and potentially take on new ones. However, an excessively low value may suggest a lack of future work and growth opportunities.

Alternatively, a higher value may suggest a backlog that is difficult to manage, potentially leading to delays and resource constraints.

Debt-to-Equity Ratio

The debt-to-equity ratio is a metric that measures a contractor's ability to manage and repay debt obligations. It compares your company's total debt to its total equity, providing insight into your financial leverage and risk:

Debt-to-Equity Ratio = Total Liabilities / Total Shareholders' Equity

Monitoring this ratio is crucial for several reasons:

- **Surety requirements:** Surety companies evaluate this ratio to assess your financial strength and ability to successfully complete the project. An excessively high ratio may signal financial risk, making it difficult to obtain bonding capacity for new projects.
- **Banking and credit lines:** Financial institutions use this ratio to assess creditworthiness. A favorable ratio is required to secure or maintain working capital lines of credit essential for funding ongoing operations and managing cash flow.
- **Financial health assessment:** A high debt-to-equity ratio can indicate overreliance on debt financing rather than equity. This can make your company more vulnerable to economic downturns or project delays, impacting your ability to service debt obligations.

Generally, a ratio above 2.0 is considered a bad ratio for construction companies, as this can indicate becoming overleveraged, potentially jeopardizing financial stability and ability to secure future work.

Monitoring this ratio at least quarterly, if not monthly, is key to demonstrating financial discipline to sureties, banks, and project owners. This increases chances of securing bonding, maintaining access to credit, and positioning your company for long-term success.

Return on Investment

While likely a staple metric in the financial reporting toolkit, return on investment (ROI) is one of the most valuable tools for assessing the profitability of projects over the course of the year. ROI measures profitability by comparing gains and losses generated to the amount invested:

ROI = (Net Profit / Investment Cost) x 100

A high ROI is a positive indicator of the overall health and success of your company's projects. As such, it plays a pivotal role in resource allocation, strategic planning, risk assessment, and performance evaluation, ultimately contributing to the financial growth of a company.

DETERMINING WHICH METRICS TO MEASURE

No two businesses are the same, and selecting the appropriate metrics to track requires careful consideration. The following steps can guide you in choosing the most relevant metrics for your organization.

Define Business Objectives

Identify your company's specific goals and objectives, especially those that are revenue related. Questions like these can help your company solidify its goals:

- What are the annual revenue targets for the upcoming year and the next few years?
- Are there specific projects or types of construction work that contribute significantly to revenue, and how can we enhance or diversify these contributions?

- Are there emerging trends or technologies in the construction industry that can be leveraged to improve margins and make the company more efficient?
- Are there particular market segments or geographical areas where we aim to increase our revenue presence?
- How do we monitor and analyze key performance indicators (KPIs) related to revenue, and what adjustments are made based on these insights?
- What is the target profit margin, and how does it compare to industry benchmarks?

Understanding what your company aims to achieve will guide the selection of metrics that align with these objectives.

Understand Industry Benchmarks

Research industry benchmarks and standards to understand which metrics are commonly used and considered essential in construction. Resources like CFMA's Construction Financial Benchmark (*financial benchmark.com*) or the 2023 Financial Benchmark Executive Summary⁶ can help provide a baseline for comparison and help you stay competitive.

In addition to researching, consider asking your peers at other companies about their metrics.

Consider Stakeholder Needs

Review the needs and expectations of various stakeholders, including investors, clients, and internal management. What will they value most? What information do they require to make strategic decisions? Tailor your metrics to provide an accurate view of where your business is excelling — and where it could benefit from other perspectives.

Evaluate Data Availability & Accuracy

It's important to thoroughly evaluate data sources to ensure that they're reliable and up to date. This will provide a strong foundation for accurate analysis.

Additionally, carefully select metrics that can be measured consistently and accurately to provide meaningful insights. This may require the implementation of systems to collect, organize, and analyze the relevant data.

Seek Expert Advice

Consulting with industry experts, financial advisors, or professionals with experience in construction is always encouraged. They can provide valuable guidance on selecting metrics that are most relevant to your company.

STREAMLINE METRICS TRACKING

There's a lot of information to process, especially when weighing it against your current workload and day-to-day responsibilities. Here are several strategies that can streamline metric tracking:

- *Automated reporting:* Leverage software or tools that automate the collection, analysis, and reporting of metrics to significantly reduce manual effort and ensure data accuracy and consistency.
- *Centralized dashboard:* Create a centralized dashboard or reporting system that consolidates all relevant metrics in one place, enabling easy access and visualization of key data points.
- *Real-time data integration:* Integrate systems and software to enable real-time data updates and synchronization. This helps avoid delays in reporting by ensuring metrics are always current.
- *Standardized metrics and definitions:* Establish standardized metrics and definitions across the organization to ensure consistency and facilitate easier tracking and analysis.
- *Regular review and adjustment:* Adjust and update metrics as needed to remain aligned with business objectives. This will help steer the organization toward sustained growth in the coming years.
- *Training and education:* Provide training and education to employees to ensure they understand the importance of metrics and how to accurately track and interpret them.

CONCLUSION

Monitoring your financial metrics is more than just a routine task; it's a powerful tool for growth and sustainability. Embrace the knowledge these metrics provide to identify areas for improvement, optimize your operations, and stay ahead of industry challenges.

With accurate and timely financial data at your fingertips, you'll be better equipped to navigate uncertainties and achieve long-term success. **BP**



CLAIRE WILSON is Head of Construction Solutions at Sitrine ([sitrine.com](https://www.sitrine.com)) in San Francisco, CA, the only pay app management software for subcontractors.

Before joining Sitrine, Claire worked on monumental projects such as Hudson Yards and JP Morgan's Corporate Headquarters. Claire has a BS in Civil Engineering from Bucknell University. She serves on the board of the Bay Area Subcontractors Association (BASA) and has spoken at several regional CFMA conferences and other trade shows, including the 2022 North American Iron Workers' IMPACT Conference, the 2023 Steel Conference, the 2023 SMACNA Annual Conference, and IEC Spark 2023. Claire can be reached at claire@sitrine.com.

Endnotes

1. "Construction Services Industry Profitability." CSIMarket. [csimarket.com/Industry/industry_Profitability_Ratios.php?ind=205](https://www.csimarket.com/Industry/industry_Profitability_Ratios.php?ind=205).
2. Scalisi, Tom. "6 Tips to Boost Contractor Profit and Reduce Overhead in Construction." *Procure*. May 21, 2024. [procure.com/library/contractor-overhead-and-profit-construction](https://www.procure.com/library/contractor-overhead-and-profit-construction).
3. "Construction Services Industry Profitability." CSIMarket. [csimarket.com/Industry/industry_Profitability_Ratios.php?ind=205](https://www.csimarket.com/Industry/industry_Profitability_Ratios.php?ind=205).
4. *Ibid.*
5. Katoriya, Jayanti. "What are the Typical Payment Terms for Contractors?" *Moon Invoice*. December 15, 2023. [mooninvoice.com/blog/typical-payment-terms-for-contractors](https://www.mooninvoice.com/blog/typical-payment-terms-for-contractors).
6. "5 Key Financial Ratios Used in Construction Business." *The Constructor*. [theconstructor.org/construction/financial-ratios-construction-business/566058](https://www.theconstructor.org/construction/financial-ratios-construction-business/566058).
7. "CFMA's 2023 Construction Financial Benchmark Executive Summary." *CFMA Building Profits*. November/December 2023. [cfmabp/11122023/MobilePagedArticle.action?articleId=1938836#articleId1938836](https://www.cfmabponline.net/cfmabp/11122023/MobilePagedArticle.action?articleId=1938836#articleId1938836).