

Construction Accounting and Financial Management

FOURTH EDITION

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Full-Service Management and Composition: Integra Software Service Pvt. Ltd.
Printer/Binder:
Cover Printer: Phoenix Color/Hagerstown
Text Font: Times LT Pro 10/12

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Library of Congress Cataloging-in-Publication Data

Names: Peterson, Steven J., author.

Title: Construction accounting and financial management / Steven J. Peterson, MBA, PE, Weber State University.

Description: Fourth Edition. | New York: Pearson, [2020] | Revised edition of the author's Construction accounting and financial management, c2013.

Identifiers: LCCN 2018019294 | ISBN 9780135232873 | ISBN 0135232872

Subjects: LCSH: Construction industry—Accounting. | Construction industry—Finance. | Managerial accounting.

Classification: LCC HF5686.B7 P48 2018 | DDC 624.068/1—dc23

LC record available at <https://lccn.loc.gov/2018019294>

Several years ago I was asked to teach a course on construction accounting and finance. The course was to cover the fundamental principles needed by construction managers to successfully manage the finances of construction companies. In preparing to teach this course I found that these principles were scattered among many disciplines, including business management, engineering economics, accounting, estimating, project management, and scheduling. After I reviewed the available textbooks, two things were apparent. First, the material was often presented in a generic fashion and failed to address how the principles applied to the construction industry. For example, in most accounting textbooks only a few pages were devoted to the accounting procedures for long-term contracts, which comprise a bulk of the projects for general construction companies. Second, with the topics scattered among many disciplines and textbooks, the topic of how the different components of construction financial management were interrelated and interacted was being ignored.

Financial management may be defined as the use of a company's financial resources and encompasses all decisions that affect a company's financial health. Many everyday decisions affect a company's financial health. The difference between a marginally profitable and a very profitable company is good financial management. Business schools teach the fundamental principles of financial management; however, because of the many unique characteristics of the construction industry, the usefulness of these financial principles as taught by business schools is limited. To be useful, these principles must be adapted specifically to the construction industry. For example, in the construction industry equipment is mobile and may be needed for multiple jobs during a single month. Traditional accounting methods and financial statements do not allow a company to properly manage and account for its equipment.

This book was written to help construction professionals—both those who are working in the construction industry and those seeking a degree in construction management—learn how the principles of financial management can be adapted to and used in the management of construction companies. This book will be most useful for general managers and owners of companies who are responsible for managing the finances of the entire company; however, many of these principles are useful to project managers and superintendents. For the project manager or superintendent who desires to stand out in a company, there is no better way than to improve the profitability of projects through the principles of sound financial management. The book also discusses how owners and general managers can manage construction projects by sound management of their project managers, superintendents, and crew forepersons.

This book explains common financial principles, demonstrating how these principles may be applied to a construction situation and how these principles affect the financial performance of a company. Many of the examples

included in this book are based on actual situations encountered by the author.

This book is organized in five parts: introduction to construction financial management, accounting for financial resources, managing costs and profits, managing cash flows, and making financial decisions.

The first part—comprising Chapter 1—introduces the reader to construction financial management, explains why construction financial management is different from financial management in other industries, and defines the role of a construction financial manager.

The second part—comprising Chapters 2 through 6—describes how to account for a company's financial resources. Accounting for these resources is built around a company's accounting system.

The third part—comprising Chapters 7 through 11—examines how to manage the costs and profits of a construction company. This must be done at the project level as well as at the company level.

The fourth part—comprising Chapters 12 through 16—looks at how to manage a company's cash flows and how to evaluate different sources of funding cash needs.

The fifth part—comprising Chapters 17 and 18—explores ways to quantitatively analyze financial decisions.

After reading this book, you should have a better understanding of the following:

- The basic financial principles that are widely used in the business world and how to modify them so that they work for the construction industry. Application of these principles will help you better manage your business.
- Construction accounting systems, which will help you manage the accounting systems and use accounting information to manage a company. The accounting system is the heart and soul of financial management.
- Financial and accounting principles, so that you may interact with accountants and bankers at a professional level.

What's new in this edition:

- The business failure rate for construction companies in Chapter 1 has been updated.
- Sections on cost segregation and bonus depreciation have been added to Chapter 5.
- The discussion of typical median ratios in Chapter 6 has been updated.
- A section on the monitoring and controlling process has been added to Chapter 7.
- A section on managing design-build costs has been added to Chapter 7.
- The wages, social security, and Medicare costs have been updated in Chapters 8, 9, and 14.

- A weekly cash flow problem has been added to Chapter 12.
- The income tax regulations in Chapter 13 have been updated to incorporate provisions of The Tax Cuts and Jobs Act passed in December 2017.
- The project cash flows used to develop an annual cash flow for a construction company have been expanded to cover the entire project (including work done in the prior year) and the calculation of the underbillings/overbillings has been included in Chapter 14.
- The effects of taxes on decision has been updated in Chapter 18 to incorporate the Tax Cuts and Jobs Act.

To access supplementary materials online, instructors need to request an instructor access code. Go to www.pearsonhighered.com/irc to register for an instructor access code. Within 48 hours of registering, you will receive a confirming e-mail including an instructor access code. Once you have received your code, locate your text in the online catalog and click on the Instructor Resources button on the left side of the catalog product page. Select a supplement, and a login page will appear. Once you have logged

in, you can access instructor material for all Prentice Hall textbooks. If you have any difficulties accessing the site or downloading a supplement, please contact Customer Service at <http://247pearsoned.custhelp.com/>. The materials available to instructors include: instructor's manual, PowerPoint slides, Excel spreadsheet solutions to the Excel-based homework problems, electronic copies of the figures and tables, and an equation list.

This textbook brings all of the key financial management principles needed by construction managers under one cover, addressing how they are applied in the construction industry and how they interact. Many of the examples in this book are based on my fourteen years of experience in construction financial management. Join me on a journey of discovery as we discuss the fundamental principles of financial management that are needed to make a construction company a financial success.

Feedback on this book can be submitted at stevenjpeterston9@gmail.com.

Best Wishes,
Steven J. Peterson, MBA, PE

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Construction accounting is a form of project accounting applied to construction projects. See also production accounting. Construction accounting is a vitally necessary form of accounting, especially when multiple contracts come into play. The construction field uses many terms not used in other forms of accounting, such as "draw" and progress billing. Construction accounting may also need to account for vehicles and equipment, which may or may not be owned by the company as a fixed asset. Financial Management and Accounting Fundamentals for Construction will help you better understand and navigate the financial decisions that are part of every construction project. This book is a compact summary of the basic financial skills that a construction professional must have to be successful in the management of a construction company and its projects. Its topics address many of the questions that any construction administrator will face, such as: How to organize and use a company's financial reports. What amount of cash must be made available to the contractor to complete a proje

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