

---

# FinGame Online 5.0

The Financial Management Decision Game  
Participant's Manual

**The McGraw-Hill/Irwin Series in Finance, Insurance and Real Estate**

Stephen A. Ross

Franco Modigliani Professor of Finance and Economics

*Sloan School of Management*

*Massachusetts Institute of Technology*

Consulting Editor

FINANCIAL MANAGEMENT

Adair  
**Excel Applications for Corporate Finance**  
*First Edition*

Benninga and Sarig  
**Corporate Finance: A Valuation Approach**

Block and Hirt  
**Foundations of Financial Management**  
*Twelfth Edition*

Brealey, Myers, and Allen  
**Principles of Corporate Finance**  
*Eighth Edition*

Brealey, Myers, and Marcus  
**Fundamentals of Corporate Finance**  
*Fifth Edition*

Brooks  
**FinGame Online 5.0**

Bruner  
**Case Studies in Finance: Managing for Corporate Value Creation**  
*Fifth Edition*

Chew  
**The New Corporate Finance: Where Theory Meets Practice**  
*Third Edition*

Chew and Gillan  
**Corporate Governance at the Crossroads: A Book of Readings**  
*First Edition*

DeMello  
**Cases in Finance**  
*Second Edition*

Grinblatt (editor)  
**Stephen A. Ross, Mentor: Influence Through Generations**

Grinblatt and Titman  
**Financial Markets and Corporate Strategy**  
*Second Edition*

Helfert  
**Techniques of Financial Analysis: A Guide to Value Creation**  
*Eleventh Edition*

Higgins  
**Analysis for Financial Management**  
*Eighth Edition*

Kester, Ruback, and Tufano  
**Case Problems in Finance**  
*Twelfth Edition*

Ross, Westerfield, and Jaffe  
**Corporate Finance**  
*Eighth Edition*

Ross, Westerfield, Jaffe, and Jordan  
**Corporate Finance: Core Principles and Applications**  
*First Edition*

Ross, Westerfield, and Jordan  
**Essentials of Corporate Finance**  
*Fifth Edition*

Ross, Westerfield, and Jordan  
**Fundamentals of Corporate Finance**  
*Eighth Edition*

Shefrin  
**Behavioral Corporate Finance: Decisions that Create Value**  
*First Edition*

White  
**Financial Analysis with an Electronic Calculator**  
*Sixth Edition*

INVESTMENTS

Adair  
**Excel Applications for Investments**  
*First Edition*

Bodie, Kane, and Marcus  
**Essentials of Investments**  
*Sixth Edition*

Bodie, Kane, and Marcus  
**Investments**  
*Seventh Edition*

Hirt and Block  
**Fundamentals of Investment Management**  
*Eighth Edition*

Hirschey and Nofsinger  
**Investments: Analysis and Behavior**  
*First Edition*

Jordan and Miller  
**Fundamentals of Investments: Valuation and Management**  
*Fourth Edition*

FINANCIAL INSTITUTIONS AND MARKETS

Rose and Hudgins  
**Bank Management and Financial Services**  
*Seventh Edition*

Rose and Marquis  
**Money and Capital Markets: Financial Institutions and Instruments in a Global Marketplace**  
*Ninth Edition*

Saunders and Cornett  
**Financial Institutions Management: A Risk Management Approach**  
*Fifth Edition*

Saunders and Cornett  
**Financial Markets and Institutions: An Introduction to the Risk Management Approach**  
*Third Edition*

INTERNATIONAL FINANCE

Eun and Resnick  
**International Financial Management**  
*Fourth Edition*

Kuemmerle  
**Case Studies in International Entrepreneurship: Managing and Financing Ventures in the Global Economy**  
*First Edition*

REAL ESTATE

Brueggeman and Fisher  
**Real Estate Finance and Investments**  
*Thirteenth Edition*

Corgel, Ling, and Smith  
**Real Estate Perspectives: An Introduction to Real Estate**  
*Fourth Edition*

Ling and Archer  
**Real Estate Principles: A Value Approach**  
*Second Edition*

FINANCIAL PLANNING AND INSURANCE

Allen, Melone, Rosenbloom, and Mahoney  
**Retirement Plans: 401(k)s, IRAs, and Other Deferred Compensation Approaches**  
*Tenth Edition*

Altfest  
**Personal Financial Planning**  
*First Edition*

Harrington and Niehaus  
**Risk Management and Insurance**  
*Second Edition*

Kapoor, Dlabay, and Hughes  
**Focus on Personal Finance: An Active Approach to Help You Develop Successful Financial Skills**  
*First Edition*

Kapoor, Dlabay, and Hughes  
**Personal Finance**  
*Eighth Edition*

**FIFTH  
EDITION**

---

# FinGame Online 5.0

The Financial Management Decision Game  
Participant's Manual

---

**LeRoy D. Brooks**

*John Carroll University*

**David W. Brooks**

*Programmer*

Copyright ©2008 The McGraw-Hill Companies, Inc. All rights reserved.



Boston Burr Ridge, IL Dubuque, IA Madison, WI New York San Francisco St. Louis  
Bangkok Bogotá Caracas Kuala Lumpur Lisbon London Madrid Mexico City  
Milan Montreal New Delhi Santiago Seoul Singapore Sydney Taipei Toronto



FINGAME ONLINE 5.0 PARTICIPANT'S MANUAL

Published by McGraw-Hill/Irwin, a business unit of The McGraw-Hill Companies, Inc., 1221 Avenue of the Americas, New York, NY, 10020. Copyright © 2008 by The McGraw-Hill Companies, Inc. All rights reserved. No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written consent of The McGraw-Hill Companies, Inc., including, but not limited to, in any network or other electronic storage or transmission, or broadcast for distance learning.

Some ancillaries, including electronic and print components, may not be available to customers outside the United States.

This book is printed on acid-free paper.

1 2 3 4 5 6 7 8 9 0 QPD/QPD 0 9 8 7

ISBN 978-0-07-331355-9

MHID 0-07-331355-6

Executive editor: *Michele Janicek*  
Editorial assistant: *Katherine Mau*  
Senior marketing manager: *Julie Phifer*  
Project manager: *Kathryn D. Mikulic*  
Senior production supervisor: *Carol A. Bielski*  
Senior designer: *Kami Carter*  
Cover image: *Digital Vision*  
Typeface: *11/13 Times Roman*  
Compositor: *ICC Macmillan Inc.*  
Printer: *Quebecor World Dubuque Inc.*

**Library of Congress Cataloging-in-Publication Data**

Brooks, LeRoy D.

FinGame online 5.0 : the financial management decision game participant's manual/LeRoy

D. Brooks. — 5th ed.

p. cm. — (The McGraw-Hill/Irwin series in finance, insurance, and real estate)

Rev. ed. of: FinGame online 4.0. 4th ed. 2000.

Includes index.

ISBN-13: 978-0-07-331355-9 (alk. paper)

ISBN-10: 0-07-331355-6 (alk. paper)

1. Corporations—Finance—Computer games. 2. Management games—Computer programs.

I. Brooks, LeRoy D. FinGame online 4.0. II. Title.

HG4012.5.B757 2008

658.150285'53—dc22

2007018495

---

# Preface

---

*FinGame Online 5.0: The Financial Management Decision Game* is a comprehensive multiple-period finance case. The game helps the student develop and enhance skills in financial management, financial accounting statement analysis, and general decision making. FinGame operates on the McGraw-Hill Internet site, enabling Web access worldwide.

The multiple-period decision-making setting provided in FinGame cannot be duplicated with standard cases or problems. In the game, feedback on the results of prior decisions is received every period of play. Good or bad decisions immediately impact the company's performance and its relative position to other companies. Like the real world, and not like standard cases, the good or bad decisions in the game generally have long-term continuing consequences that plague the firm with the poor decision and strengthen the firm with the better decision. This positive and negative reinforcement throughout the game promotes learning of financial definitions, analytic tools, and appropriate solution techniques.

A multiple-period environment also forces students to recognize the importance of maintaining future flexibility in making decisions. Flexibility is retained by avoiding decisions that eliminate a large set of feasible future company decision options. With single-stage problems, the consequences of the future restrictions caused by a given decision are usually never recognized, and clearly never experienced. Static single-period cases and models fail to adequately capture the complexities of an actual environment.

The manager's and company's long-term prosperity and competitiveness come from a planned effort to control the breadth of the future set of available decisions through the manager's current decisions. FinGame provides this experience.

The primary focus of the game is directed toward finance. Participants in the game control the major financial decision areas of a company. The decisions include both the internal management of the firm and the external acquisition of assets and financing. The FinGame company managers have approximately the same degree of control as actual companies in paying dividends; issuing or retiring preferred and common stock; and issuing, retiring, and refunding several different types of debt. Additionally, decisions are required on short-term investments, the

risk level of short-term investments, sales discounts, capital budgeting projects, and various production decisions that affect the finance function.

This fairly complex company environment enables students to gain insights into the interrelationships among financing, capital budgeting, liquidity management, accounting, production, and capacity management. Few constraints are placed on the set of decisions in the game that are not found in actual companies. This makes the game more realistic.

Yet, to better enable student learning, the number of decision options found in actual companies is purposely not available in the game. Too many decisions that have interactions with each other become much more difficult to evaluate and manage successfully. With greater experience and more complex decision models, students can successfully tackle the more difficult ones when their experience and monetary rewards are far greater. As an analogy, a child has to learn to crawl before she can walk and walk before she can run. Our hope in FinGame is to get the participant from the equivalent of the crawling stage to at least the walking part, even if then a bit shaky.

FG provides a simulation requiring the application of theory, analytical tools, and solution procedures that must be learned outside the game. The game and manual are supplements to be used with standard texts; they are not replacements for texts. In this context, the game is a dynamic multiple-period case that provides the student with many different types of problems requiring solution.

### **Acknowledgments**

Most credit for the current edition clearly belongs to my friend and son, David W. Brooks. New editions would not be possible without his extensive contributions. David has provided tremendous time, dedication, and knowledge to creating the programming for this version and creating the new Web interface.

Many others have contributed to the prior game development and this current version, and they deserve special thanks. I thank the many students who have provided valuable suggestions and comments. I am especially appreciative of the instructors who have uncovered underlying “bugs” and problems while also providing suggestions for improving the game. Very helpful comments leading to changes since the last edition, and changes that will occur in the future, came from Professors John Bilson, Robert J. Boldin, Robert Burney, Gary Caton, Paul Haensly, Thomas Hardy, Brian Holland, Niles Logue, David Martin, Christine McClatchey, William Nelson, Carolyn Spencer, Inchul Suh, Theodore Veit, Penny Wrightman, Thomas Willey, Arthur Wilson, and Tong Yao. Any errors that remain are David’s and my responsibility.

**LeRoy D. Brooks**

# Contents

## **1 Introduction 1**

- Overview 1
- The Purpose of the Game 2
- Text Contents 2
- The Game Environment 3
- Preparation Requirements 7

## **2 Web Access and Use 9**

- Overview 9
- Computer Requirements 9
- Initial Instructions 10
- Getting a Company Account 11
- Operating a FinGame Company 11
- Details on Main Menu Options 13
  - Basic Account Information 13
  - Change User Name 13
  - Change Password 13
  - Enabling Other Unique FG Features 13
- Process for Quarterly Company Simulations 14
  - Edit Pro Forma Decision Inputs 14
  - Edit Actual Decision Inputs 16
  - Run Actual Simulation 16
- The Underlying Simulation 16

## **3 Establishing a Management Plan 19**

- Overview 19
  - Accumulated Wealth 19
  - How Is Accumulated Wealth Maximized? 20
- The Need for a Company Strategy 20
- A Plan of Attack in FinGame Online 21
  - A Possible Planning Approach 22
  - The Need for Pro Forma Statements 22
  - Cash and Liquidity Management 23
  - Capital Budgeting Analysis 24
  - Capital Structure and Weighted Average Cost of Capital 25

Dividend Policy	27
Discount on Receivables	28
Production Strategy	29
Unit Pricing Strategy	30
Advertising	34
Integrating the Set of Decisions	35
Company Life Cycle	37
New Companies	37
Mature and Declining Companies	38
Life Cycle Impacts on Overall Strategy	38
Managers' Risk-Bearing Tolerance	39
Risk Bearing in Actual Companies	39
Managers' Risk Tolerance in FinGame	40
Conclusion	41

#### **4 The Company Environment and Rules 43**

Overview	43
Company Management Instructions	43
Company Operating Rules	45
The Industry Environment	45
Operation of the Company	46
Revenues	47
Product Sales Estimation	47
Purchase of Demand and Price Forecast	49
Product Demanded and Sold	50
Manager Control of Product Pricing	51
Sales Discounts	51
Cash Management	52
Short-Term Investments	52
Risk Level of Short-Term Investments	53
Cash Shortages and Marketable Securities Liquidation	53
Cash Shortages and Short-Term Penalty Loans	54
Production Costs	55
Materials	56
Direct Labor	56
Warehouse Fees	57
Plant	57
Machinery	58
Capital Budgeting Projects	60
Other Overhead	62
Summary on Production Costs	63
Selling and Administrative Expenses	63
Advertising Costs	64
Extraordinary Items	64
Labor Strike	64
Extraordinary Loss or Gain	65
Fire	65
Loans and Debt Costs	66
Short-Term Loans	67
Short-Term Penalty Loans	68
Intermediate-Term Loans	68
Long-Term Bonds	70
Taxes	71



Equities	72
Preferred Stock	72
Common Stock	75
Performance Information	79
Accumulated Wealth	79
Quarterly Earnings	80
Dividend Yield	80
Price-Earnings Ratio	80
Return on Investment (ROI)	80
Return on Equity (ROE)	81
Conclusions	81
<b>Appendix 1</b> Quick Reference Source	82

## **5 The Game and the Real World 89**

Overview	89
General Conditions	89
Why Differences Exist	89
The Use of Simple Models	89
Real-World Models—Difficult to Define	90
Adopting Theoretically Sound Models	90
Uncertainty in the Game	91
Producing an Unknown Product	91
Uncertain Future Product Demand and Price	92
Operating Leverage and the Game	92
Financial Leverage and the Game	93
Constraints on Flexibility	94
Decision Requirements	94
Informal Organizational Structure	95
Large and Small Businesses	96
Financial Statement Accounts and Performance	96
Revenues	96
Production Costs	99
Selling and Administrative Expenses	101
Advertising	101
Financial Expenses	102
Taxes	107
Equities	108
Performance Information	112
Extraordinary Items, Fires, and Strikes	117
Conclusion	117

Index	119
-------	-----



---

# FinGame Online 5.0

The Financial Management Decision Game  
Participant's Manual

